

# **Appendix B7**

**Ontario Line Project** 

Final Environmental Conditions Report – Traffic and Transportation Report



Metrolinx

# Traffic and Transportation Environmental Conditions Report

**Ontario Line Project** 

Prepared by:

**AECOM & HDR** 

Date: November 2020

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# **Executive Summary**

#### ES.1 Project Overview and Study Purpose

Metrolinx, an agency of the Province of Ontario, is proceeding with the planning and development of the Ontario Line, extending from Exhibition/Ontario Place to the Ontario Science Centre in the City of Toronto. AECOM Canada Limited (AECOM) was retained by Metrolinx and Infrastructure Ontario to complete an Environmental Conditions Report for the proposed Ontario Line Project (the Project). This Traffic and Transportation Environmental Conditions Report is one of several environmental conditions reports prepared for the Project and was prepared by AECOM and HDR.

The Project is a new approximately 16-kilometre subway line with connections to Line 1 (Yonge-University) subway service at Osgoode and Queen Stations, Line 2 (Bloor-Danforth) subway service at Pape Station, and Line 5 (Eglinton Crosstown) light rail transit service at the future Science Centre Station. Fifteen stations are proposed, with additional connections to three GO Transit lines (Lakeshore East, Lakeshore West and Stouffville), and the Queen, King, Bathurst, Spadina, Harbourfront, and Gerrard/Carlton streetcar routes. The Project will reduce crowding on Line 1 and provide connections to new high-order rapid transit neighbourhoods. The Project will be constructed in a dedicated right-of-way with a combination of elevated (i.e., above existing rail corridor/roadway), tunnelled (i.e., underground), and at-grade (i.e., at grade with existing rail corridor) segments at various locations.

For the purpose of this Traffic and Transportation Environmental Conditions Report, the Ontario Line Study Area has been divided into three segments:

- Ontario Line West (from Exhibition/Ontario Place to Osgoode Station);
- Ontario Line South (from Osgoode Station to Pape Station); and
- Ontario Line North (from Pape Station to the Ontario Science Centre).

This Report supports the Environmental Conditions Report prepared for the Project in accordance with Section 4 of Ontario Regulation 341/20: Ontario Line Project. The purpose of this Report is to:

- Document the existing traffic and transportation conditions within the Study Area, including road network and intersection analysis, transit network and operations, as well as pedestrian and cyclist network and operations;
- Provide a preliminary description of the potential impacts that the Project might have on the environment that have been identified to date;

- Describe potential measures for mitigating negative impacts; and
- Identify anticipated next steps for Project advancement, including recommendations for further investigations to be completed as part of a future Environmental Impact Assessment Report.

Refer to **Section 1** of this Report for more information related to the Project purpose and detailed Study Area description.

#### ES.2 Methodology

A quantitative intersection analysis was undertaken using Synchro modelling software based on methodologies outlined in the Highway Capacity Manual and consistent with the City of Toronto Guidelines for Using Synchro 9 (2016). A qualitative assessment was undertaken for the intersections within the three study areas where the necessary traffic data to complete a quantitative assessment was not available. The qualitative assessment involved a review of lane configurations, active transportation facilities and locations, transit stops, etc. to identify any potential existing operational and/or safety concerns. In addition, the impact of adjacent downstream intersections on the qualitatively assessed intersections was discussed (e.g., queue spillover).

In addition, and for the purpose of assessing the existing transportation network, the level of service of the existing transit network and active transportation network (i.e., pedestrian and cycling facilities) was derived based on the methodologies outlined in the City of Ottawa's Multi-Modal Level of Service Guidelines (2015). For transit services, pedestrians, and cyclists, the Multi-Modal Level of Service assessment was undertaken along road segments and at signalized intersections. Level of service criteria for signalized intersections is described by the Highway Capacity Manual 200 (Transportation Research Board, 2000) as follows:

- Level of service A is described as free flow with less than 10 seconds per vehicle average control delay
- Level of service B is described as stable flow (slight delays) with 10 to 20 seconds per vehicle average control delay
- Level of service C is described as stable flow (acceptable delays) with 20 to 35 seconds per vehicle average control delay
- Level of service D is described as approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding) with 35 to 55 seconds per vehicle average control delay
- Level of service E is described as unstable flow (intolerable delay) with 55 to 80 seconds per vehicle average control delay

 Level of service F is described as forced flow (congested and queues fail to clear) with over 80 seconds per vehicle average control delay

#### ES.3 Existing Traffic and Transportation Conditions

The intersection analysis results show that all the intersections within Ontario Line West, Ontario Line South, and Ontario Line North Study Areas operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours.

In terms of transit network operations, and at the intersection level, the majority of the signalized intersections within the Ontario Line West and South Study Areas operate at Transit Level of Service that meet the targets for the studied corridors. At the road segment level, all transit vehicles travelling along the road segments within Ontario Line West and Ontario Line South experience an acceptable Transit Level of Service 'D' or better, meeting the minimum desirable Transit Level of Service for the studied sections. It is worth noting that transit vehicles travelling along the King Street Transit Priority Corridor (i.e., the King Street section between Bathurst Street and Jarvis Street) experience Transit Level of Service 'B' and transit vehicles travelling along the dedicated streetcar facility along Spadina Avenue experience Transit Level of Service 'A'. Within the Ontario Line North Study Area, the majority of the signalized intersections operate at level of service below the Transit Level of Service Target 'D'. This is due to high approach delays at signalized intersections. At the road segment level, the majority of the transit vehicles experience an acceptable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service 'D'. This is due to high approach delays at signalized intersections. At the road segment level, the majority of the transit vehicles experience an acceptable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service 'D'.

In terms of pedestrian network operations, and at the intersection level, the majority of the signalized intersections within the Ontario Line West, Ontario Line South, and Ontario Line North Study Areas operate below the targets set for the studied corridors. This is mainly due to pedestrians experiencing long average delays/waiting times before they receive Walk Time and start crossing the major arterial roads such as University Avenue, Queen Street, King Street, etc.

At the road segment level, pedestrians experience acceptable level of service along all the studied road segments within the Ontario Line West Study Area, with the exception of the Adelaide Street section between Brant Street and Bathurst Street and the Strachan Avenue section between East Liberty Street and Fleet Street which operate at Pedestrian Level of Service 'E'. Within the Ontario Line South Study Area, the majority of the road segments between University Avenue and Jarvis Street as well as the road segments along Sherbourne Street, Lake Shore Boulevard, and Gerrard Street operate at acceptable Pedestrian Level of Service 'C' or better. The remaining road segments generally operate at a critical Pedestrian Level of Service 'E'. Within the Ontario Line North Study Area, pedestrians generally experience levels of service below the Pedestrian Level of Service Target.

In terms of cycling network operations, and at the intersection level, the majority of the signalized intersections within the Ontario Line West and South Study Areas operate at Bicycle Level of Service that meet the targets set for the studied corridors. However, all the signalized intersections within the Ontario Line North Study Area operate at levels of service that are below the target set for the studied corridors.

At the road segment level, cyclists experience levels of service below the targets set for the studied corridors along all the road segments that lack cycling facilities within the Ontario Line West, Ontario Line South, and Ontario Line North Study Areas. However, cyclists were found to experience excellent Bicycle Level of Service 'A' or 'B' along the road segments that provide cycling facilities, namely, Richmond Street, Adelaide Street, Strachan Avenue, Shuter Street, Sherbourne Street, Lake Shore Boulevard, Thorncliffe Park Drive, Beth Nealson Drive, and section of Pape Avenue.

# ES.4 Preliminary Potential Impacts, Mitigation Measures and Monitoring Activities

In accordance with Ontario Regulation 341/20: Ontario Line Project, a range of preliminary potential traffic and transportation impacts and mitigation measures has been identified. These impacts and mitigation measures will be revisited as part of Early Works Report(s) and/or Environmental Impact Assessment Report development and confirmed and/or updated as necessary. The following potential impacts on the transportation and transit networks associated with Project construction have been identified:

- Temporary road or lane closures which could change/restrict access to nearby land uses; and
- Access restrictions to local bus and streetcar routes and temporary disruptions to the existing rail corridor.

To mitigate the noted potential impacts on the transportation network, a Traffic Control and Management Plan(s) will be developed prior to construction to maintain reasonable access through work zone, to the extent possible. In addition, access to nearby land uses will be maintained to the extent possible. Potentially affected residents, tenants and business owners will be notified of initial construction schedules, as well as modifications to these schedules as they occur. Potential impacts to pedestrian and cyclist activities during construction will be mitigated through the installation of appropriate wayfinding, regulatory, and warning signs.

Preliminary potential impacts associated with Project operations include modifications to local transit routes. These will be mitigated by ensuring that the public is notified in advance. In addition, suitable mitigation strategies will be developed and implemented after consultation with local transit agencies.

#### ES.5 Future Studies

Metrolinx will complete Early Works Report(s) and/or Environmental Impact Assessment Report as project planning and design progress. Preparation of these reports may necessitate additional traffic and transportation studies in areas that may not have been included in this Report but are identified as potentially impacted as the Project design is advanced. If required, these studies will be conducted and described in the Early Works Report(s) and/or Environmental Impact Assessment Report.

#### ES.6 Permits and Approvals

No traffic and transportation related permits or approvals are anticipated at this time. The need for traffic and transportation related permits and approvals will be revisited at the time of Environmental Impacts Assessment Report and/or Early Works Report(s) preparation.

Traffic Control and Management Plan(s) will be developed prior to construction to maintain reasonable access through work zones, to the extent possible.

# Glossary

Bike Lane	An on-street travel lane designated for the exclusive use of bicycles. Identified by a painted line, bicycle and diamond shaped pavement marking and signs.
Cycle Length	The time required to complete a full sequence of signal indications at a signalized intersection.
Cycle Track	A cycle is an enhanced bike lane that is separated by a physical barrier from moving cars and parked cars.
Flashing Don't Walk	The time provided for a pedestrian to clear the crosswalk, equivalent to the time required to cross the entire width of the intersection. It is also known as the "pedestrian clearance interval".
Heavy Vehicle Percentage	Heavy Vehicles Percentage represents the percentage of trucks and buses for each traffic movement.
High-Occupancy Vehicle Lane	A lane reserved for vehicles carrying two or more passengers or other exempted vehicles.
Lane Utilization Factor	This determines how the traffic volumes assigned to a lane group are distributed across each lane. A value of 1 indicates equal distribution across all lanes. Values less than 1 lower the saturation flow rate since all lanes are not working at full capacity.
Lost Time	The time in a signal phase (where the total phase time equals the green plus amber plus all red interval times) when no vehicles can pass through the signalized intersection. Lost time is comprised of two parts: start-up lost time and clearance lost time.
Lost Time Adjust	An adjustment to the Lost Time to account for those vehicles that continue to enter the intersection during the yellow time.

Measures of Effectiveness	Measurable parameters that demonstrate the traffic operation conditions at an individual intersection.
Multi-use Pathway	An off-street pathway shared by pedestrians and cyclists.
Peak Hour Factor	The ratio of the flow rate for the entire peak hour, to the flow rate for the peak 15 minutes. It is a measure of traffic demand fluctuation within the peak hour.
Pocket Bike Lane	Pocket bike lanes are defined as bike lanes that develop near intersections between vehicular right- turn lanes on the right side and vehicular through or left-turn lanes on the left side.
Saturation Flow Rate	The Saturation Flow Rate is normally given in terms of straight-through passenger cars per hour of green time.
Transit Signal Priority	In the City of Toronto, Transit Signal Priority is provided as transit pre-emption. Upon detection of an approaching transit vehicle at a traffic signal, the controller may invoke timing changes (e.g. early green or green extension), or it may invoke phasing changes (e.g. servicing an actuated priority phase, inserting a phase into the cycle, or rotating the phase within the cycle), in order to reduce delay for an approaching transit vehicle.
Volume Balancing	Equating the amount of traffic leaving one intersection to the amount of traffic arriving at the adjacent downstream intersection.

# **Table of Contents**

			page
1.	Intro	oduction	1
	1.1	Project Overview	1
	1.2	Purpose of this Report	2
	1.3	Study Area	
		1.3.1 Ontario Line West	
		1.3.2 Ontario Line South	
		1.3.3 Ontario Line North	3
2.	Met	hodology	7
	2.1	Data Collection	7
		2.1.1 Turning Movement Counts	7
		2.1.2 Signal Timing Plans	
		2.1.3 Geometry	7
	2.2	Traffic Analysis Methodology, Assumptions and Parameters	
		2.2.1 Intersection Capacity Analysis	
		2.2.2 Synchro Modelling Parameters and Assumptions	9
		2.2.3 Qualitative Analysis	11
		2.2.4 Multi-Modal Level of Service Assessment	11
		2.2.4.1 Transit Level of Service	11
		2.2.4.2 Pedestrian Level of Service	12
		2.2.4.3 Bicycle Level of Service	15
3.	Roa	ad Network	17
	3.1	Ontario Line West	17
	3.2	Ontario Line South	22
	3.3	Ontario Line North	27
4.	Dev	velopment Applications	34
	4.1	Ontario Line West	34
	4.2	Ontario Line South	36
	4.3	Ontario Line North	40
5.	Inte	rsections Analysis	41
	5.1	Quantitative Analysis	41
		5.1.1 Traffic Volumes	41
		5.1.1.1 Ontario Line West	41
		5.1.1.2 Ontario Line South	46
		5.1.1.3 Ontario Line North	54

		5.1.2	Traffic Ope 5.1.2.1 O 5.1.2.2 O	erations Ontario Line West Ontario Line South	60 60 66
	52	Qualita	5.1.2.3 O ative Analys	Intario Line North	74 83
	0.2	5.2.1	Ontario Lin	ne West	83
		5.2.2	Ontario Lin	e South	87
		5.2.3	Ontario Lin	e North	93
6.	Tran	sit Ne	twork and	d Operations	94
	6.1	Transi	t Network	-	94
		6.1.1	Ontario Lin	ne West	94
		6.1.2	Ontario Lin	ne South	103
		6.1.3	Ontario Lin	e North	112
	6.2	Transi	t Operation:	S	119
		6.2.1	Ontario Lin	ne West	119
		6.2.2	Ontario Lin	ne North	122
_		0.2.0			121
7.	Pede	estrian	Network	and Operations	131
	7.1	Pedes	trian Netwo	prk	131
		7.1.1	Ontario Lin	ne West	131
		7.1.2	Ontario Lin	ie South	131
	72	7.1.3 Podos	trian Opora	tions	136
	1.2	7 2 1	Ontario Lin	ne West	136
		7.2.1	Ontario Lin	ne South	139
		7.2.3	Ontario Lin	ne North	143
8.	Cycli	ing Ne	etwork an	d Operations	146
	8.1	Cyclin	g Network		146
		8.1.1	Ontario Lin	ne West	146
		8.1.2	Ontario Lin	ne South	148
		8.1.3	Ontario Lin	e North	148
	8.2	Cyclin	g Operation	าร	151
		8.2.1	Ontario Lin	ne West	151
		8.2.2	Ontario Lin	ne South	155
		0.2.0			109
9.	Preli	minar	y Potentia	al Impacts, Mitigation Measures and	
	Moni	toring	Activitie	es	162
10.	Futu	re Stu	dies		165

11.	Pern	nits and Approvals	166
12.	Con	clusions	167
	12.1	Ontario Line West	167
		12.1.1 Intersection Analysis	167
		12.1.2 Transit Operations	168
		12.1.3 Pedestrian Operations	168
		12.1.4 Cycling Operations	168
	12.2	Ontario Line South	169
		12.2.1 Intersection Analysis	169
		12.2.2 Transit Operations	169
		12.2.3 Pedestrian Operations	170
		12.2.4 Cycling Operations	170
	12.3	Ontario Line North	171
		12.3.1 Intersection Analysis	171
		12.3.2 Transit Operations	172
		12.3.3 Pedestrian Operations	173
		12.3.4 Cycling Operations	173
	12.4	Preliminary Potential Impacts, Mitigation Measures and Monitoring	
		Activities	174
13.	Refe	rences	176

# List of Figures

Figure 1-1:	Ontario Line West Study Area	4
Figure 1-2:	Ontario Line South Study Area	5
Figure 1-3:	Ontario Line North Study Area	6
Figure 3-1:	Ontario Line West Road Network	18
Figure 3-2:	Posted Speed and Cross-section of Ontario Line West Roadways	19
Figure 3-3:	Ontario Line South Road Network	23
Figure 3-4:	Posted Speed and Cross-section of Ontario Line South Roadways	24
Figure 3-5:	Ontario Line North Road Network	29
Figure 3-6:	Posted Speed and Cross-section of Ontario Line North Roadways	29
Figure 5-1:	Turning Movement Volumes at the Ontario Line West Study Area Intersections under Existing Conditions (2020)	42
Figure 5-2:	Turning Movement Volumes at the Ontario Line South Study Area Intersections under Existing Conditions (2020)	47

#### Metrolinx Traffic and Transportation Environmental Conditions Report

Ontario Line Project

Figure 5-3:	Turning Movement Volumes at the Ontario Line North Study Area
	Intersections under Existing Conditions (2020)
Figure 6-1:	Transit Routes Servicing the Ontario Line West Study Area under
	Existing Conditions (2020) 102
Figure 6-2:	Existing Transit Network Servicing the Ontario Line South Study
	Area 111
Figure 6-3:	Transit Network in the Ontario Line North Study Area 118
Figure 6-4:	Transit Level of Service in the Ontario Line West Study Area 121
Figure 6-5:	Transit Level of Service in the Ontario Line South Study Area 126
Figure 6-6:	Transit Level of Service in the Ontario Line North Study Area 130
Figure 7-1:	Existing Pedestrian Network in the Ontario Line West Study Area 133
Figure 7-2:	Existing Pedestrian Network in the Ontario Line South Study Area 134
Figure 7-3:	Existing Pedestrian Network in the Ontario Line North Study Area 135
Figure 7-4:	Pedestrian Level of Service in the Ontario Line West Study Area 138
Figure 7-5:	Pedestrian Level of Service in the Ontario Line South Study Area 142
Figure 7-6:	Pedestrian Level of Service in the Ontario Line North Study Area 145
Figure 8-1:	Existing Cycling Network in the Ontario Line West Study Area 147
Figure 8-2:	Existing Cycling Network in the Ontario Line South Study Area 149
Figure 8-3:	Existing Cycling Network in the Ontario Line North Study Area 150
Figure 8-4:	Cyclist Level of Service in the Ontario Line West Study Area 154
Figure 8-5:	Cyclist Level of Service in the Ontario Line South Study Area 158
Figure 8-6:	Cyclist Level of Service in the Ontario Line North Study Area

# List of Tables

Table 1-1:	Report Contents in accordance with Ontario Regulation 341/20: Ontario Line Project	2
Table 2-1:	Key Determining Factors for Transit Level of Service	12
Table 2-2:	Key Determining Factors for Pedestrian Level of Service	14
Table 2-3:	Key Determining Factors for Bicycle Level of Service	15
Table 4-1:	Active Development Applications within the Ontario Line West Study Area	34
Table 4-2:	Active Development Applications within the Ontario Line South Study Area	36
Table 4-3:	Active Development Applications within the Ontario Line North Study Area	40

Table 5-1:	Summary of Traffic Operations at the Ontario Line West Study Area Intersections under Existing Conditions (2020) during the AM and PM Peak Hours
Table 5-2:	Summary of Traffic Operations at the Ontario Line South Study Area Intersections under Existing Conditions (2020) during the AM and PM Peak Hours67
Table 5-3:	Summary of Traffic Operations at the Ontario Line North Study Area Intersections under Existing Conditions (2020) during the AM and PM Peak Hours
Table 5-4:	Summary of the Ontario Line West Qualitative Analysis Findings
Table 5-5:	Summary of the Ontario Line South Qualitative Analysis Findings
Table 6-1:	Transit Routes Servicing the Ontario Line West Study Area
Table 6-2:	Transit Routes Servicing the Ontario Line South Study Area
Table 6-3:	Transit Routes Servicing the Ontario Line North Study Area
Table 6-4:	Summary of the Transit Level of Service at the Ontario Line West Study Area Intersections under Existing Conditions (2020)
Table 6-5:	Summary of the Transit Level of Service at the Ontario Line West Study Area Road Segments under Existing Conditions (2020)
Table 6-6:	Summary of the Transit Level of Service at the Ontario Line South Study Area Intersections under Existing Conditions (2020)
Table 6-7:	Summary of the Transit Level of Service at the Ontario Line South Study Area Road Segments under Existing Conditions (2020)
Table 6-8:	Summary of the Transit Level of Service at the Ontario Line North Study Area Intersections under Existing Conditions (2020)
Table 6-9:	Summary of the Transit Level of Service at the Ontario Line North Study Area Road Segments under Existing Conditions (2020)
Table 7-1:	Summary of the Pedestrian Level of Service at the Ontario Line West Study Area Intersections under Existing Conditions (2020)
Table 7-2:	Summary of the Pedestrian Level of Service at the Ontario Line West Study Area Road Segments under Existing Conditions (2020) 137
Table 7-3:	Summary of the Pedestrian Level of Service at the Ontario Line South Study Area Intersections under Existing Conditions (2020)
Table 7-4:	Summary of the Pedestrian Level of Service at the Ontario Line South Study Area Road Segments under Existing Conditions (2020) 141
Table 7-5	Summary of the Pedestrian Level of Service at the Ontario Line
	North Study Area Intersections under Existing Conditions (2020)

Summary of the Pedestrian Level of Service at the Ontario Line North Study Area Road Segments under Existing Conditions (2020) 144
Summary of the Bicycle Level of Service at the Ontario Line West Study Area Intersections under Existing Conditions (2020)
Summary of the Bicycle Level of Service at the Ontario Line West Study Area Road Segments under Existing Conditions (2020) 153
Summary of the Bicycle Level of Service at the Ontario Line South Study Area Intersections under Existing Conditions (2020)
Summary of the Bicycle Level of Service at the Ontario Line South Study Area Road Segments under Existing Conditions (2020)
Summary of the Bicycle Level of Service at the Ontario Line North Study Area Intersections under Existing Conditions (2020)
Summary of the Bicycle Level of Service at the Ontario Line North Study Area Road Segments under Existing Conditions (2020)
Preliminary Potential Impacts, Mitigation Measures and Monitoring Activities During Construction
Preliminary Potential Impacts, Mitigation Measures and Monitoring Activities During Operations
Summary of Preliminary Potential Impacts, Mitigation Measures and Monitoring

# Appendices

- Appendix A. Traffic Data Gaps
- Appendix B. Turning Movement Counts
- Appendix C. Signal Timing Plans
- Appendix D. Level of Service Criteria
- Appendix E. Synchro Modelling Parameters and Assumptions
- Appendix F. Synchro Output Ontario Line West
- Appendix G. Synchro Output Ontario Line South
- Appendix H. Synchro Output Ontario Line North
- Appendix I. Multi-Modal Level of Service Assessment Ontario Line West
- Appendix J. Multi-Modal Level of Service Assessment Ontario Line South
- Appendix K. Multi-Modal Level of Service Assessment Ontario Line North

# 1. Introduction

# 1.1 **Project Overview**

Metrolinx, an agency of the Province of Ontario, is proceeding with the planning and development of the Ontario Line, extending from Exhibition/Ontario Place to the Ontario Science Centre in the City of Toronto. AECOM Canada Limited was retained by Metrolinx and Infrastructure Ontario to complete an Environmental Conditions Report for the proposed Ontario Line Project (the Project). This Traffic and Transportation Environmental Conditions Report (this Report), prepared by AECOM and HDR, is one of several environmental conditions reports prepared for the Project. The purpose of this Report is described in **Section 1.2**.

The Project is a new approximately 16-kilometre subway line with connections to Line 1 (Yonge-University) subway service at Osgoode and Queen Stations, Line 2 (Bloor-Danforth) subway service at Pape Station, and Line 5 (Eglinton Crosstown) light rail transit service at the future Science Centre Station. Fifteen stations are proposed, with additional connections to three GO Transit lines (Lakeshore East, Lakeshore West and Stouffville), and the Queen, King, Bathurst, Spadina, Harbourfront, and Gerrard/Carlton streetcar routes. The Project will reduce crowding on Line 1 and provide connections to new high-order rapid transit neighbourhoods. The Project will be constructed in a dedicated right-of-way with a combination of elevated (i.e., above existing rail corridor/roadway), tunnelled (i.e., underground), and at-grade (i.e., at grade with existing rail corridor) segments at various locations.

For the purpose of this Report, the Ontario Line Study Area has been divided into three segments:

- Ontario Line West (from Exhibition/Ontario Place to Osgoode Station);
- Ontario Line South (from Osgoode Station to Pape Station); and
- Ontario Line North (from Pape Station to the Ontario Science Centre).

The Ontario Line West, Ontario Line South, and Ontario Line North Study Areas are further described in **Section 1.3** and are shown in **Figure 1-1**, **Figure 1-2** and **Figure 1-3**.

# **1.2** Purpose of this Report

This Report was completed by AECOM (Ontario Line West and Ontario Line South) and HDR (Ontario Line North).

The purpose of this Report is to:

- Document the existing traffic and transportation conditions within the Study Area, including road network and intersection analysis, and pedestrian and cyclist network and operations;
- Provide a preliminary description of the potential impacts that the Project might have on the environment that have been identified to date;
- Describe potential measures for mitigating negative impacts; and
- Identify anticipated next steps for Project advancement, including recommendations for further investigations to be completed as part of a future Environmental Impact Assessment Report.

This Report has been prepared in accordance with Ontario Regulation 341/20: Ontario Line Project and contains the information outlined in **Table 1-1**.

# Table 1-1: Report Contents in accordance with Ontario Regulation 341/20: Ontario Line Project

Reg. Section	Requirement	<b>Report Section</b>
Section 4(3)4	A description of the local environmental conditions in the area studied in respect of the Ontario Line Project.	Sections 3 to 8
Section 4(3)6	A preliminary description of the potential impacts that the Ontario Line Project might have on the environment that have been identified to date and an indication of how those impacts will be studied and described in further detail in the environmental impact assessment report.	Section 9
Section 4(3)7	A description of any potential measures for mitigating any negative impacts that the Ontario Line Project might have on the environment.	Section 9
Section 4(3)8	A description of the future studies that will be carried out as part of the environmental impact assessment report to determine potential impacts to the environment caused by the Ontario Line Project and the potential measures for mitigating any negative impacts in respect of them.	Section 10
Section 4(3)9	A preliminary list of the potential municipal, provincial, federal or other approvals or permits that may be required for the Ontario Line Project.	Section 11

# 1.3 Study Area

The Ontario Line Study Area was established based on the preliminary proposed route reflected in the Ontario Line Initial Business Case (Metrolinx and Infrastructure Ontario, 2019), where a buffer was applied to the preliminary proposed route delineating a sufficiently sized area to comprehensively characterize existing environmental conditions.

For readability and for the purposes of this Report, the Ontario Line Study Area has been divided into three study areas, which are described in the following sections.

# 1.3.1 Ontario Line West

The Ontario Line West Study Area approximate boundaries are Dufferin Street in the west, Osgoode Station in the east, Queen Street West in the north, and the Gardiner Expressway in the south. The Ontario Line West Study Area is shown in **Figure 1-1**.

# 1.3.2 Ontario Line South

The Ontario Line South Study Area approximate boundaries are Osgoode Station in the west, Pape Avenue in the east, Pape Station in the north, and the Toronto waterfront and Lakeshore Boulevard East in the south. The Ontario Line South Study Area is shown in **Figure 1-2**.

# 1.3.3 Ontario Line North

The Ontario Line North Study Area approximate boundaries are the Canadian Pacific rail tracks in the west, Don Mills Road in the east, Pape Station in the south, and Barber Greene Road / Green Belt Drive (north of Eglinton Avenue East) in the north. The Ontario Line North Study Area is shown in **Figure 1-3**.

Figure 1-1: Ontario Line West Study Area











New concept (1981) (1981) (1982) (198

# 2. Methodology

# 2.1 Data Collection

This section identifies how the data collection was carried out. Turning movement counts and signal timing plans were not available at some intersections within the Ontario Line West, Ontario Line South, and Ontario Line North Study Areas. The missing traffic data could not be collected through new traffic surveys considering the limitations due to the COVID-19 pandemic. These list of unavailable intersections (data gaps) is provided in **Appendix A**.

# 2.1.1 Turning Movement Counts

Available Turning Movement Count data at intersections within the Study Area were provided by the City of Toronto, consisting of eight-hour counts of vehicles (car, trucks, and buses), pedestrians, and bicycles and collected at 15-minute intervals during the weekday peak periods. The raw traffic data are provided in **Appendix B**.

# 2.1.2 Signal Timing Plans

The signal timing plans for the signalized intersections within the Study Area were provided by the City of Toronto and are attached in **Appendix C**. Signal timings at the following intersection are temporary during construction and have been optimized in Synchro to reflect the continuously changing splits.

 Don Mills Road/Eglinton Avenue East (TCS 454). The cycle length, minimum green intervals, and clearance times were adopted from the construction timing card available in the Transportation Impact Study for 25 St. Dennis Drive by BA Group. However, to reflect the variable conditions at this intersection, the splits have been optimized.

# 2.1.3 Geometry

Within the Ontario Line North Study Area, roadway geometry was verified via field investigation, and desktop review of Google maps and street view. Field investigations were conducted on December 3, 2019, to assess the existing conditions, for both the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods to verify geometry and collect out-of-ordinary information, including driver behaviour, traffic conditions, and conflicts between various travel modes.

Site visits for both the peak periods were conducted starting at the intersection of Danforth Avenue and Pape Avenue and ending at Don Mills Road and Eglinton Avenue. During the site visit, the following notable observations were made:

- Pape Avenue was undergoing construction between Danforth Avenue and Gowan Avenue, reducing the number of lanes to one per lane. However, this was not evaluated or reflected in the analysis or the Synchro model because they were temporary closures.
- Don Mills Road and Eglinton Avenue had partial lane closures for all approaches other than the north approach due to the construction of the Eglinton Crosstown Light Rail Transit. This condition was reflected in the Synchro analysis.
- At the intersection of Overlea Drive at William Morgan Drive, the eastbound approach is marked as two through lanes that are both shared with left and right turns. However, the median allows for eastbound left-turning cars to queue and wait without obstructing the flow of eastbound-through vehicles. Therefore, an eastbound left-turn storage lane with a storage of 10 metres was also included in the Synchro model.

# 2.2 Traffic Analysis Methodology, Assumptions and Parameters

# 2.2.1 Intersection Capacity Analysis

The intersection capacity analyses for Ontario Line West and Ontario Line South were completed by AECOM using Synchro Version 9 capacity analysis software. The intersection capacity analysis for Ontario Line North was completed by HDR using Synchro Version 10.0 capacity analysis software and methodology. The software uses existing intersection turning movements, heavy vehicle composition, lane geometry and signal timing parameters as its key inputs, and produces estimates of delay per vehicle, level of service, volume to capacity ratios, and queues as its key outputs. A Synchro model was developed to replicate traffic operations in the Study Areas under the Existing Conditions (2020) during the AM and PM peak hours on a typical weekday. The 95th percentile queues have been reported from Synchro. Existing intersection operations were assessed for the study intersections, based on methodology consistent with the City of Toronto Guidelines for Using Synchro 9, March 2016.

The measures of effectiveness used to asses an intersection's operations are level of service and volume-to-capacity ratio. Level of service is an indicator describing the performance of individual intersection movements and of an overall intersection from

the traffic operations standpoint. The level of service designation ranges from level of service 'A' to level of service 'F' based on the amount of average delay that a motorist experiences before taking a specific manoeuvre at an intersection. Level of service 'A' through 'D' typically indicate acceptable operations, while level of service 'E' indicates increasing congestion and at capacity operations, and level of service 'F' indicates long delays and, in some cases, severe traffic congestion. The level of service criteria for signalized and unsignalized intersections are attached in **Appendix D**. The level of service 'E' or worse are considered to be operating at critical levels.

The volume to capacity ratio is another indicator representing the capacity utilization at an intersection or for a specific movement. A volume to capacity ratio of 1.00 indicates that a movement or an intersection is operating at capacity. The target volume to capacity ratio is 0.84 which implies that intersections and movements with volume to capacity ratio exceeding 0.84 are considered to be operating at critical levels.

### 2.2.2 Synchro Modelling Parameters and Assumptions

The key assumptions and modifications made to the default values of the Synchro parameters in the traffic modelling exercise are as follows:

- The existing turning movement volumes at the Study Area intersections, developed from the raw Turning Movement Count data after applying a conservative annual growth rate of 1%, were used in the Existing Conditions model for all Turning Movement Counts collected before 2020.
- The Heavy Vehicle Percentages were calculated at the movement level based on the raw Turning Movement Count data.
- There are currently High-Occupancy Vehicle lanes along Don Mills Road, Overlea Boulevard and Pape Avenue, within the Ontario Line North Study Area. These High-Occupancy Vehicle lanes are coded in the Synchro model by modifying Lane Utilization Factors. The assumptions of High-Occupancy Vehicle Lanes modelling and calculations of Lane Utilization Factors are explained in Appendix E.
- Default Lane Utilization Factors are used for all movements, except for a few additional Lane Utilization Factors to calibrate the High-Occupancy Vehicle lanes, provided in Appendix E.
- The Peak Hour Factors for each individual intersection was calculated based on the raw Turning Movement Count data. Some Peak Hour Factors were

increased for the purpose of calibrating the Existing Conditions Synchro models and in order to make all the intersection turning movements operate within capacity in the Existing Conditions. The noted changes to the Peak Hour Factors are presented in **Appendix E**.

- Conflicting pedestrian and bicycle volumes were input for the left-turn and right-turn movements based on the raw Turning Movement Count data.
- Bus Blockages were input into the model to represent delays to vehicular traffic due to passenger boarding and alighting at the bus / streetcar stops. Buses stopping at the nearside of an intersection were reflected in Synchro as bus blockages for the shared right-turn and through movements. Streetcars stopping at the nearside of an intersection were reflected in Synchro as bus blockages for the whole approach. Bus blockages were estimated as per the Toronto Transit Commission schedule available online for the Toronto Transit Commission bus and streetcar routes that have stops within the Study Area. It should be noted that Synchro assumes that Bus Blockages cause an average blockage of 14.4 seconds during each occurrence and reduces the Saturation Flow Rate of the respective blocked movements accordingly. Hence, any existing streetcar stop locations with a passenger servicing time exceeding 14.4 seconds could have its impacts on traffic operations underestimated, as a result.
- The actual signal timing plans were used in the model.
- The Lost Time Adjust values for all the movements were set to -1 second as per the City's Guidelines for Using Synchro 9. For the purpose of calibrating the Existing Conditions Synchro models and in order to make all the intersection turning movements operate within capacity in the Existing Conditions, some exceptions to the Lost Time Adjust values were made. These exceptions are listed in **Appendix E**.
- Default Ideal Saturation Flow Rate of 1900 vehicles per hour per lane is used for all movements, except for some movements within the Ontario Line North Study Area which are listed in **Appendix E**, in order to bring volume to capacity values equal to or less than 1. For intersections along Laird Drive, Millwood Road and Pape Avenue, the same Ideal Saturation Flows were adopted from the 2017 Signal Co-ordination Study for this corridor. In addition to those adopted from this previous study, a few additional ideal saturation flow rates were used, which can be found in **Appendix E**.

# 2.2.3 Qualitative Analysis

A qualitative assessment was undertaken for the intersections within the Study Areas where the necessary traffic data to complete a quantitative assessment was not available. The qualitative assessment involved a review of lane configurations, active transportation facilities and locations, transit stops, etc. to identify any potential operational and/or safety concerns. In addition, the impact of adjacent Study Area intersections on the qualitatively assessed intersections were discussed (e.g., queue spillover).

### 2.2.4 Multi-Modal Level of Service Assessment

The City of Toronto Official Plan (2019) adopts a 'Complete Streets' policy which ensures that all new and existing City streets provide a balance between the needs and priorities of the various users within the right-of-way and improve the quality and convenience of active transportation options within all communities by giving full consideration to the needs of pedestrians, cyclists, and public transit users. Hence, to support the City's policy and for the purpose of assessing the existing transportation network, the level of service of transit services and active transportation users (i.e., pedestrians and cyclists) was assessed based on the methodologies outlined in the City of Ottawa's Multi-Modal Level of Service Guidelines (2015). The City of Ottawa's Multi-Modal Level of Service Guidelines are widely used in transportation studies within Ontario and specifically the City of Toronto which has approved multiple studies in which they were used (e.g., Yorkdale Transportation Master Plan, Golden Mile Transportation Master Plan, etc.). The Multi-Modal Level of Service assessment was undertaken along road segments and at signalized intersections. The following sections elaborate on the methodology and the key determining factors for the Modal Level of Service assessment of each mode of travel.

#### 2.2.4.1 Transit Level of Service

The City of Ottawa's Multi-Modal Level of Service tool assigns a Transit Level of Service to both road segments and signalized intersections along a stretch of road based on the relative attractiveness of transit facilities and services as compared to other modes of travel and especially autos. The relative attractiveness, for the purposes of Transit Level of Service, is evaluated based on transit travel time and level of transit priority given to transit vehicles based on varying facility types and conditions. The key determining factors in evaluating Transit Level of Service are presented in **Table 2-1**. As per the City of Ottawa's Multi-Modal Level of Service Guidelines, the Transit Level of Service for each approach to an intersection is evaluated separately. For any given approach to a signalized intersection, the Transit Level of Service is evaluated based on the average

vehicular delay of each intersection approach, obtained from the traffic modelling output through Synchro. The overall intersection Transit Level of Service is considered to be the worst Transit Level of Service among all the intersection approaches on which buses are travelling. In evaluating the Transit Level of Service along the road segments and at the signalized intersections within the Study Area, the following assumption was made in estimating the key determining factors (identified in **Table 2-1**):

 Average signal delay for transit vehicles is considered to be equal to the average vehicular delay obtained as one of the outputs of the Synchro modelling analysis. This indicates that the impact of transit signal priority measures are not factored into the assessment of Transit Level of Service at the intersection level.

	Segment Transit Level of Service	Intersection Transit Level of Service
•	Facility Type (e.g., Mixed Traffic, Bus Lane, and Segregated Right-of-Way) Ratio of average transit speed to posted speed	<ul> <li>Average Signal Delay</li> </ul>

Table 2-1: Key Determining Factors for Transit Level of Service

Source: City of Ottawa's Multi-Modal Level of Service Guidelines

The King Street section between Bathurst Street and Jarvis Street is considered as a transit priority corridor. All other studied streets which may have some isolated transit priority measures (e.g., transit signal priority, exclusive bus/streetcar lanes) or no transit priority measures at all, and for the purposes of identifying a level of service target, are considered as "Transit Priority with Isolated Measures". As per the City of Ottawa's Multi-Modal Level of Service Guidelines, the Transit Level of Service target for any road designated as "Transit Priority with Continuous Lanes" is recommended to be Level of Service 'C' and any road designated as "Transit Priority with Isolated Measures" is recommended to be Level of Service 'D'. Given the above, the minimum desirable Transit Level of Service for transit facilities and services in the studied section of King Street is set at Level of Service 'C' and in all other studied streets is set at Level of Service 'D'.

# 2.2.4.2 Pedestrian Level of Service

The City of Ottawa's Multi-Modal Level of Service tool assigns a Pedestrian Level of Service to both road segments and signalized intersections along a stretch of road, based on level of comfort, safety, and convenience experienced by pedestrians as they travel along that stretch of road. The key determining factors in evaluating the Pedestrian Level of Service are summarized in **Table 2-2**. The Pedestrian Level of Service on a road segment is determined based on the quality of pedestrian facilities and impact of adjacent motorized traffic on pedestrians. As per the City of Ottawa's Multi-Modal Level of Service Guidelines, the Pedestrian Level of Service is evaluated separately for each approach to a signalized intersection. For any given approach to a signalized intersection, the Pedestrian Level of Service is considered as the worst of the following two levels of service for the specific approach: (1) the level of service determined based on average delay to pedestrians crossing the specific intersection approach as per the HCM methodology and (2) the level of service determined as per the pedestrian exposure to traffic at signalized intersections scoring technique. The overall intersection Pedestrian Level of Service is determined as the worst Pedestrian Level of Service along the intersection approaches. In evaluating the Pedestrian Level of Service along the road segments and at the signalized intersections within the Study Area, the following assumptions were made in estimating the key determining factors (identified in **Table 2-2**):

- The analysis has been conducted based on the "typical worst" facility available for each street segment, as most of the streets in the study area have similar facilities on either side of the roadway. Minor gaps and inconsistencies in the facilities along a corridor were not included in this analysis, as the detailed network gaps can be found in the network inventory section;
- The sidewalk width, boulevard width, and corner radius were estimated using aerial street views in Google Maps;
- For any given road segment, the average daily curb lane traffic volume was estimated separately for each direction of travel by assuming that the average traffic volumes of the AM and PM peak hours represent 10% of the average daily traffic volumes in the corresponding direction of travel and that the traffic lanes are equally utilized by motorized vehicles;
- For any given approach to the intersection, the pedestrian green time / effective walk time was calculated as per the formula included in the Addendum to the City of Ottawa's Multi-Modal Level of Service Guidelines (2015) by conservatively assuming that no pedestrian is initiating their crossing during the Flashing Don't Walk time;
- For any given road segment in the Ontario Line West and Ontario Line South Study Areas, the vehicular operating speed is assumed to be equal to the corresponding posted speed on the road segment; and

 The assumed operating speed for each roadway in the Ontario Line North Study Area was based on the posted speed limit and the surrounding context. A street with a 50/km speed limit and frequent on-street parking and disturbances was assigned to the lower applicable speed bin (40 to 50 kilometres per hour), while another street posted at 50 kilometres per hour but with wide lanes, and infrequent disturbances was assigned to the higher applicable bin (50 to 60 kilometres per hour).

As per the City of Toronto's Official Plan (2019), land use designations within the Study Area vary greatly between segments, with Ontario Line West and Ontario Line South Study Areas generally designated as "Mixed Use Areas" and "Regeneration Areas", and the Ontario Line North Study Area having a mix of Neighbourhood and Mix Use Areas surrounding Pape Avenue, and Natural Area, Apartment Neighbourhoods, Mixed Use Areas, General Employment Areas, and Core Employment Areas along Overlea Boulevard, Don Mills Road, Laird Drive and Eglinton Avenue. As shown in Exhibit 22 in the City of Ottawa's Multi-Modal Level of Service Guidelines, the Pedestrian Level of Service target for all these different types of areas is generally Level of Service 'C'. With the noted Pedestrian Level of Service target, the intersections, individual intersection approaches, and road segments within the Study Area with Pedestrian Level of Service 'D' or worse are considered to be operating at critical levels.

	Segment Pedestrian Level of Service		Intersection Pedestrian Level of Service
-	Sidewalk width	•	Street width (number of lanes to be
•	Boulevard width		crossed)
•	Average daily curb lane traffic volume	-	Right- and left-turn conflicts based on
•	Average vehicular operating speed		signal phasing (e.g., permitted,
-	Presence of on-street parking		protected/permitted, protected, and
			prohibited) and exclusive pedestrian
			phases
		•	Right-turn on red restrictions
		•	Corner radius and type of right turn channel
			(e.g., no channel, right-turn channel with
			receiving lane, and smart right-turn
			channel)
			Crosswalk type (e.g., standard transverse
			marking, textures/coloured crosswalks, and
			high visibility markings)
		-	Cycle Length and pedestrian green time

							<b>•</b> •
Table 2-2	Kev	Determining	Factors	for P	edestrian	I evel of	Service
		Botonning	1 401010		ouootiiuii		0011100

Source: City of Ottawa's Multi-Modal Level of Service Guidelines

#### 2.2.4.3 Bicycle Level of Service

The City of Ottawa's Multi-Modal Level of Service tool assigns a Bicycle Level of Service to both road segments and signalized intersections on a stretch of road, based on the level of traffic stress experienced by cyclists as they travel along the stretch of road. The level of traffic stress of a cycling facility in turn represents the degree of comfort experienced by a cyclist and the targeted category of cyclists (e.g., novice cyclists, experienced cyclists, etc.) that are comfortable using the facility. The key determining factors in evaluating the Bicycle Level of Service is dependent on the cycling facility / intersection type as summarized in Table 2-3. For any given road segment, the Bicycle Level of Service is considered as the worst of the following two levels of service for the specific road segment: (1) the level of service determined based on the number of lanes and operating speed and (2) the level of service determined based on the cyclist crossing configuration at unsignalized crossings. For any given approach to a signalized intersection, the Bicycle Level of Service is gualitatively assessed based on the cycling facility type and the intersection's lane configuration. The overall intersection Bicycle Level of Service is determined as the worst Bicycle Level of Service among the intersection approaches.

	Segment Bicycle Level of Service		Intersection Bicycle Level of Service
-	Cycling facility type		Right-turn lane characteristics (number of
-	Bike lane width		right-turn lanes, length of right-turn lane,
•	Number of travel lanes		turning speed)
•	Average vehicular operating speed	•	Left-turn accommodation (presence of bike
-	Frequency of bike lane blockages		box, number of left-turn lanes, number of
•	Presence of on-street parking		lanes crossed)
		•	Average vehicular operating speed

 Table 2-3:
 Key Determining Factors for Bicycle Level of Service

Source: City of Ottawa's Multi-Modal Level of Service Guidelines

For the purpose of the Bicycle Level of Service assessment, the cycling facilities within the Study Area, namely along Adelaide Street, Richmond Street, Spadina Avenue, and Bathurst Street, are assumed to be designated as an equivalent to the City of Ottawa's cycling "spine route". As per the City of Ottawa's Official Plan, a cycling "spine route" is described as a cycling route that follows major roadways (typically arterials) and may provide reserved space for cyclists, ideally either a cycle track or a buffered bike lane and it provides access along major corridors, connecting the Cross-Town Bikeways, defined as the top designation in the hierarchy of the cycling facilities in the City of Ottawa's Official Plan, and major off-road bike paths to local routes and Neighbourhood Bikeways. As per the City of Ottawa's Multi-Modal Level of Service Guidelines, the

Bicycle Level of Service target for any arterial road designated as a cycling "spine route", regardless of its land use designation, is recommended to be Level of Service 'C'. Given the above, the Bicycle Level of Service target for cycling facilities as well as the mixed traffic network within the Study Area is set at Level of Service 'C'. With the noted minimum desirable Bicycle Level of Service, the intersections, individual approaches, and road segments within the Study Area with Bicycle Level of Service 'D' or worse are considered to be operating at critical levels.

# 3. Road Network

An overview of the existing road network within the Ontario Line West, Ontario Line South, and Ontario Line North Study Areas is provided below. All the described roads are under the jurisdiction of the City of Toronto and are classified according to the City of Toronto's Road Classification Document (2018). As part of the City of Toronto's Vision Zero strategy, the City has been implementing speed reductions for many streets in the City. Posted speeds have already been reduced on some roads within the Ontario Line West Study Area, Ontario Line South Study Area, and Ontario Line North Study Area, including Pape Avenue and Don Mills Road. Speed reductions and are also planned in the near future on other streets, including lowering the speed limit on Eglinton Avenue East from Brentcliffe Road to Kennedy Road from 60 kilometres per hour to 50 kilometres per hour by the end of 2020 (City of Toronto, 2020). Speed limits that have already been implemented are reflected in the roadway descriptions below.

# 3.1 Ontario Line West

The existing road network, road classification, and the traffic control devices of the intersections within the Ontario Line West Study Area that were quantitatively assessed are presented in **Figure 3-1**. The roads' cross-section and speed limits are illustrated in **Figure 3-2**. Below is a detailed description of each road in the Ontario Line West Study Area.

**Queen Street** is a major east-west arterial road with a four-lane cross-section including a shared vehicular and streetcar lane running along the left-most lane of each direction. Within the Ontario Line West Study Area, Queen Street has a posted speed of 40 kilometres per hour and on-street parking is generally prohibited during the weekday peak periods along both sides.

**Richmond Street** is a major arterial road which runs one-way in the westbound direction. Within the Ontario Line West Study Area, Richmond Street has a three-lane cross-section and a cycle track running along the north side. Richmond Street has a posted speed of 40 kilometres per hour and on-street parking is generally prohibited during the weekday peak periods along both sides.

Adelaide Street is a major arterial road which runs one-way in the eastbound direction with a posted speed of 40 kilometres per hour. Within the Ontario Line West Study Area, Adelaide Street has a three-lane cross-section and a cycle track running along the south side. On-street parking is prohibited at all times along the south side and only during the morning peak period (7:00 AM to 9:00 AM) along the north side.








**King Street** is a major east-west arterial road with a four-lane cross-section. The King Street section within the Ontario Line West Study Area is a transit priority corridor which prohibits vehicles from completing through and left-turn movements at the intersections except for Toronto Transit Commission vehicles, emergency vehicles, road maintenance vehicles, and bicycles. King Street has a posted speed of 40 kilometres per hour and on-street parking is generally prohibited for regular traffic at all times along both sides, with curb lanes being utilized as loading zones and spaces for taxi idling.

**University Avenue** is a major north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line West Study Area, University Avenue has an eight-lane cross-section between Queen Street and Adelaide Street and a six-lane cross-section south of Adelaide Street. On-street parking is prohibited at all times along both sides between Queen Street and Front Street.

**Spadina Avenue** is a major north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line West Study Area, Spadina Avenue has a four-lane cross-section between Queen Street and Adelaide Street and a six-lane cross-section south of Adelaide Street. In addition, Spadina Avenue maintains a dedicated streetcar facility running in both directions along its centreline. On-street parking is generally prohibited during the weekday peak periods along both sides.

**Bathurst Street** is a major north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line West Study Area, Bathurst Street has a four-lane cross-section between Queen Street and Adelaide Street and a five-lane cross-section south of Adelaide Street, including a shared vehicular and streetcar lane running along the left-most lane of each direction. On-street parking is prohibited during the afternoon peak period (4:00 PM to 6:00 PM) along the east side of the Bathurst Street section between Lakeshore Boulevard and King Street and during the morning peak period (7:00 AM to 9:00 AM) along the west side of the noted section. Parking is prohibited along both sides of Bathurst Street from King Street to Queen Street.

**Fort York Boulevard** is a minor east-west arterial road with a four-lane cross-section and on-street bike lanes running along either side of the street. Within the Ontario Line West Study Area, Fort York Boulevard does not have a posted speed and hence a statutory speed limit of 50 kilometres per hour is assumed. On-street parking is generally prohibited at all times along both sides of Fort York Boulevard.

**Front Street** is a minor east-west arterial road with a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Dufferin Street** is a minor north-south arterial road with a four-lane cross-section including a shared vehicular and streetcar lane running along the left-most lane of each

direction. Within the Ontario Line West Study Area, Dufferin Street has a posted speed of 50 kilometres per hour and on-street parking is prohibited during the afternoon peak period (4:00 PM to 6:00 PM) along the east side of Dufferin Street in proximity to Liberty Street and during the morning peak period (7:00 AM to 9:00 AM) along the west side of the noted section.

**Strachan Avenue** and **Beverley Street** are minor north-south arterial roads with twolane cross-section and on-street bike lanes running along either side of both streets. Strachan Avenue has a posted speed of 40 kilometres per hour while Beverly Street has a posted speed of 30 kilometres per hour.

**Peter Street**, **Portland Street**, **Duncan Street**, **Simcoe Street**, and **St. Patrick Street** are north-south collector roads with two-lane cross-sections. Within the Ontario Line West Study Area, a statutory speed limit of 50 kilometres per hour is assumed along the noted streets due to the absence of posted speeds.

Augusta Avenue and McCaul Street are north-south collector roads with two-lane cross-sections and posted speeds of 40 kilometres per hour.

John Street and Niagara Street are north south collector roads with two-lane crosssections and posted speeds of 30 kilometres per hour.

**Wellington Street** is an east-west collector road which runs one-way in the westbound direction between Portland Street and Niagara Street. Within the Ontario Line West Study Area, it has a two-lane cross-section and has a posted speed of 30 kilometres per hour.

Liberty Street and East Liberty Street are east-west collector roads with two-lane cross-sections and posted speeds of 40 kilometres per hour.

**Springhurst Avenue** is an east-west collector road with a two-lane cross-section and a posted speed of 30 kilometres per hour.

Ace Lane, Bulwer Street, Camden Street, Fort Rouille Street, Housey Street, Ordnance Street, Oxley Street, Stewart Street, Temple Avenue, Thorburn Avenue, Western Battery Road, and Willis Street are east-west local roads with two-lane cross-sections and posted speeds of 30 kilometres per hour.

Atlantic Avenue, Brant Street, Tecumseth Street, Cameron Street, Denison Avenue, Fraser Avenue, Hanna Avenue, Jefferson Avenue, John Street, Maud Street, Morrison Street, Mowat Avenue, Pardee Avenue, Pirandello Street, Portugal Square, Ryerson Avenue, Soho Street, Vanauley Street, and Widmer Street are north-south collector roads with two-lane cross-sections and posted speeds of 30 kilometres per hour.

# 3.2 Ontario Line South

The existing road network, road classification, and the traffic control devices of the intersections within the Ontario Line South Study Area that were quantitively assessed are presented in **Figure 3-3**. The roads' cross-sections and speed limits are illustrated in **Figure 3-4**. Below is a detailed description of each road in the Ontario Line South Study Area.

**Bay Street** is a major north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, Bay Street has a four-lane cross-section where the curb lanes are shared with cyclists.

**Yonge Street** is a major north-south arterial road. Within the Ontario Line South Study Area, Yonge Street has a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Jarvis Street** is a major north-south arterial road. Within the Ontario Line South Study Area, Yonge Street has a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Queen Street** is a major east-west arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, Queen Street has a four-lane cross-section including a shared vehicular and streetcar lane running along the left-most lane of each direction.

**Richmond Street** is a major arterial road which runs one-way in the westbound direction with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, Richmond Street has a three-lane cross-section and a cycle track running along the north side.

Adelaide Street is a major east-west arterial road which runs one-way in the eastbound direction with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, Adelaide Street has a three-lane cross-section and a cycle track running along the south side.

**Lake Shore Boulevard East** is a major east-west arterial road. Within the Ontario Line South Study Area, it has a six-lane cross-section with a posted speed limit of 60 kilometres per hour.

**Eastern Avenue** is a major east-west arterial road with a four lane-cross-section. Within the Ontario Line South Study Area, Eastern Avenue has a posted speed of 50 kilometres per hour west of Broadview Avenue which becomes 30 kilometres per hour immediately downstream.









**Danforth Avenue** is a major east-west arterial road with a four lane-cross-section and a posted speed of 40 kilometres per hour.

**York Street** is a minor north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a three-lane cross-section including a shared vehicular and streetcar lane in the left-most lane of the northbound direction.

**Church Street** is a minor north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a four-lane cross-section including a shared vehicular and streetcar lane in the left-most lane of each direction.

**Sherbourne Street** is a minor north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a two-lane cross-section with cycle tracks running along either side of the street.

**Parliament Street** is a minor north-south arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a four-lane cross-section including a shared vehicular and streetcar lane in the left-most lane of each direction.

**Pape Avenue** is a minor north-south arterial road. Within the Ontario Line South Study Area, it has a two-lane cross-section and a posted speed of 30 kilometres per hour.

**Carlaw Avenue** is a minor north-south arterial road with a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Front Street** and **Dundas Street** are minor east-west arterial roads. Within the Ontario Line South Study Area, both streets have four-lane cross-sections and posted speeds of 40 kilometres per hour.

**Shuter Street** is a minor east-west arterial road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, Shuter Street has a two-lane cross-section and curb bike lanes running along either side of the street.

**Queens Quay East** is a minor east-west arterial road with a four-lane cross-section. Within the Ontario Line South Study Area, and with the absence of posted speed signs, Queens Quay E is assumed to have a statutory speed limit of 50 kilometres per hour.

**Gerrard Street** is a minor east-west arterial road. Within the Ontario Line South Study Area, Gerrard Street has a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Victoria Street** is a north-south collector road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a four-lane cross-section including a shared vehicular and streetcar lane in the left-most lane of each direction.

**Cherry Street** is a north-south collector road with a posted speed of 40 kilometres per hour. Within the Ontario Line South Study Area, it has a two-lane cross-section with curb bike lanes running along either side of the street.

**Logan Avenue** is a north-south collector road with a two-lane cross-section and a posted speed of 30 kilometres per hour.

**Lombard Street** is an east-west collector road with a four-lane cross-section. Within the Ontario Line South Study Area, and with the absence of posted speed signs, Lombard Street is assumed to have a statutory speed limit of 50 kilometres per hour.

Aitken Place, Albert Frank Place, Berkeley Street, Berti Street, Bonnycastle Street, Booth Avenue, Boston Avenue, Dalhousie Street, De Grassi Street, Douville Court, Egan Avenue, Empire Avenue, Frederick Street, George Street, Hahn Place, Kiswick Street, Lewis Street, McGee Street, Seaton Street, Strange Street, Tiverton Avenue, and Wardell Street are north-south collector roads with two-lane cross-sections and posted speeds of 30 kilometres per hour.

Blake Street, James Street, Mutual Street, Portneuf Court, Poucher Street, Princess Street, and Small Street are north-south collector roads with four-lane crosssections and posted speeds of 30 kilometres per hour.

**Ontario Street** and **Saulter Street** are collector roads which run one-way in the southbound direction. They have a single lane cross-section with a posted speed of 30 kilometres per hour.

**Marjory Avenue** is a collector road which runs in the northbound and southbound directions to the north of Gerrard Street and one-way in the northbound direction immediately to the south of Gerrard Street. Within the Ontario Line South Study Area, it has a two-lane cross-section and a posted speed of 30 kilometres per hour.

Albert Street, Bain Avenue, Boultbee Avenue, Britain Street, Cavell Avenue, Cummings Street, Dickens Street, Dingwall Avenue, First Avenue, Frizzell Avenue, Harcourt Avenue, Hazelwood Avenue, Henry Lane Terrace, Langley Avenue, Longboat Avenue, Mill Street, Paisley Avenue, Riverdale Avenue, Scadding Avenue, Sunlight Park Road, Withrow Avenue, and Wroxeter Avenue are east-west local roads with two-lane cross-sections and posted speeds of 30 kilometres per hour.

**The Esplanade** is an east-west collector road with a four-lane cross-section and a posted speed of 40 kilometres per hour.

**Strathcona Avenue** is an east-west collector road with a posted speed of 30 kilometres per hour and a single lane cross-section. Within the Ontario Line South Study Area, it runs in the eastbound direction to the west of Pape Avenue and in the westbound direction east of Pape Avenue. Strathcona Avenue has a contra-flow bike lane on either side of Pape Avenue.

# 3.3 Ontario Line North

The existing road network classifications are shown in **Figure 3-5**. Roadway width, speed limits and signal controls are shown in **Figure 3-6**. Below is a detailed description of each road in the Ontario Line North Study Area.

**Eglinton Avenue East** is a major arterial road that provides extensive east-west vehicular and transit mobility across the City of Toronto. Prior to the construction of the Eglinton Crosstown Light Rail Transit, High-Occupancy Vehicle lanes terminated just east of Leslie Street in the westbound direction and commenced just east of Leslie Street in the eastbound direction. These lanes have been removed entirely during construction. During construction, there are two general purpose lanes per direction east of Laird Drive and three general purpose lanes on the eastbound approach to Laird Drive. Eglinton Avenue East has a posted speed limit of 50 kilometres per hour.

**Don Mills Road** is a major arterial road under the jurisdiction of the City of Toronto. South of Eglinton Avenue East, Don Mills Road has a six-lane cross-section, with two general purpose lanes and one High-Occupancy Vehicle lane per direction. Opposing traffic streams are separated by a concrete median, while exclusive turning lanes are provided at key intersections. On-street parking and stopping are restricted on both sides of Don Mills Road. Don Mills Road has a speed limit of 50 kilometres per hour.

**Rochefort Drive** is an east-west local two-way street with a speed limit of 50 kilometers per hour.

**St Dennis Drive** is a two-lane east-west collector street with a speed limit of 50 kilometers per hour. **Overlea Boulevard** is an east-west major arterial road consisting of two lanes, a four-lane cross-section and raised centre median. The curb lanes are designated High-Occupancy Vehicle lanes. Overlea Boulevard has a speed limit of 50 kilometres per hour.

**Thorncliffe Park Drive** is a two-lane collector that connectors to Overlea Boulevard on either end, and provides access to the areas south of Overlea Boulevard. The speed limit on the street is 50 kilometers per hour.

Leaside Park Drive, Banigan Drive, Grandstand Place, Milepost Place, Pat Moor Drive, and William Morgan Drive are two-lane local roads in the Thorncliffe Park Area with 50 kilometer per hour speed limits.

**Millwood Road** is a north-south major arterial road with a four-lane cross-section north of Overlea Boulevard, and a six-lane cross-section south of Overlea Boulevard. Millwood Road diverges at Laird Drive and continues west to Bayview Avenue. Millwood Road has a posted speed limit of 50 kilometres per hour. **Pape Avenue** is a four-lane major arterial road with a designated High-Occupancy Vehicle lane in both directions. The northbound High-Occupancy Vehicle lane ends approximately 130 metres south of Millwood Road. The southbound High-Occupancy Vehicle lane starts at approximately 90 metres south of Millwood Road. Pape Avenue has a posted speed limit of 40 kilometres per hour.

**O'Connor Drive** is a major arterial road east of Pape Avenue, and a minor arterial west of Pape Avenue. It has two general purpose lanes in both directions. O'Connor Drive has an unposted speed limit of 50 kilometres per hour.

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# Figure 3-5: Ontario Line North Road Network



# Figure 36: Posted Speed and Cross-section of Ontario Line North Roadways

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Metrolinx Traffic and Transportation Environmental Conditions Report Ontario Line Project

**Gamble Avenue** is a local road with one general purpose lanes in both directions. It has a posted speed limit of 30 kilometres per hour and allows on-street parking along the north side.

**Cosburn Avenue** is a minor arterial road with one general purpose lane and one bike lane per direction, with dedicated left-turn lanes at Pape Avenue. In addition, a dedicated parking lane is provided on the north side of the street ending approximately 50 metres east of Pape Avenue and restarting approximately 50 metres west of Pape Avenue. It has an unposted speed limit of 50 kilometres per hour.

**Floyd Avenue** is a local road with one general purpose lane in both directions. It has a posted speed limit of 30 kilometres per hour, and allows on-street parking along the north side, starting 30 metres west of Pape Avenue.

**Mortimer Avenue** is a minor arterial road with one general purpose lane per direction, with dedicated left-turn lanes at Pape Avenue. It has a posted speed limit of 40 kilometres per hour.

**Sammon Avenue** is a local road east of Pape Avenue with one general purpose lane in both directions. It has an unposted speed limit of 50 kilometres per hour and allows on-street parking along the north side.

**Fulton Avenue** is a local road west of Pape Avenue with one general purpose lane in both directions. It has a posted speed limit of 30 kilometres per hour. West of the Ontario Line North Study Area, it is one-way westbound.

**Aldwych Avenue** is a local road east of Pape Avenue with one general purpose lane in both directions. It has a posted speed limit of 30 kilometres per hour and allows on-street parking along both the north and south sides.

**Browning Avenue** is a one-way eastbound local road west of Pape Avenue with one westbound left-turn lane and one westbound right-turn lane. It has a posted speed limit of 30 kilometres per hour.

**Lipton Avenue** is a local road with a posted speed limit of 30 kilometres per hour. It has one lane eastbound. Its westbound approach consists of one dedicated left-turn lane, and a shared through-right lane. The westbound approach is heavily used by buses egressing from Pape Station.

**Danforth Avenue** is a major arterial road with two general purpose lanes per direction and dedicated left-turn lanes at Pape Avenue. It has an unposted speed limit of 50 kilometres per hour. On-street parking is prohibited in the westbound direction during the AM peak, and in the eastbound direction during the PM peak. Metrolinx Traffic and Transportation Environmental Conditions Report Ontario Line Project

**Laird Drive** is a north-south four-lane major arterial road. On-street parking is prohibited on Laird Drive during the AM and PM peak periods. Laird Drive becomes Millwood Road as it extends to the south (south of Esandar Drive). The speed limit is 50 kilometres per hour.

**Brentcliffe Road** is a north-south two-lane minor arterial road south of Eglinton Avenue East and a "collector" road north of Eglinton Avenue East. On-street parking is prohibited on Brentcliffe Road. The speed limit is 50 kilometres per hour.

**Wicksteed Avenue** is an east-west minor arterial road consisting of two lanes and a centre two-way left-turn lane (CTWLTL) between Laird Drive and Brentcliffe Road. Wicksteed Avenue is a "collector" road between Brentcliffe Road and Beth Nealson Drive, and a "local" road east of Beth Nealson Drive. On-street parking is prohibited on both sides of the road. Wicksteed Avenue continues west of Laird Drive as McRae Drive. The speed limit is 50 kilometres per hour.

**McRae Drive** is an east-west two-lane collector road that extends from Laird Drive to Millwood Road. On-street parking is prohibited along the north side; short-term parking is permitted on the south side of the road between 8:00 AM and 6:00 PM Monday through Saturday.

**Commercial Road** is a two-lane local road with an unposted speed limit of 50 kilometres per hour.

**Esandar Drive** is a two-lane local road with an unposted speed limit of 50 kilometres per hour.

**Redway Road** is a two-lane local road west of Millwood Road. It has a posted speed limit of 30 kilometres per hour.

**Village Station Road** is a two-lane local road. It has an unposted speed limit of 50 kilometres per hour.

**Clarke Street** is a north-south local road with a two-lane cross-section. It has an unposted speed limit of 50 kilometres per hour within the Ontario Line North Study Area.

**Copeland Street** is a north-south local road with a two-lane cross-section. It has an unposted speed limit of 50 kilometres per hour within the Ontario Line North Study Area.

Leslie Street has two distinct segments within the Ontario Line North Study Area:

 The first segment forms the north leg of Eglinton Avenue East and is classified as a major arterial with a speed limit of 50 kilometres per hour. It is a four-lane cross-section, with its southbound approach to Eglinton consisting of a dedicated southbound left-turn lane and a right-turn lane. A southbound right-turn channel was removed since the construction of the Eglinton Crosstown Light Rail Transit began.

 The second segment is a north-south local road with a two-lane cross-section and is 80 metres long. It forms the north leg of the intersection with Wicksteed Avenue. It has an unposted speed limit of 50 kilometres per hour within the Ontario Line North Study Area.

**Ferrand Drive** is a local road with a two-lane cross-section. It has an unposted speed limit of 50 kilometres per hour.

**St. Dennis Drive** is a collector road with a four-lane cross-section with two through lanes operating in each direction. St. Dennis Drive runs east-west throughout the Ontario Line North Study Area. Parking on both sides of St. Dennis Drive is restricted between the hours of 8:00 AM and 6:00 PM from Monday to Friday. St. Dennis Drive has a posted speed limit of 50 kilometres per hour.

**Gateway Boulevard** is a collector road. Within the vicinity of the site area, Gateway Boulevard has a four-lane cross-section with two-way traffic and two through lanes operating in each direction. Paid parking is permitted on the north side of Gateway Boulevard on Monday to Saturday between 8:00 AM and 6:00 PM. Gateway Boulevard has a posted speed limit of 40 kilometres per hour.

**Grenoble Drive** is a collector road with a two-lane cross-section with two-way traffic and a single through lane operating in each direction. Parking is only permitted on the north side of Grenoble Drive outside the hours of 8:00 AM to 6:00 PM between Monday to Friday. Grenoble Drive has a posted speed limit of 40 kilometres per hour.

**Deauville Lane** is a collector road with a two-lane cross-section with two-way traffic and a single through lane operating in each direction. Parking is only permitted on the west side of Deauville Lane outside the hours of 8:00 AM to 6:00 PM between Monday to Friday. Deauville Lane has a posted speed limit of 50 kilometres per hour.

**Wynford Drive** is an east-west two-way minor arterial road. It has a speed limit of 50 kilometres per hour speed limit and a typical 5-lane urban cross section. Terminating at Don Mills Road, the westbound approach consists of a dual left-turn lane and a channelized right-turn lane.

**Barber Greene Road/Green Belt Drive** are east-west collector roads operating in a general east-west direction. Each road operates with one lane in each direction with separate left-turn lanes at Don Mills Road.

**Beth Nealson Drive** is a north-south collector road with a speed limit of 50 kilometres per hour speed limit and a typical 2-lane urban cross section. Between Overlea Boulevard and Par Moore Drive, there is a two-way left turn lane.

**Gervais Drive** is a north-south collector road with a speed limit of 50 kilometres per hour speed limit and a typical 2-lane urban cross section with left turning bays at Wynford Drive.

# 4. Development Applications

The following sections summarize the identified development applications within the Ontario Line West, Ontario Line South, and Ontario Line North Study Areas. For the purpose of this Report, identified development applications include development applications that were available through the City of Toronto's Development Projects Mapping tool when accessed on June 25, 2020 and submitted after June 25, 2018. Recently submitted development applications (under two years) are considered of most relevance to traffic studies, as it is assumed that applications that remain in the approval process for more than two years would have to submit an updated traffic impact study to address either changes in the proposed development or the surrounding traffic conditions. This is typically referred to as the "shelf life" of traffic impact studies<sup>1</sup>.

There are multiple active development applications within the Study Area that may affect travel patterns and traffic volumes at Study Area intersections adjacent to these future developments. These development applications are listed in **Table 4-1**, **Table 4-2**, and **Table 4-3**. Additional information on these development applications is available through the City of Toronto's Development Projects Mapping tool. A complete list of active development applications, as of June 25, 2020, is provided in the Ontario Line Socio-Economic and Land Use Characteristics Environmental Conditions Report (AECOM, 2020).

## 4.1 Ontario Line West

The identified development applications within the Ontario Line West Study Area summarized in **Table 4-1**.

# Table 4-1:Active Development Applications within the Ontario Line West<br/>Study Area

Application Address	Description
655 Queen Street West	Zoning By-law Amendment to facilitate redevelopment of the site with a new eight-storey, mixed-use building (30.8 metres including mechanical penthouse): 919 square metres of retail space at grade and 4,841 square metre of residential space.

<sup>&</sup>lt;sup>1</sup> The City of Toronto does not specify a definitive "shelf life"; however, other municipalities within the Greater Toronto Area consider a shelf life of two years.

#### Metrolinx Traffic and Transportation Environmental Conditions Report

Application Address	Description
324 Queen Street West	Site Plan Approval Application for a proposed three-storey non-residential building having a gross floor area of approximately 1152.40 square metres.
471 Richmond Street West	Zoning By-law Amendment application to facilitate the redevelopment of the site with two hotel towers (17 storeys fronting Richmond Street West and 15 storeys fronting Camden Street). The two components will be connected by a common 2-storey podium, with 3 levels of underground parking below. The listed heritage building at 38 Camden Street is not proposed to be conserved.
578 King Street West	Zoning By-law Amendment to facilitate the redevelopment of the subject site with a 15-storey office building having a height of 63.3 metres (including the Mechanical Penthouse), which will also include commercial uses within a 2-storey base element that retains the existing heritage- listed building. The total proposed gross floor area is approximately 8,469 square metres.
689 King Street West	A proposed retail development of 5,308 square metres located just west of Bathurst Street along King Street, and consists of 2 levels of retail above grade, a restaurant and north facing terrace at the third level, and 1 level of retail below grade. The development replaces the existing 1209 square metres. 1-storey retail store and carwash that currently occupies the property. The new development proposes to develop the new building to maintain the existing zero lot line setbacks on all sides.
462 Wellington Street West	Zoning By-law Amendment application to permit a 17- storey mixed-use development with retail, office, and retirement residential uses including independent and assisted living and memory care suites. Overall 131 residential suites are proposed. The total gross floor area proposed is 24,080 square metres of which 7,781 square metres are office and retail uses. The existing heritage building on the site is proposed to be retained.
184 Spadina Avenue	The application proposes to amend the Zoning By-law to redevelop the site with a hotel building comprised of a three-storey base building and two tower elements above, one fronting Spadina Avenue and the other Cameron Street, with total heights of 15 storeys (44.1 metres) and 17 storeys (49.4 metres) respectively. A total of 264 hotel suites are proposed. Parking and loading areas will be accessed via Cameron Street.

Ontario Line Project

Application Address	Description
126 John Street	Zoning By-law Amendment application to permit a mixed- use development including two buildings, 37- and 42- storeys in height (131.0 metres and 145.2 metres, respectively, including mechanical penthouses). Proposed uses include two levels of retail, seven levels of office space, a daycare, the replacement of the existing movie theatre, an on-site publicly accessible privately-owned open space and 693 residential units. The total gross floor area proposed is 80,334 square metres, consisting of 49,983 square metres of residential floor area, and 30,351 square metres of non-residential floor area. Two levels of below grade parking are proposed with 231 vehicle and 829 bicycle parking spaces.
156 John Street	Site Plan Control application for a six-storey addition on top of the existing five storey warehouse building, resulting in a new 11-storey office building with ground floor retail and restaurant uses. Total 3751.3 square metres non- residential gross floor area. No parking or loading spaces are proposed.
64 Bathurst Street	Site Plan Approval for a proposed 17-storey mixed-use building comprised of retail, office and residential uses. 7494 square metres of non-residential gross floor area and 307 rental residential dwelling units are proposed along with 150 parking spaces on the lot.
2 Strachan Avenue	Site Plan Control application for a new enclosed elevated pedestrian walkway over Newfoundland Road connecting Hotel X and the Beanfield Centre.

### 4.2 Ontario Line South

The identified development applications within the Ontario Line South Study Area summarized in **Table 4-2**.

Table 4-2:	Active Development Applications within the Ontario Line South
	Study Area

Application Address	<b>Description</b> Site Plan Approval for a 4-storey (38.5 metre) data processing centre with a total non-residential gross floor area of 13,220 square metres.				
281 Front Street East					
244 Church Street	54-storey, 648 dwelling units, building with retail space at				

#### Metrolinx Traffic and Transportation Environmental Conditions Report

Application Address	Description
	grade.
110 Adelaide Street East	Zoning By-law amendment application to facilitate the development of the site for a 42-storey mixed-use building comprised of 21,245 square metres of residential gross floor area and 3,770 square metres of non-residential gross floor area. A total of 287 residential units are proposed, as well as 66 below grade parking spaces.
231 Richmond Street East	Official Plan and Zoning By-law amendment application to facilitate the development a 39-storey mixed-use building, which will incorporate the façade of 125 George Street and the retention of the existing 3-storey office building at 109 George Street. The proposed development includes a 254 square metres POPS space along George Street, retail uses at grade, office uses on the 2nd through 4th floors, and a residential tower above, with 520 dwelling units.
75 Ontario Street	Zoning By-law amendment to permit a 35-storey building (113.85 metres including the mechanical penthouse) containing: 16,431.5 square metres of residential space resulting in 251 dwelling units; 384.4 square metres of retail space; and 58 parking spaces.
60 Mill Street	Site Plan Approval to permit a 31-storey hotel tower with a total building height of 115.1 metres (inclusive of mechanical penthouse). A total of 392 hotel suites are proposed with a total GFA of approximately 26,944 square metres. The existing heritage Rack House D building is proposed to be incorporated as part of the proposal.
49 Ontario Street	Zoning By-law Amendment application for three buildings of 12, 29 and 36 storeys containing 643 square metres of retail, 13,138 square metres of office, and 52,241 square metres of residential resulting in 881 dwelling units. 149 parking spaces are proposed within a 2-level underground garage.
483 Bay Street	Zoning By-law Amendment Application for a proposed 60- storey addition atop the eastern portion of the existing 10- storey office building. The total height will be 70-storeys. The proposal will include 45,006 square metres of new residential floor area and 590 dwelling units.
33 Sherbourne Street	Site Plan Approval Application to permit a 37-storey building consisting of a 2-storey base building and a 35-storey tower with an overall height of 126.4 metre

Application Address	Description
	(including mechanical penthouse). The application proposes 439 residential units and 1,371 square metres of retail uses.
238 Berkeley Street	Site Plan Control Application to permit a development that contains a total of six 3-bedroom townhouse dwelling units with integral garages. Total proposed gross floor area is 871.38 square metres
193 Church Street	Site plans Approval for new mixed-use building: 39 storeys plus mechanical penthouse, office and retail uses in podium, 482 dwelling units
90 Queen Street East	Zoning By-law Amendment to permit a 34-storey mixed- use building. The building will include a 3-storey base element that incorporates retention of the four storey Richard Bigley building (98 Queen Street East) and the three storey facades of 100 to 104 Queen Street East. A total of 23,345 square metres of gross floor area is proposed, consisting of 364 dwelling units and 372 square metres of retail and community space.
133 Queen Street East	Revised Zoning By-law Amendment application to permit a 39-storey building with an overall height of 125 metres including the mechanical penthouse. The proposal consists of 440 dwelling units and 500 square metres of retail space.
333 King Street East	Zoning By-law Amendment application to permit two new buildings on the block containing the Globe and Mail Centre (to be retained). On the west side of the block is a 37-storey residential building (134.1 metres) containing 314 dwelling units with a residential gross floor area of 21,378 square metres The existing Coca-Cola/George Brown building would remain in place. In the middle of the block is a 25- storey office building (111 metres) with a gross floor area of 54,317 square metres. The footprint of the new office building would replace some of the existing retail uses fronting on Front Street East. The existing buildings fronting on King Street East would remain in place. A 1,200 square metres. POPS space is proposed fronting onto Front Street East. A total of 259 new parking spaces and 562 new bicycle parking spaces are proposed to support the new development.
139 Church Street	Proposed 54-storey mixed-use building.
161 Parliament Street	Official Plan and Zoning By-law Amendment application to permit the development of a residential/mixed-use

Application Address	Description
	building that is comprised of a 6-storey base building with street level retail uses, a 16-storey residential mid-rise element and a 29-storey residential tower element. The development has a gross floor area of (44,361 square metres) including (3736 square metres) of retail uses divided over 2 levels. There will be a total of 584 dwelling units and a 300 square metres parkette that is proposed at the Queen Street East and Power Street intersection.
60 Queen Street East	Zoning By-law Amendment to facilitate redevelopment of the site with a 57-storey mixed-use building with retail uses at grade: 29,046 square metres of residential gross floor area and approximately 720 square metres of non- residential gross floor area; 445 dwelling units.
405 Eastern Avenue	Proposal to demolish the existing 670 square metres. Enbridge operations building and construct a new 1,657 square metres single storey warehouse/muster/office space facility adjacent to Eastern Avenue. Below-grade parking is proposed, and accesses as well as the existing rear operations yard will be re-organized and re-paved. The natural gas gate station onsite will remain unchanged. A future phase, also contemplated in this submission, would add two additional floors of office space atop the new facility.
65-87 Heward Avenue	Gold Star Site Plan Approval application for a proposed 6- storey non-residential building comprised of 10,420 square metres floor area and containing retail, restaurant and office uses.
433 Pape Avenue	Site Plan Approval Application proposal to convert the existing 2-storey residential building into a day nursery (41 licensed spaces). The proposed work entails interior alterations, a 19.8 square metres second-storey addition at the front, and a 1.2 square metres two-storey addition at the rear.
945 Lake Shore Boulevard East	The proposed development is for the construction of new film and television production studios.
263 Logan Avenue	Zoning By-law amendment to allow the redevelopment of a parking lot with a 6-unit townhouse block (1828.0 square metres). The future townhouse lots will be parcels of tied land to a common element drive aisle.

## 4.3 Ontario Line North

The identified development applications within the Ontario Line North Study Area summarized in **Table 4-3**.

# Table 4-3: Active Development Applications within the Ontario Line NorthStudy Area

Application Address	Description			
25 St. Dennis Drive	Rezoning and site plan application to facilitate infill development, consisting of two new residential towers (44 storeys and 10 storeys) to be located next to the existing 17-storey apartment building. 205 new residential units and 600 m <sup>2</sup> of retail are proposed.			
770-805 Don Mills Road	Official Plan and Zoning by-law amendment applications to support the development of two separate parcels south of Eglinton Avenue East. The parcels will contain mixed use buildings including three residential towers and two sixstorey base buildings, with heights ranging from 22 to 52 storeys. 5818 m <sup>2</sup> of non-residential gross floor area and 2377 residential units are proposed. Two new public streets will be introduced, and Ferrand Drive will be			
844 Don Mills Road	Site Plan Control application to support a 27-storey mixed use building, which will include rental apartments, a long- term care facility, a day care and retail uses.			
1185 Eglinton Avenue East	Condominium approval for 29 and 31-storey buildings and 22 townhouses. The development will include a total of 655 residential units, 555 residential parking spaces and 98 visitor spaces.			

# 5. Intersections Analysis

### 5.1 Quantitative Analysis

### 5.1.1 Traffic Volumes

#### 5.1.1.1 Ontario Line West

The Ontario Line West Study Area is comprised of specific areas designated as "Regeneration Areas" as per the City of Toronto's Official Plan. These areas typically witness a growth in traffic as they attract investments and encourage new construction in an attempt to revitalize their underutilized areas. Hence, to capture the traffic growth between the date the Turning Movement Count data had been collected and the existing year (2020), an annual growth rate of 1% has been applied to the raw Turning Movement Count data.

Note that the traffic volume balancing (i.e., the amount of traffic leaving one intersection was made equal to the amount of traffic arriving at the adjacent downstream intersection) was conducted only between any two consecutive intersections where imbalance of traffic volumes is not justified; i.e., where there are no mid-block driveways or other access points for traffic to enter or exit the Ontario Line West Study Area between the two consecutive intersections.

**Figure 5-1** illustrates the lane configurations and turning movement volumes under Existing Conditions (2020) during the AM and PM peak hours at the Ontario Line West Study Area intersections where traffic data were available.



Tigute 3-1. Turning movement volumes at the Ontario Line west Study Area intersections under Existing Conditions (202	Figure 5-1: Turning	Movement Volumes	at the Ontario Line	West Study Area	Intersections unde	r Existing Conditions (	2020)
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Figur	e 5-1	(Continued):	Turning	Movement	t Volumes at the	e Ontario I	Line West	Study Ar	ea Interseo	ctions un	der Existing	Conditions (	2020)
<u> </u>		· /											

Bathurst Street / Adelaide Street	Portland Street / King Street	Spadina Avenue / King Street		
(060) 680 ►	(22) 61 ∞ → → → ∞ R 27 (61) w King Street	(FS) (6FL) 887 ∞ + ↓↓↓		
Bathurst Street ►	Portland Street	(20) 19 № (20) 19 × 10 (20)		
Bathurst Street / Fort York Boulevard	Tecumseth Street / Wellington Street	Niagara Street / Wellington Street		
(62) (336) α 1 20 α 1 20 α 1 20 α 1 20 α 222 (129) α 1 20 α 233 α	(00) (20) (20) (20) (20) (20) (20) (20)	(130) (126) (126) β = 1 (126) β = 1 (127) β = 1 (128) β = 1 (129) β = 1 (12		
(21) 27 × (21) 2	Tecumseth Street       (6)       14       (23)       27	(48) 58 L (131) 266 R Viadara Street		
:: Left-turn I: Through R: Right-turn Travel Lanes	xx AM Peak Hour Volume Traffic Signal (xx) PM Peak Hour Volume	Stop Sign N		





### 5.1.1.2 Ontario Line South

Similar to the growth rate applied to traffic in the Ontario Line West Study Area, and to capture the traffic growth between the date the Turning Movement Count surveys were undertaken and the existing base year (2020), an annual growth rate of 1% has been applied to the raw Turning Movement Count data in the Ontario Line South Study Area. Note that the traffic volume balancing was conducted only between any two consecutive intersections where imbalance of traffic volumes is not justified (i.e., where there are no mid-block driveways or other access points for traffic to enter or exit the Ontario Line South Study Area between the two consecutive intersections).

**Figure 5-2** illustrates the lane configurations and turning movement volumes under Existing Conditions (2020) during the AM and PM peak hours at the Ontario Line South Study Area intersections where traffic data was available.

Yonge Street / Queen Street	Yonge Street / Richmond Street	Victoria Street / Queen Street		
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(667) 372 T Xoude Street	Yonge Street (501) 436 T	(70) 41 L L (70) 41 L L (67) 36 R L (67) 36 R		
Victoria Street / Richmond Street	Yonge Street / Shuter Street	Victoria Street / Shuter Street		
(103) 111 (104) 103 (105) 103 (103) 111 (103) 111 (103) 111 (103) 111 (103) 111 (103) 111 (103) Richmond Street	(102) 157 $\times$ (102) (113) 152 $\times$ (102) (114) $\times$ (114) (114) $\times$ (114) (114) $\times$ (115) (114) (114) $\times$ (119) (114) $\times$ (119) $\times$ (119) (114) $\times$ (119) $\times$ (1114) $\times$ (119) $\times$	(102) 62 $\alpha$		
L: Left-turn Travel Lanes XX AM Peak Hour Vol T: Through (XX) PM Peak Hour Vol R: Right-turn	ume Traffic Signal	N		

Figure 5-2: Turning Movement Volumes at the Ontario Line South Study Area Intersections under Existing Conditions (2020)

Bay Street / Queen Street	Bay Street / Richmond Street	York Street / Richmond Street	
(124) $(124)$ $(124$	(1000 FR 43 (45) 1000	Image: Constraint of the second streem         Image: Constraint of the second streem	
(41) 55 R → to	- teet	⊥ L treet	
Bay St 552	592	York Si 200 285	
(345)	(396)	(314) (246)	
University Avenue / Queen Street	George Street / Adelaide Street	University Avenue / Richmond Street	
(100) 841 (331) 350 T $$ (76) 125 R (331) $$ 750 (108) (331) $$ 850 T $$	(30) 31 L (1302) 902 T (103) 50 R (103) 50	(667) (198)	
L: Left-turn T: Through Travel Lanes xx AM Peak Hour Volur (xx) PM Peak Hour Volur R: Right-turn Channelized Right-Turn	me Traffic Signal	N	



Jarvis Street / Adelaide Street	Jarvis Street / Richmond Street	Church Street / Queen Street		
(161) (161) (161) (260) ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	$ \begin{array}{c} 68 \\ \hline 68 \\ \hline 59 \\ \hline 51 \\ \hline \\ $	(12) (12)		
(195) 67 L (1151) 766 T (66) 113 R (66) 113 R (1151) R (1	Jarvis Street	(79) 41 № 4 ♦ 101 (81) 101 (81) 101 (81) 101 (72) (72) (72) (72) (72) (72) (72) (72)		
Jarvis Street / Queen Street	Sherbourne Street / Shuter Street	Sherbourne Street / Adelaide Street		
$(722) 282 T \xrightarrow{\text{rest}} (722) 72 T \xrightarrow{\text{rest}} (722) T \xrightarrow{\text{rest}} (722) T \xrightarrow{\text{rest}} (722) T \xrightarrow{\text{rest}$	(44) 38 $\mu$ (44) 38 $\mu$ (44) 38 $\mu$ (44) 38 $\mu$ (44) $\kappa$ (44) $\kappa$ (45) $\kappa$ (45) $\kappa$ (46) $\kappa$ (46) $\kappa$ (46) $\kappa$ (47) $\kappa$ (47) $\kappa$ (48) $\kappa$ (48) $\kappa$ (48) $\kappa$ (49) $\kappa$ (40) $\kappa$	(59) 81 L (1260) 869 T (306) (		
(42) 72 R ♥ kg ↔ ∞ (42) 72 R ♥ kg ↔ ∞	(95) 44 R (20) R (20)	(77) 43 R There R (77) 43 R There R (77)		
(130	(313	(310 (314)		
L: Left-turn Travel Lanes xx AM Peak Hour Volu T: Through (xx) PM Peak Hour Volu R: Right-turn Channelized Right-Turn	me Traffic Signal	N		





Lower Jarvis Street / Front Street	Parliament Street / Front Street	Cherry Street / Front Street		
(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	(8)       (8)         (8)       (8)         (8)       (8)         (8)       (8)         (8)       (8)         (8)       (8)         (8)       (8)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (8)       (7)         (7)       (7)         (8)       (7)         (7)       (7)         (7)       (7)         (8)       (7)         (7)       (7)         (8)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (8)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)       (7)         (7)	(22) 14 ∞ 15 (22) (2)) (2)) (2)) (2)) (2)) (2)		
(418) 255 (4122) 483 (4123) 255 (53) 252 (53) 25	(103) 108 ×	(117) $(114)$ $(119)$ $(114)$ $(119)$ $(114)$ $(119)$ $(119)$ $(119)$ $(1114)$ $(1119)$ $(11$		
Lower Jarvis Street / The Esplanade	Lower Sherbourne Street / The Esplanade	George Street / King Street		
× 122 (312) × 12	<ul> <li>R 12 (16)</li> <li>R 12 (16)</li> <li>R 12 (16)</li> <li>R 12 (17)</li> <li>R 12 (13)</li> <li>R 12 (13</li></ul>	(20) (20) (20) (20) (20) (20) (20) (20)		
(46) 18 L (115) 42 T (100) 65 R (25) 68 (201)	(30) 30 Lower Sherbourne Streed (32) 69 x 1 (23) (35) 69 x 1 (23)	(502) 242 T → → → → → → → → → → → → → → → → → →		
:: Left-turn Travel Lanes xx AM Peak Hour (xx) PM Peak Hour R: Right-turn	Volume Traffic Signal	N		

Parliament Street / Mill Street	Cherry Street / Mill Street	Parliament Street / Shuter Street		
← 1 327 (502)	x 21 (27) x 22 (27) x 235 (411) x 10 (2) x 10 (2) x 10 (2) x 10 (2) x 10 (2) x 10 (2) x 10 (178) x 10 (178) x 10 Mill Street	(14) (14)		
Parliament Street	(146) 129 L (146)	(118) 41 L (294) 13 T (311) 271 H (49) 48 R (46) 48 R		
Parliament Street / Queen Street	Sherbourne Street / Queen Street	Lower Sherbourne Street / Lake Shore Boulevard		
(66) (16) (17) (17) (17) (17) (17) (17) (17) (17	$ \begin{array}{c} (82) \\ ($	(19) 1E (19) 1E 211 2 211 2 2 2 2		
(221) 101 L Leet Leet Lee (22) (30) 61 L (371) 337 T (47) 53 R	(56) 34 L (545) 190 T (52) 23 R (41) 39 R (41)	(169) 171 L $\checkmark$ (491) 287 T $\rightarrow$ (26) 89 R $\checkmark$ (26) (26) (26) (26) (26) (26) (26) (26)		
L: Left-turn Travel Lanes xx AM Peak Hour Vol T: Through (xx) PM Peak Hour Vol R: Right-turn	ume Traffic Signal	N		



Ontario Street / Adelaide Street	Saulter Street / Queen Street	Carlaw Avenue / Gerrard Street		
(1434) 918 T	T 609 (446) ↓ 6 (6) Gerrard Street (592) 295 T → T (20) 13 R ↓ 295 (20) 13 R ↓ 295 (20) 13 R ↓ 200 (20) 10 (20) (20) (20) (20) (20) (20) (20) (20	$(610) 185 \ (64) \ (64) \ (62) \ (64) \ (65) \ (65) \ (66) \ (6$		
Pape Avenue / Gerrard Street	Marjory Avenue / Gerrard Street	Pape Avenue / Strathcona Avenue		
$(11) 29 R \\ (28) (292) 282 T \\ (11) 29 R \\ (11) 29 R \\ (28) (28) (28) (28) (28) (28) (28) (28)$	(0) (0) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	R 7 (15) T 502 (460) L 28 (44) → → → → → → → → → → → → → → → → → → →		
L: Left-turn T: Through Travel Lanes xx AM Peak Hour Volum R: Right-turn	ne Traffic Signal 🐨 Stop Sign 🔨 N			



### 5.1.1.3 Ontario Line North

The motorized vehicles turning movement volumes (including autos, buses, and trucks) were obtained from the available Turning Movement Count data. An annual compound growth rate of 1% was applied to through-movements for all Turning Movement Counts collected before 2020 along all major corridors. The major corridors include Eglinton Avenue East, Don Mills Road, Overlea Boulevard, Laird Drive, Millwood Road, Pape Avenue, O'Connor Drive, and Danforth Avenue. After the growth rate was applied, volumes were balanced at locations that have no sources or sinks, such as driveways or unstudied intersections.

**Figure 5-3** illustrates the turning movement volumes under Existing Conditions (2020) during the AM and PM peak hours at the Ontario Line North Study Area intersections where traffic data was available.



Figure 5-3:	<b>Turning Movement</b>	Volumes at the	<b>Ontario Line</b>	North Study Ar	ea Intersections	under Existing (	Conditions (2020
<b>U</b>	5						<b>``</b>
Don Mills Road/St Dennis Drive	St Dennis Drive/Deauville Lane	Don Mills Road/Gateway Boulevard North					
---	---	---	--	--	--	--	--
$(15) \begin{array}{c} (15) \\ (15)$	$(115) \begin{array}{c} (115) \\ (31) \\ (31) \end{array} \begin{array}{c} (115) \\ $	(14) 4 R (14) 4 R (15) (17					
(4) (1921) (146)	(50) (76) (233)	(6) (1435) (101)					
Gateway Boulevard/Grenoble Drive (North)	Gateway Boulevard/Grenoble Drive (South)	Don Mills Road/Overlea Boulevard					
$(143) \\ (61) \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ R \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ 81 \\ (52) \\ (52) \\ 81 \\ (52) \\ (5$	(115) (115) (115) (115) (116) (115) (117) (117) (118) (117) (119) (	(63) (63) (63) (63) (63) (63) (63) (63)					
L: Left-turn T: Through R: Right-turn XX Travel Lanes (XX)	AM Peak Hour Volume PM Peak Hour Volume Traffic Signal	Stop Sign Vield Sign N					

Figure 5-3 (Continued): Turning Movement Volumes at the Ontario Line North Study Area Intersections under Existing Conditions (2020)



Overlea Boulevard/William Morgan Drive	Overlea Boulevard/Beth Nealson Drive	Overlea Boulevard/East York Town Centre/Costco
(18) 9 L $(1299)$ 1046 T	(143) (91) (92)	East York Town Centre D (149) 32 (23) 29 1 1 (23) 29 29 20 Driveway
Overlea Boulevard/Thorncliffe Park Drive West	Overlea Boulevard/Leaside Park Drive	Millwood Road/Overlea Boulevard
(100)  116  C  (100)  (116  (100)  (116  (100)  (116  (100)  (116  (100)  (100)  (116  (100)  (116  (100)  (100)  (116  (100)  (116  (100)  (100)  (116  (100)  (	(23) (36) (36) (37) (37) (38) (36) (38)	(096) 907 1000 MIM 1000 Poor R 294 (331) 1 346 (444) 0verlea Boulevard 106 (659) 100 (659)
L: Left-turn T: Through R: Right-turn	AM Peak Hour Volume PM Peak Hour Volume Traffic Signal	Stop Sign Vield Sign N

Figure 5-3 (Continued): Turning Movement Volumes at the Ontario Line North Study Area Intersections under Existing Conditions (2020)



Donlands Avenue/Millwood Road/Pape Avenue	O'Connor Drive/Pape Avenue	Pape Avenue/Gamble Avenue
Pape Avenue (582) Bape Avenue (14) (14	(169) (10) 14 R (10) 14 R (10) (10) 14 R (10) (10) (10) (10) (10) (10) (10) (10)	(13) (30) (36) (36) (36) (36) (36) (36) (36) (36
Pape Avenue/Cosburn Avenue	Pape Avenue/Floyd Avenue	Pape Avenue/Mortimer Avenue
(66)   49   L   123   (87)   Cosburn Avenue   (101)   L   123   (87)   Cosburn Avenue   (103)   Cosburn Avenue   (	(13) 10 R (16)	(65)
L: Left-turn T: Through R: Right-turn	AM Peak Hour Volume PM Peak Hour Volume Traffic Signal	Stop Sign Vield Sign N

Figure 5-3 (Continued): Turning Movement Volumes at the Ontario Line North Study Area Intersections under Existing Conditions (2020)



## 5.1.2 Traffic Operations

### 5.1.2.1 Ontario Line West

The analysis findings on traffic operations at the Ontario Line West Study Area intersections in the Existing Conditions (2020) are summarized in **Table 5-1**. The critical movements are highlighted in grey in **Table 5-1** and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or 'F'. The detailed HCM 2000 reports from Synchro pertaining to the Existing Conditions analysis are presented in **Appendix F**.

As shown in **Table 5-1**, all the Ontario Line West Study Area intersections, where traffic data were available, operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours. However, in the AM peak hour, motorists experience relatively long average delays in making the following critical movements:

- Northbound through and southbound left-turn movements at the intersection of Spadina Avenue and Adelaide Street;
- Northbound left-turn movement at the intersection of Spadina Avenue and King Street; and
- Eastbound left-turn movement at the intersection of Bathurst Street and Fort York Boulevard.

Among the noted critical movements, the southbound left-turn movement at the intersection of Spadina Avenue and Adelaide Street has the longest average delay of 109.6 seconds representing level of service 'F' in the AM peak hour.

In addition, the following movements are approaching capacity (i.e., volume to capacity ratio in excess of 0.90):

- Northbound through and southbound left-turn movements at the intersection of Spadina Avenue and Adelaide Street with both movements operating at a volume to capacity ratio of 0.99; and
- Eastbound left-turn movement at the intersection of Bathurst Street and Fort York Boulevard with volume to capacity ratio of 0.93.

In the PM peak hour and as shown in **Table 5-1**, motorists experience relatively long average delays in making the following critical movements:

 The shared northbound left-turn and right-turn movements at the intersection of Queen Street and Portland Street;

- Southbound left-turn movement at the intersection of Spadina Avenue and Adelaide Street;
- Northbound left-turn movement at the intersection of Spadina Avenue and King Street;
- The shared southbound left-turn, through, and right-turn movements at the intersection of Bathurst Street and Fort York Boulevard;
- Southbound through movement at the intersection of Strachan Avenue and East Liberty Street; and
- The shared westbound left-turn, through, and right-turn movements at the intersection of Dufferin Street and East Liberty Street.

Among the noted critical movements, and similar to the AM peak hour results, the southbound left-turn movement at the intersection of Spadina Avenue and Adelaide Street has the longest average delay of 117.2 seconds representing level of service 'F' in the PM peak hour. In addition, the following movements are approaching capacity (i.e., volume to capacity ratio in excess of 0.90):

- Southbound left-turn movement at the intersection of Spadina Avenue and Adelaide Street with volume to capacity ratio of 0.99;
- The shared southbound left-turn, through, and right-turn movements at the intersection of Bathurst Street and Fort York Boulevard with volume to capacity ratio of 0.91;
- Southbound through movement at the intersection of Strachan Avenue and East Liberty Street with volume to capacity ratio of 0.92; and
- The shared westbound left-turn, through, and right-turn movements at the intersection of Dufferin Street and East Liberty Street with volume to capacity ratio of 0.98.

Table 5-1:	Summary of Tra	affic Operations at the Or	tario Line West Study	Area Intersections ur	nder Existing Conditior	ns (2020) during
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Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Queen Street and University Avenue (Signalized)	EBTR	0.43	24.9	С	46.5	0.33	20.8	С	37.1
Queen Street and University Avenue (Signalized)	WBTR	0.60	27.9	С	72.4	0.49	23.2	С	59.3
Queen Street and University Avenue (Signalized)	NBTR	0.32	10.0	В	19.1	0.48	10.5	В	17.4
Queen Street and University Avenue (Signalized)	SBTR	0.59	21.0	С	75.2	0.52	22.3	С	59.3
Queen Street and University Avenue (Signalized)	Overall	0.58	20.1	С	-	0.49	18.1	В	-
Queen Street and St. Patrick Street (Signalized)	EBLT	0.47	8.1	А	27.0	0.35	6.8	А	19.7
Queen Street and St. Patrick Street (Signalized)	WBTR	0.32	9.5	A	25.6	0.38	9.9	A	39.9
Queen Street and St. Patrick Street (Signalized)	SBLR	0.28	27.1	С	26.0	0.57	31.0	С	44.5
Queen Street and St. Patrick Street (Signalized)	Overall	0.40	10.4	В	-	0.42	11.7	В	-
Queen Street and John Street (Signalized)	EBLTR	0.43	11.5	В	44.2	0.34	10.6	В	33.7
Queen Street and John Street (Signalized)	WBLTR	0.29	7.8	A	16.2	0.42	8.8	A	24.7
Queen Street and John Street (Signalized)	NBL	0.20	22.0	С	17.0	0.43	27.7	С	28.3
Queen Street and John Street (Signalized)	NBTR	0.41	25.1	С	36.8	0.35	23.9	С	33.2
Queen Street and John Street (Signalized)	SBLTR	0.21	21.4	С	23.9	0.30	22.9	С	30.5
Queen Street and John Street (Signalized)	Overall	0.42	13.2	В	-	0.42	13.3	В	-
Queen Street and Peter Street/Soho Street (Signalized)	EBTR	0.11	7.9	A	6.5	0.34	29.0	С	14.8
Queen Street and Peter Street/Soho Street (Signalized)	WBLTR	0.29	8.9	A	25.0	0.42	10.5	В	37.2
Queen Street and Peter Street/Soho Street (Signalized)	NBL	0.09	25.3	С	11.0	0.24	27.6	С	21.2
Queen Street and Peter Street/Soho Street (Signalized)	NBR	0.12	25.8	С	0.0	0.17	27.0	С	3.9
Queen Street and Peter Street/Soho Street (Signalized)	Overall	0.29	12.2	В	-	0.44	17.4	В	-
Queen Street and Augusta Avenue (Signalized)	EBLTR	0.47	5.2	A	25.3	0.28	5.0	A	m12.2
Queen Street and Augusta Avenue (Signalized)	WBLTR	0.28	6.4	A	23.3	0.48	9.1	A	49.2
Queen Street and Augusta Avenue (Signalized)	NBLTR	0.21	22.0	С	15.6	0.61	29.8	С	47.5
Queen Street and Augusta Avenue (Signalized)	SBLTR	0.38	23.4	С	26.2	0.26	24.2	С	22.1
Queen Street and Augusta Avenue (Signalized)	Overall	0.45	8.0	Α	-	0.52	11.4	В	-
Queen Street and Portland Street (Signalized)	EBTR	0.28	6.1	A	23.8	0.18	6.1	A	15.0
Queen Street and Portland Street (Signalized)	WBLT	0.20	4.6	A	10.3	0.24	4.8	A	11.7
Queen Street and Portland Street (Signalized)	NBLR	0.46	40.2	D	m25.3	0.86	49.6	D	#67.3
Queen Street and Portland Street (Signalized)	Overall	0.31	9.6	Α	-	0.42	14.4	В	-

## the AM and PM Peak Hours

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Richmond Street and John Street (Signalized)	WBLTR	0.27	9.3	А	23.1	0.41	10.5	В	39.8
Richmond Street and John Street (Signalized)	NBL	0.20	21.2	С	13.4	0.25	22.2	С	16.8
Richmond Street and John Street (Signalized)	NBT	0.32	21.7	С	36.7	0.26	20.9	С	30.6
Richmond Street and John Street (Signalized)	SBTR	0.29	21.6	С	30.6	0.33	22.2	С	34.4
Richmond Street and John Street (Signalized)	Overall	0.29	14.0	В	-	0.38	13.5	В	-
Richmond Street and University Avenue (Signalized)	WBLTR	0.76	32.1	С	85.2	0.73	28.2	С	89.0
Richmond Street and University Avenue (Signalized)	NBL	0.48	33.3	С	#20.6	0.61	38.3	D	#34.9
Richmond Street and University Avenue (Signalized)	NBT	0.24	13.8	В	27.8	0.36	17.2	В	44.7
Richmond Street and University Avenue (Signalized)	SBTR	0.54	4.0	A	10.8	0.48	7.3	А	14.1
Richmond Street and University Avenue (Signalized)	Overall	0.63	15.3	В	-	0.66	18.1	В	-
Adelaide Street and Peter Street (Signalized)	EBLTR	0.55	11.5	В	54.2	0.38	9.7	А	34.7
Adelaide Street and Peter Street (Signalized)	NBTR	0.65	32.1	С	61.1	0.64	31.3	С	61.9
Adelaide Street and Peter Street (Signalized)	SBL	0.52	34.7	С	#26.8	0.59	37.9	D	#33.4
Adelaide Street and Peter Street (Signalized)	SBT	0.26	22.5	С	28.9	0.31	23.0	С	35.0
Adelaide Street and Peter Street (Signalized)	Overall	0.59	16.5	В	-	0.48	17.1	В	-
Adelaide Street and Spadina Avenue (Signalized)	EBLTR	0.69	25.8	С	76.6	0.52	22.2	С	56.0
Adelaide Street and Spadina Avenue (Signalized)	NBT	0.99	66.8	E	#104.0	0.74	38.9	D	65.2
Adelaide Street and Spadina Avenue (Signalized)	NBR	0.35	36.0	D	#22.4	0.22	31.8	С	0.0
Adelaide Street and Spadina Avenue (Signalized)	SBL	0.99	109.6	F	#62.6	0.99	117.2	F	#57.7
Adelaide Street and Spadina Avenue (Signalized)	SBT	0.24	13.0	В	25.9	0.25	13.7	В	28.2
Adelaide Street and Spadina Avenue (Signalized)	Overall	0.82	38.9	D	-	0.64	29.9	С	-
Adelaide Street and Brant Street (Signalized)	EBLTR	0.44	9.4	A	52.6	0.28	3.4	А	13.3
Adelaide Street and Brant Street (Signalized)	NBTR	0.11	18.7	В	10.3	0.24	25.0	С	23.8
Adelaide Street and Brant Street (Signalized)	SBLT	0.31	21.3	С	24.2	0.33	27.0	С	26.1
Adelaide Street and Brant Street (Signalized)	Overall	0.40	10.8	В	-	0.30	8.3	А	-
Adelaide Street and Portland Street (Signalized)	EBLTR	0.33	8.6	A	28.3	0.25	2.1	А	m9.3
Adelaide Street and Portland Street (Signalized)	NBTR	0.52	21.0	С	36.9	0.49	26.3	С	39.7
Adelaide Street and Portland Street (Signalized)	SBLT	0.77	27.7	С	#61.5	0.50	26.4	С	40.0
Adelaide Street and Portland Street (Signalized)	Overall	0.48	14.2	В	-	0.33	11.3	В	-
Adelaide Street and Bathurst Street (Signalized)	NBT	0.31	8.6	A	m30.1	0.36	12.3	В	39.9
Adelaide Street and Bathurst Street (Signalized)	NBR	0.81	19.3	В	m#91.9	0.69	21.5	С	76.3
Adelaide Street and Bathurst Street (Signalized)	SBLT	0.75	17.7	В	78.4	0.84	22.7	С	#93.0

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Adelaide Street and Bathurst Street (Signalized)	Overall	0.56	15.5	В	-	0.54	19.0	В	-
King Street and Portland Street (Signalized)	EBR	0.05	7.9	A	1.3	0.06	8.0	A	2.7
King Street and Portland Street (Signalized)	WBR	0.04	7.8	A	1.8	0.14	8.9	A	5.1
King Street and Portland Street (Signalized)	NBLTR	0.65	26.8	С	59.4	0.54	24.3	С	42.5
King Street and Portland Street (Signalized)	SBLTR	0.25	21.0	С	21.1	0.47	23.1	С	38.3
King Street and Portland Street (Signalized)	Overall	0.26	22.8	С	-	0.28	20.8	С	-
King Street and Spadina Avenue (Signalized)	EBT	0.07	20.4	С	9.3	0.08	20.4	С	10.3
King Street and Spadina Avenue (Signalized)	EBR	0.05	15.9	В	1.0	0.11	16.6	В	7.8
King Street and Spadina Avenue (Signalized)	WBT	0.04	17.7	В	9.2	0.10	20.7	С	13.2
King Street and Spadina Avenue (Signalized)	WBR	0.03	15.6	В	0.0	0.06	16.0	В	1.0
King Street and Spadina Avenue (Signalized)	NBL	0.60	57.9	E	19.9	0.77	73.4	E	#34.7
King Street and Spadina Avenue (Signalized)	NBTR	0.41	21.8	С	47.6	0.35	20.2	С	42.0
King Street and Spadina Avenue (Signalized)	SBTR	0.37	27.7	С	40.1	0.62	31.3	С	64.6
King Street and Spadina Avenue (Signalized)	Overall	0.24	24.6	С	-	0.35	27.2	С	-
Bathurst Street and Fort York Boulevard (Signalized)	EBL	0.93	57.1	E	#79.4	0.62	29.5	С	48.2
Bathurst Street and Fort York Boulevard (Signalized)	EBTR	0.46	22.7	С	55.1	0.35	25.6	С	45.2
Bathurst Street and Fort York Boulevard (Signalized)	WBLTR	0.65	34.4	С	39.9	0.31	35.1	D	21.1
Bathurst Street and Fort York Boulevard (Signalized)	NBLTR	0.60	17.5	В	79.5	0.38	13.6	В	49.2
Bathurst Street and Fort York Boulevard (Signalized)	SBLTR	0.48	6.8	A	12.6	0.91	32.2	C	#136.4
Bathurst Street and Fort York Boulevard (Signalized)	Overall	0.76	23.4	С	-	0.87	26.7	С	-
Wellington Street and Tecumseth Street (Unsignalized)	WBLTR	0.34	9.3	A	-	0.69	16.6	С	-
Wellington Street and Tecumseth Street (Unsignalized)	NBLT	0.06	8.1	A	-	0.05	8.9	A	-
Wellington Street and Tecumseth Street (Unsignalized)	SBTR	0.11	8.0	A	-	0.22	9.6	A	-
Wellington Street and Tecumseth Street (Unsignalized)	Overall	-	9.3	A	-	-	16.6	С	-
Wellington Street and Niagara Street (Unsignalized)	EBLTR	0.44	11.5	В	-	0.23	8.9	A	-
Wellington Street and Niagara Street (Unsignalized)	WBLTR	0.45	12.1	В	-	0.58	13.5	В	-
Wellington Street and Niagara Street (Unsignalized)	SBTR	0.40	12.0	В	-	0.23	9.9	A	-
Wellington Street and Niagara Street (Unsignalized)	Overall	-	12.1	В	-	-	13.5	В	-
East Liberty Street and Strachan Avenue (Signalized)	EBL	0.48	24.7	С	45.7	0.39	22.7	С	38.5
East Liberty Street and Strachan Avenue (Signalized)	EBTR	0.23	20.1	С	18.0	0.13	18.9	В	0.0
East Liberty Street and Strachan Avenue (Signalized)	WBL	0.12	20.1	C	6.2	0.03	18.1	В	3.2
East Liberty Street and Strachan Avenue (Signalized)	WBTR	0.01	17.6	В	2.7	0.00	17.6	В	0.0

Traffic and Transportation Environmental Conditions Report Ontario Line Project

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
East Liberty Street and Strachan Avenue (Signalized)	NBL	0.54	15.6	В	31.7	0.65	22.8	С	40.9
East Liberty Street and Strachan Avenue (Signalized)	NBTR	0.54	14.7	В	76.1	0.58	15.4	В	83.8
East Liberty Street and Strachan Avenue (Signalized)	SBL	0.02	15.2	В	2.8	0.02	18.6	В	2.1
East Liberty Street and Strachan Avenue (Signalized)	SBT	0.47	20.5	С	60.9	0.92	47.0	D	#141.0
East Liberty Street and Strachan Avenue (Signalized)	SBR	0.14	16.7	В	10.4	0.24	21.1	С	20.2
East Liberty Street and Strachan Avenue (Signalized)	Overall	0.54	18.2	В	-	0.65	26.9	С	-
Liberty Street and Dufferin Street (Signalized)	EBLTR	0.01	20.9	С	0.4	0.02	12.2	В	3.7
Liberty Street and Dufferin Street (Signalized)	WBLTR	0.79	40.3	D	#65.1	0.98	53.7	D	#148.3
Liberty Street and Dufferin Street (Signalized)	NBLTR	0.59	11.6	В	47.2	0.44	16.8	В	39.1
Liberty Street and Dufferin Street (Signalized)	SBLT	0.39	8.8	A	31.7	0.40	16.3	В	34.8
Liberty Street and Dufferin Street (Signalized)	Overall	0.65	15.4	В	-	0.71	29.5	С	-

Notes: #: 95<sup>th</sup> percentile cycle volume exceeds capacity, queue may be longer m: Volume for the 95<sup>th</sup> percentile queue is metered by an upstream signal The critical movements are highlighted in grey and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or 'F'

## 5.1.2.2 Ontario Line South

The analysis findings on traffic operations at the Ontario Line South Study Area intersections in the Existing Conditions (2020) are summarized in **Table 5-2**. The critical movements are highlighted in grey in **Table 5-2** and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or worse. The detailed HCM 2000 reports from Synchro pertaining to the Existing Conditions analysis are presented in **Appendix G**.

As shown in **Table 5-2**, all the Ontario Line South Study Area intersections, where traffic data was available, operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours. However, in the AM peak hour, the shared southbound left-turn and through movements at the intersection of Jarvis Street and Adelaide Street is approaching capacity with volume to capacity ratio of 0.90.

In the PM peak hour, and among the signalized Ontario Line South Study Area intersections, the following movements were found to operate at critical levels:

- The shared southbound left-turn and through movements at the intersection of Jarvis Street and Adelaide Street; and
- The shared southbound through and right-turn movements at the intersection of Lower Sherbourne Street and Lake Shore Boulevard East.

Among the noted critical movements, the shared southbound through and right-turn movements at the intersection of Lower Sherbourne Street and Lake Shore Boulevard East are approaching capacity (i.e., volume to capacity ratio in excess of 0.90) in the PM peak hour with volume to capacity ratio of 0.97. Motorists experience a long average delay of approximately 87 seconds in completing this movement in the PM peak hour.

Among the unsignalized Ontario Line South Study Area intersections, the intersection of Frederick Street and Front Street was found to operate over-capacity in the PM peak hour. After further investigation, it was determined that the time the turning movement count data was collected, on December 6, 2017, coincided with an event at the nearby Scotiabank Arena (Toronto Maple Leafs hockey game), which could have resulted in unusually high traffic volumes / patterns at the noted intersection.

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Yonge Street and Queen Street (Signalized)	EBT	0.22	12.8	В	26.6	0.39	14.4	В	48.7
Yonge Street and Queen Street (Signalized)	WBT	0.45	27.0	С	70.0	0.30	19.3	В	46.6
Yonge Street and Queen Street (Signalized)	NBT	0.41	37.9	D	66.0	0.44	16.9	В	70.6
Yonge Street and Queen Street (Signalized)	SBT	0.26	21.8	С	33.0	0.30	23.7	С	42.0
Yonge Street and Queen Street (Signalized)	Overall	0.43	26.4	С	-	0.41	18.0	В	-
Yonge Street and Richmond Street (Signalized)	WBLTR	0.64	6.9	А	17.5	0.63	8.6	А	21.1
Yonge Street and Richmond Street (Signalized)	NBT	0.45	24.8	С	47.1	0.47	25.0	С	53.3
Yonge Street and Richmond Street (Signalized)	SBT	0.33	25.0	С	48.8	0.38	54.6	D	58.5
Yonge Street and Richmond Street (Signalized)	Overall	0.56	13.0	В	-	0.57	20.5	С	-
Victoria Street and Queen Street (Signalized)	EBTR	0.23	14.5	В	45.3	0.36	24.2	С	88.3
Victoria Street and Queen Street (Signalized)	WBTR	0.42	4.9	А	19.1	0.22	6.5	А	17.3
Victoria Street and Queen Street (Signalized)	NBLT	0.41	26.9	С	48.8	0.61	31.0	С	53.6
Victoria Street and Queen Street (Signalized)	NBR	0.07	21.2	С	m4.1	0.17	25.7	С	m13.9
Victoria Street and Queen Street (Signalized)	SBLTR	0.30	26.2	С	25.9	0.32	26.5	С	26.3
Victoria Street and Queen Street (Signalized)	Overall	0.48	13.3	В	-	0.44	21.1	С	-
Victoria Street and Richmond Street (Signalized)	WBLTR	0.57	11.2	В	60.1	0.55	11.6	В	57.9
Victoria Street and Richmond Street (Signalized)	NBLT	0.33	23.8	С	25.5	0.41	24.8	С	31.8
Victoria Street and Richmond Street (Signalized)	SBTR	0.22	17.7	В	13.8	0.31	22.0	С	21.4
Victoria Street and Richmond Street (Signalized)	Overall	0.48	13.3	В	-	0.49	14.9	В	-
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	EBT	0.02	23.7	С	5.0	0.39	28.4	С	47.6
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	WBL	0.51	34.2	С	37.7	0.33	30.0	С	21.8
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	WBTR	0.70	39.2	D	#75.9	0.43	30.2	С	40.1
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	NBTR	0.34	15.8	В	70.2	0.33	13.2	В	73.4
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	SBLT	0.31	9.0	А	25.5	0.31	9.0	А	24.5
Yonge Street and Eaton Centre Parking/Shuter Street (Signalized)	Overall	0.45	20.3	С	-	0.36	17.2	В	-
Victoria Street and Shuter Street (Signalized)	EBLTR	0.31	10.4	В	27.1	0.52	12.6	В	63.3
Victoria Street and Shuter Street (Signalized)	WBLTR	0.70	17.7	В	80.6	0.50	12.5	В	50.9
Victoria Street and Shuter Street (Signalized)	NBLTR	0.24	17.9	В	14.7	0.34	23.1	С	23.8
Victoria Street and Shuter Street (Signalized)	SBLTR	0.23	17.7	В	15.1	0.40	24.1	С	27.4
Victoria Street and Shuter Street (Signalized)	Overall	0.52	16.2	В	-	0.48	16.9	В	-

## Table 5-2: Summary of Traffic Operations at the Ontario Line South Study Area Intersections under Existing Conditions (2020) during the AM and PM Peak Hours

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Bay Street and Queen Street (Signalized)	EBTR	0.32	16.4	В	48.0	0.21	11.2	В	24.6
Bay Street and Queen Street (Signalized)	WBTR	0.39	15.7	В	45.3	0.28	11.8	В	32.5
Bay Street and Queen Street (Signalized)	NBTR	0.56	4.6	А	5.7	0.49	25.4	С	61.0
Bay Street and Queen Street (Signalized)	SBT	0.51	23.6	С	55.1	0.69	31.0	С	68.9
Bay Street and Queen Street (Signalized)	Overall	0.46	14.6	В	-	0.43	21.1	С	-
Bay Street and Richmond Street (Signalized)	WBLT	0.11	0.4	А	0.0	0.14	1.7	А	1.3
Bay Street and Richmond Street (Signalized)	WBR	0.05	0.7	А	m0.0	0.07	0.3	А	m0.0
Bay Street and Richmond Street (Signalized)	NBT	0.54	26.2	С	62.4	0.32	20.4	С	38.3
Bay Street and Richmond Street (Signalized)	SBT	0.45	13.5	В	20.7	0.36	41.2	D	61.7
Bay Street and Richmond Street (Signalized)	Overall	0.27	15.9	В	-	0.23	22.3	С	-
York Street and Richmond Street (Signalized)	WBTR	0.54	23.7	С	66.9	0.49	23.0	С	62.4
York Street and Richmond Street (Signalized)	NBL	0.35	28.7	С	m37.4	0.60	32.0	С	m60.0
York Street and Richmond Street (Signalized)	NBT	0.21	22.9	С	m32.4	0.17	21.8	С	m25.5
York Street and Richmond Street (Signalized)	SBR	0.03	17.2	В	0.1	0.05	17.5	В	3.5
York Street and Richmond Street (Signalized)	Overall	0.44	24.1	С	-	0.54	24.5	С	-
George Street and Adelaide Street (Signalized)	EBLTR	0.34	9.9	А	m55.9	0.48	11.0	В	91.2
George Street and Adelaide Street (Signalized)	NBT	0.08	27.0	С	11.7	0.18	28.2	С	22.5
George Street and Adelaide Street (Signalized)	NBR	0.01	26.3	С	3.1	0.02	26.4	С	5.7
George Street and Adelaide Street (Signalized)	SBTL	0.38	32.2	С	33.5	0.72	44.5	D	#70.5
George Street and Adelaide Street (Signalized)	Overall	0.35	12.8	В	-	0.55	16.2	В	-
Jarvis Street and Adelaide Street (Signalized)	EBL	0.16	16.2	В	15.7	0.45	21.2	С	44.4
Jarvis Street and Adelaide Street (Signalized)	EBT	0.54	20.3	С	69.6	0.82	27.3	С	122.8
Jarvis Street and Adelaide Street (Signalized)	EBR	0.14	16.0	В	11.9	0.08	15.3	В	4.6
Jarvis Street and Adelaide Street (Signalized)	NBT	0.79	33.8	С	93.5	0.69	29.9	С	80.5
Jarvis Street and Adelaide Street (Signalized)	SBLT	0.90	38.4	D	#109.7	0.88dl	13.4	В	38.8
Jarvis Street and Adelaide Street (Signalized)	Overall	0.75	30.0	С	-	0.74	24.7	С	-
Jarvis Street and Richmond Street (Signalized)	WBL	0.39	16.8	В	46.5	0.12	14.5	В	16.6
Jarvis Street and Richmond Street (Signalized)	WBT	0.84	25.5	С	137.1	0.68	21.6	С	98.5
Jarvis Street and Richmond Street (Signalized)	WBR	0.04	12.6	В	0.3	0.09	14.2	В	8.8
Jarvis Street and Richmond Street (Signalized)	NBLT	0.60	13.6	В	m43.1	0.60	29.2	С	70.9
Jarvis Street and Richmond Street (Signalized)	SBT	0.72	33.1	С	76.2	0.48	20.7	С	29.0
Jarvis Street and Richmond Street (Signalized)	Overall	0.78	24.0	С	-	0.67	22.8	С	-

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Church Street and Queen Street (Signalized)	EBLTR	0.30	4.2	А	7.3	0.42	4.3	А	15.7
Church Street and Queen Street (Signalized)	WBLTR	0.46	23.2	С	89.7	0.34	10.9	В	26.9
Church Street and Queen Street (Signalized)	NBLTR	0.74	26.1	С	57.9	0.70	20.1	С	18.4
Church Street and Queen Street (Signalized)	SBLTR	0.53	26.9	С	50.7	0.56	28.0	С	48.6
Church Street and Queen Street (Signalized)	Overall	0.56	21.3	С	-	0.54	14.8	В	-
Jarvis Street and Queen Street (Signalized)	EBTR	0.22	9.1	А	m17.9	0.48	19.0	В	64.7
Jarvis Street and Queen Street (Signalized)	WBTR	0.38	20.4	С	50.1	0.27	14.5	В	37.3
Jarvis Street and Queen Street (Signalized)	NBTR	0.40	35.8	D	57.1	0.49	11.9	В	37.8
Jarvis Street and Queen Street (Signalized)	SBTR	0.31	19.3	В	34.1	0.25	18.7	В	27.2
Jarvis Street and Queen Street (Signalized)	Overall	0.39	21.9	С	-	0.49	16.2	В	-
Sherbourne Street and Shuter Street (Signalized)	EBL	0.12	13.1	В	9.0	0.12	12.9	В	10.1
Sherbourne Street and Shuter Street (Signalized)	EBTR	0.30	14.4	В	36.7	0.79	26.1	С	#129.3
Sherbourne Street and Shuter Street (Signalized)	WBL	0.08	13.1	В	m7.3	0.20	20.0	В	m12.7
Sherbourne Street and Shuter Street (Signalized)	WBT	0.49	18.1	В	65.7	0.25	18.7	В	32.4
Sherbourne Street and Shuter Street (Signalized)	NBTR	0.49	19.7	В	59.1	0.53	20.5	С	67.2
Sherbourne Street and Shuter Street (Signalized)	SBTR	0.43	18.7	В	51.7	0.57	21.5	С	72.5
Sherbourne Street and Shuter Street (Signalized)	Overall	0.49	17.7	В	-	0.69	22.4	С	-
Adelaide Street and Sherbourne Street (Signalized)	EBLTR	0.39	10.8	В	41.9	0.52	12.1	В	60.9
Adelaide Street and Sherbourne Street (Signalized)	NBTR	0.64	32.3	С	75.7	0.65	32.0	С	81.5
Adelaide Street and Sherbourne Street (Signalized)	SBL	0.32	27.4	С	19.3	0.57	38.0	D	#34.9
Adelaide Street and Sherbourne Street (Signalized)	SBT	0.37	25.3	С	47.4	0.51	27.9	С	67.8
Adelaide Street and Sherbourne Street (Signalized)	Overall	0.48	17.6	В	-	0.56	18.8	В	_
Lower Jarvis Street and King Street (Signalized)	EBR	0.04	33.7	С	0.0	0.11	37.2	D	0.0
Lower Jarvis Street and King Street (Signalized)	WBL	0.74	54.1	D	#38.8	0.44	36.7	D	14.4
Lower Jarvis Street and King Street (Signalized)	WBR	0.08	15.6	В	5.5	0.08	16.2	В	5.0
Lower Jarvis Street and King Street (Signalized)	NBTR	0.66	22.2	С	70.3	0.68	23.5	С	72.1
Lower Jarvis Street and King Street (Signalized)	SBTR	0.62	21.3	С	70.0	0.30	17.6	В	30.7
Lower Jarvis Street and King Street (Signalized)	Overall	0.41	23.4	С	-	0.37	22.6	С	-
Church Street and Richmond Street (Signalized)	WBLTR	0.39	3.7	A	m11.9	0.29	5.4	A	13.5
Church Street and Richmond Street (Signalized)	NBLT	0.38	23.3	С	39.1	0.44	24.8	С	45.5
Church Street and Richmond Street (Signalized)	SBTR	0.47	22.0	С	39.9	0.38	20.2	С	33.8
Church Street and Richmond Street (Signalized)	Overall	0.42	13.2	В	-	0.35	15.1	B	

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Adelaide Street and Berkeley Street (Signalized)	EBLTR	0.32	5.8	А	33.1	0.45	6.7	А	54.7
Adelaide Street and Berkeley Street (Signalized)	NBTR	0.23	30.7	С	22.0	0.25	30.8	С	23.8
Adelaide Street and Berkeley Street (Signalized)	SBLT	0.31	31.5	С	26.5	0.33	31.7	С	26.3
Adelaide Street and Berkeley Street (Signalized)	Overall	0.32	9.7	Α	-	0.42	9.5	Α	-
Adelaide Street and Parliament Street (Signalized)	EBL	0.10	4.0	А	3.9	0.09	3.4	А	3.3
Adelaide Street and Parliament Street (Signalized)	EBTR	0.44	7.2	А	11.3	0.74	11.4	В	121.3
Adelaide Street and Parliament Street (Signalized)	NBTR	0.31	24.5	С	31.4	0.42	25.7	С	44.8
Adelaide Street and Parliament Street (Signalized)	SBLT	0.36	25.1	С	34.8	0.38	25.3	С	37.1
Adelaide Street and Parliament Street (Signalized)	Overall	0.41	14.1	В	-	0.63	15.9	В	-
Berkeley Street and King Street (Signalized)	EBTR	0.14	5.6	А	9.8	0.25	6.2	А	23.1
Berkeley Street and King Street (Signalized)	WBTR	0.25	6.2	А	22.0	0.14	5.7	А	13.8
Berkeley Street and King Street (Signalized)	NBLTR	0.26	25.7	С	17.5	0.36	26.5	С	28.5
Berkeley Street and King Street (Signalized)	SBLTR	0.32	26.1	С	24.4	0.22	25.3	С	20.0
Berkeley Street and King Street (Signalized)	Overall	0.27	10.2	В	-	0.28	10.4	В	-
King Street and George Street (Signalized)	EBTR	0.14	7.5	А	16.6	0.31	8.8	А	37.3
King Street and George Street (Signalized)	WBTR	0.27	7.1	А	25.8	0.19	6.6	А	17.2
King Street and George Street (Signalized)	NBLTR	0.27	24.5	С	24.4	0.36	25.3	С	31.9
King Street and George Street (Signalized)	SBLTR	0.29	24.7	С	28.3	0.39	25.6	С	36.3
King Street and George Street (Signalized)	Overall	0.28	10.9	В	-	0.34	11.9	В	-
Lower Jarvis Street and Front Street (Signalized)	EBL	0.17	28.3	С	m10.0	0.24	9.5	А	m6.5
Lower Jarvis Street and Front Street (Signalized)	EBTR	0.23	25.4	С	24.4	0.34	8.1	A	17.2
Lower Jarvis Street and Front Street (Signalized)	WBL	0.30	20.9	С	23.0	0.14	17.2	В	9.7
Lower Jarvis Street and Front Street (Signalized)	WBTR	0.40	20.2	С	46.2	0.41	19.0	В	48.1
Lower Jarvis Street and Front Street (Signalized)	NBLTR	0.60	19.6	В	57.2	0.50	18.6	В	53.2
Lower Jarvis Street and Front Street (Signalized)	SBLTR	0.60	19.1	В	72.2	0.32	16.2	В	32.1
Lower Jarvis Street and Front Street (Signalized)	Overall	0.51	20.4	С	-	0.45	15.6	В	-
Parliament Street and Front Street (Signalized)	EBL	0.14	13.4	В	8.5	0.16	13.3	В	11.9
Parliament Street and Front Street (Signalized)	EBTR	0.18	12.6	В	21.6	0.49	15.9	В	61.1
Parliament Street and Front Street (Signalized)	WBL	0.35	15.6	В	31.4	0.59	26.8	С	#38.7
Parliament Street and Front Street (Signalized)	WBTR	0.51	16.3	В	66.4	0.34	14.1	В	40.4
Parliament Street and Front Street (Signalized)	NBLTR	0.50	22.8	С	43.1	0.62	25.4	С	56.0
Parliament Street and Front Street (Signalized)	SBLTR	0.37	20.7	С	32.8	0.39	21.0	С	35.2
Parliament Street and Front Street (Signalized)	Overall	0.51	17.8	В	-	0.60	19.0	В	-

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Cherry Street and Front Street (Signalized)	EBL	0.02	21.3	С	3.1	0.05	17.9	В	6.2
Cherry Street and Front Street (Signalized)	EBT	0.13	22.1	С	14.6	0.34	20.2	С	41.2
Cherry Street and Front Street (Signalized)	EBR	0.02	21.3	С	0.0	0.06	18.0	В	4.2
Cherry Street and Front Street (Signalized)	WBL	0.11	22.0	С	9.3	0.20	19.1	В	16.2
Cherry Street and Front Street (Signalized)	WBTR	0.30	23.4	С	29.0	0.17	18.8	В	21.3
Cherry Street and Front Street (Signalized)	NBLT	0.19	4.4	А	3.1	0.21	14.6	В	38.5
Cherry Street and Front Street (Signalized)	NBR	0.31	33.2	С	6.0	0.50	39.6	D	20.7
Cherry Street and Front Street (Signalized)	SBTR	0.28	9.2	А	37.0	0.44	13.8	В	53.5
Cherry Street and Front Street (Signalized)	Overall	0.30	13.8	В	-	0.42	17.8	В	-
Lower Jarvis Street and The Esplanade (Signalized)	EBLTR	0.23	22.5	С	19.6	0.68	29.8	С	56.6
Lower Jarvis Street and The Esplanade (Signalized)	WBLTR	0.53	27.9	С	46.8	0.70	33.1	С	#48.8
Lower Jarvis Street and The Esplanade (Signalized)	NBLTR	0.51	11.3	В	47.5	0.34	9.0	A	32.0
Lower Jarvis Street and The Esplanade (Signalized)	SBLTR	0.49	10.8	В	54.0	0.19	7.8	А	19.4
Lower Jarvis Street and The Esplanade (Signalized)	Overall	0.54	13.7	В	-	0.48	16.4	В	-
Lower Sherbourne Street and The Esplanade (Signalized)	EBLTR	0.30	20.7	С	24.9	0.50	25.2	С	37.2
Lower Sherbourne Street and The Esplanade (Signalized)	WBLTR	0.36	21.6	С	29.3	0.47	24.2	С	35.4
Lower Sherbourne Street and The Esplanade (Signalized)	NBL	0.09	7.1	А	7.1	0.11	7.4	А	7.1
Lower Sherbourne Street and The Esplanade (Signalized)	NBTR	0.33	8.9	A	29.6	0.29	8.5	A	29.0
Lower Sherbourne Street and The Esplanade (Signalized)	SBL	0.03	6.7	А	2.7	0.03	5.9	А	m2.6
Lower Sherbourne Street and The Esplanade (Signalized)	SBTR	0.26	8.2	А	23.2	0.42	10.4	В	57.7
Lower Sherbourne Street and The Esplanade (Signalized)	Overall	0.34	12.5	В	-	0.45	14.5	В	-
Parliament Street and Mill Street (Signalized)	WBL	0.17	18.1	В	18.1	0.17	18.2	В	19.2
Parliament Street and Mill Street (Signalized)	WBR	0.08	17.4	В	9.5	0.09	17.6	В	9.8
Parliament Street and Mill Street (Signalized)	NBTR	0.36	11.9	В	30.7	0.45	12.8	В	37.5
Parliament Street and Mill Street (Signalized)	SBLT	0.30	11.5	В	24.3	0.47	13.1	В	39.3
Parliament Street and Mill Street (Signalized)	Overall	0.27	12.7	В	-	0.33	13.7	В	-
Cherry Street and Mill Street (Signalized)	EBL	0.09	17.6	В	9.8	0.13	17.9	В	12.7
Cherry Street and Mill Street (Signalized)	EBTR	0.14	17.9	В	16.3	0.32	19.3	В	35.0
Cherry Street and Mill Street (Signalized)	WBL	0.66	26.2	С	58.4	0.55	22.7	С	43.7
Cherry Street and Mill Street (Signalized)	WBTR	0.18	18.2	В	20.0	0.11	17.7	В	14.9
Cherry Street and Mill Street (Signalized)	NBL	0.11	14.9	В	11.3	0.10	14.8	В	8.2
Cherry Street and Mill Street (Signalized)	NBT	0.21	15.6	В	28.5	0.21	15.6	В	30.9
Cherry Street and Mill Street (Signalized)	SBL	0.25	37.6	D	m6.3	0.20	48.5	D	m3.2

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Cherry Street and Mill Street (Signalized)	SBTR	0.34	20.9	С	56.2	0.57	11.1	В	45.9
Cherry Street and Mill Street (Signalized)	Overall	0.50	20.8	С	-	0.59	16.0	В	-
Parliament Street and Shuter Street (Signalized)	EBL	0.13	9.2	А	m5.4	0.24	5.9	А	m9.3
Parliament Street and Shuter Street (Signalized)	EBTR	0.05	5.7	А	m2.0	0.50	9.0	A	m44.6
Parliament Street and Shuter Street (Signalized)	WBL	0.11	13.1	В	12.0	0.17	14.2	В	11.7
Parliament Street and Shuter Street (Signalized)	WBTR	0.44	16.8	В	57.2	0.14	13.3	В	18.4
Parliament Street and Shuter Street (Signalized)	NBLTR	0.48	18.3	В	38.3	0.42	17.2	В	36.8
Parliament Street and Shuter Street (Signalized)	SBLTR	0.31	15.9	В	27.9	0.28	15.6	В	25.0
Parliament Street and Shuter Street (Signalized)	Overall	0.46	16.2	В	-	0.46	13.3	В	-
Queen Street and Parliament Street (Signalized)	EBLTR	0.23	30.0	С	25.5	0.30	4.8	A	16.2
Queen Street and Parliament Street (Signalized)	WBLTR	0.51	26.4	С	50.6	0.13	7.4	А	14.0
Queen Street and Parliament Street (Signalized)	NBLTR	0.35	11.0	В	30.0	0.56	30.5	С	51.7
Queen Street and Parliament Street (Signalized)	SBLTR	0.27	10.2	В	24.4	0.46	28.9	С	41.0
Queen Street and Parliament Street (Signalized)	Overall	0.40	18.2	В	-	0.38	17.4	В	-
Sherbourne Street and Queen Street (Signalized)	EBLTR	0.17	6.4	A	10.1	0.37	8.2	A	56.0
Sherbourne Street and Queen Street (Signalized)	WBLTR	0.33	23.2	С	64.6	0.17	10.9	В	20.7
Sherbourne Street and Queen Street (Signalized)	NBL	0.19	22.7	С	13.9	0.17	23.5	С	11.6
Sherbourne Street and Queen Street (Signalized)	NBTR	0.51	26.9	С	67.0	0.53	28.0	С	67.6
Sherbourne Street and Queen Street (Signalized)	SBL	0.18	22.6	С	12.5	0.40	28.7	С	25.5
Sherbourne Street and Queen Street (Signalized)	SBTR	0.52	27.2	С	65.3	0.63	30.9	С	82.9
Sherbourne Street and Queen Street (Signalized)	Overall	0.40	21.9	С	-	0.46	18.4	В	-
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	EBLTR	0.45	37.1	D	51.5	0.48	34.8	С	63.8
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	WBLTR	0.60	33.9	С	80.0	0.55	35.7	D	69.9
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	NBL	0.00	36.9	D	1.7	0.03	38.1	D	2.8
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	NBTR	-	-	-	-	0.01	36.9	D	3.2
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	SBL	0.14	39.1	D	15.4	0.25	41.2	D	25.9
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	SBTR	0.50	46.8	D	56.0	0.97	86.6	F	#145.7
Lower Sherbourne Street and Lake Shore Boulevard East (Signalized)	Overall	0.52	36.2	D	-	0.65	44.7	D	-
Carlaw Avenue and Gerrard Street (Signalized)	EBLTR	0.20	11.1	В	14.9	0.76	25.3	С	64.9
Carlaw Avenue and Gerrard Street (Signalized)	WBLTR	0.76	14.5	В	79.2	0.56	32.0	С	49.5
Carlaw Avenue and Gerrard Street (Signalized)	NBLTR	0.25	15.2	В	18.5	0.38	11.6	В	28.9
Carlaw Avenue and Gerrard Street (Signalized)	SBLTR	0.52	18.2	В	43.5	0.61	22.5	С	42.4
Carlaw Avenue and Gerrard Street (Signalized)	Overall	0.65	15.2	В	-	0.65	23.0	С	-

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Pape Avenue and Gerrard Street/Gerrard Avenue (Signalized)	EBLTR	0.26	13.7	В	23.1	0.46	5.7	A	15.4
Pape Avenue and Gerrard Street/Gerrard Avenue (Signalized)	WBLTR	0.35	4.9	А	4.4	0.35	16.5	В	44.1
Pape Avenue and Gerrard Street/Gerrard Avenue (Signalized)	NBLTR	0.10	16.0	В	12.7	0.16	16.5	В	17.1
Pape Avenue and Gerrard Street/Gerrard Avenue (Signalized)	SBLTR	0.07	15.7	В	9.0	0.23	17.3	В	21.7
Pape Avenue and Gerrard Street/Gerrard Avenue (Signalized)	Overall	0.25	9.3	А	-	0.37	11.7	В	-
Gerrard Avenue and Marjory Avenue (Signalized)	EBLT	0.24	11.5	В	39.8	0.39	3.2	А	10.8
Gerrard Avenue and Marjory Avenue (Signalized)	WBTR	0.34	6.6	А	35.1	0.25	6.0	А	24.0
Gerrard Avenue and Marjory Avenue (Signalized)	NBL	0.12	20.8	С	10.3	0.31	22.4	С	18.4
Gerrard Avenue and Marjory Avenue (Signalized)	NBTR	0.03	20.2	С	5.9	0.09	20.6	С	10.0
Gerrard Avenue and Marjory Avenue (Signalized)	SBLTR	-	-	-	-	0.01	20.1	С	2.0
Gerrard Avenue and Marjory Avenue (Signalized)	Overall	0.28	9.2	А	-	0.37	6.1	A	-
Frederick Street and Front Street (Unsignalized)	EBLTR	0.04	2.0	А	-	0.06	1.7	A	-
Frederick Street and Front Street (Unsignalized)	WBLTR	0.04	1.1	А	-	0.06	2.1	А	-
Frederick Street and Front Street (Unsignalized)	NBLTR	0.17	21.8	С	-	2.43	940.5	F	-
Frederick Street and Front Street (Unsignalized)	SBLTR	0.29	34.5	D	-	3.04	Err	F	-
Frederick Street and Front Street (Unsignalized)	Overall	-	34.5	D	-	-	940.5	F	-
Adelaide Street and Ontario Street (Unsignalized)	EBT	0.19	0	А		0.30	0	A	-
Adelaide Street and Ontario Street (Unsignalized)	SBR	0.15	12.6	В	-	0.22	16.3	С	-
Adelaide Street and Ontario Street (Unsignalized)	Overall	-	12.6	В	-	-	16.3	С	-
Saulter Street and Queen Street (Unsignalized)	EBT	0.19	0	А	-	0.37	0	А	-
Saulter Street and Queen Street (Unsignalized)	EBR	0.01	0	А	-	0.10	0	А	-
Saulter Street and Queen Street (Unsignalized)	WBL	0.01	0.2	А	-	0.01	0.3	А	-
Saulter Street and Queen Street (Unsignalized)	NBLR	0.09	18.7	С	-	0.08	23.4	С	-
Saulter Street and Queen Street (Unsignalized)	Overall	-	18.7	С	-	-	23.4	С	-
Strathcona Avenue and Pape Avenue (Unsignalized)	EBLTR	0.15	21.7	С	-	0.07	12.6	В	-
Strathcona Avenue and Pape Avenue (Unsignalized)	WBLTR	0.30	22.3	С	-	0.11	15.9	С	-
Strathcona Avenue and Pape Avenue (Unsignalized)	NBLTR	0.18	0	A	-	0.21	0	A	-
Strathcona Avenue and Pape Avenue (Unsignalized)	SBLTR	0.27	0	A	-	0.17	0	A	-
Strathcona Avenue and Pape Avenue (Unsignalized)	Overall	-	22.3	С	-	-	15.9	С	-

Notes: #: 95<sup>th</sup> percentile cycle volume exceeds capacity, queue may be longer m: Volume for the 95<sup>th</sup> percentile queue is metered by an upstream signal dl: de facto left-turn lane

The critical movements are highlighted in grey and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or 'F'

## 5.1.2.3 Ontario Line North

The analysis findings of traffic operations at intersections within the Ontario Line North Study Area are summarized in **Table 5-3**.

The critical movements are highlighted in grey and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or worse. The detailed HCM 2000 reports from Synchro pertaining to the Existing Conditions analysis are presented in **Appendix H**.

As shown in **Table 5-3**, most of the Ontario Line North Study Area intersections, where traffic data was available, operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours.

However, in both peak hours, the intersections along Eglinton Avenue East at Don Mills Road operate at or above capacity, primarily due to the lane reductions from ongoing construction of the Eglinton Crosstown Light Rail Transit:

- At Don Mills Road, the movements approaching capacity are primarily the north-south through-movements, as well as advanced southbound and westbound left-turns. It is notable that the east-west through-movements are well under capacity. This is likely due to the widespread construction along a substantial segment of Eglinton Avenue East and West across the City that has been in place for the past few years. Construction on some parts of Eglinton not only limits the traffic volumes that eventually pass through Don Mills/Eglinton in the east-west direction but also encourages general traffic to seek alternate routes to divert away from Eglinton Avenue. Conversely, Don Mills Road does not have any other major disruptions aside from the construction at Eglinton. However, the north-south traffic tolerates congestion and higher delays at the intersection.
- The westbound left-turn at Don Mills Road and Eglinton Avenue East was
  previously allowed to turn during the green time for east-west through-traffic
  after yielding to oncoming traffic. However, during the Eglinton Crosstown
  Light Rail Transit construction, these left-turners became prohibited from
  turning during this phase, which has reduced the capacity of this movement.

At Don Mills Road and Overlea Boulevard, the northbound left is operating at capacity during both the AM and PM peak hours. This is likely due to the high volumes of traffic travelling to and from the Don Valley Parkway immediately to the south, with the northbound left movement representing traffic from the highway. Particularly during the AM peak, the northbound left traffic competes for green time with the southboundthrough movement.

At Don Mills Road and Wynford Drive, the southbound left operates overcapacity during the AM peak hour, and near capacity during the PM. Wynford Drive provides access to a number of employment land uses, as well as connections to the Don Valley Parkway east of the study area. The street also provides an alternative route to avoid the intersection of Don Mills Road/Eglinton Avenue East. These two factors contribute to the high traffic volumes for the southbound left-turn movement at Wynford Drive/Don Mills Road.

At Don Mills Road and Barber Greene Road/Green Belt Drive, the northbound shared through-right movement operates at above capacity during the PM peak hour. Green time given to traffic travelling along Don Mills Road is limited by the high volumes of vehicles and pedestrians activating the east-west phase. Furthermore, high left-turn volumes from every approach activates the advance left-turn green arrows, taking away green time from the north-south through-movements.

Along Overlea Boulevard, the east-west through movements operates at or above capacity at William Morgan Drive and at Thorncliffe Park Drive East (Beth Nealson Drive). This is due to the High-Occupancy Vehicle lane, which reduces capacity by almost half for general through-traffic. Furthermore, green time given to traffic travelling along Overlea Boulevard is limited by the high volumes of pedestrians activating the north-south phase.

East-west movements along Overlea Boulevard west of Thorncliffe Park Drive East are also well under capacity during both peak hours. However, during the AM peak, the southbound left-turn movement at Overlea Boulevard and Millwood Road approaches capacity.

Of the unsignalized intersections, the stop-controlled movements generally operate at acceptable levels of service. The exception is Overlea Boulevard/Leaside Park Drive where, there is a large increase in east-west free-flow traffic, which increases the delay for the stop-controlled movements.

Table 5-3:	Summary of Traffic	c Operations at the Ontario I	ine North Study Area Intersection	1s under Existing Conditions (2020) during
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Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	EBL	0.24	44.4	D	23.0	0.47	22.8	С	23.9
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	EBTR	0.29	44.9	D	34.2	0.17	26.1	С	16.2
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	WBL	0.69	57.9	E	51.2	0.42	22.4	С	27.5
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	WBTR	0.10	42.9	D	16.7	0.27	27.0	С	21.4
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	NBL	0.76	44.3	D	#52.9	0.43	14.4	В	19.8
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	NBTR	0.55	17.0	В	95.7	1.03	52.1	D	#210.9
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	SBL	0.94	61.9	E	#95.2	0.21	19.2	В	9.4
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	SBTR	0.72	17.5	В	166.3	0.58	21.5	С	81.6
Don Mills Road/Barber Greene Road/Green Belt Drive (Signalized)	Overall	0.90	23.9	С	-	0.76	37.2	D	-
Don Mills Road/Wynford Drive (Signalized)	WBL	0.21	45.8	D	28.5	0.42	48.4	D	56.3
Don Mills Road/Wynford Drive (Signalized)	WBR	0.30	0.5	A	0.0	0.39	0.8	A	0.0
Don Mills Road/Wynford Drive (Signalized)	NBTR	0.62	24.6	С	119.6	0.59	23.7	С	118.9
Don Mills Road/Wynford Drive (Signalized)	SBL	1.12	117.4	F	#186.1	0.96	71.9	E	#128.8
Don Mills Road/Wynford Drive (Signalized)	SBT	0.38	8.7	А	57.2	0.31	8.1	A	44.9
Don Mills Road/Wynford Drive (Signalized)	Overall	0.64	28.6	С	-	0.85	22.2	С	-
Don Mills Road/Eglinton Avenue East (Signalized)	EBTR	0.61	50.8	D	79.0	0.85	65.1	E	#105.6
Don Mills Road/Eglinton Avenue East (Signalized)	WBL	0.95	136.9	F	#65.0	0.88	126.0	F	#52.3
Don Mills Road/Eglinton Avenue East (Signalized)	WBT	0.35	35.2	D	52.5	0.24	34.9	С	39.6
Don Mills Road/Eglinton Avenue East (Signalized)	WBR	0.12	32.1	С	14.8	0.09	32.9	С	13.2
Don Mills Road/Eglinton Avenue East (Signalized)	NBL	0.53	30.0	С	23.8	0.45	24.9	С	18.0
Don Mills Road/Eglinton Avenue East (Signalized)	NBT	0.92	46.5	D	#229.3	0.92	48.2	D	#228.0
Don Mills Road/Eglinton Avenue East (Signalized)	NBR	0.12	23.3	С	13.4	0.24	26.4	С	31.9
Don Mills Road/Eglinton Avenue East (Signalized)	SBL	0.60	34.1	С	27.7	0.90	77.2	E	#84.5
Don Mills Road/Eglinton Avenue East (Signalized)	SBTR	0.95	52.3	D	#240.5	0.77	35.1	D	171.2
Don Mills Road/Eglinton Avenue East (Signalized)	Overall	0.82	48.2	D	-	0.92	46.9	D	-
Don Mills Road/St Dennis Drive (Signalized)	EBL	0.02	36.7	D	3.6	0.09	37.2	D	8.4
Don Mills Road/St Dennis Drive (Signalized)	EBTR	0.01	36.6	D	3.9	0.01	36.3	D	5.4
Don Mills Road/St Dennis Drive (Signalized)	WBLTR	0.29	39.3	D	22.8	0.40	40.3	D	34.2
Don Mills Road/St Dennis Drive (Signalized)	NBL	0.04	10.8	В	2.7	0.02	10.7	В	2.2
Don Mills Road/St Dennis Drive (Signalized)	NBTR	0.65	17.6	В	129.3	0.79	21.6	С	175.7

## the AM and PM Peak Hours

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Don Mills Road/St Dennis Drive (Signalized)	SBL	0.49	13.5	В	20.4	0.60	27.3	С	30.6
Don Mills Road/St Dennis Drive (Signalized)	SBTR	0.52	9.8	А	89.3	0.44	9.0	А	72.0
Don Mills Road/St Dennis Drive (Signalized)	Overall	0.55	15.6	В	-	0.67	19.3	В	-
Don Mills Road/Gateway Boulevard North (Signalized)	EBL	0.02	36.2	D	3.1	0.01	36.1	D	3.1
Don Mills Road/Gateway Boulevard North (Signalized)	EBTR	0.01	36.1	D	4.4	0.02	36.2	D	7.8
Don Mills Road/Gateway Boulevard North (Signalized)	WBL	0.50	42.5	D	56.1	0.52	42.9	D	60.7
Don Mills Road/Gateway Boulevard North (Signalized)	WBT	0.02	36.2	D	6.6	0.01	36.1	D	4.4
Don Mills Road/Gateway Boulevard North (Signalized)	WBR	0.15	37.6	D	20.2	0.16	37.7	D	22.3
Don Mills Road/Gateway Boulevard North (Signalized)	NBL	0.11	14.3	В	5.3	0.04	12.6	В	2.7
Don Mills Road/Gateway Boulevard North (Signalized)	NBTR	0.64	19.9	В	121.2	0.62	19.5	В	115.1
Don Mills Road/Gateway Boulevard North (Signalized)	SBL	0.75	33.7	С	#45.5	0.78	35.2	D	#51.2
Don Mills Road/Gateway Boulevard North (Signalized)	SBTR	0.54	12.1	В	89.5	0.49	11.3	В	78.8
Don Mills Road/Gateway Boulevard North (Signalized)	Overall	0.69	18.9	В	-	0.72	19.1	В	-
Don Mills Road/Overlea Boulevard (Signalized)	EBL	0.76	59.2	E	85.4	0.71	58.4	E	76.1
Don Mills Road/Overlea Boulevard (Signalized)	EBT	0.30	26.7	С	56.3	0.66	33.3	С	159.2
Don Mills Road/Overlea Boulevard (Signalized)	EBR	0.33	28.0	С	35.1	0.24	23.5	С	28.9
Don Mills Road/Overlea Boulevard (Signalized)	WBL	0.83	56.8	E	#90.1	0.37	30.5	С	25.9
Don Mills Road/Overlea Boulevard (Signalized)	WBT	0.82	64.2	E	#163.0	0.52	42.9	D	99.6
Don Mills Road/Overlea Boulevard (Signalized)	WBR	0.31	43.6	D	36.3	0.04	33.3	С	0.0
Don Mills Road/Overlea Boulevard (Signalized)	NBL	1.00	104.3	F	#79.5	0.98	99.7	F	#73.5
Don Mills Road/Overlea Boulevard (Signalized)	NBTR	0.49	39.7	D	78.2	0.76	49.3	D	120.5
Don Mills Road/Overlea Boulevard (Signalized)	SBL	0.20	30.7	С	15.1	0.41	36.5	D	20.3
Don Mills Road/Overlea Boulevard (Signalized)	SBT	0.84	53.2	D	152.2	0.76	51.8	D	130.6
Don Mills Road/Overlea Boulevard (Signalized)	SBR	0.72	30.0	С	90.4	0.75	34.7	С	130.8
Don Mills Road/Overlea Boulevard (Signalized)	Overall	0.83	48.8	D	-	0.84	45.9	D	-
Overlea Boulevard/William Morgan Drive (Signalized)	EBL	0.12	12.6	В	3.6	0.27	14.8	В	9.5
Overlea Boulevard/William Morgan Drive (Signalized)	EBT	0.91	31.3	С	#218.1	0.94	26.3	С	#322.2
Overlea Boulevard/William Morgan Drive (Signalized)	WBTR	0.96	37.8	D	#240.7	0.81	16.0	В	#250.8
Overlea Boulevard/William Morgan Drive (Signalized)	SBLR	0.05	23.6	С	9.8	0.22	32.8	С	21.8
Overlea Boulevard/William Morgan Drive (Signalized)	Overall	0.64	34.4	С	-	0.77	21.9	С	-
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	EBL	0.37	32.6	С	22.2	0.43	34.1	С	27.2

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	EBTR	0.79	39.1	D	#137.7	1.00	64.5	E	#227.5
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	WBL	0.64	19.3	В	49.4	0.77	39.3	D	#69.7
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	WBTR	0.77	23.7	С	142.1	0.71	22.0	С	138.8
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	NBL	0.16	25.8	С	19.3	0.31	26.8	С	25.2
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	NBT	0.20	26.1	С	31.4	0.14	24.8	С	22.7
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	NBR	0.38	28.3	С	40.2	0.18	25.1	С	15.1
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	SBL	0.53	30.9	С	60.2	0.63	33.1	С	70.5
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	SBTR	0.12	25.3	С	19.2	0.37	27.3	С	48.9
Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson) (Signalized)	Overall	0.70	28.3	С	-	0.81	38.0	D	-
Overlea Boulevard/East York Town Centre/Costco (Signalized)	EBL	0.10	7.7	А	7.3	0.48	11.2	В	23.3
Overlea Boulevard/East York Town Centre/Costco (Signalized)	EBTR	0.55	15.2	В	111.1	0.76	23.3	С	#179.7
Overlea Boulevard/East York Town Centre/Costco (Signalized)	WBL	0.18	7.5	A	11.1	0.45	13.0	В	18.0
Overlea Boulevard/East York Town Centre/Costco (Signalized)	WBT	0.53	14.2	В	102.2	0.63	19.2	В	119.1
Overlea Boulevard/East York Town Centre/Costco (Signalized)	NBL	0.04	30.6	С	5.3	0.17	29.6	С	16.3
Overlea Boulevard/East York Town Centre/Costco (Signalized)	NBTR	0.03	30.5	С	6.8	0.12	29.0	С	14.9
Overlea Boulevard/East York Town Centre/Costco (Signalized)	SBL	0.02	30.4	С	3.9	0.41	32.2	С	32.8
Overlea Boulevard/East York Town Centre/Costco (Signalized)	SBT	0	0	0	0	0.07	28.6	С	11.1
Overlea Boulevard/East York Town Centre/Costco (Signalized)	SBR	0.01	30.3	С	0.0	0.12	29.1	С	13.6
Overlea Boulevard/East York Town Centre/Costco (Signalized)	Overall	0.39	14.9	В	-	0.63	22.2	С	-
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	EBL	0.70	43.2	D	m#39.2	0.60	25.4	С	m19.2
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	EBT	0.61	28.4	С	m87.9	0.60	17.5	В	m82.9
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	EBR	0.15	25.4	С	m8.4	0.27	14.1	В	m15.0
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	WBL	0.20	20.8	С	11.9	0.46	23.6	С	24.3
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	WBTR	0.68	28.1	С	94.5	0.68	20.8	С	106.8
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	NBL	0.45	18.1	В	42.2	0.56	32.6	С	54.9
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	NBTR	0.14	15.9	В	19.2	0.18	23.3	С	24.2
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	SBL	0.21	24.0	С	22.7	0.36	26.8	С	36.8
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	SBTR	0.14	22.8	С	18.7	0.24	24.1	С	30.0
Overlea Boulevard/Thorncliffe Park Drive West (Signalized)	Overall	0.59	26.2	С	-	0.63	21.3	С	
Millwood Road/Overlea Boulevard (Signalized)	WBL	0.38	21.9	С	33.0	0.42	21.5	С	41.7
Millwood Road/Overlea Boulevard (Signalized)	WBR	0.41	8.4	А	33.1	0.40	10.3	В	37.5

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Millwood Road/Overlea Boulevard (Signalized)	NBT	0.94	40.6	D	#143.5	0.45	20.1	С	48.7
Millwood Road/Overlea Boulevard (Signalized)	NBR	0.56	4.6	А	m1.7	0.70	12.1	В	38.6
Millwood Road/Overlea Boulevard (Signalized)	SBL	0.96	68.9	E	#81.2	0.90	42.6	D	#81.6
Millwood Road/Overlea Boulevard (Signalized)	SBT	0.24	15.2	В	46.6	0.37	13.8	В	61.7
Millwood Road/Overlea Boulevard (Signalized)	Overall	0.83	26.3	С	-	0.83	18.2	В	-
Donlands Avenue/Millwood Road/Pape Avenue (Signalized)	WBR	0.38	15.6	В	45.6	0.43	16.3	В	47.6
Donlands Avenue/Millwood Road/Pape Avenue (Signalized)	NBTR	0.79	32.7	С	113.4	0.46	24.5	С	64.2
Donlands Avenue/Millwood Road/Pape Avenue (Signalized)	SBL	0.27	9.1	А	22.0	0.51	10.7	В	37.0
Donlands Avenue/Millwood Road/Pape Avenue (Signalized)	SBT	0.54	12.9	В	57.4	0.58	12.8	В	52.2
Donlands Avenue/Millwood Road/Pape Avenue (Signalized)	Overall	0.67	20.6	С	-	0.55	15.7	В	-
O'Connor Drive/Pape Avenue (Signalized)	EBLTR	0.55	24.6	С	40.1	0.56	20.4	С	46.4
O'Connor Drive/Pape Avenue (Signalized)	WBLTR	0.42	14.3	В	34.6	0.37	11.0	В	25.6
O'Connor Drive/Pape Avenue (Signalized)	NBLTR	0.86	37.6	D	#86.7	0.97	57.6	E	#102.7
O'Connor Drive/Pape Avenue (Signalized)	SBLTR	0.69	26.7	С	65.8	0.68	27.7	С	60.1
O'Connor Drive/Pape Avenue (Signalized)	Overall	0.67	26.1	С	-	0.69	30.4	С	-
Pape Avenue/Cosburn Avenue (Signalized)	EBL	0.28	26.4	С	15.8	0.28	25.5	С	18.4
Pape Avenue/Cosburn Avenue (Signalized)	EBTR	0.36	25.6	С	34.1	0.64	32.1	С	64.0
Pape Avenue/Cosburn Avenue (Signalized)	WBL	0.51	31.8	С	33.5	0.54	37.0	D	#29.4
Pape Avenue/Cosburn Avenue (Signalized)	WBTR	0.61	31.5	С	59.0	0.30	24.8	С	28.8
Pape Avenue/Cosburn Avenue (Signalized)	NBLTR	0.50	10.8	В	43.7	0.58	12.1	В	57.0
Pape Avenue/Cosburn Avenue (Signalized)	SBLTR	0.52	11.6	В	52.2	0.58	12.6	В	56.9
Pape Avenue/Cosburn Avenue (Signalized)	Overall	0.55	18.0	В	-	0.61	18.2	В	-
Pape Avenue/Floyd Avenue (Signalized)	EBLTR	0.12	25.6	С	11.4	0.14	25.8	С	13.2
Pape Avenue/Floyd Avenue (Signalized)	WBLTR	0.16	25.9	С	15.4	0.15	25.8	С	14.6
Pape Avenue/Floyd Avenue (Signalized)	NBLTR	0.37	13.5	В	m59.7	0.55	6.9	A	m35.7
Pape Avenue/Floyd Avenue (Signalized)	SBLTR	0.42	7.6	A	44.2	0.54	9.6	A	51.0
Pape Avenue/Floyd Avenue (Signalized)	Overall	0.35	11.9	В	-	0.45	9.8	A	-
Pape Avenue/Mortimer Avenue (Signalized)	EBL	0.55	41.3	D	#23.8	0.20	18.3	В	15.6
Pape Avenue/Mortimer Avenue (Signalized)	EBTR	0.41	22.4	С	46.3	0.81	32.6	С	#122.1
Pape Avenue/Mortimer Avenue (Signalized)	WBL	0.22	20.7	С	16.6	0.30	23.5	С	12.3
Pape Avenue/Mortimer Avenue (Signalized)	WBTR	0.85	38.9	D	#125.2	0.42	20.5	С	50.1

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Pape Avenue/Mortimer Avenue (Signalized)	NBLTR	0.65	17.6	В	62.7	0.85	28.7	С	#90.0
Pape Avenue/Mortimer Avenue (Signalized)	SBLTR	0.51	8.6	A	60.2	0.55	12.3	В	31.3
Pape Avenue/Mortimer Avenue (Signalized)	Overall	0.73	22.0	С	-	0.83	24.2	С	-
Pape Avenue/Lipton Avenue (Signalized)	EBLTR	0.02	10.9	В	3.6	0.03	9.5	A	1.7
Pape Avenue/Lipton Avenue (Signalized)	WBL	0.03	11.1	В	4.3	0.07	10.0	В	6.3
Pape Avenue/Lipton Avenue (Signalized)	WBTR	0.06	11.3	В	3.8	0.12	10.7	В	6.8
Pape Avenue/Lipton Avenue (Signalized)	NBLTR	0.47	37.0	D	60.9	0.60	20.9	С	m34.4
Pape Avenue/Lipton Avenue (Signalized)	SBLTR	0.57	26.3	С	60.9	0.50	27.1	С	50.4
Pape Avenue/Lipton Avenue (Signalized)	Overall	0.26	30.0	С	-	0.29	22.3	С	-
Pape Avenue/Danforth Avenue (Signalized)	EBL	0.67	38.9	D	#37.2	0.27	12.9	В	17.4
Pape Avenue/Danforth Avenue (Signalized)	EBTR	0.26	12.2	В	29.2	0.44	13.0	В	54.8
Pape Avenue/Danforth Avenue (Signalized)	WBL	0.29	14.0	В	20.5	0.27	13.6	В	14.5
Pape Avenue/Danforth Avenue (Signalized)	WBTR	0.65	17.5	В	91.6	0.31	11.7	В	34.2
Pape Avenue/Danforth Avenue (Signalized)	NBLTR	0.65	27.8	С	54.0	0.86	42.2	D	#78.5
Pape Avenue/Danforth Avenue (Signalized)	SBLTR	0.84	31.3	С	#78.2	0.98	50.1	D	#72.2
Pape Avenue/Danforth Avenue (Signalized)	Overall	0.74	21.8	С	-	0.63	26.6	С	-
Millwood Road/Redway Road/Village Station (Signalized)	EBL	0.21	42.5	D	9.6	0.18	34.6	С	15.1
Millwood Road/Redway Road/Village Station (Signalized)	EBTR	0.02	40.9	D	5.5	0.20	34.6	С	19.3
Millwood Road/Redway Road/Village Station (Signalized)	WBLTR	0.11	41.6	D	9.8	0.15	34.3	С	15.2
Millwood Road/Redway Road/Village Station (Signalized)	NBL	0.07	1.7	A	m1.3	0.40	14.5	В	#23.1
Millwood Road/Redway Road/Village Station (Signalized)	NBTR	0.56	3.3	A	m29.3	0.49	6.8	А	90.6
Millwood Road/Redway Road/Village Station (Signalized)	SBL	0.10	1.3	A	m0.8	0.11	7.8	А	m3.5
Millwood Road/Redway Road/Village Station (Signalized)	SBTR	0.30	1.1	A	15.3	0.59	9.6	А	m89.6
Millwood Road/Redway Road/Village Station (Signalized)	Overall	0.52	3.7	Α	-	0.52	10.5	В	-
Gateway Boulevard/Grenoble Drive (North) (Signalized)	EBL	0.29	19.0	В	18.8	0.41	20.4	С	30.7
Gateway Boulevard/Grenoble Drive (North) (Signalized)	EBT	0.11	15.7	В	10.1	0.08	15.4	В	8.1
Gateway Boulevard/Grenoble Drive (North) (Signalized)	WBLTR	0.13	15.9	В	9.8	0.13	15.8	В	10.4
Gateway Boulevard/Grenoble Drive (North) (Signalized)	NBLTR	0.31	14.6	В	25.5	0.28	14.0	В	26.8
Gateway Boulevard/Grenoble Drive (North) (Signalized)	SBL	0.18	13.0	В	15.7	0.05	11.7	В	5.6
Gateway Boulevard/Grenoble Drive (North) (Signalized)	SBTR	0.25	13.5	В	19.6	0.25	13.5	В	20.1
Gateway Boulevard/Grenoble Drive (North) (Signalized)	Overall	0.29	14.9	В	-	0.32	15.4	В	-

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	EBL	0.16	9.6	А	11.8	0.09	8.9	А	8.1
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	EBTR	0.17	9.3	A	15.2	0.17	9.4	А	17.2
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	WBL	0.40	12.7	В	29.8	0.32	11.6	В	23.7
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	WBTR	0.26	10.2	В	18.2	0.14	9.3	А	12.9
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	NBLT	0.34	18.1	В	28.4	0.28	17.1	В	25.4
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	NBR	0.17	16.8	В	12.2	0.20	15.1	В	13.0
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	SBLT	0.24	17.2	В	22.6	0.66	23.1	С	#56.0
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	SBR	0.02	15.7	В	3.7	0.20	15.1	В	15.2
St Dennis Drive/Deauville (Ferrand Drive East) (Signalized)	Overall	0.38	13.2	В	-	0.46	15.0	В	-
Gateway Boulevard/Grenoble Drive (South) (Signalized)	WBL	0.70	16.5	В	#60.4	0.33	10.0	А	22.3
Gateway Boulevard/Grenoble Drive (South) (Signalized)	WBR	0.10	8.3	A	6.4	0.03	7.7	А	3.6
Gateway Boulevard/Grenoble Drive (South) (Signalized)	NBTR	0.26	9.1	A	9.4	0.47	10.9	В	16.3
Gateway Boulevard/Grenoble Drive (South) (Signalized)	SBLT	0.28	9.2	A	12.6	0.17	8.5	А	8.6
Gateway Boulevard/Grenoble Drive (South) (Signalized)	Overall	0.49	11.9	В	-	0.40	10.3	В	-
Don Mills Road/Rochefort Drive (Unsignalized)	WBLTR	0.22	10.8	В	6.2	0.5	20.7	С	21.1
Don Mills Road/Rochefort Drive (Unsignalized)	NBTR	0.39	0	0	0	0.32	0	0	0
Don Mills Road/Rochefort Drive (Unsignalized)	SBL	0.04	12	В	1	0.01	13.2	В	0.3
Don Mills Road/Rochefort Drive (Unsignalized)	SBT	0.34	0	0	0	0.29	0	0	0
Don Mills Road/Rochefort Drive (Unsignalized)	Overall	-	12	В	-	-	20.7	С	-
Ferrand Drive West/Eglinton Avenue East (Unsignalized)	EBLR	0.18	9.3	A	4.9	0.07	8.8	А	1.7
Ferrand Drive West/Eglinton Avenue East (Unsignalized)	NBLT	0	0	0	0	0	0.8	А	0
Ferrand Drive West/Eglinton Avenue East (Unsignalized)	SBTR	0.01	0	0	0	0.01	0	0	0
Ferrand Drive West/Eglinton Avenue East (Unsignalized)	Overall	-	9.3	Α	-	-	8.8	Α	-
Ferrand Drive West/Rochefort Drive (Unsignalized)	EBLT	0.01	2	A	0.2	0	0.3	А	0.1
Ferrand Drive West/Rochefort Drive (Unsignalized)	WBTR	0.13	0	0	0	0.08	0	0	0
Ferrand Drive West/Rochefort Drive (Unsignalized)	SBLR	0.12	10.1	В	3	0.06	9.8	А	1.4
Ferrand Drive West/Rochefort Drive (Unsignalized)	Overall	-	10.1	В	-	-	9.8	Α	-
Pape Avenue/Gamble Avenue (Unsignalized)	EBLTR	0.34	31.4	D	10.6	0.27	29.7	D	7.9
Pape Avenue/Gamble Avenue (Unsignalized)	WBLTR	0.33	27.3	D	10.5	0.07	17.6	С	1.7
Pape Avenue/Gamble Avenue (Unsignalized)	NBLTR	0.14	1.7	0	1	0.17	1.7	0	1
Pape Avenue/Gamble Avenue (Unsignalized)	SBLTR	0.13	0.8	0	0.4	0.13	0.6	0	0.3

Intersection	Movement	AM Peak Hour Volume to capacity Ratio	AM Peak Hour Delay (sec)	AM Peak Hour Level of service	AM Peak Hour 95th Percentile Queue (metres)	PM Peak Hour Volume to capacity Ratio	PM Peak Hour Delay (sec)	PM Peak Hour Level of service	PM Peak Hour 95th Percentile Queue (metres)
Pape Avenue/Gamble Avenue (Unsignalized)	Overall	-	31.4	D	-	-	29.7	D	-
Pape Avenue/Sammon Avenue (Unsignalized)	WBLR	0.37	22.4	С	12.5	0.08	16.3	С	1.9
Pape Avenue/Sammon Avenue (Unsignalized)	NBTR	0.21	0	0	0	0.22	0	0	0
Pape Avenue/Sammon Avenue (Unsignalized)	SBLT	0.22	0.9	0	0.4	0.18	0.9	0	0.4
Pape Avenue/Sammon Avenue (Unsignalized)	Overall	-	22.4	С	-	-	16.3	С	-
Pape Avenue/Fulton Avenue (Unsignalized)	EBLR	0.06	19.6	С	1.4	0.06	13.9	В	1.5
Pape Avenue/Fulton Avenue (Unsignalized)	NBLT	0.24	2.5	0	1.5	0.24	1.4	0	0.7
Pape Avenue/Fulton Avenue (Unsignalized)	SBTR	0.23	0	0	0	0.17	0	0	0
Pape Avenue/Fulton Avenue (Unsignalized)	Overall	-	19.6	С	-	-	13.9	В	-
Pape Avenue/Aldwych (Unsignalized)	WBLR	0.17	14.2	В	4.5	0.06	17.2	С	1.5
Pape Avenue/Aldwych (Unsignalized)	NBTR	0.22	0	0	0	0.26	0	0	0
Pape Avenue/Aldwych (Unsignalized)	SBLT	0.21	1.6	0	0.8	0.18	1.5	0	0.7
Pape Avenue/Aldwych (Unsignalized)	Overall	-	14.2	В	-	-	17.2	С	-
Pape Avenue/Browning Avenue (Unsignalized)	EBLR	0.3	20.5	С	9.2	0.38	20.9	С	13.2
Pape Avenue/Browning Avenue (Unsignalized)	NBT	0.21	0	0	0	0.23	0	0	0
Pape Avenue/Browning Avenue (Unsignalized)	SBR	0.2	0	0	0	0.18	0	0	0
Pape Avenue/Browning Avenue (Unsignalized)	Overall	-	20.5	С	-	-	20.9	С	-
Overlea Boulevard/Leaside Park Drive (Unsignalized)	EBTR	0.28	0	0	0	0.38	0	0	0
Overlea Boulevard/Leaside Park Drive (Unsignalized)	WBL	0.04	9.5	A	0.8	0.15	21.7	С	3.8
Overlea Boulevard/Leaside Park Drive (Unsignalized)	WBT	0.21	0	0	0	0.26	0	0	0
Overlea Boulevard/Leaside Park Drive (Unsignalized)	NBLR	0.2	21.7	С	5.6	0.4	40.5	E	13.5
Overlea Boulevard/Leaside Park Drive (Unsignalized)	Overall	-	21.7	C	-	-	40.5	E	-
Strathcona Avenue and Pape Avenue (Unsignalized)	Overall	-	22.3	С	-	-	15.9	С	-

Notes: #: 95th percentile cycle volume exceeds capacity, queue may be longer

m: Volume for the 95th percentile queue is metered by an upstream signal

dl: de facto left-turn lane

The critical movements are highlighted in grey and are defined as those operating either with a volume to capacity ratio in excess of 0.84 or at level of service 'E' or 'F'

## 5.2 Qualitative Analysis

## 5.2.1 Ontario Line West

The following intersections within the Ontario Line West Study Area were qualitatively assessed as discussed in **Section 2.2.3**:

- Queen Street West and Spadina Avenue;
- Queen Street West and Bathurst Street;
- Richmond Street West and Bathurst Street;
- Richmond Street West and Spadina Avenue;
- Richmond Street West and Peter Street;
- Richmond Street West and Duncan Street;
- Richmond Street West and Portland Street;
- Richmond Street West and Brant Street;
- King Street West and Bathurst Street;
- King Street West and Niagara Street;
- King Street West and Tecumseth Street;
- King Street West and Dufferin Street;
- Bathurst Street and Niagara Street; and
- Bathurst Street and Front Street West.

Generally, all major corridors within the Ontario Line West Study Area provide good lane continuity for through movements with the exception of the King Street Transit Priority Corridor (i.e., the King Street section between Bathurst Street and Jarvis Street) where through movements are generally prohibited. Cycle tracks are provided along Richmond Street for cyclists traveling in the westbound direction along with cross-rides available at the Richmond Street intersections facilitating cyclists' crossing. High visibility painted crosswalks and standard transverse crosswalks are provided across all legs of the intersections. Where information was available, it was found that traffic queues at adjacent downstream intersections do not extend to the intersections upstream, with the exception of the intersection of Richmond Street and Portland Street where the northbound queues at the downstream intersection in the PM peak hour. The qualitative analysis results are provided in **Table 5-4**.

Table 5-4:	Summar	y of the Ontario Lin	e West Qualitative	<b>Analysis Findings</b>
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Signalized Intersection	Lane configuration	Active Transportation Facilities	Transit Services
Queen Street West and Spadina Avenue	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The left-turning movements from Queen Street to Spadina Avenue are prohibited during the peak periods.</li> </ul>	<ul> <li>Shared lane markings along either side of Spadina Avenue</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>A dedicated Right of Way streetcar facility provided along Spadina Avenue. The 510 Spadina streetcar route has both northbour and southbound stops located far-side at t intersection.</li> <li>A shared automobile and streetcar lane is provided along Queen Street. The 501 Queen streetcar route has both eastbound and westbound stops located nearside at t intersection, causing potential blockages to traffic at the respective approaches.</li> </ul>
Queen Street West and Bathurst Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>All left-turning movements are prohibited from 7:00 AM to 7:00 PM.</li> </ul>	<ul> <li>Lack of cycling facilities on all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	A shared automobile and streetcar lane is provided along Bathurst Street and Queen Street. The 511 Bathurst streetcar route ha both northbound and southbound stops located nearside at the intersection. The 5 Queen streetcar route has both eastbound and westbound stops located nearside at t intersection. The noted transit stops may cause potential blockages to traffic at the respective approaches.
Richmond Street and Bathurst Street	<ul> <li>The intersection provides good lane continuity to the northbound and southbound through traffic as the westbound through movement is prohibited.</li> </ul>	<ul> <li>Pocket bike lane is provided on the westbound approach along Richmond Street. A curb bike lane along Bathurst Street is initiated at the south leg of the intersection. Cyclists' crossing is also facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along Bathurst Street where the 511 Bathurst streetcar route runs in a north south direction. The noted route does not have stops at the intersection.</li> </ul>
Richmond Street West and Spadina Avenue	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The left-turning movements from Spadina Avenue to Richmond Street are prohibited at all times.</li> </ul>	<ul> <li>Shared lane markings are provided along either side of Spadina Avenue. A cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>Standard transverse crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>A dedicated streetcar facility is provided along Spadina Avenue. The 510 Spadina streetcar route has both northbound and southbound stops located nearside at the intersection.</li> </ul>

	Impact of Adjacent Intersection
is nd he he	Queue lengths at downstream intersections are not available
as 01 he	Queue lengths at downstream intersections are not available
٦-	The southbound queues at the downstream intersection of Adelaide Street and Bathurst Street are not expected to spillover and block the intersection.
	The southbound queues at the downstream intersection of Spadina Avenue and Adelaide Street do not spillover and block the intersection.

Signalized Intersection	Lane configuration	Active Transportation Facilities	Transit Services
Richmond Street West and Peter Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The southbound left-turn movement is prohibited at all times.</li> </ul>	<ul> <li>Cycle tracks are provided at all approaches to the intersection. Cyclists' crossing is facilitated through cross-rides located across the north, east, and west legs of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit route.</li> </ul>
Richmond Street West and Duncan Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The southbound left-turn and northbound right-turn movements are prohibited at all times.</li> </ul>	<ul> <li>Cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not crossed by any existing transit route</li> </ul>
Richmond Street West and Portland Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The southbound left-turn and northbound right-turn movements are prohibited at all-times.</li> </ul>	<ul> <li>Cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not crossed by any existing transit route</li> </ul>
Richmond Street West and Brant Street	<ul> <li>A three-legged intersection where Brant Street does not extend beyond Richmond Street. The intersection provides lane continuity for the eastbound and westbound through movements.</li> <li>The northbound right-turn movement is prohibited at all-times.</li> </ul>	<ul> <li>Cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not crossed by any existing transit route</li> </ul>
King Street West and Bathurst Street	<ul> <li>The intersection provides good lane continuity for the northbound and southbound through movements.</li> <li>The eastbound through, westbound left-turn, and westbound through movements are prohibited at all-times. The southbound and northbound left-turning movements are prohibited during peak periods.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>The intersection is part of the King Street Transit Corridor.</li> <li>Shared automobile and streetcar lanes are provided along King Street and Bathurst Street. The 504 King streetcar route has an eastbound stop located nearside of the intersection and a westbound stop located far-side at the intersection. The 511 Bathurs streetcar route has both northbound and southbound stops located nearside at the intersection. Express Bus #145 also crosse the intersection with a northbound stop located nearside and a southbound stop located far-side. These stops cause potentic blockages to traffic at the respective approaches.</li> </ul>

		Impact of Adjacent Intersection
	•	Both the southbound queues at the downstream intersection of Adelaide Street and Peter Street and the northbound queues at the downstream intersection of Queen Street and Peter Street do not spillover and block the intersection.
		The westbound queues at the downstream intersection of Richmond Street and John Street do not spillover and block the intersection.
		The northbound queues at the downstream intersection of Queen Street and Portland Street could spillover and block the intersection in the PM peak hour.
		The southbound queues at the downstream intersection of Adelaide Street and Brant Street do not spillover and block the intersection
ו		The northbound queues at the downstream intersection of Adelaide Street and Bathurst Street do not spillover and block the intersection
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Signalized Intersection	Lane configuration	Active Transportation Facilities	Transit Services
King Street West and Niagara Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The eastbound and westbound left-turn movement are prohibited during peak periods.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection but appear to be faded.</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along King Street. The 504 King streetcar route has both eastbound and westbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> </ul>
King Street West and Tecumseth Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The eastbound and westbound left-turn movement are prohibited during peak periods.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>Standard transverse crosswalks are provided across all legs of the intersection but appear to be faded.</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along King Street. The 504 King streetcar route has both eastbound and westbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> </ul>
King Street West and Dufferin Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>All movements are allowed</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>Standard transverse crosswalks are provided across the south and east legs and high visibility painted crosswalks are provided across the north and west legs.</li> </ul>	A shared automobile and streetcar lane is provided along King Street. The 504 King streetcar route has both eastbound and westbound stops located nearside at the intersection. The Dufferin Bus #29 route crosses the intersection with both northbound and southbound stops located nearside at the intersection. The noted transit stops cause potential blockages to traffic at the respective approaches.
Bathurst Street and Niagara Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>The northbound left-turn and southbound right-turn are prohibited at all-times.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	A shared automobile and streetcar lane is provided along King Street. The 504 King streetcar route has both eastbound and westbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches. The Express Bus #145 also crosses the intersection in a north-south direction but does not have stops at the intersection.
Bathurst Street and Front Street West	<ul> <li>A three-legged intersection where Front Street does not extend beyond Bathurst Street. The intersection provides good lane continuity for the northbound and southbound through movements.</li> <li>Right-turn on red is prohibited for the westbound right-turn movement.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across the north and east legs of the intersection.</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along King Street. The 504 King streetcar route as well as the Express Bus #145 cross the intersection in a north-sout direction but both routes do not have designated stops at the intersection.</li> </ul>

	Impact of Adjacent Intersection
	<ul> <li>Queue lengths at downstream intersections are not available</li> </ul>
D	
	<ul> <li>Queue lengths at downstream intersections are not available</li> </ul>
C	
	<ul> <li>The southbound queues at the downstream intersection of Dufferin Street and Liberty Street do not spillover and block the intersection</li> </ul>
D	<ul> <li>Queue lengths at downstream intersections are not available</li> </ul>
h	<ul> <li>Queue lengths at downstream intersections are not available</li> </ul>

## 5.2.2 Ontario Line South

The following intersections within the Ontario Line South Study Area were qualitatively assessed as discussed in **Section 2.2.3**:

- Queen Street West and York Street;
- Shuter Street and Jarvis Street;
- Richmond Street East and George Street;
- Richmond Street East and Sherbourne Street;
- Richmond Street East and Berkeley Street;
- Richmond Street East and Parliament Street;
- Adelaide Street East and Frederick Street;
- King Street East and Sherbourne Street;
- King Street East and Parliament Street;
- Front Street East and George Street;
- Front Street East and Lower Sherbourne Street;
- Front Street East and Princess Street;
- Front Street East and Berkeley Street;
- Front Street West and Bay Street;
- Lake Shore Boulevard East and Lower Jarvis Street;
- Lake Shore Boulevard East and Parliament Street; and
- Eastern Avenue and Broadview Avenue.

Generally, all major corridors within the Ontario Line South Study Area provide good lane continuity for all movements with the exception of a few left-turn restrictions along King Street and Queen Street. Cycle tracks are provided along Richmond Street, Adelaide Street, and Sherbourne Street with cross-rides installed at the intersections along the noted roads. High visibility painted crosswalks and standard transverse crosswalks are provided across all legs of the intersections. Where information was available, it was found that traffic queues at adjacent downstream intersections do not extend to the intersections upstream, with the exception of the intersection of Adelaide Street where the eastbound queues at the downstream intersection of Adelaide Street and Sherbourne Street could spillover and block the intersection in the PM peak hour. The qualitative analysis results are provided in **Table 5-5**.

# Table 5-5: Summary of the Ontario Line South Qualitative Analysis Findings

Signalized Intersection	Lane Configuration	Active Transportation Facilities	Transit Services
Queen Street West and York Street	<ul> <li>A three-legged signalized intersection where York Street terminates at Queen Street. The intersection provides good lane continuity for the east-west direction of travel (eastbound and westbound through movements).</li> <li>Left-turning movement to York Street is prohibited during weekdays from 7:00 AM to 7:00 PM, and on Saturdays from 7:30 AM to 6:30 PM.</li> </ul>	<ul> <li>Lack of cycling facilities on all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along Queen Street. The 501 Queen streetcar route has both eastbound and westbound stops located nearside at th intersection, causing potential delays to traffic on the respective approaches.</li> </ul>
Shuter Street and Jarvis Street	<ul> <li>The intersection provides good lane continuity to all through movements (no lane terminations/conversions at the intersection).</li> </ul>	<ul> <li>On-street bike lanes are provided along either side of Shuter Street. Cyclists' crossing is facilitated through cross-rides located across the north and south legs of the intersection.</li> <li>High visibility painted crosswalks are provided across the east and west legs and standard transverse crosswalks are provided across the north and south legs.</li> </ul>	<ul> <li>Express Bus #141 crosses the intersection along Jarvis Street in the north-south direction. The noted route does not have stops at the intersection.</li> </ul>
Richmond Street East and George Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>A cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit routes.</li> </ul>
Richmond Street East and Sherbourne Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Cycle tracks are provided at the westbound approach along Richmond Street and at the northbound and southbound approaches along Sherbourne Street. Cyclists' crossing is facilitated through cross-rides located across the north, east, and west legs of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #75 crosses the intersection along Sherbourne Street in the north-south direction. The noted route does not have stops at the intersection.</li> </ul>
Richmond Street East and Berkeley Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>A cycle track is provided at the westbound approach along Richmond Street. Cyclists' crossing is facilitated through cross-rides located across the north leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit route.</li> </ul>

	Impact of Adjacent Intersection
s nd t the	<ul> <li>Based on a qualitative analysis results from the adjacent intersection, the westbound queues at the downstream intersection of Queen Street and University Avenue are not expected to spillover and block the intersection.</li> </ul>
n	<ul> <li>Based on a qualitative analysis results from the adjacent intersection the eastbound queues at the upstream intersection of Shuter Street and Sherbourne Street are not expected to spillover and block the intersection.</li> </ul>
	<ul> <li>Based on a qualitative analysis results from the adjacent intersection, the westbound queues at the downstream intersection of Richmond Street and Jarvis Street could spillover and block the intersection in the AM peak hour.</li> </ul>
	<ul> <li>Traffic data to determine anticipated queue lengths at downstream intersections were not available.</li> </ul>
	<ul> <li>Traffic data to determine queue lengths at downstream intersections were not available.</li> </ul>

Signalized Intersection	Lane Configuration	Active Transportation Facilities	Transit Services	Impact of Adjacent Intersection
Richmond Street East and Parliament Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>A cycle track along Richmond Street is initiated at the east leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #65 crosses the intersection along Parliament Street in the north-south direction. The route has both northbound and southbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>Express Bus #143 makes a westbound left movement at the intersection, but the bus route does not have designated stops at the intersection.</li> </ul>	<ul> <li>Traffic data to determine queue lengths at downstream intersections were not available.</li> </ul>
Adelaide Street East and Frederick Street	<ul> <li>A three-legged intersection where Frederick Street terminates at Adelaide Street. The intersection provides good lane continuity for the east-west direction of travel (eastbound and westbound through movements).</li> </ul>	<ul> <li>A cycle track is provided at the eastbound approach along Adelaide Street. Cyclists' crossing is facilitated through cross-rides located across the south leg of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit route.</li> </ul>	<ul> <li>Based on a qualitative analysis results from the adjacent intersection, the eastbound queues at the downstream intersection of Adelaide Street and Sherbourne Street could spillover and block the intersection in the PM peak hour.</li> </ul>
King Street East and Sherbourne Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>All left-turning movements are prohibited during weekdays from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM.</li> </ul>	<ul> <li>Cycle tracks are provided at the northbound and southbound approaches along Sherbourne Street. Cyclists' crossing is facilitated through cross-rides located across the east and west legs of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>A shared automobile and streetcar lane is provided along King Street. The 503 Kingston Road streetcar and 504 King streetcar routes have both eastbound and westbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches</li> <li>Bus #75 crosses the intersection along Sherbourne Street in the north-south direction. The route has both northbound and southbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>Express Bus #142 and Express Bus #145 make eastbound right turn movement at the intersection and Express Bus #143 and Express Bus # 144 cross the intersection along King Street in the east-west direction, but all four bus routes do not have designated stops at the intersection.</li> </ul>	<ul> <li>Traffic data to determine queue lengths at downstream intersections were not available.</li> </ul>

Traffic and Transportation Environmental Conditions Report

Ontario Line Project

Signalized Intersection	Lane Configuration	Active Transportation Facilities	Transit Services	Impact of Adjacent Intersection
King Street East and Parliament Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>Northbound and southbound left-turning movements are prohibited during weekdays from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #65 crosses the intersection along Parliament Street in the north-south direction. The route has both northbound and southbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>A shared automobile and streetcar lane is provided along King Street. The 503 Kingston Road streetcar and 504 King streetcar routes have both eastbound and westbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>Express Bus #143 and #144 cross the intersection along King Street in the east- west direction. The routes have both eastbound and southbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> </ul>	<ul> <li>Based on a qualitative analysis results from the adjacent intersection, the westbound queues at the downstream intersection of King Street and Berkeley Street are not expected to spillover and block the intersection.</li> </ul>
Front Street East and George Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit route.</li> </ul>	<ul> <li>Based on a qualitative analysis results from the adjacent intersection, the westbound queues at the downstream intersection of Front Street and Jarvis Street are not expected to spillover and block the intersection.</li> </ul>
Front Street East and Lower Sherbourne Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Cycle tracks are provided at the northbound and southbound approaches along Sherbourne Street. Cyclists' crossing is facilitated through cross-rides located across the east and west legs of the intersection.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection</li> </ul>	<ul> <li>Bus #75 crosses the intersection along Sherbourne Street in the north-south direction. The route has both northbound and southbound stops located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>Express Bus #142 makes an eastbound right turn movement at the intersection, but the bus route does not have designated stops at the intersection.</li> </ul>	<ul> <li>Traffic data to determine queue lengths at downstream intersections were not available.</li> </ul>
Front Street East and Princess Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Express Bus #142 crosses the intersection along Front Street in the eastbound direction, but the bus route does not have designated stops at the intersection.</li> </ul>	<ul> <li>Traffic data to determine queue lengths at downstream intersections were not available.</li> </ul>

Signalized Intersection	Lane Configuration	Active Transportation Facilities	Transit Services
Front Street East and Berkeley Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> <li>Westbound Left-turning movement to Berkeley Street is prohibited during weekdays from 7:00 AM to 9:00 AM.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #65 crosses the intersection along Berkeley Street in the northbound and westbound direction. The route has a northbound stop and a westbound stop located nearside at the intersection, causin potential blockages to traffic at the respective approaches.</li> <li>Bus #121 crosses the intersection along Berkeley Street in the north-south direction The route has a northbound stop located nearside at the intersection and a southbound stop located far side at the intersection, causing potential blockages to traffic at the respective approaches.</li> <li>Express Bus #142 makes a northbound lei turn movement at the intersection. The rou- has a northbound stop located nearside at the intersection, causing potential blockage to traffic at the respective approaches.</li> </ul>
Front Street West and Bay Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #6 crosses the intersection along Bay Street in the northbound and southbound direction. The route has a northbound stop located nearside at the intersection, causin potential blockages to traffic at the respective approach.</li> <li>Bus #97 crosses the intersection along Ba Street in the northbound and southbound direction, but the bus route does not have designated stops at the intersection.</li> <li>Union Station is located in the southwest quadrant of the intersection, which provide connection to other transportation services including Union Pearson Express, VIA Rai Canada, and GO Transit.</li> </ul>
Lake Shore Boulevard East and Lower Jarvis Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Bus #75 crosses the intersection along Sherbourne Street in the north-south direction. The route has both stop located nearside at the intersection, causing potential blockages to traffic at the respective approaches.</li> </ul>

		Impact of Adjacent Intersection
ng	-	Based on a qualitative analysis results from the adjacent intersection, the eastbound queues at the downstream intersection of Front Street and Parliament Street are not expected to spillover and block the intersection.
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ft ite		
es		
y y		Traffic data to determine queue lengths at downstream intersections were not available.
, 		
		Queue lengths at downstream intersections are not available.
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Signalized Intersection	Lane Configuration	Active Transportation Facilities	Transit Services	Impact of Adjacent Intersection
Lake Shore Boulevard East and Parliament Street	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>High visibility painted crosswalk is provided across the east leg of the intersection and standard transverse crosswalks are provided across the north, south, and west legs.</li> </ul>	<ul> <li>The intersection is not serviced by any existing transit route.</li> </ul>	<ul> <li>Queue lengths at downstream intersections are not available.</li> </ul>
Eastern Avenue and Broadview Avenue	<ul> <li>The intersection provides good lane continuity to all through movements.</li> </ul>	<ul> <li>Lack of cycling facilities at all intersection approaches.</li> <li>Standard transverse crosswalks are provided across all legs of the intersection.</li> </ul>	<ul> <li>Express Bus #143 crosses the intersection along Eastern Avenue in the east-west direction, but the bus route does not have designated stops at the intersection.</li> </ul>	<ul> <li>Queue lengths at downstream intersections are not available.</li> </ul>

## 5.2.3 Ontario Line North

Within the Ontario Line North Study Area, data were available for all road segments and intersections identified in **Section 3.3**; therefore, a qualitative analysis was not required to supplement the quantitative analysis presented in **Section 5.1.1.3** and **Section 5.1.2.3**.

## 6. Transit Network and Operations

## 6.1 Transit Network

#### 6.1.1 Ontario Line West

The Ontario Line West Study Area is connected to the rest of the City through bus and streetcar routes operated by Toronto Transit Commission. The number, name, and description of the Toronto Transit Commission bus and streetcar routes servicing the Ontario Line West Study Area and their schedules as per the information obtained from the City's website are summarized in **Table 6-1**. The noted bus and streetcar routes are illustrated in **Figure 6-1**.

## Table 6-1: Transit Routes Servicing the Ontario Line West Study Area

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#29 – Dufferin</b> bus route operates between Wilson Station on Line 1 Yonge-University and Exhibition Place, generally in a north-south direction. It also serves Dufferin Station on Line 2 Bloor-Danforth. Two services are operated: the <b>29A (Wilson Station- Exhibition/Dufferin Gate)</b> and the <b>29C (Wilson Station-Exhibition/Princes' Gate)</b> . The 29A operates during the midday and evening from Monday to Friday, and during the evening on Saturdays, Sundays, and holidays during the Fall and Winter. It is part of the 10-minute network, and operates at 10-minute or better headways, all day, every day. During the Spring and Summer, the 29A branch operates at all times, seven days a week. The 29C branch operates during the peak periods from Monday to Friday, and during the daytime on Saturdays, Sundays, and holidays during the Fall and Winter. The bus service mainly operates along Dufferin Street with nearside northbound and southbound stops located at the studied intersection of Dufferin Street and Liberty Street.	5 :00 AM – 3:00 AM	8-minute
<b>#63 – Ossington</b> bus route operates between Eglinton West Station on Line 1 Yonge- University and King Street West and the Liberty Village, generally in a north-south direction. It also serves Ossington Station on Line 2 Bloor-Danforth. Two services are operated: the <b>63A (Eglinton West Station-Liberty Village)</b> and the <b>63B (St Clair- Liberty Village)</b> . The 63A operates at all times, seven days a week. The 63B operates during the peak periods, from Monday to Friday only and it is part of the 10-minute network where it operates at 10-minute or better headways, all day, every day. The bus service mainly operates along Ossington Avenue, Strachan Avenue, and East Liberty Street with nearside southbound stop located at the studied intersection of Strachan Avenue and East Liberty Street.	5:00 AM – 2:00 AM	4-minute in the AM peak hour 5-minute in the PM peak hour
<b>#121 – Fort York-Esplanade</b> bus route operates between Exhibition Place, the Fort York neighbourhood and the Distillery neighbourhood, and, in the summer, between Ontario Place, the Fork York neighbourhood and Clarke Beach Park (Cherry Beach), generally in an east-west direction. All buses serve Union Station on Line 1, and the Fort York, City Place, Esplanade, and Distillery neighbourhoods. Two services are operated: the <b>121A (Exhibition (Princes' Gates)-Distillery via Union Station)</b> branch	6:00 AM – 1:00 AM	16-minute in the AM peak hour 26-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
operates all day, every day outside the summer months. The <b>121D (Ontario Place-Cherry Beach via Union Station and Distillery)</b> seasonal branch operates from mid-May to mid-October. The bus service mainly operates along Cherry Street, Front Street, The Esplanade, and Fort York Boulevard with multiple eastbound and westbound stops within the Ontario Line South Study Area at The Esplanade intersections with Lower Jarvis Street, and Lower Sherbourne Street. The bus service also has multiple stops at Front Street intersections with, Parliament Street, and Cherry Street, and at the intersection of Mills Street and Cherry Street.		
<b>#141 – Downtown / Mount Pleasant Express</b> bus route operates between the intersection of Charlotte Street and King Street and the intersection of Mount Pleasant Road and Eglinton Avenue, generally in a north-south direction. The bus service is extended to operate from the intersection of Mount Pleasant Road and Lawrence Avenue for the first three trips of the morning and both trips in the afternoon. The bus service mainly operates along the King Street Transit Priority Corridor, Jarvis Street, and Mount Pleasant Road. Within the Ontario Line West Study Area, the bus route has a northbound express stop located far-side at the intersection of King Street and Simcoe Street and a southbound express stop located nearside at the intersection of King Street and Peter Street.	7:00 AM – 6:00 PM	15-minute in the AM peak hour 30-minute in the PM peak hour
<b>#142 – Downtown / Avenue Road Express</b> bus route operates between the intersection of Berkeley Street and King Street and Bombay loop located northeast of the Highway 401 and Avenue Road interchange, generally in a north-south direction. The bus service mainly operates along the section of King Street Transit Priority Corridor between University Avenue and Jarvis Street, University Avenue, and Avenue Road. Within the Ontario Line West Study Area, the bus route has northbound express stops located far-side at the intersection of University Avenue and Adelaide Street and the intersection of University Avenue and Queen Street and southbound express stops located nearside at the intersection of University Avenue and Roue Street and the intersection of University Avenue and Adelaide Street and the intersection of University Avenue and Roue Street and southbound express stops located nearside at the intersection of University Avenue and Roue Street and the intersection of University Avenue and Adelaide Street and the intersection of University Avenue and Roue Street and the intersection of University Avenue and Roue Street and the intersection of University Avenue and Roue Street and Street and Street and the intersection of University Avenue and Roue Street and the intersection of University Avenue and Adelaide Street.	6:00 AM – 7:00 PM	30-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#143 – Downtown / Beach Express</b> bus route operates between the intersection of Charlotte Street and King Street and the Neville Park Loop, generally in an east-west direction. The bus service mainly operates along the King Street Transit Priority Corridor, Queen Street East, Eastern Avenue, and Richmond Street East. Within the Ontario Line West Study Area, the bus route has an eastbound express stop located far-side at the intersection of King Street and Simcoe Street and a westbound express stop located nearside at the intersection of King Street and Peter Street.	7:00 AM – 7:00 PM	15-minute in the AM peak hour 25-minute in the PM peak hour
<b>#144 – Downtown / Don Valley Express</b> bus route operates between the intersection of Charlotte Street and King Street and the intersection of Victoria Park Avenue and Parkwoods Village Drive and Concorde Place, generally in a north-south direction. Two services are operated: the <b>144A (Underhill-Downtown Express)</b> and the <b>144B</b> <b>(Wynford-Downtown Express)</b> . The bus service mainly operates along the King Street Transit Priority Corridor, Adelaide Street East, Don Valley Parkway, and Don Mills. Within the Ontario Line West Study Area, the bus route has a northbound express stop located far-side at the intersection of King Street and Simcoe Street and a southbound express stop located nearside at the intersection of King Street and Peter Street.	6:00 AM – 7:00 PM	7-minute in the AM peak hour 20-minute in the PM peak hour
<b>#145 – Downtown / Humber Bay Express</b> bus route operates between the intersection of Berkeley Street and King Street and the intersection of Lake Shore Boulevard and Royal York Road or the intersection of Lake Shore Boulevard and Kipling Avenue, generally in an east-west direction. Two services are operated: the <b>145A (Royal York-Downtown Express)</b> and the <b>145B (Kipling-Downtown Express)</b> . The bus service mainly operates along Lake Shore Boulevard, Bathurst Street, and the King Street Transit Priority Corridor. Within the Ontario Line West Study Area, the bus route has eastbound express stops located near-side at the intersection of King Street and Far-side at the intersection of King Street and Simcoe Street. The bus route has westbound express stops located nearside at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Bathurst Street and Far-side at the intersection of King Street and Ba	6:00 AM – 7:00 PM	20-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#301 – Queen Blue Night</b> streetcar route operates between Neville Park Loop and Long Branch Loop, generally in an east-west direction. Two services are operated: the <b>301 (Neville Park-South Kingsway)</b> and the <b>301L (South Kingsway-Long Branch)</b> which is temporarily operated by buses. Both branches operate during the overnight period, seven days a week. The streetcar route operates mainly along Queen Street with multiple eastbound and westbound stops within the Ontario Line West Study Area at the Queen Street intersections with Bathurst Street, Augusta Avenue, Spadina Avenue, Peter Street, John Street, St. Patrick Street and University Avenue.	12:00 AM – 5:00 AM	15-minute
<b>#304 – King Blue Night</b> streetcar route operates between Dundas West Station and Broadview Station on Line 2 Bloor-Danforth via King Street, generally in an east-west direction. One single service is operated: the <b>304 (Dundas West Station-Broadview</b> <b>Station)</b> branch which operates during the overnight period, seven days a week. The streetcar route operates mainly along King Street with multiple eastbound and westbound stops within the Ontario Line West Study Area at the King Street intersections with Bathurst Street, Portland Street, Spadina Avenue, Blue Jays Way/Peter Street, John Street, and University Avenue.	1:00 AM – 5:00 AM	15-minute
<b>#307 – Bathurst Blue Night</b> bus route operates between Exhibition Loop and the area of Bathurst Street and Steeles Avenue West, generally in a north-south direction. One single service is operated: the 307 (Exhibition-Steeles) branch which operates during the overnight period, seven days a week. The bus route operates mainly along Bathurst Street, Fleet Street, and Manitoba Drive with multiple northbound and southbound stops within the Ontario Line West Study Area at the Bathurst Street intersections with Fort York Boulevard, King Street, and Queen Street. Bathurst Street will be closed to vehicular traffic to the end of 2020 for bridge rehabilitation. This will result in route diversion for the 307 buses where they would typically get on Front Street, Spadina Avenue, and Fort York Boulevard before returning to Fleet Street.	1:00 AM – 5:00 AM	30-minute during Monday to Friday and Sunday overnight 20-minute during Saturday overnight

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#310 – Spadina Blue Night</b> streetcar route operates between Spadina Station on Line 1 Yonge-University and Line 2 Bloor-Danforth and Union Station on Line 1 Yonge- University, generally in a north-south direction. One single service is operated: the <b>310</b> <b>(Spadina Station-Union Station)</b> which operates during the overnight period, seven days a week. The streetcar route operates mainly along Spadina Avenue and Queens Quay West with northbound and southbound stops located far-side at the Spadina Avenue intersections with King Street and Queen Street.	2:00 AM – 5:00 AM	15-minute
<b>#329 – Dufferin Blue Night</b> bus route operates between Steeles Avenue and Exhibition Loop, generally in a north-south direction. The route serves Downsview Station on Line 1 Yonge-University. One single service is operated: the <b>329 (Steeles- Exhibition)</b> branch which operates during the overnight period, seven days a week. The bus service mainly operates along Dufferin Street and Manitoba Drive with multiple northbound and southbound stops located within the Ontario Line West Study Area including the Exhibition Loop stop.	1:00 AM – 6:00 AM	30-minute
<b>#363 – Ossington Blue Night</b> bus route operates between Eglinton West Station on Line 1 Yonge-University and Exhibition Loop, generally in a north-south direction. One single service is operated: the <b>363 (Eglinton West Station-Exhibition)</b> branch which operates during the overnight period, seven days a week. The bus service mainly operates along Ossington Avenue, Strachan Avenue, and Manitoba Drive with multiple stops within the Ontario Line West Study Area including stops located at the studied intersection of Strachan Avenue and East Liberty Street as well as a stop at the Exhibition Loop.	2:00 AM – 6:00 AM	30-minute
<b>#501 – Queen</b> streetcar route operates between Neville Park Loop and Long Branch Loop, generally in an east-west direction. It serves Queen and Osgoode Stations on Line 1 Yonge-University. The route is part of the 10-minute network, and operates at 10-minute or better headways, all day, every day. During the daytime and early evening, seven days a week, two services are operated: <b>501A (Humber-Neville Park)</b> <b>and 501L (Long Branch-Humber)</b> . The streetcar route operates mainly along Queen Street with multiple eastbound and westbound stops within the Ontario Line West Study Area at the Queen Street intersections with Bathurst Street, Augusta Avenue, Spadina Avenue, Peter Street, John Street, St. Patrick Street and University Avenue.	4:00 AM – 12:00 AM	7-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#503 – Kingston Road</b> streetcar route operates between the area of Kingston Road and Victoria Park Avenue, and the area of King Street West and York Street, generally in an east-west direction. It serves the King Station on Line 1 Yonge-University, and it also passes within one block of the Union and St. Andrew Stations on Line 1. One single service is operated: the <b>503 (Victoria Park-York)</b> which is part of the 10-minute network, providing 10-minute or better service during the peak periods, from Monday to Friday only. The streetcar route operates mainly along Kingston Road, Queen Street East, and King Street with an eastbound stop located far-side at the intersection of King Street and University Avenue. The closest westbound stop to the Ontario Line West Study Area is located nearside at the intersection of King Street and York Street.	5:00 AM – 8:00 PM	7-minute in the AM peak hour 8-minute in the PM peak hour
<b>#504 – King</b> streetcar route operates between Dundas Station and Broadview Station on Line 2 Bloor-Danforth, generally in an east-west direction. It also serves the St. Andrew and King Station on Line 1 Yonge-University. Two services are operated: the <b>504A (Dundas West Station-Distillery)</b> and the <b>504B (Broadview Station-Dufferin</b> <b>Gate)</b> , both branches operating at all times, seven days a week. The route is part of the 10-minute network and operates at 10-minute or better headways, all day, every day. The streetcar route operates mainly along King Street with multiple eastbound and westbound stops within the Ontario Line West Study Area at the King Street intersections with Bathurst Street, Portland Street, Spadina Avenue, Blue Jays Way/Peter Street, John Street, and University Avenue.	5:00 AM – 2:00 AM	3-minute
<b>#509 – Harbourfront</b> streetcar route operates between Union Station on Line 1 (Yonge-University) and Exhibition Loop, generally in an east-west direction. One single service is operated: the <b>509 (Union Station-Exhibition)</b> which operates at all times, seven days a week. The route is part of the 10-minute network, providing 10- minute or better service, all day, every day. The streetcar route operates mainly along Queens Quay West, Fleet Street, and Manitoba Drive and makes a terminal stop at the Exhibition Loop.	5:00 AM – 2:00 AM	6-minute in the AM peak hour 8-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#510 – Spadina</b> streetcar route operates between Spadina Station and Union Station, generally in a north-south direction. Three services are operated: the <b>510A (Spadina Station-Union Station)</b> , the <b>510B (Spadina Station-Queens Quay/Spadina)</b> , and the <b>510C (Spadina Station-King).</b> The route is part of the 10-minute network, providing 10-minute or better service, all day, every day. The route operates mainly along Spadina Avenue and Queens Quay with designated northbound and southbound stops within the Ontario Line West Study Area at the Spadina Avenue intersections with King Street, Richmond Street, and Queen Street.	5:00 AM – 3:00 AM	4-minute in the AM peak hour 5-minute in the PM peak hour
<b>#511 – Bathurst</b> streetcar route operates between Bathurst Station on Line 2 Bloor- Danforth and Exhibition Loop, generally in a north-south direction. A single service is operated: the <b>511 (Bathurst Station-Exhibition)</b> branch which operates at all-times, seven days a week. The route is part of the 10-minute network, providing 10-minute or better service, all day, every day. The route operates mainly along Bathurst Street and Fleet Street with designated northbound and southbound stops within the Ontario Line West Study Area at the Bathurst Street intersections with Niagara Street, King Street, and Queen Street. Streetcars are replaced by buses between Bathurst Station and Exhibition Loop through the end of 2020 to accommodate several TTC and City of Toronto construction projects. This will also result in route diversions for the 511 buses where they would get on Front Street, Spadina Avenue, and Fort York Boulevard before getting back to Fleet Street.	5:00 AM – 2:00 AM	7-minute in the AM peak hour 8-minute in the PM peak hour

Source: Toronto Transit Commission online schedules and maps, accessed through www.Toronto Transit Commission.ca on July 20, 2020



## Figure 6-1: Transit Routes Servicing the Ontario Line West Study Area under Existing Conditions (2020)

## 6.1.2 Ontario Line South

The Ontario Line South Study Area is connected to the rest of the City through bus and streetcar routes operated by Toronto Transit Commission and bus and train routes operated by GO Transit. The number, name, and description of the transit routes servicing the Ontario Line South Study Area and their schedules as per the information obtained from the TTC website are summarized in **Table 6-2**. The noted transit routes are illustrated in **Figure 6-2**.

## Table 6-2: Transit Routes Servicing the Ontario Line South Study Area

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#1 – Yonge-University Subway Line</b> has 38 stations and is a "U-shaped" route running generally in a south and then north direction. The route operates from the northern area of Yonge Street and Finch Avenue East, south to Union Station in downtown Toronto, and then north again to the area of Highway 7 and Jane Street. Line 1 connects with Line 2 at Bloor-Yonge, St. George and Spadina stations, and it connects with Line 4 at Sheppard-Yonge Station.	5:00 AM – 12:00 AM	2-minute in the AM peak hour 3-minute in the PM peak hour
<b>#6 – Bay</b> bus route operates generally in a north-south direction between the area of Dupont Street and Bedford Road, and the area of Queens Quay East and Lower Sherbourne Street. It also serves Bay Station on Line 2 Bloor-Danforth and Union Station on Line 1 Yonge-University. This route operates all day, every day. Two services are operated: the <b>6A (Dupont-Queens Quay &amp; Sherbourne)</b> branch operates seven days a week all day, every day. The <b>6B (Bloor-Queens Quay &amp;</b> <b>Sherbourne)</b> short-turn branch operates during the morning and afternoon peak periods from Monday to Friday only. The bus service mainly operates along Bay Street with multiple northbound and southbound stops within the Ontario Line South Study Area at the Bay Street intersections with Queen Street, and Richmond Street.	5:00 AM – 2:00 AM	5-minute in the AM peak hour 8-minute in the PM peak hour
<b>#61 – Richmond Hill GO</b> route operates between Union Station and Gormley GO Station in Richmond Hill, generally in a north-south direction. The train service operates only during weekday peak hours with southbound trains operating in the morning peak hours and northbound trains operating in the afternoon peak hours. A bus service generally covers the southbound and northbound services during the remaining hours of a typical weekday with the latest southbound departure from Gormley GO Station scheduled at 2 PM and the latest northbound departure from Union Station scheduled at 2:40 AM.	5:00 AM – 3:00 PM	60-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#65 – Parliament</b> bus route operates between Castle Frank Station on the Bloor- Danforth Subway and the area of The Esplanade and Princess Street, generally in a north-south direction. A single service is operated: the <b>65 (Castle Frank Station- Esplanade)</b> branch operates at all times, seven days a week. The bus service mainly operates along Parliament Street with multiple northbound and southbound stops within the Ontario Line South Study Area at the Parliament Street intersections with Front Street, King Street East, Adelaide Street East, Richmond Street East, Queen Street East, and Shuter Street.	5 :00AM – 2:00 AM	13-minute in the AM peak hour 11-minute in the PM peak hour
<b>#72 – Pape</b> bus route operates between Pape Station on Line 2 Bloor-Danforth and Commissioners Street, and between Pape Station and Union Station on Line 1, generally in a north-south direction. Three services are operated: The <b>72A (Pape</b> <b>Station-Eastern)</b> operates at all times except the morning and afternoon peak periods from Monday to Friday. The <b>72B (Pape Station -Union Station via Queens Quay)</b> operates all day, every day. The <b>72C (Pape Station -Commissioners)</b> operates during the morning and afternoon peak periods from Monday to Friday. Service between Pape Station and Eastern Avenue is part of the 10 Minute Network and operates at 10-minute or better headways, all day, every day. The bus service mainly operates along Carlaw Avenue with a southbound stop within the Ontario Line South Study Area at the intersections of Gerrard Street East and Carlaw Avenue	5:00 AM – 2:00 AM	6-minute in the AM peak hour 7-minute in the PM peak hour
<b>#75 – Sherbourne</b> bus route operates between the area of Queens Quay East and Lower Jarvis Street, Sherbourne Station on the Bloor-Danforth Subway, and the area of South Drive and Glen Road, generally in a north-south direction. One single service is operated: the <b>75 (Queens Quay-South Drive)</b> branch operates at all times, seven days a week. At certain times of the week these buses alternate trips with the 82 Rosedale bus route. These trips are identified as the <b>75A (Queens Quay-South Drive &amp;</b> <b>Summerhill)</b> branch on schedules only. There is no change to the service or routing on the 75 Sherbourne route. The bus service mainly operates along Sherbourne Street with multiple northbound and southbound stops within the Ontario Line South Study Area at the Sherbourne Street intersections with The Esplanade, King Street East, Adelaide Street East, Richmond Street East, Queen Street East, and Shuter Street.	5:00 AM – 1:00 AM	6-minute in the AM peak hour 7-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#97 – Yonge</b> bus route operates between Davisville Station and York Mills Station on Line 1, Yonge-University, and the area of Yonge Street and Steeles Avenue West, generally in a north-south direction. It also serves Finch Station (northbound buses only) and the area of Yonge Street and Queens Quay West. Three services are operated: the <b>97A (Davisville Station-York Mills Station via Yonge Blvd)</b> branch operates during the midday and evening, from Monday to Friday, and at all times on Saturdays, Sundays, and holidays. The <b>97B (Queens Quay-York Mills Station via Yonge Blvd)</b> branch operates during the peak periods, from Monday to Friday only. The <b>97F (Davisville Station-Steeles)</b> branch operates at all times, seven days a week. The bus service mainly operates along Yonge Street with multiple northbound and southbound stops within the Ontario Line South Study Area at the Yonge Street intersections with Front Street, King Street East, Richmond Street East, Queen Street East, and Shuter Street.	5:00 AM – 1:00 AM	15-minute
<b>#121 – Fort York-Esplanade</b> bus route operates between Exhibition Place, the Fort York neighbourhood and the Distillery neighbourhood, and, in the summer, between Ontario Place, the Fork York neighbourhood and Clarke Beach Park (Cherry Beach), generally in an east-west direction. All buses serve Union Station on Line 1, and the Fort York, City Place, Esplanade, and Distillery neighbourhoods. Two services are operated: the <b>121A (Exhibition (Princes' Gates)-Distillery via Union Station)</b> branch operates all day, every day outside the summer months. The <b>121D (Ontario Place-Cherry Beach via Union Station and Distillery)</b> seasonal branch operates from mid-May to mid-October. The bus service mainly operates along Cherry Street, Front Street, The Esplanade, and Fort York Boulevard with multiple eastbound and westbound stops within the Ontario Line South Study Area at The Esplanade intersections with Lower Jarvis Street, and Lower Sherbourne Street. The bus service also has multiple stops at Front Street intersections with, Parliament Street, and Cherry Street, and at the intersection of Mills Street and Cherry Street.	6:00 AM – 1:00 AM	16-minute in the AM peak hour 26-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#141 – Downtown / Mount Pleasant Express</b> bus route operates between the intersection of Charlotte Street and King Street and the intersection of Mount Pleasant Road and Eglinton Avenue, generally in a north-south direction. The bus service is extended to operate from the intersection of Mount Pleasant Road and Lawrence Avenue for the first three trips of the morning and both trips in the afternoon. The bus service mainly operates along the King Street Transit Priority Corridor, Jarvis Street, and Mount Pleasant Road. Within the Ontario Line South Study Area, the bus route has northbound and southbound express stops located at the intersections of King Street and Jarvis Street, and at the intersection of Queen Street and Jarvis Street.	7:00 AM – 6:00 PM	15-minute in the AM peak hour 30-minute in the PM peak hour
<b>#142 – Downtown / Avenue Road Express</b> bus route operates between the intersection of Berkeley Street and King Street and Bombay loop located northeast of the Highway 401 and Avenue Road interchange, generally in a north-south direction. The bus service mainly operates along the section of King Street Transit Priority Corridor between University Avenue and Jarvis Street, University Avenue, and Avenue Road. Within the Ontario Line South Study Area, the bus route has northbound and southbound express stops located at King Street and Berkeley Street, and at King Street and George Street.	6:00 AM – 7:00 PM	30-minute
<b>#143 – Downtown / Beach Express</b> bus route operates between the intersection of Charlotte Street and King Street and the Neville Park Loop, generally in an east-west direction. The bus service mainly operates along the King Street Transit Priority Corridor, Queen Street East, Eastern Avenue, and Richmond Street East. Within the Ontario Line South Study Area, the bus route has eastbound and westbound express stops located at King Street and George Street.	7:00 AM – 7:00 PM	15-minute in the AM peak hour 25-minute in the PM peak hour
<b>#144 – Downtown / Don Valley Express</b> bus route operates between the intersection of Charlotte Street and King Street and the intersection of Victoria Park Avenue and Parkwoods Village Drive and Concorde Place, generally in a north-south direction. Two services are operated: the <b>144A (Underhill-Downtown Express)</b> and the <b>144B (Wynford-Downtown Express).</b> The bus service mainly operates along the King Street Transit Priority Corridor, Adelaide Street East, Don Valley Parkway, and Don Mills. Within the Ontario Line South Study Area, the bus route has eastbound and westbound express stops located at King Street and George Street.	6:00 AM – 7:00 PM	7-minute in the AM peak hour 20-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#145 – Downtown / Humber Bay Express</b> bus route operates between the intersection of Berkeley Street and King Street and the intersection of Lake Shore Boulevard and Royal York Road or the intersection of Lake Shore Boulevard and Kipling Avenue, generally in an east-west direction. Two services are operated: the <b>145A (Royal York-Downtown Express)</b> and the <b>145B (Kipling-Downtown Express)</b> . The bus service mainly operates along Lake Shore Boulevard, Bathurst Street, and the King Street Transit Priority Corridor. Within the Ontario Line South Study Area, the bus route has eastbound and westbound express stops located at King Street and George Street.	6:00 AM – 7:00 PM	20-minute
<b>#301 – Queen Blue Night</b> streetcar route operates between Neville Park Loop and Long Branch Loop, generally in an east-west direction. Two services are operated: the <b>301 (Neville Park-South Kingsway)</b> and the <b>301L (South Kingsway-Long Branch)</b> which is temporarily operated by buses. Both branches operate during the overnight period, seven days a week. The streetcar route operates mainly along Queen Street with multiple eastbound and westbound stops within the Ontario Line South Study Area at the Queen Street intersections with Bay Street, Yonge Street, Victoria Street, Church Street, Jarvis Street, Sherbourne Street, and Parliament Street.	12:00 AM – 5:00 AM	15-minute
<b>#304 – King Blue Night</b> streetcar route operates between Dundas West Station and Broadview Station on Line 2 Bloor-Danforth via King Street, generally in an east-west direction. One single service is operated: <b>the 304 (Dundas West Station-Broadview Station)</b> branch which operates during the overnight period, seven days a week. The streetcar route operates mainly along King Street. Within the Ontario Line South Study Area, the streetcar route has an eastbound and westbound stop at King Street and Jarvis Street. The streetcar also has a northbound and southbound stop and Cherry Street and Front Street.	1:00 AM – 5:00 AM	15-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#306 – Carlton Blue Night</b> streetcar route operates between Main Street Station and Dundas West Station on Line 2 Bloor-Danforth, generally in an east-west direction. One single service is operated: the 306 (Main Street Station-Dundas West Station) which operates during the overnight period, seven days a week. The streetcar operates mainly along College Street, Gerrard Street, and Main Street with multiple eastbound and westbound stops within the Ontario Line South Study Area located nearside at the Gerrard Street intersections at Carlaw Avenue, Pape Avenue, and Marjory Avenue.	12:00 AM – 5:00 AM	20-minute
<b>#501 – Queen</b> streetcar route operates between Neville Park Loop and Long Branch Loop, generally in an east-west direction. It serves Queen and Osgoode Stations on Line 1 Yonge-University. The route is part of the 10-minute network, and operates at 10-minute or better headways, all day, every day. During the daytime and early evening, seven days a week, two services are operated: <b>501A (Humber-Neville</b> <b>Park)</b> and <b>501L (Long Branch-Humber)</b> . The streetcar route operates mainly along Queen Street with multiple eastbound and westbound stops within the Ontario Line South Study Area at the Queen Street intersections with Bay Street, Yonge Street, Victoria Street, Church Street, Jarvis Street, Sherbourne Street, and Parliament Street.	4:00 AM – 12:00 AM	7-minute
<b>#503 – Kingston Road</b> streetcar route operates between the area of Kingston Road and Victoria Park Avenue, and the area of King Street West and York Street, generally in an east-west direction. It serves the King Station on Line 1 Yonge-University, and it also passes within one block of the Union and St. Andrew Stations on Line 1. One single service is operated: the <b>503 (Victoria Park-York)</b> , which operates during the peak periods, from Monday to Friday only. The streetcar route operates mainly along Kingston Road, Queen Street East, and King Street with eastbound and westbound stops within the Ontario Line South Study Area located at the intersection of King Street and Jarvis Street and at the intersection of Queen Street and Saulter Street	5:00 AM – 8:00 PM	7-minute in the AM peak hour 8-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#504 – King</b> streetcar route operates between Dundas Station and Broadview Station on Line 2 Bloor-Danforth, generally in an east-west direction. It also serves the St. Andrew and King Station on Line 1 Yonge-University. Two services are operated: the <b>504A (Dundas West Station-Distillery)</b> and the <b>504B (Broadview Station-Dufferin Gate)</b> , both branches operating at all times, seven days a week. The route is part of the 10-Minute Network and operates at 10-minute or better headways, all day, every day. The streetcar route operates mainly along King Street. Within the Ontario Line South Study Area, the streetcar route has an eastbound and westbound stop at King Street and Jarvis Street. The streetcar also has a northbound and southbound stop and Cherry Street and Front Street.	5:00 AM – 2:00 AM	3-minute
<b>#505 – Dundas</b> streetcar route operates between Dundas West Station and Broadview Station on Line 2 (Bloor-Danforth), generally in an east-west direction. It also serves the St Patrick and Dundas Stations on Line 1 (Yonge-University). A single service is operated: the <b>505 (Dundas West Station- Broadview Station</b> branch, which operates at all times, seven days a week. The route is part of the 10-minute network, and operates 10 minutes or better, all day, every day. The streetcar route operates mainly along Dundas Street and Broadview Avenue where the closest eastbound and westbound stops to the Ontario Line South Study Area are located nearside at the intersection of Dundas Street and Broadview Avenue.	5:00 AM – 2:00 AM	9-minute in the AM peak hour 8-minute in the PM peak hour
<b>#506 – Carlton</b> streetcar route operates between Main Street Station on the Bloor- Danforth Subway and High Park Loop, generally in an east-west direction. It also serves the College and Queen's Park Stations on the Yonge-University-Spadina Subway. A single service is operated: the <b>506 (Main Street Station-High Park)</b> branch operates at all times, seven days a week. The route is part of the 10 Minute Network, and operates at 10-minute or better headways, all day, every day. The streetcar route operates mainly along Main Street, Gerrard Street, Carlton Street and College Street with eastbound and westbound stops within the Ontario Line South Study Area at the Gerrard Street intersections with Carlaw Avenue, Pape Avenue, and Marjory Avenue	5:00 AM – 1:00 AM	8-minute in the AM peak hour 9-minute in the PM peak hour

Source: Toronto Transit Commission online schedules and maps, accessed through www. Toronto Transit Commission.ca on July 20, 2020







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## 6.1.3 Ontario Line North

**Table 6-3** lists the public transit routes in the Ontario Line North Study Area. These transit routes are also shown in **Figure 6-3**.

The area is generally well served by transit, with Pape Avenue and Overlea Boulevard having the most transit service, and other areas such as the commercial/industrial area in the northwest corner of the Ontario Line North Study Area having significantly less. Most stops are concentrated along the major corridors of Pape Avenue, Overlea Boulevard, Don Mills Road, and Eglinton Avenue.

The Thorncliffe Park (81) and Flemingdon Park (100) routes are both directly connected to TTC Line 2, with Thorncliffe Park connected to Pape station, and Flemington Park connected to Broadview Station. Thorncliffe Park also has a direct connection to Line 1's St. Clair Station via the South Leaside (88) route, and Flemingdon Park has a direct connection to Line 1's Eglinton Station via the Eglinton East (34) route.

## Table 6-3: Transit Routes Servicing the Ontario Line North Study Area

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#8 – Broadview</b> bus route operates between Broadview Station on Line 2 Bloor- Danforth and the area of O'Connor Drive and Coxwell Avenue, generally in a north-south direction. Accessible service is provided on the route. Bike racks are available on this route. Broadview Station is an accessible subway station. This route operates all day, every day. One single service is operated: the <b>8</b> (Broadview Station-Coxwell) branch, which operates all day, every day	6:00 AM – 1:00 AM	30-minute
<b>#25 – Don Mills</b> bus route operates between Pape Station on Line 2 Bloor- Danforth, Don Mills Station on Line 4 Sheppard, and the area of Don Mills Road and Steeles Avenue East, generally in a north-south direction. Accessible service is provided on the route. Both Don Mills Station and Pape Station are accessible subway stations. Bike racks are available on this route. Three services are operated. The <b>25A (Pape Station-Steeles via Don Mills Station)</b> operates during the evenings, seven days a week, and at all times on Saturday, Sunday, and holiday. The <b>25B (Pape Station- Don Mills Station)</b> and <b>25C (Don Mills Station- Steeles)</b> operate during the peak periods and midday from Monday to Friday. The route is part of the 10 Minute Network, and operates 10 minutes or better, all day, every day. The route travels north-south through the Ontario Line North Study Area on Pape Avenue and Overlea Boulevard.	5:00 AM – 2:00 AM	5-minute
<b>#34 – Eglinton East</b> bus route operates between Eglinton Station on Line 1 Yonge-University and Kennedy Station on Line 2 Bloor-Danforth, generally in an east-west direction. Accessible service is provided on the route. Both Eglinton and Kennedy Stations are accessible subway stations. Bike racks are available on this route. Three services are operated. The <b>34A (Eglinton Station-Kennedy</b> <b>Station)</b> branch operates at all times, seven days a week. The <b>34B (Don Mills</b> <b>Road-Kennedy Station)</b> supplemental branch operates during the daytime on Saturday only. The <b>34C (Eglinton Station-Flemingdon Park)</b> branch operates at all times, seven days a week. The route travels along Eglinton Avenue through the Ontario Line North Study Area.	5:00 AM – 4:00 AM	3-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#56 – Leaside</b> bus route operates between Donlands Station on Line 2 Bloor- Danforth, the area of Laird Drive and Eglinton Avenue East, and Eglinton Station on Line 1 Yonge-University, generally in a north-south direction. Accessible service is provided on the route. Eglinton Station is an accessible subway station. Bike racks are available on this route. This route operates all day, every day. Two services are operated. The <b>56A (Donlands Station-Eglinton Station)</b> branch operates all day, every day. The <b>56B (Donlands Station-Brentcliffe)</b> short-turn branch operates during the peak periods, from Monday to Friday only. The route travels north-south on Laird Drive through the Ontario Line North Study Area.	6:00 AM – 1:00 AM	9 to 10-minute
<b>#62 – Mortimer</b> bus route operates between Broadview Station and Main Street Station on Line 2 Bloor-Danforth, generally in an east-west direction. Accessible service is provided on the route. Bike racks are available on this route. Both Broadview and Main Street Stations are accessible stations. This route operates all day, every day. One single service is operated: the <b>62 (Broadview Station- Main Street Station)</b> branch, which operates all day, every day. The route crosses the Ontario Line North Study Area on Mortimer Avenue.	6:00 AM – 1:00 AM	15-minute
<b>#72 – Pape</b> bus route operates between Pape Station on Line 2 Bloor-Danforth and Commissioners Street, and between Pape Station and Union Station on Line 1, generally in a north-south direction. Accessible service is provided on the route. Pape Station and Union Station are accessible subway stations. Bike racks are available on this route. Three services are operated. The <b>72A (Pape Station- Eastern)</b> operates at all times except the morning and afternoon peak periods from Monday to Friday. The <b>72B (Pape Station-Union Station via Queens Quay)</b> operates all day, every day. The <b>72C (Pape Station-Commissioners)</b> operates during the morning and afternoon peak periods from Monday to Friday. Service between Pape Station and Eastern Avenue is part of the 10 Minute Network, and operates 10 minutes or better, all day, every day. The route travels south from Pape Station.	5:00 AM – 2:00 AM	6-minute in the AM peak hour 7-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>#81 – Thorncliffe Park</b> bus route operates between Pape Station on the Bloor- Danforth Subway and the Thorncliffe Park Drive area, generally in a north-south direction. Accessible service is provided on the route. Pape Station is an accessible subway station. Bike racks are available on this route. One single service is operated: the <b>81 (Pape Station-Thorncliffe)</b> branch operates at all times, seven days a week. This route travels north-south through the Ontario Line North Study Area on Pape Avenue, and around Thorncliffe Park Drive.	5:00 AM – 1:00 AM	6-minute in the AM peak hour 9-minute in the PM peak hour
<b>#87 – Cosburn</b> bus route operates between Broadview Station and Main Street Station on Line 2 Bloor-Danforth, generally in an east-west direction. Accessible service is provided on the route. Bike racks are available on this route. Both Broadview and Main Street Stations are accessible subway stations. This route operates every ten minutes or better, all day, every day. Two services are operated. The <b>87A (Broadview Station-Main Street Station via East York Acres)</b> branch operates during the midday and early evening from Monday to Friday, during the daytime and early evening on Saturdays, and during the daytime only on Sundays and holidays. The <b>87C (Broadview Station-Main Street Station)</b> branch operates during the peak periods and late evening from Monday to Friday, during the early morning and late evening on Saturdays, during the early and late evening on Sundays, and during the early morning and all evening on holidays.	5:00 AM – 4:00 AM	5-minute in the AM peak hour 6-minute in the PM peak hour
<b>#88 – South Leaside</b> bus route operates between St. Clair Station on Line 1 Yonge-University-Spadina, the Wicksteed Avenue area, and the Thorncliffe Park Drive area, generally in an east-west direction. Accessible service is provided on the route. St. Clair Station is an accessible subway station. Bike racks are available on this route. Two services are operated. The <b>88A (St Clair Station- Thorncliffe via Overlea)</b> branch operates at all times, seven days a week. The <b>88B (St Clair Station-Thorncliffe via Wicksteed)</b> branch operates at all times, seven days a week.	6:00 AM – 1:00 AM	6-minute
<b>#100 – Flemingdon Park</b> bus route operates between Broadview Station on Line 2 Bloor-Danforth and the area of Don Mills Road and Wynford Drive, generally in a north-south direction. Accessible service is provided on the route. Broadview Stations is an accessible subway station. Bike racks are available on this route.	5:00 AM – 1:00 AM	4-minute in the AM peak hour 6-minute in the PM peak hour

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
One single service is operated: the <b>100A (Broadview Station-Don Mills &amp;</b> <b>Wynford)</b> branch all day, every day. This route is part of the 10 Minute Network, and operates 10 minutes or better, all day, every day.		
<b>#144 – Downtown / Don Valley Express</b> bus route operates between the intersection of Charlotte Street and King Street and the intersection of Victoria Park Avenue and Parkwoods Village Drive and Concorde Place, generally in a north-south direction. Two services are operated: the <b>144A (Underhill-Downtown Express)</b> and the <b>144B (Wynford-Downtown Express)</b> .	6:00 AM – 7:00 PM	7-minute in the AM peak hour 20-minute in the PM peak hour
<b>#162 – Lawrence-Donway</b> bus route operates between Lawrence Station on Line 1 Yonge-University and the area of Don Mills Road and Lawrence Avenue East, generally in an east-west direction. Accessible service is provided on the route. Bike racks are available on this route. One single service is operated: the <b>162</b> <b>(Lawrence Station-Don Mills)</b> branch, which operates during the daytime and early evening Monday to Saturday and during the day only on Sundays and holidays.	7:00 AM – 10:00 PM	30-minute
<b>#300 – Bloor-Danforth Night</b> bus route operates between Kennedy Station, the area of Warden Avenue and Danforth Avenue, the area of The West Mall and Burnhamthorpe Road, and Toronto Pearson International Airport, generally in an east-west direction. Bike racks are available on this route. Two services are operated. The <b>300A (Warden-Pearson Airport)</b> branch operates during the overnight period, seven days a week. The <b>300B (Kennedy Station-West Mall)</b> branch operates during the overnight period, seven days a week.	2:00 AM – 6:00 AM	10-minute
<b>#322 – Coxwell</b> Blue Night bus route operates between Broadview Station on the Bloor-Danforth Subway, the area of Coxwell Avenue and Queen Street East, and the area of Kingston Road and Victoria Park Avenue, generally in an east-west direction. Accessible service is provided on the route. Bike racks are available on this route.	1:00 AM – 6:00 AM	30-minute
<b>#325 – Don Mills Night</b> bus route operates between the area of Steeles Avenue East and Don Mills Road, and the area of Eastern Avenue and Carlaw Avenue, generally in a north-south direction. Accessible service is provided on the route. Bike racks are available on this route. One single service is operated: the <b>325</b>	2:00 AM – 5:00 AM	30-minute

Route Number – Name and Description	Weekday Service Hours	Service Headway during Peak Periods
<b>(Steeles-Eastern via Pape)</b> branch operates during the overnight period, seven days a week.		
<b>#334 – Eglinton East Night</b> bus route operates between the area of Eglinton Station on Line 1 Yonge-University and the area near Finch Avenue and Neilson Road, generally in an east-west direction. Accessible service is provided on the route. Bike racks are available on this route. One single service is operated: the <b>305 (Eglinton Station-Finch via Neilson)</b> branch operates during the overnight period, seven days a week.	2:00 AM – 5:00 AM	30-minute
<b>#354 – Lawrence East Night</b> bus route operates between the area of Eglinton Station on Line 1 Yonge-University and Starspray Boulevard, generally in an east- west direction. Accessible service is provided on the route. Bike racks are available on this route. One single service is operated: the <b>354 (Eglinton Station-</b> <b>Starspray)</b> branch operates during the overnight period, seven days a week.	2:00 AM – 5:00 AM	30-minute
<b>#403 – South Don Mills Community Bus</b> route provides accessible service in the South Don Mills area. It operates between Don Mills Shopping Centre, Flemingdon Park Shopping Centre and East York Town Centre, generally in a north-south direction. One single service is operated: the <b>403 (Don Mills Centre- East York Centre)</b> branch operates from approximately 9:30 am to 5:30 pm, from Monday to Friday only.	10:00 AM – 4:00 PM	75-minute
<b>#925 - Don Mills Express</b> bus route operates between Pape Station on Line 2 Bloor-Danforth, Don Mills Station on Line 4 Sheppard, and the area of Don Mills Road and Steeles Avenue East, generally in a north-south direction. Accessible service is provided on the route. Both Don Mills Station and Pape Station are accessible subway stations. Bike racks are available on this route. One single service is operated. The <b>925 (Pape Station-Steeles Express)</b> branch operates during the peak periods, midday, and early evening from Monday to Friday, and during the daytime on Saturdays, Sundays, and holidays.	6:00 AM – 10:00 PM	8-minute

Source: Toronto Transit Commission online schedules and maps, accessed through www.Toronto Transit Commission.ca on July 20, 2020, with select values updated on November 16, 2020





## 6.2 Transit Operations

## 6.2.1 Ontario Line West

The findings of the Transit Level of Service analysis at the Ontario Line West Study Area signalized intersections and road segments under Existing Conditions (2020) are summarized in **Table 6-4** and **Table 6-5**, respectively, and illustrated in **Figure 6-4**. The critical intersections and road segments are highlighted in grey in **Table 6-4** and **Table 6-5** and are defined to be as those that operate at Transit Level of Service 'D' or worse along the studied section of King Street and those that operate at Transit Level of Service 'E' or worse along all other studied road segments. The detailed Transit Level of Service analysis results at the individual intersection approach level are presented in **Appendix I**.

As shown in **Table 6-4**, the majority of the intersections operate at Transit Level of Service that meets the targets for the studied corridors. However, transit vehicles experience notable delays at the following intersections:

- Adelaide Street and Spadina Avenue; and
- Bathurst Street and Fort York Boulevard.

This is attributed to the long average delay that transit vehicles experience when completing specific movements at the noted Ontario Line West Study Area intersections. Accordingly, the following transit routes operate at critical Transit Level of Service at the identified intersections:

- Bus routes #143 and #144 operate at critical Transit Level of Service 'E' at the intersection of Adelaide Street and Spadina Avenue when buses along both routes complete a northbound right-turn movement; and
- Bus route #145 and streetcar route #511 operate at critical Transit Level of Service 'E' at the intersection of Bathurst Street and Fort York Boulevard when buses and streetcars complete a southbound through movement.

All transit vehicles travelling along the segments within the Ontario Line West Study Area experience an acceptable Transit Level of Service 'D' or better, meeting the minimum desirable Transit Level of Service for the studies sections. It is worth noting that transit vehicles travelling along the King Street Transit Priority Corridor (i.e., the King Street section between Bathurst Street and Jarvis Street) experience Transit Level of Service 'B' and transit vehicles travelling along the dedicated streetcar facility along Spadina Avenue experience Transit Level of Service 'A'. Table 6-4:Summary of the Transit Level of Service at the Ontario LineWest Study Area Intersections under Existing Conditions (2020)

Signalized Intersections	Transit Level of Service
Queen Street and University Avenue	D
Queen Street and St. Patrick Street	В
Queen Street and John Street	С
Queen Street and Peter Street/Soho Street	D
Queen Street and Augusta Avenue	В
Queen Street and Portland Street	В
Richmond Street and John Street	-
<b>Richmond Street and University Avenue</b>	С
Adelaide Street and Peter Street	-
Adelaide Street and Spadina Avenue	E
Adelaide Street and Brant Street	В
Adelaide Street and Portland Street	В
Adelaide Street and Bathurst Street	С
King Street and Portland Street	В
King Street and Spadina Avenue	С
Bathurst Street and Fort York Boulevard	E
East Liberty Street and Strachan Avenue	D
Liberty Street and Dufferin Street	С

Note: The intersections that operate below the Transit Level of Service target 'D' are highlighted in grey.

## Table 6-5:Summary of the Transit Level of Service at the Ontario Line West<br/>Study Area Road Segments under Existing Conditions (2020)

Road Segment	Transit Level of Service
Queen Street between: University Avenue and Bathurst Street	D
Richmond Street between: University Avenue and Bathurst Street	-
Adelaide Street between: Spadina Avenue and Bathurst Street	D
King Street between: Spadina Avenue and Niagara Street	В
University Avenue between: Queen Street and Richmond Street	D
Spadina Avenue between: Queen Street and King Street	А
Bathurst Street between: Queen Street and Fort York Boulevard	D
Strachan Avenue between: East Liberty Street and Fleet Street	D
Dufferin Street between: King Street and Springhurst Avenue	D





## 6.2.2 Ontario Line South

The findings of the Transit Level of Service analysis at the Ontario Line South Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 6-5** and **Table 6-6**, respectively, and illustrated in **Figure 6-5**. The critical intersections, individual intersection approaches, and road segments are highlighted in grey in **Table 6-5** and **Table 6-6** and are defined to be as those that operate at Transit Level of Service 'D' or worse along the studied section of King Street and those that operate at Transit Level of Service 'E' or worse along all other studied road segments. The detailed Transit Level of Service analysis results are presented in **Appendix J**.

As shown in **Table 6-5**, the majority of the intersections operate at Transit Level of Service that meet the targets for the studied corridors. However, transit vehicles experience notable delays at the following intersections:

- Queen Street and Yonge Street;
- Richmond Street and Yonge Street;
- Queen Street and Jarvis Street;
- Adelaide Street and Sherbourne Street;
- King Street and Jarvis Street;
- The Esplanade and Lower Jarvis Street;
- Queen Street and Parliament Street;
- Queen Street and Sherbourne Street; and
- Gerrard Street and Carlaw Avenue.

This is attributed to the long average delay that transit vehicles experience when completing specific movements at the noted Ontario Line South Study Area intersections. Accordingly, the following transit routes operate at critical Transit Level of Service at the identified intersections:

- Bus route #97 operates at critical Transit Level of Service 'E' at the intersection of Queen Street and Yonge Street when buses complete a northbound through movement;
- Bus route #97 operates at critical Transit Level of Service 'F' at the intersection of Richmond Street and Yonge Street when buses complete a southbound through movement;

- Bus route #141 operates at critical Transit Level of Service 'E' at the intersection of Queen Street and Jarvis Street when buses complete a northbound through movement;
- Bus route #75 operates at critical Transit Level of Service 'E' at the intersection of Adelaide Street and Sherbourne Street when buses complete a southbound through movement and a northbound through movement. The bus route also operates at critical Transit Level of Service 'E' at the intersection of Queen Street and Sherbourne Street when buses complete a southbound through movement;
- Streetcar route #503 and streetcar route #504 operate at critical Transit Level of Service 'E' at the intersection of King Street and Jarvis Street when streetcars complete a westbound through movement and an eastbound through movement;
- Bus route #121 operates at critical Transit Level of Service 'E' at the intersection of The Esplanade and Lower Jarvis Street when buses complete a westbound through movement;
- Streetcar route #501 operates at critical Transit Level of Service 'E' at the intersection of Queen Street and Parliament Street when streetcars complete an eastbound through movement; and
- Streetcar route #506 operates at critical Transit Level of Service 'E' at the intersection of Gerrard Street and Carlaw Avenue when streetcars complete a westbound through movement.

As shown in **Table 6-6**, all transit vehicles travelling along the road segments within the Ontario Line South Study Area experience an acceptable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service for the studies sections.

# Table 6-6:Summary of the Transit Level of Service at the Ontario Line<br/>South Study Area Intersections under Existing Conditions<br/>(2020)

Signalized Intersections	Transit Level of Service
Queen Street and Yonge Street	E
Richmond Street and Yonge Street	F
Queen Street and Victoria Street	D
Richmond Street and Victoria Street	-
Shuter Street and Yonge Street	С
Shuter Street and Victoria Street	-

#### Metrolinx Traffic and Transportation Environmental Conditions Report

Ontario Line Project

Signalized Intersections	Transit Level of Service
Queen Street and Bay Street	С
Richmond Street and Bay Street	-
Richmond Street and York Street	-
Adelaide Street and George Street	-
Adelaide Street and Jarvis Street	-
Richmond Street and Jarvis Street	-
Queen Street and Church Street	D
Queen Street and Jarvis Street	E
Shuter Street and Sherbourne Street	D
Adelaide Street and Sherbourne Street	E
King Street and Jarvis Street	E
Richmond Street and Church Street	-
Adelaide Street and Berkeley Street	-
Front Street and Lower Jarvis Street	-
Adelaide Street and Parliament Street	D
King Street and Berkeley Street	D
King Street and George Street	D
Front Street and Parliament Street	D
Front Street and Cherry Street	D
The Esplanade and Lower Jarvis Street	E
The Esplanade and Lower Sherbourne Street	D
Mill Street and Parliament Street	С
Mill Street and Cherry Street	С
Shuter Street and Parliament Street	С
Queen Street and Parliament Street	E
Queen Street and Sherbourne Street	E
Lake Shore Boulevard East and Lower Sherbourne Street	_
Gerrard Street and Carlaw Avenue	E
Gerrard Street and Pape Avenue	С
Gerrard Street and Marjory Ave	В

Note: The intersections that operate below the Transit Level of Service target 'D' are highlighted in grey.

Table 6-7:Summary of the Transit Level of Service at the Ontario Line<br/>South Study Area Road Segments under Existing Conditions<br/>(2020)

Road Segment	Transit Level of Service
Queen Street between: University Avenue and Parliament Street	D
Richmond Street between: University Avenue and Parliament Street	-
Adelaide Street between: Jarvis Street and Parliament Street	-
King Street between: Jarvis Street and Parliament Street	D
Shuter Street between: Yonge Street and Victoria Street	-
Shuter Street between: Jarvis Street and Parliament Street	-
Lake Shore Boulevard between: Sherbourne Street and Logan Avenue	-
Bay Street between: Queen Street and Richmond Street	D
Yonge Street between: Shuter Street and Richmond Street	D
Jarvis Street between: Queen Street and King Street	D
Jarvis Street between: King Street and The Esplanade	-
Sherbourne Street between: Shuter Street and The Esplanade	D
Parliament Street between: Shuter Street and The Esplanade	D
Gerrard Street between: Carlaw Avenue and Marjory Avenue	D





## 6.2.3 Ontario Line North

The findings of the Transit Level of Service analysis at the Ontario Line North Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 6-8** and **Table 6-9**, respectively, and illustrated in **Figure 6-5**. The critical intersections, individual intersection approaches, and road segments are highlighted in grey in **Table 6-8** and **Table 6-9** and are defined to be as those that operate at Transit Level of Service 'D' or worse. The detailed Transit Level of Service analysis results are presented in **Appendix K**.

Many of the streets and intersections in the north half of the Ontario Line North Study Area meet the target Transit Level of Service 'D'. Other larger intersections along the major corridors, and segments of Pape Avenue exceed Transit Level of Service 'D'. This is due to high approach delays at signalized intersections and friction along the segments, including frequent driveways and on-street parking.

As shown in **Table 6-8**, the majority of the intersections operate at Transit Levels of Service that are below the targets set for the studied corridors. Many of the streets and intersections in the north half of the Ontario Line North Study Area meet the target Transit Level of Service 'D'. Other larger intersections along the major corridors, and segments of Pape Avenue exceed Transit Level of Service 'D'. Transit vehicles experience notable delays at the following intersections:

- Eglinton Avenue & Don Mills Road;
- Wynford Drive & Don Mills Road;
- Barber Greene Road & Don Mills Road
- Gateway Boulevard (North) & Don Mills Road;
- Gateway Boulevard (South) & Don Mills Road;
- Overlea Boulevard & Thorncliffe Park Drive (East);
- Millwood Road & Pape Avenue;
- O'Connor Drive & Pape Avenue;
- Mortimer Avenue & Pape Avenue; and
- Danforth Avenue & Pape Avenue.

This is attributed to the long average delay that transit vehicles experience when travelling through many of the Ontario Line North Study Area intersections. Accordingly, the following transit routes operate at critical Transit Level of Service on the identified corridors:
- Bus routes 34, 334, 354 which operate on Eglinton Avenue;
- Bus routes 25, 144, 325, 403, 925 which operate on Don Mills Road;
- Bus routes 25, 81, 88, 100, 325, 403, 925 which operate on Overlea Boulevard; and
- Bus routes 25, 72, 81, 100, 325, 925 on Pape Avenue, which experience critical Transit Level of Service at Millwood Road, O'Connor Drive, Mortimer Avenue and Danforth Avenue cross sections.

As shown in **Table 6-9**, some of the major corridors within the Ontario Line North Study Area also operate at critical Transit Levels of Service, as listed below:

- Gateway Boulevard (Don Mills Road to Don Mills Road);
- Thorncliffe Park Drive (Overlea Boulevard to Overlea Boulevard); and
- Pape Avenue (O'Connor Drive to Danforth Avenue).

The critical Transit Levels of Service on these corridors are due to congestion, and the friction and incident potential between the curb lane at the surroundings, such as the frequency of on-street parking and driveways.

# Table 6-8: Summary of the Transit Level of Service at the Ontario Line North Study Area Intersections under Existing Conditions (2020)

Intersection	Transit Level of Service
Eglinton Avenue & Don Mills Road	F
Wynford Drive & Don Mills Road	F
Barber Greene Road & Don Mills Road	Е
St Dennis Drive & Don Mills Road	D
Gateway Boulevard (North) & Don Mills Road	Е
Gateway Boulevard (South) & Don Mills Road	F
Overlea Boulevard & Thorncliffe Park Drive (East)	F
Overlea Boulevard & Thorncliffe Park Drive (West)	D
Overlea Boulevard & Millwood Road	D
Millwood Road & Pape Avenue	Е
O'Connor Drive & Pape Avenue	F
Cosburn Avenue & Pape Avenue	D
Mortimer Avenue & Pape Avenue	F
Danforth Avenue & Pape Avenue	E

Note: The intersections that operate below the Transit Level of Service target 'D' are highlighted in grey.

Table 6-9:Summary of the Transit Level of Service at the Ontario Line<br/>North Study Area Road Segments under Existing Conditions<br/>(2020)

Road Segment	Transit Level of Service
Eglinton Avenue between: CP Mainline to Don Mills Road	D
Don Mills Road between: Barber Greene Road to Wynford Drive	D
Don Mills Road between: Wynford Drive to Eglinton Avenue	D
Don Mills Road between: Eglinton Avenue to Rochefort Drive	D
Don Mills Road between: Rochefort Drive to St. Dennis Drive	D
Don Mills Road between: St Dennis Drive to Gateway Boulevard (South)	D
Don Mills Road between: Gateway Boulevard (South) to GO Transit Line	D
Gateway Boulevard between: Don Mills Road to Don Mills Road	Е
Overlea Boulevard between: Don Mills Road to East of Thorncliffe Park Drive	D
Overlea Boulevard between: East of Thorncliffe Park Drive to Thorncliffe Park Drive (West)	D
Overlea Boulevard between: Thorncliffe Park Drive to Millwood Road	D
Thorncliffe Park Drive between: Overlea Boulevard to Overlea Boulevard	E
Millwood Road between: CP Mainline to Overlea Boulevard	D
Millwood Road between: Overlea Boulevard to Pape Avenue	D
Pape Avenue between: Millwood Road to O'Connor Drive	D
Pape Avenue between: O'Connor Drive to Cosburn Avenue	E
Pape Avenue between: Cosburn Avenue to Mortimer Avenue	E
Pape Avenue between: Mortimer Avenue to Danforth Avenue	E
Beth Nealson Drive between: Wicksteed Avenue to Overlea Boulevard	D

Note: The intersections that operate below the Transit Level of Service target 'D' are highlighted in grey.





### 7. Pedestrian Network and Operations

### 7.1 Pedestrian Network

### 7.1.1 Ontario Line West

Pedestrians are accommodated within the Ontario Line West Study Area through sidewalks provided on both sides of the majority of the streets. In addition, painted crosswalks are provided across all legs of the Ontario Line West Study Area intersections.

Sidewalks are generally 1.5 to 2.0 metres wide, with a mix of monolithic and boulevard separated facilities. The South Liberty Trail extends from Dufferin Street to the existing Exhibition GO Station at the south side of Atlantic Avenue. No notable gaps in the pedestrian network within the Ontario Line West are identified. The existing pedestrian network within the Ontario Line West Study Area is illustrated in **Figure 7-1**.

### 7.1.2 Ontario Line South

Pedestrians are accommodated within the Ontario Line South Study Area through sidewalks provided on both sides of the majority of the roads. In addition, painted crosswalks are provided across all legs of the Ontario Line South Study Area intersections.

Sidewalks are generally 1.5 to 2.0 metres wide, with a mix of monolithic and boulevard separated facilities. There are some multi-use pathways and trails provided, including the Lower Don River Trail and the Martin Goodman Trail. No notable gaps in the pedestrian network within the Ontario Line West are identified. The existing pedestrian network within the Ontario Line South Study Area is illustrated in **Figure 7-2**.

### 7.1.3 Ontario Line North

Pedestrians are accommodated within the Ontario Line North Study Area through sidewalks provided on both sides of the majority of the major arterial streets and cross streets along Pape Avenue, but are missing in some sections, including some minor roads.

Sidewalks are generally 1.5 to 2.0 metres wide, with a mix of mono and boulevard separated facilities. There are some multi-use pathways and trails provided, including through ET Seton Park, and south of Overlea Boulevard near Thorncliffe Drive. Notable gaps in the pedestrian network include:

- No facility on Beechwood Drive under the Don Valley Parkway underpass; and
- Missing sidewalks on Banigan Drive, Pat Moore Drive and William Morgan Drive.

The existing pedestrian network within the Ontario Line North Study Area is illustrated in **Figure 7-3**.













### 7.2 Pedestrian Operations

### 7.2.1 Ontario Line West

The findings of the Pedestrian Level of Service analysis at the Ontario Line West Study Area signalized intersections and road segments in the Existing Conditions (2020) are summarized in **Table 7-1** and **Table 7-2**, respectively, and illustrated in **Figure 7-4**. The intersections and road segments with Pedestrian Level of Service 'D' or worse are identified as those not meeting the Pedestrian Level of Service target and thus, operating at "critical" levels. These critical road elements are highlighted in grey in **Table 7-1** and **Table 7-2**. The detailed Pedestrian Level of Service analysis results at the individual intersection approach level under the Existing Conditions (2020) are presented in **Appendix I**.

At the Ontario Line West Study Area signalized intersections in both the AM and PM peak hours, pedestrians experience long average delays / waiting times before they receive Walk Time and start crossing the studied sections of the major arterial roads within the Ontario Line West Study Area such as University Avenue, Queen Street, King Street, etc. In addition, as they start crossing at the signalized intersection, they experience significant "exposure to traffic" due to the generally wide crossing distances (i.e., number of lanes to be crossed, the potential conflicts with left-turning and right-turning vehicular traffic, and the absence of right-turn-on-red restrictions or pedestrian signal leading intervals at the majority of the intersections). Thus, the majority of the signalized intersection approaches in the Existing Conditions are estimated to operate at Pedestrian Level of Service 'D' or worse. As shown in **Table 7-1**, and at the overall intersection level too, pedestrians experience Pedestrian Level of Service 'D' or worse at all the Ontario Line West Study Area signalized intersections.

As for the Ontario Line West Study Area road segments, pedestrians are generally accommodated through wide sidewalks provided along either side of the studied sections of the major arterial roads. In addition, vehicles generally operate at low average speeds (i.e., between 30 and 50 kilometres per hour) when driving along the major arterial roads. Hence, and as shown in **Table 7-2**, pedestrians experience acceptable Pedestrian Level of Service 'C' or better along all the studied road segments, with the exception of the Adelaide Street section between Brant Street and Bathurst Street, the Strachan Avenue section between East Liberty Street and Fleet Street, and the Bathurst Street section between Queen Street and Fort York Boulevard which operate at Pedestrian Level of Service 'D' or 'E' as a result of the narrow sidewalk widths which expose pedestrians to the significant volumes of curb lane traffic (i.e., greater than 3000 average daily curb lane traffic volumes along the noted section of Adelaide Street).

Table 7-1: Summary of	of the Pedestrian Level of Service at the Ontario I	Line
West Study	y Area Intersections under Existing Conditions (2	2020)

Signalized Intersections	Pedestrian Level of Service
Queen Street and University Avenue	F
Queen Street and St. Patrick Street	D
Queen Street and John Street	D
Queen Street and Peter Street/Soho Street	D
Queen Street and Augusta Avenue	D
Queen Street and Portland Street	D
Richmond Street and John Street	D
Richmond Street and University Avenue	F
Adelaide Street and Peter Street	D
Adelaide Street and Spadina Avenue	F
Adelaide Street and Brant Street	D
Adelaide Street and Portland Street	D
Adelaide Street and Bathurst Street	D
King Street and Portland Street	D
King Street and Spadina Avenue	F
Bathurst Street and Fort York Boulevard	E
East Liberty Street and Strachan Avenue	E
Liberty Street and Dufferin Street	D

Note: The intersections that operate below the Pedestrian Level of Service target 'C' are highlighted in grey.

# Table 7-2: Summary of the Pedestrian Level of Service at the Ontario LineWest Study Area Road Segments under Existing Conditions (2020)

Road Segment	Pedestrian Level of Service
Queen Street between: University Avenue and Bathurst Street	С
Richmond Street between: University Avenue and Widmer Street	В
Richmond Street between: Widmer Street and Bathurst Street	С
Adelaide Street between: Peter Street and Brant Street	С
Adelaide Street between: Brant Street and Bathurst Street	E
King Street between: Spadina Avenue and Niagara Street	В
University Avenue between: Queen Street and Richmond Street	С
Spadina Avenue between: Queen Street and King Street	В
Bathurst Street between: Queen Street and Fort York Boulevard	D
Strachan Avenue between: East Liberty Street and Fleet Street	E
Dufferin Street between: King Street and Springhurst Avenue	В

Note: The road segments that operate below the Pedestrian Level of Service target 'C' are highlighted in grey.





### 7.2.2 Ontario Line South

The findings of the Pedestrian Level of Service analysis at the Ontario Line South Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 7-3** and **Table 7-4**, respectively, and illustrated in **Table 7-5**. As stated in **Section 2.2.4.2**, the intersections and road segments with Pedestrian Level of Service 'D' or worse are identified as those not meeting the Pedestrian Level of Service target and thus, operating at "critical" levels. These critical road elements are highlighted in grey in **Table 7-3** and **Table 7-4**. The detailed Pedestrian Level of Service analysis results under the Existing Conditions (2020) are presented in **Appendix J**.

At the Ontario Line South Study Area signalized intersections in both the AM and PM peak hours, pedestrians experience long average delays / waiting times before they receive Walk Time and start crossing the studied sections of the major arterial roads within the Ontario Line South Study Area such as Queen Street, Richmond Street, Adelaide Street, Yonge Street, Jarvis Street, etc. In addition, as they start crossing at the signalized intersection, they experience significant "exposure to traffic" due to the generally wide crossing distances (i.e., number of lanes to be crossed, the potential conflicts with left-turning and right-turning vehicular traffic, and the absence of right-turnon-red restrictions or pedestrian signal leading intervals at the majority of the intersections). Thus, the majority of the signalized intersection approaches are estimated to operate at Pedestrian Level of Service 'D' or worse. As shown in Table 7-3, and at the overall intersection level too, pedestrians experience Pedestrian Level of Service 'D' or worse at all the Ontario Line South Study Area signalized intersections with the exception being the intersections of Queen Street and Yonge Street, Richmond Street and York Street, Queen Street and Jarvis Street, and Mill Street and Parliament Street where pedestrians experience Pedestrian Level of Service 'C'.

As shown in **Figure 7-5**, for the Ontario Line South Study Area road segments, the majority of the road segments between University Avenue and Jarvis Street as well as the road segments along Sherbourne Street, Lake Shore Boulevard, and Gerrard Street operate at acceptable Pedestrian Level of Service 'C' or better. This is mainly attributed to the wide sidewalks and the presence of a multi-use pathway along Lake Shore Boulevard. The remaining road segments generally operate at a critical Pedestrian Level of Service 'E'. This is mainly attributed to the narrow sidewalk widths along the noted road segments.

# Table 7-3: Summary of the Pedestrian Level of Service at the Ontario Line South Study Area Intersections under Existing Conditions (2020)

Signalized Intersections	Pedestrian Level of Service
Queen Street and Yonge Street	С
Richmond Street and Yonge Street	D
Queen Street and Victoria Street	D
Richmond Street and Victoria Street	D
Shuter Street and Yonge Street	D
Shuter Street and Victoria Street	D
Queen Street and Bay Street	D
Richmond Street and Bay Street	D
Richmond Street and York Street	С
Adelaide Street and George Street	D
Adelaide Street and Jarvis Street	E
Richmond Street and Jarvis Street	E
Queen Street and Church Street	D
Queen Street and Jarvis Street	С
Shuter Street and Sherbourne Street	E
Adelaide Street and Sherbourne Street	D
King Street and Jarvis Street	D
Richmond Street and Church Street	D
Adelaide Street and Berkeley Street	D
Front Street and Lower Jarvis Street	E
Adelaide Street and Parliament Street	E
King Street and Berkeley Street	D
King Street and George Street	D
Front Street and Parliament Street	E
Front Street and Cherry Street	F
The Esplanade and Lower Jarvis Street	D
The Esplanade and Lower Sherbourne Street	E
Mill Street and Parliament Street	С
Mill Street and Cherry Street	F
Shuter Street and Parliament Street	D
Queen Street and Parliament Street	D
Queen Street and Sherbourne Street	E
Lake Shore Boulevard East and Lower Sherbourne Street	F
Gerrard Street and Carlaw Avenue	D
Gerrard Street and Pape Avenue	D
Gerrard Street and Marjory Avenue	D

Note: The intersections that operate below the Pedestrian Level of Service target 'C' are highlighted in grey.

# Table 7-4: Summary of the Pedestrian Level of Service at the Ontario Line South Study Area Road Segments under Existing Conditions (2020)

Road Segment	Pedestrian Level of Service
Queen Street between: University Avenue and Yonge Street	В
Queen Street between: Yonge Street and Victoria Street	С
Queen Street between: Victoria Street and Church Street	В
Queen Street between: Church Street and Parliament Street	E
Richmond Street between: Parliament Street and George Street	E
Richmond Street between: George Street and Jarvis Street	В
Richmond Street between: Jarvis Street and Church Street	E
Richmond Street between: Church Street and Victoria Street	В
Richmond Street between: Victoria Street and Yonge Street	E
Richmond Street between: Yonge Street and York Street	В
Richmond Street between: York Street and University Avenue	E
Adelaide Street between: Jarvis Street and George Street	В
Adelaide Street between: George Street and Parliament Street	E
King Street between: Jarvis Street and Parliament Street	E
Shuter Street between: Yonge Street and Victoria Street	E
Shuter Street between: Jarvis Street and Parliament Street	E
Lake Shore Boulevard between: Sherbourne Street and Logan Avenue	А
Bay Street between: Queen Street and Richmond Street	В
Yonge Street between: Shuter Street and Richmond Street	E
Jarvis Street between: Queen Street and Richmond Street	В
Jarvis Street between: Richmond Street and Front Street	В
Jarvis Street between: Front Street and The Esplanade	В
Sherbourne Street between: Shuter Street and The Esplanade	С
Parliament Street between: Shuter Street and The Esplanade	E
Gerrard Street between: Carlaw Avenue and Marjory Avenue	В

Note: The road segments that operate below the Pedestrian Level of Service target 'C' are highlighted in grey.





### 7.2.3 Ontario Line North

The findings of the Pedestrian Level of Service analysis at the Ontario Line North Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 7-5** and **Table 7-6**, respectively, and illustrated in **Figure 7-6**. As stated in **Section 2.2.4.2**, the intersections and road segments with Pedestrian Level of Service 'D' or worse are identified as those not meeting the Pedestrian Level of Service target and thus, operating at "critical" levels. These critical road elements are highlighted in grey in **Table 7-5** and **Table 7-6**. The detailed Pedestrian Level of Service analysis results under the Existing Conditions (2020) are presented in **Appendix K**.

As shown in **Table 7-5**, pedestrians experience critical Pedestrian Level of Service 'D' or worse at all the signalized intersections within the Ontario Line North Study Area, as none of the studied intersections currently operate at acceptable Pedestrian Level of Service 'C' or better overall.

As shown in **Table 7-6**, only a few of the studied road segments within the Ontario Line North Study Area meet the Pedestrian Level of Service 'C' (Thorncliffe Park Drive, Gateway Boulevard, and some sections of Pape Avenue), and the rest of the Ontario Line North Study Area road segments and intersection exceed Pedestrian Level of Service 'C'. This is primarily due to narrow sidewalks, and wide intersections approaches and crosswalks throughout the Ontario Line North Study Area.

Intersection	Pedestrian Level of Service
Eglinton Avenue & Don Mills Road	F
Wynford Drive & Don Mills Road	F
Barber Greene Road & Don Mills Road	F
St Dennis Drive & Don Mills Road	F
Gateway Boulevard (North) & Don Mills Road	F
Gateway Boulevard (South) & Don Mills Road	F
Overlea Boulevard & Thorncliffe Park Drive (East)	E
Overlea Boulevard & Thorncliffe Park Drive (West)	E
Overlea Boulevard & Millwood Road	F
Millwood Road & Pape Avenue	F
O'Connor Drive & Pape Avenue	D
Cosburn Avenue & Pape Avenue	D
Mortimer Avenue & Pape Avenue	D

# Table 7-5:Summary of the Pedestrian Level of Service at the Ontario Line<br/>North Study Area Intersections under Existing Conditions (2020)

#### Metrolinx Traffic and Transportation Environmental Conditions Report

Ontario Line Project

Intersection	Pedestrian Level of Service
Danforth Avenue & Pape Avenue	Е

Note: The road segments that operate below the Pedestrian Level of Service target 'C' are highlighted in grey.

# Table 7-6:Summary of the Pedestrian Level of Service at the Ontario Line<br/>North Study Area Road Segments under Existing Conditions<br/>(2020)

Road Segment	Pedestrian Level of Service
Eglinton Avenue between: CP Mainline to Don Mills Road	F
Don Mills Road between: Barber Greene Road to Wynford Drive	E
Don Mills Road between: Wynford Drive to Eglinton Avenue	F
Don Mills Road between: Eglinton Avenue to Rochefort Drive	E
Don Mills Road between: Rochefort Drive to St. Dennis Drive	E
Don Mills Road between: St Dennis Drive to Gateway Boulevard (South)	E
Don Mills Road between: Gateway Boulevard (South) to GO Transit Line	С
Gateway Boulevard between: Don Mills Road to Don Mills Road	С
Overlea Boulevard between: Don Mills Road to East of Thorncliffe Park Drive	F
Overlea Boulevard between: East of Thorncliffe Park Drive to Thorncliffe Park Drive (West)	E
Overlea Boulevard between: Thorncliffe Park Drive to Millwood Road	D
Thorncliffe Park Drive between: Overlea Boulevard to Overlea Boulevard	С
Millwood Road between: CP Mainline to Overlea Boulevard	F
Millwood Road between: Overlea Boulevard to Pape Avenue	F
Pape Avenue between: Millwood Road to O'Connor Drive	В
Pape Avenue between: O'Connor Drive to Cosburn Avenue	В
Pape Avenue between: Cosburn Avenue to Mortimer Avenue	В
Pape Avenue between: Mortimer Avenue to Danforth Avenue	D
Beth Nealson Drive between: Wicksteed Avenue to Overlea Boulevard	E

Note: The intersections that operate below the Pedestrian Level of Service target 'C' are highlighted in grey





### 8. Cycling Network and Operations

### 8.1 Cycling Network

### 8.1.1 Ontario Line West

Cyclists are accommodated within the Ontario Line West Study Area through exclusive cycling facilities, on-street bike lanes, and shared lanes. The cycle tracks along the north side of Richmond Street and the south side of Adelaide Street provide cyclists within the Ontario Line West Study Area with one-way movement in the westbound and eastbound directions, respectively.

Cyclists travelling in the northbound and southbound direction within the Ontario Line West Study Area are accommodated through the directional cycle tracks along either side of Simcoe Street and Peter Street as well as the shared lanes along either side of Spadina Avenue. Bathurst Street offers a curb bike lane in the southbound direction between Richmond Street and Adelaide Street, providing cyclists travelling along Richmond Street with another connection to Adelaide Street.

In addition, and at the intersection level, cross-rides are provided across the north leg and the south leg of all the Ontario Line West Study Area intersections along Richmond Street and Adelaide Street, respectively. Cross-rides are also provided across the east and west legs of the intersection of Richmond Street and Peter Street as well as the intersection of Adelaide Street and Peter Street and the intersection of Adelaide Street and Simcoe Street. The existing cycling network within the Ontario Line West Study Area is illustrated in **Figure 8-1**.

Notable gaps in the cycling network within the Ontario Line West Study Area include:

- No major north-south bicycle route/facility in the vicinity of Exhibition Station which would link the growing Liberty Village neighbourhood to Exhibition Station and the amenities and destinations south of the railway corridor; and
- No major east-west bicycle route/facility across the growing Liberty Village neighbourhood which would also provide a connection to the on-street bike lanes along Strachan Avenue.





### 8.1.2 Ontario Line South

Cyclists are accommodated within the Ontario Line South Study Area through exclusive cycling facilities, on-street bike lanes, and shared lanes. The cycle tracks along the north side of Richmond Street and the south side of Adelaide Street provide cyclists within the Ontario Line South Study Area with one-way movement in the westbound and eastbound directions, respectively. Cyclists traveling along Shuter Street are accommodated through shared lane along the north and south sides.

Cyclists traveling in the northbound and southbound direction within the Ontario Line South Study Area are accommodated through the directional cycle tracks along either side of Sherbourne Street, which provides cyclists traveling along Richmond Street with another connection to Adelaide Street and vice versa.

In addition, and at the intersection level, cross-rides are provided across the north leg and the south leg of all the Ontario Line South Study Area intersections along Richmond Street and Adelaide Street, respectively. Cross-rides are also provided across the east legs and the west legs of all Ontario Line South Study Area along Sherbourne Street. The existing cycling network within the Ontario Line South Study Area is illustrated in **Figure 8-2**.

Notable gaps in the cycling network within the Ontario Line South Study Area include:

• No major north-south bicycle route/facility west of Sherbourne Street.

### 8.1.3 Ontario Line North

Cyclists are accommodated within the Ontario Line North Study Area through exclusive cycling facilities, on-street bike lanes, and shared lanes; however, designated cycling facilities are sparsely provided and only available on select links and for limited distances. Cosburn Avenue has on-street cycle tracks, and Wicksteed Avenue and Sammon Avenue are suggested east-west on-street routes.

Cyclists travelling in the northbound and southbound direction within the Ontario Line North Study Area are accommodated through on-street bicycle lanes on Millwood Road between Donlands Avenue and Overlea Boulevard, and a major multi-use pathway running north-south east of Don Mills Road, and along the north and west sides of the Don Valley Parkway.

No cross-rides are provided in the Ontario Line North Study Area.

The existing cycling network within the Ontario Line North Study Area is illustrated in **Figure 8-3**.









Notable gaps in the cycling network within the Ontario Line North Study Area include:

- No major north-south bicycle route/facility south of Millwood Road (parallel with Pape Avenue), and north of Overlea Boulevard, such as near Don Mills Road; and
- No major dedicated east-west connection within the north half of the Ontario Line North Study Area, such as along Eglinton Avenue, Wicksteed Avenue, or Overlea Boulevard.

### 8.2 Cycling Operations

### 8.2.1 Ontario Line West

The findings of the Bicycle Level of Service analysis at the Ontario Line West Study Area signalized intersections and road segments in the Existing Conditions (2020) are summarized in **Table 8-1** and **Table 8-2**, respectively, and illustrated in **Figure 8-4**. The critical intersections and road segments are highlighted in grey in **Table 8-1** and **Table 8-2** and are defined to be those operating at Bicycle Level of Service 'D' or worse. The detailed Bicycle Level of Service analysis results for the Existing Conditions (2020) are presented in **Appendix I**.

Table 8-1:	Summary of the Bicycle Level of Service at the Ontario Line
	West Study Area Intersections under Existing Conditions (2020)

Signalized Intersections	<b>Bicycle Level of Service</b>
Queen Street and University Avenue	D
Queen Street and St. Patrick Street	В
Queen Street and John Street	D
Queen Street and Peter Street/Soho Street	В
Queen Street and Augusta Avenue	В
Queen Street and Portland Street	В
Richmond Street and John Street	D
Richmond Street and University Avenue	D
Adelaide Street and Peter Street	А
Adelaide Street and Spadina Avenue	В
Adelaide Street and Brant Street	В
Adelaide Street and Portland Street	В
Adelaide Street and Bathurst Street	F
King Street and Portland Street	D

Signalized Intersections	<b>Bicycle Level of Service</b>
King Street and Spadina Avenue	D
Bathurst Street and Fort York Boulevard	С
East Liberty Street and Strachan Avenue	В
Liberty Street and Dufferin Street	В

Note: The intersections that operate below the Cyclist Level of Service target 'C' are highlighted in grey.

As shown in **Table 8-1**, the majority of the Ontario Line West Study Area signalized intersections operate at acceptable Bicycle Level of Service 'C' or better at the overall intersection level. However, cyclists experience Bicycle Level of Service 'D' or worse at the following signalized Ontario Line West Study Area intersections:

- Queen Street and University Avenue;
- Queen Street and John Street;
- Richmond Street and John Street;
- Richmond Street and University Avenue;
- Adelaide Street and Bathurst Street;
- King Street and Portland Street; and
- King Street and Spadina Avenue.

This is mainly attributed to the lack of designated cycling facilities at all of the individual approaches to the noted intersections (e.g., bicycle left-turn box, pocket bike lanes, cross-rides, etc.) which requires a left-turning cyclist in mixed traffic to either dismount their bicycle and walk across two perpendicular intersection legs as a pedestrian or weave through and cross general-purpose traffic lanes(s) before reaching to the road centreline and making a left-turn movement. It should be noted that at the northbound approach to the intersection of Adelaide Street and Bathurst Street, and in addition to the lack of any designated cycling facility, the relatively long northbound right-turn lane (i.e., longer than 50 m) results in cyclists experiencing a Bicycle Level of Service 'F'.

As shown in **Table 8-2**, cyclists experience critical Bicycle Level of Service 'D' or worse along all the studied road segments of Queen Street, King Street, University Avenue, Spadina Avenue, and Dufferin Street. This is mainly attributed to the lack of physically separated cycling facilities along the noted major roads. However, cyclists accommodated through the cycle tracks along Richmond Street and Adelaide Street and through the on-street bike lanes along Strachan Avenue experience excellent Bicycle Level of Service 'A' throughout the studied sections of the noted roads. Metrolinx Traffic and Transportation Environmental Conditions Report Ontario Line Project

Table 8-2:Summary of the Bicycle Level of Service at the Ontario Line<br/>West Study Area Road Segments under Existing Conditions<br/>(2020)

Road Segment	Bicycle Level of Service
Queen Street between: University Avenue and Bathurst Street	D
Richmond Street between: University Avenue and Bathurst Street	А
Adelaide Street between: Peter Street and Bathurst Street	А
King Street between: Spadina Avenue and Niagara Street	D
University Avenue between: Queen Street and Richmond Street	E
Spadina Avenue between: Queen Street and King Street	D
Bathurst Street between: Queen Street and Fort York Boulevard	D
Strachan Avenue between: East Liberty Street and Fleet Street	А
Dufferin Street between: King Street and Springhurst Avenue	E

Note: The road segments that operate below the Cyclist Level of Service target 'C' are highlighted in grey.





### 8.2.2 Ontario Line South

The findings of the Bicycle Level of Service analysis at the Ontario Line South Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 8-3** and **Table 8-4**, respectively, and illustrated in **Figure 8-5**. The critical intersections, individual intersection approaches, and road segments are highlighted in grey in **Table 8-3** and **Table 8-4** and are defined to be those operating at Bicycle Level of Service 'D' or worse. The detailed Bicycle Level of Service analysis results for the Existing Conditions (2020) are presented in **Appendix J**.

As shown in **Table 8-3**, the majority of the Ontario Line South Study Area signalized intersections operate at acceptable Bicycle Level of Service 'C' or better overall. However, cyclists experience Bicycle Level of Service 'D' or worse at the following signalized Ontario Line South Study Area intersections:

- Richmond Street and York Street;
- Shuter Street and Sherbourne Street;
- Front Street and Lower Jarvis Street;
- Front Street and Parliament Street;
- Mill Street and Cherry Street;
- Shuter Street and Parliament Street
- The Esplanade and Lower Jarvis Street; and
- Lake Shore Boulevard East and Lower Sherbourne Street.

This is mainly attributed to lack of designated cycling facilities on some of the individual approaches to the noted intersections (e.g., bicycle left-turn box, pocket bike lanes, cross-rides, etc.) which requires a left-turning cyclist in mixed traffic to either dismount their bicycle and walk across two perpendicular intersection legs as a pedestrian or weave through and cross general-purpose traffic lanes(s) before making a left turn.

As shown in **Table 8-4**, cyclists experience critical Bicycle Level of Service 'D' along all the studied road segments of Queen Street, King Street, Bay Street, Yonge Street, Jarvis Street, Parliament Street, and Gerrard Street. This is mainly attributed to the lack of any physically separated cycling facilities along the noted roads. However, cyclists accommodated through the cycling facilities along Richmond Street, Adelaide Street, Shuter Street, Sherbourne Street, and Lake Shore Boulevard experience excellent Bicycle Level of Service 'A' or 'B' throughout the studied sections of the noted roads.

# Table 8-3: Summary of the Bicycle Level of Service at the Ontario Line South Study Area Intersections under Existing Conditions (2020)

Signalized Intersections	<b>Bicycle Level of Service</b>
Queen Street and Yonge Street	В
Richmond Street and Yonge Street	В
Queen Street and Victoria Street	В
Richmond Street and Victoria Street	В
Shuter Street and Yonge Street	В
Shuter Street and Victoria Street	В
Queen Street and Bay Street	В
Richmond Street and Bay Street	В
Richmond Street and York Street	D
Adelaide Street and George Street	В
Adelaide Street and Jarvis Street	В
Richmond Street and Jarvis Street	В
Queen Street and Church Street	В
Queen Street and Jarvis Street	В
Shuter Street and Sherbourne Street	D
Adelaide Street and Sherbourne Street	В
King Street and Jarvis Street	В
Richmond Street and Church Street	В
Adelaide Street and Berkeley Street	В
Front Street and Lower Jarvis Street	D
Adelaide Street and Parliament Street	В
King Street and Berkeley Street	В
King Street and George Street	В
Front Street and Parliament Street	D
Front Street and Cherry Street	В
The Esplanade and Lower Jarvis Street	D
The Esplanade and Lower Sherbourne Street	В
Mill Street and Parliament Street	В
Mill Street and Cherry Street	D
Shuter Street and Parliament Street	D
Queen Street and Parliament Street	В
Queen Street and Sherbourne Street	В
Lake Shore Boulevard East and Lower Sherbourne Street	D
Gerrard Street and Carlaw Avenue	В
Gerrard Street and Pape Avenue	В
Gerrard Street and Marjory Ave	В

Note: The intersections that operate below the Cyclist Level of Service target 'C' are highlighted in grey.

# Table 8-4: Summary of the Bicycle Level of Service at the Ontario Line SouthStudy Area Road Segments under Existing Conditions (2020)

Road Segment	Bicycle Level of Service
Queen Street between: University Avenue and Parliament Street	D
Richmond Street between: Church Street and Parliament Street	А
Adelaide Street between: Jarvis Street and Parliament Street	А
King Street between: Jarvis Street and Parliament Street	D
Shuter Street between: Yonge Street and Victoria Street	А
Shuter Street between: Jarvis Street and Parliament Street	В
Lake Shore Boulevard between: Sherbourne Street and Logan Avenue	A
Bay Street between: Queen Street and Richmond Street	D
Yonge Street between: Shuter Street and Richmond Street	D
Jarvis Street between: Queen Street and The Esplanade	D
Sherbourne Street between: Shuter Street and The Esplanade	А
Parliament Street between: Shuter Street and The Esplanade	D
Gerrard Street between: Carlaw Avenue and Marjory Avenue	D

Note: The road segments that operate below the Cyclist Level of Service target 'C' are highlighted in grey.





### 8.2.3 Ontario Line North

The findings of the Bicycle Level of Service analysis at the Ontario Line North Study Area signalized intersections, and road segments under Existing Conditions (2020) are summarized in **Table 8-5** and **Table 8-6**, respectively, and illustrated in **Figure 8-6**. The critical intersections, individual intersection approaches, and road segments are highlighted in grey in **Table 8-5** and **Table 8-6** and are defined to be those operating at Bicycle Level of Service 'D' or worse. The detailed Bicycle Level of Service analysis results under the Existing Conditions (2020) are presented in **Appendix K**.

As shown in **Table 8-5**, cyclists experience critical Bicycle Level of Service 'D' or worse at all signalized intersections within the Ontario Line North Study Area, as none of the studied intersections currently operate at acceptable Bicycle Level of Service 'C' or better overall.

As shown in **Table 8-6**, the majority of studied road segments within the Ontario Line North Study Area are operating below the acceptable Bicycle Level of Service 'C' or better overall. There are a few road segments that meet the Bicycle Level of Service 'B' target for "Local Routes", including a section of Pape Avenue, Thorncliffe Park Drive, Beth Nealson Drive, and the south section of Don Mills Road due to the availability of an off-street pathway. However, these higher level of service sections are separated by intersections and segments that are between Bicycle Level of Service 'D' and 'F'. As noted in the network inventory section, continuous north-south and east-west connections through the Ontario Line North Study Area are missing.

Intersection	<b>Bicycle Level of Service</b>
Eglinton Avenue & Don Mills Road	F
Wynford Drive & Don Mills Road	F
Barber Greene Road & Don Mills Road	F
St Dennis Drive & Don Mills Road	F
Gateway Boulevard (North) & Don Mills Road	F
Gateway Boulevard (South) & Don Mills Road	F
Overlea Boulevard & Thorncliffe Park Drive (East)	F
Overlea Boulevard & Thorncliffe Park Drive (West)	F
Overlea Boulevard & Millwood Road	F
Millwood Road & Pape Avenue	E
O'Connor Drive & Pape Avenue	D

Table 8-5:	Summary of the Bicycle Level of Service at the Ontario Line	
	North Study Area Intersections under Existing Conditions (20	20)

Ontario Line Project

Intersection	<b>Bicycle Level of Service</b>
Cosburn Avenue & Pape Avenue	D
Mortimer Avenue & Pape Avenue	D
Danforth Avenue & Pape Avenue	E

Note: The intersections that operate below the Cyclist Level of Service target 'C' are highlighted in grey.

# Table 8-6: Summary of the Bicycle Level of Service at the Ontario Line NorthStudy Area Road Segments under Existing Conditions (2020)

Road Segment	Bicycle Level of Service
Eglinton Avenue between: CP Mainline to Don Mills Road	E
Don Mills Road between: Barber Greene Road to Wynford Drive	F
Don Mills Road between: Wynford Drive to Eglinton Avenue	F
Don Mills Road between: Eglinton Avenue to Rochefort Drive	F
Don Mills Road between: Rochefort Drive to St. Dennis Drive	F
Don Mills Road between: St Dennis Drive to Gateway Boulevard (South)	F
Don Mills Road between: Gateway Boulevard (South) to GO Transit Line	А
Gateway Boulevard between: Don Mills Road to Don Mills Road	D
Overlea Boulevard between: Don Mills Road to East of Thorncliffe Park Drive	E
Overlea Boulevard between: East of Thorncliffe Park Drive to Thorncliffe Park Drive (West)	E
Overlea Boulevard between: Thorncliffe Park Drive to Millwood Road	Е
Thorncliffe Park Drive between: Overlea Boulevard to Overlea Boulevard	В
Millwood Road between: CP Mainline to Overlea Boulevard	E
Millwood Road between: Overlea Boulevard to Pape Avenue	D
Pape Avenue between: Millwood Road to O'Connor Drive	E
Pape Avenue between: O'Connor Drive to Cosburn Avenue	В
Pape Avenue between: Cosburn Avenue to Mortimer Avenue	В
Pape Avenue between: Mortimer Avenue to Danforth Avenue	D
Beth Nealson Drive between: Wicksteed Avenue to Overlea Boulevard	В

Note: The road segments that operate below the Cyclist Level of Service target 'C' are highlighted in grey.

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### 9. Preliminary Potential Impacts, Mitigation Measures and Monitoring Activities

In accordance with Sections 4(3)6 and 4(3)7 of Ontario Regulation 341/20: Ontario Line Project, this section provides a preliminary overview of potential impacts, mitigation measures, and monitoring activities associated with the Project.

See **Table 9-1** and **Table 9-2** for a list of preliminary potential impacts, mitigation measures, and monitoring activities to be further assessed and evaluated as part of the Early Works Report(s) and/or Environmental Impact Assessment Report, as per Sections 8 and 15 of Ontario Regulation 341/20: Ontario Line Project, respectively.

# Table 9-1:Preliminary Potential Impacts, Mitigation Measures and<br/>Monitoring Activities During Construction

Environmental Component	Potential Impacts	Mitigation Measure(s)	Monitoring Activities
Transportation Network	<ul> <li>Construction may result in the need for temporary road or lane closures changing access to nearby land uses</li> </ul>	<ul> <li>Maintain reasonable access through work zones, to the extent possible.</li> <li>Access to nearby land uses will be maintained to the extent possible. Potentially affected residents, tenants and business owners will be notified of initial construction schedules, as well as modifications to these schedules as they occur.</li> <li>Potential effects to pedestrian and cyclist activities during construction will be mitigated through the installation of appropriate wayfinding, regulatory, and warning signs.</li> <li>Consult with the City of Toronto and local school board(s) during construction planning including consideration of route detours.</li> </ul>	<ul> <li>Traffic impacts to be monitored and mitigation adjusted as necessary during the construction period.</li> <li>Cycling network impacts to be monitored and mitigation adjusted as necessary during the construction period.</li> </ul>
Transit Network	<ul> <li>Construction may result in access restrictions to local bus routes and temporary disruptions to the existing rail corridor</li> </ul>	<ul> <li>Ensure that the public is notified in advance of any potential service disruptions.</li> <li>Consult with local transit agencies to establish a suitable mitigation strategy to be implemented.</li> <li>Consult with the City of Toronto and local school board(s) during construction planning including consideration of impacts to school bus stops.</li> </ul>	<ul> <li>Traffic impacts to be monitored and mitigation adjusted as necessary during the construction period.</li> </ul>
# Table 9-2:Preliminary Potential Impacts, Mitigation Measures and<br/>Monitoring Activities During Operations

Environmental Component	Potential Impacts	Mitigation Measure(s)	Monitoring Activities
Transit Network	<ul> <li>Operations may result in modification or disruption to local bus routes.</li> </ul>	<ul> <li>Ensure that the public is notified in advance of any potential service disruptions or modifications.</li> <li>Consult with local transit agencies to establish a suitable mitigation strategy to be implemented.</li> </ul>	<ul> <li>No monitoring related to the transit network is anticipated to be required during operations.</li> </ul>

# **10. Future Studies**

As noted in **Section 9**, Metrolinx will complete Early Works Report(s) and/or Environmental Impact Assessment Report as the Project planning and design progress. Preparation of these reports may necessitate additional traffic and transportation studies in areas that may not have been included in this Report but are identified as potentially impacted as the Project design is advanced. If required, these studies will be conducted and described in the Early Works Report(s) and/or Environmental Impact Assessment Report.

# **11. Permits and Approvals**

No traffic and transportation related permits or approvals are anticipated at this time. The need for traffic and transportation related permits and approvals will be revisited at the time of Environmental Impacts Assessment Report and/or Early Works Report(s) preparation.

Traffic Control and Management Plan(s) will be developed prior to construction to maintain reasonable access through work zones, to the extent possible. The Traffic Control and Management Plan(s) will include safety precautions for schools in consultation with the City of Toronto and local school board(s).

# 12. Conclusions

This Report has been prepared in support of the Environmental Conditions Report for the Project in accordance with Ontario Regulation 341/20: Ontario Line Project. Specifically, this Report has been prepared to document traffic and transportation information related to the Study Area for the Project. The main findings are summarized below.

# 12.1 Ontario Line West

# 12.1.1 Intersection Analysis

Within the Ontario Line West Study Area, all the intersections where traffic data were available operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours. However, the following movements were found to operate at critical levels in the AM peak hour:

- Northbound through and southbound left-turn movements at the intersection of Spadina Avenue and Adelaide Street;
- Northbound left-turn movement at the intersection of Spadina Avenue and King Street; and
- Eastbound left-turn movement at the intersection of Bathurst Street and Fort York Boulevard.

In the PM peak hour, the following movements were found to operate at critical levels:

- The shared northbound left-turn and right-turn movements at the intersection of Queen Street and Portland Street;
- Southbound left-turn movement at the intersection of Spadina Avenue and Adelaide Street;
- Northbound left-turn movement at the intersection of Spadina Avenue and King Street;
- The shared southbound left-turn, through, and right-turn movements at the intersection of Bathurst Street and Fort York Boulevard;
- Southbound through movement at the intersection of Strachan Avenue and East Liberty Street; and

• The shared westbound left-turn, through, and right-turn movements at the intersection of Dufferin Street and East Liberty Street.

# 12.1.2 Transit Operations

The level of service assessment for transit services at the Ontario Line West Study Area intersections revealed that the majority of the intersection approaches and overall intersections operate at Transit Level of Service that meet the targets for the studied corridors. Transit vehicles were found to experience notable delays at the following intersections only:

- Adelaide Street and Spadina Avenue; and
- Bathurst Street and Fort York Boulevard.

Along all the studied road segments of the Ontario Line West Study Area, transit vehicles experience an acceptable Transit Level of Service 'D' or better, meeting the minimum desirable Transit Level of Service for the studies sections.

# 12.1.3 Pedestrian Operations

The level of service assessment for pedestrians at the Ontario Line West Study Area intersections revealed that pedestrians experience Pedestrian Level of Service 'D' or worse at all the Ontario Line West Study Area signalized intersections.

Along all the studied road segments of the Ontario Line West Study Area, pedestrians experience acceptable Pedestrian Level of Service 'C' or better, with the exception of the Adelaide Street section between Brant Street and Bathurst Street and the Strachan Avenue section between East Liberty Street and Fleet Street which operate at Pedestrian Level of Service 'E'.

# 12.1.4 Cycling Operations

The level of service assessment for cyclists at the Ontario Line West Study Area intersections revealed that the majority of the Ontario Line West Study Area signalized intersections operate at acceptable Bicycle Level of Service 'C' or better at the overall intersection level. However, cyclists experience Bicycle Level of Service 'D' or worse at the following signalized Ontario Line West Study Area intersections:

- Queen Street and University Avenue;
- Queen Street and John Street;
- Richmond Street and John Street;

- Richmond Street and University Avenue;
- Adelaide Street and Bathurst Street;
- King Street and Portland Street; and
- King Street and Spadina Avenue.

Along all the studied road segments of Queen Street, King Street, University Avenue, Spadina Avenue, and Dufferin Street, cyclists experience critical Bicycle Level of Service 'D' or worse. However, cyclists accommodated through the cycle tracks along Richmond Street and Adelaide Street and through the on-street bike lanes along Strachan Avenue experience excellent Bicycle Level of Service 'A' throughout the studied sections of the noted roads.

# 12.2 Ontario Line South

# 12.2.1 Intersection Analysis

Within the Ontario Line South Study Area, all the intersections where traffic data were available operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours. However, in the AM peak hour, the shared southbound left-turn and through movements at the intersection of Jarvis Street and Adelaide Street is approaching capacity with volume to capacity ratio of 0.90. In the PM peak hour, and among the signalized Ontario Line South Study Area intersections, the following movements were found to operate at critical levels:

- The shared southbound left-turn and through movements at the intersection of Jarvis Street and Adelaide Street; and
- The shared southbound through and right-turn movements at the intersection of Lower Sherbourne Street and Lake Shore Boulevard East.

# 12.2.2 Transit Operations

The level of service assessment for transit services at the Ontario Line South Study Area intersections revealed that the majority of the intersection approaches and overall intersections operate at Transit Level of Service that meet the targets for the studied corridors. However, transit vehicles experience notable delays at the following intersections:

- Queen Street and Yonge Street;
- Richmond Street and Yonge Street;

- Queen Street and Jarvis Street;
- Adelaide Street and Sherbourne Street;
- King Street and Jarvis Street;
- The Esplanade and Lower Jarvis Street;
- Queen Street and Parliament Street;
- Queen Street and Sherbourne Street; and
- Gerrard Street and Carlaw Avenue.

Along all the studied road segments of the Ontario Line South Study Area, transit vehicles experience an acceptable Transit Level of Service 'D', meeting the minimum desirable Transit Level of Service for the studies sections.

## 12.2.3 Pedestrian Operations

The level of service assessment for pedestrians at the Ontario Line South Study Area intersections revealed that pedestrians experience Pedestrian Level of Service 'D' or worse at all the Ontario Line South Study Area signalized intersections with the exception being the intersections of Queen Street and Yonge Street, Richmond Street and York Street, Queen Street and Jarvis Street, and Mill Street and Parliament Street where pedestrians experience acceptable Pedestrian Level of Service 'C'.

At the road segment level, and along the majority of the road segments between University Avenue and Jarvis Street as well as the road segments along Sherbourne Street, Lake Shore Boulevard, and Gerrard Street, pedestrians experience an acceptable Pedestrian Level of Service 'C' or better. The remaining road segments generally operate at a critical Pedestrian Level of Service 'E'.

# 12.2.4 Cycling Operations

The level of service assessment for cyclists at the Ontario Line South Study Area intersections revealed that the majority of the Ontario Line South Study Area signalized intersections operate at acceptable Bicycle Level of Service 'C' or better overall. However, cyclists experience Bicycle Level of Service 'D' or worse at the following signalized Ontario Line South Study Area intersections:

- Richmond Street and York Street;
- Shuter Street and Sherbourne Street;
- Front Street and Lower Jarvis Street;

- Front Street and Parliament Street;
- Mill Street and Cherry Street;
- Shuter Street and Parliament Street
- The Esplanade and Lower Jarvis Street; and
- Lake Shore Boulevard East and Lower Sherbourne Street.

Along all the studied road segments of Queen Street, King Street, Bay Street, Yonge Street, Jarvis Street, Parliament Street, and Gerrard Street, cyclists experience critical Bicycle Level of Service 'D'. However, cyclists accommodated through the cycling facilities along Richmond Street, Adelaide Street, Shuter Street, Sherbourne Street, and Lake Shore Boulevard experience excellent Bicycle Level of Service 'A' or 'B' throughout the studied sections of the noted roads.

# 12.3 Ontario Line North

## 12.3.1 Intersection Analysis

Within the Ontario Line North Study Area, all the intersections where traffic data were available operate at acceptable level of service 'D' or better and within capacity in both the AM and PM peak hours. However, the following movements were found to operate at critical levels in the AM peak hour, with respect to level of service or capacity:

- Southbound left at the intersection of Don Mills Road and Wynford Drive;
- Westbound left, Northbound through, and Southbound through movements at the intersection of Don Mills Road and Eglinton Avenue East;
- Eastbound left, Westbound left, Westbound through and Northbound left movements at the intersection of Don Mills Road and Overlea Boulevard;
- Eastbound through and Westbound through movements at the intersection of Overlea Boulevard/William Morgan Drive;
- Northbound through and Southbound left movements at the intersection of Millwood Road and Overlea Boulevard;
- Shared lane of Northbound left, through and right movements at the intersection of O'Connor Drive and Pape Avenue; and
- Westbound through movement at the intersection of Pape Avenue and Mortimer Avenue.

In the PM peak hour, the following movements in the Ontario Line North Study Area were found to operate at critical levels:

- Southbound left at the intersection of Don Mills Road and Wynford Drive;
- Northbound through-right at the intersection of Don Mills Road and Barber Green Road/Green Belt Drive;Eastbound through, westbound left, Northbound through and Southbound left movements at the intersection of Don Mills Road and Eglinton Avenue East;
- Eastbound left and Northbound left movements at the intersection of Don Mills Road and Overlea Boulevard;
- Eastbound through movement at the intersection of Overlea Boulevard/William Morgan Drive;
- Eastbound through movement at the intersection of Overlea Boulevard/Thorncliffe Park Drive East (Beth Nealson);
- Shared lane of Northbound left, through and right movements at the intersection of O'Connor Drive/Pape Avenue;
- Shared lane of Northbound left, through and right movements at the intersection of Pape Avenue and Mortimer Avenue;
- Shared lane of Northbound left, through and right movements and Shared lane of Southbound left, through and right movements at the intersection of Northbound Pape Avenue and Danforth Avenue; and
- Shared lane of Northbound left and right movements at the intersection of Overlea Boulevard and Leaside Park Drive.

# 12.3.2 Transit Operations

The level of service assessment for transit services at the Ontario Line North Study Area intersections revealed that apart from the following intersection segments and intersections, all others operate at Transit Level of Service that meet the targets for the studied corridors. Transit vehicles were found to experience notable delays at the following segments/intersections only:

- Segment Don Mills Road to Don Mills Road
- Segment Overlea Boulevard to Overlea Boulevard
- Segment O'Connor Drive to Cosburn Avenue
- Segment Cosburn Avenue to Mortimer Avenue
- Segment Mortimer Avenue to Danforth Avenue

- Intersection Eglinton Avenue & Don Mills Road
- Intersection Gateway Boulevard (North) & Don Mills Road
- Intersection Gateway Boulevard (South) & Don Mills Road
- Intersection Overlea Boulevard & Thorncliffe Park Drive (East)
- Intersection Millwood Road & Pape Avenue
- Intersection O'Connor Drive & Pape Avenue
- Intersection Mortimer Avenue & Pape Avenue
- Intersection Danforth Avenue & Pape Avenue

## 12.3.3 Pedestrian Operations

The level of service assessment for pedestrians at the Ontario Line North Study Area intersections revealed that pedestrians experience Bicycle Level of Service 'D' or worse at all the Ontario Line North Study Area segments and signalized intersections with the only exception of the following segments:

- Segment Gateway Boulevard (South) to GO Transit Line
- Segment Overlea Boulevard to Overlea Boulevard
- Segment O'Connor Drive to Cosburn Avenue
- Segment Cosburn Avenue to Mortimer Avenue
- Segment Wicksteed Avenue to Overlea Boulevard

# 12.3.4 Cycling Operations

The level of service assessment for cyclists at the Ontario Line North Study Area intersections revealed that pedestrians experience Pedestrian Level of Service 'D' or worse at all the Ontario Line North Study Area segments and signalized intersections with the only exception of the following segments:

- Segment Gateway Boulevard (South) to GO Transit Line
- Segment Don Mills Road to Don Mills Road
- Segment Overlea Boulevard to Overlea Boulevard
- Segment Millwood Road to O'Connor Drive
- Segment O'Connor Drive to Cosburn Avenue
- Segment Cosburn Avenue to Mortimer Avenue

# 12.4 Preliminary Potential Impacts, Mitigation Measures and Monitoring Activities

There shall be considerations to the environment, as noted in **Section 9**. A range of preliminary potential traffic and transportation impacts and mitigation measures were identified. Preliminary mitigation measures and monitoring recommendations/activities are summarized in **Table 12-1**.

As noted in **Section 10**, a detailed impact assessment will be undertaken as project planning and design advance and documented in the Early Works Report(s) and/or Environmental Impact Assessment Report. These reports will capture specific mitigation measures and monitoring activities associated with the Project impacts.

Project Phase	Environmental Component	Potential Impacts	Mitigation Measure(s)	
Construction	Transportation Network	<ul> <li>Construction may result in the need for temporary road or lane closures changing access to nearby land uses</li> </ul>	<ul> <li>Maintain reasonable access through work zones, to the extent possible.</li> <li>Access to nearby land uses will be maintained to the extent possible. Potentially affected residents, tenants and business owners will be notified of initial construction schedules, as well as modifications to these schedules as they occur.</li> <li>Potential effects to pedestrian and cyclist activities during construction will be mitigated through the installation of appropriate wayfinding, regulatory, and warning signs.</li> <li>Consult with the City of Toronto and local school board(s) during construction planning including consideration of route detours.</li> </ul>	<ul> <li>Traffic in necessa</li> <li>Cycling r adjusted</li> </ul>
Construction	Transit Network	<ul> <li>Construction may result in access restrictions to local bus routes and temporary disruptions to the existing rail corridor</li> </ul>	<ul> <li>Ensure that the public is notified in advance of any potential service disruptions.</li> <li>Consult with local transit agencies to establish a suitable mitigation strategy to be implemented.</li> <li>Consult with the City of Toronto and local school board(s) during construction planning including consideration of impacts to school bus stops.</li> </ul>	<ul> <li>Traffic in necessa</li> </ul>
Operations	Transit Network	<ul> <li>Operations may result in modification or disruption to local bus routes.</li> </ul>	<ul> <li>Ensure that the public is notified in advance of any potential service disruptions or modifications.</li> <li>Consult with local transit agencies to establish a suitable mitigation strategy to be implemented.</li> </ul>	<ul> <li>No moni be requir</li> </ul>

# **Monitoring Activities**

mpacts to be monitored and mitigation adjusted as ary during the construction period. network impacts to be monitored and mitigation d as necessary during the construction period.

npacts to be monitored and mitigation adjusted as any during the construction period.

itoring related to the transit network is anticipated to red during operations.

# 13. References

### AECOM, 2020:

Ontario Line Socio-Economic and Land Use Characteristics Environmental Conditions Report. Prepared for Metrolinx.

City of Ottawa, 2008: Official Plan Consolidation for the City of Ottawa.

City of Ottawa, 2015:

Addendum to the City's Multi-Modal Level of Service Guidelines.

## City of Ottawa, 2015:

Multi-Modal Level of Service (MMLOS) Guidelines.

## City of Toronto, 2013:

Guidelines for the Preparations of Transportation Impact Studies.

City of Toronto, 2016: Guidelines for Using Synchro 9.

# City of Toronto, 2018: Road Classification of Streets List.

City of Toronto, 2018: Speed Limits on Public Highways.

City of Toronto, 2019: City of Toronto Official Plan.

City of Toronto, 2020:

Development Applications Mapping Tool. Available: http://app.toronto.ca/DevelopmentApplications/mapSearchSetup.do?action=init

City of Toronto, 2020:

Vision Zero Mapping Tool. Available: www.toronto.ca/services-payments/streetsparking-transportation/road-safety/vision-zero/safety-measures-and-mapping



# Appendix A

**Traffic Data Gaps** 

Table 1. Missing Data at Intersections within the Ontario Line West Study Area

Intersection	Missing Data
Queen Street/Beverley Street (unsignalized)	Turning Movement Count
Queen Street/Cameron Street (unsignalized)	Turning Movement Count
Bathurst Street/Niagara Street	Turning Movement Count and Signal Timing Plan
E Liberty Street/Pirandello Street (unsignalized)	Turning Movement Count
E Liberty Street/Mowat Avenue (unsignalized)	Turning Movement Count
Dufferin Street/Pedestrian Crossover south of Springhurst Avenue	Turning Movement Count
Dufferin Street/King Street	Turning Movement Count
Richmond Street/Portland Street	Turning Movement Count
Richmond Street/Brant Street	Turning Movement Count
Richmond Street/Peter Street	Turning Movement Count
Richmond Street/Duncan Street	Turning Movement Count
Adelaide Street/Portugal Square (unsignalized)	Turning Movement Count
King Street/Niagara Street	Turning Movement Count
King Street/Tecumseth Street	Turning Movement Count
King Street/Brant Street	Turning Movement Count and Signal Timing Plan
Tecumseth Street/Niagara Street (unsignalized)	Turning Movement Count

### Table 2. Missing Data at Intersections within the Ontario Line South Study Area

Intersection	Missing Data
Queen Street / York Street	Turning Movement Count
Albert Street / Bay Street	Turning Movement Count and Signal Timing Plan
Queen Street / James Street	Turning Movement Count and Signal Timing Plan
Queen Street / Eaton Centre Crosswalk	Turning Movement Count and Signal Timing Plan
Shuter Street / Jarvis Street	Turning Movement Count
Lake Shore Boulevard East / Lower Jarvis Street	Turning Movement Count
Queen Street / George Street (Unsignalized)	Turning Movement Count
Richmond Street / George Street	Turning Movement Count
Front Street / George Street	Turning Movement Count
The Esplanade / George Street	Turning Movement Count and Signal Timing Plan
Adelaide Street / Frederick Street	Turning Movement Count
King Street / Frederick Street (Unsignalized)	Turning Movement Count

Intersection	Missing Data
The Esplanade / Frederick Street	Turning Movement Count and Signal Timing Plan
Richmond Street / Sherbourne Street	Turning Movement Count
King Street / Sherbourne Street	Turning Movement Count
Front Street / Lower Sherbourne Street	Turning Movement Count
Queen Streets Quay / Lower Sherbourne Street	Turning Movement Count and Signal Timing Plan
Adelaide Street / Princess Street (Unsignalized)	Turning Movement Count
King Street / Princess Street (Unsignalized)	Turning Movement Count
Front Street / Princess Street	Turning Movement Count
The Esplanade / Princess Street	Turning Movement Count and Signal Timing Plan
Shuter Street / Ontario Street (Unsignalized)	Turning Movement Count
Queen Street / Ontario Street (Unsignalized)	Turning Movement Count
Richmond Street / Ontario Street (Unsignalized)	Turning Movement Count
King Street / Ontario Street (Unsignalized)	Turning Movement Count
Queen Street / Berkeley Street (Unsignalized)	Turning Movement Count
Richmond Street / Berkeley Street	Turning Movement Count
Front Street / Berkeley Street	Turning Movement Count
The Esplanade / Berkeley Street (Unsignalized)	Turning Movement Count
Richmond Street / Parliament Street	Turning Movement Count
King Street / Parliament Street	Turning Movement Count
Lake Shore Boulevard East / Parliament Street	Turning Movement Count
Mill Street / Trinity Street (Unsignalized)	Turning Movement Count
Lake Shore Boulevard East N / Cherry Street	Turning Movement Count and Signal Timing Plan
Lake Shore Boulevard East S / Cherry Street	Turning Movement Count
Front Street / Bay Street	Turning Movement Count and Signal Timing Plan
Lawren Harris Square N / Front Street	Turning Movement Count and Signal Timing Plan
Lawren Harris Square S / Front Street	Turning Movement Count and Signal Timing Plan
Lake Shore Boulevard East / Don Roadway	Turning Movement Count and Signal Timing Plan
Eastern Avenue / Broadview Avenue	Turning Movement Count
Sunlight Park Rd / Broadview Avenue (Unsignalized)	Turning Movement Count
Queen Street / De Grassi Street (Unsignalized)	Turning Movement Count
Queen Street / McGee Street (Unsignalized)	Turning Movement Count

Intersection	Missing Data
Eastern Avenue / McGee Street (Unsignalized)	Turning Movement Count
Queen Street / Booth Avenue (Unsignalized)	Turning Movement Count
Eastern Avenue / Booth Avenue (Unsignalized)	Turning Movement Count
Lake Shore Boulevard East / Booth Avenue (Unsignalized)	Turning Movement Count
Dundas Street / Wardell St (Unsignalized)	Turning Movement Count
Gerrard Street / Logan Avenue	Turning Movement Count
Dundas Street / Logan Avenue	Turning Movement Count
Langley Avenue / Carlaw Avenue (Unsignalized)	Turning Movement Count
Dundas Street / Carlaw Avenue	Turning Movement Count
Danforth Avenue / Pape Avenue	Turning Movement Count
Harcourt Avenue / Pape Avenue	Turning Movement Count and Signal Timing Plan
Bain Avenue / Pape Avenue	Turning Movement Count and Signal Timing Plan
Riverdale / Pape Avenue (Unsignalized)	Turning Movement Count
Langley Avenue / Pape Avenue (Unsignalized)	Turning Movement Count
Strathcona Avenue / Jones Avenue (Unsignalized)	Turning Movement Count

## Table 3. Missing Data at Intersections within the Ontario Line North Study Area

Intersection	Missing Data
Don Mills Road/Barber Greene Road/Green Belt Drive	Turning Movement Count
Ferrand Drive West/Windom Road (unsignalized)	Turning Movement Count
Ferrand Drive West/Seton Park Road (unsignalized)	Turning Movement Count
Ferrand Drive West/Wilket Creek Road (unsignalized)	Turning Movement Count
Rochefort Drive/Ferrand Drive East/Deauville Lane (unsignalized)	Turning Movement Count
Overlea Boulevard/East York Town Centre West Driveway (unsignalized)	Turning Movement Count
Thorncliffe Park Drive West/Milepost Place/Grandstand Place (unsignalized)	Turning Movement Count
Pape Avenue/Woodville Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Torrens Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Gowan Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Westwood Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Kings Park Boulevard (unsignalized)	Turning Movement Count
Pape Avenue/Macphail Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Canning Avenue (unsignalized)	Turning Movement Count
Pape Avenue/Selkirk Street (unsignalized)	Turning Movement Count

Intersection	Missing Data
Pape Avenue/Gertrude Place (unsignalized)	Turning Movement Count



# Appendix B

**Turning Movement Counts** 



#### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	'H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTI Thru R	I BOU light	ND Left	WEST Thru R	BOUND ight Lef	ft
07:45	CARS	177	5	0	54	8	0	349	18	0	85	9	0
	DUALS	21	0	0	7	6	0	15	3	0	6	1	0
	BUSES	3	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		9	(0)		16	(0)		0	(0)	1	(0)	
	PEDS	North Side		63	East Side		143	South Side		56	West Side		114
08:00	CARS	185	5	0	54	8	0	338	20	0	83	9	0
	DUALS	14	1	0	9	1	0	19	4	0	6	2	0
	BUSES	2	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		14	(0)		16	(0)		4	(0)	0	(0)	
	PEDS	North Side		79	East Side		123	South Side		69	West Side		177
08:15	CARS	211	4	0	69	13	0	370	26	0	124	27	0
	DUALS	17	1	0	4	2	0	12	1	0	6	1	0
	BUSES	1	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		11	(0)		15	(0)		8	(0)	2	(0)	
	PEDS	North Side		108	East Side		206	South Side		79	West Side		218
08:30	CARS	193	6	0	58	12	0	358	32	0	118	18	0
	DUALS	9	0	0	6	2	1	16	3	0	7	2	0
	BUSES	3	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		8	(0)		19	(0)		9	(0)	1	(0)	
	PEDS	North Side		150	East Side		286	South Side		107	West Side		262
08:45	CARS	177	6	0	52	24	0	359	36	0	152	21	0
	DUALS	11	0	0	5	1	0	14	2	0	8	4	0
	BUSES	3	0	0	2	0	0	3	0	0	2	1	0
	BIKE (OTHER)		21	(0)		24	(0)		18	(0)	2	(0)	
	PEDS	North Side		164	East Side		293	South Side		150	West Side		221
09:00	CARS	185	7	0	93	30	0	342	29	0	128	0	0
	DUALS	8	0	0	7	3	0	18	5	0	6	1	0
	BUSES	2	0	0	1	0	0	2	1	0	0	1	0
	BIKE (OTHER)		9	(0)		19	(0)		9	(0)	7	(0)	
	PEDS	North Side		170	East Side		317	South Side		178	West Side		196
09:15	CARS	185	3	0	96	33	0	343	27	0	134	41	0
	DUALS	10	0	0	7	2	0	16	1	0	11	0	0
	BUSES	4	0	0	1	0	0	3	1	0	1	1	0
	BIKE (OTHER)		9	(0)		14	(0)		11	(0)	11	(0)	
	PEDS	North Side		139	East Side		190	South Side		118	West Side		189

Page 1 of 5



#### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ť
09:30	CARS	237	5	0	77	29	0	293	31	0	111	25	0
	DUALS	14	1	0	5	2	0	16	4	0	7	4	0
	BUSES	3	1	0	1	0	0	6	0	0	3	0	0
	BIKE (OTHER)		10	(0)		18	(0)		8	(0)	9	(0)	
	PEDS	North Side		151	East Side		131	South Side		92	West Side		162
10:15	CARS	252	8	0	44	15	0	224	25	0	104	21	0
	DUALS	21	0	0	6	3	0	22	2	0	6	2	0
	BUSES	2	0	0	2	0	0	5	0	0	1	1	0
	BIKE (OTHER)		2	(0)		11	(0)		6	(0)	4	(0)	
	PEDS	North Side		117	East Side		100	South Side		83	West Side		107
10:30	CARS	273	7	0	53	11	1	241	29	0	97	21	0
	DUALS	10	0	0	6	1	0	25	2	0	8	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		12	(0)		12	(0)		1	(0)	5	(0)	
	PEDS	North Side		111	East Side		182	South Side		56	West Side		101
10:45	CARS	255	7	0	50	15	0	267	22	0	107	26	0
	DUALS	18	1	0	6	0	0	16	7	0	11	2	0
	BUSES	1	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		12	(0)		3	(0)	8	(0)	
	PEDS	North Side		173	East Side		99	South Side		90	West Side		103
11:00	CARS	239	6	0	55	12	0	273	26	0	105	38	0
	DUALS	23	1	0	4	4	0	35	9	0	9	4	0
	BUSES	4	1	0	1	0	0	1	0	0	1	3	0
	BIKE (OTHER)		2	(0)		14	(0)		2	(0)	0	(0)	
	PEDS	North Side		112	East Side		90	South Side		85	West Side		115
11:15	CARS	253	7	0	43	19	1	246	24	0	103	46	0
	DUALS	17	0	0	9	3	2	29	4	0	13	3	0
	BUSES	4	0	0	0	0	0	4	1	0	0	0	0
	BIKE (OTHER)		4	(0)		12	(0)		2	(0)	1	(0)	
	PEDS	North Side		119	East Side		88	South Side		81	West Side		106
11:30	CARS	253	11	0	64	26	0	252	27	0	107	54	0
	DUALS	19	0	0	8	4	0	24	7	0	7	3	0
	BUSES	4	0	0	0	0	0	4	0	0	2	2	0
	BIKE (OTHER)		6	(0)		8	(0)		2	(0)	3	(0)	
	PEDS	North Side		136	East Side		118	South Side		94	West Side		95



#### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	'H BOl Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ft
11:45	CARS	235	9	0	61	20	0	282	31	0	91	45	0
	DUALS	17	0	0	15	6	0	26	5	0	5	6	0
	BUSES	4	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		11	(0)		19	(0)		4	(0)	3	(0)	
	PEDS	North Side	·	156	East Side		172	South Side		104	West Side		132
12:00	CARS	275	8	0	56	18	0	288	26	0	105	46	0
	DUALS	18	0	0	16	3	0	33	4	0	11	1	0
	BUSES	3	0	0	1	1	0	5	1	0	0	1	0
	BIKE (OTHER)		6	(0)		12	(0)		4	(0)	5	(0)	
	PEDS	North Side	·	183	East Side		158	South Side		157	West Side		175
13:15	CARS	255	7	0	51	18	0	263	28	0	93	40	0
	DUALS	8	0	0	15	1	0	31	5	0	7	6	0
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		17	(0)		1	(0)	16	(0)	
	PEDS	North Side	·	274	East Side		232	South Side		150	West Side		157
13:30	CARS	232	5	0	47	18	0	294	11	0	101	38	0
	DUALS	21	1	0	8	3	0	28	3	0	8	6	0
	BUSES	5	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		5	(0)		16	(0)		6	(0)	14	(0)	
	PEDS	North Side		214	East Side		174	South Side		144	West Side		169
13:45	CARS	241	8	0	51	14	0	226	19	0	86	39	0
	DUALS	15	0	0	7	6	0	35	3	0	10	3	0
	BUSES	5	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		11	(0)		15	(0)		1	(0)	5	(0)	
	PEDS	North Side	·	213	East Side		153	South Side		130	West Side		156
14:00	CARS	254	1	0	47	15	0	287	13	0	73	36	0
	DUALS	5	0	0	3	2	0	34	4	0	12	2	0
	BUSES	6	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		7	(0)		11	(0)		2	(0)	10	(0)	
	PEDS	North Side	·	215	East Side		156	South Side		122	West Side		159
14:15	CARS	215	9	0	53	16	0	287	22	0	110	47	0
	DUALS	18	0	0	11	3	0	32	4	0	10	5	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		11	(0)		18	(0)		5	(0)	5	(0)	
	PEDS	North Side		243	East Side		167	South Side		149	West Side		145



#### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOl Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ft
14:30	CARS	261	8	0	58	22	0	191	20	0	95	49	0
	DUALS	6	0	0	8	3	0	24	2	0	8	2	0
	BUSES	5	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		18	(0)		8	(0)	7	(0)	
	PEDS	North Side		218	East Side		188	South Side		127	West Side		127
14:45	CARS	204	8	0	67	25	0	218	23	0	109	50	0
	DUALS	9	0	0	8	2	0	35	5	0	8	1	0
	BUSES	4	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		8	(0)		13	(0)		2	(0)	7	(0)	
	PEDS	North Side		241	East Side		141	South Side		128	West Side		131
15:00	CARS	213	4	0	48	26	0	361	26	0	108	36	0
	DUALS	6	1	0	5	2	0	27	2	0	13	2	0
	BUSES	0	0	0	0	0	0	3	0	0	0	1	0
	BIKE (OTHER)		8	(0)		14	(0)		3	(0)	10	(0)	
	PEDS	North Side		270	East Side		137	South Side		117	West Side		134
16:15	CARS	276	5	0	74	9	0	211	34	0	117	26	0
	DUALS	12	0	0	2	1	0	17	4	0	5	1	0
	BUSES	5	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		15	(0)		23	(0)		6	(0)	10	(0)	
	PEDS	North Side		265	East Side		287	South Side		148	West Side		173
16:30	CARS	290	2	0	81	11	0	247	28	0	115	24	0
	DUALS	5	1	0	9	2	0	16	3	0	5	4	0
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		11	(0)		7	(0)	2	(0)	
	PEDS	North Side		235	East Side		346	South Side		166	West Side		203
16:45	CARS	258	8	0	74	24	0	264	23	0	127	21	1
	DUALS	13	0	0	7	0	0	16	4	0	4	0	0
	BUSES	4	0	0	0	0	0	3	2	0	0	0	0
	BIKE (OTHER)		9	(0)		17	(0)		8	(0)	9	(0)	
	PEDS	North Side		228	East Side		290	South Side		204	West Side		188
17:00	CARS	295	9	0	75	24	0	234	31	0	117	30	0
	DUALS	10	0	0	4	3	0	19	2	0	9	1	0
	BUSES	1	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		18	(0)		20	(0)		10	(0)	17	(0)	
	PEDS	North Side		287	East Side		328	South Side		248	West Side		167



#### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Rou	tine Hours												
Time Period		т	NOR hru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Le	ft
17:15	CARS	:	288	4	0	60	8	0	211	26	0	91	30	0
	DUALS		2	0	0	5	1	0	12	3	0	7	3	0
	BUSES		4	0	0	1	0	0	5	0	0	0	2	0
	BIKE (OTHEF	R)		27	(0)		22	(0)		8	(0)	12	(0)	
	PEDS	Nort	h Sid	le	269	East Side		336	South Side	)	247	West Side		176
17:30	CARS	2	296	9	0	84	11	0	218	40	0	97	27	0
	DUALS		2	0	0	3	1	0	19	2	0	1	1	0
	BUSES		2	0	0	2	0	0	5	0	0	0	1	0
	BIKE (OTHEF	R)		27	(0)		16	(0)		1	(0)	4	(0)	
	PEDS	Nort	h Sid	le	294	East Side		372	South Side	) 	264	West Side		188
17:45	CARS	:	324	4	0	81	16	0	193	19	0	88	33	0
	DUALS		3	0	0	3	2	0	13	4	0	2	1	0
	BUSES		2	0	0	1	0	0	5	0	0	3	1	0
	BIKE (OTHEF	R)		16	(0)		17	(0)		4	(0)	10	(0)	
	PEDS	Nort	h Sid	le	199	East Side		320	South Side	e	219	West Side		169
18:00	CARS	:	335	7	0	89	11	0	212	19	0	98	39	0
	DUALS		7	0	0	3	1	0	7	2	0	3	0	0
	BUSES		5	0	0	0	0	0	2	1	0	2	1	0
	BIKE (OTHEF	R)		18	(0)		28	(0)		1	(0)	9	(0)	
	PEDS	Nort	h Sid	le	281	East Side		290	South Side	9	256	West Side		149



#### QUEEN ST AT ST PATRICK ST (PX 2087)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOL light	JND Left	EAST Thru	Г BOUN Right	D Left	SOUTI Thru R	I BOUN light	ND Left	WEST Thru R	BOUND ight Lef	t
07:45	CARS	0	0	0	103	0	25	0	7	9	61	27	0
	DUALS	0	0	0	1	0	2	0	1	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	2	(0)	
	PEDS	North Side		60	East Side		4	South Side		0	West Side		15
08:00	CARS	0	0	0	96	0	29	0	6	6	75	41	0
	DUALS	0	0	0	5	0	1	0	1	1	1	1	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	6	(0)	
	PEDS	North Side		47	East Side		4	South Side		0	West Side		19
08:15	CARS	0	0	0	96	0	26	0	8	13	99	27	0
	DUALS	0	0	0	3	0	0	0	1	0	2	0	0
	BUSES	0	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	6	(0)	
	PEDS	North Side		84	East Side		23	South Side		0	West Side		24
08:30	CARS	0	0	0	116	0	29	0	13	20	76	36	0
	DUALS	0	0	0	4	0	1	0	0	0	0	3	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		4	(0)		0	(0)	5	(0)	
	PEDS	North Side		92	East Side		27	South Side		0	West Side		33
08:45	CARS	0	0	0	130	0	25	0	13	18	93	38	0
	DUALS	0	0	0	2	0	0	0	0	0	2	1	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	11	(0)	
	PEDS	North Side		152	East Side		24	South Side		0	West Side		35
09:00	CARS	0	0	0	125	0	28	0	15	19	94	29	0
	DUALS	0	0	0	3	0	0	0	0	0	3	1	0
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		5	(0)		0	(0)	10	(0)	
	PEDS	North Side		166	East Side		36	South Side		0	West Side		36
09:15	CARS	0	0	0	122	0	36	0	7	14	92	33	0
	DUALS	0	0	0	2	0	0	0	0	0	1	1	0
	BUSES	0	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		4	(0)		5	(0)		0	(0)	9	(0)	
	PEDS	North Side		155	East Side		31	South Side		0	West Side		38



#### QUEEN ST AT ST PATRICK ST (PX 2087)

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Survey Date: Dec-18-2018 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	I BOL ight	JND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND light Lef	ft
09:30	CARS	0	0	0	118	0	32	0	11	21	91	16	(
	DUALS	0	0	0	2	0	2	0	0	3	1	1	C
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		110	East Side		18	South Side		0	West Side		31
10:15	CARS	0	0	0	104	0	14	0	4	9	103	18	C
	DUALS	0	0	0	4	0	2	0	1	1	3	0	C
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	10	(0)	
	PEDS	North Side		78	East Side		23	South Side		0	West Side		24
10:30	CARS	0	0	0	85	0	14	0	6	11	82	14	C
	DUALS	0	0	0	4	0	1	0	2	2	2	0	C
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		66	East Side		13	South Side		0	West Side		17
10:45	CARS	0	0	0	91	0	16	0	11	16	87	14	C
	DUALS	0	0	0	2	0	0	0	1	2	5	1	C
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	2	(0)	
	PEDS	North Side		114	East Side		19	South Side		0	West Side		30
11:00	CARS	0	0	0	77	0	20	0	9	14	79	13	C
	DUALS	0	0	0	2	0	1	0	0	0	2	0	C
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	4	(0)	
	PEDS	North Side		95	East Side		25	South Side		0	West Side		41
11:15	CARS	0	0	0	102	0	12	0	12	16	83	15	C
	DUALS	0	0	0	6	0	0	0	0	1	2	0	C
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	5	(0)	
	PEDS	North Side		95	East Side		17	South Side		0	West Side		20
11:30	CARS	0	0	0	81	0	16	0	11	24	95	29	C
	DUALS	0	0	0	5	0	1	0	2	0	4	0	C
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		99	East Side		19	South Side		0	West Side		26



#### QUEEN ST AT ST PATRICK ST (PX 2087)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOL ight	JND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru R	BOUND ight Lefi	t
11:45	CARS	0	0	0	90	0	21	0	12	12	94	12	0
	DUALS	0	0	0	2	0	0	0	1	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		7	(0)		0	(0)	6	(0)	
	PEDS	North Side		163	East Side		27	South Side		0	West Side		42
12:00	CARS	0	0	0	93	0	17	0	12	15	89	11	0
	DUALS	0	0	0	7	0	1	0	0	1	6	0	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		5	(0)		0	(0)	9	(0)	
	PEDS	North Side		181	East Side		28	South Side		0	West Side		35
13:15	CARS	0	0	0	88	0	17	0	18	14	73	20	0
	DUALS	0	0	0	2	0	0	0	0	2	3	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		4	(0)		0	(0)	7	(0)	
	PEDS	North Side		265	East Side		68	South Side		0	West Side		62
13:30	CARS	0	0	0	84	0	25	0	21	12	72	15	0
	DUALS	0	0	0	3	0	2	0	1	0	6	0	0
	BUSES	0	0	0	7	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	0	(0)	
	PEDS	North Side		210	East Side		31	South Side		0	West Side		74
13:45	CARS	0	0	0	79	0	16	0	14	21	74	12	0
	DUALS	0	0	0	1	0	0	0	0	0	4	0	0
	BUSES	0	0	0	3	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	0	(0)	
	PEDS	North Side		226	East Side		42	South Side		0	West Side		49
14:00	CARS	0	0	0	86	0	19	0	18	17	68	6	0
	DUALS	0	0	0	4	0	1	0	0	0	1	4	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		10	(0)		0	(0)	7	(0)	
	PEDS	North Side		206	East Side		46	South Side		0	West Side		49
14:15	CARS	0	0	0	87	0	10	0	16	20	84	10	0
	DUALS	0	0	0	2	0	1	0	1	0	5	1	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	7	(0)	
	PEDS	North Side		194	East Side		36	South Side		0	West Side		57



#### QUEEN ST AT ST PATRICK ST (PX 2087)

Survey Ty	rpe: Routine	Hours											
Time Period		NORTH Thru R	I BOL ight	JND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	0	0	0	86	0	17	0	16	21	93	19	0
	DUALS	0	0	0	5	0	0	0	1	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		5	(0)		6	(0)		0	(0)	10	(0)	
	PEDS	North Side		192	East Side		28	South Side		0	West Side		33
14:45	CARS	0	0	0	83	0	14	0	9	22	81	6	0
	DUALS	0	0	0	2	0	0	0	2	1	1	1	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		7	(0)		0	(0)	4	(0)	
	PEDS	North Side		214	East Side		42	South Side		0	West Side		59
15:00	CARS	0	0	0	100	0	13	0	21	20	100	15	0
	DUALS	0	0	0	1	0	0	0	1	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	4	(0)	
	PEDS	North Side		237	East Side		28	South Side		0	West Side		43
16:15	CARS	0	0	0	105	0	14	0	25	17	107	15	0
	DUALS	0	0	0	1	0	0	0	1	0	3	1	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	12	(0)	
	PEDS	North Side		227	East Side		34	South Side		0	West Side		57
16:30	CARS	0	0	0	105	0	15	0	22	17	122	13	0
	DUALS	0	0	0	4	0	0	0	0	1	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	4	(0)	
	PEDS	North Side		237	East Side		40	South Side		0	West Side		52
16:45	CARS	0	0	0	106	0	17	0	23	16	110	7	0
	DUALS	0	0	0	1	0	0	0	1	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	2	0	0
	BIKE (OTHER)		4	(0)		10	(0)		0	(0)	8	(0)	
	PEDS	North Side		282	East Side		47	South Side		0	West Side		63
17:00	CARS	0	0	0	104	0	18	0	25	23	143	11	0
	DUALS	0	0	0	2	0	1	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		16	(0)		0	(0)	1	(0)	
	PEDS	North Side		272	East Side		36	South Side		0	West Side		60



Survey Type:

#### Intersection Detailed 15 Minutes Movement Report

#### QUEEN ST AT ST PATRICK ST (PX 2087)

**Routine Hours** 

Time		NORT	H BO	JND	EAS		ID	SOUT	H BOU	ND	WEST	BOUND	
Period		Inru	Right	Lett	Inru	Right	Len	inru r	kight	Len		ignt Len	t
17:15	CARS	0	0	0	120	0	12	0	32	20	168	5	0
	DUALS	0	0	0	0	0	1	0	0	0	2	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	5	(0)	
	PEDS	North Side		342	East Side		52	South Side		0	West Side		56
17:30	CARS	0	0	0	103	0	10	0	32	16	135	19	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	6	(0)	
	PEDS	North Side		351	East Side		54	South Side		0	West Side		85
17:45	CARS	0	0	0	131	0	10	0	26	20	153	9	0
	DUALS	0	0	0	0	0	0	0	2	0	1	1	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		7	(0)		0	(0)	9	(0)	
	PEDS	North Side		429	East Side		43	South Side		0	West Side		79
18:00	CARS	0	0	0	124	0	24	0	29	20	120	12	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		11	(0)		0	(0)	9	(0)	
	PEDS	North Side		325	East Side		63	South Side		0	West Side		77



#### JOHN ST AT QUEEN ST (PX 1461)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Leff	t
07:45	CARS	15	8	8	119	6	3	7	1	4	32	0	9
	DUALS	0	0	3	3	1	0	0	0	0	3	0	0
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		6	(0)		9	(0)		18	(0)	6	(0)	
	PEDS	North Side		55	East Side		33	South Side		56	West Side		25
08:00	CARS	9	13	7	142	15	2	14	0	7	58	5	12
	DUALS	0	0	0	3	0	0	0	0	0	0	0	0
	BUSES	0	0	0	7	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		11	(0)		30	(0)	5	(0)	
	PEDS	North Side		57	East Side		46	South Side		66	West Side		24
08:15	CARS	7	19	8	127	7	5	12	1	2	63	4	11
	DUALS	0	0	0	1	1	0	0	0	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		9	(0)		9	(0)		57	(0)	7	(0)	
	PEDS	North Side		101	East Side		69	South Side		124	West Side		86
08:30	CARS	10	25	9	136	15	2	17	3	6	61	1	16
	DUALS	0	1	0	5	0	0	1	0	0	6	0	1
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		12	(0)		9	(0)		67	(0)	5	(0)	
	PEDS	North Side		117	East Side		114	South Side		146	West Side		63
08:45	CARS	11	23	17	152	16	0	20	1	6	80	3	14
	DUALS	1	0	0	4	0	0	0	0	0	0	0	0
	BUSES	0	1	0	2	0	0	0	0	0	5	0	0
	BIKE (OTHER)		13	(0)		23	(0)		79	(0)	4	(0)	
	PEDS	North Side		156	East Side		126	South Side		182	West Side		108
09:00	CARS	11	23	13	138	11	3	16	2	3	81	8	14
	DUALS	1	1	1	2	0	0	1	0	0	3	1	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		20	(0)		18	(0)		97	(0)	9	(0)	
	PEDS	North Side		136	East Side		156	South Side		246	West Side		126
09:15	CARS	15	26	19	143	18	1	18	2	5	64	1	5
	DUALS	1	1	0	4	0	0	0	0	0	1	0	0
	BUSES	0	0	0	8	0	0	0	0	0	4	0	0
	BIKE (OTHER)		17	(0)		14	(0)		73	(0)	5	(0)	
	PEDS	North Side		131	East Side		133	South Side		182	West Side		83



#### JOHN ST AT QUEEN ST (PX 1461)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORT Thru I	H BOI Right	UND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND Light Lef	t
09:30	CARS	9	27	16	111	9	4	8	2	1	69	5	8
	DUALS	0	2	1	3	0	0	0	0	0	0	0	3
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		13	(0)		13	(0)		63	(0)	8	(0)	
	PEDS	North Side		89	East Side		109	South Side		156	West Side		111
10:15	CARS	7	19	16	98	9	3	6	2	5	60	4	6
	DUALS	2	1	2	1	0	0	0	1	0	5	0	0
	BUSES	0	0	0	7	0	0	0	0	0	6	0	1
	BIKE (OTHER)		4	(0)		12	(0)		13	(0)	4	(0)	
	PEDS	North Side		97	East Side		57	South Side		102	West Side		63
10:30	CARS	11	15	10	88	6	2	9	1	3	68	2	6
	DUALS	1	0	0	4	1	0	0	2	0	2	0	0
	BUSES	0	0	0	3	0	0	0	0	0	2	0	1
	BIKE (OTHER)		10	(0)		16	(0)		11	(0)	13	(0)	
	PEDS	North Side		74	East Side		71	South Side		103	West Side		57
10:45	CARS	8	17	15	8	10	5	2	2	4	62	4	8
	DUALS	1	1	0	6	1	1	0	0	0	7	0	0
	BUSES	0	1	0	5	0	0	0	0	0	6	0	1
	BIKE (OTHER)		6	(0)		7	(0)		14	(0)	9	(0)	
	PEDS	North Side		87	East Side		58	South Side		124	West Side		55
11:00	CARS	14	12	30	46	11	3	13	7	3	23	3	8
	DUALS	3	2	1	1	2	0	0	0	0	1	0	0
	BUSES	0	0	0	2	0	0	0	0	0	2	0	1
	BIKE (OTHER)		6	(0)		7	(0)		16	(0)	5	(0)	
	PEDS	North Side		164	East Side		74	South Side		126	West Side		5
11:15	CARS	14	17	22	82	8	4	6	3	2	70	8	18
	DUALS	2	2	0	5	2	0	0	0	1	6	1	0
	BUSES	0	0	0	8	0	0	0	0	0	4	0	1
	BIKE (OTHER)		6	(0)		8	(0)		8	(0)	8	(0)	
	PEDS	North Side		122	East Side		77	South Side		145	West Side		72
11:30	CARS	11	17	24	59	9	3	6	7	6	52	1	13
	DUALS	0	6	2	4	0	0	1	0	0	2	0	2
	BUSES	0	0	0	4	0	0	0	0	0	6	0	2
	BIKE (OTHER)		7	(0)		14	(0)		5	(0)	8	(0)	
	PEDS	North Side		152	East Side		98	South Side		163	West Side		82



#### JOHN ST AT QUEEN ST (PX 1461)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORT Thru	H BOl Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Let	ft
11:45	CARS	10	11	15	83	8	6	9	3	2	71	3	9
	DUALS	0	1	2	4	0	0	2	0	0	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	1
	BIKE (OTHER)		3	(0)		16	(0)		12	(0)	7	(0)	
	PEDS	North Side		190	East Side		158	South Side		172	West Side		98
12:00	CARS	14	22	11	80	10	3	11	5	3	74	3	7
	DUALS	1	0	0	6	0	1	0	0	3	10	0	1
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		16	(0)		7	(0)	13	(0)	
	PEDS	North Side		203	East Side		166	South Side		206	West Side		97
13:15	CARS	20	33	23	66	9	2	15	4	1	86	0	23
	DUALS	0	3	0	5	0	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	2
	BIKE (OTHER)		7	(0)		11	(0)		3	(0)	8	(0)	
	PEDS	North Side		372	East Side		256	South Side		346	West Side		203
13:30	CARS	20	21	13	85	10	0	12	5	5	59	1	19
	DUALS	1	1	1	2	0	0	0	0	0	7	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		8	(0)		14	(0)		8	(0)	12	(0)	
	PEDS	North Side		304	East Side		206	South Side		285	West Side		194
13:45	CARS	9	24	20	81	12	1	11	4	2	53	3	13
	DUALS	0	2	0	0	0	0	2	1	0	6	0	2
	BUSES	0	1	0	6	0	0	0	0	0	3	0	2
	BIKE (OTHER)		13	(0)		18	(0)		7	(0)	7	(0)	
	PEDS	North Side		284	East Side		220	South Side		296	West Side		200
14:00	CARS	24	14	13	72	7	2	14	3	1	91	6	21
	DUALS	0	0	1	8	0	0	1	1	0	4	1	1
	BUSES	0	1	0	3	0	0	0	0	0	5	0	1
	BIKE (OTHER)		6	(0)		10	(0)		9	(0)	15	(0)	
	PEDS	North Side		302	East Side		150	South Side		355	West Side		229
14:15	CARS	15	17	23	58	6	5	11	3	1	70	5	22
	DUALS	0	0	1	3	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	1
	BIKE (OTHER)		7	(0)		12	(0)		8	(0)	14	(0)	
	PEDS	North Side		330	East Side		178	South Side		316	West Side		171



#### JOHN ST AT QUEEN ST (PX 1461)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	20	27	17	74	8	2	9	1	6	85	4	13
	DUALS	2	3	6	5	1	0	0	0	0	5	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	1
	BIKE (OTHER)		7	(0)		16	(0)		3	(0)	8	(0)	
	PEDS	North Side		363	East Side		111	South Side		277	West Side		149
14:45	CARS	6	18	14	58	18	0	11	3	3	94	5	17
	DUALS	1	0	0	5	1	0	1	1	0	6	1	1
	BUSES	0	0	0	4	0	0	0	0	0	6	0	2
	BIKE (OTHER)		12	(0)		13	(0)		7	(0)	12	(0)	
	PEDS	North Side		341	East Side		151	South Side		317	West Side		143
15:00	CARS	10	20	15	86	11	2	10	3	2	77	2	15
	DUALS	1	0	1	1	1	0	0	0	1	7	0	0
	BUSES	0	1	0	5	0	0	0	0	0	4	0	1
	BIKE (OTHER)		8	(0)		10	(0)		3	(0)	12	(0)	
	PEDS	North Side		372	East Side		133	South Side		251	West Side		141
16:15	CARS	4	11	19	81	10	1	13	4	6	87	1	13
	DUALS	2	1	0	3	0	0	0	0	0	0	0	0
	BUSES	0	1	1	8	0	0	0	0	0	3	0	0
	BIKE (OTHER)		20	(0)		13	(0)		10	(0)	17	(0)	
	PEDS	North Side		312	East Side		114	South Side		264	West Side		188
16:30	CARS	16	15	25	93	7	0	15	3	5	111	6	19
	DUALS	0	0	0	2	0	0	0	0	0	2	1	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	3
	BIKE (OTHER)		27	(0)		22	(0)		9	(0)	25	(0)	
	PEDS	North Side		329	East Side		119	South Side		255	West Side		173
16:45	CARS	11	10	17	99	9	2	16	1	6	106	2	10
	DUALS	0	1	0	2	2	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0
	BIKE (OTHER)		32	(0)		22	(0)		4	(0)	22	(0)	
	PEDS	North Side		412	East Side		132	South Side		221	West Side		205
17:00	CARS	16	11	17	115	12	3	10	2	3	102	3	12
	DUALS	1	0	0	3	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	4
	BIKE (OTHER)		47	(0)		20	(0)		20	(0)	19	(0)	
	PEDS	North Side		401	East Side		150	South Side		256	West Side		211



#### JOHN ST AT QUEEN ST (PX 1461)

Survey Date: Jun-14-2017 (Wednesday)

Time		NOR	тн во	UND	EAS	T BOUN	ID	SOUTH	і вои	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	light	Left	Thru R	light Lef	ft
17:15	CARS	10	9	23	110	11	4	16	3	11	111	4	18
	DUALS	0	0	2	1	0	0	0	0	0	4	0	0
	BUSES	0	0	0	2	0	0	0	0	0	4	0	1
	BIKE (OTHER)		63	(0)		16	(0)		17	(0)	32	(0)	
	PEDS	North Side	e	464	East Side		229	South Side		408	West Side		288
17:30	CARS	19	12	25	90	7	2	21	7	3	113	1	10
	DUALS	0	0	0	3	1	0	1	0	0	4	0	0
	BUSES	0	0	0	2	0	0	0	0	0	6	0	0
	BIKE (OTHER)		85	(0)		27	(0)		18	(0)	22	(0)	
	PEDS	North Side	e	471	East Side		223	South Side		406	West Side		273
17:45	CARS	21	26	22	121	3	2	18	11	4	117	8	7
	DUALS	0	0	0	2	0	0	0	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	2
	BIKE (OTHER)		65	(0)		23	(0)		12	(0)	20	(0)	
	PEDS	North Side	9	501	East Side		227	South Side		382	West Side		299
18:00	CARS	9	21	21	100	15	5	14	4	6	99	2	16
	DUALS	0	0	0	1	0	0	0	0	0	0	0	1
	BUSES	0	1	0	6	0	0	0	0	0	3	1	1
	BIKE (OTHER)		58	(0)		23	(0)		15	(0)	9	(0)	
	PEDS	North Side	e	492	East Side		168	South Side		401	West Side		231



#### PETER ST AT QUEEN ST (PX 1589)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
07:45	CARS	0	15	4	146	9	0	0	0	0	29	0	11
	DUALS	0	0	0	4	0	0	0	0	0	4	0	4
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	6	(0)	
	PEDS	North Side	•	0	East Side		18	South Side		29	West Side		8
08:00	CARS	0	21	6	168	4	0	0	0	0	57	0	21
	DUALS	0	0	0	4	0	0	0	0	0	2	0	0
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	5	(0)	
	PEDS	North Side	•	0	East Side		24	South Side		42	West Side		8
08:15	CARS	0	27	9	145	14	0	0	0	0	54	0	26
	DUALS	0	1	1	1	0	0	0	0	0	2	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		8	(0)		0	(0)	9	(0)	
	PEDS	North Side	e	0	East Side		34	South Side		88	West Side		15
08:30	CARS	0	23	5	150	10	0	0	0	0	53	0	16
	DUALS	0	3	0	2	0	0	0	0	0	7	0	1
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		13	(0)		0	(0)	13	(0)	
	PEDS	North Side		0	East Side		83	South Side		99	West Side		24
08:45	CARS	0	34	6	157	9	0	0	0	0	73	0	20
	DUALS	0	0	1	2	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		24	(0)		0	(0)	17	(0)	
	PEDS	North Side	•	0	East Side		68	South Side		132	West Side		29
09:00	CARS	0	20	7	146	12	0	0	0	0	65	0	21
	DUALS	0	1	1	5	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		13	(0)		0	(0)	29	(0)	
	PEDS	North Side	e 	0	East Side		63	South Side		154	West Side		28
09:15	CARS	0	29	7	145	22	0	0	0	0	65	0	25
	DUALS	0	2	2	6	3	0	0	0	0	1	0	1
	BUSES	0	0	0	7	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		13	(0)		0	(0)	29	(0)	
	PEDS	North Side	e	0	East Side		54	South Side		145	West Side		28



#### PETER ST AT QUEEN ST (PX 1589)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NOR <sup>-</sup> Thru	TH BO Right	UND Left	EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
09:30	CARS	0	26	5	123	19	0	0	0	0	67	0	19
	DUALS	0	1	0	2	1	0	0	0	0	1	0	3
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		10	(0)		0	(0)	22	(0)	
	PEDS	North Side	e	0	East Side		35	South Side		105	West Side		33
10:15	CARS	0	33	6	110	6	0	0	0	0	62	0	11
	DUALS	0	0	1	2	1	0	0	0	0	6	0	1
	BUSES	0	1	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	8	(0)	
	PEDS	North Side	e	0	East Side		44	South Side		80	West Side		15
10:30	CARS	0	29	9	83	14	0	0	0	0	68	0	19
	DUALS	0	4	0	4	3	0	0	0	0	2	0	1
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		16	(0)		0	(0)	22	(0)	
	PEDS	North Side	e	0	East Side		36	South Side		95	West Side		22
10:45	CARS	0	25	10	81	7	0	0	0	0	66	0	17
	DUALS	0	3	1	5	0	0	0	0	0	8	0	1
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	15	(0)	
	PEDS	North Side	e	0	East Side		30	South Side		108	West Side		16
11:00	CARS	0	17	14	65	18	0	0	0	0	33	0	16
	DUALS	0	1	0	8	0	0	0	0	0	1	0	2
	BUSES	0	0	0	3	0	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		20	(0)		0	(0)	4	(0)	
	PEDS	North Side	•	0	East Side		31	South Side		127	West Side		39
11:15	CARS	0	23	7	81	12	0	0	0	0	84	0	14
	DUALS	0	0	2	1	0	0	0	0	0	6	0	1
	BUSES	0	1	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		14	(0)		0	(0)	5	(0)	
	PEDS	North Side	•	0	East Side		31	South Side		121	West Side		16
11:30	CARS	0	27	6	65	8	0	0	0	0	67	0	25
	DUALS	0	0	0	3	3	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	18	(0)	
	PEDS	North Side	e	0	East Side		32	South Side		102	West Side		35


### PETER ST AT QUEEN ST (PX 1589)

Survey Date: Jun-14-2017 (Wednesday)

Survey Type: Routine Hours

Time Period		NOR1 Thru	H BO Right	UND Left	EA Thru	ST BOU Right	ND Left	SOUTH Thru R	l BOL ight	JND Left	WES Thru	T BOUND Right Leff	t
11:45	CARS	0	27	6	92	16	0	0	0	0	78	0	17
	DUALS	0	0	0	5	4	0	0	0	0	2	0	8
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		20	(0)		0	(0)	15	(0)	
	PEDS	North Side	•	0	East Side		66	South Side		134	West Side		26
12:00	CARS	0	24	10	88	9	0	0	0	0	83	0	22
	DUALS	0	1	1	4	1	0	0	0	0	9	0	4
	BUSES	0	0	0	3	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		13	(0)		0	(0)	14	(0)	
	PEDS	North Side	•	0	East Side		80	South Side		164	West Side		38
13:15	CARS	0	28	9	72	14	0	0	0	0	89	0	25
	DUALS	0	1	0	5	2	0	0	0	0	2	0	1
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		15	(0)		0	(0)	12	(0)	
	PEDS	North Side	•	0	East Side		164	South Side		317	West Side		75
13:30	CARS	0	28	8	96	7	0	0	0	0	86	0	26
	DUALS	0	1	1	1	0	0	0	0	0	8	0	5
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		3	(0)		9	(0)		0	(0)	9	(0)	
	PEDS	North Side	•	0	East Side		105	South Side		368	West Side		77
13:45	CARS	0	21	5	91	9	0	0	0	0	72	0	27
	DUALS	0	5	1	4	1	0	0	0	0	6	0	5
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		3	(0)		10	(0)		0	(0)	9	(0)	
	PEDS	North Side	•	0	East Side		63	South Side		298	West Side		55
14:00	CARS	0	26	15	70	13	0	0	0	0	95	0	31
	DUALS	0	3	1	2	3	0	0	0	0	4	0	1
	BUSES	0	1	0	2	0	0	0	0	0	6	0	0
	BIKE (OTHER)		7	(0)		16	(0)		0	(0)	22	(0)	
	PEDS	North Side	•	0	East Side		85	South Side		308	West Side		80
14:15	CARS	0	29	13	82	14	0	0	0	0	78	0	29
	DUALS	0	0	0	3	3	0	0	0	0	4	0	3
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		20	(0)		0	(0)	20	(0)	
	PEDS	North Side	•	0	East Side		72	South Side		315	West Side		47



### PETER ST AT QUEEN ST (PX 1589)

Survey Date: Jun-14-2017 (Wednesday)

Survey Type: Routine Hours

Time Period		NORT Thru	H BO	UND Left	EA Thru	ST BOU Right	IND Left	SOUTH Thru R	l BOU ight	ND Left	WES <sup>T</sup> Thru I	「BOUND Right Left	t
14:30	CARS	0	25	7	71	19	0	0	0	0	78	0	19
	DUALS	0	2	2	5	1	0	0	0	0	5	0	3
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		7	(0)		21	(0)		0	(0)	16	(0)	
	PEDS	North Side		0	East Side		85	South Side		303	West Side		36
14:45	CARS	0	16	8	76	13	0	0	0	0	99	0	21
	DUALS	0	0	1	3	1	0	0	0	0	8	0	4
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		14	(0)		0	(0)	27	(0)	
	PEDS	North Side		0	East Side	. <u> </u>	116	South Side		333	West Side		42
15:00	CARS	0	22	11	100	15	0	0	0	0	85	0	26
	DUALS	0	1	1	3	2	0	0	0	0	6	0	1
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		18	(0)		0	(0)	13	(0)	
	PEDS	North Side		0	East Side	. <u> </u>	64	South Side		258	West Side		61
16:15	CARS	0	38	10	90	13	0	0	0	0	110	0	24
	DUALS	0	0	0	4	1	0	0	0	0	3	0	2
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		15	(0)		0	(0)	27	(0)	
	PEDS	North Side		0	East Side		83	South Side		298	West Side		66
16:30	CARS	0	26	11	107	9	0	0	0	0	111	0	23
	DUALS	0	1	1	2	0	0	0	0	0	3	0	2
	BUSES	0	0	0	3	0	0	0	0	0	3	0	0
	BIKE (OTHER)		7	(0)		10	(0)		0	(0)	33	(0)	
	PEDS	North Side		0	East Side		121	South Side		306	West Side		47
16:45	CARS	0	30	16	109	8	0	0	0	0	106	0	31
	DUALS	0	1	0	3	1	0	0	0	0	1	0	1
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0
	BIKE (OTHER)		11	(0)		11	(0)		0	(0)	38	(0)	
	PEDS	North Side		0	East Side	·	91	South Side	_	275	West Side		45
17:00	CARS	0	22	14	117	19	0	0	0	0	100	0	23
	DUALS	0	1	1	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		11	(0)		20	(0)		0	(0)	26	(0)	
	PEDS	North Side		0	East Side		86	South Side		261	West Side		57



### PETER ST AT QUEEN ST (PX 1589)

Survey Date: Jun-14-2017 (Wednesday)

Survey Type:	Routine Hours

Time		NOF	атн во	UND	EAS	ат вои	ND	SOUT	н воц	JND	WES	ST BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru l	Right	Left	Thru	Right Left	t
17:15	CARS	0	33	14	104	14	0	0	0	0	112	0	37
	DUALS	0	1	0	1	0	0	0	0	0	4	0	1
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		18	(0)		19	(0)		0	(0)	47	(0)	
	PEDS	North Sid	le	0	East Side		113	South Side		436	West Side		85
17:30	CARS	0	31	28	86	12	0	0	0	0	100	0	32
	DUALS	0	1	1	3	1	0	0	0	0	4	0	0
	BUSES	0	0	0	1	0	0	0	0	0	6	0	0
	BIKE (OTHER)		35	(0)		14	(0)		0	(0)	35	(0)	
	PEDS	North Sid	le	0	East Side		208	South Side		497	West Side		73
17:45	CARS	0	37	11	120	12	0	0	0	0	118	0	34
	DUALS	0	0	0	2	0	0	0	0	0	0	0	1
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		20	(0)		15	(0)		0	(0)	33	(0)	
	PEDS	North Sid	le	0	East Side		164	South Side		582	West Side		83
18:00	CARS	0	31	16	108	14	0	0	0	0	112	0	28
	DUALS	0	1	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		20	(0)		17	(0)		0	(0)	36	(0)	
	PEDS	North Sid	le	0	East Side		183	South Side		514	West Side		72



### AUGUSTA AVE AT QUEEN ST (PX 552)

Survey Date: Dec-18-2018 (Tuesday)

Survey Ty	rpe: Routine H	lours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	2	3	2	130	2	3	4	0	4	61	4	4
	DUALS	1	0	0	2	0	0	0	0	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		22	East Side		12	South Side		20	West Side		13
08:00	CARS	3	2	6	144	9	3	3	0	9	71	6	5
	DUALS	1	1	0	5	0	0	0	0	0	2	0	0
	BUSES	0	0	0	2	0	0	0	0	0	5	2	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	3	(0)	
	PEDS	North Side		18	East Side		7	South Side		34	West Side		7
08:15	CARS	3	4	3	162	7	8	7	2	18	92	4	4
	DUALS	0	1	1	2	0	1	0	0	0	2	1	1
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		8	(0)		1	(0)	0	(0)	
	PEDS	North Side		32	East Side		16	South Side		38	West Side		11
08:30	CARS	4	5	9	193	9	5	9	2	13	76	5	5
	DUALS	0	0	0	7	0	0	1	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		4	(0)		2	(0)	1	(0)	
	PEDS	North Side		48	East Side		16	South Side		45	West Side		14
08:45	CARS	7	4	7	170	15	9	7	0	21	103	14	10
	DUALS	0	0	0	5	1	0	0	0	0	6	0	1
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		7	(0)		6	(0)	0	(0)	
	PEDS	North Side		46	East Side		19	South Side		55	West Side		24
09:00	CARS	6	9	11	141	13	9	17	0	15	80	3	6
	DUALS	0	0	1	1	0	2	0	0	0	3	0	0
	BUSES	0	0	0	5	0	1	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		17	(0)		11	(0)	1	(0)	
	PEDS	North Side		78	East Side		38	South Side		71	West Side		23
09:15	CARS	7	5	2	147	12	10	12	3	14	86	10	5
	DUALS	0	0	0	3	0	0	0	0	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		8	(0)		7	(0)	1	(0)	
	PEDS	North Side		52	East Side		22	South Side		67	West Side		23



### AUGUSTA AVE AT QUEEN ST (PX 552)

Survey Date: Dec-18-2018 (Tuesday)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	l BOU ight	ND Left	EAS <sup>°</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	4	5	6	166	11	5	11	3	18	77	15	7
	DUALS	0	0	0	3	1	0	0	0	0	1	1	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		2	(0)		4	(0)	3	(0)	
	PEDS	North Side		48	East Side		13	South Side		59	West Side		25
10:15	CARS	5	6	4	114	3	7	8	3	13	76	8	3
	DUALS	0	0	1	2	0	0	0	0	0	3	0	1
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		3	(0)		5	(0)	1	(0)	
	PEDS	North Side		37	East Side		19	South Side		39	West Side		5
10:30	CARS	6	7	5	87	2	7	3	2	6	74	6	3
	DUALS	0	0	0	6	0	0	0	0	2	4	0	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	6	(0)	
	PEDS	North Side		56	East Side		24	South Side		46	West Side		12
10:45	CARS	4	6	2	82	3	9	5	3	7	73	13	6
	DUALS	1	0	0	3	1	0	0	0	0	4	0	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	2	(0)	
	PEDS	North Side		48	East Side		14	South Side		63	West Side		16
11:00	CARS	7	6	6	75	5	8	5	5	5	74	7	9
	DUALS	0	0	0	5	1	1	0	0	0	1	1	1
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		9	(0)		1	(0)	2	(0)	
	PEDS	North Side		38	East Side		17	South Side		57	West Side		21
11:15	CARS	8	3	2	81	7	8	4	2	10	67	8	4
	DUALS	0	0	0	4	0	0	1	0	0	3	1	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		12	(0)		0	(0)	0	(0)	
	PEDS	North Side		55	East Side		16	South Side		66	West Side		18
11:30	CARS	5	7	6	87	0	15	7	4	9	79	11	7
	DUALS	0	0	1	3	0	2	0	0	0	5	0	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		2	(0)		4	(0)	1	(0)	
	PEDS	North Side		64	East Side		31	South Side		97	West Side		22



#### AUGUSTA AVE AT QUEEN ST (PX 552)

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Survey Date: Dec-18-2018 (Tuesday)
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Survey Ty	/pe: Routine I	Hours											
Time Period		NORTH Thru R	l BOl light	JND Left	EAS Thru	ST BOU Right	ND Left	SOUTI Thru F	I BOU light	ND Left	WES1 Thru F	'BOUND Right Left	t
11:45	CARS	7	3	3	82	9	5	6	11	7	75	9	11
	DUALS	1	0	1	1	0	0	0	0	0	4	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		6	(0)		1	(0)	1	(0)	
	PEDS	North Side		73	East Side		22	South Side		80	West Side		33
12:00	CARS	4	9	2	86	15	9	7	0	5	97	13	6
	DUALS	0	1	1	3	0	1	0	0	0	5	1	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	3	(0)	
	PEDS	North Side		92	East Side		36	South Side		100	West Side		37
13:15	CARS	12	4	7	87	8	16	8	12	10	72	17	9
	DUALS	0	0	0	1	0	0	0	0	1	4	1	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		12	(0)		0	(0)	3	(0)	
	PEDS	North Side		112	East Side		38	South Side		135	West Side		47
13:30	CARS	6	6	9	71	11	11	8	6	9	78	18	10
	DUALS	1	0	1	4	0	0	0	0	4	6	1	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		5	(0)		0	(0)	2	(0)	
	PEDS	North Side		147	East Side		40	South Side		144	West Side		62
13:45	CARS	1	4	6	85	5	11	11	4	5	84	11	11
	DUALS	0	0	0	2	0	0	1	0	0	2	0	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	7	(0)	
	PEDS	North Side		137	East Side		48	South Side		137	West Side		41
14:00	CARS	5	2	6	66	7	11	4	7	8	89	10	9
	DUALS	1	1	0	4	0	0	1	0	0	3	2	0
	BUSES	0	0	0	3	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		9	(0)		0	(0)	9	(0)	
	PEDS	North Side		110	East Side		35	South Side		149	West Side		42
14:15	CARS	6	3	4	82	5	13	8	3	9	64	12	10
	DUALS	0	1	0	3	2	0	0	0	0	2	0	1
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		5	(0)		0	(0)	4	(0)	
	PEDS	North Side		111	East Side		45	South Side		143	West Side		33



### AUGUSTA AVE AT QUEEN ST (PX 552)

Survey Date: Dec-18-2018 (Tuesday)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOL light	JND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	8	10	5	84	5	5	5	5	6	69	10	8
	DUALS	0	0	0	5	1	0	0	0	0	3	1	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		4	(0)		1	(0)	5	(0)	
	PEDS	North Side		118	East Side		39	South Side		156	West Side		48
14:45	CARS	9	1	2	76	5	9	4	2	6	98	13	12
	DUALS	0	1	0	1	0	0	0	0	0	5	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	2	(0)	
	PEDS	North Side		100	East Side		29	South Side		129	West Side		34
15:00	CARS	10	8	5	92	9	7	6	6	6	103	13	12
	DUALS	0	0	1	2	0	0	0	0	0	2	1	1
	BUSES	0	0	0	2	0	0	0	0	0	4	1	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	9	(0)	
	PEDS	North Side		110	East Side		41	South Side		176	West Side		58
16:15	CARS	10	3	21	90	5	9	4	6	17	136	11	9
	DUALS	0	0	0	1	0	1	0	2	0	4	0	0
	BUSES	0	0	0	3	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	9	(0)	
	PEDS	North Side		123	East Side		35	South Side		148	West Side		41
16:30	CARS	12	8	19	82	8	5	0	4	6	142	17	9
	DUALS	0	0	1	1	0	1	0	0	0	4	0	0
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		10	(0)		2	(0)	7	(0)	
	PEDS	North Side		146	East Side		40	South Side		134	West Side		40
16:45	CARS	15	5	24	81	8	11	11	3	11	183	6	15
	DUALS	0	0	0	0	1	0	0	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	1	0	0
	BIKE (OTHER)		8	(0)		4	(0)		0	(0)	6	(0)	
	PEDS	North Side		127	East Side		55	South Side		173	West Side		44
17:00	CARS	12	7	39	93	7	12	5	4	16	173	13	7
	DUALS	0	0	1	1	0	1	0	0	0	4	0	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		9	(0)		1	(0)	16	(0)	
	PEDS	North Side		138	East Side		52	South Side		178	West Side		53



### AUGUSTA AVE AT QUEEN ST (PX 552)

Survey Date: Dec-18-2018 (Tuesday)

Survey Ty	v <b>pe:</b> Ro	utine Hours											
Time Period		NC Thr	DRTH BO	UND Left	EA: Thru	ST BOU Right	ND Left	SOUT Thru	TH BOL Right	JND Left	WES Thru	ST BOUND Right Lef	t
17:15	CARS	12	2 7	32	74	4	12	12	5	10	202	12	7
	DUALS	C	0 0	0	0	1	0	0	0	0	3	0	0
	BUSES	C	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHE	R)	3	(0)		7	(0)		0	(0)	6	(0)	
	PEDS	North S	ide	160	East Side		41	South Side		195	West Side		55
17:30	CARS	15	5 2	17	94	3	11	5	8	8	213	9	8
	DUALS	C	) 1	0	0	0	0	1	0	0	1	0	0
	BUSES	C	0	0	4	0	0	0	0	0	0	0	0
	BIKE (OTHE	R)	5	(0)		12	(0)		1	(0)	9	(0)	
	PEDS	North S	lide	140	East Side		40	South Side		183	West Side		40
17:45	CARS	19	) 4	25	104	7	4	5	3	9	196	16	10
	DUALS	C	0 0	0	0	0	0	0	0	0	1	0	0
	BUSES	C	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHE	R)	7	(0)		7	(0)		0	(0)	9	(0)	
	PEDS	North S	lide	125	East Side		50	South Side		224	West Side		52
18:00	CARS	23	8 4	27	85	4	18	5	3	10	159	13	8
	DUALS	C	0	0	0	0	1	0	0	0	5	0	0
	BUSES	C	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHE	R)	5	(0)		8	(0)		1	(0)	7	(0)	
	PEDS	North S	lide	135	East Side		35	South Side		192	West Side		50



#### PORTLAND ST AT QUEEN ST W (PX 2088)

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Survey Date: Jun-14-2017 (Wednesday)
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#### PORTLAND ST AT QUEEN ST W (PX 2088)

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Survey Date: Jun-14-2017 (Wednesday)
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### PORTLAND ST AT QUEEN ST W (PX 2088)

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Survey Date: Jun-14-2017 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Lei	ft
11:45	CARS	0	13	15	59	19	0	0	0	0	76	0	11
	DUALS	0	0	0	5	0	0	0	0	0	6	0	1
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		5	(0)		18	(0)		0	(0)	7	(0)	
	PEDS	North Side		0	East Side		71	South Side		84	West Side		96
12:00	CARS	0	10	13	70	10	0	0	0	0	50	0	11
	DUALS	0	0	2	3	0	0	0	0	0	6	0	C
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0
	BIKE (OTHER)		4	(0)		13	(0)		0	(0)	15	(0)	
	PEDS	North Side		0	East Side		75	South Side		134	West Side		98
13:15	CARS	0	15	10	61	5	0	0	0	0	74	0	11
	DUALS	0	1	3	3	0	0	0	0	0	8	0	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		4	(0)		12	(0)		0	(0)	11	(0)	
	PEDS	North Side		0	East Side		76	South Side		216	West Side		204
13:30	CARS	0	12	17	74	19	0	0	0	0	75	0	15
	DUALS	0	0	0	0	0	0	0	0	0	6	0	C
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		15	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		82	South Side		218	West Side		248
13:45	CARS	0	8	18	52	7	0	0	0	0	71	0	14
	DUALS	0	1	0	4	0	0	0	0	0	5	0	C
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		5	(0)		13	(0)		0	(0)	10	(0)	
	PEDS	North Side		0	East Side		68	South Side		170	West Side		253
14:00	CARS	0	16	18	57	10	0	0	0	0	69	0	8
	DUALS	0	0	5	5	1	0	0	0	0	6	0	C
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		10	(0)		0	(0)	9	(0)	
	PEDS	North Side		0	East Side		113	South Side		154	West Side		172
14:15	CARS	0	7	22	60	11	0	0	0	0	72	0	14
	DUALS	0	0	1	2	0	0	0	0	0	3	0	2
	BUSES	0	0	0	1	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		8	(0)		0	(0)	10	(0)	
	PEDS	North Side		0	East Side		55	South Side		144	West Side		174



### PORTLAND ST AT QUEEN ST W (PX 2088)

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Survey Date: Jun-14-2017 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lei	ft
14:30	CARS	0	15	17	66	9	0	0	0	0	81	0	7
	DUALS	0	2	0	1	1	0	0	0	0	3	0	2
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		4	(0)		10	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		64	South Side		152	West Side		165
14:45	CARS	0	5	17	60	11	0	0	0	0	58	0	2
	DUALS	0	1	1	1	0	0	0	0	0	2	0	(
	BUSES	0	0	0	3	0	0	0	0	0	0	0	C
	BIKE (OTHER)		3	(0)		17	(0)		0	(0)	11	(0)	
	PEDS	North Side		0	East Side		27	South Side		95	West Side		138
15:00	CARS	0	11	22	71	8	0	0	0	0	103	0	14
	DUALS	0	0	0	3	0	0	0	0	0	12	0	(
	BUSES	0	0	0	6	0	0	0	0	0	6	0	C
	BIKE (OTHER)		7	(0)		10	(0)		0	(0)	20	(0)	
	PEDS	North Side		0	East Side		62	South Side		91	West Side		192
16:15	CARS	0	7	37	66	8	0	0	0	0	89	0	13
	DUALS	0	0	1	3	0	0	0	0	0	2	0	(
	BUSES	0	0	0	3	0	0	0	0	0	5	0	C
	BIKE (OTHER)		8	(0)		6	(0)		0	(0)	10	(0)	
	PEDS	North Side		0	East Side		76	South Side		118	West Side		163
16:30	CARS	0	3	36	65	8	0	0	0	0	83	0	7
	DUALS	0	0	0	1	1	0	0	0	0	3	0	(
	BUSES	0	0	0	3	0	0	0	0	0	3	0	C
	BIKE (OTHER)		7	(0)		14	(0)		0	(0)	11	(0)	
	PEDS	North Side		0	East Side		74	South Side		131	West Side		144
16:45	CARS	0	9	42	65	8	0	0	0	0	66	0	12
	DUALS	0	1	1	2	1	0	0	0	0	2	0	(
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		8	(0)		14	(0)		0	(0)	9	(0)	
	PEDS	North Side		0	East Side		67	South Side		136	West Side		157
17:00	CARS	0	7	42	82	10	0	0	0	0	80	0	11
	DUALS	0	0	0	0	0	0	0	0	0	2	0	1
	BUSES	0	0	0	2	0	0	0	0	0	4	0	C
	BIKE (OTHER)		6	(0)		15	(0)		0	(0)	5	(0)	
	PEDS	North Side		0	East Side		72	South Side		153	West Side		196



### PORTLAND ST AT QUEEN ST W (PX 2088)

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Survey Date: Jun-14-2017 (Wednesday)
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Survey Typ	pe: F	Routine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU1 Thru	TH BOU Right	IND Left	WE: Thru	ST BOUND Right Le	ft
17:15	CARS		0	3	38	5	9	0	0	0	0	91	0	6
	DUALS		0	0	0	1	0	0	0	0	0	3	0	C
	BUSES		0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTH	ER)		6	(0)		9	(0)		0	(0)	12	(0)	
	PEDS	N	orth Sid	le	0	East Side		74	South Side	)	131	West Side		192
17:30	CARS		0	3	39	55	10	0	0	0	0	67	0	8
	DUALS		0	0	2	3	0	0	0	0	0	5	0	2
	BUSES		0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTH	ER)		15	(0)		14	(0)		0	(0)	11	(0)	
	PEDS	N	orth Sid	le	0	East Side		129	South Side	)	211	West Side		237
17:45	CARS		0	6	37	54	10	0	0	0	0	91	0	ç
	DUALS		0	1	1	3	0	0	0	0	0	3	0	C
	BUSES		0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTH	ER)		12	(0)		18	(0)		0	(0)	10	(0)	
	PEDS	N	orth Sid	le	0	East Side		109	South Side	)	214	West Side		218
18:00	CARS		0	3	40	88	9	0	0	0	0	77	0	12
	DUALS		0	0	0	1	0	0	0	0	0	0	0	C
	BUSES		0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTH	ER)		14	(0)		20	(0)		0	(0)	10	(0)	
	PEDS	N	orth Sid	le	0	East Side		106	South Side	)	213	West Side		263



### JOHN ST AT RICHMOND ST (PX 269)

Survey Date: Jun-13-2017 (Tuesday)

Survey	Туре:	<b>Routine Hours</b>

Time Period 07:45 CARS DUALS		NORT Thru I	H BOL Right	JND Left	EAS <sup>-</sup> Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND Right Lef	ť
07:45	CARS	23	0	11	0	0	0	14	7	0	97	10	7
	DUALS	1	0	2	0	0	0	1	0	0	3	1	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		3	(0)		1	(0)		11	(0)	37	(0)	
	PEDS	North Side		32	East Side		28	South Side		29	West Side		41
08:00	CARS	18	0	4	0	0	0	32	6	1	113	13	12
	DUALS	1	0	1	0	0	0	0	0	0	6	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		31	(0)	41	(0)	
	PEDS	North Side		48	East Side		49	South Side		51	West Side		46
08:15	CARS	22	0	11	0	0	0	20	6	0	111	9	10
	DUALS	0	0	1	0	0	0	0	1	0	2	0	1
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		7	(0)		0	(0)		39	(0)	43	(0)	
	PEDS	North Side		60	East Side		49	South Side		61	West Side		60
08:30	CARS	35	0	7	0	0	0	33	17	0	112	10	10
	DUALS	1	0	3	0	0	0	1	1	0	5	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		0	(0)		90	(0)	67	(0)	
	PEDS	North Side		72	East Side		92	South Side		91	West Side		103
08:45	CARS	33	0	7	0	0	0	33	13	0	118	16	9
	DUALS	2	0	2	0	0	0	1	0	0	5	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		9	(0)		0	(0)		85	(0)	89	(0)	
	PEDS	North Side		84	East Side		86	South Side		103	West Side		130
09:00	CARS	35	0	13	0	0	0	26	11	1	111	8	5
	DUALS	3	0	2	0	0	0	0	1	0	3	1	0
	BUSES	0	0	0	0	0	0	0	0	0	5	0	0
	BIKE (OTHER)		13	(0)		0	(0)		98	(0)	111	(0)	
	PEDS	North Side		133	East Side		163	South Side		183	West Side		190
09:15	CARS	50	0	8	0	0	0	26	13	0	123	13	9
	DUALS	2	0	1	0	0	0	0	0	0	5	1	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		9	(0)		0	(0)		77	(0)	85	(0)	
	PEDS	North Side		97	East Side		119	South Side		133	West Side		145



### JOHN ST AT RICHMOND ST (PX 269)

Survey Date: Jun-13-2017 (Tuesday)

Survey	Туре:	<b>Routine Hours</b>

Time Period		NORTH BOUND Thru Right Left			EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUI	ND Left	WEST Thru R	BOUND ight Lef	ft
09:30	CARS	43	0	9	0	0	0	20	8	0	128	12	14
	DUALS	3	0	2	0	0	0	3	0	0	9	0	1
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		5	(0)		1	(0)		58	(0)	92	(0)	
	PEDS	North Side		67	East Side		93	South Side		88	West Side		108
10:15	CARS	28	0	7	0	0	0	16	7	0	102	15	9
	DUALS	4	0	1	0	0	0	0	0	0	5	1	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		17	(0)	34	(0)	
	PEDS	North Side		35	East Side		40	South Side		38	West Side		91
10:30	CARS	27	0	7	0	0	0	17	5	0	124	10	9
	DUALS	1	0	3	0	0	0	0	0	0	8	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		6	(0)		1	(0)		17	(0)	38	(0)	
	PEDS	North Side		35	East Side		65	South Side		57	West Side		128
10:45	CARS	30	0	13	0	0	0	12	5	0	98	11	7
	DUALS	2	0	1	0	0	0	2	0	0	12	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		4	(0)		0	(0)		14	(0)	27	(0)	
	PEDS	North Side		29	East Side		56	South Side		68	West Side		88
11:00	CARS	25	0	7	0	0	0	23	8	0	132	31	6
	DUALS	5	0	1	0	0	0	2	0	0	13	1	2
	BUSES	0	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		5	(0)		0	(0)		17	(0)	22	(0)	
	PEDS	North Side		36	East Side		73	South Side		65	West Side		94
11:15	CARS	40	0	1	0	0	0	24	5	0	110	14	12
	DUALS	4	0	1	0	0	0	3	0	0	5	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		11	(0)	26	(0)	
	PEDS	North Side		38	East Side		72	South Side		54	West Side		87
11:30	CARS	32	0	19	0	0	0	22	6	0	91	18	9
	DUALS	7	0	2	0	0	0	1	2	0	7	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		6	(0)	33	(0)	
	PEDS	North Side		30	East Side		52	South Side		46	West Side		100



### JOHN ST AT RICHMOND ST (PX 269)

Survey Date: Jun-13-2017 (Tuesday)

Survey Type: Routine Hours

Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	F BOUN Right	ID Left	SOUTI Thru F	l BOU light	ND Left	WEST Thru R	BOUND light Let	ft
11:45	CARS	20	0	5	0	0	0	20	10	0	104	17	9
	DUALS	1	0	1	0	0	0	0	0	0	6	2	0
	BUSES	0	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		3	(0)		0	(0)		11	(0)	27	(0)	
	PEDS	North Side		47	East Side		87	South Side		82	West Side		114
12:00	CARS	40	0	11	0	0	0	24	5	0	142	10	11
	DUALS	1	0	3	0	0	0	1	0	0	4	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		13	(0)	37	(0)	
	PEDS	North Side		62	East Side		112	South Side		138	West Side		120
13:15	CARS	62	0	10	0	0	0	31	10	0	131	13	20
	DUALS	3	0	2	0	0	0	0	0	0	5	0	1
	BUSES	0	0	0	0	0	0	2	0	0	1	0	1
	BIKE (OTHER)		2	(0)		0	(0)		8	(0)	40	(0)	
	PEDS	North Side		96	East Side		168	South Side		155	West Side		274
13:30	CARS	40	0	19	0	0	0	32	17	0	123	17	14
	DUALS	3	0	1	0	0	0	0	0	0	7	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		18	(0)	24	(0)	
	PEDS	North Side		90	East Side		140	South Side		146	West Side		190
13:45	CARS	42	0	7	0	0	0	29	12	0	119	16	17
	DUALS	1	0	3	0	0	0	3	0	0	9	0	1
	BUSES	0	0	0	0	0	0	2	0	0	2	1	0
	BIKE (OTHER)		9	(0)		1	(0)		9	(0)	33	(0)	
	PEDS	North Side		69	East Side		136	South Side		188	West Side		226
14:00	CARS	43	0	9	0	0	0	26	14	0	137	8	15
	DUALS	1	0	1	0	0	0	2	1	0	2	1	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		9	(0)	46	(0)	
	PEDS	North Side		70	East Side		77	South Side		131	West Side		213
14:15	CARS	37	0	13	0	0	0	31	13	0	146	17	13
	DUALS	2	0	1	0	0	0	0	0	0	9	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		10	(0)	29	(0)	
	PEDS	North Side		53	East Side		136	South Side		99	West Side		169



Right Left

(0)

(0)

JOHN ST AT RICHMOND ST (PX 269)   Survey Type: Routine Hours   Time Period NORTH BOUND Thru Right Left EAST BC Thru Right   14:30 CARS 47 0 8 0 0   DUALS 7 0 2 0 0   BUSES 0 0 0 0 0   BIKE (OTHER) 7 (0) 0 0   PEDS North Side 48 East Side 0 0   14:45 CARS 34 0 12 0 0   DUALS 2 0 1 0 0 0 0   BIKE (OTHER) 8 (0) 0 0 0 0 0   BUSES 0 0 0 0 0 0 0 0   BUSES 1 0 2 0 0 0 0 0   BUSES 0 0 1 0 2 0 0 0 0   BUALS <t< th=""><th></th><th></th><th>Survey</th><th>Date:</th><th>Jun-′</th><th>13-2017 (Tuesda</th><th>ay)</th></t<>								Survey	Date:	Jun-′	13-2017 (Tuesda	ay)
Survey Ty	rpe: Routine H	lours										
Time Period		NORT Thru	H BOU Right	IND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND
14:30	CARS	47	0	8	0	0	0	27	4	0	139	13
	DUALS	7	0	2	0	0	0	1	0	0	4	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		7	(0)	53	(0)
	PEDS	North Side		48	East Side		88	South Side		98	West Side	
14:45	CARS	34	0	12	0	0	0	25	19	0	153	8
	DUALS	2	0	1	0	0	0	2	1	0	10	0
	BUSES	0	0	0	0	0	0	2	0	0	0	1
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	39	(0)
	PEDS	North Side		51	East Side		87	South Side		93	West Side	
15:00	CARS	34	0	15	0	0	0	28	8	0	169	7
	DUALS	1	0	2	0	0	0	0	0	0	4	1
	BUSES	0	0	0	0	0	0	1	0	0	1	0
	BIKE (OTHER)		8	(0)		0	(0)		5	(0)	43	(0)
	PEDS	North Side		52	East Side		78	South Side		108	West Side	
15:00  16:15	CARS	27	0	18	0	0	0	27	8	0	217	6
	DUALS	0	0	0	0	0	0	1	0	0	2	2
	BUSES	1	0	0	0	0	0	0	0	0	3	0
	BIKE (OTHER)		12	(0)		0	(0)		9	(0)	57	(0)
	PEDS	North Side		54	East Side		66	South Side		94	West Side	
16:30	CARS	46	0	21	0	0	0	35	9	0	207	9
	DUALS	0	0	0	0	0	0	0	0	0	5	0
	BUSES	0	0	0	0	0	0	3	0	0	1	0
	BIKE (OTHER)		16	(0)		0	(0)		13	(0)	103	(0)
	PEDS	North Side		70	East Side		89	South Side		90	West Side	
16:45	CARS	30	0	11	0	0	0	25	13	0	216	7
	DUALS	1	0	1	0	0	0	1	0	0	4	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0
	BIKE (OTHER)		15	(0)		0	(0)		5	(0)	133	(0)

North Side

North Side

PEDS

CARS

DUALS

BUSES

PEDS

**BIKE (OTHER)** 

17:00

(0)

East Side

East Side

(0)

South Side

South Side

(0)

West Side

West Side



### JOHN ST AT RICHMOND ST (PX 269)

Survey Date: Jun-13-2017 (Tuesday)

Survey Type: Routine Hours

Time		NORTH BOUND			EAS	T BOUN	ND	SOUTI	н вои	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru F	Right Let	ft
17:15	CARS	31	0	14	0	0	0	32	12	0	207	14	26
	DUALS	3	0	0	0	0	0	0	0	0	8	0	1
	BUSES	0	0	0	0	0	0	2	0	0	3	0	0
	BIKE (OTHER)		37	(0)		0	(0)		20	(0)	211	(0)	
	PEDS	North Sid	e	199	East Side		150	South Side		174	West Side		284
17:30	CARS	42	0	11	0	0	0	24	12	0	154	21	19
	DUALS	0	0	0	0	0	0	1	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		37	(0)		0	(0)		22	(0)	296	(0)	
	PEDS	North Sid	e	217	East Side		186	South Side		226	West Side		344
17:45	CARS	55	0	15	0	0	0	17	13	0	178	9	20
	DUALS	0	0	0	0	0	0	0	0	0	2	0	2
	BUSES	0	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		43	(0)		1	(0)		18	(0)	259	(0)	
	PEDS	North Sid	e	190	East Side		166	South Side		152	West Side		311
18:00	CARS	37	0	18	0	0	0	31	12	0	196	9	16
	DUALS	0	0	0	0	0	0	1	0	0	2	0	1
	BUSES	1	0	0	0	0	0	1	1	0	2	0	0
	BIKE (OTHER)		29	(0)		0	(0)		22	(0)	219	(0)	
	PEDS	North Sid	е	165	East Side		129	South Side		172	West Side		315



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	rpe: Routine H	lours											
Time Period		NORT Thru	'H BOl Right	JND Left	EAS <sup>-</sup> Thru	F BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lei	ft
07:45	CARS	144	0	14	0	0	0	330	25	0	155	32	60
	DUALS	15	0	1	0	0	0	14	6	0	15	3	4
	BUSES	1	0	0	0	0	0	3	1	0	6	1	1
	BIKE (OTHER)		8	(0)		0	(0)		16	(0)	33	(0)	
	PEDS	North Side		32	East Side		156	South Side		28	West Side		129
08:00	CARS	152	0	9	0	0	0	304	39	0	150	38	61
	DUALS	12	0	0	0	0	0	25	2	0	21	6	6
	BUSES	1	0	0	0	0	0	0	0	0	8	1	2
	BIKE (OTHER)		9	(0)		0	(0)		16	(0)	34	(0)	
	PEDS	North Side		38	East Side		190	South Side		55	West Side		220
08:15	CARS	184	0	8	0	0	0	336	34	0	136	38	57
	DUALS	10	0	0	0	0	0	11	4	0	9	1	4
	BUSES	1	0	0	0	0	0	1	1	0	3	3	0
	BIKE (OTHER)		14	(0)		0	(0)		20	(0)	52	(0)	
	PEDS	North Side	•	54	East Side		247	South Side		39	West Side		306
08:30	CARS	137	0	7	0	0	0	306	49	0	122	35	47
	DUALS	10	0	1	0	0	0	16	1	0	23	1	4
	BUSES	2	0	0	0	0	0	1	0	0	5	3	0
	BIKE (OTHER)		12	(0)		0	(0)		35	(0)	95	(0)	
	PEDS	North Side		68	East Side		273	South Side		73	West Side		354
08:45	CARS	158	0	16	0	0	0	310	20	0	104	28	20
	DUALS	13	0	0	0	0	0	16	2	0	22	0	1
	BUSES	1	0	1	0	0	0	2	0	0	6	0	3
	BIKE (OTHER)		12	(0)		0	(0)		22	(0)	101	(0)	
	PEDS	North Side	•	87	East Side		323	South Side		78	West Side		324
09:00	CARS	171	0	12	0	0	0	324	39	0	94	26	28
	DUALS	9	0	2	0	0	0	22	2	0	12	2	4
	BUSES	1	0	0	0	0	0	1	1	0	7	1	4
	BIKE (OTHER)		15	(0)		0	(0)		31	(0)	107	(0)	
	PEDS	North Side	•	103	East Side		273	South Side		100	West Side		295
09:15	CARS	217	0	10	0	0	0	317	46	0	114	27	22
	DUALS	12	0	2	0	0	0	16	1	0	13	3	3
	BUSES	5	0	0	0	0	0	1	1	0	7	2	1
	BIKE (OTHER)		10	(0)		0	(0)		26	(0)	98	(0)	
	PEDS	North Side	•	76	East Side		261	South Side		116	West Side		230



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	IND Left	EAS <sup>-</sup> Thru	F BOUN Right	ID Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND	ft
09:30	CARS	220	0	16	0	0	0	278	52	0	90	33	37
Survey Type   Time Period   09:30      10:15      10:30      10:45      11:00      11:15      11:30	DUALS	9	0	2	0	0	0	17	1	0	31	10	5
	BUSES	3	0	0	0	0	0	4	1	0	8	0	2
	BIKE (OTHER)		7	(0)		0	(0)		21	(0)	49	(0)	
	PEDS	North Side		44	East Side		177	South Side		75	West Side		168
10:15	CARS	233	0	39	0	0	0	195	37	0	86	33	35
	DUALS	19	0	5	0	0	0	24	4	0	16	8	14
	BUSES	2	0	0	0	0	0	2	0	0	0	0	1
	BIKE (OTHER)		5	(0)		0	(0)		15	(0)	29	(0)	
	PEDS	North Side		31	East Side		75	South Side		29	West Side		109
10:30	CARS	257	0	19	0	0	0	237	31	0	120	43	42
	DUALS	7	0	1	0	0	0	22	4	0	27	5	7
	BUSES	1	0	0	0	0	0	2	0	0	2	0	3
	BIKE (OTHER)		3	(0)		0	(0)		9	(0)	20	(0)	
	PEDS	North Side		28	East Side		98	South Side		32	West Side		92
10:45	CARS	241	0	16	0	0	0	229	50	0	78	35	47
	DUALS	10	0	4	0	0	0	15	3	0	23	7	8
	BUSES	1	0	0	0	0	0	3	0	0	3	0	1
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	27	(0)	
	PEDS	North Side		41	East Side		77	South Side		47	West Side		97
11:00	CARS	213	0	24	0	0	0	249	32	0	103	40	32
	DUALS	21	0	2	0	0	0	32	5	0	23	0	11
	BUSES	3	0	0	0	0	0	1	0	0	2	0	0
	BIKE (OTHER)		2	(0)		0	(0)		10	(0)	22	(0)	
	PEDS	North Side		35	East Side		98	South Side		44	West Side		99
11:15	CARS	225	0	17	0	0	0	227	36	0	90	43	37
	DUALS	15	0	1	0	0	0	27	9	0	25	3	14
	BUSES	3	0	1	0	0	0	4	0	0	1	1	2
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	24	(0)	
	PEDS	North Side		36	East Side		106	South Side		35	West Side		91
11:30	CARS	223	0	18	0	0	0	249	42	0	69	30	32
	DUALS	12	0	2	0	0	0	31	3	0	26	6	g
	BUSES	4	0	0	0	0	0	3	0	0	2	0	2
	BIKE (OTHER)		2	(0)		0	(0)		5	(0)	16	(0)	
	PEDS	North Side		56	East Side		114	South Side		56	West Side		75



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	IND Left	EAST Thru	F BOUN Right	ID Left	SOUT Thru F	H BOU Right	ND Left	WEST Thru R	BOUND	ft
11:45	CARS	239	0	15	0	0	0	252	44	0	83	35	34
	DUALS	9	0	3	0	0	0	25	3	0	19	3	5
	BUSES	3	0	0	0	0	0	5	1	0	0	0	1
	BIKE (OTHER)		7	(0)		0	(0)		9	(0)	25	(0)	
	PEDS	North Side		52	East Side		155	South Side		61	West Side		176
12:00	CARS	253	0	23	0	0	0	253	41	0	52	31	23
	DUALS	19	0	2	0	0	0	27	8	0	21	4	8
	BUSES	4	0	0	0	0	0	4	0	0	1	0	2
	BIKE (OTHER)		7	(0)		0	(0)		20	(0)	40	(0)	
	PEDS	North Side		72	East Side		178	South Side		82	West Side		167
13:15	CARS	210	0	22	0	0	0	234	39	0	81	31	33
	DUALS	12	0	3	0	0	0	27	9	0	12	10	7
	BUSES	1	0	0	0	0	0	2	1	0	2	1	1
	BIKE (OTHER)		9	(0)		0	(0)		8	(0)	18	(0)	
	PEDS	North Side		77	East Side		196	South Side		107	West Side		248
13:30	CARS	208	0	17	0	0	0	263	51	0	83	42	42
	DUALS	17	0	1	0	0	0	25	6	0	13	1	13
	BUSES	7	0	0	0	0	0	1	0	0	2	0	1
	BIKE (OTHER)		4	(0)		0	(0)		12	(0)	16	(0)	
	PEDS	North Side		76	East Side		180	South Side		95	West Side		207
13:45	CARS	209	0	25	0	0	0	213	28	0	80	32	39
	DUALS	9	0	0	0	0	0	33	4	0	21	4	2
	BUSES	2	0	0	0	0	0	1	1	0	3	0	1
	BIKE (OTHER)		2	(0)		0	(0)		12	(0)	25	(0)	
	PEDS	North Side		57	East Side		133	South Side		99	West Side		187
14:00	CARS	228	0	28	0	0	0	242	35	0	109	37	45
	DUALS	4	0	0	0	0	0	26	6	0	24	0	6
	BUSES	4	0	0	0	0	0	2	1	0	0	1	2
	BIKE (OTHER)		6	(0)		0	(0)		8	(0)	39	(0)	
	PEDS	North Side		60	East Side		168	South Side		75	West Side		198
14:15	CARS	197	0	17	0	0	0	249	27	0	114	32	29
	DUALS	12	0	2	0	0	0	25	2	0	11	1	1
	BUSES	3	0	0	0	0	0	2	1	0	1	0	1
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	12	(0)	
	PEDS	North Side		48	East Side		150	South Side		138	West Side		156



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date:
         Jun-12-2019 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAST Thru	۲ BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Le	ft
14:30	CARS	240	0	28	0	0	0	181	33	0	87	38	47
	DUALS	5	0	0	0	0	0	24	3	0	20	2	3
	BUSES	3	0	0	0	0	0	2	0	0	1	0	2
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	33	(0)	
	PEDS	North Side		33	East Side		140	South Side		67	West Side		148
14:45	CARS	196	0	17	0	0	0	219	35	0	138	31	45
	DUALS	16	0	3	0	0	0	37	6	0	18	0	4
	BUSES	3	0	0	0	0	0	2	1	0	0	1	1
	BIKE (OTHER)		3	(0)		0	(0)		13	(0)	37	(0)	
	PEDS	North Side		50	East Side		123	South Side		66	West Side		141
15:00	CARS	184	0	23	0	0	0	312	59	0	75	33	38
	DUALS	11	0	2	0	0	0	23	1	0	17	0	3
	BUSES	0	0	0	0	0	0	3	1	0	1	0	3
	BIKE (OTHER)		3	(0)		0	(0)		7	(0)	35	(0)	
	PEDS	North Side		52	East Side		142	South Side		96	West Side		149
16:15	CARS	246	0	28	0	0	0	168	53	0	174	55	47
	DUALS	10	0	0	0	0	0	7	2	0	11	0	0
	BUSES	4	0	0	0	0	0	0	2	0	6	2	4
	BIKE (OTHER)		8	(0)		0	(0)		20	(0)	79	(0)	
	PEDS	North Side		73	East Side		232	South Side		73	West Side		256
16:30	CARS	249	0	20	0	0	0	221	56	0	156	44	40
	DUALS	3	0	1	0	0	0	6	2	0	6	4	3
	BUSES	5	0	0	0	0	0	1	2	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		21	(0)	33	(0)	
	PEDS	North Side		77	East Side		322	South Side		83	West Side		276
16:45	CARS	229	0	11	0	0	0	235	65	0	206	35	44
	DUALS	4	0	1	0	0	0	8	4	0	7	3	1
	BUSES	1	0	0	0	0	0	6	0	0	0	1	0
	BIKE (OTHER)		11	(0)		0	(0)		23	(0)	54	(0)	
	PEDS	North Side		81	East Side		360	South Side		113	West Side		355
17:00	CARS	230	0	18	0	0	0	221	58	0	224	41	39
	DUALS	6	0	0	0	0	0	7	2	0	10	3	3
	BUSES	1	0	0	0	0	0	1	1	0	5	0	2
	BIKE (OTHER)		8	(0)		0	(0)		12	(0)	75	(0)	
	PEDS	North Side		98	East Side		329	South Side		83	West Side		263



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date:
         Jun-12-2019 (Wednesday)
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Survey Type	e: Rou	utine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	IND Left	WES Thru	ST BOUND Right Lei	ft
17:15	CARS		223	0	26	0	0	0	176	70	0	179	32	32
	DUALS		2	0	0	0	0	0	6	1	0	11	2	1
	BUSES		0	0	0	0	0	0	4	1	0	4	1	2
	BIKE (OTHEI	R)		11	(0)		0	(0)		18	(0)	86	(0)	
	PEDS	N	orth Sid	e	118	East Side		377	South Side	)	115	West Side		441
17:30	CARS		252	0	16	0	0	0	205	62	0	197	31	33
	DUALS		3	0	2	0	0	0	9	2	0	9	1	4
	BUSES		1	0	0	0	0	0	4	0	0	3	1	1
	BIKE (OTHEI	R)		20	(0)		0	(0)		11	(0)	68	(0)	
	PEDS	N	orth Sid	e	94	East Side		420	South Side	)	137	West Side		395
17:45	CARS		273	0	19	0	0	0	191	69	0	216	47	31
	DUALS		1	0	0	0	0	0	6	2	0	9	0	1
	BUSES		1	0	0	0	0	0	5	0	0	6	0	2
	BIKE (OTHEI	R)		9	(0)		0	(0)		18	(0)	83	(0)	
	PEDS	N	orth Sid	e	87	East Side		370	South Side	)	140	West Side		348
18:00	CARS		261	0	39	0	0	0	206	49	0	160	58	41
	DUALS		7	0	0	0	0	0	7	1	0	11	3	4
	BUSES		3	0	0	0	0	0	1	1	0	5	1	1
	BIKE (OTHE	R)		9	(0)		0	(0)		15	(0)	86	(0)	
	PEDS	N	orth Sid	е	114	East Side		280	South Side	)	133	West Side		286



#### ADELAIDE ST AT PETER ST (PX 270)

Survey Ty	pe: Routine I	Hours											
Time Period		NOR1 Thru	'H BOU Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru Ri	BOUND ight Lefi	t
07:45	CARS	15	25	0	232	27	12	19	0	18	0	0	0
	DUALS	6	2	0	15	4	3	2	0	2	0	0	0
	BUSES	1	0	0	0	0	0	0	0	3	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	48	(0)	
	PEDS	North Side	•	47	East Side		53	South Side		39	West Side		37
08:00	CARS	30	22	0	243	25	16	19	0	19	0	0	0
	DUALS	2	3	0	10	3	1	0	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	3	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	55	(0)	
	PEDS	North Side		49	East Side		49	South Side		37	West Side		45
08:15	CARS	33	31	0	265	13	19	28	0	19	0	0	0
	DUALS	2	3	0	8	5	2	3	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	2	0	0	0
	BIKE (OTHER)		10	(0)		1	(0)		2	(0)	89	(0)	
	PEDS	North Side		89	East Side		92	South Side		63	West Side		66
08:30	CARS	31	29	0	245	18	24	18	0	12	0	0	0
	DUALS	1	0	0	13	0	0	1	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	2	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	109	(0)	
	PEDS	North Side		98	East Side		130	South Side		77	West Side		89
08:45	CARS	43	20	0	240	29	41	19	0	11	0	0	0
	DUALS	2	1	0	10	3	2	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	3	0	0	0
	BIKE (OTHER)		14	(0)		0	(0)		4	(0)	166	(0)	
	PEDS	North Side	•	132	East Side		156	South Side		111	West Side		98
09:00	CARS	24	19	0	242	22	34	40	0	16	0	0	0
	DUALS	5	1	0	10	2	1	4	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	4	0	0	0
	BIKE (OTHER)		13	(0)		0	(0)		4	(0)	110	(0)	
	PEDS	North Side		184	East Side		200	South Side		141	West Side		128
09:15	CARS	29	28	0	211	27	26	24	0	15	0	0	0
	DUALS	1	1	0	13	2	0	3	0	1	0	0	0
	BUSES	0	0	0	1	0	0	1	0	4	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		7	(0)	98	(0)	
	PEDS	North Side	•	122	East Side		161	South Side		121	West Side		112



### ADELAIDE ST AT PETER ST (PX 270)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	'H BOU Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru Ri	BOUND ight Left	t
09:30	CARS	53	24	0	238	29	34	27	0	19	0	0	0
	DUALS	4	0	0	17	3	4	3	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	2	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		3	(0)	58	(0)	
	PEDS	North Side	·	107	East Side		112	South Side		79	West Side		95
10:15	CARS	38	20	0	197	24	21	31	0	18	0	0	0
	DUALS	6	2	0	18	1	3	3	0	3	0	0	0
	BUSES	0	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		1	(0)	16	(0)	
	PEDS	North Side	·	55	East Side		69	South Side		49	West Side		45
10:30	CARS	32	21	0	200	20	20	27	0	18	0	0	0
	DUALS	7	6	0	8	2	0	3	0	4	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	20	(0)	
	PEDS	North Side	·	56	East Side		53	South Side		34	West Side		47
10:45	CARS	34	20	0	170	17	13	30	0	10	0	0	0
	DUALS	7	5	0	16	0	0	7	0	2	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		6	(0)	20	(0)	
	PEDS	North Side	·	71	East Side		65	South Side		28	West Side		49
11:00	CARS	31	19	0	172	17	17	37	0	13	0	0	0
	DUALS	3	2	0	11	3	3	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	10	(0)	
	PEDS	North Side	·	56	East Side		53	South Side		24	West Side		38
11:15	CARS	38	33	0	160	18	20	25	0	17	0	0	0
	DUALS	9	2	0	11	4	0	5	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	20	(0)	
	PEDS	North Side	·	40	East Side		47	South Side		44	West Side		40
11:30	CARS	37	18	0	153	11	17	28	0	14	0	0	0
	DUALS	8	7	0	15	6	2	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	16	(0)	
	PEDS	North Side		53	East Side		63	South Side		47	West Side		44



### ADELAIDE ST AT PETER ST (PX 270)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	'H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru Ri	BOUND ight Lefi	t
11:45	CARS	41	28	0	167	8	17	26	0	18	0	0	0
	DUALS	5	3	0	11	7	1	0	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	20	(0)	
	PEDS	North Side	·	78	East Side		71	South Side		63	West Side		58
12:00	CARS	38	22	0	161	25	22	32	0	24	0	0	0
	DUALS	5	5	0	13	3	1	2	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		1	(0)	10	(0)	
	PEDS	North Side	·	91	East Side		82	South Side		59	West Side		98
13:15	CARS	26	18	0	144	18	12	35	0	19	0	0	0
	DUALS	3	0	0	8	3	5	2	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		4	(0)	12	(0)	
	PEDS	North Side	·	141	East Side		179	South Side		93	West Side		82
13:30	CARS	32	21	0	130	18	18	21	0	18	0	0	0
	DUALS	7	3	0	19	4	2	2	0	2	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		1	(0)	17	(0)	
	PEDS	North Side	·	135	East Side		121	South Side		83	West Side		107
13:45	CARS	33	22	0	175	16	15	33	0	22	0	0	0
	DUALS	5	0	0	9	3	1	0	0	4	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		2	(0)		5	(0)	20	(0)	
	PEDS	North Side	·	128	East Side		126	South Side		57	West Side		78
14:00	CARS	23	23	0	139	14	18	25	0	22	0	0	0
	DUALS	2	1	0	13	4	0	3	0	6	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		2	(0)	14	(0)	
	PEDS	North Side	·	127	East Side		92	South Side		60	West Side		71
14:15	CARS	28	26	0	151	11	12	31	0	13	0	0	0
	DUALS	6	5	0	10	6	1	2	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		4	(0)	14	(0)	
	PEDS	North Side		74	East Side		100	South Side		51	West Side		71



#### ADELAIDE ST AT PETER ST (PX 270)

Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	30	19	0	127	19	17	37	0	26	0	0	0
	DUALS	4	1	0	6	1	0	2	0	5	0	0	0
	BUSES	0	1	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		2	(0)	12	(0)	
	PEDS	North Side		81	East Side		76	South Side		68	West Side		87
14:45	CARS	36	15	0	165	23	12	38	0	14	0	0	0
	DUALS	1	2	0	17	3	1	0	0	6	0	0	0
	BUSES	0	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	12	(0)	
	PEDS	North Side	·	85	East Side		92	South Side		65	West Side		69
15:00	CARS	27	17	0	150	20	14	33	0	21	0	0	0
	DUALS	1	0	0	12	1	0	4	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		7	(0)	9	(0)	
	PEDS	North Side		94	East Side		79	South Side		52	West Side		62
16:15	CARS	41	26	0	151	14	11	30	0	21	0	0	0
	DUALS	1	4	0	6	1	1	1	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	1	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		5	(0)	12	(0)	
	PEDS	North Side		71	East Side		84	South Side		64	West Side		78
16:30	CARS	39	34	0	181	18	12	48	0	18	0	0	0
	DUALS	3	0	0	7	0	1	4	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	2	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		11	(0)	13	(0)	
	PEDS	North Side		92	East Side		100	South Side		62	West Side		82
16:45	CARS	38	27	0	195	11	10	30	0	25	0	0	0
	DUALS	1	2	0	8	1	0	2	0	0	0	0	0
	BUSES	0	0	0	0	0	0	1	0	1	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		7	(0)	11	(0)	
	PEDS	North Side		95	East Side		107	South Side		73	West Side		72
17:00	CARS	45	25	0	185	13	16	30	0	15	0	0	0
	DUALS	1	0	0	7	0	3	1	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	2	0	0	0
	BIKE (OTHER)		11	(0)		0	(0)		18	(0)	27	(0)	
	PEDS	North Side		138	East Side		116	South Side		65	West Side		45



Survey Type:

# Intersection Detailed 15 Minutes Movement Report

### ADELAIDE ST AT PETER ST (PX 270)

**Routine Hours** 

Time Period 17:15		NOR	гн во	UND	EAS	TBOUN	ID	SOUTH	I BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	light	Left	Thru F	Right Lef	ť
17:15	CARS	45	27	0	206	9	14	41	0	19	0	0	0
	DUALS	3	0	0	5	1	1	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	2	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		13	(0)	33	(0)	
	PEDS	North Side	)	165	East Side		190	South Side		162	West Side		148
17:30	CARS	43	22	0	191	25	21	38	0	23	0	0	0
	DUALS	0	0	0	5	0	2	1	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	2	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		19	(0)	47	(0)	
	PEDS	North Side	•	219	East Side		196	South Side		146	West Side		137
17:45	CARS	41	24	0	162	20	25	43	0	18	0	0	0
	DUALS	1	1	0	2	0	0	2	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	1	0	0	0
	BIKE (OTHER)		19	(0)		0	(0)		17	(0)	41	(0)	
	PEDS	North Side	)	218	East Side		242	South Side		155	West Side		151
18:00	CARS	37	27	0	195	20	23	37	0	25	0	0	0
	DUALS	2	0	0	3	1	0	0	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	1	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		16	(0)	29	(0)	
	PEDS	North Side	•	191	East Side		248	South Side		200	West Side		170
			·										



### ADELAIDE ST AT SPADINA AVE (PX 274)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru	'H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru Ri	BOUND ight Lef	t
07:45	CARS	93	62	0	188	21	11	103	0	26	0	0	0
	DUALS	14	4	0	14	2	3	10	0	5	0	0	0
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	36	(0)	
	PEDS	North Side	•	38	East Side		40	South Side		22	West Side		58
08:00	CARS	127	61	0	175	21	24	103	0	22	0	0	0
	DUALS	13	4	0	8	2	2	8	0	0	0	0	0
	BUSES	6	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		6	(0)	64	(0)	
	PEDS	North Side		35	East Side		57	South Side		31	West Side		76
08:15	CARS	151	63	0	212	27	17	111	0	29	0	0	0
	DUALS	8	2	0	12	2	1	9	0	1	0	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		12	(0)		0	(0)		3	(0)	87	(0)	
	PEDS	North Side	•	67	East Side		105	South Side		43	West Side		90
08:30	CARS	176	65	0	219	34	27	118	0	27	0	0	0
	DUALS	9	1	0	9	1	4	6	0	5	0	0	0
	BUSES	4	0	0	1	0	0	6	0	0	0	0	0
	BIKE (OTHER)		11	(0)		1	(0)		4	(0)	121	(0)	
	PEDS	North Side	•	81	East Side		102	South Side		62	West Side		120
08:45	CARS	149	46	0	201	21	30	142	0	39	0	0	0
	DUALS	15	3	0	9	4	1	7	0	1	0	0	0
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		25	(0)		0	(0)		11	(0)	152	(0)	
	PEDS	North Side	• 	112	East Side		164	South Side		80	West Side		217
09:00	CARS	172	43	0	200	28	42	117	0	37	0	0	0
	DUALS	12	3	0	7	0	0	5	0	1	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		14	(0)		0	(0)		12	(0)	103	(0)	
	PEDS	North Side	•	124	East Side		218	South Side		130	West Side		190
09:15	CARS	124	40	0	193	30	20	125	0	45	0	0	0
	DUALS	6	5	0	11	3	1	8	0	1	0	0	0
	BUSES	4	0	0	1	0	0	8	0	0	0	0	0
	BIKE (OTHER)		11	(0)		0	(0)		7	(0)	105	(0)	
	PEDS	North Side	•	111	East Side		161	South Side		90	West Side		205



### ADELAIDE ST AT SPADINA AVE (PX 274)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	'H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru Ri	BOUND ight Lef	ť
09:30	CARS	117	46	0	185	12	27	123	0	49	0	0	0
	DUALS	9	2	0	13	5	0	9	0	3	0	0	0
	BUSES	5	0	0	0	1	0	8	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		5	(0)	52	(0)	
	PEDS	North Side		98	East Side		166	South Side		78	West Side		190
10:15	CARS	107	29	0	179	30	27	129	0	27	0	0	C
	DUALS	14	1	0	12	4	4	8	0	3	0	0	C
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		1	(0)	10	(0)	
	PEDS	North Side		82	East Side		105	South Side		46	West Side		126
10:30	CARS	117	25	0	183	21	29	98	0	31	0	0	C
	DUALS	18	2	0	11	1	1	12	0	2	0	0	0
	BUSES	4	0	0	0	0	0	4	0	1	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	25	(0)	
	PEDS	North Side		61	East Side		91	South Side		51	West Side		120
10:45	CARS	112	29	0	148	25	26	126	0	14	0	0	C
	DUALS	15	3	0	9	3	4	15	0	2	0	0	C
	BUSES	9	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	15	(0)	
	PEDS	North Side	•	52	East Side		94	South Side		26	West Side		84
11:00	CARS	117	21	0	161	24	27	98	0	25	0	0	C
	DUALS	14	2	0	9	4	2	9	0	4	0	0	0
	BUSES	4	0	0	0	0	0	3	0	1	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		4	(0)	11	(0)	
	PEDS	North Side	•	60	East Side		93	South Side		41	West Side		97
11:15	CARS	111	29	0	154	32	25	128	0	26	0	0	C
	DUALS	10	5	0	12	4	2	8	0	2	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		8	(0)		1	(0)		4	(0)	10	(0)	
	PEDS	North Side	•	57	East Side		82	South Side		42	West Side		90
11:30	CARS	87	22	0	120	31	24	127	0	37	0	0	C
	DUALS	7	9	0	15	3	3	19	0	1	0	0	C
	BUSES	3	0	0	0	1	0	2	0	1	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		10	(0)	12	(0)	
	PEDS	North Side	•	45	East Side		111	South Side		47	West Side		121



### ADELAIDE ST AT SPADINA AVE (PX 274)

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Survey Date:
         Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lei	ft
11:45	CARS	98	19	0	140	34	22	138	0	23	0	0	0
	DUALS	15	6	0	7	6	2	18	0	3	0	0	0
	BUSES	4	3	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		9	(0)	16	(0)	
	PEDS	North Side		66	East Side		134	South Side		57	West Side		111
12:00	CARS	98	27	0	153	30	19	128	0	27	0	0	0
	DUALS	13	6	0	12	4	0	11	0	1	0	0	0
	BUSES	3	1	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	13	(0)	
	PEDS	North Side		103	East Side		190	South Side		75	West Side		142
13:15	CARS	100	26	0	119	32	18	131	0	38	0	0	0
	DUALS	6	5	0	6	3	0	13	0	1	0	0	0
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		5	(0)		1	(0)		7	(0)	12	(0)	
	PEDS	North Side		135	East Side		234	South Side		101	West Side		241
13:30	CARS	122	29	0	117	22	24	131	0	15	0	0	0
	DUALS	8	5	0	13	2	2	17	0	5	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		8	(0)	15	(0)	
	PEDS	North Side		134	East Side		259	South Side		101	West Side		213
13:45	CARS	104	25	0	141	26	26	161	0	21	0	0	0
	DUALS	14	3	0	10	1	1	17	0	2	0	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		8	(0)	15	(0)	
	PEDS	North Side		130	East Side		206	South Side		79	West Side		186
14:00	CARS	98	31	0	122	27	22	156	0	25	0	0	0
	DUALS	13	1	0	8	1	2	15	0	3	0	0	0
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		9	(0)	8	(0)	
	PEDS	North Side		116	East Side		178	South Side		68	West Side		187
14:15	CARS	108	16	0	121	26	24	144	0	26	0	0	0
	DUALS	15	8	0	6	4	0	12	0	2	0	0	0
	BUSES	4	1	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		10	(0)	12	(0)	
	PEDS	North Side		115	East Side		154	South Side		90	West Side		194



### ADELAIDE ST AT SPADINA AVE (PX 274)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	ft
14:30	CARS	116	26	0	108	31	24	125	0	25	0	0	C
	DUALS	12	2	0	4	3	5	19	0	1	0	0	C
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		5	(0)	18	(0)	
	PEDS	North Side		85	East Side		147	South Side		82	West Side		133
14:45	CARS	99	28	0	135	16	13	137	0	31	0	0	C
	DUALS	14	6	0	7	2	2	11	0	1	0	0	C
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		5	(0)	10	(0)	
	PEDS	North Side		97	East Side		118	South Side		74	West Side		150
15:00	CARS	122	28	0	114	16	19	119	0	25	0	0	C
	DUALS	12	2	0	11	5	1	13	0	1	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		5	(0)	8	(0)	
	PEDS	North Side		91	East Side		123	South Side		46	West Side		142
16:15	CARS	110	21	0	138	16	19	88	0	24	0	0	C
	DUALS	4	0	0	6	0	5	9	0	2	0	0	C
	BUSES	4	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		7	(0)	13	(0)	
	PEDS	North Side		89	East Side		170	South Side		76	West Side		133
16:30	CARS	98	42	0	129	19	22	98	0	23	0	0	C
	DUALS	5	0	0	8	2	0	5	0	1	0	0	C
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		9	(0)	14	(0)	
	PEDS	North Side		81	East Side		150	South Side		67	West Side		140
16:45	CARS	120	39	0	139	18	16	119	0	31	0	0	C
	DUALS	3	3	0	6	1	0	15	0	1	0	0	0
	BUSES	4	0	0	1	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		8	(0)	11	(0)	
	PEDS	North Side		66	East Side		167	South Side		55	West Side		135
17:00	CARS	92	48	0	146	18	26	134	0	30	0	0	C
	DUALS	6	0	0	6	0	0	10	0	1	0	0	C
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		25	(0)	20	(0)	
	PEDS	North Side		94	East Side		156	South Side		88	West Side		191



### ADELAIDE ST AT SPADINA AVE (PX 274)

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Survey Date:
         Apr-09-2019 (Tuesday)
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Survey Typ	be: F	Routine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOUT Thru	FH BOU Right	IND Left	WES Thru	ST BOUND Right Lei	ft
17:15	CARS		119	30	0	158	15	29	122	0	33	0	0	0
	DUALS		6	1	0	3	0	0	9	0	2	0	0	0
	BUSES		5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTH	IER)		3	(0)		0	(0)		22	(0)	27	(0)	
	PEDS	N	orth Sid	le	134	East Side		255	South Side	•	155	West Side		258
17:30	CARS		137	38	0	152	24	30	147	0	32	0	0	0
	DUALS		2	3	0	4	0	0	6	0	1	0	0	0
	BUSES		3	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTH	ER)		10	(0)		0	(0)		20	(0)	31	(0)	
	PEDS	N	orth Sid	le	180	East Side		253	South Side	)	139	West Side		315
17:45	CARS		138	34	0	150	31	26	123	0	28	0	0	0
	DUALS		3	0	0	1	0	2	2	0	0	0	0	0
	BUSES		4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTH	ER)		7	(0)		0	(0)		20	(0)	24	(0)	
	PEDS	N	orth Sid	le	124	East Side		247	South Side	•	148	West Side		264
18:00	CARS		93	33	0	166	26	37	125	0	28	0	0	0
	DUALS		5	1	0	2	0	0	8	0	0	0	0	0
	BUSES		3	1	0	1	0	0	3	0	0	0	0	0
	BIKE (OTH	ER)		0	(0)		2	(0)		16	(0)	23	(0)	
	PEDS	N	orth Sid	le	102	East Side		230	South Side	•	134	West Side		270



### ADELAIDE ST AT BRANT ST (PX 1807)

Survey Ty	pe: Routine H	lours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN	ND Left	WEST Thru Ri	BOUND ight Left	:
07:45	CARS	1	3	0	199	8	3	5	0	11	0	0	C
	DUALS	1	0	0	14	0	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	42	(0)	
	PEDS	North Side		17	East Side		9	South Side		16	West Side		5
08:00	CARS	8	5	0	201	9	5	6	0	15	0	0	C
	DUALS	0	2	0	12	1	2	4	0	0	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	67	(0)	
	PEDS	North Side		16	East Side		13	South Side		12	West Side		9
08:15	CARS	2	1	0	245	9	6	6	0	16	0	0	C
	DUALS	0	0	0	9	0	1	2	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	13	(0)	
	PEDS	North Side		29	East Side		19	South Side		22	West Side		18
08:30	CARS	5	4	0	262	14	7	9	0	13	0	0	C
	DUALS	2	0	0	12	0	3	1	0	1	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		0	(0)	132	(0)	
	PEDS	North Side		35	East Side		35	South Side		40	West Side		13
08:45	CARS	3	8	0	239	17	10	9	0	11	0	0	C
	DUALS	1	2	0	9	2	0	0	0	3	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		5	(0)	165	(0)	
	PEDS	North Side		39	East Side		36	South Side		52	West Side		26
09:00	CARS	6	0	0	261	23	8	7	0	14	0	0	C
	DUALS	0	1	0	11	4	1	2	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	121	(0)	
	PEDS	North Side		45	East Side		33	South Side		57	West Side		30
09:15	CARS	6	10	0	217	23	6	14	0	23	0	0	C
	DUALS	3	2	0	11	2	1	1	0	2	0	0	C
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	112	(0)	
	PEDS	North Side		28	East Side		48	South Side		45	West Side		31



### ADELAIDE ST AT BRANT ST (PX 1807)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	7	6	0	211	23	6	12	0	15	0	0	
	DUALS	0	1	0	17	0	0	0	0	2	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		3	(0)	56	(0)	
	PEDS	North Side		41	East Side		41	South Side		51	West Side		21
10:15	CARS	10	21	0	200	4	6	10	0	12	0	0	C
	DUALS	1	1	0	15	1	1	0	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	17	(0)	
	PEDS	North Side		16	East Side		24	South Side		19	West Side		11
10:30	CARS	7	24	0	206	8	6	5	0	7	0	0	C
	DUALS	2	0	0	12	1	0	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	31	(0)	
	PEDS	North Side		27	East Side		17	South Side		25	West Side		12
10:45	CARS	7	14	0	162	12	5	9	0	23	0	0	C
	DUALS	0	0	0	17	1	5	0	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	18	(0)	
	PEDS	North Side		16	East Side		15	South Side		6	West Side		3
11:00	CARS	7	15	0	186	5	10	7	0	12	0	0	C
	DUALS	1	2	0	11	0	0	1	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	16	(0)	
	PEDS	North Side		18	East Side		28	South Side		22	West Side		12
11:15	CARS	8	12	0	186	12	15	9	0	19	0	0	C
	DUALS	1	2	0	19	1	2	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	9	(0)	
	PEDS	North Side		17	East Side		17	South Side		21	West Side		20
11:30	CARS	4	18	0	139	9	5	7	0	13	0	0	C
	DUALS	0	1	0	20	1	0	0	0	2	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	14	(0)	
	PEDS	North Side		15	East Side		15	South Side		15	West Side		9



### ADELAIDE ST AT BRANT ST (PX 1807)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
11:45	CARS	2	14	0	161	10	7	4	0	19	0	0	0
	DUALS	1	3	0	8	0	2	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	17	(0)	
	PEDS	North Side		17	East Side		18	South Side		26	West Side		19
12:00	CARS	5	20	0	176	14	11	14	0	15	0	0	0
	DUALS	0	1	0	11	0	2	2	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	13	(0)	
	PEDS	North Side		24	East Side		29	South Side		50	West Side		21
13:15	CARS	8	6	0	144	4	9	3	0	19	0	0	0
	DUALS	1	0	0	8	3	2	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		5	(0)	15	(0)	
	PEDS	North Side		41	East Side		48	South Side		43	West Side		36
13:30	CARS	5	8	0	138	5	6	6	0	17	0	0	0
	DUALS	0	2	0	10	1	1	1	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	17	(0)	
	PEDS	North Side		48	East Side		53	South Side		48	West Side		21
13:45	CARS	9	8	0	173	9	15	7	0	11	0	0	0
	DUALS	1	3	0	7	2	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		0	(0)	15	(0)	
	PEDS	North Side		39	East Side		36	South Side		27	West Side		35
14:00	CARS	6	15	0	141	8	8	6	0	15	0	0	0
	DUALS	1	1	0	11	3	0	1	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	8	(0)	
	PEDS	North Side		38	East Side		48	South Side		49	West Side		29
14:15	CARS	4	11	0	142	10	11	9	0	9	0	0	0
	DUALS	3	0	0	10	0	0	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	14	(0)	
	PEDS	North Side		39	East Side		32	South Side		35	West Side		14


#### ADELAIDE ST AT BRANT ST (PX 1807)

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Survey Date: Apr-09-2019 (Tuesday)
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### ADELAIDE ST AT BRANT ST (PX 1807)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Typ	pe: Ro	outine Hours												
Time Period			NOR Thru	RTH BOUR	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>.</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Lef	t
17:15	CARS		11	16	0	162	8	8	2	0	16	0	0	0
	DUALS		0	0	0	2	0	0	0	0	0	0	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		0	(0)		3	(0)		9	(0)	19	(0)	
	PEDS	No	rth Sid	le	45	East Side		39	South Side	e	78	West Side		31
17:30	CARS		14	18	0	166	5	10	3	0	16	0	0	0
	DUALS		0	0	0	3	0	0	0	0	0	0	0	0
	BUSES		0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		0	(0)		3	(0)		7	(0)	25	(0)	
	PEDS	No	rth Sic	le	55	East Side		58	South Side	e	80	West Side		31
17:45	CARS		15	10	0	168	8	9	11	0	12	0	0	0
	DUALS		1	0	0	2	1	0	1	0	0	0	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		2	(0)		4	(0)		5	(0)	19	(0)	
	PEDS	No	rth Sid	le	74	East Side		39	South Side	e	56	West Side		34
18:00	CARS		20	17	0	192	5	12	11	0	19	0	0	0
	DUALS		0	0	0	2	0	3	0	0	0	0	0	0
	BUSES		0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		4	(0)		3	(0)		6	(0)	21	(0)	
	PEDS	No	rth Sid	le	55	East Side		37	South Side	Ð	75	West Side		34



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru Ri	BOUN ight	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	8	25	0	183	10	7	10	0	4	0	0	0
	DUALS	3	0	0	12	2	4	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	42	(0)	
	PEDS	North Side		6	East Side		18	South Side		15	West Side		19
08:00	CARS	13	27	0	160	8	4	15	0	14	0	0	0
	DUALS	0	3	0	11	1	1	1	0	1	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	70	(0)	
	PEDS	North Side		18	East Side		18	South Side		12	West Side		24
08:15	CARS	13	35	0	204	9	7	13	0	24	0	0	0
	DUALS	0	1	0	8	0	0	5	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		7	(0)	90	(0)	
	PEDS	North Side		27	East Side		33	South Side		29	West Side		39
08:30	CARS	13	40	0	194	7	5	18	0	17	0	0	0
	DUALS	1	6	0	6	1	0	1	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		9	(0)	122	(0)	
	PEDS	North Side		26	East Side		62	South Side		32	West Side		47
08:45	CARS	10	48	0	189	11	4	17	0	21	0	0	0
	DUALS	1	6	0	5	1	6	3	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	162	(0)	
	PEDS	North Side		34	East Side		45	South Side		37	West Side		50
09:00	CARS	15	25	0	195	8	5	25	0	33	0	0	0
	DUALS	1	3	0	13	2	0	3	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		5	(0)	118	(0)	
	PEDS	North Side		42	East Side		63	South Side		52	West Side		49
09:15	CARS	17	25	0	176	8	12	28	0	47	0	0	0
	DUALS	3	4	0	7	0	0	2	0	2	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		2	(0)	101	(0)	
	PEDS	North Side		39	East Side		63	South Side		44	West Side		57



#### ADELAIDE ST AT PORTLAND ST (PX 1488)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Leff	t
11:45	CARS	25	30	0	135	10	10	22	0	11	0	0	0
	DUALS	3	1	0	6	0	3	1	0	0	0	0	0
	BUSES	0	0	0	0	0	1	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	17	(0)	
	PEDS	North Side		18	East Side		48	South Side		21	West Side		49
12:00	CARS	29	30	0	148	7	7	19	0	17	0	0	0
	DUALS	3	2	0	8	1	0	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	8	(0)	
	PEDS	North Side		26	East Side		50	South Side		40	West Side		80
13:15	CARS	17	19	0	102	11	7	30	0	21	0	0	0
	DUALS	2	4	0	6	2	0	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	16	(0)	
	PEDS	North Side		31	East Side		99	South Side		36	West Side		56
13:30	CARS	20	22	0	123	7	5	19	0	13	0	0	0
	DUALS	5	2	0	4	0	0	4	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		3	(0)	13	(0)	
	PEDS	North Side		49	East Side		93	South Side		36	West Side		79
13:45	CARS	20	26	0	138	10	11	22	0	9	0	0	0
	DUALS	2	0	0	6	4	3	2	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	13	(0)	
	PEDS	North Side		37	East Side		91	South Side		39	West Side		89
14:00	CARS	21	21	0	111	8	8	22	0	6	0	0	0
	DUALS	2	1	0	11	1	2	3	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		7	(0)	7	(0)	
	PEDS	North Side		44	East Side		56	South Side		47	West Side		67
14:15	CARS	17	30	0	121	24	8	17	0	7	0	0	0
	DUALS	1	1	0	10	1	0	3	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		5	(0)	11	(0)	
	PEDS	North Side		27	East Side		61	South Side		23	West Side		62



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	16	19	0	158	19	1	39	0	13	0	0	C
	DUALS	2	3	0	9	3	3	1	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		6	(0)	10	(0)	
	PEDS	North Side		20	East Side		24	South Side		25	West Side		54
14:45	CARS	22	22	0	98	13	8	27	0	14	0	0	C
	DUALS	4	0	0	9	0	0	4	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	10	(0)	
	PEDS	North Side		29	East Side		42	South Side		28	West Side	. ,	50
15:00	CARS	31	18	0	94	21	11	31	0	11	0	0	C
	DUALS	3	3	0	10	7	2	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	5	(0)	
	PEDS	North Side		28	East Side		50	South Side		16	West Side	. ,	60
16:15	CARS	21	33	0	109	15	10	30	0	5	0	0	C
	DUALS	1	3	0	8	1	1	2	0	0	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		6	(0)	8	(0)	
	PEDS	North Side		19	East Side		40	South Side		21	West Side		54
16:30	CARS	18	25	0	86	9	2	33	0	8	0	0	C
	DUALS	2	1	0	5	0	0	0	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		4	(0)	14	(0)	
	PEDS	North Side		27	East Side		60	South Side		19	West Side		34
16:45	CARS	22	20	0	129	9	14	27	0	5	0	0	C
	DUALS	3	0	0	5	0	0	3	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		6	(0)	9	(0)	
	PEDS	North Side		27	East Side		58	South Side		36	West Side		58
17:00	CARS	15	16	0	133	17	13	38	0	9	0	0	C
	DUALS	1	0	0	5	0	0	1	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		6	(0)	19	(0)	
	PEDS	North Side		22	East Side		61	South Side		42	West Side		56



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Survey Date: Apr-09-2019 (Tuesday)
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Time Period			NOR											
			Thru	Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU1 Thru	TH BOL Right	JND Left	WES Thru	ST BOUND Right Le	ft
17:15	CARS		25	27	0	140	18	11	29	0	6	0	0	0
	DUALS		1	1	0	1	0	1	1	0	0	0	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		9	(0)		4	(0)		7	(0)	21	(0)	
	PEDS	N	orth Sid	le	63	East Side		90	South Side	)	77	West Side		98
17:30	CARS		23	24	0	129	11	7	47	0	6	0	0	0
	DUALS		1	1	0	0	0	1	0	0	1	0	0	0
	BUSES		0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		8	(0)		0	(0)		7	(0)	21	(0)	
	PEDS	N	orth Sid	le	51	East Side		98	South Side	)	74	West Side		108
17:45	CARS		27	37	0	143	13	9	41	0	10	0	0	0
	DUALS		0	1	0	4	2	1	3	0	0	0	0	0
	BUSES		0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		6	(0)		0	(0)		9	(0)	16	(0)	
	PEDS	N	orth Sid	le	54	East Side		99	South Side	<b>)</b>	70	West Side		102
18:00	CARS		20	28	0	148	20	14	41	0	12	0	0	0
	DUALS		1	1	0	2	1	2	0	0	0	0	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	ER)		9	(0)		0	(0)		11	(0)	17	(0)	
	PEDS	N	orth Sid	le	52	East Side		65	South Side	)	61	West Side		105



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	pe: Routine H	lours											
Time Period		NOR <sup>-</sup> Thru	TH BOU Right	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUN light	ND Left	WEST Thru Ri	BOUND ight Left	
07:45	CARS	112	112	0	0	0	0	93	0	84	0	0	0
	DUALS	6	11	0	0	0	0	5	0	4	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		19	(0)		0	(0)		33	(0)	0	(0)	
	PEDS	North Side	e	2	East Side		20	South Side		12	West Side		0
08:00	CARS	132	113	0	0	0	0	105	0	62	0	0	0
	DUALS	7	7	0	0	0	0	8	0	5	0	0	0
	BUSES	6	1	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		23	(0)		0	(0)		49	(0)	0	(0)	
	PEDS	North Side	e	6	East Side		33	South Side		5	West Side		0
08:15	CARS	117	132	0	0	0	0	100	0	88	0	0	0
	DUALS	12	4	0	0	0	0	5	0	5	0	0	0
	BUSES	8	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		36	(0)		0	(0)		65	(0)	0	(0)	
	PEDS	North Side	e	11	East Side		29	South Side		9	West Side		0
08:30	CARS	142	123	0	0	0	0	93	0	84	0	0	0
	DUALS	13	4	0	0	0	0	10	0	4	0	0	0
	BUSES	4	1	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		59	(0)		0	(0)		87	(0)	0	(0)	
	PEDS	North Side	e	19	East Side		37	South Side		23	West Side		0
08:45	CARS	125	127	0	0	0	0	101	0	74	0	0	0
	DUALS	9	6	0	0	0	0	8	0	2	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		63	(0)		0	(0)		103	(0)	0	(0)	
	PEDS	North Side	e	17	East Side		53	South Side		13	West Side		0
09:00	CARS	118	132	0	0	0	0	105	0	84	0	0	0
	DUALS	14	8	0	0	0	0	10	0	5	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		54	(0)		0	(0)		75	(0)	0	(0)	
	PEDS	North Side	e	26	East Side		58	South Side		32	West Side		0
09:15	CARS	122	128	0	0	0	0	104	0	78	0	0	0
	DUALS	17	7	0	0	0	0	8	0	3	0	0	0
	BUSES	6	1	0	0	0	0	4	0	1	0	0	0
	BIKE (OTHER)		40	(0)		0	(0)		68	(0)	0	(0)	
	PEDS	North Side	e	16	East Side		42	South Side		23	West Side		0



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	ype: Routine H	lours											
Time Period		NOR <sup>:</sup> Thru	TH BOU Right	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI light	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	126	115	0	0	0	0	118	0	85	0	0	(
	DUALS	9	9	0	0	0	0	11	0	6	0	0	(
	BUSES	3	0	0	0	0	0	4	0	0	0	0	C
	BIKE (OTHER)		28	(0)		0	(0)		32	(0)	0	(0)	
	PEDS	North Side	e	10	East Side		36	South Side		18	West Side		C
10:15	CARS	114	117	0	0	0	0	93	0	66	0	0	(
	DUALS	10	9	0	0	0	0	7	0	6	0	0	(
	BUSES	5	0	0	0	0	0	5	0	0	0	0	C
	BIKE (OTHER)		10	(0)		0	(0)		14	(0)	0	(0)	
	PEDS	North Side	e	8	East Side		28	South Side		3	West Side		C
10:30	CARS	145	118	0	0	0	0	83	0	67	0	0	(
	DUALS	18	15	0	0	0	0	11	0	4	0	0	(
	BUSES	5	0	0	0	0	0	5	0	0	0	0	C
	BIKE (OTHER)		12	(0)		1	(0)		20	(0)	0	(0)	
	PEDS	North Side	e	6	East Side		16	South Side		8	West Side		C
10:45	CARS	100	97	0	0	0	0	102	0	56	0	0	(
	DUALS	15	8	0	0	0	0	9	0	4	0	0	(
	BUSES	3	0	0	0	0	0	5	0	0	0	0	C
	BIKE (OTHER)		8	(0)		2	(0)		11	(0)	0	(0)	
	PEDS	North Sid	e	9	East Side		34	South Side		7	West Side		C
11:00	CARS	111	115	0	0	0	0	114	0	70	0	0	(
	DUALS	14	8	0	0	0	0	8	0	3	0	0	(
	BUSES	4	0	0	0	0	0	6	0	0	0	0	C
	BIKE (OTHER)		10	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	6	East Side		18	South Side		12	West Side		0
11:15	CARS	117	88	0	0	0	0	114	0	68	0	0	(
	DUALS	17	11	0	0	0	0	12	0	9	0	0	(
	BUSES	4	0	0	0	0	0	3	0	0	0	0	C
	BIKE (OTHER)		5	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side	e	9	East Side		30	South Side		9	West Side		0
11:30	CARS	94	74	0	0	0	0	109	0	62	0	0	(
	DUALS	12	12	0	0	0	0	12	0	6	0	0	(
	BUSES	4	1	0	0	0	0	6	0	0	0	0	C
	BIKE (OTHER)		6	(0)		0	(0)		9	(0)	0	(0)	
	PEDS	North Side	e	13	East Side		27	South Side		4	West Side		C



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUN ight	ND Left	WEST Thru R	BOUND ight Left	
11:45	CARS	103	96	0	0	0	0	115	0	58	0	0	C
	DUALS	11	6	0	0	0	0	10	0	3	0	0	0
	BUSES	5	1	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		10	(0)	0	(0)	
	PEDS	North Side		6	East Side		30	South Side		7	West Side		0
12:00	CARS	103	95	0	0	0	0	107	0	68	0	0	C
	DUALS	11	7	0	0	0	0	12	0	7	0	0	C
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		8	(0)	0	(0)	
	PEDS	North Side		11	East Side		34	South Side		17	West Side		0
13:15	CARS	90	59	0	0	0	0	116	0	52	0	0	C
	DUALS	6	5	0	0	0	0	16	0	2	0	0	0
	BUSES	5	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	0	(0)	
	PEDS	North Side		12	East Side		46	South Side		8	West Side		0
13:30	CARS	102	74	0	0	0	0	130	0	54	0	0	C
	DUALS	7	6	0	0	0	0	12	0	4	0	0	C
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	0	(0)	
	PEDS	North Side		16	East Side		54	South Side		18	West Side		0
13:45	CARS	100	83	0	0	0	0	136	0	65	0	0	C
	DUALS	8	4	0	0	0	0	12	0	5	0	0	0
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		13	(0)	0	(0)	
	PEDS	North Side		20	East Side		45	South Side		11	West Side		0
14:00	CARS	116	65	0	0	0	0	143	0	52	0	0	C
	DUALS	12	7	0	0	0	0	10	0	6	0	0	C
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side		14	East Side		36	South Side		13	West Side		0
14:15	CARS	109	83	0	0	0	0	91	0	54	0	0	C
	DUALS	13	4	0	0	0	0	7	0	7	0	0	C
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		10	(0)	0	(0)	
	PEDS	North Side		8	East Side		44	South Side		16	West Side		0



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Survey Date: Apr-09-2019 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAST Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI light	ND Left	WEST Thru R	BOUND ight Left	1
14:30	CARS	88	69	0	0	0	0	100	0	49	0	0	(
	DUALS	10	6	0	0	0	0	10	0	3	0	0	(
	BUSES	6	2	0	0	0	0	4	0	0	0	0	C
	BIKE (OTHER)		5	(0)		0	(0)		11	(0)	0	(0)	
	PEDS	North Side		9	East Side		40	South Side		10	West Side		0
14:45	CARS	93	62	0	0	0	0	147	0	47	0	0	(
	DUALS	15	5	0	0	0	0	14	0	6	0	0	(
	BUSES	4	0	0	0	0	0	4	0	0	0	0	C
	BIKE (OTHER)		7	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		15	East Side		29	South Side		7	West Side		0
15:00	CARS	93	62	0	0	0	0	135	0	42	0	0	(
	DUALS	8	8	0	0	0	0	7	0	2	0	0	(
	BUSES	5	0	0	0	0	0	4	0	0	0	0	C
	BIKE (OTHER)		6	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side		11	East Side		42	South Side		8	West Side		0
16:15	CARS	102	65	0	0	0	0	192	0	59	0	0	(
	DUALS	14	2	0	0	0	0	10	0	3	0	0	(
	BUSES	5	1	0	0	0	0	6	0	0	0	0	C
	BIKE (OTHER)		7	(0)		0	(0)		8	(0)	0	(0)	
	PEDS	North Side		3	East Side		36	South Side		11	West Side		0
16:30	CARS	123	57	0	0	0	0	179	0	39	0	0	(
	DUALS	9	5	0	0	0	0	11	0	2	0	0	(
	BUSES	7	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		11	(0)	0	(0)	
	PEDS	North Side		11	East Side		45	South Side		14	West Side		0
16:45	CARS	126	84	0	0	0	0	168	0	61	0	0	(
	DUALS	4	2	0	0	0	0	11	0	4	0	0	(
	BUSES	5	1	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		11	(0)	0	(0)	
	PEDS	North Side		8	East Side		52	South Side		13	West Side		0
17:00	CARS	105	92	0	0	0	0	184	0	55	0	0	(
	DUALS	3	2	0	0	0	0	4	0	3	0	0	C
	BUSES	4	0	0	0	0	0	7	0	0	0	0	C
	BIKE (OTHER)		12	(0)		1	(0)		25	(0)	0	(0)	
	PEDS	North Side		14	East Side		51	South Side		15	West Side		0



#### ADELAIDE ST AT BATHURST ST (PX 1883)

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Survey Date: Apr-09-2019 (Tuesday)
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Survey Type: **Routine Hours** Time NORTH BOUND EAST BOUND SOUTH BOUND WEST BOUND Period Thru Right Left Thru Right Left Thru Right Left Thru Right Left CARS 17:15 DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:30 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) South Side PEDS North Side East Side West Side 18:00 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side West Side South Side



### KING ST AT PORTLAND ST (PX 1225)

Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	33	9	4	72	9	12	8	7	0	48	5	g
	DUALS	0	0	0	1	0	0	0	1	0	3	0	2
	BUSES	0	0	0	7	0	0	0	0	0	7	0	0
	BIKE (OTHER)		6	(0)		4	(0)		2	(0)	2	(0)	
	PEDS	North Side		64	East Side		28	South Side		58	West Side		44
08:00	CARS	28	11	8	99	15	33	9	7	0	48	0	7
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	8	0	0
	BIKE (OTHER)		5	(0)		7	(0)		4	(0)	4	(0)	
	PEDS	North Side		58	East Side		49	South Side		89	West Side		35
08:15	CARS	47	18	4	102	10	37	12	7	6	64	10	13
	DUALS	4	0	0	0	0	0	0	0	0	0	0	1
	BUSES	0	0	0	7	0	0	0	0	0	9	0	0
	BIKE (OTHER)		12	(0)		10	(0)		7	(0)	4	(0)	
	PEDS	North Side		106	East Side		61	South Side		113	West Side		56
08:30	CARS	62	15	12	87	12	40	13	8	1	62	6	6
	DUALS	0	0	0	4	0	0	1	0	0	3	0	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		13	(0)		11	(0)		16	(0)	4	(0)	
	PEDS	North Side		131	East Side		79	South Side		142	West Side		60
08:45	CARS	40	22	6	111	7	28	12	12	7	75	2	11
	DUALS	2	0	0	0	0	1	0	0	0	0	1	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		11	(0)		15	(0)		10	(0)	5	(0)	
	PEDS	North Side		173	East Side		91	South Side		165	West Side		60
09:00	CARS	41	25	6	92	6	32	11	7	2	57	7	8
	DUALS	2	1	0	2	0	0	1	0	0	3	2	0
	BUSES	0	0	0	9	0	0	0	0	0	7	0	0
	BIKE (OTHER)		13	(0)		24	(0)		11	(0)	6	(0)	
	PEDS	North Side		149	East Side		116	South Side		191	West Side		70
09:15	CARS	40	12	4	109	13	25	15	8	8	81	7	10
	DUALS	0	0	0	2	0	1	1	2	0	0	1	0
	BUSES	0	0	0	6	0	0	0	1	0	7	0	0
	BIKE (OTHER)		10	(0)		18	(0)		9	(0)	6	(0)	
	PEDS	North Side		117	East Side		77	South Side		127	West Side		66



#### KING ST AT PORTLAND ST (PX 1225)

Survey Ty	pe: Routine H	ours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	ST BOUN Right	ND Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	35	23	8	84	8	19	15	12	5	78	8	10
	DUALS	0	1	1	3	0	0	0	2	1	0	2	C
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		7	(0)		18	(0)		11	(0)	4	(0)	
	PEDS	North Side		123	East Side		103	South Side		119	West Side		70
10:15	CARS	35	18	7	89	5	20	13	8	3	58	4	ç
	DUALS	3	1	0	6	2	0	0	0	0	4	2	C
	BUSES	0	0	0	6	0	0	0	0	0	9	0	0
	BIKE (OTHER)		7	(0)		14	(0)		3	(0)	3	(0)	
	PEDS	North Side		83	East Side		74	South Side		92	West Side		50
10:30	CARS	45	14	6	84	10	17	10	5	6	50	7	ę
	DUALS	1	0	1	6	0	0	1	1	0	4	0	C
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		5	(0)		13	(0)		7	(0)	7	(0)	
	PEDS	North Side		53	East Side		47	South Side		81	West Side		44
10:45	CARS	40	23	2	80	6	16	8	7	8	58	6	3
	DUALS	3	2	0	3	1	1	0	0	1	3	0	3
	BUSES	0	0	0	7	0	0	0	0	0	6	0	C
	BIKE (OTHER)		10	(0)		10	(0)		6	(0)	5	(0)	
	PEDS	North Side		73	East Side		46	South Side		77	West Side		47
11:00	CARS	28	26	11	88	7	19	25	9	3	50	8	10
	DUALS	3	1	0	3	0	0	1	0	1	1	0	4
	BUSES	0	0	0	2	0	0	0	0	0	6	0	2
	BIKE (OTHER)		5	(0)		9	(0)		4	(0)	3	(0)	
	PEDS	North Side		78	East Side		54	South Side		72	West Side		38
11:15	CARS	29	21	9	90	11	8	6	6	2	62	4	11
	DUALS	0	2	2	4	0	0	2	1	1	3	3	2
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		13	(0)		9	(0)		4	(0)	11	(0)	
	PEDS	North Side		62	East Side		65	South Side		89	West Side		45
11:30	CARS	35	18	6	89	8	8	9	16	4	66	10	ç
	DUALS	4	4	0	0	1	1	0	0	0	5	0	1
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		4	(0)		5	(0)		4	(0)	2	(0)	
	PEDS	North Side		58	East Side		54	South Side		78	West Side		41



### KING ST AT PORTLAND ST (PX 1225)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru I	H BOL Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	38	19	7	72	12	23	14	7	5	58	14	10
	DUALS	0	0	0	5	1	0	3	0	0	1	0	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		7	(0)		6	(0)		4	(0)	3	(0)	
	PEDS	North Side		80	East Side		60	South Side		113	West Side		44
12:00	CARS	36	25	6	77	10	11	12	3	4	64	16	7
	DUALS	1	1	0	6	0	0	0	0	0	5	0	1
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		17	(0)		5	(0)	10	(0)	
	PEDS	North Side		110	East Side		91	South Side		137	West Side		60
13:15	CARS	26	14	10	58	5	12	5	2	1	68	15	18
	DUALS	4	0	0	3	1	1	0	0	0	7	0	0
	BUSES	0	0	0	4	0	0	1	0	0	2	0	0
	BIKE (OTHER)		6	(0)		17	(0)		7	(0)	13	(0)	
	PEDS	North Side		156	East Side		146	South Side		170	West Side		92
13:30	CARS	23	16	7	86	8	10	18	8	4	56	10	7
	DUALS	1	0	0	6	1	1	1	0	2	3	0	1
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		12	(0)		4	(0)	6	(0)	
	PEDS	North Side		138	East Side		149	South Side		187	West Side		90
13:45	CARS	25	8	9	71	9	7	16	8	2	62	9	4
	DUALS	2	2	0	2	1	0	1	0	0	4	1	1
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		6	(0)		10	(0)		3	(0)	10	(0)	
	PEDS	North Side		158	East Side		136	South Side		153	West Side		95
14:00	CARS	18	9	9	64	6	11	13	14	3	53	7	7
	DUALS	2	1	0	0	0	0	0	0	0	1	1	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		12	(0)		9	(0)	11	(0)	
	PEDS	North Side		149	East Side		103	South Side		158	West Side		95
14:15	CARS	15	15	11	68	12	12	13	12	4	89	10	13
	DUALS	2	0	0	3	0	1	0	0	0	2	1	2
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		8	(0)		10	(0)		10	(0)	10	(0)	
	PEDS	North Side		111	East Side		109	South Side		143	West Side		64



#### KING ST AT PORTLAND ST (PX 1225)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru I	H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Lef	ť
14:30	CARS	20	9	10	51	7	9	19	13	5	82	4	10
	DUALS	4	2	0	1	0	1	2	0	0	4	1	1
	BUSES	0	0	0	3	0	1	0	0	0	4	0	0
	BIKE (OTHER)		8	(0)		4	(0)		3	(0)	10	(0)	
	PEDS	North Side		120	East Side		101	South Side		136	West Side		84
14:45	CARS	22	10	10	67	4	6	20	7	5	63	7	10
	DUALS	1	1	1	2	0	1	1	0	0	4	1	0
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		9	(0)		9	(0)		5	(0)	12	(0)	
	PEDS	North Side		111	East Side		97	South Side		124	West Side		70
15:00	CARS	19	10	7	67	12	10	25	13	4	87	13	19
	DUALS	2	1	0	0	0	0	0	0	1	3	0	0
	BUSES	0	0	0	4	0	1	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		16	(0)		6	(0)	11	(0)	
	PEDS	North Side		117	East Side		87	South Side		139	West Side		72
16:15	CARS	25	15	9	76	10	8	18	16	5	112	12	19
	DUALS	5	0	0	0	1	0	1	0	0	2	2	0
	BUSES	0	0	0	5	0	0	0	1	0	2	0	0
	BIKE (OTHER)		7	(0)		10	(0)		5	(0)	11	(0)	
	PEDS	North Side		127	East Side		74	South Side		134	West Side		96
16:30	CARS	32	6	9	72	8	12	25	16	1	95	9	18
	DUALS	0	0	0	3	1	0	2	1	0	2	0	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		5	(0)		5	(0)		9	(0)	18	(0)	
	PEDS	North Side		133	East Side		74	South Side		123	West Side		111
16:45	CARS	24	12	6	70	5	7	36	15	4	116	7	17
	DUALS	1	0	1	1	0	0	2	1	0	0	1	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		11	(0)		13	(0)		6	(0)	9	(0)	
	PEDS	North Side		154	East Side		66	South Side		130	West Side		141
17:00	CARS	34	5	9	64	8	15	25	11	4	105	5	20
	DUALS	0	1	1	0	0	0	0	0	0	3	0	0
	BUSES	0	0	0	7	0	0	0	0	0	8	0	0
	BIKE (OTHER)		10	(0)		21	(0)		12	(0)	13	(0)	
	PEDS	North Side		176	East Side		110	South Side		151	West Side		125



# Intersection Detailed 15 Minutes Movement Report

### KING ST AT PORTLAND ST (PX 1225)

**Routine Hours** 

Time Period		NOR Thru	TH BO Right	UND Left	EAS Thru	T BOU Right	ND Left	SOUTI Thru F	H BOU Right	ND Left	WES <sup>T</sup> Thru I	BOUND Right Lei	ft
17:15	CARS	21	8	9	63	5	10	29	14	5	113	15	24
	DUALS	0	0	1	1	0	0	0	1	0	2	1	2
	BUSES	0	0	0	3	0	0	0	0	0	8	0	0
	BIKE (OTHER)		6	(0)		13	(0)		8	(0)	15	(0)	
	PEDS	North Sid	•	236	East Side		102	South Side		206	West Side		126
17:30	CARS	26	14	15	51	10	19	18	17	3	105	16	24
	DUALS	3	1	0	1	0	0	1	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		12	(0)		19	(0)		12	(0)	21	(0)	
	PEDS	North Sid	•	257	East Side		147	South Side		248	West Side		149
17:45	CARS	23	13	12	79	13	12	31	10	5	130	17	34
	DUALS	0	0	1	3	0	0	0	0	0	6	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		14	(0)		7	(0)		15	(0)	21	(0)	
	PEDS	North Side	e	274	East Side		143	South Side		274	West Side		142
18:00	CARS	29	19	9	75	7	5	35	11	6	97	11	18
	DUALS	0	1	0	1	0	0	1	1	0	0	0	0
	BUSES	0	0	0	8	0	0	0	0	0	6	0	0
	BIKE (OTHER)		13	(0)		14	(0)		10	(0)	22	(0)	
	PEDS	North Side	e	251	East Side		192	South Side		268	West Side		156



### KING ST AT SPADINA AVE (PX 273)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NORTH Thru R	l BOL ight	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lef	ť
07:45	CARS	183	3	9	2	11	1	98	6	0	1	8	0
	DUALS	14	1	1	0	2	0	8	0	0	2	0	0
	BUSES	2	0	0	5	0	0	4	0	0	7	2	0
	BIKE (OTHER)		0	(0)		4	(0)		2	(0)	3	(0)	
	PEDS	North Side		89	East Side		60	South Side		75	West Side		47
08:00	CARS	146	5	15	3	14	0	126	5	1	1	4	0
	DUALS	14	0	0	0	1	0	6	1	0	1	0	0
	BUSES	2	0	0	8	0	0	3	0	0	7	2	0
	BIKE (OTHER)		2	(0)		11	(0)		5	(0)	7	(0)	
	PEDS	North Side		123	East Side		95	South Side		84	West Side		49
08:15	CARS	159	7	14	1	12	0	120	7	0	1	5	0
	DUALS	13	0	0	1	3	0	12	1	0	0	1	0
	BUSES	5	0	0	5	0	0	3	0	0	5	0	0
	BIKE (OTHER)		6	(0)		17	(0)		3	(0)	2	(0)	
	PEDS	North Side		154	East Side		96	South Side		135	West Side		101
08:30	CARS	165	2	6	0	5	0	98	2	0	1	0	0
	DUALS	5	0	0	0	1	0	3	0	0	0	0	0
	BUSES	2	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	2	(0)	
	PEDS	North Side		134	East Side		98	South Side		98	West Side		76
08:45	CARS	144	2	4	1	9	0	124	2	0	2	2	0
	DUALS	6	0	0	2	1	0	4	0	0	0	0	0
	BUSES	1	0	0	2	0	0	3	0	0	2	2	0
	BIKE (OTHER)		5	(0)		2	(0)		1	(0)	2	(0)	
	PEDS	North Side		143	East Side		88	South Side		99	West Side		44
09:00	CARS	156	4	7	2	8	0	132	4	0	1	3	0
	DUALS	7	0	0	0	2	0	3	0	0	0	0	0
	BUSES	3	0	0	1	0	0	1	0	0	1	1	0
	BIKE (OTHER)		6	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Side		155	East Side		89	South Side		87	West Side		55
09:15	CARS	176	3	11	2	11	0	122	3	0	2	3	0
	DUALS	6	2	0	0	3	0	6	1	0	1	0	1
	BUSES	3	0	0	4	0	0	4	0	0	4	0	0
	BIKE (OTHER)		5	(0)		5	(0)		5	(0)	4	(0)	
	PEDS	North Side		132	East Side		102	South Side		88	West Side		56



### KING ST AT SPADINA AVE (PX 273)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period     09:30		NORT Thru I	H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTI Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	143	4	12	1	12	1	117	3	0	3	1	0
	DUALS	8	0	0	1	3	0	6	0	0	1	2	0
	BUSES	2	0	0	5	0	0	4	0	0	4	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	6	(0)	
	PEDS	North Side		122	East Side		123	South Side		89	West Side		87
10:15	CARS	145	4	12	2	11	0	144	8	0	1	2	0
	DUALS	9	0	0	0	2	0	12	1	0	0	0	0
	BUSES	2	0	0	2	0	0	3	0	0	3	0	0
	BIKE (OTHER)		4	(0)		5	(0)		3	(0)	3	(0)	
	PEDS	North Side		132	East Side		144	South Side		111	West Side		81
10:30	CARS	132	5	11	1	12	0	143	8	0	2	1	0
	DUALS	7	0	0	0	3	0	11	0	0	0	1	0
	BUSES	3	0	0	3	0	0	2	0	0	2	1	0
	BIKE (OTHER)		2	(0)		3	(0)		2	(0)	3	(0)	
	PEDS	North Side		117	East Side		125	South Side		113	West Side		66
10:45	CARS	133	7	10	2	19	1	129	9	0	4	5	1
	DUALS	9	1	1	0	0	0	16	2	0	0	1	0
	BUSES	10	0	0	5	0	0	6	0	0	6	0	0
	BIKE (OTHER)		5	(0)		3	(0)		1	(0)	5	(0)	
	PEDS	North Side		123	East Side		92	South Side		123	West Side		73
11:00	CARS	101	7	11	3	8	0	138	16	1	1	9	1
	DUALS	12	0	0	0	3	0	16	1	0	2	0	0
	BUSES	4	0	0	4	0	0	4	0	0	4	0	0
	BIKE (OTHER)		5	(0)		6	(0)		3	(0)	5	(0)	
	PEDS	North Side		110	East Side		116	South Side		75	West Side		82
11:15	CARS	114	12	10	4	11	0	144	9	0	5	7	0
	DUALS	10	0	1	3	3	0	23	1	0	0	0	0
	BUSES	5	0	0	5	0	0	5	0	0	5	0	0
	BIKE (OTHER)		8	(0)		6	(0)		0	(0)	2	(0)	
	PEDS	North Side		89	East Side		76	South Side		58	West Side		66
11:30	CARS	146	6	7	2	22	0	158	3	0	4	5	2
	DUALS	7	2	0	0	3	0	17	0	0	0	2	0
	BUSES	3	0	0	6	0	0	2	0	0	5	0	0
	BIKE (OTHER)		4	(0)		5	(0)		6	(0)	6	(0)	
	PEDS	North Side		110	East Side		86	South Side		55	West Side		70



### KING ST AT SPADINA AVE (PX 273)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period   11:45   12:00   13:15   13:30   13:45   14:00		NORT Thru	H BOL Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	1 BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ť
11:45	CARS	119	8	16	2	13	0	169	11	0	6	9	0
	DUALS	8	0	1	1	4	0	16	0	0	1	0	0
	BUSES	6	0	0	3	0	0	4	0	0	4	1	0
	BIKE (OTHER)		3	(0)		14	(0)		4	(0)	7	(0)	
	PEDS	North Side		116	East Side		89	South Side		89	West Side		84
12:00	CARS	141	11	14	8	25	0	139	15	0	4	7	0
	DUALS	8	3	1	1	3	0	25	2	0	1	2	0
	BUSES	3	0	0	5	0	0	5	0	0	5	0	0
	BIKE (OTHER)		3	(0)		8	(0)		7	(0)	7	(0)	
	PEDS	North Side		200	East Side		170	South Side		145	West Side		185
13:15	CARS	127	5	20	7	34	0	166	11	0	6	11	0
	DUALS	10	0	1	3	2	0	19	4	0	1	1	0
	BUSES	6	0	0	3	0	0	7	0	0	3	0	0
	BIKE (OTHER)		3	(0)		14	(0)		5	(0)	8	(0)	
	PEDS	North Side		250	East Side		190	South Side		136	West Side		159
13:30	CARS	128	7	9	5	17	2	145	9	0	4	9	0
	DUALS	12	2	4	0	4	0	23	2	0	0	1	0
	BUSES	4	0	0	6	0	0	7	0	0	4	0	0
	BIKE (OTHER)		7	(0)		10	(0)		5	(0)	7	(0)	
	PEDS	North Side		221	East Side		161	South Side		120	West Side		124
13:45	CARS	122	9	10	4	21	0	134	11	0	10	11	0
	DUALS	7	7	1	1	2	0	20	2	0	1	3	0
	BUSES	4	0	0	5	0	0	10	0	0	3	0	0
	BIKE (OTHER)		3	(0)		7	(0)		10	(0)	10	(0)	
	PEDS	North Side		187	East Side		150	South Side		127	West Side		105
14:00	CARS	119	11	19	3	19	0	151	11	0	6	7	0
	DUALS	10	0	0	0	1	0	19	0	0	1	0	0
	BUSES	3	0	0	4	0	0	9	0	0	4	0	0
	BIKE (OTHER)		2	(0)		7	(0)		6	(0)	9	(0)	
	PEDS	North Side		215	East Side		152	South Side		91	West Side		111
14:15	CARS	135	6	11	0	30	0	167	9	0	1	11	1
	DUALS	11	3	1	1	5	1	18	1	0	0	0	0
	BUSES	5	0	0	3	0	0	4	0	0	6	0	0
	BIKE (OTHER)		0	(0)		10	(0)		6	(0)	7	(0)	
	PEDS	North Side		171	East Side		143	South Side		92	West Side		114

Page 3 of 5



### KING ST AT SPADINA AVE (PX 273)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NORTH Thru R	l BOl ight	JND Left	EAS Thru	ST BOU Right	ND Left	SOUTH Thru R	l BOU light	ND Left	WES1 Thru F	BOUND Right Lef	ft
14:30	CARS	134	6	13	3	25	0	148	4	0	5	13	0
	DUALS	9	1	0	0	2	0	15	2	0	0	1	0
	BUSES	4	0	0	3	0	0	5	0	0	5	0	0
	BIKE (OTHER)		4	(0)		4	(0)		3	(0)	8	(0)	
	PEDS	North Side		172	East Side		144	South Side		99	West Side		95
14:45	CARS	118	4	14	3	19	0	187	8	0	10	15	0
	DUALS	12	0	0	0	3	0	6	1	1	0	1	0
	BUSES	5	0	0	6	0	0	3	0	0	6	0	0
	BIKE (OTHER)		7	(0)		5	(0)		1	(0)	9	(0)	
	PEDS	North Side		190	East Side		134	South Side		132	West Side		101
15:00	CARS	109	9	15	1	18	0	140	9	1	4	13	0
	DUALS	12	0	0	1	2	0	18	1	0	0	0	0
	BUSES	6	0	0	5	0	0	5	0	0	4	0	0
	BIKE (OTHER)		4	(0)		6	(0)		8	(0)	9	(0)	
	PEDS	North Side		142	East Side		146	South Side		112	West Side		102
16:15	CARS	144	3	22	2	17	1	119	15	1	8	8	0
	DUALS	7	0	1	0	1	0	14	0	0	1	0	0
	BUSES	4	0	0	7	0	0	1	0	0	4	0	0
	BIKE (OTHER)		0	(0)		11	(0)		8	(0)	14	(0)	
	PEDS	North Side		199	East Side		155	South Side		174	West Side		137
16:30	CARS	141	3	12	6	14	0	127	12	1	6	12	0
	DUALS	3	0	0	0	3	0	9	0	0	1	0	0
	BUSES	5	0	0	5	0	0	5	0	0	6	0	0
	BIKE (OTHER)		3	(0)		12	(0)		5	(0)	20	(0)	
	PEDS	North Side		260	East Side		183	South Side		188	West Side		143
16:45	CARS	152	8	19	3	17	0	159	10	0	3	7	0
	DUALS	3	0	0	0	0	0	10	0	0	1	0	0
	BUSES	3	0	0	4	0	0	8	0	0	6	0	0
	BIKE (OTHER)		0	(0)		12	(0)		7	(0)	22	(0)	
	PEDS	North Side		290	East Side		272	South Side		180	West Side		169
17:00	CARS	140	4	17	3	29	0	157	11	1	10	15	0
	DUALS	2	0	1	1	0	0	12	0	0	4	2	0
	BUSES	4	0	0	6	0	0	4	0	0	4	0	0
	BIKE (OTHER)		4	(0)		6	(0)		5	(0)	27	(0)	
	PEDS	North Side		330	East Side		274	South Side		250	West Side		210



### KING ST AT SPADINA AVE (PX 273)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time		NOR	гн во	UND	EAS		ID	SOUTH	I BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	light	Left	Thru F	light Lef	ft
17:15	CARS	137	2	14	2	29	0	156	15	0	1	8	1
	DUALS	3	0	1	2	1	0	13	0	0	0	1	C
	BUSES	4	0	0	5	0	0	2	0	0	3	0	0
	BIKE (OTHER)		8	(0)		20	(0)		8	(0)	50	(0)	
	PEDS	North Side	) 	506	East Side		320	South Side		324	West Side		220
17:30	CARS	152	4	17	7	27	0	197	11	0	5	13	1
	DUALS	4	1	0	0	1	0	11	1	0	2	0	C
	BUSES	5	0	0	3	0	0	3	0	0	7	0	0
	BIKE (OTHER)		15	(0)		15	(0)		22	(0)	42	(0)	
	PEDS	North Side	•	481	East Side		432	South Side		374	West Side		285
17:45	CARS	160	3	24	2	30	0	156	14	0	11	10	C
	DUALS	5	0	1	0	0	0	7	0	0	2	0	C
	BUSES	4	0	0	4	0	0	2	0	0	6	0	0
	BIKE (OTHER)		11	(0)		8	(0)		20	(0)	37	(0)	
	PEDS	North Side	e	490	East Side		365	South Side		316	West Side		245
18:00	CARS	151	9	16	1	15	1	182	11	0	5	16	C
	DUALS	3	0	1	0	2	0	8	1	0	0	1	C
	BUSES	4	0	0	5	0	0	4	0	0	2	0	0
	BIKE (OTHER)		11	(0)		15	(0)		19	(0)	15	(0)	
	PEDS	North Side	e	439	East Side		345	South Side		292	West Side		245



#### BATHURST ST AT FORT YORK BLVD (PX 1919)

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Survey Date: Oct-03-2018 (Wednesday)
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Survey Ty	pe: Routine	Hours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	121	14	2	37	15	43	72	32	17	32	22	8
	DUALS	7	2	0	0	1	4	2	0	0	0	0	0
	BUSES	6	0	0	1	0	1	6	0	0	1	0	0
	BIKE (OTHER)		2	(0)		5	(0)		1	(0)	2	(0)	
	PEDS	North Side		35	East Side		32	South Side		36	West Side		35
08:00	CARS	151	11	3	78	12	63	61	22	12	28	35	2
	DUALS	7	0	0	1	0	2	4	1	0	1	0	1
	BUSES	7	0	0	1	0	0	3	0	0	2	1	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	6	(0)	
	PEDS	North Side		45	East Side		38	South Side		53	West Side		45
08:15	CARS	198	3	3	51	13	75	71	26	14	25	47	6
	DUALS	5	2	0	0	0	3	4	1	2	0	0	0
	BUSES	4	0	0	2	0	1	6	0	0	0	1	0
	BIKE (OTHER)		3	(0)		3	(0)		1	(0)	10	(0)	
	PEDS	North Side		39	East Side		55	South Side		56	West Side		64
08:30	CARS	183	15	5	58	13	78	64	21	13	18	61	5
	DUALS	12	0	0	0	0	1	3	0	0	2	3	0
	BUSES	4	0	0	0	0	1	4	0	0	2	0	0
	BIKE (OTHER)		2	(0)		4	(0)		2	(0)	7	(0)	
	PEDS	North Side		61	East Side		68	South Side		78	West Side		88
08:45	CARS	186	4	5	51	15	62	77	37	15	23	51	10
	DUALS	11	0	0	0	1	3	5	1	0	0	3	0
	BUSES	5	0	0	2	0	0	5	0	0	1	1	0
	BIKE (OTHER)		4	(0)		6	(0)		8	(0)	14	(0)	
	PEDS	North Side		73	East Side		59	South Side		74	West Side		76
09:00	CARS	198	2	3	52	9	72	71	33	21	23	49	4
	DUALS	13	0	0	1	1	2	2	4	0	2	1	2
	BUSES	9	0	0	2	0	0	5	0	0	1	0	0
	BIKE (OTHER)		2	(0)		3	(0)		1	(0)	12	(0)	
	PEDS	North Side		48	East Side		64	South Side		58	West Side		43
09:15	CARS	168	5	4	49	16	53	67	25	24	29	43	6
	DUALS	10	0	0	2	0	1	2	0	0	1	2	1
	BUSES	3	0	0	2	0	0	8	0	0	1	0	0
	BIKE (OTHER)		7	(0)		5	(0)		0	(0)	13	(0)	
	PEDS	North Side		34	East Side		51	South Side		50	West Side		39



#### BATHURST ST AT FORT YORK BLVD (PX 1919)

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Survey Date:
         Oct-03-2018 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lef	ť
09:30	CARS	202	1	6	54	15	60	66	25	24	18	65	10
	DUALS	21	0	1	0	0	2	4	2	0	1	4	1
	BUSES	4	0	0	0	0	0	4	0	0	2	0	0
	BIKE (OTHER)		4	(0)		2	(0)		1	(0)	16	(0)	
	PEDS	North Side		31	East Side		49	South Side		56	West Side		42
10:15	CARS	158	8	2	32	15	81	65	22	13	26	46	10
	DUALS	16	0	0	2	1	3	7	1	0	1	4	2
	BUSES	3	0	0	1	0	0	3	0	0	2	0	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	3	(0)	
	PEDS	North Side		23	East Side		21	South Side		31	West Side		31
10:30	CARS	141	7	5	24	16	60	76	23	13	25	36	3
	DUALS	13	0	0	0	0	4	4	7	0	0	2	1
	BUSES	1	0	0	1	0	1	6	0	0	0	0	0
	BIKE (OTHER)		5	(0)		2	(0)		1	(0)	2	(0)	
	PEDS	North Side		15	East Side		20	South Side		23	West Side		22
10:45	CARS	167	3	1	19	21	63	67	37	12	11	37	4
	DUALS	16	0	1	1	0	4	4	2	1	0	4	1
	BUSES	8	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		2	(0)		2	(0)		1	(0)	9	(0)	
	PEDS	North Side		23	East Side		28	South Side		22	West Side		27
11:00	CARS	152	6	9	17	9	52	87	33	17	11	26	2
	DUALS	13	0	0	2	1	3	4	2	0	1	7	0
	BUSES	3	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		4	(0)		3	(0)		1	(0)	3	(0)	
	PEDS	North Side		21	East Side		19	South Side		17	West Side		28
11:15	CARS	150	4	6	14	15	55	70	32	18	24	28	7
	DUALS	16	0	0	0	1	0	7	3	0	1	3	1
	BUSES	5	0	0	0	0	0	5	0	0	1	0	0
	BIKE (OTHER)		6	(0)		3	(0)		1	(0)	1	(0)	
	PEDS	North Side		31	East Side		35	South Side		17	West Side		29
11:30	CARS	150	9	5	23	13	43	75	25	17	18	28	1
	DUALS	17	0	0	0	4	2	4	0	1	0	3	1
	BUSES	3	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		7	(0)		3	(0)		2	(0)	5	(0)	
	PEDS	North Side		18	East Side		37	South Side		25	West Side		24



#### BATHURST ST AT FORT YORK BLVD (PX 1919)

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Survey Date: Oct-03-2018 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NOR1 Thru	'H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND	t
11:45	CARS	141	6	1	24	6	46	69	39	25	22	27	9
	DUALS	11	0	1	2	1	0	7	4	0	0	1	1
	BUSES	4	0	0	2	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		2	(0)	1	(0)	
	PEDS	North Side		21	East Side		36	South Side		34	West Side		17
12:00	CARS	125	6	6	32	8	42	69	46	15	13	35	4
	DUALS	19	1	0	3	0	4	7	3	0	0	2	0
	BUSES	4	0	0	1	0	0	4	0	0	1	0	0
	BIKE (OTHER)		5	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side		19	East Side		18	South Side		21	West Side		29
13:15	CARS	104	4	5	25	17	40	86	45	17	22	27	4
	DUALS	19	0	0	0	0	2	3	1	2	1	0	0
	BUSES	6	0	0	1	0	0	2	1	0	1	1	0
	BIKE (OTHER)		3	(0)		2	(0)		1	(0)	3	(0)	
	PEDS	North Side		26	East Side		32	South Side		26	West Side		31
13:30	CARS	120	7	3	16	15	38	79	47	22	24	33	4
	DUALS	18	1	0	0	1	1	4	2	0	1	1	1
	BUSES	4	0	0	1	0	0	5	0	0	1	0	0
	BIKE (OTHER)		10	(0)		5	(0)		6	(0)	2	(0)	
	PEDS	North Side		32	East Side		32	South Side		38	West Side		20
13:45	CARS	125	5	4	25	6	34	93	41	17	20	23	3
	DUALS	17	0	0	1	0	3	7	3	1	1	3	0
	BUSES	6	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		12	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side	•	25	East Side		38	South Side		32	West Side		35
14:00	CARS	137	4	2	25	5	29	92	43	15	15	26	4
	DUALS	5	1	1	0	1	2	5	2	0	0	4	2
	BUSES	3	0	0	3	0	0	5	0	0	1	0	0
	BIKE (OTHER)		5	(0)		2	(0)		2	(0)	4	(0)	
	PEDS	North Side	•	37	East Side		26	South Side		21	West Side		38
14:15	CARS	79	6	5	21	5	43	96	58	31	16	26	5
	DUALS	11	0	0	2	0	1	1	4	1	1	0	0
	BUSES	7	0	0	1	0	0	3	0	0	2	0	0
	BIKE (OTHER)		7	(0)		4	(0)		1	(0)	3	(0)	
	PEDS	North Side	•	23	East Side		38	South Side		41	West Side		37



#### BATHURST ST AT FORT YORK BLVD (PX 1919)

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Survey Date: Oct-03-2018 (Wednesday)
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#### BATHURST ST AT FORT YORK BLVD (PX 1919)

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Survey Date: Oct-03-2018 (Wednesday)
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Survey Type	e: Ro	outine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Lef	ft
17:15	CARS		152	10	7	46	6	61	94	87	41	18	25	5
	DUALS		2	0	0	0	0	0	3	1	1	0	1	0
	BUSES		5	0	0	2	0	1	4	0	0	1	0	0
	BIKE (OTHE	R)		16	(0)		11	(0)		6	(0)	0	(0)	
	PEDS	Ne Ne	orth Sid	le	35	East Side		75	South Sid	e	71	West Side		67
17:30	CARS		126	6	9	37	3	51	90	61	44	27	29	3
	DUALS		3	0	0	1	0	0	1	2	0	1	0	0
	BUSES		4	0	0	1	0	1	7	0	0	1	0	0
	BIKE (OTHE	R)		10	(0)		10	(0)		4	(0)	6	(0)	
	PEDS	N	orth Sid	le	62	East Side		65	South Sid	e	69	West Side		104
17:45	CARS		119	12	8	34	10	48	93	74	38	31	28	6
	DUALS		0	0	0	1	0	0	0	1	2	0	0	0
	BUSES		2	0	0	1	0	5	6	0	1	0	1	0
	BIKE (OTHE	R)		14	(0)		10	(0)		2	(0)	3	(0)	
	PEDS	N.	orth Sid	le	76	East Side		73	South Sid	e	94	West Side		98
18:00	CARS		148	13	7	53	8	60	74	64	35	29	45	8
	DUALS		1	0	0	0	0	0	0	0	0	0	0	0
	BUSES		5	0	0	0	0	1	4	0	0	1	0	0
	BIKE (OTHE	R)		20	(0)		10	(0)		2	(0)	6	(0)	
	PEDS	Ne	orth Sid	le	87	East Side		85	South Sid	е	117	West Side		93



### EAST LIBERTY ST AT ORDNANCE ST & STRACHAN AVE (PX 2180)

Survey Date: Nov-16-2017 (Thursday)

Survey Ty	pe: Routine I	Hours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	102	2	34	0	66	45	86	11	3	1	1	0
	DUALS	2	0	1	0	0	0	1	1	0	0	0	4
	BUSES	0	0	1	0	0	1	0	2	0	0	0	0
	BIKE (OTHER)		2	(0)		3	(0)		2	(0)	0	(0)	
	PEDS	North Side		11	East Side		6	South Side		0	West Side		11
08:00	CARS	108	3	50	0	61	33	98	22	1	0	1	0
	DUALS	1	0	0	0	1	0	0	0	1	0	0	1
	BUSES	2	0	1	0	0	1	1	4	0	0	0	0
	BIKE (OTHER)		1	(0)		10	(0)		6	(0)	0	(0)	
	PEDS	North Side		9	East Side		5	South Side		1	West Side		20
08:15	CARS	108	3	41	0	73	49	79	32	3	1	1	0
	DUALS	0	2	0	0	0	0	0	0	0	0	0	2
	BUSES	2	0	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		3	(0)		14	(0)		7	(0)	0	(0)	
	PEDS	North Side		6	East Side		6	South Side		1	West Side		28
08:30	CARS	126	1	60	0	82	53	84	23	1	0	2	0
	DUALS	0	2	2	0	0	0	1	0	0	0	0	2
	BUSES	1	0	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		2	(0)		12	(0)		10	(0)	0	(0)	
	PEDS	North Side		14	East Side		9	South Side		1	West Side		35
08:45	CARS	120	0	72	0	95	51	73	28	0	0	0	0
	DUALS	0	0	0	0	0	1	1	1	0	0	0	3
	BUSES	0	0	0	1	0	0	1	4	0	0	0	0
	BIKE (OTHER)		3	(0)		14	(0)		16	(0)	0	(0)	
	PEDS	North Side		19	East Side		17	South Side		0	West Side		39
09:00	CARS	112	3	68	0	50	43	75	24	1	0	1	0
	DUALS	1	0	0	0	1	1	0	0	0	0	0	5
	BUSES	0	0	0	0	1	0	1	3	0	0	0	2
	BIKE (OTHER)		4	(0)		22	(0)		13	(0)	0	(0)	
	PEDS	North Side		7	East Side		20	South Side		0	West Side		22
09:15	CARS	124	2	63	0	43	37	74	38	0	2	0	1
	DUALS	4	2	1	0	0	0	0	0	0	0	0	1
	BUSES	0	0	0	0	0	0	1	5	0	0	0	0
	BIKE (OTHER)		0	(0)		14	(0)		2	(0)	1	(0)	
	PEDS	North Side		8	East Side		8	South Side		0	West Side		0



# Intersection Detailed 15 Minutes Movement Report

### EAST LIBERTY ST AT ORDNANCE ST & STRACHAN AVE (PX 2180)

**Routine Hours** 

Survey Date: Nov-16-2017 (Thursday)

Time Period		NORTH BOUND Thru Right Left				EAST BOUND SOUTH BOUND Thru Right Left Thru Right Left				WEST Thru R	BOUND light Left	t	
09:30	CARS	103	0	51	0	29	31	76	36	0	0	0	0
	DUALS	1	0	0	0	0	0	1	0	0	1	0	2
	BUSES	0	0	0	0	0	0	1	5	0	0	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		7	South Side		0	West Side		11
10:15	CARS	120	1	48	0	52	31	SOUTH BOUND Thru Right   WEST Bound Thru Right     76   36   0   0     1   0   0   1     1   5   0   0     1   5   0   0     52   28   0   1     52   28   0   1     52   28   0   1     52   28   0   1     52   28   0   1     50   0   0   0     69   32   3   1     69   32   3   1     0   1   0   0     69   32   3   1     0   1   0   0     20   0   0   0     21   0   0   0     20   0   0   0     20   0   0   0     20   0   0   0     1	0	1			
	DUALS	2	0	0	0	1	0	5	0	0	0	2	8
10:13 C	BUSES	0	0	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		7	East Side		7	South Side		0	West Side		9
10:30	CARS	78	1	26	0	43	41	69	32	3	1	0	1
	DUALS	0	0	0	0	0	0	0	1	0	0	0	4
	BUSES	0	0	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		4	(0)	0	(0)	
	PEDS	North Side		4	East Side		6	South Side		0	West Side		8
10:45	CARS	119	1	51	0	36	22	67	28	1	0	2	1
	DUALS	3	3	0	0	0	0	2	0	0	0	0	4
	BUSES	0	0	0	0	0	0	0	2	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		1	East Side		7	South Side		4	West Side		7
11:00	CARS	83	1	54	1	48	18	63	31	0	0	0	5
	DUALS	0	5	2	0	2	0	1	1	0	0	0	3
	BUSES	0	0	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		0	West Side		16
11:15	CARS	92	1	49	0	42	25	75	29	2	0	1	2
	DUALS	1	4	0	0	0	0	0	0	0	0	0	3
	BUSES	0	0	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		4	(0)	1	(0)	
	PEDS	North Side		2	East Side		4	South Side		3	West Side		10
11:30	CARS	105	2	44	0	56	17	76	28	0	1	1	3
 11:30	DUALS	1	1	0	0	0	0	2	0	0	0	0	4
	BUSES	0	0	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		5	South Side		0	West Side		9



# Intersection Detailed 15 Minutes Movement Report

#### EAST LIBERTY ST AT ORDNANCE ST & STRACHAN AVE (PX 2180)

**Routine Hours** 

Survey Date: Nov-16-2017 (Thursday)

Time Period		NORTH Thru F	I BOL light	JND Left	EAS Thru	EAST BOUND Thru Right Left			H BOU Right	ND Left	WEST BOUND Thru Right Left		
11:45	CARS	119	0	47	0	50	13	86	32	0	0	2	0
	DUALS	2	1	0	0	0	0	1	0	0	0	0	4
	BUSES	0	0	0	0	1	0	0	3	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		3	South Side		2	West Side		8
12:00	CARS	127	1	42	0	47	16	93	25	0	1	0	0
	DUALS	2	2	1	0	0	0	1	0	0	0	0	3
	BUSES	0	0	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		3	South Side		4	West Side		8
13:15	CARS	88	2	38	0	53	22	84	31	0	0	1	1
	DUALS	2	1	0	0	0	0	3	0	0	0	0	5
	BUSES	0	0	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		0	(0)		8	(0)		1	(0)	0	(0)	
	PEDS	North Side		12	East Side		3	South Side		9	West Side		14
13:30	CARS	82	1	43	0	69	32	89	35	1	0	0	0
	DUALS	6	2	0	0	0	0	0	0	0	0	0	3
	BUSES	0	0	0	0	0	0	1	2	0	0	0	0
	BIKE (OTHER)		6	(0)		6	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		3	South Side		3	West Side		19
13:45	CARS	80	0	51	0	44	24	80	22	1	1	1	0
	DUALS	2	3	1	0	0	0	1	0	0	0	0	6
	BUSES	1	0	1	0	0	0	1	3	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		5	(0)	0	(0)	
	PEDS	North Side		3	East Side		4	South Side		3	West Side		12
14:00	CARS	61	1	50	0	39	27	102	50	0	0	0	0
	DUALS	0	2	0	0	1	0	1	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		1	(0)		3	(0)		4	(0)	0	(0)	
	PEDS	North Side		4	East Side		4	South Side		1	West Side		10
14:15	CARS	66	0	48	0	41	24	96	35	1	0	0	1
	DUALS	1	8	1	0	0	0	1	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	2	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		3	(0)	0	(0)	
	PEDS	North Side		2	East Side		1	South Side		1	West Side		10



# Intersection Detailed 15 Minutes Movement Report

#### EAST LIBERTY ST AT ORDNANCE ST & STRACHAN AVE (PX 2180)

**Routine Hours** 

Survey Date: Nov-16-2017 (Thursday)

Time Period		NORTH B Thru Rigi		JND Left	EAS Thru	ST BOUI Right	ND Left	SOUT Thru I	H BOU Right	ND Left	WEST BOUND Thru Right Left			
14:30	CARS	73	2	53	0	41	27	76	35	1	0	0	1	
	DUALS	1	5	0	0	0	0	0	0	0	0	0	0	
	BUSES	1	0	0	0	0	0	0	2	0	0	0	0	
	BIKE (OTHER)		0	(0)		6	(0)		7	(0)	0	(0)		
	PEDS	North Side		9	East Side		2	South Side		3	West Side		8	
14:45	CARS	77	0	55	0	49	34	89	39	0	0	0	0	
	DUALS	0	4	0	0	0	0	0	0	0	0	0	1	
	BUSES	0	0	0	0	0	0	1	3	0	0	0	0	
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	0	(0)		
	PEDS	North Side		3	East Side		0	South Side		2	West Side		9	
15:00	CARS	81	1	63	0	44	37	95	45	0	1	0	0	
	DUALS	2	3	0	0	0	0	0	0	0	0	0	1	
	BUSES	0	0	0	0	0	0	0	5	0	0	0	0	
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	0	(0)		
	PEDS	North Side		3	East Side		3	South Side		2	West Side		11	
16:15	CARS	99	0	71	0	41	37	107	39	0	0	0	0	
	DUALS	1	2	0	0	0	0	0	0	0	0	0	1	
	BUSES	0	0	0	0	0	0	0	4	0	0	0	0	
	BIKE (OTHER)		0	(0)		11	(0)		4	(0)	0	(0)		
	PEDS	North Side		3	East Side		7	South Side		2	West Side		10	
15:00 16:15 16:30 16:45	CARS	110	0	63	0	46	27	113	45	0	0	0	1	
	DUALS	0	4	0	0	0	0	0	0	0	0	0	1	
	BUSES	0	0	0	0	0	0	0	3	1	0	0	0	
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	0	(0)		
	PEDS	North Side		3	East Side		3	South Side		0	West Side		9	
16:45	CARS	111	0	67	0	52	40	122	43	0	0	1	0	
	DUALS	2	2	0	0	0	0	1	0	0	0	0	0	
	BUSES	0	0	0	0	0	0	0	5	0	0	0	0	
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	0	(0)		
	PEDS	North Side		5	East Side		7	South Side		0	West Side		12	
17:00	CARS	129	0	62	0	54	52	135	48	0	0	1	1	
	DUALS	3	2	1	0	0	0	2	0	0	0	0	1	
	BUSES	0	0	0	0	0	0	1	4	0	0	0	0	
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	0	(0)		
	PEDS	North Side		0	East Side		4	South Side		2	West Side		4	

Page 4 of 5



# Intersection Detailed 15 Minutes Movement Report

#### EAST LIBERTY ST AT ORDNANCE ST & STRACHAN AVE (PX 2180)

**Routine Hours** 

Survey Date: Nov-16-2017 (Thursday)

Time Period		NORTH BOUND			EAS	T BOUN	ID Left	SOUT	H BOU Pight	ND	WEST	BOUND	
Teriou			Ngin	Len	Tinu	Night	Len	mu	Ngin	Leit		ight Left	
17:15	CARS	134	0	54	0	49	40	142	51	0	0	2	0
	DUALS	2	1	0	0	0	0	0	3	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	0	(0)	
	PEDS	North Side		7	East Side		5	South Side		0	West Side		6
17:30	CARS	147	0	54	0	42	43	131	51	1	0	1	1
	DUALS	0	0	0	0	0	0	0	0	1	0	0	1
	BUSES	0	0	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		8	South Side		0	West Side		5
17:45	CARS	126	1	49	0	39	35	126	41	0	0	0	0
	DUALS	2	1	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	0	(0)	
	PEDS	North Side		4	East Side		6	South Side		3	West Side		6
18:00	CARS	125	0	41	0	39	32	139	41	0	0	1	0
	DUALS	0	1	0	0	0	0	2	0	0	0	1	0
	BUSES	0	0	0	0	0	0	1	4	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		4	South Side		4	West Side		4



### DUFFERIN ST AT LIBERTY ST (PX 1449)

Survey Date: May-24-2018 (Thursday)

Survey Ty	pe: Routine H	lours											
Time Period		NOR1 Thru	NORTH BOUND Thru Right Left			Г BOUN Right	D Left	SOUTH Thru R	BOU! ight	ND Left	WEST Thru Ri	BOUND ight Left	
Survey Typ Period 7:45 	CARS	30	40	0	0	1	1	79	0	17	0	9	55
	DUALS	2	0	0	0	0	0	3	0	0	0	0	1
	BUSES	5	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side	•	5	East Side		6	South Side		33	West Side		37
08:00	CARS	36	62	0	0	0	1	88	0	15	0	13	44
	DUALS	4	2	0	0	0	0	2	0	1	0	0	1
	BUSES	8	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		4	(0)	2	(0)	
	PEDS	North Side	•	20	East Side		20	South Side		26	West Side		29
08:15	CARS	37	56	0	0	1	1	86	0	27	0	12	54
	DUALS	4	0	0	0	0	0	2	0	0	0	1	1
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side		19	East Side		34	South Side		34	West Side		12
08:30	CARS	50	74	0	0	1	1	78	0	19	0	17	52
	DUALS	2	0	0	0	0	0	3	0	0	0	0	1
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		1	(0)		5	(0)	0	(0)	
	PEDS	North Side		9	East Side		31	South Side		30	West Side		21
08:45	CARS	52	86	0	0	1	1	87	0	16	0	12	46
	DUALS	3	0	0	0	0	0	4	0	0	0	1	0
	BUSES	3	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		6	(0)		3	(0)		7	(0)	0	(0)	
	PEDS	North Side	•	42	East Side		47	South Side		66	West Side		71
09:00	CARS	57	96	1	0	0	1	97	0	22	0	12	51
	DUALS	1	0	0	0	0	0	3	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		4	(0)		7	(0)		5	(0)	0	(0)	
	PEDS	North Side	•	46	East Side		72	South Side		55	West Side		75
09:15	CARS	47	111	0	0	2	1	97	0	25	0	18	43
	DUALS	3	2	0	0	0	0	6	0	0	0	1	1
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		6	(0)	1	(0)	
	PEDS	North Side	•	33	East Side		43	South Side		71	West Side		33



### DUFFERIN ST AT LIBERTY ST (PX 1449)

Survey Date: May-24-2018 (Thursday)

Survey Ty	pe: Routine I	Hours											
Time Period		NORTH BOUND Thru Right Left		EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	BOU! ight	ND Left	WEST Thru R	BOUND ight Left	:	
09:30	CARS	50	105	0	0	2	1	88	0	14	0	10	31
	DUALS	3	2	0	0	0	0	5	0	0	Initial Regit   Left     14   0   10     0   0   0     0   0   0     0   1   (0)     81   West Side	0	
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		7	(0)	1	(0)	
	PEDS	North Side	·	36	East Side		60	South Side		81	West Side		81
10:15	CARS	55	85	0	0	0	0	81	0	19	0	15	43
	DUALS	1	2	0	0	0	0	5	0	2	0	2	2
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		5	(0)	2	(0)	
	PEDS	North Side	·	18	East Side		23	South Side		24	West Side		21
10:30	CARS	72	55	0	0	0	1	63	0	15	0	11	39
	DUALS	3	1	0	0	0	0	4	0	0	0	1	2
	BUSES	5	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	17	East Side		13	South Side		22	West Side		19
10:45	CARS	57	54	0	0	0	0	86	0	14	0	10	43
	DUALS	3	1	0	0	0	0	7	0	0	0	2	1
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		10	East Side		12	South Side		13	West Side		15
11:00	CARS	82	79	0	0	0	0	59	0	14	0	15	41
	DUALS	5	4	0	0	0	0	4	0	1	0	0	1
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side	·	9	East Side		14	South Side		13	West Side		10
11:15	CARS	76	46	0	0	0	1	80	0	9	0	20	46
	DUALS	4	3	0	0	0	0	6	0	0	0	0	2
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	3	(0)	
	PEDS	North Side	·	14	East Side		14	South Side		11	West Side		12
11:30	CARS	87	58	0	1	0	0	80	0	10	0	21	40
	DUALS	5	4	0	0	0	0	12	0	0	0	1	2
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side	ł	8	East Side		15	South Side		16	West Side		13



### DUFFERIN ST AT LIBERTY ST (PX 1449)

Survey Date: May-24-2018 (Thursday)

Survey Ty	/pe: Routine H	lours												
Time Period		NORTH BOUND Thru Right Left			EAST Thru	EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
11:45	CARS	70	49	0	0	1	1	86	0	21	0	16	57	
	DUALS	4	1	0	0	0	0	3	0	0	0	1	3	
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0	
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	1	(0)		
	PEDS	North Side		10	East Side		14	South Side		7	West Side		12	
12:00	CARS	67	46	0	1	0	0	72	0	14	0	13	42	
	DUALS	2	3	0	0	0	1	2	0	0	0	1	3	
	BUSES	5	0	0	0	0	0	6	0	0	0	0	1	
	BIKE (OTHER)		7	(0)		0	(0)		5	(0)	0	(0)		
	PEDS	North Side		7	East Side		21	South Side		16	West Side		19	
13:15	CARS	76	49	0	0	0	0	73	0	15	0	18	61	
	DUALS	7	1	0	0	0	0	9	0	0	0	2	5	
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0	
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	5	(0)		
	PEDS	North Side		6	East Side		29	South Side		22	West Side		22	
13:30	CARS	83	35	0	0	0	2	94	0	21	0	18	65	
	DUALS	8	0	0	0	0	0	2	0	0	0	3	3	
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0	
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	4	(0)		
	PEDS	North Side		16	East Side		38	South Side		8	West Side		16	
13:45	CARS	61	29	0	0	1	0	101	0	18	0	19	58	
	DUALS	3	1	0	0	0	0	9	0	0	0	1	3	
	BUSES	5	0	0	0	0	0	2	0	0	0	0	0	
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	3	(0)		
	PEDS	North Side		8	East Side		32	South Side		17	West Side		22	
14:00	CARS	55	40	0	0	0	1	95	0	12	0	14	65	
	DUALS	3	0	0	0	0	0	4	0	1	0	2	1	
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0	
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	1	(0)		
	PEDS	North Side		15	East Side		38	South Side		17	West Side		26	
14:15	CARS	73	51	0	1	0	0	76	0	13	0	16	52	
	DUALS	4	0	0	0	0	0	4	0	0	0	1	0	
	BUSES	5	0	0	0	0	0	8	0	0	0	0	0	
	BIKE (OTHER)		4	(0)		0	(0)		8	(0)	1	(0)		
	PEDS	North Side		14	East Side		33	South Side		26	West Side		24	



### DUFFERIN ST AT LIBERTY ST (PX 1449)

Survey Date: May-24-2018 (Thursday)

Survey Ty	vpe: Routine H	lours											
Time Period	NORTH BOUND Thru Right Left			EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
14:30	CARS	71	43	0	0	0	0	79	0	12	0	17	60
	DUALS	7	0	0	0	0	0	4	0	1	0	0	1
	BUSES	6	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side		3	East Side		30	South Side		15	West Side		12
14:45	CARS	81	31	0	0	1	1	62	0	12	0	17	47
	DUALS	3	1	0	0	0	0	5	0	0	0	2	1
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		4	(0)	2	(0)	
	PEDS	North Side		8	East Side		29	South Side		26	West Side		18
15:00	CARS	69	49	0	0	2	1	72	0	20	0	20	59
	DUALS	2	0	0	0	0	0	6	0	0	0	1	1
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		4	(0)	2	(0)	
	PEDS	North Side		3	East Side		25	South Side		17	West Side		12
16:15	CARS	92	37	0	0	1	1	62	0	14	0	31	98
	DUALS	1	1	0	0	0	0	1	0	0	0	1	2
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		5	(0)	1	(0)	
	PEDS	North Side		5	East Side		27	South Side		13	West Side		16
16:30	CARS	80	34	0	0	2	1	77	0	13	0	22	65
	DUALS	2	0	0	0	0	0	2	0	0	0	0	1
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		9	(0)	3	(0)	
	PEDS	North Side		9	East Side		24	South Side		13	West Side		16
16:45	CARS	95	42	0	0	0	1	83	0	11	0	52	80
	DUALS	1	0	0	0	0	0	2	0	0	0	1	1
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		5	(0)	6	(0)	
	PEDS	North Side		11	East Side		35	South Side		18	West Side		20
17:00	CARS	75	38	0	0	1	1	66	0	16	0	28	70
	DUALS	2	0	0	0	0	0	2	0	0	0	0	1
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		3	(0)	6	(0)	
	PEDS	North Side		16	East Side		36	South Side		18	West Side		20

Page 4 of 5


# Intersection Detailed 15 Minutes Movement Report

#### DUFFERIN ST AT LIBERTY ST (PX 1449)

**Routine Hours** 

Survey Date: May-24-2018 (Thursday)

Time Period		NOR Thru	TH BO Right	UND Left	EAS Thru	T BOU Right	ND Left	SOUTH Thru R	l BOU ight	ND Left	WES <sup>T</sup> Thru I	「BOUND Right Lei	ft
17:15	CARS	74	30	0	1	0	1	82	0	15	0	31	111
	DUALS	0	1	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	13	(0)	
	PEDS	North Sid	e	15	East Side		58	South Side		32	West Side		48
17:30	CARS	110	43	0	2	0	1	90	0	14	0	35	105
	DUALS	1	1	0	0	0	0	2	0	0	0	1	0
	BUSES	1	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	11	(0)	
	PEDS	North Sid	e	22	East Side		49	South Side		11	West Side		19
17:45	CARS	61	44	0	0	0	1	90	0	15	0	34	89
	DUALS	1	1	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		11	(0)		0	(0)		6	(0)	12	(0)	
	PEDS	North Sid	e	13	East Side		43	South Side		33	West Side		26
18:00	CARS	60	39	0	0	1	0	81	0	13	0	26	93
	DUALS	0	1	0	0	0	0	1	0	0	0	0	1
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		6	(0)	10	(0)	
	PEDS	North Sid	e	12	East Side		37	South Side		21	West Side		27



### TECUMSETH ST AT WELLINGTON ST

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS] Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUI light	ND Left	WEST Thru R	BOUND ight Lef	t
07:45	CARS	2	0	2	0	0	0	6	4	0	29	4	4
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		1	West Side		5
08:00	CARS	4	0	0	0	0	0	5	7	0	20	11	10
	DUALS	0	0	0	0	0	0	0	0	0	1	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		1	East Side		5	South Side		4	West Side		9
08:15	CARS	0	0	1	0	0	0	7	10	0	17	5	6
	DUALS	0	0	0	0	0	0	0	0	0	0	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		6	(0)		4	(0)	0	(0)	
	PEDS	North Side		5	East Side		7	South Side		5	West Side		14
08:30	CARS	4	0	2	0	0	0	16	6	0	37	14	3
	DUALS	0	0	0	0	0	0	1	0	0	1	1	0
	BUSES	1	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		3	(0)		1	(0)		6	(0)	2	(0)	
	PEDS	North Side		4	East Side		4	South Side		6	West Side		8
08:45	CARS	7	0	2	0	0	0	11	5	0	39	17	3
	DUALS	0	0	1	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		2	(0)		2	(0)	1	(0)	
	PEDS	North Side		1	East Side		14	South Side		3	West Side		20
09:00	CARS	2	0	2	0	0	0	17	5	0	46	10	2
	DUALS	0	0	0	0	0	0	0	0	0	0	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		5	(0)	1	(0)	
	PEDS	North Side		4	East Side		13	South Side		6	West Side		17
09:15	CARS	8	0	1	0	0	0	11	3	0	43	16	2
	DUALS	0	0	0	0	0	0	0	0	0	1	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		6	(0)	1	(0)	
	PEDS	North Side		4	East Side		6	South Side		5	West Side		28



### TECUMSETH ST AT WELLINGTON ST

Survey Ty	rpe: Routine H	lours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUI	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	9	0	2	0	0	0	19	5	0	46	16	5
	DUALS	0	0	1	0	0	0	0	0	0	0	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		3	(0)		4	(0)	1	(0)	
	PEDS	North Side		9	East Side		8	South Side		1	West Side		20
10:15	CARS	4	0	1	0	0	0	15	7	0	46	16	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side		6	East Side		5	South Side		4	West Side		3
10:30	CARS	6	0	2	0	0	0	15	4	0	48	17	6
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		4	(0)	4	(0)	
	PEDS	North Side		7	East Side		6	South Side		7	West Side		7
10:45	CARS	6	0	0	0	0	0	12	4	0	38	13	3
	DUALS	0	0	0	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		5	(0)	0	(0)	
	PEDS	North Side		7	East Side		4	South Side		5	West Side		5
11:00	CARS	9	0	1	0	0	0	14	6	0	43	17	6
	DUALS	0	0	0	0	0	0	0	0	0	2	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		4	(0)	1	(0)	
	PEDS	North Side		3	East Side		2	South Side		5	West Side		7
11:15	CARS	2	0	1	0	0	0	8	5	0	45	15	10
	DUALS	0	0	0	0	0	0	0	0	0	1	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		7	(0)	1	(0)	
	PEDS	North Side		12	East Side		2	South Side		1	West Side		7
11:30	CARS	4	0	0	0	0	0	11	4	0	45	11	3
	DUALS	1	0	0	0	0	0	0	1	0	1	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		2	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side		3	East Side		1	South Side		0	West Side		4



### TECUMSETH ST AT WELLINGTON ST

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	1	0	3	0	0	0	8	3	0	42	18	4
	DUALS	0	0	0	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	North Side		6	East Side		6	South Side		2	West Side		8
12:00	CARS	5	0	2	0	0	0	15	7	0	44	18	6
	DUALS	0	0	0	0	0	0	1	0	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		3	(0)	1	(0)	
	PEDS	North Side		4	East Side		6	South Side		0	West Side		5
13:15	CARS	7	0	2	0	0	0	13	8	0	44	21	7
	DUALS	0	0	0	0	0	0	3	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	2	(0)	
	PEDS	North Side		6	East Side		6	South Side		3	West Side		10
13:30	CARS	2	0	1	0	0	0	13	5	0	41	18	4
	DUALS	0	0	1	0	0	0	1	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		5	(0)	1	(0)	
	PEDS	North Side		6	East Side		1	South Side		2	West Side		4
13:45	CARS	3	0	4	0	0	0	9	4	0	44	20	7
	DUALS	0	0	0	0	0	0	0	3	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		6	(0)	2	(0)	
	PEDS	North Side		11	East Side		5	South Side		3	West Side		10
14:00	CARS	7	0	3	0	0	0	10	4	0	59	14	2
	DUALS	0	0	0	0	0	0	0	1	0	6	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		3	(0)	0	(0)	
	PEDS	North Side		8	East Side		13	South Side		2	West Side		6
14:15	CARS	3	0	4	0	0	0	16	7	0	45	15	3
	DUALS	0	0	0	0	0	0	0	1	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		4	(0)		3	(0)	0	(0)	
	PEDS	North Side		5	East Side		4	South Side		2	West Side		10



### TECUMSETH ST AT WELLINGTON ST

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	l BOU light	IND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUI light	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	5	0	2	0	0	0	13	4	0	45	13	6
	DUALS	0	0	0	0	0	0	0	0	0	0	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		6	(0)	1	(0)	
	PEDS	North Side		0	East Side		8	South Side		2	West Side		6
14:45	CARS	5	0	3	0	0	0	11	5	0	47	19	4
	DUALS	0	0	0	0	0	0	0	1	0	4	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		3	(0)		3	(0)	0	(0)	
	PEDS	North Side		10	East Side		4	South Side		2	West Side		9
15:00	CARS	6	0	1	0	0	0	20	8	0	56	17	8
	DUALS	0	0	0	0	0	0	1	2	0	1	1	0
	BUSES	0	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		0	(0)		7	(0)		10	(0)	3	(0)	
	PEDS	North Side		7	East Side		5	South Side		5	West Side		12
16:15	CARS	5	0	4	0	0	0	13	9	0	65	16	3
	DUALS	0	0	0	0	0	0	0	0	0	1	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		6	(0)	1	(0)	
	PEDS	North Side		1	East Side		4	South Side		3	West Side		10
16:30	CARS	7	0	4	0	0	0	14	7	0	65	12	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	1	1	0
	BIKE (OTHER)		1	(0)		4	(0)		10	(0)	3	(0)	
	PEDS	North Side		11	East Side		6	South Side		7	West Side		9
16:45	CARS	6	0	5	0	0	0	15	10	0	75	15	3
	DUALS	2	0	0	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		6	(0)		18	(0)	4	(0)	
	PEDS	North Side		15	East Side		16	South Side		7	West Side		12
17:00	CARS	5	0	2	0	0	0	11	8	0	67	15	7
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		5	(0)		7	(0)	4	(0)	
	PEDS	North Side		5	East Side		7	South Side		6	West Side		16



### TECUMSETH ST AT WELLINGTON ST

Survey Ty	<b>ype:</b> F	Routine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>.</sup> Thru	TH BOU Right	IND Left	WES Thru	ST BOUND Right Lef	ft
17:15	CARS		7	0	1	0	0	0	17	8	0	76	29	5
	DUALS		0	0	0	0	0	0	1	0	0	1	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTH	IER)		1	(0)		6	(0)		30	(0)	2	(0)	
	PEDS	No	orth Sid	le	2	East Side		5	South Side	e	6	West Side		26
17:30	CARS		5	0	0	0	0	0	20	6	0	75	18	7
	DUALS		0	0	0	0	0	0	1	0	0	2	0	1
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTH	IER)		2	(0)		6	(0)		29	(0)	1	(0)	
	PEDS	No	orth Sid	le	4	East Side		8	South Side	e	4	West Side		26
17:45	CARS		7	0	1	0	0	0	19	10	0	96	23	5
	DUALS		0	0	0	0	0	0	0	0	0	3	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTH	IER)		0	(0)		1	(0)		26	(0)	1	(0)	
	PEDS	No	orth Sid	le	11	East Side		16	South Side	e	18	West Side		27
18:00	CARS		3	0	2	0	0	0	25	8	0	90	23	6
	DUALS		0	0	1	0	0	0	0	1	0	1	0	0
	BUSES		0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTH	IER)		0	(0)		7	(0)		30	(0)	1	(0)	
	PEDS	No	orth Sid	le	9	East Side		18	South Side	Ð	8	West Side		23



#### NIAGARA ST AT WELLINGTON ST W

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	l BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru R	BOUND ight Left	
07:45	CARS	0	0	0	0	42	11	28	2	0	35	12	0
	DUALS	0	0	0	0	3	0	0	0	0	3	2	0
	BUSES	0	0	0	0	1	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		2	(0)		2	(0)	1	(0)	
	PEDS	North Side		4	East Side		5	South Side		4	West Side		1
08:00	CARS	0	0	0	0	39	10	34	2	0	40	19	1
	DUALS	0	0	0	0	1	0	1	0	0	1	0	0
	BUSES	0	0	0	0	1	0	0	0	0	1	1	0
	BIKE (OTHER)		1	(0)		9	(0)		3	(0)	3	(0)	
	PEDS	North Side		7	East Side		5	South Side		2	West Side		3
08:15	CARS	0	0	0	0	45	9	37	8	0	36	10	2
	DUALS	0	0	0	0	2	0	1	1	0	2	1	0
	BUSES	0	0	0	0	0	0	0	0	0	1	1	0
	BIKE (OTHER)		0	(0)		2	(0)		5	(0)	2	(0)	
	PEDS	North Side		17	East Side		9	South Side		8	West Side		9
08:30	CARS	0	0	0	0	58	11	58	7	0	38	21	0
	DUALS	0	0	0	0	5	0	2	1	0	5	2	0
	BUSES	0	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		5	(0)	8	(0)	
	PEDS	North Side		23	East Side		6	South Side		9	West Side		8
08:45	CARS	0	0	0	0	64	11	48	7	0	45	30	1
	DUALS	0	0	0	0	6	0	0	1	0	2	5	0
	BUSES	0	0	0	0	0	0	1	0	0	1	1	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	8	(0)	
	PEDS	North Side		26	East Side		21	South Side		11	West Side		7
09:00	CARS	0	0	0	0	65	21	42	7	0	45	27	0
	DUALS	0	0	0	0	3	1	1	0	0	3	1	0
	BUSES	0	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		2	(0)	3	(0)	
	PEDS	North Side		16	East Side		21	South Side		6	West Side		29
09:15	CARS	0	0	0	0	59	12	61	9	0	43	26	1
	DUALS	0	0	0	0	1	1	4	0	0	5	2	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		14	East Side		7	South Side		10	West Side		12



### NIAGARA ST AT WELLINGTON ST W

Survey Date: Sep-12-2019 (Thursday)

Survey Ty	pe: Routine H	lours						Guivey	<b>J</b> 410.	ocp-	2010 (110	
Time Period		NORTH Thru R	H BOI Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOUTH Thru R	l BOUI light	ND Left	WES Thru	ST BOUND Right Left
09:30	CARS	0	0	0	0	77	7	47	5	0	48	9
	DUALS	0	0	0	0	2	0	3	0	0	6	0
	BUSES	0	0	0	0	1	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		2	(0)	2	(0)
	PEDS	North Side		9	East Side		6	South Side		6	West Side	
10:15	CARS	0	0	0	0	55	3	31	1	0	24	19
	DUALS	0	0	0	0	2	1	0	1	0	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)
	PEDS	North Side		4	East Side		3	South Side		2	West Side	
10:30	CARS	0	0	0	0	40	12	43	4	0	41	7
	DUALS	0	0	0	0	5	0	5	0	0	4	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		2	(0)	2	(0)
	PEDS	North Side		5	East Side		6	South Side		2	West Side	
10:45	CARS	0	0	0	0	48	3	36	4	0	33	19
	DUALS	0	0	0	0	4	0	3	2	0	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	2	(0)
	PEDS	North Side		11	East Side		0	South Side		3	West Side	
11:00	CARS	0	0	0	0	45	2	31	6	0	35	11
	DUALS	0	0	0	0	4	1	2	0	0	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	5	(0)
	PEDS	North Side		5	East Side		8	South Side		2	West Side	
11:15	CARS	0	0	0	0	45	5	29	3	0	38	16
	DUALS	0	0	0	0	3	0	0	2	0	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	3	(0)
	PEDS	North Side		6	East Side		1	South Side		0	West Side	
11:30	CARS	0	0	0	0	37	7	27	2	0	33	19
	DUALS	0	0	0	0	1	0	5	1	0	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	4	(0)
	PEDS	North Side		5	East Side		2	South Side		1	West Side	



#### NIAGARA ST AT WELLINGTON ST W

Survey Ty	rpe: Routine H	Hours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Left	:
11:45	CARS	0	0	0	0	31	4	29	3	0	37	23	0
	DUALS	0	0	0	0	4	1	1	2	0	8	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		6	East Side		2	South Side		0	West Side		5
12:00	CARS	0	0	0	0	33	5	17	3	0	35	19	0
	DUALS	0	0	0	0	2	0	1	0	0	3	2	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	3	(0)	
	PEDS	North Side		10	East Side		9	South Side		5	West Side		9
13:15	CARS	0	0	0	0	34	6	28	5	0	37	14	1
	DUALS	0	0	0	0	4	0	1	0	0	2	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		4	(0)	3	(0)	
	PEDS	North Side		11	East Side		2	South Side		3	West Side		2
13:30	CARS	0	0	0	0	23	7	27	5	0	40	30	2
	DUALS	0	0	0	0	1	0	3	1	0	3	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		8	East Side		8	South Side		5	West Side		10
13:45	CARS	0	0	0	0	23	5	25	3	0	40	13	0
	DUALS	0	0	0	0	4	1	1	0	0	5	1	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	9	(0)	
	PEDS	North Side		6	East Side		5	South Side		2	West Side		0
14:00	CARS	0	0	0	0	17	4	18	5	0	45	24	0
	DUALS	0	0	0	0	1	0	3	2	0	2	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	3	(0)	
	PEDS	North Side		15	East Side		2	South Side		1	West Side		2
14:15	CARS	0	0	0	0	35	11	30	3	0	29	12	1
	DUALS	0	0	0	0	0	0	2	1	0	9	6	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	8	(0)	
	PEDS	North Side		4	East Side		6	South Side		10	West Side		7



#### NIAGARA ST AT WELLINGTON ST W

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	0	0	0	0	18	4	24	6	0	40	15	1
	DUALS	0	0	0	0	2	0	1	0	0	1	2	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		2	(0)	3	(0)	
	PEDS	North Side		12	East Side		4	South Side		5	West Side		6
14:45	CARS	0	0	0	0	22	5	22	5	0	37	17	2
	DUALS	0	0	0	0	1	0	4	0	0	3	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		3	(0)	3	(0)	
	PEDS	North Side		12	East Side		4	South Side		5	West Side		3
15:00	CARS	0	0	0	0	35	12	30	4	0	50	12	1
	DUALS	0	0	0	0	0	0	0	2	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		3	(0)	1	(0)	
	PEDS	North Side		11	East Side		3	South Side		1	West Side		3
16:15	CARS	0	0	0	0	27	5	24	2	0	83	14	2
	DUALS	0	0	0	0	2	1	3	0	0	3	1	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		5	(0)	10	(0)	
	PEDS	North Side		7	East Side		9	South Side		5	West Side		5
16:30	CARS	0	0	0	0	20	8	20	3	0	74	18	0
	DUALS	0	0	0	0	1	1	2	0	0	7	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	7	(0)	
	PEDS	North Side		10	East Side		4	South Side		9	West Side		5
16:45	CARS	0	0	0	0	24	10	24	7	0	77	22	1
	DUALS	0	0	0	0	1	3	1	1	0	6	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		4	(0)	14	(0)	
	PEDS	North Side		14	East Side		3	South Side		4	West Side		17
17:00	CARS	0	0	0	0	31	8	24	1	0	83	19	0
	DUALS	0	0	0	0	2	2	1	0	0	8	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	13	(0)	
	PEDS	North Side		12	East Side		14	South Side		10	West Side		8



# Intersection Detailed 15 Minutes Movement Report

#### NIAGARA ST AT WELLINGTON ST W

**Routine Hours** 

Time Period		NORT	H BO	UND	EAS	T BOU	ND	SOUTH	l BOU	ND L off	WEST Thru	GOUND	
Fellou			Right	Len		Right	Len		igin	Leit		Nghi Len	L
17:15	CARS	0	0	0	0	27	14	33	6	0	79	13	1
	DUALS	0	0	0	0	0	2	1	0	0	4	2	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		3	(0)		4	(0)	21	(0)	
	PEDS	North Side	·	6	East Side		7	South Side		16	West Side		11
17:30	CARS	0	0	0	0	37	8	37	8	0	76	15	1
	DUALS	0	0	0	0	1	0	0	0	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	29	(0)	
	PEDS	North Side	·	38	East Side		7	South Side		22	West Side		18
17:45	CARS	0	0	0	0	30	12	25	4	0	94	23	4
	DUALS	0	0	0	0	2	0	2	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		6	(0)	19	(0)	
	PEDS	North Side	·	31	East Side		20	South Side		14	West Side		8
18:00	CARS	0	0	0	0	32	10	23	7	0	81	26	4
	DUALS	0	0	0	0	0	1	3	0	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	13	(0)	
	PEDS	North Side	ł	19	East Side		12	South Side		13	West Side		10



#### FREDERICK ST AT FRONT ST E

Survey Date: Dec-06-2017 (Wednesday)

Survey Type:	Routine Hours

Time Period		NORTH Thru R	l BOU ight	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOU! ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	2	3	0	59	1	5	2	0	2	146	8	6
	DUALS	0	0	1	1	0	0	0	0	1	5	3	0
	BUSES	0	0	0	3	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		19	East Side		7	South Side		12	West Side		1
08:00	CARS	1	4	1	60	2	5	2	5	3	175	9	5
	DUALS	0	0	0	5	0	0	0	0	0	2	0	0
	BUSES	0	0	0	2	0	1	0	0	0	2	1	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side		22	East Side		6	South Side		21	West Side		9
08:15	CARS	1	6	2	72	0	7	1	9	1	170	3	9
	DUALS	0	0	0	1	0	1	0	0	0	2	0	1
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	7	(0)	
	PEDS	North Side		36	East Side		3	South Side		25	West Side		7
08:30	CARS	4	6	1	64	0	6	3	5	2	198	13	6
00.00	DUALS	0	0	0	2	0	0	0	0	0	2	0	0
	BUSES	0	2	0	3	0	0	1	0	0	3	1	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	9	(0)	
	PEDS	North Side		41	East Side		3	South Side		24	West Side		10
08:45	CARS	1	8	2	48	0	4	3	7	1	189	6	5
	DUALS	0	0	0	3	0	0	0	1	0	9	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side		62	East Side		10	South Side		36	West Side		4
09:00	CARS	1	5	0	70	2	4	3	4	2	190	4	10
	DUALS	0	0	0	3	0	0	0	0	1	5	0	0
	BUSES	0	1	0	2	0	0	0	0	0	1	2	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	3	(0)	
	PEDS	North Side		48	East Side		10	South Side		42	West Side		8
09:15	CARS	2	8	3	74	2	2	1	3	2	160	2	8
	DUALS	0	0	0	4	0	0	0	1	0	5	0	0
	BUSES	0	0	0	2	0	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	5	(0)	
	PEDS	North Side		35	East Side		7	South Side		37	West Side		14



#### FREDERICK ST AT FRONT ST E

Survey Date: Dec-06-2017 (Wednesday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	:
09:30	CARS	2	4	0	80	2	4	1	5	0	151	7	7
	DUALS	0	0	0	1	0	0	0	0	0	4	1	0
	BUSES	0	0	0	3	0	0	0	0	0	1	1	0
	BIKE (OTHER)		0	(0)		4	(0)		1	(0)	6	(0)	
	PEDS	North Side		44	East Side		15	South Side		28	West Side		7
10:15	CARS	4	1	0	59	3	3	0	6	2	109	5	4
	DUALS	1	1	0	2	0	0	0	0	0	5	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		27	East Side		7	South Side		51	West Side		10
10:30	CARS	4	6	2	71	5	6	2	5	2	92	1	0
	DUALS	0	1	1	7	0	0	0	0	0	4	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		23	East Side		11	South Side		37	West Side		7
10:45	CARS	1	3	1	61	1	4	0	9	1	91	3	3
	DUALS	0	0	0	1	1	0	0	0	1	4	5	1
	BUSES	0	0	0	1	0	0	0	0	0	1	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		15	East Side		5	South Side		32	West Side		6
11:00	CARS	1	0	2	77	0	3	0	9	4	97	6	1
	DUALS	0	0	0	0	0	1	0	0	0	6	2	1
	BUSES	0	0	0	1	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		23	East Side		3	South Side		38	West Side		9
11:15	CARS	1	4	3	62	1	5	2	7	1	92	3	0
	DUALS	0	0	0	3	0	1	0	0	0	1	1	0
	BUSES	0	0	0	3	1	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		22	East Side		7	South Side		38	West Side		8
11:30	CARS	1	2	2	66	3	4	1	6	2	77	7	3
	DUALS	1	0	0	3	0	0	0	0	1	3	0	0
	BUSES	0	0	0	2	0	0	1	0	0	1	0	0
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	4	(0)	
	PEDS	North Side		89	East Side		5	South Side		40	West Side		6



#### FREDERICK ST AT FRONT ST E

Survey Date: Dec-06-2017 (Wednesday)

Survey Type:	Routine Hours

Time Period		NORTH Thru R	l BOU light	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	:
11:45	CARS	2	1	2	73	1	7	0	9	3	76	5	2
	DUALS	0	0	0	5	0	1	0	1	0	4	0	0
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		4	(0)		0	(0)	2	(0)	
	PEDS	North Side		53	East Side		46	South Side		208	West Side		12
12:00	CARS	1	2	0	70	3	3	0	4	4	106	9	0
	DUALS	0	0	0	3	0	0	0	0	1	3	2	0
	BUSES	0	1	0	4	0	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	4	(0)	
	PEDS	North Side		49	East Side		13	South Side		148	West Side		10
13:15	CARS	1	11	4	65	0	2	2	4	5	94	4	6
	DUALS	0	0	1	4	0	0	0	0	1	1	2	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		70	East Side		5	South Side		57	West Side		7
13:30	CARS	2	5	1	65	3	3	4	6	4	105	3	2
	DUALS	0	0	1	1	0	0	0	0	0	0	1	0
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	5	(0)	
	PEDS	North Side		73	East Side		4	South Side		83	West Side		6
13:45	CARS	1	1	4	85	4	3	3	7	3	91	2	2
	DUALS	0	0	0	7	0	0	0	0	0	1	2	0
	BUSES	0	1	0	1	0	1	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	4	(0)	
	PEDS	North Side		76	East Side		4	South Side		60	West Side		2
14:00	CARS	4	4	1	66	1	1	2	3	0	107	4	3
	DUALS	0	0	0	4	0	0	0	1	1	3	2	0
	BUSES	0	0	0	3	0	0	0	0	0	1	0	1
	BIKE (OTHER)		0	(0)		5	(0)		1	(0)	1	(0)	
	PEDS	North Side		59	East Side		7	South Side		56	West Side		2
14:15	CARS	2	8	4	91	1	6	1	9	1	91	6	3
	DUALS	0	0	0	3	0	0	0	0	1	0	1	0
	BUSES	0	1	0	1	0	1	0	0	0	2	0	1
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	1	(0)	
	PEDS	North Side		47	East Side		2	South Side		64	West Side		1



#### FREDERICK ST AT FRONT ST E

Survey Date: Dec-06-2017 (Wednesday)

Time Period		NORTI Thru F	H BOU Right	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTI Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Left	
14:30	CARS	2	5	2	84	3	2	2	10	2	94	2	2
	DUALS	0	0	0	5	0	1	0	0	0	3	0	0
	BUSES	0	0	0	3	0	1	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		39	East Side		4	South Side		76	West Side		3
14:45	CARS	2	6	4	100	2	2	1	11	5	116	6	3
	DUALS	0	0	0	2	0	0	2	0	1	3	1	0
	BUSES	0	0	0	1	0	1	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	4	(0)	
	PEDS	North Side		50	East Side		6	South Side		69	West Side		5
15:00	CARS	3	4	0	90	0	8	1	6	3	112	2	1
	DUALS	0	0	0	2	0	1	0	1	0	2	1	0
	BUSES	0	0	0	5	0	0	1	0	0	1	0	0
	BIKE (OTHER)		0	(0)		6	(0)		1	(0)	2	(0)	
	PEDS	North Side		48	East Side		7	South Side		52	West Side		2
16:15	CARS	0	5	0	134	2	7	2	8	5	120	2	4
10.15	DUALS	0	0	0	0	0	0	0	0	1	1	0	0
	BUSES	0	0	0	0	0	1	0	0	0	5	0	2
	BIKE (OTHER)		0	(0)		4	(0)		1	(0)	2	(0)	
	PEDS	North Side		64	East Side		15	South Side		47	West Side		7
16:30	CARS	1	16	1	139	3	4	1	4	2	124	6	9
	DUALS	0	0	0	2	0	0	0	0	0	1	0	1
	BUSES	0	0	0	2	0	0	0	0	0	4	1	0
	BIKE (OTHER)		1	(0)		5	(0)		1	(0)	4	(0)	
	PEDS	North Side		79	East Side		13	South Side		94	West Side		7
16:45	CARS	0	11	0	147	1	6	1	12	4	133	7	8
	DUALS	0	0	0	2	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	2	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		6	(0)		0	(0)	3	(0)	
	PEDS	North Side		78	East Side		10	South Side		73	West Side		6
17:00	CARS	1	10	3	144	1	4	0	8	4	134	5	4
	DUALS	0	0	0	2	0	0	0	0	0	4	0	0
	BUSES	0	0	0	5	0	1	0	0	0	2	0	1
	BIKE (OTHER)		1	(0)		6	(0)		0	(0)	5	(0)	
	PEDS	North Side		67	East Side		19	South Side		124	West Side		13



#### FREDERICK ST AT FRONT ST E

Survey Date: Dec-06-2017 (Wednesday)

Time		NOR		UND	EAS		ID	SOUTH	I BOU	ND	WEST	BOUND	
Period		Inru	Right	Leπ	Inru	Right	Lett		light	Left	Inru R	ignt Left	
17:15	CARS	1	10	3	178	0	2	3	5	2	122	8	4
	DUALS	0	0	1	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	1	0	1	0	0	0	3	0	2
	BIKE (OTHER)		0	(0)		5	(0)		1	(0)	3	(0)	
	PEDS	North Side	•	111	East Side		16	South Side		99	West Side		3
17:30	CARS	3	7	1	185	1	5	3	7	2	120	5	5
	DUALS	0	0	0	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	2	0	2	0	0	0	5	0	1
	BIKE (OTHER)		0	(0)		7	(0)		2	(0)	5	(0)	
	PEDS	North Side	)	93	East Side		16	South Side		84	West Side		5
17:45	CARS	4	17	3	169	2	7	1	10	4	143	10	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	1	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	2	(0)	
	PEDS	North Side	)	91	East Side		11	South Side		113	West Side		6
18:00	CARS	3	11	1	178	1	4	0	4	3	146	8	3
	DUALS	0	0	0	5	0	0	1	0	0	1	0	0
	BUSES	0	0	0	5	0	2	0	0	0	4	0	3
	BIKE (OTHER)		0	(0)		10	(0)		0	(0)	5	(0)	
	PEDS	North Side	•	70	East Side		11	South Side		96	West Side		2



#### FRONT ST AT PARLIAMENT ST (PX 244)

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Survey Date: Aug-22-2019 (Thursday)
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Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	37	11	8	31	6	5	26	5	12	164	2	13
	DUALS	8	1	2	2	0	0	6	0	1	13	1	1
	BUSES	0	0	1	2	0	1	0	1	1	1	0	0
	BIKE (OTHER)		4	(0)		1	(0)		5	(0)	2	(0)	
	PEDS	North Side		13	East Side		27	South Side		4	West Side		10
08:00	CARS	49	32	8	45	6	4	40	10	6	138	4	21
	DUALS	13	3	2	5	1	0	6	0	0	7	1	0
	BUSES	0	0	1	1	0	1	1	1	0	0	0	0
	BIKE (OTHER)		8	(0)		1	(0)		4	(0)	5	(0)	
	PEDS	North Side		21	East Side		34	South Side		10	West Side		15
08:15	CARS	47	26	16	48	4	5	40	12	8	197	7	24
	DUALS	10	1	0	3	1	0	5	1	1	9	0	2
	BUSES	0	0	1	1	0	1	1	1	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		2	(0)	3	(0)	
	PEDS	North Side		4	East Side		24	South Side		11	West Side		14
08:30	CARS	42	26	18	52	7	6	64	7	16	212	7	33
	DUALS	6	0	2	1	0	0	6	0	1	9	1	1
	BUSES	1	1	2	1	0	2	0	1	0	0	0	0
	BIKE (OTHER)		6	(0)		1	(0)		4	(0)	6	(0)	
	PEDS	North Side		16	East Side		28	South Side		19	West Side		10
08:45	CARS	53	18	16	57	6	3	51	15	13	180	5	27
	DUALS	12	3	2	3	0	0	5	1	0	9	0	2
	BUSES	1	0	1	1	0	1	0	1	0	0	0	0
	BIKE (OTHER)		3	(0)		4	(0)		7	(0)	5	(0)	
	PEDS	North Side		20	East Side		28	South Side		16	West Side		14
09:00	CARS	52	18	22	66	8	7	57	10	13	181	13	47
	DUALS	10	3	0	2	2	0	6	1	2	7	2	1
	BUSES	2	0	2	1	0	1	0	2	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	7	(0)	
	PEDS	North Side		14	East Side		35	South Side		26	West Side		19
09:15	CARS	64	33	21	78	4	10	34	7	12	167	8	44
	DUALS	5	4	3	4	0	0	8	1	2	7	2	1
	BUSES	0	1	2	2	0	1	1	2	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		2	(0)	10	(0)	
	PEDS	North Side		39	East Side		38	South Side		18	West Side		10



#### FRONT ST AT PARLIAMENT ST (PX 244)

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Survey Date: Aug-22-2019 (Thursday)
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Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	:
09:30	CARS	65	26	16	44	5	9	52	10	13	162	6	19
	DUALS	11	5	2	3	1	2	8	0	1	8	0	1
	BUSES	0	0	0	1	0	1	0	1	0	0	0	0
	BIKE (OTHER)		2	(0)		3	(0)		3	(0)	8	(0)	
	PEDS	North Side		10	East Side		23	South Side		12	West Side		25
10:15	CARS	49	26	14	62	10	16	48	13	6	105	5	11
	DUALS	8	2	0	3	3	0	8	0	2	7	1	2
	BUSES	1	0	1	1	0	1	0	1	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		3	(0)	2	(0)	
	PEDS	North Side		15	East Side		28	South Side		14	West Side		42
10:30	CARS	55	25	20	71	5	4	38	9	8	82	11	15
	DUALS	10	0	5	4	2	1	18	1	0	9	0	1
	BUSES	0	0	1	1	0	1	0	1	0	1	0	0
	BIKE (OTHER)		2	(0)		3	(0)		2	(0)	1	(0)	
	PEDS	North Side		13	East Side		22	South Side		13	West Side		9
10:45	CARS	37	24	10	60	9	5	41	6	10	77	8	19
	DUALS	10	5	0	5	1	1	5	4	1	5	1	2
	BUSES	0	0	1	2	0	1	1	2	0	1	0	0
	BIKE (OTHER)		1	(0)		7	(0)		0	(0)	5	(0)	
	PEDS	North Side		16	East Side		30	South Side		20	West Side		18
11:00	CARS	49	36	10	52	4	15	59	12	9	88	15	13
	DUALS	5	3	0	7	2	0	11	1	0	14	0	1
	BUSES	1	0	0	2	0	1	2	1	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		25	East Side		34	South Side		14	West Side		13
11:15	CARS	58	23	17	60	8	12	60	10	7	93	7	28
	DUALS	8	4	1	9	0	1	11	3	1	6	0	1
	BUSES	0	0	1	3	0	1	0	1	0	0	0	0
	BIKE (OTHER)		6	(0)		2	(0)		8	(0)	2	(0)	
	PEDS	North Side		11	East Side		20	South Side		25	West Side		26
11:30	CARS	62	21	12	62	8	8	46	8	8	119	6	38
	DUALS	6	3	1	8	0	0	13	0	1	10	1	6
	BUSES	0	0	1	4	0	1	0	1	0	1	0	0
	BIKE (OTHER)		5	(0)		4	(0)		1	(0)	4	(0)	
	PEDS	North Side		19	East Side		18	South Side		22	West Side		9



#### FRONT ST AT PARLIAMENT ST (PX 244)

Survey Date: Aug-22-2019 (Thursday)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUN light	ND Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	53	33	14	82	11	10	59	14	9	117	11	27
	DUALS	8	8	3	11	1	1	6	1	1	10	0	4
	BUSES	0	0	1	2	0	2	0	1	0	1	0	0
	BIKE (OTHER)		2	(0)		4	(0)		6	(0)	6	(0)	
	PEDS	North Side		29	East Side		36	South Side		29	West Side		22
12:00	CARS	43	20	15	72	16	9	77	7	14	112	8	22
	DUALS	2	3	0	3	2	3	7	1	0	7	2	3
	BUSES	1	0	0	0	0	1	0	1	0	0	0	0
	BIKE (OTHER)		1	(0)		3	(0)		4	(0)	2	(0)	
	PEDS	North Side		14	East Side		21	South Side		24	West Side		24
13:15	CARS	60	26	8	63	8	14	70	11	13	86	11	10
	DUALS	6	4	0	7	2	0	11	2	2	3	1	4
	BUSES	0	0	0	2	1	2	0	1	0	0	0	0
	BIKE (OTHER)		3	(0)		3	(0)		4	(0)	1	(0)	
	PEDS	North Side		19	East Side		27	South Side		19	West Side		35
13:30	CARS	60	22	14	75	12	5	54	13	11	83	10	22
	DUALS	7	6	2	8	4	0	7	2	0	6	0	1
	BUSES	1	0	1	2	0	1	0	1	0	0	0	1
	BIKE (OTHER)		2	(0)		2	(0)		4	(0)	2	(0)	
	PEDS	North Side		47	East Side		31	South Side		32	West Side		32
13:45	CARS	54	23	13	69	6	12	63	16	13	65	3	17
	DUALS	3	0	3	14	1	0	14	6	2	7	0	1
	BUSES	1	0	1	3	0	1	0	1	0	0	0	1
	BIKE (OTHER)		3	(0)		3	(0)		4	(0)	8	(0)	
	PEDS	North Side		25	East Side		32	South Side		25	West Side		21
14:00	CARS	51	18	5	87	6	9	57	12	9	80	7	14
	DUALS	6	3	0	7	4	1	8	2	1	7	0	0
	BUSES	0	0	0	4	0	1	0	1	0	0	0	0
	BIKE (OTHER)		7	(0)		2	(0)		6	(0)	1	(0)	
	PEDS	North Side		14	East Side		27	South Side		21	West Side		27
14:15	CARS	51	31	12	87	14	9	54	11	13	83	11	13
	DUALS	7	3	1	5	2	2	9	4	1	1	2	1
	BUSES	0	0	1	1	0	1	0	2	0	0	0	1
	BIKE (OTHER)		3	(0)		5	(0)		4	(0)	2	(0)	
	PEDS	North Side		32	East Side		28	South Side		37	West Side		24



### FRONT ST AT PARLIAMENT ST (PX 244)

Survey Date: Aug-22-2019 (Thursday)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	52	31	10	82	10	6	79	17	10	120	24	6
	DUALS	4	4	1	6	2	3	8	2	0	6	2	1
	BUSES	0	0	1	3	0	1	0	1	0	1	0	0
	BIKE (OTHER)		0	(0)		5	(0)		10	(0)	1	(0)	
	PEDS	North Side		28	East Side		44	South Side		15	West Side		34
14:45	CARS	57	35	26	77	12	9	82	9	10	106	13	37
	DUALS	4	4	0	10	1	2	16	3	1	5	0	1
	BUSES	0	0	1	1	0	1	1	1	0	1	0	1
	BIKE (OTHER)		1	(0)		10	(0)		3	(0)	4	(0)	
	PEDS	North Side		32	East Side		28	South Side		35	West Side		14
15:00	CARS	60	27	19	116	19	10	61	10	4	107	13	22
	DUALS	7	3	1	13	2	0	11	1	1	5	0	0
	BUSES	0	1	1	1	0	2	2	1	0	0	0	0
	BIKE (OTHER)		5	(0)		5	(0)		7	(0)	1	(0)	
	PEDS	North Side		10	East Side		25	South Side		18	West Side		10
16:15	CARS	63	31	24	109	18	10	66	13	13	79	7	31
	DUALS	6	0	0	6	1	0	7	0	1	6	0	1
	BUSES	1	1	0	3	0	1	0	2	0	0	0	0
	BIKE (OTHER)		6	(0)		8	(0)		7	(0)	5	(0)	
	PEDS	North Side		22	East Side		34	South Side		35	West Side		35
16:30	CARS	72	42	18	120	13	11	57	14	14	89	9	27
	DUALS	3	2	0	5	1	1	8	0	1	6	1	2
	BUSES	0	0	0	3	0	1	0	1	0	0	0	0
	BIKE (OTHER)		2	(0)		6	(0)		5	(0)	4	(0)	
	PEDS	North Side		29	East Side		36	South Side		44	West Side		30
16:45	CARS	74	41	21	159	17	12	53	6	13	111	5	22
	DUALS	4	2	0	4	1	1	7	0	1	3	0	2
	BUSES	0	1	0	2	0	2	0	2	0	0	0	0
	BIKE (OTHER)		1	(0)		6	(0)		8	(0)	3	(0)	
	PEDS	North Side		37	East Side		46	South Side		20	West Side		31
17:00	CARS	60	37	11	141	20	14	62	12	10	104	9	37
	DUALS	1	3	0	6	3	0	4	1	1	4	0	0
	BUSES	0	1	3	3	0	1	0	1	0	0	0	0
	BIKE (OTHER)		6	(0)		7	(0)		14	(0)	7	(0)	
	PEDS	North Side		27	East Side		41	South Side		26	West Side		29



# Intersection Detailed 15 Minutes Movement Report

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Survey Date:
               Aug-22-2019 (Thursday)
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Time Period		NORT Thru	H BOI Right	UND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	86	10	8	37	9	4	143	22	3	129	4	30
	DUALS	15	0	3	5	3	1	11	1	1	9	1	1
	BUSES	0	0	0	0	0	0	0	1	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	2	(0)	
	PEDS	North Side		41	East Side		30	South Side		45	West Side		34
08:00	CARS	102	4	12	41	14	7	142	13	8	117	3	16
	DUALS	17	3	1	4	2	0	12	0	0	12	0	2
	BUSES	0	0	0	1	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		40	East Side		42	South Side		52	West Side		39
08:15	CARS	89	14	7	37	18	8	156	22	9	116	7	26
	DUALS	13	2	1	3	2	0	9	1	1	6	1	1
	BUSES	0	0	0	2	0	1	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	1	(0)	
	PEDS	North Side		54	East Side		38	South Side		81	West Side		57
)8:30	CARS	104	6	11	31	4	10	145	18	3	133	7	28
	DUALS	10	0	1	2	1	0	10	2	0	5	0	1
	BUSES	0	0	0	1	0	0	0	0	0	2	0	1
	BIKE (OTHER)		3	(0)		5	(0)		1	(0)	3	(0)	
	PEDS	North Side		99	East Side		57	South Side		117	West Side		71
08:45	CARS	99	8	17	40	15	5	153	17	7	118	3	23
	DUALS	16	2	0	2	2	0	6	0	0	10	0	2
	BUSES	1	0	0	2	0	0	0	0	1	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		5	(0)	2	(0)	
	PEDS	North Side		94	East Side		68	South Side		144	West Side		108
09:00	CARS	97	9	13	54	12	11	164	18	6	106	8	32
	DUALS	9	1	1	3	1	1	10	1	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	2
	BIKE (OTHER)		2	(0)		3	(0)		1	(0)	5	(0)	
	PEDS	North Side		118	East Side		75	South Side		138	West Side		117
09:15	CARS	123	17	9	51	13	9	165	21	3	117	5	16
	DUALS	16	0	2	0	0	0	11	1	0	8	1	2
	BUSES	0	0	0	2	0	0	1	0	0	3	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	5	(0)	
	PEDS	North Side		85	East Side		65	South Side		137	West Side		129



# Intersection Detailed 15 Minutes Movement Report

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Aug-22-2019 (Thursday)
Survey Date:
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Time Period		NORT Thru	H BOl Right	JND Left	EAS Thru	ST BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lef	ft
09:30	CARS	103	14	21	47	12	11	177	16	6	93	5	12
	DUALS	14	3	2	3	1	1	13	2	1	11	0	0
	BUSES	0	0	1	2	0	0	2	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	6	(0)	
	PEDS	North Side		92	East Side		53	South Side		96	West Side		160
10:15	CARS	100	13	21	55	15	11	142	20	8	81	5	10
	DUALS	13	2	2	2	1	1	10	2	0	5	2	6
	BUSES	0	0	0	2	0	2	1	0	0	1	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
10:30	CARS	102	10	16	63	12	8	161	19	12	73	5	12
	DUALS	16	3	2	2	2	1	13	1	0	6	1	1
	BUSES	0	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
10:45	CARS	99	14	20	49	13	11	155	22	4	64	3	16
	DUALS	20	0	3	6	2	0	15	1	1	8	0	0
	BUSES	1	0	0	0	1	0	1	0	0	1	0	2
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	5	(0)	
	PEDS	North Side		85	East Side		44	South Side		98	West Side		135
11:00	CARS	109	15	10	53	16	10	141	17	9	61	12	12
	DUALS	13	1	2	1	1	1	14	1	0	11	0	0
	BUSES	0	0	0	2	1	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		6	(0)		2	(0)	5	(0)	
	PEDS	North Side		89	East Side		38	South Side		99	West Side		141
11:15	CARS	92	13	8	42	13	6	114	22	6	85	4	7
	DUALS	9	3	3	4	1	1	12	2	0	5	0	1
	BUSES	0	0	0	2	1	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	7	(0)	
	PEDS	North Side		64	East Side		45	South Side		97	West Side		156
11:30	CARS	87	11	8	53	7	14	108	24	3	92	7	16
	DUALS	12	0	2	8	7	1	14	1	0	9	0	0
	BUSES	0	0	0	2	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	9	(0)	
	PEDS	North Side		72	East Side		50	South Side		139	West Side		142



### Intersection Detailed 15 Minutes Movement Report

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Aug-22-2019 (Thursday)
Survey Date:
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Time Period		NORT Thru	'H BOl Right	JND Left	EAS Thru	EAST BOUND Thru Right Left				ND Left	WEST BOUND Thru Right Left			
11:45	CARS	93	15	15	71	20	11	106	27	4	83	4	15	
	DUALS	12	3	1	5	1	1	11	1	1	8	0	0	
	BUSES	0	0	0	1	1	0	0	0	0	1	0	0	
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	4	(0)		
	PEDS	North Side	·	73	East Side		65	South Side		144	West Side		159	
12:00	CARS	96	11	12	60	15	11	111	21	6	58	5	9	
	DUALS	13	3	9	7	3	0	11	3	1	10	0	1	
	BUSES	0	0	0	0	0	1	0	0	0	1	0	0	
	BIKE (OTHER)		2	(0)		3	(0)		5	(0)	4	(0)		
	PEDS	North Side	·	68	East Side		94	South Side		154	West Side		185	
13:15	CARS	113	16	9	55	14	10	150	13	5	72	5	13	
	DUALS	10	3	1	4	1	1	15	3	1	5	0	0	
	BUSES	1	0	0	1	1	0	0	0	0	0	0	0	
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	3	(0)		
	PEDS	North Side	·	164	East Side		112	South Side		227	West Side		345	
13:30	CARS	119	12	14	58	14	12	134	25	5	83	7	15	
	DUALS	11	0	1	8	0	1	10	1	1	5	1	2	
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0	
	BIKE (OTHER)		6	(0)		8	(0)		1	(0)	1	(0)		
	PEDS	North Side		145	East Side		96	South Side		236	West Side		367	
13:45	CARS	98	16	11	51	6	16	120	16	7	67	8	20	
	DUALS	7	3	4	6	1	1	10	2	1	9	0	1	
	BUSES	0	0	0	2	1	0	0	0	0	0	0	0	
	BIKE (OTHER)		5	(0)		4	(0)		3	(0)	8	(0)		
	PEDS	North Side	·	131	East Side		108	South Side		223	West Side		146	
14:00	CARS	109	18	19	59	9	7	130	20	5	74	9	11	
	DUALS	5	1	2	12	1	5	15	0	0	8	0	2	
	BUSES	0	0	0	2	1	0	0	0	0	0	0	0	
	BIKE (OTHER)		1	(0)		5	(0)		4	(0)	8	(0)		
	PEDS	North Side	·	130	East Side		85	South Side		222	West Side		174	
14:15	CARS	108	15	23	68	18	10	107	14	10	73	4	15	
	DUALS	8	1	0	6	1	1	16	0	2	3	0	1	
	BUSES	0	0	0	1	1	0	0	0	0	0	0	0	
	BIKE (OTHER)		1	(0)		4	(0)		4	(0)	1	(0)		
	PEDS	North Side		104	East Side		95	South Side		155	West Side		158	



# Intersection Detailed 15 Minutes Movement Report

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Survey Date:
               Aug-22-2019 (Thursday)
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Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	EAST BOUND Thru Right Left				ND Left	WEST BOUND Thru Right Left			
14:30	CARS	114	12	12	54	5	20	90	24	7	87	4	10	
	DUALS	5	0	2	7	1	0	22	2	1	9	2	1	
	BUSES	0	0	0	1	0	0	1	0	0	1	0	0	
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)		
	PEDS	North Side		112	East Side		90	South Side		202	West Side		138	
14:45	CARS	90	9	8	60	8	10	83	15	5	92	6	12	
	DUALS	6	1	1	3	1	2	15	2	2	5	3	1	
	BUSES	2	0	0	2	0	0	1	0	0	0	0	0	
	BIKE (OTHER)		2	(0)		5	(0)		3	(0)	2	(0)		
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0	
15:00	CARS	82	10	6	74	12	8	70	15	6	117	10	4	
	DUALS	4	1	0	6	0	1	13	1	0	6	0	1	
	BUSES	1	0	0	1	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		4	(0)		6	(0)		2	(0)	5	(0)		
	PEDS	North Side		95	East Side		64	South Side		171	West Side		120	
16:15	CARS	89	11	13	63	6	13	69	10	6	104	6	4	
	DUALS	6	2	0	1	0	2	5	0	0	8	0	0	
	BUSES	0	0	0	2	0	0	0	0	0	2	0	0	
	BIKE (OTHER)		1	(0)		9	(0)		4	(0)	2	(0)		
	PEDS	North Side		92	East Side		83	South Side		221	West Side		184	
16:30	CARS	78	8	15	107	7	16	57	8	7	108	7	1	
	DUALS	8	1	2	3	0	0	5	1	0	10	0	0	
	BUSES	0	0	0	1	0	1	0	0	0	0	0	0	
	BIKE (OTHER)		1	(0)		16	(0)		1	(0)	5	(0)		
	PEDS	North Side		86	East Side		82	South Side		217	West Side		110	
16:45	CARS	100	19	16	94	8	4	48	22	2	124	5	6	
	DUALS	4	2	0	2	0	1	5	0	0	6	0	0	
	BUSES	2	0	0	1	2	0	0	0	0	1	0	0	
	BIKE (OTHER)		3	(0)		11	(0)		3	(0)	5	(0)		
	PEDS	North Side		112	East Side		100	South Side		234	West Side		154	
17:00	CARS	110	13	14	111	4	14	64	18	3	130	6	7	
	DUALS	9	1	0	3	1	0	6	0	0	7	0	1	
	BUSES	0	0	0	3	0	0	0	0	0	1	0	0	
	BIKE (OTHER)		1	(0)		13	(0)		5	(0)	2	(0)		
	PEDS	North Side		137	East Side		86	South Side		223	West Side		150	



# Intersection Detailed 15 Minutes Movement Report

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Survey Date:
               Aug-22-2019 (Thursday)
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Time		NOR	UND	EAS	EAST BOUND Thru Right Left				ND	WEST BOUND			
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru I	light Lef	ft
17:15	CARS	109	18	10	99	6	6	38	20	7	107	3	7
	DUALS	3	0	0	1	0	0	3	0	0	8	0	1
	BUSES	0	0	0	1	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		13	(0)		2	(0)	5	(0)	
	PEDS	North Side	) 	118	East Side		83	South Side		274	West Side		141
17:30	CARS	97	13	7	86	7	16	43	12	8	103	3	3
	DUALS	4	0	0	0	0	1	2	0	0	3	0	0
	BUSES	0	0	0	2	0	0	0	0	1	1	1	0
	BIKE (OTHER)		3	(0)		14	(0)		2	(0)	6	(0)	
	PEDS	North Side	) 	139	East Side		55	South Side		254	West Side		156
17:45	CARS	113	17	17	106	6	13	110	19	1	127	3	11
	DUALS	3	0	1	2	0	1	1	0	0	3	1	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		5	(0)		2	(0)		2	(0)	5	(0)	
	PEDS	North Side	)	173	East Side		107	South Side		244	West Side		160
18:00	CARS	98	15	22	82	8	25	40	8	4	111	4	12
	DUALS	4	1	1	3	0	0	3	1	0	2	0	1
	BUSES	0	0	1	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		5	(0)		11	(0)		2	(0)	3	(0)	
	PEDS	North Side	•	155	East Side		90	South Side		221	West Side		139



#### GEORGE ST AT KING ST E (PX 1965)

Survey Date: May-17-2017 (Wednesday)

Survey Type:	Routine Hours
ourvey rype.	routine riours

Time Period		NORTH Thru R	JND Left	EAS <sup>-</sup> Thru	EAST BOUND Thru Right Left			l BOU light	ND Left	WEST BOUND Thru Right Left			
07:45	CARS	9	1	5	31	0	2	3	4	1	59	4	1
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	8	0	0	0	0	0	12	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	11	(0)	
	PEDS	North Side		123	East Side		43	South Side		79	West Side		19
08:00	CARS	7	1	6	39	1	1	9	6	4	85	7	1
	DUALS	0	0	0	1	0	0	0	0	0	2	0	0
	BUSES	0	0	0	8	0	0	0	0	0	10	0	1
	BIKE (OTHER)		1	(0)		2	(0)		2	(0)	20	(0)	
	PEDS	North Side		275	East Side		67	South Side		86	West Side		43
08:15	CARS	7	0	10	45	9	1	20	9	4	85	6	0
	DUALS	0	0	0	1	0	0	0	0	0	7	0	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	16	(0)	
	PEDS	North Side		171	East Side		86	South Side		115	West Side		12
08:30	CARS	14	1	14	46	7	1	9	15	1	125	6	0
	DUALS	0	0	1	2	0	0	0	0	0	1	1	0
	BUSES	0	0	0	10	0	0	0	0	0	9	0	0
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	14	(0)	
	PEDS	North Side		146	East Side		45	South Side		139	West Side		24
08:45	CARS	11	1	8	53	3	0	15	5	3	109	2	0
	DUALS	0	0	0	0	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	1	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		4	(0)		4	(0)	21	(0)	
	PEDS	North Side		166	East Side		54	South Side		149	West Side		23
09:00	CARS	11	1	6	56	7	0	24	10	6	103	10	0
	DUALS	1	0	1	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	7	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		4	(0)		3	(0)	31	(0)	
	PEDS	North Side		242	East Side		84	South Side		184	West Side		32
09:15	CARS	10	4	5	47	4	3	13	9	4	112	8	0
	DUALS	0	0	0	0	0	0	0	0	0	1	1	0
	BUSES	0	0	0	9	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		4	(0)		5	(0)	13	(0)	
	PEDS	North Side		159	East Side		64	South Side		115	West Side		36



#### GEORGE ST AT KING ST E (PX 1965)

Survey Date: May-17-2017 (Wednesday)

Survey Type:	Routine Hours

Time Period		NORTH Thru R	l BOl ight	JND Left	EAS <sup>-</sup> Thru	EAST BOUND Thru Right Left			l BOUI ight	ND Left	WEST BOUND Thru Right Left		
09:30	CARS	15	2	9	50	4	2	19	7	2	83	13	2
	DUALS	1	1	0	0	0	0	1	0	0	4	0	0
	BUSES	0	0	0	9	0	0	0	0	0	2	1	0
	BIKE (OTHER)		1	(0)		3	(0)		3	(0)	20	(0)	
	PEDS	North Side		130	East Side		49	South Side		94	West Side		33
10:15	CARS	17	2	6	39	3	0	16	3	4	52	5	1
	DUALS	1	0	0	0	1	0	0	0	0	2	0	0
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		2	(0)		4	(0)	6	(0)	
	PEDS	North Side		95	East Side		35	South Side		66	West Side		17
10:30	CARS	12	2	5	48	4	2	9	6	3	66	3	1
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		3	(0)		2	(0)	7	(0)	
	PEDS	North Side		88	East Side		36	South Side		51	West Side		17
10:45	CARS	9	1	5	33	5	2	3	5	4	59	5	0
	DUALS	0	0	0	2	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	7	(0)	
	PEDS	North Side		93	East Side		34	South Side		63	West Side		32
11:00	CARS	7	3	8	36	5	0	7	6	4	63	7	0
	DUALS	1	0	0	3	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	8	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	7	(0)	
	PEDS	North Side		108	East Side		55	South Side		61	West Side		35
11:15	CARS	19	2	5	59	3	3	7	8	3	54	4	3
	DUALS	0	0	0	0	0	1	0	1	0	2	0	0
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		4	(0)		1	(0)	6	(0)	
	PEDS	North Side		99	East Side		57	South Side		66	West Side		27
11:30	CARS	10	2	2	49	4	0	15	5	4	45	4	1
	DUALS	0	0	0	3	0	0	1	0	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	7	(0)	
	PEDS	North Side		103	East Side		80	South Side		75	West Side		27



#### GEORGE ST AT KING ST E (PX 1965)

Survey Date: May-17-2017 (Wednesday)

Survey Ty	vpe: Routine H	lours											
Time Period		NORTH Thru R	l BO ight	UND Left	EAS Thru	ST BOU Right	ND Left	SOUT Thru I	H BOL Right	JND Left	WES <sup>-</sup> Thru	T BOUND Right Lef	t
11:45	CARS	6	4	3	35	7	3	8	8	4	64	9	3
	DUALS	0	0	0	0	0	0	0	0	0	5	0	C
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		2	(0)		4	(0)	5	(0)	
	PEDS	North Side		150	East Side		61	South Side		65	West Side		25
12:00	CARS	13	5	4	46	2	2	12	11	3	55	10	1
	DUALS	0	0	0	2	0	0	0	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Side		183	East Side		77	South Side		107	West Side		37
13:15	CARS	10	6	7	46	7	5	12	2	3	57	7	2
	DUALS	2	1	0	3	0	0	0	1	0	3	0	C
	BUSES	0	0	0	2	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		8	(0)		3	(0)	6	(0)	
	PEDS	North Side		158	East Side		101	South Side		112	West Side		52
13:30	CARS	14	2	7	46	8	3	9	7	3	55	3	2
	DUALS	1	0	0	0	0	1	1	1	0	4	0	C
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		9	(0)		3	(0)	7	(0)	
	PEDS	North Side		190	East Side		80	South Side		107	West Side		46
13:45	CARS	17	4	6	52	5	3	12	5	3	55	4	1
	DUALS	0	1	0	4	0	0	0	0	1	1	0	C
	BUSES	0	0	0	3	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	7	(0)	
	PEDS	North Side		182	East Side		84	South Side		96	West Side		37
14:00	CARS	12	5	4	39	1	3	13	2	3	50	7	2
	DUALS	1	0	0	0	1	0	1	0	0	0	0	C
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		3	(0)		4	(0)	7	(0)	
	PEDS	North Side		196	East Side		51	South Side		90	West Side		43
14:15	CARS	21	4	13	56	2	2	8	9	3	57	2	3
	DUALS	1	0	1	0	0	0	3	0	1	0	0	1
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		6	(0)		1	(0)	6	(0)	
	PEDS	North Side		340	East Side		84	South Side		42	West Side		37



#### GEORGE ST AT KING ST E (PX 1965)

Survey Date: May-17-2017 (Wednesday)

Survey Type: Routine Hours

Time Period		NORTH Thru R	JND Left	EAS Thru	EAST BOUND Thru Right Left			BOU ight	ND Left	WEST BOUND Thru Right Left			
14:30	CARS	19	1	8	52	1	1	13	1	3	52	3	1
	DUALS	1	0	0	2	0	0	0	0	0	1	2	1
	BUSES	0	0	0	3	0	0	1	0	0	3	0	0
	BIKE (OTHER)		1	(0)		4	(0)		1	(0)	7	(0)	
	PEDS	North Side		263	East Side		79	South Side		40	West Side		43
14:45	CARS	26	2	7	56	8	4	15	4	2	40	8	1
	DUALS	0	0	2	0	0	0	0	0	0	2	0	1
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		5	(0)		5	(0)		1	(0)	5	(0)	
	PEDS	North Side		346	East Side		76	South Side		31	West Side		47
15:00	CARS	30	5	8	50	4	6	15	3	5	53	4	0
	DUALS	0	0	0	5	0	0	1	0	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	5	(0)	
	PEDS	North Side		361	East Side		142	South Side		48	West Side		32
16:15	CARS	12	2	4	82	6	0	22	6	0	60	7	1
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	10	0	0	0	0	0	10	0	0
	BIKE (OTHER)		1	(0)		10	(0)		1	(0)	13	(0)	
	PEDS	North Side		124	East Side		41	South Side		93	West Side		32
16:30	CARS	14	2	4	95	8	1	16	8	1	65	7	0
	DUALS	0	0	0	0	0	0	1	0	1	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	8	0	0
	BIKE (OTHER)		3	(0)		8	(0)		2	(0)	8	(0)	
	PEDS	North Side		145	East Side		44	South Side		72	West Side		35
16:45	CARS	11	2	3	96	7	1	12	6	2	48	4	2
	DUALS	1	0	0	3	0	0	0	1	0	0	0	0
	BUSES	0	0	0	9	0	0	1	0	0	10	0	0
	BIKE (OTHER)		5	(0)		19	(0)		0	(0)	6	(0)	
	PEDS	North Side		133	East Side		37	South Side		88	West Side		35
17:00	CARS	14	1	6	84	12	0	18	8	5	67	6	0
	DUALS	0	0	0	0	0	0	3	0	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		15	(0)		4	(0)	5	(0)	
	PEDS	North Side		127	East Side		38	South Side		102	West Side		48

Page 4 of 5



#### GEORGE ST AT KING ST E (PX 1965)

Survey Date: May-17-2017 (Wednesday)

Survey Typ	e: Ro	outine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>.</sup> Thru	TH BOL Right	IND Left	WES Thru	ST BOUND Right Lef	t
17:15	CARS		10	1	5	89	19	0	20	6	4	90	7	1
	DUALS		1	0	0	1	0	0	0	0	0	0	1	0
	BUSES		0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHE	R)		3	(0)		27	(0)		5	(0)	9	(0)	
	PEDS	No	orth Sid	le	216	East Side		38	South Side	)	119	West Side		43
17:30	CARS		25	4	14	126	16	2	33	5	0	76	3	1
	DUALS		0	0	0	1	0	0	0	0	0	1	0	0
	BUSES		0	0	0	5	0	0	0	0	0	11	0	0
	BIKE (OTHE	R)		3	(0)		21	(0)		1	(0)	6	(0)	
	PEDS	No No	orth Sid	le	212	East Side		69	South Side	)	136	West Side		34
17:45	CARS		19	1	10	139	15	2	17	4	8	61	9	0
	DUALS		0	0	0	3	0	0	0	0	0	0	0	0
	BUSES		0	0	0	4	1	0	0	0	0	6	0	0
	BIKE (OTHE	R)		4	(0)		11	(0)		2	(0)	8	(0)	
	PEDS	No	orth Sid	le	215	East Side		54	South Side	)	107	West Side		32
18:00	CARS		21	5	7	105	14	5	29	16	4	69	9	0
	DUALS		0	0	0	2	0	0	0	0	0	1	0	0
	BUSES		0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHE	R)		2	(0)		15	(0)		2	(0)	4	(0)	
	PEDS	No	orth Sid	le	214	East Side		60	South Side	9	137	West Side		46
						·								



#### **GERRARD ST AT MARJORY AVE (PX 1698)**

**Routine Hours** 

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Survey Date:
               May-15-2017 (Monday)
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#### Intersection Detailed 15 Minutes Movement Report

#### **GERRARD ST AT MARJORY AVE (PX 1698)**

**Routine Hours** 

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Survey Date: May-15-2017 (Monday)
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Page 2 of 5



#### Intersection Detailed 15 Minutes Movement Report

#### **GERRARD ST AT MARJORY AVE (PX 1698)**

**Routine Hours** 

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Survey Date: May-15-2017 (Monday)
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#### Intersection Detailed 15 Minutes Movement Report

#### **GERRARD ST AT MARJORY AVE (PX 1698)**

**Routine Hours** 

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Survey Date: May-15-2017 (Monday)
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### Intersection Detailed 15 Minutes Movement Report

#### GERRARD ST AT MARJORY AVE (PX 1698)

**Routine Hours** 

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Survey Date: May-15-2017 (Monday)
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Time NORTH BOUND EAST BOUND SOUTH BOUND WEST BOUND Period Thru Right Left Thru Right Left Thru Right Left Thru Right Left CARS 17:15 DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:30 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) South Side West Side PEDS North Side East Side 18:00 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) West Side PEDS North Side East Side South Side 



GERRARD ST AT PAPE AVE (PX 371)

Survey Date: Jan-02-2018 (Tuesday)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	BOU ight	ND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru Ri	BOUND ight Left	
07:45	CARS	7	7	1	41	1	10	3	3	1	81	1	2
	DUALS	0	0	0	1	0	1	0	1	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		6	South Side		8	West Side		3
08:00	CARS	7	2	5	32	1	8	3	4	0	111	0	3
	DUALS	0	0	0	1	0	0	0	0	0	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		10	East Side		7	South Side		11	West Side		6
08:15	CARS	4	2	4	61	0	10	3	5	1	118	1	5
	DUALS	0	0	0	1	0	0	0	0	1	0	0	0
	BUSES	0	0	0	4	1	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		15	East Side		13	South Side		8	West Side		7
08:30	CARS	7	5	6	53	1	11	4	3	3	101	0	8
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	1	0	0	4	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		23	East Side		13	South Side		7	West Side		6
08:45	CARS	6	5	8	56	6	12	3	7	4	116	2	8
	DUALS	1	0	0	1	0	0	0	0	0	1	0	1
	BUSES	0	0	0	4	1	1	0	1	0	4	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		19	East Side		18	South Side		12	West Side		19
09:00	CARS	12	2	2	64	10	18	2	6	7	118	2	8
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	1	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		15	East Side		20	South Side		13	West Side		19
09:15	CARS	9	7	2	69	8	16	2	4	4	124	1	6
	DUALS	0	0	0	0	0	0	0	1	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		12	East Side		15	South Side		10	West Side		10


Survey Date: Jan-02-2018 (Tuesday)

GERRARD ST AT PAPE AVE (PX 371)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	IND Left	EAS1 Thru	r BOUN Right	ID Left	SOUTH Thru R	I BOUI light	ND Left	WEST Thru R	BOUND ight Left	:
09:30	CARS	6	3	2	65	3	7	3	2	2	118	2	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		8	South Side		8	West Side		5
10:15	CARS	8	3	1	72	6	30	9	14	7	63	1	6
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	1	0	2	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		20	East Side		22	South Side		21	West Side		13
10:30	CARS	13	8	4	87	3	26	5	14	0	74	2	7
	DUALS	0	1	0	2	0	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	1	0	3	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		29	East Side		31	South Side		15	West Side		19
10:45	CARS	16	7	3	84	3	32	8	19	13	79	3	5
	DUALS	0	0	0	1	0	0	0	0	0	0	0	1
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		43	East Side		21	South Side		22	West Side		29
11:00	CARS	15	7	1	73	6	32	4	16	5	91	3	3
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		47	East Side		25	South Side		12	West Side		28
11:15	CARS	10	4	6	93	5	34	5	12	3	91	0	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		39	East Side		19	South Side		21	West Side		17
11:30	CARS	17	13	10	85	2	35	9	15	6	82	1	7
	DUALS	0	0	0	2	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		29	East Side		27	South Side		16	West Side		31



Survey Date: Jan-02-2018 (Tuesday)

GERRARD ST AT PAPE AVE (PX 371)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	15	10	9	84	4	37	6	13	3	88	2	5
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	1	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		27	East Side		13	South Side		20	West Side		29
12:00	CARS	12	9	6	89	5	33	4	11	3	83	3	3
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		25	East Side		14	South Side		10	West Side		26
13:15	CARS	20	6	5	88	3	22	14	24	6	104	2	12
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	1	0	3	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		38	East Side		29	South Side		17	West Side		29
13:30	CARS	16	11	5	100	1	28	10	18	9	100	5	13
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	1	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		46	East Side		28	South Side		23	West Side		22
13:45	CARS	18	12	5	103	2	23	11	21	11	123	2	14
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		53	East Side		30	South Side		15	West Side		14
14:00	CARS	15	16	5	107	4	30	15	26	10	117	1	14
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	2	0	0	0	1	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		60	East Side		28	South Side		19	West Side		15
14:15	CARS	13	17	4	110	2	27	19	26	8	104	4	8
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	2	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	2	(0)	
	PEDS	North Side		87	East Side		29	South Side		14	West Side		12



Survey Date: Jan-02-2018 (Tuesday)

GERRARD ST AT PAPE AVE (PX 371)

Survey Typ	Routine	Hours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAST Thru	Г BOUN Right	D Left	SOUT Thru I	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	:
14:30	CARS	16	13	2	111	3	22	15	16	15	90	2	11
	DUALS	0	0	0	0	1	0	0	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		64	East Side		36	South Side		12	West Side		13
14:45	CARS	10	15	4	108	2	24	12	23	13	107	3	9
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		54	East Side		25	South Side		15	West Side		11
15:00	CARS	12	12	3	115	3	20	16	21	17	103	6	8
	DUALS	0	0	0	0	0	0	2	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	1	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		54	East Side		28	South Side		11	West Side		11
16:15	CARS	11	15	3	132	2	16	11	18	6	108	4	10
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		51	East Side		17	South Side		11	West Side		11
16:30	CARS	15	11	5	136	4	19	16	22	9	113	3	16
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		42	East Side		18	South Side		9	West Side		13
16:45	CARS	14	9	4	145	2	14	10	23	12	106	3	11
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		39	East Side		15	South Side		10	West Side		12
17:00	CARS	18	8	2	148	3	20	7	22	10	109	5	6
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		48	East Side		13	South Side		11	West Side		14



# Intersection Detailed 15 Minutes Movement Report

GERRARD ST AT PAPE AVE (PX 371)

Routine Hours

Survey Date: Jan-02-2018 (Tuesday)

Time		NORT	H BOI	UND	EAS	T BOUI	ND	SOUT	H BOU	ND	WEST	BOUND	
Period			light	Len	Inru	Right	Lett	inru r	kight	Len		ignt Len	τ
17:15	CARS	14	7	2	138	2	17	9	17	5	102	4	7
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	0	0	0	4	0	0	1	1	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		42	East Side		12	South Side		7	West Side		11
17:30	CARS	10	7	3	152	3	15	12	18	5	97	3	12
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		40	East Side		16	South Side		7	West Side		12
17:45	CARS	15	6	2	154	4	22	16	14	5	95	4	6
	DUALS	0	0	0	2	0	0	0	0	0	2	0	0
	BUSES	0	1	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		27	East Side		12	South Side		12	West Side		8
18:00	CARS	12	5	4	154	5	14	8	15	5	103	3	7
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	1	0	5	0	0	0	0	0	4	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		36	East Side		11	South Side		10	West Side		11



#### JARVIS ST AT KING ST (PX 3)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NORTI Thru F	H BOL Right	JND Left	EAS Thru	r BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	116	0	0	0	2	0	152	1	1	2	11	13
	DUALS	17	0	0	0	0	0	10	0	0	0	1	0
	BUSES	1	0	0	8	0	0	0	0	0	8	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	13	(0)	
	PEDS	North Side		53	East Side		17	South Side		44	West Side		31
08:00	CARS	110	2	1	2	5	0	148	8	0	3	11	12
	DUALS	18	0	0	0	3	0	18	0	0	0	0	1
	BUSES	0	0	0	5	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	13	(0)	
	PEDS	North Side		66	East Side		28	South Side		63	West Side		29
08:15	CARS	152	6	0	0	5	0	188	2	0	2	9	6
	DUALS	15	0	0	0	1	0	9	1	0	1	0	7
	BUSES	1	0	0	8	0	0	1	0	0	9	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	16	(0)	
	PEDS	North Side		72	East Side		31	South Side		63	West Side		45
08:30	CARS	150	6	0	0	1	0	169	7	0	2	22	20
00.00	DUALS	14	1	0	2	0	0	11	1	0	1	0	2
	BUSES	0	0	0	7	0	0	1	0	0	6	0	0
	BIKE (OTHER)		2	(0)		4	(0)		1	(0)	23	(0)	
	PEDS	North Side		113	East Side		48	South Side		88	West Side		59
08:45	CARS	116	4	0	1	5	0	146	3	0	3	34	31
	DUALS	12	1	0	0	2	0	13	0	0	1	1	0
	BUSES	0	0	0	7	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		4	(0)		0	(0)	19	(0)	
	PEDS	North Side		177	East Side		69	South Side		137	West Side		59
09:00	CARS	132	8	0	3	6	0	172	6	0	8	41	34
	DUALS	13	1	0	0	1	0	9	1	0	1	3	3
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		6	(0)		2	(0)	21	(0)	
	PEDS	North Side		166	East Side		58	South Side		141	West Side		57
09:15	CARS	116	10	0	5	6	0	162	5	0	3	29	20
	DUALS	11	2	0	1	1	0	9	0	0	1	1	1
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	13	(0)	
	PEDS	North Side		135	East Side		64	South Side		107	West Side		61



#### JARVIS ST AT KING ST (PX 3)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NORTH Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI light	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	139	13	0	5	6	0	168	10	0	1	14	13
	DUALS	18	0	1	1	0	0	12	0	0	1	0	4
	BUSES	1	0	0	8	0	0	1	0	0	5	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	14	(0)	
	PEDS	North Side		87	East Side		37	South Side		70	West Side		43
10:15	CARS	130	9	1	1	3	0	145	7	1	4	12	19
	DUALS	9	3	0	0	2	0	10	0	0	1	2	1
	BUSES	0	0	0	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	6	(0)	
	PEDS	North Side		60	East Side		28	South Side		55	West Side		36
10:30	CARS	143	7	0	4	14	0	139	6	0	1	20	7
	DUALS	14	3	0	0	1	0	9	1	0	2	2	1
	BUSES	0	0	0	5	0	0	1	0	0	5	0	0
	BIKE (OTHER)		3	(0)		6	(0)		2	(0)	5	(0)	
	PEDS	North Side		53	East Side		25	South Side		49	West Side		45
10:45	CARS	126	8	1	2	6	0	137	5	0	1	21	16
10.40	DUALS	17	1	1	0	1	0	17	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	3	(0)	
	PEDS	North Side		51	East Side		19	South Side		48	West Side		30
11:00	CARS	132	6	0	5	6	0	127	8	0	0	9	10
	DUALS	16	0	0	0	2	0	23	0	0	0	1	1
	BUSES	2	0	0	5	0	0	1	0	0	4	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	3	(0)	
	PEDS	North Side		76	East Side		17	South Side		53	West Side		49
11:15	CARS	120	3	0	5	2	0	149	3	0	4	17	14
	DUALS	12	2	0	1	1	0	29	1	0	1	0	2
	BUSES	1	0	0	4	0	0	0	0	0	4	0	1
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	4	(0)	
	PEDS	North Side		80	East Side		30	South Side		63	West Side		41
11:30	CARS	124	4	0	2	5	0	150	5	0	4	10	9
	DUALS	11	4	0	0	1	0	15	0	0	1	3	0
	BUSES	1	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		87	East Side		34	South Side		84	West Side		33



#### JARVIS ST AT KING ST (PX 3)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NOR <sup>*</sup> Thru	TH BOI Right	UND Left	EAS Thru	ST BOU Right	ND Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru F	BOUND Right Left	
11:45	CARS	121	5	0	6	12	0	163	2	1	2	14	6
	DUALS	7	5	0	0	2	0	15	1	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		8	(0)		2	(0)	6	(0)	
	PEDS	North Side	e	75	East Side		28	South Side		87	West Side		50
12:00	CARS	131	10	0	6	8	0	161	8	0	5	17	10
	DUALS	13	2	0	1	2	0	15	2	0	4	2	0
	BUSES	0	0	0	4	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		4	(0)		1	(0)	7	(0)	
	PEDS	North Side	e	97	East Side		40	South Side		82	West Side		50
13:15	CARS	124	5	1	4	9	0	166	2	0	7	13	7
	DUALS	11	0	0	5	2	0	17	0	0	1	1	2
	BUSES	3	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	4	(0)	
	PEDS	North Side	e	136	East Side		64	South Side		111	West Side		84
13:30	CARS	102	9	0	3	7	0	149	8	0	6	9	8
13:30	DUALS	17	0	0	0	1	0	14	1	0	1	1	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	1
	BIKE (OTHER)		2	(0)		2	(0)		3	(0)	5	(0)	
	PEDS	North Side	e	122	East Side		35	South Side		92	West Side		61
13:45	CARS	126	12	0	8	7	0	165	3	0	2	12	9
	DUALS	14	1	0	1	4	0	16	2	0	3	0	2
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side	e	128	East Side		52	South Side		84	West Side		65
14:00	CARS	120	7	0	3	15	0	143	4	0	1	18	11
	DUALS	16	2	0	2	2	0	16	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		4	(0)		7	(0)		2	(0)	7	(0)	
	PEDS	North Side	e	112	East Side		58	South Side		97	West Side		56
14:15	CARS	141	6	1	5	6	1	171	2	0	7	11	2
	DUALS	13	1	0	0	2	0	16	0	0	2	1	1
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		6	(0)		0	(0)	5	(0)	
	PEDS	North Side	e	104	East Side		50	South Side		75	West Side		68

Page 3 of 5



#### JARVIS ST AT KING ST (PX 3)

Survey Type: Routine Hours

Survey Date: May-02-2019 (Thursday)

Time Period		NORTH Thru R	BOI ight	UND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	
14:30	CARS	113	8	1	3	17	1	146	1	0	2	6	6
	DUALS	13	1	0	0	2	0	9	0	0	1	0	1
	BUSES	0	0	0	3	0	0	0	0	0	5	0	1
	BIKE (OTHER)		1	(0)		6	(0)		0	(0)	4	(0)	
	PEDS	North Side		94	East Side		29	South Side		85	West Side		63
14:45	CARS	127	6	0	8	10	0	101	1	1	4	10	7
	DUALS	12	0	0	2	0	0	14	0	0	1	0	0
	BUSES	1	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	8	(0)	
	PEDS	North Side		90	East Side		67	South Side		101	West Side		69
15:00	CARS	130	1	0	1	11	0	82	3	1	4	8	6
	DUALS	8	0	0	1	0	0	11	0	0	0	0	1
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		4	(0)		1	(0)	4	(0)	
	PEDS	North Side		105	East Side		30	South Side		17	West Side		59
16:15	CARS	140	3	1	5	9	0	92	0	0	4	16	11
	DUALS	6	0	0	5	3	0	9	0	0	0	0	0
	BUSES	2	0	0	2	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		10	(0)		0	(0)	7	(0)	
	PEDS	North Side		100	East Side		41	South Side		96	West Side		50
16:30	CARS	117	4	0	4	12	0	63	2	0	3	27	4
	DUALS	10	0	0	0	2	0	9	0	0	0	0	0
	BUSES	1	0	0	9	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		11	(0)		0	(0)	4	(0)	
	PEDS	North Side		92	East Side		43	South Side		98	West Side		49
16:45	CARS	126	4	1	3	18	0	48	9	0	4	18	8
	DUALS	7	0	0	1	1	0	10	1	0	1	0	1
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		16	(0)		0	(0)	9	(0)	
	PEDS	North Side		120	East Side		69	South Side		129	West Side		78
17:00	CARS	130	2	0	5	16	0	72	3	0	6	17	7
	DUALS	8	0	0	1	1	0	5	1	0	0	0	0
	BUSES	0	0	0	3	0	0	1	0	0	4	0	0
	BIKE (OTHER)		1	(0)		13	(0)		0	(0)	10	(0)	
	PEDS	North Side		106	East Side		53	South Side		148	West Side		83



#### JARVIS ST AT KING ST (PX 3)

Survey Date: May-02-2019 (Thursday)

Survey Type: Ro	utine Hours
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Time		NOF		JND	EA	ST BOU	ND	SOUTI	н воц	JND	WES.	F BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru	Right Lef	t
17:15	CARS	153	7	1	3	12	0	61	4	1	1	19	10
	DUALS	5	0	0	0	1	0	6	0	0	0	0	1
	BUSES	0	0	0	7	0	1	0	0	0	10	0	0
	BIKE (OTHER)		2	(0)		19	(0)		1	(0)	11	(0)	
	PEDS	North Sic	le	128	East Side		64	South Side		214	West Side		96
17:30	CARS	159	7	0	3	15	0	62	3	0	4	30	11
	DUALS	6	0	0	2	1	0	7	0	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		5	(0)		30	(0)		0	(0)	7	(0)	
	PEDS	North Sic	le	122	East Side		66	South Side		204	West Side		102
17:45	CARS	118	7	0	6	19	0	82	4	0	6	20	19
	DUALS	7	0	0	0	0	0	10	0	0	0	1	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		23	(0)		0	(0)	6	(0)	
	PEDS	North Sic	le	137	East Side		89	South Side		214	West Side		69
18:00	CARS	125	4	0	5	20	0	91	6	0	2	40	16
	DUALS	4	1	0	4	0	0	2	0	0	2	1	1
	BUSES	0	0	0	6	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		26	(0)		0	(0)	6	(0)	
	PEDS	North Sic	le	100	East Side		61	South Side		185	West Side		92



### JARVIS ST AT QUEEN ST (PX 6)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	66	8	0	53	16	0	127	17	1	90	1	0
	DUALS	4	1	0	2	0	0	4	0	0	2	1	0
	BUSES	1	0	0	4	0	0	1	0	0	4	0	0
	BIKE (OTHER)		3	(0)		2	(0)		1	(0)	8	(0)	
	PEDS	North Side		16	East Side		17	South Side		18	West Side		24
08:00	CARS	90	23	0	48	11	0	121	24	0	112	3	0
	DUALS	6	0	0	1	0	0	2	1	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		4	(0)		1	(0)	7	(0)	
	PEDS	North Side		16	East Side		20	South Side		28	West Side		16
08:15	CARS	85	24	0	60	16	0	115	11	0	140	4	0
	DUALS	6	2	0	1	0	0	4	0	0	2	0	0
	BUSES	0	0	0	7	0	0	1	0	0	5	0	0
	BIKE (OTHER)		2	(0)		1	(0)		3	(0)	10	(0)	
	PEDS	North Side		17	East Side		17	South Side		38	West Side		29
08:30	CARS	96	12	1	62	16	1	140	15	0	139	4	0
	DUALS	2	2	0	1	0	0	3	0	0	1	0	0
	BUSES	1	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		5	(0)		7	(0)	8	(0)	
	PEDS	North Side		36	East Side		34	South Side		47	West Side		26
08:45	CARS	96	22	0	56	19	0	139	8	0	132	3	0
	DUALS	7	0	0	2	3	0	1	0	0	4	0	0
	BUSES	0	0	0	6	0	0	1	0	0	7	0	0
	BIKE (OTHER)		0	(0)		8	(0)		5	(0)	12	(0)	
	PEDS	North Side		42	East Side		32	South Side		56	West Side		50
09:00	CARS	113	17	0	70	17	0	115	14	0	153	4	0
	DUALS	5	3	0	1	0	0	3	0	0	2	0	0
	BUSES	1	0	0	5	0	0	2	0	0	5	0	0
	BIKE (OTHER)		2	(0)		5	(0)		6	(0)	13	(0)	
	PEDS	North Side		41	East Side		53	South Side		64	West Side		42
09:15	CARS	100	33	1	70	22	1	114	11	0	102	3	1
	DUALS	7	0	0	1	1	0	1	1	0	2	0	0
	BUSES	0	0	0	6	0	0	1	0	0	4	0	0
	BIKE (OTHER)		0	(0)		6	(0)		7	(0)	10	(0)	
	PEDS	North Side		36	East Side		25	South Side		61	West Side		39



### JARVIS ST AT QUEEN ST (PX 6)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORT Thru	H BOU Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru R	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	Ł
09:30	CARS	97	27	0	86	10	1	135	12	1	110	4	1
	DUALS	4	1	0	1	1	0	3	0	0	1	0	0
	BUSES	0	0	0	5	1	0	1	0	0	4	0	0
	BIKE (OTHER)		1	(0)		8	(0)		5	(0)	11	(0)	
	PEDS	North Side		32	East Side		40	South Side		43	West Side		29
10:15	CARS	85	22	1	60	23	2	87	14	1	77	5	4
	DUALS	5	0	0	1	1	1	5	0	0	1	0	2
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		10	(0)		5	(0)	4	(0)	
	PEDS	North Side		19	East Side		35	South Side		41	West Side		27
10:30	CARS	85	18	0	72	18	7	110	8	0	74	3	2
	DUALS	5	1	0	3	3	0	7	0	0	1	1	0
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		8	(0)		8	(0)	9	(0)	
	PEDS	North Side		34	East Side		30	South Side		40	West Side		28
10:45	CARS	78	22	1	93	18	6	111	12	3	55	6	3
	DUALS	6	0	0	3	1	0	3	0	0	0	1	1
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		7	(0)		4	(0)	4	(0)	
	PEDS	North Side		21	East Side		38	South Side		56	West Side		27
11:00	CARS	93	36	1	60	15	5	101	15	0	56	5	5
	DUALS	2	0	0	5	1	0	5	0	0	2	1	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		9	(0)		5	(0)		0	(0)	5	(0)	
	PEDS	North Side		29	East Side		32	South Side		48	West Side		37
11:15	CARS	81	26	4	70	14	0	112	13	0	63	4	1
	DUALS	2	0	0	2	1	0	3	0	0	3	0	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Side		24	East Side		24	South Side		43	West Side		17
11:30	CARS	74	25	2	62	9	7	104	10	1	45	2	3
	DUALS	5	1	0	3	0	1	6	0	0	1	1	0
	BUSES	1	0	1	8	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		10	(0)		3	(0)	12	(0)	
	PEDS	North Side		26	East Side		17	South Side		56	West Side		23



### JARVIS ST AT QUEEN ST (PX 6)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORT Thru	'H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	101	20	2	75	15	4	98	11	0	79	1	5
	DUALS	5	0	0	2	1	0	6	0	0	5	0	0
	BUSES	0	0	0	2	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		10	(0)		3	(0)	13	(0)	
	PEDS	North Side	·	32	East Side		21	South Side		48	West Side		27
12:00	CARS	83	25	0	78	20	2	106	15	0	79	4	5
	DUALS	5	0	0	1	1	0	6	0	0	1	1	0
	BUSES	0	0	0	2	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		8	(0)		6	(0)	6	(0)	
	PEDS	North Side	·	59	East Side		24	South Side		48	West Side		31
13:15	CARS	81	38	2	80	17	5	86	15	2	62	6	4
	DUALS	7	0	0	3	0	0	8	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		8	(0)		4	(0)	7	(0)	
	PEDS	North Side	·	28	East Side		29	South Side		45	West Side		42
13:30	CARS	77	15	0	79	13	2	113	7	1	61	2	3
	DUALS	6	1	0	9	1	1	3	0	0	3	0	0
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		3	(0)		5	(0)	6	(0)	
	PEDS	North Side	·	26	East Side		22	South Side		42	West Side		45
13:45	CARS	81	20	1	85	17	7	99	8	2	62	4	2
	DUALS	1	0	0	1	0	0	3	0	0	1	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		4	(0)		3	(0)	4	(0)	
	PEDS	North Side	·	33	East Side		28	South Side		46	West Side		36
14:00	CARS	77	32	0	74	18	5	108	15	1	54	3	1
	DUALS	1	0	0	3	0	0	4	0	0	2	0	0
	BUSES	1	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	12	(0)	
	PEDS	North Side	·	41	East Side		28	South Side		55	West Side		33
14:15	CARS	101	25	3	104	21	5	98	14	0	72	4	3
	DUALS	1	0	0	6	1	0	3	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		5	(0)		4	(0)	4	(0)	
	PEDS	North Side	!	21	East Side		23	South Side		44	West Side		34



### JARVIS ST AT QUEEN ST (PX 6)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NOR1 Thru	'H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	101	26	0	90	20	4	103	8	0	64	2	2
	DUALS	4	0	0	5	1	0	3	1	0	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		2	(0)		9	(0)		4	(0)	10	(0)	
	PEDS	North Side	•	28	East Side		21	South Side		43	West Side		45
14:45	CARS	99	36	4	113	16	2	96	10	0	43	5	2
	DUALS	3	2	0	1	2	0	6	0	0	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	7	0	0
	BIKE (OTHER)		6	(0)		3	(0)		0	(0)	14	(0)	
	PEDS	North Side	•	26	East Side		22	South Side		38	West Side		25
15:00	CARS	101	40	0	114	20	6	92	13	1	77	3	1
	DUALS	3	0	1	2	0	0	2	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		7	(0)		2	(0)	13	(0)	
	PEDS	North Side	•	56	East Side		31	South Side		36	West Side		31
16:15	CARS	106	40	0	143	28	0	87	4	0	54	3	0
	DUALS	1	0	0	2	0	0	2	0	0	0	0	0
	BUSES	1	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		8	(0)		9	(0)	9	(0)	
	PEDS	North Side	•	44	East Side		32	South Side		52	West Side		58
16:30	CARS	86	27	2	152	9	1	91	9	2	83	3	0
	DUALS	1	1	0	0	0	0	2	0	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		4	(0)		8	(0)		3	(0)	9	(0)	
	PEDS	North Side	•	48	East Side		29	South Side		45	West Side		46
16:45	CARS	122	39	2	157	20	2	92	5	0	56	4	1
	DUALS	1	0	0	1	0	0	3	0	0	5	0	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		10	(0)		5	(0)	21	(0)	
	PEDS	North Side	•	53	East Side		33	South Side		61	West Side		54
17:00	CARS	100	38	0	179	17	2	100	9	0	81	3	0
	DUALS	2	1	0	1	0	0	1	0	0	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		3	(0)		9	(0)		3	(0)	9	(0)	
	PEDS	North Side	•	55	East Side		46	South Side		60	West Side		47



### JARVIS ST AT QUEEN ST (PX 6)

Survey Date: Aug-16-2018 (Thursday)

Time		NOR	гн воі	JND	EAS	T BOUN	D	SOUT	H BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru I	Right	Left	Thru R	ight Left	t
17:15	CARS	123	27	0	166	11	3	110	13	0	83	1	1
	DUALS	0	2	0	2	0	0	2	0	0	0	0	0
	BUSES	0	0	0	10	0	0	1	0	0	5	0	0
	BIKE (OTHER)		2	(0)		14	(0)		4	(0)	9	(0)	
	PEDS	North Side	)	56	East Side		46	South Side		69	West Side		58
17:30	CARS	112	38	0	175	8	0	99	15	1	109	13	0
	DUALS	2	0	0	1	1	1	1	1	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		5	(0)		11	(0)		3	(0)	8	(0)	
	PEDS	North Side	)	77	East Side		46	South Side	. <u> </u>	57	West Side		60
 17:45	CARS	115	21	4	159	4	0	87	6	0	109	7	0
	DUALS	2	0	0	3	0	0	2	0	0	0	0	0
	BUSES	1	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		11	(0)		2	(0)	3	(0)	
	PEDS	North Side	)	53	East Side		44	South Side	. <u> </u>	57	West Side		53
18:00	CARS	114	32	0	146	4	0	100	11	0	68	5	0
	DUALS	0	0	0	5	0	0	1	1	0	3	0	0
	BUSES	0	0	0	7	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		5	(0)		2	(0)	9	(0)	
	PEDS	North Side	•	58	East Side		28	South Side		40	West Side		51



### JARVIS ST AT RICHMOND ST (PX 5)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND light Left	:
07:45	CARS	62	0	19	0	0	0	98	29	0	312	12	40
	DUALS	5	0	3	0	0	0	4	0	0	10	0	2
	BUSES	1	0	0	0	0	0	1	1	0	3	0	0
	BIKE (OTHER)		3	(0)		2	(0)		1	(0)	8	(0)	
	PEDS	North Side		28	East Side		20	South Side		29	West Side		13
08:00	CARS	100	0	24	0	0	0	102	33	0	326	12	61
	DUALS	6	0	2	0	0	0	2	0	0	6	0	0
	BUSES	0	0	1	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		0	(0)		4	(0)		1	(0)	7	(0)	
	PEDS	North Side		30	East Side		19	South Side		23	West Side		19
08:15	CARS	92	0	17	0	0	0	106	27	0	314	12	57
	DUALS	7	0	0	0	0	0	3	1	0	1	2	2
	BUSES	0	0	0	0	0	0	0	1	0	4	0	0
	BIKE (OTHER)		2	(0)		1	(0)		3	(0)	10	(0)	
	PEDS	North Side		25	East Side		12	South Side		35	West Side		33
08:30	CARS	97	0	15	0	0	0	128	40	0	312	12	59
00.00	DUALS	1	0	2	0	0	0	5	0	0	9	2	0
	BUSES	1	0	0	0	0	0	0	0	0	3	1	1
	BIKE (OTHER)		1	(0)		5	(0)		7	(0)	8	(0)	
	PEDS	North Side		33	East Side		19	South Side		36	West Side		30
08:45	CARS	101	0	19	0	0	0	125	29	0	318	5	60
	DUALS	8	0	3	0	0	0	2	0	0	4	0	2
	BUSES	2	0	0	0	0	0	0	1	0	4	0	0
	BIKE (OTHER)		0	(0)		8	(0)		5	(0)	12	(0)	
	PEDS	North Side		28	East Side		26	South Side		58	West Side		41
09:00	CARS	122	0	26	0	0	0	98	28	0	267	12	60
	DUALS	3	0	0	0	0	0	5	0	0	4	6	1
	BUSES	1	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		2	(0)		5	(0)		6	(0)	13	(0)	
	PEDS	North Side		37	East Side		36	South Side		61	West Side		36
09:15	CARS	108	0	26	0	0	0	111	26	0	256	18	47
	DUALS	9	0	2	0	0	0	2	0	0	6	1	0
	BUSES	0	0	0	0	0	0	1	1	0	4	0	0
	BIKE (OTHER)		0	(0)		6	(0)		7	(0)	10	(0)	
	PEDS	North Side		50	East Side		25	South Side		40	West Side		40



### JARVIS ST AT RICHMOND ST (PX 5)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND light Left	:
09:30	CARS	102	0	32	0	0	0	112	40	0	228	14	54
	DUALS	2	0	1	0	0	0	1	2	0	4	1	0
	BUSES	2	0	1	0	0	0	1	1	0	0	0	0
	BIKE (OTHER)		1	(0)		8	(0)		5	(0)	11	(0)	
	PEDS	North Side		27	East Side		26	South Side		27	West Side		28
10:15	CARS	85	0	34	0	0	0	87	21	0	213	17	30
	DUALS	6	0	1	0	0	0	7	2	0	6	2	4
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		10	(0)		5	(0)	4	(0)	
	PEDS	North Side		21	East Side		25	South Side		26	West Side		29
10:30	CARS	85	0	40	0	0	0	111	17	0	174	19	37
	DUALS	3	0	3	0	0	0	4	5	0	5	3	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	4
	BIKE (OTHER)		2	(0)		8	(0)		8	(0)	9	(0)	
	PEDS	North Side		27	East Side		30	South Side		22	West Side		29
10:45	CARS	91	0	38	0	0	0	110	20	0	191	17	35
	DUALS	7	0	2	0	0	0	5	2	0	7	0	0
	BUSES	0	0	1	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		3	(0)		7	(0)		4	(0)	4	(0)	
	PEDS	North Side		18	East Side		18	South Side		21	West Side		22
11:00	CARS	111	0	38	0	0	0	98	17	0	218	11	39
	DUALS	5	0	0	0	0	0	4	3	0	7	0	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		9	(0)		5	(0)		0	(0)	5	(0)	
	PEDS	North Side		24	East Side		28	South Side		23	West Side		35
11:15	CARS	96	0	35	0	0	0	104	20	0	206	15	28
	DUALS	1	0	2	0	0	0	2	1	0	8	0	2
	BUSES	0	0	1	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Side		8	East Side		28	South Side		19	West Side		22
11:30	CARS	98	0	31	0	0	0	102	9	0	213	10	42
	DUALS	4	0	3	0	0	0	6	0	0	8	2	2
	BUSES	2	0	2	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		10	(0)		3	(0)	12	(0)	
	PEDS	North Side		15	East Side		15	South Side		19	West Side		15



### JARVIS ST AT RICHMOND ST (PX 5)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	105	0	43	0	0	0	100	10	0	219	13	38
	DUALS	7	0	1	0	0	0	4	2	0	6	2	1
	BUSES	0	0	1	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		10	(0)		3	(0)	13	(0)	
	PEDS	North Side		15	East Side		26	South Side		22	West Side		24
12:00	CARS	100	0	37	0	0	0	101	16	0	194	20	37
	DUALS	3	0	1	0	0	0	5	3	0	4	3	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		8	(0)		6	(0)	6	(0)	
	PEDS	North Side		12	East Side		23	South Side		33	West Side		34
13:15	CARS	96	0	29	0	0	0	90	4	0	195	14	29
	DUALS	8	0	2	0	0	0	9	0	0	9	0	0
	BUSES	0	0	3	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		1	(0)		8	(0)		4	(0)	7	(0)	
	PEDS	North Side		34	East Side		48	South Side		29	West Side		53
13:30	CARS	84	0	34	0	0	0	116	8	0	177	10	41
10100	DUALS	5	0	3	0	0	0	1	3	0	2	4	2
	BUSES	0	0	2	0	0	0	0	1	0	0	0	0
	BIKE (OTHER)		2	(0)		3	(0)		5	(0)	6	(0)	
	PEDS	North Side		21	East Side		22	South Side		31	West Side		44
13:45	CARS	86	0	46	0	0	0	105	15	0	193	14	32
	DUALS	1	0	0	0	0	0	4	0	0	4	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		3	(0)	4	(0)	
	PEDS	North Side		23	East Side		28	South Side		21	West Side		47
14:00	CARS	98	0	44	0	0	0	111	15	0	195	13	36
	DUALS	1	0	1	0	0	0	3	0	0	6	0	3
	BUSES	1	0	2	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	12	(0)	
	PEDS	North Side		24	East Side		24	South Side		28	West Side		44
14:15	CARS	107	1	34	0	0	0	105	18	0	186	22	20
	DUALS	1	0	0	0	0	0	4	0	0	6	0	1
	BUSES	0	0	1	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		5	(0)		4	(0)	4	(0)	
	PEDS	North Side		22	East Side		26	South Side		19	West Side		42



### JARVIS ST AT RICHMOND ST (PX 5)

Survey Date: Aug-16-2018 (Thursday)

Survey Type:	Routine Hours
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Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	112	0	30	0	0	0	99	25	0	219	15	31
	DUALS	3	0	1	0	0	0	3	0	0	5	1	0
	BUSES	0	0	0	0	0	0	1	0	0	2	0	0
	BIKE (OTHER)		2	(0)		9	(0)		4	(0)	10	(0)	
	PEDS	North Side		14	East Side		17	South Side		29	West Side		52
14:45	CARS	127	0	24	0	0	0	95	23	0	235	15	33
	DUALS	5	0	2	0	0	0	6	0	0	3	2	3
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		3	(0)		0	(0)	14	(0)	
	PEDS	North Side		22	East Side		19	South Side		27	West Side		38
15:00	CARS	126	0	31	0	0	0	86	18	0	222	12	21
	DUALS	3	0	2	0	0	0	2	0	0	9	0	0
	BUSES	0	0	1	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		3	(0)		7	(0)		2	(0)	13	(0)	
	PEDS	North Side		21	East Side		34	South Side		44	West Side		48
16:15	CARS	117	0	34	0	0	0	101	16	0	264	16	15
	DUALS	2	0	0	0	0	0	2	0	0	4	1	1
	BUSES	1	0	2	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		8	(0)		9	(0)	9	(0)	
	PEDS	North Side		25	East Side		29	South Side		30	West Side		46
16:30	CARS	106	0	29	0	0	0	82	18	0	231	23	22
	DUALS	2	0	1	0	0	0	2	0	0	1	1	0
	BUSES	0	0	1	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		4	(0)		8	(0)		3	(0)	9	(0)	
	PEDS	North Side		31	East Side		32	South Side		38	West Side		45
16:45	CARS	126	0	30	0	0	0	83	25	0	249	35	20
	DUALS	2	0	1	0	0	0	0	4	0	4	0	0
	BUSES	0	0	2	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		10	(0)		5	(0)	21	(0)	
	PEDS	North Side		27	East Side		27	South Side		17	West Side		45
17:00	CARS	107	0	29	0	0	0	84	24	0	274	29	22
	DUALS	3	0	0	0	0	0	3	0	0	2	0	0
	BUSES	0	0	1	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		9	(0)		3	(0)	9	(0)	
	PEDS	North Side		32	East Side		24	South Side		37	West Side		48



### JARVIS ST AT RICHMOND ST (PX 5)

Survey Date: Aug-16-2018 (Thursday)

Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru	H BOUI Right	ND Left	WEST Thru R	BOUND	t
17:15	CARS	126	0	24	0	0	0	69	31	0	217	24	23
	DUALS	0	0	1	0	0	0	3	1	0	6	0	0
	BUSES	0	0	2	0	0	0	0	1	0	2	0	0
	BIKE (OTHER)		2	(0)		14	(0)		4	(0)	9	(0)	
	PEDS	North Side		46	East Side		38	South Side		36	West Side		56
17:30	CARS	125	0	34	0	0	0	73	23	0	209	16	16
	DUALS	2	0	0	0	0	0	1	0	0	2	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		11	(0)		3	(0)	8	(0)	
	PEDS	North Side		41	East Side		41	South Side		35	West Side		45
17:45	CARS	120	0	33	0	0	0	76	24	0	201	24	29
	DUALS	1	0	1	0	0	0	3	0	0	2	0	0
	BUSES	1	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		4	(0)		11	(0)		2	(0)	3	(0)	
	PEDS	North Side		40	East Side		41	South Side		60	West Side		55
18:00	CARS	107	0	31	0	0	0	66	24	0	222	19	22
	DUALS	0	0	0	0	0	0	1	1	0	2	0	0
	BUSES	0	0	1	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		5	(0)		2	(0)	9	(0)	
	PEDS	North Side		56	East Side		32	South Side		42	West Side		49



#### LAKE SHORE BLVD AT LOWER SHERBOURNE ST & SHERBOURNE ST (PX 203)

Sep-07-2017 (Thursday) Survey Date:



### LAKE SHORE BLVD AT LOWER SHERBOURNE ST & SHERBOURNE ST (PX 203)

Survey Date: Sep-07-2017 (Thursday)

Survey Ty	/pe: Routine H	lours											
Time Period		NORTI Thru F	H BOI Right	UND Left	EAS Thru	ST BOUN Right	ND Left	SOUT Thru I	H BOU Right	ND Left	WEST Thru R	BOUND	t
09:30	CARS	0	0	0	74	9	40	16	29	6	176	25	1
	DUALS	0	0	0	6	2	3	1	1	0	12	1	0
	BUSES	0	0	0	0	0	0	2	0	0	2	0	0
	BIKE (OTHER)		13	(0)		0	(0)		9	(0)	0	(0)	
	PEDS	North Side		5	East Side		10	South Side		6	West Side		11
10:15	CARS	0	0	0	75	13	50	16	26	6	145	13	1
	DUALS	0	0	0	5	2	1	2	1	2	22	1	0
	BUSES	0	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side		2	East Side		7	South Side		2	West Side		4
10:30	CARS	0	0	2	57	9	23	21	22	12	133	17	1
	DUALS	0	0	0	11	2	1	1	1	1	26	0	0
	BUSES	0	0	0	1	0	0	6	0	0	1	0	0
	BIKE (OTHER)		6	(0)		0	(0)		7	(0)	0	(0)	
	PEDS	North Side		0	East Side		8	South Side		3	West Side		7
10:45	CARS	1	0	1	79	11	27	14	20	5	160	12	4
	DUALS	0	0	0	8	2	1	2	1	1	23	2	0
	BUSES	0	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		2	East Side		7	South Side		5	West Side		7
11:00	CARS	0	0	0	79	9	32	21	19	8	146	15	2
	DUALS	0	0	1	11	3	2	2	0	0	11	1	0
	BUSES	0	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		8	(0)	0	(0)	
	PEDS	North Side		2	East Side		15	South Side		3	West Side		13
11:15	CARS	0	0	0	68	7	27	20	22	5	141	22	1
	DUALS	0	0	0	11	3	3	0	2	0	19	2	0
	BUSES	0	0	0	2	1	0	3	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		21	South Side		4	West Side		14
11:30	CARS	0	0	0	61	4	26	15	41	5	159	21	4
	DUALS	1	0	0	8	2	3	5	0	3	18	1	0
	BUSES	0	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		8	(0)	0	(0)	
	PEDS	North Side		0	East Side		11	South Side		5	West Side		17



**BIKE (OTHER)** 

PEDS

CARS

DUALS

BUSES

PEDS

**BIKE (OTHER)** 

14:15

North Side

North Side

(0)

(0)

### Intersection Detailed 15 Minutes Movement Report

#### LAKE SHORE BLVD AT LOWER SHERBOURNE ST & SHERBOURNE ST (PX 203)

Survey Date: Sep-07-2017 (Thursday)

(0)

(0)

Survey Type: **Routine Hours** NORTH BOUND EAST BOUND SOUTH BOUND WEST BOUND Time Thru Right Left Thru Right Thru Right Left Thru Right Left Period Left 11:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 12:00 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 13:15 CARS DUALS BUSES (0) (0) (0) (0) **BIKE (OTHER)** PEDS North Side East Side South Side West Side 13:30 CARS DUALS BUSES (0) **BIKE (OTHER)** (0) (0) (0) PEDS North Side West Side East Side South Side 13:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 14:00 CARS DUALS BUSES 

(0)

(0)

South Side

South Side

West Side

West Side

East Side

East Side

(0)

(0)



### LAKE SHORE BLVD AT LOWER SHERBOURNE ST & SHERBOURNE ST (PX 203)

Survey Date: Sep-07-2017 (Thursday)

Time Period		NORT Thru	'H BOU Right	IND Left	EAS Thru	T BOUN Right	ID Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	1	2	2	71	7	24	20	41	12	170	24	4
	DUALS	0	0	0	9	1	0	6	1	4	14	1	0
	BUSES	0	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side	·	2	East Side		10	South Side		1	West Side		8
14:45	CARS	0	1	1	60	3	24	23	49	10	151	12	2
	DUALS	0	0	1	7	5	1	5	2	3	25	1	0
	BUSES	0	0	0	0	0	0	2	0	0	3	0	0
	BIKE (OTHER)		2	(0)		0	(0)		8	(0)	0	(0)	
	PEDS	North Side	·	2	East Side		15	South Side		3	West Side		22
15:00	CARS	0	0	1	62	4	23	28	59	11	188	21	1
	DUALS	0	0	0	4	3	1	3	3	2	28	0	0
	BUSES	0	0	0	0	0	0	2	0	0	2	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	1	East Side		9	South Side		1	West Side		16
16:15	CARS	1	0	0	95	0	26	17	39	6	176	30	6
10.15	DUALS	0	0	0	5	0	0	0	2	0	6	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		5	(0)	1	(0)	
	PEDS	North Side	·	3	East Side		19	South Side		1	West Side		10
16:30	CARS	0	0	0	94	6	31	35	49	11	161	36	13
	DUALS	0	0	0	2	0	1	1	1	0	6	0	0
	BUSES	0	0	0	1	0	0	4	0	0	0	0	2
	BIKE (OTHER)		9	(0)		1	(0)		7	(0)	0	(0)	
	PEDS	North Side	·	3	East Side		20	South Side		0	West Side		6
16:45	CARS	1	0	3	117	10	37	29	36	11	150	27	5
	DUALS	0	0	0	1	2	0	3	0	0	6	1	0
	BUSES	0	0	0	0	0	1	0	0	0	4	0	0
	BIKE (OTHER)		10	(0)		0	(0)		6	(0)	0	(0)	
	PEDS	North Side	·	0	East Side		13	South Side		2	West Side		11
17:00	CARS	0	0	0	134	7	34	38	55	15	151	36	6
	DUALS	0	0	0	2	1	0	0	1	0	8	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		11	(0)	0	(0)	
	PEDS	North Side		1	East Side		14	South Side		0	West Side		13



### LAKE SHORE BLVD AT LOWER SHERBOURNE ST & SHERBOURNE ST (PX 203)

Survey Date: Sep-07-2017 (Thursday)

Time Period		NOR <sup>®</sup> Thru	TH BO Right	UND Left	EA Thru	ST BOU Right	ND Left	SOU1 Thru	TH BOU Right	IND Left	WES Thru	T BOUND Right Lef	t
17:15	CARS	1	0	0	111	3	37	40	59	13	188	24	9
	DUALS	0	0	0	5	2	0	2	1	2	9	0	0
	BUSES	0	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		14	(0)	0	(0)	
	PEDS	North Side	e	0	East Side		24	South Side		3	West Side		14
17:30	CARS	1	0	2	103	6	43	37	67	16	189	39	8
	DUALS	0	0	0	0	0	1	0	2	0	5	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		13	(0)		0	(0)		15	(0)	0	(0)	
	PEDS	North Side	e	1	East Side		12	South Side		2	West Side		10
17:45	CARS	1	0	0	121	6	37	26	55	13	207	34	6
	DUALS	0	0	0	1	0	0	0	0	0	3	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		13	(0)		2	(0)		16	(0)	0	(0)	
	PEDS	North Side	e	0	East Side		26	South Side		3	West Side		4
18:00	CARS	1	0	0	120	1	51	25	41	10	189	26	6
	DUALS	0	0	0	1	1	0	0	0	0	4	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		14	(0)	0	(0)	
	PEDS	North Side	е	3	East Side		12	South Side	•	2	West Side		13



### Intersection Detailed 15 Minutes Movement Report

#### LOWER JARVIS ST AT THE ESPLANADE (PX 1392)

**Routine Hours** 

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Survey Date: Aug-22-2019 (Thursday)
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Time Period 07:45 CARS		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
07:45	CARS	123	7	10	7	13	2	176	16	0	20	3	12
	DUALS	19	0	2	1	1	0	11	2	0	2	1	0
	BUSES	0	3	0	2	1	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		3	(0)		2	(0)	1	(0)	
	PEDS	North Side	·	12	East Side		19	South Side		33	West Side		8
08:00	CARS	109	9	17	3	19	3	152	16	1	26	4	11
	DUALS	12	0	1	1	0	2	14	2	0	1	1	0
	BUSES	0	2	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		5	(0)		0	(0)	6	(0)	
	PEDS	North Side	·	24	East Side		22	South Side		44	West Side		16
08:15	CARS	106	16	14	6	21	4	172	18	1	43	4	25
	DUALS	13	1	1	0	3	1	9	1	0	1	0	0
	BUSES	0	2	0	1	1	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	13	(0)	
	PEDS	North Side	·	43	East Side		31	South Side		50	West Side		18
08:30	CARS	121	12	19	8	12	4	145	24	2	37	8	20
08.30	DUALS	14	0	1	0	5	0	13	0	0	1	1	0
	BUSES	0	2	0	2	0	0	0	0	0	1	0	0
	BIKE (OTHER)		7	(0)		5	(0)		2	(0)	18	(0)	
	PEDS	North Side	·	31	East Side		27	South Side		55	West Side		18
08:45	CARS	122	5	10	7	15	4	170	19	0	42	3	16
	DUALS	13	3	4	0	1	0	8	2	1	3	0	1
	BUSES	1	3	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		4	(0)		5	(0)		5	(0)	11	(0)	
	PEDS	North Side	·	35	East Side		41	South Side		70	West Side		26
09:00	CARS	117	20	15	4	10	6	180	27	2	35	4	17
	DUALS	15	2	4	0	1	0	10	5	0	0	0	0
	BUSES	0	2	0	1	0	0	1	0	0	1	0	0
	BIKE (OTHER)		5	(0)		4	(0)		1	(0)	23	(0)	
	PEDS	North Side	·	57	East Side		34	South Side		57	West Side		33
09:15	CARS	140	11	16	10	18	3	173	14	3	24	4	18
	DUALS	12	0	2	1	2	1	13	4	0	0	0	0
	BUSES	0	2	0	2	0	0	1	0	0	1	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	8	(0)	
	PEDS	North Side		55	East Side		35	South Side		58	West Side		20



# Intersection Detailed 15 Minutes Movement Report

#### LOWER JARVIS ST AT THE ESPLANADE (PX 1392)

**Routine Hours** 

```
Survey Date: Aug-22-2019 (Thursday)
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Time Period		NORTH BOUND Thru Right Left			EAS Thru	T BOUN Right	ID Left	SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
09:30	CARS	122	14	11	15	14	4	177	10	0	25	6	11
	DUALS	18	2	0	0	3	0	12	2	0	0	1	0
	BUSES	1	3	0	2	0	0	3	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	5	(0)	
	PEDS	North Side	•	35	East Side		29	South Side		55	West Side		22
10:15	CARS	144	17	12	11	14	6	144	10	0	25	10	18
	DUALS	17	2	3	0	2	0	20	1	0	0	0	0
	BUSES	0	1	0	1	0	0	0	0	0	0	0	1
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	5	(0)	
	PEDS	North Side	•	28	East Side		26	South Side		49	West Side		41
10:30	CARS	129	19	14	8	22	4	161	7	1	24	3	26
	DUALS	20	1	1	3	3	1	15	0	1	1	1	0
	BUSES	0	3	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		1	(0)	4	(0)	
	PEDS	North Side	•	26	East Side		28	South Side		74	West Side		40
10:45	CARS	136	21	13	11	22	6	147	8	5	14	5	16
	DUALS	21	2	1	1	1	0	13	3	1	2	3	3
	BUSES	1	2	0	1	0	0	1	0	0	0	0	1
	BIKE (OTHER)		2	(0)		8	(0)		0	(0)	3	(0)	
	PEDS	North Side	•	26	East Side		18	South Side		53	West Side		39
11:00	CARS	120	14	13	11	20	4	150	7	3	24	2	17
	DUALS	14	3	1	2	4	1	17	2	0	0	1	2
	BUSES	0	3	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		4	(0)	4	(0)	
	PEDS	North Side	•	40	East Side		50	South Side		57	West Side		22
11:15	CARS	99	13	15	14	0	4	111	5	1	27	12	12
	DUALS	7	0	2	1	12	1	13	3	0	4	1	0
	BUSES	0	1	0	1	0	0	1	0	0	0	0	1
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	3	(0)	
	PEDS	North Side	•	53	East Side		38	South Side		27	West Side		43
11:30	CARS	103	17	10	10	12	8	104	17	1	19	6	15
	DUALS	13	1	3	2	0	1	18	3	0	0	0	0
	BUSES	0	2	0	1	0	0	0	0	0	1	0	0
	BIKE (OTHER)		3	(0)		2	(0)		3	(0)	1	(0)	
	PEDS	North Side	•	77	East Side		65	South Side		75	West Side		45



### Intersection Detailed 15 Minutes Movement Report

#### LOWER JARVIS ST AT THE ESPLANADE (PX 1392)

**Routine Hours** 

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Survey Date: Aug-22-2019 (Thursday)
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### Intersection Detailed 15 Minutes Movement Report

#### LOWER JARVIS ST AT THE ESPLANADE (PX 1392)

**Routine Hours** 

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Survey Date: Aug-22-2019 (Thursday)
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#### LOWER JARVIS ST AT THE ESPLANADE (PX 1392)

```
Aug-22-2019 (Thursday)
Survey Date:
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Survey Ty	pe: Routine H	ours											
Time Period		NOR Thru	TH BOI Right	UND Left	EA Thru	ST BOU Right	ND Left	SOUT Thru	FH BOL Right	JND Left	WE Thru	ST BOUND Right Lei	ft
17:15	CARS	110	13	11	26	14	16	49	0	0	10	1	15
	DUALS	3	0	0	0	0	0	5	0	0	0	0	1
	BUSES	0	1	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		4	(0)		14	(0)		0	(0)	6	(0)	
	PEDS	North Sid	le	122	East Side		60	South Side	•	84	West Side		64
17:30	CARS	110	16	9	33	7	5	50	3	0	11	3	16
	DUALS	5	0	0	1	0	0	3	0	0	0	0	1
	BUSES	0	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Sid	le	130	East Side		56	South Side	•	93	West Side		87
17:45	CARS	128	24	13	25	10	17	25	3	1	10	4	18
	DUALS	4	2	0	0	2	0	3	0	0	2	0	0
	BUSES	0	1	0	1	0	0	0	0	0	1	0	0
	BIKE (OTHER)		3	(0)		13	(0)		0	(0)	5	(0)	
	PEDS	North Sid	le	91	East Side		64	South Side	•	107	West Side		62
18:00	CARS	114	17	15	14	14	4	62	0	1	9	1	9
	DUALS	6	1	0	1	0	0	1	0	0	0	1	2
	BUSES	0	0	0	1	0	0	3	0	0	0	1	0
	BIKE (OTHER)		8	(0)		12	(0)		2	(0)	3	(0)	
	PEDS	North Sid	le	76	East Side		62	South Side	•	120	West Side		74



#### LOWER SHERBOURNE ST AT THE ESPLANADE (PX 1441)

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Survey Date: Aug-22-2019 (Thursday)
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Survey Ty	vpe: Routine H	lours											
Time Period		NOR1 Thru	TH BOU Right	IND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	25	5	12	7	0	2	14	4	1	14	1	2
	DUALS	5	2	1	0	0	0	2	1	1	1	3	2
	BUSES	0	0	0	3	0	3	2	0	0	2	0	0
	BIKE (OTHER)		9	(0)		2	(0)		7	(0)	21	(0)	
	PEDS	North Side	•	18	East Side		26	South Side		25	West Side		9
08:00	CARS	33	10	18	2	3	2	29	5	1	7	5	g
	DUALS	1	0	0	1	0	0	3	0	0	2	1	0
	BUSES	0	0	0	1	0	2	3	0	0	1	0	0
	BIKE (OTHER)		15	(0)		4	(0)		9	(0)	16	(0)	
	PEDS	North Side	)	15	East Side		15	South Side		38	West Side		14
08:15	CARS	41	12	14	8	1	4	33	18	1	22	4	5
	DUALS	6	0	0	0	2	0	5	0	0	0	0	0
	BUSES	0	0	0	1	0	3	3	0	0	1	0	0
	BIKE (OTHER)		21	(0)		3	(0)		19	(0)	18	(0)	
	PEDS	North Side	•	33	East Side		29	South Side		38	West Side		18
08:30	CARS	35	10	12	10	2	2	29	12	1	17	0	g
	DUALS	4	0	0	0	0	0	4	0	0	1	0	1
	BUSES	0	0	0	2	0	2	1	0	0	0	0	0
	BIKE (OTHER)		18	(0)		7	(0)		22	(0)	37	(0)	
	PEDS	North Side	•	41	East Side		29	South Side		44	West Side		18
08:45	CARS	32	16	11	7	2	7	27	11	1	20	2	5
	DUALS	3	0	0	3	0	0	2	0	0	1	0	1
	BUSES	0	0	0	0	0	2	2	0	0	2	0	0
	BIKE (OTHER)		27	(0)		5	(0)		27	(0)	26	(0)	
	PEDS	North Side	•	47	East Side		33	South Side		68	West Side		27
09:00	CARS	46	11	15	17	2	3	24	16	3	19	5	5
	DUALS	4	0	0	2	1	0	5	0	0	1	0	1
	BUSES	1	0	0	1	0	3	2	0	0	1	0	0
	BIKE (OTHER)		16	(0)		4	(0)		32	(0)	32	(0)	
	PEDS	North Side	•	41	East Side		30	South Side		66	West Side		24
09:15	CARS	43	19	11	17	3	4	27	13	2	13	2	7
	DUALS	7	0	0	1	0	0	6	0	3	0	0	1
	BUSES	0	0	0	2	0	1	1	0	0	1	0	0
	BIKE (OTHER)		16	(0)		5	(0)		14	(0)	9	(0)	
	PEDS	North Side	•	41	East Side		43	South Side		45	West Side		21



# Intersection Detailed 15 Minutes Movement Report

# LOWER SHERBOURNE ST AT THE ESPLANADE (PX 1441) **Routine Hours**

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Aug-22-2019 (Thursday)
Survey Date:
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Time Period 09:30 CARS		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
09:30	CARS	48	18	7	20	4	5	25	10	2	26	6	8
	DUALS	5	0	0	0	0	1	4	0	1	0	0	0
	BUSES	1	0	0	1	0	4	4	0	0	1	0	0
	BIKE (OTHER)		14	(0)		2	(0)		11	(0)	7	(0)	
	PEDS	North Side	·	38	East Side		21	South Side		41	West Side		12
10:15	CARS	38	9	7	17	3	11	19	10	1	15	4	6
	DUALS	3	1	0	1	1	0	3	0	0	1	0	1
	BUSES	1	0	0	0	0	2	3	0	0	1	0	0
	BIKE (OTHER)		9	(0)		2	(0)		14	(0)	6	(0)	
	PEDS	North Side	·	29	East Side		24	South Side		53	West Side		14
10:30	CARS	33	3	11	13	1	4	28	15	1	12	5	8
	DUALS	5	0	1	1	3	0	11	0	1	1	1	1
	BUSES	0	0	0	1	0	3	2	0	0	0	0	0
	BIKE (OTHER)		6	(0)		2	(0)		7	(0)	7	(0)	
	PEDS	North Side	·	22	East Side		11	South Side		52	West Side		18
10:45	CARS	34	6	7	17	1	5	24	5	0	14	5	8
	DUALS	5	0	0	1	0	1	3	1	0	2	0	2
	BUSES	0	0	0	1	0	2	2	0	0	1	0	0
	BIKE (OTHER)		8	(0)		8	(0)		5	(0)	3	(0)	
	PEDS	North Side	·	12	East Side		13	South Side		46	West Side		13
11:00	CARS	39	4	12	10	4	4	21	10	0	14	2	5
	DUALS	5	1	1	2	2	1	4	0	1	1	0	1
	BUSES	0	0	0	1	0	3	3	0	0	0	0	0
	BIKE (OTHER)		6	(0)		1	(0)		11	(0)	7	(0)	
	PEDS	North Side	·	24	East Side		20	South Side		48	West Side		15
11:15	CARS	35	8	7	13	5	7	45	14	2	11	0	11
	DUALS	3	0	1	1	0	0	7	0	1	2	0	0
	BUSES	0	0	0	1	0	1	1	0	0	1	0	0
	BIKE (OTHER)		10	(0)		5	(0)		5	(0)	6	(0)	
	PEDS	North Side	·	30	East Side		20	South Side		87	West Side		19
11:30	CARS	50	6	4	11	5	5	42	12	9	13	5	7
	DUALS	5	0	0	1	1	0	5	0	1	0	0	1
	BUSES	0	0	0	0	0	3	3	0	0	1	0	0
	BIKE (OTHER)		9	(0)		7	(0)		17	(0)	2	(0)	
	PEDS	North Side	!	30	East Side		26	South Side		71	West Side		12



# Intersection Detailed 15 Minutes Movement Report

# LOWER SHERBOURNE ST AT THE ESPLANADE (PX 1441) **Routine Hours**

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Aug-22-2019 (Thursday)
Survey Date:
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Time Period 11:45 CARS		NORTH BOUND Thru Right Left			EAS Thru	EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
11:45	CARS	53	2	14	18	4	3	32	11	0	12	1	9	
	DUALS	10	5	1	2	2	0	7	0	1	4	1	1	
	BUSES	0	0	0	1	0	1	1	0	0	1	0	0	
	BIKE (OTHER)		6	(0)		4	(0)		11	(0)	10	(0)		
	PEDS	North Side		33	East Side		28	South Side		62	West Side		18	
12:00	CARS	60	8	12	18	3	6	44	9	3	18	2	10	
	DUALS	6	0	1	1	0	2	3	0	0	2	0	1	
	BUSES	0	0	0	1	0	1	2	0	0	0	0	0	
	BIKE (OTHER)		7	(0)		3	(0)		7	(0)	8	(0)		
	PEDS	North Side		23	East Side		22	South Side		64	West Side		23	
13:15	CARS	29	4	5	15	5	10	43	7	1	10	2	6	
	DUALS	4	2	0	2	1	0	10	1	0	0	0	0	
	BUSES	0	1	0	0	0	1	1	0	0	1	0	0	
	BIKE (OTHER)		5	(0)		5	(0)		7	(0)	5	(0)		
	PEDS	North Side		39	East Side		29	South Side		105	West Side		22	
13:30	CARS	23	4	2	13	1	9	35	8	2	13	2	6	
	DUALS	5	0	1	0	0	0	3	3	0	2	0	0	
	BUSES	0	0	0	1	0	1	0	0	0	1	0	0	
	BIKE (OTHER)		10	(0)		4	(0)		10	(0)	2	(0)		
	PEDS	North Side		52	East Side		34	South Side		100	West Side		29	
13:45	CARS	29	11	5	14	2	10	42	6	3	0	2	4	
	DUALS	3	1	1	0	2	0	5	1	0	0	1	0	
	BUSES	0	0	0	1	0	2	4	0	0	1	0	0	
	BIKE (OTHER)		9	(0)		6	(0)		12	(0)	8	(0)		
	PEDS	North Side		31	East Side		15	South Side		92	West Side		26	
14:00	CARS	37	9	5	14	3	6	40	7	9	8	2	7	
	DUALS	2	1	1	0	1	0	8	0	0	1	0	0	
	BUSES	0	0	0	1	0	1	0	0	0	0	0	0	
	BIKE (OTHER)		7	(0)		9	(0)		6	(0)	8	(0)		
	PEDS	North Side		42	East Side		29	South Side		104	West Side		27	
14:15	CARS	37	5	6	15	5	10	37	5	7	7	1	10	
	DUALS	6	1	0	2	0	1	11	0	0	1	1	1	
	BUSES	0	0	0	0	0	1	2	0	0	1	0	0	
	BIKE (OTHER)		11	(0)		3	(0)		11	(0)	8	(0)		
	PEDS	North Side		45	East Side		26	South Side		79	West Side		26	



#### LOWER SHERBOURNE ST AT THE ESPLANADE (PX 1441)

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Survey Date: Aug-22-2019 (Thursday)
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Survey Ty	vpe: Routine H	lours											
Time Period	Time Period 4:30 CARS		H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ť
14:30	CARS	40	5	5	13	4	5	51	12	4	4	0	5
	DUALS	5	0	0	2	1	0	12	3	0	0	0	0
	BUSES	0	0	0	2	1	3	1	0	0	1	0	0
	BIKE (OTHER)		4	(0)		4	(0)		23	(0)	7	(0)	
	PEDS	North Side		35	East Side		30	South Side		93	West Side		26
14:45	CARS	46	10	12	15	13	12	44	6	7	11	6	12
	DUALS	4	0	0	1	1	0	7	1	0	1	0	0
	BUSES	0	0	0	0	0	1	0	0	0	1	0	1
	BIKE (OTHER)		8	(0)		9	(0)		10	(0)	9	(0)	
	PEDS	North Side		35	East Side		29	South Side		127	West Side		55
15:00	CARS	46	9	17	11	8	9	50	14	2	14	4	3
	DUALS	8	1	0	1	0	2	8	1	0	1	0	0
	BUSES	0	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		14	(0)		9	(0)		6	(0)	8	(0)	
	PEDS	North Side		39	East Side		20	South Side		96	West Side		15
16:15	CARS	54	6	11	18	12	8	49	13	3	15	3	7
	DUALS	1	1	0	2	1	1	4	1	0	5	0	1
	BUSES	0	0	0	0	0	1	4	1	1	0	0	0
	BIKE (OTHER)		18	(0)		8	(0)		22	(0)	8	(0)	
	PEDS	North Side		40	East Side		36	South Side		100	West Side		33
16:30	CARS	68	7	13	21	13	4	59	18	5	17	2	6
	DUALS	2	0	0	2	1	1	1	0	0	0	0	0
	BUSES	0	0	0	2	0	1	2	0	0	0	0	0
	BIKE (OTHER)		18	(0)		10	(0)		27	(0)	10	(0)	
	PEDS	North Side		57	East Side		28	South Side		113	West Side		22
16:45	CARS	56	11	11	26	7	4	54	8	7	22	4	13
	DUALS	2	0	0	1	2	0	1	0	0	0	0	0
	BUSES	1	0	0	1	0	2	0	0	0	1	0	0
	BIKE (OTHER)		23	(0)		9	(0)		29	(0)	10	(0)	
	PEDS	North Side		40	East Side		39	South Side		124	West Side		33
17:00	CARS	50	10	9	24	8	6	42	18	0	30	3	12
	DUALS	2	0	2	2	0	0	2	2	0	1	1	1
	BUSES	1	0	0	0	0	2	1	0	0	3	0	0
	BIKE (OTHER)		16	(0)		12	(0)		26	(0)	9	(0)	
	PEDS	North Side		53	East Side		25	South Side		116	West Side		22

Page 4 of 5



# Intersection Detailed 15 Minutes Movement Report

# LOWER SHERBOURNE ST AT THE ESPLANADE (PX 1441) **Routine Hours**

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Aug-22-2019 (Thursday)
Survey Date:
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Time		NORTH BOUND			EAST BOUND			SOUTH BOUND			WEST BOUND		
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru F	light Lef	ť
17:15	CARS	47	7	15	20	9	7	45	13	5	24	1	12
	DUALS	2	0	1	1	0	0	1	0	0	1	1	2
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		22	(0)		20	(0)		36	(0)	5	(0)	
	PEDS	North Sid	e	84	East Side		43	South Side		107	West Side		39
17:30	CARS	50	10	10	30	11	2	25	4	5	16	4	14
	DUALS	2	0	0	0	0	0	2	0	0	1	0	1
	BUSES	0	0	0	0	0	2	1	0	0	1	0	0
	BIKE (OTHER)		12	(0)		11	(0)		33	(0)	7	(0)	
	PEDS	North Sid	e	81	East Side		68	South Side		123	West Side		45
17:45	CARS	50	14	11	23	13	9	25	3	5	37	5	11
	DUALS	3	0	0	1	0	1	0	0	0	3	0	0
	BUSES	0	0	1	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		21	(0)		8	(0)		30	(0)	4	(0)	
	PEDS	North Side	e	80	East Side		59	South Side		126	West Side		34
18:00	CARS	60	7	7	23	10	8	34	0	3	33	7	12
	DUALS	4	1	0	2	0	1	1	0	0	0	0	1
	BUSES	0	0	0	1	0	1	2	0	0	0	0	0
	BIKE (OTHER)		14	(0)		20	(0)		24	(0)	10	(0)	
	PEDS	North Side	e	95	East Side		51	South Side		118	West Side		46



#### CHERRY ST AT MILL ST

Survey Type: Routine Hours

Survey Date: Aug-22-2019 (Thursday)

Time Period		NOR Thru	TH BOI Right	UND Left	D EAST BOUND eft Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
07:45	CARS	18	0	1	5	4	3	23	5	1	14	0	36
	DUALS	2	0	0	1	1	2	5	0	1	0	0	2
	BUSES	3	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		5	(0)	14	(0)	
	PEDS	North Sid	e	8	East Side		3	South Side		4	West Side		6
08:00	CARS	18	0	3	20	1	3	27	2	1	15	0	37
	DUALS	3	0	3	4	2	1	5	0	1	0	0	5
	BUSES	2	0	2	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		10	(0)		4	(0)		6	(0)	25	(0)	
	PEDS	North Sid	e	10	East Side		6	South Side		4	West Side		14
08:15	CARS	17	0	5	8	4	3	40	6	2	12	2	36
	DUALS	4	0	1	0	1	0	0	0	1	0	0	5
	BUSES	2	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		5	(0)		3	(0)	21	(0)	
	PEDS	North Sid	e	19	East Side		6	South Side	_	7	West Side		10
08:30	CARS	8	0	8	19	9	10	37	5	3	16	1	57
	DUALS	4	0	2	0	1	2	5	0	1	0	0	1
	BUSES	2	0	1	0	0	0	3	0	0	0	0	1
	BIKE (OTHER)		8	(0)		3	(0)		4	(0)	1	(0)	
	PEDS	North Sid	e	14	East Side		3	South Side		11	West Side		20
08:45	CARS	24	0	7	12	7	8	50	5	1	18	2	55
	DUALS	3	0	2	1	0	0	7	0	0	0	0	2
	BUSES	3	0	1	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		5	(0)		7	(0)		7	(0)	26	(0)	
	PEDS	North Sid	e	9	East Side		2	South Side		5	West Side		11
09:00	CARS	24	0	7	20	8	5	43	7	1	18	1	65
	DUALS	5	0	2	0	1	1	5	0	1	1	0	9
	BUSES	4	0	2	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		5	(0)		3	(0)		6	(0)	17	(0)	
	PEDS	North Sid	e	7	East Side		4	South Side		8	West Side		15
09:15	CARS	20	0	6	8	9	7	56	5	3	13	3	47
	DUALS	4	0	0	2	3	2	0	0	1	2	1	3
	BUSES	3	0	1	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		3	(0)		7	(0)		4	(0)	3	(0)	
	PEDS	North Sid	е	9	East Side		10	South Side		12	West Side		15



#### CHERRY ST AT MILL ST

Survey Type: Routine Hours

Survey Date: Aug-22-2019 (Thursday)

Time Period		NORTH Thru R	IND Left	EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left			
09:30	CARS	29	0	9	12	5	9	46	4	3	12	2	42
	DUALS	6	0	1	1	0	1	9	0	0	9	1	9
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		5	(0)	11	(0)	
	PEDS	North Side		4	East Side		1	South Side		7	West Side		12
10:15	CARS	16	0	1	12	2	7	42	3	1	6	1	21
	DUALS	7	0	1	1	0	2	11	0	0	2	0	4
	BUSES	4	0	1	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		3	(0)		5	(0)	4	(0)	
	PEDS	North Side		10	East Side		7	South Side		7	West Side		20
10:30	CARS	18	0	6	17	8	4	38	2	2	3	0	22
	DUALS	3	1	1	3	0	3	5	0	0	0	1	2
	BUSES	1	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		5	(0)	3	(0)	
	PEDS	North Side		4	East Side		2	South Side		1	West Side		61
10:45	CARS	12	0	3	10	5	6	32	10	1	9	2	11
	DUALS	6	0	2	0	0	0	9	0	0	0	0	3
	BUSES	3	0	1	0	0	0	3	0	0	0	0	2
	BIKE (OTHER)		2	(0)		3	(0)		4	(0)	3	(0)	
	PEDS	North Side		10	East Side		7	South Side		4	West Side		5
11:00	CARS	10	0	4	12	6	9	39	9	2	7	0	21
	DUALS	3	0	0	3	1	0	4	0	0	0	1	4
	BUSES	1	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		3	(0)	3	(0)	
	PEDS	North Side		2	East Side		5	South Side		9	West Side		3
11:15	CARS	25	0	5	8	11	3	41	4	1	3	0	28
	DUALS	8	0	0	1	2	0	7	0	0	0	0	3
	BUSES	3	0	2	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		6	(0)		4	(0)	7	(0)	
	PEDS	North Side		5	East Side		12	South Side		12	West Side		9
11:30	CARS	18	0	4	12	10	12	61	4	3	10	3	36
	DUALS	5	0	0	0	2	2	11	1	1	1	0	8
	BUSES	1	0	1	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		4	(0)		3	(0)		4	(0)	4	(0)	
	PEDS	North Side		6	East Side		6	South Side		7	West Side		10


### CHERRY ST AT MILL ST

Survey Type: Routine Hours

Time Period		NORTH Thru R	l BOl ight	JND Left	EAS Thru	ST BOU Right	ND Left	SOUTH Thru R	BOU ight	IND Left	WES Thru	T BOUND Right Left	
11:45	CARS	16	0	1	14	5	6	67	5	3	7	1	31
	DUALS	5	0	1	3	1	1	9	0	1	2	0	3
	BUSES	2	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		2	(0)		1	(0)	7	(0)	
	PEDS	North Side		8	East Side		8	South Side		11	West Side		9
12:00	CARS	10	1	11	11	10	11	75	6	1	10	1	35
	DUALS	4	0	1	1	3	1	5	2	0	1	1	11
	BUSES	2	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		4	(0)		3	(0)	4	(0)	
	PEDS	North Side		13	East Side		4	South Side		9	West Side		27
13:15	CARS	21	0	3	9	8	4	48	2	7	9	1	16
	DUALS	5	0	0	1	1	0	7	0	1	0	0	6
	BUSES	4	0	1	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		5	(0)		2	(0)		3	(0)	4	(0)	
	PEDS	North Side		17	East Side		12	South Side		20	West Side		20
13:30	CARS	13	1	4	15	12	13	43	8	2	8	1	23
	DUALS	4	0	1	3	3	1	5	0	0	1	0	6
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		7	(0)		8	(0)	12	(0)	
	PEDS	North Side		5	East Side		16	South Side		17	West Side		29
13:45	CARS	11	1	5	14	12	11	35	8	7	6	3	21
	DUALS	6	0	0	0	1	2	8	0	0	2	0	7
	BUSES	2	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		1	(0)		2	(0)	1	(0)	
	PEDS	North Side		10	East Side		7	South Side		13	West Side		22
14:00	CARS	17	0	7	12	4	6	56	9	2	7	4	19
	DUALS	5	0	2	5	1	0	18	1	0	1	0	4
	BUSES	2	0	1	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		9	(0)		3	(0)		4	(0)	5	(0)	
	PEDS	North Side		16	East Side		18	South Side		17	West Side		17
14:15	CARS	23	1	5	10	15	9	38	5	4	15	3	27
	DUALS	3	0	0	1	1	0	13	0	0	1	0	7
	BUSES	0	0	0	0	0	1	3	0	0	0	0	1
	BIKE (OTHER)		2	(0)		5	(0)		5	(0)	3	(0)	
	PEDS	North Side		13	East Side		8	South Side		19	West Side		28



### CHERRY ST AT MILL ST

Survey Type: Routine Hours

Time Period		NOR' Thru	TH BO Right	UND Left	EA Thru	ST BOU Right	ND Left	SOUTI Thru F	H BOL Right	IND Left	WES Thru	T BOUND Right Left	t
14:30	CARS	16	0	3	16	9	7	58	2	1	5	1	38
	DUALS	3	0	1	3	1	1	7	1	0	0	0	8
	BUSES	2	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		10	(0)		2	(0)	0	(0)	
	PEDS	North Side	e	9	East Side		7	South Side		10	West Side		27
14:45	CARS	24	0	5	19	10	8	77	4	3	8	2	38
	DUALS	2	0	1	1	1	0	12	0	1	0	1	10
	BUSES	2	0	1	0	0	2	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		6	(0)		2	(0)	7	(0)	
	PEDS	North Side	e	12	East Side		1	South Side		19	West Side		23
15:00	CARS	23	0	2	20	6	9	97	6	5	5	1	24
	DUALS	6	1	0	1	4	2	14	0	0	0	0	6
	BUSES	3	0	1	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		5	(0)		7	(0)	4	(0)	
	PEDS	North Side	e	10	East Side		7	South Side		12	West Side		32
16:15	CARS	26	2	6	31	6	12	94	10	5	5	2	31
	DUALS	4	1	0	0	0	0	12	0	1	0	0	4
	BUSES	2	0	0	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		6	(0)		17	(0)		5	(0)	5	(0)	
	PEDS	North Side	e	7	East Side		10	South Side		29	West Side		17
16:30	CARS	17	0	10	35	11	10	101	8	6	7	0	28
	DUALS	4	0	0	3	0	0	12	0	0	1	0	6
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		24	(0)		4	(0)	5	(0)	
	PEDS	North Side	e	20	East Side		11	South Side		22	West Side		29
16:45	CARS	25	0	6	31	10	14	82	11	5	5	0	28
	DUALS	1	0	0	1	0	3	11	0	1	1	0	5
	BUSES	3	0	3	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		13	(0)		8	(0)		1	(0)	6	(0)	
	PEDS	North Side	e	10	East Side		7	South Side		8	West Side		25
17:00	CARS	25	2	7	35	12	10	90	6	4	6	1	38
	DUALS	2	0	0	2	0	0	4	0	1	1	0	5
	BUSES	2	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		21	(0)		5	(0)	4	(0)	
	PEDS	North Side	e	9	East Side		8	South Side		21	West Side		19



### CHERRY ST AT MILL ST

Survey Type: Routine Hours

Time Period		NOR Thru	TH BOI Right	JND Left	EA Thru	ST BOU Right	ND Left	SOUTH Thru F	H BOU Right	IND Left	WES Thru	Г BOUND Right Left	
17:15	CARS	29	2	5	32	9	18	78	5	1	11	2	41
	DUALS	2	0	1	1	1	0	13	0	1	1	0	3
	BUSES	5	0	1	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		24	(0)		2	(0)	3	(0)	
	PEDS	North Sid	e	10	East Side		10	South Side		16	West Side		31
17:30	CARS	25	0	3	27	19	8	93	3	0	14	1	40
	DUALS	2	0	0	2	1	1	11	0	0	0	1	2
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		6	(0)		28	(0)		2	(0)	3	(0)	
	PEDS	North Sid	e	15	East Side		23	South Side		32	West Side		39
17:45	CARS	30	1	5	30	6	9	103	12	3	17	0	37
	DUALS	2	1	1	1	1	3	8	0	0	1	0	4
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		9	(0)		30	(0)		8	(0)	2	(0)	
	PEDS	North Sid	e	18	East Side		12	South Side		26	West Side		32
18:00	CARS	44	1	7	37	17	7	87	6	1	9	3	45
	DUALS	1	0	1	0	0	1	3	1	1	0	0	4
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		12	(0)		32	(0)		3	(0)	9	(0)	
	PEDS	North Sid	e	24	East Side		10	South Side		10	West Side		37
07:45	CARS	11	1	1	14	0	4	7	1	6	1	1	13
	DUALS	5	0	0	0	0	1	1	0	1	0	0	1
	BUSES	0	0	1	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		1	(0)	3	(0)	
	PEDS	North Sid	e	2	East Side		4	South Side		4	West Side		3
08:00	CARS	24	3	4	19	2	3	17	3	3	2	1	11
	DUALS	2	0	0	3	0	0	1	0	0	2	0	0
	BUSES	0	0	1	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		1	(0)	4	(0)	
	PEDS	North Sid	e	5	East Side		2	South Side		4	West Side		7
08:15	CARS	36	3	2	18	3	0	15	3	4	4	1	7
	DUALS	2	0	0	3	0	1	0	0	0	0	0	0
	BUSES	0	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		10	(0)		2	(0)	17	(0)	
	PEDS	North Sid	е	5	East Side		3	South Side		2	West Side		8



### MILL ST AT PARLIAMENT ST (PX 1894)

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Survey Date: Aug-22-2019 (Thursday)
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Survey Type: Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left		SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left		
07:45	CARS	52	8	0	0	0	0	43	0	2	0	15	16
	DUALS	7	0	0	0	0	0	10	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		4	(0)		14	(0)		7	(0)	15	(0)	
	PEDS	North Side		14	East Side		25	South Side		10	West Side		0
08:00	CARS	84	17	0	0	0	0	58	0	7	0	15	17
	DUALS	14	2	0	0	0	0	6	0	0	0	0	0
	BUSES	0	1	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		4	(0)		16	(0)		3	(0)	27	(0)	
	PEDS	North Side		18	East Side		33	South Side		15	West Side		0
08:15	CARS	86	10	0	0	0	0	60	0	9	0	17	19
	DUALS	10	1	0	0	0	0	8	0	0	0	1	1
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		3	(0)		1	(0)		3	(0)	21	(0)	
	PEDS	North Side		26	East Side		27	South Side		31	West Side		0
08:30	CARS	78	15	0	0	0	0	81	0	9	0	20	25
	DUALS	12	0	0	0	0	0	10	0	1	0	1	1
	BUSES	4	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		4	(0)		1	(0)		3	(0)	44	(0)	
	PEDS	North Side		31	East Side		35	South Side		28	West Side		0
08:45	CARS	81	8	0	0	0	0	57	0	9	0	14	26
	DUALS	18	1	0	0	0	0	7	0	0	0	1	0
	BUSES	1	0	0	0	0	0	0	0	0	0	2	0
	BIKE (OTHER)		1	(0)		5	(0)		5	(0)	30	(0)	
	PEDS	North Side		28	East Side		36	South Side		29	West Side		0
09:00	CARS	93	15	0	0	0	0	77	0	8	0	25	18
	DUALS	13	1	0	0	0	0	10	0	2	0	1	1
	BUSES	2	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		7	(0)		1	(0)		3	(0)	27	(0)	
	PEDS	North Side		31	East Side		48	South Side		39	West Side		0
09:15	CARS	113	11	0	0	0	0	71	0	8	0	23	9
	DUALS	17	0	0	0	0	0	10	0	2	0	2	0
	BUSES	1	0	0	0	0	0	1	0	0	0	2	1
	BIKE (OTHER)		9	(0)		1	(0)		3	(0)	16	(0)	
	PEDS	North Side		20	East Side		31	South Side		32	West Side		0



### MILL ST AT PARLIAMENT ST (PX 1894)

Survey Date: Aug-22-2019 (Thursday)

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Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	94	6	0	0	0	0	61	0	6	0	17	10
	DUALS	16	0	0	0	0	0	9	0	0	0	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		2	(0)	11	(0)	
	PEDS	North Side		16	East Side		30	South Side		38	West Side		0
10:15	CARS	81	17	0	0	0	0	55	0	8	0	15	14
	DUALS	12	1	0	0	0	0	10	0	0	0	0	2
	BUSES	1	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		1	(0)		4	(0)		3	(0)	7	(0)	
	PEDS	North Side		14	East Side		41	South Side		113	West Side		0
10:30	CARS	75	16	0	0	0	0	59	0	7	0	15	8
	DUALS	15	2	0	0	0	0	22	0	0	0	1	0
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		3	(0)		2	(0)		0	(0)	5	(0)	
	PEDS	North Side		21	East Side		28	South Side		56	West Side		0
10:45	CARS	58	12	0	0	0	0	55	0	7	0	19	10
	DUALS	10	0	0	0	0	0	12	0	0	0	2	2
	BUSES	0	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		3	(0)		9	(0)		1	(0)	3	(0)	
	PEDS	North Side		28	East Side		54	South Side		42	West Side		0
11:00	CARS	77	18	0	0	0	0	66	0	9	0	19	16
	DUALS	10	2	0	0	0	0	14	0	1	0	1	0
	BUSES	1	1	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		1	(0)		4	(0)		3	(0)	4	(0)	
	PEDS	North Side		28	East Side		39	South Side		41	West Side		0
11:15	CARS	77	12	0	0	0	0	70	0	10	0	21	8
	DUALS	9	2	0	0	0	0	10	0	1	0	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		1	(0)		4	(0)		1	(0)	10	(0)	
	PEDS	North Side		26	East Side		36	South Side		88	West Side		0
11:30	CARS	76	21	0	0	0	0	75	0	15	0	27	11
	DUALS	10	1	0	0	0	0	17	0	0	0	1	0
	BUSES	1	0	0	0	0	0	0	0	0	0	2	0
	BIKE (OTHER)		5	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Side		16	East Side		22	South Side		65	West Side		0



### MILL ST AT PARLIAMENT ST (PX 1894)

Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS] Thru	Г BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	:
11:45	CARS	80	17	0	0	0	0	86	0	11	0	14	9
	DUALS	17	4	0	0	0	0	13	0	1	0	0	2
	BUSES	0	0	0	0	0	0	0	0	0	0	2	0
	BIKE (OTHER)		4	(0)		2	(0)		4	(0)	6	(0)	
	PEDS	North Side		22	East Side		23	South Side		56	West Side		0
12:00	CARS	82	13	0	0	0	0	100	0	14	0	18	10
	DUALS	7	0	0	0	0	0	11	0	0	0	1	4
	BUSES	1	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		5	(0)		5	(0)		4	(0)	5	(0)	
	PEDS	North Side	·	24	East Side		42	South Side		86	West Side		0
13:15	CARS	70	17	0	0	0	0	68	0	15	0	19	9
	DUALS	12	0	0	0	0	0	17	0	0	0	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		1	(0)		5	(0)		2	(0)	4	(0)	
	PEDS	North Side		41	East Side		47	South Side		108	West Side		0
13:30	CARS	74	23	0	0	0	0	77	0	15	0	24	9
	DUALS	12	2	0	0	0	0	11	0	0	0	2	0
	BUSES	1	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		2	(0)		6	(0)		7	(0)	9	(0)	
	PEDS	North Side	·	28	East Side		45	South Side		141	West Side		0
13:45	CARS	73	16	0	0	0	0	81	0	10	0	18	9
	DUALS	9	1	0	0	0	0	15	0	0	0	1	0
	BUSES	0	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		3	(0)		3	(0)		2	(0)	9	(0)	
	PEDS	North Side	·	33	East Side		49	South Side		100	West Side		0
14:00	CARS	85	16	0	0	0	0	60	0	9	0	10	11
	DUALS	8	1	0	0	0	0	9	0	0	0	0	0
	BUSES	1	1	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		2	(0)		4	(0)		7	(0)	8	(0)	
	PEDS	North Side	·	25	East Side		48	South Side		126	West Side		0
14:15	CARS	87	17	0	0	0	0	63	0	15	0	23	17
	DUALS	8	1	0	0	0	0	11	0	0	0	3	2
	BUSES	0	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		6	(0)		1	(0)		1	(0)	8	(0)	
	PEDS	North Side		26	East Side		61	South Side		130	West Side		0



### MILL ST AT PARLIAMENT ST (PX 1894)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	69	14	0	0	0	0	91	0	15	0	19	8
	DUALS	9	4	0	0	0	0	11	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	3	0
	BIKE (OTHER)		0	(0)		7	(0)		2	(0)	5	(0)	
	PEDS	North Side		32	East Side		47	South Side		114	West Side		0
14:45	CARS	97	16	0	0	0	0	108	0	11	0	15	16
	DUALS	17	0	0	0	0	0	17	0	2	0	1	C
	BUSES	0	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		8	(0)		0	(0)		4	(0)	11	(0)	
	PEDS	North Side	·	21	East Side		47	South Side		93	West Side		0
15:00	CARS	90	24	0	0	0	0	115	0	9	0	17	10
	DUALS	5	2	0	0	0	0	14	0	0	0	0	C
	BUSES	1	2	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		1	(0)		3	(0)		8	(0)	6	(0)	
	PEDS	North Side	·	30	East Side		55	South Side		96	West Side		0
16:15	CARS	85	29	0	0	0	0	96	0	12	0	19	15
	DUALS	4	4	0	0	0	0	10	0	0	0	0	C
	BUSES	1	0	0	0	0	0	0	0	0	0	1	1
	BIKE (OTHER)		6	(0)		8	(0)		9	(0)	10	(0)	
	PEDS	North Side	·	24	East Side		47	South Side		98	West Side		0
16:30	CARS	105	26	0	0	0	0	101	0	10	0	23	13
	DUALS	2	4	0	0	0	0	13	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		2	(0)		9	(0)		6	(0)	6	(0)	
	PEDS	North Side	·	38	East Side		60	South Side		83	West Side		0
16:45	CARS	107	27	0	0	0	0	94	0	13	0	25	12
	DUALS	9	0	0	0	0	0	9	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	2	0
	BIKE (OTHER)		3	(0)		12	(0)		2	(0)	9	(0)	
	PEDS	North Side	·	31	East Side		68	South Side		112	West Side		0
17:00	CARS	74	40	0	0	0	0	101	0	19	0	24	17
	DUALS	5	2	0	0	0	0	6	0	1	0	0	C
	BUSES	0	0	0	0	0	0	1	0	0	0	6	0
	BIKE (OTHER)		3	(0)		23	(0)		13	(0)	10	(0)	
	PEDS	North Side		24	East Side		59	South Side		98	West Side		0



### MILL ST AT PARLIAMENT ST (PX 1894)

Survey Ty	rpe: Routine I	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	:
17:15	CARS	111	25	0	0	0	0	117	0	10	0	15	20
	DUALS	3	1	0	0	0	0	3	0	0	0	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		9	(0)		24	(0)		13	(0)	5	(0)	
	PEDS	North Side		46	East Side		88	South Side		98	West Side		0
17:30	CARS	109	29	0	0	0	0	98	0	13	0	18	22
	DUALS	7	1	0	0	0	0	8	0	0	0	0	1
	BUSES	1	0	0	0	0	0	1	0	0	0	2	0
	BIKE (OTHER)		4	(0)		26	(0)		13	(0)	5	(0)	
	PEDS	North Side		52	East Side		14	South Side		104	West Side		0
17:45	CARS	115	39	0	0	0	0	135	0	13	0	26	20
	DUALS	4	3	0	0	0	0	7	0	0	0	1	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		23	(0)		7	(0)	7	(0)	
	PEDS	North Side		48	East Side		82	South Side		116	West Side		0
18:00	CARS	106	39	0	0	0	0	114	0	20	0	32	20
	DUALS	4	0	0	0	0	0	11	0	0	0	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		6	(0)		20	(0)		8	(0)	8	(0)	
	PEDS	North Side		50	East Side		89	South Side		95	West Side		0
07:45	CARS	40	14	0	0	0	0	21	0	0	0	3	4
	DUALS	4	0	0	0	0	0	2	0	0	0	1	0
	BUSES	0	0	0	0	0	0	3	0	0	0	1	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		6	East Side		00	South Side		7	West Side		0
08:00	CARS	43	14	0	0	0	0	24	0	4	0	9	4
	DUALS	7	1	0	0	0	0	6	0	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	3	(0)	
	PEDS	North Side		3	East Side		0	South Side		4	West Side		0
08:15	CARS	52	11	0	0	0	0	25	0	1	0	8	2
	DUALS	6	4	0	0	0	0	2	0	1	0	0	2
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	6	(0)	
	PEDS	North Side		12	East Side		0	South Side		8	West Side		0



### PAPE AVE AT STRATHCONA AVE

Survey Date: Oct-25-2018 (Thursday)

Survey	Type:	Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left		SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Left	t	
07:45	CARS	44	0	0	0	3	0	68	0	0	0	7	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	1
	BUSES	2	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		7	East Side		11	South Side		0	West Side		3
08:00	CARS	52	0	0	0	2	5	77	0	0	0	7	1
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	3	(0)	
	PEDS	North Side		4	East Side		18	South Side		0	West Side		1
08:15	CARS	63	0	0	0	6	3	97	0	0	0	7	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	3	0	0	0	0	1
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		17	East Side		16	South Side		0	West Side		10
08:30	CARS	58	0	0	0	3	5	83	0	0	0	8	5
	DUALS	1	0	0	0	1	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	1	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		49	East Side		24	South Side		0	West Side		6
08:45	CARS	65	0	0	0	5	4	102	0	0	0	11	16
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	4	0	0	0	0	0	4	0	0	0	2	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		102	East Side		18	South Side		0	West Side		13
09:00	CARS	64	0	0	0	6	2	109	0	0	0	9	10
	DUALS	1	0	0	0	1	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	2	5
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		19	East Side		11	South Side		1	West Side		4
09:15	CARS	69	0	0	0	5	2	101	0	0	0	3	5
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		12	East Side		6	South Side		0	West Side		7

Page 1 of 5



### PAPE AVE AT STRATHCONA AVE

Survey Date: Oct-25-2018 (Thursday)

Survey Type:	Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left		SOUTH Thru R	BOUI	ND Left	WEST Thru R	BOUND ight Left		
09:30	CARS	57	0	0	0	3	1	91	0	0	0	2	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		2	South Side		0	West Side		6
10:15	CARS	58	0	0	0	1	4	47	0	0	0	2	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		2	(0)	1	(0)	
	PEDS	North Side		5	East Side		8	South Side		2	West Side		8
10:30	CARS	64	0	0	0	3	3	45	0	0	0	3	2
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		5	East Side		7	South Side		2	West Side		7
10:45	CARS	48	0	0	0	3	7	69	0	0	0	4	1
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		5	South Side		1	West Side		7
11:00	CARS	53	0	0	0	0	0	58	0	0	0	1	6
	DUALS	0	0	0	0	1	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		2	East Side		6	South Side		0	West Side		4
11:15	CARS	53	0	0	0	2	4	62	0	0	0	4	2
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		2	East Side		7	South Side		0	West Side		5
11:30	CARS	51	0	0	0	3	1	61	0	0	0	4	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	North Side		5	East Side		13	South Side		0	West Side		5

Page 2 of 5



### PAPE AVE AT STRATHCONA AVE

Survey Date: Oct-25-2018 (Thursday)

Survey	Type:	Routine Hours

Time Period 11:45 CARS		NORTH Thru R	NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			BOUI ight	ND Left	WEST BOUND Thru Right Left		
11:45	CARS	61	0	0	0	6	4	64	0	0	0	5	3
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		20	East Side		9	South Side		4	West Side		18
12:00	CARS	69	0	0	0	5	3	60	0	0	0	4	2
	DUALS	0	0	0	0	0	1	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		17	East Side		10	South Side		0	West Side		15
13:15	CARS	69	0	0	0	5	9	62	0	0	0	6	1
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		12	South Side		0	West Side		12
13:30	CARS	66	0	0	0	2	7	61	0	0	0	8	2
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		2	East Side		15	South Side		1	West Side		11
13:45	CARS	63	0	0	0	1	7	52	0	0	0	4	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	1	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		8	East Side		18	South Side		0	West Side		6
14:00	CARS	57	0	0	0	4	4	59	0	0	0	3	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		10	South Side		3	West Side		10
14:15	CARS	56	0	0	0	3	6	56	0	0	0	5	3
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		13	South Side		0	West Side		15



### PAPE AVE AT STRATHCONA AVE

Survey Date: Oct-25-2018 (Thursday)

Survey	Type:	Routine Hours

Time Period		NORTH Thru R	IND Left	EAST BOUND Thru Right Left			SOUTH Thru R	BOU! ight	ND Left	WEST BOUND Thru Right Left			
14:30	CARS	60	0	0	0	2	3	69	0	0	0	5	8
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	3	0	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		6	East Side		14	South Side		1	West Side		13
14:45	CARS	61	0	0	0	4	5	69	0	0	0	4	6
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		11	South Side		1	West Side		12
15:00	CARS	64	0	0	0	3	4	72	0	0	0	5	5
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		11	South Side		0	West Side		12
16:15	CARS	76	0	0	0	9	5	63	0	0	0	8	4
	DUALS	3	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		12	South Side		1	West Side		10
16:30	CARS	80	0	0	0	6	3	70	0	0	0	5	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		8	East Side		17	South Side		0	West Side		10
16:45	CARS	81	0	0	0	7	3	60	0	0	0	0	0
	DUALS	2	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		10	East Side		14	South Side		0	West Side		13
17:00	CARS	78	0	0	0	4	0	58	0	0	0	4	6
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		9	South Side		0	West Side		9



### PAPE AVE AT STRATHCONA AVE

Hours

Survey Date: Oct-25-2018 (Thursday)

Survey	Type:	Routine
· · · · ·	<b>J F F</b>	

Time Period		NORT	NORTH BOUND Thru Right Left			EAST BOUND			BOU	IND	WEST BOUND			
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	ight Left		
17:15	CARS	82	0	0	0	6	2	62	0	0	0	3	7	
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0	
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0	
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)		
	PEDS	North Side		6	East Side		18	South Side		2	West Side		10	
17:30	CARS	78	0	0	0	5	2	69	0	0	0	6	4	
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0	
	BUSES	3	0	0	0	0	0	5	0	0	0	0	0	
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)		
	PEDS	North Side		7	East Side		18	South Side		0	West Side		16	
17:45	CARS	83	0	0	0	8	1	59	0	0	0	4	3	
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0	
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0	
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)		
	PEDS	North Side		8	East Side		21	South Side		1	West Side		11	
18:00	CARS	80	0	0	0	9	3	67	0	0	0	7	3	
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0	
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0	
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	0	(0)		
	PEDS	North Side		6	East Side		15	South Side		0	West Side		10	



#### PARLIAMENT ST AT QUEEN ST (PX 246)

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Survey Date: Feb-28-2019 (Thursday)
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#### PARLIAMENT ST AT QUEEN ST (PX 246)

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Survey Date: Feb-28-2019 (Thursday)
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#### PARLIAMENT ST AT QUEEN ST (PX 246)

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Survey Date:
                Feb-28-2019 (Thursday)
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#### PARLIAMENT ST AT QUEEN ST (PX 246)

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Survey Date: Feb-28-2019 (Thursday)
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#### PARLIAMENT ST AT SHUTER ST (PX 247)

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Jun-13-2018 (Wednesday)
Survey Date:
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#### PARLIAMENT ST AT SHUTER ST (PX 247)

**BIKE (OTHER)** 

PEDS

North Side

(0)

```
Jun-13-2018 (Wednesday)
```

(0)

(0)

(0)

(0)

(0)

(0)

(0)

West Side

South Side

(0)

East Side

(0)



#### PARLIAMENT ST AT SHUTER ST (PX 247)

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Survey Date: Jun-13-2018 (Wednesday)
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#### PARLIAMENT ST AT SHUTER ST (PX 247)

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Survey Date: Jun-13-2018 (Wednesday)
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Page 4 of 5



### PARLIAMENT ST AT SHUTER ST (PX 247)

Survey Type:	Routine H	lours											
Time Period		NOF Thru	RTH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU Thru	TH BOU Right	JND Left	WES Thru	ST BOUND Right Lef	ft
17:15 C	ARS	91	2	17	0	42	69	65	22	1	0	0	0
C	UALS	3	0	0	0	3	0	1	0	0	0	0	0
В	USES	2	0	0	0	0	0	1	0	0	0	0	0
В	IKE (OTHER)		6	(0)		13	(0)		4	(0)	1	(0)	
P	PEDS	North Sic	le	15	East Side		30	South Sid	e	32	West Side		41
17:30 C	ARS	77	0	29	0	32	84	67	25	4	0	2	0
C	UALS	3	0	1	0	0	0	3	0	0	0	0	0
В	USES	3	0	0	0	0	0	2	0	0	0	0	0
В	IKE (OTHER)		5	(0)		21	(0)		2	(0)	3	(0)	
P	EDS	North Sic	le	23	East Side		39	South Sid	e	20	West Side		52
17:45 C	ARS	68	1	27	0	38	77	66	32	2	0	1	0
C	UALS	1	0	0	0	1	0	1	1	0	0	1	0
В	USES	2	0	0	0	0	0	2	0	0	0	0	0
В	IKE (OTHER)		5	(0)		18	(0)		6	(0)	1	(0)	
F	PEDS	North Sic	le	12	East Side		30	South Sid	e	41	West Side		58
18:00 C	ARS	89	0	39	0	55	68	38	29	1	0	1	1
C	UALS	1	0	0	0	0	1	0	0	0	0	0	0
B	USES	4	0	0	0	0	0	1	0	0	0	0	0
В	IKE (OTHER)		13	(0)		13	(0)		2	(0)	1	(0)	
F	PEDS	North Sic	de	16	East Side		22	South Sid	е	22	West Side		52



#### QUEEN ST AT SHERBOURNE ST (PX 257)

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Survey Date: Feb-28-2019 (Thursday)
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#### QUEEN ST AT SHERBOURNE ST (PX 257)

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Survey Date: Feb-28-2019 (Thursday)
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### QUEEN ST AT SHERBOURNE ST (PX 257)

```
Survey Date: Feb-28-2019 (Thursday)
```

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	IND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	48	9	8	44	7	10	39	9	14	40	9	2
	DUALS	1	0	0	1	0	0	2	0	1	2	0	C
	BUSES	4	0	0	5	0	0	2	0	0	5	0	0
	BIKE (OTHER)		2	(0)		1	(0)		1	(0)	2	(0)	
	PEDS	North Side		34	East Side		34	South Side		27	West Side		25
12:00	CARS	52	6	6	45	6	6	46	3	14	39	6	2
	DUALS	1	0	0	2	0	0	2	1	0	1	0	C
	BUSES	1	0	0	3	0	0	1	0	0	3	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		31	East Side		24	South Side		25	West Side		21
13:15	CARS	50	9	3	62	5	10	57	5	13	38	6	2
	DUALS	0	2	0	2	0	0	2	0	1	0	0	C
	BUSES	1	0	0	4	0	0	3	0	1	4	0	0
	BIKE (OTHER)		1	(0)		1	(0)		4	(0)	2	(0)	
	PEDS	North Side		43	East Side		58	South Side		32	West Side		28
13:30	CARS	50	13	7	56	8	12	45	4	9	43	11	7
	DUALS	2	0	0	1	0	0	3	1	0	1	1	C
	BUSES	4	0	0	5	0	0	2	0	0	6	0	0
	BIKE (OTHER)		2	(0)		2	(0)		5	(0)	0	(0)	
	PEDS	North Side		29	East Side		49	South Side		36	West Side		27
13:45	CARS	46	11	2	55	8	12	43	4	14	42	8	8
	DUALS	3	0	0	2	0	0	2	0	0	1	0	C
	BUSES	1	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side		35	East Side		52	South Side		20	West Side		19
14:00	CARS	46	5	3	52	4	7	42	6	9	48	10	7
	DUALS	3	1	1	0	0	0	4	0	1	0	0	C
	BUSES	0	0	0	10	0	0	4	0	0	6	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		34	East Side		35	South Side		23	West Side		36
14:15	CARS	53	7	4	70	3	10	51	5	9	43	5	6
	DUALS	3	0	0	0	0	0	0	0	0	0	0	C
	BUSES	5	0	0	1	0	0	1	0	0	4	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		27	East Side		43	South Side		29	West Side		26



### QUEEN ST AT SHERBOURNE ST (PX 257)

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Survey Date: Feb-28-2019 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	I BOUI light	ND Left	WEST Thru R	BOUND	ť
14:30	CARS	47	3	5	62	7	3	53	5	13	34	10	10
	DUALS	1	1	0	0	0	0	4	0	1	3	0	(
	BUSES	1	0	0	8	0	0	1	0	0	3	0	C
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		32	East Side		52	South Side		38	West Side		26
14:45	CARS	62	3	7	56	7	6	66	7	5	40	10	Ę
	DUALS	2	0	0	2	0	0	1	0	0	0	1	(
	BUSES	2	0	0	3	0	0	3	0	0	3	1	C
	BIKE (OTHER)		2	(0)		3	(0)		5	(0)	3	(0)	
	PEDS	North Side		38	East Side		26	South Side		30	West Side		17
15:00	CARS	52	10	6	76	8	13	73	11	12	36	12	2
	DUALS	2	0	0	2	0	1	2	0	0	0	0	0
	BUSES	1	0	0	3	0	0	2	0	0	6	0	0
	BIKE (OTHER)		3	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		65	East Side		61	South Side		38	West Side		35
16:15	CARS	64	1	4	98	5	10	68	13	20	49	6	2
	DUALS	1	0	0	0	0	2	2	0	0	2	0	0
	BUSES	2	0	0	6	0	0	1	0	0	3	0	C
	BIKE (OTHER)		4	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		47	East Side		58	South Side		34	West Side		20
16:30	CARS	69	5	7	104	12	13	61	9	12	37	7	2
	DUALS	2	0	0	0	1	0	2	0	0	3	0	(
	BUSES	2	0	0	6	0	0	2	0	0	2	0	C
	BIKE (OTHER)		1	(0)		4	(0)		2	(0)	3	(0)	
	PEDS	North Side		39	East Side		40	South Side		44	West Side		31
16:45	CARS	57	18	10	122	7	6	58	8	9	47	12	8
	DUALS	3	1	0	1	0	0	3	0	0	0	1	1
	BUSES	1	0	0	3	0	0	2	0	0	5	0	0
	BIKE (OTHER)		6	(0)		4	(0)		6	(0)	3	(0)	
	PEDS	North Side		51	East Side		42	South Side		23	West Side		35
17:00	CARS	51	14	12	106	6	15	64	11	19	32	14	e
	DUALS	2	0	0	3	0	0	3	0	0	1	0	(
	BUSES	3	0	0	5	0	0	2	0	0	8	0	C
	BIKE (OTHER)		4	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		56	East Side		63	South Side		43	West Side		31



### QUEEN ST AT SHERBOURNE ST (PX 257)

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Survey Date:
               Feb-28-2019 (Thursday)
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Survey Type	e: Ro	utine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Let	ft
17:15	CARS		65	10	6	122	3	8	78	7	16	49	8	12
	DUALS		0	0	0	0	0	0	1	0	0	1	0	0
	BUSES		1	0	0	4	0	0	1	0	0	5	0	0
	BIKE (OTHE	R)		4	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	N.	orth Sid	le	39	East Side		56	South Side	e	30	West Side		23
17:30	CARS		53	13	8	137	3	11	62	7	17	53	8	5
	DUALS		0	0	0	1	0	0	0	0	0	0	0	0
	BUSES		1	0	0	8	0	0	2	0	0	6	0	0
	BIKE (OTHE	R)		3	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	N.	orth Sid	le	48	East Side		55	South Side	e	48	West Side		30
17:45	CARS		61	10	7	144	10	12	70	8	18	52	9	6
	DUALS		0	0	0	6	0	1	1	0	0	0	0	0
	BUSES		2	0	0	4	0	0	1	0	0	3	0	0
	BIKE (OTHE	R)		8	(0)		2	(0)		3	(0)	0	(0)	
	PEDS	N(	orth Sid	le	42	East Side		51	South Side	e	30	West Side		32
18:00	CARS		63	10	4	121	10	14	67	6	14	42	4	2
	DUALS		0	0	0	0	0	0	1	0	0	0	0	2
	BUSES		2	0	0	1	0	0	2	0	0	4	0	0
	BIKE (OTHE	R)		3	(0)		2	(0)		2	(0)	3	(0)	
	PEDS	N	orth Sid	le	36	East Side		52	South Side	e	50	West Side		31



### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Date: Jun-12-2019 (Wednesday)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	'H BOL Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru R	I BOU light	ND Left	WEST Thru R	BOUND ight Lef	ť
07:45	CARS	177	5	0	54	8	0	349	18	0	85	9	0
	DUALS	21	0	0	7	6	0	15	3	0	6	1	0
	BUSES	3	0	0	1	0	0	3	0	0	1	0	0
	BIKE (OTHER)		9	(0)		16	(0)		0	(0)	1	(0)	
	PEDS	North Side		63	East Side		143	South Side		56	West Side		114
08:00	CARS	185	5	0	54	8	0	338	20	0	83	9	0
	DUALS	14	1	0	9	1	0	19	4	0	6	2	0
	BUSES	2	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		14	(0)		16	(0)		4	(0)	0	(0)	
	PEDS	North Side		79	East Side		123	South Side		69	West Side		177
08:15	CARS	211	4	0	69	13	0	370	26	0	124	27	0
	DUALS	17	1	0	4	2	0	12	1	0	6	1	0
	BUSES	1	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		11	(0)		15	(0)		8	(0)	2	(0)	
	PEDS	North Side		108	East Side		206	South Side		79	West Side		218
08:30	CARS	193	6	0	58	12	0	358	32	0	118	18	0
	DUALS	9	0	0	6	2	1	16	3	0	7	2	0
	BUSES	3	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		8	(0)		19	(0)		9	(0)	1	(0)	
	PEDS	North Side		150	East Side		286	South Side		107	West Side		262
08:45	CARS	177	6	0	52	24	0	359	36	0	152	21	0
	DUALS	11	0	0	5	1	0	14	2	0	8	4	0
	BUSES	3	0	0	2	0	0	3	0	0	2	1	0
	BIKE (OTHER)		21	(0)		24	(0)		18	(0)	2	(0)	
	PEDS	North Side		164	East Side		293	South Side		150	West Side		221
09:00	CARS	185	7	0	93	30	0	342	29	0	128	0	0
	DUALS	8	0	0	7	3	0	18	5	0	6	1	0
	BUSES	2	0	0	1	0	0	2	1	0	0	1	0
	BIKE (OTHER)		9	(0)		19	(0)		9	(0)	7	(0)	
	PEDS	North Side		170	East Side		317	South Side		178	West Side		196
09:15	CARS	185	3	0	96	33	0	343	27	0	134	41	0
	DUALS	10	0	0	7	2	0	16	1	0	11	0	0
	BUSES	4	0	0	1	0	0	3	1	0	1	1	0
	BIKE (OTHER)		9	(0)		14	(0)		11	(0)	11	(0)	
	PEDS	North Side		139	East Side		190	South Side		118	West Side		189

Page 1 of 5



### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ť
09:30	CARS	237	5	0	77	29	0	293	31	0	111	25	0
	DUALS	14	1	0	5	2	0	16	4	0	7	4	0
	BUSES	3	1	0	1	0	0	6	0	0	3	0	0
	BIKE (OTHER)		10	(0)		18	(0)		8	(0)	9	(0)	
	PEDS	North Side		151	East Side		131	South Side		92	West Side		162
10:15	CARS	252	8	0	44	15	0	224	25	0	104	21	0
	DUALS	21	0	0	6	3	0	22	2	0	6	2	0
	BUSES	2	0	0	2	0	0	5	0	0	1	1	0
	BIKE (OTHER)		2	(0)		11	(0)		6	(0)	4	(0)	
	PEDS	North Side		117	East Side		100	South Side		83	West Side		107
10:30	CARS	273	7	0	53	11	1	241	29	0	97	21	0
	DUALS	10	0	0	6	1	0	25	2	0	8	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		12	(0)		12	(0)		1	(0)	5	(0)	
	PEDS	North Side		111	East Side		182	South Side		56	West Side		101
10:45	CARS	255	7	0	50	15	0	267	22	0	107	26	0
	DUALS	18	1	0	6	0	0	16	7	0	11	2	0
	BUSES	1	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		12	(0)		3	(0)	8	(0)	
	PEDS	North Side		173	East Side		99	South Side		90	West Side		103
11:00	CARS	239	6	0	55	12	0	273	26	0	105	38	0
	DUALS	23	1	0	4	4	0	35	9	0	9	4	0
	BUSES	4	1	0	1	0	0	1	0	0	1	3	0
	BIKE (OTHER)		2	(0)		14	(0)		2	(0)	0	(0)	
	PEDS	North Side		112	East Side		90	South Side		85	West Side		115
11:15	CARS	253	7	0	43	19	1	246	24	0	103	46	0
	DUALS	17	0	0	9	3	2	29	4	0	13	3	0
	BUSES	4	0	0	0	0	0	4	1	0	0	0	0
	BIKE (OTHER)		4	(0)		12	(0)		2	(0)	1	(0)	
	PEDS	North Side		119	East Side		88	South Side		81	West Side		106
11:30	CARS	253	11	0	64	26	0	252	27	0	107	54	0
	DUALS	19	0	0	8	4	0	24	7	0	7	3	0
	BUSES	4	0	0	0	0	0	4	0	0	2	2	0
	BIKE (OTHER)		6	(0)		8	(0)		2	(0)	3	(0)	
	PEDS	North Side		136	East Side		118	South Side		94	West Side		95



### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	SOUTI Thru F	H BOU Right	ND Left	WEST BOUND Thru Right Left				
11:45	CARS	235	9	0	61	20	0	282	31	0	91	45	0
	DUALS	17	0	0	15	6	0	26	5	0	5	6	0
	BUSES	4	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		11	(0)		19	(0)		4	(0)	3	(0)	
	PEDS	North Side		156	East Side		172	South Side		104	West Side		132
12:00	CARS	275	8	0	56	18	0	288	26	0	105	46	0
	DUALS	18	0	0	16	3	0	33	4	0	11	1	0
	BUSES	3	0	0	1	1	0	5	1	0	0	1	0
	BIKE (OTHER)		6	(0)		12	(0)		4	(0)	5	(0)	
	PEDS	North Side		183	East Side		158	South Side		157	West Side		175
13:15	CARS	255	7	0	51	18	0	263	28	0	93	40	0
	DUALS	8	0	0	15	1	0	31	5	0	7	6	0
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		17	(0)		1	(0)	16	(0)	
	PEDS	North Side		274	East Side		232	South Side		150	West Side		157
13:30	CARS	232	5	0	47	18	0	294	11	0	101	38	0
	DUALS	21	1	0	8	3	0	28	3	0	8	6	0
	BUSES	5	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		5	(0)		16	(0)		6	(0)	14	(0)	
	PEDS	North Side		214	East Side		174	South Side		144	West Side		169
13:45	CARS	241	8	0	51	14	0	226	19	0	86	39	0
	DUALS	15	0	0	7	6	0	35	3	0	10	3	0
	BUSES	5	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		11	(0)		15	(0)		1	(0)	5	(0)	
	PEDS	North Side		213	East Side		153	South Side		130	West Side		156
14:00	CARS	254	1	0	47	15	0	287	13	0	73	36	0
	DUALS	5	0	0	3	2	0	34	4	0	12	2	0
	BUSES	6	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		7	(0)		11	(0)		2	(0)	10	(0)	
	PEDS	North Side		215	East Side		156	South Side		122	West Side		159
14:15	CARS	215	9	0	53	16	0	287	22	0	110	47	0
	DUALS	18	0	0	11	3	0	32	4	0	10	5	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		11	(0)		18	(0)		5	(0)	5	(0)	
	PEDS	North Side		243	East Side		167	South Side		149	West Side		145



### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	NORTH BOUND Thru Right Left			T BOUN Right	ID Left	SOUTI Thru F	I BOU light	ND Left	WEST BOUND Thru Right Left		
14:30	CARS	261	8	0	58	22	0	191	20	0	95	49	0
	DUALS	6	0	0	8	3	0	24	2	0	8	2	0
	BUSES	5	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		18	(0)		8	(0)	7	(0)	
	PEDS	North Side		218	East Side		188	South Side		127	West Side		127
14:45	CARS	204	8	0	67	25	0	218	23	0	109	50	0
	DUALS	9	0	0	8	2	0	35	5	0	8	1	0
	BUSES	4	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		8	(0)		13	(0)		2	(0)	7	(0)	
	PEDS	North Side		241	East Side		141	South Side		128	West Side		131
15:00	CARS	213	4	0	48	26	0	361	26	0	108	36	0
	DUALS	6	1	0	5	2	0	27	2	0	13	2	0
	BUSES	0	0	0	0	0	0	3	0	0	0	1	0
	BIKE (OTHER)		8	(0)		14	(0)		3	(0)	10	(0)	
	PEDS	North Side		270	East Side		137	South Side		117	West Side		134
16:15	CARS	276	5	0	74	9	0	211	34	0	117	26	0
	DUALS	12	0	0	2	1	0	17	4	0	5	1	0
	BUSES	5	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		15	(0)		23	(0)		6	(0)	10	(0)	
	PEDS	North Side		265	East Side		287	South Side		148	West Side		173
16:30	CARS	290	2	0	81	11	0	247	28	0	115	24	0
	DUALS	5	1	0	9	2	0	16	3	0	5	4	0
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		11	(0)		7	(0)	2	(0)	
	PEDS	North Side		235	East Side		346	South Side		166	West Side		203
16:45	CARS	258	8	0	74	24	0	264	23	0	127	21	1
	DUALS	13	0	0	7	0	0	16	4	0	4	0	0
	BUSES	4	0	0	0	0	0	3	2	0	0	0	0
	BIKE (OTHER)		9	(0)		17	(0)		8	(0)	9	(0)	
	PEDS	North Side		228	East Side		290	South Side		204	West Side		188
17:00	CARS	295	9	0	75	24	0	234	31	0	117	30	0
	DUALS	10	0	0	4	3	0	19	2	0	9	1	0
	BUSES	1	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		18	(0)		20	(0)		10	(0)	17	(0)	
	PEDS	North Side		287	East Side		328	South Side		248	West Side		167



### QUEEN ST AT UNIVERSITY AVE (PX 80)

Survey Typ	e: Rou	ine Hours												
Time Period			NOF Thru	RTH BOURTH B Right BOURTH B	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>.</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Lei	ft
17:15	CARS		288	4	0	60	8	0	211	26	0	91	30	0
	DUALS		2	0	0	5	1	0	12	3	0	7	3	0
	BUSES		4	0	0	1	0	0	5	0	0	0	2	0
	BIKE (OTHER	)		27	(0)		22	(0)		8	(0)	12	(0)	
	PEDS	No	orth Sid	le	269	East Side		336	South Side	)	247	West Side		176
17:30	CARS		296	9	0	84	11	0	218	40	0	97	27	0
	DUALS		2	0	0	3	1	0	19	2	0	1	1	0
	BUSES		2	0	0	2	0	0	5	0	0	0	1	0
	BIKE (OTHER	)		27	(0)		16	(0)		1	(0)	4	(0)	
	PEDS	No	orth Sid	le	294	East Side		372	South Side	•	264	West Side		188
17:45	CARS		324	4	0	81	16	0	193	19	0	88	33	0
	DUALS		3	0	0	3	2	0	13	4	0	2	1	0
	BUSES		2	0	0	1	0	0	5	0	0	3	1	0
	BIKE (OTHER	)		16	(0)		17	(0)		4	(0)	10	(0)	
	PEDS	No	orth Sic	le	199	East Side		320	South Side	)	219	West Side		169
18:00	CARS		335	7	0	89	11	0	212	19	0	98	39	0
	DUALS		7	0	0	3	1	0	7	2	0	3	0	0
	BUSES		5	0	0	0	0	0	2	1	0	2	1	0
	BIKE (OTHER	)		18	(0)		28	(0)		1	(0)	9	(0)	
	PEDS	No	orth Sid	le	281	East Side		290	South Side	9	256	West Side		149



### QUEEN ST AT VICTORIA ST (PX 28)

Survey Type: Routine Hours

Time Period		NORT Thru	H BOl Right	JND Left	EAS Thru	ND Left	SOUTH Thru R	l BOU ight	IND Left	WEST BOUND Thru Right Left			
07:45	CARS	21	14	5	58	9	0	31	6	3	81	13	0
	DUALS	0	0	0	1	1	0	2	0	0	2	1	1
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		6	(0)		6	(0)		4	(0)	5	(0)	
	PEDS	North Side		239	East Side		87	South Side		115	West Side		110
08:00	CARS	26	8	6	52	15	0	15	2	7	104	10	0
	DUALS	0	0	1	3	1	0	1	0	1	0	0	0
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		4	(0)		6	(0)		35	(0)	2	(0)	
	PEDS	North Side		237	East Side		79	South Side		192	West Side		135
08:15	CARS	29	6	6	60	13	0	23	7	5	132	15	0
	DUALS	0	0	0	0	0	0	1	0	0	1	0	0
	BUSES	0	0	0	7	0	0	1	0	0	9	0	0
	BIKE (OTHER)		3	(0)		5	(0)		5	(0)	4	(0)	
	PEDS	North Side		303	East Side		86	South Side		201	West Side		149
08:30	CARS	22	9	11	59	8	0	35	7	10	118	8	0
	DUALS	3	0	0	4	3	0	3	0	0	4	1	0
	BUSES	0	1	0	6	0	0	0	0	1	3	0	0
	BIKE (OTHER)		6	(0)		5	(0)		6	(0)	7	(0)	
	PEDS	North Side		257	East Side		89	South Side		199	West Side		167
08:45	CARS	26	7	10	77	14	0	33	6	10	120	17	0
	DUALS	0	0	0	1	0	0	1	0	0	1	1	0
	BUSES	0	0	0	5	0	0	0	0	0	10	0	0
	BIKE (OTHER)		10	(0)		5	(0)		6	(0)	7	(0)	
	PEDS	North Side		285	East Side		130	South Side		226	West Side		202
09:00	CARS	29	8	7	62	19	0	41	5	5	159	11	1
	DUALS	1	0	0	2	0	0	0	1	0	5	1	0
	BUSES	0	0	0	8	0	0	1	0	0	3	0	0
	BIKE (OTHER)		3	(0)		16	(0)		13	(0)	6	(0)	
	PEDS	North Side		305	East Side		143	South Side		311	West Side		207
09:15	CARS	30	11	7	70	17	0	31	7	8	122	13	0
	DUALS	0	0	0	3	0	0	1	1	0	1	0	0
	BUSES	0	0	0	7	0	0	0	0	0	11	0	0
	BIKE (OTHER)		1	(0)		5	(0)		8	(0)	8	(0)	
	PEDS	North Side		304	East Side		108	South Side		320	West Side		167



### QUEEN ST AT VICTORIA ST (PX 28)

Survey Type: Routine Hours

Time Period		NORT Thru I	H BOL Right	JND Left	EAS Thru	SOUTI Thru F	H BOU Right	ND Left	WEST BOUND Thru Right Left				
09:30	CARS	22	7	8	88	13	0	26	7	8	108	12	2
	DUALS	0	0	0	2	0	0	4	1	1	7	1	0
	BUSES	0	0	0	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		5	(0)		4	(0)	4	(0)	
	PEDS	North Side		238	East Side		92	South Side		261	West Side		152
10:15	CARS	24	13	9	73	19	0	25	6	9	76	12	0
	DUALS	0	1	0	3	2	0	5	0	0	5	0	0
	BUSES	0	0	0	9	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Side		242	East Side		75	South Side		197	West Side		112
10:30	CARS	19	13	11	66	17	0	24	10	13	61	14	2
	DUALS	2	1	0	1	0	0	1	0	0	5	1	0
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		5	(0)		6	(0)		2	(0)	5	(0)	
	PEDS	North Side		246	East Side		91	South Side		175	West Side		106
10:45	CARS	15	15	2	68	15	0	36	6	11	59	8	0
	DUALS	3	2	0	0	1	0	1	0	1	3	1	0
	BUSES	0	0	0	6	0	0	1	0	0	6	0	0
	BIKE (OTHER)		4	(0)		6	(0)		1	(0)	3	(0)	
	PEDS	North Side		199	East Side		81	South Side		176	West Side		106
11:00	CARS	31	18	5	47	15	1	17	11	5	63	13	0
	DUALS	3	0	0	2	2	0	0	0	0	2	1	0
	BUSES	0	0	0	1	0	0	0	0	0	7	1	0
	BIKE (OTHER)		1	(0)		15	(0)		9	(0)	5	(0)	
	PEDS	North Side		209	East Side		55	South Side		224	West Side		132
11:15	CARS	21	13	7	66	10	0	24	7	9	59	20	0
	DUALS	0	1	0	4	1	0	2	0	0	1	0	0
	BUSES	0	0	0	9	0	0	0	0	0	6	0	0
	BIKE (OTHER)		3	(0)		5	(0)		0	(0)	12	(0)	
	PEDS	North Side		188	East Side		65	South Side		214	West Side		103
11:30	CARS	32	16	9	85	14	0	26	10	3	44	19	0
	DUALS	1	2	0	6	1	0	0	1	0	1	1	0
	BUSES	0	0	0	7	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		8	(0)		4	(0)	6	(0)	
	PEDS	North Side		196	East Side		81	South Side		229	West Side		125



### QUEEN ST AT VICTORIA ST (PX 28)

Survey Type: Routine Hours

Time Period		NORTI Thru F	H BOI Right	BOUND EAST E ght Left Thru Rig			ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST BOUND Thru Right Left			
11:45	CARS	26	17	7	84	19	1	31	13	11	62	19	1	
	DUALS	1	1	0	0	1	0	1	1	0	4	0	0	
	BUSES	0	0	0	9	0	0	0	0	0	7	0	0	
	BIKE (OTHER)		0	(0)		8	(0)		2	(0)	4	(0)		
	PEDS	North Side		212	East Side		80	South Side		205	West Side		113	
12:00	CARS	21	10	4	86	15	2	30	8	5	57	14	0	
	DUALS	2	1	0	4	2	0	2	1	0	4	3	0	
	BUSES	0	0	0	3	0	1	0	0	0	3	0	0	
	BIKE (OTHER)		9	(0)		15	(0)		1	(0)	6	(0)		
	PEDS	North Side		230	East Side		117	South Side		217	West Side		123	
13:15	CARS	22	13	6	93	17	3	29	6	12	66	15	0	
	DUALS	0	0	1	5	1	0	2	0	0	3	0	0	
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0	
	BIKE (OTHER)		4	(0)		6	(0)		3	(0)	7	(0)		
	PEDS	North Side		315	East Side		138	South Side		307	West Side		211	
13:30	CARS	20	12	7	91	17	1	15	14	7	64	13	0	
	DUALS	0	1	0	1	2	0	1	2	0	2	2	0	
	BUSES	0	0	0	4	1	0	0	0	0	5	0	0	
	BIKE (OTHER)		2	(0)		12	(0)		4	(0)	7	(0)		
	PEDS	North Side		293	East Side		111	South Side		340	West Side		176	
13:45	CARS	20	8	4	101	11	2	14	9	8	50	14	0	
	DUALS	1	0	0	3	3	0	2	0	0	5	1	0	
	BUSES	0	0	0	10	0	0	0	0	0	5	0	0	
	BIKE (OTHER)		3	(0)		5	(0)		3	(0)	7	(0)		
	PEDS	North Side		305	East Side		72	South Side		291	West Side		170	
14:00	CARS	24	8	12	91	16	0	27	8	9	62	5	2	
	DUALS	2	0	0	4	1	0	0	2	0	3	1	0	
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0	
	BIKE (OTHER)		3	(0)		6	(0)		5	(0)	6	(0)		
	PEDS	North Side		285	East Side		65	South Side		290	West Side		124	
14:15	CARS	20	16	6	92	18	1	39	13	6	63	11	0	
	DUALS	1	0	0	3	1	0	1	1	1	1	0	0	
	BUSES	0	0	0	5	0	0	0	0	0	10	0	0	
	BIKE (OTHER)		2	(0)		8	(0)		3	(0)	3	(0)		
	PEDS	North Side		284	East Side		101	South Side		254	West Side		191	



### QUEEN ST AT VICTORIA ST (PX 28)

Survey Type: Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAS Thru	EAST BOUND Thru Right Left				ND Left	WEST BOUND Thru Right Left		
14:30	CARS	25	9	10	108	23	2	36	15	6	77	13	0
	DUALS	0	0	0	5	1	0	0	1	0	4	1	0
	BUSES	0	0	0	6	0	0	0	0	0	6	1	0
	BIKE (OTHER)		4	(0)		8	(0)		2	(0)	4	(0)	
	PEDS	North Side		280	East Side		98	South Side		270	West Side		127
14:45	CARS	24	7	8	101	23	0	22	7	6	68	14	0
	DUALS	1	0	0	5	4	0	1	1	0	2	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		1	(0)		8	(0)		2	(0)	6	(0)	
	PEDS	North Side	•	267	East Side		84	South Side		217	West Side		129
15:00	CARS	16	5	7	88	17	3	23	11	3	67	14	0
	DUALS	1	0	1	2	0	0	0	0	0	5	1	0
	BUSES	0	0	0	5	0	0	1	0	0	8	0	0
	BIKE (OTHER)		1	(0)		12	(0)		6	(0)	3	(0)	
	PEDS	North Side		304	East Side		93	South Side		262	West Side		154
16:15	CARS	31	10	7	101	18	2	38	15	7	65	9	1
	DUALS	0	0	0	0	1	0	0	0	0	2	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		9	(0)		15	(0)		3	(0)	10	(0)	
	PEDS	North Side	•	361	East Side		84	South Side		263	West Side		189
16:30	CARS	29	13	7	153	15	2	30	9	7	58	16	0
	DUALS	1	0	0	3	1	0	2	0	0	2	1	0
	BUSES	0	1	0	8	0	0	0	0	0	4	0	0
	BIKE (OTHER)		13	(0)		10	(0)		4	(0)	10	(0)	
	PEDS	North Side	•	301	East Side		87	South Side		224	West Side		164
16:45	CARS	24	11	12	109	10	1	36	11	10	61	5	0
	DUALS	0	0	0	2	1	0	0	0	2	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	8	0	0
	BIKE (OTHER)		4	(0)		16	(0)		6	(0)	9	(0)	
	PEDS	North Side	•	260	East Side		86	South Side		227	West Side		169
17:00	CARS	39	9	11	147	20	0	35	15	8	83	13	0
	DUALS	2	0	1	1	0	0	3	0	0	0	0	0
	BUSES	0	0	0	8	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		12	(0)		4	(0)	3	(0)	
	PEDS	North Side	•	237	East Side		83	South Side		247	West Side		223


#### QUEEN ST AT VICTORIA ST (PX 28)

Survey Date: Jun-14-2017 (Wednesday)

Time Period		NORTH BOUND Thru Right Left			EAS	T BOUN	ID Loft	SOUTH Thru B	l BOU	ND	WEST	BOUND	+
renou		1110	Right	Leit	Intu	Right	Len		iyin	Leit			
17:15	CARS	32	11	18	133	19	0	32	25	9	82	9	0
	DUALS	0	2	0	0	0	0	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	1	0	0	6	0	0
	BIKE (OTHER)		7	(0)		11	(0)		7	(0)	17	(0)	
	PEDS	North Side	•	315	East Side		107	South Side		288	West Side		183
17:30	CARS	43	16	14	143	26	3	24	7	9	74	14	0
	DUALS	0	0	0	0	0	0	1	0	2	2	0	0
	BUSES	0	0	0	3	0	0	2	0	0	6	0	0
	BIKE (OTHER)		12	(0)		15	(0)		7	(0)	16	(0)	
	PEDS	North Side	•	348	East Side		93	South Side		251	West Side		143
17:45	CARS	36	18	12	145	17	2	23	11	5	73	6	0
	DUALS	0	1	0	1	1	1	0	0	0	2	0	0
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		7	(0)		19	(0)		7	(0)	7	(0)	
	PEDS	North Side	•	304	East Side		86	South Side		256	West Side		149
18:00	CARS	55	16	20	156	18	2	37	16	8	78	12	0
	DUALS	0	1	0	0	1	0	0	0	0	1	1	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		6	(0)		17	(0)		8	(0)	10	(0)	
	PEDS	North Side	•	264	East Side		66	South Side		248	West Side		166



#### QUEEN ST AT YONGE ST (PX 34)

Survey Date: May-15-2019 (Wednesday)

Time Period		NORTH BOUND Thru Right Left			EAS <sup>:</sup> Thru	T BOUN Right	ID Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru R	BOUND ight Lef	ť
07:45	CARS	110	1	0	71	0	0	73	0	0	154	0	0
	DUALS	8	0	0	12	0	0	10	0	0	7	0	0
	BUSES	0	0	0	5	0	0	3	0	0	6	0	0
	BIKE (OTHER)		1	(0)		2	(0)		10	(0)	3	(0)	
	PEDS	North Side		80	East Side		77	South Side		68	West Side		122
08:00	CARS	127	0	0	75	0	0	94	0	0	144	0	0
	DUALS	8	0	0	4	0	0	8	1	0	5	0	0
	BUSES	1	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		3	(0)		2	(0)		10	(0)	2	(0)	
	PEDS	North Side		120	East Side		87	South Side		116	West Side		124
08:15	CARS	110	0	0	76	1	1	82	0	0	155	0	0
	DUALS	10	0	1	6	0	0	6	1	0	7	0	0
	BUSES	1	0	0	5	0	0	1	0	0	5	0	0
	BIKE (OTHER)		9	(0)		13	(0)		8	(0)	5	(0)	
	PEDS	North Side		144	East Side		143	South Side		152	West Side		195
08:30	CARS	120	1	0	79	0	0	60	2	0	157	0	0
	DUALS	11	0	0	2	0	0	10	0	0	1	1	0
	BUSES	1	0	0	2	0	0	0	0	0	6	0	0
	BIKE (OTHER)		6	(0)		5	(0)		5	(0)	7	(0)	
	PEDS	North Side		155	East Side		201	South Side		176	West Side		234
08:45	CARS	101	0	0	90	0	0	55	2	0	180	0	0
	DUALS	5	1	0	3	0	0	5	0	0	7	1	0
	BUSES	0	0	0	7	0	0	1	0	0	9	0	0
	BIKE (OTHER)		9	(0)		5	(0)		16	(0)	6	(0)	
	PEDS	North Side		186	East Side		199	South Side		177	West Side		264
09:00	CARS	99	3	0	87	0	0	56	0	0	207	0	0
	DUALS	7	0	0	6	0	0	6	0	0	13	0	0
	BUSES	2	0	0	5	0	0	0	0	0	2	0	0
	BIKE (OTHER)		3	(0)		9	(0)		5	(0)	9	(0)	
	PEDS	North Side		227	East Side		222	South Side		221	West Side		298
09:15	CARS	114	1	1	76	1	0	57	1	1	135	0	0
	DUALS	9	0	0	4	0	0	2	0	0	5	0	0
	BUSES	0	0	0	9	0	0	1	0	0	7	0	0
	BIKE (OTHER)		5	(0)		3	(0)		6	(0)	3	(0)	
	PEDS	North Side		186	East Side		169	South Side		178	West Side		230



#### QUEEN ST AT YONGE ST (PX 34)

Survey Date: May-15-2019 (Wednesday)

Time Period		NORTH Thru R	l BOl light	JND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lef	ft
09:30	CARS	105	0	1	99	1	0	58	0	0	129	0	0
	DUALS	7	0	0	5	0	0	4	0	0	7	1	0
	BUSES	1	0	0	5	0	0	2	0	0	9	0	0
	BIKE (OTHER)		7	(0)		6	(0)		5	(0)	5	(0)	
	PEDS	North Side		143	East Side		141	South Side		171	West Side		159
10:15	CARS	117	0	0	82	0	0	36	1	0	94	1	1
	DUALS	12	0	0	10	1	0	7	0	0	5	0	0
	BUSES	2	0	0	3	0	0	1	0	0	7	0	0
	BIKE (OTHER)		5	(0)		5	(0)		6	(0)	2	(0)	
	PEDS	North Side		139	East Side		101	South Side		107	West Side		129
10:30	CARS	112	2	1	76	2	0	57	0	0	93	1	1
	DUALS	12	0	0	8	0	0	4	0	0	8	0	0
	BUSES	1	0	0	4	0	0	3	0	0	4	0	0
	BIKE (OTHER)		1	(0)		8	(0)		5	(0)	3	(0)	
	PEDS	North Side		131	East Side		98	South Side		137	West Side		165
10:45	CARS	106	4	0	85	1	0	52	0	0	102	0	0
10.10	DUALS	8	0	0	8	0	0	7	1	0	3	0	0
	BUSES	2	0	0	6	0	0	2	0	0	4	0	0
	BIKE (OTHER)		1	(0)		8	(0)		7	(0)	6	(0)	
	PEDS	North Side		173	East Side		127	South Side		141	West Side		171
11:00	CARS	106	1	0	71	0	1	54	0	0	89	2	0
	DUALS	8	0	0	7	0	0	13	0	0	10	0	0
	BUSES	3	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		6	(0)		7	(0)	1	(0)	
	PEDS	North Side		190	East Side		146	South Side		130	West Side		163
11:15	CARS	106	0	0	78	0	0	68	0	0	74	1	0
	DUALS	10	0	1	7	0	0	17	0	0	4	0	0
	BUSES	0	0	0	7	0	0	1	0	0	9	0	0
	BIKE (OTHER)		9	(0)		4	(0)		4	(0)	6	(0)	
	PEDS	North Side		192	East Side		148	South Side		138	West Side		192
11:30	CARS	110	2	0	89	1	0	84	1	0	104	0	0
	DUALS	10	1	0	8	0	0	11	1	0	8	0	0
	BUSES	1	0	0	3	0	0	1	0	0	5	0	0
	BIKE (OTHER)		6	(0)		11	(0)		13	(0)	2	(0)	
	PEDS	North Side		210	East Side		161	South Side		140	West Side		216



#### QUEEN ST AT YONGE ST (PX 34)

Survey Date: May-15-2019 (Wednesday)

Time Period		NORT Thru	H BOl Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Lef	ft
11:45	CARS	98	0	0	52	0	0	69	0	0	69	0	0
	DUALS	5	0	0	11	0	0	7	0	0	6	0	0
	BUSES	1	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		8	(0)		7	(0)		13	(0)	4	(0)	
	PEDS	North Side		233	East Side		255	South Side		157	West Side		219
12:00	CARS	97	0	0	78	0	0	80	4	0	105	2	0
	DUALS	9	0	1	7	1	1	9	0	0	11	0	0
	BUSES	1	0	0	4	0	0	2	0	0	4	0	0
	BIKE (OTHER)		3	(0)		8	(0)		12	(0)	8	(0)	
	PEDS	North Side		234	East Side		236	South Side		230	West Side		290
13:15	CARS	96	1	0	94	2	0	67	1	0	71	0	0
	DUALS	10	0	0	6	0	0	4	0	0	8	0	0
	BUSES	2	0	0	4	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		9	(0)		5	(0)	12	(0)	
	PEDS	North Side		400	East Side		383	South Side		235	West Side		351
13:30	CARS	117	0	0	86	0	1	62	0	0	81	0	0
	DUALS	11	0	0	5	0	0	4	0	0	5	0	0
	BUSES	0	0	0	3	0	1	1	0	0	5	0	0
	BIKE (OTHER)		7	(0)		6	(0)		10	(0)	6	(0)	
	PEDS	North Side		320	East Side		322	South Side		200	West Side		303
13:45	CARS	99	1	0	62	0	0	79	0	0	91	0	0
	DUALS	10	0	0	6	0	0	6	0	1	5	0	0
	BUSES	1	0	0	1	0	0	1	0	0	6	0	0
	BIKE (OTHER)		14	(0)		12	(0)		5	(0)	5	(0)	
	PEDS	North Side		354	East Side		297	South Side		237	West Side		309
14:00	CARS	128	0	0	96	1	0	47	0	0	93	0	0
	DUALS	14	0	0	11	0	0	6	0	0	6	0	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		8	(0)		10	(0)		8	(0)	3	(0)	
	PEDS	North Side		245	East Side		282	South Side		235	West Side		321
14:15	CARS	77	0	0	105	2	0	75	0	0	98	0	0
	DUALS	5	0	0	4	0	0	6	1	0	6	0	0
	BUSES	1	0	0	8	0	0	0	0	0	6	0	0
	BIKE (OTHER)		9	(0)		4	(0)		3	(0)	1	(0)	
	PEDS	North Side		275	East Side		196	South Side		185	West Side		306



#### QUEEN ST AT YONGE ST (PX 34)

Survey Date: May-15-2019 (Wednesday)

Time Period 14:30 CARS DUALS	NORT Thru	'H BOI Right	JND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru F	BOUND	ft	
14:30	CARS	95	0	0	78	0	1	57	0	0	91	0	0
	DUALS	7	0	0	8	0	0	14	0	0	7	0	0
	BUSES	0	0	0	2	0	0	1	0	0	6	0	0
	BIKE (OTHER)		10	(0)		6	(0)		10	(0)	5	(0)	
	PEDS	North Side	•	205	East Side		180	South Side		174	West Side		235
14:45	CARS	120	0	0	96	0	0	84	0	0	118	0	2
	DUALS	11	0	1	7	0	0	5	0	0	8	1	0
	BUSES	2	0	0	3	0	0	0	0	0	7	0	0
	BIKE (OTHER)		8	(0)		7	(0)		6	(0)	4	(0)	
	PEDS	North Side	•	231	East Side		223	South Side		167	West Side		317
15:00	CARS	110	1	1	78	0	0	93	0	1	129	0	0
	DUALS	7	0	0	6	0	0	5	0	0	6	0	0
	BUSES	2	0	0	3	0	0	2	0	0	5	0	0
	BIKE (OTHER)		12	(0)		9	(0)		8	(0)	4	(0)	
	PEDS	North Side	•	241	East Side		193	South Side		159	West Side		308
16:15	CARS	92	3	0	126	0	0	87	2	0	143	0	0
	DUALS	8	0	0	4	0	0	4	0	0	7	0	0
	BUSES	1	0	0	6	0	0	1	0	0	5	0	0
	BIKE (OTHER)		7	(0)		10	(0)		5	(0)	3	(0)	
	PEDS	North Side	•	233	East Side		211	South Side		180	West Side		272
16:30	CARS	107	1	0	119	0	0	90	1	0	120	0	0
	DUALS	7	0	0	6	0	0	5	0	0	4	0	0
	BUSES	1	0	0	5	0	0	1	0	0	6	0	0
	BIKE (OTHER)		12	(0)		8	(0)		4	(0)	7	(0)	
	PEDS	North Side	•	212	East Side		226	South Side		172	West Side		355
16:45	CARS	130	0	0	121	1	0	91	1	0	123	0	0
	DUALS	5	1	0	5	1	0	4	0	0	5	0	0
	BUSES	3	0	0	3	0	0	0	0	0	2	0	0
	BIKE (OTHER)		8	(0)		3	(0)		2	(0)	1	(0)	
	PEDS	North Side	•	241	East Side		245	South Side		190	West Side		353
17:00	CARS	115	1	0	172	0	1	68	0	0	141	0	0
	DUALS	5	0	0	4	0	0	2	0	0	4	0	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		13	(0)		16	(0)		2	(0)	6	(0)	
	PEDS	North Side	•	246	East Side		297	South Side		197	West Side		314



#### QUEEN ST AT YONGE ST (PX 34)

Survey Date: May-15-2019 (Wednesday)

Time		NORTH BOUND			EAS	T BOUN	ID	SOUTH	вои	IND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	light	Left	Thru F	Right Let	ft
17:15	CARS	117	1	0	152	1	0	98	1	0	105	0	0
	DUALS	3	0	0	3	0	0	4	0	0	7	0	0
	BUSES	2	0	0	5	0	0	2	0	0	6	0	0
	BIKE (OTHER)		16	(0)		15	(0)		2	(0)	16	(0)	
	PEDS	North Side	e	345	East Side		387	South Side		251	West Side		372
17:30	CARS	119	0	0	159	1	2	88	0	0	110	0	0
	DUALS	4	1	0	3	0	0	4	0	0	6	0	0
	BUSES	2	0	0	4	1	0	0	0	0	7	0	0
	BIKE (OTHER)		22	(0)		16	(0)		7	(0)	2	(0)	
	PEDS	North Side	e	280	East Side		394	South Side		270	West Side		503
17:45	CARS	145	0	0	148	0	0	106	1	0	104	0	0
	DUALS	1	0	0	1	0	0	3	0	0	3	0	0
	BUSES	2	0	0	5	0	0	1	0	0	4	0	0
	BIKE (OTHER)		2	(0)		8	(0)		9	(0)	7	(0)	
	PEDS	North Side	) 	274	East Side		431	South Side		236	West Side		487
18:00	CARS	121	2	1	136	0	1	102	1	0	110	0	0
	DUALS	7	0	0	3	0	0	3	0	0	3	0	0
	BUSES	4	0	0	5	0	0	1	0	0	4	0	0
	BIKE (OTHER)		8	(0)		10	(0)		5	(0)	4	(0)	
	PEDS	North Side	Ð	225	East Side		375	South Side		265	West Side		401



#### QUEEN ST E AT SAULTER ST

Survey Date: Aug-03-2017 (Thursday)

Time Period		NORTH Thru R	l BOU light	JND Left	EAS <sup>:</sup> Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	0	2	0	29	1	0	0	0	0	79	0	0
	DUALS	0	0	0	3	0	0	0	0	0	10	0	1
	BUSES	0	0	0	5	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	5	(0)	
	PEDS	North Side		0	East Side		0	South Side		11	West Side		3
08:00	CARS	0	0	0	29	1	0	0	0	0	95	0	1
	DUALS	0	0	0	5	0	0	0	0	0	11	0	0
	BUSES	0	0	0	11	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	8	(0)	
	PEDS	North Side		0	East Side		1	South Side		25	West Side		3
08:15	CARS	0	0	1	43	1	0	0	0	0	112	0	1
	DUALS	0	0	0	6	0	0	0	0	0	11	0	2
	BUSES	0	0	0	4	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	10	(0)	
	PEDS	North Side		0	East Side		0	South Side		21	West Side		1
08:30	CARS	0	0	0	50	0	0	0	0	0	128	0	1
	DUALS	0	0	0	6	1	0	0	0	0	11	0	1
	BUSES	0	0	0	9	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	14	(0)	
	PEDS	North Side		0	East Side		0	South Side		22	West Side		0
08:45	CARS	0	1	3	51	2	0	0	0	0	132	0	2
	DUALS	0	1	0	15	0	0	0	0	0	9	0	1
	BUSES	0	0	0	8	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	35	(0)	
	PEDS	North Side		0	East Side		0	South Side		21	West Side		1
09:00	CARS	0	3	4	46	4	0	0	0	0	121	0	1
	DUALS	0	0	0	8	0	0	0	0	0	13	0	0
	BUSES	0	0	0	7	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	25	(0)	
	PEDS	North Side		0	East Side		0	South Side		24	West Side		1
09:15	CARS	0	2	2	57	3	0	0	0	0	127	0	0
	DUALS	0	1	0	9	1	0	0	0	0	15	0	1
	BUSES	0	0	0	10	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	22	(0)	
	PEDS	North Side		0	East Side		1	South Side		32	West Side		3



#### QUEEN ST E AT SAULTER ST

Survey Date: Aug-03-2017 (Thursday)

Survey	Type:	Routine Hours

Time Period		NORTH Thru R	ND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND Right Left	:	
09:30	CARS	0	2	4	62	3	0	0	0	0	122	0	1
	DUALS	0	1	0	7	0	0	0	0	0	10	0	0
	BUSES	0	0	0	6	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	7	(0)	
	PEDS	North Side		0	East Side		1	South Side		24	West Side		4
10:15	CARS	0	1	2	50	0	0	0	0	0	72	0	3
	DUALS	0	0	1	12	1	0	0	0	0	10	0	2
	BUSES	0	0	0	7	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	6	(0)	
	PEDS	North Side		0	East Side		0	South Side		33	West Side		7
10:30	CARS	0	2	2	61	1	0	0	0	0	67	0	3
	DUALS	0	0	0	13	0	0	0	0	0	11	0	2
	BUSES	0	0	0	8	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		10	(0)		0	(0)	11	(0)	
	PEDS	North Side		0	East Side		1	South Side		33	West Side	. ,	12
10:45	CARS	0	1	0	54	0	0	0	0	0	68	0	2
	DUALS	0	1	1	13	0	0	0	0	0	15	0	0
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	6	(0)	
	PEDS	North Side		0	East Side		1	South Side		38	West Side	. ,	0
11:00	CARS	0	0	0	67	2	0	0	0	0	73	0	5
	DUALS	0	1	0	12	1	0	0	0	0	14	0	1
	BUSES	0	0	0	9	0	0	0	0	0	10	0	0
	BIKE (OTHER)		1	(0)		9	(0)		0	(0)	15	(0)	
	PEDS	North Side		0	East Side		1	South Side		30	West Side		5
11:15	CARS	0	1	0	63	1	0	0	0	0	77	0	3
	DUALS	0	0	0	14	0	0	0	0	0	13	0	0
	BUSES	0	0	0	6	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		12	(0)		0	(0)	8	(0)	
	PEDS	North Side		0	East Side		0	South Side		40	West Side		7
11:30	CARS	0	3	1	58	1	0	0	0	0	80	0	3
	DUALS	0	1	0	10	2	0	0	0	0	10	0	1
	BUSES	0	0	0	8	0	0	0	0	0	8	0	0
	BIKE (OTHER)	-	0	(0)	-	4	(0)	-	0	(0)	12	(0)	5
	PEDS	North Side		0	East Side		1	South Side		28	West Side		5



#### QUEEN ST E AT SAULTER ST

Survey Type:

**Routine Hours** 

Survey Date: Aug-03-2017 (Thursday)



#### QUEEN ST E AT SAULTER ST

Survey Date: Aug-03-2017 (Thursday)

Survey	Type:	Routine
Survey	Type:	Routin

Hours

Time Period		NORTH Thru R	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	t	
14:30	CARS	0	2	1	78	1	0	0	0	0	72	0	1
	DUALS	0	0	0	17	2	0	0	0	0	15	0	0
	BUSES	0	0	0	8	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		12	(0)		0	(0)	13	(0)	
	PEDS	North Side		0	East Side		1	South Side		28	West Side		12
14:45	CARS	0	2	0	85	2	0	0	0	0	80	0	2
	DUALS	0	0	0	16	0	0	0	0	0	12	0	1
	BUSES	0	0	0	9	0	0	0	0	0	8	0	0
	BIKE (OTHER)		1	(0)		10	(0)		0	(0)	19	(0)	
	PEDS	North Side		0	East Side		3	South Side		36	West Side		10
15:00	CARS	0	1	1	91	2	0	0	0	0	77	0	2
	DUALS	0	1	1	14	0	0	0	0	0	10	0	1
	BUSES	0	0	0	10	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	13	(0)	
	PEDS	North Side		0	East Side		3	South Side		37	West Side		14
16:15	CARS	0	2	2	98	3	0	0	0	0	83	0	2
	DUALS	0	0	0	11	0	0	0	0	0	15	0	0
	BUSES	0	0	0	8	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		11	(0)		0	(0)	14	(0)	
	PEDS	North Side		0	East Side		2	South Side		38	West Side		13
16:30	CARS	0	6	1	95	3	0	0	0	0	79	0	0
	DUALS	0	1	0	15	0	0	0	0	0	16	0	0
	BUSES	0	0	0	7	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		9	(0)		0	(0)	14	(0)	
	PEDS	North Side		0	East Side		0	South Side		61	West Side		9
16:45	CARS	0	3	0	105	5	0	0	0	0	86	0	2
	DUALS	0	0	1	16	1	0	0	0	0	20	0	1
	BUSES	0	0	0	8	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		13	(0)		0	(0)	17	(0)	
	PEDS	North Side		0	East Side		3	South Side		42	West Side		14
17:00	CARS	0	3	1	119	5	0	0	0	0	91	0	1
	DUALS	0	1	0	14	0	0	0	0	0	16	0	0
	BUSES	0	1	0	10	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		14	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		3	South Side		31	West Side		15



#### QUEEN ST E AT SAULTER ST

Survey Date: Aug-03-2017 (Thursday)

Time		NORTH BOUND			EAS	T BOUI	ND	SOUTH	вои	IND	WEST	F BOUND	
Period		Thru l	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru I	Right Left	t
17:15	CARS	0	2	0	127	4	0	0	0	0	79	0	0
	DUALS	0	0	0	16	1	0	0	0	0	15	0	0
	BUSES	0	0	0	8	0	0	0	0	0	8	0	0
	BIKE (OTHER)		1	(0)		9	(0)		0	(0)	10	(0)	
	PEDS	North Side		0	East Side		2	South Side		40	West Side		16
17:30	CARS	0	2	2	132	2	0	0	0	0	81	0	1
	DUALS	0	0	1	13	1	0	0	0	0	15	0	1
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		3	South Side		36	West Side		13
 17:45	CARS	0	4	0	120	3	0	0	0	0	75	0	1
	DUALS	0	1	0	15	0	0	0	0	0	12	0	0
	BUSES	0	0	0	9	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		2	South Side		37	West Side		10
18:00	CARS	0	1	2	119	3	0	0	0	0	84	0	2
	DUALS	0	0	1	12	0	0	0	0	0	14	0	0
	BUSES	0	0	0	9	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		9	(0)		0	(0)	12	(0)	
	PEDS	North Side		0	East Side		3	South Side		31	West Side		12



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	rpe: Routine H	lours											
Time Period		NORT Thru	'H BOl Right	JND Left	EAS Thru	F BOUN Right	ND Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lei	ft
07:45	CARS	144	0	14	0	0	0	330	25	0	155	32	60
	DUALS	15	0	1	0	0	0	14	6	0	15	3	4
	BUSES	1	0	0	0	0	0	3	1	0	6	1	1
	BIKE (OTHER)		8	(0)		0	(0)		16	(0)	33	(0)	
	PEDS	North Side		32	East Side		156	South Side		28	West Side		129
08:00	CARS	152	0	9	0	0	0	304	39	0	150	38	61
	DUALS	12	0	0	0	0	0	25	2	0	21	6	6
	BUSES	1	0	0	0	0	0	0	0	0	8	1	2
	BIKE (OTHER)		9	(0)		0	(0)		16	(0)	34	(0)	
	PEDS	North Side		38	East Side		190	South Side		55	West Side		220
08:15	CARS	184	0	8	0	0	0	336	34	0	136	38	57
	DUALS	10	0	0	0	0	0	11	4	0	9	1	4
	BUSES	1	0	0	0	0	0	1	1	0	3	3	0
	BIKE (OTHER)		14	(0)		0	(0)		20	(0)	52	(0)	
	PEDS	North Side	•	54	East Side		247	South Side		39	West Side		306
08:30	CARS	137	0	7	0	0	0	306	49	0	122	35	47
	DUALS	10	0	1	0	0	0	16	1	0	23	1	4
	BUSES	2	0	0	0	0	0	1	0	0	5	3	0
	BIKE (OTHER)		12	(0)		0	(0)		35	(0)	95	(0)	
	PEDS	North Side		68	East Side		273	South Side		73	West Side		354
08:45	CARS	158	0	16	0	0	0	310	20	0	104	28	20
	DUALS	13	0	0	0	0	0	16	2	0	22	0	1
	BUSES	1	0	1	0	0	0	2	0	0	6	0	3
	BIKE (OTHER)		12	(0)		0	(0)		22	(0)	101	(0)	
	PEDS	North Side	•	87	East Side		323	South Side		78	West Side		324
09:00	CARS	171	0	12	0	0	0	324	39	0	94	26	28
	DUALS	9	0	2	0	0	0	22	2	0	12	2	4
	BUSES	1	0	0	0	0	0	1	1	0	7	1	4
	BIKE (OTHER)		15	(0)		0	(0)		31	(0)	107	(0)	
	PEDS	North Side	•	103	East Side		273	South Side		100	West Side		295
09:15	CARS	217	0	10	0	0	0	317	46	0	114	27	22
	DUALS	12	0	2	0	0	0	16	1	0	13	3	3
	BUSES	5	0	0	0	0	0	1	1	0	7	2	1
	BIKE (OTHER)		10	(0)		0	(0)		26	(0)	98	(0)	
	PEDS	North Side	•	76	East Side		261	South Side		116	West Side		230



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	ID Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND	ft
09:30	CARS	220	0	16	0	0	0	278	52	0	90	33	37
	DUALS	9	0	2	0	0	0	17	1	0	31	10	5
	BUSES	3	0	0	0	0	0	4	1	0	8	0	2
	BIKE (OTHER)		7	(0)		0	(0)		21	(0)	49	(0)	
	PEDS	North Side		44	East Side		177	South Side		75	West Side		168
10:15	CARS	233	0	39	0	0	0	195	37	0	86	33	35
	DUALS	19	0	5	0	0	0	24	4	0	16	8	14
	BUSES	2	0	0	0	0	0	2	0	0	0	0	1
	BIKE (OTHER)		5	(0)		0	(0)		15	(0)	29	(0)	
	PEDS	North Side		31	East Side		75	South Side		29	West Side		109
10:30	CARS	257	0	19	0	0	0	237	31	0	120	43	42
	DUALS	7	0	1	0	0	0	22	4	0	27	5	7
	BUSES	1	0	0	0	0	0	2	0	0	2	0	3
	BIKE (OTHER)		3	(0)		0	(0)		9	(0)	20	(0)	
	PEDS	North Side		28	East Side		98	South Side		32	West Side		92
10:45	CARS	241	0	16	0	0	0	229	50	0	78	35	47
	DUALS	10	0	4	0	0	0	15	3	0	23	7	8
	BUSES	1	0	0	0	0	0	3	0	0	3	0	1
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	27	(0)	
	PEDS	North Side		41	East Side		77	South Side		47	West Side		97
11:00	CARS	213	0	24	0	0	0	249	32	0	103	40	32
	DUALS	21	0	2	0	0	0	32	5	0	23	0	11
	BUSES	3	0	0	0	0	0	1	0	0	2	0	0
	BIKE (OTHER)		2	(0)		0	(0)		10	(0)	22	(0)	
	PEDS	North Side		35	East Side		98	South Side		44	West Side		99
11:15	CARS	225	0	17	0	0	0	227	36	0	90	43	37
	DUALS	15	0	1	0	0	0	27	9	0	25	3	14
	BUSES	3	0	1	0	0	0	4	0	0	1	1	2
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	24	(0)	
	PEDS	North Side		36	East Side		106	South Side		35	West Side		91
11:30	CARS	223	0	18	0	0	0	249	42	0	69	30	32
	DUALS	12	0	2	0	0	0	31	3	0	26	6	9
	BUSES	4	0	0	0	0	0	3	0	0	2	0	2
	BIKE (OTHER)		2	(0)		0	(0)		5	(0)	16	(0)	
	PEDS	North Side		56	East Side		114	South Side		56	West Side		75



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date: Jun-12-2019 (Wednesday)
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Survey Ty	vpe: Routine H	lours											
Time Period		NORTI Thru F	H BOU Right	IND Left	EAS Thru	Г BOUN Right	ID Left	SOUT Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lei	ft
11:45	CARS	239	0	15	0	0	0	252	44	0	83	35	34
	DUALS	9	0	3	0	0	0	25	3	0	19	3	5
	BUSES	3	0	0	0	0	0	5	1	0	0	0	1
	BIKE (OTHER)		7	(0)		0	(0)		9	(0)	25	(0)	
	PEDS	North Side		52	East Side		155	South Side		61	West Side		176
12:00	CARS	253	0	23	0	0	0	253	41	0	52	31	23
	DUALS	19	0	2	0	0	0	27	8	0	21	4	8
	BUSES	4	0	0	0	0	0	4	0	0	1	0	2
	BIKE (OTHER)		7	(0)		0	(0)		20	(0)	40	(0)	
	PEDS	North Side		72	East Side		178	South Side		82	West Side		167
13:15	CARS	210	0	22	0	0	0	234	39	0	81	31	33
	DUALS	12	0	3	0	0	0	27	9	0	12	10	7
	BUSES	1	0	0	0	0	0	2	1	0	2	1	1
	BIKE (OTHER)		9	(0)		0	(0)		8	(0)	18	(0)	
	PEDS	North Side		77	East Side		196	South Side		107	West Side		248
13:30	CARS	208	0	17	0	0	0	263	51	0	83	42	42
	DUALS	17	0	1	0	0	0	25	6	0	13	1	13
	BUSES	7	0	0	0	0	0	1	0	0	2	0	1
	BIKE (OTHER)		4	(0)		0	(0)		12	(0)	16	(0)	
	PEDS	North Side		76	East Side		180	South Side		95	West Side		207
13:45	CARS	209	0	25	0	0	0	213	28	0	80	32	39
	DUALS	9	0	0	0	0	0	33	4	0	21	4	2
	BUSES	2	0	0	0	0	0	1	1	0	3	0	1
	BIKE (OTHER)		2	(0)		0	(0)		12	(0)	25	(0)	
	PEDS	North Side		57	East Side		133	South Side		99	West Side		187
14:00	CARS	228	0	28	0	0	0	242	35	0	109	37	45
	DUALS	4	0	0	0	0	0	26	6	0	24	0	6
	BUSES	4	0	0	0	0	0	2	1	0	0	1	2
	BIKE (OTHER)		6	(0)		0	(0)		8	(0)	39	(0)	
	PEDS	North Side		60	East Side		168	South Side		75	West Side		198
14:15	CARS	197	0	17	0	0	0	249	27	0	114	32	29
	DUALS	12	0	2	0	0	0	25	2	0	11	1	1
	BUSES	3	0	0	0	0	0	2	1	0	1	0	1
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	12	(0)	
	PEDS	North Side		48	East Side		150	South Side		138	West Side		156



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date:
   Jun-12-2019 (Wednesday)
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Survey Ty	vpe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Le	ft
14:30	CARS	240	0	28	0	0	0	181	33	0	87	38	47
	DUALS	5	0	0	0	0	0	24	3	0	20	2	3
	BUSES	3	0	0	0	0	0	2	0	0	1	0	2
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	33	(0)	
	PEDS	North Side		33	East Side		140	South Side		67	West Side		148
14:45	CARS	196	0	17	0	0	0	219	35	0	138	31	45
	DUALS	16	0	3	0	0	0	37	6	0	18	0	4
	BUSES	3	0	0	0	0	0	2	1	0	0	1	1
	BIKE (OTHER)		3	(0)		0	(0)		13	(0)	37	(0)	
	PEDS	North Side		50	East Side		123	South Side		66	West Side		141
15:00	CARS	184	0	23	0	0	0	312	59	0	75	33	38
	DUALS	11	0	2	0	0	0	23	1	0	17	0	3
	BUSES	0	0	0	0	0	0	3	1	0	1	0	3
	BIKE (OTHER)		3	(0)		0	(0)		7	(0)	35	(0)	
	PEDS	North Side		52	East Side		142	South Side		96	West Side		149
16:15	CARS	246	0	28	0	0	0	168	53	0	174	55	47
	DUALS	10	0	0	0	0	0	7	2	0	11	0	0
	BUSES	4	0	0	0	0	0	0	2	0	6	2	4
	BIKE (OTHER)		8	(0)		0	(0)		20	(0)	79	(0)	
	PEDS	North Side		73	East Side		232	South Side		73	West Side		256
16:30	CARS	249	0	20	0	0	0	221	56	0	156	44	40
	DUALS	3	0	1	0	0	0	6	2	0	6	4	3
	BUSES	5	0	0	0	0	0	1	2	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		21	(0)	33	(0)	
	PEDS	North Side		77	East Side		322	South Side		83	West Side		276
16:45	CARS	229	0	11	0	0	0	235	65	0	206	35	44
	DUALS	4	0	1	0	0	0	8	4	0	7	3	1
	BUSES	1	0	0	0	0	0	6	0	0	0	1	0
	BIKE (OTHER)		11	(0)		0	(0)		23	(0)	54	(0)	
	PEDS	North Side		81	East Side		360	South Side		113	West Side		355
17:00	CARS	230	0	18	0	0	0	221	58	0	224	41	39
	DUALS	6	0	0	0	0	0	7	2	0	10	3	3
	BUSES	1	0	0	0	0	0	1	1	0	5	0	2
	BIKE (OTHER)		8	(0)		0	(0)		12	(0)	75	(0)	
	PEDS	North Side		98	East Side		329	South Side		83	West Side		263



#### **RICHMOND ST AT UNIVERSITY AVE (PX 79)**

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Survey Date:
   Jun-12-2019 (Wednesday)
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Survey Type	e: Ro	outine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	JND Left	WES Thru	ST BOUND Right Let	ft
17:15	CARS		223	0	26	0	0	0	176	70	0	179	32	32
	DUALS		2	0	0	0	0	0	6	1	0	11	2	1
	BUSES		0	0	0	0	0	0	4	1	0	4	1	2
	BIKE (OTHE	ER)		11	(0)		0	(0)		18	(0)	86	(0)	
	PEDS	N	orth Sid	e	118	East Side		377	South Side	)	115	West Side		441
17:30	CARS		252	0	16	0	0	0	205	62	0	197	31	33
	DUALS		3	0	2	0	0	0	9	2	0	9	1	4
	BUSES		1	0	0	0	0	0	4	0	0	3	1	1
	BIKE (OTHE	ER)		20	(0)		0	(0)		11	(0)	68	(0)	
	PEDS	N	orth Sid	e	94	East Side		420	South Side	)	137	West Side		395
17:45	CARS		273	0	19	0	0	0	191	69	0	216	47	31
	DUALS		1	0	0	0	0	0	6	2	0	9	0	1
	BUSES		1	0	0	0	0	0	5	0	0	6	0	2
	BIKE (OTHE	ER)		9	(0)		0	(0)		18	(0)	83	(0)	
	PEDS	N	orth Sid	e	87	East Side		370	South Side	e	140	West Side		348
18:00	CARS		261	0	39	0	0	0	206	49	0	160	58	41
	DUALS		7	0	0	0	0	0	7	1	0	11	3	4
	BUSES		3	0	0	0	0	0	1	1	0	5	1	1
	BIKE (OTHE	ER)		9	(0)		0	(0)		15	(0)	86	(0)	
	PEDS	N	orth Sid	е	114	East Side		280	South Side	•	133	West Side		286



#### **RICHMOND ST AT VICTORIA ST (PX 27)**

Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru I	H BOU Right	JND Left	EAS] Thru	Г BOUN Right	ID Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Lef	ť
07:45	CARS	24	0	8	0	0	0	12	13	0	258	18	11
	DUALS	0	0	1	0	0	0	2	1	0	12	0	1
	BUSES	0	0	0	0	0	0	0	0	0	6	0	0
	BIKE (OTHER)		6	(0)		0	(0)		3	(0)	64	(0)	
	PEDS	North Side		43	East Side		44	South Side		38	West Side		69
08:00	CARS	20	0	19	0	0	0	13	16	0	301	21	6
	DUALS	2	0	2	0	0	0	1	0	0	5	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	89	(0)	
	PEDS	North Side		64	East Side		42	South Side		48	West Side		76
08:15	CARS	24	0	29	0	0	0	18	11	0	303	24	8
	DUALS	0	0	2	0	0	0	1	1	0	10	0	2
	BUSES	0	0	0	0	0	0	0	1	0	5	0	0
	BIKE (OTHER)		3	(0)		0	(0)		11	(0)	115	(0)	
	PEDS	North Side		52	East Side		56	South Side		52	West Side		94
08:30	CARS	27	0	28	0	0	0	17	22	0	322	17	6
	DUALS	1	0	3	0	0	0	1	5	0	3	1	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		6	(0)		0	(0)		6	(0)	162	(0)	
	PEDS	North Side		72	East Side		72	South Side		66	West Side		120
08:45	CARS	21	0	23	0	0	0	23	20	0	276	27	6
	DUALS	1	0	1	0	0	0	0	1	0	8	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		11	(0)		0	(0)		6	(0)	167	(0)	
	PEDS	North Side		87	East Side		81	South Side		71	West Side		157
09:00	CARS	26	0	21	0	0	0	27	22	0	295	21	10
	DUALS	0	0	1	0	0	0	1	0	0	9	0	0
	BUSES	0	0	0	0	0	0	0	0	0	5	0	0
	BIKE (OTHER)		5	(0)		0	(0)		18	(0)	199	(0)	
	PEDS	North Side		124	East Side		118	South Side		77	West Side		157
09:15	CARS	31	0	28	0	0	0	23	20	0	289	26	6
	DUALS	1	0	1	0	0	0	0	1	0	4	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		0	(0)		7	(0)	148	(0)	
	PEDS	North Side		109	East Side		88	South Side		69	West Side		129



#### **RICHMOND ST AT VICTORIA ST (PX 27)**

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS] Thru	Г BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	22	0	24	0	0	0	17	20	0	244	21	9
	DUALS	0	0	5	0	0	0	2	2	0	9	0	0
	BUSES	0	0	1	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		4	(0)		0	(0)		8	(0)	97	(0)	
	PEDS	North Side		72	East Side		58	South Side		52	West Side		106
10:15	CARS	19	0	25	0	0	0	20	25	0	195	31	4
	DUALS	0	0	1	0	0	0	3	3	0	10	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		3	(0)	35	(0)	
	PEDS	North Side		55	East Side		44	South Side		40	West Side		78
10:30	CARS	29	0	21	0	0	0	13	24	0	213	21	5
	DUALS	3	0	6	0	0	0	1	1	0	17	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		2	(0)	26	(0)	
	PEDS	North Side		47	East Side		37	South Side		38	West Side		75
10:45	CARS	19	0	19	0	0	0	21	28	0	210	15	14
	DUALS	3	0	2	0	0	0	1	1	0	9	2	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	22	(0)	
	PEDS	North Side		39	East Side		35	South Side		38	West Side		76
11:00	CARS	24	0	21	0	0	0	14	20	0	207	32	23
	DUALS	0	0	5	0	0	0	1	1	0	13	2	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		5	(0)	26	(0)	
	PEDS	North Side		49	East Side		31	South Side		33	West Side		78
11:15	CARS	19	0	24	0	0	0	20	16	0	191	27	12
	DUALS	0	0	4	0	0	0	1	0	0	9	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	17	(0)	
	PEDS	North Side		47	East Side		43	South Side		33	West Side		73
11:30	CARS	26	0	14	0	0	0	20	21	0	160	29	16
	DUALS	1	0	2	0	0	0	0	2	0	10	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		1	(0)	18	(0)	
	PEDS	North Side		43	East Side		48	South Side		47	West Side		104



#### **RICHMOND ST AT VICTORIA ST (PX 27)**

Survey Ty	rpe: Routine I	Hours											
Time Period		NORTH Thru R	l BOL light	JND Left	EAS] Thru	「BOUN Right	D Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ft
11:45	CARS	22	0	17	0	0	0	23	22	0	223	23	12
	DUALS	0	0	2	0	0	0	1	2	0	10	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	27	(0)	
	PEDS	North Side		76	East Side		65	South Side		74	West Side		83
12:00	CARS	17	0	20	0	0	0	22	23	0	210	21	12
	DUALS	3	0	3	0	0	0	1	1	0	8	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	37	(0)	
	PEDS	North Side		95	East Side		69	South Side		61	West Side		102
13:15	CARS	25	0	21	0	0	0	20	25	0	192	16	14
	DUALS	0	0	2	0	0	0	2	0	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	15	(0)	
	PEDS	North Side		68	East Side		104	South Side		101	West Side		157
13:30	CARS	16	0	23	0	0	0	23	15	0	160	21	10
	DUALS	0	0	4	0	0	0	1	3	0	5	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	32	(0)	
	PEDS	North Side		101	East Side		95	South Side		84	West Side		146
13:45	CARS	14	0	19	0	0	0	12	13	0	185	22	14
	DUALS	1	0	1	0	0	0	3	2	0	12	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		5	(0)		0	(0)		4	(0)	10	(0)	
	PEDS	North Side		80	East Side		58	South Side		86	West Side		176
14:00	CARS	19	0	15	0	0	0	18	22	0	199	24	11
	DUALS	2	0	1	0	0	0	0	1	0	14	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		7	(0)	31	(0)	
	PEDS	North Side		73	East Side		59	South Side		84	West Side		145
14:15	CARS	22	0	23	0	0	0	38	23	0	181	21	11
	DUALS	1	0	2	0	0	0	2	0	0	10	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	20	(0)	
	PEDS	North Side		79	East Side		79	South Side		60	West Side		137



#### **RICHMOND ST AT VICTORIA ST (PX 27)**

Survey Ty	pe: Routine	Hours											
Time Period		NORTI Thru F	H BOU Right	IND Left	EAS] Thru	r BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ft
14:30	CARS	18	0	17	0	0	0	33	24	0	196	25	14
	DUALS	0	0	0	0	0	0	1	1	0	3	0	1
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		5	(0)		0	(0)		3	(0)	27	(0)	
	PEDS	North Side		60	East Side		90	South Side		66	West Side		131
14:45	CARS	8	0	15	0	0	0	23	25	0	202	28	13
	DUALS	0	0	2	0	0	0	1	2	0	9	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	26	(0)	
	PEDS	North Side		62	East Side		59	South Side		63	West Side		108
15:00	CARS	16	0	15	0	0	0	21	20	0	202	18	10
	DUALS	1	0	2	0	0	0	0	1	0	9	0	1
	BUSES	0	0	0	0	0	0	1	0	0	2	0	0
	BIKE (OTHER)		2	(0)		0	(0)		11	(0)	15	(0)	
	PEDS	North Side		60	East Side		53	South Side		34	West Side		120
16:15	CARS	31	0	17	0	0	0	46	25	0	212	18	12
	DUALS	0	0	1	0	0	0	0	1	0	7	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	1
	BIKE (OTHER)		5	(0)		0	(0)		4	(0)	31	(0)	
	PEDS	North Side		74	East Side		58	South Side		53	West Side		157
16:30	CARS	19	0	22	0	0	0	25	26	0	272	21	7
	DUALS	0	0	1	0	0	0	0	2	0	2	1	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	1
	BIKE (OTHER)		7	(0)		0	(0)		5	(0)	27	(0)	
	PEDS	North Side		79	East Side		63	South Side		44	West Side		108
16:45	CARS	28	0	24	0	0	0	22	34	0	278	21	7
	DUALS	0	0	1	0	0	0	1	2	0	3	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	49	(0)	
	PEDS	North Side		98	East Side		77	South Side		79	West Side		167
17:00	CARS	29	0	25	0	0	0	23	28	0	267	29	9
	DUALS	4	0	2	0	0	0	1	2	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		7	(0)		0	(0)		3	(0)	43	(0)	
	PEDS	North Side		97	East Side		87	South Side		69	West Side		130



#### **RICHMOND ST AT VICTORIA ST (PX 27)**

Survey Ty	pe: Rou	tine Hours												
Time Period			NOF Thru	RTH BOURTH B Right BOURTH B	JND Left	EA: Thru	ST BOU Right	ND Left	SOU Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Le	ft
17:15	CARS		36	0	23	0	0	0	28	24	0	253	27	8
	DUALS		1	0	2	0	0	0	1	0	0	4	0	0
	BUSES		0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHEF	R)		13	(0)		0	(0)		10	(0)	58	(0)	
	PEDS	No	orth Sic	le	141	East Side		103	South Side	e	88	West Side		178
17:30	CARS		45	0	20	0	0	0	21	23	0	197	24	7
	DUALS		0	0	2	0	0	0	0	1	0	1	0	0
	BUSES		0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHEF	R)		16	(0)		1	(0)		14	(0)	74	(0)	
	PEDS	No	orth Sic	le	146	East Side		105	South Side	e	93	West Side		129
17:45	CARS		35	0	18	0	0	0	24	26	0	241	25	6
	DUALS		1	0	0	0	0	0	1	0	0	3	0	0
	BUSES		0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHEF	R)		9	(0)		0	(0)		7	(0)	82	(0)	
	PEDS	No	orth Sic	le	124	East Side		105	South Side	e	87	West Side		130
18:00	CARS		52	0	18	0	0	0	35	20	0	220	38	g
	DUALS		1	0	0	0	0	0	0	1	0	4	0	0
	BUSES		0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHEF	R)		6	(0)		0	(0)		12	(0)	71	(0)	
	PEDS	Ne	orth Sic	le	126	East Side		105	South Side	e	85	West Side		107



#### **RICHMOND ST AT YORK ST (PX 74)**

Survey Type: Routine Hours

Survey Date: Jan-18-2017 (Wednesday)

Time Period		NORTH Thru R	l BOU ight	ND Left	EAST Thru	Г BOUN Right	ID Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND Sight Left	:
07:45	CARS	50	0	22	0	0	0	0	3	0	141	23	0
	DUALS	0	0	1	0	0	0	0	0	0	11	1	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	7	(0)	
	PEDS	North Side		42	East Side		88	South Side		40	West Side		46
08:00	CARS	44	0	28	0	0	0	0	3	0	160	24	0
	DUALS	2	0	0	0	0	0	0	0	0	6	0	0
	BUSES	0	0	0	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	7	(0)	
	PEDS	North Side		42	East Side		101	South Side		54	West Side		55
08:15	CARS	55	0	32	0	0	0	0	4	0	157	27	0
	DUALS	3	0	1	0	0	0	0	0	0	5	0	0
	BUSES	0	0	1	0	0	0	0	0	0	5	0	0
	BIKE (OTHER)		6	(0)		0	(0)		0	(0)	18	(0)	
	PEDS	North Side		40	East Side		141	South Side		65	West Side		77
08:30	CARS	58	0	29	0	0	0	0	7	0	152	23	0
	DUALS	0	0	3	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	23	(0)	
	PEDS	North Side		65	East Side		188	South Side		96	West Side		66
08:45	CARS	58	0	45	0	0	0	0	5	0	178	27	0
	DUALS	0	0	1	0	0	0	0	0	0	5	0	0
	BUSES	1	0	0	0	0	0	0	0	0	5	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	36	(0)	
	PEDS	North Side		61	East Side		191	South Side		113	West Side		83
09:00	CARS	70	0	48	0	0	0	0	5	0	175	32	0
	DUALS	3	0	0	0	0	0	0	0	0	8	1	0
	BUSES	0	0	1	0	0	0	0	0	0	4	0	0
	BIKE (OTHER)		1	(0)		1	(0)		4	(0)	38	(0)	
	PEDS	North Side		96	East Side		188	South Side		157	West Side		91
09:15	CARS	61	0	36	0	0	0	0	11	0	190	27	0
	DUALS	1	0	3	0	0	0	0	0	0	7	0	0
	BUSES	1	0	1	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		7	(0)		0	(0)		1	(0)	17	(0)	
	PEDS	North Side		53	East Side		140	South Side		137	West Side		77

Page 1 of 5



#### **RICHMOND ST AT YORK ST (PX 74)**

Survey Type: Routine Hours

Time Period		NORTH Thru R	l BOU light	IND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	H BOUN Right	ID Left	WEST Thru R	BOUND light Left	
09:30	CARS	80	0	44	0	0	0	0	7	0	176	12	0
	DUALS	1	0	1	0	0	0	0	0	0	7	1	0
	BUSES	1	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	22	(0)	
	PEDS	North Side		50	East Side		127	South Side		79	West Side		54
10:15	CARS	57	0	40	0	0	0	0	6	0	148	22	0
	DUALS	1	0	3	0	0	0	0	0	0	6	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side		29	East Side		33	South Side		33	West Side		25
10:30	CARS	49	0	36	0	0	0	0	10	0	139	27	0
	DUALS	2	0	2	0	0	0	0	0	0	7	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side		29	East Side		57	South Side		45	West Side		27
10:45	CARS	52	0	38	0	0	0	0	6	0	147	15	0
	DUALS	1	0	1	0	0	0	0	0	0	9	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	6	(0)	
	PEDS	North Side		22	East Side		50	South Side		57	West Side		19
11:00	CARS	38	0	45	0	0	0	0	5	0	146	18	0
	DUALS	1	0	1	0	0	0	0	0	0	5	1	0
	BUSES	0	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side		25	East Side		60	South Side		56	West Side		30
11:15	CARS	50	0	38	0	0	0	0	8	0	153	21	0
	DUALS	1	0	2	0	0	0	1	0	0	3	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	12	(0)	
	PEDS	North Side		29	East Side		55	South Side		66	West Side		23
11:30	CARS	45	0	29	0	0	0	0	4	0	162	16	0
	DUALS	2	0	0	0	0	0	0	0	0	7	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	7	(0)	
	PEDS	North Side		33	East Side		67	South Side		54	West Side		24



#### **RICHMOND ST AT YORK ST (PX 74)**

Survey Type: Routine Hours

Time Period		NORTH Thru R	l BOI light	UND Left	EAS <sup>:</sup> Thru	T BOUI Right	ND Left	SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Left	
11:45	CARS	49	0	41	0	0	0	0	3	0	144	14	0
	DUALS	1	0	1	0	0	0	0	0	0	5	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		1	(0)	6	(0)	
	PEDS	North Side		41	East Side		85	South Side		73	West Side		36
12:00	CARS	52	0	32	0	0	0	0	7	0	151	20	0
	DUALS	1	0	1	0	0	0	0	0	0	4	0	0
	BUSES	1	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	9	(0)	
	PEDS	North Side		28	East Side		96	South Side		81	West Side		40
13:15	CARS	52	0	44	0	0	0	0	10	0	120	23	0
	DUALS	0	0	1	0	0	0	1	0	0	5	0	0
	BUSES	1	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	6	(0)	
	PEDS	North Side		43	East Side		121	South Side		149	West Side		45
13:30	CARS	41	0	42	0	0	0	0	7	0	144	22	0
	DUALS	1	0	2	0	0	0	0	0	0	7	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	7	(0)	
	PEDS	North Side		49	East Side		119	South Side		130	West Side		40
13:45	CARS	43	0	35	0	0	0	0	5	0	160	19	0
	DUALS	1	0	1	0	0	0	0	0	0	4	1	0
	BUSES	0	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	5	(0)	
	PEDS	North Side		40	East Side		104	South Side		112	West Side		29
14:00	CARS	50	0	40	0	0	0	0	3	0	149	16	0
	DUALS	0	0	3	0	0	0	0	0	0	9	0	0
	BUSES	1	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	6	(0)	
	PEDS	North Side		48	East Side		112	South Side		98	West Side		30
14:15	CARS	61	0	32	0	0	0	0	8	0	152	20	0
	DUALS	1	0	1	0	0	0	0	0	0	6	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	8	(0)	
	PEDS	North Side		45	East Side		107	South Side		80	West Side		26



#### **RICHMOND ST AT YORK ST (PX 74)**

Survey Type: Routine Hours

Time Period		NORTH Thru R	I BO ight	UND Left	EAS <sup>-</sup> Thru	F BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	45	0	48	0	0	0	0	6	0	143	12	0
	DUALS	0	0	2	0	0	0	1	0	0	7	1	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	9	(0)	
	PEDS	North Side		43	East Side		102	South Side		67	West Side		21
14:45	CARS	54	0	39	0	0	0	0	9	0	150	30	0
	DUALS	1	0	2	0	0	0	0	0	0	6	0	0
	BUSES	1	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	9	(0)	
	PEDS	North Side		53	East Side		83	South Side		75	West Side	( )	42
15:00	CARS	48	0	47	0	0	0	0	15	0	157	20	0
	DUALS	1	0	0	0	0	0	0	0	0	5	1	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side		54	East Side		104	South Side		73	West Side		31
16:15	CARS	45	0	52	0	0	0	0	8	0	181	9	0
	DUALS	1	0	1	0	0	0	0	0	0	4	1	0
	BUSES	0	0	0	0	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	16	(0)	
	PEDS	North Side		51	East Side		153	South Side		75	West Side		71
16:30	CARS	42	0	71	0	0	0	0	11	0	209	18	0
	DUALS	0	0	0	0	0	0	0	0	0	4	0	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	14	(0)	
	PEDS	North Side		60	East Side		159	South Side		115	West Side		49
16:45	CARS	48	0	74	0	0	0	0	6	0	219	15	0
	DUALS	0	0	2	0	0	0	0	0	0	3	0	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		7	(0)		0	(0)		2	(0)	20	(0)	
	PEDS	North Side		70	East Side		230	South Side		82	West Side		74
17:00	CARS	46	0	70	0	0	0	0	11	0	208	8	0
	DUALS	0	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		6	(0)		0	(0)		4	(0)	28	(0)	
	PEDS	North Side		75	East Side		224	South Side		106	West Side		65



#### **RICHMOND ST AT YORK ST (PX 74)**

Survey Type: Routine Hours

Time		NOR	гн во	UND	EAS		ID	SOUTH	I BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	light	Left	Thru R	light Lei	ft
17:15	CARS	50	0	76	0	0	0	0	9	0	209	16	0
	DUALS	0	0	0	0	0	0	0	0	0	5	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	1	0
	BIKE (OTHER)		17	(0)		0	(0)		0	(0)	32	(0)	
	PEDS	North Side	)	140	East Side		296	South Side		163	West Side		120
17:30	CARS	67	0	82	0	0	0	0	13	0	165	11	0
	DUALS	0	0	1	0	0	0	0	0	0	2	0	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		18	(0)		0	(0)		2	(0)	38	(0)	
	PEDS	North Side	)	196	East Side		298	South Side		203	West Side		99
17:45	CARS	52	0	72	0	0	0	0	14	0	231	23	0
	DUALS	1	0	0	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	2	0	0
	BIKE (OTHER)		10	(0)		0	(0)		2	(0)	29	(0)	
	PEDS	North Side	)	151	East Side		270	South Side		164	West Side		93
18:00	CARS	69	0	74	0	0	0	0	13	0	203	21	0
	DUALS	0	0	0	0	0	0	0	0	0	2	1	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		7	(0)		0	(0)		2	(0)	29	(0)	
	PEDS	North Side	)	150	East Side		242	South Side		163	West Side		109



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Survey Date: Jun-13-2018 (Wednesday)
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Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru Ri	BOU ght	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI light	ND Left	WEST Thru R	BOUND ight Lef	t
07:45	CARS	41	8	1	33	6	3	36	15	0	68	7	4
	DUALS	8	0	0	2	0	0	2	0	0	1	0	1
	BUSES	1	0	0	0	0	1	2	0	0	1	0	0
	BIKE (OTHER)		2	(0)		2	(0)		35	(0)	4	(0)	
	PEDS	North Side		12	East Side		32	South Side		22	West Side		15
08:00	CARS	48	7	1	40	5	9	55	17	0	79	6	7
	DUALS	0	2	0	2	0	1	0	1	0	2	0	0
	BUSES	4	0	0	0	0	1	3	0	0	0	1	0
	BIKE (OTHER)		15	(0)		2	(0)		63	(0)	3	(0)	
	PEDS	North Side		21	East Side		35	South Side		20	West Side		23
08:15	CARS	58	6	0	49	6	9	51	7	1	79	4	4
	DUALS	0	0	0	1	0	0	2	0	0	0	0	0
	BUSES	2	0	0	2	0	0	4	0	0	0	0	0
	BIKE (OTHER)		15	(0)		4	(0)		45	(0)	11	(0)	
	PEDS	North Side		17	East Side		27	South Side		25	West Side		13
08:30	CARS	73	9	3	31	6	12	55	6	0	86	7	2
	DUALS	3	1	0	0	0	1	3	0	0	0	0	0
	BUSES	3	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		13	(0)		4	(0)		67	(0)	9	(0)	
	PEDS	North Side		24	East Side		33	South Side		15	West Side		13
08:45	CARS	68	7	2	45	8	11	72	11	0	105	8	5
	DUALS	4	0	0	0	0	0	1	1	0	5	1	0
	BUSES	2	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		10	(0)		1	(0)		55	(0)	15	(0)	
	PEDS	North Side		33	East Side		29	South Side		26	West Side		21
09:00	CARS	80	7	3	40	11	6	65	15	2	76	8	9
	DUALS	4	0	0	1	1	0	0	0	1	2	0	0
	BUSES	2	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		14	(0)		1	(0)		84	(0)	11	(0)	
	PEDS	North Side		26	East Side		51	South Side		34	West Side		32
09:15	CARS	64	4	7	50	14	7	47	10	6	91	4	9
	DUALS	5	0	1	0	0	0	2	2	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		17	(0)		3	(0)		66	(0)	17	(0)	
	PEDS	North Side		15	East Side		29	South Side		23	West Side		20



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Survey Date: Jun-13-2018 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru R	I BOUI light	ND Left	WEST Thru R	BOUND ight Leff	t
09:30	CARS	61	8	5	42	9	12	49	5	4	86	5	6
	DUALS	1	0	1	2	0	1	0	2	1	1	0	1
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		6	(0)		2	(0)		56	(0)	12	(0)	
	PEDS	North Side		12	East Side		23	South Side		19	West Side		17
10:15	CARS	70	10	9	32	8	8	55	12	4	49	9	4
	DUALS	6	1	0	0	0	1	2	0	1	1	0	1
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		32	(0)	6	(0)	
	PEDS	North Side		17	East Side		25	South Side		13	West Side		21
10:30	CARS	47	12	8	40	5	2	80	7	5	44	6	4
	DUALS	3	0	1	3	0	0	2	0	1	6	0	0
	BUSES	3	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		11	(0)		4	(0)		18	(0)	10	(0)	
	PEDS	North Side		16	East Side		31	South Side		22	West Side		22
10:45	CARS	54	7	5	28	8	8	45	6	6	55	7	2
	DUALS	2	0	0	1	0	0	4	0	0	2	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		9	(0)		3	(0)		25	(0)	6	(0)	
	PEDS	North Side		18	East Side		20	South Side		16	West Side		15
11:00	CARS	56	8	10	42	12	7	58	11	8	49	10	8
	DUALS	0	2	0	2	0	0	5	1	1	5	0	1
	BUSES	1	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		10	(0)		4	(0)		23	(0)	3	(0)	
	PEDS	North Side		29	East Side		31	South Side		16	West Side		22
11:15	CARS	55	6	10	27	11	6	68	8	7	47	3	2
	DUALS	5	0	0	0	0	2	5	0	1	3	0	0
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		7	(0)		1	(0)		20	(0)	4	(0)	
	PEDS	North Side		16	East Side		44	South Side		20	West Side		15
11:30	CARS	52	4	8	38	5	9	60	11	7	33	8	2
	DUALS	3	1	0	3	0	0	5	0	0	2	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		10	(0)		4	(0)		18	(0)	4	(0)	
	PEDS	North Side		17	East Side		34	South Side		21	West Side		19



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Survey Date: Jun-13-2018 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	I BOUI light	ND Left	WEST Thru R	BOUND ight Lef	ť
11:45	CARS	39	9	5	36	10	7	80	4	9	42	9	7
	DUALS	2	1	0	1	0	0	3	0	0	1	0	0
	BUSES	3	0	0	0	0	1	4	0	0	0	0	0
	BIKE (OTHER)		12	(0)		6	(0)		14	(0)	5	(0)	
	PEDS	North Side	·	20	East Side		36	South Side		14	West Side		11
12:00	CARS	56	10	4	64	6	13	62	12	7	47	8	3
	DUALS	2	0	0	2	0	0	4	0	0	3	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		11	(0)		5	(0)		20	(0)	4	(0)	
	PEDS	North Side	·	25	East Side		46	South Side		20	West Side		23
13:15	CARS	61	13	4	61	10	14	83	10	12	43	5	8
	DUALS	0	0	0	0	0	1	4	0	0	1	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		18	(0)		0	(0)		14	(0)	6	(0)	
	PEDS	North Side	·	20	East Side		31	South Side		26	West Side		23
13:30	CARS	43	11	7	59	16	15	59	8	8	47	8	5
	DUALS	0	1	0	0	0	1	3	0	1	1	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		15	(0)		9	(0)		16	(0)	4	(0)	
	PEDS	North Side	·	15	East Side		35	South Side		28	West Side		17
13:45	CARS	64	8	6	64	11	8	61	5	4	42	8	5
	DUALS	1	0	0	0	0	1	1	0	0	2	0	0
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		9	(0)		5	(0)		10	(0)	3	(0)	
	PEDS	North Side	·	13	East Side		25	South Side		24	West Side		24
14:00	CARS	68	7	5	59	10	25	75	9	4	33	10	5
	DUALS	1	0	0	3	0	1	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		11	(0)		9	(0)		17	(0)	4	(0)	
	PEDS	North Side	·	16	East Side		27	South Side		37	West Side		40
14:15	CARS	46	5	5	65	14	11	60	5	10	38	13	12
	DUALS	0	1	0	0	1	1	3	0	0	1	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		17	(0)		7	(0)		18	(0)	7	(0)	
	PEDS	North Side	1	15	East Side		19	South Side		28	West Side		17



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Survey Date: Jun-13-2018 (Wednesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUN light	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	64	13	2	63	13	15	57	8	16	33	10	4
	DUALS	1	2	1	0	0	0	2	0	0	2	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		13	(0)		5	(0)		18	(0)	6	(0)	
	PEDS	North Side	·	13	East Side		20	South Side		23	West Side		19
14:45	CARS	61	11	4	69	7	11	59	12	15	31	10	10
	DUALS	1	0	1	0	1	0	3	0	0	2	0	C
	BUSES	1	0	0	1	0	1	3	0	0	0	0	0
	BIKE (OTHER)		8	(0)		3	(0)		19	(0)	0	(0)	
	PEDS	North Side	·	20	East Side		40	South Side		23	West Side		15
15:00	CARS	68	7	2	95	10	15	69	5	9	30	9	e
	DUALS	2	0	0	3	0	1	3	0	0	2	0	0
	BUSES	3	0	0	0	0	2	2	0	0	0	1	0
	BIKE (OTHER)		17	(0)		5	(0)		19	(0)	6	(0)	
	PEDS	North Side	·	37	East Side		20	South Side		19	West Side		27
16:15	CARS	60	15	2	114	14	11	76	10	3	39	11	2
	DUALS	1	0	0	0	0	0	2	0	0	1	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		28	(0)		15	(0)		10	(0)	3	(0)	
	PEDS	North Side	·	36	East Side		37	South Side		32	West Side		37
16:30	CARS	56	10	0	91	18	12	63	5	4	29	5	7
	DUALS	1	0	0	0	1	0	5	0	0	1	0	C
	BUSES	2	0	1	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		11	(0)		1	(0)		12	(0)	2	(0)	
	PEDS	North Side	·	18	East Side		24	South Side		31	West Side		29
16:45	CARS	47	13	4	114	16	5	74	19	0	45	6	4
	DUALS	1	0	1	2	0	0	1	0	0	1	0	C
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		27	(0)		3	(0)		8	(0)	5	(0)	
	PEDS	North Side	·	24	East Side		20	South Side		16	West Side		22
17:00	CARS	60	13	2	119	16	14	80	5	1	42	3	З
	DUALS	0	0	0	1	0	0	1	0	0	0	0	C
	BUSES	2	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		43	(0)		12	(0)		18	(0)	4	(0)	
	PEDS	North Side		21	East Side		25	South Side		38	West Side		29



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Survey Date: Jun-13-2018 (Wednesday)
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Survey Type	e: Ro	utine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	IND Left	WES Thru	ST BOUND Right Lef	ť
17:15	CARS		70	8	3	112	22	9	69	10	2	25	4	1
	DUALS		0	0	0	1	0	0	3	0	0	0	0	0
	BUSES		1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	R)		54	(0)		15	(0)		22	(0)	5	(0)	
	PEDS	N	orth Sid	e	33	East Side		45	South Side	e	30	West Side		42
17:30	CARS		81	10	3	106	24	19	85	17	2	31	9	10
	DUALS		0	0	1	0	0	0	0	0	0	0	0	0
	BUSES		1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHE	R)		61	(0)		25	(0)		27	(0)	2	(0)	
	PEDS	N	orth Sid	e	54	East Side		49	South Side	e	28	West Side	·	40
17:45	CARS		64	14	3	125	23	8	69	7	1	40	10	4
	DUALS		0	0	0	1	0	0	0	0	0	0	0	1
	BUSES		2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHE	R)		68	(0)		9	(0)		23	(0)	3	(0)	
	PEDS	N	orth Sid	e	37	East Side		40	South Side	e	41	West Side		32
18:00	CARS		78	6	4	135	24	7	90	13	7	53	6	15
	DUALS		3	0	0	2	0	0	1	0	0	0	0	0
	BUSES		1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHE	R)		49	(0)		16	(0)		33	(0)	4	(0)	
	PEDS	N	orth Sid	е	55	East Side		57	South Side	e	42	West Side		48



# Intersection Detailed 15 Minutes Movement Report

#### SHUTER ST AT VICTORIA ST (PX 1518)

**Routine Hours** 

Time Period		NOR Thru	TH BOI Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOUT Thru	H BOU Right	JND Left	WEST Thru R	BOUND ight Le	əft
07:45	CARS	10	13	6	12	10	3	21	6	7	48	17	22
	DUALS	0	0	0	1	0	0	1	0	0	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		2	(0)	4	(0)	
	PEDS	North Si	ide	50	East Side	•	32	South Sid	е	81	West Side		52
08:00	CARS	15	16	6	18	8	7	21	13	9	50	22	23
	DUALS	0	0	0	0	1	0	0	0	1	5	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		9	(0)	3	(0)	
	PEDS	North Si	ide	64	East Side	•	56	South Sid	е	95	West Side		60
08:15	CARS	12	13	9	14	11	6	17	9	6	51	15	17
	DUALS	0	0	0	3	2	0	2	0	0	1	1	2
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		3	(0)		2	(0)		3	(0)	6	(0)	
	PEDS	North Si	ide	59	East Side		44	South Sid	e	96	West Side		78
08:30	CARS	14	10	6	27	11	9	22	6	8	52	22	22
	DUALS	0	0	1	2	0	0	2	0	0	1	0	C
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	10	(0)	
	PEDS	North S	ide	87	East Side		28	South Sid	е	87	West Side		77
08:45	CARS	12	15	12	28	12	8	23	7	4	63	22	22
	DUALS	0	0	0	0	2	0	0	0	0	1	0	C
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		3	(0)	8	(0)	
	PEDS	North S	ide	84	East Side		59	South Sid	e	110	West Side		91
09:00	CARS	16	19	8	28	12	2	23	17	8	65	35	20
	DUALS	0	0	0	0	1	1	1	0	0	0	0	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	9	(0)	
	PEDS	North S	ide	114	East Side		60	South Sid	e	100	West Side		85
09:15	CARS	31	12	17	33	14	3	28	8	16	58	26	21
	DUALS	2	0	0	0	1	0	0	0	0	2	0	1
	BUSES	1	0	0	0	0	0	0	0	0	1	0	1
	BIKE (OTHER)		1	(0)		2	(0)		6	(0)	9	(0)	
	PEDS	North Si	ide	134	East Side		49	South Sid	е	69	West Side		102



# Intersection Detailed 15 Minutes Movement Report

#### SHUTER ST AT VICTORIA ST (PX 1518)

**Routine Hours** 

Time Period		NOR Thru	TH BOU Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOU Right	JND Left	WEST Thru R	BOUND light Le	əft
09:30	CARS	18	17	7	17	11	9	19	14	7	55	27	16
	DUALS	0	1	0	0	1	0	0	1	0	0	0	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	15	(0)	
	PEDS	North Si	de	104	East Side	•	60	South Sid	de	86	West Side		59
10:15	CARS	24	14	4	29	17	12	19	12	6	38	21	19
	DUALS	1	1	0	1	0	0	0	1	0	0	0	1
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	7	(0)	
	PEDS	North Si	de	70	East Side	•	29	South Sid	de	49	West Side		55
10:30			15	9		11	8	12	6	11	47	19	10
	DUALS	0	1	1	0	0	0	0	0	0	1	0	3
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		4	(0)		1	(0)	7	(0)	
	PEDS	North Si	de	73	East Side	•	36	South Sid	de	49	West Side	( )	51
10:45			21	11	31	15	11	19	8	9		18	4
	DUALS	0	0	0	0	0	0	0	0	0	1	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	2	(0)	
	PEDS	North Si	de	54	East Side	•	35	South Sid	de	50	West Side		45
11:00	CARS	22	14	8	32	24	9	23	17	9	45	31	9
	DUALS	0	0	0	0	2	0	1	0	0	0	0	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		5	(0)	4	(0)	
	PEDS	North Si	de	70	East Side		59	South Sid	de	87	West Side		54
11:15	CARS	25	14	5	26	9	7	19	6	9	44	25	17
	DUALS	0	0	0	1	1	0	3	0	0	2	1	0
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		1	(0)		5	(0)		4	(0)	3	(0)	
	PEDS	North Si	de	88	East Side		33	South Sid	de	58	West Side		55
11:30	CARS	21	13	5	28	15	4	22	8	13	56	20	14
	DUALS	1	1	0	1	2	0	1	1	0	2	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		4	(0)	1	(0)	
	PEDS	North Si	de	91	East Side		34	South Sid	de	62	West Side		62



# Intersection Detailed 15 Minutes Movement Report

#### SHUTER ST AT VICTORIA ST (PX 1518)

**Routine Hours** 

Time Period		NOR <sup>.</sup> Thru	TH BOI Right	UND Left	EAS Thru	ST BOU Right	ND Left	SOUT Thru	FH BOL Right	JND Left	WEST Thru R	BOUND	) eft
11:45	CARS	24	12	11	41	12	12	27	8	21	44	27	ç
	DUALS	0	0	0	2	1	1	0	3	1	0	1	1
	BUSES	0	0	0	0	0	0	0	0	0	1	1	0
	BIKE (OTHER)		3	(0)		4	(0)		1	(0)	3	(0)	
	PEDS	North Si	de	99	East Side		70	South Sid	le	95	West Side		68
12:00	CARS	26	17	21	46	15	4	20	12	13	35	23	10
	DUALS	0	0	0	0	2	0	0	1	0	1	1	1
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		5	(0)		2	(0)		8	(0)	4	(0)	
	PEDS	North Si	de	136	East Side		55	South Sid	de	71	West Side		113
13:15	CARS	28	21	9	38	21	13	26	16	9	37	28	12
	DUALS	0	0	0	0	0	0	0	1	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		2	(0)	2	(0)	
	PEDS	North Si	de	119	East Side		65	South Sid	le	124	West Side		152
13:30	CARS	17	17	9	47	16	15	31	12	13	37	22	ç
	DUALS	0	0	0	1	1	0	0	1	0	1	0	2
	BUSES	0	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		3	(0)		2	(0)	2	(0)	
	PEDS	North Si	de	126	East Side	•	71	South Sid	de	86	West Side		141
13:45	CARS	18	18	7	45	14	12	15	7	16	40	27	13
	DUALS	0	0	0	2	1	1	0	0	0	1	0	1
	BUSES	0	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		6	(0)		2	(0)	6	(0)	
	PEDS	North Si	de	103	East Side		64	South Sid	de	109	West Side		80
14:00	CARS	17	10	6	41	18	17	22	11	15	36	21	12
	DUALS	0	1	0	1	0	0	0	0	1	1	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Si	de	98	East Side		45	South Sid	le	125	West Side		120
14:15	CARS	17	17	3	50	19	13	21	18	13	42	16	14
	DUALS	1	0	0	0	1	0	0	1	0	0	0	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Si	de	93	East Side		46	South Sid	le	97	West Side		69



# Intersection Detailed 15 Minutes Movement Report

#### SHUTER ST AT VICTORIA ST (PX 1518)

**Routine Hours** 

Time Period		NOR Thru	TH BOI Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU1 Thru	TH BOU Right	IND Left	WEST Thru R	BOUND ight Le	eft
14:30	CARS	14	21	8	43	12	7	17	13	18	28	14	10
	DUALS	1	0	0	1	0	0	0	0	0	0	0	1
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	3	(0)	
	PEDS	North Si	de	90	East Side		54	South Sic	le	99	West Side		76
14:45	CARS	24	16	6	46	22	8	27	15	21	29	13	8
	DUALS	0	0	1	2	2	0	2	0	0	2	0	2
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		5	(0)		0	(0)	2	(0)	
	PEDS	North Si	de	87	East Side		43	South Sic	le	103	West Side		81
15:00	CARS	27	19	6	48	13	12	20	14	24	42	13	6
	DUALS	1	0	0	1	0	0	1	1	2	1	0	0
	BUSES	0	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		2	(0)		4	(0)		2	(0)	5	(0)	
	PEDS	North Si	de	90	East Side		65	South Sic	le	104	West Side		78
16:15	CARS	24	18	5	58	28	8	32	12	18	38	21	10
	DUALS	0	0	0	0	0	0	1	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		4	(0)		5	(0)	4	(0)	
	PEDS	North Si	de	123	East Side		84	South Sic	le	160	West Side		190
16:30	CARS	17	19	6	56	18	15	33	13	35	25	13	6
	DUALS	0	0	1	0	0	0	0	0	0	1	0	0
	BUSES	0	0	0	0	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		5	(0)		1	(0)	1	(0)	
	PEDS	North Si	de	61	East Side	•	31	South Sic	le	78	West Side		43
16:45	CARS	22	20	8	78	19	10	33	20	23	44	23	14
	DUALS	0	0	0	0	0	0	0	0	0	0	0	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	2	(0)	
	PEDS	North Si	de	75	East Side	•	44	South Sic	le	83	West Side		58
17:00	CARS	26	20	5	75	21	12	39	13	16	33	13	11
	DUALS	0	0	0	1	0	0	1	0	0	0	1	0
	BUSES	0	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		4	(0)		4	(0)	2	(0)	
	PEDS	North Si	de	127	East Side	,	55	South Sid	le	120	West Side		113



# Intersection Detailed 15 Minutes Movement Report

### SHUTER ST AT VICTORIA ST (PX 1518)

**Routine Hours** 

Time		NORTH BOUND			EAST BOUND			SOUTH BOUND			WEST BOUND		
Period		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru R	ight L	.eft
17:15	CARS	29	23	9	78	28	14	41	12	20	28	21	ç
	DUALS	0	0	0	0	0	0	0	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		6	(0)		9	(0)		7	(0)	1	(0)	
	PEDS	North Side		124	East Side		79	South Sid	le	151	West Side		113
17:30	CARS	32	30	2	80	26	12	31	12	16	31	24	21
	DUALS	0	0	0	0	0	0	0	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	1	0	0
	BIKE (OTHER)		7	(0)		8	(0)		10	(0)	3	(0)	
	PEDS	North Side		112	East Side		77	South Sid	le	137	West Side		146
17:45	CARS	33	18	12	54	18	8	39	11	17	35	26	23
	DUALS	1	0	0	0	0	0	1	0	0	0	1	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		6	(0)		5	(0)		2	(0)	2	(0)	
	PEDS	North Side		142	East Side		48	South Sid	le	146	West Side		173
18:00	CARS	32	19	3	80	31	9	38	9	18	30	32	25
	DUALS	0	0	0	0	0	0	0	0	0	0	0	C
	BUSES	0	0	0	0	0	0	1	0	0	1	0	0
	BIKE (OTHER)		3	(0)		3	(0)		6	(0)	10	(0)	
	PEDS	North Si	ide	98	East Side		60	South Sid	le	99	West Side		126


### SHUTER ST AT YONGE ST (PX 35)

Survey Date: Oct-17-2019 (Thursday)

Survey Type:	Routine Hours

Time Period		NORT Thru	IND Left	EAS <sup>-</sup> Thru	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lei	ft			
07:45	CARS	67	15	0	1	0	0	68	0	9	28	14	24
	DUALS	4	2	0	0	0	0	7	0	5	4	2	4
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		5	(0)	3	(0)	
	PEDS	North Side		30	East Side		81	South Side		35	West Side		73
08:00	CARS	95	34	0	2	0	0	56	1	21	41	23	23
	DUALS	5	2	0	0	0	0	5	0	1	0	6	7
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		5	(0)	2	(0)	
	PEDS	North Side		40	East Side		89	South Side		41	West Side		72
08:15	CARS	73	30	3	1	0	0	77	0	11	25	28	28
	DUALS	19	6	0	0	0	0	6	0	4	0	6	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	1
	BIKE (OTHER)		2	(0)		0	(0)		5	(0)	6	(0)	
	PEDS	North Side		34	East Side		123	South Side		46	West Side		113
08:30	CARS	84	17	1	3	0	0	79	1	23	31	34	28
	DUALS	15	3	0	0	0	0	2	1	1	1	5	1
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		7	(0)	6	(0)	
	PEDS	North Side		48	East Side		152	South Side		57	West Side		121
08:45	CARS	80	28	0	3	0	0	67	1	25	35	32	30
	DUALS	7	1	0	0	0	0	9	0	3	0	3	3
	BUSES	3	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		13	(0)	6	(0)	
	PEDS	North Side		74	East Side		165	South Side		64	West Side		164
09:00	CARS	77	26	0	3	1	0	56	0	16	44	26	25
	DUALS	7	2	0	0	0	0	6	0	2	0	4	2
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		6	(0)	5	(0)	
	PEDS	North Side		83	East Side		162	South Side		94	West Side		160
09:15	CARS	79	9	0	3	1	0	75	2	21	49	31	26
	DUALS	11	3	0	0	0	0	1	0	5	0	2	3
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		3	(0)	2	(0)	
	PEDS	North Side		43	East Side		143	South Side		38	West Side		122



### SHUTER ST AT YONGE ST (PX 35)

Survey Date: Oct-17-2019 (Thursday)

Survey Type:	Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAS <sup>-</sup> Thru	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t		
09:30	CARS	80	28	5	3	0	0	86	2	12	37	28	18
	DUALS	8	4	1	0	0	0	7	0	3	1	7	6
	BUSES	1	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		4	(0)		0	(0)		5	(0)	1	(0)	
	PEDS	North Side	•	45	East Side		127	South Side		41	West Side		104
10:15	CARS	68	29	2	8	0	0	74	4	15	27	16	21
	DUALS	13	4	0	0	0	0	10	0	5	2	7	1
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		2	(0)		0	(0)		6	(0)	3	(0)	
	PEDS	North Side		37	East Side		92	South Side		50	West Side		81
10:30	CARS	87	27	4	8	1	0	63	1	15	18	30	16
	DUALS	9	5	0	0	0	0	11	0	7	0	3	1
	BUSES	1	0	0	0	0	0	1	0	1	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		3	(0)	2	(0)	
	PEDS	North Side	)	35	East Side		86	South Side		54	West Side		92
10:45	CARS	66	23	0	6	0	0	61	5	16	23	23	33
	DUALS	10	5	0	0	0	0	10	0	3	0	4	2
	BUSES	1	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		37	East Side		101	South Side		55	West Side		98
11:00	CARS	64	23	3	8	2	0	66	2	11	19	26	18
	DUALS	10	9	0	0	0	0	13	0	3	1	5	2
	BUSES	1	1	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side	•	38	East Side		128	South Side		42	West Side		77
11:15	CARS	79	25	5	18	0	0	50	1	12	30	25	26
	DUALS	12	3	0	0	0	0	8	0	3	0	4	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	2	(0)	
	PEDS	North Side	•	40	East Side		121	South Side		62	West Side		99
11:30	CARS	80	25	3	15	1	0	41	1	8	23	19	27
	DUALS	17	5	0	0	0	0	3	0	7	0	6	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		2	(0)		0	(0)		5	(0)	2	(0)	
	PEDS	North Side	•	47	East Side		161	South Side		61	West Side		127



### SHUTER ST AT YONGE ST (PX 35)

Survey Date: Oct-17-2019 (Thursday)

Time Period 11:45		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH Thru R	l BOU light	ND Left	WEST Thru R	BOUND ight Let	ft
11:45	CARS	67	15	4	13	2	1	88	3	16	18	28	35
	DUALS	13	4	0	0	0	0	9	0	7	0	8	0
	BUSES	0	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		51	East Side		174	South Side		77	West Side		136
12:00	CARS	73	20	5	20	1	0	69	3	13	30	28	25
	DUALS	15	3	0	0	0	0	3	0	2	0	3	2
	BUSES	1	1	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		10	(0)		0	(0)		9	(0)	1	(0)	
	PEDS	North Side		61	East Side		185	South Side		87	West Side		127
13:15	CARS	77	33	2	23	0	0	52	1	17	27	28	26
	DUALS	13	2	0	0	0	0	8	0	4	0	5	3
	BUSES	1	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		84	East Side		309	South Side		128	West Side		164
13:30	CARS	82	23	4	18	0	2	64	3	18	25	20	32
	DUALS	6	1	0	0	0	0	5	0	3	1	9	2
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		58	East Side		206	South Side		94	West Side		195
13:45	CARS	70	24	1	24	4	1	76	3	28	20	24	34
	DUALS	4	3	0	0	0	0	10	0	1	1	4	2
	BUSES	0	0	0	0	0	0	4	0	0	0	1	0
	BIKE (OTHER)		6	(0)		0	(0)		14	(0)	0	(0)	
	PEDS	North Side		31	East Side		230	South Side		84	West Side		156
14:00	CARS	96	23	5	29	3	0	67	1	15	17	21	25
	DUALS	8	4	1	0	0	0	7	0	1	0	3	2
	BUSES	0	1	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		7	(0)		0	(0)		8	(0)	1	(0)	
	PEDS	North Side		76	East Side		222	South Side		88	West Side		173
14:15	CARS	87	24	3	42	3	0	55	1	18	9	27	34
	DUALS	9	5	0	0	0	0	6	0	0	0	1	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	5	(0)	
	PEDS	North Side		61	East Side		176	South Side		69	West Side		165



### SHUTER ST AT YONGE ST (PX 35)

Survey Date: Oct-17-2019 (Thursday)

Time Period 14:30 CARS		NORT Thru	ND Left	EAS <sup>.</sup> Thru	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND ight Let	ft			
14:30	CARS	83	28	2	28	0	0	63	4	15	19	33	23
	DUALS	7	3	0	0	0	0	9	0	1	1	1	1
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		5	(0)	1	(0)	
	PEDS	North Side		57	East Side		193	South Side		82	West Side		161
14:45	CARS	81	29	2	17	1	0	56	2	15	12	26	23
	DUALS	5	1	0	0	0	0	3	0	4	0	4	0
	BUSES	2	0	0	0	0	0	1	0	0	0	3	0
	BIKE (OTHER)		4	(0)		0	(0)		7	(0)	2	(0)	
	PEDS	North Side	•	50	East Side		200	South Side		94	West Side		163
15:00	CARS	90	29	3	25	3	0	62	2	16	10	30	35
	DUALS	9	2	0	0	0	0	8	0	3	0	2	5
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		6	(0)	2	(0)	
	PEDS	North Side	•	66	East Side		208	South Side		64	West Side		183
16:15	CARS	91	27	3	38	2	1	62	5	21	12	24	18
	DUALS	9	3	0	0	0	0	3	0	0	0	5	1
	BUSES	2	0	0	0	0	0	2	0	0	0	1	0
	BIKE (OTHER)		8	(0)		0	(0)		6	(0)	3	(0)	
	PEDS	North Side	•	88	East Side		122	South Side		100	West Side		222
16:30	CARS	83	18	3	34	4	0	66	2	26	16	26	17
	DUALS	5	2	0	0	0	0	3	0	2	0	0	2
	BUSES	1	0	0	0	0	0	0	0	0	0	2	0
	BIKE (OTHER)		19	(0)		0	(0)		6	(0)	4	(0)	
	PEDS	North Side	•	66	East Side		75	South Side		92	West Side		268
16:45	CARS	105	32	4	49	1	1	60	1	22	16	24	13
	DUALS	3	1	0	0	0	0	2	0	2	0	3	1
	BUSES	2	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		6	(0)	4	(0)	
	PEDS	North Side	•	72	East Side		86	South Side		96	West Side		240
17:00	CARS	95	30	3	40	0	0	49	2	19	17	31	18
	DUALS	3	3	0	0	0	0	6	0	0	0	3	1
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		20	(0)		0	(0)		9	(0)	2	(0)	
	PEDS	North Side	•	66	East Side		92	South Side		118	West Side		245



### SHUTER ST AT YONGE ST (PX 35)

Survey Date: Oct-17-2019 (Thursday)

Time		NORTH BOUND			EAST BOUND Thru Right Left			SOUTH	BOU	ND	WEST	BOUND	_
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	light Lei	ft
17:15	CARS	86	21	3	46	0	3	69	2	25	18	35	11
	DUALS	1	2	0	0	0	0	2	0	2	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		9	(0)	2	(0)	
	PEDS	North Side	) 	109	East Side		96	South Side		108	West Side		264
17:30	CARS	94	25	0	37	2	0	77	2	23	16	21	21
	DUALS	3	0	0	0	0	0	6	0	0	0	1	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		18	(0)		1	(0)		4	(0)	3	(0)	
	PEDS	North Side	)	99	East Side		99	South Side		118	West Side		294
17:45	CARS	102	29	4	43	2	0	72	2	17	16	23	17
	DUALS	2	1	1	0	0	0	2	1	2	0	2	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		8	(0)	4	(0)	
	PEDS	North Side	)	94	East Side		79	South Side		102	West Side		300
18:00	CARS	108	30	6	39	1	1	56	2	24	21	35	19
	DUALS	5	2	0	0	0	0	1	0	1	0	1	1
	BUSES	1	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		15	(0)		0	(0)		6	(0)	3	(0)	
	PEDS	North Side	•	71	East Side		180	South Side		119	West Side		234



#### ADELAIDE ST AT BERKELEY ST (PX 1964)

**Routine Hours** 

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Survey Date:
    Apr-11-2019 (Thursday)
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#### ADELAIDE ST AT BERKELEY ST (PX 1964)

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Survey Date:
    Apr-11-2019 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	18	4	0	240	11	20	9	0	12	0	0	0
	DUALS	1	1	0	15	1	3	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	5	(0)	
	PEDS	North Side		3	East Side		8	South Side		11	West Side		20
10:15	CARS	11	2	0	169	11	21	2	0	3	0	0	0
	DUALS	0	0	0	21	1	1	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side		10	East Side		9	South Side		8	West Side		23
10:30	CARS	16	2	0	173	16	19	4	0	3	0	0	0
	DUALS	1	0	0	17	3	2	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		4	East Side		16	South Side		6	West Side		13
10:45	CARS	13	6	0	161	13	18	4	0	5	0	0	0
	DUALS	0	1	0	29	2	3	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		2	East Side		7	South Side		0	West Side		13
11:00	CARS	10	13	0	165	7	23	5	0	8	0	0	0
	DUALS	1	0	0	24	0	2	0	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		6	East Side		5	South Side		10	West Side		11
11:15	CARS	11	7	0	194	8	15	3	0	3	0	0	0
	DUALS	1	0	0	22	0	5	1	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		12	South Side		7	West Side		11
11:30	CARS	9	4	0	168	13	14	4	0	4	0	0	0
	DUALS	0	1	0	17	1	1	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		9	East Side		2	South Side		4	West Side		14



#### ADELAIDE ST AT BERKELEY ST (PX 1964)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	16	3	0	163	7	28	5	0	6	0	0	0
	DUALS	1	0	0	18	0	0	1	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		3	East Side		5	South Side		10	West Side		20
12:00	CARS	14	2	0	171	12	16	11	0	9	0	0	0
	DUALS	1	0	0	24	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		10	East Side		12	South Side		15	West Side		20
13:15	CARS	8	8	0	195	11	11	3	0	7	0	0	0
	DUALS	1	1	0	21	0	2	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		2	East Side		11	South Side		12	West Side		26
13:30	CARS	6	5	0	196	9	15	7	0	4	0	0	0
	DUALS	0	0	0	16	0	0	2	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	5	(0)	
	PEDS	North Side		5	East Side		12	South Side		9	West Side		26
13:45	CARS	8	8	0	187	13	17	8	0	8	0	0	0
	DUALS	2	2	0	16	1	2	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	4	(0)	
	PEDS	North Side		10	East Side		12	South Side		10	West Side		11
14:00	CARS	13	4	0	236	16	11	7	0	6	0	0	0
	DUALS	0	0	0	15	1	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		1	East Side		6	South Side		11	West Side		13
14:15	CARS	18	1	0	249	10	16	5	0	3	0	0	0
	DUALS	1	0	0	24	1	1	1	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		6	East Side		5	South Side		4	West Side		9



#### ADELAIDE ST AT BERKELEY ST (PX 1964)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	9	4	0	222	8	7	7	0	10	0	0	C
	DUALS	0	1	0	32	1	3	1	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		2	South Side		4	West Side		15
14:45	CARS	11	5	0	199	11	12	9	0	10	0	0	C
	DUALS	1	0	0	30	0	1	0	0	3	0	0	C
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		7	East Side		7	South Side		11	West Side		8
15:00	CARS	6	3	0	202	12	13	10	0	6	0	0	C
	DUALS	2	0	0	25	3	5	2	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	3	(0)	
	PEDS	North Side		2	East Side		3	South Side		7	West Side		18
16:15	CARS	13	3	0	289	15	13	6	0	12	0	0	C
	DUALS	0	2	0	25	2	0	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side		10	East Side		10	South Side		7	West Side		10
16:30	CARS	13	6	0	262	11	18	9	0	11	0	0	C
	DUALS	0	0	0	20	1	1	1	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	9	(0)	
	PEDS	North Side		7	East Side		8	South Side		5	West Side		7
16:45	CARS	12	5	0	289	23	10	10	0	11	0	0	0
	DUALS	0	1	0	20	1	0	0	0	1	0	0	C
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		2	East Side		7	South Side		3	West Side		88
17:00	CARS	17	10	0	337	14	14	11	0	10	0	0	C
	DUALS	0	0	0	12	0	1	0	0	1	0	0	C
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	17	(0)	
	PEDS	North Side		6	East Side		8	South Side		9	West Side		14



Survey Type:

### Intersection Detailed 15 Minutes Movement Report

#### ADELAIDE ST AT BERKELEY ST (PX 1964)

**Routine Hours** 

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Survey Date: Apr-11-2019 (Thursday)
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Time NORTH BOUND EAST BOUND SOUTH BOUND WEST BOUND Period Thru Right Left Thru Right Left Thru Right Left Thru Right Left 17:15 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:30 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) South Side West Side PEDS North Side East Side 18:00 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 



### ADELAIDE ST AT GEORGE ST (PX 1963)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru Ri	BOUND ght Left	
07:45	CARS	13	7	0	182	7	7	16	0	10	0	0	0
	DUALS	0	1	0	14	1	0	1	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	4	(0)	
	PEDS	North Side		25	East Side		45	South Side		19	West Side		3
08:00	CARS	6	6	0	187	6	7	11	0	11	0	0	0
	DUALS	1	0	0	19	1	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	6	(0)	
	PEDS	North Side		33	East Side		59	South Side		8	West Side		9
08:15	CARS	12	9	0	178	12	6	6	0	9	0	0	0
	DUALS	0	0	0	13	0	0	2	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	6	(0)	
	PEDS	North Side		45	East Side		50	South Side		21	West Side		9
08:30	CARS	13	4	0	208	11	6	12	0	10	0	0	0
io.30 (	DUALS	1	1	0	19	1	0	2	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	10	(0)	
	PEDS	North Side		52	East Side		53	South Side		28	West Side		13
08:45	CARS	6	2	0	190	12	7	8	0	10	0	0	0
	DUALS	0	0	0	14	0	0	0	0	0	0	0	0
	BUSES	0	0	0	1	0	0	0	0	1	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	18	(0)	
	PEDS	North Side		58	East Side		31	South Side		39	West Side		15
09:00	CARS	5	2	0	173	11	10	12	0	18	0	0	0
	DUALS	0	0	0	19	0	0	1	0	1	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	20	(0)	
	PEDS	North Side		66	East Side		32	South Side		35	West Side		20
09:15	CARS	11	5	0	212	15	5	13	0	22	0	0	0
	DUALS	0	0	0	12	2	1	0	0	0	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	11	(0)	
	PEDS	North Side		51	East Side		46	South Side		25	West Side		20



#### ADELAIDE ST AT GEORGE ST (PX 1963)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOl light	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	7	8	0	239	9	8	13	0	13	0	0	(
	DUALS	2	0	0	15	0	0	0	0	0	0	0	(
	BUSES	0	0	0	3	0	0	0	0	0	0	0	C
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	11	(0)	
	PEDS	North Side		37	East Side		44	South Side		18	West Side		8
10:15	CARS	3	6	0	185	14	8	10	0	13	0	0	(
	DUALS	0	0	0	21	2	1	0	0	1	0	0	(
	BUSES	0	0	0	0	0	0	1	0	0	0	0	C
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	6	(0)	
	PEDS	North Side		32	East Side		39	South Side		21	West Side		12
10:30	CARS	12	2	0	178	16	11	4	0	15	0	0	(
	DUALS	0	1	0	20	1	1	2	0	2	0	0	(
	BUSES	0	0	0	0	0	0	0	0	0	0	0	C
	BIKE (OTHER)		3	(0)		1	(0)		1	(0)	3	(0)	
	PEDS	North Side		20	East Side		31	South Side		18	West Side		6
10:45	CARS	10	6	0	180	9	6	11	0	13	0	0	(
	DUALS	2	1	0	29	2	1	1	0	2	0	0	(
	BUSES	0	0	0	1	0	0	0	0	0	0	0	C
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		16	East Side		50	South Side		25	West Side		3
11:00	CARS	8	9	0	188	9	7	11	0	11	0	0	(
	DUALS	0	0	0	24	0	0	0	0	1	0	0	(
	BUSES	0	0	0	0	0	0	0	0	1	0	0	C
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		22	East Side		50	South Side		18	West Side		12
11:15	CARS	12	18	0	196	5	6	9	0	16	0	0	(
	DUALS	0	2	0	21	1	0	2	0	0	0	0	(
	BUSES	0	0	0	1	0	0	0	0	0	0	0	C
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	5	(0)	
	PEDS	North Side		32	East Side		46	South Side		29	West Side		18
11:30	CARS	7	5	0	165	8	12	8	0	9	0	0	(
	DUALS	0	1	0	13	0	1	1	0	0	0	0	(
	BUSES	0	0	0	0	0	0	0	0	0	0	0	C
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	2	(0)	
	PEDS	North Side		20	East Side		33	South Side		15	West Side		17



#### ADELAIDE ST AT GEORGE ST (PX 1963)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Typ	e: Routine	Hours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI	ND Left	WEST Thru Ri	BOUND ight Left	t
11:45	CARS	6	18	0	172	22	15	16	0	11	0	0	C
	DUALS	1	0	0	18	0	0	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	7	(0)	
	PEDS	North Side		36	East Side		43	South Side		25	West Side		21
12:00	CARS	8	8	0	179	20	14	14	0	15	0	0	C
	DUALS	2	1	0	26	1	0	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	8	(0)	
	PEDS	North Side		48	East Side		76	South Side		33	West Side		27
13:15	CARS	5	5	0	195	13	9	8	0	10	0	0	C
	DUALS	1	0	0	20	1	0	0	0	3	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	9	(0)	
	PEDS	North Side		52	East Side		7	South Side		18	West Side		24
13:30	CARS	3	7	0	225	9	8	8	0	8	0	0	C
	DUALS	0	0	0	15	0	1	0	0	2	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	5	(0)	
	PEDS	North Side		39	East Side		50	South Side		24	West Side		19
13:45	CARS	8	7	0	198	11	7	7	0	10	0	0	C
	DUALS	1	0	0	15	0	0	0	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	5	(0)	
	PEDS	North Side		45	East Side		44	South Side		31	West Side		28
14:00	CARS	8	6	0	255	18	6	11	0	9	0	0	C
	DUALS	0	0	0	19	1	2	1	0	1	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	5	(0)	
	PEDS	North Side		16	East Side		58	South Side		21	West Side		14
14:15	CARS	8	6	0	255	20	9	5	0	15	0	0	C
	DUALS	1	0	0	28	2	0	2	0	0	0	0	C
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	4	(0)	
	PEDS	North Side		27	East Side		40	South Side		27	West Side		19



#### ADELAIDE ST AT GEORGE ST (PX 1963)

Survey Date: Apr-11-2019 (Thursday)

Survey Ty	pe: Routine I	Hours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru Ri	BOUND ight Left	t
14:30	CARS	10	3	0	225	22	12	9	0	15	0	0	0
	DUALS	0	0	0	25	0	0	1	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	5	(0)	
	PEDS	North Side		26	East Side		34	South Side		18	West Side		16
14:45	CARS	8	5	0	218	19	3	14	0	11	0	0	0
	DUALS	1	0	0	23	1	0	0	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		26	East Side		33	South Side		13	West Side		18
15:00	CARS	8	5	0	205	19	9	13	0	16	0	0	0
	DUALS	1	0	0	34	1	2	1	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	4	(0)	
	PEDS	North Side		27	East Side		46	South Side		18	West Side		20
16:15	CARS	8	15	0	276	16	10	25	0	19	0	0	0
	DUALS	0	0	0	19	0	2	3	0	4	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	21	(0)	
	PEDS	North Side		30	East Side		45	South Side		40	West Side		22
16:30	CARS	10	7	0	265	18	3	27	0	17	0	0	0
	DUALS	1	0	0	19	0	0	3	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		4	(0)	13	(0)	
	PEDS	North Side		28	East Side		37	South Side		23	West Side		27
16:45	CARS	18	3	0	275	27	6	30	0	15	0	0	0
	DUALS	0	0	0	15	1	0	1	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	20	(0)	
	PEDS	North Side		36	East Side		16	South Side		28	West Side		16
17:00	CARS	9	7	0	330	23	9	35	0	21	0	0	0
	DUALS	0	0	0	9	0	1	4	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	31	(0)	
	PEDS	North Side		47	East Side		31	South Side		41	West Side		30



Survey Type:

## Intersection Detailed 15 Minutes Movement Report

### ADELAIDE ST AT GEORGE ST (PX 1963)

**Routine Hours** 

Survey Date: Apr-11-2019 (Thursday)

Time Period		NORTI Thru F	H BOl Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru R	BOUND aight Left	t
17:15	CARS	24	8	0	288	29	10	39	0	16	0	0	0
	DUALS	0	1	0	8	0	0	1	0	3	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	39	(0)	
	PEDS	North Side		46	East Side		36	South Side		59	West Side		33
17:30	CARS	18	5	0	311	32	3	36	0	19	0	0	0
	DUALS	1	0	0	7	0	1	3	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	46	(0)	
	PEDS	North Side		54	East Side		33	South Side		40	West Side		30
17:45	CARS	22	6	0	301	16	6	15	0	28	0	0	0
	DUALS	1	0	0	9	0	0	1	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	45	(0)	
	PEDS	North Side		140	East Side		49	South Side		37	West Side		68
18:00	CARS	12	8	0	322	19	8	16	0	24	0	0	0
	DUALS	0	1	0	9	0	0	0	0	0	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	36	(0)	
	PEDS	North Side		74	East Side		85	South Side		50	West Side		42



### ADELAIDE ST AT JARVIS ST (PX 4)

Survey Type: Routine Hours

Time Period		NORT Thru	H BOI Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND Sight Left	
07:45	CARS	139	9	0	147	14	8	143	0	22	0	0	0
	DUALS	10	3	0	14	3	1	8	0	2	0	0	0
	BUSES	1	0	0	1	0	1	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	9	(0)	
	PEDS	North Side		70	East Side		29	South Side		23	West Side		43
08:00	CARS	129	13	0	179	15	16	144	0	22	0	0	0
	DUALS	12	4	0	11	1	0	8	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	8	(0)	
	PEDS	North Side		95	East Side		41	South Side		45	West Side		60
08:15	CARS	132	13	0	164	21	14	148	0	18	0	0	0
	DUALS	13	0	0	12	2	0	10	0	1	0	0	0
	BUSES	0	0	0	2	0	1	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		0	(0)	11	(0)	
	PEDS	North Side		94	East Side		48	South Side		49	West Side		91
08:30	CARS	163	10	0	165	24	13	145	0	30	0	0	0
	DUALS	11	1	0	7	1	1	9	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	9	(0)	
	PEDS	North Side		139	East Side		29	South Side		49	West Side		82
08:45	CARS	146	17	0	148	27	14	131	0	32	0	0	0
	DUALS	16	1	0	5	1	1	7	0	0	0	0	0
	BUSES	0	0	0	3	0	1	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	19	(0)	
	PEDS	North Side		135	East Side		70	South Side		68	West Side		96
09:00	CARS	174	14	0	154	27	20	137	0	25	0	0	0
	DUALS	11	3	0	10	1	1	6	0	1	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	29	(0)	
	PEDS	North Side		139	East Side		71	South Side		69	West Side		88
09:15	CARS	160	13	0	168	20	15	142	0	31	0	0	0
	DUALS	12	3	0	12	0	0	12	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	17	(0)	
	PEDS	North Side		101	East Side		46	South Side		41	West Side		67



### ADELAIDE ST AT JARVIS ST (PX 4)

Survey Type: Routine Hours

Time Period		NOF Thru	TH BOI Right	JND Left	EA Thru	ST BOU Right	ND Left	SOUTH Thru R	l BOL light	JND Left	WES <sup>-</sup> Thru	「BOUND Right Left	t
09:30	CARS	115	16	0	173	24	18	148	0	29	0	0	0
	DUALS	11	1	0	10	0	0	6	0	0	0	0	0
	BUSES	0	0	0	3	0	1	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	19	(0)	
	PEDS	North Sic	le	92	East Side		40	South Side		39	West Side		69
10:15	CARS	131	21	0	151	28	20	118	0	22	0	0	0
	DUALS	8	2	0	22	2	3	11	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	7	(0)	
	PEDS	North Sid	le	39	East Side		35	South Side		21	West Side		44
10:30	CARS	120	12	0	156	26	23	113	0	26	0	0	0
	DUALS	15	2	0	15	1	0	7	0	2	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Sid	le	38	East Side		27	South Side		16	West Side		36
10:45	CARS	133	12	0	139	20	21	100	0	29	0	0	0
10.45	DUALS	15	0	0	14	2	2	9	0	3	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	10	(0)	
	PEDS	North Sid	le	46	East Side		37	South Side		36	West Side		37
11:00	CARS	109	15	0	155	25	22	142	0	32	0	0	0
	DUALS	15	1	0	17	1	0	8	0	4	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	3	(0)	
	PEDS	North Sid	le	59	East Side		41	South Side	_	21	West Side		49
11:15	CARS	127	19	0	139	21	16	120	0	22	0	0	0
	DUALS	18	4	0	9	3	0	17	0	8	0	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	3	(0)	
	PEDS	North Sid	le	60	East Side		36	South Side		24	West Side		39
11:30	CARS	111	13	0	190	26	23	115	0	39	0	0	0
	DUALS	16	1	0	17	2	2	12	0	4	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	10	(0)	
	PEDS	North Sid	le	64	East Side		35	South Side		29	West Side		53



### ADELAIDE ST AT JARVIS ST (PX 4)

Survey Type: Routine Hours

Time Period		NOR1 Thru	H BOI Right	JND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
11:45	CARS	115	17	0	176	20	15	133	0	23	0	0	0
	DUALS	12	0	0	18	5	1	12	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	10	(0)	
	PEDS	North Side	•	59	East Side		31	South Side		28	West Side		68
12:00	CARS	114	14	0	141	22	14	145	0	36	0	0	0
	DUALS	8	0	0	12	3	0	12	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	5	(0)	
	PEDS	North Side	•	82	East Side		42	South Side		39	West Side		64
13:15	CARS	114	11	0	165	27	17	104	0	31	0	0	0
	DUALS	15	1	0	14	3	2	16	0	3	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	12	(0)	
	PEDS	North Side	•	71	East Side		64	South Side		42	West Side		72
13:30	CARS	115	9	0	178	26	22	129	0	28	0	0	0
13.30	DUALS	10	0	0	21	2	0	19	0	2	0	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	11	(0)	
	PEDS	North Side	•	81	East Side		55	South Side		42	West Side		77
13:45	CARS	115	14	0	172	23	22	136	0	28	0	0	0
	DUALS	9	1	0	20	3	1	14	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	8	(0)	
	PEDS	North Side	•	70	East Side		47	South Side		27	West Side		67
14:00	CARS	109	21	0	181	19	26	117	0	26	0	0	0
	DUALS	11	0	0	21	2	1	19	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		1	(0)	11	(0)	
	PEDS	North Side	•	57	East Side		35	South Side		16	West Side		55
14:15	CARS	123	24	0	198	21	23	117	0	32	0	0	0
	DUALS	8	4	0	28	1	1	13	0	0	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	9	(0)	
	PEDS	North Side	•	63	East Side		36	South Side		25	West Side		66



### ADELAIDE ST AT JARVIS ST (PX 4)

Survey Type: Routine Hours

Time Period		NORT Thru	H BO	UND Left	EAS Thru	Right	ND Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru F	BOUND Sight Left	
14:30	CARS	111	15	0	218	24	15	138	0	37	0	0	0
	DUALS	9	1	0	20	2	1	16	0	4	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side	•	62	East Side		46	South Side		39	West Side		60
14:45	CARS	139	12	0	203	30	16	108	0	35	0	0	0
	DUALS	10	0	0	26	1	0	18	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	7	(0)	
	PEDS	North Side		67	East Side		31	South Side		28	West Side		66
15:00	CARS	131	16	0	208	15	22	86	0	37	0	0	0
	DUALS	4	0	0	26	3	0	19	0	4	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	10	(0)	
	PEDS	North Side		58	East Side		34	South Side		35	West Side		61
16:15	CARS	115	19	0	250	17	32	77	0	22	0	0	0
10.15	DUALS	7	4	0	15	0	0	9	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	29	(0)	
	PEDS	North Side	•	59	East Side		49	South Side		26	West Side		67
16:30	CARS	135	17	0	284	20	40	67	0	30	0	0	0
	DUALS	9	0	0	15	0	1	2	0	0	0	0	0
	BUSES	1	0	0	2	1	1	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	26	(0)	
	PEDS	North Side	•	61	East Side		51	South Side		33	West Side		69
16:45	CARS	126	25	0	283	15	48	70	0	35	0	0	0
	DUALS	4	0	0	18	0	0	7	0	4	0	0	0
	BUSES	1	0	0	4	0	0	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	33	(0)	
	PEDS	North Side	•	64	East Side		41	South Side		43	West Side		42
17:00	CARS	138	17	0	256	17	44	71	0	31	0	0	0
	DUALS	5	1	0	6	0	0	7	0	3	0	0	0
	BUSES	0	0	0	1	0	1	0	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	50	(0)	
	PEDS	North Side	•	92	East Side		43	South Side		39	West Side		62



Survey Type:

## Intersection Detailed 15 Minutes Movement Report

### ADELAIDE ST AT JARVIS ST (PX 4)

**Routine Hours** 

Time Period		NOR	TH BOI	JND	EAS	T BOUN	ID	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	light Lef	ť
17:15	CARS	156	22	0	283	17	53	69	0	36	0	0	0
	DUALS	7	1	0	6	0	0	7	0	2	0	0	0
	BUSES	0	0	0	2	0	1	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	77	(0)	
	PEDS	North Side	) 	109	East Side		69	South Side		73	West Side		84
17:30	CARS	142	15	0	285	12	47	47	0	44	0	0	0
	DUALS	4	0	0	9	2	0	5	0	0	0	0	0
	BUSES	0	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	56	(0)	
	PEDS	North Side	)	149	East Side		69	South Side		83	West Side		105
17:45	CARS	146	24	0	250	13	42	70	0	51	0	0	0
	DUALS	4	0	0	7	1	1	4	0	0	0	0	0
	BUSES	0	0	0	1	0	1	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	74	(0)	
	PEDS	North Side	)	159	East Side		94	South Side		79	West Side		94
18:00	CARS	145	16	0	285	19	45	89	0	55	0	0	0
	DUALS	3	0	0	10	1	1	1	0	1	0	0	0
	BUSES	0	0	0	1	0	2	0	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	38	(0)	
	PEDS	North Side	)	151	East Side		82	South Side		78	West Side		118



#### ADELAIDE ST AT ONTARIO ST

Survey Date: Mar-20-2019 (Wednesday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	0	0	0	180	0	0	0	1	7	0	0	0
	DUALS	0	0	0	8	0	0	0	1	0	0	0	0
	BUSES	0	0	0	5	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		0	West Side		5
08:00	CARS	0	0	0	188	0	0	0	2	22	0	0	0
	DUALS	0	0	0	17	0	0	0	0	1	0	0	0
	BUSES	0	0	0	5	0	0	0	0	3	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side		10	East Side		0	South Side		0	West Side		3
08:15	CARS	0	0	0	198	0	0	0	1	9	0	0	0
	DUALS	0	0	0	13	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		2	South Side		0	West Side		11
08:30	CARS	0	0	0	178	0	0	0	1	20	0	0	0
	DUALS	0	0	0	17	0	2	0	0	1	0	0	0
	BUSES	0	0	0	4	0	0	0	0	1	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		0	South Side		0	West Side		8
08:45	CARS	0	0	0	193	0	0	0	1	24	0	0	0
	DUALS	0	0	0	15	0	0	0	0	0	0	0	0
	BUSES	0	0	0	6	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		9	(0)		1	(0)	1	(0)	
	PEDS	North Side		8	East Side		0	South Side		0	West Side		17
09:00	CARS	0	0	0	197	0	0	0	1	19	0	0	0
	DUALS	0	0	0	17	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	2	0	0	0
	BIKE (OTHER)		0	(0)		6	(0)		0	(0)	0	(0)	
	PEDS	North Side		15	East Side		1	South Side		0	West Side		35
09:15	CARS	0	0	0	224	0	0	0	0	18	0	0	0
	DUALS	0	0	0	15	0	0	0	0	3	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		10	East Side		1	South Side		0	West Side		14



### ADELAIDE ST AT ONTARIO ST

Survey Date: Mar-20-2019 (Wednesday)

Time Period		NORTH Thru R	l BOU ight	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Leff	t
09:30	CARS	0	0	0	224	0	0	0	0	12	0	0	0
	DUALS	0	0	0	9	0	0	0	0	0	0	0	0
	BUSES	0	0	0	3	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	0	(0)	
	PEDS	North Side		13	East Side		1	South Side		0	West Side		25
10:15	CARS	0	0	0	188	0	0	0	0	17	0	0	0
	DUALS	0	0	0	8	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		2	South Side		0	West Side		5
10:30	CARS	0	0	0	172	0	0	0	0	15	0	0	0
	DUALS	0	0	0	24	0	1	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		1	South Side		0	West Side		14
10:45	CARS	0	0	0	184	0	0	0	0	10	0	0	0
10.45	DUALS	0	0	0	17	0	0	0	0	0	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		5	South Side		0	West Side		12
11:00	CARS	0	0	0	192	0	0	0	0	9	0	0	0
	DUALS	0	0	0	20	0	0	0	0	6	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		2	South Side		0	West Side		11
11:15	CARS	0	0	0	154	0	0	0	0	12	0	0	0
	DUALS	0	0	0	15	0	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		4	South Side		0	West Side		11
11:30	CARS	0	0	0	166	0	1	0	0	14	0	0	0
	DUALS	0	0	0	19	0	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		7	East Side		0	South Side		0	West Side		11



### ADELAIDE ST AT ONTARIO ST

Survey Date: Mar-20-2019 (Wednesday)

Survey	Туре:	Routine Hours

Time Period		NORTH Thru R	l BOU ight	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOU! ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	0	0	0	194	0	1	0	0	13	0	0	0
	DUALS	0	0	0	26	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		3	South Side		0	West Side		5
12:00	CARS	0	0	0	193	0	0	0	0	14	0	0	0
	DUALS	0	0	0	29	0	0	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		3	South Side		0	West Side		8
13:15	CARS	0	0	0	181	0	0	0	0	8	0	0	0
	DUALS	0	0	0	26	0	0	0	0	2	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		19	East Side		0	South Side		0	West Side		33
13:30	CARS	0	0	0	203	0	0	0	0	11	0	0	0
	DUALS	0	0	0	15	0	0	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		11	East Side		11	South Side		0	West Side		17
13:45	CARS	0	0	0	218	0	0	0	1	15	0	0	0
	DUALS	0	0	0	24	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		7	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		1	South Side		0	West Side		14
14:00	CARS	0	0	0	245	0	0	0	1	11	0	0	0
	DUALS	0	0	0	25	0	0	0	0	3	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		12	East Side		6	South Side		0	West Side		15
14:15	CARS	0	0	0	246	0	0	0	1	13	0	0	0
	DUALS	0	0	0	24	0	0	0	0	1	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		2	South Side		0	West Side		13



#### ADELAIDE ST AT ONTARIO ST

Survey Date: Mar-20-2019 (Wednesday)

Time Period		NORTH Thru R	l BOU ight	IND Left	EAS <sup>:</sup> Thru	EAST BOUND Thru Right Left				ND Left	WEST BOUND Thru Right Left		t
14:30	CARS	0	0	0	248	0	0	0	0	10	0	0	0
	DUALS	0	0	0	28	0	0	0	0	2	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	0	(0)	
	PEDS	North Side		9	East Side		4	South Side		0	West Side		17
14:45	CARS	0	0	0	265	0	0	0	1	14	0	0	0
	DUALS	0	0	0	26	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	0	(0)	
	PEDS	North Side		14	East Side		3	South Side		0	West Side		19
15:00	CARS	0	0	0	245	0	0	0	1	23	0	0	0
	DUALS	0	0	0	29	0	0	0	0	7	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		14	East Side		3	South Side		0	West Side		16
16:15	CARS	0	0	0	272	0	1	0	0	13	0	0	0
	DUALS	0	0	0	19	0	0	0	0	2	0	0	0
	BUSES	0	0	0	3	0	0	0	0	1	0	0	0
	BIKE (OTHER)		0	(0)		5	(0)		1	(0)	0	(0)	
	PEDS	North Side		22	East Side		5	South Side		0	West Side		9
16:30	CARS	0	0	0	316	0	0	0	0	22	0	0	0
	DUALS	0	0	0	21	0	0	0	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		11	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		2	South Side		0	West Side		9
16:45	CARS	0	0	0	327	0	1	0	0	21	0	0	0
	DUALS	0	0	0	16	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		1	South Side		0	West Side		24
17:00	CARS	0	0	0	332	0	0	0	1	20	0	0	0
	DUALS	0	0	0	14	0	0	0	0	1	0	0	0
	BUSES	0	0	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		9	(0)		1	(0)	0	(0)	
	PEDS	North Side		20	East Side		2	South Side		0	West Side		25



### ADELAIDE ST AT ONTARIO ST

Survey Date: Mar-20-2019 (Wednesday)

Time		NORTH BOUND			EAS	SOUTH	вои	ND	WEST BOUND				
Period		Thru	Thru Right		Thru	Right	Left	Thru R	ight	Left	Thru F	light Lef	t
17:15	CARS	0	0	0	336	0	0	0	0	23	0	0	0
	DUALS	0	0	0	13	0	0	0	0	2	0	0	0
	BUSES	0	0	0	2	0	0	0	0	1	0	0	0
	BIKE (OTHER)		0	(0)		19	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	21	East Side		4	South Side		0	West Side		35
17:30	CARS	0	0	0	362	0	0	0	0	15	0	0	0
	DUALS	0	0	0	7	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		31	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	20	East Side		0	South Side		0	West Side		23
17:45	CARS	0	0	0	340	0	1	0	0	20	0	0	0
	DUALS	0	0	0	11	0	0	0	0	1	0	0	0
	BUSES	0	0	0	2	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		25	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	17	East Side		2	South Side		0	West Side		20
18:00	CARS	0	0	0	311	0	0	0	0	17	0	0	0
	DUALS	0	0	0	9	0	0	0	0	0	0	0	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		21	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	19	East Side		2	South Side		0	West Side		26



#### ADELAIDE ST AT PARLIAMENT ST (PX 214)

**Routine Hours** 

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Survey Date:
    Apr-11-2019 (Thursday)
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#### ADELAIDE ST AT PARLIAMENT ST (PX 214)

```
Survey Date:
    Apr-11-2019 (Thursday)
```

Survey Ty	ype: Routine H	lours											
Time Period		NORT Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND light Left	t
09:30	CARS	55	5	0	212	17	12	55	0	6	0	0	
	DUALS	9	1	0	12	1	3	9	0	1	0	0	C
	BUSES	1	0	0	3	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	2	(0)	
	PEDS	North Side		5	East Side		19	South Side		7	West Side		14
10:15	CARS	63	4	0	137	19	18	39	0	6	0	0	C
	DUALS	19	1	0	17	4	1	7	0	1	0	0	C
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		5	East Side		11	South Side		3	West Side		3
10:30	CARS	49	11	0	138	19	15	48	0	9	0	0	C
	DUALS	13	2	0	19	0	1	6	0	3	0	0	C
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		2	East Side		14	South Side		2	West Side		3
10:45	CARS	68	7	0	139	16	12	45	0	7	0	0	C
	DUALS	12	0	0	23	5	2	7	0	3	0	0	C
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		8	South Side		1	West Side		7
11:00	CARS	58	7	0	142	24	14	38	0	12	0	0	C
	DUALS	9	2	0	16	2	5	9	0	2	0	0	C
	BUSES	4	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		3	East Side		12	South Side		5	West Side		8
11:15	CARS	55	10	0	158	18	15	35	0	7	0	0	C
	DUALS	15	0	0	17	3	2	12	0	4	0	0	C
	BUSES	1	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		7	South Side		0	West Side		1
11:30	CARS	67	6	0	136	28	18	50	0	11	0	0	C
	DUALS	9	0	0	9	6	3	11	0	4	0	0	C
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		5	East Side		6	South Side		4	West Side		5

Page 2 of 5



#### ADELAIDE ST AT PARLIAMENT ST (PX 214)

**Routine Hours** 

```
Survey Date:
    Apr-11-2019 (Thursday)
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#### ADELAIDE ST AT PARLIAMENT ST (PX 214)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Type:

### Intersection Detailed 15 Minutes Movement Report

#### ADELAIDE ST AT PARLIAMENT ST (PX 214)

**Routine Hours** 

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Survey Date: Apr-11-2019 (Thursday)
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Time NORTH BOUND EAST BOUND SOUTH BOUND WEST BOUND Period Thru Right Left Thru Right Left Thru Right Left Thru Right Left CARS 17:15 DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) North Side PEDS South Side East Side West Side 17:30 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 17:45 CARS DUALS BUSES **BIKE (OTHER)** (0) (0) (0) (0) PEDS North Side East Side South Side West Side 18:00 CARS DUALS BUSES (0) (0) (0) (0) **BIKE (OTHER)** PEDS North Side East Side West Side South Side 



#### ADELAIDE ST AT SHERBOURNE ST (PX 255)

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Survey Date: Apr-11-2019 (Thursday)
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Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>°</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	56	5	0	164	9	26	39	0	15	0	0	C
	DUALS	6	1	0	11	1	3	3	0	0	0	0	0
	BUSES	4	0	0	2	0	0	3	0	0	0	0	0
	BIKE (OTHER)		13	(0)		2	(0)		9	(0)	5	(0)	
	PEDS	North Side	·	29	East Side		41	South Side		10	West Side		28
08:00	CARS	47	9	0	174	5	12	42	0	13	0	0	C
	DUALS	9	0	0	15	1	2	3	0	1	0	0	C
	BUSES	3	0	0	3	0	0	3	0	0	0	0	0
	BIKE (OTHER)		12	(0)		0	(0)		4	(0)	6	(0)	
	PEDS	North Side	·	26	East Side		39	South Side		16	West Side		22
08:15	CARS	52	6	0	170	13	14	36	0	13	0	0	C
	DUALS	6	1	0	12	1	1	7	0	0	0	0	0
	BUSES	3	0	0	2	0	0	3	0	0	0	0	0
	BIKE (OTHER)		14	(0)		1	(0)		10	(0)	5	(0)	
	PEDS	North Side	·	49	East Side		62	South Side		28	West Side		34
08:30	CARS	43	10	0	215	10	19	33	0	17	0	0	C
	DUALS	7	1	0	19	2	1	3	0	0	0	0	C
	BUSES	3	0	0	3	0	0	3	0	0	0	0	0
	BIKE (OTHER)		31	(0)		3	(0)		7	(0)	4	(0)	
	PEDS	North Side	·	64	East Side		76	South Side		15	West Side		30
08:45	CARS	59	11	0	174	9	20	36	0	14	0	0	C
	DUALS	5	2	0	10	2	1	4	0	0	0	0	0
	BUSES	1	0	0	2	0	0	3	0	0	0	0	0
	BIKE (OTHER)		21	(0)		0	(0)		10	(0)	13	(0)	
	PEDS	North Side	·	61	East Side		95	South Side		44	West Side		37
09:00	CARS	48	9	0	182	5	14	48	0	19	0	0	0
	DUALS	10	1	0	10	2	2	4	0	1	0	0	0
	BUSES	6	0	0	4	0	0	3	0	0	0	0	0
	BIKE (OTHER)		20	(0)		0	(0)		7	(0)	17	(0)	
	PEDS	North Side	·	70	East Side		94	South Side		31	West Side		43
09:15	CARS	60	5	0	194	11	17	43	0	10	0	0	C
	DUALS	9	1	0	8	1	1	2	0	2	0	0	0
	BUSES	3	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		7	(0)		1	(0)		2	(0)	9	(0)	
	PEDS	North Side	e.	42	East Side		79	South Side		32	West Side		41



#### ADELAIDE ST AT SHERBOURNE ST (PX 255)

```
Survey Date:
    Apr-11-2019 (Thursday)
```

Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	57	13	0	257	13	23	48	0	11	0	0	0
	DUALS	4	1	0	15	0	2	4	0	0	0	0	0
	BUSES	2	0	0	3	0	0	4	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		5	(0)	10	(0)	
	PEDS	North Side		45	East Side		68	South Side		22	West Side		35
10:15	CARS	47	14	0	171	11	32	44	0	13	0	0	0
	DUALS	4	3	0	17	1	2	5	0	2	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		7	(0)	4	(0)	
	PEDS	North Side		37	East Side		38	South Side		23	West Side		37
10:30	CARS	49	9	0	170	15	12	31	0	11	0	0	0
	DUALS	10	2	0	14	2	3	5	0	3	0	0	0
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		24	East Side		47	South Side		16	West Side		22
10:45	CARS	61	14	0	174	10	21	33	0	11	0	0	0
	DUALS	8	2	0	25	3	1	6	0	3	0	0	0
	BUSES	3	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		26	East Side		34	South Side		16	West Side		28
11:00	CARS	46	14	0	163	18	31	44	0	7	0	0	0
	DUALS	5	3	0	21	4	0	7	0	3	0	0	0
	BUSES	1	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		26	East Side		40	South Side		17	West Side		19
11:15	CARS	59	6	0	204	13	26	41	0	18	0	0	0
	DUALS	8	3	0	19	2	2	4	0	1	0	0	0
	BUSES	4	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		26	East Side		34	South Side		30	West Side		21
11:30	CARS	52	6	0	154	12	15	42	0	15	0	0	0
	DUALS	3	0	0	15	2	0	6	0	1	0	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	1	(0)	
	PEDS	North Side		25	East Side		41	South Side		17	West Side		23



#### ADELAIDE ST AT SHERBOURNE ST (PX 255)

```
Survey Date:
    Apr-11-2019 (Thursday)
```

Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	ït
11:45	CARS	47	11	0	166	14	17	46	0	12	0	0	0
	DUALS	7	2	0	17	3	0	10	0	2	0	0	0
	BUSES	1	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		25	East Side		48	South Side		21	West Side		34
12:00	CARS	44	8	0	168	18	21	50	0	15	0	0	0
	DUALS	8	0	0	20	5	5	6	0	2	0	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		4	(0)	9	(0)	
	PEDS	North Side		44	East Side		50	South Side		31	West Side		42
13:15	CARS	59	6	0	191	9	18	43	0	10	0	0	0
	DUALS	2	0	0	22	3	0	7	0	1	0	0	0
	BUSES	0	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		5	(0)	6	(0)	
	PEDS	North Side		31	East Side		66	South Side		22	West Side		23
13:30	CARS	43	8	0	205	17	20	39	0	14	0	0	0
	DUALS	5	1	0	16	1	2	7	0	1	0	0	0
	BUSES	3	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	7	(0)	
	PEDS	North Side		35	East Side		48	South Side		12	West Side		13
13:45	CARS	53	12	0	179	14	16	33	0	15	0	0	0
	DUALS	4	0	0	16	1	1	5	0	4	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	5	(0)	
	PEDS	North Side		28	East Side		52	South Side		25	West Side		30
14:00	CARS	49	4	0	227	24	16	62	0	20	0	0	0
	DUALS	1	0	0	17	1	1	3	0	0	0	0	0
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		2	(0)	5	(0)	
	PEDS	North Side		32	East Side		43	South Side		11	West Side		29
14:15	CARS	51	10	0	237	18	21	59	0	17	0	0	0
	DUALS	6	2	0	22	2	1	6	0	4	0	0	0
	BUSES	5	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		1	(0)	5	(0)	
	PEDS	North Side		25	East Side		37	South Side		23	West Side		25



#### ADELAIDE ST AT SHERBOURNE ST (PX 255)

```
Survey Date:
    Apr-11-2019 (Thursday)
```

Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	59	7	0	214	20	13	68	0	12	0	0	C
	DUALS	3	0	0	28	1	1	9	0	3	0	0	C
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	3	(0)	
	PEDS	North Side		48	East Side		35	South Side		14	West Side		9
14:45	CARS	53	7	0	190	20	16	52	0	17	0	0	C
	DUALS	3	3	0	27	3	1	8	0	1	0	0	C
	BUSES	3	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		6	(0)	2	(0)	
	PEDS	North Side		35	East Side		42	South Side		23	West Side		37
15:00	CARS	51	10	0	175	19	22	69	0	21	0	0	C
	DUALS	2	1	0	29	5	2	7	0	0	0	0	C
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	3	(0)	
	PEDS	North Side		29	East Side		63	South Side		21	West Side		22
16:15	CARS	67	14	0	266	15	16	53	0	17	0	0	C
	DUALS	7	1	0	22	0	0	5	0	0	0	0	C
	BUSES	4	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		9	(0)		1	(0)		6	(0)	19	(0)	
	PEDS	North Side		40	East Side		59	South Side		22	West Side		30
16:30	CARS	60	16	0	265	17	8	61	0	24	0	0	C
	DUALS	5	1	0	20	1	0	2	0	1	0	0	C
	BUSES	1	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		12	(0)	15	(0)	
	PEDS	North Side		28	East Side		54	South Side		16	West Side		26
16:45	CARS	76	8	0	275	9	11	70	0	21	0	0	C
	DUALS	3	0	0	19	3	0	7	0	1	0	0	C
	BUSES	3	0	0	2	0	0	4	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		13	(0)	19	(0)	
	PEDS	North Side		26	East Side		42	South Side		19	West Side		31
17:00	CARS	63	8	0	321	8	12	74	0	18	0	0	0
	DUALS	2	0	0	10	0	1	0	0	2	0	0	0
	BUSES	1	0	0	2	0	0	2	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		13	(0)	29	(0)	
	PEDS	North Side		46	East Side		54	South Side		22	West Side		35



Survey Type:

## Intersection Detailed 15 Minutes Movement Report

#### ADELAIDE ST AT SHERBOURNE ST (PX 255)

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Survey Date: Apr-11-2019 (Thursday)
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Time Period		NORTH BOUND Thru Right Left			EAS Thru	T BOUI	ND	SOUTH	l BOU	ND Loft	WEST BOUND Thru Right Left			
Teriou		IIIu	Night	Len	Tinu	Ngin	Leit		igni	Len				
17:15	CARS	86	10	0	280	13	10	73	0	22	0	0	0	
	DUALS	0	2	0	14	3	0	2	0	0	0	0	0	
	BUSES	0	0	0	2	0	0	3	0	0	0	0	0	
	BIKE (OTHER)		5	(0)		0	(0)		17	(0)	41	(0)		
	PEDS	North Sid	e	56	East Side		105	South Side		46	West Side		49	
17:30	CARS	57	12	0	305	22	13	67	0	20	0	0	0	
	DUALS	3	2	0	11	0	0	3	0	0	0	0	0	
	BUSES	6	0	0	0	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		8	(0)		0	(0)		16	(0)	50	(0)		
	PEDS	North Sid	e	61	East Side		104	South Side		40	West Side		39	
17:45	CARS	71	6	0	303	22	14	73	0	24	0	0	0	
	DUALS	1	1	0	11	2	1	1	0	2	0	0	0	
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		2	(0)		1	(0)		12	(0)	44	(0)		
	PEDS	North Sid	e	75	East Side		119	South Side		25	West Side		44	
18:00	CARS	78	11	0	309	13	20	75	0	29	0	0	0	
	DUALS	2	0	0	11	1	0	1	0	1	0	0	0	
	BUSES	1	0	0	2	0	0	5	0	0	0	0	0	
	BIKE (OTHER)		6	(0)		1	(0)		9	(0)	33	(0)		
	PEDS	North Sid	е	61	East Side		89	South Side		35	West Side		44	



#### BAY ST AT QUEEN ST (PX 64)

Survey Date: Nov-10-2016 (Thursday)

Time Period		NOR <sup>-</sup> Thru	FH BO Right	UND Left	EAST BOUND Thru Right Left			SOU <sup>T</sup> Thru	FH BOU Right	JND Left	WEST BOUND Thru Right Left		
07:45	CARS	123	12	0	81	12	0	23	14	0	102	18	1
	DUALS	4	0	0	3	2	0	6	1	0	3	0	0
	BUSES	5	0	0	3	1	0	4	0	0	8	0	0
	BIKE (OTHER)		6	(0)		7	(0)		10	(0)	3	(0)	
	PEDS	North Si	de	67	East Side		125	South Sid	de	63	West Side		110
08:00	CARS	140	10	0	66	14	0	64	18	0	113	23	0
	DUALS	4	1	0	1	1	0	5	1	0	2	2	0
	BUSES	4	0	0	3	0	0	4	0	0	8	0	0
	BIKE (OTHER)		6	(0)		8	(0)		4	(0)	9	(0)	
	PEDS	North Si	de	110	East Side		93	South Sid	le	99	West Side		115
08:15	CARS	114	24	0	77	6	0	102	32	0	127	19	0
	DUALS	3	3	0	1	0	0	4	0	0	0	0	0
	BUSES	4	0	0	6	0	0	4	0	0	4	0	0
	BIKE (OTHER)		8	(0)		6	(0)		8	(0)	5	(0)	
	PEDS	North Si	de	141	East Side		190	South Sid	de	110	West Side		102
08:30	CARS	130	17	0	86	7	0	86	22	1	103	25	0
	DUALS	2	1	0	2	2	0	6	0	0	1	1	0
	BUSES	3	0	0	4	0	0	4	0	0	10	0	0
	BIKE (OTHER)		9	(0)		12	(0)		27	(0)	6	(0)	
	PEDS	North Si	de	135	East Side		185	South Sid	le	130	West Side		133
08:45	CARS	117	13	1	70	13	0	100	18	1	108	24	0
	DUALS	3	0	0	2	0	0	7	1	1	0	1	0
	BUSES	3	0	0	3	0	0	2	0	0	6	0	0
	BIKE (OTHER)		11	(0)		7	(0)		29	(0)	14	(0)	
	PEDS	North Si	de	130	East Side		209	South Sid	de	168	West Side		150
09:00	CARS	113	15	0	103	15	0	98	27	0	114	19	0
	DUALS	6	0	0	2	0	0	3	1	1	1	0	0
	BUSES	6	0	0	5	0	0	4	0	0	8	0	0
	BIKE (OTHER)		10	(0)		8	(0)		37	(0)	13	(0)	
	PEDS	North Si	de	175	East Side		221	South Sid	le	166	West Side		165
09:15	CARS	110	20	0	108	13	0	91	35	0	101	15	0
	DUALS	7	2	0	3	1	0	7	1	0	2	3	0
	BUSES	4	0	0	5	0	0	3	0	0	6	0	0
	BIKE (OTHER)		4	(0)		4	(0)		20	(0)	7	(0)	
	PEDS	North Si	de	200	East Side		159	South Sid	de	160	West Side		148


#### BAY ST AT QUEEN ST (PX 64)

Survey Date: Nov-10-2016 (Thursday)

Survey Type: Routine Hours

Time Period		NOR Thru	TH BO Right	UND Left	EAS Thru	T BOUI Right	ND Left	SOUT Thru	TH BOU Right	JND Left	WEST Thru R	BOUND ight Le	eft
09:30	CARS	126	22	0	92	11	0	90	32	0	90	31	0
	DUALS	4	2	0	3	0	0	6	1	0	2	2	0
	BUSES	1	0	0	6	0	0	1	0	0	7	0	0
	BIKE (OTHER)		11	(0)		14	(0)		16	(0)	9	(0)	
	PEDS	North Si	de	129	East Side		134	South Sic	le	128	West Side		105
10:15	CARS	121	25	0	81	8	0	81	25	0	73	16	0
	DUALS	9	4	0	3	0	0	4	4	0	1	1	0
	BUSES	3	0	0	6	0	0	2	2	0	9	0	0
	BIKE (OTHER)		4	(0)		2	(0)		11	(0)	12	(0)	
	PEDS	North Si	de	202	East Side		84	South Sic	le	135	West Side		111
10:30	CARS	126	23	0	70	17	0	102	46	0	68	27	0
	DUALS	5	0	0	2	0	0	9	4	0	4	1	0
	BUSES	2	0	0	7	1	0	1	0	0	6	0	0
	BIKE (OTHER)		2	(0)		4	(0)		9	(0)	7	(0)	
	PEDS	North Si	de	146	East Side		74	South Sid	le	124	West Side	. ,	98
10:45	CARS	105	23	1	95	13	0	90	22	0	72	20	0
	DUALS	6	2	0	3	1	0	13	0	0	0	0	0
	BUSES	2	0	1	6	0	0	2	0	0	5	0	0
	BIKE (OTHER)		3	(0)		1	(0)		11	(0)	5	(0)	
	PEDS	North Si	de	116	East Side		62	South Sid	le	131	West Side	. ,	115
11:00	CARS	101	25	0	70	16	0	108	21	1	69	11	0
	DUALS	7	2	0	4	0	0	4	1	0	3	3	0
	BUSES	1	0	0	3	0	0	1	0	0	5	0	0
	BIKE (OTHER)		1	(0)		5	(0)		6	(0)	7	(0)	
	PEDS	North Si	de	159	East Side		94	South Sic	le	121	West Side		112
11:15	CARS	110	21	0	88	12	0	117	34	0	75	17	0
	DUALS	5	1	0	2	0	0	10	0	0	2	1	0
	BUSES	2	0	0	5	0	0	2	0	0	3	0	0
	BIKE (OTHER)		6	(0)		5	(0)		12	(0)	10	(0)	
	PEDS	North Si	de	137	East Side		118	South Sid	le	145	West Side		138
11:30	CARS	98	19	0	83	17	1	125	29	1	83	20	1
	DUALS	5	2	0	1	0	0	8	1	0	1	0	0
	BUSES	2	0	0	3	0	0	1	0	0	7	0	0
	BIKE (OTHER)		3	(0)		10	(0)		7	(0)	6	(0)	
	PEDS	North Si	de	144	East Side		129	South Sic	le	130	West Side		125



### BAY ST AT QUEEN ST (PX 64)

Survey Type:	Routine Hours
ourrey rype.	

Time Period		NOR1 Thru	FH BO Right	UND Left	EAS1 Thru	r BOUI Right	ND Left	SOUT Thru	H BOL Right	JND Left	WEST Thru Ri	BOUND	eft
11:45	CARS	121	27	0	76	10	0	104	40	0	69	16	0
	DUALS	6	1	0	1	0	0	4	0	0	3	2	0
	BUSES	1	0	1	4	0	0	2	0	0	4	0	0
	BIKE (OTHER)		5	(0)		7	(0)		5	(0)	9	(0)	
	PEDS	North Sid	de	155	East Side		140	South Sid	le	177	West Side		172
12:00	CARS	126	20	0	91	12	0	113	33	0	74	25	0
	DUALS	3	1	0	4	1	0	5	1	0	0	1	0
	BUSES	2	0	0	4	0	0	2	0	0	4	0	0
	BIKE (OTHER)		8	(0)		4	(0)		10	(0)	5	(0)	
	PEDS	North Sid	de	160	East Side		115	South Sid	le	193	West Side		164
13:15	CARS	89	10	0	83	14	1	121	31	0	64	15	0
	DUALS	6	1	0	1	1	0	2	0	0	3	0	0
	BUSES	3	0	0	3	0	0	1	0	0	4	0	0
	BIKE (OTHER)		7	(0)		12	(0)		7	(0)	17	(0)	
	PEDS	North Sid	de	177	East Side		159	South Sid	le	210	West Side		170
13:30	CARS	81	25	0	85	12	0	113	14	2	80	13	2
	DUALS	3	3	0	3	0	0	7	0	0	2	1	0
	BUSES	1	1	0	5	0	0	3	0	0	4	0	0
	BIKE (OTHER)		5	(0)		5	(0)		7	(0)	10	(0)	
	PEDS	North Sid	de	226	East Side		151	South Sid	le	173	West Side		190
13:45	CARS	95	20	0	90	10	0	128	21	1	71	20	0
	DUALS	2	2	0	1	0	0	5	1	0	0	1	0
	BUSES	2	0	0	3	0	0	2	0	0	2	0	0
	BIKE (OTHER)		9	(0)		9	(0)		11	(0)	8	(0)	
	PEDS	North Sid	de	201	East Side		163	South Sid	le	184	West Side		181
14:00	CARS	104	21	0	82	15	0	123	23	2	86	28	0
	DUALS	4	1	0	3	0	0	7	2	0	2	1	0
	BUSES	1	0	0	7	0	0	1	0	0	1	0	0
	BIKE (OTHER)		4	(0)		7	(0)		8	(0)	12	(0)	
	PEDS	North Sid	de	210	East Side		142	South Sid	le	169	West Side		139
14:15	CARS	92	28	0	86	18	0	136	30	0	67	34	0
	DUALS	1	1	0	2	0	0	4	0	0	1	0	0
	BUSES	1	0	0	4	0	0	1	0	0	4	0	0
	BIKE (OTHER)		7	(0)		4	(0)		5	(0)	7	(0)	
	PEDS	North Sid	de	237	East Side		175	South Sid	le	190	West Side		158



#### BAY ST AT QUEEN ST (PX 64)

Survey Date: Nov-10-2016 (Thursday)

Survey Type: Routine Hours

Time Period		NOR Thru	TH BO Right	UND Left	EAS Thru	T BOUI Right	ND Left	SOU1 Thru	TH BOU Right	JND Left	WEST Thru R	BOUND ight Lo	əft
14:30	CARS	81	23	0	87	15	0	135	26	2	51	42	0
	DUALS	4	2	0	4	0	0	6	0	0	1	1	0
	BUSES	1	0	0	4	0	0	2	0	0	3	0	0
	BIKE (OTHER)		11	(0)		4	(0)		2	(0)	2	(0)	
	PEDS	North Si	de	215	East Side		157	South Sic	le	220	West Side		182
14:45	CARS	102	24	1	82	17	0	142	36	0	94	21	0
	DUALS	1	2	0	3	0	0	6	2	0	0	0	0
	BUSES	2	0	0	5	0	0	1	0	0	5	0	0
	BIKE (OTHER)		5	(0)		7	(0)		5	(0)	14	(0)	
	PEDS	North Si	de	122	East Side		114	South Sic	le	166	West Side		164
15:00	CARS	111	24	0	83	23	0	105	39	0	80	21	0
	DUALS	2	1	0	2	2	0	6	1	0	0	0	0
	BUSES	2	0	0	6	0	0	2	0	0	4	0	0
	BIKE (OTHER)		11	(0)		5	(0)		12	(0)	12	(0)	
	PEDS	North Si	de	217	East Side		151	South Sic	le	214	West Side		188
16:15	CARS	83	30	3	55	13	0	71	38	1	76	12	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	1	0	0	2	0	0	4	1	0	7	0	0
	BIKE (OTHER)		15	(0)		8	(0)		8	(0)	15	(0)	
	PEDS	North Si	de	217	East Side		201	South Sic	le	200	West Side		182
16:30	CARS	76	26	0	73	10	0	123	34	0	91	16	0
	DUALS	2	0	0	0	0	0	5	1	0	0	0	0
	BUSES	3	1	0	4	0	0	4	0	0	4	0	0
	BIKE (OTHER)		9	(0)		8	(0)		13	(0)	11	(0)	
	PEDS	North Si	de	247	East Side		253	South Sic	le	188	West Side		178
16:45	CARS	66	17	0	73	7	0	100	65	1	74	11	0
	DUALS	1	1	0	3	0	0	3	0	0	0	0	0
	BUSES	3	0	0	1	0	0	1	1	0	6	0	0
	BIKE (OTHER)		9	(0)		3	(0)		14	(0)	19	(0)	
	PEDS	North Si	de	161	East Side		189	South Sic	le	227	West Side		161
17:00	CARS	82	16	0	71	11	0	56	33	2	89	14	0
	DUALS	3	1	0	0	0	0	6	1	0	0	0	0
	BUSES	4	0	0	4	0	0	3	1	0	8	0	0
	BIKE (OTHER)		13	(0)		8	(0)		11	(0)	8	(0)	
	PEDS	North Si	de	186	East Side		280	South Sic	le	217	West Side		126



#### BAY ST AT QUEEN ST (PX 64)

Survey Type: Routine Hours

Time		NOR	тн во	JND	EAS	т вои	ND	SOU	ТН ВО	JND	WES		)
Period		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right L	.eft
17:15	CARS	83	28	0	59	11	0	92	31	0	113	7	0
	DUALS	0	0	0	1	0	0	2	0	0	1	1	0
	BUSES	1	0	0	4	0	0	4	0	0	6	0	0
	BIKE (OTHER)		25	(0)		11	(0)		17	(0)	14	(0)	
	PEDS	North S	ide	186	East Side		265	South Si	ide	223	West Side		170
17:30	CARS	85	20	0	63	3	0	108	28	0	83	10	0
	DUALS	0	1	0	0	1	0	3	0	0	0	0	0
	BUSES	2	0	0	3	0	0	2	0	0	4	0	0
	BIKE (OTHER)		21	(0)		2	(0)		11	(0)	7	(0)	
	PEDS	North S	ide	126	East Side		229	South Si	ide	236	West Side		172
17:45	CARS	88	32	0	77	2	0	76	20	2	91	18	1
	DUALS	3	0	0	0	1	0	0	1	0	1	0	0
	BUSES	1	0	0	6	0	0	2	0	0	6	0	0
	BIKE (OTHER)		12	(0)		2	(0)		8	(0)	10	(0)	
	PEDS	North S	ide	211	East Side		186	South Si	ide	227	West Side		119
18:00	CARS	89	35	0	63	4	0	72	11	1	95	23	0
	DUALS	1	1	0	1	0	0	1	0	0	1	0	0
	BUSES	3	1	0	3	0	0	1	1	0	5	0	0
	BIKE (OTHER)		14	(0)		0	(0)		8	(0)	8	(0)	
	PEDS	North S	ide	207	East Side		139	South Si	ide	207	West Side		100



#### **BAY ST AT RICHMOND ST (PX 63)**

Survey T	vpe: Routine H	lours											
Time Period		NOR1 Thru	'H BO Right	UND Left	EAST Thru F	BOUI Right	ND Left	SOUTH Thru R	BOL ight	JND Left	WEST Thru Ri	BOUND ght L∉	eft
07:45	CARS	125	0	0	0	0	0	98	1	0	60	9	6
	DUALS	2	0	0	0	0	0	9	1	0	7	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		9	(0)	3	(0)	
	PEDS	North Sid	le	61	East Side		284	South Side		51	West Side		160
08:00	CARS	139	0	0	0	0	0	77	1	0	47	12	2
	DUALS	6	0	0	0	0	0	6	0	0	4	0	1
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		8	(0)	10	(0)	
	PEDS	North Sid	le	76	East Side		214	South Side		61	West Side		177
08:15	CARS	133	0	0	0	0	0	106	0	0	58	6	1
	DUALS	6	0	0	0	0	0	4	0	0	10	2	1
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		10	(0)	18	(0)	
	PEDS	North Sid	le	81	East Side		364	South Side		92	West Side		280
08:30	CARS	139	0	0	0	0	0	88	1	0	61	11	0
	DUALS	3	0	0	0	0	0	6	1	0	7	1	0
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		11	(0)		0	(0)		20	(0)	30	(0)	
	PEDS	North Sig	le	110	East Side		377	South Side		110	West Side		293
08:45	CARS	120	0	1	0	0	0	104	2	0	49	13	1
	DUALS	1	0	0	0	0	0	6	0	0	2	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		12	(0)		0	(0)		28	(0)	44	(0)	
	PEDS	North Sid	le	105	East Side		529	South Side		108	West Side		420
09:00	CARS	111	0	0	0	0	0	102	1	0	55	12	0
	DUALS	5	0	0	0	0	0	2	0	0	2	1	1
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		13	(0)		0	(0)		33	(0)	65	(0)	
	PEDS	North Sid	le	132	East Side		396	South Side		155	West Side		325
09:15	CARS	131	0	0	0	0	0	95	2	0	79	14	0
	DUALS	7	0	0	0	0	0	7	0	0	3	3	1
	BUSES	4	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		11	(0)		0	(0)		19	(0)	47	(0)	
	PEDS	North Sid	le	115	East Side		379	South Side		120	West Side		291



#### **BAY ST AT RICHMOND ST (PX 63)**

Survey T	vpe: Routine H	lours											
Time Period		NORT Thru	H BO Right	UND Left	EAS1 Thru	۲ BOUI Right	ND Left	SOUTH Thru R	l BOU light	IND Left	WEST Thru R	BOUND ight Le	əft
09:30	CARS	134	0	1	0	0	0	96	0	0	59	18	0
	DUALS	5	0	0	0	0	0	7	0	0	6	1	0
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		17	(0)		0	(0)		12	(0)	25	(0)	
	PEDS	North Sid	le	93	East Side		290	South Side		87	West Side		269
10:15	CARS	134	0	1	0	0	0	76	1	0	62	23	0
	DUALS	12	0	0	0	0	0	4	0	0	3	1	0
	BUSES	2	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		7	(0)		0	(0)		10	(0)	3	(0)	
	PEDS	North Sid	le	7	East Side		201	South Side		58	West Side		179
10:30	CARS	132	0	0	0	0	0	103	4	0	73	19	0
	DUALS	7	0	0	0	0	0	8	0	0	7	0	0
	BUSES	2	0	0	0	0	0	1	0	0	2	0	0
	BIKE (OTHER)		3	(0)		0	(0)		10	(0)	6	(0)	
	PEDS	North Sic	le	47	East Side		169	South Side	) 	52	West Side		125
10:45	CARS	131	0	2	0	0	0	99	2	0	55	16	1
	DUALS	5	0	1	0	0	0	13	0	0	5	2	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		9	(0)	9	(0)	
	PEDS	North Sid	le	58	East Side		133	South Side	•	51	West Side		150
11:00	CARS	128	0	0	0	0	0	114	6	0	62	7	2
	DUALS	5	0	0	0	0	0	4	0	0	5	3	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	4	(0)	
	PEDS	North Sic	le	61	East Side		179	South Side		63	West Side		163
11:15	CARS	147	0	1	0	0	0	121	5	0	75	12	0
	DUALS	10	0	0	0	0	0	10	0	0	7	1	1
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		15	(0)		0	(0)		9	(0)	4	(0)	
	PEDS	North Sic	le	87	East Side		208	South Side	) 	72	West Side		195
11:30	CARS	132	0	0	0	0	0	107	3	0	64	9	0
	DUALS	6	0	0	0	0	0	8	0	0	3	1	0
	BUSES	1	0	0	0	0	0	2	0	0	2	0	0
	BIKE (OTHER)		9	(0)		0	(0)		11	(0)	5	(0)	
	PEDS	North Sic	le	95	East Side		217	South Side	•	90	West Side		176



# Intersection Detailed 15 Minutes Movement Report

#### **BAY ST AT RICHMOND ST (PX 63)**

**Routine Hours** 

Survey Date: Nov-10-2016 (Thursday)

Time Period		NOR Thru	TH BOI Right	JND Left	EAS <sup>:</sup> Thru	T BOU Right	ND Left	SOUTI Thru F	l BOL Right	JND Left	WEST Thru R	BOUND	eft
11:45	CARS	150	0	2	0	0	0	98	3	0	78	10	0
	DUALS	5	0	0	0	0	0	5	0	0	4	3	0
	BUSES	2	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	3	(0)	
	PEDS	North Si	ide	83	East Side		238	South Side		103	West Side		186
12:00	CARS	137	0	2	0	0	0	118	4	0	81	8	3
	DUALS	9	0	0	0	0	0	9	0	0	4	2	0
	BUSES	1	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		11	(0)		0	(0)		8	(0)	9	(0)	
	PEDS	North Si	ide	113	East Side		259	South Side	•	112	West Side		218
13:15	CARS	94	0	0	0	0	0	120	4	0	64	5	0
	DUALS	6	0	0	0	0	0	3	0	0	4	1	0
	BUSES	1	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		12	(0)		0	(0)		7	(0)	13	(0)	
	PEDS	North Si	ide	198	East Side		325	South Side	•	197	West Side		265
13:30	CARS	95	0	2	0	0	0	120	4	0	75	12	0
	DUALS	5	0	0	0	0	0	6	1	0	3	0	0
	BUSES	2	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		9	(0)	8	(0)	
	PEDS	North Si	ide	169	East Side		250	South Side	•	157	West Side		258
13:45	CARS	108	0	1	0	0	0	135	3	0	67	6	1
	DUALS	7	0	0	0	0	0	8	0	0	5	1	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		14	(0)		0	(0)		13	(0)	10	(0)	
	PEDS	North Si	ide	178	East Side		301	South Side	)	174	West Side		237
14:00	CARS	91	0	0	0	0	0	124	6	0	70	8	0
	DUALS	3	0	0	0	0	0	5	0	0	2	1	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		10	(0)	7	(0)	
	PEDS	North Si	ide	159	East Side		281	South Side	•	138	West Side		241
14:15	CARS	111	0	1	0	0	0	137	2	0	58	10	0
	DUALS	5	0	0	0	0	0	5	0	0	4	2	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		15	(0)	13	(0)	
	PEDS	North Si	ide	120	East Side		257	South Side	•	124	West Side		217

Page 3 of 5



#### **BAY ST AT RICHMOND ST (PX 63)**

Survey Date: Nov-10-2016 (Thursday)

Left

Survey T	ype: Routine H	lours										
Time Period		NOR	TH BO	UND	EAS <sup>-</sup> Thru	T BOU Right	ND Loft	SOUTH	l BOl	JND Loft	WEST	BOUND
14:20		100	rtight					142			74	
14:30	CARS	100	0	0	0	0	0	143	3	0	74	8
	DUALS	0	0	0	U	0	0	0	0	0	0	1
	BUSES	1	0	0	0	0	0	1	0	0	1	0
	BIKE (OTHER)		14	(0)		0	(0)		18	(0)	11	(0)
	PEDS	North S	ide	132	East Side		244	South Side	•	106	West Side	
14:45	CARS	118	0	2	0	0	0	137	7	0	64	12
	DUALS	1	0	0	0	0	0	6	0	0	7	1
	BUSES	2	0	0	0	0	0	2	0	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		9	(0)	13	(0)
	PEDS	North S	ide	92	East Side		248	South Side		121	West Side	
15:00	CARS	125	0	0	0	0	0	128	0	0	46	12
	DUALS	3	0	0	0	0	0	6	0	0	8	2
	BUSES	3	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		14	(0)		0	(0)		15	(0)	13	(0)
	PEDS	North S	ide	113	East Side		243	South Side	)	89	West Side	(-)
								72				
10.15	CARS	2	0	0	0	0	0	75	4	0	2	9
	DUALS	2	0	0	0	0	0	4	0	0	2	0
	BUSES	1	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		14	(0)		0	(0)		14	(0)	14	(0)
		North S	ide	145	East Side		428	South Side		162	West Side	
16:30	CARS	86	0	0	0	0	0	124	2	0	74	9
	DUALS	1	0	0	0	0	0	3	0	0	4	3
	BUSES	4	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		13	(0)		0	(0)		25	(0)	18	(0)
	PEDS	North S	ide	130	East Side		470	South Side		144	West Side	
16:45	CARS	83	0	2	0	0	0	100	1	0	74	9
	DUALS	2	0	0	0	0	0	1	0	2	1	0
	BUSES	4	0	0	0	0	0	1	0	0	0	0
			16	(0)		0	(0)		21	(0)	17	(0)
	PEDS	North S	ide	130	East Side	-	463	South Side	,	152	West Side	(-)
 17·∩∩		 27			· — — — —		 0	 7/	2			
11.00	DUARO	رن د	0	0	0	0	0	6	5 0	1	1	1
	DUALS	3	0	0	0	0	0	0	0	1	4	1
	BUSES	3	0	U	U	U	U	2	0	U	U	U
	BIKE (OTHER)		25	(0)		0	(0)		23	(0)	21	(0)

East Side

Page 4 of 5

North Side

PEDS

South Side

West Side



# Intersection Detailed 15 Minutes Movement Report

#### **BAY ST AT RICHMOND ST (PX 63)**

**Routine Hours** 

Time		NOR		UND	EAS	г вои	ND	SOUTH	ΒΟΙ	JND	WEST		)
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru F	Right L	eft
17:15	CARS	107	0	3	0	0	0	102	3	0	65	13	0
	DUALS	0	0	0	0	0	0	3	0	0	3	0	0
	BUSES	1	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		32	(0)		0	(0)		24	(0)	27	(0)	
	PEDS	North S	ide	184	East Side		620	South Side		197	West Side		248
17:30	CARS	95	0	0	0	0	0	100	1	0	85	9	0
	DUALS	0	0	0	0	0	0	3	0	1	1	2	0
	BUSES	2	0	1	0	0	0	2	0	0	0	0	1
	BIKE (OTHER)		37	(0)		0	(0)		17	(0)	28	(0)	
	PEDS	North S	ide	219	East Side		657	South Side		190	West Side		365
17:45	CARS	106	0	4	0	0	0	64	1	0	71	12	1
	DUALS	5	0	0	0	0	0	2	1	0	2	0	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		19	(0)		0	(0)		12	(0)	30	(0)	
	PEDS	North S	ide	194	East Side		696	South Side		206	West Side		273
18:00	CARS	104	0	3	0	0	0	70	6	0	77	13	1
	DUALS	4	0	0	0	0	0	1	0	0	2	0	0
	BUSES	5	0	0	0	0	0	2	0	0	1	0	0
	BIKE (OTHER)		25	(0)		0	(0)		11	(0)	32	(0)	
	PEDS	North S	ide	167	East Side		577	South Side		216	West Side		195



#### BERKELEY ST AT KING ST E (PX 1966)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS Thru	T BOUNI Right	D Left	SOUTH Thru R	I BOUI	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	3	4	2	28	4	0	4	3	0	58	0	1
	DUALS	0	0	0	2	6	0	1	0	0	1	0	0
	BUSES	1	0	0	9	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	22	(0)	
	PEDS	North Side		19	East Side		8	South Side		23	West Side		8
08:00	CARS	6	1	2	32	6	0	11	4	2	74	6	0
	DUALS	0	0	1	3	0	0	0	0	0	0	0	0
	BUSES	0	0	0	7	1	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		7	(0)		3	(0)	16	(0)	
	PEDS	North Side		28	East Side		5	South Side		26	West Side		14
08:15	CARS	2	1	8	28	7	0	11	1	0	74	2	2
	DUALS	0	0	2	1	3	0	3	0	0	2	0	0
	BUSES	0	0	0	5	1	0	0	0	0	8	0	0
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	11	(0)	
	PEDS	North Side		43	East Side		5	South Side		40	West Side		22
08:30	CARS	4	1	1	34	2	1	14	3	1	105	1	0
	DUALS	1	0	2	2	2	0	0	0	0	1	1	0
	BUSES	0	0	0	10	0	0	1	0	0	9	0	0
	BIKE (OTHER)		0	(0)		3	(0)		2	(0)	15	(0)	
	PEDS	North Side		31	East Side		12	South Side		55	West Side		17
08:45	CARS	5	5	10	32	13	0	19	5	2	93	3	1
	DUALS	1	0	0	1	2	0	1	0	0	2	0	0
	BUSES	0	0	0	4	1	0	1	0	0	9	0	0
	BIKE (OTHER)		1	(0)		3	(0)		5	(0)	24	(0)	
	PEDS	North Side		47	East Side		10	South Side		46	West Side		42
09:00	CARS	9	3	3	50	16	0	26	11	4	94	8	3
	DUALS	0	0	1	0	1	0	2	0	0	1	0	0
	BUSES	0	0	0	8	0	0	0	0	0	10	0	0
	BIKE (OTHER)		1	(0)		4	(0)		10	(0)	33	(0)	
	PEDS	North Side		58	East Side		23	South Side		71	West Side		61
09:15	CARS	8	4	11	30	7	3	12	3	0	90	1	4
	DUALS	0	0	1	1	1	0	0	0	0	2	0	0
	BUSES	0	0	0	8	0	1	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		3	(0)		2	(0)	12	(0)	
	PEDS	North Side		31	East Side		14	South Side		44	West Side		47



#### BERKELEY ST AT KING ST E (PX 1966)

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU ight	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	ť
09:30	CARS	10	5	9	31	18	2	17	2	1	74	1	5
	DUALS	0	0	1	0	0	0	0	0	0	4	0	1
	BUSES	0	0	0	10	0	0	0	0	0	4	0	0
	BIKE (OTHER)		3	(0)		2	(0)		5	(0)	12	(0)	
	PEDS	North Side		22	East Side		19	South Side		33	West Side		26
10:15	CARS	6	0	4	32	5	1	4	2	4	45	4	1
	DUALS	0	0	4	0	4	0	0	0	0	1	0	0
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		2	(0)		6	(0)	8	(0)	
	PEDS	North Side		21	East Side		8	South Side		43	West Side		22
10:30	CARS	5	2	2	37	6	6	10	7	2	40	5	2
	DUALS	1	1	0	1	1	0	0	0	0	1	0	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		3	(0)		5	(0)	3	(0)	
	PEDS	North Side		14	East Side		11	South Side		48	West Side		16
10:45	CARS	5	5	4	26	10	2	5	4	3	42	7	2
	DUALS	0	0	0	6	0	0	0	0	0	7	0	0
	BUSES	1	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	7	(0)	
	PEDS	North Side		22	East Side		17	South Side		29	West Side		29
11:00	CARS	8	5	5	33	5	0	7	3	0	44	4	5
	DUALS	0	1	0	2	1	0	0	0	0	0	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		2	(0)		3	(0)	4	(0)	
	PEDS	North Side		19	East Side		12	South Side		36	West Side		25
11:15	CARS	8	1	5	39	6	2	5	1	1	33	0	5
	DUALS	0	0	0	2	2	0	0	0	0	4	0	0
	BUSES	0	0	0	3	0	0	0	0	0	6	0	0
	BIKE (OTHER)		1	(0)		3	(0)		3	(0)	3	(0)	
	PEDS	North Side		35	East Side		8	South Side		30	West Side		8
11:30	CARS	6	4	3	49	11	5	12	0	3	49	4	1
	DUALS	1	0	0	2	1	0	1	0	0	2	1	0
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		2	(0)		3	(0)	3	(0)	
	PEDS	North Side		27	East Side		6	South Side		25	West Side		22



### BERKELEY ST AT KING ST E (PX 1966)

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	10	3	4	29	8	4	5	5	0	45	4	4
	DUALS	1	0	1	1	1	0	0	0	0	4	0	1
	BUSES	0	0	0	6	0	0	0	0	0	1	0	0
	BIKE (OTHER)		5	(0)		4	(0)		3	(0)	7	(0)	
	PEDS	North Side		21	East Side		17	South Side		47	West Side		32
12:00	CARS	5	4	7	32	14	0	14	4	1	48	3	9
	DUALS	0	1	0	3	1	0	1	0	0	2	0	0
	BUSES	0	0	0	2	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		3	(0)		1	(0)	8	(0)	
	PEDS	North Side		43	East Side		14	South Side		36	West Side		38
13:15	CARS	10	2	5	37	6	3	8	5	2	47	4	5
	DUALS	1	0	0	5	1	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		2	(0)		4	(0)		1	(0)	8	(0)	
	PEDS	North Side		39	East Side		22	South Side		50	West Side		28
13:30	CARS	6	5	5	36	8	2	10	3	1	35	0	8
	DUALS	0	0	0	1	0	0	0	0	0	1	0	0
	BUSES	0	0	0	7	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		8	(0)		3	(0)	3	(0)	
	PEDS	North Side		42	East Side		8	South Side		61	West Side		38
13:45	CARS	14	1	9	43	8	1	14	2	2	48	0	2
	DUALS	0	0	0	5	0	0	0	0	0	2	1	0
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side		41	East Side		23	South Side		53	West Side		32
14:00	CARS	5	4	1	39	6	3	8	5	2	41	2	5
	DUALS	0	0	0	2	1	0	0	0	0	3	0	0
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		4	(0)		7	(0)		4	(0)	1	(0)	
	PEDS	North Side		24	East Side		19	South Side		35	West Side		22
14:15	CARS	8	6	7	32	9	1	12	5	1	45	3	6
	DUALS	0	0	0	1	1	0	0	1	0	1	0	1
	BUSES	0	0	0	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		6	(0)		1	(0)	4	(0)	
	PEDS	North Side		31	East Side		11	South Side		52	West Side		27



#### BERKELEY ST AT KING ST E (PX 1966)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru I	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru Ri	BOUND ght Left	t
14:30	CARS	6	8	6	41	12	2	7	3	1	37	3	5
	DUALS	0	0	0	0	3	0	1	0	0	4	0	0
	BUSES	0	0	0	2	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		5	(0)		2	(0)	2	(0)	
	PEDS	North Side		21	East Side		19	South Side		37	West Side		14
14:45	CARS	5	4	6	49	4	3	13	4	1	40	1	1
	DUALS	0	0	0	4	0	0	0	0	0	1	0	0
	BUSES	0	0	0	4	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	6	(0)	
	PEDS	North Side		22	East Side		11	South Side		28	West Side		25
15:00	CARS	6	10	4	48	6	3	14	2	2	34	5	3
	DUALS	0	0	0	6	0	0	0	0	0	2	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		4	(0)		3	(0)		5	(0)	6	(0)	
	PEDS	North Side		27	East Side		18	South Side		28	West Side		25
16:15	CARS	12	3	6	67	12	1	12	4	0	44	1	4
	DUALS	0	0	0	6	0	0	2	0	0	0	0	0
	BUSES	0	0	0	10	0	0	1	0	0	8	0	0
	BIKE (OTHER)		5	(0)		7	(0)		2	(0)	6	(0)	
	PEDS	North Side		28	East Side		11	South Side		21	West Side		35
16:30	CARS	7	3	3	68	9	2	10	4	1	39	3	0
	DUALS	1	0	0	0	1	0	0	0	1	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	6	(0)	
	PEDS	North Side		30	East Side		14	South Side		38	West Side		31
16:45	CARS	6	6	7	68	11	0	9	7	3	44	4	2
	DUALS	1	1	1	5	1	0	0	0	0	1	0	1
	BUSES	1	0	0	8	1	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		9	(0)		4	(0)	6	(0)	
	PEDS	North Side		33	East Side		13	South Side		42	West Side		20
17:00	CARS	12	4	3	78	10	2	16	6	2	53	5	0
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	0	0	7	0	0	0	0	0	9	0	0
	BIKE (OTHER)		4	(0)		11	(0)		5	(0)	6	(0)	
	PEDS	North Side		25	East Side		15	South Side		37	West Side		23



#### BERKELEY ST AT KING ST E (PX 1966)

Survey Typ	e: Rout	ne Hours												
Time Period		-	NOR Thru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>*</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Lei	ft
17:15	CARS		6	3	12	71	8	1	14	6	1	52	2	0
	DUALS		0	0	0	3	0	0	0	0	1	1	0	C
	BUSES		0	0	0	8	1	0	0	0	0	4	0	0
	BIKE (OTHER)			0	(0)		16	(0)		3	(0)	10	(0)	
	PEDS	Nor	th Sid	le	56	East Side		21	South Side	9	48	West Side		40
17:30	CARS		21	5	9	113	13	1	12	6	2	51	9	2
	DUALS		0	0	0	2	0	0	0	0	0	0	0	0
	BUSES		0	0	0	5	0	0	0	0	0	13	0	0
	BIKE (OTHER)			3	(0)		19	(0)		7	(0)	3	(0)	
	PEDS	Nor	th Sid	le	64	East Side		19	South Side	e	47	West Side		30
17:45	CARS		14	12	5	118	15	0	14	3	1	60	6	3
	DUALS		0	1	0	1	2	0	1	0	0	1	0	C
	BUSES		0	0	0	4	1	0	0	0	0	3	0	0
	BIKE (OTHER)			8	(0)		10	(0)		2	(0)	10	(0)	
	PEDS	Nor	th Sid	le	63	East Side		21	South Side	9	45	West Side		31
18:00	CARS		15	12	5	80	9	6	13	4	5	61	3	2
	DUALS		1	0	0	2	1	0	0	0	0	3	0	C
	BUSES		0	0	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)			8	(0)		8	(0)		6	(0)	4	(0)	
	PEDS	Nor	th Sid	le	49	East Side		21	South Side	e	49	West Side		30



#### BOULTBEE AVE AT JONES AVE

Survey Date: Feb-23-2017 (Thursday)

Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN	D Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	37	1	8	0	3	2	54	8	6	0	3	6
	DUALS	4	0	0	0	0	0	2	1	0	0	0	1
	BUSES	2	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		13	West Side		6
08:00	CARS	31	6	2	1	8	3	49	3	7	1	2	4
	DUALS	4	3	0	0	1	1	6	1	0	0	1	3
	BUSES	2	0	0	0	0	1	1	1	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		5	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		14	West Side		0
08:15	CARS	47	8	6	1	7	10	75	10	2	0	4	10
	DUALS	2	1	0	0	0	1	3	1	0	0	0	1
	BUSES	1	0	5	0	1	1	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		1	East Side		3	South Side		20	West Side		7
08:30	CARS	52	5	8	0	4	6	63	15	3	4	1	6
	DUALS	4	0	2	0	2	0	7	0	0	0	1	0
	BUSES	2	0	1	0	3	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		47	West Side		0
08:45	CARS	87	3	22	1	11	9	59	9	6	4	3	7
	DUALS	4	1	1	0	2	0	7	1	2	0	0	0
	BUSES	2	0	1	0	3	1	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		131	West Side		20
09:00	CARS	85	5	22	0	13	8	64	7	5	3	2	5
	DUALS	5	1	1	0	2	1	5	1	1	0	1	1
	BUSES	3	1	2	0	2	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		3	South Side		107	West Side		9
09:15	CARS	73	4	18	2	11	6	59	8	3	2	1	3
	DUALS	6	2	1	0	1	2	8	2	1	0	0	1
	BUSES	3	0	1	0	2	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		3	South Side		49	West Side		10



#### BOULTBEE AVE AT JONES AVE

Survey Date: Feb-23-2017 (Thursday)

Time Period		NORTH Thru R	l BOU light	IND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	70	4	6	0	6	3	52	5	1	1	2	2
	DUALS	7	1	1	1	1	0	4	1	0	0	1	0
	BUSES	3	1	0	0	1	1	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		4	South Side		9	West Side		8
10:15	CARS	29	1	4	1	2	3	14	2	3	1	0	4
	DUALS	5	0	0	0	2	2	4	3	0	1	1	0
	BUSES	1	0	1	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		3	South Side		4	West Side		4
10:30	CARS	39	1	9	1	5	6	8	2	0	0	0	3
	DUALS	6	1	0	0	1	1	1	0	0	0	0	0
	BUSES	1	0	1	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		2	East Side		2	South Side		4	West Side		4
10:45	CARS	45	2	7	0	6	7	11	2	0	1	0	2
	DUALS	5	0	1	0	1	0	2	0	0	0	0	0
	BUSES	2	0	0	0	1	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		6	West Side		5
11:00	CARS	39	1	5	1	4	4	13	3	1	1	0	2
	DUALS	7	0	2	0	1	2	2	1	0	0	0	1
	BUSES	3	0	1	0	1	0	2	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		4	South Side		5	West Side		5
12:15	CARS	48	2	4	0	0	7	47	3	1	1	0	3
	DUALS	7	0	0	0	0	2	8	1	0	0	0	0
	BUSES	1	0	1	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(1)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		5	South Side		18	West Side		0
12:30	CARS	50	3	4	0	1	5	55	5	2	0	1	3
	DUALS	6	0	0	0	0	3	6	1	1	0	0	2
	BUSES	1	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		0	East Side		0	South Side		10	West Side		0



#### BOULTBEE AVE AT JONES AVE

Survey Date: Feb-23-2017 (Thursday)

Time Period		NORTH Thru R	l BOU ight	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
12:45	CARS	50	4	2	0	1	10	51	1	0	0	1	3
	DUALS	7	0	0	0	3	1	3	1	0	0	0	0
	BUSES	1	0	0	0	2	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		36	West Side		5
13:00	CARS	56	3	4	1	3	9	48	2	1	0	1	2
	DUALS	7	1	1	0	2	1	5	0	0	0	0	0
	BUSES	3	1	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		32	West Side		5
13:15	CARS	66	2	3	0	4	5	53	4	2	1	2	1
	DUALS	7	1	1	0	1	1	4	0	0	0	0	1
	BUSES	0	1	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		5	South Side		17	West Side		6
13:30	CARS	70	1	4	0	5	2	57	5	2	1	1	2
	DUALS	6	0	1	0	1	1	4	0	0	0	0	0
	BUSES	3	0	1	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		6	South Side		8	West Side		4
14:30	CARS	38	2	6	0	6	9	40	9	2	0	0	4
	DUALS	4	1	4	0	0	1	11	1	0	0	0	1
	BUSES	1	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		8	West Side		7
14:45	CARS	53	3	9	0	4	8	41	6	1	0	0	6
	DUALS	6	0	1	0	1	1	12	0	0	0	0	0
	BUSES	3	0	1	0	1	1	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		0	East Side		6	South Side		7	West Side		11
15:00	CARS	73	2	10	0	9	11	56	1	5	0	0	2
	DUALS	10	0	4	0	1	2	6	1	0	0	0	2
	BUSES	1	0	1	0	2	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		29	West Side		12



#### BOULTBEE AVE AT JONES AVE

Survey Date: Feb-23-2017 (Thursday)

Time Period		NORTH Thru R	l BOU light	IND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	
15:15	CARS	93	1	12	0	3	13	41	7	3	1	0	3
	DUALS	8	1	0	0	2	0	4	0	1	0	1	2
	BUSES	4	1	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		2	East Side		53	South Side		80	West Side		16
15:30	CARS	75	6	8	0	6	16	49	8	7	0	0	3
	DUALS	9	0	0	0	1	0	1	0	0	1	0	0
	BUSES	1	0	4	0	0	6	3	1	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		1	East Side		35	South Side		58	West Side		10
15:45	CARS	87	5	10	0	7	14	56	9	5	0	2	4
	DUALS	10	0	1	0	1	1	5	2	0	0	0	1
	BUSES	4	0	1	0	1	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		11	South Side		74	West Side		8
16:15	CARS	61	3	11	0	10	15	63	11	4	0	1	3
	DUALS	9	1	0	0	1	0	10	1	0	0	0	1
	BUSES	4	0	2	0	2	1	2	1	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		8	South Side		21	West Side		6
16:30	CARS	73	6	9	0	8	11	57	8	3	0	2	4
	DUALS	11	0	0	0	1	1	7	1	1	1	0	1
	BUSES	3	0	1	0	0	1	2	1	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		6	South Side		14	West Side		6
16:45	CARS	82	4	13	0	11	10	51	12	6	0	1	3
	DUALS	10	0	1	0	1	0	5	2	0	0	0	0
	BUSES	3	0	0	0	1	0	2	0	1	0	0	0
	BIKE (OTHER)		0	(1)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		5	South Side		6	West Side		6
17:00	CARS	78	3	10	1	9	15	59	9	5	0	0	0
	DUALS	7	1	2	0	1	2	4	1	0	0	0	0
	BUSES	4	0	1	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		8	South Side		8	West Side		7



#### BOULTBEE AVE AT JONES AVE

Survey Date: Feb-23-2017 (Thursday)

	NORT	н во	JND	EAS		ID	SOUTH	BOU	ND	WEST	BOUND	
	Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	ight Left	
CARS	85	5	8	0	7	12	63	6	4	1	0	2
DUALS	11	0	2	0	0	1	4	0	0	0	0	0
BUSES	3	0	1	0	0	1	2	0	0	0	0	0
BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
PEDS	North Side	·	2	East Side		10	South Side		7	West Side		8
CARS	72	4	13	0	8	11	58	6	4	1	0	3
DUALS	9	0	1	0	1	1	5	0	0	0	0	0
BUSES	4	0	1	0	1	0	2	1	1	0	0	0
BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
PEDS	North Side	·	2	East Side		5	South Side		5	West Side		8
CARS	75	5	10	0	6	9	63	6	3	0	2	2
DUALS	6	0	2	0	1	0	5	0	0	0	0	1
BUSES	3	1	1	0	0	0	2	0	0	0	0	0
BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
PEDS	North Side	·	0	East Side		5	South Side		9	West Side		5
CARS	81	3	8	0	9	13	57	8	3	1	4	2
DUALS	8	0	1	0	1	0	6	0	1	0	1	0
BUSES	4	0	0	0	1	1	2	0	0	0	0	0
BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
PEDS	North Side	1	3	East Side		6	South Side		5	West Side		9
	CARS DUALS BUSES BIKE (OTHER) PEDS CARS DUALS BUSES BIKE (OTHER) PEDS CARS DUALS BUSES BIKE (OTHER) PEDS CARS DUALS BIKE (OTHER) PEDS	NORT   CARS 85   DUALS 11   BUSES 3   BIKE (OTHER) PEDS   PEDS North Side   CARS 72   DUALS 9   BUSES 4   BIKE (OTHER) 9   PEDS North Side   CARS 75   DUALS 6   BUSES 3   BIKE (OTHER) 9   PEDS North Side   CARS 75   DUALS 6   BUSES 3   BIKE (OTHER) 9   PEDS North Side   CARS 81   DUALS 8   BUSES 4   BIKE (OTHER) 9   PEDS North Side	NORTH BO Thru RightCARS855DUALS110BUSES30BIKE (OTHER)1PEDSNorth SideCARS724DUALS90BUSES40BIKE (OTHER)0PEDSNorth SideCARS75DUALS60BUSES31BIKE (OTHER)0PEDSNorth SideCARS755DUALS60BUSES31BIKE (OTHER)0PEDSNorth SideCARS813DUALS80BUSES40BUSES40BUSES40BUSES40BUSES40BUSES40PEDSNorth Side	NOR TH BUUND Thru Right LeftCARS8558DUALS1102BUSES301BIKE (OTHER)1(0)PEDSNorth Side2CARS72413DUALS901BIKE (OTHER)01BUSES401BUSES401BUSES401BIKE (OTHER)0(0)PEDSNorth Side2CARS75510DUALS602BUSES311BIKE (OTHER)0(0)PEDSNorth Side0CARS8138DUALS601BUSES401BUSES401BUSES400BUSES400PEDSNorth Side01BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES400BUSES <td>NORTH BOUND Thru   Left   EAS Thru     CARS   85   5   8   0     DUALS   11   0   2   0     BUSES   3   0   1   0     BUKE (OTHER)   1   (0)   East Side     CARS   72   4   13   0     DUALS   9   0   1   0     PEDS   North Side   2   East Side     CARS   72   4   13   0     DUALS   9   0   1   0     BUSES   4   0   1   0     BUSES   4   0   1   0     BUSES   4   0   1   0     DUALS   6   2   0   0     BUSES   3   1   1   0     BUSES   3   1   0   0     PEDS   North Side   0   0   0     RARS   81<td>NORTHRIGH   EAST BOUNTHR     CARS   85   5   8   0   7     DUALS   11   0   2   0   0     BUSES   3   0   1   0   0     BUSES   3   0   1   0   0     BIKE (OTHER)   1   00   1   0   0     PEDS   North Side   2   East Side   1   0     CARS   72   4   13   0   8     DUALS   9   0   1   0   1     BUSES   4   0   1   0   1     BUSES   3   1   1   0   0     BUSES   3   1   1   0   0     PED</td><td>NORTH Right   Left   Thru Right   Left     CARS   85   5   8   0   7   12     DUALS   11   0   2   0   0   1     BUSES   3   0   1   00   0   1     BIKE (OTHER)   1   (0)   East Side   0   0     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     BUSES   4   0   1   0   0   0     PEDS   North Side   2   East Side   1   0   0     BUSES   3   1   1   0   0   0   0     BUSES   3   1   1   0   0   0   0</td><td>NORTH BOUND Thru Right LeftSOUTH Thru Right LeftSOUTH Thru Right LeftSOUTH Thru Right LeftCARS8558071263DUALS11020014BUSES30100012BIKE (OTHER)1(0)00012PEDSNorth Side2East Side10South SideCARS72413081158DUALS90101158BUSES40101556BUSES40100266PEDSNorth Side2East Side5South SideCARS7551006963DUALS6020105BUSES3110002BIKE (OTHER)0000025PEDSNorth Side010693CARS8138091357DUALS8010126BUSES4000112BIKE (OTHER)000112PEDSNorth Side3<td>NORTH Right   Left   EAST BOUND Thru Right   SOUTH RU Left   SOUTH RU Thru Right   Chru Right   Left   SOUTH RU Thru Right     CARS   85   5   8   0   7   12   63   6     DUALS   11   0   2   0   0   1   4   0     BUSES   3   0   1   0   0   1   4   0     BIKE (OTHER)   1   (0)   0   1   5   6     DUALS   72   4   13   0   8   11   58   6     DUALS   9   0   1   0   1   5   0     BUSES   4   0   1   0   1   5   0     PEDS   North Side   2   East Side   5   South Side   0     PEDS   North Side   2   0   1   0   0   0     BUSES   3   1   1   0   <t< td=""><td>NORTH Right   Left   EAST BUND, Right   Left   SUIT HUN Right   Left     CARS   85   5   8   0   7   12   63   6   4     DUALS   11   0   2   0   0   1   4   0   0     BUSES   3   0   1   0   0   1   4   0   0     BIKE (OTHER)   11   0   2   East Side   10   South Side   7   7     CARS   72   4   13   0   8   11   58   6   4     DUALS   9   0   1   0   1   5   0   0     BUSES   4   0   1   0   1   5   0</td><td>NORTH RIU   NORTH SIGN   EAST BUND   SUT HU Right   NUME Thru   NUME To Response of three series of three se</td><td>NORTH   NOR   North   Right   Left   SOUTH   North   Num   Right   Left   Num   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Rum   Right   Left   Rum   Rum</td></t<></td></br></td></td>	NORTH BOUND Thru   Left   EAS Thru     CARS   85   5   8   0     DUALS   11   0   2   0     BUSES   3   0   1   0     BUKE (OTHER)   1   (0)   East Side     CARS   72   4   13   0     DUALS   9   0   1   0     PEDS   North Side   2   East Side     CARS   72   4   13   0     DUALS   9   0   1   0     BUSES   4   0   1   0     BUSES   4   0   1   0     BUSES   4   0   1   0     DUALS   6   2   0   0     BUSES   3   1   1   0     BUSES   3   1   0   0     PEDS   North Side   0   0   0     RARS   81 <td>NORTHRIGH   EAST BOUNTHR     CARS   85   5   8   0   7     DUALS   11   0   2   0   0     BUSES   3   0   1   0   0     BUSES   3   0   1   0   0     BIKE (OTHER)   1   00   1   0   0     PEDS   North Side   2   East Side   1   0     CARS   72   4   13   0   8     DUALS   9   0   1   0   1     BUSES   4   0   1   0   1     BUSES   3   1   1   0   0     BUSES   3   1   1   0   0     PED</td> <td>NORTH Right   Left   Thru Right   Left     CARS   85   5   8   0   7   12     DUALS   11   0   2   0   0   1     BUSES   3   0   1   00   0   1     BIKE (OTHER)   1   (0)   East Side   0   0     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     BUSES   4   0   1   0   0   0     PEDS   North Side   2   East Side   1   0   0     BUSES   3   1   1   0   0   0   0     BUSES   3   1   1   0   0   0   0</td> <td>NORTH BOUND Thru Right LeftSOUTH Thru Right LeftSOUTH Thru Right LeftSOUTH Thru Right LeftCARS8558071263DUALS11020014BUSES30100012BIKE (OTHER)1(0)00012PEDSNorth Side2East Side10South SideCARS72413081158DUALS90101158BUSES40101556BUSES40100266PEDSNorth Side2East Side5South SideCARS7551006963DUALS6020105BUSES3110002BIKE (OTHER)0000025PEDSNorth Side010693CARS8138091357DUALS8010126BUSES4000112BIKE (OTHER)000112PEDSNorth Side3<td>NORTH Right   Left   EAST BOUND Thru Right   SOUTH RU Left   SOUTH RU Thru Right   Chru Right   Left   SOUTH RU Thru Right     CARS   85   5   8   0   7   12   63   6     DUALS   11   0   2   0   0   1   4   0     BUSES   3   0   1   0   0   1   4   0     BIKE (OTHER)   1   (0)   0   1   5   6     DUALS   72   4   13   0   8   11   58   6     DUALS   9   0   1   0   1   5   0     BUSES   4   0   1   0   1   5   0     PEDS   North Side   2   East Side   5   South Side   0     PEDS   North Side   2   0   1   0   0   0     BUSES   3   1   1   0   <t< td=""><td>NORTH Right   Left   EAST BUND, Right   Left   SUIT HUN Right   Left     CARS   85   5   8   0   7   12   63   6   4     DUALS   11   0   2   0   0   1   4   0   0     BUSES   3   0   1   0   0   1   4   0   0     BIKE (OTHER)   11   0   2   East Side   10   South Side   7   7     CARS   72   4   13   0   8   11   58   6   4     DUALS   9   0   1   0   1   5   0   0     BUSES   4   0   1   0   1   5   0</td><td>NORTH RIU   NORTH SIGN   EAST BUND   SUT HU Right   NUME Thru   NUME To Response of three series of three se</td><td>NORTH   NOR   North   Right   Left   SOUTH   North   Num   Right   Left   Num   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Rum   Right   Left   Rum   Rum</td></t<></td></br></td>	NORTHRIGH   EAST BOUNTHR     CARS   85   5   8   0   7     DUALS   11   0   2   0   0     BUSES   3   0   1   0   0     BUSES   3   0   1   0   0     BIKE (OTHER)   1   00   1   0   0     PEDS   North Side   2   East Side   1   0     CARS   72   4   13   0   8     DUALS   9   0   1   0   1     BUSES   4   0   1   0   1     BUSES   3   1   1   0   0     BUSES   3   1   1   0   0     PED	NORTH Right   Left   Thru Right   Left     CARS   85   5   8   0   7   12     DUALS   11   0   2   0   0   1     BUSES   3   0   1   00   0   1     BIKE (OTHER)   1   (0)   East Side   0   0     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     CARS   72   4   13   0   8   11     DUALS   9   0   1   0   1   1     BUSES   4   0   1   0   0   0     PEDS   North Side   2   East Side   1   0   0     BUSES   3   1   1   0   0   0   0     BUSES   3   1   1   0   0   0   0	NORTH BOUND 	NORTH Right   Left   EAST BOUND Thru Right   SOUTH RU Left   SOUTH RU Thru Right   Chru Right   Left   SOUTH RU Thru Right     CARS   85   5   8   0   7   12   63   6     DUALS   11   0   2   0   0   1   4   0     BUSES   3   0   1   0   0   1   4   0     BIKE (OTHER)   1   (0)   0   1   5   6     DUALS   72   4   13   0   8   11   58   6     DUALS   9   0   1   0   1   5   0     BUSES   4   0   1   0   1   5   0     PEDS   North Side   2   East Side   5   South Side   0     PEDS   North Side   2   0   1   0   0   0     BUSES   3   1   1   0 <t< td=""><td>NORTH Right   Left   EAST BUND, Right   Left   SUIT HUN Right   Left     CARS   85   5   8   0   7   12   63   6   4     DUALS   11   0   2   0   0   1   4   0   0     BUSES   3   0   1   0   0   1   4   0   0     BIKE (OTHER)   11   0   2   East Side   10   South Side   7   7     CARS   72   4   13   0   8   11   58   6   4     DUALS   9   0   1   0   1   5   0   0     BUSES   4   0   1   0   1   5   0</td><td>NORTH RIU   NORTH SIGN   EAST BUND   SUT HU Right   NUME Thru   NUME To Response of three series of three se</td><td>NORTH   NOR   North   Right   Left   SOUTH   North   Num   Right   Left   Num   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Rum   Right   Left   Rum   Rum</td></t<>	NORTH Right   Left   EAST BUND, Right   Left   SUIT HUN Right   Left     CARS   85   5   8   0   7   12   63   6   4     DUALS   11   0   2   0   0   1   4   0   0     BUSES   3   0   1   0   0   1   4   0   0     BIKE (OTHER)   11   0   2   East Side   10   South Side   7   7     CARS   72   4   13   0   8   11   58   6   4     DUALS   9   0   1   0   1   5   0   0     BUSES   4   0   1   0   1   5   0	NORTH RIU   NORTH SIGN   EAST BUND   SUT HU Right   NUME Thru   NUME To Response of three series of three se	NORTH   NOR   North   Right   Left   SOUTH   North   Num   Right   Left   Num   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Right   Left   Rum   Right   Left   Rum   Right   Left   Rum   Rum



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Survey Date: Sep-20-2018 (Thursday)
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Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	32	10	10	29	6	9	69	24	5	129	5	37
	DUALS	1	1	0	2	0	0	0	1	0	1	1	0
	BUSES	1	0	0	4	0	0	2	0	0	2	0	0
	BIKE (OTHER)		4	(0)		4	(0)		7	(0)	10	(0)	
	PEDS	North Side		21	East Side		7	South Side		11	West Side		7
08:00	CARS	46	9	11	27	7	8	79	23	11	160	11	28
	DUALS	0	1	0	1	1	0	0	0	0	1	1	0
	BUSES	2	0	0	4	0	0	2	0	0	6	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	9	(0)	
	PEDS	North Side		19	East Side		26	South Side		16	West Side		12
08:15	CARS	37	18	10	44	8	5	92	26	14	156	17	40
	DUALS	0	1	2	2	0	0	0	0	0	2	1	0
	BUSES	2	0	0	3	0	0	2	0	0	4	0	0
	BIKE (OTHER)		2	(0)		4	(0)		10	(0)	13	(0)	
	PEDS	North Side		21	East Side		24	South Side		14	West Side		16
08:30	CARS	32	10	12	48	13	5	91	27	10	192	17	50
	DUALS	0	1	0	2	0	0	0	0	0	1	1	2
	BUSES	2	0	0	3	0	0	3	0	0	4	1	0
	BIKE (OTHER)		4	(0)		8	(0)		11	(0)	18	(0)	
	PEDS	North Side		60	East Side		31	South Side		33	West Side		22
08:45	CARS	45	18	9	45	13	4	88	21	26	190	30	35
	DUALS	2	1	1	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	2	0	0	3	0	0	2	1	0
	BIKE (OTHER)		4	(0)		8	(0)		10	(0)	22	(0)	
	PEDS	North Side		58	East Side		47	South Side		27	West Side		24
09:00	CARS	41	17	9	43	18	9	105	16	24	177	28	28
	DUALS	0	0	2	1	1	0	0	1	0	3	0	0
	BUSES	2	0	0	3	0	0	2	0	0	5	0	0
	BIKE (OTHER)		2	(0)		5	(0)		10	(0)	8	(0)	
	PEDS	North Side		33	East Side		29	South Side		15	West Side		23
09:15	CARS	44	15	10	29	14	9	104	30	17	135	25	34
	DUALS	0	0	0	2	2	0	1	0	0	3	0	0
	BUSES	3	0	0	3	0	0	3	1	0	4	0	0
	BIKE (OTHER)		1	(0)		2	(0)		9	(0)	15	(0)	
	PEDS	North Side		30	East Side		27	South Side		18	West Side		21



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Survey Date: Sep-20-2018 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru F	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru F	H BOU Right	ND Left	WEST Thru R	BOUND	ť
09:30	CARS	39	11	13	46	13	9	75	19	23	139	22	29
	DUALS	1	2	0	1	0	2	2	0	0	1	0	0
	BUSES	2	0	0	5	0	0	1	0	0	3	0	1
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	8	(0)	
	PEDS	North Side		33	East Side		22	South Side		16	West Side		7
10:15	CARS	45	10	7	51	14	10	56	19	24	88	27	19
	DUALS	3	0	1	2	2	0	0	1	1	3	0	0
	BUSES	2	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		0	(0)		3	(0)		9	(0)	9	(0)	
	PEDS	North Side		33	East Side		14	South Side		9	West Side		15
10:30	CARS	44	17	12	47	3	10	65	18	23	71	23	18
	DUALS	1	0	0	0	0	0	6	1	0	2	0	0
	BUSES	2	0	0	4	0	0	2	0	0	2	0	0
	BIKE (OTHER)		1	(0)		3	(0)		2	(0)	8	(0)	
	PEDS	North Side		37	East Side		20	South Side		25	West Side		18
10:45	CARS	31	22	4	67	12	10	55	27	31	81	20	15
	DUALS	1	1	1	1	0	0	3	0	0	0	0	0
	BUSES	1	0	0	3	0	0	2	1	0	2	0	0
	BIKE (OTHER)		1	(0)		7	(0)		4	(0)	6	(0)	
	PEDS	North Side		30	East Side		15	South Side		33	West Side		42
11:00	CARS	41	16	5	58	14	11	62	16	29	60	26	19
	DUALS	0	0	0	2	0	1	1	0	0	1	0	1
	BUSES	3	0	0	4	0	0	1	0	0	4	0	0
	BIKE (OTHER)		2	(0)		4	(0)		4	(0)	2	(0)	
	PEDS	North Side		32	East Side		14	South Side		15	West Side		14
11:15	CARS	41	17	10	66	9	13	52	11	18	84	31	21
	DUALS	1	1	0	0	0	0	3	0	0	0	0	0
	BUSES	2	0	0	4	0	0	3	0	0	1	0	0
	BIKE (OTHER)		2	(0)		1	(0)		1	(0)	4	(0)	
	PEDS	North Side		34	East Side		18	South Side		19	West Side		18
11:30	CARS	33	14	6	70	6	10	66	20	20	74	25	15
	DUALS	4	0	0	4	2	0	3	0	1	1	1	0
	BUSES	1	0	0	3	0	0	1	0	0	3	0	0
	BIKE (OTHER)		3	(0)		5	(0)		4	(0)	3	(0)	
	PEDS	North Side		26	East Side		16	South Side		23	West Side		15



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Survey Date: Sep-20-2018 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND light Lef	t
11:45	CARS	57	26	5	78	14	7	67	25	25	85	21	17
	DUALS	2	1	3	2	0	0	5	2	1	2	1	2
	BUSES	2	0	0	1	0	0	2	0	0	3	0	0
	BIKE (OTHER)		2	(0)		2	(0)		7	(0)	9	(0)	
	PEDS	North Side		38	East Side		19	South Side		27	West Side		15
12:00	CARS	45	23	8	65	16	20	61	14	27	77	25	18
	DUALS	1	2	0	3	2	0	2	0	0	0	0	2
	BUSES	2	0	0	3	0	0	1	0	0	3	0	0
	BIKE (OTHER)		3	(0)		3	(0)		6	(0)	6	(0)	
	PEDS	North Side		35	East Side		15	South Side		53	West Side		16
13:15	CARS	52	22	10	68	6	14	57	15	30	83	37	14
	DUALS	3	0	1	1	0	1	0	0	1	1	0	C
	BUSES	2	0	0	3	0	0	3	0	0	3	0	0
	BIKE (OTHER)		1	(0)		7	(0)		1	(0)	7	(0)	
	PEDS	North Side		46	East Side		23	South Side		21	West Side		21
13:30	CARS	40	17	9	75	18	10	59	15	38	92	34	14
	DUALS	2	0	1	3	0	1	4	1	0	1	0	1
	BUSES	2	0	0	4	0	1	2	0	0	3	0	0
	BIKE (OTHER)		2	(0)		4	(0)		4	(0)	8	(0)	
	PEDS	North Side		31	East Side		18	South Side		21	West Side		19
13:45	CARS	56	29	7	83	12	13	62	18	36	76	26	16
	DUALS	0	0	0	1	1	0	3	1	0	0	0	3
	BUSES	1	0	0	2	0	0	2	0	0	4	0	0
	BIKE (OTHER)		3	(0)		6	(0)		1	(0)	1	(0)	
	PEDS	North Side		57	East Side		13	South Side		21	West Side		20
14:00	CARS	48	24	8	76	11	9	61	15	29	80	25	21
	DUALS	1	0	1	2	0	1	3	1	1	0	1	1
	BUSES	3	0	1	4	0	0	1	0	0	3	0	0
	BIKE (OTHER)		1	(0)		10	(0)		5	(0)	5	(0)	
	PEDS	North Side		42	East Side		16	South Side		21	West Side		15
14:15	CARS	59	19	9	66	12	21	65	20	27	80	33	22
	DUALS	0	1	0	2	2	0	3	3	1	0	0	1
	BUSES	3	0	0	3	0	0	1	0	0	2	0	0
	BIKE (OTHER)		1	(0)		2	(0)		6	(0)	9	(0)	
	PEDS	North Side		45	East Side		16	South Side		19	West Side		13



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Survey Date: Sep-20-2018 (Thursday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru I	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ť
14:30	CARS	39	24	5	72	12	16	57	32	34	71	27	23
	DUALS	0	1	0	0	1	0	3	0	1	0	0	2
	BUSES	1	0	0	3	0	0	3	0	0	3	0	0
	BIKE (OTHER)		4	(0)		10	(0)		2	(0)	4	(0)	
	PEDS	North Side		34	East Side		22	South Side		31	West Side		18
14:45	CARS	54	15	11	70	8	17	72	14	30	78	29	12
	DUALS	3	4	0	1	2	1	2	0	0	0	0	3
	BUSES	2	0	0	3	0	0	2	0	0	3	0	0
	BIKE (OTHER)		1	(0)		6	(0)		7	(0)	7	(0)	
	PEDS	North Side		36	East Side		24	South Side		25	West Side		9
15:00	CARS	56	12	9	98	11	21	67	22	26	79	19	16
	DUALS	4	3	1	2	0	0	2	3	0	0	0	2
	BUSES	1	0	0	2	0	0	2	0	0	2	0	0
	BIKE (OTHER)		5	(0)		4	(0)		5	(0)	4	(0)	
	PEDS	North Side		33	East Side		22	South Side		16	West Side		12
16:15	CARS	79	15	9	116	11	20	68	21	34	83	25	19
	DUALS	1	0	0	0	3	0	0	0	1	0	1	1
	BUSES	2	0	0	1	0	0	1	0	0	2	0	0
	BIKE (OTHER)		4	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Side		42	East Side		33	South Side		29	West Side		15
16:30	CARS	70	15	15	114	13	16	66	10	33	80	29	14
	DUALS	3	0	0	1	0	0	2	0	0	1	1	0
	BUSES	1	0	0	4	0	0	3	0	0	3	0	0
	BIKE (OTHER)		4	(0)		12	(0)		2	(0)	3	(0)	
	PEDS	North Side		65	East Side		19	South Side		25	West Side		21
16:45	CARS	65	13	9	127	14	17	69	16	32	62	31	18
	DUALS	1	0	0	0	0	0	1	0	1	1	0	1
	BUSES	1	0	0	2	0	0	1	0	0	3	0	0
	BIKE (OTHER)		7	(0)		17	(0)		8	(0)	4	(0)	
	PEDS	North Side		48	East Side		19	South Side		23	West Side		17
17:00	CARS	76	10	15	159	12	21	62	17	28	91	32	13
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	1	0	0	2	0	0	1	0	0
	BIKE (OTHER)		4	(0)		6	(0)		7	(0)	4	(0)	
	PEDS	North Side		61	East Side		34	South Side		36	West Side		25



## Intersection Detailed 15 Minutes Movement Report

#### CARLAW AVE AT GERRARD ST (PX 372)

**Routine Hours** 

Survey Date: Sep-20-2018 (Thursday)

Time Period		NORTH BOUND Thru Right Left			EAS Thru	T BOUN Right	ID Left	SOUT Thru	H BOU Right	ND Left	WEST Thru F	ˈBOUND ≀ight Lef	t
17:15	CARS	75	32	22	148	15	25	84	14	32	77	30	16
	DUALS	0	2	0	1	1	0	0	0	0	0	0	0
	BUSES	1	0	0	4	0	0	3	0	0	1	0	0
	BIKE (OTHER)		7	(0)		13	(0)		6	(0)	8	(0)	
	PEDS	North Sid	e	68	East Side		31	South Side		19	West Side		38
17:30	CARS	86	17	26	145	13	19	67	26	26	97	33	14
	DUALS	0	0	0	1	0	1	2	0	0	1	0	0
	BUSES	1	0	0	3	0	0	3	0	0	4	0	0
	BIKE (OTHER)		3	(0)		21	(0)		5	(0)	4	(0)	
	PEDS	North Sid	e	49	East Side		35	South Side		33	West Side		16
17:45	CARS	83	16	16	157	18	13	71	16	37	59	37	11
	DUALS	1	0	0	0	0	1	2	3	0	0	1	1
	BUSES	4	0	0	1	0	0	2	0	0	3	0	0
	BIKE (OTHER)		6	(0)		21	(0)		7	(0)	7	(0)	
	PEDS	North Side	e	40	East Side		38	South Side		40	West Side		25
18:00	CARS	108	18	22	136	16	18	69	15	22	73	37	14
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	2	0	0	3	0	0	3	0	0
	BIKE (OTHER)		7	(0)		11	(0)		4	(0)	9	(0)	
	PEDS	North Side	e	82	East Side		41	South Side		28	West Side		50



#### CHERRY ST AT FRONT ST E

Survey Type: Routine Hours

Survey Date: Aug-22-2019 (Thursday)

Time Period		NORTH BOUND Thru Right Left			EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	16	3	3	8	2	4	22	12	0	23	1	6
	DUALS	2	1	1	0	0	1	6	0	0	0	1	0
	BUSES	2	0	0	2	2	0	1	0	0	1	0	0
	BIKE (OTHER)		4	(0)		1	(0)		2	(0)	3	(0)	
	PEDS	North Side		11	East Side		9	South Side		6	West Side		4
08:00	CARS	9	7	4	10	3	1	22	9	0	32	2	5
	DUALS	3	1	0	0	1	0	3	0	0	2	0	1
	BUSES	3	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		3	(0)		3	(0)		3	(0)	3	(0)	
	PEDS	North Side		9	East Side		7	South Side		6	West Side		7
08:15	CARS	17	4	4	10	4	2	32	8	0	32	6	6
	DUALS	2	0	1	1	0	0	1	1	0	0	0	0
	BUSES	3	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	5	(0)	
	PEDS	North Side		11	East Side		17	South Side		9	West Side		5
08:30	CARS	14	2	4	17	4	0	34	5	0	43	1	9
	DUALS	2	0	1	0	0	0	5	0	0	0	0	1
	BUSES	3	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	7	(0)	
	PEDS	North Side		17	East Side		7	South Side		4	West Side		8
08:45	CARS	19	5	5	10	2	3	47	12	0	35	2	9
	DUALS	0	0	1	1	2	0	3	0	0	0	0	0
	BUSES	2	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		4	(0)		6	(0)	2	(0)	
	PEDS	North Side		16	East Side		19	South Side		14	West Side		11
09:00	CARS	22	6	6	12	2	0	49	5	0	32	0	7
	DUALS	5	2	0	1	0	0	4	0	0	1	0	2
	BUSES	4	0	1	0	1	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	8	(0)	
	PEDS	North Side		18	East Side		18	South Side		19	West Side		17
09:15	CARS	24	3	6	19	6	0	52	13	2	26	6	6
	DUALS	7	0	0	1	0	0	1	0	0	1	0	0
	BUSES	3	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	7	(0)	
	PEDS	North Side		17	East Side		16	South Side		14	West Side		9



#### CHERRY ST AT FRONT ST E

Surv

Survey Date: Aug-22-2019 (Thursday)

Survey	Туре:	<b>Routine Hours</b>

Time Period		NORTH BOUND Thru Right Left			EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUN light	ID Left	WEST Thru R	BOUND ight Left	:
09:30	CARS	25	3	12	13	4	3	46	10	0	29	2	5
	DUALS	3	1	1	1	1	0	5	1	0	0	1	2
	BUSES	4	0	0	0	2	0	2	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		6	(0)	4	(0)	
	PEDS	North Side		16	East Side		13	South Side		8	West Side		8
10:15	CARS	18	6	3	13	5	0	38	4	0	17	3	9
	DUALS	5	0	0	2	2	0	3	0	0	0	0	2
	BUSES	1	0	1	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		4	(0)		2	(0)	3	(0)	
	PEDS	North Side		3	East Side		7	South Side		2	West Side		5
10:30	CARS	12	5	1	13	6	1	34	8	0	10	3	3
	DUALS	4	1	3	1	0	0	4	0	0	2	1	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		7	(0)	3	(0)	
	PEDS	North Side		13	East Side		51	South Side		40	West Side		14
10:45	CARS	15	3	3	12	4	2	26	12	0	9	5	6
	DUALS	3	2	1	3	2	0	3	0	0	2	2	1
	BUSES	3	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		27	East Side		11	South Side		36	West Side		5
11:00	CARS	17	1	5	9	5	3	37	14	0	15	1	6
	DUALS	1	2	0	0	0	0	6	0	1	3	2	0
	BUSES	1	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		22	East Side		7	South Side		9	West Side		5
11:15	CARS	19	2	7	13	4	4	50	11	0	14	3	3
	DUALS	3	2	1	3	0	0	2	1	0	0	1	2
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		3	(0)		4	(0)	3	(0)	
	PEDS	North Side		10	East Side		9	South Side		6	West Side		8
11:30	CARS	25	5	6	7	5	4	59	9	0	14	0	5
	DUALS	3	2	1	0	0	0	8	0	0	0	0	0
	BUSES	2	0	0	0	1	0	1	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		3	(0)	3	(0)	
	PEDS	North Side		13	East Side		11	South Side		12	West Side		11



#### CHERRY ST AT FRONT ST E

Survey Date: Aug-22-2019 (Thursday)

Survey	Type:	Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAS Thru	T BOUN Right	D Left	SOUTI Thru R	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
11:45	CARS	14	2	6	16	8	5	64	10	0	16	5	9
	DUALS	4	1	2	0	3	0	5	1	0	2	1	1
	BUSES	2	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		4	(0)		2	(0)	3	(0)	
	PEDS	North Side		24	East Side		4	South Side		6	West Side		10
12:00	CARS	21	1	3	14	7	3	71	10	0	18	0	6
	DUALS	5	0	0	1	0	0	2	0	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		3	(0)		2	(0)	3	(0)	
	PEDS	North Side		11	East Side		3	South Side		8	West Side		14
13:15	CARS	11	7	4	11	10	1	38	5	0	17	8	7
	DUALS	2	0	1	1	2	0	6	0	0	0	1	0
	BUSES	4	0	0	0	1	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		3	(0)		4	(0)	1	(0)	
	PEDS	North Side		20	East Side		20	South Side		5	West Side		10
13:30	CARS	17	5	6	13	5	4	41	9	1	17	4	11
	DUALS	4	0	0	0	0	0	3	1	0	0	0	0
	BUSES	1	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	6	(0)	
	PEDS	North Side		12	East Side		12	South Side		11	West Side		14
13:45	CARS	18	6	3	17	5	2	46	5	0	16	2	4
	DUALS	4	1	0	2	0	0	4	0	0	0	0	1
	BUSES	3	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		3	(0)		1	(0)		2	(0)	1	(0)	
	PEDS	North Side		20	East Side		14	South Side		13	West Side		7
14:00	CARS	13	4	12	17	13	3	52	6	0	9	2	7
	DUALS	3	0	1	3	1	0	10	1	0	2	0	1
	BUSES	2	0	0	0	1	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		2	(0)		3	(0)	2	(0)	
	PEDS	North Side		9	East Side		9	South Side		3	West Side		7
14:15	CARS	26	4	7	25	12	0	36	8	0	12	1	4
	DUALS	0	0	0	1	0	0	6	1	0	1	0	1
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		4	(0)		1	(0)	6	(0)	
	PEDS	North Side		18	East Side		7	South Side		6	West Side		16



#### CHERRY ST AT FRONT ST E

Survey Date: Aug-22-2019 (Thursday)

Survey Type: Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	11	2	7	22	5	2	46	8	1	16	4	11
	DUALS	0	2	0	2	1	0	5	0	0	0	0	0
	BUSES	2	0	0	1	1	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	4	(0)	
	PEDS	North Side		11	East Side		11	South Side		7	West Side		18
14:45	CARS	25	4	4	10	9	4	64	2	0	9	6	12
	DUALS	1	1	1	1	0	0	7	0	0	0	1	4
	BUSES	2	0	0	1	0	0	1	0	0	0	0	0
	BIKE (OTHER)		1	(0)		5	(0)		2	(0)	6	(0)	
	PEDS	North Side		8	East Side		9	South Side		8	West Side		18
15:00	CARS	20	3	8	21	12	1	95	3	1	15	1	9
	DUALS	4	2	0	0	1	0	6	0	0	0	2	3
	BUSES	2	0	1	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		8	(0)		3	(0)	1	(0)	
	PEDS	North Side		14	East Side		18	South Side		10	West Side		18
16:15	CARS	24	11	3	28	9	8	91	9	0	20	10	12
	DUALS	1	1	1	1	0	0	6	0	0	0	0	0
	BUSES	3	0	0	0	2	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		5	(0)		4	(0)	2	(0)	
	PEDS	North Side		27	East Side		24	South Side		11	West Side		9
16:30	CARS	19	9	8	30	16	3	97	2	0	18	7	14
	DUALS	2	1	0	0	1	0	4	0	0	0	1	1
	BUSES	2	0	0	1	2	0	2	0	0	0	0	0
	BIKE (OTHER)		4	(0)		3	(0)		4	(0)	2	(0)	
	PEDS	North Side		27	East Side		40	South Side		20	West Side		28
16:45	CARS	19	8	4	37	15	3	70	8	0	15	4	9
	DUALS	1	1	1	0	0	0	9	0	0	0	0	1
	BUSES	3	0	0	0	1	0	2	0	0	0	0	0
	BIKE (OTHER)		6	(0)		4	(0)		3	(0)	4	(0)	
	PEDS	North Side		12	East Side		25	South Side		19	West Side		18
17:00	CARS	16	8	9	45	16	3	68	5	0	20	5	7
	DUALS	1	0	0	1	0	0	6	0	0	1	0	0
	BUSES	2	0	0	1	0	0	2	0	0	0	0	0
	BIKE (OTHER)		5	(0)		7	(0)		5	(0)	1	(0)	
	PEDS	North Side		23	East Side		27	South Side		14	West Side		14



#### CHERRY ST AT FRONT ST E

Survey Date: Aug-22-2019 (Thursday)

Survey Type: Routine Hours

Time		NORTH BOUND			EAS		ID	SOUTI	н вои	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru R	light Lef	ft
17:15	CARS	29	10	10	46	17	3	72	6	0	22	4	16
	DUALS	1	0	0	1	1	0	5	0	0	0	0	1
	BUSES	4	1	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		7	(0)		13	(0)		2	(0)	5	(0)	
	PEDS	North Side	e	24	East Side		20	South Side		15	West Side		361
17:30	CARS	19	10	6	55	19	4	64	6	0	16	5	17
	DUALS	4	1	0	1	1	1	7	0	0	0	0	1
	BUSES	1	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		3	(0)		16	(0)		5	(0)	3	(0)	
	PEDS	North Side	e	22	East Side		23	South Side		13	West Side		27
17:45	CARS	13	14	4	56	14	5	88	10	0	22	2	12
	DUALS	2	0	0	0	2	0	5	0	0	0	0	1
	BUSES	2	0	0	0	1	0	1	0	0	0	0	0
	BIKE (OTHER)		6	(0)		18	(0)		9	(0)	4	(0)	
	PEDS	North Side	e	20	East Side		9	South Side		16	West Side		22
18:00	CARS	35	15	12	37	19	4	60	3	0	11	10	12
	DUALS	0	0	0	0	0	0	4	0	0	0	0	0
	BUSES	3	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		6	(0)		7	(0)		5	(0)	2	(0)	
	PEDS	North Side	e	38	East Side		27	South Side		16	West Side		18



# Intersection Detailed 15 Minutes Movement Report

### CHURCH ST AT QUEEN ST (PX 19)

**Routine Hours** 

Time Period		NORTH BOUND Thru Right Left			EAS Thru	ST BOU Right	ND Left	SOUT Thru	'H BOL Right	IND Left	WEST Thru Ri	BOUND ight Le	eft
07:45	CARS	64	9	8	45	13	9	68	12	3	123	8	6
	DUALS	2	1	0	4	0	0	7	1	1	2	1	0
	BUSES	1	0	1	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		8	(0)		1	(0)		7	(0)	9	(0)	
	PEDS	North Sid	le	49	East Side	·	41	South Sid	le	69	West Side		63
08:00	CARS	76	9	29	61	18	15	80	8	3	139	10	9
	DUALS	5	0	0	2	0	1	6	1	1	3	0	1
	BUSES	1	0	1	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		9	(0)		6	(0)		10	(0)	20	(0)	
	PEDS	North Sid	le	63	East Side		67	South Sid	e	69	West Side		74
08:15	CARS	88	8	20	39	14	21	82	15	5	170	8	7
	DUALS	8	0	0	2	0	1	12	0	0	4	0	0
	BUSES	0	0	1	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		7	(0)		2	(0)		13	(0)	14	(0)	
	PEDS	North Sid	le	74	East Side		85	South Sid	e	81	West Side		63
08:30	CARS	67	10	24	51	12	6	92	15	6	160	11	7
	DUALS	3	0	1	2	0	1	7	0	0	1	0	0
	BUSES	0	0	0	4	0	0	1	0	0	5	0	0
	BIKE (OTHER)		8	(0)		6	(0)		14	(0)	20	(0)	
	PEDS	North Side		102	East Side	·	108	South Sid	e	139	West Side		90
08:45	CARS	66	12	21	55	18	12	77	20	7	149	6	9
	DUALS	6	0	0	2	1	0	5	0	1	2	0	0
	BUSES	0	0	0	6	0	0	0	0	0	7	0	0
	BIKE (OTHER)		11	(0)		2	(0)		21	(0)	10	(0)	
	PEDS	North Sig	le	84	East Side		123	South Sid	le	138	West Side		108
09:00	CARS	75	8	14	51	14	17	82	14	4	109	3	5
	DUALS	3	0	0	3	2	1	2	0	1	1	0	0
	BUSES	0	0	0	3	0	0	0	0	0	7	0	0
	BIKE (OTHER)		11	(0)		5	(0)		25	(0)	16	(0)	
	PEDS	North Sig	le	126	East Side	·	110	South Sid	le	62	West Side		115
09:15	CARS	76	4	25	47	13	22	71	15	7	126	8	10
	DUALS	5	0	1	2	0	0	2	1	0	3	0	0
	BUSES	0	0	1	4	0	0	0	0	0	8	0	0
	BIKE (OTHER)		12	(0)		2	(0)		23	(0)	17	(0)	
	PEDS	North Sid	le	97	East Side		102	South Sid	le	196	West Side		70



# Intersection Detailed 15 Minutes Movement Report

### CHURCH ST AT QUEEN ST (PX 19)

**Routine Hours** 

Time Period		NOR <sup>®</sup> Thru	TH BOI Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	IND Left	WEST Thru R	BOUND ight Le	ft
09:30	CARS	72	13	13	60	14	14	66	11	3	135	9	8
	DUALS	3	0	0	4	1	0	6	1	0	3	0	0
	BUSES	0	0	0	5	0	0	0	0	0	7	0	0
	BIKE (OTHER)		6	(0)		6	(0)		17	(0)	9	(0)	
	PEDS	North Si	de	104	East Side	)	103	South Sid	de	144	West Side		81
10:15	CARS	76	18	20	45	11	10	47	19	11	98	11	8
	DUALS	4	1	0	3	0	1	7	2	1	3	2	0
	BUSES	0	0	1	5	0	0	1	0	0	4	0	0
	BIKE (OTHER)		7	(0)		8	(0)		5	(0)	13	(0)	
	PEDS	North Si	de	85	East Side	)	67	South Sid	de	101	West Side	( )	56
10:30	CARS	65	15	14	48	24	16	49	12	13	84	7	4
	DUALS	3	0	0	4	1	1	5	0	1	2	0	1
	BUSES	0	0	0	7	0	1	0	0	0	6	0	0
	BIKE (OTHER)		4	(0)		5	(0)		5	(0)	6	(0)	
	PEDS	North Si	de	72	East Side	)	47	South Sid	de	108	West Side	( )	67
10:45	CARS	56	9	17	46	15	15	62	23	7	88	9	13
	DUALS	2	0	0	3	1	0	3	0	0	2	1	1
	BUSES	0	0	1	5	0	0	0	0	0	4	0	0
	BIKE (OTHER)		2	(0)		2	(0)		6	(0)	11	(0)	
	PEDS	North Side		85	East Side	)	55	South Sid	de	91	West Side		78
11:00	CARS	62	12	21	61	15	18	45	18	7	81	7	5
	DUALS	6	0	2	1	0	1	6	1	0	4	0	1
	BUSES	0	0	0	3	0	0	1	0	0	7	0	0
	BIKE (OTHER)		5	(0)		3	(0)		5	(0)	7	(0)	
	PEDS	North Si	de	75	East Side	)	71	South Sid	de	80	West Side		70
11:15	CARS	70	10	19	54	10	23	57	21	10	93	10	10
	DUALS	2	0	0	2	0	0	5	0	0	1	1	0
	BUSES	0	0	0	2	0	0	0	0	0	5	0	0
	BIKE (OTHER)		5	(0)		6	(0)		7	(0)	10	(0)	
	PEDS	North Si	de	98	East Side	)	65	South Sid	de	88	West Side		91
11:30	CARS	68	7	24	60	12	18	61	17	8	86	12	5
	DUALS	4	0	0	1	1	1	5	0	0	4	0	0
	BUSES	0	0	0	6	0	1	0	0	0	9	0	0
	BIKE (OTHER)		8	(0)		3	(0)		4	(0)	7	(0)	
	PEDS	North Si	de	85	East Side	)	73	South Sid	de	93	West Side		87



# Intersection Detailed 15 Minutes Movement Report

### CHURCH ST AT QUEEN ST (PX 19)

**Routine Hours** 

Time Period		NOR Thru	TH BO Right	UND Left	EAS Thru	ST BOU Right	ND Left	SOU <sup>-</sup> Thru	TH BOL Right	JND Left	WEST Thru R	BOUND ight Le	eft
11:45	CARS	59	8	16	70	14	21	54	19	13	80	9	7
	DUALS	4	1	1	4	0	0	3	1	1	2	1	1
	BUSES	0	1	0	4	0	0	0	0	0	6	0	0
	BIKE (OTHER)		4	(0)		7	(0)		3	(0)	7	(0)	
	PEDS	North Si	de	79	East Side	)	80	South Sid	de	82	West Side		82
12:00	CARS	63	8	20	62	18	19	60	23	9	82	8	5
	DUALS	3	0	0	2	1	0	4	0	0	2	0	1
	BUSES	0	0	1	6	0	0	0	0	0	10	0	0
	BIKE (OTHER)		10	(0)		5	(0)		7	(0)	8	(0)	
	PEDS	North Si	de	83	East Side	)	89	South Sid	de	103	West Side	( )	65
 13:15		57	12	18	61	15	18	54	24	3	67	10	4
	DUALS	4	0	1	2	0	0	1	0	0	4	1	0
	BUSES	0	0	1	5	0	1	0	0	0	5	0	0
	BIKE (OTHER)		11	(0)		10	(0)		7	(0)	9	(0)	
	PEDS	North Si	de	99	East Side	)	92	South Sid	de	141	West Side	( )	98
13:30		71	12	13	64	23	15	71	26	5	76	7	9
	DUALS	1	1	3	7	0	0	3	0	0	1	2	0
	BUSES	0	0	0	3	0	1	0	0	0	2	0	0
	BIKE (OTHER)		6	(0)		3	(0)		8	(0)	7	(0)	
	PEDS	North Side		104	East Side	)	87	South Sid	de	165	West Side		73
13:45	CARS	64	10	20	82	17	20	67	21	8	70	9	5
	DUALS	3	0	0	2	1	2	2	0	1	1	0	1
	BUSES	0	0	0	2	0	0	0	0	0	7	0	0
	BIKE (OTHER)		13	(0)		8	(0)		6	(0)	5	(0)	
	PEDS	North Si	de	95	East Side	)	93	South Sid	de	125	West Side		91
14:00	CARS	59	15	18	77	20	17	75	16	7	80	10	3
	DUALS	2	0	1	3	0	1	5	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		10	(0)		10	(0)		3	(0)	7	(0)	
	PEDS	North Si	de	100	East Side	)	102	South Sid	de	146	West Side		70
14:15	CARS	67	12	15	69	23	20	63	22	7	69	7	6
	DUALS	2	0	1	4	0	0	4	0	0	1	1	0
	BUSES	0	0	0	4	0	1	1	0	0	7	0	0
	BIKE (OTHER)		9	(0)		9	(0)		4	(0)	9	(0)	
	PEDS	North Si	de	106	East Side	)	88	South Sid	de	133	West Side		79



# Intersection Detailed 15 Minutes Movement Report

### CHURCH ST AT QUEEN ST (PX 19)

**Routine Hours** 

Time Period		NOR Thru	TH BOI Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>*</sup> Thru	TH BOL Right	JND Left	WEST Thru R	BOUND ight Le	əft
14:30	CARS	74	13	13	75	19	15	71	17	10	65	9	3
	DUALS	4	0	0	5	1	1	7	0	0	2	0	0
	BUSES	0	0	0	7	0	0	0	0	0	5	0	0
	BIKE (OTHER)		7	(0)		6	(0)		1	(0)	7	(0)	
	PEDS	North Si	ide	103	East Side	9	84	South Si	de	121	West Side		73
 14:45		82	14	24	65	20		66	16	6			3
		6	0	0	3	0	2	4	1	1	3	0	1
	BUSES	0	0	0	3	0	0	0	0	0	4	0	0
		-	8	(0)	-	5	(0)	-	2	(0)	7	(0)	-
	PEDS	North Si	ide	104	East Side		71	South Si	de	132	West Side	(0)	78
 15:00				18		10		74	10	12			
15.00	CARS	2	1	1	3	2	20	2	0	0	2	0	-
	DUALS	2	0	0	1	2 0	2	2	0	0	5	0	0
		0	11	(0)	-	7	(0)	0	5	(0)	5	(0)	0
	PEDS	North Si	ide	(0) 98	East Side	, Э	(0) 68	South Si	de	115	West Side	(0)	87
						·							
16:15	CARS	90	13	27	90	18	17	73	22	6	65	8	6
	DUALS	1	0	1	2	1	1	1	0	0	2	0	0
	BUSES	0	0	1	3	0	0	1	0	0	7	0	0
	BIKE (OTHER)	8		(0)		16	(0)		4	(0)	8	(0)	
	PEDS	North Si	ide	95	East Side	) ·	70	South Si	de	114	West Side		70
16:30	CARS	79	11	17	82	11	21	79	13	14	66	9	7
	DUALS	0	0	0	6	0	0	3	0	0	0	0	0
	BUSES	0	0	0	3	0	0	1	0	0	4	0	1
	BIKE (OTHER)		3	(0)		7	(0)		3	(0)	9	(0)	
	PEDS	North Si	ide	97	East Side	) 	67	South Si	de	108	West Side		51
16:45	CARS	71	14	16	101	19	23	80	18	22	63	7	2
	DUALS	2	0	0	2	0	0	1	0	0	0	1	0
	BUSES	0	0	3	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		13	(0)		12	(0)		6	(0)	9	(0)	
	PEDS	North Si	ide	98	East Side	)	79	South Si	de	99	West Side		78
17:00	CARS	74	8	9	111	13	28	67	19	13	56	7	7
	DUALS	2	0	0	2	0	0	2	0	1	2	0	0
	BUSES	1	0	2	3	0	0	0	0	0	7	0	0
	BIKE (OTHER)		10	(0)		11	(0)		3	(0)	9	(0)	
	PEDS	North Si	ide	99	East Side	Э	72	South Si	de	128	West Side		61



# Intersection Detailed 15 Minutes Movement Report

### CHURCH ST AT QUEEN ST (PX 19)

**Routine Hours** 

Period		Thru			LAO	ND DI	5001	I H BOL	JND	WEST BOUND			
			Right	Left	Thru	Right	Left	Thru	Right	Left	Thru R	ight Le	əft
17:15	CARS	102	15	18	111	9	14	93	18	14	72	11	3
	DUALS	0	0	0	4	0	1	0	1	0	1	0	0
	BUSES	0	0	1	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		16	(0)		10	(0)		5	(0)	5	(0)	
	PEDS	North Si	ide	107	East Side		84	South Sic	le	173	West Side		74
17:30	CARS	80	19	19	143	10	20	63	8	12	76	8	7
	DUALS	1	0	0	0	1	0	1	0	0	0	0	2
	BUSES	0	0	0	2	0	0	0	0	0	3	0	0
	BIKE (OTHER)		13	(0)		13	(0)		7	(0)	4	(0)	
	PEDS	North Si	ide	97	East Side		103	South Sic	le	152	West Side		86
17:45	CARS	89	21	14	101	9	5	79	11	14	71	8	8
	DUALS	0	0	0	2	1	0	0	0	0	2	0	0
	BUSES	1	1	1	3	0	0	0	0	0	5	0	0
	BIKE (OTHER)		10	(0)		14	(0)		3	(0)	5	(0)	
	PEDS	North Si	ide	107	East Side		80	South Sic	le	149	West Side		74
18:00	CARS	82	20	24	150	17	20	71	14	20	83	12	10
	DUALS	1	0	0	4	0	0	1	0	0	1	0	0
	BUSES	0	0	1	3	0	0	0	0	0	6	0	1
	BIKE (OTHER)		13	(0)		0	(0)		4	(0)	1	(0)	
	PEDS	North Si	ide	78	East Side		106	South Sic	le	112	West Side		59



#### **CHURCH ST AT RICHMOND ST (PX 18)**

Survey Date: Nov-08-2016 (Tuesday)

Survey T	vpe: Routine H	lours										
Time Deried		NOR	TH BO	UND	EAS		ND	SOUT	H BOU	JND	WEST	
Period		Inru	Right	Lett	Inru	Right	Len	Inru	Right	Lett	Inru	Right Left
07:45	CARS	60	0	5	0	0	0	81	9	0	102	14
	DUALS	3	0	1	0	0	0	7	0	0	4	0
	BUSES	1	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		6	(0)		0	(0)		5	(0)	17	(0)
	PEDS	North Side		25	East Side 40		South Side		24	West Side		
08:00	CARS	78	0	6	0	0	0	89	14	0	101	33
	DUALS	4	0	1	0	0	0	3	3	0	3	0
	BUSES	2	0	1	0	0	0	0	0	0	0	1
	BIKE (OTHER)		6	(0)		0	(0)		10	(0)	30	(0)
	PEDS	North Si	de	35	East Side		60	South Sid	le	20	West Side	
08:15	CARS	78	0	4	0	0	0	83	11	0	99	35
	DUALS	5	0	0	0	0	0	7	1	0	3	1
	BUSES	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	37	(0)
	PEDS	North Si	de	36	East Side		69	South Sid	le	57	West Side	
08:30												
	CARS	65	0	1	0	0	0	91	14	0	95	35
	DUALS	5	0	0	0	0	0	5	1	0	3	0
	BUSES	0	0	0	0	0	0	0	1	0	0	0
	BIKE (OTHER)		8	(0)		0	(0)		8	(0)	68	(0)
	PEDS	North Side		48	East Side			South Sid	le	35	West Side	
08:45	CARS	70	0	5	0	0	0	94	11	0	76	27
	DUALS	2	0	0	0	0	0	5	1	0	2	1
	BUSES	2	0	1	0	0	0	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		16	(0)	78	(0)
	PEDS	North Si	de	45	East Side		104	South Sid	le	47	West Side	
09:00	CARS	76	0	5	0	0	0	89	12	0	96	26
	DUALS	2	0	0	0	0	0	1	1	0	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		12	(0)		0	(0)		15	(0)	78	(0)
	PEDS	North Si	de	46	East Side		93	South Sid	e	62	West Side	
09:15	CARS	78	0	9	0	0	0	75	10	0	77	19
	DUALS	5	0	1	0	0	0	1	1	0	8	0
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		15	(0)	69	(0)
	PEDS	North Si	de	61	East Side		88	South Sid	le	49	West Side	



#### **CHURCH ST AT RICHMOND ST (PX 18)**

Survey Date: Nov-08-2016 (Tuesday)

Survey Type: Routine Hours									, ,	<i>,</i> ,			
Time Deried		NORTH BOUND			EAST BOUND			SOUT	TH BOL	JND	WEST BOUND		
Feriou		Tiru	Right	Leit	IIIIu	Right	Leit	mu	Right	Leit	iniu i		
09:30	CARS	80	0	5	0	0	0	81	11	0	65	18	
	DUALS	3	0	2	0	0	0	3	1	0	3	0	
	BUSES	0	0	0	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		7	(0)		0	(0)		11	(0)	29	(0)	
	PEDS	North Side 30		30	East Side 79		South Side		51	West Side			
10:15	CARS	89	0	10	0	0	0	71	1	0	87	21	
	DUALS	3	0	0	0	0	0	7	0	0	9	3	
	BUSES	0	0	0	0	0	0	1	0	0	0	0	
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	13	(0)	
	PEDS	North Sid	le	27	East Side		49	South Sid	le	20	West Side		
10:30	CARS	64	0	8	0	0	0	58	14	0	78	24	
	DUALS	3	0	0	0	0	0	4	2	0	7	1	
	BUSES	0	0	0	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		5	(0)		0	(0)		3	(0)	16	(0)	
	PEDS	North Sid	le	20	East Side		41	South Sid	le	25	West Side		
10:45		63	0		0	0	0	82	9	0			
		2	0	1	0	0	0	5	1	0	7	1	
	DURES	-	0	0	0	0	0	0	0	0		0	
		0	2	(0)	Ū	0	(0)	0	2	(0)	12	(0)	
	PEDS	North Sid	le	29	East Side	Ū	39	South Sid	le	12	West Side	(0)	
					·								
11:00	CARS	77	0	12	0	0	0	52	13	0	74	20	
	DUALS	4	0	1	0	0	0	5	0	0	4	4	
	BUSES	0	0	0	0	0	0	1	0	0	0	0	
	BIKE (OTHER)		6	(0)		0	(0)		2	(0)	13	(0)	
	PEDS	North Sid	le	26	East Side		55	South Sid	le	23	West Side		
11:15	CARS	69	0	8	0	0	0	65	10	0	83	28	
	DUALS	3	0	0	0	0	0	8	1	0	3	3	
	BUSES	0	0	0	0	0	0	0	0	0	0	0	
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	10	(0)	
	PEDS	North Sid	le	32	East Side		62	South Sid	le	18	West Side		
11:30	CARS	85	0	10	0	0	0	80	7	0	62	24	
	DUALS	4	0	0	0	0	0	5	0	0	5	2	
	BUSES	1	0	0	0	0	0	0	0	0	1	0	
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	15	(0)	
	PEDS	North Sid	le	35	East Side		70	South Sid	le	20	West Side	. ,	


### 

PEDS

00 0040 (T day)

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Survey Ty	ype: Routine H	ST (PX 18) lours						Surve	y Date	: Nov-	08-2016 (lue	sday)
Time Period		NOR1 Thru	TH BOL Right	JND Left	EAST Thru I	F BOUN Right	ND Left	SOUTI Thru F	H BOU Right	IND Left	WEST Thru R	BOUND Right Left
11:45	CARS	74	0	6	0	0	0	71	9	0	70	22
	DUALS	4	0	1	0	0	0	7	1	0	4	1
	BUSES	0	0	0	0	0	0	1	0	0	0	1
	BIKE (OTHER)		7	(0)		0	(0)		3	(0)	14	(0)
	PEDS	North Sid	de	40	East Side		58	South Side	) 	26	West Side	
12:00	CARS	79	0	9	0	0	0	66	12	0	76	31
	DUALS	1	0	0	0	0	0	5	2	0	4	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	15	(0)
	PEDS	North Sid	de	31	East Side		63	South Side	) 	39	West Side	
13:15	CARS	56	0	10	0	0	0	56	7	0	94	25
	DUALS	4	0	1	0	0	0	3	0	0	0	4
	BUSES	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		12	(0)		0	(0)		9	(0)	13	(0)
	PEDS	North Sid	de	58	East Side		96	South Side	•	47	West Side	
13:30	CARS	66	0	7	0	0	0	88	13	0	53	26
	DUALS	2	0	0	0	0	0	4	0	0	3	3
	BUSES	0	0	0	0	0	0	1	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		7	(0)	17	(0)
	PEDS	North Sid	de	40	East Side		102	South Side	) 	70	West Side	
13:45	CARS	72	0	10	0	0	0	62	10	0	75	19
	DUALS	3	0	2	0	0	0	5	2	0	4	2
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		5	(0)	4	(0)
	PEDS	North Sid	de	48	East Side		112	South Side	)	57	West Side	
14:00	CARS	80	0	6	0	0	0	75	7	0	69	27
	DUALS	2	0	0	0	0	0	4	0	0	4	1
	BUSES	0	0	0	0	0	0	1	0	0	0	0
	BIKE (OTHER)		9	(0)		0	(0)		8	(0)	10	(0)
	PEDS	North Sid	de	52	East Side		120	South Side	ə	63	West Side	
14:15	CARS	75	0	5	0	0	0	82	9	0	62	30
	DUALS	3	0	0	0	0	0	8	0	0	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		10	(0)		0	(0)		10	(0)	12	(0)

West Side

East Side

South Side

North Side



#### CHURCH ST AT RICHMOND ST (PX 18)

Survey Date: Nov-08-2016 (Tuesday)

CHOILCH	STAT NOTWORD	51 (FX 10)						Survey	Date	: 1100-	00-2010 (1065	uay)
Survey Ty	ype: Routine H	lours										
Time		NORT	н вог	JND	EAST	BOU	ND	SOUTH	BOU	ND	WEST	BOUND
Period		Thru	Right	Left	Thru F	Right	Left	Thru Ri	ght	Left	Thru Ri	ght Left
14:30	CARS	69	0	2	0	0	0	76	9	0	55	34
	DUALS	4	0	0	0	0	0	9	1	0	4	1
	BUSES	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		9	(0)		0	(0)		0	(0)	7	(0)
	PEDS	North Sic	le	41	East Side		106	South Side		33	West Side	
14:45	CARS	63	0	9	0	0	0	78	9	0	51	51
	DUALS	4	0	1	0	0	0	4	2	0	2	2
	BUSES	0	0	0	0	0	0	0	0	0	1	0
	BIKE (OTHER)		6	(0)		0	(0)		1	(0)	7	(0)
	PEDS	North Sic	le	52	East Side		98	South Side		41	West Side	
15:00	CARS	71	0	5	0	0	0	86	8	0	46	32
	DUALS	5	0	0	0	0	0	2	0	0	4	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		12	(0)		0	(0)		5	(0)	6	(0)
	PEDS	North Sic	le	35	East Side		75	South Side		33	West Side	
16:15		84	0	10	0	0	0	82	6	0	73	38
		4	0	0	0	0	0	5	0	0	3	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0
			6	(0)	0	0	(0)	, i	3	(0)	12	(0)
	PEDS	North Sid	le	29	East Side	Ū	65	South Side	Ũ	20	West Side	(0)
16:30	CARS	73	0	6	0	0	0	80	5	0	65	33
	DUALS	1	0	0	0	0	0	1	0	0	2	1
	BUSES	0	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		7	(0)		0	(0)		2	(0)	6	(0)
	PEDS	North Sid	le	40	East Side		60	South Side		41	West Side	
16:45	CARS	71	0	9	0	0	0	96	6	0	66	22
	DUALS	2	0	1	0	0	0	2	0	0	2	1
	BUSES	2	0	0	0	0	0	1	0	0	0	2
	BIKE (OTHER)		15	(0)		0	(0)		4	(0)	7	(0)
	PEDS	North Sid	le	39	East Side		91	South Side		44	West Side	
17:00	CARS	78	0	6	0	0	0	93	4	0	72	26
	DUALS	1	0	0	0	0	0	3	0	0	4	1
	BUSES	0	0	0	0	0	0	0	0	0	0	2
	BIKE (OTHER)		10	(0)		0	(0)		3	(0)	13	(0)
	PEDS	North Sid	le	44	East Side		91	South Side		61	West Side	. /



Survey Type:

### Intersection Detailed 15 Minutes Movement Report

#### **CHURCH ST AT RICHMOND ST (PX 18)**

**Routine Hours** 

Survey Date: Nov-08-2016 (Tuesday)

Time Period		NOF		UND	EAS	т вои	ND	SOUTI	нво	JND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru F	light Le	əft
17:15	CARS	93	0	9	0	0	0	92	1	0	87	29	34
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		12	(0)		0	(0)		6	(0)	18	(0)	
	PEDS	North S	ide	47	East Side		95	South Side	)	67	West Side		68
17:30	CARS	81	0	4	0	0	0	70	6	0	70	36	56
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		13	(0)		0	(0)		3	(0)	26	(0)	
	PEDS	North S	ide	56	East Side		125	South Side	)	52	West Side		77
17:45	CARS	84	0	4	0	0	0	92	3	0	43	38	37
	DUALS	0	0	0	0	0	0	0	1	0	2	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		13	(0)		0	(0)		2	(0)	12	(0)	
	PEDS	North S	ide	63	East Side		110	South Side	)	51	West Side		76
18:00	CARS	76	0	7	0	0	0	76	7	0	68	41	42
	DUALS	1	0	0	0	0	0	3	0	0	0	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	1	0
	BIKE (OTHER)		11	(0)		0	(0)		6	(0)	19	(0)	
	PEDS	North S	ide	55	East Side		104	South Side	)	39	West Side		57



### Turning Movement Count Summary Report

															Su	rvey Date	e:	2017-N	lov-02		(Thurs	day)			
ALDWICH		AVENUE													Su	rvey Typ	e:	Routin	e Hours						
Time	Vehicle		NO	RTHBO				EA	STBO				SOL	ітнво				w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	I	Peds	Bike	Other
	CAR	562	0	500	41	541	66	0	0	0	0	479	25	466	0	491	0	13	0	62	75	N	38	4	0
08:15-09:15	TRK	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	1	S	1	1	0
AM PEAK	BUS	38	0	37	2	39	4	0	0	0	0	30	2	30	0	32	0	0	0	1	1	Е	38	4	0
		·																				_ W	C	0	0
	TOTAL:	601	0	537	43	580	70	0	0	0	0	510	27	497	0	524	0	13	0	64	77				
16:45-17:45	CAR	585	0	574	25	599	46	0	0	0	0	403	21	395	0	416	0	8	0	11	19	Ν	34	0	0
	TRK	7	0	7	0	7	0	0	0	0	0	2	0	2	0	2	0	0	0	0	0	S	6	1	0
PM PEAK	BUS	36	0	36	0	36	0	0	0	0	0	24	0	24	0	24	0	0	0	0	0	E	80	1	0
		·											· ·			·									
	TOTAL:	628	0	617	25	642	46	0	0	0	0	429	21	421	0	442	0	8	0	11	19				
OFF HR	CAR	486	0	463	23	486	44	0	0	0	0	385	21	375	0	396	0	10	0	23	33	Ν	30	5	0
AVG	TRK	5	0	5	0	5	0	0	0	0	0	2	0	2	0	2	0	0	0	0	0	S	6	4	0
	BUS	23	0	23	0	23	0	0	0	0	0	22	0	22	0	22	0	0	0	0	0	E	62	2	0
													· ·												
	TOTAL:	514	0	491	23	514	44	0	0	0	0	409	21	399	0	420	0	10	0	23	33				
07:30-09:30	CAR	1,034	0	939	56	995	94	0	0	0	0	889	38	865	0	903	0	24	0	95	119	Ν	55	12	0
	TRK	5	0	2	0	2	0	0	0	0	0	4	0	4	0	4	0	0	0	3	3	S	1	3	0
2 HR AM	BUS	79	0	78	2	80	4	0	0	0	0	62	2	62	0	64	0	0	0	1	1	E	82	9	0
													· ·										(	0	0
	TOTAL:	1,118	0	1,019	58	1,077	98	0	0	0	0	955	40	931	0	971	0	24	0	99	123				
16.00 19.00	CAR	1,139	0	1,114	47	1,161	89	0	0	0	0	788	42	775	0	817	0	13	0	25	38	Ν	59	2	0
18.00-18.00	TRK	15	0	15	0	15	0	0	0	0	0	4	0	4	0	4	0	0	0	0	0	S	11	1	0
2 HR PM	BUS	71	0	71	2	73	2	0	0	0	0	45	0	45	0	45	0	0	0	0	0	Е	152	1	0
																						W	C	0	0
	TOTAL:	1,225	0	1,200	49	1,249	91	0	0	0	0	837	42	824	0	866	0	13	0	25	38				
07:30-18:00	CAR	4,115	0	3,905	195	4,100	359	0	0	0	0	3,215	164	3,139	0	3,303	0	76	0	210	286	Ν	234	32	0
07.30-10.00	TRK	42	0	38	0	38	1	0	0	0	0	16	1	16	0	17	0	0	0	4	4	S	36	18	0
8 HR SUM	BUS	240	0	239	5	244	7	0	0	0	0	193	2	193	0	195	0	0	0	1	1	Е	480	17	0
																						W	C	0	0
	TOTAL:	4,397	0	4,182	200	4,382	367	0	0	0	0	3,424	167	3,348	0	3,515	0	76	0	215	291				

Total 8 Hour Vehicle Volume: 8,188

Total 8 Hour Bicycle Volume: 67

Total 8 Hour Intersection Volume: 8,255



### Turning Movement Count Summary Report

PROWNING															Su	rvey Date	e:	2017-N	/lar-22		(Wedn	esda	y)		
BROWNING	AVEALPAP	EAVE													Su	rvey Typ	e:	Routin	e Hours	;					
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOL	ітнво				w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other
	CAR	435	0	369	0	369	0	66	0	29	95	487	0	458	0	458	0	0	0	0	0	Ν	36	6 10	0
08:15-09:15	TRK	10	0	10	0	10	0	0	0	0	0	15	0	15	0	15	0	0	0	0	0	s	3	6	0
AM PEAK	BUS	30	0	29	0	29	0	1	0	0	1	28	0	28	0	28	0	0	0	0	0	E	(		0
	TOTAL:	475	0	408	0	408	0	67	0	29	96	530	0	501	0	501	0	0	0	0	0				
16:30-17:30	CAR	555	0	465	0	465	0	90	0	44	134	413	0	369	0	369	0	0	0	0	0	N	27	77	0
	TRK	8	0	8	0	8	0	0	0	0	0	5	0	5	0	5	0	0	0	0	0	S	6	§ 10	0
PM PEAK	BUS	26	0	26	0	26	0	0	0	0	0	28	0	28	0	28	0	0	0	0	0	E W	45	5 0	0
	TOTAL:	589	0	499	0	499	 0	90	0	44	134	446	0	402		402	0	0	0	0	0				
	CAR	401	0	347	0	347	0	54	0	26	80	333	0	307	0	307	0	0	0	0	0	N	3	9	0
OFF HR	TRK	15	0	13	0	13	0	2	0	1	3	13	0	12	0	12	0	0	0	0	0	s	ç	9 5	0
AVG	BUS	22	0	21	0	21	0	1	0	0	1	21	0	21	0	21	0	0	0	0	0	Е	(	) 0	0
																						W	38	51	0
	TOTAL:	438	0	381	0	381	0	57	0	27	84	367	0	340	0	340	0	0	0	0	0				
	CAR	799	0	689	0	689	0	110	0	45	155	885	0	840	0	840	0	0	0	0	0	Ν	56	6 17	0
07:30-09:30	TRK	21	0	20	0	20	0	1	0	0	1	36	0	36	0	36	0	0	0	0	0	S	6	8	0
2 HR AM	BUS	62	0	60	0	60	0	2	0	1	3	60	0	59	0	59	0	0	0	0	0	Е	(	) 0	0
																						W	73	3 1 1	0
	TOTAL:	882	0	769	0	769	0	113	0	46	159	981	0	935	0	935	0	0	0	0	0				
40.00 40.00	CAR	1,045	0	878	0	878	0	167	0	66	233	779	0	713	0	713	0	0	0	0	0	Ν	56	6 13	0
16:00-18:00	TRK	17	0	17	0	17	0	0	0	0	0	11	0	11	0	11	0	0	0	0	0	S	12	2 17	0
2 HR PM	BUS	52	0	52	0	52	0	0	0	0	0	53	0	53	0	53	0	0	0	0	0	Е	(	) (	0
																			:				6/		0
	TOTAL:	1,114	0	947	0	947	0	167	0	66	233	843	0	777	0	777	0	0	0	0	0				
07:30-18:00	CAR	3,447	0	2,954	0	2,954	0	493	0	213	706	2,993	0	2,780	0	2,780	0	0	0	0	0	Ν	234	64	0
	TRK	95	0	87	0	87	0	8	0	4	12	99	0	95	0	95	0	0	0	0	0	S	53	3 44	0
8 HR SUM	BUS	199	0	195	0	195	0	4	0	1	5	195	0	194	0	194	0	0	0	0	0	E	(	) 0	0
																								, 5 	0
	TOTAL:	3,741	0	3,236	0	3,236	0	505	0	218	723	3,287	0	3,069	0	3,069	0	0	0	0	0				

Total 8 Hour Vehicle Volume: 7,028

Total 8 Hour Bicycle Volume: 113

Total 8 Hour Intersection Volume: 7,141



### Turning Movement Count Summary Report

COSBURN			(933												Su	rvey Date	<b>e</b> :	2017-J	an-09		(Monda	ay)			
COODORN'			505)												Su	rvey Typ	e:	Routine	e Hours						
Time	Vehicle		NO	RTHBO	UND			EA	STBO	JND			SOL	лтнвоі	UND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	l	Peds	Bike	Other
	CAR	451	8	362	70	440	208	49	115	21	185	543	23	403	36	462	248	119	204	40	363	N	195	2	0
08:00-09:00	TRK	6	1	6	0	7	1	0	1	1	2	14	0	10	0	10	4	3	3	0	6	S	169	5	0
AM PEAK	BUS	33	0	33	2	35	16	0	13	0	13	30	1	29	0	30	13	1	13	0	14	E W	155 231	4	0
	TOTAL:	490		401	72	482	225	49	129	22	200	587	24	442	36	502	265	123	220	40	383				
	CAR	521	21	418	102	541	385	66	244	38	348	580	39	455	29	523	141	87	91	37	215	N	276	6	0
17:00-18:00	TRK	2	0	2	1	3	2	0	1	0	1	1	0	1	0	1	1	0	1	0	1	s	279	2	0
PM PEAK	BUS	26	0	26	0	26	9	0	9	0	9	27	0	27	0	27	9	0	9	0	9	E	209	2	0
																						W	396	2	0
	TOTAL:	549	21	446	103	570	396	66	254	38	358	608	39	483	29	551	151	87	101	37	225				
	CAR	396	12	337	72	421	192	32	98	27	157	446	22	360	25	407	105	59	68	27	154	N	148	2	0
OFF HR AVG	TRK	10	1	9	1	11	4	1	1	0	2	9	2	8	1	11	5	1	3	0	4	s	111	1	0
Alt	BUS	19	0	19	0	19	5	0	5	0	5	20	0	20	0	20	6	0	6	0	6	Е	127	2	0
																						W	223	0	0
	TOTAL:	425	13	365	73	451	201	33	104	27	164	475	24	388	26	438	116	60	77	27	164				
07-00-00-00	CAR	849	18	691	143	852	383	88	197	35	320	1,002	43	755	60	858	452	212	374	70	656	Ν	341	5	0
07:30-09:30	TRK	12	1	10	2	13	5	2	3	1	6	19	0	15	0	15	5	3	4	0	7	S	250	8	0
2 HR AM	BUS	65	0	65	2	67	26	0	23	0	23	63	1	61	0	62	23	2	23	0	25	Е	267	9	0
																						W	356	5	0
	TOTAL:	926	19	766	147	932	414	90	223	36	349	1,084	44	831	60	935	480	217	401	70	688				
	CAR	1,054	35	837	183	1,055	750	131	490	60	681	1,106	77	888	69	1,034	290	158	186	86	430	Ν	518	8	0
16:00-18:00	TRK	14	0	14	1	15	7	0	6	1	7	8	0	6	0	6	2	1	2	0	3	S	474	2	0
2 HR PM	BUS	50	0	50	1	51	18	0	17	0	17	52	0	52	0	52	18	0	18	0	18	Е	429	6	0
																						W	788	4	0
	TOTAL:	1,118	35	901	185	1,121	775	131	513	61	705	1,166	77	946	69	1,092	310	159	206	86	451				
	CAR	3,487	102	2,874	614	3,590	1,902	348	1,079	202	1,629	3,891	209	3,083	228	3,520	1,163	606	833	265	1,704	Ν	1,449	21	0
07:30-18:00	0,						05	4	14	3	21	62	6	52	3	61	24	7	16	1	24	S	1.168	13	0
07:30-18:00	TRK	66	5	61	5	71	25	-															.,		
07:30-18:00 8 HR SUM	TRK BUS	66 192	5 0	61 192	5 3	71 195	25 65	0	61	0	61	194	1	192	0	193	63	2	63	0	65	E	1,205	21	0
07:30-18:00 8 HR SUM	TRK BUS	66 192	5 0	61 192	5 3	71 195	65 	0	61	0	61	194	1	192	0	193	63	2	63	0	65	E	1,205 2,036	21 10	0 0

Total 8 Hour Vehicle Volume: 11,134

Total 8 Hour Bicycle Volume: 65

Total 8 Hour Intersection Volume: 11,199



### Turning Movement Count Summary Report

	RD AT GATE	<b>ω</b> δΥ ΒΙ V	0580	VFRI F		) (PX 620	וו								Su	rvey Date	<b>):</b>	2020-F	eb-13		(Thurs	day)			
Time Vehicle							-)								Su	rvey Typ	e:	Pedest	rian Hou	urs					
Time	Vehicle		NO	RTHBC	DUND			EA	STBO	JND			SOL	ІТНВОІ	UND			W	ESTBO	JND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other
	CAR	1,303	156	666	94	916	313	456	181	200	837	1,306	38	831	416	1,285	881	275	309	181	765	N	261	0	0
08:15-09:15	TRK	46	17	14	3	34	15	30	7	19	56	99	5	66	35	106	74	14	22	2	38	s	318	0	0
AM PEAK	BUS	20	3	1	4	8	23	19	19	5	43	13	0	5	18	23	43	3	22	0	25	Е	277	0	0
																							285	0	0
	TOTAL:	1,369	176	681	101	958	351	505	207	224	936	1,418	43	902	469	1,414	998	292	353	183	828				
47.00 40.00	CAR	1,316	173	848	236	1,257	827	424	533	266	1,223	1,142	58	752	552	1,362	989	124	264	44	432	Ν	79	0	0
17:00-18:00	TRK	34	8	25	2	35	5	8	2	5	15	33	1	27	14	42	26	1	4	1	6	S	63	0	0
PM PEAK	BUS	17	0	1	0	1	14	15	14	1	30	1	0	0	17	17	28	0	11	1	12	Е	143	0	0
																						W	40	1	0
	TOTAL:	1,367	181	874	238	1,293	846	447	549	272	1,268	1,176	59	779	583	1,421	1,043	125	279	46	450				
055.05	CAR	1,554	174	1,202	88	1,464	371	307	246	194	747	781	37	473	410	920	762	114	178	45	337	Ν	174	0	0
AVG	TRK	51	25	33	4	62	12	17	4	21	42	72	4	44	37	85	71	7	9	1	17	s	275	0	0
	BUS	13	2	3	0	5	13	10	12	1	23	5	1	3	14	18	27	1	11	0	12	Е	175	0	0
																						W	71	0	0
	TOTAL:	1,618	201	1,238	92	1,531	396	334	262	216	812	858	42	520	461	1,023	860	122	198	46	366				
07.20 00.20	CAR	2,264	271	1,198	166	1,635	559	833	330	382	1,545	2,528	63	1,582	783	2,428	1,605	564	551	233	1,348	Ν	438	2	0
07:30-09:30	TRK	88	28	22	6	56	30	61	18	35	114	215	6	151	82	239	141	29	31	5	65	S	595	0	0
2 HR AM	BUS	51	7	4	7	18	59	45	50	15	110	33	2	14	52	68	102	4	43	2	49	Е	453	0	0
																						W	454	0	0
	TOTAL:	2,403	306	1,224	179	1,709	648	939	398	432	1,769	2,776	71	1,747	917	2,735	1,848	597	625	240	1,462				
40.00.40.00	CAR	2,604	328	1,643	525	2,496	1,668	873	1,041	499	2,413	2,123	102	1,380	1,081	2,563	1,893	244	484	88	816	Ν	176	0	0
16:00-18:00	TRK	75	18	51	13	82	28	22	13	11	46	64	2	51	39	92	64	2	7	2	11	S	141	0	0
2 HR PM	BUS	43	2	3	3	8	38	39	34	4	77	7	1	3	39	43	64	0	23	1	24	Е	298	0	0
																						W	250	1	0
	TOTAL:	2,722	348	1,697	541	2,586	1,734	934	1,088	514	2,536	2,194	105	1,434	1,159	2,698	2,021	246	514	91	851				
07.20 40.00	CAR	11,389	1,331	7,830	1,074	10,235	3,835	3,042	2,430	1,714	7,186	7,974	331	4,965	3,607	8,903	6,744	1,295	1,806	517	3,618	Ν	1,337	2	0
07:30-10:00	TRK	383	149	215	38	402	111	157	49	132	338	578	24	386	277	687	503	60	77	11	148	S	1,877	0	0
8 HR SUM	BUS	152	18	18	11	47	156	130	137	26	293	63	8	30	155	193	284	7	111	4	122	Е	1,496	0	0
	<u>8 HK SUM</u> 003																					W	1,008	1	0
	TOTAL:	11,924	1,498	8,063	1,123	10,684	4,102	3,329	2,616	1,872	7,817	8,615	363	5,381	4,039	9,783	7,531	1,362	1,994	532	3,888				

Total 8 Hour Vehicle Volume: 32,172

Total 8 Hour Bicycle Volume: 3

Total 8 Hour Intersection Volume: 32,175



### Turning Movement Count Summary Report

				( 1389)											Su	rvey Date	e:	2019-N	lay-23		(Thurs	day)				
DON MILLO			<b>1</b> 0 (1 )	(1000)											Su	rvey Typ	e:	Routine	e Hours							
Time	Vehicle		NO	RTHBO				EA	STBO	UND			SOL	ітнво	UND			w	ESTBO	UND						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other	
	CAR	1,404	14	1,280	80	1,374	215	1	3	4	8	1,464	132	1,325	11	1,468	34	135	9	123	267	Ν	70	) 5	0	- ر
07:45-08:45	TRK	67	0	54	8	62	20	2	0	0	2	94	12	78	3	93	4	16	1	11	28	s	26	6 4	0	)
AM PEAK	BUS	23	0	21	2	23	3	0	0	0	0	25	1	24	0	25	0	1	0	2	3	Е	61	0	0	)
																						W	25	0	0	J
	TOTAL:	1,494	14	1,355	90	1,459	238	3	3	4	10	1,583	145	1,427	14	1,586	38	152	10	136	298					
47.00 48.00	CAR	1,465	6	1,335	99	1,440	260	3	6	14	23	1,329	155	1,159	12	1,326	23	156	5	127	288	Ν	58	5	0	)
17:00-16:00	TRK	65	0	62	2	64	4	0	0	0	0	43	2	39	0	41	0	4	0	3	7	s	45	5 4	0	)
PM PEAK	BUS	24	0	23	0	23	1	0	0	0	0	21	1	21	0	22	0	0	0	1	1	Е	74	1	0	1
																						_ W	37	0	0	1
	TOTAL:	1,554	6	1,420	101	1,527	265	3	6	14	23	1,393	158	1,219	12	1,389	23	160	5	131	296					
	CAR	1,039	5	905	43	953	171	9	2	5	16	1,035	126	892	5	1,023	14	138	4	125	267	Ν	34	2	0	)
AVG	TRK	101	1	80	5	86	16	4	1	1	6	81	10	72	2	84	5	8	2	17	27	S	32	! 1	0	J
	BUS	17	2	13	0	15	0	3	0	3	6	19	0	15	3	18	6	1	1	1	3	Е	72	2 1	0	1
																						_ W	28	s 1 ·	0	1
	TOTAL:	1,157	8	998	48	1,054	187	16	3	9	28	1,135	136	979	10	1,125	25	147	7	143	297					
07.20 00.20	CAR	2,436	33	2,176	127	2,336	387	4	4	7	15	2,813	256	2,515	27	2,798	74	291	14	256	561	Ν	121	8	0	)
07.30-09.30	TRK	121	0	99	14	113	34	2	0	0	2	202	20	176	3	199	4	26	1	20	47	S	44	6	0	J
2 HR AM	BUS	44	0	40	2	42	4	0	0	0	0	49	2	48	0	50	0	1	0	4	5	Е	134	1	0	1
																						_ W	45	) 1 	0	1
	TOTAL:	2,601	33	2,315	143	2,491	425	6	4	7	17	3,064	278	2,739	30	3,047	78	318	15	280	613					
40.00 40.00	CAR	2,873	9	2,611	163	2,783	480	17	20	37	74	2,559	297	2,219	20	2,536	50	303	21	245	569	Ν	115	5 11	0	)
10:00-10:00	TRK	171	0	160	8	168	16	0	0	0	0	105	8	98	0	106	1	7	1	11	19	S	76	5 5	0	J
2 HR PM	BUS	48	0	47	0	47	3	0	0	0	0	40	3	40	0	43	1	0	1	1	2	Е	135	5 1	0	1
																						_ W	64	- 1 	0	1
	TOTAL:	3,092	9	2,818	171	2,998	499	17	20	37	74	2,704	308	2,357	20	2,685	52	310	23	257	590					
07:30-18:00	CAR	9,462	63	8,407	462	8,932	1,553	56	33	64	153	9,511	1,058	8,302	65	9,425	178	1,145	50	999	2,194	Ν	371	28	0	)
07.30-18.00	TRK	693	3	578	41	622	114	17	5	2	24	628	68	563	12	643	23	63	8	98	169	s	246	5 15	0	J
8 HR SUM	BUS	160	8	139	3	150	9	13	1	10	24	162	5	149	10	164	21	3	3	8	14	Е	555	5	0	1
																							221	6	0	ł
	TOTAL:	10,315	74	9,124	506	9,704	1,676	86	39	76	201	10,301	1,131	9,014	87	10,232	222	1,211	61	1,105	2,377					_

Total 8 Hour Vehicle Volume: 22,514

Total 8 Hour Bicycle Volume: 54

Total 8 Hour Intersection Volume: 22,568



### **Turning Movement Count Summary Report**

DONLANDS	AVE AT MILI		D & PA	PE AVE	(PX 642	2)									Su	rvey Dat	e:	2017-J	lan-10		(Tuesc	lay)				
					•										Su	rvey Typ	e:	Routin	e Hours	;						
Time	Vehicle		NC	RTHBO	UND			EA	STBO	UND			SOL	тнво	UND			w	еѕтво	UND						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota		Peds	Bik	ie O	ther
	CAR	1,345	0	435	7	442	432	0	0	0	0	386	425	386	0	811	0	0	0	910	910	Ν		0	4	0
08:00-09:00	TRK	13	0	5	0	5	4	0	0	0	0	10	4	10	0	14	0	0	0	8	8	s		3	7	0
AM PEAK	BUS	56	0	49	0	49	8	0	0	0	0	45	8	45	0	53	0	0	0	7	7	Е	1	5 1	15	0
																						W		0	0	0
	TOTAL:	1,414	0	489	7	496	444	0	0	0	0	441	437	441	0	878	C	0	0	925	925					
40.45 47.45	CAR	995	0	444	15	459	861	0	0	0	0	504	846	504	0	1,350	0	0	0	551	551	Ν		0 1	14	0
16:45-17:45	TRK	4	0	2	0	2	4	0	0	0	0	3	4	3	0	7	0	0	0	2	2	S		2	1	0
PM PEAK	BUS	40	0	35	0	35	6	0	0	0	0	36	6	36	0	42	0	0	0	5	5	Е	1	3	1	0
																						W		0	0	0
	TOTAL:	1,039	0	481	15	496	871	0	0	0	0	543	856	543	0	1,399	C	0	0	558	558					
	CAR	789	0	347	16	363	379	0	0	0	0	315	363	315	0	678	0	0	0	442	442	Ν		0	3	0
OFF HR AVG	TRK	23	0	10	1	11	11	0	0	0	0	9	10	9	0	19	0	0	0	13	13	S		1	1	0
	BUS	32	0	28	0	28	5	0	0	0	0	28	5	28	0	33	0	0	0	4	4	Е		4	1	0
																						W		0	0	0
	TOTAL:	844	0	385	17	402	395	0	0	0	0	352	378	352	0	730	C	0	0	459	459					
	CAR	2,455	0	794	15	809	825	0	0	0	0	691	810	691	0	1,501	0	0	0	1,661	1,661	Ν		0	8	0
07:30-09:30	TRK	26	0	13	0	13	11	0	0	0	0	14	11	14	0	25	0	0	0	13	13	S		8 1	11	0
2 HR AM	BUS	103	0	90	0	90	15	0	0	0	0	91	15	91	0	106	0	0	0	13	13	Е	2	0 2	20	0
																						W		0	0	0
	TOTAL:	2,584	0	897	15	912	851	0	0	0	0	796	836	796	0	1,632	C	0	0	1,687	1,687					
	CAR	2,019	0	943	27	970	1,632	0	0	0	0	928	1,605	928	0	2,533	0	0	0	1,076	1,076	Ν		0 2	27	0
16:00-18:00	TRK	19	0	12	0	12	8	0	0	0	0	7	8	7	0	15	0	0	0	7	7	S		9	2	0
2 HR PM	BUS	78	0	69	0	69	11	0	0	0	0	72	11	72	0	83	0	0	0	9	9	Е	2	2	2	0
																						W		0	0	0
	TOTAL:	2,116	0	1,024	27	1,051	1,651	0	0	0	0	1,007	1,624	1,007	0	2,631	C	0	0	1,092	1,092					
	CAR	7,627	0	3,124	105	3,229	3,973	0	0	0	0	2,879	3,868	2,879	0	6,747	0	0	0	4,503	4,503	Ν		0 4	47	0
07:30-18:00	TRK	133	0	63	3	66	63	0	0	0	0	58	60	58	0	118	0	0	0	70	70	S	2	2 '	18	0
8 HR SUM	BUS	307	0	270	1	271	45	0	0	0	0	275	44	275	0	319	0	0	0	37	37	Е	5	7 2	27	0
																						W		0	0	0
	TOTAL:	8,067	0	3,457	109	3,566	4,081	0	0	0	0	3,212	3,972	3,212	0	7,184	C	0	0	4,610	4,610					

Total 8 Hour Vehicle Volume: 15,360

Total 8 Hour Bicycle Volume: 92

Total 8 Hour Intersection Volume: 15,452



### Turning Movement Count Summary Report

			n												Su	rvey Date	e:	2017-Ja	an-12		(Thurs	day)			
TEOIDAVE		L (FX 200	')												Su	rvey Typ	e:	Routine	e Hours						
Time	Vehicle		NO	RTHBO	UND			ΕA	STBO				SOL	тнво				WE	ESTBO						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	l	Peds	Bike	Other
	CAR	451	14	395	17	426	43	23	10	10	43	498	16	473	22	511	64	15	28	33	76	N	60	6	0
08:15-09:15	TRK	10	0	9	0	9	0	0	0	0	0	10	0	10	2	12	2	0	0	1	1	S	59	7	0
AM PEAK	BUS	35	0	34	0	34	0	0	0	0	0	39	0	39	0	39	0	0	0	1	1	E W	61 55	0	0
	TOTAL:	496		438	17	469	43	23	 10	10	43	547	16	522	24	562	66	15	28	35					
	CAR	593	10	529	35	574	71	23	13	16	52	523	23	487	23	533	47	20	14	41	75	N	45	3	0
16:30-17:30	TRK	3	0	1	0	1	1	1	0	0	1	1	1	1	1	3	1	0	0	1	1	s	49	5	0
PM PEAK	BUS	38	1	38	0	39	0	0	0	0	0	28	0	28	0	28	1	0	0	0	0	E	142	0	0
																						W	110	0	0
	TOTAL:	634	11	568	35	614	72	24	13	16	53	552	24	516	24	564	49	20	14	42	76				
	CAR	408	9	366	32	407	64	10	5	5	20	420	27	397	14	438	28	18	5	32	55	N	46	2	0
OFF HR AVG	TRK	11	0	11	0	11	0	0	0	0	0	9	0	9	1	10	1	0	0	0	0	s	37	2	0
A <b>10</b>	BUS	20	0	20	0	20	0	0	0	0	0	22	0	22	0	22	0	0	0	0	0	Е	94	0	0
																						W	94	1	0
	TOTAL:	439	9	397	32	438	64	10	5	5	20	451	27	428	15	470	29	18	5	32	55				
	CAR	833	27	731	33	791	72	40	14	20	74	927	25	882	44	951	112	25	41	62	128	Ν	83	11	0
07:30-09:30	TRK	14	0	12	2	14	2	1	0	0	1	20	0	19	3	22	3	1	0	1	2	S	81	10	0
2 HR AM	BUS	72	0	70	0	70	0	1	0	2	3	74	0	72	0	72	0	0	0	1	1	Е	97	1	0
																						W	84	0	0
	TOTAL:	919	27	813	35	875	74	42	14	22	78	1,021	25	973	47	1,045	115	26	41	64	131				
	CAR	1,119	23	1,002	64	1,089	143	46	28	26	100	1,033	51	973	35	1,059	78	34	20	71	125	Ν	97	7	0
16:00-18:00	TRK	5	0	3	0	3	1	1	0	0	1	5	1	5	1	7	1	0	0	1	1	S	84	8	0
2 HR PM	BUS	63	1	62	1	64	1	1	0	0	1	55	0	55	0	55	1	0	0	0	0	Е	258	1	0
																						W	214	1	0
	TOTAL:	1,187	24	1,067	65	1,156	145	48	28	26	102	1,093	52	1,033	36	1,121	80	34	20	72	126				
07.30-18.00	CAR	3,578	86	3,195	224	3,505	470	124	61	64	249	3,640	185	3,444	135	3,764	302	132	81	259	472	N	364	24	0
07.30-18.00	TRK	66	1	60	3	64	5	3	0	1	4	63	2	61	6	69	8	1	1	3	5	S	314	26	0
8 HR SUM	BUS	216	1	213	1	215	1	2	0	2	4	216	0	214	0	214	1	0	0	1	1	E	729	2	0
		·																				W	674	3	0
	TOTAL:	3,860	88	3,468	228	3,784	476	129	61	67	257	3,919	187	3,719	141	4,047	311	133	82	263	478				

Total 8 Hour Vehicle Volume: 8,566

Total 8 Hour Bicycle Volume: 55

Total 8 Hour Intersection Volume: 8,621



### Turning Movement Count Summary Report

		VE													Su	rvey Date	e:	2017-N	/lar-20		(Monda	ay)				
TULIONA															Su	rvey Typ	e:	Routine	e Hours							
Time	Vehicle		NO	RTHRO				F4	STRO				SOL	ітнвоі				w	ESTRO							
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Oth	er
	CAR	399	51	390	0	441	0	9	0	5	14	475	0	470	57	527	108	0	0	0	0	N	;	8 11	I	0
08:00-09:00	TRK	22	0	22	0	22	0	0	0	0	0	8	0	8	0	8	0	0	0	0	0	S	1	ð 13	3	0
AM PEAK	BUS	34	0	34	0	34	0	0	0	0	0	23	0	23	0	23	0	0	0	0	0	E	( 21	) ( 9 (	) )	0
		455		446		497		9	0	5			 0	501	 57	558	108	0	· 0	0						-
	CAR	564	32	553	0	585	0	- 11	0	10	21	375	0	365	48	/13	80	0	0	0	0	N	1	2 (		
16:30-17:30	TRK	8	0	8	0	8	0	0	0	6	6	13	0	7	0-	7	0	0	0	0	0	S	3		)	0
PM PEAK	BUS	27	0	27	0	27	0	0	0	0	0	28	0	28	0	28	0	0	0	0	0	E		) ic	)	0
																						W	34	4 (	)	0
	TOTAL:	599	32	588	0	620	0	11	0	16	27	416	0	400	48	448	80	0	0	0	0					
	CAR	376	30	372	0	402	0	4	0	6	10	311	0	305	31	336	61	0	0	0	0	N	1	1 7		0
OFF HR AVG	TRK	14	0	14	0	14	0	0	0	0	0	13	0	13	1	14	1	0	0	0	0	s	24	4 4	ł	0
	BUS	21	0	21	0	21	0	0	0	0	0	20	0	20	0	20	0	0	0	0	0	Е	(	) с	)	0
																						W	3	50	)	0
	TOTAL:	411	30	407	0	437	0	4	0	6	10	344	0	338	32	370	62	0	0	0	0					
	CAR	739	89	722	0	811	0	17	0	13	30	832	0	819	87	906	176	0	0	0	0	Ν	14	4 22	2	0
07:30-09:30	TRK	31	0	31	0	31	0	0	0	2	2	22	0	20	0	20	0	0	0	0	0	s	3	1 24	ţ	0
2 HR AM	BUS	58	0	58	0	58	0	0	0	0	0	50	0	50	0	50	0	0	0	0	0	Е	(	) (	J	0
																						W	5	· C	·	0
	TOTAL:	828	89	811	0	900	0	17	0	15	32	904	0	889	87	976	176	0	0	0	0					
40.00.40.00	CAR	1,064	74	1,041	0	1,115	0	23	0	23	46	719	0	696	91	787	165	0	0	0	0	Ν	2	J 15	;	0
16:00-18:00	TRK	15	0	15	0	15	0	0	0	6	6	16	0	10	0	10	0	0	0	0	0	S	6	3 18	3	0
2 HR PM	BUS	53	0	53	0	53	0	0	0	0	0	53	0	53	0	53	0	0	0	0	0	E	7	) (	<i>i</i>	0
																										_
	TOTAL:	1,132	74	1,109	0	1,183	0	23	0	29	52	/88	0	759	91	850	165	0	0	0	0					
07:30-18:00	CAR	3,423	292	3,366	0	3,658	0	57	0	63	120	2,878	0	2,815	310	3,125	602	0	0	0	0	Ν	78	3 63 -		0
	TRK	106	1	106	0	107	0	0	0	8	8	96	0	88	2	90	3	0	0	0	0	S	19	558 0	1	0
8 HR SUM	BOS	200	1	200	U	201	0	0	0	0	0	187	0	187	U	187	1	0	0	0	0	E W	28	) С З (	)	0 0
		3,729	294	3,672	0	3,966	 0	57	 0	71	128	3,161	 0	3,090	312	3,402	606	0	0	0	0					-
		, -			-							,	-			,			-	-	-					_

Total 8 Hour Vehicle Volume: 7,496

Total 8 Hour Bicycle Volume: 121

Total 8 Hour Intersection Volume: 7,617



### Turning Movement Count Summary Report

															Su	rvey Date	e:	2019-J	un-19		(Wedn	esda	y)		
GAMIDLE A	VLAIFAFL/	-vL													Su	rvey Typ	e:	Pedest	rian Ho	urs					
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOL	ітнвоі	UND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	l	Peds	Bike	Other
00.45 00.45	CAR	458	34	389	16	439	38	21	8	34	63	395	14	345	23	382	71	16	14	48	78	Ν	13	10	0
08:15-09:15	TRK	3	0	3	0	3	0	0	0	0	0	3	0	3	0	3	0	0	0	0	0	S	14	9	0
AM PEAK	BUS	30	0	29	1	30	1	1	0	1	2	42	0	41	1	42	1	0	0	0	0	E	139	2	0
	TOTAL:	491	34	421	17	472	39	22	8	35	65	440	14	389	24	427	72	16	14	48	78				
14:45-15:45	CAR	460	34	433	45	512	62	11	7	28	46	380	10	350	22	382	58	2	2	16	20	N	57	3	0
	TRK	4	0	2	1	3	1	2	0	0	2	1	0	1	0	1	0	0	0	0	0	S	9	4	0
PM PEAK	BUS	22	0	22	0	22	0	0	0	2	2	26	0	24	0	24	0	0	0	0	0	E W	113 181	0	0
	TOTAL:	486	34	457	46	537	63		7	30	50	407	10	375		407		2	2						
	CAR	400	31	363	24	418	43	20	5	21	46	356	14	326	20	360	54	9	3	17	29	N	39	6	0
OFF HR	TRK	2	0	1	0	1	0	1	0	0	1	2	0	2	1	3	1	0	0	0	0	s	10	5	0
AVG	BUS	20	0	20	0	20	0	0	0	1	1	20	0	19	0	19	0	0	0	0	0	Е	91	1	0
																						W	186	1	0
	TOTAL:	422	31	384	24	439	43	21	5	22	48	378	14	347	21	382	55	9	3	17	29				
	CAR	905	70	765	34	869	64	49	9	57	115	698	21	616	59	696	148	25	19	91	135	N	22	24	0
07:30-09:30	TRK	4	0	4	1	5	1	0	0	0	0	4	0	4	0	4	0	0	0	0	0	s	30	24	0
2 HR AM	BUS	65	0	63	1	64	1	1	0	1	2	75	0	74	4	78	4	0	0	1	1	Е	212	4	0
																						W	231	2	0
	TOTAL:	974	70	832	36	938	66	50	9	58	117	777	21	694	63	778	152	25	19	92	136				
	CAR	832	68	756	64	888	95	45	9	37	91	753	22	711	38	771	110	5	4	31	40	Ν	118	1	0
16:00-18:00	TRK	3	0	3	0	3	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	s	12	5	0
2 HR PM	BUS	56	0	56	0	56	1	0	1	0	1	55	0	55	2	57	3	0	1	0	1	Е	250	0	0
																						W	530	2	0
	TOTAL:	891	68	815	64	947	96	45	10	37	92	809	22	767	40	829	113	5	5	31	41				
07:30-18:00	CAR	3,449	270	3,080	202	3,552	343	176	40	181	397	2,965	101	2,717	179	2,997	485	67	36	193	296	Ν	311	49	0
07.30-10.00	TRK	13	1	11	2	14	2	2	0	1	3	15	0	14	2	16	3	0	0	0	0	S	83	48	0
8 HR SUM	BUS	207	0	204	1	205	2	1	1	4	6	215	0	211	6	217	7	0	1	2	3	E	854	7	0
																						W	1,550	6	0
	TOTAL:	3,669	271	3,295	205	3,771	347	179	41	186	406	3,195	101	2,942	187	3,230	495	67	37	195	299				

Total 8 Hour Vehicle Volume: 7,706

Total 8 Hour Bicycle Volume: 110

Total 8 Hour Intersection Volume: 7,816



### Turning Movement Count Summary Report

Time Type    Exis    Left    Time Lift    File    Lift    Time Time    Submit for the time    Submit for the time    Tote    Exis    Left    Time Time    Submit for the time    Tote    Exis    Left    Time Time    Submit for the time    Submit for the tim    Subm	GATEWAY I	BLVD AT GRE	ENOBLE D	R S TC	S (PX 3	8006)										Su	rvey Date	ə:	2017-N	/lay-02		(Tueso	lay)				
Prind    Vibric    Vibri    Vibri    Vibri					·	,										Su	rvey Typ	e:	Pedest	trian Hou	urs						
Period    Type    Exits    Lett    Thu    Right    Total    Exits    Lett    Thu    Right </th <th>Time</th> <th>Vehicle</th> <th></th> <th>NO</th> <th>RTHBC</th> <th>DUND</th> <th></th> <th></th> <th>EA</th> <th>STBO</th> <th>UND</th> <th></th> <th></th> <th>SOU</th> <th>тнво</th> <th>UND</th> <th></th> <th></th> <th>w</th> <th>ESTBO</th> <th>UND</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Time	Vehicle		NO	RTHBC	DUND			EA	STBO	UND			SOU	тнво	UND			w	ESTBO	UND						
anfeak    CAR    200    0    110    100    7    100    177    15    0    0    0    337    68    136    0    22    0    34    0    97    498    N    272    0    0    34    5    5    0    0    2    25    0    44    29    25    0    0    25    0    44    29    25    0    0    25    0    44    29    25    0    0    25    0    24    29    25    0    0    27    1    0    0    10    25    0    0    10    25    0    10<	Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota		Peds	Bike	Othe	r
Hain Supering    Trick    11    0    7    0    17    15    0    0    0    34    5    5    0    0    14    0    225    0    4    29    5    0    0    15    0    0    21    0    0    21    0    0    21    0    0    21    0    10    557    0    21    0    10    557    0    21    0    10    557    0    21    0    10    557    0    21    0    10    557    0    21    20    21    0    10    217    21    0    10    217    10    <	00.45 00.45	CAR	209	0	112	198	310	286	0	0	0	0	537	88	136	0	224	0	401	0	97	498	Ν	272	2 0		0
AM PEAK  BUS  1  0  0  0  1  0  0  7  0  21  0  0  246  1    TOTAL:  235  0  125  23  33  0  0  0  0  28  94  15  0  245  0  470  0  10  557  1  0  246  0  470  0  10  557  1  0  0  246  0  0  0  0  22  4  0  160  0  185  0  31  216  N  356  0  21  0 <td>08:15-09:15</td> <td>TRK</td> <td>11</td> <td>0</td> <td>7</td> <td>10</td> <td>17</td> <td>15</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>34</td> <td>5</td> <td>9</td> <td>0</td> <td>14</td> <td>0</td> <td>25</td> <td>0</td> <td>4</td> <td>29</td> <td>S</td> <td>(</td> <td>) ()</td> <td>l.</td> <td>0</td>	08:15-09:15	TRK	11	0	7	10	17	15	0	0	0	0	34	5	9	0	14	0	25	0	4	29	S	(	) ()	l.	0
TOTAL:    235    0    125    229    344    323    0    0    0    589    94    151    0    245    0    447    0    10    557      16:00-17:00 TRK    CAR    229    0    220    34    651    485    0    0    0    222    52    107    0    159    0    185    0    31    15    8    6    2      PM PEAK    313    0    10    52    62    54    0    0    0    222    4    0    6    34    2    43    0    0    0    222    4    0    6    34    24    24    0    35    24    43    0    0    0    0    24    16    0    160    16    14    0    16    14    0    16    14    16    16    16    16    16    16    16    16 <th< td=""><td>AM PEAK</td><td>BUS</td><td>15</td><td>0</td><td>6</td><td>21</td><td>27</td><td>22</td><td>0</td><td>0</td><td>0</td><td>0</td><td>27</td><td>1</td><td>6</td><td>0</td><td>7</td><td>0</td><td>21</td><td>0</td><td>9</td><td>30</td><td>E W</td><td>246</td><td>; 1 ) C</td><td>i</td><td>0 0</td></th<>	AM PEAK	BUS	15	0	6	21	27	22	0	0	0	0	27	1	6	0	7	0	21	0	9	30	E W	246	; 1 ) C	i	0 0
L620-17.00 TRK    CAR 13    259 0    0    228 2    433 4    681 0    485 0    0    0    0    292 2    52    107 0    0    159 6    0    185 0    0    31 3    12 1    5 6    2 2    12 0    2 4    4 0    0    159 0    0    185 0    0    31 3    16 3    N    35 3    0      PM PEAK    BUS    23    0    285    519    777    573    0    0    0    228    54    115    0    169    0    211    0    37    248    V    0    0    0    0    0    0    0    0    0    110    0    11    11    11    1    11		TOTAL:	235	0	125	229	354	323	0	0	0	0	598	94	151	0	245	0	447	0	110	557					
1620-17.00  TRK  13  0  10  52  62  54  0  0  0  12  2  4  0  6  0  8  0  3  11  S  6  2    PM PEAK  BUS  23  0  25  519  777  573  0  0  0  22  0  4  0  46  0  18  0  3  21  E  43  0  0  0  22  0  4  0  45  223  N  72  0  0  0  243  35  65  0  100  0  13  15  5  1  1  1  1  1  0  0  0  11  1 <td></td> <td>CAR</td> <td>259</td> <td>0</td> <td>228</td> <td>433</td> <td>661</td> <td>485</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>292</td> <td>52</td> <td>107</td> <td>0</td> <td>159</td> <td>0</td> <td>185</td> <td>0</td> <td>31</td> <td>216</td> <td>Ν</td> <td>35</td> <td>; 0</td> <td></td> <td>0</td>		CAR	259	0	228	433	661	485	0	0	0	0	292	52	107	0	159	0	185	0	31	216	Ν	35	; 0		0
PM PEAK    BUS    23    2    20    34    54    34    0    0    22    0    4    0    16    0    16    0    33    21    6    43    0      TOTAL:    285    0    288    513    777    573    0    0    0    232    65    6    0    166    0    211    0    37    248    77    77    77    77    0    0    0    17    4    55    0    90    0    12    0    3    15    S    1    1    1    1    1    1    0    0    0    1    4    0    0    1    13    6    5    1    1      OFF HR    158    6    150    11    16    12    0    0    16    1    4    0    20    13    21    23    0    0    10    13	16:00-17:00	TRK	13	0	10	52	62	54	0	0	0	0	12	2	4	0	6	0	8	0	3	11	s	6	3 2		0
CAR    CAR    O    Zo    So    So    O    O    O    O    So    So <td>PM PEAK</td> <td>BUS</td> <td>23</td> <td>0</td> <td>20</td> <td>34</td> <td>54</td> <td>34</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>22</td> <td>0</td> <td>4</td> <td>0</td> <td>4</td> <td>0</td> <td>18</td> <td>0</td> <td>3</td> <td>21</td> <td>Е</td> <td>43</td> <td>; O</td> <td></td> <td>0</td>	PM PEAK	BUS	23	0	20	34	54	34	0	0	0	0	22	0	4	0	4	0	18	0	3	21	Е	43	; O		0
TOTAL:  295  0  285  519  777  573  0  0  0  24  10  271  0  27  27  27  57  0  0  0  233  65  0  100  0  211  0  233  15  5  1  1    ANG  184  0  0  6  13  19  17  0  0  17  4  5  0  0  12  0  3<																							W	(	0		0
OFF HR AVG    CAR TRK    144    0    99    222    321    257    0    0    0    243    35    65    0    100    0    178    0    45    223    N    72    0      AVG    TRK    9    0    6    13    19    17    0    0    0    17    4    5    0    9    0    12    0    3    15    S    1    1      0    16    1    4    0    74    0    144    0    202    0    49    251    0    0    0    0    0    16    1    4    0    12    0    3    15    S    1    13    E    50    0    14    0    202    0    49    217    0    0    0    0    0    0    0    0    0    0    13    57    13    13    0		TOTAL:	295	0	258	519	777	573	0	0	0	0	326	54	115	0	169	0	211	0	37	248					
OF PR AVG  TRK BUS  9  0  6  13  19  17  0  0  17  4  5  0  9  0  12  0  3  15  S  1  1    AVG  BUS  6  0  5  11  16  12  0  0  0  0  16  1  4  0  5  0  12  0  3  15  S  1  1  20  13  15  S  1  1  13  E  50  0  0  12  16  12  0  0  0  0  276  40  74  0  114  0  202  0  49  271  0		CAR	144	0	99	222	321	257	0	0	0	0	243	35	65	0	100	0	178	0	45	223	Ν	72	2 0		0
BUS  6  0  5  11  16  12  0  0  0  16  1  4  0  5  0  12  0  1  13  E  50  0	OFF HR AVG	TRK	9	0	6	13	19	17	0	0	0	0	17	4	5	0	9	0	12	0	3	15	s		1		0
TOTAL:    159    0    10    246    356    286    0    0    0    276    40    74    0    114    0    202    0    49    251    U    1      77:30-09:30    AAR    347    0    201    341    542    464    0    0    0    50    8    13    0    21    0    37    0    7    44    S    3    0      2 HR AM    BUS    30    0    12    15    27    23    0    0    0    57    3    13    0    21    0    37    0    7    44    S    3    0      2 HR AM    BUS    396    0    230    65    539    0    0    0    1.095    144    261    0    337    0    166    1.000    1    160    13    57    14    16    166    1000    166    1000		BUS	6	0	5	11	16	12	0	0	0	0	16	1	4	0	5	0	12	0	1	13	Е	50	) 0	r.	0
TOTAL:    159    0    100    246    356    286    0    0    276    40    74    0    114    0    202    0    49    251      77:30-09:30    CAR    347    0    201    341    542    464    0    0    0    98    13    0    21    0    37    0    77    44    S    3    0      2 HR AM    BUS    30    0    17    49    66    59    0    0    57    3    13    0    216    0    37    0    77    44    S    3    0      2 HR AM    BUS    30    0    230    65    635    639    0    0    165    134    261    0    335    0    166    105    134    261    0    337    0    56    106    166    106    166    106    106    106    106 </td <td></td> <td>W</td> <td>(</td> <td>0</td> <td></td> <td>0</td>																							W	(	0		0
07:30-09:30  CAR  347  0  201  341  542  464  0  0  0  988  123  235  0  358  0  753  0  146  899  N  279  0    2 HR AM  BUS  30  0  12  15  27  23  0  0  0  573  13  0  21  0  37  0  77  44  S  33  0    2 HR AM  BUS  30  0  17  49  66  52  0  0  0  16  0  244  0  13  57  E  26  1  0  355  0  834  0  16  1000  16  1000  100  0  0  0  1600  155  0  834  0  52  0  16  1000  16  1000  16  1000  16  1000  16  1000  16  1000  16  1000  16  1000  16  1000  16  1000  16		TOTAL:	159	0	110	246	356	286	0	0	0	0	276	40	74	0	114	0	202	0	49	251					
TRK  19  0  12  15  27  23  0  0  0  50  8  13  0  21  0  37  0  7  44  S  3  0    2 HR AM  BUS  30  0  17  49  66  52  0  0  0  57  3  13  0  16  0  44  S  3  0    TOTAL:  396  0  230  405  635  539  0  0  0  1,095  134  261  0  395  0  834  0  166  1,000  W  0  0  0  0  0  0  0  195  134  261  0  395  0  834  0  166  1,000  W  0	07.20 00.20	CAR	347	0	201	341	542	464	0	0	0	0	988	123	235	0	358	0	753	0	146	899	Ν	279	) 0		0
2 HR AM  BUS  30  0  17  49  66  52  0  0  57  3  13  0  16  0  44  0  13  57  E  286  1    TOTAL:  396  0  230  405  635  539  0  0  1,095  134  261  0  395  0  834  0  166  1,000  W  0  0  0  0  1,095  134  261  0  395  0  834  0  166  1,000  V  V  0  0  0  0  0  0  0  134  261  0  395  0  834  0  166  1,000  V  V  13  16  0  16  0  166  1,000  V  16  0  336  0  168  104  0  0  0  0  0  0  0  0  0  0  0  0  13  16  13  168  108  108  108  0	07.30-09.30	TRK	19	0	12	15	27	23	0	0	0	0	50	8	13	0	21	0	37	0	7	44	S	3	0 ئ		0
TOTAL:    396    0    230    405    635    539    0    0    0    1,095    134    261    0    395    0    834    0    166    1,000      16:00-18:00    CAR    462    0    404    810    1,214    915    0    0    0    548    105    212    0    317    0    336    0    58    394    N    52    0      2 HR PM    BUS    42    0    38    66    104    68    0    0    0    23    66    9    0    15    0    144    0    66    20    S    9    2      2 HR PM    BUS    42    0    466    104    68    0    0    0    0    0    141    2    0    341    2    36    0    36    42    2    36    0    36    20    36    20    36    20 </td <td>2 HR AM</td> <td>BUS</td> <td>30</td> <td>0</td> <td>17</td> <td>49</td> <td>66</td> <td>52</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>57</td> <td>3</td> <td>13</td> <td>0</td> <td>16</td> <td>0</td> <td>44</td> <td>0</td> <td>13</td> <td>57</td> <td>Е</td> <td>286</td> <td>; 1</td> <td></td> <td>0</td>	2 HR AM	BUS	30	0	17	49	66	52	0	0	0	0	57	3	13	0	16	0	44	0	13	57	Е	286	; 1		0
TOTAL:    396    0    230    405    635    539    0    0    1,095    134    261    0    395    0    834    0    166    1,000      16:00-18:00    CAR    462    0    404    810    1,214    915    0    0    0    548    105    212    0    317    0    336    0    58    394    N    52    0      16:00-18:00    TRK    31    0    25    95    120    101    0    0    0    233    6    9    0    15    0    144    0    66    20    S    9    2      2 HR PM    BUS    42    0    366    104    68    0    0    0    0    411    2    7    0    9    0    384    0    68    452    2      2 HR PM    BUS    433    0    463    38    1,433																								(			-
16:00-18:00  CAR  462  0  404  810  1,214  915  0  0  0  548  105  212  0  317  0  336  0  58  394  N  52  0    16:00-18:00  TRK  31  0  25  95  120  101  0  0  0  23  6  9  0  15  0  14  0  6  20  S  9  2    2 H PM  BUS  42  0  38  66  104  68  0  0  0  0  41  2  7  0  9  0  384  0  64  90  0    TOTAL:  535  0  467  971  1,438  1,084  0  0  0  612  113  228  0  341  0  384  0  68  452  0  0  0  0  2.6  341  0  384  0  68  452  0  0  0  2.6  0  1.121		TOTAL:	396	0	230	405	635	539	0	0	0	0	1,095	134	261	0	395	0	834	0	166	1,000					
TRK  31  0  25  95  120  101  0  0  0  23  6  9  0  15  0  14  0  6  20  S  9  2    2 HR PM  BUS  42  0  38  66  104  68  0  0  0  0  41  2  7  0  9  0  34  0  4  38  E  64  0  0  0  0  0  41  2  7  0  9  0  34  0  4  38  E  64  0  0  0  0  41  2  7  0  9  0  34  0  4  38  E  64  0  0  0  0  0  1  228  0  341  2  0  341  2  33  1  2  2  0  1  1  2  1  0  1  1  34  3  0  39  2  1  1 <th1< th="">  3  3</th1<>	46.00 49.00	CAR	462	0	404	810	1,214	915	0	0	0	0	548	105	212	0	317	0	336	0	58	394	Ν	52	2 0		0
2 HR PM  BUS  42  0  38  66  104  68  0  0  0  41  2  7  0  9  0  34  0  4  38  E  64  0  0  0  0  41  2  7  0  9  0  34  0  4  38  E  64  0  0    TOTAL:  535  0  467  971  1,438  1,084  0  0  0  612  113  228  0  341  0  384  0  68  452  0  0  0  0  0  0  0  0  0  1,140  0  384  0  68  452  0  0  0  0  0  0  0  0  0  0  1,140  0  1,854  0  396  2,250  N  713  0  0  0  14  32  43  0  75  0  101  0  25  126  S  15  4  38  8  10	10:00-10:00	TRK	31	0	25	95	120	101	0	0	0	0	23	6	9	0	15	0	14	0	6	20	s	ę	) 2		0
TOTAL:  535  0  467  971  1,438  1,084  0  0  0  612  113  228  0  341  0  384  0  68  452      07:30-18:00  CAR  1,439  0  1,043  2,138  3,181  2,528  0  0  1,140  0  1,854  0  396  2,250  N  713  0    07:30-18:00  TRK  86  0  61  168  229  200  0  0  0  1,444  32  43  0  75  0  101  0  2,55  N  713  0    8 HR SUM  BUS  99  0  77  168  245  175  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    W  0  1,812  2,474  3,655  2,903  0  0  2,920  429  832  0  1,261  0  2,088  0  443  <	2 HR PM	BUS	42	0	38	66	104	68	0	0	0	0	41	2	7	0	9	0	34	0	4	38	Е	64	+ 0		0
TOTAL:  535  0  467  971  1,438  1,084  0  0  612  113  228  0  341  0  384  0  68  452    07:30-18:00  CAR  1,439  0  1,043  2,138  3,181  2,528  0  0  2,604  390  750  0  1,140  0  1,854  0  396  2,250  N  713  0    07:30-18:00  TRK  86  0  61  168  229  200  0  0  0  1,44  32  43  0  755  0  101  0  2,5  126  S  1,5  4    8 HR SUM  BUS  99  0  77  168  245  175  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    W  0  0  0  0  2,920  429  832  0  1,261  0  2,088  0  443  2,531 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>W</td><td>(</td><td>0</td><td></td><td>1</td></t<>																							W	(	0		1
O7:30-18:00  CAR  1,439  0  1,043  2,138  3,181  2,528  0  0  0  2,604  390  750  0  1,140  0  1,854  0  396  2,250  N  713  0    TRK  86  0  61  168  229  200  0  0  0  144  32  43  0  75  0  101  0  25  126  S  15  4    8 HR SUM  BUS  99  0  77  168  245  175  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    MR SUM  BUS  99  0  77  168  245  175  0  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    TOTAL:  1,624  0  1,181  2,474  3,655  2,903  0  0  2,920  429		TOTAL:	535	0	467	971	1,438	1,084	0	0	0	0	612	113	228	0	341	0	384	0	68	452					
TRK  86  0  61  168  229  200  0  0  0  144  32  43  0  75  0  101  0  25  126  S  15  4    8 HR SUM  BUS  99  0  77  168  245  175  0  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    M  BUS  99  0  77  168  245  175  0  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1    M  0  0  1,624  0  1,181  2,474  3,655  2,903  0  0  2,920  429  832  0  1,261  0  2,088  0  443  2,531  U	07.30 49.00	CAR	1,439	0	1,043	2,138	3,181	2,528	0	0	0	0	2,604	390	750	0	1,140	0	1,854	0	396	2,250	Ν	713	3 0		0
8 HR SUM  BUS  99  0  77  168  245  175  0  0  0  172  7  39  0  46  0  133  0  22  155  E  588  1	07.30-10.00	TRK	86	0	61	168	229	200	0	0	0	0	144	32	43	0	75	0	101	0	25	126	s	15	<b>4</b>		0
TOTAL: 1,624 0 1,181 2,474 3,655 2,903 0 0 0 0 2,920 429 832 0 1,261 0 2,088 0 443 2,531	8 HR SUM	BUS	99	0	77	168	245	175	0	0	0	0	172	7	39	0	46	0	133	0	22	155	Е	588	; 1		0
TOTAL: 1,624 0 1,181 2,474 3,655 2,903 0 0 0 0 2,920 429 832 0 1,261 0 2,088 0 443 2,531																							W	(	0		1
		TOTAL:	1,624	0	1,181	2,474	3,655	2,903	0	0	0	0	2,920	429	832	0	1,261	0	2,088	0	443	2,531					

Total 8 Hour Vehicle Volume: 7,447

Total 8 Hour Bicycle Volume: 5

Total 8 Hour Intersection Volume: 7,452



### Turning Movement Count Summary Report

			ם ע וא												Su	irvey Date	e:	2018-S	Sep-12		(Wedn	esda	y)		
LEASIDE PA		VERLEA													Su	irvey Typ	e:	Pedest	trian Ho	urs					
Time	Vehicle		NO	RTHBO	DUND			EA	STBO	UND			SOL	лтнво	UND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	l	Peds	Bike	Other
	CAR	0	22	0	29	51	633	0	604	25	629	53	0	0	0	0	639	28	617	0	645	N	(	) 0	0
08:00-09:00	TRK	0	1	0	0	1	12	0	12	1	13	1	0	0	0	0	14	0	13	0	13	S	33	3 3	0
AM PEAK	BUS	0	0	0	0	0	59	0	59	0	59	0	0	0	0	0	55	0	55	0	55	E W	11 -	15 15	0
	TOTAL:	0	23	0	29		704	0	675	26	701	54	0	0	0	0		28	685	0	713				
	CAR	0	29	0	36	65	914	0	878	62	940	98	0	0	0	0	818	36	789	0	825	N	(	) 0	0
17:00-18:00	TRK	0	0	0	0	0	5	0	5	0	5	0	0	0	0	0	2	0	2	0	2	s	19	) 1	0
PM PEAK	BUS	0	0	0	0	0	35	0	35	0	35	0	0	0	0	0	40	0	40	0	40	E	7	′ 16	0
																						W		18	0
	TOTAL:	0	29	0	36	65	954	0	918	62	980	98	0	0	0	0	860	36	831	0	867				
	CAR	0	16	0	25	41	601	0	576	16	592	39	0	0	0	0	557	23	541	0	564	N	(	) 0	0
OFF HR AVG	TRK	0	0	0	0	0	17	0	17	0	17	0	0	0	0	0	17	0	17	0	17	s	24	2	0
	BUS	0	0	0	0	0	31	0	31	0	31	0	0	0	0	0	32	0	32	0	32	Е	6	5 7	0
																						W	3	5 -	0
	TOTAL:	0	16	0	25	41	649	0	624	16	640	39	0	0	0	0	606	23	590	0	613				
07.20 00.20	CAR	0	47	0	62	109	1,110	0	1,048	43	1,091	92	0	0	0	0	1,273	49	1,226	0	1,275	Ν	(	0 0	0
07.30-09.30	TRK	0	1	0	0	1	17	0	17	1	18	1	0	0	0	0	20	0	19	0	19	S	48	5 5	0
2 HR AM	BUS	0	0	0	2	2	110	0	108	1	109	1	0	0	0	0	109	0	109	0	109	Е	19	31	0
																							14		0
	TOTAL:	0	48	0	64	112	1,237	0	1,173	45	1,218	94	0	0	0	0	1,402	49	1,354	0	1,403				
46.00 49.00	CAR	0	42	0	61	103	1,897	0	1,836	95	1,931	165	0	0	0	0	1,516	70	1,474	0	1,544	Ν	(	0 0	0
16:00-16:00	TRK	0	0	0	1	1	21	0	20	0	20	1	0	0	0	0	12	1	12	0	13	S	32	. 4	0
2 HR PM	BUS	0	0	0	0	0	82	0	82	0	82	0	0	0	0	0	83	0	83	0	83	Е	21	26	0
																			:			W	3	31	0
	TOTAL:	0	42	0	62	104	2,000	0	1,938	95	2,033	166	0	0	0	0	1,611	71	1,569	0	1,640				
07.30-18.00	CAR	0	153	0	230	383	5,590	0	5,360	207	5,567	425	0	0	0	0	5,191	218	5,038	0	5,256	Ν	(	0	0
07.00-10.00	TRK	0	1	0	2	3	111	0	109	1	110	2	0	0	0	0	103	1	102	0	103	S	178	16	0
8 HR SUM	BUS	0	0	0	2	2	323	0	321	1	322	1	0	0	0	0	329	0	329	0	329	E	64	86	0
																			·				28	s 80	0
	TOTAL:	0	154	0	234	388	6,024	0	5,790	209	5,999	428	0	0	0	0	5,623	219	5,469	0	5,688				

Total 8 Hour Vehicle Volume: 12,075

Total 8 Hour Bicycle Volume: 182

Total 8 Hour Intersection Volume: 12,257



### Turning Movement Count Summary Report

			:1)												Su	rvey Date	e:	2018-N	lov-06		(Tueso	lay)			
		VE (1 X 240	,,,												Su	rvey Typ	e:	Routine	e Hours						
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOL	ЛТНВО	UND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	I	Peds	Bike	Other
	CAR	384	3	359	26	388	60	6	1	8	15	458	33	443	32	508	35	7	0	19	26	Ν	147	5	0
08:15-09:15	TRK	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	0	0	0	0	s	38	1	0
AM PEAK	BUS	40	0	16	0	16	0	0	0	0	0	10	0	3	0	3	0	7	0	24	31	E W	543 83	0	0 0
	TOTAL:	424	3	375	26	404	 60	6	1	8	15	471	33	449	32	514	35	14	0	43	57				
	CAR	394	2	355	14	371	33	17	0	16	33	350	19	322	33	374	35	12	0	22	34	N	273	0	0
16:30-17:30	TRK	2	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	S	111	0	0
PM PEAK	BUS	77	0	30	1	31	1	0	0	0	0	17	0	1	0	1	0	16	0	47	63	Е	803	0	0
																						W	155	0	0
	TOTAL:	473	2	387	15	404	34	17	0	16	33	368	19	324	33	376	35	28	0	69	97				
	CAR	333	4	292	16	312	32	22	1	15	38	349	15	320	31	366	35	14	0	19	33	Ν	114	1	0
OFF HR	TRK	5	0	3	0	3	0	0	0	0	0	4	0	3	0	3	0	1	0	2	3	S	73	1	0
A10	BUS	35	0	15	0	15	0	0	0	0	0	10	0	2	0	2	0	8	0	20	28	Е	502	0	0
																						W	115	0	0
	TOTAL:	373	4	310	16	330	32	22	1	15	38	363	15	325	31	371	35	23	0	41	64				
	CAR	778	4	714	42	760	109	15	1	14	30	852	66	818	44	928	48	20	0	49	69	Ν	259	8	0
07:30-09:30	TRK	0	0	0	0	0	0	0	0	0	0	7	0	7	0	7	0	0	0	0	0	S	59	3	0
2 HR AM	BUS	87	0	32	0	32	0	0	0	0	0	22	0	6	0	6	0	16	0	55	71	Е	960	0	0
																						W	157	0	0
	TOTAL:	865	4	746	42	792	109	15	1	14	30	881	66	831	44	941	48	36	0	104	140				
	CAR	773	5	691	28	724	64	38	0	27	65	703	36	649	71	756	76	27	0	44	71	Ν	531	0	0
16:00-18:00	TRK	4	0	4	0	4	0	0	0	0	0	2	0	2	0	2	0	0	0	0	0	S	231	0	0
2 HR PM	BUS	148	0	60	1	61	1	0	0	0	0	30	0	3	0	3	0	27	0	88	115	Е	1,581	0	0
																						W	281	0	0
	TOTAL:	925	5	755	29	789	65	38	0	27	65	735	36	654	71	761	76	54	0	132	186				
07:30-18:00	CAR	2,882	24	2,573	132	2,729	298	139	4	101	244	2,950	162	2,746	237	3,145	261	103	0	170	273	Ν	1,247	13	0
57.50-10.00	TRK	20	0	14	1	15	1	0	0	0	0	25	0	22	0	22	0	3	0	6	9	S	583	5	0
8 HR SUM	BUS	371	0	150	2	152	2	0	0	0	0	90	0	15	0	15	0	75	0	221	296	Е	4,547	0	0
																						W	899	0	0
	TOTAL:	3,273	24	2,737	135	2,896	301	139	4	101	244	3,065	162	2,783	237	3,182	261	181	0	397	578				

Total 8 Hour Vehicle Volume: 6,900

Total 8 Hour Bicycle Volume: 18

Total 8 Hour Intersection Volume: 6,918



### Turning Movement Count Summary Report

Time Priod    Ype    Exits    Loft    Thru    Right    Total    Exits    Loft    Thru    Right    Right	Peds 1 10 1 63 0 16 1 20 0 0 8	Bike 83 16 0 18 31 27 0 20 11	Other 0 0 0 0 0 0 0 0 0 0 0 0 0
DB:00-09:00    CAR    1405    0    1,114    396    1,510    680    0    0    0    902    284    584    0    866    0    318    0    291    609    N      AM PEAK    BUS    13    0    6    55    61    63    0    0    0    24    11    21    0    32    0    3    0    6    9    S      AM PEAK    BUS    13    0    6    55    61    63    0    0    0    284    303    612    0    915    0    372    0    304    676      TOTAL:    1.441    0    1,137    456    1,593    759    0    0    0    1,594    506    1,142    0    1,648    0    452    0    373    825    N      TOTAL:    1,067    0    709    505    1,214    1,021    0    0    <	10 1 63 0 16 1 20 0 0 8	83 16 0 18 31 27 0 20 11	
06:00-09:00  TRK  23  0  17  5  22  16  0  0  0  24  11  21  0  32  0  3  0  6  9  S    AM PEAK  BUS  13  0  6  55  61  63  0  0  0  58  8  7  0  15  0  51  0  7  58  E    TOTAL:  1,441  0  1,137  456  1,593  759  0  0  0  984  303  612  0  915  0  372  0  304  67    17:00-18:00  CAR  1,067  0  694  474  1,188  980  0  0  0  914  506  1,142  0  1,648  0  1,648  0  1,648  0  1,648  0  1,648  0  1,674  0  490  0  373  825  N    PM PEAK  BUS  10  2  7  505  1,214  1,021  0  0	1 63 0 16 1 20 0 - 8	16 0 18 31 27 0 20 11	
AM PEAK    BUS    13    0    6    55    61    63    0    0    0    58    8    7    0    15    0    51    0    7    58    E    W      TOTAL:    1.441    0    1.137    456    1.583    759    0    0    0    984    303    612    0    915    0    372    0    304    676      17:00-18:00    CAR    1.067    0    694    474    1.168    980    0    0    0    1.594    506    1.142    0    1.648    0    452    0    373    825    N      PM PEAK    BUS    10    0    6    28    34    36    0    0    0    445    8    0    166    0    377    0    378    868      PM PEAK    BUS    0    709    505    1.214    1.021    0    0    1.674 <th< td=""><td>63 0 </td><td>0 18 31 27 0 20 11</td><td></td></th<>	63 0 	0 18 31 27 0 20 11	
TOTAL:    1,441    0    1,137    456    1,593    759    0    0    0    984    303    612    0    915    0    372    0    304    676      17:00-18:00    TRK    10.67    0    694    474    1,168    980    0    0    0    1,594    506    1,142    0    1,648    0    452    0    373    825    N      PM PEAK    BUS    10    0    6    28    34    36    0    0    0    1,648    0    1,648    0    452    0    373    0    4    41    E      PM PEAK    BUS    10    0    655    1,214    1,021    0    0    0    1,648    516    1,158    0    1,674    0    490    0    378    868      OFF HR AVG    CAR    864    0    553    329    882    638    0    0	16 1 20 0 8	31 27 0 20 11	0 0 0 
17:00-18:00    CAR    1,067    0    694    474    1,168    980    0    0    0    1,194    506    1,142    0    1,648    0    452    0    373    825    N      PM PEAK    BUS    10    0    6    28    34    36    0    0    0    9    2    8    0    10    0    1    0    1    2    S      PM PEAK    BUS    10    0    6    28    34    36    0    0    0    45    8    8    0    1.648    0    577    0    4    41    E    W      TOTAL:    1,067    0    709    505    1,214    1,021    0    0    0    771    309    495    0    804    0    276    0    311    567    N      AVG    TRK    25    0    18    6    24    16    0	16 1 20 0 	31 27 0 20 11	0 0 0 
TRK  10  0  9  3  12  5  0  0  0  9  2  8  0  10  0  1  0  1  2  S    PM PEAK  BUS  10  0  6  28  34  36  0  0  0  0  16  0  37  0  4  41  E    TOTAL:  1,087  0  709  505  1,214  1,021  0  0  0  1,648  516  1,158  0  1,674  0  490  0  378  868    OFF HR AVG  CAR  864  0  553  329  882  638  0  0  0  771  309  495  0  804  0  276  0  311  587  N    AVG  BUS  6  0  53  329  882  638  0  0  0  28  10  22  0  32  0  311  587  N    AVG  BUS  6  0 <th< td=""><td>1 20 0 </td><td>27 0 20 11</td><td>0 0 </td></th<>	1 20 0 	27 0 20 11	0 0 
PM PEAK    BUS    10    0    6    28    34    36    0    0    45    8    8    0    16    0    37    0    4    41    E    W      TOTAL:    1,087    0    709    505    1,214    1,021    0    0    0    1,648    516    1,158    0    1,674    0    490    0    378    868      OFF HR AVG    CAR    864    0    553    329    882    638    0    0    0    771    309    495    0    804    0    276    0    311    567    N      AVG    BUS    6    0    32    684    0    0    0    0    28    10    22    0    32    0    33    8    33    8    36    0    0    0    33    24    3    0    312    0    321    63    20    33	20 0 8	0 20 11	0 0 
TOTAL:    1,087    0    709    505    1,214    1,021    0    0    0    1,648    516    1,158    0    1,674    0    490    0    378    868      OFF HR AVG    CAR    864    0    553    329    882    638    0    0    0    771    309    495    0    804    0    276    0    311    567    N      AVG    Trk    25    0    18    6    24    16    0    0    0    28    10    22    0    32    0    6    0    7    13    S      BUS    6    0    33    26    29    30    0    0    0    832    323    520    0    843    0    312    0    33    8    41    21    0    0    0    1,618    497    1,035    0    1,532    0    583    0 <th< td=""><td>0 8</td><td>20 </td><td>0</td></th<>	0 8	20 	0
TOTAL:    1,087    0    709    505    1,214    1,021    0    0    1,648    516    1,158    0    1,674    0    490    0    378    868      OFF HR AVG    CAR    864    0    553    329    882    638    0    0    0    771    309    495    0    804    0    276    0    311    587    N      AVG    BUS    6    0    52    29    30    0    0    0    22    0    302    0    7    13    S      BUS    6    0    574    361    935    684    0    0    0    0    22    0    843    0    312    0    333    8      07:30-09:30    CAR    2,649    0    2,039    682    2,721    1,179    0    0    0    1,618    497    1,035    0    1,532    0    583	8	11	0
OFF HR AVG    CAR    884    0    553    329    882    638    0    0    771    309    495    0    804    0    276    0    311    587    N      AVG    TRK    25    0    18    6    24    16    0    0    0    22    0    322    0    6    0    7    13    S      BUS    6    0    3    26    29    30    0    0    0    0    33    4    3    0    7    0    30    0    33    E    W      TOTAL:    895    0    574    361    935    684    0    0    0    832    323    520    0    843    0    312    0    321    633    W    1/193    N    1/193    N    1/193    N    1/193    N    1/193    N    1/193    N    1/193    1/193	8	11	0
OFF HR AVG    TRK    25    0    18    6    24    16    0    0    0    28    10    22    0    32    0    6    0    7    13    S      BUS    6    0    3    26    29    30    0    0    0    33    4    3    0    7    0    30    0    3    33    E      TOTAL:    895    0    574    361    935    6684    0    0    0    832    323    520    0    843    0    312    0    321    633      07:30-09:30    CAR    2,649    0    2,721    1,179    0    0    0    1,618    497    1,035    0    1,532    0    583    0    610    1,193    N      07:30-09:30    CAR    2,649    0    333    8    41    21    0    0    0    1,618    0			-
BUS  6  0  3  26  29  30  0  0  0  33  4  3  0  7  0  30  0  3  33  E    TOTAL:  895  0  574  361  935  684  0  0  0  832  323  520  0  843  0  312  0  321  6633    07:30-09:30  CAR  2,649  0  2,039  682  2,721  1,179  0  0  0  1,618  497  1,035  0  1,532  0  583  0  610  1,193  N    07:30-09:30  TRK  455  0  33  8  41  21  0  0  0  50  13  46  0  59  0  4  0  12  16  S    2 HR AM  BUS  26  0  13  99  112  113  0  0  0  1,780  524  1,094  0  1,618  0  686  0  635  1,321 <td>0</td> <td>6</td> <td>0</td>	0	6	0
TOTAL:    895    0    574    361    935    684    0    0    0    832    323    520    0    843    0    312    0    321    633      07:30-09:30    CAR    2,649    0    2,039    682    2,721    1,179    0    0    0    1,618    497    1,035    0    1,532    0    583    0    610    1,193    N      07:30-09:30    TRK    45    0    33    8    41    21    0    0    0    50    13    46    0    59    0    4    0    12    16    S      2 HR AM    BUS    26    0    13    99    112    113    0    0    0    112    14    13    0    27    0    99    0    13    112    E    W      TOTAL:    2,720    0    2,085    789    2,874    1,313    0	19 0	0 5	0
CAR    2,649    0    2,039    682    2,721    1,179    0    0    0    1,618    497    1,035    0    1,532    0    583    0    610    1,193    N      07:30-09:30    TRK    45    0    33    8    41    21    0    0    0    50    13    46    0    59    0    4    0    12    16    S      2 HR AM    BUS    26    0    13    99    112    113    0    0    0    112    14    13    0    27    0    99    0    13    112    W      TOTAL:    2,720    0    2,085    789    2,874    1,313    0    0    0    1,780    524    1,094    0    1,618    0    686    0    635    1,321      16:00-18:00    CAR    2,049    0    1,327    1,040    2,367    2,021    0			- —
07:30-09:30  TRK  45  0  33  8  41  21  0  0  0  0  50  13  46  0  59  0  4  0  12  16  S    2 HR AM  BUS  26  0  2,855  789  2,874  1,313  0  0  0  1,055  13  46  0  59  0  4  0  12  16  S    2 HR AM  BUS  26  0  13  99  112  113  0  0  0  112  14  13  0  27  0  99  0  13  112  E	21	130	0
2 HR AM  BUS  26  0  13  99  112  113  0  0  0  112  14  13  0  27  0  99  0  13  112  113  0  0  0  112  14  13  0  27  0  99  0  13  112  E    TOTAL:  2,720  0  2,085  789  2,874  1,313  0  0  0  1,780  524  1,094  0  1,618  0  686  0  635  1,321    16:00-18:00  CAR  2,049  0  1,327  1,040  2,367  2,021  0  0  0  3,006  981  2,165  0  3,146  0  841  0  722  1,563  N    16:00-18:00  CAR  2,049  0  1,327  1,040  25  0  0  0  3,006  981  2,165  0  3,146  0  841  0  722  1,563  N    16:00-18:00  CAR  38  0	- 1	31	0
TOTAL:  2,720  0  2,085  789  2,874  1,313  0  0  0  1,780  524  1,094  0  1,618  0  686  0  635  1,321    Inf: 100-18:00  CAR  2,049  0  1,327  1,040  2,367  2,021  0  0  0  3,006  981  2,165  0  3,146  0  841  0  722  1,563  N    Inc.  16:00-18:00  TRK  38  0  29  11  40  25  0  0  0  23  14  20  0  34  0  3  9  12  S	100	0	0
TOTAL:    2,720    0    2,085    789    2,874    1,313    0    0    0    1,780    524    1,094    0    1,618    0    686    0    635    1,321      16:00-18:00    CAR    2,049    0    1,327    1,040    2,367    2,021    0    0    0    3,006    981    2,165    0    3,146    0    841    0    722    1,563    N      TRK    38    0    29    11    40    25    0    0    0    23    14    20    0    34    0    3    0    9    12    S	0	30	0
CAR    2,049    0    1,327    1,040    2,367    2,021    0    0    0    3,006    981    2,165    0    3,146    0    841    0    722    1,563    N      16:00-18:00    TRK    38    0    29    11    40    25    0    0    0    23    14    20    0    34    0    3    0    9    12    S			
16:00-18:00 TRK 38 0 29 11 40 25 0 0 0 0 23 14 20 0 34 0 3 0 9 12 S	48	64	0
	2	50	0
<b>2 HR PM</b> BUS 21 0 12 70 82 84 0 0 0 0 86 14 14 0 28 0 72 0 9 81 E	56	0	0
	0	32	0
TOTAL: 2,108 0 1,368 1,121 2,489 2,130 0 0 0 0 3,115 1,009 2,199 0 3,208 0 916 0 740 1,656			
CAR 8,410 0 5,738 3,162 8,900 5,968 0 0 0 7,990 2,806 5,367 0 8,173 0 2,623 0 2,672 5,295 N	101	248	0
TRK 187 0 138 46 184 114 0 0 0 0 189 68 158 0 226 0 31 0 49 80 S	4	106	0
8 HR SUM BUS 73 0 38 281 319 327 0 0 0 0 338 46 38 0 84 0 300 0 35 335 E W	239	0 85	0 0
TOTAL: 8,670 0 5,914 3,489 9,403 6,409 0 0 0 8,517 2,920 5,563 0 8,483 0 2,954 0 2,756 5,710	0		

Total 8 Hour Vehicle Volume: 23,596

Total 8 Hour Bicycle Volume: 439

Total 8 Hour Intersection Volume: 24,035



### Turning Movement Count Summary Report

MILLWOOD	RD AT REDV	AY RD &	VILLAG	SE STAT		K 686)									Su	rvey Date	Ð:	2017-Ja	an-12		(Thurs	day)				
						,									Su	rvey Typ	e:	Routine	e Hours							
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOL	лтнво	UND			WE	ЕЗТВО	UND						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	1	Peds	Bike	e Othe	۶r
	CAR	1,230	22	1,186	7	1,215	29	20	1	15	36	730	21	704	34	759	58	11	2	24	37	Ν	(	0 :	3	0
08:15-09:15	TRK	14	1	12	0	13	1	2	0	1	3	13	1	12	0	13	1	0	0	0	0	S	:	3 1	7	0
AM PEAK	BUS	17	0	17	0	17	0	0	0	0	0	19	0	19	0	19	0	0	0	0	0	Е	9	9 (	3	0
																						_ W	'	1(	)	0
	TOTAL:	1,261	23	1,215	7	1,245	30	22	1	16	39	762	22	735	34	791	59	11	2	24	37					
16-45-17-45	CAR	961	48	885	1	934	40	42	5	86	133	1,349	34	1,234	60	1,328	110	29	2	34	65	Ν	1	0 14	4	0
10.40-17.40	TRK	7	0	6	0	6	0	0	0	1	1	5	0	4	0	4	0	0	0	1	1	S	1	5 2	2	0
PM PEAK	BUS	12	0	12	0	12	0	0	0	0	0	11	0	11	0	11	0	0	0	0	0	Е	1	5 (	)	0
																						_ W		8	I 	0
	TOTAL:	980	48	903	1	952	40	42	5	87	134	1,365	34	1,249	60	1,343	110	29	2	35	66					
	CAR	798	40	703	17	760	43	60	3	43	106	660	23	602	66	691	109	15	3	35	53	Ν	1	0	1	0
AVG	TRK	17	2	15	1	18	2	0	0	2	2	19	1	16	2	19	4	1	0	2	3	S		7 :	3	0
	BUS	6	0	6	0	6	0	0	0	0	0	8	0	8	0	8	0	0	0	0	0	Е	,	9 (	5	0
																						W	'	4(	)	0
	TOTAL:	821	42	724	18	784	45	60	3	45	108	687	24	626	68	718	113	16	3	37	56					
07.30-09.30	CAR	2,341	44	2,265	11	2,320	54	34	3	28	65	1,289	40	1,240	54	1,334	102	21	4	42	67	Ν	1	0 {	5	0
07.30-09.30	TRK	25	2	19	1	22	2	4	0	2	6	23	1	21	2	24	4	0	0	2	2	S	1/	4 28	3	0
2 HR AM	BUS	36	0	36	0	36	0	0	0	0	0	30	0	30	0	30	0	0	0	0	0	Е	1/	5 ´	1	0
																								7(	)	0
	TOTAL:	2,402	46	2,320	12	2,378	56	38	3	30	71	1,342	41	1,291	56	1,388	106	21	4	44	69					
40.00 40.00	CAR	1,914	99	1,750	2	1,851	74	103	7	163	273	2,587	65	2,376	141	2,582	247	48	7	61	116	Ν	(	0 22	2	0
16:00-18:00	TRK	17	2	15	0	17	0	1	0	2	3	15	0	13	0	13	2	0	0	1	1	S	1:	2 :	3	0
2 HR PM	BUS	27	0	27	0	27	0	0	0	0	0	23	0	23	0	23	0	0	0	0	0	Е	2	7 (	C	0
																						W	1	1	I	0
	TOTAL:	1,958	101	1,792	2	1,895	74	104	7	165	276	2,625	65	2,412	141	2,618	249	48	7	62	117					
07.20 48.00	CAR	7,444	303	6,825	81	7,209	302	376	23	363	762	6,515	198	6,025	459	6,682	784	127	22	243	392	Ν	(	0 30	)	0
07.30-18.00	TRK	107	11	92	6	109	10	6	0	11	17	113	4	99	8	111	20	3	1	9	13	S	5	2 43	3	0
8 HR SUM	BUS	87	0	87	0	87	0	0	0	0	0	85	0	85	0	85	0	0	0	0	0	Е	7	7 <sup>^</sup>	1	0
																						W	3	5 ^	I 	0
	TOTAL	7 6 2 9	244	7 004	07	7 405		200	~~	074																

Total 8 Hour Vehicle Volume: 15,467

Total 8 Hour Bicycle Volume: 75

Total 8 Hour Intersection Volume: 15,542



### Turning Movement Count Summary Report

			664)												Su	rvey Date	e:	2017-J	an-09		(Monda	ay)			
WORTHWER			004)												Su	rvey Typ	e:	Routin	e Hours						
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOL	ітнвоі	JND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other
	CAR	443	53	364	60	477	287	53	202	34	289	483	25	385	76	486	600	64	471	26	561	Ν	56	3	0
08:15-09:15	TRK	8	1	6	0	7	1	2	1	0	3	9	0	9	1	10	3	0	1	0	1	S	85	4	0
AM PEAK	BUS	31	0	31	0	31	4	0	3	0	3	29	1	29	0	30	5	0	5	0	5	Е	82	3	0
																							48	2	0
	TOTAL:	482	54	401	60	515	292	55	206	34	295	521	26	423	77	526	608	64	477	26	567				
16.00-12.00	CAR	509	57	420	78	555	562	65	456	58	579	458	28	365	74	467	370	35	239	24	298	Ν	29	4	0
10.00 17.00	TRK	15	0	13	0	13	5	0	5	1	6	11	0	9	2	11	6	1	4	2	7	S	85	1	0
PM PEAK	BUS	24	0	24	0	24	4	0	4	0	4	25	0	24	0	24	3	1	3	0	4	E	83	0	0
																							124		0
	TOTAL:	548	57	457	78	592	571	65	465	59	589	494	28	398	76	502	379	37	246	26	309				
	CAR	413	43	337	61	441	314	51	230	44	325	384	23	306	59	388	319	34	217	25	276	Ν	28	2	0
AVG	TRK	12	2	11	1	14	5	1	4	1	6	11	0	9	0	9	6	1	4	0	5	S	78	1	0
	BUS	19	0	19	0	19	3	0	3	0	3	19	0	19	0	19	3	0	3	0	3	E	54	1	0
																								1	0
	TOTAL:	444	45	367	62	474	322	52	237	45	334	414	23	334	59	416	328	35	224	25	284				
07.00 00.00	CAR	801	115	651	98	864	524	96	390	72	558	914	36	731	135	902	1,119	111	869	54	1,034	Ν	89	6	0
07:30-09:30	TRK	18	2	14	1	17	2	3	1	1	5	12	0	11	1	12	7	0	4	1	5	S	142	. 7	0
2 HR AM	BUS	67	0	66	0	66	9	0	7	0	7	61	2	61	0	63	9	0	9	1	10	Е	126	8	0
																						W	82	3	0
	TOTAL:	886	117	731	99	947	535	99	398	73	570	987	38	803	136	977	1,135	111	882	56	1,049				
	CAR	1,028	103	855	165	1,123	1,135	115	918	116	1,149	926	52	748	151	951	718	62	464	58	584	Ν	76	12	0
16:00-18:00	TRK	18	0	16	0	16	12	0	12	1	13	13	0	11	2	13	6	1	4	2	7	s	154	. 3	0
2 HR PM	BUS	49	0	49	0	49	7	0	7	0	7	51	0	50	0	50	6	1	6	0	7	Е	181	3	0
																						W	209	4	0
	TOTAL:	1,095	103	920	165	1,188	1,154	115	937	117	1,169	990	52	809	153	1,014	730	64	474	60	598				
07.20 40.00	CAR	3,479	389	2,854	505	3,748	2,911	414	2,228	363	3,005	3,374	178	2,703	520	3,401	3,111	308	2,202	211	2,721	Ν	275	24	0
07:30-18:00	TRK	81	9	72	5	86	33	6	27	6	39	68	1	57	4	62	36	5	23	3	31	s	606	12	0
8 HR SUM	BUS	193	0	192	0	192	27	0	25	0	25	188	2	187	0	189	26	1	26	1	28	Е	521	13	0
																						W	586	10	0
	TOTAL:	3,753	398	3,118	510	4,026	2,971	420	2,280	369	3,069	3,630	181	2,947	524	3,652	3,173	314	2,251	215	2,780				
																								·	

Total 8 Hour Vehicle Volume: 13,527

Total 8 Hour Bicycle Volume: 59

Total 8 Hour Intersection Volume: 13,586



### Turning Movement Count Summary Report

			42)												Su	rvey Date	e:	2017-J	an-09		(Monda	ay)			
OCONNOR			H42)												Su	rvey Typ	e:	Routine	e Hours						
Time	Vehicle		NO	RTHBO	DUND			EA	STBO				SOL	тнво				w	ESTBO						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other
	CAR	420	21	290	154	465	392	115	225	14	354	394	13	232	151	396	495	148	323	15	486	N	5	3	0
08:15-09:15	TRK	5	2	4	2	8	4	1	2	0	3	7	0	6	0	6	2	1	0	0	1	s	18	8 8	, 0
AM PEAK	BUS	42	1	28	3	32	8	14	5	0	19	31	0	31	16	47	19	0	2	0	2	Е	23	3 2	0
	TOTAL:	467	24	322	159	505	404	130	232	14	376	432	13	269	167	449	516	149	325	15	489				
16:45-17:45	CAR	451	13	273	175	461	503	157	316	10	483	535	12	309	156	477	367	216	198	21	435	Ν	33	3 5	0
	TRK	5	0	3	2	5	5	2	3	0	5	4	0	3	1	4	1	1	0	0	1	S	16	6 C	0
PM PEAK	BUS	36	1	26	0	27	3	10	3	0	13	26	0	25	10	35	17	1	6	0	7	E	31	2	, 0
				202	477		 		222				42											_	
		432	14	302	105	433		103	170	10	301	000	12	337	107	000		210	204	21	445				
OFF HR	CAR	346	11	216	165	392	349	118	1/6	12	306	364	8	191	103	302	306	161	192	12	365	N	14	1	0
AVG	TRK	10	1	6	6	13	18	4	11	0	15	8	1	4	4	9	9	4	4	0	8	s	9	) (	0
	BOS	28	0	19	5	24	8	9	3	0	12	20	0	19	10	29	14	1	4	0	5	W	1:	5 C	0
	TOTAL:	384	12	241	176	429	375	131	190	12	333	392	9	214	117	340	329	166	200	12	378				
	CAR	750	31	520	313	864	760	207	429	28	664	713	18	412	256	686	893	273	606	23	902	N	83	3 4	0
07:30-09:30	TRK	10	3	6	5	14	10	4	5	0	9	11	0	7	3	10	16	4	10	0	14	s	24	i 11	0
2 HR AM	BUS	90	1	62	5	68	16	28	11	0	39	64	0	63	30	93	41	1	10	0	11	Е	35	5 3	, 0
																						W	48	31	0
	TOTAL:	850	35	588	323	946	786	239	445	28	712	788	18	482	289	789	950	278	626	23	927				
	CAR	949	25	578	332	935	977	342	626	23	991	1,029	19	586	272	877	697	420	400	29	849	Ν	59	) 6	0
16:00-18:00	TRK	13	0	10	3	13	8	3	5	0	8	6	0	4	3	7	7	2	4	0	6	S	35	5 0	0
2 HR PM	BUS	68	1	49	0	50	6	19	6	0	25	55	0	52	23	75	32	3	8	0	11	Е	60	) 3	. 0
																						W	50	) 3	0
	TOTAL:	1,030	26	637	335	998	991	364	637	23	1,024	1,090	19	642	298	959	736	425	412	29	866				
07.20 48.00	CAR	3,082	101	1,960	1,306	3,367	3,132	1,022	1,758	100	2,880	3,197	68	1,762	940	2,770	2,816	1,335	1,775	100	3,210	Ν	197	<b>'</b> 15	0
07:30-18:00	TRK	62	6	39	31	76	87	22	54	1	77	49	2	28	22	52	58	20	30	1	51	S	93	3 11	0
8 HR SUM	BUS	272	2	188	23	213	50	84	27	1	112	198	0	189	93	282	128	8	33	0	41	Е	153	37	0
																						W	140	) 8 	0
	TOTAL:	3,416	109	2,187	1,360	3,656	3,269	1,128	1,839	102	3,069	3,444	70	1,979	1,055	3,104	3,002	1,363	1,838	101	3,302				

Total 8 Hour Vehicle Volume: 13,131

Total 8 Hour Bicycle Volume: 41

Total 8 Hour Intersection Volume: 13,172



### Turning Movement Count Summary Report

OVERLEA E	BLVD #42 AT I	EAST YOR	ктом		RE (PX	1834)									Su	rvey Date	e:	2019-N	<i>l</i> lay-15/		(Wedn	esda	iy)		
					-	-									Su	rvey Typ	e:	Pedest	trian Ho	urs					
Time	Vehicle		NO	RTHBO	UND			EA	STBO	JND			SOU	тнвоц	JND			w	еѕтво	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota		Peds	Bike	Other
	CAR	47	11	3	29	43	520	34	485	34	553	92	6	0	6	12	477	58	460	10	528	Ν	6	0	0
08:00-09:00	TRK	2	0	0	0	0	22	1	22	0	23	2	0	0	1	1	24	2	23	1	26	s	14	0	0
AM PEAK	BUS	1	0	0	0	0	41	0	41	1	42	1	0	0	1	1	59	0	58	1	59	E	6	7	0
		50		3		43			548	35	618	95	6	0	8	14		60	541		613				
	CAR	277	52	23	91	166	864	144	658	51	853	194	115	33	158	306	705	110	495	110	715	N	44	1	0
16:45-17:45	TRK	5	1	0	1	2	33	5	29	1	35	3	3	0	6	9	18	2	11	0	13	S	35	0	0
PM PEAK	BUS	0	0	0	0	0	34	0	33	0	33	0	1	0	0	1	35	0	35	0	35	E	21	4	0
																						W	70	0	0
	TOTAL:	282	53	23	92	168	931	149	720	52	921	197	119	33	164	316	758	112	541	110	763				
	CAR	273	25	19	69	113	548	142	379	28	549	146	100	23	135	258	523	95	363	112	570	Ν	55	0	0
OFF HR AVG	TRK	8	2	1	3	6	32	4	27	1	32	7	2	2	3	7	27	4	22	3	29	s	30	0	0
	BUS	1	0	0	0	0	26	1	25	0	26	0	1	0	0	1	29	0	29	0	29	Е	25	4	0
																						W	61	1	0
	TOTAL:	282	27	20	72	119	606	147	431	29	607	153	103	25	138	266	579	99	414	115	628				
07:20 00:20	CAR	97	23	11	47	81	904	65	848	52	965	177	9	7	13	29	919	118	883	21	1,022	Ν	8	0	0
07.30-03.30	TRK	7	0	1	2	3	43	4	41	0	45	5	0	1	3	4	63	4	60	2	66	S	23	1	0
2 HR AM	BUS	1	1	0	0	1	81	0	81	1	82	4	0	0	3	3	120	3	116	1	120	Е	15	10	0
																							44		0
	TOTAL:	105	24	12	49	85	1,028	69	970	53	1,092	186	9	8	19	36	1,102	125	1,059	24	1,208				
40.00 40.00	CAR	540	79	55	171	305	1,645	290	1,245	81	1,616	361	229	59	308	596	1,354	221	967	195	1,383	Ν	73	1	0
10:00-10:00	TRK	16	4	0	3	7	64	12	57	3	72	8	4	1	8	13	42	4	30	4	38	S	60	3	0
2 HR PM	BUS	0	0	0	0	0	72	0	71	0	71	0	1	0	1	2	77	0	76	0	76	Е	51	6	0
																						W	149	2	0
	TOTAL:	556	83	55	174	312	1,781	302	1,373	84	1,759	369	234	60	317	611	1,473	225	1,073	199	1,497				
07:30-18:00	CAR	1,787	209	151	511	871	4,920	948	3,752	256	4,956	1,162	657	162	895	1,714	4,527	744	3,423	688	4,855	Ν	302	2	0
01.00 10.00	TRK	57	14	7	16	37	248	33	220	7	260	39	12	9	26	47	224	23	184	17	224	S	215	4	0
8 HR SUM	BUS	5	2	0	0	2	260	3	257	2	262	7	3	1	5	9	327	4	320	2	326	E	169	31	0
																							45/		0
	TOTAL:	1,849	225	158	527	910	5,428	984	4,229	265	5,478	1,208	672	172	926	1,770	5,078	771	3,927	707	5,405				

Total 8 Hour Vehicle Volume: 13,563

Total 8 Hour Bicycle Volume: 51

Total 8 Hour Intersection Volume: 13,614



### Turning Movement Count Summary Report

OVERLEA B	BLVD AT THO	RNCLIFFE	PARK	DR & E	E TCS (P	X 679)									Su	rvey Date	e:	2018-S	iep-12	urs	(Wedn	esda	y)		
Time	Vehicle		NO	RTHBC	DUND			EA	STBO	UND			SOU	тнвоι	JND	vey iyp	<b>c.</b>	w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total		Peds	Bike	Other
00.00 00.00	CAR	404	56	102	356	514	948	49	407	80	536	382	185	49	22	256	559	253	481	253	987	Ν	43	2	0
08:00-09:00	TRK	8	1	0	3	4	21	1	6	1	8	2	12	0	1	13	9	1	7	7	15	S	163	6	0
AM PEAK	BUS	10	2	9	9	20	48	0	36	14	50	23	3	5	0	8	40	4	38	1	43	E W	35 108	2 14	0
	TOTAL:	422		 111	368	538	1,017	50	449	95	594	407	200	54	23	277	608	258	526	261	1,045				
	CAR	294	77	84	242	403	1,186	64	691	66	821	470	253	139	88	480	731	265	566	146	977	N	91	8	0
17:00-18:00	TRK	11	1	0		4	22	2	6	0	8	2	13	1	2	16	8	1	5		15	s	131	5	0
PM PEAK	BUS	5	10	5	0	15	28	0	28	0	28	4	0	3	1	4	42	1	31	0	32	E	64	18	0
																						w	148	9	0
	TOTAL:	310	88	89	245	422	1,236	66	725	66	857	476	266	143	91	500	781	267	602	155	1,024				
	CAR	279	51	63	208	322	829	76	445	36	557	288	176	69	79	324	582	183	452	140	775	N	70	1	0
OFF HR	TRK	23	1	0	4	5	42	2	12	2	16	7	26	2	2	30	14	3	11	21	35	s	104	1	0
	BUS	3	0	2	2	4	24	0	20	7	27	10	2	3	0	5	20	0	20	1	21	Е	52	4	0
																						W	97	3	0
	TOTAL:	305	52	65	214	331	895	78	477	45	600	305	204	74	81	359	616	186	483	162	831				
	CAR	741	114	178	651	943	1,681	106	735	121	962	664	295	96	61	452	1,116	447	941	457	1,845	Ν	91	3	0
07:30-09:30	TRK	25	3	1	7	11	52	3	14	3	20	13	31	4	1	36	21	6	17	21	44	s	265	7	0
2 HR AM	BUS	17	2	14	17	33	95	0	74	24	98	44	4	11	2	17	82	9	78	3	90	Е	66	4	0
																						W	197	24	0
	TOTAL:	783	119	193	675	987	1,828	109	823	148	1,080	721	330	111	64	505	1,219	462	1,036	481	1,979				
	CAR	518	160	157	489	806	2,343	121	1,359	114	1,594	847	495	255	169	919	1,380	478	1,051	240	1,769	Ν	177	8	0
16:00-18:00	TRK	28	1	1	8	10	52	5	16	1	22	6	28	2	4	34	16	3	11	22	36	s	267	7	0
2 HR PM	BUS	9	17	9	7	33	62	0	55	3	58	14	0	9	1	10	80	2	62	0	64	Е	132	29	0
																						W	292	17	0
	TOTAL:	555	178	167	504	849	2,457	126	1,430	118	1,674	867	523	266	174	963	1,476	483	1,124	262	1,869				
07:30-18:00	CAR	2,434	497	609	2,034	3,140	7,614	548	4,032	388	4,968	2,747	1,548	649	569	2,766	4,981	1,710	3,915	1,277	6,902	Ν	569	15	0
07.30-10.00	TRK	149	8	3	30	41	278	17	82	10	109	47	166	14	15	195	95	23	72	129	224	S	972	20	0
8 HR SUM	BUS	37	19	29	30	78	255	0	213	57	270	99	12	31	3	46	249	11	227	8	246	Е	428	51	0
																							914	56	0
	TOTAL:	2,620	524	641	2,094	3,259	8,147	565	4,327	455	5,347	2,893	1,726	694	587	3,007	5,325	1,744	4,214	1,414	7,372				

Total 8 Hour Vehicle Volume: 18,985

Total 8 Hour Bicycle Volume: 142

Total 8 Hour Intersection Volume: 19,127



### **Turning Movement Count Summary Report**

				W DR (	PX 680)										Su	rvey Date	ə:	2018-S	ep-12		(Wedn	esda	y)		
0121122/12															Su	rvey Typ	e:	Pedest	rian Hou	urs					
Time	Vehicle		NO	RTHBO	UND			EA	STBO	UND			SOU	тнвоі	JND			w	ESTBO	JND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	l	Peds	Bike	Other
	CAR	309	206	70	57	333	544	113	409	82	604	156	78	42	87	207	643	32	350	126	508	N	62	2	0
08:00-09:00	TRK	4	0	0	0	0	13	2	12	4	18	4	1	0	5	6	12	0	7	2	9	S	166	3	0
AM PEAK	BUS	1	18	0	1	19	57	1	56	8	65	11	0	0	0	0	57	3	39	0	42	E	121 77	6	0
		314	224			352	 614	 116	477	94	687	171	79	42	 92			35	396	 128	559				
	CAR	203	180	64	60	313	818	99	626	170	895	306	132	70	103	305	800	66	508	130	704	N	122	0	0
17:00-18:00	TRK	200	0	1	3	4	8	1	3	0	4	7	2	,0	0	2000	2	7	200	100	10	5	117	0	0
PM PEAK	BUS	4	3	1	0	4	23	0	22	14	36	, 16	1	1	0	2	41	, 1	38	3	42	F	140	9	0
							20	Ū							Ĵ							w	173	9	0
	TOTAL:	300	192	66	63	321	849	100	651	184	935	329	135	71	103	309	843	74	548	134	756				
	CAR	262	137	51	46	234	576	98	413	106	617	212	117	55	93	265	581	51	351	113	515	N	95	1	0
OFF HR AVG	TRK	9	3	1	2	6	17	3	11	3	17	7	4	1	4	9	15	3	8	5	16	s	84	1	0
	BUS	1	9	0	0	9	29	1	29	2	32	3	0	0	0	0	33	1	24	0	25	Е	100	3	0
																							133	3	0
	TOTAL:	272	149	52	48	249	622	102	453	111	666	222	121	56	97	274	629	55	383	118	556				
07.20 00.20	CAR	566	384	130	121	635	983	202	708	158	1,068	299	154	77	175	406	1,276	64	717	234	1,015	Ν	132	2	0
07:30-09:30	TRK	8	2	0	4	6	22	3	15	4	22	5	3	0	6	9	19	1	11	5	17	S	295	3	0
2 HR AM	BUS	2	33	0	2	35	96	1	94	17	112	21	0	1	0	1	108	3	75	1	79	Е	247	9	0
																						W	170	27	0
	TOTAL:	576	419	130	127	676	1,101	206	817	179	1,202	325	157	78	181	416	1,403	68	803	240	1,111				
40.00 40.00	CAR	551	363	116	109	588	1,660	199	1,301	347	1,847	606	250	126	196	572	1,503	133	944	236	1,313	Ν	228	1	0
16:00-18:00	TRK	7	3	1	3	7	23	5	16	0	21	9	4	0	2	6	13	9	8	1	18	s	206	1	0
2 HR PM	BUS	6	9	2	0	11	59	0	58	26	84	31	1	1	0	2	83	4	74	4	82	Е	257	17	0
																						W	325	16	0
	TOTAL:	564	375	119	112	606	1,742	204	1,375	373	1,952	646	255	127	198	580	1,599	146	1,026	241	1,413				
07:30-18:00	CAR	2,233	1,338	463	430	2,231	5,145	822	3,803	961	5,586	1,830	912	445	770	2,127	5,276	424	3,168	948	4,540	Ν	771	6	0
	TRK	49	17	5	16	38	116	20	77	16	113	38	23	2	22	47	89	20	50	24	94	S	859	9	0
8 HR SUM	BUS	11	81	3	2	86	280	3	277	54	334	65	1	2	0	3	329	9	248	5	262	E	930 1 076	36 56	0
												4 022									4 800				
	IUTAL:	2,293	1,430	4/1	448	2,355	5,541	845	4,15/	1,031	6,033	1,933	936	449	/92	2,177	5,694	453	3,466	9//	4,896				

Total 8 Hour Vehicle Volume: 15,461

Total 8 Hour Bicycle Volume: 107

Total 8 Hour Intersection Volume: 15,568



### Turning Movement Count Summary Report

				0 (DY 19	200)											Su	rvey Date	ə:	2018-S	Sep-12		(Wedn	esda	y)		
OVERLEAD			GAN Dr		500)											Su	rvey Typ	e:	Pedest	rian Ho	urs					
Time	Vehicle		NO	RTHBO	UND			EA	STBO	JND				SOUT	нвои	IND			w	ESTBO	UND					
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	I	Left T	hru l	Right	Total	Exits	Left	Thru	Right	Total	l	Peds	Bike	Other
	CAR	58	0	0	0	0	967	9	947	0	956		0	20	0	9	29	1,000	0	991	49	1,040	N	54	4 O	0
08:00-09:00	TRK	3	0	0	0	0	26	0	25	0	25		0	1	0	1	2	16	0	15	3	18	S	(	0 0	0
AM PEAK	BUS	2	0	0	0	0	55	0	53	0	53		0	2	0	0	2	43	0	43	2	45	E	72	2 7	0
		·																								
	TOTAL:	63	0	0	0	0	1,048	9	1,025	0	1,034		0	23	0	10	33	1,059	0	1,049	54	1,103				
17:00-18:00	CAR	51	0	0	0	0	1,295	15	1,231	0	1,246		0	64	0	12	76	999	0	987	36	1,023	N	36	§ 1	0
	IRK	3	0	0	0	0	24	3	20	0	23		0	4	0	0	4	15	0	15	0	15	S	(	) ()	0
PMPEAK	BOS	0	U	U	U	U	22	0	22	U	22		0	U	0	U	0	29	0	29	0	29	E W	12	5 9	0
	TOTAL:	54	0	0	0	 0	1,341	18	1,273	0	1,291		0	68	0	12	80	1,043	, O	1,031	36	1,067				
	CAR	57	0	0	0	0	853	23	823	0	846		0	30	0	15	45	776	0	761	34	795	N	34	+ 0	0
OFF HR	TRK	4	0	0	0	0	44	1	39	0	40		0	5	0	2	7	32	0	30	3	33	S	(	0 0	0
A <b>10</b>	BUS	1	0	0	0	0	26	0	26	0	26		0	0	0	0	0	28	0	28	1	29	Е	18	5 5	0
																							W	22	23	0
	TOTAL:	62	0	0	0	0	923	24	888	0	912		0	35	0	17	52	836	6 O	819	38	857				
07.20 00.20	CAR	91	0	0	0	0	1,741	16	1,710	0	1,726		0	31	0	13	44	1,856	0	1,843	75	1,918	Ν	75	5 0	0
07.30-09.30	TRK	7	0	0	0	0	46	0	42	0	42		0	4	0	1	5	39	0	38	7	45	S	(	0 0	0
2 HR AM	BUS	2	0	0	0	0	95	0	93	0	93		0	2	0	0	2	87	0	87	2	89	Е	97	7 17	0
																							W	122	2 26	0
	TOTAL:	100	0	0	0	0	1,882	16	1,845	0	1,861		0	37	0	14	51	1,982	2 0	1,968	84	2,052				
46.00 49.00	CAR	76	0	0	0	0	2,563	20	2,447	0	2,467		0	116	0	26	142	1,812	0	1,786	56	1,842	Ν	82	2 1	0
10:00-10:00	TRK	3	0	0	0	0	54	3	49	0	52		0	5	0	1	6	33	0	32	0	32	S	(	0 0	0
2 HR PM	BUS	0	0	0	0	0	61	0	61	0	61		0	0	0	0	0	68	0	68	0	68	Е	20	) 25	0
																							W	56	5 12 	0
	TOTAL:	79	0	0	0	0	2,678	23	2,557	0	2,580		0	121	0	27	148	1,913	s 0	1,886	56	1,942				
07:30-18:00	CAR	407	0	0	0	0	8,019	130	7,739	0	7,869		0	280	0	102	382	6,988	0	6,886	277	7,163	Ν	301	1	0
01.00 10.00	TRK	27	0	0	0	0	277	7	250	0	257		0	27	0	10	37	209	0	199	20	219	S	C	0 0	0
8 HR SUM	BUS	4	0	0	0	0	267	0	265	0	265		0	2	0	0	2	273	0	273	4	277	E	191	63	0
																							V			0
	TOTAL:	438	0	0	0	0	8,563	137	8,254	0	8,391		0	309	0	112	421	7,470	0	7,358	301	7,659				

Total 8 Hour Vehicle Volume: 16,471

Total 8 Hour Bicycle Volume: 117

Total 8 Hour Intersection Volume: 16,588



### Turning Movement Count Summary Report

															Su	rvey Date	e:	2018-N	/lay-15		(Tuesc	lay)			
FAFE AVE /		AVE													Su	rvey Typ	e:	Routin	e Hours						
Time	Vehicle		NO	RTHBO	UND			EA	STBO				SOL	ітнво				w	ESTBO						
Period	Туре	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Total	Exits	Left	Thru	Right	Tota	I	Peds	Bike	Other
	CAR	519	0	470	18	488	33	0	0	0	0	550	15	485	2	502	2	65	0	49	114	Ν	3	3 20	0
08:00-09:00	TRK	2	0	2	0	2	0	0	0	0	0	2	0	2	0	2	0	0	0	0	0	S	C	) 5	0
AM PEAK	BUS	35	0	35	0	35	0	0	0	0	0	36	0	36	0	36	0	0	0	0	0	E	75	; 29	0
		556	0	507		 525		0	0				15		2	540	2		· 0	49			`		
	CAR	510	0	497	22	519	36	0	0	0	0	394	14	382	0	396	0	12	0	13	25	N		3 1	0
16:30-17:30	TRK	1	0	101	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	s	1		, 0
PM PEAK	BUS	35	0	34	0	34	0	0	0	0	0	38	0	38	0	38	0	0	0	3 1	1	E	99	) C	0
																						w	(	) 0	0
	TOTAL:	546	0	532	22	554	36	0	0	0	0	433	14	421	0	435	0	12	0	14	26				
	CAR	455	0	433	19	452	32	0	0	0	0	398	13	384	0	397	0	14	0	22	36	Ν	4	4	0
OFF HR	TRK	2	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	S	2	2 3	0
	BUS	21	0	21	0	21	0	0	0	0	0	23	0	23	0	23	0	0	0	0	0	Е	75	; 5	, 0
																						W	0	0	0
	TOTAL:	478	0	456	19	475	32	0	0	0	0	422	13	408	0	421	0	14	0	22	36				
07.00 00.00	CAR	942	0	872	33	905	54	0	0	0	0	991	21	902	2	925	2	89	0	70	159	Ν	7	′ 36	0
07:30-09:30	TRK	3	0	3	0	3	0	0	0	0	0	3	0	2	0	2	0	1	0	0	1	S	C	) 7	0
2 HR AM	BUS	71	0	71	0	71	0	0	0	0	0	64	0	64	0	64	0	0	0	0	0	Е	117	56	0
																						W	(	· 0	0
	TOTAL:	1,016	0	946	33	979	54	0	0	0	0	1,058	21	968	2	991	2	90	0	70	160				
	CAR	1,012	0	980	40	1,020	65	0	0	0	0	763	25	742	0	767	0	21	0	32	53	Ν	5	; 3	0
16:00-18:00	TRK	2	0	2	0	2	0	0	0	0	0	2	0	1	0	1	0	1	0	0	1	S	5	i 5	, 0
2 HR PM	BUS	71	0	70	1	71	1	0	0	0	0	74	0	74	0	74	0	0	0	1	1	Е	191	0	0
																						W	(	· 0	0
	TOTAL:	1,085	0	1,052	41	1,093	66	0	0	0	0	839	25	817	0	842	0	22	0	33	55				
07.30-18.00	CAR	3,775	0	3,584	148	3,732	247	0	0	0	0	3,346	99	3,179	2	3,280	2	167	0	191	358	Ν	27	' 54	0
07.00-10.00	TRK	14	0	14	0	14	0	0	0	0	0	11	0	8	0	8	0	3	0	0	3	S	12	24	0
8 HR SUM	BUS	224	0	223	1	224	2	0	0	0	0	232	1	231	0	232	0	1	0	1	2	E	607	77	0
																						W	(	) 0 	0
	TOTAL:	4,013	0	3,821	149	3,970	249	0	0	0	0	3,589	100	3,418	2	3,520	2	171	0	192	363				

Total 8 Hour Vehicle Volume: 7,853

Total 8 Hour Bicycle Volume: 155

Total 8 Hour Intersection Volume: 8,008



#### ALDWYCH AVE AT PAPE AVENUE

Survey Type:	Routine Hours

Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	EAST BOUND Thru Right Left			l BOUI ight	ND Left	WEST BOUND Thru Right Left		
07:45	CARS	93	2	0	0	0	0	89	0	1	0	7	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		8	South Side		0	West Side		0
08:00	CARS	113	1	0	0	0	0	100	0	5	0	13	2
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	1	(0)	
	PEDS	North Side		5	East Side		12	South Side		0	West Side		0
08:15	CARS	118	4	0	0	0	0	100	0	4	0	8	2
	DUALS	2	0	0	0	0	0	0	0	0	0	2	0
	BUSES	15	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side		4	East Side		19	South Side		0	West Side		0
08:30	CARS	124	5	0	0	0	0	129	0	5	0	15	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	12	1	0	0	0	0	7	0	2	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		6	East Side		16	South Side		0	West Side		0
08:45	CARS	123	14	0	0	0	0	106	0	8	0	18	5
	DUALS	0	0	0	0	0	0	0	0	0	0	1	0
	BUSES	8	0	0	0	0	0	8	0	0	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	2	(0)	
	PEDS	North Side		16	East Side		10	South Side		0	West Side		0
09:00	CARS	130	12	0	0	0	0	115	0	7	0	16	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		10	East Side		6	South Side		0	West Side		0
09:15	CARS	123	10	0	0	0	0	116	0	5	0	13	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	1	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		6	South Side		1	West Side		0



#### ALDWYCH AVE AT PAPE AVENUE

Survey	Туре:	Routine Hours

Time Period		NORTH Thru R	ND Left	EAS <sup>-</sup> Thru	EAST BOUND Thru Right Left			BOUN ight	ND Left	WEST BOUND Thru Right Left			
09:30	CARS	115	8	0	0	0	0	110	0	3	0	5	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	9	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		6	East Side		5	South Side		0	West Side		0
10:15	CARS	102	0	0	0	0	0	94	0	8	0	4	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	4	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		9	East Side		0	South Side		0	West Side		0
10:30	CARS	86	7	0	0	0	0	109	0	6	0	4	6
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		14	South Side		1	West Side		0
10:45	CARS	118	2	0	0	0	0	88	0	6	0	4	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		9	East Side		4	South Side		1	West Side		0
11:00	CARS	107	6	0	0	0	0	79	0	6	0	10	1
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		3	South Side		3	West Side		0
11:15	CARS	95	3	0	0	0	0	83	0	6	0	10	3
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		3	East Side		3	South Side		4	West Side		0
11:30	CARS	99	6	0	0	0	0	102	0	5	0	4	5
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		8	East Side		13	South Side		1	West Side		0



#### ALDWYCH AVE AT PAPE AVENUE

Survey Type:	Routine Hours

Time Period		NORT Thru I	IND Left	EAS <sup>-</sup> Thru	EAST BOUND Thru Right Left			BOUI ight	ND Left	WEST BOUND Thru Right Left			
11:45	CARS	125	6	0	0	0	0	109	0	3	0	5	3
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		7	East Side		9	South Side		1	West Side		0
12:00	CARS	134	5	0	0	0	0	112	0	4	0	3	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		7	South Side		3	West Side		0
13:15	CARS	113	12	0	0	0	0	82	0	8	0	5	3
	DUALS	2	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		8	East Side		30	South Side		0	West Side		0
13:30	CARS	135	4	0	0	0	0	98	0	3	0	7	2
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		9	East Side		15	South Side		0	West Side		0
13:45	CARS	117	8	0	0	0	0	91	0	6	0	5	1
	DUALS	2	0	0	0	0	0	0	0	0	0	1	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		8	East Side		22	South Side		2	West Side		0
14:00	CARS	135	7	0	0	0	0	81	0	7	0	11	1
	DUALS	1	0	0	0	0	0	1	0	1	0	0	0
	BUSES	7	1	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		7	East Side		17	South Side		4	West Side		0
14:15	CARS	109	7	0	0	0	0	98	0	0	0	7	2
	DUALS	4	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		11	East Side		33	South Side		0	West Side		0



#### ALDWYCH AVE AT PAPE AVENUE

Survey	Type:	Routine Hours

Time Period		NORTH Thru F	ND Left	EAST Thru	EAST BOUND Thru Right Left			BOUI ight	ND Left	WEST BOUND Thru Right Left			
14:30	CARS	116	5	0	0	0	0	88	0	4	0	4	1
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		26	South Side		2	West Side		0
14:45	CARS	128	8	0	0	0	0	95	0	6	0	3	2
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		11	East Side		24	South Side		0	West Side		0
15:00	CARS	133	6	0	0	0	0	90	0	6	0	4	2
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side	_	9	East Side		26	South Side		2	West Side		0
16:15	CARS	124	7	0	0	0	0	89	0	5	0	5	2
	DUALS	3	0	0	0	0	0	0	0	0	0	0	0
	BUSES	10	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		6	East Side		14	South Side		0	West Side		0
16:30	CARS	130	4	0	0	0	0	96	0	8	0	3	0
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	1	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		19	South Side		2	West Side		0
16:45	CARS	137	6	0	0	0	0	102	0	4	0	4	1
	DUALS	2	0	0	0	0	0	1	0	0	0	0	0
	BUSES	9	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		18	South Side		0	West Side		0
17:00	CARS	143	9	0	0	0	0	100	0	6	0	3	2
	DUALS	2	0	0	0	0	0	1	0	0	0	0	0
	BUSES	9	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		9	East Side		17	South Side		1	West Side		0



Survey Type:

### Intersection Detailed 15 Minutes Movement Report

#### ALDWYCH AVE AT PAPE AVENUE

**Routine Hours** 

Time		NOR1	H BO	UND	EAS	T BOU	ND	SOUTH	l BOU	IND	WEST	BOUND	
		intu	Nigin	Leit	intu	Night	Len		igin	Len			
17:15	CARS	139	5	0	0	0	0	94	0	3	0	3	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	9	East Side		27	South Side		3	West Side		0
17:30	CARS	150	5	0	0	0	0	102	0	7	0	1	3
	DUALS	3	0	0	0	0	0	1	0	0	0	0	0
	BUSES	8	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	8	East Side		19	South Side		2	West Side		0
17:45	CARS	142	6	0	0	0	0	99	0	5	0	4	2
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	10	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	8	East Side		17	South Side		0	West Side		0
18:00	CARS	149	5	0	0	0	0	93	0	4	0	2	2
	DUALS	2	0	0	0	0	0	1	0	0	0	0	0
	BUSES	8	1	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	)	5	East Side		21	South Side		3	West Side		0



#### BROWNING AVE AT PAPE AVE

**Routine Hours** 

Survey Type:

Survey Date: Mar-22-2017 (Wednesday)

Time Period		NORTI Thru F	H BOl Right	JND Left	SOUTH Thru R	BOU! ight	ND Left	WEST BOUND Thru Right Left					
07:45	CARS	78	0	0	0	2	3	83	0	0	0	0	0
	DUALS	2	0	0	0	0	0	4	0	0	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		0	West Side		2
08:00	CARS	76	0	0	0	4	11	89	0	0	0	0	0
	DUALS	2	0	0	0	0	0	3	0	0	0	0	0
	BUSES	6	0	0	0	1	1	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		2
08:15	CARS	87	0	0	0	3	15	92	0	0	0	0	0
	DUALS	2	0	0	0	0	0	7	0	0	0	0	0
	BUSES	10	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		7	East Side		0	South Side		1	West Side		12
08:30	CARS	90	0	0	0	4	14	120	0	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		14	East Side		0	South Side		1	West Side		8
08:45	CARS	104	0	0	0	9	18	103	0	0	0	0	0
	DUALS	1	0	0	0	0	0	5	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		15	East Side		0	South Side		0	West Side		15
09:00	CARS	92	0	0	0	10	17	110	0	0	0	0	0
	DUALS	5	0	0	0	0	0	4	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		7	East Side		0	South Side		2	West Side		14
09:15	CARS	83	0	0	0	6	17	125	0	0	0	0	0
	DUALS	2	0	0	0	0	0	4	0	0	0	0	0
	BUSES	6	0	0	0	0	1	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		6



#### BROWNING AVE AT PAPE AVE

Survey Date: Mar-22-2017 (Wednesday)

Survey Type:	Routine Hours
ourroy rypo.	r toutino r touro

Time Period		NORTH Thru R	IND Left	EAS Thru	EAST BOUND Thru Right Left			BOU! ight	ND Left	WEST BOUND Thru Right Left			
09:30	CARS	79	0	0	0	7	15	118	0	0	0	0	0
	DUALS	4	0	0	0	0	1	7	0	0	0	0	0
	BUSES	7	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		10	East Side		0	South Side		2	West Side		14
10:15	CARS	72	0	0	0	9	5	78	0	0	0	0	0
	DUALS	0	0	0	0	0	1	1	0	0	0	0	0
	BUSES	7	0	0	0	0	1	4	0	0	0	0	0
	BIKE (OTHER)		1	(0)		2	(0)		2	(0)	0	(0)	
	PEDS	North Side		5	East Side		0	South Side		0	West Side		9
10:30	CARS	66	0	0	0	5	19	82	0	0	0	0	0
	DUALS	6	0	0	0	0	1	3	0	0	0	0	0
	BUSES	5	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		4	East Side		0	South Side		1	West Side		13
10:45	CARS	75	0	0	0	5	9	70	0	0	0	0	0
	DUALS	4	0	0	0	0	1	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		9	East Side		0	South Side		3	West Side		6
11:00	CARS	73	0	0	0	6	11	79	0	0	0	0	0
	DUALS	3	0	0	0	0	1	4	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		0	South Side		1	West Side		8
11:15	CARS	66	0	0	0	10	20	76	0	0	0	0	0
	DUALS	3	0	0	0	1	0	6	0	0	0	0	0
	BUSES	6	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		6	East Side		0	South Side		3	West Side		9
11:30	CARS	92	0	0	0	3	10	70	0	0	0	0	0
	DUALS	3	0	0	0	1	0	3	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		9	East Side		0	South Side		4	West Side		7



#### BROWNING AVE AT PAPE AVE

Survey Date: Mar-22-2017 (Wednesday)

Survey	Type:	Routine Hours
		rioutino riouro

Time Period		NORTH Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST BOUND Thru Right Lefi		t
11:45	CARS	99	0	0	0	5	11	75	0	0	0	0	0
	DUALS	4	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		8	East Side		0	South Side		0	West Side		10
12:00	CARS	97	0	0	0	5	10	83	0	0	0	0	0
	DUALS	3	0	0	0	0	0	3	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		6	East Side		0	South Side		5	West Side		9
13:15	CARS	92	0	0	0	6	16	106	0	0	0	0	0
	DUALS	2	0	0	0	0	1	7	0	0	0	0	0
	BUSES	6	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		10	East Side		0	South Side		1	West Side		5
13:30	CARS	76	0	0	0	5	14	79	0	0	0	0	0
	DUALS	4	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		14	East Side		0	South Side		2	West Side		9
13:45	CARS	102	0	0	0	11	11	70	0	0	0	0	0
	DUALS	2	0	0	0	1	1	2	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		0	South Side		3	West Side		11
14:00	CARS	96	0	0	0	5	15	81	0	0	0	0	0
	DUALS	6	0	0	0	0	1	1	0	0	0	0	0
	BUSES	3	0	0	0	0	1	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		8	East Side		0	South Side		2	West Side		8
14:15	CARS	97	0	0	0	4	14	48	0	0	0	0	0
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		9	East Side		0	South Side		4	West Side		8



#### BROWNING AVE AT PAPE AVE

BUSES

PEDS

BIKE (OTHER)

North Side

(0)

Mar-22-2017 (Wednesday) Survey Date:

(0)

Survey Ty	pe: Routine H	ours						Survey	Date:	IVIAI-2	22-2017 (weane	suay)
Time Period		NORTH BOUND Thru Right Left			EAS <sup>:</sup> Thru	SOUTH Thru Ri	BOUN ight	ID Left	WEST BOUND Thru Right Left			
14:30	CARS	96	0	0	0	9	20	78	0	0	0	0
	DUALS	2	0	0	0	1	0	4	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)
	PEDS	North Side		10	East Side		0	South Side		2	West Side	
14:45	CARS	93	0	0	0	8	17	73	0	0	0	0
	DUALS	3	0	0	0	0	0	4	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)
	PEDS	North Side		7	East Side		0	South Side		3	West Side	
15:00	CARS	95	0	0	0	6	14	79	0	0	0	0
	DUALS	4	0	0	0	0	0	3	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side		7	East Side		0	South Side		1	West Side	
16:15	CARS	105	0	0	0	6	17	77	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	0	(0)
	PEDS	North Side		10	East Side		0	South Side		2	West Side	
16:30	CARS	101	0	0	0	5	21	85	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)
	PEDS	North Side		5	East Side		00	South Side		1	West Side	
16:45	CARS	112	0	0	0	12	24	100	0	0	0	0
	DUALS	3	0	0	0	0	0	1	0	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side		9	East Side		0	South Side		2	West Side	
17:00	CARS	117	0	0	0	9	25	86	0	0	0	0
	DUALS	2	0	0	0	0	0	1	0	0	0	0

West Side

East Side

(0)

South Side

(0)



#### BROWNING AVE AT PAPE AVE

Survey Date: Mar-22-2017 (Wednesday)

Survey Ty	rpe: Routine H	lours										
Time Period		NORT Thru	TH BOU Right	JND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru I	「BOUND Right Left
17:15	CARS	114	0	0	0	14	20	93	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side	•	8	East Side		0	South Side		1	West Side	
17:30	CARS	122	0	0	0	9	21	90	0	0	0	0
	DUALS	1	0	0	0	0	0	1	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side	•	6	East Side		0	South Side		2	West Side	
17:45	CARS	109	0	0	0	7	21	95	0	0	0	0
	DUALS	3	0	0	0	0	0	1	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)
	PEDS	North Side	•	9	East Side		0	South Side		2	West Side	
18:00	CARS	98	0	0	0	4	18	87	0	0	0	0
	DUALS	2	0	0	0	0	0	1	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)
	PEDS	North Side	•	5	East Side		0	South Side		1	West Side	



#### COSBURN AVE AT PAPE AVE (PX 669)

Survey Date: Jan-09-2017 (Monday)

Survey Ty	rpe: Routine H	lours											
Time Period		NORTH BOUND Thru Right Left		EAS] Thru	EAST BOUND Thru Right Left				ND Left	WEST BOUND Thru Right Left			
07:45	CARS	65	19	1	25	2	4	63	5	6	48	10	17
	DUALS	0	0	0	1	0	1	0	0	0	0	0	C
	BUSES	9	0	0	3	0	0	8	0	0	3	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		36	East Side		27	South Side		11	West Side		15
08:00	CARS	83	15	5	21	6	13	94	9	6	49	7	24
	DUALS	2	1	0	0	0	0	0	0	0	1	0	C
	BUSES	9	0	0	4	0	0	10	0	0	2	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		36	East Side		22	South Side		29	West Side		25
08:15	CARS	84	13	0	25	4	14	88	6	3	59	12	34
	DUALS	2	0	1	0	0	0	4	0	0	2	0	C
	BUSES	10	1	0	3	0	0	8	0	0	3	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		35	East Side		29	South Side		36	West Side		36
08:30	CARS	86	16	2	33	4	10	97	8	5	42	12	35
	DUALS	3	0	0	0	0	0	3	0	0	0	0	C
	BUSES	8	0	0	3	0	0	6	0	0	3	0	1
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	1	(0)	
	PEDS	North Side		57	East Side		32	South Side		45	West Side		76
08:45	CARS	92	22	1	35	5	15	106	13	5	51	6	25
	DUALS	0	0	0	1	1	0	0	0	0	0	0	2
	BUSES	6	0	0	3	0	0	8	0	0	3	0	0
	BIKE (OTHER)		2	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side		55	East Side		58	South Side		56	West Side		70
09:00	CARS	100	19	5	22	8	10	112	9	10	52	10	25
	DUALS	1	0	0	0	0	0	3	0	0	1	0	1
	BUSES	9	1	0	4	0	0	7	0	1	4	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		48	East Side		36	South Side		32	West Side		49
09:15	CARS	95	21	2	17	3	14	107	4	5	42	5	30
	DUALS	1	1	0	1	0	1	3	0	0	0	0	C
	BUSES	7	0	0	1	0	0	9	0	0	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		41	East Side		38	South Side		29	West Side		56



#### COSBURN AVE AT PAPE AVE (PX 669)

Survey Date: Jan-09-2017 (Monday)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru Ri	BOUND ight Left	t
09:30	CARS	86	18	2	19	3	8	88	6	3	31	8	22
	DUALS	1	0	0	0	0	0	2	0	0	0	0	0
	BUSES	7	0	0	2	0	0	5	0	0	3	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	3	(0)	
	PEDS	North Side		33	East Side		25	South Side		12	West Side		29
10:15	CARS	87	10	2	29	4	10	94	4	3	19	6	g
	DUALS	5	0	1	0	0	0	4	0	1	1	0	0
	BUSES	6	0	0	3	0	0	6	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		29	East Side		29	South Side		23	West Side		50
10:30	CARS	80	18	1	32	8	10	60	7	7	17	8	13
	DUALS	4	0	0	0	0	0	1	1	0	1	1	0
	BUSES	2	0	0	1	0	0	5	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		36	East Side		29	South Side		19	West Side		36
10:45	CARS	72	16	2	16	6	5	98	7	5	17	7	12
	DUALS	3	0	2	0	1	0	3	0	0	0	0	0
	BUSES	6	0	0	1	0	0	6	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		25	East Side		25	South Side		21	West Side		37
11:00	CARS	77	19	0	21	5	4	74	9	8	23	6	20
	DUALS	1	0	0	0	0	0	2	0	0	0	0	2
	BUSES	4	0	0	2	0	0	5	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		36	East Side		25	South Side		20	West Side		56
11:15	CARS	85	18	3	20	4	7	85	2	5	18	9	19
	DUALS	0	0	0	0	0	0	1	0	2	2	0	0
	BUSES	5	0	0	1	0	0	2	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		41	East Side		37	South Side		29	West Side		55
11:30	CARS	80	16	5	22	12	6	110	6	4	13	5	13
	DUALS	1	0	0	1	0	1	1	0	0	1	0	0
	BUSES	5	0	0	2	0	0	5	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		28	East Side		32	South Side		30	West Side		47


## COSBURN AVE AT PAPE AVE (PX 669)

Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>°</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUN ight	ND Left	WEST Thru Ri	BOUND ight Left	t
11:45	CARS	82	21	3	21	7	9	90	6	6	21	8	17
	DUALS	3	0	0	0	0	1	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side	·	33	East Side		41	South Side		37	West Side		59
12:00	CARS	97	15	3	24	10	4	99	5	7	16	8	17
	DUALS	5	2	0	0	0	0	4	0	0	1	0	1
	BUSES	5	0	0	2	0	0	4	0	0	2	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	39	East Side		41	South Side		3	West Side		58
13:15	CARS	72	26	6	24	9	9	79	4	6	21	7	17
	DUALS	2	0	0	0	0	0	3	0	2	2	0	C
	BUSES	5	0	0	1	0	0	6	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	42	East Side		24	South Side		35	West Side		65
13:30	CARS	102	19	2	17	6	5	101	8	8	15	6	17
	DUALS	1	0	0	1	0	0	2	0	0	0	0	C
	BUSES	5	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	36	East Side		26	South Side		37	West Side		59
13:45	CARS	95	17	4	29	4	13	75	10	5	12	7	11
	DUALS	2	0	0	1	0	0	3	1	1	0	0	C
	BUSES	5	0	0	0	0	0	5	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	40	East Side		33	South Side		38	West Side		67
14:00	CARS	79	21	3	21	6	6	100	6	5	11	4	11
	DUALS	4	0	0	0	0	0	1	0	0	0	0	C
	BUSES	4	0	0	2	0	0	4	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	36	East Side		30	South Side		27	West Side		60
14:15	CARS	89	13	5	28	10	13	104	7	5	16	3	ç
	DUALS	2	0	0	1	0	0	1	0	0	0	0	C
	BUSES	6	0	0	2	0	0	6	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		41	East Side		30	South Side		28	West Side		57



## COSBURN AVE AT PAPE AVE (PX 669)

Survey Ty	pe: Routine	Hours											
Time Period		NOR1 Thru	TH BOU Right	ND Left	EAS] Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUI	ND Left	WEST Thru R	BOUND ight Lefi	t
14:30	CARS	79	18	3	19	9	12	86	5	5	11	4	11
	DUALS	1	0	1	0	0	0	0	0	0	0	0	C
	BUSES	4	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side	•	34	East Side		39	South Side		36	West Side		55
14:45	CARS	93	19	3	40	5	3	84	4	4	22	8	14
	DUALS	0	0	0	0	0	0	2	0	0	1	0	C
	BUSES	6	0	0	1	0	0	7	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	•	34	East Side		33	South Side		34	West Side		50
15:00	CARS	77	22	4	29	2	13	101	9	6	21	13	26
	DUALS	3	0	0	1	0	0	1	1	0	1	0	C
	BUSES	5	0	0	2	0	0	7	0	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	•	60	East Side		35	South Side		27	West Side		81
16:15	CARS	104	24	3	59	5	11	110	8	16	20	13	13
	DUALS	4	0	0	1	1	0	1	0	0	1	0	C
	BUSES	6	1	0	2	0	0	8	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	North Side	•	59	East Side		50	South Side		54	West Side		107
16:30	CARS	111	24	3	61	7	24	110	16	7	15	12	13
	DUALS	5	0	0	1	0	0	2	0	0	0	0	C
	BUSES	7	0	0	1	0	0	5	0	0	4	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	56	East Side		29	South Side		38	West Side		98
16:45	CARS	110	16	5	59	3	18	102	7	8	28	14	25
	DUALS	2	0	0	2	0	0	1	0	0	0	0	C
	BUSES	5	0	0	3	0	0	7	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	70	East Side		75	South Side		56	West Side		124
17:00	CARS	94	17	3	67	7	12	111	9	7	32	10	20
	DUALS	1	0	0	1	0	0	1	0	0	0	0	1
	BUSES	6	0	0	2	0	0	5	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	3	(0)	
	PEDS	North Side	•	57	East Side		66	South Side		47	West Side		63



## COSBURN AVE AT PAPE AVE (PX 669)

Survey Date: Jan-09-2017 (Monday)

Survey Typ	be: Routir	ne Hours												
Time Period		т	NOR hru	TH BOL Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU Thru	ITH BOU Right	JND Left	WE: Thru	ST BOUND Right Le	ft
17:15	CARS	1	13	26	3	62	8	14	122	6	6	18	7	24
	DUALS		1	0	0	0	0	0	1	0	0	0	0	0
	BUSES		6	0	0	3	0	0	7	0	0	2	0	0
	BIKE (OTHER)			1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North	n Sid	e	101	East Side		52	South Sid	e	55	West Side		77
17:30	CARS	1	04	30	9	52	12	16	105	12	12	24	12	20
	DUALS		1	0	0	0	0	0	0	0	0	0	0	0
	BUSES		6	0	0	1	0	0	8	0	0	1	0	0
	BIKE (OTHER)			1	(0)		2	(0)		1	(0)	0	(0)	
	PEDS	North	n Sid	e	36	East Side		48	South Sid	e	77	West Side		106
17:45	CARS		95	25	6	69	8	21	122	5	10	25	9	22
	DUALS		0	0	0	0	0	0	0	0	0	1	0	0
	BUSES		6	0	0	2	0	0	5	0	0	3	0	0
	BIKE (OTHER)			0	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North	n Sid	e	73	East Side		49	South Sid	e	78	West Side		91
18:00	CARS	1	06	21	3	61	10	15	106	6	11	24	9	21
	DUALS		0	1	0	1	0	0	0	0	0	0	0	0
	BUSES		8	0	0	3	0	0	7	0	0	3	0	0
	BIKE (OTHER)			0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North	n Sid	e	66	East Side		60	South Sid	е	69	West Side		122



## DON MILLS RD AT GATEWAY BLVD S & OVERLEA BLVD (PX 620)

Survey Date: Feb-13-2020 (Thursday)

Survey Ty	pe: Pedestria	n Hours											
Time Period		NORT Thru	'H BOU Right	ND Left	EAS Thru	T BOUN Right	ID Left	SOUT Thru	'H BOU Right	ND Left	WEST Thru R	BOUND ight Leff	t
07:45	CARS	115	18	22	31	51	95	135	84	6	39	11	58
	DUALS	1	0	1	2	9	6	25	6	0	1	0	3
	BUSES	1	0	4	7	0	9	3	11	1	5	0	1
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		24	East Side		26	South Side		9	West Side		4
08:00	CARS	154	13	24	50	55	97	198	88	6	51	12	73
	DUALS	2	0	4	4	2	7	27	12	0	5	1	4
	BUSES	0	1	0	10	6	6	2	9	1	6	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	33	East Side		31	South Side		25	West Side		35
08:15	CARS	155	26	28	42	44	105	216	100	4	66	17	74
	DUALS	2	2	1	1	2	8	17	16	0	3	1	3
	BUSES	2	1	0	8	2	5	3	6	0	9	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	•	64	East Side		51	South Side		108	West Side		71
08:30	CARS	166	21	45	46	44	114	232	110	10	72	12	66
	DUALS	6	2	3	3	4	7	15	14	1	6	1	3
	BUSES	0	2	1	5	2	6	2	5	0	5	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	56	East Side		43	South Side		46	West Side		64
08:45	CARS	155	36	29	53	53	178	209	108	10	68	16	74
	DUALS	2	0	4	1	5	5	17	3	1	4	0	3
	BUSES	1	0	0	6	3	4	3	4	0	7	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	68	East Side		106	South Side		72	West Side		72
09:00	CARS	187	25	40	43	67	89	195	93	8	97	9	75
	DUALS	3	1	2	2	5	6	15	9	1	7	1	6
	BUSES	0	1	1	6	0	1	0	4	0	4	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	72	East Side		77	South Side		102	West Side		85
09:15	CARS	158	12	42	39	36	75	195	105	10	72	144	60
	DUALS	3	0	8	1	5	12	19	9	2	5	0	2
	BUSES	0	1	1	2	0	8	0	5	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	65	East Side		51	South Side		98	West Side		64



## DON MILLS RD AT GATEWAY BLVD S & OVERLEA BLVD (PX 620)

Survey Date: Feb-13-2020 (Thursday)

Survey Ty	pe: Pedestria	n Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	ID Left	SOUT Thru	ГН ВОU Right	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	108	15	41	26	32	80	202	95	9	86	12	84
	DUALS	3	1	5	4	3	10	16	13	1	0	1	5
	BUSES	0	1	0	6	2	6	1	8	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		56	East Side		68	South Side	•	135	West Side		59
10:15	CARS	96	10	38	38	31	74	238	149	10	47	11	68
	DUALS	7	1	5	1	6	9	18	19	0	6	0	6
	BUSES	2	0	0	3	0	3	1	6	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		12	East Side		15	South Side		21	West Side		12
10:30	CARS	82	25	37	27	34	71	249	100	15	48	8	58
	DUALS	5	0	9	2	7	5	29	19	2	3	0	4
	BUSES	1	0	1	3	0	1	2	4	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		20	East Side		23	South Side	•	20	West Side		7
10:45	CARS	79	8	33	35	48	55	218	119	4	37	8	30
	DUALS	3	1	5	3	10	11	25	17	2	6	2	C
	BUSES	0	0	0	5	0	2	0	1	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		21	East Side		21	South Side	•	35	West Side		16
11:00	CARS	63	18	41	26	51	66	162	113	6	40	7	22
	DUALS	8	1	5	1	5	4	18	13	2	5	1	5
	BUSES	0	0	0	2	1	1	0	3	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		18	East Side		25	South Side	•	42	West Side		15
12:15	CARS	90	18	48	89	52	60	78	117	5	60	9	23
	DUALS	7	0	11	1	11	10	11	6	1	3	0	2
	BUSES	0	0	0	1	0	2	0	3	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		76	East Side		104	South Side	•	202	West Side		21
12:30	CARS	128	22	52	64	43	80	94	110	4	43	5	29
	DUALS	7	0	12	2	6	3	6	6	1	0	0	2
	BUSES	0	0	1	3	0	5	1	1	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		21	East Side		33	South Side	•	110	West Side		28



## DON MILLS RD AT GATEWAY BLVD S & OVERLEA BLVD (PX 620)

Survey Date: Feb-13-2020 (Thursday)

Survey Ty	Pedestria	n Hours											
Time Period		NOR1 Thru	'H BOU Right	JND Left	EAS Thru	T BOUN Right	D Left	SOU1 Thru	'H BOUI Right	ND Left	WEST Thru R	BOUND	t
12:45	CARS	137	24	48	61	53	96	70	87	4	66	15	24
	DUALS	6	4	8	0	3	3	8	9	1	1	1	1
	BUSES	1	0	0	2	1	3	0	3	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	30	East Side		52	South Side		86	West Side		40
13:00	CARS	153	15	66	49	49	93	81	120	16	44	21	25
	DUALS	10	0	7	0	8	2	4	7	1	2	0	0
	BUSES	0	0	0	3	0	2	1	4	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	32	East Side		4	South Side		60	West Side		13
13:15	CARS	132	22	49	59	59	87	81	98	17	38	13	9
	DUALS	4	0	8	1	8	2	10	9	0	1	0	3
	BUSES	0	0	0	4	1	1	0	4	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		20	East Side		25	South Side		28	West Side		7
13:30	CARS	185	26	62	64	64	67	81	108	11	40	10	14
	DUALS	10	1	6	0	5	5	7	8	1	0	0	1
	BUSES	1	0	0	3	0	4	1	2	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		20	South Side		27	West Side		10
14:30	CARS	202	23	44	99	70	86	99	106	19	55	14	20
	DUALS	15	0	6	2	0	3	5	10	0	0	0	0
	BUSES	2	0	0	4	0	3	3	4	0	4	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		19	East Side		34	South Side		17	West Side		7
14:45	CARS	2,914	22	49	99	52	90	114	94	6	45	15	28
	DUALS	20	0	6	1	5	3	13	9	1	3	0	0
	BUSES	1	0	2	2	0	2	0	6	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	14	East Side		25	South Side		23	West Side		14
15:00	CARS	221	43	45	89	52	112	89	107	9	49	12	27
	DUALS	13	3	2	2	2	1	10	3	1	1	0	1
	BUSES	2	0	3	3	0	3	3	3	4	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	130	East Side		66	South Side		30	West Side		26



## DON MILLS RD AT GATEWAY BLVD S & OVERLEA BLVD (PX 620)

Survey Date: Feb-13-2020 (Thursday)

2

Survey Ty	pe: Pedestria	n Hours											
Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOU1 Thru	TH BOU Right	ND Left	WEST Thru R	BOUND ight Lef	ť
15:15	CARS	189	44	38	93	46	78	119	110	12	41	22	39
	DUALS	4	2	7	1	4	4	4	4	2	0	0	2
	BUSES	1	1	0	4	1	2	0	6	0	4	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		146	East Side		86	South Side		136	West Side		51
15:30	CARS	136	31	45	90	73	111	119	100	11	60	10	41
	DUALS	14	2	1	0	5	3	9	10	0	5	0	2
	BUSES	0	0	1	5	1	5	1	7	0	3	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		122	East Side		168	South Side	•	263	West Side		17
15:45	CARS	182	32	37	77	56	110	111	105	17	58	16	30
	DUALS	9	4	5	1	1	6	7	7	1	3	0	0
	BUSES	0	0	1	6	2	7	0	7	1	1	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		28	East Side		44	South Side	•	41	West Side		20
16:15	CARS	194	70	33	149	66	109	140	127	15	55	15	39
	DUALS	7	5	4	4	1	3	7	7	0	2	1	1
	BUSES	0	0	0	6	1	8	2	7	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		30	East Side		60	South Side	•	13	West Side		11
16:30	CARS	214	89	49	110	48	113	158	143	8	48	7	14
	DUALS	5	4	0	3	2	3	4	7	0	0	0	0
	BUSES	0	2	1	6	1	3	1	6	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		23	East Side		27	South Side		14	West Side		8
16:45	CARS	192	76	33	128	65	118	165	134	9	62	15	39
	DUALS	8	1	6	2	1	5	9	7	0	1	0	0
	BUSES	1	0	1	4	0	5	0	4	1	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		29	East Side		29	South Side		24	West Side		13
17:00	CARS	195	54	40	121	54	109	165	125	12	55	7	28
	DUALS	6	1	0	2	2	3	4	4	1	0	0	0
	BUSES	1	1	0	4	1	8	0	5	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		15	East Side		39	South Side	•	27	West Side		178



## DON MILLS RD AT GATEWAY BLVD S & OVERLEA BLVD (PX 620)

Survey Date: Feb-13-2020 (Thursday)

Survey Typ	e: Pedes	trian Hours											
Time Period		N0 Thr	ORTH BO	UND Left	EA: Thru	ST BOU Right	ND Left	SOL Thru	JTH BOI Right	JND Left	WE: Thru	ST BOUND Right Lef	ť
17:15	CARS	214	56	37	157	78	118	182	144	9	77	13	36
	DUALS	7	' 1	2	1	0	3	9	2	0	2	0	0
	BUSES	(	0	0	4	0	3	0	4	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North S	lide	10	East Side		32	South Sid	le	21	West Side		24
17:30	CARS	212	2 63	50	115	67	109	209	135	15	58	12	33
	DUALS	2	0	3	0	3	4	10	6	0	2	1	1
	BUSES	(	0	0	4	1	4	0	3	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North S	lide	19	East Side		44	South Sid	le	9	West Side		6
17:45	CARS	243	52	43	124	61	108	203	137	18	63	8	30
	DUALS	Ę	5 O	2	0	1	0	6	2	0	0	0	0
	BUSES	1	0	0	4	0	5	0	5	0	2	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North S	lide	37	East Side		36	South Sid	le	18	West Side		7
18:00	CARS	179	65	43	137	60	89	158	136	16	66	11	25
	DUALS	ç	) 1	1	1	1	1	2	4	1	0	0	0
	BUSES	(	0	0	2	0	3	0	5	0	4	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North S	lide	13	East Side		31	South Sid	le	15	West Side		3



## DON MILLS RD AT GATEWAY N BLVD (PX 1389)

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Survey Date: May-23-2019 (Thursday)
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Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	'H BOU Right	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	213	9	1	0	0	0	297	2	29	1	34	51
	DUALS	12	2	0	0	0	0	27	0	2	0	2	3
	BUSES	7	0	0	0	0	0	9	0	0	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	14	East Side		20	South Side		4	West Side		2
08:00	CARS	286	19	2	0	1	0	323	4	40	2	25	30
	DUALS	17	1	0	0	0	0	26	2	2	0	3	3
	BUSES	8	0	0	0	0	0	8	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	17	East Side		16	South Side		4	West Side		2
08:15	CARS	345	23	3	0	1	0	325	1	33	3	27	28
	DUALS	11	4	0	0	0	1	23	1	5	1	4	3
	BUSES	4	2	0	0	0	0	7	0	1	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side	·	19	East Side		18	South Side		4	West Side		9
08:30	CARS	322	14	4	2	2	1	339	5	35	2	31	48
	DUALS	9	3	0	0	0	0	17	0	2	0	2	7
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	20	East Side		8	South Side		7	West Side		6
08:45	CARS	327	24	5	1	0	0	338	1	24	2	40	29
	DUALS	17	0	0	0	0	1	12	0	3	0	2	3
	BUSES	3	0	0	0	0	0	3	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	14	East Side		19	South Side		11	West Side		8
09:00	CARS	256	11	7	0	0	1	300	4	35	0	36	37
	DUALS	16	1	0	0	0	0	21	0	3	0	5	1
	BUSES	5	0	0	0	0	0	6	0	1	0	1	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	17	East Side		17	South Side		3	West Side		5
09:15	CARS	218	17	7	0	3	1	295	6	34	3	41	31
	DUALS	8	1	0	0	0	0	27	0	1	0	1	1
	BUSES	5	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		11	East Side		21	South Side		3	West Side		4



## DON MILLS RD AT GATEWAY N BLVD (PX 1389)

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Survey Date: May-23-2019 (Thursday)
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Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS] Thru	「BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	209	10	4	1	0	1	298	4	26	1	22	37
	DUALS	9	2	0	0	0	0	23	0	2	0	1	5
	BUSES	2	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		9	East Side		15	South Side		8	West Side		9
10:15	CARS	166	10	5	0	2	4	251	1	27	1	20	37
	DUALS	14	0	0	0	1	0	25	1	3	0	3	2
	BUSES	1	0	3	0	0	2	2	3	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		22	East Side		25	South Side		3	West Side		4
10:30	CARS	134	10	2	1	1	1	287	3	28	1	18	39
	DUALS	14	3	0	0	0	0	19	2	4	0	2	3
	BUSES	5	0	4	0	0	2	4	1	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		7	East Side		13	South Side		5	West Side		4
10:45	CARS	145	9	3	0	1	2	276	1	28	0	22	33
	DUALS	20	2	0	0	0	2	23	0	0	0	5	3
	BUSES	2	0	0	1	2	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		14	South Side		6	West Side		5
11:00	CARS	146	12	0	0	1	1	254	1	38	0	25	40
	DUALS	17	1	0	2	0	0	26	0	1	0	1	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		12	South Side		2	West Side		4
11:15	CARS	143	11	1	1	0	0	276	0	35	2	21	30
	DUALS	11	1	0	0	0	0	29	2	2	1	4	0
	BUSES	2	0	0	0	0	0	5	0	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		17	South Side		5	West Side		5
11:30	CARS	161	9	0	1	0	0	243	1	28	1	30	38
	DUALS	14	0	0	0	0	1	16	0	3	1	3	3
	BUSES	4	0	0	0	0	0	5	1	0	0	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		9	South Side		5	West Side		1



## DON MILLS RD AT GATEWAY N BLVD (PX 1389)

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Survey Date:
               May-23-2019 (Thursday)
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Survey Ty	vpe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS <sup>.</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
11:45	CARS	175	7	1	0	0	2	236	2	43	1	31	29
	DUALS	15	1	0	0	0	0	25	0	3	1	3	4
	BUSES	4	1	0	0	0	0	4	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		13	East Side		18	South Side		3	West Side		1
12:00	CARS	185	13	0	1	1	1	261	1	31	1	35	38
	DUALS	14	1	1	1	0	1	21	0	3	1	5	2
	BUSES	0	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		7	East Side		18	South Side		43	West Side		37
13:15	CARS	248	14	1	0	2	2	206	0	36	1	37	36
	DUALS	28	1	0	0	0	3	11	0	2	0	6	0
	BUSES	2	0	0	0	1	1	6	2	0	0	1	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	North Side		7	East Side		23	South Side		10	West Side		8
13:30	CARS	235	8	4	1	0	2	175	1	32	1	38	34
	DUALS	16	1	0	0	0	0	14	0	5	0	8	3
	BUSES	3	0	0	0	3	2	2	1	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		21	South Side		6	West Side		6
13:45	CARS	211	7	2	0	1	2	169	1	32	1	30	35
	DUALS	18	2	0	0	0	0	19	2	4	1	4	0
	BUSES	4	0	0	0	1	0	2	2	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		25	South Side		7	West Side		6
14:00	CARS	279	12	0	2	0	1	194	1	28	2	40	35
	DUALS	26	1	1	2	0	3	9	0	2	0	7	2
	BUSES	3	0	0	0	0	5	3	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		20	South Side		4	West Side		4
14:15	CARS	282	13	1	1	1	5	170	3	31	1	45	38
	DUALS	25	1	1	0	1	1	14	1	1	0	3	2
	BUSES	5	0	0	0	1	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		16	East Side		21	South Side		1	West Side		2



## DON MILLS RD AT GATEWAY N BLVD (PX 1389)

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Survey Date:
               May-23-2019 (Thursday)
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Survey Ty	vpe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>.</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	ť
14:30	CARS	372	13	0	1	3	4	181	1	32	1	30	27
	DUALS	27	0	0	0	0	3	8	1	5	0	6	2
	BUSES	6	0	0	0	1	0	3	0	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side	·	3	East Side		23	South Side		11	West Side		10
14:45	CARS	359	12	0	0	2	4	214	0	30	0	43	32
	DUALS	33	0	0	0	0	0	16	0	1	0	4	2
	BUSES	3	0	1	0	1	1	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	8	East Side		20	South Side		8	West Side		8
15:00	CARS	379	12	1	0	5	4	175	1	26	1	33	30
	DUALS	27	4	0	0	0	1	14	0	1	1	3	2
	BUSES	3	0	0	0	0	0	6	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	8	East Side		7	South Side		7	West Side		7
16:15	CARS	328	16	0	6	4	3	242	1	43	3	27	36
	DUALS	32	2	0	0	0	0	22	0	2	0	2	1
	BUSES	5	0	0	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	21	East Side		19	South Side		7	West Side		7
16:30	CARS	306	19	1	1	7	1	278	5	42	3	39	38
	DUALS	26	1	0	0	0	0	10	0	1	0	5	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	17	East Side		18	South Side		8	West Side		6
16:45	CARS	321	17	1	6	7	6	238	2	37	6	25	26
	DUALS	22	1	0	0	0	0	16	0	1	1	1	2
	BUSES	6	0	0	0	0	0	5	0	2	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	11	East Side		14	South Side		6	West Side		7
17:00	CARS	321	12	1	1	5	4	302	0	20	4	27	47
	DUALS	18	2	0	0	0	0	11	0	2	0	0	0
	BUSES	7	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side	1	8	East Side		10	South Side		10	West Side		7



## DON MILLS RD AT GATEWAY N BLVD (PX 1389)

```
May-23-2019 (Thursday)
Survey Date:
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Survey Typ	be: Ro	utine Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>.</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Lef	ft
17:15	CARS		383	18	1	3	4	1	283	1	31	2	46	44
	DUALS		20	1	0	0	0	0	11	0	0	0	1	2
	BUSES		7	0	0	0	0	0	7	0	1	0	0	0
	BIKE (OTHE	R)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	N	orth Sic	le	22	East Side		18	South Side	e	21	West Side		11
17:30	CARS		304	26	1	1	4	1	318	3	38	0	33	33
	DUALS		16	0	0	0	0	0	12	0	0	0	0	0
	BUSES		2	0	0	0	0	0	4	0	0	0	1	0
	BIKE (OTHE	R)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	N	orth Sic	le	14	East Side		20	South Side	e	5	West Side		7
17:45	CARS		303	28	3	0	1	0	273	5	44	0	21	47
	DUALS		14	1	0	0	0	0	12	0	1	0	0	0
	BUSES		8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHE	R)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	N	orth Sic	le	10	East Side		20	South Side	e	10	West Side		8
18:00	CARS		345	27	1	2	5	1	285	3	42	3	27	32
	DUALS		12	0	0	0	0	0	4	0	1	0	2	2
	BUSES		6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHE	R)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	N	orth Sid	le	12	East Side		16	South Side	e	9	West Side		11



# DONLANDS AVE AT MILLWOOD RD & PAPE AVE (PX 642) Survey Type: Routine Hours

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Survey Date: Jan-10-2017 (Tuesday)
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Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	F BOUNI Right	D Left	SOUTH Thru R	BOU! ight	ND Left	WEST Thru R	BOUND light Left	
07:45	CARS	76	2	0	0	0	0	63	0	69	0	197	0
	DUALS	2	0	0	0	0	0	1	0	1	0	2	0
	BUSES	14	0	0	0	0	0	14	0	1	0	2	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	3	(0)	
	PEDS	North Side		0	East Side		0	South Side		2	West Side		0
08:00	CARS	89	1	0	0	0	0	79	0	97	0	222	0
	DUALS	0	0	0	0	0	0	1	0	0	0	1	0
	BUSES	12	0	0	0	0	0	12	0	4	0	2	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
08:15	CARS	105	0	0	0	0	0	87	0	86	0	262	0
	DUALS	0	0	0	0	0	0	5	0	1	0	1	0
	BUSES	13	0	0	0	0	0	9	0	1	0	3	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		7	South Side		3	West Side		0
08:30	CARS	117	1	0	0	0	0	101	0	124	0	234	0
	DUALS	3	0	0	0	0	0	1	0	2	0	2	0
	BUSES	10	0	0	0	0	0	12	0	3	0	2	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		5	South Side		0	West Side		0
08:45	CARS	115	2	0	0	0	0	103	0	113	0	194	0
	DUALS	1	0	0	0	0	0	2	0	1	0	3	0
	BUSES	12	0	0	0	0	0	12	0	1	0	1	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	7	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
09:00	CARS	98	4	0	0	0	0	95	0	102	0	220	0
	DUALS	1	0	0	0	0	0	2	0	0	0	2	0
	BUSES	14	0	0	0	0	0	12	0	3	0	1	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
09:15	CARS	104	1	0	0	0	0	93	0	103	0	189	0
	DUALS	3	0	0	0	0	0	2	0	2	0	0	0
	BUSES	7	0	0	0	0	0	9	0	1	0	1	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		3	West Side		0



# DONLANDS AVE AT MILLWOOD RD & PAPE AVE (PX 642) Survey Type: Routine Hours

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Survey Date: Jan-10-2017 (Tuesday)
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Survey Ty	<b>/pe:</b> Routine H	lours											
Time Period		NORTH Thru R	l BOU ight	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru F	ˈBOUND ≀ight Left	t
09:30	CARS	90	4	0	0	0	0	70	0	116	0	143	0
	DUALS	3	0	0	0	0	0	0	0	4	0	2	0
	BUSES	8	0	0	0	0	0	11	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
10:15	CARS	106	8	0	0	0	0	73	0	81	0	144	C
	DUALS	3	0	0	0	0	0	1	0	2	0	1	0
	BUSES	6	0	0	0	0	0	6	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		1	West Side		0
10:30	CARS	93	6	0	0	0	0	50	0	80	0	119	0
	DUALS	6	1	0	0	0	0	4	0	2	0	2	0
	BUSES	7	0	0	0	0	0	7	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
10:45	CARS	80	2	0	0	0	0	79	0	86	0	104	0
	DUALS	2	0	0	0	0	0	5	0	5	0	0	0
	BUSES	7	0	0	0	0	0	6	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		5	South Side		2	West Side		0
11:00	CARS	72	5	0	0	0	0	74	0	102	0	120	0
	DUALS	1	0	0	0	0	0	3	0	3	0	1	0
	BUSES	7	0	0	0	0	0	6	0	2	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
11:15	CARS	89	3	0	0	0	0	89	0	67	0	103	0
	DUALS	1	0	0	0	0	0	5	0	1	0	7	0
	BUSES	7	0	0	0	0	0	8	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
11:30	CARS	72	2	0	0	0	0	85	0	91	0	102	0
	DUALS	2	0	0	0	0	0	1	0	2	0	8	0
	BUSES	7	0	0	0	0	0	6	0	2	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0

Page 2 of 5



## DONLANDS AVE AT MILLWOOD RD & PAPE AVE (PX 642)

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Survey Date: Jan-10-2017 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORT Thru I	H BOU Right	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru F	BOUND Right Left	t
11:45	CARS	76	12	0	0	0	0	76	0	76	0	118	0
	DUALS	2	0	0	0	0	0	2	0	1	0	3	0
	BUSES	6	0	0	0	0	0	7	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		1	West Side		0
12:00	CARS	102	3	0	0	0	0	88	0	78	0	112	0
	DUALS	4	1	0	0	0	0	1	0	4	0	5	0
	BUSES	8	0	0	0	0	0	7	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
13:15	CARS	84	5	0	0	0	0	84	0	88	0	83	0
	DUALS	3	0	0	0	0	0	2	0	4	0	2	0
	BUSES	7	0	0	0	0	0	7	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
13:30	CARS	106	1	0	0	0	0	76	0	86	0	101	0
	DUALS	0	0	0	0	0	0	1	0	4	0	4	0
	BUSES	7	0	0	0	0	0	8	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
13:45	CARS	92	6	0	0	0	0	70	0	101	0	106	0
	DUALS	5	0	0	0	0	0	3	0	1	0	6	0
	BUSES	6	0	0	0	0	0	8	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		0	South Side		1	West Side		0
14:00	CARS	68	1	0	0	0	0	102	0	92	0	94	0
	DUALS	4	0	0	0	0	0	1	0	2	0	1	0
	BUSES	8	0	0	0	0	0	5	0	2	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
14:15	CARS	82	2	0	0	0	0	75	0	85	0	113	0
	DUALS	2	0	0	0	0	0	2	0	3	0	3	0
	BUSES	6	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0



## DONLANDS AVE AT MILLWOOD RD & PAPE AVE (PX 642)

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Survey Date: Jan-10-2017 (Tuesday)
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Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru F	H BOU Right	IND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru F	່BOUND Right Left	t
14:30	CARS	85	2	0	0	0	0	71	0	106	0	106	0
	DUALS	1	0	0	0	0	0	2	0	2	0	4	0
	BUSES	7	0	0	0	0	0	10	0	1	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
14:45	CARS	82	2	0	0	0	0	79	0	121	0	121	0
	DUALS	0	1	0	0	0	0	1	0	3	0	0	0
	BUSES	8	1	0	0	0	0	5	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
15:00	CARS	98	3	0	0	0	0	89	0	113	0	120	0
	DUALS	2	0	0	0	0	0	3	0	2	0	3	0
	BUSES	7	0	0	0	0	0	8	0	1	0	2	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
16:15	CARS	132	5	0	0	0	0	104	0	179	0	113	0
	DUALS	3	0	0	0	0	0	1	0	0	0	3	0
	BUSES	10	0	0	0	0	0	11	0	2	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		1	West Side		0
16:30	CARS	134	3	0	0	0	0	103	0	175	0	150	0
	DUALS	5	0	0	0	0	0	0	0	1	0	0	0
	BUSES	7	0	0	0	0	0	7	0	1	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		1	West Side		0
16:45	CARS	127	2	0	0	0	0	109	0	198	0	141	0
	DUALS	2	0	0	0	0	0	2	0	2	0	1	0
	BUSES	9	0	0	0	0	0	10	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		4	South Side		5	West Side		0
17:00	CARS	119	5	0	0	0	0	119	0	212	0	126	0
	DUALS	0	0	0	0	0	0	1	0	2	0	0	0
	BUSES	7	0	0	0	0	0	9	0	2	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0



# DONLANDS AVE AT MILLWOOD RD & PAPE AVE (PX 642) Survey Type: Routine Hours

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Survey Date: Jan-10-2017 (Tuesday)
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Survey Type	e: Rou	tine Hours												
Time Period		I	NOR ſhru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU <sup>*</sup> Thru	TH BOL Right	JND Left	WE: Thru	ST BOUND Right Left	
17:15	CARS		115	4	0	0	0	0	122	0	198	0	130	0
	DUALS		1	0	0	0	0	0	1	0	0	0	0	0
	BUSES		10	0	0	0	0	0	8	0	1	0	2	0
	BIKE (OTHER	.)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	Nort	h Sid	e	0	East Side		4	South Side	e	1	West Side		0
17:30	CARS		107	4	0	0	0	0	143	0	217	0	128	0
	DUALS		1	0	0	0	0	0	0	0	1	0	1	0
	BUSES		9	0	0	0	0	0	8	0	2	0	1	0
	BIKE (OTHER	.)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	Nort	h Sid	е	0	East Side		6	South Side	e	1	West Side		0
17:45	CARS		103	2	0	0	0	0	120	0	219	0	167	0
	DUALS		0	0	0	0	0	0	1	0	1	0	1	0
	BUSES		9	0	0	0	0	0	11	0	1	0	1	0
	BIKE (OTHER	.)		0	(0)		0	(0)		5	(0)	0	(0)	
	PEDS	Nort	h Sid	e	0	East Side		2	South Side	e	0	West Side		0
18:00	CARS		106	2	0	0	0	0	108	0	207	0	121	0
	DUALS		0	0	0	0	0	0	1	0	1	0	1	0
	BUSES		8	0	0	0	0	0	8	0	1	0	2	0
	BIKE (OTHER	.)		0	(0)		0	(0)		7	(0)	0	(0)	
	PEDS	Nort	h Sid	е	0	East Side		1	South Side	e	0	West Side		0



## FLOYD AVE AT PAPE AVE (PX 2001)

Survey Date: Jan-12-2017 (Thursday)

Survey Type: Routine Hours

Time Period		NORTH BOUND Thru Right Left			EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	83	1	3	1	2	1	94	6	0	2	5	2
	DUALS	0	0	0	0	0	1	2	0	0	0	0	0
	BUSES	11	0	0	0	0	1	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		5	South Side		3	West Side		4
08:00	CARS	85	6	4	1	3	7	100	1	2	4	6	2
	DUALS	1	1	0	0	0	0	1	1	0	0	0	0
	BUSES	9	0	0	0	1	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		3	East Side		8	South Side		5	West Side		3
08:15	CARS	85	5	4	0	2	4	111	11	2	3	13	3
	DUALS	1	1	0	0	0	0	2	0	0	0	0	1
	BUSES	10	0	0	0	1	0	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		6	South Side		7	West Side		8
08:30	CARS	98	2	3	1	1	1	125	5	2	11	6	4
	DUALS	6	0	0	0	0	0	1	1	0	0	1	0
	BUSES	9	0	0	0	0	0	12	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		9	South Side		7	West Side		11
08:45	CARS	102	2	6	0	1	9	112	11	6	7	8	4
	DUALS	1	0	0	0	0	0	3	1	0	0	0	0
	BUSES	9	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		37	East Side		15	South Side		33	West Side		15
09:00	CARS	99	6	1	5	7	7	115	5	4	8	13	5
	DUALS	1	0	0	0	0	0	2	0	0	0	0	0
	BUSES	9	0	0	0	0	0	11	0	0	0	1	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		9	East Side		20	South Side		7	West Side		10
09:15	CARS	96	7	4	4	1	6	121	1	4	2	6	2
	DUALS	1	0	0	0	0	0	4	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		8	East Side		17	South Side		12	West Side		19



## FLOYD AVE AT PAPE AVE (PX 2001)

Survey Date: Jan-12-2017 (Thursday)

Survey Type:	Routine Hours

Time Period		NORTH Thru F	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUI	ND Left	WEST Thru R	BOUND ight Left	t	
09:30	CARS	83	4	2	2	3	5	104	4	5	4	5	3
	DUALS	1	0	0	0	0	0	4	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		8	East Side		17	South Side		7	West Side		14
10:15	CARS	71	10	0	0	1	3	107	6	4	0	9	5
	DUALS	3	0	0	0	0	0	4	0	0	0	0	0
	BUSES	3	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		13	East Side		13	South Side		6	West Side		16
10:30	CARS	84	3	2	3	0	1	85	4	9	1	10	4
	DUALS	4	0	0	0	0	0	2	0	0	0	0	0
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		23	South Side		4	West Side		20
10:45	CARS	68	4	1	1	0	4	101	2	5	0	10	1
	DUALS	2	0	0	0	0	0	6	0	0	0	0	0
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		7	East Side		19	South Side		10	West Side		20
11:00	CARS	88	8	3	1	1	1	103	3	7	1	5	4
	DUALS	3	0	0	0	0	0	3	0	0	0	0	0
	BUSES	4	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		12	East Side		21	South Side		5	West Side		30
11:15	CARS	86	2	1	3	2	3	75	5	7	1	10	8
	DUALS	1	0	0	0	0	0	3	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		11	East Side		21	South Side		7	West Side		19
11:30	CARS	72	9	2	0	0	2	120	6	8	2	3	3
	DUALS	5	0	0	0	0	0	2	1	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		15	East Side		17	South Side		5	West Side		31



## FLOYD AVE AT PAPE AVE (PX 2001)

Survey Date: Jan-12-2017 (Thursday)

Survey Type:	Routine Hours
ourvey rype.	routine riours

Time Period		NORTH Thru F	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t	
11:45	CARS	90	8	3	4	0	5	116	2	12	1	8	5
	DUALS	5	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		13	East Side		23	South Side		19	West Side		34
12:00	CARS	95	17	0	0	0	3	103	0	10	0	12	7
	DUALS	3	0	0	0	0	0	4	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		24	South Side		14	West Side		29
13:15	CARS	91	9	2	1	2	0	92	3	8	1	4	8
	DUALS	2	0	0	0	1	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		19	South Side		3	West Side		12
13:30	CARS	108	9	1	0	4	0	107	3	5	2	6	3
	DUALS	3	0	0	0	0	0	2	0	1	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		39	South Side		11	West Side		30
13:45	CARS	93	7	3	0	2	2	95	1	4	2	7	5
	DUALS	0	0	0	0	0	1	2	1	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		22	South Side		12	West Side		19
14:00	CARS	102	10	3	1	1	5	102	2	6	1	12	6
	DUALS	6	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		13	East Side		21	South Side		9	West Side		22
14:15	CARS	87	7	1	1	0	1	89	3	7	2	8	5
	DUALS	3	0	1	0	0	0	3	0	0	0	0	0
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		28	South Side		8	West Side		27



## FLOYD AVE AT PAPE AVE (PX 2001)

Survey Date: Jan-12-2017 (Thursday)

Survey Type: Routine Hours

Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	F BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
14:30	CARS	87	5	3	0	3	2	94	4	6	1	7	1
	DUALS	1	0	0	0	0	0	1	0	0	1	0	0
	BUSES	3	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		5	East Side		24	South Side		5	West Side		29
14:45	CARS	113	11	3	2	2	2	97	5	6	3	8	2
	DUALS	2	1	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		10	East Side		31	South Side		7	West Side		20
15:00	CARS	127	8	8	2	0	4	103	7	5	2	7	6
	DUALS	2	0	0	0	0	0	1	0	0	0	1	0
	BUSES	6	0	0	0	0	0	11	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		15	East Side		29	South Side		24	West Side		18
16:15	CARS	118	7	1	2	4	5	101	2	6	1	5	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	0	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		28	South Side		10	West Side		34
16:30	CARS	113	8	4	3	1	5	114	7	11	2	9	4
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	14	1	0	0	0	1	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		15	East Side		35	South Side		6	West Side		25
16:45	CARS	133	10	2	7	7	4	133	6	6	3	9	4
	DUALS	0	0	0	0	0	1	0	0	0	0	0	0
	BUSES	10	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		9	East Side		34	South Side		7	West Side		24
17:00	CARS	138	10	2	0	0	4	98	7	6	6	13	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	11	0	1	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		33	South Side		7	West Side		31



## FLOYD AVE AT PAPE AVE (PX 2001)

Survey Date: Jan-12-2017 (Thursday)

Survey Type: Routine Hours

Time		NOR	гн во	UND	EAS	T BOUN	ID	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	ight Lef	t
17:15	CARS	121	8	3	5	5	8	108	7	6	2	6	8
	DUALS	1	0	0	0	0	0	1	1	1	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	10	East Side		35	South Side		13	West Side		25
17:30	CARS	137	7	3	1	4	7	148	3	5	3	13	4
	DUALS	0	0	0	0	0	0	0	0	0	0	1	0
	BUSES	9	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	15	East Side		40	South Side		22	West Side		30
17:45	CARS	123	4	4	3	4	8	147	0	7	2	4	3
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	6	East Side		24	South Side		9	West Side		26
18:00	CARS	119	10	4	7	1	5	124	3	4	1	12	4
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side	•	15	East Side		29	South Side		10	West Side		19



## FULTON AVE AT PAPE AVE

Survey Type: Routine Hours

Time Period		NORTH Thru F	l BOU light	ND Left	EAS <sup>-</sup> Thru	T BOUNI Right I	D _eft	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru Ri	BOUND ight Left	:
07:45	CARS	62	0	4	0	2	0	78	5	0	0	0	0
	DUALS	1	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		2	West Side		0
08:00	CARS	92	0	4	0	0	5	87	10	0	0	0	0
	DUALS	2	0	0	0	1	0	5	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		6	West Side		7
08:15	CARS	91	0	10	0	1	1	114	12	0	0	0	0
	DUALS	5	0	0	0	0	0	2	0	0	0	0	0
	BUSES	10	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		4	West Side		3
08:30	CARS	94	0	10	0	1	3	114	14	0	0	0	0
	DUALS	6	0	0	0	0	0	4	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		8
08:45	CARS	102	0	12	0	3	4	120	14	0	0	0	0
	DUALS	6	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		9	West Side		12
09:00	CARS	103	0	19	0	0	1	122	17	0	0	0	0
	DUALS	5	0	0	0	0	0	2	0	0	0	0	0
	BUSES	8	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		5	East Side		0	South Side		3	West Side		6
09:15	CARS	93	0	16	0	2	0	96	8	0	0	0	0
	DUALS	2	0	0	0	1	0	2	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		5	West Side		9



## FULTON AVE AT PAPE AVE

Survey Type: Routine Hours

Time Period		NORTH Thru F	H BOI Right	UND Left	EAS Thru	T BOU Right	ND Left	SOUTH Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND light Left	
09:30	CARS	85	0	14	0	4	3	88	7	0	0	0	0
	DUALS	4	0	0	0	0	0	3	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		2	West Side		12
10:15	CARS	83	0	10	0	3	2	77	11	0	0	0	0
	DUALS	0	0	1	0	0	0	5	0	0	0	0	0
	BUSES	6	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		9	West Side		12
10:30	CARS	89	0	5	0	1	0	87	5	0	0	0	0
	DUALS	2	0	0	0	0	0	4	1	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		8	West Side		15
10:45	CARS	78	0	5	0	0	2	73	7	0	0	0	0
	DUALS	4	0	0	0	0	0	4	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		5	East Side		0	South Side		7	West Side		7
11:00	CARS	72	0	5	0	3	1	79	8	0	0	0	0
	DUALS	4	0	0	0	0	0	4	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		00	South Side		5	West Side		7
12:15	CARS	108	0	7	0	0	0	76	9	0	0	0	0
	DUALS	8	0	0	0	0	0	3	0	0	0	0	0
	BUSES	11	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		10
12:30	CARS	103	0	5	0	2	1	82	10	0	0	0	0
	DUALS	5	0	0	0	0	0	4	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		0	South Side		7	West Side		8



## FULTON AVE AT PAPE AVE

**Routine Hours** 

Survey Type:

Time Period		NORTH Thru R	l BOU ight	ND Left	EAST Thru	r BOUNI Right I	D Left	SOUTI Thru R	I BOUN light	ID Left	WEST Thru Ri	BOUND ight Left	
12:45	CARS	100	0	4	0	1	1	76	4	0	0	0	0
	DUALS	5	0	0	0	0	0	2	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		5	East Side		0	South Side		6	West Side		8
13:00	CARS	102	0	12	0	1	1	79	8	0	0	0	0
	DUALS	7	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		7	West Side		8
13:15	CARS	101	0	9	0	3	1	90	14	0	0	0	0
	DUALS	3	0	0	0	0	0	5	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		7	West Side		7
13:30	CARS	88	0	10	0	2	2	85	12	0	0	0	0
	DUALS	2	0	0	0	0	0	4	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		2	West Side		0
14:30	CARS	99	0	7	0	0	1	76	9	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		4	East Side		0	South Side		3	West Side		5
14:45	CARS	115	0	7	0	2	1	82	2	0	0	0	0
	DUALS	7	0	0	0	0	0	2	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		4	West Side		11
15:00	CARS	116	0	10	0	2	0	102	6	0	0	0	0
	DUALS	3	0	0	0	0	0	3	0	0	0	0	0
	BUSES	2	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		11	West Side		16



## FULTON AVE AT PAPE AVE

**Routine Hours** 

Survey Type:

Time Period		NORTH Thru F	l BOU light	ND Left	EAS <sup>-</sup> Thru	F BOUNI Right I	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	t
15:15	CARS	118	0	9	0	2	0	80	8	0	0	0	0
	DUALS	2	0	0	0	0	0	3	1	0	0	0	0
	BUSES	9	0	1	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		11	West Side		11
15:30	CARS	116	0	13	0	2	3	75	9	0	0	0	0
	DUALS	3	0	0	0	0	0	5	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		9	West Side		15
15:45	CARS	115	0	11	0	3	1	81	10	0	0	0	0
	DUALS	3	0	0	0	0	0	6	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		0	West Side		12
16:15	CARS	127	0	14	0	2	4	67	10	0	0	0	0
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		9	West Side		10
16:30	CARS	118	0	10	0	0	2	74	12	0	0	0	0
	DUALS	3	0	0	0	0	0	1	0	0	0	0	0
	BUSES	7	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		2	West Side		14
16:45	CARS	135	0	3	0	2	3	97	15	0	0	0	0
	DUALS	3	0	0	0	0	0	2	0	0	0	0	0
	BUSES	9	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		2	East Side		0	South Side		10	West Side		9
17:00	CARS	132	0	13	0	6	2	80	8	0	0	0	0
	DUALS	2	0	0	0	6	0	2	0	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		5	West Side		10



## FULTON AVE AT PAPE AVE

Survey Date: Mar-20-2017 (Monday)

Survey Type: Routine Hours

Time		NORT	нво	UND	EAS	T BOUI	۱D	SOUT	н воц	IND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru I	Right	Left	Thru F	Right Left	t
17:15	CARS	144	0	5	0	1	1	98	14	0	0	0	0
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		4	East Side		0	South Side		11	West Side		7
17:30	CARS	142	0	11	0	1	5	90	11	0	0	0	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	5	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		10	West Side		8
17:45	CARS	127	0	11	0	3	0	101	12	0	0	0	0
	DUALS	3	0	0	0	0	0	1	0	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		3	East Side		0	South Side		9	West Side		12
18:00	CARS	116	0	7	0	8	6	89	9	0	0	0	0
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		1	East Side		0	South Side		12	West Side		9



## GAMBLE AVE AT PAPE AVE

Survey Date: Jun-19-2019 (Wednesday)

Survey Type: Pedestrian Hours

Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	ID Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND Right Left	
07:45	CARS	100	3	7	0	2	11	55	10	0	3	12	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		1	East Side		5	South Side		9	West Side		13
08:00	CARS	93	6	17	1	10	2	68	11	2	1	13	2
	DUALS	0	1	0	0	0	0	1	0	0	0	0	0
	BUSES	8	0	0	0	0	0	9	2	0	0	1	0
	BIKE (OTHER)		5	(0)		0	(0)		5	(0)	0	(0)	
	PEDS	North Side		3	East Side		10	South Side		1	West Side		13
08:15	CARS	101	5	4	0	8	9	61	10	3	1	9	1
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	11	0	0	0	0	0	10	1	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		4	(0)	1	(0)	
	PEDS	North Side		2	East Side		21	South Side		3	West Side		24
08:30	CARS	110	5	8	1	6	3	80	5	4	4	12	5
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	10	0	0	0	0	0	11	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	1	(0)	
	PEDS	North Side		5	East Side		32	South Side		5	West Side		34
08:45	CARS	100	3	9	3	10	6	85	4	3	4	12	5
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	11	1	0	0	1	1	10	0	0	0	0	0
	BIKE (OTHER)		4	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		36	South Side		4	West Side		36
09:00	CARS	102	2	7	1	8	4	88	8	4	4	13	3
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	0	0	0	0	0	0	9	1	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		4	(0)	1	(0)	
	PEDS	North Side		3	East Side		35	South Side		3	West Side		32
09:15	CARS	77	6	10	3	10	8	92	6	3	2	11	3
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	11	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		36	South Side		2	West Side		45



## GAMBLE AVE AT PAPE AVE

Survey Date: Jun-19-2019 (Wednesday)

Survey Type: Pedestrian Hours

Time Period		NORTH Thru R	l BOU light	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI	ND Left	WEST Thru R	BOUND ight Lef	t
09:30	CARS	82	4	8	0	3	6	87	5	2	0	9	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		3	East Side		37	South Side		3	West Side		34
10:15	CARS	85	6	13	1	8	8	89	4	5	3	8	5
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		5	East Side		15	South Side		0	West Side		30
10:30	CARS	91	3	10	0	5	6	91	3	4	0	7	6
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		3	East Side		21	South Side		2	West Side		31
10:45	CARS	96	1	6	0	5	5	88	4	3	2	5	5
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		44	South Side		4	West Side		44
11:00	CARS	102	2	5	0	5	4	93	3	4	1	4	7
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		4	East Side		44	South Side		3	West Side		40
12:15	CARS	78	4	5	1	2	4	80	5	2	0	3	0
	DUALS	0	0	1	0	0	0	1	0	0	0	0	0
	BUSES	3	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		4	(0)		2	(0)		3	(0)	0	(0)	
	PEDS	North Side		9	East Side		11	South Side		3	West Side		50
12:30	CARS	96	3	8	1	4	4	93	4	3	1	6	0
	DUALS	0	0	0	0	1	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		9	East Side		16	South Side		2	West Side		40



## GAMBLE AVE AT PAPE AVE

Survey Date: Jun-19-2019 (Wednesday)

Survey Type: Pedestrian Hours

Time Period		NORTH Thru F	l BOU light	ND Left	EAS Thru	r BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	
12:45	CARS	92	6	5	3	4	6	77	5	2	1	4	1
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	1	0
	BIKE (OTHER)		3	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		15	East Side		20	South Side		4	West Side		75
13:00	CARS	96	8	9	1	4	5	71	8	4	0	4	2
	DUALS	1	0	0	0	0	0	2	1	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		14	East Side		14	South Side		2	West Side		70
13:15	CARS	99	5	7	0	5	6	96	10	5	1	6	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	1	(0)	
	PEDS	North Side		16	East Side		24	South Side		3	West Side		57
13:30	CARS	101	5	7	0	3	8	98	4	3	0	5	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		13	East Side		34	South Side		3	West Side		59
14:30	CARS	98	10	8	3	9	8	82	6	8	0	1	3
	DUALS	0	0	0	0	0	0	3	1	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		8	East Side		10	South Side		4	West Side		54
14:45	CARS	92	6	15	5	5	7	82	4	5	2	2	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	1	0	4	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		14	East Side		26	South Side		2	West Side		58
15:00	CARS	105	10	7	4	6	2	83	7	3	1	6	1
	DUALS	1	0	0	0	0	2	1	0	0	0	0	0
	BUSES	4	0	0	0	1	0	5	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		12	East Side		25	South Side		3	West Side		56

Page 3 of 5



## GAMBLE AVE AT PAPE AVE

Survey Date: Jun-19-2019 (Wednesday)

Survey Type: Pedestrian Hours

Time Period		NORT Thru	H BO	UND Left	EAS Thru	T BOUI Right	ND Left	SOUTH Thru R	BOU ight	ND Left	WEST Thru R	BOUND ight Left	
15:15	CARS	113	13	10	2	9	3	89	5	2	0	5	0
	DUALS	1	1	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		30	South Side		1	West Side		35
15:30	CARS	109	12	9	0	8	2	92	6	3	0	3	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		16	East Side		31	South Side		2	West Side		43
15:45	CARS	106	10	8	1	5	4	86	4	2	1	2	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	1	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		15	East Side		27	South Side		3	West Side		47
16:15	CARS	87	12	9	4	4	7	83	5	2	0	4	0
	DUALS	3	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		13	East Side		28	South Side		1	West Side		64
16:30	CARS	96	9	10	0	6	6	89	3	1	2	3	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		31	South Side		2	West Side		69
16:45	CARS	100	8	7	2	6	4	92	3	3	0	4	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	1	0	0	7	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		15	East Side		30	South Side		0	West Side		59
17:00	CARS	96	8	11	1	6	6	93	6	4	0	6	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		11	East Side		26	South Side		3	West Side		71



## GAMBLE AVE AT PAPE AVE

Survey Date: Jun-19-2019 (Wednesday)

Survey Type: Pedestrian Hours

Time		NORT	н во	UND	EAS	T BOUN	ID	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	ight Left	:
17:15	CARS	91	7	8	1	4	5	86	4	3	0	6	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	15	East Side		27	South Side		1	West Side		67
17:30	CARS	96	6	10	0	3	5	94	5	2	1	3	1
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	1	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	17	East Side		38	South Side		0	West Side		61
17:45	CARS	93	9	7	1	4	5	88	7	4	1	2	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	16	East Side		35	South Side		3	West Side		72
18:00	CARS	97	5	6	0	4	7	86	5	3	0	3	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	1	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side	)	15	East Side		35	South Side		2	West Side		67



Survey Type:

## Intersection Detailed 15 Minutes Movement Report

## GATEWAY BLVD AT GRENOBLE DR S TCS (PX 3006)

Pedestrian Hours

```
Survey Date: May-02-2017 (Tuesday)
```

Time Period		NORT Thru	H BO Right	UND Left	EAS <sup>:</sup> Thru	T BOUI Right	ND Left	SOUTH Thru R	I BOU ight	ND Left	WEST Thru R	BOUND light Lef	t
07:45	CARS	24	26	0	0	0	0	14	0	4	0	15	77
	DUALS	0	1	0	0	0	0	1	0	1	0	0	4
	BUSES	1	6	0	0	0	0	3	0	0	0	2	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		9	South Side		1	West Side		0
08:00	CARS	13	35	0	0	0	0	21	0	8	0	14	91
	DUALS	1	1	0	0	0	0	1	0	0	0	1	2
	BUSES	6	5	0	0	0	0	2	0	2	0	1	7
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		8	South Side		1	West Side		0
08:15	CARS	25	44	0	0	0	0	32	0	6	0	12	119
	DUALS	1	0	0	0	0	0	0	0	1	0	1	3
	BUSES	3	13	0	0	0	0	0	0	0	0	0	9
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		16	South Side		1	West Side		0
08:30	CARS	23	52	0	0	0	0	21	0	9	0	25	110
	DUALS	0	1	0	0	0	0	2	0	1	0	1	3
	BUSES	1	4	0	0	0	0	2	0	0	0	1	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		26	East Side		12	South Side		0	West Side		0
08:45	CARS	32	44	0	0	0	0	34	0	21	0	39	100
	DUALS	2	2	0	0	0	0	1	0	1	0	0	9
	BUSES	1	4	0	0	0	0	1	0	1	0	1	9
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		87	East Side		94	South Side		0	West Side		0
09:00	CARS	30	50	0	0	0	0	40	0	31	0	18	106
	DUALS	3	4	0	0	0	0	3	0	1	0	1	7
	BUSES	2	7	0	0	0	0	1	0	0	0	5	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		98	East Side		86	South Side		0	West Side		0
09:15	CARS	27	52	0	0	0	0	41	0	27	0	15	85
	DUALS	2	3	0	0	0	0	3	0	2	0	2	6
	BUSES	2	6	0	0	0	0	2	0	0	0	2	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		61	East Side		54	South Side		0	West Side		0

Page 1 of 5



Survey Type:

# Intersection Detailed 15 Minutes Movement Report

## GATEWAY BLVD AT GRENOBLE DR S TCS (PX 3006)

Pedestrian Hours

```
Survey Date: May-02-2017 (Tuesday)
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Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
09:30	CARS	27	38	0	0	0	0	32	0	17	0	8	65
	DUALS	3	3	0	0	0	0	2	0	1	0	1	3
	BUSES	1	4	0	0	0	0	2	0	0	0	1	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		7	South Side		0	West Side		0
10:15	CARS	18	38	0	0	0	0	16	0	9	0	8	39
	DUALS	1	1	0	0	0	0	0	0	0	0	0	6
	BUSES	1	2	0	0	0	0	0	0	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		4	South Side		0	West Side		0
10:30	CARS	8	21	0	0	0	0	8	0	7	0	8	45
	DUALS	2	1	0	0	0	0	2	0	2	0	1	1
	BUSES	0	2	0	0	0	0	1	0	0	0	0	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		3	South Side		0	West Side		0
10:45	CARS	12	36	0	0	0	0	10	0	5	0	10	48
	DUALS	1	2	0	0	0	0	1	0	1	0	1	2
	BUSES	1	4	0	0	0	0	3	0	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		3	South Side		0	West Side		0
11:00	CARS	10	38	0	0	0	0	7	0	8	0	7	44
	DUALS	2	1	0	0	0	0	2	0	0	0	1	2
	BUSES	1	3	0	0	0	0	2	0	0	0	1	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		0	West Side		0
12:15	CARS	18	35	0	0	0	0	20	0	14	0	11	50
	DUALS	1	5	0	0	0	0	1	0	3	0	0	4
	BUSES	1	2	0	0	0	0	0	0	0	0	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		12	South Side		0	West Side		0
12:30	CARS	28	55	0	0	0	0	30	0	12	0	10	30
	DUALS	5	1	0	0	0	0	2	0	0	0	3	5
	BUSES	0	3	0	0	0	0	1	0	0	0	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		19	South Side		0	West Side		0



## GATEWAY BLVD AT GRENOBLE DR S TCS (PX 3006)

```
Survey Date:
               May-02-2017 (Tuesday)
```

Survey Ty	/pe: Pedestria	n Hours											
Time Period		NORTH BOUND Thru Right Left			EAST BOUND Thru Right Left			SOUTH BOUND Thru Right Left			WEST BOUND Thru Right Left		
12:45	CARS	34	40	0	0	0	0	13	0	4	0	11	48
	DUALS	2	2	0	0	0	0	2	0	1	0	0	7
	BUSES	0	2	0	0	0	0	0	0	0	0	0	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	8	East Side		8	South Side		1	West Side		0
13:00	CARS	26	72	0	0	0	0	17	0	6	0	9	54
	DUALS	1	6	0	0	0	0	1	0	2	0	2	6
	BUSES	1	2	0	0	0	0	1	0	0	0	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	5	East Side		7	South Side		1	West Side		0
13:15	CARS	25	77	0	0	0	0	12	0	3	0	12	47
	DUALS	2	5	0	0	0	0	1	0	2	0	2	4
	BUSES	1	2	0	0	0	0	1	0	1	0	0	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	4	East Side		5	South Side		0	West Side		0
13:30	CARS	29	74	0	0	0	0	16	0	2	0	15	53
	DUALS	1	4	0	0	0	0	2	0	0	0	1	3
	BUSES	1	3	0	0	0	0	1	0	0	0	0	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		5	South Side		1	West Side		0
14:30	CARS	42	68	0	0	0	0	16	0	8	0	7	37
	DUALS	1	7	0	0	0	0	1	0	2	0	0	3
	BUSES	1	2	0	0	0	0	1	0	0	0	0	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	6	East Side		9	South Side		0	West Side		0
14:45	CARS	33	70	0	0	0	0	16	0	14	0	11	43
	DUALS	0	7	0	0	0	0	0	0	2	0	0	2
	BUSES	2	5	0	0	0	0	2	0	1	0	0	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	7	East Side		6	South Side		0	West Side		0
15:00	CARS	31	76	0	0	0	0	13	0	8	0	24	68
	DUALS	1	4	0	0	0	0	1	0	1	0	0	2
	BUSES	0	2	0	0	0	0	2	0	0	0	1	3
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	19	East Side		12	South Side		0	West Side		0


### GATEWAY BLVD AT GRENOBLE DR S TCS (PX 3006)

```
May-02-2017 (Tuesday)
Survey Date:
```

Survey Ty	/pe: Pedestria	n Hours											
Time Period		NOR <sup>:</sup> Thru	TH BOU Right	JND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Lef	t
15:15	CARS	46	80	0	0	0	0	18	0	20	0	25	49
	DUALS	1	6	0	0	0	0	2	0	0	0	1	0
	BUSES	3	2	0	0	0	0	0	0	0	0	2	7
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Sid	e	80	East Side		45	South Side		0	West Side		0
15:30	CARS	36	106	0	0	0	0	48	0	19	0	11	57
	DUALS	2	1	0	0	0	0	1	0	1	0	0	1
	BUSES	5	9	0	0	0	0	2	0	0	0	1	7
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Sid	e	124	East Side		57	South Side		0	West Side		0
15:45	CARS	42	101	0	0	0	0	43	0	23	0	13	53
	DUALS	1	5	0	0	0	0	2	0	1	0	0	2
	BUSES	4	8	0	0	0	0	2	0	0	0	0	7
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	93	East Side		39	South Side		0	West Side		0
16:15	CARS	55	124	0	0	0	0	34	0	12	0	10	39
	DUALS	4	19	0	0	0	0	0	0	0	0	1	2
	BUSES	1	8	0	0	0	0	1	0	0	0	0	4
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	13	East Side		19	South Side		1	West Side		0
16:30	CARS	59	98	0	0	0	0	22	0	13	0	8	46
	DUALS	1	9	0	0	0	0	1	0	0	0	1	1
	BUSES	8	9	0	0	0	0	1	0	0	0	3	5
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	9	East Side		8	South Side		4	West Side		0
16:45	CARS	63	107	0	0	0	0	28	0	16	0	7	47
	DUALS	2	11	0	0	0	0	1	0	1	0	1	2
	BUSES	6	10	0	0	0	0	1	0	0	0	0	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	4	East Side		5	South Side		1	West Side		0
17:00	CARS	51	104	0	0	0	0	23	0	11	0	6	53
	DUALS	3	13	0	0	0	0	2	0	1	0	0	3
	BUSES	5	7	0	0	0	0	1	0	0	0	0	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	e	9	East Side		11	South Side		0	West Side		0



# Intersection Detailed 15 Minutes Movement Report

### GATEWAY BLVD AT GRENOBLE DR S TCS (PX 3006)

Pedestrian Hours

```
Survey Date: May-02-2017 (Tuesday)
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Time		NOR		UND	EAS	T BOU	ND	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	tight Leff	t
17:15	CARS	48	101	0	0	0	0	34	0	17	0	9	45
	DUALS	6	13	0	0	0	0	1	0	2	0	1	2
	BUSES	4	7	0	0	0	0	2	0	0	0	1	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Sid	le	4	East Side		7	South Side		2	West Side		0
17:30	CARS	43	97	0	0	0	0	24	0	13	0	5	40
	DUALS	3	10	0	0	0	0	1	0	1	0	1	1
	BUSES	6	9	0	0	0	0	0	0	1	0	0	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Sid	le	5	East Side		6	South Side		0	West Side		0
17:45	CARS	43	91	0	0	0	0	25	0	10	0	6	35
	DUALS	2	8	0	0	0	0	2	0	0	0	0	2
	BUSES	3	8	0	0	0	0	0	0	1	0	0	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Sid	le	3	East Side		4	South Side		1	West Side		0
18:00	CARS	42	88	0	0	0	0	22	0	13	0	7	31
	DUALS	4	12	0	0	0	0	1	0	1	0	1	1
	BUSES	5	8	0	0	0	0	1	0	0	0	0	4
	BIKE (OTHER)		0	(0)		0	(1)		0	(0)	0	(0)	
	PEDS	North Sid	le	5	East Side		4	South Side		0	West Side		0



### MILLWOOD RD AT REDWAY RD & VILLAGE STATION (PX 686)

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Survey Date: Jan-12-2017 (Thursday)
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Survey Typ	pe: Routine	Hours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAST Thru	F BOUNI Right	D Left	SOUTH Thru R	l BOUN light	ND Left	WEST Thru Ri	BOUND ight Left	
07:45	CARS	268	0	6	0	5	1	93	0	5	1	2	4
	DUALS	3	0	0	0	1	0	2	2	0	0	0	0
	BUSES	4	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		1	West Side		0
08:00	CARS	308	0	5	0	2	0	142	1	5	0	7	0
	DUALS	1	0	0	0	0	1	4	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		6	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		2	West Side		1
08:15	CARS	266	0	4	0	1	1	139	3	4	1	4	0
	DUALS	1	0	0	0	0	1	2	0	0	0	1	0
	BUSES	8	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		4	West Side		2
08:30	CARS	365	0	1	0	6	4	175	7	4	0	2	2
	DUALS	2	0	0	0	0	0	3	0	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
08:45	CARS	274	4	5	0	1	4	187	8	5	1	4	6
	DUALS	0	0	0	0	0	2	4	0	0	0	0	0
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		0	West Side		0
09:00	CARS	293	0	8	1	4	5	163	12	7	1	9	1
	DUALS	5	0	0	0	1	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		7	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		6	South Side		1	West Side		0
09:15	CARS	254	3	8	0	4	7	179	7	5	0	9	2
	DUALS	5	0	1	0	0	0	3	0	1	0	0	0
	BUSES	3	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		2	West Side		1



### MILLWOOD RD AT REDWAY RD & VILLAGE STATION (PX 686)

Survey Ty	pe: Routine H	lours											
Time Period		NORTI Thru F	H BOU Right	ND Left	EAS Thru	T BOUNI Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru Ri	BOUND ight Left	
09:30	CARS	237	4	7	2	5	12	162	16	5	0	5	6
	DUALS	2	1	1	0	0	0	1	0	0	0	1	0
	BUSES	3	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		0	East Side		2	South Side		4	West Side		3
10:15	CARS	155	2	5	1	9	16	128	14	6	0	7	0
	DUALS	2	1	1	0	0	0	2	0	0	0	0	1
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		3	West Side		2
10:30	CARS	153	8	6	0	9	5	128	12	7	2	10	6
	DUALS	4	0	0	0	0	0	3	0	0	0	2	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		1	West Side		1
10:45	CARS	173	6	13	0	9	10	125	9	13	0	10	5
	DUALS	6	1	0	0	1	0	12	1	0	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		2	West Side		1
11:00	CARS	177	5	15	0	10	6	162	12	6	1	7	6
	DUALS	5	0	0	0	0	0	3	0	1	1	0	0
	BUSES	0	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		4	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		2	West Side		2
11:15	CARS	175	4	9	3	11	13	144	12	4	1	8	7
	DUALS	2	0	2	0	0	0	4	0	0	0	1	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		3	West Side		2
11:30	CARS	163	4	13	0	8	19	137	21	3	1	6	2
	DUALS	2	0	0	0	0	0	3	1	0	0	1	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		2	West Side		0



### MILLWOOD RD AT REDWAY RD & VILLAGE STATION (PX 686)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOU light	ND Left	EAS Thru	T BOUNI Right	D Left	SOUT Thru F	H BOUN Right	ND Left	WEST Thru Ri	BOUND ight Left	
11:45	CARS	216	2	6	1	7	19	142	16	2	0	5	3
	DUALS	1	0	0	0	0	0	2	0	1	0	1	1
	BUSES	1	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		4	West Side		0
12:00	CARS	184	4	14	1	10	13	163	20	6	1	15	4
	DUALS	1	1	0	0	0	0	4	0	1	0	0	0
	BUSES	1	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		0	West Side		2
13:15	CARS	172	1	10	0	15	8	154	21	8	0	9	2
	DUALS	4	0	0	0	1	1	2	0	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		0	West Side		2
13:30	CARS	176	3	7	1	9	18	145	16	6	0	4	1
	DUALS	2	0	1	0	0	0	7	1	0	0	1	0
	BUSES	2	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		2	West Side		2
13:45	CARS	185	3	10	1	10	27	150	24	4	0	4	3
	DUALS	1	0	1	0	1	0	5	2	0	0	0	0
	BUSES	0	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		0	West Side		0
14:00	CARS	172	5	14	2	9	17	157	19	6	1	10	3
	DUALS	4	0	0	0	1	0	4	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
14:15	CARS	186	4	11	2	13	19	165	15	6	1	10	5
	DUALS	3	0	0	0	2	0	5	0	0	0	0	1
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		1	West Side		1



### MILLWOOD RD AT REDWAY RD & VILLAGE STATION (PX 686)

Survey Ty	/pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
14:30	CARS	151	5	11	1	19	18	174	17	10	0	8	5
	DUALS	9	1	2	0	1	0	2	1	0	0	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		2	West Side		2
14:45	CARS	200	7	7	0	10	19	153	20	4	3	9	5
	DUALS	7	0	0	0	0	0	5	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		0
15:00	CARS	172	5	9	0	14	12	182	16	2	0	18	1
	DUALS	5	1	0	0	0	0	2	0	0	0	0	0
	BUSES	3	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		4	West Side		0
16:15	CARS	224	0	12	0	23	13	261	16	8	1	7	4
	DUALS	4	0	0	0	1	0	6	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		7	South Side		3	West Side		0
16:30	CARS	204	0	14	0	10	19	295	32	5	0	5	4
	DUALS	2	0	2	0	0	0	3	0	0	0	0	0
	BUSES	5	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		2	West Side		2
16:45	CARS	217	0	15	1	24	17	280	18	4	3	5	5
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		4	South Side		1	West Side		0
17:00	CARS	235	0	13	0	27	14	328	13	8	0	6	10
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	4	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		4	South Side		2	West Side		4



# Intersection Detailed 15 Minutes Movement Report

### MILLWOOD RD AT REDWAY RD & VILLAGE STATION (PX 686)

**Routine Hours** 

Time Period		NORT Thru	H BO Right	UND Left	EAS Thru	T BOU	ND Left	SOUT Thru	H BOU Right	IND Left	WEST Thru R	BOUND tight Left	
17.15	CARS	206		6	1	10	0	202	- 12	10	1		6
17.15	CARS	206	0	0	1	10	0	292	13	10	1	9	0
	DUALS	2	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	2	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		6	South Side		2	West Side		1
17:30	CARS	200	0	11	3	26	10	308	19	6	1	10	5
	DUALS	2	0	0	0	1	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		0	West Side		2
17:45	CARS	244	1	18	1	15	10	306	15	10	0	9	8
	DUALS	1	0	0	0	0	0	0	0	0	0	1	0
	BUSES	2	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		7	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		1	West Side		1
18:00	CARS	220	1	10	1	20	12	306	15	14	1	10	6
	DUALS	1	0	0	0	0	1	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	1	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		1	West Side		1



### LEASIDE PARK DR AT OVERLEA BLVD

Survey Date: Sep-12-2018 (Wednesday)

Survey Ty	/pe: Pedestria	in Hours											
Time Period		NORT Thru F	H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	0	6	7	77	0	0	0	0	0	155	0	2
	DUALS	0	0	0	1	0	0	0	0	0	4	0	0
	BUSES	0	0	0	15	0	0	0	0	0	15	0	0
	BIKE (OTHER)		1	(0)		4	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		1	South Side		2	West Side		3
08:00	CARS	0	10	5	147	6	0	0	0	0	148	0	4
	DUALS	0	0	0	1	0	0	0	0	0	0	0	0
	BUSES	0	2	0	15	1	0	0	0	0	14	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	8	(0)	
	PEDS	North Side		0	East Side		2	South Side		2	West Side		1
08:15	CARS	0	10	7	154	6	0	0	0	0	169	0	2
	DUALS	0	0	0	4	0	0	0	0	0	1	0	0
	BUSES	0	0	0	16	0	0	0	0	0	12	0	0
	BIKE (OTHER)		1	(0)		6	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		4	South Side		5	West Side		1
08:30	CARS	0	6	6	138	2	0	0	0	0	145	0	6
	DUALS	0	0	1	3	1	0	0	0	0	3	0	0
	BUSES	0	0	0	12	0	0	0	0	0	14	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	5	(0)	
	PEDS	North Side		0	East Side		1	South Side		5	West Side		1
08:45	CARS	0	6	5	153	11	0	0	0	0	153	0	4
	DUALS	0	0	0	3	0	0	0	0	0	4	0	0
	BUSES	0	0	0	17	0	0	0	0	0	16	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	6	(0)	
	PEDS	North Side		0	East Side		2	South Side		6	West Side		1
09:00	CARS	0	7	4	159	6	0	0	0	0	150	0	16
	DUALS	0	0	0	2	0	0	0	0	0	5	0	0
	BUSES	0	0	0	14	0	0	0	0	0	13	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		4	South Side		17	West Side		4
09:15	CARS	0	12	6	114	9	0	0	0	0	151	0	10
	DUALS	0	0	0	2	0	0	0	0	0	1	0	0
	BUSES	0	0	0	10	0	0	0	0	0	13	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		4	South Side		8	West Side		0

Page 1 of 5



### LEASIDE PARK DR AT OVERLEA BLVD

Survey Date: Sep-12-2018 (Wednesday)

Survey Ty	/pe: Pedestria	n Hours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	0	5	7	106	3	0	0	0	0	155	0	5
	DUALS	0	0	0	1	0	0	0	0	0	1	0	C
	BUSES	0	0	0	9	0	0	0	0	0	12	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		0	East Side		1	South Side		3	West Side		3
10:15	CARS	0	5	5	159	3	0	0	0	0	118	0	6
	DUALS	0	0	0	5	0	0	0	0	0	7	0	C
	BUSES	0	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		0	East Side		1	South Side		7	West Side		0
10:30	CARS	0	5	7	129	5	0	0	0	0	122	0	3
	DUALS	0	0	0	3	0	0	0	0	0	5	0	C
	BUSES	0	0	0	7	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		2	South Side		8	West Side		2
10:45	CARS	0	8	2	146	3	0	0	0	0	132	0	6
	DUALS	0	0	0	4	0	0	0	0	0	2	0	C
	BUSES	0	0	0	10	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		0	South Side		5	West Side		0
11:00	CARS	0	4	5	136	4	0	0	0	0	136	0	4
	DUALS	0	0	0	4	0	0	0	0	0	5	0	C
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		2	South Side		5	West Side		0
12:15	CARS	0	4	4	159	4	0	0	0	0	118	0	ç
	DUALS	0	0	0	3	0	0	0	0	0	3	0	C
	BUSES	0	0	0	7	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		2	South Side		5	West Side		0
12:30	CARS	0	5	5	129	4	0	0	0	0	122	0	5
	DUALS	0	0	0	5	0	0	0	0	0	6	0	C
	BUSES	0	0	0	5	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		2	South Side		5	West Side		0



### LEASIDE PARK DR AT OVERLEA BLVD

Survey Date: Sep-12-2018 (Wednesday)

Survey Ty	/pe: Pedestria	in Hours											
Time Period		NORT Thru I	H BOU Right	IND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	l BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
12:45	CARS	0	4	3	146	6	0	0	0	0	132	0	4
	DUALS	0	0	0	4	0	0	0	0	0	4	0	0
	BUSES	0	0	0	5	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		0	East Side		1	South Side		3	West Side		0
13:00	CARS	0	7	8	136	4	0	0	0	0	136	0	9
	DUALS	0	0	0	2	0	0	0	0	0	5	0	0
	BUSES	0	0	0	9	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		7	West Side		0
13:15	CARS	0	7	2	169	6	0	0	0	0	155	0	6
	DUALS	0	1	0	4	0	0	0	0	0	4	0	0
	BUSES	0	0	0	10	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	3	(0)	
	PEDS	North Side		0	East Side		2	South Side		13	West Side		5
13:30	CARS	0	10	2	167	5	0	0	0	0	155	0	12
	DUALS	0	0	0	5	0	0	0	0	0	3	0	0
	BUSES	0	0	0	10	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		0	South Side		10	West Side		1
14:30	CARS	0	7	3	158	5	0	0	0	0	149	0	7
	DUALS	0	0	0	8	0	0	0	0	0	4	0	0
	BUSES	0	0	0	9	0	0	0	0	0	9	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		7	West Side		0
14:45	CARS	0	10	4	171	3	0	0	0	0	183	0	3
	DUALS	0	0	0	3	0	0	0	0	0	6	0	0
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	7	(0)	
	PEDS	North Side		0	East Side		1	South Side		5	West Side		2
15:00	CARS	0	10	4	171	4	0	0	0	0	174	0	7
	DUALS	0	0	0	4	0	0	0	0	0	3	0	0
	BUSES	0	0	0	11	0	0	0	0	0	11	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		4	West Side		0

Page 3 of 5



### LEASIDE PARK DR AT OVERLEA BLVD

Survey Date: Sep-12-2018 (Wednesday)

Survey Ty	/pe: Pedestria	n Hours											
Time Period		NORTH Thru F	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru R	BOUND ight Left	:
15:15	CARS	0	6	4	158	5	0	0	0	0	149	0	5
	DUALS	0	0	0	5	0	0	0	0	0	6	0	0
	BUSES	0	0	0	9	0	0	0	0	0	14	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	5	(0)	
	PEDS	North Side		0	East Side		2	South Side		4	West Side		0
15:30	CARS	0	9	4	171	4	0	0	0	0	183	0	4
	DUALS	0	0	0	8	0	0	0	0	0	3	0	0
	BUSES	0	0	0	9	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		3	South Side		6	West Side		1
15:45	CARS	0	6	2	171	4	0	0	0	0	174	0	9
	DUALS	0	0	0	5	0	0	0	0	0	5	0	0
	BUSES	0	0	0	9	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		4	West Side		0
16:15	CARS	0	11	4	240	8	0	0	0	0	177	0	6
	DUALS	0	0	0	7	0	0	0	0	0	2	0	0
	BUSES	0	0	0	16	0	0	0	0	0	17	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		4	South Side		4	West Side		1
16:30	CARS	0	3	2	245	6	0	0	0	0	166	0	6
	DUALS	0	0	0	2	0	0	0	0	0	6	0	0
	BUSES	0	0	0	6	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	1	(0)	
	PEDS	North Side		0	East Side		1	South Side		1	West Side		0
16:45	CARS	0	3	2	257	10	0	0	0	0	169	0	11
	DUALS	0	0	0	4	0	0	0	0	0	2	0	1
	BUSES	0	0	0	15	0	0	0	0	0	11	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		6	South Side		4	West Side		0
17:00	CARS	0	8	5	216	9	0	0	0	0	173	0	11
	DUALS	0	1	0	2	0	0	0	0	0	0	0	0
	BUSES	0	0	0	10	0	0	0	0	0	7	0	0
	BIKE (OTHER)		2	(0)		3	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		3	South Side		4	West Side		1



# Intersection Detailed 15 Minutes Movement Report

### LEASIDE PARK DR AT OVERLEA BLVD

Pedestrian Hours

Survey Date: Sep-12-2018 (Wednesday)

Time		NORT	н во	UND	EAS	ST BOU	ND	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru F	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	light Left	t
17:15	CARS	0	16	6	214	12	0	0	0	0	194	0	7
	DUALS	0	0	0	0	0	0	0	0	0	0	0	C
	BUSES	0	0	0	9	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		11	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		3	South Side		4	West Side		1
17:30	CARS	0	6	7	222	9	0	0	0	0	210	0	7
	DUALS	0	0	0	3	0	0	0	0	0	0	0	0
	BUSES	0	0	0	8	0	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		3	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		1	South Side		4	West Side		0
17:45	CARS	0	8	3	221	23	0	0	0	0	206	0	ç
	DUALS	0	0	0	0	0	0	0	0	0	1	0	C
	BUSES	0	0	0	11	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	4	(0)	
	PEDS	North Side		0	East Side		1	South Side		2	West Side		0
18:00	CARS	0	6	13	221	18	0	0	0	0	179	0	13
	DUALS	0	0	0	2	0	0	0	0	0	1	0	C
	BUSES	0	0	0	7	0	0	0	0	0	14	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	6	(0)	
	PEDS	North Side		0	East Side		2	South Side		9	West Side		0



Survey Date: Nov-06-2018 (Tuesday)

LIPTON AVE AT PAPE AVE (PX 2461)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAST Thru	Г BOUN Right	ID Left	SOUTH Thru R	I BOUI	ND Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	86	6	0	0	2	3	80	3	7	0	11	5
	DUALS	0	0	0	0	0	0	3	0	0	0	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	12	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		18	East Side		103	South Side		9	West Side		10
08:00	CARS	104	4	0	0	2	1	99	1	9	0	3	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	7	2
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		38	East Side		101	South Side		1	West Side		10
08:15	CARS	94	3	0	0	1	3	85	3	13	0	13	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	3	0	0	0	10	2
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		33	East Side		127	South Side		5	West Side		18
08:30	CARS	87	5	0	1	3	2	105	6	5	0	2	1
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	1	0	0	0	5	1
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		47	East Side		92	South Side		8	West Side		17
08:45	CARS	102	10	2	0	1	0	98	5	9	0	6	2
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	4	0	0	0	0	0	1	0	0	0	10	3
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		34	East Side		158	South Side		14	West Side		22
09:00	CARS	68	7	0	0	2	2	118	15	11	0	7	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	6	0	0	0	0	0	0	0	0	0	4	1
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		33	East Side		163	South Side		8	West Side		14
09:15	CARS	102	4	1	0	2	2	122	6	8	0	4	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	1	0	0	0	5	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		33	East Side		130	South Side		8	West Side		30



### LIPTON AVE AT PAPE AVE (PX 2461)

Survey Date: Nov-06-2018 (Tuesday)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOU light	ND Left	EAS] Thru	「BOUN Right	ID Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru Ri	BOUND ight Left	t
09:30	CARS	71	3	1	0	1	2	111	5	4	0	3	1
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	0	0	0	0	2	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		23	East Side		86	South Side		6	West Side		36
10:15	CARS	84	1	0	0	0	5	75	5	2	0	2	3
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	1	0	0	0	9	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		21	East Side		99	South Side		2	West Side		23
10:30	CARS	56	9	2	2	4	6	77	10	4	0	8	0
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	2	0	0	0	0	0	2	0	0	0	4	2
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		32	East Side		120	South Side		11	West Side		32
10:45	CARS	75	4	2	0	7	5	71	7	4	0	3	6
	DUALS	0	1	0	0	0	0	1	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	4	2
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		38	East Side		104	South Side		13	West Side		35
11:00	CARS	62	5	0	1	4	10	77	7	7	0	6	4
	DUALS	0	0	0	0	0	0	2	0	0	0	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	6	2
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		34	East Side		105	South Side		15	West Side		29
11:15	CARS	72	5	1	0	2	5	86	5	6	0	4	2
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	3	0	0	0	0	0	0	0	0	0	6	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		22	East Side		122	South Side		7	West Side		26
11:30	CARS	76	0	0	0	3	8	81	5	3	0	5	4
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	0	0	0	0	5	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		124	South Side		11	West Side		27



Survey Date: Nov-06-2018 (Tuesday)

LIPTON AVE AT PAPE AVE (PX 2461)

Survey Ty	pe: Routine	Hours											
Time Period		NORTH Thru R	I BOU ight	ND Left	EAST Thru	Г BOUN Right	ID Left	SOUTI Thru F	I BOUN light	ND Left	WEST Thru Ri	BOUND ight Left	t
11:45	CARS	86	3	0	0	4	7	84	7	2	0	6	3
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	1	0	0	0	0	0	0	0	0	3	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		14	East Side		131	South Side		18	West Side		33
12:00	CARS	89	4	0	0	3	5	92	8	2	0	3	2
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	4	0	0	0	0	0	0	0	0	0	5	2
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		136	South Side		17	West Side		42
13:15	CARS	68	5	0	0	2	7	86	13	3	0	2	4
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	2	0	0	0	0	0	1	0	0	0	5	2
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		21	East Side		128	South Side		37	West Side		25
13:30	CARS	51	5	2	0	6	2	76	6	4	0	4	2
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	3	0	0	0	0	0	0	0	0	0	4	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		30	East Side		143	South Side		22	West Side		28
13:45	CARS	78	3	1	0	2	4	72	9	5	0	8	5
	DUALS	0	0	0	0	0	0	3	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	6	2
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side			East Side		128	South Side		27	West Side		31
14:00	CARS	74	2	1	0	1	7	84	6	3	0	11	3
	DUALS	3	0	0	0	0	0	0	0	0	0	0	0
	BUSES	1	0	0	0	0	0	0	0	0	0	3	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		32	East Side		130	South Side		19	West Side		30
14:15	CARS	66	2	5	0	7	2	80	8	4	0	6	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	0	0	0	0	8	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		36	East Side		113	South Side		20	West Side		23



Survey Date: Nov-06-2018 (Tuesday)

LIPTON AVE AT PAPE AVE (PX 2461)

Survey Ty	pe: Routine H	lours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAS] Thru	Г BOUN Right	ID Left	SOUTI Thru R	I BOUI light	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	74	4	0	0	5	3	73	10	3	0	2	7
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	7	0	0	0	0	0	1	0	0	0	4	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		46	East Side		132	South Side		24	West Side		26
14:45	CARS	78	5	1	0	6	6	81	7	5	0	3	5
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	1	0	0	0	6	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		41	East Side		140	South Side		22	West Side		23
15:00	CARS	79	5	0	0	4	4	84	9	3	0	4	3
	DUALS	0	0	0	0	0	0	1	0	0	0	6	3
	BUSES	8	0	0	0	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		39	East Side		151	South Side		28	West Side		28
16:15	CARS	81	4	0	0	2	3	86	7	5	0	9	6
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	0	0	0	0	9	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		65	East Side		181	South Side		32	West Side		31
16:30	CARS	78	3	1	0	3	6	78	11	3	0	4	4
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	8	0	0	0	0	0	1	0	0	0	11	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		57	East Side		208	South Side		28	West Side		28
16:45	CARS	89	2	0	0	4	2	83	9	5	0	5	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	1	0	0	0	0	0	0	0	0	12	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		69	East Side		198	South Side		29	West Side		37
17:00	CARS	91	3	2	0	3	6	82	6	4	0	6	2
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	0	0	0	0	13	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		70	East Side		198	South Side		34	West Side		42



# Intersection Detailed 15 Minutes Movement Report

LIPTON AVE AT PAPE AVE (PX 2461)

**Routine Hours** 

Survey Date: Nov-06-2018 (Tuesday)

Time		NORT	нво	UND	EAS		ND	SOUTI	нвоц	IND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru F	Right	Left	Thru F	light Left	t
17:15	CARS	87	4	0	0	5	2	77	10	4	0	6	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	0	0	0	0	10	5
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		63	East Side		205	South Side		23	West Side		42
17:30	CARS	88	5	0	0	4	7	80	8	6	0	5	5
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	9	0	0	0	0	0	1	0	0	0	12	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		71	East Side		202	South Side		25	West Side		34
17:45	CARS	86	3	2	0	2	5	79	9	5	0	4	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	1	0	0	0	10	3
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		66	East Side		197	South Side		21	West Side		30
18:00	CARS	91	4	0	0	4	7	84	11	4	0	5	2
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	0	0	0	0	11	4
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		70	East Side		192	South Side		39	West Side		37



#### MILLWOOD RD AT OVERLEA BLVD (PX 687)

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Survey Date:
               Sep-12-2018 (Wednesday)
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Survey Ty	pe: Pedestria	n Hours											
Time Period		NOR <sup>*</sup> Thru	TH BOU Right	ND Left	EAST Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUN ight	ID Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	238	43	0	0	0	0	90	0	36	0	70	63
	DUALS	4	1	0	0	0	0	4	0	0	0	3	1
	BUSES	1	14	0	0	0	0	2	0	1	0	1	15
	BIKE (OTHER)		2	(0)		4	(0)		14	(0)	0	(0)	
	PEDS	North Side	e	1	East Side		6	South Side		0	West Side		0
08:00	CARS	280	102	0	0	0	0	116	0	49	0	80	73
	DUALS	1	0	0	0	0	0	8	0	1	0	0	0
	BUSES	2	13	0	0	0	0	1	0	2	0	3	8
	BIKE (OTHER)		9	(0)		5	(0)		23	(0)	0	(0)	
	PEDS	North Side	e	6	East Side		15	South Side		0	West Side		0
08:15	CARS	289	106	0	0	0	0	138	0	65	0	73	83
	DUALS	5	1	0	0	0	0	6	0	3	0	0	0
	BUSES	2	15	0	0	0	0	2	0	2	0	3	10
	BIKE (OTHER)		4	(0)		6	(0)		23	(0)	0	(0)	
	PEDS	North Side	e	4	East Side		15	South Side		0	West Side		0
08:30	CARS	312	94	0	0	0	0	128	0	60	0	65	83
	DUALS	5	1	0	0	0	0	4	0	3	0	0	1
	BUSES	1	11	0	0	0	0	1	0	1	0	1	16
	BIKE (OTHER)		6	(0)		3	(0)		23	(0)	0	(0)	
	PEDS	North Side	e	3	East Side		15	South Side		1	West Side		0
08:45	CARS	259	100	0	0	0	0	164	0	77	0	74	77
	DUALS	3	3	0	0	0	0	7	0	3	0	1	2
	BUSES	2	12	0	0	0	0	2	0	2	0	2	11
	BIKE (OTHER)		3	(0)		5	(0)		18	(0)	0	(0)	
	PEDS	North Side	e	1	East Side		9	South Side		0	West Side		0
09:00	CARS	254	96	0	0	0	0	154	0	82	0	79	75
	DUALS	4	0	0	0	0	0	4	0	2	0	5	0
	BUSES	1	17	0	0	0	0	2	0	3	0	1	14
	BIKE (OTHER)		3	(0)		4	(0)		19	(0)	0	(0)	
	PEDS	North Side	e	2	East Side		24	South Side		0	West Side		0
09:15	CARS	215	79	0	0	0	0	127	0	72	0	85	58
	DUALS	8	1	0	0	0	0	4	0	1	0	2	0
	BUSES	1	7	0	0	0	0	1	0	1	0	2	12
	BIKE (OTHER)		3	(0)		2	(0)		8	(0)	0	(0)	
	PEDS	North Side	e	2	East Side		6	South Side		0	West Side		0



### MILLWOOD RD AT OVERLEA BLVD (PX 687)

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Survey Date: Sep-12-2018 (Wednesday)
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Survey Type: Pedestrian Hours

Time Period		NOR <sup>1</sup> Thru	TH BOL Right	JND Left	EAS <sup>:</sup> Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND Right Left	
09:30	CARS	192	62	0	0	0	0	118	0	56	0	84	71
	DUALS	3	1	0	0	0	0	9	0	0	0	1	0
	BUSES	3	10	0	0	0	0	2	0	2	0	0	13
	BIKE (OTHER)		1	(0)		1	(0)		11	(0)	0	(0)	
	PEDS	North Side	)	2	East Side		10	South Side		0	West Side		0
10:15	CARS	130	88	0	0	0	0	108	0	80	0	68	48
	DUALS	6	2	0	0	0	0	4	0	2	0	1	1
	BUSES	1	6	0	0	0	0	1	0	0	0	0	4
	BIKE (OTHER)		2	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side	)	3	East Side		6	South Side		0	West Side		0
10:30	CARS	152	76	0	0	0	0	99	0	67	0	61	79
	DUALS	5	0	0	0	0	0	4	0	2	0	2	4
	BUSES	1	9	0	0	0	0	0	0	0	0	1	12
	BIKE (OTHER)		3	(0)		2	(0)		4	(0)	0	(0)	
	PEDS	North Side	)	2	East Side		9	South Side		1	West Side		0
10:45	CARS	135	77	0	0	0	0	119	0	72	0	75	62
	DUALS	3	1	0	0	0	0	8	0	3	0	3	0
	BUSES	1	7	0	0	0	0	1	0	1	0	0	5
	BIKE (OTHER)		0	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side	)	1	East Side		5	South Side		0	West Side		0
11:00	CARS	126	80	0	0	0	0	107	0	79	0	81	61
	DUALS	7	2	0	0	0	0	7	0	2	0	2	1
	BUSES	1	8	0	0	0	0	1	0	1	0	1	8
	BIKE (OTHER)		2	(0)		2	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	1	East Side		2	South Side		0	West Side		0
12:15	CARS	137	81	0	0	0	0	112	0	86	0	76	57
	DUALS	2	1	0	0	0	0	9	0	3	0	2	2
	BUSES	0	2	0	0	0	0	1	0	1	0	0	6
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	3	East Side		7	South Side		0	West Side		0
12:30	CARS	148	84	0	0	0	0	119	0	78	0	83	65
	DUALS	7	0	0	0	0	0	6	0	2	0	1	1
	BUSES	1	5	0	0	0	0	1	0	0	0	1	9
	BIKE (OTHER)		1	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side	e	1	East Side		3	South Side		0	West Side		0



### MILLWOOD RD AT OVERLEA BLVD (PX 687)

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Survey Date: Sep-12-2018 (Wednesday)
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Survey Type: Pedestrian Hours

Time Period		NOR1 Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	I BOUI ight	ND Left	WEST Thru F	BOUND Right Left	t
12:45	CARS	153	79	0	0	0	0	129	0	75	0	87	73
	DUALS	4	2	0	0	0	0	8	0	4	0	2	1
	BUSES	1	5	0	0	0	0	0	0	1	0	2	11
	BIKE (OTHER)		1	(0)		2	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	1	East Side		4	South Side		0	West Side		0
13:00	CARS	137	86	0	0	0	0	132	0	85	0	84	78
	DUALS	7	1	0	0	0	0	5	0	3	0	2	3
	BUSES	2	7	0	0	0	0	1	0	0	0	0	7
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	2	East Side		5	South Side		0	West Side		0
13:15	CARS	125	91	0	0	0	0	142	0	88	0	85	82
	DUALS	8	1	0	0	0	0	9	0	2	0	1	3
	BUSES	0	8	0	0	0	0	0	0	2	0	0	9
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	3	East Side		3	South Side		0	West Side		0
13:30	CARS	142	95	0	0	0	0	148	0	84	0	82	65
	DUALS	5	7	0	0	0	0	7	0	1	0	1	0
	BUSES	1	10	0	0	0	0	1	0	3	0	1	9
	BIKE (OTHER)		0	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	1	East Side		7	South Side		0	West Side		0
14:30	CARS	157	92	0	0	0	0	163	0	87	0	70	80
	DUALS	4	3	0	0	0	0	6	0	5	0	4	0
	BUSES	0	11	0	0	0	0	0	0	1	0	1	8
	BIKE (OTHER)		3	(0)		1	(0)		3	(0)	0	(0)	
	PEDS	North Side	·	0	East Side		2	South Side		0	West Side		0
14:45	CARS	152	99	0	0	0	0	132	0	83	0	101	83
	DUALS	3	0	0	0	0	0	2	0	4	0	2	3
	BUSES	1	4	0	0	0	0	1	0	1	0	1	6
	BIKE (OTHER)		2	(0)		0	(0)		4	(0)	0	(0)	
	PEDS	North Side	·	4	East Side		8	South Side		0	West Side		0
15:00	CARS	178	85	0	0	0	0	144	0	90	0	91	93
	DUALS	4	2	0	0	0	0	5	0	1	0	1	1
	BUSES	1	10	0	0	0	0	1	0	2	0	2	9
	BIKE (OTHER)		2	(0)		4	(0)		4	(0)	0	(0)	
	PEDS	North Side	ł	3	East Side		6	South Side		0	West Side		0



#### MILLWOOD RD AT OVERLEA BLVD (PX 687)

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Sep-12-2018 (Wednesday)
Survey Date:
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# Intersection Detailed 15 Minutes Movement Report

### MILLWOOD RD AT OVERLEA BLVD (PX 687)

Pedestrian Hours

Survey Date: Sep-12-2018 (Wednesday)

Time Period		NOR Thru	TH BO	UND Left	EAS <sup>:</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOU ight	ND Left	WEST Thru F	BOUND Right Lef	ft
17:15	CARS	175	106	0	0	0	0	270	0	120	0	93	115
	DUALS	3	0	0	0	0	0	2	0	1	0	0	0
	BUSES	1	7	0	0	0	0	2	0	2	0	0	11
	BIKE (OTHER)		10	(0)		8	(0)		5	(0)	0	(0)	
	PEDS	North Sid	e	3	East Side		4	South Side		0	West Side		0
17:30	CARS	179	121	0	0	0	0	287	0	123	0	90	125
	DUALS	1	2	0	0	0	0	2	0	1	0	0	0
	BUSES	3	9	0	0	0	0	1	0	2	0	2	6
	BIKE (OTHER)		8	(0)		8	(0)		7	(0)	0	(0)	
	PEDS	North Sid	e	4	East Side		4	South Side		0	West Side		0
17:45	CARS	164	126	0	0	0	0	286	0	138	0	108	100
	DUALS	4	0	0	0	0	0	1	0	0	0	0	0
	BUSES	1	9	0	0	0	0	3	0	2	0	2	6
	BIKE (OTHER)		6	(0)		1	(0)		9	(0)	0	(0)	
	PEDS	North Sid	e	5	East Side		6	South Side		1	West Side		0
18:00	CARS	176	121	0	0	0	0	299	0	125	0	82	112
	DUALS	1	1	0	0	0	0	3	0	0	0	1	1
	BUSES	1	3	0	0	0	0	2	0	2	0	0	14
	BIKE (OTHER)		3	(0)		3	(0)		10	(0)	0	(0)	
	PEDS	North Sid	е	4	East Side		6	South Side		0	West Side		0



### MORTIMER AVE AT PAPE AVE (PX 664)

Survey Ty	pe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	I BOUI light	ND Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	51	11	19	37	5	9	69	8	4	95	5	11
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	1	0	0	8	0	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		5	East Side		9	South Side		6	West Side		2
08:00	CARS	72	7	13	46	9	10	80	25	3	105	8	8
	DUALS	4	0	0	0	0	0	0	0	0	2	0	0
	BUSES	9	0	0	1	0	0	7	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		11	East Side		9	South Side		17	West Side		13
08:15	CARS	89	4	16	45	12	8	99	13	2	120	7	13
	DUALS	3	0	1	0	1	0	1	0	0	0	1	0
	BUSES	10	0	0	1	0	0	8	0	1	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		8	South Side		14	West Side		15
08:30	CARS	88	14	18	43	7	12	89	20	3	133	6	14
	DUALS	3	0	0	0	0	0	2	1	0	0	0	0
	BUSES	7	0	0	0	0	0	9	0	0	2	0	0
	BIKE (OTHER)		2	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		11	East Side		15	South Side		34	West Side		15
08:45	CARS	101	9	16	71	7	12	100	17	9	98	3	17
	DUALS	1	0	0	0	0	0	3	0	0	1	0	0
	BUSES	8	0	0	1	0	0	8	0	1	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		22	East Side		26	South Side		15	West Side		16
09:00	CARS	86	16	9	40	13	14	105	18	8	131	10	17
	DUALS	1	0	0	0	0	1	2	0	0	0	0	0
	BUSES	9	0	0	2	0	0	7	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		8	East Side		20	South Side		24	West Side		8
09:15	CARS	89	21	10	48	7	15	91	21	5	109	7	16
	DUALS	1	0	1	1	0	1	2	0	0	0	0	0
	BUSES	7	0	0	0	0	0	5	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	0	(0)	
	PEDS	North Side		15	East Side		21	South Side		12	West Side		9



### MORTIMER AVE AT PAPE AVE (PX 664)

Survey Ty	pe: Routine I	Hours											
Time Period		NORT Thru I	H BOU Right	ND Left	EAS Thru	T BOUN	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ght Leff	t
09:30	CARS	75	16	14	60	12	16	98	13	2	78	8	15
	DUALS	0	1	0	0	0	1	1	0	0	1	0	0
	BUSES	7	0	0	1	0	0	9	0	0	1	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	2	(0)	
	PEDS	North Side		7	East Side		18	South Side		20	West Side		4
10:15	CARS	80	19	6	78	10	11	73	22	3	59	5	12
	DUALS	5	0	1	0	3	1	4	0	0	0	0	0
	BUSES	5	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		9	South Side		27	West Side		20
10:30	CARS	77	12	6	38	11	14	71	11	3	61	12	7
	DUALS	6	0	0	0	0	0	1	0	0	0	0	0
	BUSES	3	0	0	0	0	0	5	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		5	East Side		20	South Side		24	West Side		15
10:45	CARS	71	15	11	44	7	12	70	18	3	67	6	6
	DUALS	4	0	0	0	0	0	4	1	0	2	0	1
	BUSES	5	0	0	1	0	0	5	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		6	East Side		7	South Side		26	West Side		11
11:00	CARS	75	11	9	49	13	11	73	11	5	53	4	9
	DUALS	1	0	1	3	0	0	2	0	0	1	0	0
	BUSES	5	0	0	1	0	0	4	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		7	South Side		16	West Side		18
11:15	CARS	83	9	6	42	8	14	77	11	2	48	5	12
	DUALS	1	0	1	1	0	0	1	0	0	2	0	0
	BUSES	4	0	0	0	0	0	3	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		10	East Side		11	South Side		28	West Side		17
11:30	CARS	82	22	14	64	10	11	80	19	8	75	6	16
	DUALS	1	1	0	1	0	0	1	0	0	1	0	0
	BUSES	6	0	0	1	0	0	7	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		6	East Side		14	South Side		19	West Side		13



### MORTIMER AVE AT PAPE AVE (PX 664)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUNI Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru Ri	BOUND ight Left	:
11:45	CARS	79	17	13	57	9	12	86	21	8	52	7	8
	DUALS	4	0	1	1	0	0	1	0	0	0	0	1
	BUSES	4	0	0	1	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		13	East Side		16	South Side		31	West Side		17
12:00	CARS	99	19	15	54	14	14	75	16	10	44	5	6
	DUALS	5	1	0	1	0	0	3	0	0	0	0	0
	BUSES	5	0	0	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		9	East Side		10	South Side		21	West Side		18
13:15	CARS	90	13	7	58	15	15	65	13	7	38	9	4
	DUALS	2	1	0	2	0	1	4	0	0	0	0	0
	BUSES	5	0	0	1	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		5	East Side		11	South Side		17	West Side		21
13:30	CARS	76	13	7	58	15	20	73	12	7	67	5	8
	DUALS	0	1	0	1	0	0	3	0	0	0	0	0
	BUSES	5	0	0	1	0	0	4	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		11	South Side		4	West Side		15
13:45	CARS	88	12	10	59	5	19	81	13	7	49	5	8
	DUALS	2	0	0	2	0	0	4	0	0	4	0	0
	BUSES	5	0	0	0	0	0	4	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		12	South Side		19	West Side		18
14:00	CARS	82	14	12	46	16	12	86	7	5	37	9	10
	DUALS	4	0	1	0	0	0	1	0	0	2	0	0
	BUSES	4	0	0	1	0	0	5	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		11	South Side		11	West Side		15
14:15	CARS	83	17	8	54	10	8	86	19	8	46	4	8
	DUALS	2	0	1	1	0	0	2	0	0	1	0	1
	BUSES	5	0	0	1	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		5	East Side		17	South Side		8	West Side		16



### MORTIMER AVE AT PAPE AVE (PX 664)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	'H BOU Right	ND Left	EAS Thru	T BOUNI Right	D Left	SOUTI Thru F	H BOUN Right	ND Left	WEST Thru R	BOUND ight Left	:
14:30	CARS	98	13	17	73	10	6	76	13	6	58	6	4
	DUALS	1	0	0	0	0	0	0	0	0	2	0	0
	BUSES	5	0	0	0	0	0	6	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	4	East Side		13	South Side		23	West Side		14
14:45	CARS	91	27	17	72	13	15	88	14	3	60	8	8
	DUALS	0	0	1	0	0	1	3	0	0	0	0	0
	BUSES	6	0	0	1	0	0	7	0	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	9	East Side		17	South Side		22	West Side		42
15:00	CARS	94	9	13	74	9	9	64	14	5	55	3	9
	DUALS	4	0	0	1	1	0	1	0	1	0	0	1
	BUSES	5	0	0	1	0	0	5	0	0	1	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	21	East Side		28	South Side		14	West Side		25
16:15	CARS	124	22	13	98	13	12	89	22	11	70	6	1
	DUALS	6	0	0	2	0	0	2	1	0	1	0	0
	BUSES	6	0	0	1	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	0	(0)	
	PEDS	North Side		6	East Side		21	South Side		31	West Side		31
16:30	CARS	109	19	16	113	17	16	98	19	9	57	7	7
	DUALS	2	0	0	2	0	0	1	0	0	2	2	0
	BUSES	7	0	0	0	0	0	7	0	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	·	8	East Side		29	South Side		15	West Side		23
16:45	CARS	101	16	10	123	17	22	80	17	4	55	5	12
	DUALS	3	0	0	1	1	0	2	0	0	1	0	1
	BUSES	5	0	0	2	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side	·	6	East Side		12	South Side		22	West Side		30
17:00	CARS	86	21	18	122	11	15	98	16	4	57	6	15
	DUALS	2	0	0	0	0	0	4	1	0	0	0	0
	BUSES	6	0	0	1	0	0	6	0	0	1	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		21	South Side		17	West Side		40



# Intersection Detailed 15 Minutes Movement Report

### MORTIMER AVE AT PAPE AVE (PX 664)

**Routine Hours** 

Time Period		NOR Thru	TH BOI Right	JND Left	EAS Thru	ST BOUI Right	ND Left	SOUT Thru	H BOL Right	JND Left	WEST Thru F	BOUND tight Lef	t
17:15	CARS	116	19	7	107	21	15	98	16	6	62	7	6
	DUALS	1	0	0	3	0	0	2	0	0	0	0	0
	BUSES	6	0	0	0	0	0	8	0	0	2	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side	e	12	East Side		26	South Side		15	West Side		9
17:30	CARS	115	16	14	119	11	13	92	21	7	69	9	7
	DUALS	1	0	0	1	0	0	0	0	0	0	0	0
	BUSES	6	0	0	2	0	0	5	0	0	1	0	0
	BIKE (OTHER)		0	(0)		1	(0)		3	(0)	1	(0)	
	PEDS	North Side	e	9	East Side		22	South Side		20	West Side		33
17:45	CARS	101	28	11	113	14	11	105	19	5	48	7	6
	DUALS	0	0	0	2	0	0	0	0	0	0	0	0
	BUSES	5	0	0	1	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		2	(0)	1	(0)	
	PEDS	North Side	e	17	East Side		23	South Side		15	West Side		23
18:00	CARS	103	24	14	123	12	11	88	21	6	46	11	8
	DUALS	1	0	0	1	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side	e	9	East Side		27	South Side		19	West Side		20



### O'CONNOR DR AT PAPE AVE (PX 442)

Survey Ty	pe: Routine H	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAST Thru	F BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru Ri	BOUND ight Left	t
07:45	CARS	50	27	0	26	4	18	37	28	2	75	4	29
	DUALS	1	0	0	0	0	1	1	0	0	1	0	0
	BUSES	9	0	0	1	0	4	8	3	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		4	South Side		0	West Side		3
08:00	CARS	57	49	1	26	2	24	37	24	1	65	1	39
	DUALS	0	0	0	1	0	0	0	1	0	5	0	0
	BUSES	9	0	0	0	0	5	9	4	0	3	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		2	South Side		2	West Side		4
08:15	CARS	65	33	7	43	2	19	55	30	0	81	2	22
	DUALS	0	2	1	1	0	0	0	1	0	2	0	2
	BUSES	9	0	0	1	0	3	9	4	0	0	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		19	East Side		4	South Side		3	West Side		5
08:30	CARS	84	33	7	53	6	35	54	46	4	84	2	48
	DUALS	1	2	0	1	0	0	1	0	0	0	0	1
	BUSES	7	0	0	0	0	4	7	4	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		18	East Side		4	South Side		8	West Side		12
08:45	CARS	78	40	3	41	3	31	62	42	3	80	4	30
	DUALS	0	0	1	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	1	0	3	8	3	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		24	East Side		11	South Side		5	West Side		14
09:00	CARS	69	39	7	40	3	21	54	31	4	81	4	32
	DUALS	1	0	0	0	0	1	4	0	0	0	0	0
	BUSES	9	0	1	1	0	3	6	3	0	1	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		5	East Side		6	South Side		3	West Side		5
09:15	CARS	59	42	4	91	2	28	62	32	2	78	5	38
	DUALS	2	0	1	1	0	0	1	0	0	0	0	0
	BUSES	4	3	0	3	0	4	10	6	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		2	South Side		2	West Side		3



### O'CONNOR DR AT PAPE AVE (PX 442)

Survey Ty	vpe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	,
09:30	CARS	58	50	2	109	6	31	51	23	2	62	1	35
	DUALS	1	1	0	1	0	2	0	1	0	2	0	1
	BUSES	7	2	0	4	0	2	6	3	0	1	0	1
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		2	South Side		1	West Side		2
10:15	CARS	62	42	4	62	4	42	43	27	0	61	2	49
	DUALS	2	1	1	3	0	0	1	0	0	3	0	2
	BUSES	3	3	0	2	1	2	5	3	0	1	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		4	South Side		2	West Side		1
10:30	CARS	60	43	1	55	2	42	29	18	1	31	2	29
	DUALS	2	2	1	5	0	4	0	0	0	0	0	C
	BUSES	5	5	0	1	0	2	5	2	0	1	0	0
	BIKE (OTHER)		0	(0)		2	(0)		1	(0)	0	(0)	
	PEDS	North Side		4	East Side		2	South Side		2	West Side		0
10:45	CARS	45	41	1	42	2	24	48	21	2	63	2	36
	DUALS	0	3	0	0	1	2	3	5	0	4	0	C
	BUSES	4	4	0	1	0	3	2	2	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		1	South Side		2	West Side		4
11:00	CARS	38	33	2	43	3	28	38	28	2	40	4	40
	DUALS	0	2	0	5	0	0	0	2	1	1	0	3
	BUSES	5	5	0	0	0	2	5	3	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		5	South Side		3	West Side		3
11:15	CARS	58	37	1	48	3	25	45	23	1	43	3	34
	DUALS	0	0	1	2	0	0	1	3	0	2	0	C
	BUSES	5	0	0	1	0	2	4	2	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		1	South Side		4	West Side		3
11:30	CARS	51	43	6	40	2	26	66	26	5	70	2	47
	DUALS	1	1	0	6	0	2	0	0	1	0	0	C
	BUSES	7	0	0	0	0	1	4	1	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		5	South Side		1	West Side		1



### O'CONNOR DR AT PAPE AVE (PX 442)

Survey Ty	pe: Routine	Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	Г BOUN Right	D Left	SOUT Thru F	H BOUN Right	ND Left	WEST Thru Ri	BOUND ight Left	t
11:45	CARS	49	36	4	55	4	27	43	31	3	73	1	37
	DUALS	1	3	0	3	0	0	1	1	0	1	0	0
	BUSES	4	0	0	1	0	3	6	3	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		3	East Side		1	South Side		1	West Side		2
12:00	CARS	63	38	5	50	4	36	52	25	2	39	2	41
	DUALS	4	2	0	1	0	1	1	0	0	1	0	2
	BUSES	6	0	0	0	0	2	4	3	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		1	West Side		2
13:15	CARS	58	36	3	33	4	30	51	28	2	40	2	30
	DUALS	2	1	0	3	0	1	3	1	0	0	0	2
	BUSES	4	0	0	1	0	3	6	3	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		7	South Side		1	West Side		0
13:30	CARS	64	43	4	46	1	24	55	23	1	36	1	53
	DUALS	0	2	0	2	0	0	1	0	0	1	0	2
	BUSES	5	0	0	0	0	3	4	2	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		4	West Side		3
13:45	CARS	58	55	1	32	1	32	31	27	2	43	2	39
	DUALS	2	1	0	2	0	2	3	0	0	2	0	0
	BUSES	4	0	0	1	0	2	5	3	0	0	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		2	South Side		6	West Side		5
14:00	CARS	49	30	4	39	7	23	50	30	1	50	4	47
	DUALS	1	3	0	5	0	0	0	1	0	1	1	0
	BUSES	6	0	0	0	0	3	4	4	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		3	East Side		4	South Side		1	West Side		1
14:15	CARS	50	55	2	40	5	22	62	26	1	46	6	43
	DUALS	3	1	0	2	0	2	1	1	0	0	0	1
	BUSES	3	0	0	1	0	2	5	1	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		4	South Side		0	West Side		4



### O'CONNOR DR AT PAPE AVE (PX 442)

Survey Date: Jan-09-2017 (Monday)

Survey Ty	vpe: Routine H	lours											
Time Period		NORT Thru	H BOU Right	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	t
14:30	CARS	41	41	1	29	4	30	47	28	2	47	4	33
	DUALS	1	1	0	4	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	2	3	2	0	2	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		2	East Side		2	South Side		0	West Side		5
14:45	CARS	59	53	2	45	0	25	48	23	4	47	3	32
	DUALS	1	0	0	0	0	0	0	1	0	0	0	1
	BUSES	5	0	0	1	0	3	7	3	0	0	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		5	South Side		2	West Side		3
15:00	CARS	57	35	4	44	3	37	56	28	2	40	8	52
	DUALS	3	0	0	1	0	1	1	1	0	0	0	1
	BUSES	6	1	0	0	0	2	5	3	0	3	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		8	East Side		7	South Side		4	West Side		5
16:15	CARS	83	37	5	75	4	47	68	25	1	51	2	47
	DUALS	2	1	0	1	0	0	0	1	0	2	0	1
	BUSES	6	0	0	2	0	3	7	4	0	0	0	1
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		10	South Side		6	West Side		10
16:30	CARS	83	37	1	76	5	55	68	26	3	54	1	51
	DUALS	2	0	0	0	0	0	0	0	0	2	0	0
	BUSES	7	0	0	0	0	1	6	2	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		3	South Side		4	West Side		10
16:45	CARS	70	40	3	76	2	38	65	33	0	55	4	58
	DUALS	3	0	0	1	0	0	1	0	0	0	0	0
	BUSES	5	0	0	1	0	3	7	2	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		7	South Side		5	West Side		3
17:00	CARS	72	43	4	86	5	49	68	35	1	49	6	50
	DUALS	1	2	0	2	0	2	1	0	0	0	0	0
	BUSES	7	0	1	0	0	2	6	3	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		15	East Side		9	South Side		1	West Side		6

Page 4 of 5



# Intersection Detailed 15 Minutes Movement Report

### O'CONNOR DR AT PAPE AVE (PX 442)

**Routine Hours** 

Time		NOR	гн во	UND	EAS	T BOUI	ND	SOUT	н вои	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru R	ight Left	t
17:15	CARS	79	39	2	83	4	34	74	48	6	50	5	57
	DUALS	1	0	0	0	0	0	1	0	0	0	0	1
	BUSES	6	0	0	1	0	3	7	3	0	2	0	0
	BIKE (OTHER)		0	(0)		2	(0)		2	(0)	0	(0)	
	PEDS	North Side	) 	6	East Side		10	South Side		2	West Side		2
17:30	CARS	69	48	4	62	1	27	87	31	3	51	8	48
	DUALS	1	0	0	1	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	3	7	3	0	2	0	1
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	) 	2	East Side		5	South Side		10	West Side		7
17:45	CARS	53	45	3	85	0	47	80	42	2	48	2	61
	DUALS	0	0	0	0	0	0	1	1	0	0	0	0
	BUSES	6	0	0	2	0	2	5	1	0	1	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side	)	10	East Side		7	South Side		3	West Side		5
18:00	CARS	69	43	3	83	2	45	76	32	3	42	1	48
	DUALS	0	0	0	0	0	1	0	1	0	0	0	0
	BUSES	5	0	0	0	0	2	7	5	0	1	0	1
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	8	East Side		9	South Side		4	West Side		7



### OVERLEA BLVD #42 AT EAST YORK TOWN CENTRE (PX 1834)

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Survey Date: May-15-2019 (Wednesday)
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Survey Type: Pedestrian Hours

Time Period		NORTH Thru R	l BOl light	JND Left	EAS Thru	ST BOU Right	ND Left	SOUTH Thru R	l BOU ight	ND Left	WES <sup>-</sup> Thru	Г BOUND Right Lef	t
07:45	CARS	1	3	1	76	5	4	1	0	0	106	1	14
	DUALS	0	0	0	3	0	0	0	1	0	7	0	0
	BUSES	0	0	0	15	0	0	0	0	0	17	0	2
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		1	East Side		1	South Side		1	West Side		5
08:00	CARS	3	0	1	100	2	5	1	1	0	91	2	4
	DUALS	1	1	0	2	0	1	0	1	0	6	0	0
	BUSES	0	0	1	10	0	0	0	1	0	18	0	1
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		1	South Side		1	West Side		0
08:15	CARS	1	3	1	121	7	12	0	0	2	143	3	11
	DUALS	0	0	0	3	0	0	0	0	0	5	0	0
	BUSES	0	0	0	10	1	0	0	0	0	17	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		1	East Side		2	South Side		3	West Side		1
08:30	CARS	0	9	3	129	3	4	0	2	0	88	1	11
	DUALS	0	0	0	8	0	1	0	0	0	4	0	0
	BUSES	0	0	0	10	0	0	0	0	0	15	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		0	East Side		1	South Side		5	West Side		8
08:45	CARS	0	6	1	109	12	8	0	0	2	119	2	14
	DUALS	0	0	0	5	0	0	0	1	0	8	1	1
	BUSES	0	0	0	9	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		2	East Side		0	South Side		3	West Side		6
09:00	CARS	2	11	6	126	12	10	0	4	2	110	4	22
	DUALS	0	0	0	6	0	0	0	0	0	6	0	1
	BUSES	0	0	0	12	0	0	0	1	0	15	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		3	East Side		3	South Side		3	West Side		11
09:15	CARS	2	6	3	100	4	7	2	3	0	119	4	18
	DUALS	0	0	0	7	0	1	0	0	0	18	1	0
	BUSES	0	0	0	7	0	0	0	0	0	14	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		4	South Side		5	West Side		7



### OVERLEA BLVD #42 AT EAST YORK TOWN CENTRE (PX 1834)

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Survey Date: May-15-2019 (Wednesday)
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Survey Type: Pedestrian Hours

Time Period		NORT Thru F	H BO Right	UND Left	EA Thru	ST BOU Right	ND Left	SOUT Thru F	H BOU Right	ND Left	WEST Thru F	<sup>•</sup> BOUND Right Left	t
09:30	CARS	2	9	7	87	7	15	3	3	3	107	4	24
	DUALS	0	1	0	7	0	1	1	0	0	6	0	2
	BUSES	0	0	0	8	0	0	0	1	0	9	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		3	South Side		2	West Side		6
10:15	CARS	6	18	2	91	5	54	7	7	12	95	36	21
	DUALS	1	1	0	4	0	0	2	0	0	3	2	0
	BUSES	0	0	0	3	0	1	0	0	0	7	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		4	East Side		0	South Side		11	West Side		10
10:30	CARS	7	17	4	75	9	38	2	13	10	78	33	22
	DUALS	0	1	0	7	0	0	0	1	0	7	0	1
	BUSES	0	0	0	8	0	0	0	0	0	8	0	1
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		15	East Side		3	South Side		5	West Side		14
10:45	CARS	2	10	5	76	5	37	7	24	16	82	21	20
	DUALS	0	0	0	4	0	0	0	1	0	3	1	0
	BUSES	0	0	0	7	0	0	0	0	1	9	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		2	South Side		11	West Side		18
11:00	CARS	2	8	9	88	4	28	3	42	28	89	33	20
	DUALS	0	1	3	3	0	0	0	0	0	3	1	0
	BUSES	0	0	0	3	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		2	South Side		9	West Side		11
12:15	CARS	3	22	7	94	8	45	7	46	31	81	34	31
	DUALS	0	1	1	9	0	2	0	2	0	12	0	3
	BUSES	0	0	0	6	0	0	0	1	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		24	East Side		14	South Side		3	West Side		20
12:30	CARS	6	13	7	98	7	57	6	33	20	105	28	22
	DUALS	0	0	1	5	0	2	1	0	1	4	2	0
	BUSES	0	0	0	5	0	0	1	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		19	East Side		11	South Side		7	West Side		13



# Intersection Detailed 15 Minutes Movement Report

# OVERLEA BLVD #42 AT EAST YORK TOWN CENTRE (PX 1834) Pedestrian Hours

Survey Date: May-15-2019 (Wednesday)

Time Period	Time Period		'H BOl Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru F	BOUND light Left	
12:45	CARS	3	27	6	126	6	40	9	42	31	97	33	22
	DUALS	0	0	0	4	1	2	0	0	0	11	1	3
	BUSES	0	0	0	8	0	0	0	0	1	9	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		22	East Side		10	South Side		7	West Side		10
13:00	CARS	4	17	6	96	8	33	6	28	26	108	32	33
	DUALS	2	0	0	9	1	2	1	1	2	7	0	1
	BUSES	0	0	0	6	0	0	0	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	•	22	East Side		19	South Side		5	West Side		20
13:15	CARS	11	21	4	86	7	33	6	40	30	112	39	33
	DUALS	0	2	2	9	1	1	0	0	0	3	3	1
	BUSES	0	0	0	5	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side	•	17	East Side		4	South Side		13	West Side		22
13:30	CARS	7	20	6	86	6	51	6	47	48	100	38	16
	DUALS	0	1	0	4	0	1	0	3	2	7	0	1
	BUSES	0	0	0	5	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	22	East Side		5	South Side		2	West Side		12
14:30	CARS	4	25	11	95	11	33	7	43	28	88	25	27
	DUALS	1	1	0	6	0	0	0	1	1	6	0	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side	•	13	East Side		3	South Side		7	West Side		15
14:45	CARS	3	28	7	108	9	25	4	48	33	93	21	29
	DUALS	0	1	0	9	0	1	1	2	0	12	1	0
	BUSES	0	0	1	6	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	11	East Side		10	South Side		11	West Side		13
15:00	CARS	6	18	10	109	9	36	5	51	38	98	28	24
	DUALS	0	2	0	12	0	2	1	2	1	3	0	1
	BUSES	0	0	0	8	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side	•	10	East Side		7	South Side		8	West Side		19



### OVERLEA BLVD #42 AT EAST YORK TOWN CENTRE (PX 1834)

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Survey Date: May-15-2019 (Wednesday)
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Survey Type: Pedestrian Hours

Time Period		NORT Thru	H BOL Right	JND Left	EAS Thru	ST BOU Right	ND Left	SOUT Thru I	H BOU Right	ND Left	WEST Thru I	「BOUND Right Left	t
15:15	CARS	6	18	8	143	9	31	5	32	21	119	26	24
	DUALS	0	0	1	12	1	1	0	0	0	3	0	2
	BUSES	0	0	0	10	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		14	East Side		6	South Side		11	West Side		19
15:30	CARS	6	13	6	144	10	25	11	43	29	106	22	34
	DUALS	0	0	1	10	0	2	1	0	1	3	0	2
	BUSES	0	0	0	12	1	1	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		8	East Side		3	South Side		10	West Side		26
15:45	CARS	9	18	9	144	10	27	5	35	18	122	23	27
	DUALS	2	0	1	15	0	1	0	2	0	7	0	0
	BUSES	0	0	0	7	0	1	0	0	0	13	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		2	East Side		4	South Side		12	West Side		22
16:15	CARS	10	23	10	118	5	29	8	44	32	113	26	26
	DUALS	0	0	1	8	0	2	1	1	0	10	1	0
	BUSES	0	0	0	12	0	0	0	1	0	10	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		7	East Side		8	South Side		8	West Side		14
16:30	CARS	6	17	7	156	7	42	3	30	19	128	15	27
	DUALS	0	0	1	8	1	2	0	0	0	2	1	0
	BUSES	0	0	0	10	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		10	East Side		10	South Side		2	West Side		8
16:45	CARS	5	20	4	170	8	34	3	45	27	99	19	29
	DUALS	0	1	0	9	1	1	0	1	0	4	2	1
	BUSES	0	0	0	10	0	0	0	0	0	12	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		11	East Side		11	South Side		7	West Side		29
17:00	CARS	5	20	11	167	16	42	8	41	28	118	19	29
	DUALS	0	0	1	9	0	3	0	2	0	1	0	0
	BUSES	0	0	0	8	0	0	0	0	1	11	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		18	East Side		5	South Side		10	West Side		13


#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD #42 AT EAST YORK TOWN CENTRE (PX 1834) Pedestrian Hours

Survey Date: May-15-2019 (Wednesday)

Time Period		NOR <sup>-</sup> Thru	TH BOI Right	JND Left	EAS Thru	T BOUN Right	ID Left	SOUT Thru l	H BOU Right	ND Left	WEST Thru R	BOUND light Left	t
17:15	CARS	7	29	16	176	11	37	10	54	42	108	26	31
		, 0		0	3	0	1	0	3	1	2	_0	0
	DUALS	0	0	0	11	0		0	0	0	10	0	0
	BUSES	0	0	U	11	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side	)	12	East Side		9	South Side		9	West Side		22
17:30	CARS	7	27	12	173	13	28	8	36	17	118	34	25
	DUALS	0	0	0	7	0	1	0	0	1	3	0	0
	BUSES	0	0	0	6	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	)	6	East Side		4	South Side		11	West Side		18
17:45	CARS	4	15	13	142	11	37	7	27	28	151	31	25
	DUALS	0	1	0	10	1	0	0	1	1	5	0	2
	BUSES	0	0	0	8	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side	)	8	East Side		3	South Side		5	West Side		17
18:00	CARS		20	6	143	10	41	12	31	36	132	25	29
	DUALS	0	1	1	3	0	2	0	0	1	3	0	1
	BUSES	0	0	0	6	0	0	0	0	0	12	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	)	1	East Side		1	South Side		8	West Side		28



#### OVERLEA BLVD AT THORNCLIFFE PARK DR & E TCS (PX 679)

Survey Ty	pe: Pedestria	an Hours											
Time Period		NOR <sup>-</sup> Thru	TH BOU Right	ND Left	EAS Thru	T BOUN	D Left	SOUTH Thru R	I BOUN ight	ID Left	WEST Thru R	BOUND ight Left	t
07:45	CARS	8	78	14	75	5	9	7	8	19	103	46	41
	DUALS	0	0	1	3	0	1	1	0	9	2	3	1
	BUSES	1	3	0	10	4	0	2	0	1	12	1	4
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side	)	16	East Side		5	South Side		10	West Side		12
08:00	CARS	26	93	9	80	12	19	5	7	24	100	55	58
	DUALS	0	2	0	0	0	0	1	0	3	1	3	2
	BUSES	1	5	0	9	3	0	1	2	0	8	0	1
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	2	(0)	
	PEDS	North Side	)	13	East Side		13	South Side		32	West Side		23
08:15	CARS	27	123	18	102	16	12	13	8	35	92	48	50
	DUALS	0	1	0	0	0	1	0	0	4	0	2	1
	BUSES	3	5	2	10	3	0	1	0	1	6	0	2
	BIKE (OTHER)		2	(0)		8	(0)		1	(0)	0	(0)	
	PEDS	North Side	)	7	East Side		11	South Side		35	West Side		25
08:30	CARS	23	83	16	106	22	16	10	5	51	125	67	62
	DUALS	0	0	0	3	0	0	0	0	3	3	2	0
	BUSES	3	1	0	7	4	0	1	0	0	12	0	0
	BIKE (OTHER)		2	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side	)	7	East Side		1	South Side		32	West Side		29
08:45	CARS	22	79	11	89	21	12	16	6	56	118	72	61
	DUALS	0	0	0	2	0	0	0	1	1	1	1	0
	BUSES	1	1	0	8	4	0	2	0	1	10	0	2
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side	)	13	East Side		14	South Side		51	West Side		22
09:00	CARS	30	71	11	110	21	9	10	3	43	146	66	80
	DUALS	0	2	1	1	1	0	0	0	4	3	2	0
	BUSES	2	2	0	11	3	0	1	0	1	10	1	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side	) 	16	East Side		9	South Side		45	West Side		32
09:15	CARS	19	72	21	87	14	13	16	12	36	129	51	57
	DUALS	1	1	1	2	2	0	1	0	6	2	7	2
	BUSES	1	0	0	13	2	0	2	0	0	7	1	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side	)	14	East Side		10	South Side		36	West Side		32



# OVERLEA BLVD AT THORNCLIFFE PARK DR & E TCS (PX 679) Survey Type: Pedestrian Hours

Survey Ty	pe: Pedestria	n Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	23	52	14	86	10	16	19	12	31	128	52	38
	DUALS	0	1	0	3	0	1	1	0	1	5	1	0
	BUSES	2	0	0	6	1	0	1	0	0	13	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		3	South Side		24	West Side		22
10:15	CARS	11	47	14	92	7	20	9	10	37	128	43	40
	DUALS	0	1	0	0	0	1	0	1	5	1	9	3
	BUSES	1	0	0	3	3	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		5	East Side		10	South Side		11	West Side		16
10:30	CARS	10	62	13	105	6	14	12	11	45	125	41	35
	DUALS	0	2	0	5	1	0	0	0	10	4	7	1
	BUSES	0	0	0	7	2	0	1	0	0	9	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		8	South Side		31	West Side		17
10:45	CARS	11	43	9	106	10	12	9	12	33	115	42	36
	DUALS	0	2	1	3	1	1	2	0	8	1	7	1
	BUSES	1	0	0	4	1	0	0	0	0	3	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		11	East Side		4	South Side		32	West Side		12
11:00	CARS	13	36	11	98	10	14	14	16	28	84	28	46
	DUALS	0	1	0	2	0	0	0	0	9	5	7	0
	BUSES	0	1	0	9	2	0	1	0	0	7	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		13	East Side		10	South Side		21	West Side		25
12:15	CARS	12	51	12	103	10	16	21	19	42	128	35	40
	DUALS	0	0	0	2	0	0	0	0	9	2	6	1
	BUSES	1	0	0	5	2	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		10	East Side		12	South Side		26	West Side		12
12:30	CARS	16	56	19	112	6	23	26	22	49	119	45	45
	DUALS	0	1	1	4	0	0	2	0	6	4	4	2
	BUSES	1	1	0	3	1	0	0	0	0	5	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		11	East Side		5	South Side		21	West Side		19



#### OVERLEA BLVD AT THORNCLIFFE PARK DR & E TCS (PX 679)

Survey Date: Sep-12-2018 (Wednesday)

Survey Ty	/pe: Pedestria	n Hours											
Time Period		NOR1 Thru	'H BOU Right	IND Left	EAS Thru	T BOUN Right	D Left	SOUT Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ť
12:45	CARS	20	62	10	121	7	23	19	26	51	122	40	49
	DUALS	0	1	0	1	1	1	1	2	3	5	2	1
	BUSES	0	0	0	7	4	0	1	0	1	3	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side	•	16	East Side		9	South Side		29	West Side		21
13:00	CARS	19	59	16	109	8	27	18	31	56	132	38	52
	DUALS	0	1	0	2	0	0	0	0	8	3	7	1
	BUSES	0	0	0	5	1	0	1	0	0	2	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		19	East Side		16	South Side		31	West Side		24
13:15	CARS	27	54	16	113	10	25	20	27	51	123	39	55
	DUALS	0	2	0	4	0	1	0	1	8	1	6	1
	BUSES	0	0	0	6	1	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side	•	28	East Side		21	South Side		35	West Side		29
13:30	CARS	15	55	18	106	18	30	25	35	49	143	38	50
	DUALS	1	2	0	1	1	3	1	3	7	4	6	0
	BUSES	1	0	0	8	2	0	1	0	2	7	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side	•	28	East Side		22	South Side		37	West Side		27
14:30	CARS	20	62	14	139	9	16	21	23	57	113	37	48
	DUALS	0	0	0	5	1	1	0	0	5	2	4	0
	BUSES	1	0	0	6	2	0	1	0	1	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side	•	27	East Side		23	South Side		41	West Side		26
14:45	CARS	17	52	16	151	10	10	24	20	58	124	31	47
	DUALS	0	1	1	2	0	0	1	1	7	2	7	0
	BUSES	0	1	0	9	2	0	0	0	2	6	1	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		23	East Side		14	South Side		14	West Side		37
15:00	CARS	21	60	11	134	11	28	16	20	46	112	40	62
	DUALS	0	0	0	6	0	0	0	1	7	3	4	2
	BUSES	0	0	0	1	2	0	2	0	0	7	0	0
	BIKE (OTHER)		1	(0)		6	(0)		1	(0)	4	(0)	
	PEDS	North Side	•	27	East Side		24	South Side		29	West Side		44

Page 3 of 5



# OVERLEA BLVD AT THORNCLIFFE PARK DR & E TCS (PX 679) Survey Type: Pedestrian Hours

Survey Ty	pe: Pedestria	n Hours											
Time Period		NORT Thru	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUI Right	ND Left	WEST Thru R	BOUND ight Lef	ť
15:15	CARS	19	62	12	142	8	25	18	19	49	121	34	68
	DUALS	0	1	1	4	0	1	1	0	6	4	5	0
	BUSES	0	1	0	3	2	0	2	0	1	4	1	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	1	(0)	
	PEDS	North Side		22	East Side		12	South Side		25	West Side		39
15:30	CARS	22	69	14	149	12	21	22	25	51	118	27	58
	DUALS	0	0	0	6	1	0	0	0	5	2	2	0
	BUSES	0	2	0	2	1	0	1	0	1	5	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	2	(0)	
	PEDS	North Side		29	East Side		19	South Side		31	West Side		41
15:45	CARS	21	64	18	158	11	17	24	23	56	116	22	54
	DUALS	0	0	0	5	0	0	0	1	4	1	3	1
	BUSES	0	0	0	6	2	0	0	0	0	7	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		21	East Side		21	South Side		26	West Side		36
16:15	CARS	17	69	26	169	14	15	18	25	66	122	15	43
	DUALS	0	1	0	5	0	1	1	1	4	2	3	1
	BUSES	0	1	0	9	1	0	0	0	0	10	0	1
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		23	East Side		10	South Side		29	West Side		38
16:30	CARS	18	64	15	165	17	10	35	20	62	110	25	51
	DUALS	0	3	0	3	1	2	0	1	1	2	2	0
	BUSES	2	1	4	5	1	0	3	0	0	6	0	0
	BIKE (OTHER)		1	(0)		2	(0)		0	(0)	4	(0)	
	PEDS	North Side		18	East Side		22	South Side		35	West Side		32
16:45	CARS	16	56	16	152	8	21	29	17	61	138	19	52
	DUALS	1	0	0	0	0	0	0	0	7	2	2	1
	BUSES	2	3	0	7	1	0	1	0	0	9	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	3	(0)	
	PEDS	North Side		27	East Side		23	South Side		30	West Side		39
17:00	CARS	22	58	26	182	9	11	34	19	53	115	35	67
	DUALS	0	1	0	2	0	0	0	0	3	0	6	0
	BUSES	0	2	3	6	0	0	2	0	0	6	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		18	East Side		13	South Side		42	West Side		35



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT THORNCLIFFE PARK DR & E TCS (PX 679) Pedestrian Hours

Period		Thru			EAS	I BOOM	ID	SOUT	н вои	ND	WEST	BOUND	
			Right	Left	Thru	Right	Left	Thru l	Right	Left	Thru F	light Lef	t
17:15	CARS	23	67	15	167	23	12	34	22	63	137	45	47
	DUALS	0	3	0	0	0	0	0	0	2	0	1	0
	BUSES	0	0	3	9	0	0	1	0	0	11	0	1
	BIKE (OTHER)		1	(0)		4	(0)		3	(0)	5	(0)	
	PEDS	North Side	•	25	East Side		19	South Side		29	West Side		43
17:30	CARS	21	57	21	173	12	14	50	30	65	135	30	76
	DUALS	0	0	0	1	0	1	1	2	6	0	2	0
	BUSES	3	0	3	8	0	0	1	0	0	4	0	0
	BIKE (OTHER)		0	(0)		1	(0)		1	(0)	8	(0)	
	PEDS	North Side	•	25	East Side		17	South Side		35	West Side		31
17:45	CARS	18	67	24	194	18	21	24	11	61	163	36	73
	DUALS	0	0	0	4	0	0	0	0	3	3	3	0
	BUSES	0	0	2	4	0	0	1	1	0	4	0	0
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	1	(0)	
	PEDS	North Side	e	21	East Side		16	South Side		27	West Side		39
18:00	CARS	22	51	17	157	13	17	31	25	64	131	35	69
	DUALS	0	0	1	1	0	1	0	0	2	2	3	1
	BUSES	2	0	2	7	0	0	0	0	0	12	0	0
	BIKE (OTHER)		3	(0)		1	(0)		3	(0)	4	(0)	
	PEDS	North Side	e	20	East Side		12	South Side		40	West Side		35



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT THORNCLIFFE PARK W DR (PX 680) Pedestrian Hours

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Sep-12-2018 (Wednesday)
Survey Date:
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# OVERLEA BLVD AT THORNCLIFFE PARK W DR (PX 680) Survey Type: Pedestrian Hours

Survey Ty	pe: Pedestria	an Hours											
Time Period		NORT Thru I	H BOU Right	ND Left	EAS Thru	T BOUN Right	D Left	SOUTI Thru F	H BOUN Right	ID Left	WEST Thru R	BOUND ight Left	t
09:30	CARS	16	15	33	78	16	19	10	25	16	94	27	13
	DUALS	0	1	0	1	0	0	0	0	0	1	2	0
	BUSES	0	0	2	10	2	0	0	0	0	9	1	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	0	(0)	
	PEDS	North Side		25	East Side		35	South Side		35	West Side		24
10:15	CARS	10	8	31	112	29	18	13	16	20	90	28	7
	DUALS	0	1	0	2	1	1	0	1	2	2	3	0
	BUSES	0	0	1	6	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		23	East Side		21	South Side		14	West Side		25
10:30	CARS	12	13	30	93	21	27	8	22	22	72	27	8
	DUALS	0	1	2	3	1	0	0	2	2	2	1	0
	BUSES	0	0	3	9	0	0	0	0	0	9	0	0
	BIKE (OTHER)		1	(0)		1	(0)		1	(0)	0	(0)	
	PEDS	North Side		23	East Side		14	South Side		18	West Side		30
10:45	CARS	9	12	32	104	34	16	16	22	26	77	30	8
	DUALS	0	0	1	3	1	0	0	0	0	1	2	0
	BUSES	0	0	1	7	1	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		16	East Side		26	South Side		14	West Side		17
11:00	CARS	14	7	37	91	24	30	12	19	20	88	28	14
	DUALS	0	1	0	0	1	3	0	3	0	1	2	2
	BUSES	0	0	3	8	0	0	0	0	0	4	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		19	East Side		31	South Side		18	West Side		21
12:15	CARS	12	10	32	101	25	32	12	15	25	91	31	10
	DUALS	0	0	0	2	1	0	0	1	1	1	1	0
	BUSES	0	0	4	9	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		22	East Side		26	South Side		20	West Side		29
12:30	CARS	16	16	37	109	30	29	16	21	26	92	32	12
	DUALS	0	1	2	1	0	1	0	1	2	3	1	0
	BUSES	0	0	2	5	1	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		26	East Side		22	South Side		19	West Side		26



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT THORNCLIFFE PARK W DR (PX 680) Pedestrian Hours

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Survey Date:
               Sep-12-2018 (Wednesday)
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Time Period		NORT Thru	H BO Right	UND Left	EA Thru	ST BOU Right	ND Left	SOUTI Thru F	H BOU Right	ND Left	WES <sup>:</sup> Thru	Г BOUND Right Lefi	t
12:45	CARS	10	12	42	112	31	34	10	23	29	88	37	9
	DUALS	0	0	1	2	2	2	0	2	0	2	2	2
	BUSES	0	0	3	7	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		19	East Side		31	South Side		24	West Side		24
13:00	CARS	14	9	38	107	29	27	13	26	31	84	41	10
	DUALS	0	1	1	0	1	1	0	0	1	2	1	1
	BUSES	0	0	1	5	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		25	East Side	. <u> </u>	30	South Side		26	West Side		36
13:15	CARS	13	16	38	110	29	32	15	35	38	88	38	15
	DUALS	0	0	0	2	0	2	0	2	1	2	1	1
	BUSES	0	0	1	8	0	2	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		30	East Side		36	South Side		29	West Side		32
13:30	CARS	27	17	28	119	30	26	19	25	33	108	51	20
	DUALS	0	2	0	5	2	0	1	0	2	2	1	0
	BUSES	0	0	3	10	3	0	0	0	0	9	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		25	East Side		37	South Side		28	West Side		32
14:30	CARS	14	14	33	110	33	28	17	25	33	100	23	13
	DUALS	0	1	0	7	0	1	0	0	0	3	1	0
	BUSES	0	0	3	10	1	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		28	East Side		21	South Side		25	West Side		59
14:45	CARS	12	16	37	122	38	23	15	33	36	101	26	11
	DUALS	2	0	1	3	1	0	0	0	2	4	1	2
	BUSES	0	0	2	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		3	(0)		1	(0)	0	(0)	
	PEDS	North Side		32	East Side		27	South Side		25	West Side		54
15:00	CARS	14	11	50	116	19	23	19	30	46	107	20	26
	DUALS	0	0	2	3	0	0	0	1	1	1	0	0
	BUSES	0	0	4	10	2	0	0	0	0	8	0	1
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		30	East Side		26	South Side		24	West Side		43



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT THORNCLIFFE PARK W DR (PX 680) Pedestrian Hours

Survey Date: Sep-12-2018 (Wednesday)

Time Period		NORT Thru	H BOU Right	IND Left	EAS Thru	ST BOUN Right	ID Left	SOUTI Thru F	H BOU Right	ND Left	WEST Thru R	BOUND light Lef	t
15:15	CARS	12	12	39	112	22	26	17	29	43	106	22	19
	DUALS	1	0	1	6	1	0	0	0	1	2	0	1
	BUSES	1	0	4	9	0	0	0	0	0	4	0	1
	BIKE (OTHER)		1	(0)		2	(0)		1	(0)	1	(0)	
	PEDS	North Side		34	East Side		27	South Side		22	West Side		49
15:30	CARS	15	11	45	132	28	22	19	31	39	112	19	22
	DUALS	0	1	1	4	0	1	1	1	1	2	1	1
	BUSES	0	0	2	7	1	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	1	(0)	
	PEDS	North Side		29	East Side		23	South Side		28	West Side		53
15:45	CARS	13	16	42	144	34	28	21	27	41	103	25	23
	DUALS	1	0	0	3	0	0	0	0	0	1	0	0
	BUSES	0	0	2	9	2	0	0	0	0	5	0	0
	BIKE (OTHER)		1	(0)		1	(0)		0	(0)	0	(0)	
	PEDS	North Side		30	East Side		28	South Side		24	West Side		51
16:15	CARS	14	16	41	163	41	29	14	29	34	111	26	15
	DUALS	0	0	0	6	0	2	0	0	0	1	0	0
	BUSES	0	0	1	12	5	0	0	0	0	13	0	1
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side		31	East Side		30	South Side		25	West Side		36
16:30	CARS	14	11	39	180	51	22	10	21	27	102	25	17
	DUALS	0	0	2	3	0	0	0	1	2	4	0	1
	BUSES	0	0	2	4	2	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	3	(0)	
	PEDS	North Side		25	East Side		25	South Side		14	West Side		30
16:45	CARS	15	14	44	179	37	29	15	19	26	123	32	23
	DUALS	0	0	1	3	0	1	0	1	0	1	0	1
	BUSES	0	0	1	12	4	0	0	0	0	10	0	1
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	1	(0)	
	PEDS	North Side		31	East Side		36	South Side		32	West Side		48
17:00	CARS	9	8	50	153	48	20	17	24	31	100	23	12
	DUALS	0	0	0	1	0	1	0	0	0	0	0	0
	BUSES	1	0	2	8	1	0	0	0	0	4	1	1
	BIKE (OTHER)		1	(0)		3	(0)		1	(0)	2	(0)	
	PEDS	North Side		19	East Side		26	South Side		18	West Side		38

Page 4 of 5



# OVERLEA BLVD AT THORNCLIFFE PARK W DR (PX 680) Survey Type: Pedestrian Hours

Survey Ty	pe: Pe	destrian Hours												
Time Period			NOR Thru	TH BOU Right	JND Left	EA: Thru	ST BOU Right	ND Left	SOU Thru	ITH BOU Right	JND Left	WE: Thru	ST BOUND Right Lef	ť
17:15	CARS		15	18	39	153	40	17	21	26	40	132	40	13
	DUALS		0	0	0	0	0	0	0	0	0	0	0	0
	BUSES		1	0	1	5	4	0	1	0	0	10	3	1
	BIKE (OTHE	R)		0	(0)		2	(0)		0	(0)	4	(0)	
	PEDS	Nor	th Sid	le	30	East Side		39	South Sid	e	36	West Side		39
17:30	CARS		24	12	65	165	40	28	24	22	33	123	30	17
	DUALS		0	0	0	2	0	1	0	0	0	0	1	3
	BUSES		0	0	1	7	3	0	0	0	1	6	0	0
	BIKE (OTHE	R)		0	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	Nor	th Sid	le	33	East Side		43	South Sid	e	33	West Side		38
17:45	CARS		13	16	39	155	42	29	9	36	30	127	35	18
	DUALS		1	1	0	0	0	0	0	0	1	1	0	3
	BUSES		0	0	1	7	4	0	0	0	0	6	0	0
	BIKE (OTHE	R)		0	(0)		3	(0)		0	(0)	1	(0)	
	PEDS	Nor	th Sid	le	32	East Side		33	South Sid	e	21	West Side		41
18:00	CARS		12	14	46	153	48	25	16	19	29	126	25	18
	DUALS		0	2	0	1	0	0	0	0	1	1	0	1
	BUSES		0	0	0	3	3	0	0	0	0	16	0	0
	BIKE (OTHE	R)		0	(0)		3	(0)		0	(0)	1	(0)	
	PEDS	Nor	th Sid	le	27	East Side		25	South Sid	е	27	West Side		55



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT WILLIAM MORGAN DR (PX 1800)

Pedestrian Hours

Time Period		NORTH Thru R	l BOU ight	ND Left	EAST Thru	BOUN Right	D Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	0	0	0	186	0	0	0	0	3	187	4	0
	DUALS	0	0	0	8	0	0	0	0	0	6	0	0
	BUSES	0	0	0	14	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	5	(0)	
	PEDS	North Side		7	East Side		6	South Side		0	West Side		7
08:00	CARS	0	0	0	212	0	3	0	2	2	223	6	0
	DUALS	0	0	0	1	0	0	0	0	0	2	0	0
	BUSES	0	0	0	13	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		8	(0)		0	(0)	3	(0)	
	PEDS	North Side		2	East Side		17	South Side		0	West Side		14
08:15	CARS	0	0	0	257	0	3	0	0	1	218	11	0
	DUALS	0	0	0	5	0	0	0	0	0	2	1	0
	BUSES	0	0	0	14	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	3	(0)	
	PEDS	North Side		10	East Side		15	South Side		0	West Side		22
08:30	CARS	0	0	0	233	0	1	0	1	7	232	11	0
	DUALS	0	0	0	5	0	0	0	0	0	4	0	0
	BUSES	0	0	0	9	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		15	East Side		18	South Side		0	West Side		13
08:45	CARS	0	0	0	235	0	3	0	5	5	271	12	0
	DUALS	0	0	0	5	0	0	0	1	1	3	0	0
	BUSES	0	0	0	17	0	0	0	0	1	11	1	0
	BIKE (OTHER)		0	(0)		3	(0)		0	(0)	0	(0)	
	PEDS	North Side		19	East Side		29	South Side		0	West Side		31
09:00	CARS	0	0	0	222	0	2	0	3	7	270	15	0
	DUALS	0	0	0	10	0	0	0	0	0	6	2	0
	BUSES	0	0	0	13	0	0	0	0	1	10	1	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	3	(0)	
	PEDS	North Side		10	East Side		10	South Side		0	West Side		16
09:15	CARS	0	0	0	198	0	2	0	0	2	228	10	0
	DUALS	0	0	0	5	0	0	0	0	1	8	4	0
	BUSES	0	0	0	5	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		8	East Side		1	South Side		0	West Side		10



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT WILLIAM MORGAN DR (PX 1800)

Pedestrian Hours

Time Period		NORTH Thru F	l BOU light	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
09:30	CARS	0	0	0	167	0	2	0	2	4	214	6	0
	DUALS	0	0	0	3	0	0	0	0	2	7	0	0
	BUSES	0	0	0	8	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		1	South Side		0	West Side		9
10:15	CARS	0	0	0	187	0	10	0	4	5	193	9	0
	DUALS	0	0	0	8	0	0	0	1	0	12	0	0
	BUSES	0	0	0	5	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		4	East Side		1	South Side		0	West Side		5
10:30	CARS	0	0	0	182	0	15	0	5	4	168	13	0
	DUALS	0	0	0	14	0	0	0	0	2	9	1	0
	BUSES	0	0	0	7	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		6	South Side		0	West Side		5
10:45	CARS	0	0	0	167	0	6	0	2	2	179	13	0
	DUALS	0	0	0	14	0	0	0	0	0	10	3	0
	BUSES	0	0	0	4	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		8	South Side		0	West Side		2
11:00	CARS	0	0	0	162	0	7	0	3	6	193	7	0
	DUALS	0	0	0	7	0	0	0	0	2	7	0	0
	BUSES	0	0	0	7	0	0	0	0	0	7	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		8	East Side		1	South Side		0	West Side		2
12:15	CARS	0	0	0	206	0	5	0	7	11	202	10	0
	DUALS	0	0	0	12	0	0	0	1	0	9	2	0
	BUSES	0	0	0	9	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		2	South Side		0	West Side		4
12:30	CARS	0	0	0	195	0	8	0	2	10	226	9	0
	DUALS	0	0	0	10	0	0	0	0	1	8	1	0
	BUSES	0	0	0	5	0	0	0	0	0	5	1	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	3	(0)	
	PEDS	North Side		12	East Side		6	South Side		0	West Side		3



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT WILLIAM MORGAN DR (PX 1800)

Pedestrian Hours

Time Period		NORTH Thru F	H BOU light	ND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	:
12:45	CARS	0	0	0	216	0	4	0	6	8	210	8	0
	DUALS	0	0	0	8	0	1	0	1	1	5	1	0
	BUSES	0	0	0	4	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		5	East Side		5	South Side		0	West Side		5
13:00	CARS	0	0	0	225	0	6	0	5	12	216	6	0
	DUALS	0	0	0	9	0	0	0	0	1	12	0	0
	BUSES	0	0	0	9	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		9	East Side		4	South Side		0	West Side		6
13:15	CARS	0	0	0	225	0	6	0	6	6	212	11	0
	DUALS	0	0	0	13	0	0	0	0	1	11	0	0
	BUSES	0	0	0	6	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		7	South Side		0	West Side		14
13:30	CARS	0	0	0	229	0	5	0	6	9	246	9	0
	DUALS	0	0	0	12	0	0	0	1	0	8	1	0
	BUSES	0	0	0	11	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)	
	PEDS	North Side		5	East Side		4	South Side		0	West Side		2
14:30	CARS	0	0	0	247	0	3	0	3	8	185	9	0
	DUALS	0	0	0	10	0	1	0	1	2	8	0	0
	BUSES	0	0	0	8	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)	
	PEDS	North Side		8	East Side		4	South Side		0	West Side		14
14:45	CARS	0	0	0	262	0	3	0	7	14	212	10	0
	DUALS	0	0	0	9	0	0	0	1	1	9	1	0
	BUSES	0	0	0	9	0	0	0	0	0	3	0	0
	BIKE (OTHER)		0	(0)		5	(0)		0	(0)	4	(0)	
	PEDS	North Side		11	East Side		6	South Side		0	West Side		0
15:00	CARS	0	0	0	246	0	3	0	1	7	204	7	0
	DUALS	0	0	0	11	0	0	0	1	2	3	1	0
	BUSES	0	0	0	9	0	0	0	0	0	11	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		13	East Side		7	South Side		0	West Side		10



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT WILLIAM MORGAN DR (PX 1800)

Pedestrian Hours

Time Period		NORTH Thru F	H BOU light	ND Left	EAS <sup>-</sup> Thru	Г BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND ight Left	
15:15	CARS	0	0	0	265	0	4	0	1	9	193	10	0
	DUALS	0	0	0	8	0	1	0	0	3	5	0	0
	BUSES	0	0	0	6	0	0	0	0	0	12	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		12	East Side		5	South Side		0	West Side		10
15:30	CARS	0	0	0	279	0	6	0	3	10	206	6	0
	DUALS	0	0	0	9	0	0	0	0	2	4	1	0
	BUSES	0	0	0	5	0	0	0	0	0	9	0	0
	BIKE (OTHER)		0	(0)		2	(0)		0	(0)	2	(0)	
	PEDS	North Side		9	East Side		5	South Side		0	West Side		6
15:45	CARS	0	0	0	289	0	3	0	2	12	212	9	0
	DUALS	0	0	0	5	0	1	0	1	0	9	1	0
	BUSES	0	0	0	7	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	1	(0)	
	PEDS	North Side		10	East Side		3	South Side		0	West Side		5
16:15	CARS	0	0	0	315	0	0	0	7	17	174	8	0
	DUALS	0	0	0	10	0	0	0	1	0	3	0	0
	BUSES	0	0	0	11	0	0	0	0	0	14	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		13	East Side		4	South Side		0	West Side		11
16:30	CARS	0	0	0	308	0	1	0	2	12	187	5	0
	DUALS	0	0	0	9	0	0	0	0	1	4	0	0
	BUSES	0	0	0	6	0	0	0	0	0	7	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	4	(0)	
	PEDS	North Side		12	East Side		1	South Side		0	West Side		6
16:45	CARS	0	0	0	304	0	1	0	0	13	232	5	0
	DUALS	0	0	0	9	0	0	0	0	0	8	0	0
	BUSES	0	0	0	10	0	0	0	0	0	10	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	1	(0)	
	PEDS	North Side		7	East Side		1	South Side		0	West Side		9
17:00	CARS	0	0	0	289	0	3	0	5	10	206	2	0
	DUALS	0	0	0	1	0	0	0	0	0	2	0	0
	BUSES	0	0	0	12	0	0	0	0	0	8	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	4	(0)	
	PEDS	North Side		14	East Side		2	South Side		0	West Side		5



#### Intersection Detailed 15 Minutes Movement Report

#### OVERLEA BLVD AT WILLIAM MORGAN DR (PX 1800)

Pedestrian Hours

Time		NORT	гн во	UND	EAS	T BOUI	ND	SOUTH	BOU	ND	WEST	BOUND	
Period		Thru	Right	Left	Thru	Right	Left	Thru R	ight	Left	Thru R	ight Left	
17:15	CARS	0	0	0	322	0	4	0	1	24	245	8	0
	DUALS	0	0	0	4	0	1	0	0	3	2	0	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	7	(0)	
	PEDS	North Side	•	11	East Side		1	South Side		0	West Side		7
17:30	CARS	0	0	0	301	0	0	0	4	12	235	3	0
	DUALS	0	0	0	5	0	0	0	0	0	3	0	0
	BUSES	0	0	0	6	0	0	0	0	0	5	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	4	(0)	
	PEDS	North Side	•	6	East Side		1	South Side		0	West Side		4
17:45	CARS	0	0	0	322	0	5	0	2	15	278	14	0
	DUALS	0	0	0	7	0	1	0	0	1	7	0	0
	BUSES	0	0	0	6	0	0	0	0	0	6	0	0
	BIKE (OTHER)		0	(0)		1	(0)		0	(0)	2	(0)	
	PEDS	North Side	•	8	East Side		2	South Side		0	West Side		5
18:00	CARS	0	0	0	286	0	6	0	5	13	229	11	0
	DUALS	0	0	0	4	0	1	0	0	0	3	0	0
	BUSES	0	0	0	4	0	0	0	0	0	13	0	0
	BIKE (OTHER)		0	(0)		4	(0)		0	(0)	2	(0)	
	PEDS	North Side	•	11	East Side		8	South Side		0	West Side		9



#### PAPE AVE AT SAMMON AVE

Survey Type: Routine Hours

Survey Date: May-15-2018 (Tuesday)

Time Period		NORTH Thru R	l BOU ight	JND Left	EAS <sup>-</sup> Thru	T BOUN Right	ID Left	SOUTH Thru R	BOUN ight	ND Left	WEST Thru R	BOUND ight Left	
07:45	CARS	84	2	0	0	0	0	87	0	1	0	3	7
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	13	(0)	
	PEDS	North Side		2	East Side		6	South Side		0	West Side		0
08:00	CARS	105	3	0	0	0	0	106	0	2	0	6	10
	DUALS	0	0	0	0	0	0	0	0	0	0	0	1
	BUSES	9	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		8	(0)	6	(0)	
	PEDS	North Side		0	East Side		12	South Side		0	West Side		0
08:15	CARS	127	6	0	0	0	0	109	0	2	0	12	16
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	11	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		3	(0)		0	(0)		6	(0)	8	(0)	
	PEDS	North Side		1	East Side		14	South Side		0	West Side		0
08:30	CARS	102	2	0	0	0	0	128	0	6	0	10	22
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	11	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		5	(0)	9	(0)	
	PEDS	North Side		1	East Side		21	South Side		0	West Side		0
08:45	CARS	127	4	0	0	0	0	124	2	4	0	16	20
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		6	(0)	6	(0)	
	PEDS	North Side		1	East Side		21	South Side		0	West Side		0
09:00	CARS	114	6	0	0	0	0	124	0	3	0	11	7
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	11	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		3	(0)	6	(0)	
	PEDS	North Side		0	East Side		19	South Side		0	West Side		0
09:15	CARS	110	5	0	0	0	0	116	0	1	0	7	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	10	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	4	(0)	
	PEDS	North Side		0	East Side		13	South Side		0	West Side		0



#### PAPE AVE AT SAMMON AVE

**Routine Hours** 

Survey Date: May-15-2018 (Tuesday)

Survey Ty	pe: Routine H	Hours											
Time Period		NORTH Thru R	l BOU light	ND Left	EAST Thru	F BOUN Right	D Left	SOUTH Thru R	BOUN ight	ID Left	WEST Thru Ri	BOUND ght Left	
09:30	CARS	103	5	0	0	0	0	108	0	2	0	5	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		2	(0)	4	(0)	
	PEDS	North Side		2	East Side		11	South Side		0	West Side		0
10:15	CARS	86	2	0	0	0	0	103	0	2	0	3	6
	DUALS	0	0	0	0	0	0	1	0	0	0	0	1
	BUSES	6	0	0	0	0	0	3	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	1	(0)	
	PEDS	North Side		1	East Side		16	South Side		0	West Side		0
10:30	CARS	101	3	0	0	0	0	90	0	4	0	6	5
	DUALS	1	0	0	0	0	0	1	0	0	0	0	0
	BUSES	4	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		3	(0)	5	(0)	
	PEDS	North Side		2	East Side		12	South Side		0	West Side		0
10:45	CARS	99	5	0	0	0	0	92	0	3	0	4	2
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		0	East Side		25	South Side		0	West Side		0
11:00	CARS	102	4	0	0	0	0	101	0	4	0	9	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	5	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	1	(0)	
	PEDS	North Side		2	East Side		13	South Side		0	West Side		0
11:15	CARS	96	6	0	0	0	0	105	0	2	0	8	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	1	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	2	(0)	
	PEDS	North Side		1	East Side		12	South Side		0	West Side		0
11:30	CARS	112	5	0	0	0	0	91	0	2	0	7	4
	DUALS	2	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		18	South Side		0	West Side		0



#### PAPE AVE AT SAMMON AVE

Survey Date: May-15-2018 (Tuesday)

Survey Ty	<b>pe:</b> Routine H	lours										
Time Period		NORTH Thru R	H BOl Right	JND Left	EAS Thru	ST BOUN Right	ID Left	SOUTH Thru R	BOU ight	IND Left	WEST Thru I	BOUND Right Left
11:45	CARS	110	3	0	0	0	0	99	0	5	0	5
	DUALS	0	0	0	0	0	0	0	0	0	0	0
	BUSES	3	0	0	0	0	0	6	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	1	(0)
	PEDS	North Side		3	East Side		13	South Side		0	West Side	
12:00	CARS	114	4	0	0	0	0	102	0	3	0	6
	DUALS	0	0	0	0	0	0	0	0	0	0	0
	BUSES	4	0	0	0	0	0	6	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	2	(0)
	PEDS	North Side		2	East Side		13	South Side		0	West Side	
13:15	CARS	116	3	0	0	0	0	87	0	1	0	7
	DUALS	1	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	5	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side		1	East Side		22	South Side		1	West Side	
13:30	CARS	111	5	0	0	0	0	105	0	9	0	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	3	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	2	(0)
	PEDS	North Side		0	East Side		23	South Side		2	West Side	
13:45	CARS	114	4	0	0	0	0	98	0	1	0	7
	DUALS	1	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	7	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		2	(0)	0	(0)
	PEDS	North Side		0	East Side		16	South Side		1	West Side	
14:00	CARS	114	6	0	0	0	0	85	0	1	0	5
	DUALS	1	0	0	0	0	0	2	0	0	0	0
	BUSES	4	0	0	0	0	0	4	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		1	(0)	2	(0)
	PEDS	North Side		1	East Side		28	South Side		0	West Side	
14:15	CARS	112	8	0	0	0	0	87	0	2	0	5
	DUALS	1	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	8	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	3	(0)
	PEDS	North Side		1	East Side		21	South Side		2	West Side	



#### PAPE AVE AT SAMMON AVE

Survey Date: May-15-2018 (Tuesday)

Survey Type: Routine Hours

Time Period		NORTH Thru R	l BOU light	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	BOUI ight	ND Left	WEST Thru R	BOUND light Left	
14:30	CARS	118	5	0	0	0	0	96	0	3	0	4	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	6	0	0	0	0	0	6	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		22	South Side		0	West Side		0
14:45	CARS	109	7	0	0	0	0	94	0	4	0	5	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	5	0	0	0	0	0	5	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		24	South Side		0	West Side		0
15:00	CARS	118	5	0	0	0	0	100	0	7	0	4	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		21	South Side		1	West Side		0
16:15	CARS	119	4	0	0	0	0	92	0	4	0	6	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	7	0	0	0	0	0
	BIKE (OTHER)		1	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		19	South Side		0	West Side		0
16:30	CARS	123	5	0	0	0	0	89	0	3	0	4	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	1	0	0	0	0	9	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		2	(0)	0	(0)	
	PEDS	North Side		0	East Side		23	South Side		1	West Side		0
16:45	CARS	119	7	0	0	0	0	95	0	6	0	3	2
	DUALS	1	0	0	0	0	0	0	0	0	0	0	0
	BUSES	7	0	0	0	0	0	10	0	0	0	1	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		1	East Side		19	South Side		0	West Side		0
17:00	CARS	125	6	0	0	0	0	89	0	2	0	5	3
	DUALS	0	0	0	0	0	0	1	0	0	0	0	0
	BUSES	10	0	0	0	0	0	8	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		25	South Side		1	West Side		0



#### PAPE AVE AT SAMMON AVE

Survey Date: May-15-2018 (Tuesday)

Survey Type: Routine Hours

Time Period		NORTI Thru F	H BOU Riaht	IND Left	EAS <sup>-</sup> Thru	T BOUN Right	D Left	SOUTH Thru R	l BOUI iaht	ND Left	WEST Thru R	BOUND iaht Left	
									- <b>J</b>			.g	
17:15	CARS	130	3	0	0	0	0	96	0	2	0	3	3
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	8	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		31	South Side		0	West Side		0
17:30	CARS	123	6	0	0	0	0	102	0	4	0	2	4
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	9	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		1	(0)	0	(0)	
	PEDS	North Side		0	East Side		24	South Side		0	West Side		0
17:45	CARS	119	5	0	0	0	0	91	0	2	0	4	2
	DUALS	0	0	0	0	0	0	0	0	0	0	0	0
	BUSES	10	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		0	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		2	East Side		24	South Side		3	West Side		0
18:00	CARS	122	4	0	0	0	0	88	0	2	0	5	2
	DUALS	1	0	0	0	0	0	0	0	0	0	0	1
	BUSES	9	0	0	0	0	0	10	0	0	0	0	0
	BIKE (OTHER)		2	(0)		0	(0)		0	(0)	0	(0)	
	PEDS	North Side		0	East Side		26	South Side		0	West Side		0



### Peak Hour Factor Calculations Report

						Survey Date:	Jan-09-2	017	(Monday	)			
						Survey Type:	Routine I	Hours					
EGLINTON A	VE AT LAIRD DR	R (PX 88)											
Movement Pe	ak Hour Factors												
	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.882	0.847	0.855	0.861	0.821	0.375	8.0	854 0.	875 0.714	0.844	0.650	0.954	
РМ	0.929	0.880	0.923	0.832	0.925	0.500	0.9	921 0.	583 0.750	0.931	0.667	0.778	
Peak Hour F	actors												
	NB	EB	SB	WB									
АМ	0.939	0.896	0.875	0.901									
РМ	0.965	0.891	0.915	0.865									
Intersection	Peak Hour Facto	ors											
AM				0.993									
PM				0.950									



### Turning Movement Count Summary Report

EGLINTON	AVE AT LA	IRD DR (F	<b>X 88</b> )													Survey I	Date:	2	017-Ja	ın-09		(Monc	lay)		
			,													Survey 1	Гуре:	Routi	ne Hou	urs					
Time	Vehicle			NORT	HBOUN	ND				EASTI	BOUND				so	UTHBOI	JND				WE	ство	UND		
Period	Туре	Exits	L	eft Tl	hru R	ight	Total	Exits	Le	ft Th	ru Righ	t To	otal	Exits	Left	Thru	Right	Tota	l Exi	ts	Left	Thru	Right		Tota
07:45-08:45	CAR	306	195	261	149	605	620	6	451	174	631	710	20	246	7	273	803	290	601	39	930	Ν	67	0	0
AM PEAK	TRK	1	10 2	0	10 2	20	21	1 37	11	7	19 3 38	19 1	0	1	0	1	21 38	11 1	11 36	0	22 37	S F	75 59	1 0	0
	003		2	'	2		5	57	0 .	55	5 50	4	0	0	0	0	50		50	0	57	W	76	1	0
	TOTAL:	308	207	262	161	630	678	7	497	184	688	733	20	0 247	7	274	862	302	648	39	989				
	CAR	264	203	234	169	606	679	6	489	211	706	765	21	221	7	249	746	333	536	24	893	Ν	54	2	0
16:45-17:45	TRK	1	4	0	4	8	5	1	1	5	7	9	0	2	0	2	5	2	1	0	3	s	56	1	0
PM PEAK	BUS	2	3	2	3	0	8	39	0 3	36	2 38	2	0	0	0	0	39	0	36	0	36	E	47	0	0
																						W	62	0	0
	TOTAL:	267	210	236	176	622	723	7	526	218	751	776	2	1 223	7	251	790	335	573	24	932				
	CAR	234	184	196	166	546	557	7	366	152	525	518	25	167	10	202	596	199	402	31	632	Ν	41	0	0
OFF HR AVG	TRK	3	12	2	17	31	37	1	19	14	34	27	1	1	0	2	27	12	15	0	27	s	49	1	0
	BUS	1	4	1	0		5	30	0 3	30	4 34	6	0	1	0	1	35	1	31	0	32	E	38	0	0
																						W	39	0	0
	TOTAL:	238	200	199	183	582	624	8	415	170	593	551	20	6 169	10	205	658	212	448	31	691				
	CAR	520	344	446	288	1.078	1.156	11	810	340	1,161	1,394	58	467	15	540	1,508	587	1.149	63	1,799	Ν	113	2	0
07:30-09:30	TRK	4	16	1	20	37	48	2	27	18	47	42	1	1	1	3	40	23	23	1	47	s	128	4	0
2 HR AM	BUS	1	9	1	3	01	13	83	0 8	30	8 88	11	0	1	0	1	89	20	80	. 0	82	E	107	0	0
																						W	115	1	0
	TOTAL:	525	369	448	311	1,128	1,287	13	917	366	1,296	1,447	59	9 469	16	544	1,637	612	1,252	64	1,928				
16.00-18.00	CAR	539	430	470	342	1,242	1,254	16	869	402	1,287	1,446	43	422	14	479	1,512	622	1,068	53	1,743	Ν	101	3	0
10.00-10.00	TRK	2	8	1	10	19	17	1	7	10	18	17	0	2	0	2	14	5	6	0	11	s	115	1	0
2 HR PM	BUS	4	6	4	4		14	80	0	76	8 84	9	0	1	0	1	79	0	73	0	73	Е	106	0	0
																						W	111	1	0
	TOTAL:	545	444	475	356	1,275	1,351	17	952	420	1,389	1,472	4:	3 425	14	482	1,605	627	1,147	53	1,827				
07.20 49.00	CAR	1,989	1,508	1,698	1,292	4,498	4,635	53	3,141	1,350	4,544	4,910	202	1,555	67	1,824	5,399	####	3,824	238	6,067	Ν	376	5	0
07.30-10:00	TRK	16	73	9	97	179	210	5	108	85	198	168	5	8	2	15	165	75	90	2	167	S	437	8	0
8 HR SUM	BUS	10	30	10	7		47	284	0 2	77	31 308	39	0	4	0	4	305	4	275	0	279	Е	365	0	0
																						W	380	2	0
	TOTAL:	2,015	1,611	1,717	1,396	4,724	5,129	58	3,526	1,466	5,050	5,117	207	7 1,567	69	1,843	5,869	2,084	4,189	240	6,513				



### Peak Hour Factor Calculations Report

						Survey Date:	May-12-2	2015	(Tuesday	/)			
						Survey Type:	Routine	Hours					
DANFORTH	AVE AT PAPE AV	E (PX 345)											
Movement Pe	eak Hour Factors												
	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.966	0.800	0.813	0.884	0.545	0.909	0.9	919 0.	.882 0.852	0.945	0.880	0.693	
РМ	0.866	0.856	0.932	0.986	0.854	0.850	0.8	895 0	.837 0.798	0.921	0.905	0.855	
Peak Hour I	Factors												
	NB	EB	SB	WB									
AM	0.941	0.924	0.930	0.932									
РМ	0.944	0.981	0.913	0.974									
Intersection	n Peak Hour Facto	ors											
AM				0.934									
РМ				0.984									



### **Turning Movement Count Summary Report**

DANFORT	H AVE AT PA	APE AVE (	(PX 34	45)													Survey	Date:	2	015-M	ay-12		(Tues	day)		
			•														Survey	Туре:	Routi	ne Hoi	urs					
Time	Vehicle			NORTH	IBOUN	D				EAS	тво	UND				sc	олтнво	UND				WE	STBC	UND		
Period	Туре	Exits	L	eft Th	ru R	ight	Total	Exits	Le	eft T	「hru	Right	Т	otal	Exits	Left	Thru	Right	Tota	l Exi	ts	Left	Thru	Rigi	ht	Total
08:00-09:00	CAR	396	91	228	80	399	515	80	343	2	4	447	393	92	272	127	491	1,125	97	907	88	1.092	Ν	380	21	0
AM PEAK	TRK	12 7	0	3 7	3	6	25 9	4	19 0	4	1	24 4	4 9	3 0	2 9	3 0	8 9	17 3	1	14	5	20 3	S F	262 388	4 135	0
	200		0		-		Ũ	Ŭ	Ũ		Ū	·	Ū	Ũ	Ũ	Ũ	Ū	0	Ũ	U	Ŭ	Ū	w	163	22	0
	TOTAL:	415	91	238	85	414	546	84	366	2	5	475	406	95	5 283	130	508	1,145	98	924	93	1,115				
40.45 47.45	CAR	467	82	277	113	472	910	85	714	4	1	840	328	83	222	144	449	609	65	383	105	553	Ν	636	10	0
16:45-17:45	TRK	6	2	3	1	6	10	3	8		0	11	4	1	3	5	9	14	1	7	0	8	S	628	9	0
PM PEAK	BUS	7	0	7	0		7	1	0	1	0	1	7	0	7	0	7	0	0	0	0	0	Е	739	34	0
																							W	389	153	0
	TOTAL:	480	84	287	114	485	921	88	723	4	1	852	339	84	232	149	465	623	66	390	105	561				
	CAR	353	53	189	97	339	525	66	337	2	9	432	277	91	194	133	418	531	54	345	98	497	Ν	429	9	0
OFF HR AVG	TRK	16	4	7	5	16	30	4	21		1	26	13	4	8	5	17	29	4	20	5	29	S	471	4	0
	BUS	8	0	7	0		7	2	1	2	0	3	7	0	7	0	7	2	0	2	0	2	Е	447	34	0
																							W	253	31	0
	TOTAL:	377	57	203	102	362	557	71	360	3	0	461	297	95	209	138	442	562	58	367	103	528				
	CAR	727	140	413	138	691	936	139	632	4	5	816	721	166	513	251	930	1.971	163	1,580	175	1,918	N	647	36	0
07:30-09:30	TRK	24	3	11	12	26	52	6	35		1	12	13	5	7	6	18	38	5	20	7	/1	S	126	8	0
2 HR AM	BUS	16	0	15	3	20	18	10	1	5	0	42 6	13	2	13	0	15	3	0	23	0	3	E	673	249	0
																							W	308	41	0
	TOTAL:	767	143	439	153	735	998	146	672	4	6	864	747	173	533	257	963	2,012	168	1,612	182	1,962				
46.00 49.00	CAR	968	147	567	237	951	1,773	181	1,345	7	5	1,601	623	191	425	272	888	1,143	123	724	220	1,067	Ν	1,324	20	0
10:00-10:00	TRK	14	3	7	3	13	24	5	20		0	25	15	1	10	9	20	24	5	12	2	19	s	1.173	15	0
2 HR PM	BUS	17	0	15	0		15	2	2	2	0	4	17	0	17	0	17	0	0	0	0	0	E	1,382	71	0
																							W	772	244	0
	TOTAL:	999	150	589	240	979	1,799	188	1,367	7	5 ·	1,630	655	192	452	281	925	1,167	128	736	222	1,086				
	CAR	3,105	500	1,734	762	2,996	4,809	583	3,326	23	7 4	4,146	2,452	721	1,712	1,056	3,489	5,240	503	3,684	788	4,975	Ν	3,685	93	0
07:30-18:00	TRK	97	20	45	36	101	107	25	138		4	167	77	23	40	34	106	175	24	121	27	172	s	3 482	40	0
8 HR SUM	BUS	63	1		3	101	62	19	5	13	. 0	18	56	3		1	60	13	27	11	0	11	E	3,842	455	0
																							W	2,091	407	0
	TOTAL:	3,265	521	1,837	801	3,159	5,025	613	3,477	24	1 4	4,331	2,585	747	1,817	1,091	3,655	5,428	527	3,816	815	5,158				



### Peak Hour Factor Calculations Report

						Survey Date:	Jan-09-2	017		(Monday)	)			
						Survey Type:	Routine I	Hours						
O'CONNOR D	OR AT PAPE AVE	(PX 442)												
Movement Pe	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left	:	EB_Thru	EB_Right	EB_Left	SB_Thru	SB	_Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.863	0.917	0.750	0.618	0.618 0.583		0.9	935	0.821	0.813	0.961	0.750	0.771	
РМ	0.864	0.911	0.813	0.919	0.500	0.801	0.8	888	0.813	0.500	0.971	0.656	0.885	
<u>Peak Hour F</u>	actors													
	NB	EB	SB	WB										
AM	0.938	0.731	0.925	0.907										
РМ	0.952	0.863	0.932	0.971										
Intersection	Peak Hour Facto	ors												
AM				0.933										
РМ				0.965										



### Turning Movement Count Summary Report

O'CONNOI	R DR AT PAF	PE AVE (P	X 442	2)												Survey I	Date:	2	017-Ja	in-09		(Mond	lay)		
		,		,												Survey	Гуре:	Routi	ne Hou	urs					
Time	Vehicle			NORT	HBOUN	D			1	EASTE	BOUND				sc	OUTHBO	UND				WE	STBO	UND		
Period	Туре	Exits	L	eft Th	nru Ri	ght	Total	Exits	Lef	t Thi	ru Righ	t To	otal	Exits	Left	Thru	Right	Tota	l Exi	ts	Left	Thru	Right		Tota
08:15-09:15	CAR	420	21	290	154	465	392	115	225	14	354	394	13	232	151	396	495	148	323	15	486	Ν	51	3	0
AM PEAK	TRK BUS	5 42	2 1	4 28	2 3	8	4 32	1 8	2 14	0 5	3 0 19	7 31	0 0	6 31	0 16	6 47	2 19	1 0	0 2	0 0	1 2	S E W	18 23 34	8 2 0	0 0 0
	TOTAL:	467	24	322	159	505	404	130	232	14	376	432	13	3 269	167	449	516	149	325	15	489				
16.45-17.45	CAR	451	13	273	175	461	503	157	316	10	483	535	12	309	156	477	367	216	198	21	435	Ν	33	5	0
10.45-17.45	TRK	5	0	3	2	5	5	2	3	0	5	4	0	3	1	4	1	1	0	0	1	s	16	0	0
PM PEAK	BUS	36	1	26	0		27	3	10	3	0 13	26	0	25	10	35	17	1	6	0	7	Е	31	2	0
																						W	20	2	0
	TOTAL:	492	14	302	177	493	511	169	322	10	501	565	12	2 337	167	516	385	218	204	21	443				
	CAR	346	11	216	165	392	349	118	176	12	306	364	8	191	103	302	306	161	192	12	365	Ν	14	1	0
AVG	TRK	10	1	6	6	13	18	4	11	0	15	8	1	4	4	9	9	4	4	0	8	S	9	0	0
	BUS	28	0	19	5		24	8	9	3	0 12	20	0	19	10	29	14	1	4	0	5	Е	15	0	0
																						W	11	1	0
	TOTAL:	384	12	241	176	429	375	131	190	12	333	392	ę	9 214	117	340	329	166	200	12	378				
07:30-09:30	CAR	750	31	520	313	864	760	207	429	28	664	713	18	412	256	686	893	273	606	23	902	Ν	83	4	0
07.30-09.30	TRK	10	3	6	5	14	10	4	5	0	9	11	0	7	3	10	16	4	10	0	14	S	24	11	0
2 HR AM	BUS	90	1	62	5		68	16	28 1	1	0 39	64	0	63	30	93	41	1	10	0	11	Е	35	3	0
																						W	48	1	0
	TOTAL:	850	35	588	323	946	786	239	445	28	712	788	18	8 482	289	789	950	278	626	23	927				
16:00-18:00	CAR	949	25	578	332	935	977	342	626	23	991	1,029	19	586	272	877	697	420	400	29	849	Ν	59	6	0
	TRK	13	0	10	3	13	8	3	5	0	8	6	0	4	3	7	7	2	4	0	6	S	35	0	0
2 HR PM	BUS	68	1	49	0		50	6	19	6	0 25	55	0	52	23	75	32	3	8	0	11	Е	60	3	0
																						W	50	3	0
	TOTAL:	1,030	26	637	335	998	991	364	637	23	1,024	1,090	19	9 642	298	959	736	425	412	29	866				
07.30-18.00	CAR	3,082	101	1,960	1,306	3,367	3,132	1,022	1,758	100	2,880	3,197	68	1,762	940	2,770	2,816	####	1,775	100	3,210	Ν	197	15	0
07.30-10.00	TRK	62	6	39	31	76	87	22	54	1	77	49	2	28	22	52	58	20	30	1	51	S	93	11	0
8 HR SUM	BUS	272	2	188	23		213	50	84 2	7	1 112	198	0	189	93	282	128	8	33	0	41	Е	153	7	0
																						W	140	8	0
	TOTAL:	3,416	109	2,187	1,360	3,656	3,269	1,128	1,839	102	3,069	3,444	70	0 1,979	1,055	3,104	3,002	1,363	1,838	101	3,302				



### Peak Hour Factor Calculations Report

					Survey Date:	Jan-09-2	017	(Monday	()			
					Survey Type:	Routine	Hours					
	VE AT MILLWO	OD RD & PAPE	AVE (PX 642)									
Movement Pe	ak Hour Factors											
	NB_Thru	NB_Right	NB_Left	EB_1	hru EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.868	0.438				0.8	857	0.929		0.937		
РМ	0.825	0.750				0.9	966	0.933		0.881		
<u>Peak Hour F</u>	actors											
	NB	EB	SB	WB								
AM	0.875		0.892	0.937								
РМ	0.837		0.974	0.881								
Intersection	Peak Hour Facto	ors										
AM				0.937								
PM				0.966								



### Turning Movement Count Summary Report

	S ΔVF ΔT M		RD 8			PX 642)											Survey	Date:	20	)17-Ja	an-09		(Mono	lay)		
DONLAND		LENCOD				л о <b></b> 2)											Survey	Туре:	Routin	ne Ho	urs					
Time	Vehicle			NORTH	BOUN	ID				E	ASTBO	DUND				sc	олтнво	UND				WE	ство	UND		
Period	Туре	Exits	L	eft Thi	ru R	ight	Total	Exits		Left	Thru	Right	t T	otal	Exits	Left	Thru	Right	Total	Ex	its	Left	Thru	Righ	ıt	Total
08:00-09:00	CAR	1,296	0	910	7	917	442	0		0	0	0	425	435	425	0	860	0	0	0	386	386	Ν	0	0	0
	TRK	18	0	8	0	8	5	0		0	0	0	4	5	4	0	9	0	0	0	10	10	S	3	7	0
AM PEAK	BUS	52	0	7	0		7	49	0	0	0	0	8	49	8	0	57	0	0	0	45	45	Е	0	15	0
																							W	15	4	0
	TOTAL:	1,366	0	925	7	932	496	0		0	0	0	437	48	9 437	0	926	C	0	0	441	441				
16.45-17.45	CAR	1,055	0	551	15	566	459	0		0	0	0	846	444	846	0	1,290	0	0	0	504	504	Ν	0	0	0
10.45-17.45	TRK	5	0	2	0	2	2	0		0	0	0	4	2	4	0	6	0	0	0	3	3	S	2	1	0
PM PEAK	BUS	41	0	5	0		5	35	0	0	0	0	6	35	6	0	41	0	0	0	36	36	Е	0	1	0
																							W	13	14	0
	TOTAL:	1,101	0	558	15	573	496	0		0	0	0	856	48	1 856	0	1,337	c	0	0	543	543				
	CAR	757	0	442	16	458	363	0		0	0	0	363	347	363	0	710	0	0	0	315	315	Ν	0	0	0
OFF HR	TRK	22	0	13	1	14	11	0		0	0	0	10	10	10	0	20	0	0	0	Q	Q	s	1	1	0
	BUS	32	0	4	0	14	4	28	0	0	0	0	5	28	5	0	33	0	0	0	28	28	E	0	1	0
																							W	4	3	0
	TOTAL:	811	0	459	17	476	402	0		0	0	0	378	38	5 378	0	763	c	0	0	352	352				
	CAR	2,352	0	1 661	15	1 676	809	0		0	0	0	810	794	810	0	1 604	0	0	0	691	691	N	0	0	0
07:30-09:30		2,002									•					°		•	, ,					°		0
2 HR AM	BUS	27 104	0	13 13	0	13	13	0 90	0	0	0	0	11 15	13 90	11 15	0	24 105	0	0	0	14 91	14 91	S F	8	11 20	0
	200	101	Ũ	10	Ū		10	00	U	0	Ũ	Ŭ	10	00	10	Ũ	100	0	Ŭ	Ũ	01	01	w	20	8	0
	τοται ·	2 483	0	1 687	15	1 702	912	0		0	0	0	836	89	7 836	0	1 733	ſ		٥	796	796				
		2,400	•	1,007		1,702	012	•		•	•	Ū	4 0 0 5			Ŭ	1,700		, <b>v</b>	•	100					
16:00-18:00	CAR	2,004	0	1,076	27	1,103	970	0		0	0	0	1,605	943	1,605	0	2,548	0	0	0	928	928	N	0	0	0
	TRK	14	0	7	0	7	12	0		0	0	0	8	12	8	0	20	0	0	0	7	7	S	9	2	0
2 HR PM	BUS	81	0	9	0		9	69	0	0	0	0	11	69	11	0	80	0	0	0	72	72	E	0	2	0
																							W	22	27	0
	TOTAL:	2,099	0	1,092	27	1,119	1,051	0		0	0	0	1,624	1,02	4 1,624	0	2,648	C	0	0	###	1,007				
	CAR	7,382	0	4,503	105	4,608	3,229	0		0	0	0	3,868	###	3,868	0	6,992	0	0	0	2,879	2,879	Ν	0	0	0
07:30-18:00	TRK	128	0	70	3	73	66	0		0	0	0	60	63	60	0	123	0	0	0	58	58	S	22	18	0
8 HR SUM	BUS	312	0	37	1		38	271	0	0	0	0	44	270	44	Ũ	314	0	0	0	275	275	Ē	0	27	0
																							W	57	47	0
	TOTAL:	7,822	0	4,610	109	4,719	3,566	0		0	0	0	3,972	3,45	7 3,972	0	7,429	c	0	0	###	3,212				



### Peak Hour Factor Calculations Report

						Survey Date:	Jan-09-2	2017		(Monday)	)			
						Survey Type:	Routine I	Hours						
	VE AT PAPE AV	E (PX 664)												
Movement Pe	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	SB_	Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.901	0.714	0.736	0.711	0.654	0.883	0.9	917 (	).905	0.694	0.885	0.650	0.941	
РМ	0.847	0.886	0.792	0.927	0.853	0.739	0.9	931 (	).841	0.636	0.854	0.857	0.583	
Peak Hour F	Factors													
	NB	EB	SB	WB										
AM	0.946	0.803	0.927	0.888										
РМ	0.873	0.894	0.927	0.955										
Intersection	Peak Hour Fact	ors												
AM				0.971										
РМ				0.975										



### Turning Movement Count Summary Report

MORTIME	R AVE AT PA	APE AVE (	PX 66	4)												Survey I	Date:	2	017-Ja	an-09		(Mono	day)		
		,		,												Survey 7	Туре:	Routi	ine Hou	urs					
Time	Vehicle			NORTH	BOUN	D				EAST	BOUND				sc	UTHBO	UND				WE	ство	UND		
Period	Туре	Exits	L	eft Th	ru Ri	ght	Total	Exits	Le	ft Th	ru Righ	t T	otal	Exits	Left	Thru	Right	Tota	l Exi	ts	Left	Thru	Right	ſ	Tota
08:15-09:15	CAR	443	53	364	60	477	287	53	202	34	289	483	25	385	76	486	600	64	471	26	561	Ν	56	3	0
AM PEAK	TRK BUS	8 31	1 0	6 31	0 0	7	1 31	2 4	1 0	0 3	3 0 3	9 29	0 1	9 29	1 0	10 30	3 5	0 0	1 5	0 0	1 5	S E W	85 82 48	4 3 2	0 0 0
	TOTAL:	482	54	401	60	515	292	55	206	34	295	521	20	6 423	77	526	608	64	477	26	567		10	2	0
16.00-12.00	CAR	509	57	420	78	555	562	65	456	58	579	458	28	365	74	467	370	35	239	24	298	Ν	29	4	0
10.00-17.00	TRK	15	0	13	0	13	5	0	5	1	6	11	0	9	2	11	6	1	4	2	7	S	85	1	0
PM PEAK	BUS	24	0	24	0		24	4	0	4	0 4	25	0	24	0	24	3	1	3	0	4	Е	83	0	0
																						W	124	1	0
	TOTAL:	548	57	457	78	592	571	65	465	59	589	494	28	8 398	76	502	379	37	246	26	309				
	CAR	413	43	337	61	441	314	51	230	44	325	384	23	306	59	388	319	34	217	25	276	Ν	28	2	0
AVG	TRK	12	2	11	1	14	5	1	4	1	6	11	0	9	0	9	6	1	4	0	5	s	78	1	0
	BUS	19	0	19	0		19	3	0	3	0 3	19	0	19	0	19	3	0	3	0	3	Е	54	1	0
																						W	74	1	0
	TOTAL:	444	45	367	62	474	322	52	237	45	334	414	23	3 334	59	416	328	35	224	25	284				
07.00 00.00	CAR	801	115	651	98	864	524	96	390	72	558	914	36	731	135	902	1,119	111	869	54	1,034	Ν	89	6	0
07:30-09:30	TRK	18	2	14	1	17	2	3	1	1	5	12	0	11	1	12	7	0	4	1	5	S	142	7	0
2 HR AM	BUS	67	0	66	0		66	9	0	7	0 7	61	2	61	0	63	9	0	9	1	10	Е	126	8	0
																						W	82	3	0
	TOTAL:	886	117	731	99	947	535	99	398	73	570	987	38	8 803	136	977	1,135	111	882	56	1,049				
16:00-18:00	CAR	1,028	103	855	165	1,123	1,135	115	918	116	1,149	926	52	748	151	951	718	62	464	58	584	Ν	76	12	0
	TRK	18	0	16	0	16	12	0	12	1	13	13	0	11	2	13	6	1	4	2	7	S	154	3	0
2 HR PM	BUS	49	0	49	0		49	7	0	7	0 7	51	0	50	0	50	6	1	6	0	7	Е	181	3	0
																						W	209	4	0
	TOTAL:	1,095	103	920	165	1,188	1,154	115	937	117	1,169	990	52	2 809	153	1,014	730	64	474	60	598				
	CAR	3,479	389	2,854	505	3,748	2,911	414	2,228	363	3,005	3,374	178	2,703	520	3,401	3,111	308	2,202	211	2,721	Ν	275	24	0
07:30-18:00	TRK	81	9	72	5	86	33	6	27	6	39	68	1	57	4	62	36	5	23	3	31	s	606	12	0
8 HR SUM	BUS	193	0	192	0	20	192	27	0 2	25	0 25	188	2	187	0	189	26	1	26	1	28	Ē	521	13	0
																						W	586	10	0
	TOTAL:	3,753	398	3,118	510	4,026	2,971	420	2,280	369	3,069	3,630	181	1 2,947	524	3,652	3,173	314	2,251	215	2,780				



### Peak Hour Factor Calculations Report

					:	Survey Date:	Jan-09-2	017		(Monday)	1			
						Survey Type:	Routine I	Hours						
COSBURN A	VE AT PAPE AVE	E (PX 669)												
Movement Pe	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left	t	EB_Thru	EB_Right	EB_Left	SB_Thru	SB	_Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.905	0.795	0.400	0.821	0.656	0.817	0.9	900	0.692	0.575	0.864	0.833	0.850	
РМ	0.925	0.850	0.583	0.884	0.792	0.786	0.9	932	0.604	0.813	0.910	0.771	0.906	
<u>Peak Hour F</u>	actors													
	NB	EB	SB	WB										
AM	0.887	0.841	0.882	0.864										
РМ	0.946	0.888	0.954	0.960										
Intersection	Peak Hour Facto	ors												
AM				0.949										
РМ				0.975										



### **Turning Movement Count Summary Report**

COSBURN		PE AVE (P	X 669	))												Survey	Date:	20	)17-Ja	n-09		(Mono	day)		
000201	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	/ (.		,												Survey	Туре:	Routir	ne Hou	urs					
Time	Vehicle			NORTH	IBOUN	ID			E	ASTB	OUND				sc	олтнво	UND				WE	ствс	DUND		
Period	Туре	Exits	Le	eft Th	ru R	ight	Total	Exits	Left	Thru	u Right	Т	otal	Exits	Left	Thru	Right	Total	Exi	ts	Left	Thru	Right	:	Tota
08:00-09:00	CAR	451	8	362	70	440	208	49	115	21	185	543	23	403	36	462	248	119	204	40	363	Ν	195	2	0
	TRK	6	1	6	0	7	1	0	1	1	2	14	0	10	0	10	4	3	3	0	6	S	169	5	0
	BUS	33	0	33	2		35	16	0 13	Ŭ	) 13	30	1	29	0	30	13	1	13	0	14	E W	155 231	4 5	0
	TOTAL:	490	9	401	72	482	225	49	129	22	200	587	24	442	36	502	265	123	220	40	383		201	Ū	Ũ
	CAR	521	21	418	102	541	385	66	244	38	348	580	39	455	29	523	141	87	91	37	215	N	276	6	0
17:00-18:00	TRK	2	0	2	1	3	2	0	1	0	1	1	0	1	0	1	1	0	1	0	1	s	279	2	0
PM PEAK	BUS	26	0	26	0	0	26	9	0 9	0	) 9	27	0	27	0	27	9	Ő	9	0	9	E	209	2	0
																						W	396	2	0
	TOTAL:	549	21	446	103	570	396	66	254	38	358	608	39	483	29	551	151	87	101	37	225				
	CAR	396	12	337	72	421	192	32	98	27	157	446	22	360	25	407	105	59	68	27	154	Ν	148	2	0
AVG	TRK	10	1	9	1	11	4	1	1	0	2	9	2	8	1	11	5	1	3	0	4	S	111	1	0
	BUS	19	0	19	0		19	5	0 5	0	) 5	20	0	20	0	20	6	0	6	0	6	Е	127	2	0
																						W	223	0	0
	TOTAL:	425	13	365	73	451	201	33	104	27	164	475	24	4 388	26	438	116	60	77	27	164				
	CAR	849	18	691	143	852	383	88	197	35	320	1,002	43	755	60	858	452	212	374	70	656	Ν	341	5	0
07:30-09:30	TRK	12	1	10	2	13	5	2	3	1	6	19	0	15	0	15	5	3	4	0	7	S	250	8	0
2 HR AM	BUS	65	0	65	2		67	26	0 23	0	23	63	1	61	0	62	23	2	23	0	25	E	267	9	0
																						W	356	5	0
	TOTAL:	926	19	766	147	932	414	90	223	36	349	1,084	44	4 831	60	935	480	217	401	70	688				
16.00-18.00	CAR	1,054	35	837	183	1,055	750	131	490	60	681	1,106	77	888	69	1,034	290	158	186	86	430	Ν	518	8	0
10.00-10.00	TRK	14	0	14	1	15	7	0	6	1	7	8	0	6	0	6	2	1	2	0	3	S	474	2	0
2 HR PM	BUS	50	0	50	1		51	18	0 17	0	) 17	52	0	52	0	52	18	0	18	0	18	Е	429	6	0
																						W	788	4	0
	TOTAL:	1,118	35	901	185	1,121	775	131	513	61	705	1,166	77	946	69	1,092	310	159	206	86	451				
07.00 40.00	CAR	3,487	102	2,874	614	3,590	1,902	348	1,079	202	1,629	3,891	209	3,083	228	3,520	1,163	606	833	265	1,704	Ν	1,449	21	0
07:30-18:00	TRK	66	5	61	5	71	25	4	14	3	21	62	6	52	3	61	24	7	16	1	24	S	1.168	13	0
8 HR SUM	BUS	192	0	192	3		195	65	0 61	0	) 61	194	1	192	0	193	63	2	63	0	65	E	1,205	21	0
																						W	2,036	10	0
	TOTAL:	3,745	107	3,127	622	3,856	1,992	352	1,154	205	1,711	4,147	216	6 3,327	231	3,774	1,250	615	912	266	1,793				



### Peak Hour Factor Calculations Report

Survey Date:	Jan-14-2015	(Wednesday)
Survey Type:	Routine Hours	

#### LAIRD DR AT MCRAE DR & WICKSTEED AVE (PX 681)

#### **Movement Peak Hour Factors**

	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.898	0.764	0.688	0.854	0.625	0.879	0.8	861 0.65	5 0.763	0.804	0.673	0.886	
РМ	0.967	0.913	0.719	0.819	0.500	0.897	0.9	938 0.90	0 0.918	0.911	0.799	0.864	
Peak Hour Fa	actors												
	NB	EB	SB	WB									
AM	0.911	0.889	0.888	0.816									
РМ	0.955	0.849	0.938	0.937									

#### **Intersection Peak Hour Factors**

AM	0.944
РМ	0.981



### **Turning Movement Count Summary Report**

LAIRD DR	AT MCRAE I	DR & WICI	KSTE	ED AVE	(PX 6	81)										Survey	Date:	2 Daviti	015-Ja	an-14		(Wedr	nesday)		
																Survey	Type:	Routi	ne Hol	urs					
Time Period	Vehicle Type	Exits	L	NORTH eft Thr	BOUN u Ri	lD ight	Total	Exits	E Left	EASTE t Th	3OUND ru Right	т	otal	Exits	SC Left	OUTHBO Thru	UND Right	Tota	l Exi	ts	WE Left	STBO Thru	UND Right		Tota
08-15-09-15	CAR	683	11	539	55	605	386	109	270	30	409	458	61	389	97	547	256	39	148	35	222	Ν	5	0	0
00.15-03.15	TRK	81	7	65	10	82	55	7	28	3	38	57	17	44	16	77	58	10	35	9	54	S	16	0	0
AM PEAK	BUS	17	1	15	1		17	9	0 8	3	1 9	11	0	6	3	9	10	4	6	2	12	E	9	2	0
	TOTAL:	781	19	619	66	704	450	116	306	34	456	526	7	8 439	116	633	324	53	189	46	288	vv	0	I	0
	CAR	894	46	580	73	699	407	183	154	6	343	667	180	540	180	900	390	121	164	131	416	N	11	1	0
16:45-17:45	TRK	85	4	58	9	71	49	11	21	2	34	61	19	55	9	83	21	4	8	16	28	s	5	0	0
PM PEAK	BUS	11	0	8	0		8	5	3 5	5	0 8	12	0	7	2	9	9	5	7	0	12	E	30	0	0
																						W	4	0	0
	TOTAL:	990	50	646	82	778	461	197	180	8	385	740	19	9 602	191	992	420	130	179	147	456				
	CAR	583	31	406	56	493	368	67	188	25	280	475	124	363	78	565	256	87	147	110	344	Ν	15	0	0
AVG	TRK	97	5	70	6	81	51	10	27	5	42	80	18	62	9	89	48	13	34	17	64	s	10	0	0
	BUS	7	0	7	0		7	4	0 3	3	0 3	5	1	5	0	6	2	0	2	0	2	Е	32	0	0
																						W	7	0	0
	TOTAL:	687	36	483	62	581	423	77	218	30	325	560	14	3 430	87	660	306	100	183	127	410				
07:30-09:30	CAR	1,256	25	1.031	86	1,142	685	171	495	39	705	859	104	745	212	1.061	505	75	268	54	397	Ν	7	1	0
07.00-05.00	TRK	141	10	114	17	141	93	11	52	5	68	111	24	85	25	134	89	21	54	16	91	s	20	2	0
2 HR AM	BUS	29	3	27	1		31	15	0 14	1	2 16	23	0	14	5	19	20	7	12	2	21	Е	19	2	0
																						W	10	1	0
	TOTAL:	1,426	38	1,172	104	1,314	793	182	561	46	789	993	12	8 844	242	1,214	614	103	334	72	509				
16:00-18:00	CAR	1,683	83	1,100	133	1,316	768	340	317	11	668	1,249	318	1,015	317	1,650	744	223	344	243	810	Ν	20	1	0
	TRK	178	9	118	22	149	103	24	46	4	74	117	35	106	15	156	42	7	18	36	61	S	15	1	0
2 HR PM	BUS	24	0	18	0		18	10	5 10	)	1 16	25	0	15	2	17	13	9	11	1	21	Е	81	1	0
																						W	7	0	0
	TOTAL:	1,885	92	1,236	155	1,483	881	369	373	16	758	1,391	35	3 1,136	334	1,823	799	239	373	280	892				
07:30-18:00	CAR	5,271	232	3,755	441	4,428	2,922	779	1,563	148	2,490	4,004	918	3,210	842	4,970	2,275	646	1,201	737	2,584	Ν	87	3	0
	TRK	706	37	513	64	614	399	73	205	27	305	547	130	439	76	645	319	81	206	120	407	S	75	3	0
8 HR SUM	BUS	83	3	74	1		78	40	5 36	6	4 45	68	3	47	8	58	42	17	31	4	52	Е	226	3	0
																						W	43	1	0
	TOTAL:	6,060	272	4,342	506	5,120	3,361	857	1,804	179	2,840	4,619	1,05	1 3,696	926	5,673	2,636	744	1,438	861	3,043				



### Peak Hour Factor Calculations Report

				Survey		Survey Date:	May-03-2016		(Tuesday)				
						Survey Type:	Routine Hours						
LAIRD DR A	T MILLWOOD RD	& SOUTHVALE	E DR (PX 682)										
Movement P	eak Hour Factors												
	NB_Thru	NB_Right	NB_Left	EB	_Thru	EB_Right	EB_Left	SB_Thr	u SB_Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.959		0.903		0.895	0.859	0.9	942	0.773				
РМ	0.958		0.940		0.955	0.924	0.9	949	0.888				
Peak Hour	Factors												
	NB	EB	SB	WB									
AM	0.933	0.881	0.895										
РМ	0.962	0.990	0.932										
Intersectior	n Peak Hour Facto	ors											
AM				0.976									
РМ				0.961									


			SOUT		R (P	X 682)												Survey	Date:	20	16-Ma	y-03		(Tues	day)		
			0001			X 002)												Survey	Туре:	Routin	e Hour	S					
Time	Vehicle			NORTHB	OUN	ID				E	EASTB	OUND					so	UTHBO	UND				WE	ство	UND		
Period	Туре	Exits	L	eft Thru	Ri	ight	Total	Exits	I	Left	t Thru	u Right	το	otal	Exi	ts	Left	Thru	Right	Total	Exits	6	Left	Thru	Righ	ıt	Total
08:00-09:00	CAR	838	502	625	0	1,127	0	213		0	365	578	689	0	:	324	102	426	604	0	0	0	0	Ν	11	7	0
AM PEAK	TRK BUS	144 20	84 11	93 16	0 0	177	0 27	51 0	4	0 (	41 0 11	92 15	88 21	0 0		47 10	46 7	93 17	130 18	0	0 0	0	0 0	S E	4 0	29 0	0
																								w	4	13	0
	TOTAL:	1,002	597	734	0	1,331	0	268		0	417	685	798		0 ;	381	155	536	752	0	0	0	0				
46.20 47.20	CAR	878	425	575	0	1,000	0	303		0	592	895	1,241	0	(	649	231	880	656	0	0	0	0	Ν	8	7	0
10:30-17:30	TRK	133	56	71	0	127	0	62		0	61	123	133	0		72	20	92	76	0	0	0	0	s	5	1	0
PM PEAK	BUS	18	10	9	0		19	0	9	(	0 16	6 25	24	0		8	3	11	13	0	0	0	0	Е	0	0	0
																								W	11	4	0
	TOTAL:	1,029	491	655	0	1,146	0	374		0	669	1,043	1,398		0	729	254	983	745	0	0	0	0				
	CAR	685	313	450	0	763	0	235		0	310	545	707	0	:	397	203	600	516	0	0	0	0	Ν	5	5	0
AVG	TRK	135	51	83	0	134	0	52		0	49	101	121	0		72	44	116	95	0	0	0	0	s	5	7	0
	BUS	8	4	6	0		10	0	2	(	0 5	5 7	11	0		6	1	7	5	0	0	0	0	Е	0	0	0
																								W	6	8	0
	TOTAL:	828	368	539	0	907	0	289		0	364	653	839		0 4	475	248	723	616	0	0	0	0				
07.20 00.20	CAR	1,517	905	1,138	0	2.043	0	379		0	624	1.003	1,218	0	į	594	198	792	1,103	0	0	0	0	Ν	21	12	0
07:30-09:30	TRK	271	155	171	0	326	0	100		0	89	189	186	0		97	83	180	238	0	0	0	0	s	10	58	0
2 HR AM	BUS	35	27	26	0		53	0	9	(	0 22	2 31	40	0		18	12	30	39	0	0	0	0	Е	0	0	0
																								W	8	22	0
	TOTAL:	1,823	1,087	1,335	0	2,422	0	488		0	735	1,223	1,444		0	709	293	1,002	1,380	0	0	0	0				
16.00 19.00	CAR	1,675	805	1,110	0	1,915	0	565		0	1,148	1,713	2,385	0	1,2	237	416	1,653	1,221	0	0	0	0	Ν	17	16	0
10.00-10.00	TRK	256	104	137	0	241	0	119		0	121	240	257	0		136	37	173	141	0	0	0	0	s	16	9	0
2 HR PM	BUS	31	19	16	0		35	0	15	(	0 32	2 47	49	0		17	6	23	25	0	0	0	0	Е	0	0	0
																								W	17	15	0
	TOTAL:	1,962	928	1,263	0	2,191	0	699		0	1,301	2,000	2,691		01,:	390	459	1,849	1,387	0	0	0	0				
07.20 49.00	CAR	5,933	2,963	4,048	0	7,011	0	1,885		0	3,011	4,896	6,430	0	3,4	419	1,426	4,845	4,389	0	0	0	0	Ν	57	49	0
07.30-10.00	TRK	1,067	464	639	0	1,103	0	428		0	404	832	924	0	ļ	520	296	816	760	0	0	0	0	s	44	95	0
8 HR SUM	BUS	97	63	66	0		129	0	31	(	0 72	2 103	132	0		60	22	82	85	0	0	0	0	Е	0	1	0
																								W	48	67	0
	TOTAL:	7,097	3,490	4,753	0	8,243	0	2,344		0	3,487	5,831	7,486		0 3,9	999 <sup>-</sup>	1,744	5,743	5,234	0	0	0	0				



						Survey Date:	Apr-28-2	016	(Thu	rsday)	1			
						Survey Type:	e: Routine Hours							
LEASIDE GD	ONS ARENA AT MIL	LWOOD RD 8	SOUTHVALE	DR (PX 68	5)									
Movement Po	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Righ	t	SB_Left	WB_Thru	WB_Right	WE
АМ	0.500		0.417	0.852	0.250		0.4	469 (	0.500 0.	886	0.926	0.958	0.250	
РМ	0.750	0.625	0.375	0.930	0.625		0.6	625 (	).667 0.1	931	0.910	0.918	0.625	
Peak Hour I	Factors													
	NB	EB	SB	WB										
AM	0.450	0.857	0.894	0.954										
РМ	0.833	0.942	0.939	0.918										
Intersection	n Peak Hour Factor	rs												
AM				0.952										
РМ				0.980										



	GDNS AREN	A AT MILL	WOOD	RD & S	SOUTHV	ALE	DR (PX	685)									Survey Survey	Date: Type:	2 Routi	:016-A ine Ho	pr-28 ours		(Thurs	day)		
Time Period	Vehicle	Frits	N	ORTHB			Total	Fxits		EAST	(BOU	JND Bight	т	otal	Fxits	SC		UND Bight	Tota	l Fx	ite	WE	STBO	UND		Total
Fellou	Type	LAILS	Len	i miru	i Rigiit		Total	LAILS	Lei		inu	Right	•	otai	LAILS	Len	mu	Right	1014		113	Len	mu	Rigi	il.	1014
07:30-08:30	CAR	326	5	4	0	9	490	0	327	2	2	329	18	163	15	8	186	350	1	337	322	660	Ν	12	1	0
AM PEAK	TRK BUS	33 15	0 0	1 0	0 0	1	65 0	0 12	49 0	1 2	0	50 2	1 0	16 10	0	0 0	16 10	69 6	0 0	69 6	32 15	101 21	S E W	0 0 4	0 27 5	0 0 0
	TOTAL:	374	5	5	0	10	567	0	378	3	5	381	19	18	9 15	8	212	425	1	412	369	782			Ū	Ū
16:15-17:15	CAR	236	3	12	5	20	898	0	554	15	5	569	35	339	10	8	357	324	10	313	224	547	Ν	8	1	0
	TRK	14	0	0	0	0	143	0	102	0	)	102	0	41	0	2	43	34	0	32	14	46	S	3	1	0
PM PEAK	BUS	11	0	0	0		0	20	0	6	0	6	0	14	0	0	14	3	0	3	11	14	Е	0	1	0
																							W	4	1	0
	TOTAL:	261	3	12	5	20	1,061	0	662	15	5	677	35	39	4 10	10	414	361	10	348	249	607				
OFF HR	CAR	175	3	4	6	13	483	0	325	8	3	333	16	152	4	10	166	321	4	308	171	483	Ν	5	1	0
AVG	TRK	23	0	0	1	1	85	0	65	2	2	67	5	19	0	3	22	61	3	58	23	84	S	2	0	0
	BUS	4	0	0	0		0	5	0	1	0	1	0	4	0	0	4	1	0	1	4	5	Е	0	1	0
																							W	8	2	0
	TOTAL:	202	3	4	7	14	573	0	391	10	)	401	21	17	54	13	192	383	7	367	198	572				
07:30-09:30	CAR	515	6	5	0	11	1.035	0	713	4	Ļ	717	25	322	18	14	354	612	3	592	510	1,105	Ν	20	1	0
01100 00100	TRK	51	0	2	1	3	138	0	105	2	2	107	3	32	1	4	37	93	0	89	49	138	s	7	0	0
2 HR AM	BUS	26	0	0	0		0	27	0	5	0	5	0	22	0	1	23	8	0	7	26	33	Е	0	34	0
																							W	11	9	0
	TOTAL:	592	6	7	1	14	1,200	0	823	6	5	829	28	37	6 19	19	414	713	3	688	585	1,276				
16:00-18:00	CAR	423	5	18	8	31	1,674	0	1,100	25	5 1	,125	68	566	22	15	603	564	21	544	405	970	Ν	17	1	0
	TRK	22	0	0	0	0	254	0	188	1		189	3	66	2	5	73	67	0	62	22	84	S	3	2	0
2 HR PM	BUS	22	0	0	0		0	35	0	8	0	8	0	27	0	1	28	4	0	3	22	25	Е	1	4	0
																							W	11	2	0
	TOTAL:	467	5	18	8	31	1,963	0	1,296	26	5 1	,322	71	65	9 24	21	704	635	21	609	449	1,079				
07:30-18:00	CAR	1,641	23	40	33	96	4,641	1	3,114	59	) 3	,174	154	###	57	68	1,619	2,460	38	2,369	1,600	4,007	Ν	57	4	0
	TRK	164	0	2	3	5	730	0	554	10	)	564	24	173	3	19	195	401	11	382	162	555	S	18	2	0
8 HR SUM	BUS	63	0	0	0		0	80	0 1	7	0	17	0	63	0	2	65	17	0	15	63	78	Е	1	41	0
																							W	55	20	0
	TOTAL:	1,868	23	42	36	101	5,451	1	3,685	69	3	,755	178	1,73	0 60	89	1,879	2,878	49	2,766	###	4,640				



## City of Toronto - Traffic Safety Unit

					S	Survey Date: Survey Type:	Jan-12-2 Routine I	017 Hours	(Thursda	IV)			
	RD AT REDWAY	RD & VILLAGE	STATION (PX	686)									
Movement Pe	eak Hour Factors												
	NB_Thru	NB_Right	NB_Lef	t	EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.812	0.438	0.688	0.250	0.625	0.714	0.9	941 0.7	0.750	0.500	0.667	0.458	
РМ	0.907	0.250	0.667	0.417	0.796	0.750	0.9	941 0.7	0.850	0.500	0.850	0.725	
<u>Peak Hour F</u>	actors												
	NB	EB	SB	WB									
AM	0.830	0.818	0.949	0.841									
РМ	0.888	0.811	0.951	0.956									
Intersection	Dook Hour Foot	ore											

AM	0.904
РМ	0.940



MILLWOO	D RD AT REI	DWAY RD	& VII	LLAGE S	ΤΑΤΙ	ON (PX e	686)										Survey	Date:	20 Doutin	)17-Ja	n-12		(Thurs	sday)		
Time	Vehicle			NORTHE	BOUN	ID				EA	STBO					s	OUTHBO		Routii		115	WE	STBO			
Period	Туре	Exits	L	eft Thru	u Ri	ight	Total	Exits	L	.eft	Thru	Right	t To	otal	Exits	Lef	t Thru	Right	Total	Exi	ts	Left	Thru	Right		Total
08:15-09:15	CAR	1.230	22	1,186	7	1.215	29	20	1		15	36	730	21	704	34	759	58	11	2	24	37	Ν	0	3	0
AM PEAK	TRK BUS	14 17	1 0	12 17	0 0	13	1 17	2 0	0	) 0	1 0	3 0	13 19	1 0	12 19	0 0	13 19	1 0	0 0	0 0	0 0	0 0	S E W	3 9 1	17 0 0	0 0 0
	TOTAL:	1,261	23	1,215	7	1,245	30	22	1	l	16	39	762	2	2 735	34	791	59	11	2	24	37				
16:45-17:45	CAR	961	48	885	1	934	40	42	5	5	86	133	1,349	34	1,234	60	1,328	110	29	2	34	65	Ν	0	14	0
PM PEAK	TRK BUS	7 12	0 0	6 12	0 0	6	0 12	0 0	0	0	1 0	1 0	5 11	0 0	4 11	0 0	4 11	0 0	0 0	0 0	1 0	1 0	S E W	5 15 8	2 0 1	0 0 0
	TOTAL:	980	48	903	1	952	40	42	ŧ	5	87	134	1,365	3	4 1,249	60	1,343	110	29	2	35	66				
	CAR	798	40	703	17	760	43	60	3	3	43	106	660	23	602	66	691	109	15	3	35	53	Ν	0	1	0
AVG	TRK BUS	17 6	2 0	15 6	1 0	18	2 6	0 0	0	0	2 0	2 0	19 8	1 0	16 8	2 0	19 8	4 0	1 0	0 0	2 0	3 0	S E W	7 9 4	3 0 0	0 0 0
	TOTAL:	821	42	724	18	784	45	60	3	5	45	108	687	2	4 626	68	718	113	16	3	37	56				
	CAR	2,341	44	2,265	11	2.320	54	34	3	3	28	65	1,289	40	1,240	54	1,334	102	21	4	42	67	Ν	0	5	0
07:30-09:30 2 HR AM	TRK BUS	25 36	2 0	19 36	1 0	22	2 36	4 0	0	0	2 0	6 0	23 30	1 0	21 30	2 0	24 30	4 0	0 0	0 0	2 0	2 0	S E W	14 15 7	28 1 0	0 0 0
	TOTAL:	2,402	46	2,320	12	2,378	56	38	3	5	30	71	1,342	4	1 1,291	56	1,388	106	21	4	44	69				
16:00-18:00	CAR	1,914	99	1,750	2	1,851	74	103	7	,	163	273	2,587	65	2,376	141	2,582	247	48	7	61	116	Ν	0	22	0
2 HR PM	TRK BUS	17 27	2 0	15 27	0 0	17	0 27	1 0	0	0	2 0	3 0	15 23	0 0	13 23	0 0	13 23	2 0	0 0	0 0	1 0	1 0	S E W	12 27 11	3 0 1	0 0 0
	TOTAL:	1,958	101	1,792	2	1,895	74	104	7	,	165	276	2,625	6	5 2,412	141	2,618	249	48	7	62	117				
07:30-18:00	CAR	7,444	303	6,825	81	7,209	302	376	23	3	363	762	6,515	198	6,025	459	6,682	784	127	22	243	392	Ν	0	30	0
8 HR SUM	TRK BUS	107 87	11 0	92 87	6 0	109	10 87	6 0	0	0	11 0	17 0	113 85	4 0	99 85	8 0	111 85	20 0	3 0	1 0	9 0	13 0	S E W	52 77 35	43 1 1	0 0 0
	TOTAL:	7,638	314	7,004	87	7,405	312	382	23	3	374	779	6,713	20	2 6,209	467	6,878	804	130	23	252	405				



					Survey Date: Survey Type:	e: Jan-09-2017 /pe: Routine Hours		(Monda	ý)			
MILLWOOD F	RD AT OVERLEA	BLVD (PX 687)										
Movement Pe	eak Hour Factors											
	NB_Thru	NB_Right	NB_Left	EB_T	hru EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.879	0.795				0.9	912	0.801		0.753	0.825	
РМ	0.940	0.917				0.9	940	0.924		0.893	0.974	
Peak Hour F	actors											
	NB	EB	SB	WB								
AM	0.938		0.885	0.864								
РМ	0.948		0.936	0.946								
Intersection	Peak Hour Facto	ors										
AM				0.931								
РМ				0.961								



MILLWOO	D RD AT OV		VD (F	PX 687	)												Survey	Date:	20	)17-Ja	an-09		(Mond	lay)		
			- (														Survey	Туре:	Routir	ne Ho	urs					
Time	Vehicle			NORT	HBOUN	D				EA	STBO	UND				so	олтнво	UND				WE	STBO	UND		
Period	Туре	Exits	L	eft Tl	nru R	ight	Total	Exits	L	eft	Thru	Right	т	otal	Exits	Left	Thru	Right	Total	Ex	its	Left	Thru	Righ	t	Tota
08:00-09:00	CAR	1.233	0	956	410	1.366	615	0	0		0	0	793	205	496	0	701	0	297	0	277	574	Ν	11	2	0
	TRK	18	0	9	3	12	5	0	0	0	0	0	9	2	5	0	7	0	4	0	9	13	S	0	19	0
	805	14	0	0	51		57	59	0	0	0	0	50	8	5	0	13	0	45	0	8	53	E W	49 0	3 0	0
	TOTAL:	1,265	0	971	464	1,435	679	0	0		0	0	852	21	5 506	0	721	C	346	0	294	640				
	CAR	900	0	575	396	971	725	0	0		0	0	1,338	329	929	0	1,258	0	409	0	325	734	Ν	24	7	0
16:45-17:45	TRK	8	0	6	2	8	10	0	0		0	0	7	8	6	0	14	0	1	0	2	3	s	1	2	0
PM PEAK	BUS	9	0	5	35	Ū	40	38	0	0	0	0	40	3	6	0	9	0	34	0	4	38	E	31	2	0
																							W	0	0	0
	TOTAL:	917	0	586	433	1,019	773	0	0		0	0	1,385	34	0 941	0	1,281	C	444	0	331	775				
	CAR	721	0	492	301	793	517	0	0		0	0	670	216	435	0	651	0	235	0	229	464	Ν	6	2	0
AVG	TRK	28	0	18	4	22	12	0	0		0	0	17	8	13	0	21	0	4	0	10	14	S	1	1	0
	BUS	6	0	4	29		33	31	0	0	0	0	32	2	4	0	6	0	28	0	2	30	Е	13	2	0
																							W	0	0	0
	TOTAL:	755	0	514	334	848	560	0	0		0	0	719	22	6 452	0	678	C	267	0	241	508				
07-00 00-00	CAR	2,293	0	1,757	728	2,485	1,163	0	0		0	0	1,465	435	918	0	1,353	0	547	0	536	1.083	Ν	21	3	0
07:30-09:30	TRK	32	0	15	7	22	13	0	0		0	0	20	6	11	0	17	0	9	0	17	26	S	0	26	0
2 HR AM	BUS	26	0	12	91		103	106	0	0	0	0	105	15	12	0	27	0	93	0	14	107	Е	71	6	0
																							W	0	0	0
	TOTAL:	2,351	0	1,784	826	2,610	1,282	0	0		0	0	1,590	45	6 941	0	1,397	0	649	0	567	1,216				
16.00-18.00	CAR	1,812	0	1,164	843	2,007	1,471	0	0		0	0	2,502	628	1,718	0	2,346	0	784	0	648	1,432	Ν	46	10	0
10.00-10.00	TRK	25	0	19	5	24	20	0	0		0	0	13	15	9	0	24	0	4	0	6	10	s	1	4	0
2 HR PM	BUS	16	0	9	72		81	81	0	0	0	0	83	9	11	0	20	0	72	0	7	79	Е	44	5	0
																							W	0	0	0
	TOTAL:	1,853	0	1,192	920	2,112	1,572	0	0		0	0	2,598	65	2 1,738	0	2,390	C	860	0	661	1,521				
07.20 49.00	CAR	6,988	0	4,889	2,773	7,662	4,701	0	0		0	0	6,647	###	4,377	0	6,305	0	####	0	2,099	4,369	Ν	92	19	0
07.30-10.00	TRK	167	0	104	28	132	80	0	0		0	0	103	52	73	0	125	0	30	0	63	93	s	4	34	0
8 HR SUM	BUS	64	0	35	277		312	310	0	0	0	0	316	33	39	0	72	0	277	0	29	306	Е	166	17	0
																							W	0	0	0
	TOTAL:	7,219	0	5,028	3,078	8,106	5,091	0	0		0	0	7,066	2,01	3 4,489	0	6,502	C	2,577	0	###	4,768				



						Survey Date:	Jan-12-2	017	(	Thursda	v)			
						Survey Type:	Routine I	Hours						
FLOYD AVE	AT PAPE AVE (P)	X 2001)												
Movement Pe	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left	:	EB_Thru	EB_Right	EB_Left	SB_Thru	SB_Ri	ight	SB_Left	WB_Thru	WB_Right	WE
АМ	0.968	0.607	0.583	0.500	0.357	0.639	0.9	946 (	0.500	0.667	0.636	0.635	0.750	
РМ	0.958	0.875	0.833	0.464	0.571	0.719	0.8	823 (	).821	0.958	0.583	0.788	0.625	
<u>Peak Hour F</u>	actors													
	NB	EB	SB	WB										
AM	0.968	0.566	0.968	0.731										
РМ	0.957	0.722	0.854	0.815										
Intersection	Peak Hour Facto	ors												
AM				0.960										
РМ				0.921										



			001)													Survey	Date:	20	17-Ja	n-12		(Thur	sday)		
FLOIDAV			001)													Survey	Туре:	Routin	ie Hou	ırs					
Time	Vehicle			NORTH	BOUN	D				EAST	BOUND				so	оитнво	UND				WE	ство	UND		
Period	Туре	Exits	L	eft Thr	u Ri	ight	Total	Exits	Le	ft Th	ru Righ	t T	otal	Exits	Left	Thru	Right	Total	Exit	ts	Left	Thru	Right		Total
08:15-09:15	CAR	451	14	395	17	426	43	23	10	10	43	498	16	473	22	511	64	15	28	33	76	Ν	60	6	0
AM PEAK	TRK BUS	10 35	0 0	9 34	0 0	9	0 34	0 0	0 0	0	0 0	10 39	0 0	10 39	2 0	12 39	2 0	0 0	0 0	1 1	1 1	S E W	59 61 55	7 0 0	0 0 0
	TOTAL:	496	14	438	17	469	43	23	10	10	43	547	1	6 522	24	562	66	15	28	35	78				
16:30-17:30	CAR	593	10	529	35	574	71	23	13	16	52	523	23	487	23	533	47	20	14	41	75	Ν	45	3	0
PM PEAK	TRK BUS	3 38	0 1	1 38	0 0	1	1 39	1 0	0	0	1 0 0	1 28	1 0	1 28	1 0	3 28	1 1	0 0	0 0	1 0	1 0	S E W	49 142 110	5 0 0	0 0 0
	TOTAL:	634	11	568	35	614	72	24	13	16	53	552	2	4 516	24	564	49	20	14	42	76				
	CAR	408	9	366	32	407	64	10	5	5	20	420	27	397	14	438	28	18	5	32	55	Ν	46	2	0
AVG	TRK BUS	11 20	0 0	11 20	0 0	11	0 20	0 0	0 0	0	0 0	9 22	0 0	9 22	1 0	10 22	1 0	0 0	0 0	0 0	0 0	S E W	37 94 94	2 0 1	0 0 0
	TOTAL:	439	9	397	32	438	64	10	5	5	20	451	2	7 428	15	470	29	18	5	32	55				
07:30-09:30	CAR	833	27	731	33	791	72	40	14	20	74	927	25	882	44	951	112	25	41	62	128	Ν	83	11	0
2 HR AM	TRK BUS	14 72	0 0	12 70	2 0	14	2 70	1 0	0 1	0	1 2 3	20 74	0 0	19 72	3 0	22 72	3 0	1 0	0 0	1 1	2 1	S E W	81 97 84	10 1 0	0 0 0
	TOTAL:	919	27	813	35	875	74	42	14	22	78	1,021	2	5 973	47	1,045	115	26	41	64	131				
16:00-18:00	CAR	1,119	23	1,002	64	1,089	143	46	28	26	100	1,033	51	973	35	1,059	78	34	20	71	125	Ν	97	7	0
2 HR PM	TRK BUS	5 63	0 1	3 62	0 1	3	1 64	1 1	0 1	0	1 0 1	5 55	1 0	5 55	1 0	7 55	1 1	0 0	0 0	1 0	1 0	S E W	84 258 214	8 1 1	0 0 0
	TOTAL:	1,187	24	1,067	65	1,156	145	48	28	26	102	1,093	5	2 1,033	36	1,121	80	34	20	72	126				
07:30-18:00	CAR	3,578	86	3,195	224	3,505	470	124	61	64	249	3,640	185	3,444	135	3,764	302	132	81	259	472	Ν	364	24	0
8 HR SUM	TRK BUS	66 216	1 1	60 213	3 1	64	5 215	3 1	0 2	1 0	4 2 4	63 216	2 0	61 214	6 0	69 214	8	1 0	1 0	3 1	5 1	S E W	314 729 674	26 2 3	0 0 0
	TOTAL:	3,860	88	3,468	228	3,784	476	129	61	67	257	3,919	18	7 3,719	141	4,047	311	133	82	263	478				



					:	Survey Date:	Jan-12-2	2017		(Thursda	y)			
						Survey Type:	Routine I	Hours						
COMMERCIA	L RD AT LAIRD I	OR (PX 2220)												
Movement Pe	eak Hour Factors													
	NB_Thru	NB_Right	NB_Left		EB_Thru	EB_Right	EB_Left	SB_Thru	u SE	_Right	SB_Left	WB_Thru	WB_Right	WE
AM	0.814	0.742	0.583	0.250	0.688	0.500	0.9	923	0.500	0.625	0.250	0.667	0.692	
РМ	0.968	0.737	0.750	0.250	0.500	0.417	0.8	857	0.500	0.625		0.750	0.851	
<u>Peak Hour F</u>	Factors													
	NB	EB	SB	WB										
AM	0.844	0.523	0.916	0.719										
РМ	0.928	0.750	0.870	0.834										
Intersection	Peak Hour Facto	ors												
AM				0.933										
РМ				0.962										



COMMERC	CIAL RD AT I		(PX 2	220)													Survey	Date:	20	)17-Ja	n-12		(Thur	sday)		
001111210			(	)													Survey	Туре:	Routir	ne Hou	ırs					
Time	Vehicle			NORTH	IBOUN	D				E/	азтво	UND				S	оитнво	UND				WE	STBC	UND		
Period	Туре	Exits	L	eft Th	nru Ri	ght	Total	Exits	I	_eft	Thru	Right	t Te	otal	Exits	Left	t Thru	Right	Total	Exi	ts	Left	Thru	Right		Total
08:15-09:15	CAR	760	7	742	95	844	107	10		2	11	23	618	10	524	8	542	2 16	83	1	8	92	Ν	5	0	0
	TRK	16	0	16	1	17	3	0	(	)	0	0	23	2	21	0	23	8 0	2	0	0	2	S	4	5	0
AW PEAK	BUS	11	0	11	0		11	0	0	0	0	0	10	0	10	0	1(	) ()	0	0	0	0	E	14 9	0	0
	TOTAL:	787	7	769	96	872	110	10	:	2	11	23	651	1	2 555	8	57	i 1	6 85	1	8	94		Ū	U	Ū
	CAR	772	3	728	115	846	141	5		1	6	12	875	25	641	2	668	5	228	0	39	267	N	9	1	0
16:00-17:00	TRK	8	0	6	0	6	1	0	(	n	0	0	8	1	6	1	\$	8 1	2	0	2	4	s	1	0	0
PM PEAK	BUS	10	0	10	0	0	10	0	0	0	0	0	8	0	8	0	8	s 0	0	0	0	0	E	54	0	0
																							W	17	0	0
	TOTAL:	790	3	744	115	862	142	5		1	6	12	891	2	6 655	3	684	L I	6 230	0	41	271				
	CAR	607	4	583	152	739	185	5	:	3	4	12	680	30	475	6	51 <sup>-</sup>	11	201	1	19	221	Ν	8	1	0
OFF HR AVG	TRK	27	0	23	4	27	10	1	(	)	0	1	25	6	20	1	27	· 1	5	0	3	8	s	3	1	0
	BUS	5	0	5	0		5	0	0	0	0	0	4	0	4	0		0	0	0	0	0	E	30	0	0
																							W	13	0	0
	TOTAL:	639	4	611	156	771	195	6	;	3	4	13	709	3	6 499	7	542	<b>: 1</b> :	2 206	1	22	229				
	CAR	1,382	11	1,362	169	1,542	188	10	2	2	12	24	1,126	17	967	23	1.007	36	147	2	10	159	Ν	9	0	0
07:30-09:30	TRK	35	0	29	4	33	9	3	(	)	2	5	51	5	40	1	46	5 1	9	0	3	12	s	6	12	0
2 HR AM	BUS	20	0	20	0		20	0	0	0	- 0	0	17	0	17	0	17	0	0	0	0	0	E	29	0	0
																							W	22	0	0
	TOTAL:	1,437	11	1,411	173	1,595	197	13	:	2	14	29	1,194	2	2 1,024	24	1,070	) 3	7 156	2	13	171				
	CAR	1,508	6	1,432	213	1,651	271	11	4	4	13	28	1,745	54	1,306	4	1,364	14	426	4	65	495	Ν	22	2	0
16:00-18:00	TRK	16	0	11	1	12	5	0	(	)	0	0	9	4	7	<sup>'</sup> 1	12	2 1	2	0	5	7	S	5	1	0
2 HR PM	BUS	15	0	15	0		15	0	0	0	0	0	14	0	14	0	14	0	0	0	0	0	Е	89	0	0
																							W	37	0	0
	TOTAL:	1,539	6	1,458	214	1,678	276	11	4	4	13	28	1,768	5	8 1,327	5	1,390	) 1	5 428	4	70	502				
	CAR	5,316	31	5,125	991	6,147	1,198	40	17	7	39	96	5,586	190	4,171	52	4,413	94	####	11	151	1,538	Ν	64	4	0
07:30-18:00	TRK	156	0	130	20	150	52	5	(	)	3	8	159	32	127	5	164	5	29	0	21	50	S	22	18	0
8 HR SUM	BUS	53	0	53	0		53	1	0	0	0	0	49	1	48	0	49	0	1	0	0	1	Е	238	0	0
																							W	111	0	0
	TOTAL:	5,525	31	5,308	1,011	6,350	1,251	45	17	7	42	104	5,794	22	3 4,346	57	4,620	5 9	9 1,406	11	172	1,589				



					Survey Date:	May-02-2	2013	(Thursda	ay)			
					Survey Type:	Routine I	Hours					
ESANDAR DF	R AT LAIRD DR (	PX 2324)										
Movement Pe	ak Hour Factors											
	NB_Thru	NB_Right	NB_Left	EB_Thr	ru EB_Right	EB_Left	SB_Thru	SB_Right	SB_Left	WB_Thru	WB_Right	WE
АМ	0.863	0.854				0.9	940	0.823		0.438	0.683	
РМ	0.943	0.917				0.9	979	0.901		0.818	0.875	
Peak Hour F	actors											
	NB	EB	SB	WB								
АМ	0.889		0.968	0.632								
РМ	0.958		0.988	0.881								
Intersection	Peak Hour Facto	ors										
AM				0.952								
РМ				0.982								



ESANDAR		י צם) פח חי	22241														Survey	Date:	20	13-Ma	ay-02		(Thurs	sday)		
ESANDAR			2324)														Survey	Туре:	Routin	ie Hou	urs					
Time	Vehicle			NORTH	BOUN	D				EA	аятво	UND				SO	ОТНВО	UND				WE	ство	UND		
Period	Туре	Exits	Le	eft Thi	ru Ri	ight	Total	Exits	I	_eft	Thru	Right	t T	otal	Exits	Left	Thru	Right	Total	Exi	ts	Left	Thru	Righ	ıt	Total
08:15-09:15	CAR	649	0	642	41	683	120	0	(	)	0	0	624	79	583	0	662	0	41	0	7	48	Ν	17	5	0
	TRK	105	0	94	13	107	27	0	(	C	0	0	105	14	92	0	106	0	13	0	11	24	S	11	23	0
AM PEAK	BUS	5	0	5	0		5	0	0	0	0	0	13	0	13	0	13	0	0	0	0	0	E	2	0	0
										_													vv	0	0	0
	TOTAL:	759	0	741	54	795	147	0	(	ט	0	0	742	9	3 688	0	781	C	54	0	18	72				
16:30-17:30	CAR	730	0	694	88	782	261	0	(	C	0	0	867	173	748	0	921	0	119	0	36	155	Ν	37	13	0
	TRK	99	0	92	5	97	20	0	(	)	0	0	77	15	65	0	80	0	12	0	7	19	S	6	8	0
PM PEAK	BUS	8	0	8	0		8	0	0	0	0	0	6	0	6	0	6	0	0	0	0	0	Е	8	2	0
																							W	0	0	0
	TOTAL:	837	0	794	93	887	281	0	(	0	0	0	950	18	8 819	0	1,007	C	131	0	43	174				
055.00	CAR	553	0	526	83	609	225	0	(	D	0	0	608	142	509	0	651	0	99	0	27	126	Ν	22	2	0
AVG	TRK	110	0	95	12	107	39	0	(	)	0	0	117	27	99	0	126	0	18	0	15	33	s	16	4	0
	BUS	5	0	5	0		5	0	0	0	0	0	7	0	7	0	7	0	0	0	0	0	Е	6	0	0
																							W	0	0	0
	TOTAL:	668	0	626	95	721	264	0	(	0	0	0	732	16	9 615	0	784	C	117	0	42	159				
	CAR	1,335	0	1.321	77	1,398	215	0	(	)	0	0	1,140	138	1.075	0	1.213	0	65	0	14	79	Ν	35	11	0
07:30-09:30	TRK	103	0	175	26	201	61	0	(	n	0	0	206	35	174	0	200	0	32	0	18	50	S	15	/1	0
2 HR AM	BUS	193	0	12	20	201	12	0	0	0	0	0	200	0	22	0	209	0	0	0	0	0	E	11	0	0
																							W	0	0	0
	TOTAL:	1,540	0	1,508	103	1,611	276	0	(	0	0	0	1,368	17	3 1,271	0	1,444	C	97	0	32	129				
	CAR	1,468	0	1,390	182	1,572	513	0	(	)	0	0	1,639	331	1,421	0	1,752	0	218	0	78	296	Ν	60	21	0
16:00-18:00	TDV	104	0	170	10	104	20	0	,	<b>`</b>	0	0	111	26	110	0	145	0	22	0	10	24	<u> </u>	17	11	0
2 HR PM	BUS	184	0	172	0	184	38 15	0	0	) 0	0	0	141	26 0	119	0	145	0	22	0	12	34 0	E	17	14	0
																							w	0	0	0
	TOTAL:	1.667	0	1.577	194	1.771	551	0	(	5	0	0	1.792	35	7 1.552	0	1.909	C	240	0	90	330				
	CAP	5.015	0	1 811	580	, 5 403	1 625	0		1	0	0	5 211	####	1 5 3 1	0	5 567	0	680	0	201	991	N	101	40	0
07:30-18:00	UAN	3,015	U	4,014	509	0,400	1,020	0	,		U	U	J,211	<del></del>	-,551	U	5,507	U	000	U	201	001	IN	101	-10	0
8 HR SUM	TRK	818	0	727	85	812	254	0	0	)	0	0	815	169	689	0	858	0	126	0	91	217	S E	95 47	71	0
5 m 00m	803	40	U	40	U		40	0	U	U	0	U	01	U	01	U	01	U	U	U	U	U	E W	4/ 0	4	0
																							vv	U	U	U
	TOTAL:	5,879	0	5,587	674	6,261	1,879	0	(	כ	0	0	6,087	1,20	5 5,281	0	6,486	0	806	0	292	1,098				

ONTARIO TRAFFIC INC - TURNING MOVEMENT COUNT
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Location:	EGLINTON AVE and LESLIE ST
Site ID:	0013455296
Date:	Thursday, February 20, 2020

NORTH APPROACH (SOUTHBOUND)							EAST APPROACH (WESTBO	UND)							SOUTH APPROAC	CH (NORTHB	BOUND)					WEST APPR	DACH (EASTBOUND	)										
TIME		Cars		Truck	ks		Buses		Bicycles		Rode Total	Cars		Trucks	Buses		В	icycles	Pode Total	Cars		Trucks		Buses	s	Bicycles	Rode Total	Cars	Trucks		Buses		Bicycles	Rode Total
	Lef	Thru Right L	-Turn Left	Thru	Right U-Turn	Left Th	nru Right U-Tu	rn Left	Thru Righ	ht U-Turn	n Le	ft Thru Right U-Tu	n Left Thr	u Right U-Turr	Left Thru	Right U-T	urn Left Thru	Right U-	Turn	Left Thru Right	U-Turn Left	Thru Right	U-Turn Left	Thru	Right U-Turn Left	Thru Right U-Turn	Left	t Thru Right U-Turn Left	Thru Right U-Turn	Left	Thru Righ	t U-Turn Lei	t Thru Right	U-Turn
06:00 to	06:15 11	0 57	0 5	0	18 0	0 0	0 2 0	0	0 0	0	1 93 (	40 4 1	0 7	0 2	0 10	0 0	0 0	0	0 0 64	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 19	19 0 0 3	3 0 0	3	3 0	0 0	0 0	0 1 50
06:15 to	06:30 16	0 85	0 2	0	22 0	0 0	0 4 0	0	0 0	0	1 129 (	30 5 3	0 2	0 2	0 7	0 (	0 1	0	0 0 50	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 16	26 0 0 3	1 0 0	4	5 0	0 0	0 0	0 1 55
06:30 to	06:45 34	0 115	0 5	0	22 0	0 0	0 6 0	0	0 0	0	0 182 0	45 5 0	0 7	0 1	0 4	0 0	0 0	0	0 0 62	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 25	29 0 0 7	2 0 0	3	5 0	0 0	0 0	0 0 71
06:45 to	07:00 28	0 135	0 3	0	21 0	0 0	0 2 0	0	0 0	0	1 189 (	69 1 0	0 14	2 1	0 7	0 0	0 0	0	0 0 94	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 49	48 0 1 6	2 0 0	5	3 0	0 0	0 0	0 0 114
07:00 to	07:15 49	0 161	0 4	0	21 0	0 0	0 5 0	0	0 0	0	1 240 0	40 9 0	0 10	1 0	0 6	0 0	0 0	0	0 0 66	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 55	49 0 0 4	5 0 0	2	5 0	0 0	1 0	0 0 121
07:15 to	07:30 43	0 211	0 4	0	21 0	0 0	0 7 0	0	0 0	0	0 286 (	48 13 1	0 10	1 2	0 9	0 (	0 0	0	0 0 84	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 86	47 0 0 10	4 0 1	4	5 0	0 0	0 0	0 1 157
07:30 to	07:45 84	0 241	0 6	0	20 0	0 0	0 4 0	0	0 0	0	0 355 0	59 12 0	0 6	0 2	0 6	0 0	0 0	0	0 0 85	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 110	57 0 1 12	3 0 1	2	4 0	0 0	0 0	0 1 190
07:45 to	08:00 82	0 236	0 2	0	17 0	0 0	0 4 0	0	0 0	0	1 341 (	42 8 0	0 9	2 0	0 2	0 0	0 1	0	0 2 64	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 162	64 0 0 10	4 0 0	9	3 0	0 0	0 0	0 0 252
08:00 to	08:15 12:	0 250	0 2	0	12 0	0 0	0 4 0	0	0 0	0	3 391 0	53 11 0	0 6	2 3	0 2	1 1		0	0 0 79	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 164		/ 0 0	5	4 0	0 1	0 0	0 2 242
08:15 to	08:30 11:	0 255	0 1	0	22 0	0 0	0 3 0	0	0 0	0	2 392 0	56 18 1	0 6	1 0	0 4	0 1		0	0 2 86	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 18/		9 0 0	5	6 0	0 0	0 0	0 2 261
08:50 10	08:45 11	0 254	0 4	0	15 0	0 0		0	0 0	0	0 300 0	50 1/ 0	0 3	4 0	0 /	0		0	0 0 09		0 0	0 0	0 0	0	0 0 0		0 0 1/5			4	3 0	0 0	1 0	0 0 2/6
08:45 to	09:00 11	0 244	0 5	0	16 0	0 0	0 6 0	0	0 0	0	4 255 (	65 10 0	0 6	2 2	0 4	0		0	0 0 00	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 1/3	78 0 0 22	6 0 0	3	10 0	0 0	0 0	0 0 230
09:15 to	09:30 80	0 218	0 3	0	27 0	0 0	0 3 0	0	0 0	0	0 331 (	38 13 0	0 9	0 1	0 3	0 0		0	0 0 64	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 132	93 0 0 10	15 0 0	5	6 0	0 0	0 0	0 3 247
00:20 to	00:45 63	0 202	0 3	0	20 0	2 0	0 5 0	0	0 0	0	1 202 (	30 7 1	0 12	2 2	0 3	0		0	0 1 56	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 92	70 0 0 11	10 0 0	4	4 0	0 0	0 0	0 0 192
09:45 to	10:00 44	0 168	0 5	ő	6 0	1 0	0 5 0	0	0 0	0	0 229 (	57 9 0	0 5	4 0	0 3	0 0		0	0 1 78	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 69	95 0 0 10	20 0 0	2	7 0	0 0	0 0	0 1 203
10:00 to	10:15 51	0 196	0 2	0	29 0	2 0	0 6 0	0	0 0	0	0 286 (	69 18 0	0 15	0 0	0 2	0 0	0 0	0	0 2 104	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 77	72 0 0 5	13 0 0	3	3 0	0 0	0 0	0 1 173
10:15 to	10:30 32	0 131	0 3	0	28 0	3 0	0 4 0	ő	0 0	0	0 201 0	69 12 0	0 13	2 0	0 4	0 0	0 0	0	0 2 100	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 53	48 0 0 13	14 0 0	3	3 0	0 0	0 0	0 0 134
10:30 to	10:45 24	0 119	0 4	0	14 0	0 0	0 2 0	0	0 0	0	1 163 (	76 14 0	0 11	2 3	0 4	0 0	0 0	0	0 4 110	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 80	89 0 0 16	18 0 0	2	2 0	0 0	0 0	0 2 207
10:45 to	11:00 16	0 105	0 5	0	15 0	1 0	0 3 0	0	0 0	0	0 145 0	79 16 0	0 10	2 1	0 3	0 0	0 0	0	0 0 111	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 80	84 0 0 13	15 0 0	5	4 0	0 0	0 0	0 0 201
11:00 to	11:15 26	0 96	0 3	0	20 0	1 0	0 2 0	0	0 0	0	2 148 (	63 5 2	0 17	5 2	0 2	0 0	0 0	0	0 0 96	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 85	55 0 0 17	17 0 0	2	3 0	0 0	0 0	0 2 179
11:15 to	11:30 29	0 123	0 3	0	16 0	0 0	0 4 0	0	0 0	0	0 175 0	72 13 0	0 10	2 0	0 3	0 0	0 0	0	0 0 100	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 89	87 0 0 16	8 0 0	4	5 0	0 0	0 0	0 0 209
11:30 to	11:45 30	0 114	0 3	0	18 0	0 0	0 2 0	0	0 0	0	0 167 (	70 13 0	0 11	0 0	0 2	0 0	0 0	0	0 0 96	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 98	79 0 0 14	22 0 0	2	3 0	0 0	0 0	0 0 218
11:45 to	12:00 36	0 114	0 5	0	21 0	0 0	0 3 0	0	0 0	0	0 179 0	76 10 0	0 5	1 1	0 3	0 0	0 0	0	0 0 96	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 83	72 0 1 9	11 0 0	2	2 0	0 0	0 0	0 0 180
12:00 to	12:15 26	0 105	0 4	0	5 0	0 0	0 2 0	0	0 0	0	0 142 0	94 15 0	0 9	1 1	0 5	0 0	0 0	0	0 0 125	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 112	86 0 0 12	14 0 0	3	4 0	0 0	0 0	0 0 231
12:15 to	12:30 31	0 96	0 0	0	12 0	0 0	0 3 0	0	0 0	0	0 142 0	67 17 1	0 11	3 0	0 2	0 0	0 0	0	0 0 101	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 106	83 0 0 11	13 0 0	3	2 0	0 0	0 0	0 0 218
12:30 to	12:45 29	0 109	0 3	0	11 0	0 0	0 5 0	0	0 0	0	3 157 (	78 20 0	0 10	2 2	0 5	0 (	0 0	0	0 0 117	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 97	78 0 0 9	11 0 0	2	2 0	0 0	0 0	0 2 199
12:45 to	13:00 21	0 85	0 1	0	6 0	0 0	0 2 0	0	0 0	0	1 115 (	84 11 1	0 9	5 1	0 2	0 0	0 0	0	0 0 113	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 104	64 0 1 13	12 0 0	4	5 0	0 0	0 0	0 1 203
13:00 to	13:15 15	0 94	0 0	0	10 0	0 0	0 4 0	0	0 0	0	1 123 (	81 12 0	0 8	4 0	0 2	0 0	0 0	0	0 0 107	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 112	80 0 0 15	10 0 1	3	3 0	0 0	0 0	0 1 224
13:15 to	13:30 11	0 77	0 1	0	6 0	0 0	0 2 0	0	0 0	0	0 97 (	75 13 4	0 12	1 0	0 4	0 0	0 0	0	0 0 109	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 88	88 0 0 14	9 0 0	2	2 0	0 0	0 0	0 1 203
13:30 to	13:45 23	0 98	0 3	0	11 0	0 0	0 4 0	0	0 0	0	0 139 (	90 21 0	0 13	2 1	0 3	0 (	0 0	0	0 0 130	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 112	87 0 0 14	11 0 0	3	3 0	0 0	1 0	0 1 231
13:45 to	14:00 23	0 83	0 5	0	12 0	0 0	0 2 0	0	0 0	0	0 125 0	59 7 1	0 6	1 0	0 2	0 0	0 0	0	0 0 76	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 113	60 0 1 15	4 0 0	2	4 0	0 0	0 0	0 2 199
14:00 to	14:15 22	0 103	0 1	0	8 0	0 0	0 3 0	0	0 0	0	1 137 0	66 20 0	0 13	4 1	0 4	1 0	0 0	0	0 0 109	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 134	77 0 0 6	11 0 0	3	2 0	0 0	0 0	0 1 233
14:15 to	14:30 21	0 83	0 3	0	6 0	0 0		0	0 0	0	0 114 0	97 21 1	0 10	2 2	0 3	0 0		0	0 0 136	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 145	61 0 0 19	8 0 0	2	3 0	0 0	0 0	0 0 238
14:30 to	14:45 19	0 86	0 1	0	5 0	2 0	0 4 0	0	0 0	0	0 11/ 0	66 11 0	0 /	1 1	0 4	0 0		1	0 1 91	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 132	61 0 0 19	12 0 0	5	2 0	0 0	0 0	0 0 229
14:45 to	15:15 26	0 97	0 3	0	4 0	0 0	0 3 0	0	0 0	0	0 122 (	65 15 1	0 7	0 1	0 3	0 0		1	0 0 07	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 149		7 0 0	2	2 0	0 0	1 0	0 0 242
15:15 to	15:30 22	0 92	0 3	0	4 0	1 0	0 3 0	1	0 0	0	1 126 0	68 12 2	0 6	0 0	0 2	0 0		0	0 0 97	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 148	58 0 0 16	5 0 0	3	4 0	0 0	0 0	0 1 243
15:30 to	15:45 43	0 117	0 1	0	8 0	1 0	0 6 0	0	0 0	0	0 176 (	80 16 1	0 5	1 4	0 4	0 0		0	0 0 111	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 154	63 0 0 16	4 0 0	3	4 0	0 0	0 0	0 0 244
15:45 to	16:00 47	0 112	0 2	0	8 0	2 0	0 4 0	0	0 0	0	3 175 (	74 23 0	0 9	3 0	0 5	0 0	0 1	0	0 0 115	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 167	59 0 1 17	3 0 1	1	4 0	0 0	0 0	0 2 253
16:00 to	16:15 40	0 144	0 0	0	5 0	0 0	0 6 0	0	0 0	0	4 195 (	69 18 0	0 8	2 0	0 5	0 0	0 0	0	0 0 102	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 177	54 0 0 9	3 0 0	6	5 0	0 0	1 0	0 8 255
16:15 to	16:30 51	0 137	0 1	0	3 0	1 0	0 2 0	0	0 0	0	0 195 (	93 15 1	0 3	4 0	0 5	0 0	0 0	0	0 0 121	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 165	44 0 0 18	7 0 0	3	5 0	0 1	0 0	0 1 243
16:30 to	16:45 72	0 152	0 5	0	5 0	0 0	0 4 0	0	0 0	0	0 238 0	86 13 0	0 4	0 0	0 2	0 0	0 0	0	0 0 105	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 179	48 0 0 13	3 0 0	3	3 0	0 0	0 0	0 0 249
16:45 to	17:00 59	0 190	0 1	0	6 0	1 0	0 3 0	0	0 0	0	0 260 0	68 21 0	0 5	1 0	0 2	0 0	0 0 1	0	0 0 98	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 186	53 0 0 12	8 0 0	5	5 0	0 0	0 0	0 2 269
17:00 to	17:15 10	0 185	0 6	0	7 0	0 0	0 3 0	0	0 0	0	2 309 0	75 23 0	0 3	1 0	0 4	0 (	0 0	0	0 0 106	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 153	44 0 0 8	13 0 0	3	3 0	0 0	0 0	0 3 224
17:15 to	17:30 13	0 244	0 5	0	5 0	0 0	0 3 0	0	0 0	0	0 387 (	78 28 0	0 6	2 1	0 3	0 (	0 0 1	0	0 1 119	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 193	56 0 0 12	2 0 0	4	5 0	0 0	0 0	0 0 272
17:30 to	17:45 14:	0 196	0 1	0	14 0	0 0	0 4 0	0	0 0	0	1 357 (	77 21 0	0 6	2 0	0 6	0 0	0 0	0	0 0 112	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 209	68 0 0 12	5 0 0	1	2 0	0 0	0 0	0 1 297
17:45 to	18:00 11:	0 182	0 4	0	6 0	0 0	0 3 0	0	0 0	0	0 306 (	92 10 0	0 2	1 0	0 3	0 (	0 0	0	0 0 108	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 155	67 0 0 10	7 0 0	5	6 0	0 0	0 0	0 1 250
18:00 to	18:15 75	0 157	0 4	0	3 0	0 0	0 1 0	0	0 0	0	1 240 0	56 11 0	0 2	0 0	0 5	0 0	0 0	0	0 0 74	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 149	71 0 0 6	3 0 0	3	2 0	0 0	0 0	0 1 234
18:15 to	18:30 56	0 166	0 2	0	6 0	0 0	0 5 0	0	0 0	0	0 235 (	87 19 0	0 2	0 0	0 3	0 0	0 0	0	0 0 111	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 170	65 0 0 9	6 0 0	4	5 0	0 0	0 0	0 0 259
18:30 to	18:45 47	0 147	0 1	0	2 0	0 0	0 4 0	0	0 0	0	0 201 (	57 13 0	0 0	0 0	0 5	0 0	0 0	0	0 0 75	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 152	48 0 0 5	2 0 0	2	3 0	0 0	0 0	0 1 212
18:45 to	19:00 34	0 119	0 2	0	2 0	0 0	0 2 0	0	0 0	0	0 159 (	80 14 0	0 5	2 0	0 2	0 (	0 0	0	0 0 103	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 194	71 0 0 2	6 0 0	4	5 0	0 0	0 0	0 0 282
19:00 to	19:15 27	0 102	0 1	0	3 0	0 0	0 4 0	0	0 0	0	0 137 (	103 18 0	0 1	1 0	0 6	0 (	0 0	0	0 0 129	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 139	81 0 0 7	10 0 0	3	7 0	0 0	0 0	0 0 247
19:15 to	19:30 17	0 92	0 0	0	1 0	0 0	0 3 0	0	0 0	0	1 113 (	106 13 0	0 5	0 0	0 4	0 0	0 0	0	0 0 128	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 119	77 0 0 1	1 0 0	1	0 0	0 0	0 0	0 2 199
19:30 to	19:45 21	U 66	0 0	U	1 0	0 0	0 4 0	0	U 0	0	2 92 0	80 8 0	U 4	1 0	U 3	0 0	0 0	U	U U 96	0 0	0 0	0 0	0 0	U	0 0 0	0 0 0	U 0 123	102 0 0 5	2 0 0	3	/ 0	U 0	1 0	0 0 243
19:45 to	20:00 14	0 68	υ 0	0	U O	U 0	U 3 0	0	0 0	0	2 85 (	55 9 0	0 3	0 0	0 2	U	0 0	0	U 1 69	U 0 0	0 0	0 0	U 0	0	υ 0 0	U 0 0	U 0 133	89 0 0 5	1 0 0	3	8 0	0 0	0 0	U 1 239
GRAND TO	TAL 274	0 7931	0 149	0	664 0	19 0	0 200 0	2	0 0	0	44 11708 0	3835 768 24	0 41	3 89 43	0 222	2	0 0 6	2	0 17 5404	0 0 0	0 0	0 0	0 0	0	0 0 0	0 0 0	0 0 6870	6 3678 0 6 621	442 0 4	183	223 0	0 2	6 0	0 53 12041





# Appendix C

**Signal Timing Plans** 

LOCATION:	University Ave & Q	ueen St W					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with Polara 2 v	wire APS, LBO S	Signs & UPS - RLC	(NB) & LPI			COMPUTER SYSTEM:	TransSuite
TCS:	80						CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2 T1
PREPARED/CHECKED BY:	Parsons/ MR						CONFLICT FLASH:	Red & Red
PREPARATION DATE:	September 25, 201	8					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing @1.2m/s)
IMPLEMENTATION DATE:	October 16, 2018						CHANNEL/DROP:	4003/30
							CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT	WKND		
		All Other	06:45-09:30	15:15-19:00	19:00-06:45	10:00-19:00		
NEMA Phase		Times				Sat & Sun	Phase Mode	Remarks
	Local Plan	Bottorn 1	M-F	M-F Bottorn 2	Daily Dattorn 4	Dottorn E	(Fixed/Demanded/Callable)	
	Split Table	Solit 1	Solit 2	Solit 3	Snlit 4	Solit 5		
		opin	opin 2	opino	opin	opiiro		Pedestrian Minimas:
1	WLK							NSWK = 7 sec., NSFD = 14 sec.
	FDW							EWWK = 7 sec., EWFD = 17 sec.
NOTUSED	MIN							2 - Stage E-W pedestrian crossing.
( NOT USED )	MAX1							APS on during walk periods when activated.
	AMB							Extended Push Activation = 3 secs.
	ALR							Scripts 1 & 2 are used for driving LBO signs during the Weekday and Sat NLT periods
I Iniversity Ave								respectively. See Programming Sheets for
2	WLK 7							more details
	FDW 14							NS Leading Pedestrian Interval - NSWK
/ ▲ î \	MIN 16						Fixed.	comes up 5 seconds before NS vehicle
	MAX1 43						Split shown includes 5 sec of NS	green.
	AMB 3						LPI	
	ALR 3							
	SPLII	49	56	52	46	49		
3	WIK							
	FDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
0	SPLIT							
Queen St W	WIK 7							
4	FDW 17							
	MIN 24						Fixed.	
	MAX1 33							
$\setminus$	AMB 3							
	ALR 5							
	SPLIT	41	44	48	34	41		
5								
3	FDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							
University Ave	WLK DLY 5							
6	WLK 7							
	MIN 16			e -			Fixed	
	MAX1 43						Split shown includes 5 sec of NS	
	AMB 3						LPI	
	ALR 3							
	SPLIT	49	56	52	46	49		1
	WLK EDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							
Queen St W								
8	WLK 7							
	FDW 17						Eine d	
	MAX1 22						FIXEO.	
∖ ← /	AMB 3		a second s					
	ALR 5							
	SPLIT	41	44	48	34	41		
	CL	90	100	100	80	90		
	<u> </u>	40	19	3	29			

NOTES: No EWLT from 7:00AM-7:00PM, M-F; 7:30AM-6:30PM, SAT; public holidays excepted. RLC (NB) was activated on August 31, 2017

LOCATION: MODE/COMMENT: TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	Queen St W & St P SAP with PR, 2-Wi 2087 Parsons/ MR September 26, 201 October 16, 2018	<sup>v</sup> atrick St <mark>re Polara APS</mark> I8	<mark>, TSP* &amp; LPI</mark>				DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Toronto & East York TransSuite Peek ATC-1000 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4003/32
NEMA Phase	Local Plan	OFF All Other Times Pattern 1	AM 06:45-09:30 M-F Pattern 2 Solit 2	PM 15:45-18:15 M-F Pattern 3	NGHT           23:00-06:30           Daily           Pattern 4           Split 4	WKND 10:00-19:00 Sat & Sun Pattern 5 Solit 5	CONTROLLER FIRMWARE: Phase Mode (Fixed/Demanded or Callable)	3.018.1.2976 Remarks
1 NOT USED	WLK FDW MIN MAX1 AMB ALR	<u> </u>	Spin 2					Pedestrian Minimums: EWWK = 7 sec, EWFD = 9 sec NSWK = 7 sec, NSFD = 12 sec SB phase is callable by vehicle or pedestrian actuation. If a vehicle and/or pedestrian call is received, the maximum SBG will be served. The NSWK & NSFD are displayed on the pedestrian
Queen St W	SPLITWLK DLY5WLK7FDW9MIN11MAX155AMB3						Fixed POZ activated by Request Loop (max extension of 25 secs in Green/Walk) Split shown includes 5 sec of EW	signal heads if a vehicle and/or pedestrian call is received. EW pushbutton monitored on detector 6. NS pushbutton monitored on detector 2. Side Street Passage Time = 3 secs APS on during 7s of EWWK and NSWK if actuated by pushbuttons
3 NOT USED	ALR 2 SPLIT WLK FDW MIN MAX1 AMB	59	59	59	59	59		Extended Push Actuation = 3 secs*See back for TSP instructionsTSP enabled in EB and WB on September 8, 2017Additional 1 second above the pedestrian minimumprovided to the Phase 4/8 SPLIT is to be served inPhase 4/8.EW Leading Pedestrian Interval - EWWK comes up
4 (ACTIVATED	ALR SPLIT WLK 7 FDW 12 MIN 19 MAX1 20 AMB 3							seconds before EW vehicle green.
5 NOT USED	ALR 3 SPLIT WLK FDW MIN MAX1 AMB ALR	26	26	26	26	26		
Queen St W	SPLITWLK DLY5WLK7FDW9MIN11MAX155AMB3ALR2				ŝ		Fixed POZ activated by Request Loop (max extension of 25 secs in Green/Walk) Split shown includes 5 sec of EW LPI	
7 NOT USED	SPLIT WLK FDW MIN MAX1 AMB ALR SPLIT	59	59	59	59	59		
8 St Patrick St	WLK 7 FDW 12 MIN 19 MAX1 20 AMB 3 ALR 3 SPLIT	26	26	26	26	26	Callable by Stopbar Loop and/or Pushbuttons Truncations allowable to pedestriar minimum	
	CL OF	85 13	85 13	85 13	85 13	85 13		

Notes: T intersection with no south leg

LOC:	Queen St W & St Patrick St	T.S.P. PARAMETERS
MODE:	SAP with PR, 2-Wire Polara APS, TSP* & LPI	TSP RUN   TSP RUN
TCS:	2087 PREPARATION DATE (TIMING CARD): September 26, 2018	PREPARED: Parsons/ MR #2 #6
OFFSE	T CORRECTION PARAMETERS	EB Thru WB Thru
	2.3.2.x	2.8.2 Transit Run Parameters
	0.C.	
2.3.4	O.C. Extend / Reduce (Max. time added & subtracted in sec.) <u>From page 1</u>	ATC Green Extend Mode Mode 2 Mode 2
	Ø 1 Ø 2 Ø 3 Ø 4 Ø 5 Ø 6 Ø 7 Ø 8 [Cycle] [Slop] Thres.	(Equivalent TTC Algorithm) A A
OFF	Pattern 1	2.8.3 Transit Action Plan 1 (Used for all Patterns)
Split 1	Ext 27 27 85 39 18 s	Run Enable (X = Yes) X X
	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$Run Config = 1 \qquad Recovery = 2 (0.C. with delay)$
AIVI		2.8.4 Transit Run Configuration 1
Split 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Delay / Extend / Fall / / 235 / / 235
	Rdc.          33          1          33          1           Rdc.          33          1          33          1         [2170]	CALLS (and Extends) Ø 2/6 Ø 2/6
	Pattern :	Reduces (Truncates)
Split 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
NGH	T Pattern 3	Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8
	Ext 27 27 18 s	2.8.6 TSP Split Tables: 1.2 . 3. 4 & 5
Split 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	GRN EXT (SDW Extension)
WKN	ID Pattern 3	GRN RDC (Reduction) 1 1
0	Ext 27 27 05 00 18 s	WLK EXT (Walk Extension) 25 25
Split 5	Rdc 33 1 33 1 <sup>85</sup> <sup>39</sup> [21 %]	



LOCATION: MODE/COMMENT: TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	Queen St W & J FXT with TSP* 1461 <i>CIMA+/AD</i> June 25, 2018 August 9, 2018	lohn St					DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Toronto & East York TransSuite Peek ATC-1000 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4003/33 3.018.1.2976
NEMA Phase	Local Plan	OFF All Other Times Pattern 1	AM 06:45-09:30 M-F Pattern 2	PM 15:45-18:15 M-F Pattern 3	NGHT 23:00-06:30 Daily Pattern 4	WKND 10:00-19:00 Sat & Sun Pattern 5	Phase Mode (Fixed/Demanded or Callable)	Remarks
1 NOT USED	Split Table WLK FDW MIN MAX1 AMB ALR SPLIT	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums: EWWK = 7 sec, EWFD = 10 sec NSWK = 7 sec, NSFD = 11 sec *See back for TSP instructions TSP re-enabled on October 6, 2017 for EB and WB.
2 Queen St W	WLK         7           FDW         10           MIN         17           MAX1         47           AMB         3           ALR         2           SPLIT	52	52	52	52	52	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/WLK)	
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						2	
4	WLK         7           FDW         11           MIN         18           MAX1         27           AMB         4           ALR         2           SPLIT	33	33	33	33	33	Fixed (Truncation allowable to PED min)	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT				C		0	
6	WLK 7 FDW 10 MIN 17 MAX1 47 AMB 3 ALR 2 SPLIT	52	52	52	52	52	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/WLK)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT		U.S.	0	S			
8 John St	WLK 7 FDW 11 MIN 18 MAX1 27 AMB 4 ALR 2 SPLIT	33	33	33	33	33	Fixed (Truncation allowable to PED min)	
	CL OF	85 21	85 16	85 9	85 21	85 21		



LOCATION: MODE/COMMENT: TCS: PREPARED/DATE : CHECKED BY / DATE: IMPLEMENTATION DATE:	Queen St W FXT & TSP 1589 Akshay Sal Masoud Ra Feburary 13	/ & Peter St / / (SB with SA wan / Febura mezani / Feb 3, 2020	Soho St 2-VMG) with I ry 11, 2020 urary 12, 2020	LBO Signs			DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Toronto & East York TransSuite Peek ATC-1000 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4036/27 3.018.1.2976
NEMA Phase		OFF All Other Times	AM 06:45-09:30 M-F	PM 15:45-18:15 M-F	NGHT 23:00-06:45 Daily	WKND 10:00-19:00 Sat & Sun	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5	+	
1 Queen St W	WLK FDW MIN 6 MAX1 7 AMB 3 ALR 3 SPLIT	13	13	13	13	13	Fixed (15:45-18:15, M-F) (Shared Through & Left Turn Lane) Callable/Extendable by Transit Request Loop at all other times	Pedestrian Minimums: EWWK = 7 sec, EWFD = 13 sec NSWK = 7 sec, NSFD = 15 sec WBLA in FXT operation during 15:45-18:15, M-F WBLA is callable/extendable by Transit vehicles all other times directly from SRM #2 SB phase is callable/extendable/skippable (not Swapable) by vehicle actuation. If a SB vehicle call is received, the minimum graph is 7 seconds. If grouping SB vehicle damand evists on
	WLK 7 FDW 13 MIN 20 MAX1 24 AMB 3						Fixed POZ activated by Request Loop	green for second and a second
Poter St	ALR 4 SPLIT	31	31	31	31	31	(max extension of 30 secs in Green/WLK)	TSP enabled (EW & WBLT) on September 8, 2017 Script 1 is used for driving LBO signs during the Weekday and
	WLK 7 FDW 15 MIN 22 MAX1 23 AMB 4 ALR 3 SPLIT	30	30	30	30	30	Fixed (Truncation allowable to Ped Min)	Sat NL1 periods respectively. Load switch 16 used to drive LBU signs.           Public Holidays         2020 & 2021 Holidays           1. New Years Day         January 01, 2020 & 2021           2. Family Day         February 17, 2020           3. Good Friday         April 10, 2020           4. Easter Monday         April 13, 2020           5. Victoria Day         May 18, 2020
4 Soho St	WLK FDW MIN 7 MAX1 7 AMB 3 ALR 5 SPLIT	16	16	16	16	16	Callable/Extendable by Stopbar Loop and/or bicyle detection Skippable (Truncation allowable to Veh Min)	Canada Day         July 1, 2020           7. Givic/Provincial Day         August 3, 2020           8. Labour Day         September 7, 2020           9. Thanksgiving Day         October 12, 2020           10. Remembrance Day         November 11, 2020           11. Christmas Day         December 25, 2020           12. Boxing Day         December 28, 2020
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							1         2         3         4           6         7         8
Gueen St W	WLK         7           FDW         13           MIN         20           MAX1         37           AMB         3           ALR         4           SPLIT	44	44	44	44	44	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/WLK)	
7 ACTIVATED	WLK 7 FDW 15 MIN 22 MAX1 23 AMB 4 ALR 3 SPLIT	30	30	30	30	30	X	
8 Activated	WLK FDW MIN 7 MAX1 7 AMB 3 ALR 5 SPLIT	16	16	16	16	16	2	
Overlap A	WLK FDW MIN MAX1 AMB 4 ALR 3 SPLIT		Ċ	3			SB Bicycle Signal on the west side served concurrently with NBG & NSWK/FDW Parent Phase 3	
	CL OF	90 10	90 10	90 10	90 10	90 10		1

Notes EBLT restriction from 7:00AM-7:00PM, M-F; 7:30AM-6:30PM, SAT; public holidays excepted.



LOCATION: MODE/COMMENT: TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	Queen St W & / SAP with PR & 552 <i>CIMA+/AD</i> June 25, 2018 August 9, 2018	Augusta Ave TSP*					DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Toronto & East York N TransSuite Peek ATC-1000 / TS2 T1 1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4036/24 3.018.1.2976
NEMA Phase	Local Plan	OFF All Other Times Pattern 1	AM 06:45-09:30 M-F Pattern 2	PM 15:45-18:15 M-F Pattern 3	NGHT 23:00-06:30 Daily Pattern 4	WKND 10:00-19:00 Sat & Sun Pattern 5	Phase Mode (Fixed/Demanded or Callable)	Remarks
1 NOT USED	Split Table WLK FDW MIN MAX1 AMB ALR SPLIT	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums: EWWK = 7 sec, EWFD = 11 sec NSWK = 7 sec, NSFD = 12 sec NS phase is callable by vehicle or pedestrian actuation. If a vehicle and/or pedestrian call is received, the maximum NSG will be served. The NSWK & NSFD are displayed on the pedestrian signal heads if a vehicle
Queen St W	WLK         7           FDW         11           MIN         18           MAX1         39           AMB         3           ALR         3           SPLIT	44	44	54	44	44	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	NS pushbutton monitored on detector 2. Side Street Passage Time = 3 secs "See back for TSP instructions TSP re-enabled for both directions on February 08, 2018. Additional 1 second above the pedestrian minimum provided to the Phase 4/8 SPLIT is to be served in
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						20	Phase 4/8.
4	WLK         7           FDW         12           MIN         19           MAX1         20           AMB         4           ALR         2           SPLIT	26	26	26	26	26	Callable by Stopbar Loop and/or Pushbuttons (truncations allowable to pedestrian minimum)	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						6	
	WLK         7           FDW         11           MIN         18           MAX1         39           AMB         3           ALR         3           SPLIT         3	44	44	54	44	44	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT			4	Ċ			
8 Augusta Ave	WLK         7           FDW         12           MIN         19           MAX1         20           AMB         4           ALR         2           SPLIT	26	26	26	26	26	Callable by Stopbar Loop and/or Pushbuttons (truncations allowable to pedestrian minimum)	
	CL OF	70 26	70 23	80 71	70 50	70 33		
Notes:		X						



LOCATION: MODE/COMMENT: TCS: PREPARED BY / DATE:	Queen St W & Por SAP with PR, 2-W 2088 Ameneh Dialamel	tland St ire Polara AP h / July 22, 20	<mark>S, TSP* &amp; LPI</mark> 19				DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH:	Toronto & East York TransSuite Peek ATC-1000 / TS2 T1 Red & Red
IMPLEMENTATION DATE:	September 3, 201	7 August 14, 2 9	2019				DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	1.0 m/s (FDW based on full crossing at 1.2 m/s) 4036/17 3.018.1.2976
NEMA Phase	Logal Plan	OFF All Other Times	AM 06:45-09:30 M-F	PM 15:45-18:15 M-F	NGHT 23:00-06:30 Daily	WKND 10:00-19:00 Sat & Sun	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums:
1 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							EWWK = 7 sec, EWFD = 10 sec NSWK = 7 sec, NSFD = 11 sec NB phase is callable by vehicle or pedestrian actuation. a vehicle and/or pedestrian call is received, the maximum NBG will be served. The NSWK & NSFD are displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received
2 Queen St W	WLK         7           FDW         10           MIN         17           MAX1         40           AMB         3           ALR         3						Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	Side Street Passage Time = 3 s APS on during 7s of EWWK and NSWK if actuated by pushbuttons Extended Push Actuation = 3 s *See back for TSP instructions NS Leading Pedestrian Interval - NSWK comes up 5
3 NOT USED	SPLII WLK FDW MIN MAX1 AMB ALR SPLIT	46	46	56	46	46		seconds before NS vehicle green.
4 4	WLK DLYS5WLK7FDW11MIN13MAX118AMB3ALR3SPLIT10	24	24	24	24	24	Callable by Stopbar Loop and/or Pushbuttons Split shown includes 5 sec of NS LPI	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							
6 Queen St W	WLK 7 FDW 10 MIN 17 MAX1 40 AMB 3 ALR 3 SPLIT	46	46	56	46	46	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							
8 Activated to allow for TSP	WLK DLYS5WLK7FDW11MIN13MAX118AMB3ALR3SPLIT	24	24	24	24	24		
	CL OF	70 14	70 16	80 66	70 46	70 21		

Notes: T intersection with no north leg

LOC:	LOC: Queen St W & Portland St											T.S.P. PARAMETERS
MODE:	SAP v	vith WRM, 2	2-Wire P	olara Al	PS & TSI	P						TSP RUN   TSP RUN
TCS:	2088			PREPA	RATION	DATE (1	TIMING (	CARD):	July 22, 2	2019		PREPARED: Ameneh Dialameh # 2 # 6
OFFSE	T COF	RRECTIO	N PAR		ERS							EB Thru WB Thru
											2.3.2.x	2.8.2 Transit Run Parameters
	~ ~ ~ ~			<i></i>							O.C.	
2.3.4	0.C. E	xtend / Re		(Ma	ax. time add	ded & sub		n sec.)	From p	bage 1	<b>T</b> 1	ATC Green Extend Mode Mode 2 Mode 2
			20	3 0 2	105	00	01	08	[Cycle]	[Slop]	Inres.	(Equivalent ITC Algorithm) A A
	Гън		6			26		<u> </u>			Pattern 1	2.8.3 Transit Action Plan 1 (Used for all Patterns)
Split 1	EXI.	2	2			20			70	23	[26 %]	$\frac{1}{1} \frac{1}{1} \frac{1}$
	Ruc.	2	<u> </u>			23						284  Transit Pun Configuration 1
	Evt	2	6 L		<b>—</b>	26	l				18 s	Delay / Extend / Fail $//235$ $//235$
Split 2		2	3			23			70	23	[26 %]	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
PM	1100.					20					Pattern 3	Skips
	Ext.	3	0			30					<b>20</b> s	Reduces (Truncates)
Split 3	Rdc.	3	3			33			80	33	[25 %]	
NGH	T	I									Pattern 4	Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8
Cality 4	Ext.	2	6			26			70	00	<b>18</b> s	2.8.6 TSP Split Tables: 1,2, 3, 4 & 5
Split 4	Rdc.	2	3			23			70	23	[26 %]	GRN EXT (SDW Extension)
WKN	1D										Pattern 5	GRN RDC (Reduction)
Split 5	Ext.	2	6			26			70	23	<b>18</b> s	WLK EXT (Walk Extension)          30           30
	Rdc.	2	<mark>3</mark>			23			10	20	[26 %]	
							_					
					-							
I												



LOCATION:	Richmond S	St W & John St				DISTRICT:	Toronto & East York	N1
MODE/COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite	N
TCS:	269					CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2T1	T
PREPARED/CHECKED BY:	Parsons / A	D				CONFLICT FLASH:	Red & Red	
PREPARATION DATE:	May 17, 201	7				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)	
IMPLEMENTATION DATE:	June 14. 201	17				CHANNEL/DROP:	2070/25	
						CONTROLLER FIRMWARE:	2.47.10	
		OFF	AM	РМ	NGHT	Phase Mode		
			06:30-	15:30-	23:00-		1	
		All Othe	r 09:30	18:30	06:30			
NEMA Phase		Times	M-F.	M-F.	Daily.	(Fixed/Demanded/Callable)	Remarks	
	Local Pla	n Pattern 2	Pattern 2	Pattern 3	Pattern 4	1 `		
	System Pla	an Plan 1	Plan 2	Plan 3	Plan 4			
							Pedestrian Minimums:	
1	WLK						EWWK = 7 sec. EWFD = 11 sec.	
	FDW						NSWK = 7 sec. NSFD = 17 sec.	
	MIN							
	MAX1							
	AMB							
	ALR							
	SPLIT							
Richmond St W								
2	WLK	7						
	FDW	11						
	MIN	18						
	MAX1	44						
	AMB	3						
	ALR	2						
	SPLIT	49	49	49	49			
3	WLK							
	FDW							
NOT USED	MIN							
\ /	MAX1							
	AMB							
	ALR							
• • •	SPLIT							
John St		_						
$ $ <sup>4</sup> $\land$	WLK							
	FDW	1/						
	MIN	24				Fixed.		
	MAX1	25						
│	AMB	4						
	ALR	2						
	SPLIT	31	31	31	31			
5								
NOT USED								
$\setminus$ /								
	SPI IT							
Richmond St W	ULI						1	
6	WIK	7						
	FDW/	11						
	MIN	18						
	MAX1	44				Fixed.		
\ <i>&lt;</i> >/	AMB	3					7	
	ALR	2						
	SPLIT	49	49	49	49			
							1	
7	WLK							
$\langle \rangle$	FDW							
	MIN							
	MAX1							
	AMB							
	ALR							
	SPLIT							
John St							]	
8	WLK	7						
	FDW	17						
	MIN	24	·			Fixed		
	MAX1	25						
\ \ ↓ \ /	AMB	4						
	ALR	2						
	SPLIT	31	31	31	31		4	
		80	80	80	80			
<u> </u>	OF	12	12	12	12			

NOTES:

Richmond St One-way westbound

LOCATION:	University A	ve & Richmond St W	I		DISTRICT:	Toronto & East York N			
MODE/COMMENT:	FXT with UP (TCS2462)	S, RLC (SB) & Maste	er to Richmond St W	& Simcoe St	COMPUTER SYSTEM:	TransSuite			
TCS:	79				CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2 T1			
PREPARED/CHECKED BY:	AD/HL				CONFLICT FLASH:	Red & Red			
PREPARATION DATE:	April 26, 201	8			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1	I.2 m/s)		
IMPLEMENTATION DATE:	March 13, 20	)19			CHANNEL/DROP:	4003/23			
					CONTROLLER FIRMWARE:	3.018.1.2976			
		OFF	AM	PM					
NEMA Phase		All Other Times	06:45-09:30 M-F	16:00-18:30 M-F	Phase Mode (Fixed/Demanded/	Remarks			
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Callable)				
	System Plan	Plan 1	Plan 2	Plan 3		Dedectries Minimum e			
1	WLK					NSWK = 7 secs: NSFD = 15 secs			
	FDW					EWWK = 7 secs; EWFD = 17 secs			
( NOT USED	MIN MAX 1					2-Stage EW pedestrian crossing.	mothy 65m		
	AMB					apart) to provide coordination all times. Pu	lse sent		
	ALR					at beginning of NSFD (to ensure NSY's are	e 		
University Ave	SPLII					displayed simultaneously at both signals at times).	t all		
2	WLK 7					If there is a loss of interconnect, the two signals	gnal will		
	FDW 15 MIN 22				Fixed	run the coordinated plans.			
	MAX 1 50								
	AMB 3					ersi			
	ALR 3 SPLIT	56	56	52		Zhiv			
						Richmon			
3	WLK FDW					TCS2462 TCS79			
	MIN					65m C2C			
NOTUSED	MAX 1								
	AMB								
	SPLIT								
4	WLK 7								
	FDW 17				Fixed				
( NOT USED )	MAX 1 25								
	AMB 3								
	ALR 6 SPLIT	34	44	48					
5	WIK								
	FDW								
( NOT USED	MIN MAX 1								
	AMB								
	ALR								
Liniversity Ave	SPLIT								
6	WLK 7								
	FDW 15				Fixed				
	MAX 1 50								
	AMB 3								
	ALK 3 SPLIT	56	56	52					
7									
	FDW								
	MIN								
	MAX 1 AMB								
	ALR								
Dichmond Ct M/	SPLIT								
8 Richmond St W	WLK 7								
∕ ≪>	FDW 17				Fixed				
	MAX 1 25								
	AMB 3								
	ALR 6 SPLIT	34	44	48					
	CL OF	90 41	100 85	100					

NOTES: Richmond St is one-way westbound.

LOCATION:	Adelaide St W	& Peter St				DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite
TCS:	270					CONTROLLER/CABINET TYPE:	Econolite ASC/3S-2100 / TS2T1
PREPARED/CHECKED BY:	Parsons / AD					CONFLICT FLASH:	Red & Red
PREPARATION DATE:	May 17, 2017					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at
-							1.2 m/s)
IMPLEMENTATION DATE:	June 14, 2017					CHANNEL/DROP:	4020/23
	1	-	1	1		CONTROLLER FIRMWARE:	2.47.10
		OFF All Other	AM 06:30-09:30	PM 15:30-18:30	NGHT 23:00-06:30	Phase Mode	
NEMA Phase		Times	M-F	M-F	daily	(Fixed/Demanded or	Remarks
	Local Plan System Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Callable)	
	Oysteni i lan	FIGILL	Fidil 2	Fiditio	Fiall 4		Pedestrian Minimums:
1	WLK						EWWK = 7 sec, EWFD = 15 sec
	MIN						NSWK = 7 Sec, NSFD = 13 Sec
NOTUSED	MAX1						
	AMB						
	SPLIT						
Adelaide St W	WLK 7						
	FDW 15						
	MIN 22 MAX1 46					Fixed	
	AMB 3						
	ALR 3	52	51	51	52		
	OI EII	52	51	51	JL		
3	WLK						
	MIN						
	MAX1						
	AMB ALR						
	SPLIT						
Peter St	WIK 7						
	FDW 13						
( <b>T</b> )	MIN 20					Fixed	
	AMB 4						
	ALR 2	20	20	20	20		
	SFLIT	20	29	29	20		
5	WLK						
	FDW						
NOTUSED	MAX1						
	AMB ALR						
	SPLIT						
Adelaide St	WIK 7						
	FDW 15						
( <> )	MIN 22					Fixed	
	AMB 3						
	ALR 3	50	54	E 4	50		
	SPLII	52	10	51	52		
7	WLK						
	FDW MIN						
NOTUSED	MAX1						
	AMB ALR						
	SPLIT						
8 Peter St	WIK 7						
	FDW 13						
	MIN 20					Fixed	
	AMB 4						
	ALR 2	00	00		00		
	SPLII	28	29	29	28		
	Cycle Length	80	80	80	80		
	Offset	9	9	69	9		

NOTES: Adelaide St one-way eastbound

LOCATION:	Spadina Ave	& Adelaide S	t W				DISTRICT:	Toronto and East York
MODE/COMMENT:	FXT - RLC						COMPUTER SYSTEM:	TransSuite
TCS:	274						CONTROLLER/CABINET TYPE:	Econolite ASC/3 - 2100 / TS2 T1
PREPARED/CHECKED BY:	CIMA+						CONFLICT FLASH:	Red & Red
PREPARATION DATE:	August 27, 20	)18					DESIGN WALK SPEED:	1.0 m/s(FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	August 27, 20	)18					CHANNEL/DROP:	5003/10
							CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	WKND	Phase Mode	
		All Other	06:30-09:30	15:30-18:30	22:00-06:00	10:00-19:00	(Fixed/Demanded or Callable)	
NEMA Phase	Local Plan	Pattern 1	Pattern 2	Pattern 3	Dally Pattern 4	Pattern 5	•	Remarks
	System Plan	Plan 1	Plan 2	Plan 3	Split 4	Split 5		
								Pedestrian Minimums:
	WLK						Callable/Extendable	NSWK = 7 sec, NSFD = 11 sec
	MIN 6						by stoppar loop	ISBLA fully protected 24 hours and extendable by local
	MAX1 7							detector.
	AMB 3							Fully Protected North/South Transit Bar (NSTB)
	ALR 3	12	13	12	12	13		callable by track switch interconnect.
Spadina Ave		12	10	12	12			Ring 1: 1 3 2 ^ 4
2	WLK 7							Ring 2: 6 ^ 8
	FDW 11 MIN 18							
	MAX1 20						Fixed	
	AMB 3							
	ALR 3	26	25	25	26	25		
	SFLIT	20	25	20	20	25		
3	WLK						Callable by	
	FDW MIN 5						track switch interconnect	
Transit Bar	MAX1 6							
	AMB 3							
	ALR 3	10	10	10	10	10		
Adelaide St. West	SPLII	12	12	12	12	12		
4	WLK 7							
	FDW 25							
	MIN 32 MAX1 33						Fixed	
	AMB 4							
	ALR 3							
	SPLIT	40	40	41	40	40		-
5	WLK							
	FDW							
	MIN MAX1							
	AMB							
	ALR							
Chading Ava	SPLIT							4
6 Spadina Ave	WLK 7							
	FDW 11							
	MIN 18						Fixed	
	AMB 3							
	ALR 3							
SB Straigh Thru Arrow	SPLIT	50	50	49	50	50		-
7	WLK							
	FDW		4					
	MIN							
NOTUSED	MAX1							
	ALR							
	SPLIT							4
Adelaide St. West								
8	WLK 7							
	FDW 25							
	MAX1 33						Fixed	
	AMB 4							
	ALR 3							
	SPLIT	40	40	41	40	40		4
	CI	۵O	۹O	۹O	90	90		
	OF	82	80	2	1	1		

NOTES: Equipped with Red light Camera Adelaide St one-way eastbound

LOCATION:	Adelaide St V	V & Brant St				DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite N
TCS:	1807					CONTROLLER/CABINET TYPE:	Econolite ASC/3S / TS2T1
PREPARED BY/DATE:	WSP / Febr	uary 4, 202	0			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Ameneh Dia	alameh / Fe	bruary 11,	2020		DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	February 24,	2020				CHANNEL/DROP:	4054/05
						CONTROLLER FIMWARE:	2.47.10
		OFF	AM	PM	NGHT		
		All Other	6:30-9:30	15:30-18:30	23:00-06:30	Phase Mode	
NEMA Phase		Times	M-F	M-F	daily	(Fixed/Demanded	Remarks
						/Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	-	
	WIK		Fidil Z	Fiditio			Pedestrian Minimums:
	FDW						FWWK = 7 sec. FWED = 8 sec.
	MIN						NSWK = 7 sec., NSFD = 12 sec.
NOTUSED	МАХ						
	AMB						
	ALR						
	SPLIT						
Adelaide St W	WLK 7						
2	FDW 8						
	MIN 15					Fixed	
	AMB 30					TIXEd	
	AIR 21						
	SPLIT	44	44	54	44		
	WLK						-
3	FDW						
	MIN						
NOT USED	MAX						
	AMB						
	ALR						
Drawt Ct	SPLII						
A Brant St	FDW 12						
	MIN 19						
	MAX1 19					Fixed	
	AMB 3.0						
	ALR 3.4						
	SPLIT	26	26	26	26		
	WLK			1			
5	FDW						
	MIN						
NOT USED							
	ALR		7/				
	SPLIT						
Adelaide St W	WLK 7						
6	FDW 8						
	MIN 15						
	MAX1 38					Fixed	
	AMB 3.0						
	ALR 2.1	4.4	14	54	4.4		
	SPLIT	44	44	54	44		-
7	FDW						
	MIN						
	мах						
NOTUSED	AMB						
	ALR						
	SPLIT						1
Brant St	WLK 7						
8	FDW 12						
	MIN 19					Fived	
	AMR 30						
	ALR 3.4						
	SPLIT	26	26	26	26		
	CL	70	70	80	70		
	OFF	43	40	40	43		<u> </u>

Notes: Adelaide St one-way eastbound

LOCATION:	Adelaide St W 8	Portland S	t			DISTRICT:	Toronto & East York
MODE/COMMENT: TCS:	SAP with WRM					COMPUTER SYSTEM:	TransSuite N Econolite ASC/3-2100/TS2T1
PREPARED/CHECKED	Parsons / AD					CONFLICT FLASH	Red & Red
PREPARATION DATE:	May 17, 2017					DESIGN WALK SPEED:	1.0 m/s(FDW based on full crossing @ 1.2m/sec)
IMPLEMENTATION DATE:	June 14, 2017					CHANNEL / DROP:	2070/27
						CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT		
NEMA Phase		All Other	06:30-09:30	15:30-18:30	23:00-06:30	Phase Mode (Fixed/Domanded or	Remarks
NEWATINGS	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Callable)	Remarks
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4		
1 NOT USED	WLK FDW MIN MAX 1 AMB ALR SPLIT						Pedestrian Minimums: EWWK = 7 sec., EWFD = 9 sec. NSWK = 7 sec., NSFD = 12 sec. NS phase is callable by vehicle or pedestrian actuation. If a vehicle and/or pedestrian call is received, the maximum NSG is served. The NSWK & NSFD are displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received.
2	WLK 7 FDW 9 MIN 16 MAX 1 38					Fixed	The signal constantly cycles through main street FDW to improve response to side street vehicle and pedetrian demand. Side street decision point is at the end of EWFD. EWFD reverts to EWWK if there is no side street demand at
	AMB 3						the end of EWFD.
	SPLIT	42	42	52	42		Side street passage time = 3 sec. Signal serves 10 seconds of NSWK (WLK MAX Value)
3 NOT USED	WLK FDW MIN MAX 1 AMB ALR SPLIT						during coordinated patterns.
4	WLK         7           WLK MAX         10           FDW         12           MIN         19           MAX 1         22           AMB         4           ALR         2           SPLIT	28	28	28	28	Callable by stopbar loop and/or pushbutton	
5 NOT USED	WLK FDW MIN MAX 1 AMB ALR SPLIT						
6	WLK         7           FDW         9           MIN         16           MAX 1         38           AMB         3           ALR         2           SPLIT	42	42	52	42	Fixed	
7 NOT USED	WLK FDW MIN MAX 1 AMB ALR SPLIT			5	0		
8 Portland St	WLK 7 WLK MAX 10 FDW 12 MIN 19 MAX 1 22 AMB 4 ALR 2 SPLIT	28	28	28	28	Callable by stopbar loop and/or pushbutton	
	CL	70	70	80	70		
	OF VP	11 9	16 9	30 9	25 9		
NOTES: Adelaide St is (	ne-way eastbound	3	3	3	3		1

LOCATION:	Bathurst	St & Ac	delaide St W					DISTRICT:	Toronto and East York
MODE/COMMENT:	SAP with	PR, 2-1	Wire Polara AP	S & TSP				COMPUTER SYSTEM:	TransSuite
TCS:	1883							CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED/CHECKED BY:	AD / DS	0040						CONFLICT FLASH:	
IMPLEMENTATION DATE:	June 12,	2018						CHANNEL/DROP:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
	ounc 20,	2010						CONTROLLER FIRMWARE:	3.018.1.2976
			OFF	AM	PM	NGHT	WKND		
			All Other	06:30-10:00	15:30-18:30	23:45-06:30	10:00-19:00	Phase Mode	
NEMA Phase			Times	M-F	M-F	Daily	Sat & Sun	(Fixed/Demanded or Callable)	Remarks
	Local Pla	an	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	- ,	
	Split Tab	le	Split 1	Split 2	Split 3	Split 4	Split 5		
									Pedestrian Minimums:
	WLK								NSWK = 7  sec, NSFD = 16  sec
	FDW	•						(Shared Left-Turn and Thru Lane)	EVVVVK = 7  sec, EVVFD = 19  sec
		6						POZ activated by Request Loop	EBBG & EWWK phase is callable by pedestrian and/or
		/ 2						FOZ activated by Request Loop	bicycle actuation. If a pedestrian call is received, the
		3 1						(Transit may extension of 8 secs.)	EWFD are only displayed on the pedestrian signal head
		1	11	11	11	11	11		if a pedestrian or bicycle call is received.
Bathurst St									SBLA phase only served following EBBG / EWWK
2	WIK	7						Fixed	phase.
	FDW	, 16							See back for TSP Instructions.
	MIN	23						POZ activated by Request Loop	*TSP disabled - TSP activation pending new firmwar
	MAX1	_0 26						,	testing & field validation
	AMB	3						(Transit max extension of 16 secs	
	ALR	3						in Green/Walk)	[Phase 4/8 SPLIT equal to pedestrian minimum (no extra
	SPLIT		31	45	35	31	31		Second).
									When activated by pushbutton, APS on during 7 secs of
3	WLK								EWWK and 7 secs of NSWK when no arrows are
	FDW								displayed.
	MIN								Extended Push Activation = 3 sec.
	MAX1								Phase Sequence:
	AMB								
	ALR								
	SPLIT								
Adelaide St W									
4	WLK	7						Callable by Pedestrian	• • •
	FDW	19						and/or Bicycle Pushbutton	Ring Structure:
	MIN	26							1 2 4
	MAX1	26							6 8
	AMB	3							:
(Cauth Cida Crossing)	ALR	5							
(South Side Crossing)	SPLII		34	34	34	34	34		-
_									
5									
	SPLIT								
Bathurst St									1
6	WLK	7						Fixed	
	FDW	16							
	MIN	23						POZ activated by Request Loop	
	MAX1	37							
$\setminus$ $\checkmark$ /	AMB	3						(Transit max extension of 16 secs	
	ALR	3						in Green/Walk)	
	SPLIT		42	56	46	42	42	·	_
7	WLK								
	FDW								
	MIN								
	MAX1								
	AMB								
	ALR								
A 1 1 1 1 A	SPLIT								4
Adelaide St W		-						Colleble by Dedectrics	
δ		1							
✓		19							
		20							
		25							
		3 5							
(North Side Crossing)		5	31	3/	3/	3/	3/		
	CL		76	90	80	76	76		
	OF		62	44	12	61	4		

Notes: Adelaide Street is a one-way street (EB). T-type Intersection with EB bicycle signals (no EB vehicle signals)

LOC	:	Bathu	ırst St	& Ade	laide S	st W							
MOD	DE:	SAP v	vith PF	R, 2-W	ire Pola	ara AP	S & T	SP					
TCS:		1883		Р	REPAF	RATIOI	N DAT	E (TIM	ING C	ARD):	June '	12, 20	)18
OFFS	SET CC	CORRECTION PARAMETERS											
													2.3.2 X
	2.3.4	0.C. E	xtend	/ Redu	ice	(Мах	. time add	led & sub	tracted in	sec.)	From	page 1	O.C.
			Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	[Cycle]	[Slop]	
	OFF										_		Pattern 1
	Split 1	Ext.	3	26				29			76	1	19
	Opint 1	Rdc.	1	0		0		2		1	10		[25 %]
	AM	_	-		-	_	_	-	-	-	_		P <u>attern</u> 2
	Split 2	Ext.	4	30				34			90	17	23
	Opin 2	Rdc.	1	16		0		16		1	50		[26 %]
	PM									-	-		P <u>attern</u> 3
	Split 3	Ext.	3	27				30			80	7	20
	Opin 0	Rdc.	1	6		0		6		1			[25 %]
	NGHT	-	-			-		-	_	-	_		Pattern 4
	Split 4	Ext.	3	26				29			76	1	19
	Opin 4	Rdc.	1	2		0		2		1	10	·	[25 %]
	WKN	)		-				-		-	-		Pattern 5
	Split 5	Ext.	3	26				29			76	1	19
		Rdc.	1	2		0		2		1	,,,		[25 %]

P. PARAMETERS				
		TSP RUN	<b>TSP RUN</b>	TSP RUN
PREPARED: AD / D	S	# 1	# 2	# 6
		SBLA	NB Thru	SB Thru
2.8.2 Transit Run Par	ameters			
ATC Green Extend M	lode	Mode 0	Mode 2	Mode 2
(Equivalent TTC Alg	orithm)	<b>B2 (</b> SDW)	A (WLK)	A (WLK)
2.8.3 Transit Action F	lan 1 (Used	for all Patter	ˈns)	
Run Enable (X = Yes	5)	X	Х	Х
Run Config = 1	Recovery	= 2 (O.C. wit	h delay)	
2.8.4 Transit Run Cor	figuration 1			
Delay / Extend / Fail		/ / 235	/ / 235	/ / 235
CALLS (and Extend	s)	Ø 1	Ø <b>2/6</b>	Ø <b>2/6</b>
Skips				
Reduces (Truncates	)			

# 2.8.6 TSP Split Tables 1, 2, 3, 4, 5\_\_\_

	Ø 1	Ø 2	Ø 3	Ø 4	Ø5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	+8				-			
GRN RDC (Reduction)						ŀ		
WLK EXT (Walk Extension)		+16		ł	ł	+16		



LOCATION: MODE/COMMENT: TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	King St W & Po SAP with TSP 1225 <i>Tony Zhao</i> September 5, 2 September 5, 2	ortland St & FXT by TOD 2019 2019	,	KING S	<u>ST PILOT F</u>	<u>PROJECT ·</u>	PLAN 1 DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: FIRMWARE VERSION:	Toronto & East York TransSuite Peek ATC 1000 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4026/21 3.018.2976		
NEMA Phase	OFF All Other Times		AM 06:45-09:30 M-F	AMI 09:30-15:45 M-F	PM 15:45-18:15 M-F	PMI 18:15-22:00 M-F	Phase Mode (Fixed/Demanded or Callable)	Remarks		
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5	-			
	WLK FDW MIN 6 MAX1 6 AMB 3 ALR 1 SPLIT	10	10	10	10	10	Fixed	Pedestrian Minimums: EWWK = 7 secs; EWFD = 13 secs NSWK = 7 secs; NSFD = 13 secs NS phase is callable by vehicle and/or pedestrian actuation. If a vehicle call and/or a pedestrian call is received, the pedestrian minimums will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received.		
2 King St W	WLK 7 FDW 13 MIN 20						Fixed EB VEH (O/L A) Parent PH's 1&2	Signal operates FXT plan on Pattern 2, 3, 4 & 5. 06:45-22:00, M- F. BLI on during FXT operation.		
	MAX1 28 AMB 3 ALR 2 SPLIT	33	38	38	38	38	POZ activated by Request Loop (Max extension of 30 secs in Green/Walk)	will backup through main street AMB and ALLR (in timer only) to serve the EWRAs (Phase 1 & 5). O/L A & B stays green. Turning Restrictions		
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							No EW through traffic at any time except TTC, Bicycle (Taxi         Allowed Between 10:00 PM to 5:00 AM) daily.         No EW left turns at any time. <b>RING STRUCTURE</b> 1       2         5       6         8         Phase Sequence		
4 Portland St	WLK 7 FDW 13 MIN 20 MAX1 21 AMB 4 ALR 2	27	27	27	27	27	Callable by Stopbar loop and/or Pushbutton; (Truncation allowable to ped min)	O/L B     O/L B       Ph 1 & 5     Ph 2 & 6       Ph 2 & 6     Ph 4 & 8		
5	WLK FDW MIN 6 MAX1 6 AMB 3 ALR 1						Fixed	reinstate on September 05, 2019		
6 King St W	SPLIT WLK 7 FDW 13 MIN 20 MAX1 28 AMB 3 ALR 2	10			10		Fixed WB VEH (O/L B) Parent PH's 5&6 POZ activated by Request Loop (Max extension of 30 secs in			
7 NOT USED	SPLIT WLK FDW MIN MAX1 AMB ALR SPLIT	33	38	38	38	38	Green/Walk)			
8 Portland St	WLK 7 FDW 13 MIN 20 MAX1 21 AMB 4 ALR 2 SPLIT	27	27	27	27	27	Callable by Stopbar loop and/or Pushbutton; (Truncation allowable to ped min)			
	CL OF	70 1	75 1	75 1	75 1	75 1				

NOTES:

LOC: King St W & Portland St				T.S.P. PARA	METERS		
<i>MODE:</i> SAP with TSP & FXT by TOD						TSP RUN	TSP RUN
<b>TCS:</b> 1225 <b>PREPARA</b>	TION DATE (TIMING CARD):	PREPARED:	Tony Zhao	# 2	# 6		
<b>OFFSET CORRECTION PARAMETERS</b>	3				EB Thru	WB Thru	
		2.8.2 Transit Run Parameters					
22400 Evtend / Peduce (44	no oddod 8 oubtroated in and )	_	<b>O.C</b> .		- Extand Mada	Mode 0	Mada
		From page	<u>)</u> <b>Three</b>	ATC Green			
	05 06 07 08	[Cycle] [S	Slopj Inres.	(Equivalen	t IIC Algorithm)	A	A
	20			283 Transit	t Action Plan 1 (Used	l for Patterns	1 & 3)
Split 1 Rdc 8 1	8 1	70	9 [43%]	Run Enable	e (X = Yes)	Х	X
AM, PM, AMI & PMI			Pattern 2	Run Config	g = 1 Recovery :	= 2 (O.C. with del	ay)
Split Ext 23	23	2.8.3 Transit Action Plan 2 (Used for Pattern 2)					
<sup>2,3,4,5</sup> Rdc 13 1	13 1	75	[40%]	Run Enable	e (X = Yes)	Х	X
				Run Config	g = 2 Recovery :	= 2 (O.C. with del	ay)
				2.8.3 Transit	t Action Plan 4 (Used	for Pattern	4)
				Run Enable	e (X = Yes)	X	X
Note: OC Threshold increased to reduce the	chance of OC EXT			Run Config	g = 4 Recovery :	= 2 (O.C. with del	ay)
(no coordination during plans 2-5; plan 1 only	coordinated to the north)	2.8.3 Transit Action Plan 5 (Used for Pattern 5)					
				Run Enable	e (X = Yes)	Х	X
				Run Config	g = 5 Recovery :	= 2 (O.C. with del	ay)
Input Script 2 "TSP26Timer"							
Blocks TSP2 and TSP 6 calls from transit	vehicles with a headway l	less than 90	sec.	2.8.4 Transi	t Run Configuration	1&3	0+/ /
To view current status of TSP inputs, go to	o screen 2.1.9.2 page 1 ai	nd press [C]		Delay / Ext	tend / Fail	0* / / 235	0*/ / 235
				CALLS (ar	nd Extends)	Ø 2/6	Ø 2/6
Input Script 3 "TCS1225FilterAY"				Reduces (	Truncates)	Ø 4/8	Ø 4/8
Script blocks out calls late in the cycle and	d adds a run delay	2.8.4 Transit Run Configuration 2					
to mitigate firmware issues in ATC-1000 V	ersion 3.18.1 (2976)			Delay / Ext	tend / Fail	6* / / 235	4* / / 235
Input Script 1				CALLS (ar	nd Extends)	Ø 2/6	Ø 2/6
SAP in CNA2	~ •   ~ •   ~ ·   ~ -			Reduces (	Iruncates)	Ø 4/8	Ø 4/8
	Ø2   Ø3   Ø4   Ø5	Ø6 Ø	07 08	2.8.4 Transi	t Run Configuration	4	0*/ / 005
2.8.6 ISP Split Tables: 1, 2, 3, 4 & 5				Delay / Ext	iend / Fail	3* / / 235	6° / / 235
GRN EXT (SDW Extension)				CALLS (ar	nd Extends)	Ø 2/6	Ø 2/6
GRN RDC (Reduction)	1		1	Reduces (	Truncates)	Ø 4/8	Ø 4/8
VVLK EXI (Walk Extension)	30	30		2.8.4 Transit	t Run Configuration	<b>5</b>	4* / / 005
				Delay / Ext	end / Fail	0^ / / 235	4" / / 235
				CALLS (ar	ia Extenas)	Ø 2/6	
						Ø 4/8	
				" Script "TCS1	i225FilterAY" adds an a	idditional 12 se	c delay to Run 2
				and an addit	lional 3 sec delay to Rur	10	
				TODU	1 # 6	Notoo	
		- A -		I SP KUN	V # O	INOTES:	



WB Thru SRM #1 Ch #2
				k	(ING ST P	ILOT PROJECT - PLAN 1	
LOCATION: MODE/COMMENT: TCS: PREPARED BY / DATE: CHECKED BY / DATE: IMPLEMENTATION DATE:	King St W & FXT with 2-w 273 RanaJamil Iff Hao Le / Jam	Spadina Ave <mark>ire Polara APS</mark> ikhar / Deceml uary 22, 2019 o	ber 12, 2018	BO Signs		DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL / DPOP:	Toronto & East York TransSuite N Peek ATC-1000 / TS2T1 A Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 5016/06
IMPLEMENTATION DATE:	March 5, 201	9				CHANNEL/DROP: CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGT	Phase Mode	
		All Other	06:30-09:30	15:00-19:00	23:00-6:30	(Fixed/Demanded or Callable)	
NEMA Phase		Times	M-F	M-F	Daily	-	Remarks
	Split Table	Split 1	Solit 2	Split 3	Split 4	-	
	WLK FDW MIN 6 MAX1 6					Fixed	Pedestrian Minimums: EWWK = 7 sec, EWFD = 27 sec NSWK = 7 sec, NSFD = 14 sec <b>Turning Restrictions</b> No SBUT at any time.
	AIVID 3 ALR 1						No SBLT at any time. No EW through traffic at any time except TTC & Bicycle (Taxi allowed
	SPLIT	6	6	6	6		between 10:00 PM to 5:00 AM) daily.
King St W							No EW left tuns at any time.
	WLK 7 FDW 27 MIN 34 MAX1 34 AMB 3					Fixed EB VEH (O/L A) Parent PH's 1&2	RING STRUCTURE       1     2     3     4     9       5     6     7     8   Phase Sequence
	ALR 5 SPLIT	34	34	34	34		
3	WLK FDW MIN 7 MAX1 7					NSTB (O/L D) Parent PH's 3&9 Mapped to LS15 & LS16	Ph 1 & 5 Ph 2 & 6 Ph 3 Ph 4 & 7 Ph 4 & 8 Ph 9 Signal operates FREE (Uncoordinated) at all times. Split values are used as green times for phases.
	AMB 3 ALR 3 SPLIT	7	7	7	7	Callable by NS turning streetcars via interrogator	NS Transit Bar Phase callable at two points within the cycle, however the phase can only be served once per cycle. Script #1 blocks calls for phase 9 during cycles where phase 3 is called.
4 Spadina Ave	WLK 7 FDW 14 MIN 21 MAX1 24 AMB 3 ALR 3 SPLIT	24	25	27	21	Fixed	APS on during full walk periods when activated by pushbuttons. Extended push activation = 3 sec. The north side pedestrian crossing has four APS PBs. Two located at each end of the crossing and two located midblock on either side of the TTC tracks. The APS PB in the NE corner and the one on the East side of the tracks are both programmed and wired as C1 due to the N2 mode limitations of having both the inhibit feature active and four APS PBs on the same channel. The APS PB on the West side of the tracks is programmed and wired as C2. The
5	WLK FDW MIN 6 MAX1 6 AMB 3 ALR 1 SPLIT	6	6	6	6	Fixed	APS PB in the NW corner is wired and programmed as C3. Scripts 1, 2, 3 & 4 are used for driving LBO signs for EBNT, WBNT, EBNL & WBNL. A load switch is not available for use to drive the LBO signs. However, the signs are on 24/7. Therefore, they are connected directly to the power source.
King St W							
	WLK         7           FDW         27           MIN         34           MAX1         34           AMB         3           ALR         5           SPLIT         5	34	34	34	34	Fixed WB VEH (O/L B) Parent PH's 5&6	
	WLK FDW MIN 6 MAX1 6 AMB 3 ALR 3 SPLIT	6	6	6	6	Callable/Extendable all times by stopbar loop Fully Protected	
8 Spadina Ave	WLK 7 FDW 14 MIN 21 MAX1 24			2		Fixed SB VEH (PH 8) NSTGA (O/L C)	
	AMB 3 ALR 3 SPLIT	24	25	27	21	(Parent PH 8) Mapped to LS13 & LS14	
9	WLK FDW MIN 7 MAX1 7 AMB 3					NSTB (O/L D) Parent PH's 3&9 Mapped to LS15 & LS16 Callable by NS turning	
	SPLIT	7	7	7	7	if phase 3 was not called	
	OF	FREE	FREE	FREE	FREE		

NOTES:

LOCATION:	Bathurst St	& Fort York B	Blvd				DISTRICT:	Toronto & East York
MODE/COMMENT: TCS: PREPARED By/ DATE: CHECKED BY / DATE:	SA2 with PR 1919 <i>Syed Qasim</i> Masoud Ran	, 2-Wire Pola <i>/ September</i> nezani	ra APS & *TS 25, 2019	P			COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED:	TransSuite Peek ATC-1000 / TS2T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 8, 2	019					CHANNEL/DROP: CONTROLLER FIRMWARE:	4019/27
NEMA Phase	Local Plan	OFF All Other Times Pattern 1	AM 06:30-09:30 M-F Pattern 2	PM 15:00-19:00 M-F Pattern 3	NGHT 23:00-06:30 Daily Pattern 4	WKND 10:00-19:00 Sat & Sun Pattern 5	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Split Table WLK FDW MIN 6 MAX1 8 AMB 3 ALR 1 SPLIT	Split 1		5piit 3	Split 4	Split 5	SBRA, SBG & SBLA Fixed	Pedestrian Minimums: NSWK = 7 sec., NSFD = 23 sec. <u>EWWK = 7 sec., EWFD = 14 sec.</u> <u>EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is 7 seconds. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum gree split. If a pedestrian call is received, the pedestrian minimums w</u>
2 Bathurst St	WLK 7 FDW 23 MIN 30 MAX1 33 AMB 3 ALR 4 SPLIT	39	49	45	51	59	Fixed POZ activated by Request Loop (Transit max extension of 16 secs in Green/SDW)	be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extensio time is based on vehicle demand. Unused extension time is give to the NSG. Side Street passage = 3 sec APS on during 7 secs of NSWK & 7 secs of EWWK when activated by pushbutton. Extended Push Activation = 3 secs Left-Turn Passage Time = 2 secs
3 NOT USED	WLK FDW MIN AMB ALR SPLIT							See back for TSP Instructions.         TSP remains disabled due to cancel loop issue at SRM         Ring Stracture:       1       2       3       4         5       6       7       8
4 Fort York Blvd	WLK 7 FDW 14 MIN 7 MAX1 33 AMB 4 ALR 3 SPLIT	41	41	43	29	41	Callable by stopbar loop and/or bicycle loop and/or pushbutton. Extendable by stopbar loop and/or bicycle loop. (Truncations Allowed to Pedestrian Minimum)	
5 NOT USED	WLK FDW MIN 6 MAX1 8 AMB 3 ALR 1 SPLIT			12		Ĉ		Overlap 1 is vehicle call overlap (parent phases 1 & 6)
6 Bathurst St	WLK 7 FDW 23 MIN 30 MAX1 33 AMB 3 ALR 4 SPLIT	39	49	45	51	59	Fixed POZ activated by Request Loop (Transit max extension of 16 secs in Green/SDW)	
7	WLK FDW MIN 6 MAX1 7 AMB 3 ALR 2 SPLIT	12	12	14		12	Callable/Extendable by 9m setback loop	
8 Fort York Blvd	WLK 7 FDW 14 MIN 7 MAX1 21 AMB 4 ALR 3 SPLIT	29	29	29	29	29	Callable by stopbar loop and/or bicycle loop and/or pushbutton. Extendable by stopbar loop and/or bicycle loop. (Truncations Allowed to Pedestrian Minimum)	
Vehicle call Overlap 1		K					(Parent Phases 1 and 6)	
	CL OF	80 10	90 3	100 23	80 74	100 58		

Notes: EBLA ALR interval has one sec added to accommodate bicycles.

LOC:		Bathurs	st St &	Fort Yo	ork Blv	d								T.S.P. PARAMETERS
MODE	:	SA2 wit	th PR, 2	2-Wire	Polara	APS &	*TSP							TSP RUN TSP RUN
TCS:		1919			PR	EPARA	TION D	DATE (TI	MING C	CARD):	Decen	nber 3	, 2018	PREPARED: AD / #2 #6
OFF	SET C	ORRE	CTION	I PAR	AMET	ERS								NB Thru SB Thru
													2.3.2 X	2.8.2 Transit Run Parameters
		~ ~ -				<i></i>				,			O.C.	
	2.3.4	0.C. EX	(tend /	Reduc	ce	(Max.	time add	led & sub	tracted in $\sim$ –	sec.)	<u>From</u>	page 1		ATC Green Extend Mode Mode U Mode U
			ØI	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø7	Ø 8	[Cycle]	[Slop]	]	(Equivalent FIC Algorithm) B2 B2
	OFF	1	1			1			1		1		Pattern 1	2.8.3 Transit Action Plan 1 (Used for all Patterns)
	Split 1	Ext.		<mark>34</mark>				<mark>34</mark>			80	4	12	Run Enable (X = Yes)   X   X
	- F	Rdc.		2		2		2	1	1			[15 %]	Run Config = 1     Recovery = 2 (O.C. with delay)
	AM										_		Pattern 2	2.8.4 Transit Run Configuration 1
	Colit O	Ext.		34				34			00	1.4	23	Delay / Extend / Fail 28 / / 235 26 / / 235
	Spiit 2	Rdc.		12		2		12	1	1	90	14	[26 %]	CALLS (and Extends) Ø 2/6 Ø 2/6
	PM		•					•					Pattern 3	Skips
		Ext.		38				38					25	Reduces (Truncates) Ø 4/8 Ø 4/8
	Split 3	Rdc.	1	8		4	1	8	3	1	100	13	[25 %]	
		Г		Ŭ				Ŭ	Ū				Pattern 4	
				30				30					20	
	Split 4	Ext.		14		1		14		1	80	15	[25 %]	286 TSP Split Tables 1 2 3 4 5
				14		I		14		I				
				20	1	1		20	<u> </u>		1		Pattern 5	
	Split 5	EXt.		30				30			100	24	[25 %]	GRN EXT (SDW Extension) +10 +10 +10
		Rdc.		22		2		22	1	1			[25 /0]	GRN RDC (Reduction)11
														WLK EXT (Walk Extension)  -
														2.1.9.2 Advanced IO Scripts
														Input script 2 TSPFilterA
														Blocks TSP Inputs 2 and 6 late in the cycle in unused time.

TSP RUN # 6 SB Thru



LOCATION:	Strachan Ave	e & East Libe	erty St / Ordna	ance St		DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with 2 W	/ire Polara Al	PS*			COMPUTER SYSTEM:	TransSuite
TCS:	2180					CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2 T1
PREPARED/CHECKED BY:	AR / IA					CONFLICT FLASH:	Red & Red
PREPARATION DATE:	January 22, 2	2018				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	April 9, 2018					CHANNEL/DROP:	4026/10
	-					CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	SPEC EVENT	Phase Mode	
		All Other	06:45-9:30	15:45-18:15	Times to be		Remarks
NEMA Phase		Times	M-F	M-F	determined	(Fixed/Demanded or Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4		
	Split Table	Split 1	Split 2	Split 3	Split 4		
1	WIK						Pedestrian Minimums: NSWK = 7 sec. NSED = 14 sec.
	FDW						EWWK = 7 sec, EWFD = 18 sec
	MIN						Activated APS on during FULL EW & NS Walk
	MAX1 AMB						periods when no arrow is displayed.
	ALR						
	SPLIT						
Strachan Ave							
	FDW 14					Fixed	
	MIN 21						
	MAX1 36						
	AIVIB 3 ALR 4						
	SPLIT	43	48	48	48		
2							
3							
	MIN						
	MAX1						
	SPLIT						
East Liberty St							
4	WLK /					Fixed	
	MIN 25					Tixeu	
< ~>/	MAX1 26						
	AMB 3						
	SPLIT	32	32	32	32		
-							]
5						Fixed	
	MIN 6					T IAEU	
	MAX1 7						
	AMB 3						
	SPLIT	11	11	16	11		
Strachan Ave							1
6	WLK 7					Fined	
	MIN 21					Fixed	
	MAX1 25			0			
	AMB 3						
	ALR 4 SPLIT	32	37	32	37		
							1
	MIN						
	MAX1						
	AMB						
	SPLIT						
Ordnance St							1
8	WLK 7					<b>F</b> irm -1	
	FDVV 18 MIN 25	-				Fixed	
	MAX1 26						
	AMB 3						
	ALR 3	32	32	32	30		
		32	52	52	52		1
	CL	75	80	80	80		
	OF	1	49	44	19		
				V.			

Notes: The AM, PM and Special Event Plan favour progression for NB traffic.

LOCATION:	Dufferin St	& Liberty St	/ Private Acc	ess				DISTRICT:	Toronto & East York
MODE/COMMENT:	SAP with PI	R & TSP						COMPUTER SYSTEM:	TransSuite
TCS:	1449							CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED/CHECKED BY:	BF							CONFLICT FLASH:	Red & Red
PREPARATION DATE:	August 6, 2	019						DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	August 6, 2	019						CHANNEL/DROP	4007/19
	August 0, 2	010						CONTROLLER/FIRMWARE	3 018 1 2076
		OFF	AM	PM	NGHT	WKND	Event	Phase Mode	Remarks
		All Other	06:30-09:30	15:00-19:00	23:00-06:30	10:00-19:00		(Fixed/Demanded or	Nenia K5
NEMA Phase		Times	M-F	M-F	Daily	Sat/Sun		Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	-	
	Split Table	Split I	Split 2	Split 3	Split 4	Split 5	Split 6		Pedestrian Minimums:
1	WLK								NSWK = 7 sec, NSFD = 11 sec
	FDW								EWWK = 7 sec, EWFD = 11 sec
( NOT USED )	MIN MAX1								Every phase is callable by vehicle and/or pedestrian
	AMB								received, the maximum EWG is served. The
	ALR								EWWK & EWFD are displayed on the pedestrian
	SPLIT								signal heads if a vehicle and/or pedestrian call is
2 Dufferin St	WIK 7							Fixed	Side Street Passage Time = 3 sec
	FDW 11								See back for TSP instructions
	MIN 18							POZ activated by	TSP enabled on May 22, 2015
	MAX1 47							Request Loop	Script #2 is used to mitigate issues with TSP
	AIVIB 4 ALR 2							Green/WLK)	3.018.1.2976
	SPLIT	52	52	40	40	53	42		Script #1 is revised to eliminate the extended
									Walk on Phase 4 and 8 for all times.
3									
	MIN								
	MAX1								
	AMB								
	ALK SPLIT								
Private Access									-
4	WLK 7							Callable by Traficam	
	FDW 11							& pushbutton.	
	MAX1 18							Extendable by Trancam.	
	AMB 3							(Truncations allowed to	
	ALR 2			10				pedestrian minimum)	
	SPLIT	24	28	40	24	27	28		-
5	WLK								
	FDW								
( NOT USED )	MIN MAX1								
	AMB								
	ALR					P			
	SPLIT								4
6 Dutterin St	WLK 7							Fixed	
	FDW 11							, Mod	
	MIN 18							POZ activated by	
	MAX1 47							Request Loop	
	ALR 2							Green/WLK)	
	SPLIT	52	52	40	40	53	42		
7									
	FDW								
	MIN								
NOTUSED	MAX1								
	SPLIT								
Liberty St									]
8	WLK 7							Callable by Traficam	
	MIN 18							Extendable by Traficam	
	MAX1 18								
	AMB 3							(Truncations allowed to	
	ALK 2	24	28	40	24	27	28	pedestrian minimum)	
		24	20	40	24	21	20		1
	CL	76	80	80	64	80	70		
		39	74	79	16		1		

LOC:	Duffer	in St &	Liberty	St									T.S.	P. PARAMETERS		
MODE:	SAP w	ith WR	M & TS	P											TSP RUN	TSP RUN
TCS:	1449			PF	REPARA	ATION E	DATE (T	IMING	CARD):	March 28	, 2018			PREPARED: BF	# 2	# 6
OFFSE	T COF	RREC	FION I	PARA	METE	RS									NB Thru	SB Thru
												2.3.2.x		2.8.2 Transit Run Parameters	5	
2.3.4	0.C. E	xtend	/ Redu	ice	(Max	. time add	ded & sub	tracted in	n sec.)	From	page 1	O.C.		ATC Green Extend Mode	Mode 2	Mode 2
		Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	[Cycle]	[Slop]	Thres.		(Equivalent TTC Algorithm)	А	А
OFF										-		Pattern 1		2.8.3 Transit Action Plan 1 (U	sed for Patte	rns 1, 4, 5 8
Split 1	Ext.		23				23			76	28	<b>30</b> s		Run Enable (X = Yes)	Х	Х
Split I	Rdc.		28				28			10	20	[39 %]		Run Config = 1 Recovery	$\prime = 2$ (O.C. with d	elay)
AM										_		Pattern 2		2.8.3 Transit Action Plan 2 (U	sed for Patte	rn 2)
Split 2	Ext.		25		1		25			80	28	<b>30</b> s		Run Enable (X = Yes)	Х	Х
Opin 2	Rdc.		28		1		28			00	20	[38 %]		Run Config = 2 Recovery	r = 2 (O.C. with d	elay)
PM										_		Pattern 3		2.8.3 Transit Action Plan 3 (U	sed for Patte	rn 3)
Split 3	Ext.		5		25		5		25	80	18	<b>20</b> s		Run Enable (X = Yes)	Х	Х
Opin 0	Rdc.		18				18			00	10	[25 %]		Run Config = <b>3</b> Recovery	y = 2 (O.C. with d	elay)
NGT										_		Pattern 4		2.8.4 Transit Run Configurati	on 1	
Split 4	Ext.		17				17			64	16	<b>30</b> s		Delay / Extend / Fail	3 / / 235	1 / / 235
Opin 4	Rdc.		16				16				10	[47 %]		CALLS (and Extends)	Ø 2/6	Ø 2/6
WKN	D											Pattern 5		Skips		
Split 5	Ext.		25				25			80	29	<b>30</b> s		Reduces (Truncates)	Ø 4/8	Ø 4/8
opiir o	Rdc.		29				29			00	20	[38 %]		2.8.4 Transit Run Configurati	on 2	
Even	t				-			•		_		Pattern 6		Delay / Extend / Fail	5 / / 235	2/ / 235
Split 6	Ext.		20				20			70	18	<b>30</b> s		CALLS (and Extends)	Ø 2/6	Ø 2/6
OpintO	Rdc.		18				18			10	10	[43 %]		Skips		
	Per TT	C's req	uest, e	xtensio	n times	s for PN	/l plan a	are cha	nged.					Reduces (Truncates)	Ø 4/8	Ø 4/8
Note: In	response	to observ	ation, Ph	ase 4/8 C	DC Rdc. I	not permi	tted and C	DC Ext ad	dded to pa	ase 4/8 during	g pattern 3.			2.8.4 Transit Run Configurati	on 3	
C	C Thresh	holds hav	/e been in	creased	to mitigat	ed side s	treet impa	acts. OC	Ext value	s have been a	adjusted ac	cordingly.		Delay / Extend / Fail	* / / 235	1 / / 235

## 2.1.9.2 Advanced I/O Scripts

Input Script 2 "TCS1449TSPFilter"

Blocks TSP inputs 2 & 6 during phase 4/8 Amb & AllR, and during unused time served in phase 2/6 late in the cycle, to mitigate firmware issues with ATC-1000 Build 3.018.1.2976. The script also acolies a 40 seconds delay to TSP input 2 during Pattern 3 (PM).

*40 seconds NB delay provided by script 2 Elapsed time													
	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8					
2.8.6 TSP Split Tables: 1 & 4													
GRN EXT (SDW Extension)													
GRN RDC (Reduction)				-1				-1					
WLK EXT (Walk Extension)		+30				+30							

Ø 2/6

----

Ø **4/8** 

Ø 2/6

--

Ø 4/8

## 2.8.6 TSP Split Tables: 2 & 6

CALLS (and Extends)

**Reduces (Truncates)** 

Skips

GRN EXT (SDW Extension)	ŀ		 			 
GRN RDC (Reduction)	ŀ		 -5	-		 -5
WLK EXT (Walk Extension)	-	+30	 	1	+30	 

## 2.8.6 TSP Split Tables: 3

2.0.0 13F	Split Tables. 5					
GRN E>	(T (SDW Extension)	 	 	1		 -
GRN R	DC (Reduction)	 	 -15			 -15
WLK EX	T (Walk Extension)	 +30	 	-	+30	 1



LOCATION:	Sherbourne	St & Adelai	de St E			DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite N
TCS:	255					CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2T1
PREPARED BY/DATE:	Petr Emelia	nov / July 8,	, 2019			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Hao Le / Oc	t 1. 2019				DESIGN WALK SPEED:	1.0m/s (FDW based on full crossing @ 1.2m/s)
IMPLEMENTATION DATE:	October 9. 2	2019				CHANNEL/DROP:	4003/14
	· · · · · · · · · · · · · · · · · · ·					CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT		
NEMA Phase		All Other	06:30-09:30	15:30-18:30	23:00-06:30	Phase Mode	Remarks
	Local Plan	Dattern 1	M-F Dattern 2	M-F Pattern 3	Dattern /	(Fixed/Demanded	
	Split Table	Split 1	Split 2	Split 3	Split 4	or Gallable)	
							Pedestrian Minimums:
1	WLK						NSWK = 7 sec, NSFD = 14 sec
	MIN						EWWK = 7 sec, EWFD = 13 sec Gardiner Rehabilitation signal timings
(NOT USED)	MAX1						Section1. 2019-2020
	AMB						
	ALR SPLIT						
Sherbourne St							
2	WLK 7						
	FDVV 14 MIN 21					Fixed	
	MAX1 24						
	AMB 4						
	ALR 2	30	34	34	30		
	SPLIT	30	- 34	34	30		
3	WLK						
	FDW						
NOT USED	MAX1						
	AMB						
	ALR						
Adelaide St E	SPLII						
4	WLK 7						
<	FDW 13					Fixed	
	MIN 20 MAX1 49						
	AMB 3						
	ALR 2	54	50	50	45		
	SPLIT	54	56	56	45		
5	WLK						
	FDW						
NOT USED	MAX1						
	AMB						
	ALR						
Sherhourne St	SPLII						4
6	WLK 7						
	FDW 14					Fixed	
	MIN 21 MAX1 24						
$\setminus \forall \vee$	AMB 4						
	ALR 2			0.1			
	SPLII	30	34	34	30		4
7	WLK						
	FDW						
( NOT USED	MIN MAX1						
	AMB		2				
	ALR						
	SPLIT						4
8	WLK 7						
	FDW 13						
( NOT USED )	MIN 20						
	AMB 3						
	ALR 2						
	SPLIT	54	56	56	45		4
	CL	84	90	90	75		
	OF	73	74	77	43		

NOTES: Adelaide St One-way eastbound





LOCATION:	Sherbourne	St & Shuter	St		DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with TS	P∗			COMPUTER SYSTEM:	TransSuite N
TCS:	319				CONTROLLER/CABINET TYPE:	Peek ATC 1000 / TS2 T1
PREPARED/CHECKED BY:	AD/HL/DS				CONFLICT FLASH:	Red & Red
PREPARATION DATE:	October 20, 2	2016			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	December 13	3, 2016			CHANNEL/DROP:	4040/1
					CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	Phase Mode	
		All Other	06:30-09:30	15:30-18:30	(Fixed/Demanded or	Remarks
NEMA Phase		Times	M-F	M-F	Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3		
	Split Table	Split 1	Split 2	Split 3		Dedectrion Minimumor
1	WLK					NSWK = 7 sec. NSFD = 13 sec
	FDW					EWWK = 7 sec, EWFD = 11 sec
( NOT USED	MIN					See back for TSP Instructions.
	MAX1 AMB					ISP disabled - ISP activation pending new firmware testing & field validation
	ALR					
	SPLIT					
2 Sherbourne St	WIK 7					
	FDW 13				Fixed	
	MIN 20				POZ activated by	
	MAX1 33				Request Loop	
	ALR 2				(max extension of 30 secs in	
<u> </u>	SPLIT	39	38	38	Green/Walk)	
	WI K					
	FDW					
	MIN					
NOT USED	MAX1					
	SPLIT					
Shuter St						
4	WLK 7				Fixed	
	MIN 18				Fixed	
( <> )	MAX1 30				(truncations allowable to	
	AMB 4				pedestrian minimum)	
	SPLIT	36	42	42		
5	WLK					
	FDVV					
NOT USED	MAX1					
	AMB					
	ALR SPL IT					
Sherbourne St		1/				1
6	WLK 7					
	FDW 13				Fixed	
	MAX1 33	-			Request Loop	
	AMB 4				(max extension of 30 secs in	
	ALR 2	20	27	27	Green/Walk)	
	JELII	39	31	37		1
7	WLK					
	FDW					
NOT USED	MAX1	<b>D</b>				
	AMB					
	ALR					
Shutar St	SPLIT					4
8 Siluler St	WLK 7					
	FDW 11				Fixed	
	MIN 18				(house of the second second second second	
	$\frac{1}{1}$ AMB $\frac{1}{2}$				(truncations allowable to	
	ALR 2				poucoulari minimum	
	SPLIT	36	42	42		4
	CI	75	00	- 00		
	OF	/5 15	80	80 31		
		10	29	- 31		
	1		L		1	l



LOCATION:	Gerrard St E	& Pape Ave					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with TSF						COMPUTER SYSTEM:	TransSuite
TCS:	371						CONTROLLER/CABINET TYPE:	Peek ATC 1000 / TS2 T1
PREPARED BY / DATE:	Alvin Luk / D	ecember 17,	2019				CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Ameneh Dial	ameh / Janua	arv 21. 2020				DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing at 1.1 m/s)
IMPLEMENTATION DATE:	February 19,	2020	•				CHANNEL/DROP:	4022/15
	•						CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT	WKND	Phase Mode	
		All Other	06:30-09:30	15:45-18:30	23:00-06:30	10:00-19:00	(Fixed/Demanded or Callable)	Remarks
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun		
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5		
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums:
1	WLK							EWWK = 8 sec, EWFD = 13 sec
	FDW							NSWK = 8 sec, NSFD = 15 sec
NOT USED	MIN MAX1							*See back for TSP Instructions.
	AMB							EB & WB 13F enabled on September 12, 2018.
	ALR							
	SPLIT							
2	WLK 8							
	FDW 13						Fixed	
	MIN 21						POZ activated by	
	AMB 3.0						Request Loop	
	ALR 2.5						(max extension of 30 secs in	
	SPLIT	30	40	40	30	40	Green/waik)	
3	WIK							
	FDW							
	MIN							
	ALR							
	SPLIT							
Pape Ave							Fixed	
	FDW 15						Fixed	
	MIN 23							
	MAX1 23							
• •	AMB $3.0$							
	SPLIT	30	30	30	30	30		
E								
5								
	MIN			2				
	MAX1							
	SPLIT							
Gerrard St E								
6	WLK 8 FDW 13						Fixed	
	MIN 21						POZ activated by	
	MAX1 24						Request Loop	
	AMB 3.0						(max extension of 30 secs in	
	SPLIT	30	40	40	30	40	Green/Walk)	
7								
	MIN							
NOTUSED	MAX1							
	SPLIT							
Pape Ave								]
8	WLK 8						Fixed	
	MIN 23							
	MAX1 23							
	AMB 3.0							
	SPLIT	30	30	30	30	30		
		00						1
	CL	60	70	70	60	70		
	OF	38	25	25	18	42		
							1	

LOC:	Gerrard St a	& Pape A	ve									T.S.P. PARAMETERS						
MODE:	FXT with TS	SP											TSP RU	JN TSP	RUN			
TCS:	371		PF	REPARA	TION D	ATE (TI	MING C	CARD):	Decemb	er 17, 201	9	<i>prepared:</i> AL / AD	# 2	#	6			
OFFSE	T CORRE	CTION	PARA	METE	RS	· ·							FB Th	u WB	Thru			
											2.3.2.x	2.8.2 Transit Run Parameters		<u> </u>				
											0.0							
2.3.4	O.C. Exten	d / Red	uce	(Max.	time add	ed & subt	tracted in	sec.)	From	page 1	0.0.	ATC Green Extend Mode	Mode	2 Mo	de 2			
	Ø	Ø 2	Ø 3	Ø4	Ø 5	Ø 6	Ø 7	Ø 8	[Cycle]	[Slop]	Thres.	(Equivalent TTC Algorithm)	A		A			
OFF											Pattern 1	2.8.3 Transit Action Plan 1 (Us	sed for a	I Patterns	5)			
Split 1	Ext	12		11		12		11	60	3	<b>12</b> s	Run Enable (X = Yes)	Х		Х			
Opint	Rdc	3				3			00	Ŭ	[20 %]	Run Config = 1Recovery	= 2 (O.C. v	vith delay)				
AM											Pattern 2	2.8.4 Transit Run Configuration	on 1					
Split 2	Ext	13		13		13		13	70	0	<b>18</b> s	Delay / Extend / Fail	/ / 2	.35 /	/ 235			
Spiit 2	Rdc	9				9			70	9	[26 %]	CALLS (and Extends)	Ø 2/6	Ø	2/6			
PM											Pattern 3	Skips	-					
Split 3	Ext	13		13		13		13	70	0	<b>18</b> s	Reduces (Truncates)	H					
Spiit S	Rdc	9				9			70	9	[26 %]							
NIGH	Т										Pattern 1		Ø1 Ø	ð 2 Ø 3	Ø4	Ø5 Ø0	6 Ø 7	Ø 8
Split 4	Ext	12		11		12		11	60	3	<b>12</b> s	2.8.6 TSP Split Tables: 1,2,3,4	& 5					
Opin 4	Rdc	3				3			00	J	[20 %]	GRN EXT (SDW Extension)						
WKN	D										Pattern 5	GRN RDC (Reduction)						
Split 5	Ext	13		13		13		13	70	q	<b>18</b> s	WLK EXT (Walk Extension)	(	30		30		
Opinto	Rdc	9				9			10	Ŭ	[26 %]							
Patter	n 1 and 4 OC	C Thres s	et to 3x	OC Rd	lc due te	o limited	d slop. (	Controll	er could	take up to	53							
cycles	to get back	n sync fr	om -TS	P Reco	overy.													
OC P	arameters mo	odified to	emulat	e MTSS	S with F	XT ope	ration.											
												TSP RUN # 6	N	otes:				
												WB Thru	Tr	uncation of	Phases	4 and 8 per	mitted to th	e
										1		SRM #1 Ch #2	pe	destrian mi	nimum,	but there is	currently n	0
												TSP Input 6	slo	op available	).		-	
												BIU #3 PIN #12a						
									1									
~																		
Gerra	ra St									$\searrow$			-					
		100 י	n															
<		1001			$\rightarrow$													
											_							
											< ─	115 m						
										-			.					
										1								



LOCATION: MODE/COMMENT: TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	Gerrard St FXT with Fi 372 <i>CIMA</i> + July 31, 20 <sup>0</sup> August 8, 2	E & Carla irehall Pre 18 018	w Ave e-emption (E	BLA) & TSF	<b>)</b> *		DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Toronto & East York N TransSuite N Peek ATC 1000 / TS2 T1 1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4022/16 3.018.1.2976
NEMA Phase		OFF All Other Times	AM 06:30-09:30 M-F	PM 15:00- 19:00 M-F	NGHT 23:00- 06:30 Daily	WKND 09:00-21:00 Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
1 NOT USED	Local Plan Split Table WLK FDW MIN MAX1 AMB ALR	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5		Pedestrian Minimums: EWWK = 7 secs; EWFD = 15 secs NSWK = 7 secs; NSFD = 15 secs Firehall Preemption Instructions: • If preemption is received in phase 2/6: Time to Preemption Sequence = 0 - 28 secs • If preemption is received in phase 4/7/8:
2 Gerrard St E	SPLIT WLK 7 FDW 15 MIN 22 MAX1 25 AMB 3 ALR 3 SPLIT	31	38	30	31	35	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	Time to Preemption Sequence = 0 - 28 secs • Signals go to All Red display before going into preemption Sequence: Serve 60.0 seconds EBLA/EBG/EWDW Serve 4.0 seconds EBY/EWDW Serve 2.0 second of ALLR Return to normal operation in EWG/EWWK. *See back for TSP Instructions.
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						64	TSP disabled - TSP activation pending new firmware testing & field validation.
4 Carlaw Ave	WLK 7 FDW 15 MIN 22 MAX1 23 AMB 4 ALR 2 SPLIT	29	32	40	29	35	Fixed (truncations allowable to pedestrian minimum)	
5	WLK FDW MIN MAX1 AMB ALR SPLIT				2	2	Only Displayed during Firehall Preemption	
6 Gerard St E	WLK 7 FDW 15 MIN 22 MAX1 25 AMB 3 ALR 3 SPLIT	31	38	30	31	35	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
	WLK FDW MIN 6 MAX1 6 AMB 3 ALR 1 SPLIT		8	11			Demanded	
8 Carlaw Ave	WLK 7 FDW 15 MIN 22 MAX1 23 AMB 4 ALR 2 SPLIT	29	32	29	29	35	Fixed (truncations allowable to pedestrian minimum)	
NOTES:	CL OF	60 20	70 43	70 7	60 38	70 60		

LOC:	Gerrard	St E & (	Carlaw	Ave										FTERS								
MODE:	FXT with	n Firehal	l Pre-e	motio	n (FBI	A) & T	SP								TSP	RUN	TSP	RUN				
TCS:	372	i i i i i i i i i i	11100	PR	REPARA		ATE (T	IMING (	CARD):	July 31.	2018		PREPARED:	CIMA+	#	2	#	6				
OFFSF	TCOR	RECTIO			MFTF	RS			,						FB -	Thru	WB.	Thru				
												2.3.2.x	2.8.2 Transit R	Run Parameters								
												0.C.	170.0									
2.3.4	0.C. Ex	tend / F	Reduc	e a	(Max.	time add	led & sub	tracted in	n sec.)	From	page 1	_	ATC Green E	Extend Mode	Mod	de 2	Mod	de 2				
055	L	Ø1 0	02	Ø3	Ø4	Ø5	Ø6	67	Ø8	[Cycle]	[Slop]	Thres.	(Equivalent I	TC Algorithm)	/	4 	F	4				
OFF	E		44		44		44		44	1		Pattern 1	2.8.3 Transit A	Action Plan 1 (Us	sed to		atterns	)				
Split 1	EXt.		2		1		2		1	60	4	13 S	Run Config		- 2 (0)	A	7					
0.14	Ruc.		3				3		I			[20 /0]	2 9 4 Transit E		= 2 (0.)	C. with de	elay)					
Aivi	Evt		13		13		13		13	1		Pattern 2	2.0.4 Mansh P	d / Fail	/	/ 235		/ 235				
Split 2	Rdc		10		4		10		4	70	14	[25 %]	CALLS (and	Extends)	ø	2/6	Ø	2/6				
PM	Ruo.		10		т		10		т			Pattern 3	Skips	Extends				-				
	Ext.		13		13		13		13			18 s	Reduces (Tr	uncates)	ø	4/8	Ø	4/8				
Split 3	Rdc.		2		1		2		1	70	3	[25 %]		,			~					
NGH	Т											Pattern 4			Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
Calls 4	Ext.		11		11		11		11	60		<b>15</b> s	2.8.6 TSP Spli	t Tables: 1 & 4								
Split 4	Rdc.		3		1		3		1	60	4	[25 %]	GRN EXT (SI	DW Extension)								
WKE	ND					•						Pattern 5	GRN RDC (R	eduction)				-1				-1
Colit F	Ext.		13		13		13		13	70	14	<b>18</b> s	WLK EXT (W	alk Extension)	<b>/</b>	30				30		
Split 5	Rdc.		7		7		7		7	10	14	[25 %]	2.8.6 TSP Spli	t Tables: 2								
													GRN EXT (SI	DW Extension)								
													GRN RDC (R	eduction)				-4				-4
													WLK EXT (W	alk Extension)		30				30		
													2.8.6 TSP Spli	t Tables: 3								
													GRN EXT (SI	DW Extension)								
													GRN RDC (R	eduction)				-2				-2
													WLK EXT (W	alk Extension)		30				30		
													2.8.6 TSP Spli	t Tables: 5								
													GRN EXT (SI	DW Extension)								
													GRN RDC (R	leduction)				-3				-3
													WLK EXT (W	(alk Extension)		30				30		
											X											
							Ave															
							N H						TSP RUN #	6	[	Notes						
							arla						WB Thru	Ŭ		NOICS	-					
							ö						SRM #1 Ch #	2								
													TSP Input 6	2								
													BIU #3 PIN #1	2a								
Gerra	rd St E										1											
											$\mathbf{\underline{\vee}}$			)								
		<		xxx n	n		→															
							_															
		)						)			←		<b>,</b>	•								
		)						)			1		xxx m	I								
								$\sum $			(											
				Y				4			•											
			TSP	RUN	# 2	1																
			EE	3 Thru	u																	
			SRM	#1 Ch	h #1	1										ATC N	lode	0	2	3		4
			TSF	P Input	t 2											TTC A	lgor'm	B-2	A	Č		D
			BIU #3	B PIN :	#10a											Extens	sions	SDW	Walk	W/SI	w	W/SDW
						-										TSP	SUMN	<b>IARY</b>				
														TSP Loop Leg	end	EW:	30 sec	s EWG	/EWWł	< Max E	xtensio	ons
Ņ	Sch	ematic	of TSI	P Loo	ps									Request (1	Thru)	NS:	Trunca	te to pe	edestria	n minim	um	
T T	an	d TSP F	Runs (	N.T.S	S)						1			ZZ Cancel (Th	nru)							
1																1						

TCS:	Lower Jarvis St &	The Esplar	nade					DISTRICT:	Toronto & East York
	SAP with PR, 2 w	ire Polara A	PS- RLC NB	and LPI				COMPUTER SYSTEM:	TransSuite
MODE / COMMENT:	1392			CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2 T1				
PREPARED BY / DATE:	CIMA+ / Octobe	er 23, 2019		CONFLICT FLASH:	Red & Red				
CHECKED BY / DATE:	November 6 2010	n / Tony Zna a	40					DESIGN WALK SPEED: CHANNEL /DROP:	0.9 m/s (FDW based on full crossing @ 1.1 m/s
IMPLEMENTATION DATE.	November 0, 2013	,						CONTROLLER FIRMWARE	4024/7 ::2 47 10
		OFF	AM	PM	NGHT	WKND	GARDINER	Phase Mode	
		All Other	06.30-00.30	15-30-18-30	23.00-06.30	10.00-10.00	(times to be	(Fixed/Demanded or	
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	determined)	Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 16		
									Pedestrian Minimums:
	FDW								NSWK = 8  sec, NSFD = 11  sec. EWWK = 8 sec, EWFD = 14 sec.
NOT USED	MIN								EWG phase is callable by vehicle and/or pedestria
	MAX1								actuation. If a vehicle and/or pedestrian call is
	ALR								EWWK & EWFD are displayed on the pedestrian
	SPLIT								signal heads if a vehicle and/or pedestrian call is
2 Lower Jarvis St	WIK 8							Fixed	Side street passage = 3 sec
	FDW 11							TIXED	Walk Max for phases 4 & 8 is the EWWK time.
	MIN 19								APS on during 7 seconds of EWWK & NSWK whe
	MAX1 39 AMB 3.0								Extended Push Activation = 3 sec.
	ALR 2.6								EW Leading Pedestrian Interval - EWWK comes u
	SPLIT	44	49	49	44	44	44		5 seconds before EW vehicle green.
3	WIK								
	FDW								
NOT USED	MIN	1							
	AMB								
	ALR								
	SPLIT	ļ							4
The Esplanade	DLY GRN 5							Callable by Stoppar Loop	
4	WLK MAX 8							and/or Push Button.	
	FDW 14								
	MIN 17							Split shown includes 5 sec of	
	AMB 3.0							EW LPI	
$\checkmark$	ALR 2.9						A		
	SPLIT	31	31	31	31	31	31		4
5	WLK								
	FDW								
NOT USED	MIN								
	MAX1 AMB								
	ALR								
<u> </u>	SPLIT								
Lower Jarvis St								Fixed	
	FDW 11								
	MIN 19								
	MAX1 39								
♥ ▼	AMB 3.0								
	SPLIT	44	49	49	44	44	44		
,									
'	FDW						X		
NOT USED	MIN								
	MAX1								
$\sim$	AIVIB					6-	-		
<u> </u>	SPLIT								ļ
The Esplanade	DLY GRN 5							Colloble by Sterber Lee	
• < >	WLK MAX 8							callable by Stopbar Loop and/or Push Button	
>	FDW 14							ana or r uon Dutton.	
	MIN 17							Split shown includes 5 sec of	
	AMB 3.0								
$\smile$	ALR 2.9								
	SPLIT	31	31	31	31	31	31		4
	CL	75	80	80	75	75	75		
	OF	31	64	59	31	31	38		
	IVE	11	11	11	13	13	11		1

LOCATION:	Lower Sherb	ourne St & Th	e Esplanade		DISTRICT:	Toronto & East York	N
MODE/COMMENT:	FXT with 2-W	/ire Polara AP	S & TSP*		COMPUTER SYSTEM:	TransSuite	
TCS:	1441				CONTROLLER/CABINET TYPE:	Peek ATC - 1000 / TS2 T1	Ţ
PREPARED/CHECKED BY:	BA/HL				CONFLICT FLASH:	Red & Red	I
PREPARATION DATE:	July 24, 2018	8			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing	at 1.2 m/s)
IMPLEMENTATION DATE:	August 1 20	18			CHANNEL/DROP:	4047/3	
		-			CONTROLLER FIRMWARE:	3.018.1.2976	
		OFF	AM	PM	Phase Mode		
NEMA Phase		All Other Times	06:45-09:30 M-F	15:30-18:15 M-F	(Fixed/Demanded or Callable)	Remarks	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	1		
	Split Table	Split 1	Split 2	Split 3		Pedestrian Minimums:	
1	WLK					NSWK = 7 sec, NSFD = 11 sec	
	FDW					EWWK = 7 sec, EWFD = 13 sec	
( NOT USED )	MIN					APS on full EWWK & NSWK when activ	vated by push
	MAX1					buttons.	
	ALR					*See back for TSP instructions	
	SPLIT					TSP enabled on March 29, 2017	
Lower Sherbourne St							
2	WLK 7						
	FDW 11				Fixed		
	MIN 18						
	AMR 3						
	ALR 2						
	SPLIT	34	44	44			
3	WLK						
	FDW						
( NOT USED )	MIN MAX1						
	AMB						
	ALR						
	SPLIT					-	
The Esplanade							
4	FDW 13				Fixed		
	MIN 20				POZ activated by Request Loop		
	MAX1 20				(Max extension of 16 secs in		
	AMB 3				Green/Solid Don't Walk)		
	ALR 3	00	00	00			
	SPLIT	20	20	20		-	
5	WLK						
	FDW						
( NOT USED )	MIN						
	AMB						
	ALR						
	SPLIT					4	
Lower Sherbourne St							
	FDW 11			Y 4	Fixed		
	MIN 18				POZ activated by Request Loop		
	MAX1 29				(Max extension of 30 secs in		
	AMB 3				Green/Walk)		
	ALR 2						
	SPLII	34	44	44		-	
7	WLK						
	FDW						
( NOT USED )	MIN MAX1						
	AMB						
	ALR						
The Esplanade	5PLII					-	
8	WLK 7						
	FDW 13				Fixed		
	MIN 20						
	MAX1 20						
	AMB 3						
	SPLIT	26	26	26			
	CL	60	70	70		1	
	OF	13	5	36			



		TSP RUN	TSP RUN	
REPARED: BA/H	1L	# 4	# 6	
		EB Thru	SB Thru	
8.2 Transit Run	Parameters			I
ATC Green Exte	nd Mode	Mode 0	Mode 2	
(Equivalent TTC	Algorithm)	B-2	A	
8.3 Transit Action	on Plan 1 (Used	d for Pattern 1	I)	
Run Enable (X = Y	es)	Х	Х	
Run Config = 1	Recovery =	= 2 (O.C. with dela	y)	
8.3 Transit Action	on Plan 2 (Used	d for Pattern 2	2)	
Run Enable (X = Y	es)	X	Х	
Run Config = 2	Recovery =	= 2 (O.C. with dela	y)	
8.3 Transit Action	on Plan 3 (Used	d for Pattern 3	3)	
Run Enable (X = Y	es)	X	Х	
Run Config = 3	Recovery =	= 2 (O.C. with dela	y)	
8.4 Transit Run	Configuration	1		1
Delay / Extend /	Fail	4 / / 235	/ / 235	
CALLS (and Ex	tends)	Ø 4/8	Ø 2/6	
Skips				
Reduces (Trunca	ates)			
8.4 Transit Run	Configuration	2		
Delay / Extend /	Fail	8 / / 235	/ / 235	
CALLS (and Ex	tends)	Ø 4/8	Ø <b>2/6</b>	
Skips				
Reduces (Trunca	ates)			
8.4 Transit Run	Configuration	3		
Delay / Extend /	Fail	4 / / 235	/ / 235	
CALLS (and Ex	tends)	Ø 4/8	Ø <b>2/6</b>	

## Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8

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GRN EXT (SDW Extension)	 	 16			 16
GRN RDC (Reduction)	 	 	-	-	 -
WLK EXT (Walk Extension)	 30	 -	-	30	 -

The Espla	nade			6						
	xxx m									
00										
	TSP RUN # 4									
	EB Thru									
	SRM #2 Ch #1					ATC Mode	0 B-2	2	3	4 D
	BIU #3 PIN #11a	e S				Extensions	SDW	Walk	W/SDW	W/SDW
		onu				TSP SUM	IARY			
		lerb				Maximum Gre	en Exte	nsions:		
		<u>ن</u> ک			TSP Loop Legend	SBG:30 s Gre	en/WLK			
Ņ	Schematic of TSP Loops	9 Me			Request (Thru)	EBG:16 s Gre	en/SDW	1		
Ť	and TSP Runs (N.T.S)		I		ZZZ Cancel (Thru)					

LOCATION:	Victoria St 8	Shuter St				DISTRICT:	Toronto & East York N
TCS:	1518					COMPUTER SYSTEM:	TransSuite
MODE/COMMENT:	FXT					CONTROLLER/CABINET TYPE:	Peek ATC 1000 / TS2 T1
PREPARED BY/DATE:	Tony Zhao/0	October 30	, 2018			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE::	Carmen Lan	n/October	05, 2018			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	December 6	, 2018				CHANNEL/DROP:	4041/1
						CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM 06:45	PM	Weekend	Di sas Mada	
NEMA Phase		All Other Times	06:45- 09:30 M-F	15:30 - 18:15 M-F	17:00 - 19:00 Sat	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 3		
	Split Table	Split 1	Split 2	Split 3	Split 4		
1							Pedestrian Minimums:
	FDW						EWWK = 7  secs; $EWFD = 13  secs$
	MIN						
NOT USED	MAX1						
	ALR						
	SPLIT						
Victoria St						Fixed	
	FDW 15					Fixed	
	MIN 22						
	MAX1 22						
	AMB 4						
	SPLIT	28	28	29	24		
3							
( NOT USED )							
Shuter St							
4	WLK 7					Fixed	
	FDW 13 MIN 20						
	MAX1 26						
	AMB 4						
	ALR 2	32	12	51	36		
		52	72	51			
5	WLK						
	FDW MIN						
( NOT USED )	MAX1						
	АМВ						
	ALR						
Victoria St	SPLII						•
6	WLK 7					Fixed	
	FDW 15						
	MAX1 22						
	AMB 4						
	ALR 2	00	00		04		
	SPLII	28	28	29	24		1
7	WLK						
	FDW						
	MIN MAX1						
	AMB						
	ALR						
Churter Ot	SPLIT						4
8 Shuter St	WLK 7					Fixed	
	FDW 13						
	MIN 20						
	MAX1 26						
	ALR 2						
	SPLIT	32	42	51	36		4
	OF	60 42	70 48	80 10	60 58		

NOTES:

LOCATION: MODE/COMMENT: TCS:	Gerrard St E SAP with PR 1698	& Marjory A & TSP*	ve				DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE:	Scarborough N TransSuite ATC 1000 / TS2 T1
PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	JS/CL September 2 September 1	5, 2018 2, 2018					CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4022/21
		055	A.M	DM	NCUT	WICHD	CONTROLLER FIRMWARE:	3.018.1.2976
NEMA Phase	Local Plan	All Other Times Pattern 1	06:30-09:30 M-F Pattern 2	15:45-18:30 M-F Pattern 3	23:00-06:30 Daily Pattern 4	10:00-19:00 Sat & Sun Pattern 5	(Fixed/Demanded or Callable)	Remarks
1 NOT USED	Split Table WLK FDW MIN MAX1 AMB ALR SPLIT	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums: EWWK = 7 sec, EWFD = 10 sec NSWK = 7 sec, NSFD = 13 sec NS phase is callable by vehicle and/or pedestrian actuation. If a vehicle call and/or a pedestrian call is received, the pedestrian minimums will be served. The NSWK & NSFD are displayed on the pedestrian signal heads if a pedestrian and/or
2 Gerrard St E	WLK 7 FDW 10 MIN 17 MAX1 29 AMB 3 ALR 2 SPLIT	33	43	43	33	43	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	Vehicle call is received. Side Street Passage Time = 3 sec *See back for TSP Instructions. EB & WB TSP enabled on September 12, 2018.
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT			5			64	
4 Marjory Ave	WLK         7           FDW         13           MIN         20           MAX1         21           AMB         3           ALR         3           SPLIT	27	27	27	27	27	Callable by Stopbar loop and/or Pushbutton; Extendable by Stopbar loop.	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT				12	2	4	
6 Gerrard St E	WLK         7           FDW         10           MIN         17           MAX1         29           AMB         3           ALR         2           SPLIT	33	43	43	33	43	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT		2	)				
8 Million Ave	WLK 7 FDW 13 MIN 20 MAX1 21 AMB 3 ALR 3 SPLIT	27	27	27	27	27	Callable by Stopbar loop and/or Pushbutton; Extendable by Stopbar loop.	
	CL OF	60 27	70 2	70 48	60 3	70 19		

Notes: South Leg is One-Way Northbound.

LOC:	Gerrard St E & Marjory Ave	T.S.P. PARAMETERS
MODE:	SAP with PR & TSP*	TSP RUN TSP RUN
TCS:	1698 PREPARATION DATE (TIMING CARD): September 25, 2018	PREPARED: JS/CL #2 #6
OFFSE	T CORRECTION PARAMETERS	EB Thru WB Thru
	2.3.2.x	2.8.2 Transit Run Parameters
2.3.4	O.C. Extend / Reduce (Max. time added & subtracted in sec.) From page 1 O.C.	ATC Green Extend Mode Mode 2 Mode 2
	Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8 [Cycle] [Slop] Thres.	(Equivalent TTC Algorithm) A A
OFF	Pattern 1	2.8.3 Transit Action Plan 1 (Used for all Patterns)
0.15.4	Ext 23 23 15 s	Run Enable (X = Yes) X X
Split 1	Rdc 11 1 11 1	Run Config = 1 Recovery = 2 (O.C. with delay)
AM	Pattern 2	2.8.4 Transit Run Configuration 1
0.111.0	Ext 26 26 70 00 18 s	Delay / Extend / Fail / / 235 / / 235
Split 2	Rdc 21 1 21 1 <sup>70</sup> 22 [26 %]	CALLS (and Extends) Ø 2/6 Ø 2/6
PM	Pattern 3	Skips
0.171.0	Ext 26 26 70 00 18 s	Reduces (Truncates) Ø 4/8 Ø 4/8
Split 3	Rdc 21 1 21 1 <sup>70</sup> <sup>22</sup> [26 %]	
NGH	Pattern 4	Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8
Calib 4	Ext 23 23 23 15 s	2.8.6 TSP Split Tables: 1, 2, 3, 4 & 5
Split 4	Rdc 11 1 11 1	GRN EXT (SDW Extension)
WKN	D Pattern 5	GRN RDC (Reduction)11
0.15	Ext 26 26 70 00 18 s	WLK EXT (Walk Extension) 30 30 30
Split 5	Rdc 21 1 21 1 <sup>70</sup> <sup>22</sup> [26 %]	
	e	
	ž j	TSP RUN # 6 Notes:
		WB Thru
		SRM #1 Ch #2
		TSP Input 6
	В	IU #3 PIN #12a
		λ.
Gerra	rd St E	
	??? m	
		??? m
	← − −	
	SRM #1 Ch #1	ATC Mode 0 2 3 4
	TSP Input 2	TTC Algor'm B-2 A C D
	BIU #3 PIN #10a	Extensions SDW Walk W/SDW W/SDW
		<u>ISP SUMMARY</u>
		Maximum Green Extensions:
	۲ <u>۲</u>	TSP Loop Legend EWG/EWWK: 30 s Green/Walk
N A	Schematic of TSP Loops	Request (Thru) Truncation of phase 4 and 8
T	and TSP Runs (N.T.S) Ž I I	Cancel (Thru)
1		

LOCATION:	Parliament St &	Mill St				DISTRICT:	Toronto & East York
TCS:	1894					COMPUTER SYSTEM:	TransSuite
MODE/COMMENT:	FXT With 2 Wir	e Polara AF	S and LPI			CONTROLLER/CABINET TYPE:	Econolite ASC/3-1000 / TS2T1
PREPARED BY/DATE:	CIMA+/Octobe	r 2, 2019				CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Ranaiamil Iftikha	r/Ameneh D	ialameh/Octol	per 15. 2019		DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 24, 20	19				CHANNEL/DROP:	4051/1
	, ,					FIRMWARE VERSION:	2.47.10
		OFF	AM	PM	OFF2		
		All Other	06:45-09:30	15:30-18:30	09:30-15:30	Phase Mode	Remarks
NEMA Phase		Times	M-F	M-F	M-F	(Fixed/Demanded	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	/Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4		
							NSWK = 7 sec NSED = 12 sec
	MIN						EWWK = 7 sec., EWFD = 13 sec.
NOTUSED	MAX						APS on during FULL WALK of NSWK and EWWK when
	AMB						activated by APS pushbuttons
	SPLIT						EW Leading Pedestrian Interval - EWWK comes up 5
Parliament St							sec before EW vehicle green
2	WLK 7					Eived	
	MIN 19					Fixed	
	MAX1 28						
	AMB 3.0						
	ALR 3.0	34	11	14	34		
		- 34	-1-1		34		
3	WLK						
	FDW						
NOTUSED	MAX						
NOTUSED	AMB						
	ALR						
Mill St	SPLIT						
4	WLK 7					Fixed	
						Split shown includes 5 sec	
	FDW 13					of EW/LDL	
	MAX1 21						
	AMB 3.0						
	ALR 2.2	00	00	00	00		
	SPLII	26	20	20	26		
5	WLK						
	FDW			1			
NOT USED	MIN						
	AMB						
	ALR						
Parliament St	SPLIT						
6	WLK 7						
	FDW 12					Fixed	
	MIN 19						
	AMB 30						
	ALR 3.0						
	SPLIT	34	44	44	34		
7	WIK						
	FDW						
	MIN						
NOT USED	MAX						
	SPLIT						
Mill St	DLY GRN 5						
8	VVLK 7					Fixed	
	13						
	MIN 15					Split shown includes 5 sec	
	MAX1 21					of EW LPI	
	AIVIB 3.0 ALR 2.2						
	SPLIT	26	26	26	26		
	CL	60	70	70	60		
	UFF	1	1	1	1		
l	<u> </u>			L		I	

Note:T-Intersection (no west leg)

LOCA	TION:	Adelaide St E	& George S	st			DISTRICT:	Toronto & East York
MODE	COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite N
TCS:		1963					CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2 T1
PREP	ARED BY/DATE:	WSP / Febru	uary 4, 2020	)			CONFLICT FLASH:	Red & Red
CHEC	KED BY/DATE:	Ameneh Dia	lameh / Feb	oruary 11, 20	20		DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLE	EMENTATION DATE:	February 24	, 2020				CHANNEL/DROP:	4003/13
							CONTROLLER FIRMWARE:	3.018.1.2976
			1	1	1			
			OFF	AM	PM	NGHT	Phase Mode	
	NFMA Phase		All Other Times	06:30-09:30 M-F	15:30-18:30 M-F	23:00-06:30 daily	(Fixed/Demanded or Callable)	Remarks
		Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4		
		Split Table	Split 1	Split 2	Split 3	Split 4		
	$\frown$							Pedestrian Minimums:
1		WLK						EWWK = 7 sec, EWFD = 13 sec
	$\langle \rangle$							NSWK = 7 Sec, NSFD = 13 Sec
	NOT USED	MAX1						2020
		AMB						
		ALR						
		SPLIT						
2	Adelaide St E							
2		FDW 13					Fixed	
		MIN 20						
		MAX1 51						
		AMB 3.0						
	$\checkmark$	ALR 2.7						
┣────		SPLIT	57	63	63	48		
3	$\frown$	WLK						
Ŭ		FDW						
	NOT USED	MIN						
		MAX1						
		AMB						
	$\smile$	ALR						
	George St	JFLII						
4		WLK 7						
		FDW 13						
		MIN 20					Fixed	
		MAX1 20						
		AMB 3.0						
	$\smile$	SPLIT	27	27	27	27		
		OF LIT						
5		WLK						
		FDW						
	NOT USED	MIN			1			
		ALR						
		SPLIT						
6	$\langle \rangle$	WLK 7						
		FDW 13						
	NOT USED	MAX1 51						
	$\backslash$ /	AMB 3.0						
	$\checkmark$	ALR 2.7				-		
		SPLIT	57	63	63	48		
-	$\frown$							
7	$\langle \rangle$	VVLK EDW/						
		MIN						
	NOT USED	MAX1		<b>A</b>				
	$\backslash$ /	AMB						
	$\checkmark$	ALR						
	0	SPLIT						
	George St							
ŏ		FDW 12						
		MIN 20						
		MAX1 20					Fixed	
	\ ♥ ♥ /	AMB 3.0						
	$\checkmark$	ALR 3.6						
		SPLIT	27	27	27	27		-
		CL	84	90	90	75		
		OF	83	82	83	54		
							<u> </u>	
Notos:	Adelaide St. is one-way	Easthound on	hy .					

Adelaide St. is one-way Eastbound only.

Vehicle Movement Restriction: No Northbound Left Turn and No Southbound Right Turn.

LOCATION:	Adelaide St	E & Berkel	ey St			DISTRICT:	Toronto & East York				
MODE/COMMENT:	SA2-VMG w	vith PR & 2-	Wire Polara	APS		COMPUTER SYSTEM:	TransSuite				
TCS:	1964					CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2T1				
PREPARED BY/DATE:	WSP / Febr	uary 4 202	n			CONFLICT FLASH	Red & Red				
	Amonoh Dia	alamoh / Eol	- bruary 11 - 2	020			1.0m/s (EDW based on full crossing @ $1.2m/s$ )				
	Echrucery 24		bruary 11, 2	.020		CHANNEL (DROD)					
IMPLEMENTATION DATE.	February 24	, 2020				CHANNEL/DROP:	4003/27				
	1	075			NOUT	CONTROLLER FIRMWARE:	2.47.10				
				PM	NGH1	Dhara Mada					
NEMA Phase		Times	06:30-09:30 M-F	M-F	23:00-06:30 daily	Fixed/Demanded or	Remarks				
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Callable)	Romano				
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	· · · · ·					
1	WLK FDW						Pedestrian Minimums: EWWK = 7 sec, EWFD = 10 sec NSWK = 7 sec, NSFD = 14 sec				
NOT USED	MIN										
	MAX1						INS phase is callable by vehicle or pedestrian actuation.				
	ALR						seconds. If ongoing vehicle demand exists on the				
	SPLIT						stopbar loop, the NSG is capable of providing vehicle				
Adelaide St E							extensions up to the maximum. If a pedestrian call is				
	IVLK 7						received, the maximum would be served. The NSWK &				
	MIN 17						if a pedestrian call is received. Extension time is based				
	MAX1 50					Fixed	on vehicle demand and is taken from the EWG. Unused				
	AMB 3.0						extension time is given to the EWG.				
	ISPLIT	56	62	62	47		Side Street Passage Time = 3 soc				
			02	02	41		APS on during 7 secs of EWWK & 7 secs of NSWK				
3	WLK						when activated by APS pushbuttons				
	FDW						Extended Push Activation = 3 secs				
( NOT USED	MIN MAX1						Gardiner Rehabilitation signal timings Section1. 2019-				
	AMB						2020				
	ALR										
	SPLIT										
Berkeley St											
	FDW 14					Callable by stopbar loop					
	MIN 7					and/or pushbutton;					
	MAX1 21					Extendable by stopbar loop					
	AMB 3.0										
	SPLIT	28	28	28	28						
	/			1							
5	WLK			1							
	MIN										
NOTUSED	MAX1										
	AMB										
	SPLII						4				
6	WLK 7				5						
	FDW 10										
NOTUSED	MIN 17										
	AMB 3.0										
	ALR 2.5										
	SPLIT	56	62	62	47		1				
7		4									
	FDW										
NOTURED	MIN										
	MAX1										
	SPLIT										
Berkeley St							1				
8	WLK 7										
	FDW 14					Callable by stopbar loop					
	MAX1 21					and/or pushbutton;					
	AMB 3.0					L CYICHIGANIC NA SIONNAL 1000					
	ALR 3.6										
	SPLIT	28	28	28	28		4				
	OF	48	90 44	49	26						
NOTES	<u> </u>					1	۱				

LOCAT	ION:	King St E &	George St					DISTRICT:	Toronto & East York
MODE/0	COMMENT:	SAP with PR	R & TSP*					COMPUTER SYSTEM:	TransSuite
TCS:		1965						CONTROLLER/CABINET TYPE:	Peek ATC 1000 / TS2 T1
PRFPA	RED BY / DATE	Amir Sufino	ur / Decemh	er 5 2019				CONFLICT FLASH	Red & Red
CHECK		Toni Hourani /	Amonoh Dialan	oh / January ()	2 2020				ו.ט m/s (דט based on tuil crossing at 1.2
		Jonuory 20	2020	ien / Sandary O	2, 2020				m/c) 4002/20
	IENTATION DATE.	Janual y 20,	2020						4003/29
			OFF	AM	РМ	NGHT	WKND	Phase Mode	3.010.1.2.370
			All Other	06.45-	15.30-	23.00-6.30	09:00-	(Fixed/Demanded or	Remarks
N	EMA Phase		Times	09:30 M-F	18:15 M-F	Daily	19:00	Callable)	
		l ocal Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5		
		Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		
	$\frown$								Pedestrian Minimums:
1									EWWK = 7  sec, EWFD = 12  sec
	/ \	MIN							NS phase is callable by vehicle or pedestrian
	NOT USED	MAX1							actuation. If a vehicle call and/or a pedestrian
		AMB							call is received, the pedestrian minimums will be
									served. The NSWK & NSFD are only displayed
	King St E	SPLII							pedestrian call is received.
2		WLK 7							Additional 1 second above the pedestrian
		FDW 12						Fixed	minimum provided to the Phase 4/8 SPLIT is to
(		MIN 19						POZ activated by	be served in Phase 4/8 Walk.
\	$\langle \cdot \rangle$	IVIAX1 38 AMR 20						Request Loop	*See back for TSP Instructions
	$\smallsetminus$	ALR 2.6						Green/Walk & 16 secs in	
	)	SPLIT	44	54	54	44	49	Green/SDW	EB & WB TSP enabled on August 2, 2018.
2	$\frown$								
3									
	/	MIN							
	NOT USED	MAX1							
		AMB							
	George St	SFLII							
4		WLK 7						Callable by Stopbar loop	
		FDW 12						and/or Pushbutton;	
		MIN 19							
		AMB 3.0							
	· ·	ALR 3.5							
		SPLIT	26	26	26	26	26		
5		WLK							
Ũ		FDW							
		MIN			1				
	NOT USED	MAX1							
		SPLIT							
-	King St E								
6	$\langle \rangle$	WLK 7						<b>F</b> 2 1	
/	∕ <> ∖	רטעע 12 MIN 10						FIXED PO7 activated by	
(		MAX1 38						Request Loop	
		AMB 3.0						(max extension of 14 secs in	
		ALR 2.6					40	Green/Walk & 16 secs in	
		SPLII	44	54	54	44	49	Green/SDW	
7		WLK							
	/	FDW							
		MIN							
	\/	MAX1 AMR							
	$\smallsetminus$	ALR							
	<u> </u>	SPLIT							l l
Q	George St							Callable by Stanber lear	
0		FDW 12						and/or Pushbutton	
		MIN 19						and/or r domouton,	
(		MAX1 19							
	\ ♥ ▼ /	AMB 3.0							
		ALR 3.5	26	26	26	26	26		
		JFLII	20	20	20	20	20		
		CL	70	80	80	70	75		
		OF	53	32	27	53	56		

Notes: NS Amber and All-red values updated to reflect NS speed limit reduction to 30 km/h.

100	King St E &	George	St									TSP PARA	METERS							
			ы. Эк									1.3.1 . I ANA					TED		тер	DUN
	SAP with Pr	K & ISP				/			<b>T</b>				TV		ין אונ ג	HO *			135	
ICS:	1965		PRE	PARAI	ION DA	ATE (TII	WING C	ARD):	I ONI HOI	urani / Ar	menen Di	PREPARED:	ΙΥ	#1		# Z "	# 5		#	0 "
OFFSE		CTION	I PAR	RAME	TERS	•								EB Th	ru	EB Thru	WB -	Γhru	WB	Thru
											2.3.2.x	2.8.2 Transi	t Run Parameter	S						
23/		d / Rod	duco	(Max t	time addø	ed & sub	tracted in	isec)	From	nogo 1	0.C.	ATC Green	n Extend Mode	Mode	2	Mode 0	Mod	<u>م</u> 2	Mo	0 ob
2.3.4								<u> </u>	From	page 1	Three	ATC Gleen	t TTC Algorithm)	NOUE	2			eΖ		
		ØZ	60	Ø4	60	00	Ø7	00	[Cycle]	[Slop]	rmes.			A	. Datt	D-2				-2
OFF				1		00					Pattern 1	2.8.3 Iransi		Used to		$\frac{1}{2}$	& <b>5</b> )	,		
Split 1	Ext	20				20			70	19	<b>30</b> s	Run Enable	e(X = Yes)	X		X	X			X
	Rdc	19				19					[43 %]	Run Config	g = 1 Recovery	y = 2 (0.0)	. with de	elay)				
AM											Pattern 2	2.8.3 Transi	t Action Plan 2 (	Used for	r Patt	ern 2)				
Split 2	Ext	25				25			80	29	<b>30</b> s	Run Enable	e (X = Yes)	Х		Х	Х	,		X
Opin 2	Rdc	29				29			00	20	[38 %]	Run Config	g = 2 Recovery	y = 2 (0.C	. with de	elay)				
PM											Pattern 3	2.8.3 Transi	t Action Plan 3 (	Used fo	r Patt	ern 3)	_			
	Ext	25				25			00		<b>30</b> s	Run Enable	e (X = Yes)	Х		X	X	,		Х
Split 3	Rdc	29				29			80	29	[38 %]	Run Config	g = 3 Recovery	/ = 2 (O.C	. with de	elay)				
NGH	it i					ļļ					Pattern 4	2.8.4 Transi	t Run Configura	tion 1			4			
	Ext	20				20					<b>30</b> s	Delay / Ext	end / Fail	8//2	235 0	^//235	/	/ 235	7/	/ 235
Split 4	Bdc	19				19			70	19	[43 %]	CALLS (ar	nd Extends)	Ø 2/6	3	Ø 2/6	Ø	2/6	Ø	2/6
WKN							<b>F</b>				Pattern 5	Skips							~	
		23				23					30 0	Reduces (	Truncates)	Ø Als	2	Ø 1/8	a	/8	Ø	4/8
Split 5	Bdo	24				20			75	24	[40 %]	2 8 4 Transit	Hun Configura	$\frac{2}{100}$	<u> </u>		<i>D</i> -			-10
	Ruc.	27				27						Doloy / Ext			225 0	<u> </u>	. /	/ 225	7/	/ 225
Noto	OC Thrachal	dinaraa	and to	roduce	o tho ch	hanco c		VT					ad Extends)	a 210	235 0	a 2/6		233	<u> </u>	7233
Note.	. OC Mieshoi			Teduce								CALLS (al			<u> </u>	0 210		./0	Ø	2/0
												Boducos	Trupostoc)		2	~ Ø 1/8		/8	<u></u>	1/8
									_			Reduces (			<u> </u>	0 4/0		/0	Ø	4/0
												2.8.4 Transi	t Run Configura	tion 3		. / . /			_ /	
2.1.9	.2 Advanced	I/O Scri	ipts									Delay / Ext	end / Fail	9//2	235 1	^//235	/	235	<u>//</u>	/ 235
Input	t Script 2 "TS	SP26Ti	<u>mer"</u>									CALLS (ar	nd Extends)	Ø 2/6	5	Ø 2/6	Øž	2/6	Ø	2/6
Bloc	ks TSP2 and	ITSP 6	5 calls	from t	transit	vehicle	es with	a hea	adway le	ess thar	1 90 sec.	Skips								
Tov	iew current s	status c	of TSP	<sup>o</sup> inputs	s, go to	o scree	en 2.1.	9.2 pa	age 1 ar	nd press	s [C]	Reduces (	Truncates)	Ø 4/8	3	Ø 4/8	Ø	/8	Ø	4/8
_												^ TSP Run 2	delay in addition	to 33s e	lapse	d time app	olied us	ing so	ript	
Input	t Script 3 "TO	<u>S1965</u>	Jump	perFilte	<u>er"</u>											<u></u>				
Copi	ies TSP calls	from T	rsp r	Run 2 to	o TSP	Run 1	and fi	rom T.	SP Run	6 to TS	SP Run 5			Ø1 Ø	02	Ø3 Ø4	Ø 5	Ø6	Ø7	Ø8
Appl	lies an elaps	ed time	to TS	SP Rur	n 2. Blo	ocks o	ut calls	s for T	SP Run	ns 2&6 e	except in	2.8.6 TSP S	plit Tables: 1-5							
ph2/	6 FDW and 0	GRN/S	DW									GRN EXT	(SDW Extension)	+	16			+16		
												GRN RDC	(Reduction)							
												WLK EXT	(Walk Extension)	+	14			+14		
									1											
												TSP RUN	#6	N	otes:					
												WB Thru	ı							
												SRM #1 Ch	#2	*т	SP Ru	un 2 planne	d as Ald	ı C. wł	nich da	oes not
												TSP Input	6	w	ork wit	h 3.18.297	6. There	fore, A	Alg C i	S
												BIU #3 PIN #	±12a	er	nulate	d using a s	cript tha	t comb	oines A	۹lg A
														in	TSP F	Run 1 and A	Alg B-2 i	n TSP	Run 2	2 (see
							/							sc	ript).					
King	St E													Se	eparate	e WB TSP	Runs (A	lg A a	nd Alg	, B-2)
		100 m	า											ar	e usec	due to no	PST in	detecti	on zoi	ne.
←					$\longrightarrow$															
														·					~	
												400		**'	ISP R	un 1 is call	ed by T	SP Ru	n 2 an	d ISP
												198 m		IRI	SICIL	called by	ISP KUI	I O USI	ng a s	unpt

	TSP RUN # 2 EB Thru								
	SRM #1 Ch #1				ATC Mode	0	2	3	4
	TSP Input 2				TTC Algor'm	B-2	Α	С	D
	BIU #3 PIN #10a				Extensions	SDW	Walk	W/SDW	W/SDW
					TSP SUM	MAR	<u> </u>		
					Maximum Gr	een E	xtensior	ns:	
		υ		TSP Loop Legend	EWG: 14 s	Gree	n/Walk	+ 16 s Gree	en/SDW
Ν	Schematic of TSP Loops	org		Request (Thru)	phase 4 & 8 t	runcat	ion to p	ed min	
Ť	and TSP Runs (N.T.S)	e	I	Cancel (Thru)			·		

77

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LOCATION:	King St F &	Berkelev 4	St				DISTRICT:	Toronto & Fast York
		with PR and	TSP*				COMPUTER SYSTEM	
TCS:	1066							
	Amir Sufin	our / Docon	abor 05 2010					
CHECKED BY/DATE:	Anni Sunp	/ Amonoh Dio	lomoh / lonuory	02 2020			CONFLICT FLASH.	10 m/c (EDW based on full excession at 1.2 m/c)
CHECKED BI/ DATE:		/ Amenen Dia	lamen / January	02, 2020			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	January 24	, 2020					CHANNEL/DROP:	4003/28
					1		CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT	WKND	Phase Mode	
		All Other	06:30-09:30	15:00-19:00	23:00-6:30	09:00-19:00	(Fixed/Demanded or Callable)	Remarks
NEMA Phase		Times	M-F	M-F	Daily	Sat-Sun		
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5		
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		Pedestrian Minimums:
1	WLK							EWWK = 7 sec, EWFD = 13 sec
	FDW							NSWK = 7 sec, NSFD = 13 sec
NOT USED	ΜΙΝ ΜΔΧ1							NS phase is callable by vehicle and/or pedestrian
	AMB							NSG is 7 seconds. If ongoing vehicle demand
	ALR							exists in the Wavetronix detection zone, the NSG is
	SPLIT							capable of providing vehicle extensions up to the
King St E	WIK 7							maximum green split. If a pedestrian call is
	FDW 13						Fixed	The NSWK & NSFD are only displayed on the
	MIN 20						POZ activated by	pedestrian signal heads if a pedestrian call is
	MAX1 37						Request Loop	received. Extension time is based on vehicle
	AMB 3.0						(max extension of 16 secs in	EWG
	SPLIT	43	53	53	43	48	Green/SDW)	Side Street Passage Time = 3 sec.
								*See back for TSP instructions.
3	WLK							EB & WB TSP re-enabled on July 10, 2019.
	MIN							
NOT USED	MAX1							
	AMB							
Berkelev St	SPLIT							
4	WLK 7							
	FDW 13						Callable by Wavetronix detector	
	$\begin{array}{c} MIN & 7 \\ MAX1 & 20 \end{array}$						and/or pushbutton;	
	AMB 3.0						Extendable by wavelronix detector.	
	ALR 3.5						(TSP Truncations allowable to pedestrian	
	SPLIT	27	27	27	27	27	min.)	-
5	WI K							
	FDW							
	MIN							
	MAX1							
	AIVID							
	SPLIT							
King St E								
° /	VVLK 7						Fixed	
	MIN 20						POZ activated by	
	MAX1 37						Request Loop	
	AMB 3.0						(mov ovtopolog of 40 cross in	
	SPLIT	43	53	53	43	48	(max extension of to secs in Green/SDW)	
		10	30	30				1
7	WLK							
NOT USED	MAX1							
	AMB							
	ALR							
Derivative Of	SPLIT							4
8 Berkeley St	WLK 7							
	FDW 13						Callable by Wavetronix detector	
	MIN 7						and/or pushbutton;	
	MAX1 20						Extendable by Wavetronix detector.	
	ALR 3.5						(TSP Truncations allowable to pedestrian	
	SPLIT	27	27	27	27	27	min.)	1
	CL	70	80	80	70	75		
1	OF	3	69	58	2	66		





LOCATION:	Cherry St	& Front St	E				DISTRICT:	Toronto & East York
MODE/COMMENT:	SAP with F	PR and 2-v	vire Polara	APS & TSP	*		COMPUTER SYSTEM:	TransSuite
TCS:	2245						CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED BY / DATE:	Sandy Wu	/ Novemb	er 15, 2018				CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Rebecca (	Carmen) La	am / Noven	nber 15, 201	8		DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	December	, 14. 2018		,			CHANNEL/DROP:	5003/17
	200011201	, _0.0						3 018 2976
		OFF	ΔΜ	РM	NGHT	WKND	Phase Mode	
		UFF	Alvi	15:45-	23:00-	10:00-	T hase mode	Dementer
		All Other	6:45-9:30	18:15	06:00	19:00	(Fixed/Demanded or	Remarks
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	]	
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		
								Pedestrian Minimums:
	WLK						NBRA	NSWK = 7 sec, NSFD = 15 sec
	FDW						Fully Protected	EWWK = 7 sec, EWFD = 19 sec
							Callable/Extendable by	EWG phase is callable by vehicle or pedestrian
							Wavetronix	actuation. If a vehicle and/or pedestrian call is
								EWED are displayed on the pedestrian signal
	SPLIT	12	12	12	12	12		beads if a vehicle and/or pedestrian call is received
Overlap C Cherry St		12	12	12	12	12		Side Street Passage Time = 3 sec
2	WIK 7						NBG	Left-Turn Passage Time = 2 sec
	FDW 15						Fixed	APS Extended Push Activation = 3 sec
	MIN 22						POZ activated by	When activated, EW and/or NS APS on for 7 seconds of
	MAX1 23						Request Loop	walk when no arrows are displayed.
	AMB 4						(max extension of 16 secs	Overlap A & B are only displayed when NBRA is not
	ALR 3						in Green/Don't Walk)	active. Overlap C drives NBG vehicle display.
	SPLIT	29	34	34	29	29	(Parent Phase 1 & 2)	Phasing Diagram:
3	WLK							
	FDW							
	MIN							
Eropt St E	SPLII							Soo back for TSP Instructions
							FBG	TSP disabled - TSP activation pending new firmware
	FDW 19						EBG	testing & field validation
	MIN 26						Callable by Wavetronix	Additional 1 second above the pedestrian minimum
	MAX1 27						and/or Push Buttons	provided to the Phase 4/8 SPLIT is to be served in
	AMB 3							Phase 4/8.
	ALR 4							
	SPLIT	34	34	34	34	34		
5	WLK							
	FDW							and the second s
	MIN					Ť		CHERRY STREET IN SOL IN COMPANY STREET
	MAX1							
	AMB							
	ALR							
Objective Ot	SPLII							
Cherry St							SPC	
	FDW 15						Fixed	
	MIN 22						POZ activated by	FOR CONST
	MAX1 35						request Loop	
	AMB 4						(max extension of 16 secs	
	ALR 3						in Green/Don't Walk)	
	SPLIT	41	46	46	41	41		
7	WLK							
	FDW							
NOTUSED	MIN							
	MAX1							
	AMB							
	ALR							
	SPLIT	ļ	ļ					4
Front St E								
× ×	WLK 7						WBG	
							Callable by Wavetronix	
	MΔX1 27						and/or Push Buttons	
	AMR 2							
	ALR 4							
	SPLIT	34	34	34	34	34		
Overlan A	WLK							1
	FDW						NBTGA	
	MIN						(Parent Phase 2)	
	MAX1						(Conflicting Phase 5)	
	AMB 4						/	
	ALR 3							
	SPLIT							1
Overlap B	WLK							
	FDW						SBTGA	
	MIN						(Parent Phase 6)	
	MAX1						(Conflicting Phase 1)	
	SDI IT							
	JF'LI I							1
	CL	75	80	80	75	75		
	OF	9	60	14	11	54		

Notes: All EB, All WB, NBRT LOOP replaced with Wavetronix as of December 14, 2018





LOCATION: MODE/COMMENT: TCS: PREPARED BY/DATE: CHECKED BY/DATE: IMPLEMENTATION DATE:	Cherry St & SAP with P 2246 Julia Suen/ Toni Houra January 2,	& Mill St 'R, with 2-wire ' December 5, : ini / Ameneh D 2020	Polara APS & 2019 ialameh / Janu	TSP* µary 02, 2020	DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Toronto & East York N TransSuite N Peek ATC-1000 / TS2T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 5003/18
NEMA Phase	Local Plan	OFF All Other Times Pattern 1	AM 6:45-9:30 M-F Pattern 2	PM 15:45-18:15 M-F Pattern 3	CONTROLLER FIRMWARE: Phase Mode (Fixed/Demanded or Callable)	3.018. 2976 Remarks
	WLK FDW MIN 6 MAX1 7 AMB 3 ALR 2	Split 1	Split 2	Split 3	SBLA Fully Protected Callable/Extendable by Wavetronix	Pedestrian Minimums: NSWK = 7 sec, NSFD = 13 sec EWWK = 7 sec, EWFD = 20 sec Side Street Passage Time = 3 sec Left-Tum Passage Time = 2 sec APS Extended Push Activation = 3 sec EWG phase is callable by vehicle or pedestrian
2 Cherry St	SPLIT           WLK         7           FDW         13           MIN         20           MAX1         26           AMB         3.0           ALR         3.3           SPLIT	33	33	33	NBG Fixed POZ activated by Request Loop (max extension of 16 secs in Green/Don't Walk)	actuation. If a vehicle and/or pedestrian call is received, the maximum EWG is served. The EWWK & EWFD are displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received. Left-Turn Passage Time = 2 sec Overlap A & B are only displayed when NBRA is not active. Ring Structure: Ring 1 1 2 4
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT					Phasing Diagram:
	WLK 7 FDW 20 MIN 27 MAX1 27 AMB 3.0 ALR 4.9 SPLIT	35	35	35	EBG Callable by Wavetronix and/or Push Buttons	See back for TSP Instructions. TSP-NB & SB enable on Dec 9, 2016 Additional 1 second above the pedestrian minimum provided to the Phase 4/8 SPLIT is to be served in Phase 4/8
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT				20	When activated, EW and/ or NS APS on 7 seconds of walk when no arrows are displayed.
6 Cherry St	WLK 7 FDW 13 MIN 20 MAX1 38 AMB 3.0 ALR 3.3 SPLIT	45	45	45	SBG Fixed POZ activated by Request Loop (max extension of 16 secs in Green/Don't Walk)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT		25		Y	Calls for fully-protected SBLT also call the side street, to avoid creating the yellow trap for the permissive NBLT.
8 Mill St	WLK 7 FDW 20 MIN 27 MAX1 27 AMB 3.0 ALR 4.9 SPLIT	35	35	35	WBG Callable by Wavetronix and/or Push Buttons	
Overlap A	WLK FDW MIN MAX1 AMB 3.0 ALR 3.3 SPLIT	D			NBTGA (Parent Phase 2) (Conflicting Phase 1)	
	FDW MIN MAX1 AMB 3.0 ALR 3.3 SPLIT				SBTGA (Parent Phase 6) (Conflicting Phase 1)	
	CL OF	80 34	80 52	80 26		

Notes: All EB, All WB, SBLT Loop replaced with Wavetronix as of Decemeber 12, 2018.



LOCATION: MODE/COMMENT: TCS:	Lower Jarvi FXT 2	is / Jarvis St	& Front St					DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE:	Toronto & East York N TransSuite ASC/3-2100 / TS2T1
PREPARED BY / DATE: CHECKED BY/ DATE: IMPLEMENTATION DATE:	- <i>Petr Emelia</i> Hao Le /Oct October 11,	nov / Oct 8, ober 11, 20 <sup>,</sup> 2019	<i>2019</i> 19					CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Red & Red 1.0m/s (FDW based on full crossing @ 1.2m/s) 4024/1
								CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	WKND	Gardiner	Phase Mede	Pomorko
NEMA Phase		Times	M-F	M-F	23.00-00.30 Daily	Sat & Sun	Closure	(Fixed/Demanded	Kellialks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 61	or Callable)	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 61		
1	WLK FDW								Pedestrian Minimums: NSWK = 7 sec, NSFD = 22 sec EWWK = 7 sec, EWFD = 15 sec
NOT USED	MIN MAX1 AMB								Rehabilitation project Section 1. 2019-2020
	SPLIT								
2 Jaivis St	WLK 7 FDW 22 MIN 29 MAX1 34 AMB 3 ALR 4	41	40	47	41	41	40	Fixed	
	SPLIT	41	49	47	41	41	40		
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							K L	
Front St									
	WLK 7 FDW 15 MIN 22 MAX1 28 AMB 3 ALR 3 SPLIT	34	41	43	34	43	32	Fixed	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT				16		K K		
6 Jarvis St	WLK 7 FDW 22 MIN 29 MAX1 34 AMB 3 ALR 4 SPLIT	41	49	47	41	41	48	Fixed	
-									1
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT		8						
8 Front St	WLK 7 FDW 15 MIN 22 MAX1 28 AMB 3 ALR 3 SPLIT	34	41	43	34	43	30	Fixed	
		04	71		04		02		1
	CL OF	75 70	90 88	90 12	75 70	<mark>84</mark> 70	80 1		

NOTES:

KING ST PILOT PROJECT - PLAN 1												
	King St E &	Jarvis St						I oronto & East York				
	rai with 2-	wire Polara	AP3, 15P, R		BO Signs							
	3 Dama lamil	lftillebar / Da		040			CONTROLLER/CABINET TYPE:					
PREPARED BY / DATE:	RanaJamii	Iftiknar / Dec	cember 12, 2	2018				Red & Red				
CHECKED BY / DATE:	Hao Le / Ja	nuary 22, 20	119				DESIGN WALK SPEED:	1.0m/s (FDW based on full crossing @ 1.2m/s)				
IMPLEMENTATION DATE:	March 5, 20	19					CHANNEL/DROP:	4026/1				
	-					1	CONTROLLER FIRMWARE:	3.018.1.2976				
		OFF All Othor	AM	PM	NGT	Gardiner	Bhase Mode	Pomarka				
NEMA Phase		Times	M-F	M-F	23.00-0.30 Daily	Closure	(Fixed/Demanded	Remarks				
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	or Callable)					
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5						
								Pedestrian Minimums:				
1							Fixed	EWWK = 7  sec, EWFD = 12  sec				
								See back for TSP instructions				
	MAX1 6						(EBRA Mapped to L S13)	FB & WB TSP enabled on July 06, 2018				
	AMB 3							Turning Restriction				
	ALR 1						(Max extension of 8 secs in Green,	No NSLT Between 7:00 AM to 7:00 PM - Mon-Fri a				
	SPLIT	10	11	10	10	10	except during PM Plan)	7:30 AM to 6:30 PM Sat				
King St								No EW through Traffic Any time except TTC, Bicyc				
2	WLK 7							daily(Taxi Allowed Between 10:00 PM to 5:00 AM)				
	FDW 12						Fixed	No EBLT Any Time				
	MIN 19						EB VEH					
\ <> /							POZ activated by Paguast Lass					
							FOZ activated by Request Loop	$\frac{1}{5}$ 6 8				
	SPI IT	29	32	34	29	32	(Max extension of 16 secs in Green/SDW)	Phase Sequence				
		23	52		23	52	(Max extension of to sees in Green/SDW)					
3	WLK											
	FDW											
	MIN											
	MAX1											
	AMB											
	ALR							Phase 1& 5 Phase 2& 6 Phase 4				
	SPLIT		<u> </u>					APS on during FULL WALK periods when activated				
Jarvis St								pushbuttons and when no left turn arrows are displa				
4	WLK /						Eived	Extended Push Activation = 3 seconds				
	MIN 18						Fixeu	WBNT & EBNL Load switch 16 used to drive LBO				
	MAX1 25											
	AMB 3											
	ALR 3						(Truncations allowed to pedestrian					
	SPLIT	31	37	36	31	33	minimum)					
5	WLK											
	FDW											
	MIN 6						Fixed					
\ /												
$\searrow$	ALR 1											
	SPLIT	10	11	10	10	10						
King St							Ť	1				
6	WLK 7						Fixed					
	FDW 12						WB VEH (O/L A)					
	MIN 19						Parent PH's 5 & 6					
\	MAX1 23											
$\backslash$ /	AMB 3						POZ activated by Request Loop					
	ALR 3											
	SPLIT	29	32	34	29	32	(Max extension of 16 secs in Green/SDW)	-				
7												
' / \												
	MIN											
	MAX1											
	AMB											
	ALR											
	SPLIT	4						4				
Jarvis St												
8	WLK 7											
	FDW 11						Fixed					
	MIN 18											
\												
V V	AIR 3						(Truncations allowed to pedestrian					
$\sim$		31	37	36	31	33	minimum)					
							· · · · · · · · · · · · · · · · · · ·					
	CL	70	80	80	70	75		-				

NOTES:

LOC:	King St F & Jarvis St	TSP PARAMETERS				
MODE	EXT with 2-Wire Polara APS TSP RIC (SR) & I RO Signs					1
	$\frac{2}{2} \frac{2}{2} \frac{2}$	BEBABED. Rana lamil lftikhar	# 1	#2	#6	
			# I			
OFFSE			WB Lett	EBThru	WB Inru	]
	2.3.2.X	2.8.2 Transit Run Parameters			1	1
2.3.4	O.C. Extend / Reduce (Max. time added & subtracted in sec.) From page 1	ATC Green Extend Mode	Mode 0	Mode 0	Mode 0	
	$\boxed{01}$ $\boxed{02}$ $\boxed{03}$ $\boxed{04}$ $\boxed{05}$ $\boxed{06}$ $\boxed{07}$ $\boxed{08}$ $[Cycle]$ [Slop] Thres.	(Equivalent TTC Algorithm)	B-2 (SDW)	B-2 (SDW)	B-2 (SDW)	
OFF		2 8 3 Transit Action Plan 1 (Us	ed for Pati	erns 1 2 4 5)	==(==)	1
	Ext          12          12          12         22		X	X	X	1
Split 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1}$	= 2 (0 C with)	delav)		1
AM	Pattern 2	2.8.3 Transit Action Plan 3 (Use	ed for Pat	ern 3)		
	Fxt          15          14         22	$\frac{1}{1}$		X	X	1
Split 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Run Config = 1 Recovery	= 2 (O.C. with	delav)		
PM	Pattern 3	2.8.4 Transit Run Configuration	n 1 (Used	for Patterns '	⊥ I.2.4.5)	
	Ext          15          15          20	Delay / Extend / Fail	/ / 23	5 / / 235	/1/235	1
Split 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CALLS (and Extends)	Ø 1/5	Ø <b>2/6</b>	Ø 2/6	
NGT	Pattern 3	Reduces (Truncates)		Ø 4/8	Ø 4/8	
	Fxt          12          12          12         22	2.8.4 Transit Run Configuration	n 3 (Used	for Pattern 3)	~•	1
Split 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Delay / Extend / Fail	/ /	/ / 235	/1/235	1
Gardi	iner Closure	CALLS (and Extends)		Ø 2/6	Ø 2/6	
	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Reduces (Truncates)		Ø 4/8	Ø 4/8	
Split 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 8 6 TSP Split Tables 1 4		~	240	1
			Ø1 Ø	2 03 04	Ø5 Ø6	Ø7 Ø8
Noto	OC Threshold increased (to sum of max, TSD extensions) to reduce the change of OC EXT	CRN EXT (SDW/ Extension)	Q 16		<u> </u>	
NOLE.	woured during OC PDC and total OC PDC set as half the OC Threshold	WIKEXT (Wolk Extension)	0 10	,	0 10	
NO IA	volled during OC RDC and total OC RDC set as hair the OC Threshold	GPN PDC (Peduction)				
210	2 Advanced I/O Scripts	2 8 6 TSP Split Table 2				
Input	Script 1 "TSPCIr26Timer"		Ø1 Ø		05 06	<u><u>a</u>7<u>a</u>8</u>
Block	s a TSP 2 or 6 call for 40 sec after a transit vehicle clears	GPN EXT (SDW/ Extension)	8 16		8 16	
To vi	iew current status of TSP inputs, go to screen 2.1.9.2 nage 1 and press [C]	WIKEXT (Walk Extension)		,		
10 10	ew current status of For Inputs, go to screen 2.1.3.2 page F and press [0]	GRN RDC: (Reduction)		14		14
Input	Script 2 "TSP16.lumper"	2.8.6 TSP Split Table 3			<u> </u>	
Conie	es TSP calls from TSP input 6 to TSP input 1		Ø1 Ø	2 03 04	Ø5 Ø6	Ø7 Ø8
Copic		GRN EXT (SDW Extension)	16		16	
		WIKEXT (Walk Extension)				
		GRN RDC (Reduction)		13		13
		2.8.6 TSP Split Table 5	I			
			Ø1 Ø	2 03 04	Ø5 Ø6	Ø7 Ø8
		GRN EXT (SDW Extension)	8 16		8 16	
		WIKEXT (Walk Extension)				
		GRN RDC (Reduction)		10		10
					<u> </u>	
			·			
		TSP RUN # 6	Not	es:		
		WB Thru				

TSP Run 1 called using Script #2.



SRM #1 Ch #2 TSP Input 6 BIU #3 PIN #12a

LOCATION:	Jarvis St &	Adelaide St	E				DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT						COMPUTER SYSTEM:	TransSuite
TCS:	4						CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2T1
PREPARED BY/DATE:	Petr Emelia	nov/ July 8,	2019				CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Hao Le/ Oct	1, 2019					DESIGN WALK SPEED:	1.0m/s (FDW based on full crossing @ 1.2m/s)
IMPLEMENTATION DATE:	October 9, 20	019					CHANNEL/DROP:	4003/26
							CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	WKND	Dhasa Mada	
NEMA Phase		All Other Times	06:30-09:30 M-F	15:30-18:30 M-F	23:00-06:30 Daily	10:00-19:00 Sat & Sun	(Fixed/Demanded	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	or Callable)	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5		
1								Pedestrian Minimums:
	FDW							$F_{\rm WWK} = 7  \text{sec},  \text{NSFD} = 20  \text{sec}$
	MIN 6						Fixed	Left-Turn Passage Time = 2 sec
	MAX1 7							Gardiner Rehabilitation signal timings Section1.
	ALR 1							2013-2020
	SPLIT	11	11	11	11	11		
Jarvis St	WLK 7							
	FDW 20							
	MIN 27						Fixed	
	AMB 3							
	ALR 4							
	SPLIT	35	35	35	35	35		4
3	WLK							
	FDW							
NOT USED	MIN MAX1							
	AMB							
Adelaide St E	SFLII							-
4	WLK 7							
$\langle \langle \rangle \rangle$	FDW 12 MIN 19							
	MAX1 32						Fixed	
	AMB 3							
	ALR 3 SPLIT	38	44	44	29	38		
-								1
5	WLK FDW							
	MIN							
NOTUSED	MAX1							
	AMB ALR							
	SPLIT						Y	
Jarvis St								
	FDW 20							
	MIN 27						Fixed	
	MAX1 39							
	ALR 4				4			
	SPLIT	46	46	46	46	46		4
7	WLK							
	FDW							
NOT USED	ΜΙΝ Μαχ1			<b>y</b>				
	AMB							
	ALR							
Adelaide St F	SPLII							4
8	WLK 7							
	FDW 12							
( NOT USED )	MAX1 32							
	AMB 3							
	ALR 3	28	44	44	20	28		
					23			1
	CL	84	90	90 56	75	84		
		40			12	19		

NOTES: Adelaide St is one-way EB.
LOCATION:	Jarvis St & F	Richmond St	Ε				DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with UP	S					COMPUTER SYSTEM:	TransSuite
TCS:	5						CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2 T1
PREPARED BY/DATE:	Petr Emeliar	no / July 25,	2019				CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Hao Le/ Sept	27, 2019					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 4, 2	019					CHANNEL/DROP:	4002/13
							CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	WKND	Phase Mode	
		All Other	06:30-09:30	15:30-18:30	23:00-06:30	10:00-19:00	(Fixed/Demanded/Callable)	Remarks
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	(inxea/Demandea/Canable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	_	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5		
1 NOT USED	WLK FDW MIN MAX 1							Pedestrian Minimums: NSWK = 7 secs; NSFD = 13 secs (west side) NSWK = 7 secs; NSFD = 20 secs (east side) EWWK = 7 secs; EWFD = 13 secs
	AMB ALR SPLIT							Timing card developed for Gardiner Rehabilitation project Section 1. 2019-2020
2 Jarvis St	WLK 7 FDW 20 MIN 20 MAX 1 35						Fixed	
	AMB 3 ALR 5 SPLIT	43	42	44	39	39		
3	WLK FDW						4	
NOT USED	MIN MAX 1 AMB ALR SPLIT						07	
4	WLK 7 FDW 13						Fixed	
NOT USED	MIN 20 MAX 1 30 AMB 3 ALR 3	41	48	46	36	45	0	
5	WLK		40	40	30	45	Fixed	
	MIN 6 MAX 1 6 AMB 3 ALR 1	$\leq$			ā			
Jarvis St	WLK 7	11	11	11	11	11		
	FDW 13 MIN 20 MAX 1 24 AMB 3 ALR 5			6		5	Fixed	
7	WLK	32	31	33	28	28		
NOT USED	FDW MIN MAX 1 AMB ALR SPLIT		2					
8 Richmond St E	WLK 7 FDW 13 MIN 20						Fixed	
	MAX 1 30 AMB 3 ALR 3	41	19	46	36	45		
		41	40	40		40		1
	CL OF	84 72	90 89	90 21	75 11	84 72		

NOTES: One-way street westbound on Richmond St.



LOCATION	Church St &	Richmond S	+ F					Toronto & East York
MODE/COMMENT								
	18							Econolite ASC/3-2100 / TS2 T1
DEPADED DY/DATE:	10 Dete Emelien	a. / July 05	2040				CONTROLLER/CABINET TYPE:	Economie ASC/3-2100 / 152 11
	Petr Emelian	ov/ July 25,	2019					
	Hao Le/ Sept	27, 2019					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 4. 20	019					CHANNEL/DROP:	4003/18
							CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	WKND		
		All Othor	06.30-00.30	15.30-18.30	23.00-06.30	10:00-19:00		
		Times	00.30-09.30	15.50-10.50	23.00-00.30	Sat & Sun	Phase Mode	Pomarke
NEWA T Hase		Times	M-F	M-F	Daily		(Fixed/Demanded/Callable)	Keniarka
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5		
	, i i i i i i i i i i i i i i i i i i i							Pedestrian Minimums:
1	WLK							NSWK = 7 sec. NSFD = 13 sec.
	FDW							EWWK = 7 sec. $EWED = 13$ sec.
	MIN							
( NOT USED )	ΜΔΧ1							Timing card developed for Gardiner
								Rehabilitation project Section 1. 2019-2020
Oburgh Of	SPLII							
Church St								
2	WLK 7							
	FDW 13							
	MIN 20						Fixed	
	MAX1 26						1 mod	
	AMB 3							
	ALR 3							
	SPLIT	32	36	35	32	32		
3	WLK							
	FDW							
	MIN							
	MAX1							
	AMB							
								-
						_		
4								
	MIN 20							
	MAX1 21							
	AMB 3							
	ALR 3							
	SPLIT	52	54	55	43	52		
5	WLK							
	FDW			1				
	MIN							
NOTUSED	MAX1							
	AMB							
	ALR							
Church St								4
0								
	FDW 13							



NOTES: Richmond Street East is one-way westbound.

LOCATION: MODE/COMMENT: TCS: PREPARED BY / DATE: CHECKED BY / DATE: IMPLEMENTATION DATE:	Queen St E & FXT with 2-V 19 HDR / Septe Ameneh Dia October 9, 2	& Church St Vire Polara A mber 27, 201 lameh / Ihtes 019	PS & TSP* 9 ham Ahmad/	October 1, 20	019		DISTRICT: COMPUTER SYSTEM: CONTROLLERCABINET TYPE CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Toronto & East York N TransSuite N Peek ATC 1000 / TS2 T1 ↑ Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4036/6
	r	OFF	۸M	DM	NGHT	WKND	CONTROLLER FIRMWARE:	3.018.1.2976
NEMA Phase		All Other Times	06:45-09:30 M-F	15:30-18:15 M-F	23:00-06:30 Daily	10:00-19:00 Sat & Sun	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Split 5		
1 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							Pedestrian Minimums: EWWK = 7 sec, EWFD = 13 sec NSWK = 7 sec, NSFD = 12 sec Left-Turn Passage Time = 2 sec. APS on during WALK periods when no arrows are displayed. Extended Push Activation = 3 sec. "See back for TSP Instructions.
2 Queen St E	WLK         7           FDW         13           MIN         20           MAX1         48           AMB         3.0           ALR         2.7           SPLIT	54	56	56	54	54	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	TSP enabled on September 12, 2017 for EB and WB. Gardiner Rehabilitation signal timings Section1. 2019-2020
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							0
4 Church St	WLK         7           FDW         12           MIN         19           MAX1         24           AMB         3.0           ALR         2.7           SPLIT	30	34	34	30	30	Fixed (truncations allowable to pedestrian minimum)	4
5	WLK FDW MIN 6 MAX1 7 AMB 3 ALR 1 SPLIT			11			Callable/Extendable by Wavetronix detector (In Shared Thru-Left Lane)	
G Queen St E	WLK 7 FDW 13 MIN 20 MAX1 48 AMB 3.0 ALR 2.7 SPLIT	54	56	45	54	54	Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT				9	2	6	
8 Church St	WLK         7           FDW         12           MIN         19           MAX1         24           AMB         3.0           ALR         2.7           SPLIT	30	34	34	30	30	Fixed (truncations allowable to pedestrian minimum)	
	CL OF	84 56	90 24	90 52	84 36	84 41		
NOTES:		4	0					



LOCATION:	Victoria St	& Richmond	St E			DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT					COMPUTER SYSTEM:	TransSuite N
TCS:	27					CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2 T1
PREPARED BY/DATE:	Petr Emelian	ov/July 25, 201	9			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Hao Le/ Sept	t 27, 2019				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 4, 2	019				CHANNEL/DROP:	4003 / 19
						CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	NGHT	Phase Mode	
		All Other	06:30-09:30	15:30-18:30	23:00-06:30	(Fixed/Demanded/Callable)	
NEMA Phase		Times	M-F	M-F	Daily		Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	-	
	System Plan	Plan I	Plan 2	Plan 3	Plan 4		Pedestrian Minimums:
1	WLK						NSWK = 7 secs; NSFD = 12 secs
	FDW						EWWK = 7 secs; EWFD = 13 secs
( NOT USED )	MIN MAX 1						Timing card developed for Gardiner Rehabilitation
	AMB						
	ALR						
	SPLIT						
2 Victoria St	WLK 7						
	FDW 12						
	MIN 19					Fixed	
	MAX 1 23 $\Delta MB$ 4						
	ALR 2						
	SPLIT	29	35	35	29		
2							
3	FDW						
	MIN						
NOTUSED	MAX 1						
	SPLIT						
4	VVLK 7 FDW 13						
	MIN 20					Fixed	
	MAX 1 49					Fixed	
	AMB 3						
	SPLIT	55	55	55	46		
- ()							
5							
	MIN						
	MAX 1						
	SPLIT						
Victoria St							1
6	WLK 7						
	MIN 19						
	MAX 1 23					Fixed	
$\land \lor \lor$	AMB 4						
	ALR 2	29	35	35	29		
							1
7	WLK						
	MIN						
( NOT USED )	MAX 1						
	AMB						
Richmond St E							1
8	WLK 7						
∕ <>	FDW 13						
	MAX 1 49					Fixed	
	AMB 3						
	ALR 3	55	55	55	16		
	SFLII	00			40		1
	CL	84	90	90	75		
	UF	12	30	51	55		

NOTES: Richmond St one-way westbound.

LOCATION:	Queen St &	Victoria St		DISTRICT:	Toronto & East York			
TCS:	FXT with 2-V	Vire Polara A	PS, UPS, and	TSP & LBO Sig	gns		COMPUTER SYSTEM:	TransSuite
MODE/COMMENT:	28						CONTROLLER/CABINET TYPE:	Peek ATC 1000 / TS2 T1
PREPARED BY/DATE:	Akshay Salv	van /Feburar	y 10, 2020				CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Masoud Ran	nezani / Febu	irary 12, 2020				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	Feburary 13	, 2020					CHANNEL/DROP:	4036/7
							CONTROLLER FIRMWARE:	3.018.2.3088
		OFF	AM	PM	NGHT	WKND		
		All Other	06:30 - 09:30	15:00 - 19:00	23:00 - 6:30	9:00 - 21:00		Demerle
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	Phase Mode (Eixed/Domanded or	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Callable)	
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		
								Pedestrian Minimums:
								NSWK = 7  sec, EWFD = 13  sec
	MIN							See back for TSP Instructions.
NOT USED	MAX1							APS on during full walk periods.
	AMB							Extended Push Activation = 3 secs
	ALR							TSP enabled for EB and WB direction on
Oucon St	SPLIT							Scripts 1 & 2 are used for driving LBO signs during
2	WLK 7							EB and WB respectively. Load switch 16 is used to
	FDW 13						Fixed	drive LBO signs.
	MIN 20						POZ activated by	Public Holidays 2020 & 2021 Holidays
	MAX1 49						Request Loop	1. New Years Day January 01, 2020 & 2021
	AMB 3.0						(max extension of 30 secs in	2. Family Day February 17, 2020
	ALR 2.5	E A	60	60	E 4	E4	Green/Walk)	3. Good Friday April 10, 2020
	SPLII	54	60	00	54	54		5 Victoria Day May 18, 2020
3	WLK							6. Canada Day July 1, 2020
	FDW							7. Civic/Provincial Day August 3, 2020
NOTUSED	MIN							8. Labour Day September 7, 2020
	MAX1							9. Thanksgiving Day October 12, 2020
	AMB							10. Remembrance Da November 11, 2020
								12 Boxing Day December 28, 2020
Victoria St	OF ET							Gardiner Rehabilitation signal timings Section1.
4	WLK 7							2019-2020
	FDW 12						Fixed	
	MIN 19							
	MAX1 25						(truncations allowable to	
	AIR 20						pedesthan minimum	
	SPLIT	30	30	30	30	30		
5	WLK							
	FDW							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							
Queen St								
6	WLK 7							
( <>	FDW 13						Fixed POZ activated by	
	MAX1 49						Request Loop	
	AMB 3.0							
	ALR 2.5						(max extension of 30 secs in	
	SPLIT	54	60	60	54	54	Green/wdik)	1
7					-			
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							4
Victoria St								
	FDW 12						Fixed	
	MIN 19					V	r ixou	
	MAX1 25						(truncations allowable to	
	AMB 3.3						pedestrian minimum)	
	ALR 2.0							
	SPLIT	30	30	30	30	30		4
	CI	Q.A	00	00	۵ <i>۸</i>	Q <i>A</i>		
	OF	04 53	38	36	04 24	26		
				50				
					·			

NOTES: WBLT restriction from 7:00 am to 7:00 pm, M-F and 7:30 am to 6:30 pm, Sat, except public holidays, streetcars excepted EBLT restriction from 7:00 am to 7:00 pm, M-F and 7:30 am to 6:30 pm, Sat, except public holidays



LOCATION:	Yonge St & Ri	ichmond St					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT						COMPUTER SYSTEM:	TransSuite N
TCS	33							Peek ATC-1000 / TS2T1
PREPARED BY/DATE	Petr Emeliano	w/ July 25 20 <sup>4</sup>	19					Pod & Pod
		77 2040	15					10 m/s (FDW based on full processing @ 12 m/s)
CHECKED BIJDATE.		27, 2019					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing @ 1.2 m/s)
IMPLEMENTATION DATE:	October 4, $20^{\circ}$	19					CHANNEL/DROP:	4003/20
			-				CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT	Special Event		
		All Other	06:30-09:30	15:30-18:30	23:00-06:30	TRA	Phase Mode	Remarks
NEMA Phase		Times	M-F	M-F	daily		(Fixed/Demanded/Callable)	i i i i i i i i i i i i i i i i i i i
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 16		
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 16		
								Pedestrian Minimums:
1	WLK							NSWK = 7 sec., NSFD = 13 sec.
	FDW							EWWK = 7 sec., EWFD = 13 sec.
								Timings developed for Gardiner Rehabilitation project
NOT USED	MIN							Section 1. 2019-2020
	MAX1							
	AMB							
	ALR							
	SPLIT							
Yonge St								
2	WIK 7							
	FDW 13							
	MINI 20						Fixed	
	MAX1 25							
							(NBSA)	
	ALR 3	04	05	05				
	SPLII	31	35	35	31	41		-
3	WLK							
	FDW							
( NOT USED )	MIN							
	MAX1							
	AMB							
	ALR							
	SPLIT							
			4					
4	WLK 7							
	FDW 13							
	MIN 20							
( NOT USED )	MAX1 47							
	AMB 3							
	ALR 3							
		53	55	55	44	44		
		00	00	00				-
5	WI K							
NOT USED	MIN							
	MAX1							
	AMB							
	ALR							
	SPLIT							4
Yonge St								
6	WLK 7							
	FDW 13							
	MIN 20						Fixed	

	MAX1 25						(SBSA)
V V	AMB 3 ALR 3				4		
	SPLIT	31	35	35	31	41	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						
8 Richmond St	WLK 7 FDW 13 MIN 20 MAX1 47 AMB 3 ALR 3						Fixed
	SPLIT	53	55	55	44	44	
	CL OF	84 19	90 39	90 59	75 61	85 61	

NOTES: Richmond St is one-way street in westbound direction

LOCATION: MODE/COMMENT: TCS:	FYonge St & C FXT with 2-W 34	DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE:	Toronto & East York N TransSuite Econolite Cobalt /TS2T1						
PREPARED BY / DATE: CHECKED BY / DATE: IMPLEMENTATION DATE:	HDR / Septe Ameneh Dial October 9, 20	mber 27, 20 Iameh / Ihte 019	19 sham Ahm	ad/ Octobe	r 1, 2019			CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Red & Red 1.0m/s (FDW based on full crossing @ 1.2m/s 5012/18
								CONTROLLER FIRMWARE:	32.63.10
		OFF	AM	PM	NGHT	WKND			
		All Other	06:30-	15:00- 19:00	23:00-	09:00- 21:00	TTC Closure	Phase Mode	
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun		(Fixed/Demanded or	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 15	Callable)	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 15		Pedestrian Minimums:
1	WIK								NSWK = 7 sec. NSED = 13 sec.
	FDW								EWWK = 7 sec, EWFD = 13 sec.
	MIN								APS on during NSWK & EWWK periods when
( NOT USED )	MAX1								activated by push button.
	AMB								Extended Push Activation = 3 sec.
	ALK SPLIT								2019-2020
Yonge St									
2	WLK 7								
	FDW 13								
I ( <b>T</b> )	MIN 20							Fixed	
	AMB 30							NDG (Dall)	
· · ·	ALR 2.6								
	SPLIT	30	40	40	32	30	41		
3	WLK								
	MIN								
NOTUSED	MAX1								
	AMB								
$\smile$	ALR								
Queen St W/	SPLIT				_				-
4	WLK 7								
	FDW 13								
	MIN 20							Fixed	
	MAX1 48			4				EBG (Ball)	
	AMB 3.0								
	SPLIT	54	50	50	52	54	29		
-									
5	WLK								
	FDW								
NOT USED	MIN MAX1								
	AMB								
	ALR					·			
	SPLIT								4
Yonge St									
° (	FDW 13								
	MIN 20							Fixed	
	MAX1 24							SBG (Ball)	
↓ ▼	AIVIB 3.0								
	SPLIT	30	40	40	32	30	41		
$\frown$									
	WLK								
	FDVV								
NOT USED	MAX1								
	AMB								
	ALR								
0	SPLIT								4
Queen St E	WIK 7								
	FDW 13								
	MIN 20							Fixed	
	MAX1 48							WBSA	
	AIVID 3.0 ALR 2.6								
	SPLIT	54	50	50	52	54	29		4
	CL	84	90	90	84	84	70		
	OF	10	8	88	72	67	20		
NOTES EB/NB/SB No Turn	signs bagged			l				I	1

LOCATION: MODE / COMMENT: TCS: PREPARED BY / DATE: CHECKED BY / DATE: IMPLEMENTATION DATE:	Yonge St & FXT (Master 35 HDR / Octob Amir Sufipo November 7	Shuter St / E. r to TCS 1802 per 18, 2019 ur/ Ameneh I , 2019	aton Centre Ad 2) Dialameh / Oct	ccess tober 24, 2019			DISTRICT: COMPUTER SYSTEM: CONTROLLER / CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL / DROP:	Toronto & East York TransSuite EPAC 3668 M51 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing @ 1.2 m/s) 4009/14
NEMA Phase	Local Plan System	OFF All Other Times C1S101 Plan 1	AM 06:30-09:30 M-F C1S2O1 Plan 4	PM 15:00-19:00 M-F C1S3O1 Plan 7	Night 23:00-06:30 Daily C1S4O1 Plan 10	TTC Closure C1S5O1 Plan 13	Phase Mode (Fixed/Demanded/ Callable)	Remarks
1 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							Pedestrian Minimums: NSWK = 7 sec NSFD = 13 sec EWWK = 7 sec EWFD = 13 sec Master Hardwire Interconnect to PX 1802 (Yonge & TCS 80 m North) for North-South amber to be activated simultaneously. Offset pulse is sent at start of NSFD to PX 1802. Flash condition at one signal is independent of the
2 Yonge St	WLK         7           FDW         13           MIN         20           MAX1         48           AMB         3           ALR         3           SPLIT	54	60	60	54	54	Fixed	other.
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT							
4	WLK         7           FDW         13           MIN         20           MAX1         24           AMB         4           ALR         2           SPLIT	30	30	30	30	30	Fixed	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT					~		
6 Yonge St	WLK 7 FDW 13 MIN 20 MAX1 48 AMB 3 ALR 3 SPLIT	54	60	60	54	54	Fixed	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT			4		2.0		
8 Shuter St	WLK 7 FDW 13 MIN 20 MAX1 24 AMB 4 ALR 2 SPLIT	30	30	30	30	30	Fixed	
Notoo	CL OF	84 82	90 88	90 78	84 82	84 82		
110165.								

LOCATION: MODE/COMMENT: TCS:	Bay St & Ric FXT 63	hmond St W						DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE:	Toronto & East York TransSuite N Econolite ASC/3-2100 / TS2T1
PREPARED BY/DATE: CHECKED BY/DATE: IMPLEMENTATION DATE:	Petr Emelian Hao Le/ Sept October 4, 20	ov/July 25, 20 27, 2019 )19	)19			CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Red & Red 1.0m/s (FDW based on full crossing @ 1.2m/s) 4003/21 2.47.10		
NEMA Phase	Local Plan System Plan	OFF All Other Times Pattern 1 Plan 1	AM 06:30-09:30 M-F Pattern 2 Plan 2	PM 15:30-18:30 M-F Pattern 3 Plan 3	NGHT 23:00-06:30 Daily Pattern 4 Plan 4	WKND 10:00-19:00 Sat & Sun Pattern 5 Plan 5	Special Event Times to be determined Pattern 16 Plan 16	Phase Mode (Fixed/Demanded or Callable)	Remarks
1 NOT USED Bay St	WLK FDW MIN MAX1 AMB ALR SPLIT								Pedestrian Minimums: NSWK = 7 sec, NSFD = 13 sec EWWK = 7 sec, EWFD = 13 sec Static Signs showing the following Turn Restrictions/Prohibitions: - No SBLT All Times - No NBRT All Times - No NBLT 07:00-19:00 M-F - No WBLT 07:30-18:30 M-F
	WLK 7 FDW 13 MIN 20 MAX1 26 AMB 3 ALR 3 SPLIT	32	35	39	32	32	42	Fixed	- No SBRT 07:30-18:30 M-F Timing card developed for Gardiner Rehabilitation project Section 1. 2019-2020
3 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT						Ĉ		
4	WLK 7 FDW 13 MIN 20 MAX1 37 AMB 3 ALR 3 SPLIT	52	55	51	43	52	43	5	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT	N N			6				
6 Bay St	WLK 7 FDW 13 MIN 20 MAX1 26 AMB 3 ALR 3 SPLIT	32	35	39	32	32	42	Fixed	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT		2						
8 Richmond St W	WLK 7 FDW 13 MIN 20 MAX1 37 AMB 3 ALR 3 SPLIT	52	55	51	43	52	43	Fixed	
	CL OF	84 3	90 61	90 76	75 3	84 37	85 3		

NOTES: Richmond St One-way westbound Bicycle lanes on Sherbourne Street.

LOCATION:	Bay St & Qu	leen St W					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with LE	BO Signs					COMPUTER SYSTEM:	TransSuite N
TCS:	64	_					CONTROLLER/CABINET TYPE:	Peek ATC 1000 /TS2 T1
PREPARED BY / DATE:	Amir Sufipo	our / Februa	ry 05, 2020				CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Alvin Luk / I	February 10	, 2020				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:							CHANNEL/DROP:	5014/6
	1	0.55			10117		CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM 06:45-	PM 15:30-	NGH1 22:00-	WKND 09:00-		
		All Other	09:30	18:15	06:00	21:00 Sat	Phase Mode	Demerke
NEWA FIIdse		Times	M-F	M-F	Daily	& Sun	(Fixed/Demanded or	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Callable)	
	opint rable	Split I	Spiit 2	Spin 3	Split 4	Split 5		Pedestrian Minimums:
1	WLK							NSWK = 7 sec, NSFD = 13 sec
	FDW							EWWK = 7 sec, EWFD = 27 sec
NOT USED	MIN							Script 1 and 2 are used for driving LBO signs to
	AMB							prohibit EBLT and WBLT. Load switch 16 is used to drive LBO signs
	ALR							Gardiner Rehabilitation signal timings Section1. 2019-
	SPLIT							2020
Bay St	WIK 7							
	FDW 13							
	MIN 20						Fixed	
	MAX1 24						1 Mod	
	AIVIB 3.0 ALR 3.5							
	SPLIT	30	39	34	30	35		
3	WLK FDW							
	MIN							
NOTUSED	MAX1							
	AMB							
	SPLIT							
Queen St W		1						
4	WLK 7							
	FDW 27 MIN 34							
	MAX1 45						Fixed	
	AMB 3.0							
	ALR 5.8	EA	51	56	54	40		
		- 34	51	- 50	34	43		
5	WLK							
	FDW							
NOT USED	MAX1							
	AMB							
	ALR							
Bav St	SPLII		-					
6	WLK 7							
	FDW 13							
	MIN 20 MAX1 24						Fixed	
	AMB 3.0							
	ALR 3.5							
	SPLIT	30	39	34	30	35		4
7	WLK							
	FDW							
NOT USED	MIN							
	MAX1 AMB							
	ALR							
	SPLIT							4
Queen St W	WIK 7							
	FDW 27							
	MIN 34						Fixed	
	MAX1 45							
	AIVIB 3.0 ALR 5.8							
	SPLIT	54	51	56	54	49		J
	CI	0.4	00	00	04	0.4		
	OF	28	90 69	90 14	64 8	80 80		
					-			

NOTES: EBLT & WBLT restricted from 7:00am to 7:00pm M-F and 7:30am to 6:30pm Sat, except TTC vehicles

LOCATION:	York St & Rich	mond St W					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with 2-Wire	e Polara APS	and LPI				COMPUTER SYSTEM:	TransSuite
TCS:	74						CONTROLLER/CABINET TYPE:	Econolite ASC/3-2100 / TS2T1
PREPARED BY/DATE:	CIMA+/Octobe	r 2, 2019					CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Ranajamil Iftiki	nar/Ameneh	Dialameh/Oc	tober 15, 201	9		DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 24, 20 <sup>°</sup>	19					CHANNEL/DROP:	4003/22
							CONTROLLER FIRMWAER:	2.47.10
		OFF	AM	PM	NGHT	OPERA	Phase Mode	_
		All Other	06:45-09:30	16:00-18:30	23:00-06:30	22:00-23:00		
NEMA Phase		Times	M-F	M-F	Daily	M-F	(Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	(interspentancer, eulasie)	
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		
$\frown$								Pedestrian Minimums:
	WLK							NSWK = 7 sec. $NSFD = 13$ sec.
	MIN							Extended Push Activation = 3 sec.
NOTUSED	MAX1							APS on during WALK periods only
	AMB							NS Leading Pedestrian Interval - NSWK
	ALR SPLIT							comes up 5 sec before NS vehicle green
York St	DLY GRN 5							
2	WLK 7						Fixed	
	FDW 13						Split shown includes 5 sec	
	MAX1 36						ULINS EFI	
	AMB 3.0							
	ALR 4.1	10	50	50	40	10		
	SPLII	43	53	53	43	43		-
3	WLK							
	FDW							
NOT USED								
	AMB							
	ALR		4					
	SPLIT							-
4	WLK 7							
	FDW 13							
NOTUSED	MIN 20							
	MAX1 39 AMB 3.0							
	ALR 4.5							
	SPLIT	47	47	47	47	47		
5	WI K							
	FDW			1				
NOT USED	MIN							
	MAX1							
	ALR							
	SPLIT							
York St	DLY GRN 5						Fired	
	FDW 13						Split shown includes 5 sec	
	MIN 15						of NS LPI	
	MAX1 36							
	AIVID 3.0 ALR 4.1							
	SPLIT	43	53	53	43	43		1
7								
	FDW							
NOTUSED	MIN							
	MAX1							
	AMB ALR							
	SPLIT							
Richmond St W								1
8	WLK 7							
	MIN 20						Et au d	
	MAX1 39						Fixed	
	AMB 3.0							
	SPLIT	47	47	47	47	47		
								1
	CL	90	100	100	90	90		
		42	79	89	46	46	I	

NOTES: York Street is one-way northbound on the south leg and two-way on the north leg. Richmond Street West is one-way westbound. Movement Restriction : No Southbound Left Turn, No Southbound Through Movement, No Northbound Right Turn

LOCATION:	University A	ve & Richmond St W	I		DISTRICT:	Toronto & East York	N		
MODE/COMMENT:	FXT with UP (TCS2462)	S, RLC (SB) & Maste	er to Richmond St W	& Simcoe St	COMPUTER SYSTEM:	TransSuite			
TCS:	79				CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2 T1			
PREPARED/CHECKED BY:	AD/HL				CONFLICT FLASH:	Red & Red			
PREPARATION DATE:	April 26, 201	8			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1	I.2 m/s)		
IMPLEMENTATION DATE:	March 13, 20	)19			CHANNEL/DROP:	4003/23			
					CONTROLLER FIRMWARE:	3.018.1.2976			
		OFF	AM	PM					
NEMA Phase		All Other Times	06:45-09:30 M-F	16:00-18:30 M-F	Phase Mode (Fixed/Demanded/	Remarks			
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Callable)				
	System Plan	Plan 1	Plan 2	Plan 3		Dedectries Minimum e			
1	WLK					NSWK = 7 secs: NSFD = 15 secs			
	FDW					EWWK = 7 secs; EWFD = 17 secs			
( NOT USED	MIN MAX 1					2-Stage EW pedestrian crossing.	mothy 65m		
	AMB					apart) to provide coordination all times. Pu	lse sent		
	ALR					at beginning of NSFD (to ensure NSY's are	e 		
University Ave	SPLII					displayed simultaneously at both signals at times).	t all		
2	WLK 7					If there is a loss of interconnect, the two signals	gnal will		
	FDW 15 MIN 22				Fixed	run the coordinated plans.			
	MAX 1 50								
	AMB 3					ersi			
	ALR 3 SPLIT	56	56	52		Zhiv			
						Richmon			
3	WLK FDW					TCS2462 TCS79			
	MIN					65m C2C			
NOTUSED	MAX 1								
	AMB								
	SPLIT								
4	WLK 7								
	FDW 17				Fixed				
( NOT USED )	MAX 1 25								
	AMB 3								
	ALR 6 SPLIT	34	44	48					
5	WIK								
	FDW								
( NOT USED	MIN MAX 1								
	AMB								
	ALR								
Liniversity Ave	SPLIT								
6	WLK 7								
	FDW 15				Fixed				
	MAX 1 50								
	AMB 3								
	ALK 3 SPLIT	56	56	52					
7									
	FDW								
	MIN								
	MAX 1 AMB								
	ALR								
Dichmond Ct M/	SPLIT								
8 Richmond St W	WLK 7								
∕ ≪>	FDW 17				Fixed				
	MAX 1 25								
	AMB 3								
	ALR 6 SPLIT	34	44	48					
	CL OF	90 41	100 85	100					

NOTES: Richmond St is one-way westbound.

LOCATION:	University Ave & Q	ueen St W					DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with Polara 2 v	vire APS, LBO S	ans & UPS - RLC	(NB) & LPI			COMPUTER SYSTEM:	TransSuite
TCS:	80			(,			CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2 T1
PREPARED/CHECKED BY:	Parsons/ MR						CONFLICT FLASH:	Red & Red
PREPARATION DATE:	Sentember 25, 2018	R					DESIGN WALK SPEED:	1.0 m/s (EDW based on full crossing @1 2m/s)
	October 16 2018	0					CHANNEL (DROP)	4002/20
	0010001 10,2010							3 018 1 2076
							CONTROLLER FIRMWARE.	5.010.1.2370
		OFF	AM	РМ	NGHT	WKND	4	
		All Other	06:45-09:30	15:15-19:00	19:00-06:45	10:00-19:00		
NEMA Phase		Times				Sat & Sun	Phase Mode	Remarks
			M-F	M-F	Daily		(Fixed/Demanded/Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	-	
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		
								Pedestrian Minimas:
	WLK							NSWK = 7 sec., NSFD = 14 sec.
	FDW							EWWK = 7 sec., EWFD = 17 sec.
NOT USED	MIN							2 - Stage E-W pedestrian crossing.
	MAX1							APS on during walk periods when activated.
	AMB							Extended Push Activation = 3 secs.
	ALR							Scripts 1 & 2 are used for driving LBO signs
	SPLIT							respectively. See Programming Sheets for
University Ave	WLK DLY 5							more details
2	WLK 7							
	FDW 14							NS Leading Pedestrian Interval - NSWK
	MIN 16						Fixed.	comes up 5 seconds before NS vehicle
	MAX1 43						Split shown includes 5 sec of NS	green.
	AMB 3						LPI	
	ALR 3							
	SPLIT	49	56	52	46	49		
II								
3	WLK							
	FDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							
Queen St W								
4	WLK 7							
	FDW 17							
	MIN 24						Fixed.	
	MAX1 33							
│	AMB 3							
	ALR 5							
	SPLIT	41	44	48	34	41		
								1
5	WLK							
	FDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
$\sim$	SPLIT							
University Ave	WLK DLY 5							1
6	WLK 7							
	FDW 14							
	MIN 16			·			Fixed.	
	MAX1 43						Split shown includes 5 sec of NS	
	AMB 3						LPI	
	ALR 3					-	-	1
$\sim$	SPLIT	49	56	52	46	49	Y	
l								1
7	WLK							
	FDW							
	MIN							
NOT USED	MAX1							
	AMB							
	ALR							
	SPLIT							
Queen St W								1
8	WLK 7							
	FDW 17							
/ ≪> ∖	MIN 24						Fixed	
	MAX1 33							
	AMB 3		A					
	ALR 5							
	SPLIT	41	44	48	34	41		
l			17	10	54		1	1
	CL	90	100	100	80	90		
	OF	43	79	3	59	1		
				5	50			

NOTES: No EWLT from 7:00AM-7:00PM, M-F; 7:30AM-6:30PM, SAT; public holidays excepted. RLC (NB) was activated on August 31, 2017



LOCATION:	Adelaide St &	Parliament S	St			DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with 2-Wir	e Polara AP	S with RLC (	E/B)		COMPUTER SYSTEM:	TransSuite
TCS:	214					CONTROLLER/CABINET TYPE:	Econolite Cobalt /TS2 T1
PREPARED BY/DATE:	Julia Suen/ Oc	tober 10, 20	19			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Ameneh Diala	meh / Nover	nber 4. 2019			DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
	D						504040
IMPLEMENTATION DATE:	December 17,	2019				CHANNEL/DROP:	5012/12
	1					CONTROLLER FIRMWARE:	32.63.10
		OFF All Other	AM 06:30-09:30	PM 15:30-18:30	NGT 23:00-06:30	Phase Mode (Fixed/Demanded or	
NEMA Phase		Times	M-F	M-F	Daily	Callable)	Remarks
	System Plan	Pattern 1 Plan 1	Pattern 2 Plan 2	Pattern 3 Plan 3	Pattern 4 Plan 4	+	
							Pedestrian Minimums:
	WLK FDW						EWWK = 7 sec, EWFD = 17 sec NSWK = 7 sec, NSFD = 17 sec
NOTUSED	MIN						APS on during FULL WALK period of EWWK &
	MAX1 AMB						NSWK when activated by pushbuttons.
	ALR						Gardiner Rehabilitation signal timings Section1.
Adolaido St	SPLIT						2019-2020
2	WLK 7					Fixed	
	FDW 17						
	MAX1 45						
	AMB 3						
	ALR 3.3 SPLIT	52	57	57	43		
3	WLK FDW						
NOT USED	MIN						
	MAX1 AMB						
	ALR						
Parliament St	SPLIT						·
4	WLK 7					Fixed	
	FDW 17						
	MIN 24 MAX1 26						
	AMB 3.3						
	ALR 2.6 SPLIT	32	33	33	32		
5	WLK FDW						
NOT LISED	MIN						
	MAX1						
	ALR						
Adelaide St	SPLIT						-
6	WLK 7					Fixed	
	FDW 17						
	MAX1 45						
	AMB 3						
	ALR 3.3 SPLIT	52	57	57	43		
	WLK FDW						
NOT USED	MIN						
	MAX1						
	ALR						
Parliament St	SPLIT						4
8	WLK 7					Fixed	
	FDW 17						
	MIN 24 MAX1 26						
	AMB 3.3						
	ALR 2.6 SPLIT	32	33	33	32		
	0	02			02		1
	CL	84 60	90 56	90 61	75 36		
	<u> </u>						

LOCATION:	Parliament	St & Front	St E				DISTRICT:	Toronto & East York
TCS:	244						COMPUTER SYSTEM:	TransSuite
MODE/COMMENT:	FXT						CONTROLLER/CABINET TYPE:	Econolite Cobalt / TS2T1
PREPARED BY / DATE:	Petr Emelia	nov / Oct 9	. 2019				CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Hao Le / Oc	t 11. 2019					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 11.	2019					CHANNEL/DROP:	2013/2
	,						CONTROLLER FIRMWARE:	32.63.10
		OFF	AM	PM	NGHT	WKND		
		All Other	06:30-09:30	15:30-18:30	23:00-06:00	10:00-19:00	Phase Mode	Demorito
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	(Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	-	
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5		Dedectrice Minimumer
1	WIK							NSWK = $7 \text{ secs}$ : NSFD = 16 secs
	FDW							EWWK = 7 secs; $EWFD = 16$ secs
	MIN							Timing card developed for Gardiner
( NOT USED )	MAX1							Rehabilitation project Section 1. 2019-2020
	AMB							
Parliament St								
2	WLK 7						Fixed	
	FDW 16							
	MIN 23							
	MAX1 31							
	AMB 4							
	SPLIT	37	40	40	37	37		
			10	10	01	01		•
3								
Front St E								
4	WLK 7						Fixed	
	FDW 16							
	$\frac{1}{100} \frac{1}{100} \frac{1}$							
	AMB 3							
	ALR 3							
	SPLIT	38	50	50	38	47		
3								
	MIN							
	MAX1							
	AMB							
	ALR							
Devliament Of	SPLIT							ł
Parilament St	WIK 7						Fixed	
	FDW 16						i nou	
	MIN 23			X				
	MAX1 31							
	AMB 4				4			
	ALK 2	37	40	10	37	37		
	SFLII	37	40	40	37	37		1
7	WLK							
	FDW							
	MIN			<b>V</b>				
( NOT USED )	MAX1							
	SPLIT							
Front St E								1
8	WLK 7						Fixed	
	FDW 16							
	IVIIN 23 MAX1 24							
	AMB 3							
	ALR 3							
	SPLIT	38	50	50	38	47		ļ
	CL	75	90	90	75	84		
	OF	47	81	77	48	68		

## LOCATION: Queen St E & Parliament St DISTRICT: Toronto & East York Ν MODE/COMMENT: FXT with Polara 2 wire APS, TSP\* & LBO Signs COMPUTER SYSTEM: TransSuite TCS: 246 CONTROLLER/CABINET TYPE: PEEK ATC - 1000 / TS2 T1 PREPARED BY/DATE: HDR / September 27, 2019 CONFLICT FLASH: Red & Red CHECKED BY/DATE: Ameneh Dialameh / Ihtesham Ahmad/ October 1, 2019 DESIGN WALK SPEED: 1.0 m/s (FDW based on full crossing @1.2m/s) CHANNEL/DROP: 4036/4 IMPLEMENTATION DATE: October 9, 2019 CONTROLLER FIRMWARE: 3.018.1.2976 OFF AM PM NGHT WKND 06:45 15:30 All Other 22:00-09:00-21:00 09:30 18:15 Phase Mode NEMA Phase Remarks Times 06:00 Daily Sat & Sun M-F (Fixed/Demanded or M-F Local Plan Pattern 1 Pattern 5 Pattern 2 Pattern 3 Pattern 4 Callable) Split Table Split 1 Split 2 Split 3 Split 4 Split 5 Pedestrian Minimums: WLK EWWK = 7 sec, EWFD = 13 sec 1 FDW NSWK = 7 sec, NSFD = 13 sec MIN NOT USED During offset correction (O.C.) time can be reduced from MAX1 phases 2, 4, 6, & 8, but only added to phases 2 & 6. AMB \*See back for TSP instructions ALR SPLIT TSP enabled for EB and WB directions on Sept 12, 2017 Queen St E APS on for Full Walk during EWWK & NSWK when 2 WLK Fixed. 7 FDW activated by push buttons. Extended Push Activation = 3 sec 13 MIN 20 POZ activated by MAX1 48 GPS time clock is used to activate/deactivate LBO Signs Request Loop. AMB 3.0 (Transit max. extension of 30 2019 & 2020 Holidays AI R 27 Public Holidays secs. in Green/Walk) January-01-2019 & 2020 SPI IT 56 60 1. New Years Day 54 54 Family Dav February 18, 2019 3 WLK Good Friday April 19, 2019 FDW 4. Easter Monday April 22, 2019 MIN 5. Victoria Day May 20, 2019 NOT USED MAX1 July 1, 2019 Canada Day AMB 7. Civic/Provincial Day August 5, 2019 ALR 8. Labour Day September 2, 2019 SPLIT Thanksgiving Day October 14, 2019 Parliament St Remembrance Day November 11, 2019 4 WLK 7 December 25, 2019 11. Christmas Dav FDW 13 Fixed. 12. Boxing Day December 26, 2019 MIN 20 Gardiner Rehabilitation signal timings Section1. 2019-2020 MAX1 24 (TSP truncations AMB 3.0 allowable to pedestrian min.) ALR 3.1 SPLIT 5 WLK FDW MIN NOT USED MAX1 AMB AI R SPLIT Queen St E WLK 6 7 FDW 13 Fixed. MIN 20 POZ activated by MAX1 48 Request Loop. AMB 3.0 (Transit max. extension of 30 ALR secs. in Green/Walk) SPLIT 7 WLK FDW MIN NOT USED MAX1 AMB ALR SPLIT Parliament St 8 WLK FDW 13 Fixed. MIN 20 MAX1 (TSP truncations 24 AMB 3.0 allowable to pedestrian min.) ALR 3.1 SPLIT CL 90 90 84 84 84 OF 57 41 10 12 8

NOTES: EBLT restriction from 7AM - 9AM & 4PM - 6PM, Mon. - Fri., except public holidays, TTC vehicles exempted.

WBLT restriction from 7AM - 6PM, Mon. - Sat., TTC vehicles exempted.



LOCATION:	Parliament St & Shuter	St			DISTRICT:	Toronto & East York
MODE/COMMENT	FXT				COMPUTER SYSTEM:	TransSuite
TCS:	247					Econolite ASC/3-2100 / TS2 T1
						Red & Red N
					CONFLICT FLASH:	
PREPARATION DATE:	December 22, 2016				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	January 3, 2017				CHANNEL/DROP:	4051/2
					CONTROLLER FIRMWARE:	2.47.10
		OFF	AM	PM	Phase Mode	-
		All Other	06:45-09:30	15:30-18:15		
NEMA Phase		Times	M-E	M-E	(Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	(Intervolutional and caroanabic)	
	System Plan	(Plan 1)	(Plan 2)	(Plan 3)		
		,	, ,			Pedestrian Minimums:
1	WLK					NSWK 7 sec. NSFD = 14 sec.
	FDW					EWWK = 7 sec. EWFD = 13 sec.
	MIN					
( NOT USED )	MAX1					
	AMB					
	ALR					
Barliament St	SPLII					
2						
	FDW 14					
	MIN 21					
	MAX1 33				Fixed.	
	AMB 4					
	ALR 2					
	SPLIT	39	39	39		
3	WLK					
	FDW					
( NOT USED )						
	AMR					
	ALR					
	SPLIT					
Shuter St						
4	WLK 7					
	FDW 13					
	MIN 20				Fixed.	
	MAX1 30					
	AMB 4					
	ALR Z	36	11	11		
		50	171			-
5	WLK		/			
	FDW					
	MIN					
	MAX1					
	AMB					
Parliament St	JELII					4
6	WLK 7					
	FDW 14					
	MIN 21				Fixed	
	MAX1 33				i ikeu.	
	AMB 4					
	ALR 2					
l	SPLII	39	39	39		4
7	WIK					
	FDW					
	MIN					
( NOTUSED )	MAX1					
	AMB					
	ALR					
	SPLIT					4
Shuter St						
ŏ						
	MIN 20					
	MAX1 20				Fixed.	
	AMB 4					
	ALR 2					
	SPLIT	36	41	41		1
	CL	75	80	80		
l	UF	53	46	79		

LOCATION: MODE/COMMENT: TCS:	Danforth Ave	e & Pape Ave to TCS2461 &	2-Wire Polara	APS				DISTRICT: COMPUTER SYSTEM: CONTROL LEB/CARINET TYPE:	Toronto & East York TransSuite N Econolite ASC/2 2100 / TS2T1
PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	AD / HL August 20, 20 September 2	018 5. 2018						CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:	Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4020/18
	•							CONTROLLER FIRMWARE:	2.47.1
NEMA Phase		OFF All Other Times	AM 06:30-09:30 M-F	PM 15:00-19:00 M-F	NGHT 23:00-6:30 Daily	WKND 10:00-19:00 Sat & Sun	DVP Closure	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Local Plan System Plan	Pattern 1 Plan 1	Pattern 2 Plan 2	Pattern 3 Plan 3	Pattern 4 Plan 4	Pattern 5 Plan 5	Pattern 6 Plan 6	(interpendinged of ouriable)	
1 NOT USED	WLK FDW MIN MAX1 AMB								Pedestrian Minimums: EWWK = 7 sec, EWFD = 13 sec NSWK = 7 sec, NSFD = 17 sec All FDW, AMB and ALR at this location are equal to those at TCS 0345 and are dictated by the longest required duration at either intersection.
Danforth Ave	ALR SPLIT WLK 7 FDW 13 MIN 20							Fixed	This signal (designated as the Master) is interconnected by hardwire to the intersection of Pape & Lipton (TCS 2461 - designated as the Slave). The hardwire interconnect is used to ensure synchronization is provided during all times. A pulse is sent from this Master signal to the Slave signal at the beginning of the EWFD and at the beginning of the NSFD to ensure the EWFD and NSFD are served concurrently.
	AMB 3 ALR 4	20	50	55	24	44	47		All vehicle and pedestrian displays at this signal are provided simultaneously at the Slave signal (TCS 2461) via hardwire interconnect.
3 NOT USED	SPLII WLK FDW MIN MAX1 AMB ALR SPLIT	38	52	55	34	44	47	64	Extended push Activation = 3 seconds.
4 4	WLK 7 FDW 17 MIN 24 MAX1 24 AMB 4 ALR 4 SPLIT	32	38	35	32	40	47	Fixed	
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT								
Danforth Ave	WLK 7 FDW 13 MIN 20 MAX1 31 AMB 3 ALR 4 SPLIT	38	52	55	34	44	47	Fixed	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT								
8 Pape Ave	WLK 7 FDW 17 MIN 24 MAX1 24 AMB 4 ALR 4 SPLIT	32	38	35	32	40	47	Fixed	
	CL OF	70 41	90 15	90 33	66 56	84 2	94 6		

LOCATION:	O'Connor Dr	& Pape Ave						DISTRICT:	Toronto & East York
MODE/COMMENT:	FYT	a i apo ///o						COMPUTER SYSTEM:	TransSuite N
TCS	442								Peek ATC-1000 / TS2T1
	442	,						CONTROLLER/CABINET TIPE.	Peek ATC-10007 13211
PREPARED/CHECKED BY:	HDR / KB / P	<b>/</b>						CONFLICT FLASH:	Red & Red
PREPARATION DATE:	Warch 2, 2018	•						DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	April 13, 2018							CHANNEL/DROP:	402071
	1						T	CONTROLLER FIRMWARE:	1
		OFF	AM	PM	NGHT	WKND		Phase Mode	
		All Other	06:30-09:30	15:00-19:00	23:00-6:30	10:00-19:00	DVP Closure		
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun		(Fixed/Demanded or Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16	(Trixed/Demanded of Galabie)	
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5	Split 16		
									Pedestrian Minimums:
1	WLK								EWWK = 7 sec, EWFD = 15 sec
	FDW								NSWK = 7 sec, NSFD = 13 sec
	MIN 6								
	MAX1 6							Fixed	
	AMB 3								
			12	11			11		
O'Connor Dr	SFLII		12						
O Connor Dr									
2	VVLK 7								
	FDW 15								
	MIN 22							Fixed	
\ <> /	MAX1 36								
	AMB 4								
	ALR 3								
	SPLIT	43	33	39	41	43	41		
									1
3	WLK								
	FDW								
	MIN								
NOT USED	MAX1								
	AMB								
	ALR								
	SPLIT								-
Pape Ave									
4	WLK 7								
	FDW 13								
	MIN 20							Fixed	
	MAX1 21							Fixed	
	AMB 3								
	ALR 3					4			
	SPLIT	27	35	30	29	27	28		
-									1
5	WLK								
	FDW								
	MIN								
NOT USED	MAX1				1				
	AIVID								
	ALK							·	
0/0000000	SPLII								4
O Connor Dr									
6	WLK 7								
	FDW 15								
	MIN 22							Fixed	
	MAX1 36							l kou	
	AMB 4								
	ALR 3								
	SPLIT	43	45	50	41	43	52		
			1						1
7	WLK								
	FDW							1	
	MIN							1	
NOT USED	MAY4								
								1	
	AIVIB							1	
								1	
	SPLIT			-				l	4
Pape Ave							7		
8	WLK 7							1	
	FDW 13							1	
	MIN 20							Fixed	
	MAX1 21							i ixeu	
	AMB 3		-					1	
	ALR 3							1	
	SPLIT	27	35	30	29	27	28	1	
								1	1
	CL	70	80	80	70	70	80		
	OF	64	58	74	16	64	11		
	5	54	50	.4	.0			1	
I			1	1			1		

LOCATION:	Eglir	nton Ave Ea	st & Leslie	St		UTC Stages	Green Returns
MODE/COMMENT:	SAP	- Firehall P	reemption (	SBLA)		В	2 & 6
TCS#/SCN#·	453	/ 70111		,		С	dummy stage for FBLA
	4007 MI /H	41				F	
		$\sim$	010				4 4 0
PREPARED DATE:	Dece	inder 15, Z	010				
DISTRICT:	Nort	h York					
COMPUTER SYSTEM:	UTC	/SCOOT					
CONTROLLER/CABINET:	Ecor	nolite ASC/3	3-1000/M				
CONFLICT FLASH:	Red	& Red					
DESIGN WALK SPEED:	1.0 n	n/s (FDW ba					
IMPLEMENTATION DATE:	Febr	uary 9, 201					
	SIGNAL H		E DECEMBER 4	2017 -			
				, 2017 -			
		EC	<b>JLINIO</b>	N CRO	SSIOWN LRIP	ROJECI	
	TP1	OFF	AM	PM			
	Plan	All Other	07:00-10:00	15:00-19:00	Phase Mode	Bomarka	
NEMA Fliase	Local Plan	Dottorn 1	M-F Dottorn 2	M-F Dottorn 2	(Fixed/Demanded/Callable) 	Remarks	
	System Plan	Plan 1	Plan 2	Plan 3			
	WLK FDW MIN MAX1					Pedestrian Minimums: EWWK = 7 sec, EWFD = 15 s NS Pedestrians Crossing WB: NSWK = 7 sec, NSFD = 16 sec NS Pedestrians Crossing EB:	sec ec
	MAX2 AMB ALR SPLIT					NSWK = 7 sec, NSFD = 9 sec NS phase is callable by vehicl and/or pedestrian call is receiv	e and/or pedestrian actuation. If a vehicle ved, the maximum NSG would be served.
Eglinton Ave East					Fixed	a vehicle and/or pedestrian ca	displayed on the pedestrian signal heads if ill is receive
	FDW 15 MIN 22				EBSA	The signal constantly cycles the response to side street vehicle	nrough main street FDW to improve and pedestrian demand.
	MAX1 25 MAX2 40 AMB 4					Signals serves 8 seconds of N	ISWK (WLK MAX value for phase 4 & 8).
	ALR 2					SF#4 enables Max2 values	(to be determined).
	SPLIT	58	49	38			
Leslie St						ERIA & SPC collable & chipp	les
	FDW MIN MAX1 MAX2 AMB				Displayed only during firehall pre-emption	Phase Sequences:	EBSA & WBG with EWWK north side only
	ALR SPLIT						EBLA with EBSA and NS ped crossing WB
	WLK 7 WLK MAX 8 FDW 9 MIN 16						SBG and NS ped crossing EB
NOTUSED	MAX1 17 MAX2 35 AMB 3					<ul><li>Firehall Preemption Instruction</li><li>If preemption is received in preemption</li></ul>	ns: phase 2/6:
	ALR 3	24	/1	24		Time to Preemption Sequen	ce = 0 - 28 secs
Eglinton Ave East	WLK 7	24	41	24	$\mathbf{X}$	Time to Preemption is received in r	ce = 0 - 22 secs



NOTES: T intersection - no south leg

Firehall Preemption activated on February 11, 2011. \*MAX1 and MAX2 values adjusted on December 9, 2011

## Temporary Signal Timing Plan - Don Mills - Stage 7A DWG. Ref No. RTI-ECL814\_E8814 Rev. 00

Bit of the second se	LOCATION:	Eglinton Ave	& Don Mills Rd				DISTRICT:	N			
Image: An organization of the state of the stat	TCS: MODE/COMMENT:	454 FXT					COMPUTER SYSTEM: LOCAI				
Improvember 21. 001         Description         Data of FDM based on Mill results (§ 1.5 m)           NEMA Prace         Original Terminal Milling         Original Milling         Provide Milling         Provid         Provide Milling <th< td=""><td>PREPARED/CHECKED BY:</td><td>CIMA+</td><td></td><td></td><td></td><td></td><td>CONFLICT FLASH:</td><td>Red &amp; Red</td></th<>	PREPARED/CHECKED BY:	CIMA+					CONFLICT FLASH:	Red & Red			
AMERICANOUSE         Control Allow         Control Allow         Control Allow           NEBA Flass         Image: State of the	PREPARATION DATE:	September 2	1, 2018				DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing @ 1.2 m/s)			
NEMA Proce         Image: Processing of the procesing of the processing of the processing of the processin	IMPLEMENTATION DATE:	1					CHANNEL/DROP:				
NEMA Press         M Observed Freedomines         M Observed (main)         Press			OFF	AM 06:30 - 10:00	PM 15:00 - 19:00	NIGH1 1:30 - 6:00	Phase Mode	-			
$ \begin{array}{  c   } \hline \hline$	NEMA Phase		All Other Times	M-F	M-F	M-F	(Fixed/Demanded/Callable)	Remarks			
Image: Production of the second sec		Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	4				
1         Wax         Nov		System Plan	(Plan I)	(Plan 2)	(Plan 3)	(Plan 4)		Pedestrian Minimums:			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1	WLK						NSWK = 7 sec, NSFD = 50 sec			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		FDW					Callable 24 hours Daily	EWWK = 7 sec, EWFD = 24 sec			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		MAX1 8					by video Detection	NB and SB left-turn movements have a permissive-protected phase.			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		AMB 3						WB left-turn movement has a fully protected phase.			
2         Dom Mill Rei         PLL         n		ALR 4	14	14	14	14		"Inhibit Max" to be used during coordinated periods.			
2         Image: Constrained of the co	Don Mills Rd	SPLII	14	14	14	14		-			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	2	WLK 7						F6			
Image: display the set of t		FDW 50					Fixed				
Image: Arrow of the second		MAX1 61					Fixeu	( 6P 2P )			
Apr. 1     3     70     71     71     71       3     Witk Min 0     4     1     1     1       4     Witk 7     1     16     16       4     PR.11     17     14     16     16       4     PR.17     14     16     16       5     Witk 7     14     16     16       5     Witk 7     14     15     14       6     Witk 8     AR8 4     15     14       7     Witk 8     AR8 3     1     15       100 Min Rd     Witk 8     AR8 3     1     16       7     Witk 8     AR8 4     15     14     14       9     Witk 9     AR8 4     16     16       100 Min Rd     Witk 9     AR8 4     16     16       100 Min Rd     Witk 7     14     15     14       100 Min Rd     Witk 7     1     16     16       100 Min Rd     Witk 7     1     16     16 <tr< td=""><td></td><td>AMB 4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>		AMB 4									
3         Vick         0		ALR 6	70	71	71	71		F1 $F2$ $BP$			
3       WKK MAN       6 MAN       7 MAN       7		UL LI	10	11	71	71					
POW     Pow <td>3</td> <td>WLK</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	3	WLK									
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		FDW MIN 6					Callable 24 hours Daily	F5 BP			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		MAX1 10					by video Detection				
ALR     4     17     14     16     18       4     Eglinton Aw     WLK     7     Flow     Flow       4     Flow     7     Flow     Flow     Flow       MAMB     4     AAB     4     39     39       5     Flow     Flow     Flow     Flow       5     Flow     Flow     Flow     Flow       6     MIN     6     AAB     Flow     Flow       6     Flow     Flow     Flow     Flow       7     Flow     Flow     Flow     Flow       8     Flow     Flow     Flow       8     Flow     Flow     Flow       8     Flow     Flow     Flow       14     15     14     14       15     Flow     Flow       7     Flow     Flow       8     Flow     Flow       8     Flow     Flow       9     Flow     Flow       16     Flow     Flow       17     Flow     Flow       18     Flow     Flow       19     Flow     Flow		AMB 4						(F4 — F8)			
Eginton Ave     VILK     7       4     Image: Constraint of the second secon		ALR 4	17	14	16	16		4P			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Eglinton Ave	SILII	17	14	10	10					
Pow     24 MAR     Pow     24 MAR     Pow       MAR     31 MAR     31 MAR     39     39       5     WLK     7     7       MAR     7     7     7       MOT USED     MAX1     31 MAX1     7       8     WLK     7       FOW     70     71       7     WLK     7       MAX1     61       MAX1     62       MAX1     63       MAX1     64       ALR     70       SPLIT     70       MAX1     64       MAX1     64       MAX1     64       MAX1     64       SPLIT     70        SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70       SPLIT     70    <	4	WLK 7									
$\begin{bmatrix} \hline & MAX1 & 51 \\ ARR & 4 \\ ARR & 4 \\ SPLIT & 39 & 41 & 39 & 39 \\ \hline & SPLIT & 39 & 41 & 39 & 39 \\ \hline & SPLIT & 39 & 41 & 39 & 39 \\ \hline & SPLIT & 39 & 41 & 19 & 12 \\ R & SPLIT & 39 & 41 & 19 & 12 \\ R & SPLIT & 14 & 15 & 14 & 14 \\ \hline & MAK & 8 \\ ARR & 4 \\ ARR & 6 \\ SPLIT & 70 & 70 & 71 & 71 \\ \hline & VIK & 7 \\ FOW & MIN & 67 \\ AARR & 4 \\ ARR & 6 \\ SPLIT & 70 & 70 & 71 & 71 \\ \hline & VIK & 7 \\ FOW & MIN & 107 \\ MIN & 107 \\ SPLIT & 70 & 70 & 71 & 71 \\ \hline & SPLIT & 70 & 70 & 71 & 71 \\ \hline & SPLIT & 70 & 70 & 71 & 71 \\ \hline & SPLIT & 70 & 70 & 71 & 71 \\ \hline & SPLIT & 70 & 70 & 71 & 71 \\ \hline & VIK & 7 \\ FOW & MIN & 107 \\ MIN & 107 \\ MIN & 107 \\ ARR & 4 \\ $		FDW 24 MIN 31					Fixed				
AMB     4 SPLIT     39     41     39     39       5     WLK     SPLIT     39     41     39     39       6     WLK     FDW     AMB     A     AMB     A       8     WLK     7     FDW     AMB     A       8     Gallable 24 hours Daily by Video Detection     Fixed       8     WLK     7       FDW     MN     AAB       AAR     4       AAB     A       AAB     A       7     WLK       FDW     FDW       MN     AAB       AAR     A       AAB     A       AAB     A       AAB     A       AAB     A       FDW     FDW       MN     FDW       MAX1     B       AAB     A       AAB     A       AAB     A       AAB     A       AAR     A       AAB     A       AAB     A       AAB     A       AAB     A       AAR     A       AAR     A       AAR     A       AAR     A       AAR     A    <		MAX1 31					T IXCU				
ALR         4         30         41         30         39           5         WLK FDW MAX1 8 ALR         30         41         30         39           6         MAX1 8 MAX1 8 ALR         14         15         14         14           6         MIIS Rd ALR         WLK FDW ALR         14         15         14         14           6         MIIS Rd ALR         WLK FDW ALR         7         FDW FDW ALR         14         15         14         14           7         MAX1 61 ALR         70         70         71         71         Fixed           8         FDW ALR         14         140         140         140         Fixed		AMB 4									
Bith         Bith <th< td=""><td></td><td>ALR 4</td><td>30</td><td>41</td><td>30</td><td>39</td><td></td><td></td></th<>		ALR 4	30	41	30	39					
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		OF LIT			00			-			
PDW     FDW     6       MAX1     8       ALR     4       0     MIIS Rd       0     WLK       7     FDW       VLK     7       VLK     7       VLK     70       VLK     7       VLK     70       VLK     7	5	WLK									
MAX1     8       ALR     4       SPLIT     14       15     14       16     WLK       PDW     50       NIN     57       NAX1     6       AMB     4       ALR     6       SPLIT     70       NOT USED     WLK       NN     7       VULK     7       FDW     50       NIN     70       VILK     7       VILK     7       NOT USED     WLK       NIN     14       SPLIT     70       VILK     7       FDW     50       MIN     14       SPLIT     70       NOT USED     WLK       NIN     NAX1       AMB     4       ALR     4       SPLIT     56       SPLIT <t< td=""><td></td><td>MIN 6</td><td></td><td></td><td></td><td></td><td>Callable 24 hours Daily</td><td></td></t<>		MIN 6					Callable 24 hours Daily				
AMB       3 SPLIT       14       14         6       WLK       7 FOW       50 MIN       Fixed         7       WLK       70       70       71         7       WLK       7 FOW       50 MIN       Fixed         8       Fixed       Fixed		MAX1 8					by Video Detection				
Pick         Pick         Pick         Pick         Pick           0         Mills Rd         WLK         7         FDW         50           MAX1         61         MAX1         64         FDW         Fixed           7         WLK         7         70         71         71           8         WLK         7         FDW         FDW         FDW           MiN         371         70         70         71         71           8         WLK         7         FDW         FDW         FDW           MiN         371         FDW         FDW         FDW           MAX1         4A         FDW         FDW         FDW           MIN         31         MAX1         FDW         FDW           MIN         31         MAX1         FDW         FDW           MIN         314         FDW         FDW         FDW           MIN         314         FDW         FDW         FDW           MIN         56         55         55         55           FILT         56         55         55         55		AMB 3									
Don Mills Rd       WLK       7         FDW       50         MIN       57         MAX1       61         AMB       4         ALR       6         SPLIT       70         WLK       70         FDW       70         MIN       70         MAB       4         ALR       6         SPLIT       70         NOT USED       MIN         MAMB       ALR         ALR       6         SPLIT       7         FDW       24         MAMB       ALR         ALR       6         SPLIT       7         FDW       24         MAX1 48       4         ALR       4         ALR       4         SPLIT       56         S5       55         S5       55         S5       55         S5       55         S5       55         S5       55         S6       55         S5       55		SPLIT	14	15	14	14					
b       WLK 7 MAX1 61 AAB 4 ALR 6       Fixed         7       WLK FDW MAX1 61 AAB 4 ALR 6       70       71       71         7       WLK FDW MAX1 AAB 4 ALR 6       70       71       71         8       WLK 7 FDW 24 MIN 31 MAX1 48 AAB 4 ALR 4       Fixed       Fixed         8       WLK 7 FDW 24 MIN 31 MAX1 48 AAB 4 ALR 4       Fixed       Fixed         0       VLK 7 FDW 24 MIN 31 MAX1 48 AAB 4 ALR 4       Fixed       Fixed	Don Mills Rd										
Image: Specific Ave     WLK     7     70     71     71       8     WLK     7     7     7     7       8     WLK     7     7     7       9     WLK     7     7       9     WLK     7     7       9     WLK     7     7       9     WLK     7       9     56     55 <td>6</td> <td>WLK 7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	6	WLK 7									
MAX1     61 AMB     4 ALR     6 SPLIT     70     71     71       7     WLK FDW MIN MAX1 AAB ALR     70     70     71     71       8     WLK FDW 24 MIN 31 MAX1     7     7     7       8     WLK SPLIT     7     7       8     VLK SPLIT     7     7       9     0     140     140       14     140     140     140		MIN 57					Fixed				
WIK     AMB     4       ALR     5       SPLIT     70       WIK     FDW       MIN     MAB       MAR     AIR       SPLIT     0       WIK     7       FDW     1       MIN     MAX1       AMB     1       AIR     SPLIT       SPLIT     0       MIN     140       Fixed		MAX1 61									
SPLIT     70     71     71       7     WLK FDW MIN MAX1 AMB ALR SPLIT     FDW MIN MAX1 AMB ALR     Image: Constraint of the second second MIN SPLIT     Image: Constraint of the second second second MIN MAX1 AMB ALR     Image: Constraint of the second second second MIN MAX1 MIN SPLIT     Image: Constraint of the second sec		AMB 4									
7       WLK FDW MNN MAX1 AMB ALR BLR       Image: second secon		SPLIT	70	70	71	71					
V     V     V       FDW     MN       MAX1       AMB       ALR       SPLIT       Eglinton Ave       WLK       VULK       VULK       MIN       MIN       MIN       ALR       ALR       ALR       ALR       SPLIT       Image: Second State       MIN       MAX1       ALR       ALR       ALR       ALR       ALR       ALR       ALR       ALR       ALR       CL       140       140       140       140       140       140       140       140	7										
NOT USED         MIN MAX1 AMB ALR SPLIT         MIN MAX1 ALR SPLIT         Fixed           8         WLK 7 FDW 24 MIN 31 MAX1 48 AMB 4 ALR 4 SPLIT         Fixed           8         VLK 7 FDW 24 MIN 31 MAX1 48 AMB 4 ALR 4 SPLIT         56         55         55           CL         140         140         140         140		FDW									
MAX1 AMB ALR SPLIT     MAX1 ALR SPLIT       8     WLK 7 FDW 24 MIN 31 AAR 4 ALR 4 SPLIT       0     Fixed       8     CL       140     140       140     140	NOT LISED	MIN									
ALR     ALR       SPLIT     SPLIT       B     WLK       FDW     24       MIN     31       MAX1     48       ALR     4       ALR     4       SPLIT     56       CL     140       140     140		MAX1									
SPLIT         SPLIT         Fixed           8         WLK 7 FDW 24 MIN 31 AAR 4 ALR 4 SPLIT         Fixed         Fixed           0         CL         140         140         140		ALR									
B         WLK         7           FDW         24           MIN         31           MAX1         48           AMB         4           ALR         4           SPLIT         56         55           CL         140         140           140         140		SPLIT					ļ				
FDW         24           MIN         31           MAX1         48           ALR         4           SPLIT         56           CL         140           140         140	Eglinton Ave	WIK 7									
MIN         31         Fixed           MAX1         48         AMB         4           ALR         4         4         4           SPLIT         56         55         55           CL         140         140         140		FDW 24									
MAX1         48 AMB         4           ALR         4           SPLIT         56           CL         140           140         140		MIN 31					Fixed				
ALR         4           SPLIT         56         55         55           CL         140         140         140		MAX1 48									
SPLIT         56         55         55           CL         140         140         140		ALR 4									
CL 140 140 140 140		SPLIT	56	55	55	55		-			
		CL	140	140	140	140					



LOCATION:		Don N	lills R	d & O	verlea E	Blvd/ Gate	eway Blvd	S	UTC Stages	Green Returns
MODE/COMMENT:		FXT w	ith 2-	Wire	Polara A	PS & EB	UPS	A	2&5	
TCS#/SCN#		620/12	2931						В	2&6
CODER/CHECKED BY:	·	BS/HL	-						C	3&7
DATE CREATED		Octob	er 26,	2016	i				D	3&8
DISTRICT:		North	York						E	4 & 7
COMPUTER SYSTEM:		UTC/S	COO.	Г					F	4 & 8
CONTROLLER/CABINE	ET:	Econo	olite A	SC/3-	2100/TS	2T1			G	1&5
CONFLICT:		Red &	Red						н	1&6
DESIGN WALK SPEED		1.0 m/	s (FD	W bas	sed on f	ull crossi	na @ 1.2	m/s)		
IMPLEMENTATION DA	TE:	Octob	er 14.	2016			5 -			
CONTROL LER FIRMW	∆RF·	2.47.1	0							
CONTROLLER		TP1	TP2	TP3	OFF	AM	PM	Phase Mode	Re	emarks
		Plan 1 &		-	All Other	6:30-10:00	15:30-19:00	(Eived/Domanded or		
		Backup	Plan 2	Plan 3	Times	M - F	M - F	(Fixed/Demanded or Callable)		
NEM/ THUGO		Free								
	Local I	Plan			Pattern 1	Pattern 2	Pattern 3			
	System	n Plan			Plan I	Plan 2	Plan 3		Pedestrian Minimu	m.
	FDW							Callable/Extendable	NSWK = 7 sec. NS	ED = 25 sec
	MIN	6	6	6				by 9 m Setback Loop	EWWK = 7 sec. EV	VFD = 25 sec
	MAX1	6	6	6				, ,	Left-Turn Passage	Time = 2 sec
	MAX2	7	7	7					SF#1 disables NBL	A
	AMB	3	3	3					(times to be determ	nined)
	ALLK	1	1	1	11	11	11		times to be determ	LA bined)
Don Mills Rd	WIK	7	7	7	11				SF#3 disables SBI	A
	FDW	25	25	25				Fixed	(times to be determ	nined)
2 / 4 ^ \	MIN	32	32	32					SF#4 enables MAX	
	MAX1	49	45	41					(times to be determ	nined)
	MAX2	49	45	41					APS on during EW	WK & NSWK when
	AMB	4	4	4					activated by pushb	utton only when no
		3	3	3	56	52	19		Extended APS Pus	b Activation - 2000
	WIK					JZ	40		APS activated on J	une 24. 2015
	FDW							Callable/Extendable	EBLA can extend u	p to 18s, 22s & 26s for
3	MIN	6	6	6				by 5m Setback Loop	vehicles and 31s, 3	85s & 39s for transit
	MAX1	6	6	6					during the OFF, AN	1 & PM plans,
	MAX2	7	7	7					respectively.	
		3	3	3					SBRA displayed co	ocurrently with EBLA
	SPI IT	1			11	11	11		101 activated offi	
Overlea Blvd	WLK	7	7	7						
	FDW	25	25	25				Fixed		
	MIN	32	32	32						
4	MAX1	59	63	67						
	MAX2	59	63	67						
		4	4	4						
	SPLIT			Ů	66	70	74			
$\frown$	WLK									
	FDW							Callable/Extendable		
	MIN	6	6	6				by 9 m Setback Loop		
<b>b</b>	IVIAX1	6	6	6						
	AMR	3	3	3						
	ALLR	1	1	1						
	SPLIT				11	11	11			
Don Mills Rd	WLK	7	7	7						
	FDW	25	25	25				Fixed		
	MIN	32	32	32						
° (	MAX2	49 49	40 45	41 41						
	AMB	4	4	4				7		
	ALLR	3	3	3						
	SPLIT				56	52	48			
$\frown$	WLK									
				6				Fully Protected		
	MAX1	0 31	35	39				by Setback Loop		
	MAX2	31	35	39				or by Transit Loop		
	AMB	3	3	3				(Max extension of 13s)		
	ALLR	3	3	3				,		
	SPLIT		_	_	37	41	45		4	
Gateway Blvd S	WLK	7	7	7						
	FDW MIN	25	25	25				Fixed		
$\circ/$	MAX1	32	32	32						
	MAX2	33	33	33						
	AMB	4	4	4						
	ALLR	3	3	3						
	SPLIT				40	40	40			
					144	144	144			
L							1		1	



MODE/ECONMENT:         SA2-WIG with P & 3-Wire Polara APS         N         B         2 & 6           CESISCOM         621 / 1211         I	LOCATION:		Don	Mills Rd & St	Dennis Dr / Or	ntario Science	Centre	UTC Stages	Green Returns
TCSMRCOMP         621 / 12911         F         4 8.8           PREPARE/DCMCE/D BY         AD /HL         September 22, 2015         September	MODE/COMMENT:		SA2-	VMG with PR	& 2-Wire Pola	ra APS	N	В	2 & 6
PREPAREDUCIEC DetEXED B1:     AD / HL     I       PREPARED DATE:     Septembor 22, 2015       DSTRUCT:     North York       North York     VIC / SCOOT       COMPUTE:     Septembor 22, 2015       DOWNUTE:     To make A Real       DESIGN WALK SPEED:     1.0 m/a (FDM based on full crossing @ 1.2 m/s)       NEEMA Phase (Green Relum)     North York       NEEMA Phase (Green Relum)     North York       VILK     Phase Note       1     VILK       MAD HL     Pattern 1       NEEMA Phase (Green Relum)     North York       VILK     Phase Note       1     VILK       VILK     Phase Note       1     VILK       NOT USED     North York       MAD HL     10       MAX1     8       MAX1     11       VILK     7       MAX1     8       MAX1     8       MAX1     8       MAX1     8       MAX1     11       MAX1     12       MAX1     13       MAX1     14       MAX1     14       MAX2     14       MAX2     14       MAX2     14       MAX2     14	TCS#/SCN#		621 /	12911			Ť	F	4 & 8
PREPARED DATE:         September 22, 2015           DOSTRUCT:         North York           COMPUTER SYSTEM:         UTC / SCOOT           MeLAN PASSE (Green Return)         OFF         MAR         Plane Plane Note           1         UTC / SCOOT         UTC / SCOOT         Callable Standale         Plane Plane Note           2         UTC / SCOOT         UTC / SCOOT         UTC / SCOOT         Plane Plane Note         Plane Note           1         UTC / SCOOT         UTC / SCOOT         UTC / SCOOT         Plane Note         Plane Note           1         UTC / SCOOT         UTC / SCOOT         Plane Note         Plane Note         Plane Note           1         UTC / SCOOT         UTC / SCOOT         Plane Note         Plane Note         Plane Note           1         UTC / SCOOT         UTC / SCOOT         Plane Note <td>PREPARED/CHECKED BY:</td> <td></td> <td>AD /</td> <td>HL</td> <td></td> <td></td> <td></td> <td>н</td> <td>1&amp;6</td>	PREPARED/CHECKED BY:		AD /	HL				н	1&6
District:         North Yek         North Yek         North Yek           COMFUTCE SYSTEM:         Econolia SCC2-100 / M         Secondia SCC2-100 / M         Secondia SCC2-100 / M           COMTRUET FLANG         To Pace Media         To Pace Media         Secondia SCC2-100 / M         Secondia SCC2-100 / M           DESIGN MULK SPEED:         1 und (FDW)         To Pace Media         Secondia SCC2-100 / M	PREPARED DATE:		Sept	ember 22, 201	5				
COMPUTER SYSTEM:         UTC / SCOOT           COMPUTER SYSTEM:         Free online ASC-2710 / M           COMPUTER LASK.         Free online ASC-2710 / M           COMPUTER LASK.         Free online ASC-2710 / M           REMA Phase (Green Return)         Im (FDW) Isoado on full crossing @ 1.2 m/s)           MELLA Phase (Green Return)         OFF end ASC           MAX2         0           MAX2<	DISTRICT:		Norti	h York					
CONTROLLEROGENEET:         Economic ASCO-2100 / M           DESIGN MALK SPEED::         1.0 m/s (FPM) based on full crossing @ 1.2 m/s)         Image: Control of L2016           NEMA Phase (Green Return)         0 0 0 FF	COMPUTER SYSTEM:		UTC	/ SCOOT					
CONFLICT FLASH       Red & Red         CONFLICT FLASH       Red & Red         Dom (FUX based on full crossing @ 1.2 m/s)         MEMA Phase (Green Return)         Implement of patients       Patients       Return to the patients         Implement of patients       Patients       Return to the patients         Implement of patients       Patients       Return to the patients         Implement of patients       Return to the patients       Return to the patients         Implement of patients       Patients       Return to the patients         Implement of patients       Return to the patients       Return to the patients         Implement of patients       Patients       Return to the patients         Implement of patients       Return to the pati	CONTROLLER/CABINET:		Econ	olite ASC/3-2	100 / M				
DESIGN WALK SPEED: MRPLEMENTATION DATE:         1 a m/s (FOW based on full crossing @ 1.2 m/s) Use 0.2017         Phase Mode 0.50100         Phase Mode (Filemanded or M-F           1         I         I         Patter T         Plate in M         Plate in Mode (Filemanded or M)         Plate in Mode (Filemanded or M) <t< td=""><td>CONFLICT FLASH:</td><td></td><td>Red</td><td>&amp; Red</td><td></td><td></td><td></td><td></td><td></td></t<>	CONFLICT FLASH:		Red	& Red					
IMPLEMENTATION DATE:         June 10, 2016         Mail Other         Add Other         Passes (Groon Return)         Add Other         Passes (Groon Return)         Passes (Groon Return) <th< td=""><td>DESIGN WALK SPEED:</td><td></td><td>1.0 m</td><td>n/s (FDW base</td><td>d on full cros</td><td>sina @ 1.2 m/</td><td>s)</td><td></td><td></td></th<>	DESIGN WALK SPEED:		1.0 m	n/s (FDW base	d on full cros	sina @ 1.2 m/	s)		
NEMA Phase (Green Return)         DOFF Local Plan         OdF All Other Patern 1         OdF Patern 2         Patern 3         Phase Mode M-F         Phase Mode Status 1           1         Used Plan         Patern 1         Patern 1         Patern 1         Patern 2         Patern 3         Calable)           1         W1k         Filtern 1         Patern 2         Patern 2         Patern 3         Calable/ Status 1         Patern 2         Patern 3           2         W1k         7         1         12         12         Patern 3         Calable/ Status 1         Patern 3	IMPLEMENTATION DATE:		June	10, 2016		5-	- /		
NEMA Phase (Green Return)         Vick Pattern 1         Postbarn 1         Postbarn 1         Postbarn 1         Postbarn 2				OFF	AM	PM	Phase Mode	Rer	narks
1         WK Y         Personal memory         Pe	NEMA Phase (Green Return)	Local P	lan	All Other Times Pattern 1	06:30-10:00 M-F Pattern 2		$\mathbf{O}$		
Image: Construction of the second of the	1	WI K				Callable/Extendable	Pedestrian Minimun	ns: ED - 19 sec	
Image: Construction         MMN         6 MAX2         Filter         Filter         Filter         Filter           2         Image: Construction         Filter         11         12         12         Filter		FDW					by setback loop	EWWK = 7 sec, EW	/FD = 23 sec
MAX1         6         podestinal multiple         podestinal multiple </td <td></td> <td>MIN</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td>EW phase is callable</td> <td>e by vehicle or</td>		MIN	6					EW phase is callable	e by vehicle or
AMB         3         AMB         4         AMB         AMB <th< td=""><td></td><td>MAX1</td><td>6</td><td></td><td></td><td></td><td></td><td>pedestrian actuation</td><td><ol> <li>If a vehicle call is</li> <li>EWG is 7</li> </ol></td></th<>		MAX1	6					pedestrian actuation	<ol> <li>If a vehicle call is</li> <li>EWG is 7</li> </ol>
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		AMB	3					seconds. If ongoing	vehicle demand
SP-LI         11         12         12         capabe of providing value extensions of providing value extensions of the providing value extensions of the providing value extension for the production minimum wall selection minimum wall selection maintenance wallow maintenance wallowallow wallow selectiona maint		ALR	1					exists on the stopba	r loop, the EWG is
2         VILK         7	Dan Mills D-I	SPLIT		11	12	12		capable of providing	vehicle extensions
Image: Second The Second The Second The Poil	2 Don Mills Rd	WLK	7				Fixed	is received, the ped	estrian minimums will
Image: Second		FDW	19					be served. The EW	WK & EWFD are
Image: Second Control         MMX1         20         3         MVLK         For the second Control         For the second Contro	( <b>T</b> )	MIN	26					only displayed on th	e pedestrian signal
AMB     *       ARR     2       SPLIT     63       WLK     F       FOW     MIN       MIN     MIN       MAX1     ANB       ALR     2       AMB     2 <t< td=""><td></td><td>MAX1 MAX2</td><td>26 26</td><td></td><td></td><td></td><td></td><td>heads if a pedestria</td><td>n call is received.</td></t<>		MAX1 MAX2	26 26					heads if a pedestria	n call is received.
ALR         2         70         70         Side Stree Passage Time = 3 sec. Side Stree Passage Time = 2 sec           3         WLK         F63         70         70         Side Stree Passage Time = 2 sec. SFr di dashes SBL4 (imes to be determined).           4         FDW         MN         MN         Side Stree Passage Time = 2 sec. SFr di dashes SBL4 (imes to be determined).           4         FDW         X         Side Stree Passage Time = 2 sec. SFr di dashes SBL4 (imes to be determined).           4         FDW         X         Side Stree Passage Time = 2 sec. SFr di dashes SBL4 (imes to be determined).           4         FDW         X         Side Stree Passage Time = 2 sec. SFr di dashes SBL4 (imes to be determined).           5         WLK         FDW         X         Side Stree Passage Time = 2 sec. SFr di dashes Max 2 (imes to be determined).           6         Onturis Sience Carline ALR         VLK         T         Side 3 sec.           7         WLK         T         Side 3 sec.         Side 3 sec.           7         WLK         T         Side 3 sec.         Side 3 sec.           7         WLK         T         Side 3 sec.         Side 3 sec.           7         WLK         T         Side 3 sec.         Side 3 sec.           8         Side 3 sec.	• •	AMB	4				demand. Unused ex	tension time is given	
SYLI     Col     70     Kit Street Passage Time - 3 sec.       3     WLK     WLK     NT USED     WLK       MW     MW     MW     Street Passage Time - 2 sec.       4     WLK     7       4     WLK     7       FDW     23       MNN     7       MAX1     30       AMB     ALR       SPLIT     38       AMB     ALR       AMB     ALR       AMB     ALR       AMB     ALR       AMB     ALR       ALR     SPLIT       AMB     ALR       AMB     ALR       AMB     ALR       AMB     ALR       AMB     ALR       SPLIT     39       AMB     ALR       SPLIT     39       AMB     ALR       SPLIT     39       AMB     ALR       SPLIT     74       BO     State S		ALR	2				to the NSG.	-	
3     WLK     File     Sint 1 dist 2 stand 1 Mile 2 Mile 2 Stand 1 Mile 2		SPLIT		63	70	70		Side Street Passage	$e \ I ime = 3 \ sec$
NOT USED     PDW MiN MAX1 ALR     Callable by stophar ALR     Callable by stophar biop and/or pushbutton AAX2     Callable by stophar biop and/or pushbutton AAX2     Callable by stophar biop and/or pushbutton AAX2     Ans ALR       5     WUK     7     SPLIT     38     38     38       5     WLK     7     SPLIT     38     38       6     WLK     7     FDW     2     ANB ALR       8     WLK     7     FDW     2     52       7     WLK     7     FDW     2     52       7     WLK     7     FDW     2     52       7     WLK     7     FDW     2     52       8     SPLIT     74     82     82       7     WLK     7     Fixed       8     SPLIT     74     82     82       7     WLK     7     Fixed       8     SPLIT     74     82     82       7     WLK     7     Fixed       8     SPLIT     74     82     82       8     SPLIT     74     82     82       6     Callable by stophar loop.     Stophar loop.       8     SPLIT     74     82     82       9 </td <td>3</td> <td>WLK</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>SF#1 disables SBLA</td> <td>A (times to be</td>	3	WLK						SF#1 disables SBLA	A (times to be
NOT USED     MiN AMB ALR SPLIT     SF4 anable Max 2 (times to be determined).       4     Ontatio Science Centre MAX1 30 MAX2 40 AAR 4 ALR 3     VLK 7 FDW 23 MIN 7 MIN 7 MAX1 30 MAX2 40 AAR 4 ALR 3     Catable by stoppar Science Centre MIN 7 MIN		FDW						determined).	
Average of the second secon	( NOT USED )	MIN MAX1						SF#4 enables Max 2	2 (times to be
ALR     Only:     Origin Second Control       4     WLK     7       FDW     WLK     7       MN     7       MAX1     30       AVR     3       SPLIT     38       38     38       38     38       38     38       39     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       38     38       39     38       38     38       38     38       38     38       38     38       39     38       4     AIR       38     38       38     38       38     38       38     38       38     38   <		AMB						ISM used to re-sync	in NSG/NSWK
A Calable by stopbar Calable by stopbar Cala		ALR						only.	
4     WLK     7       FDW     23       MIN     7       MAX1     38       38     SPLIT       6     WLK       7     WLK       NOT USED       NOT USED       MAX1       AMB       ALR       38       SPLIT       7       WLK       7	Ontaria Paiance Orates	SPLIT						APS on during 7 sec	c of NSWK & 7 sec of
Image: Power of the second	4 Untario Science Centre	WLK	7				Callable by stoppar	and No LT arows	tied by pushbutton
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		FDW	23				loop and/or pushbutton.	APS Extended push	Activation = 3 sec
MAX 1 30 MAX 2 40 ALR 3 SPLIT       MAX 1 30 ALR 3 SPLIT       Stoppar loop.         5       WUK FOW MAX ALR ALR SPLIT       Stoppar loop.         6       WUK 7 FOW 19 MAX 2 ALR 2 SPLIT       Fixed         7       WUK NOT USED       WUK 7 FOW 19 MAX 2 ALR 2 SPLIT       Fixed         8       Stoppar loop.       Stoppar loop.         8       Stoppar loop.       Stoppar loop.         8       WUK 7 FOW MAX ALR 2 SPLIT       Fixed         7       WUK NAX 2 SPLIT       Fixed         8       Stoppar loop.       Callable by stoppar loop and/or pushbutton. Extendable by stoppar loop.         8       Stoppar loop.       Stoppar loop.         0ALR 3 SPLIT       38 SB       38 SB         0ALR 3 SPLIT       Stoppar loop.         0ALR 3 SPLIT       Stoppar loop.		MIN	7				Extendable by		
AMB     4 ALR     38     38     38       5     WLK FDW MIN MAX1 AMB ALR     VILK FDW MIN MAX1 AMB ALR     7     Fixed       6     WLK FDW MIN MAX1 AMB ALR     7     Fixed       7     WLK FDW MIX MAX1 ALR     7     82       8     St Dennib Dr MIX FDW     VILK FDW MIX MAX1 AMB     7       8     St Dennib Dr MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX ALR     7       8     St Dennib Dr MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX FDW MIX ALR     7       8     St Dennib Dr MIX FDW FDW FDW FDW FDW FDW FDW FDW FDW FDW	\ <i>&lt;</i> > /	MAX1 MAX2	30 40				stopbar loop.		
ALR       3       38       38       38       38         5       WLK       FDW       ALR       38       38       38         6       WLK       7       FDW       ALR       38       38       38         7       Don Mills Rd       WLK       7       FDW       10       ALR       2         7       WLK       7       74       82       82       82         7       WLK       7       74       82       82         8       SDBmils Dr       WLK       7       74       82       82         8       SDBmils Dr       WLK       7       74       82       82         8       SDBmils Dr       WLK       7       7       82       82         8       SDBmils Dr       WLK       7       8       38       38       38         9       ULK       7       8       33       38       38       38         9       ULK       7       9       9       9       9         10       000 and/or pushbutton.       5       9       1000 and/or pushbutton.         10       11       1       1		AMB	4						
SPUT3838385WLK FDW MN MAX1 AMB ALR SPLITWLK FDW MN MX1 AMB ALR SPLITFixed6 $\overrightarrow{Don Mils Rd}$ SPLITWLK FDW MN MX2 AAB ALR SPLITFixed7 $\overrightarrow{NOT USED}$ WLK MX1 AMB ALR SPLIT74828 $\overrightarrow{SDenis Dr}$ MX1 SPLITWLK FDW MIN MX1 AMB ALR74828 $\overrightarrow{SDenis Dr}$ MX1 SPLIT74828 $\overrightarrow{SDenis Dr}$ MX1 SPLITWLK FDW MIN MAX1 AMB ALR SPLIT74828 $\overrightarrow{SDenis Dr}$ MX2 AMB ALR SPLIT $\overrightarrow{SDenis Dr}$ MX1 SDLCallable by stopbar loop and/or pushbutton. Extendable by stopbar loop.8 $\overrightarrow{SDenis Dr}$ MAX2 ALR SPLIT3838389 $\overrightarrow{SDL}$ MX2 AD ALR SPLIT11		ALR	3						
5     WLK PDW MN MMN MAX1 AMB ALR SPLIT     WLK SPLIT     Fixed       6     WLK FDW MN 26 MAX2 26 AMB 4 ALR 2 SPLIT     Fixed       7     WLK SPLIT     74     82       8     St Denis Dr St Denis Dr MN 7 MMN MAX1 AMB ALR SPLIT     VLK SUB     7       8     St Denis Dr MN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     VLK SUB     7       8     St Denis Dr MN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     St Denis Dr MAX 2 40 AMB 4 ALR 3 SPLIT     112     120       1     1     1		SPLIT		38	38	38			
$\left( \begin{array}{c c c c c c c c c c c c c c c c c c c $	5	WLK							
NOT USED     MMN MAX1 ANB ALR SPLIT     Fixed       6     Don Mills Rd MiN 28 MAX1 26 MAX2 26 AAB 4 ALR 2 SPLIT     VULK 7 FDW 19 MIN 28 MAX1 26 MAX2 26 AAB 4 ALR 2 SPLIT     Fixed       7     WULK FDW MIN MAX2     74     82     82       7     WULK FDW MIN MAX1 AAB ALR SPLIT     74     82     82       8     SI Demis Dr FDW 23 MIN 7 MAX1 30 MAX2 40 AAB 4 ALR 3 SPLIT     74     83     38       8     SI Demis Dr MAX2 40 ALR 3 SPLIT     VULK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 ALR 3 SPLIT     Callable by stopbar loop and/or pushouton. Extendable by stopbar loop.       8     SI Demis Dr MAX2 40 ALR 3 SPLIT     112     120       0     0F     1     1		FDW		7/					
AMB ALR SPLIT     AMB ALR SPLIT     Fixed       6     WLK 7 FDW 19 MIN 26 MAX1 26 AMB 4 ALR 2 SPLIT     Fixed       7     WLK SPLIT     74     82       8     WLK FDW 23 MIN 7 MAX1 30 MAX2 40 ALR 3 SPLIT     VLK FDW 23 MIN 7 MAX1 30 MAX2 40 ALR 3 SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     VLK FDW 23 MIN 7 MAX1 30 MAX2 40 ALR 3 SPLIT     VLK FDW 23 MIN 7 MAX1 30 MAX2 40 ALR 3 SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       1     1     1     1	NOT USED	MIN MAX1							
A.R     SPLIT     Fixed       6     Image: Constraint of the second s		AMB							
SPLIT     Fixed       6     WLK     7 FDW     19 MAX1     26 MAX1     Fixed       MAX1     26 MAX2     26 MAX2     26 MAX1     Fixed       7     WLK     7 NOT USED     74     82     82       8     St Dennis Dr FDW     WLK     7 MAX1     ABB ALR SPLIT     ALR SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     St Dennis Dr MAX1     WLK     7 MAX1     AB ALR     ALR SPLIT     Stopbar loop.       8     St Dennis Dr MAX2     ULK     7 MAX1     AB ALR     ALR SPLIT     ALR       8     St Dennis Dr MAX2     ULK     7 MAX1     AB ALR     ALR       9     ULK     1     1     1		ALR				0			
6       WLK 7       Fixed         FDW 19       MIN 26         MAX1 26       MAX1 26         MAX2 26       MAX2 26         AR8 4       ALR 2         SPLIT       74       82         VILK 7       VILK 7         FDW       MIN         MAX1 26       MAX2 26         MAX2 26       SPLIT         7       WLK         NOT USED       MIN         MAX1       AIR         SPLIT       74       82         SI Dennis Dr       WLK 7         FDW 23       FDW 23         MIN 7       FDW 23         MAX1 30       MAX1 30         MAX2 40       ALR 3         SPLIT       38       38         SPLIT       11       1         SPLIT       120       120         OF       1       1       1	Don Mille Del	SPLIT						4	
FDW       19 MIN       26 MAX1       26 MAX2       26 ALR       2         AMB       4 ALR       2       82       82         7       WLK       74       82       82         7       WLK       FDW       8       8         St Dennis Dr       WLK       7       Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.         8       WLK       7       MIN       7         MIN       7       MAX1       38       38         St Dennis Dr       WLK       7       Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.         8       WLK       7       MIN       7         MAX1       38       38       38         CL       112       120       120         OF       1       1       1	6	WLK	7				Fixed		
MIN       26 MAX1       MAX1       26 MAX2       MAX1       26 MAX2       MAX1       26 MAX2       MAX1       26 MAX2       MAX1       26 MAX2       26 MAX2       26 MAX1       26 MAX2       26 MAX1       26 MAX2       26 MAX1       26 MAX1       26 MAX2       26 MAX2       26 MAX1       26 MAX1 <td></td> <td>FDW</td> <td>19</td> <td></td> <td></td> <td></td> <td></td> <td> </td> <td></td>		FDW	19						
WIAX     20 MAX2     WIAX     20 MAX2     WiAX       AMB     4 ALR     2 SPLIT     74     82     82       7     WLK     FDW     82     82       7     WLK     FDW     8     82       8     St Dennis Dr     WLK     7       8     WLK     7     FDW     23 MIN       MIN     MAX1     AMB       ALR     SPLIT     38       3     St Dennis Dr     WLK       MAX1     AMB       ALR     SPLIT       8     WLK     7       FDW     23       MIN     7       MAX2     40       AMB     4       ALR     3       SPLIT     38       SPLIT     38       SPLIT     1       0F     1		MIN	26						
AMB     4 ALR     2 SPLIT     74     82     82       7     WLK     FDW MIN MAX1 AMB ALR SPLIT     Image: Split state		MAX2	26 26						
ALR     2     74     82     82       7     NOT USED     WLK FDW MIN MAX1 AMB ALR SPLIT     Image: Constraint of the second SPLIT     Image: Constraint of the second SPLIT     Image: Constraint of the second SPLIT       8     St Dennis Dr FDW 23 MIN 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     Image: Constraint of the second SPLIT     Image: Constraint of the second Stop and/or pushbutton. Extendable by stop bar loop.       8     St Dennis Dr FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     Image: Constraint of the second SPLIT     Image: Constraint of the second Stop and/or pushbutton. Extendable by stop bar loop.       CL     112     120     120 OF     1		AMB	4						
SPLIT     74     82     82       7     NOT USED     WLK FDW MAX1 AMB ALR SPLIT     Image: Split Spl		ALR	2	74	00	00			
7     NOT USED     WLK FDW MIN MAX1 AMB ALR SPLIT     Image: Constraint of the system SPLIT       8     St Dennis Dr FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     VULK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       0     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.		SPLII	-	/4	82	82		1	
FDW MIN MAX1 AMB ALR SPLIT     FDW MIN AMB ALR SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     WLK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       0     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       0     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       0     CL       0     112       1     1	7	WLK							
NOT USED     MIN MAX1 AMB ALR SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     VULK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     38     38       Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       Coll     112     120       CL     112     120       OF     1     1		FDW							
AMB ALR SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     WLK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       0     MAX1 30 MAX2 40 AMB 4 ALR 3     38 38 38 38 38     38 38       CL     112     120 0F     120 1	NOT USED	ΜΙΝ ΜΔΥ1							
ALR SPLIT     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       8     WLK 7 FDW 23 MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     38     38     38       Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.     Callable by stopbar loop and/or pushbutton. Extendable by stopbar loop.       MIN 7 MAX1 30 MAX2 40 AMB 4 ALR 3 SPLIT     38     38       CL     112     120     120       OF     1     1     1		AMB							
St Dennis Dr     WLK     7       B     FDW     23       MIN     7       MIN     7       MAX1     30       MAX2     40       AMB     4       ALR     3       SPLIT     38       CL     112       OF     1		ALR							
8     WLK 7       FDW 23     MIN 7       MIN 7     MAX1 30       MAX 40     A       AMB 4       ALR 3       SPLIT     38       CL     112       OF     1	0.0	SPLIT						{	
FDW     23       MIN     7       MAX1     30       MAX2     40       AMB     4       ALR     3       SPLIT     38       CL     112       OF     1       1     1	8 St Dennis Dr	WLK	7				Callable by stoppar		
MIN         7         Extendable by stopbar loop.           MAX1         30         MAX2         40         A           AMB         4         A         A         A           ALR         3         38         38         38           CL         112         120         120         0F         1           OF         1         1         1         1         1		FDW	23				loop and/or pushbutton.		
MAX1         30         stopbar loop.           MAX2         40         4           AMB         4         4           ALR         3         38         38           SPLIT         38         38         38           CL         112         120         120           OF         1         1         1		MIN	7		Extendable by stopbar loop.				
AMB         4           ALR         3           SPLIT         38           CL         112           OF         1		MAX1	30 40				stopbar loop.		
ALR 3 SPLIT 38 38 38 CL 112 120 120 OF 1 1 1 1		AMB	40 4						
SPLIT         38         38         38           CL         112         120         120           OF         1         1         1		ALR	3						
CL         112         120         120           OF         1         1         1         1		SPLIT		38	38	38			
		CL		112	120	120			
			40						40/44/00

LOCATION:	Don I	Mills Rd & E	Barber Gree	ne Rd/ Gree	n Belt Dr	UTC Stages	Green Returns		
MODE/COMMENT:	SA2-	VMG with P	R			A	2 & 5		
TCS/SCN:	623/1	2871				В	2&6		
PREPARED/CHECKED BY:	PV/H	L/SL				С	3&7		
PREPARED DATE:	Janua	ary 21, 2014	1			D	3 & 8		
DISTRICT:	North	York				E	4 & 7		
COMPUTER SYSTEM:	UTC/	SCOOT				F	4 & 8		
CONTROLLER/CABINET TYPE	: Peek	3101E / TS	2T1			G	1 & 5		
CONFLICT FI ASH	Rod 8	& Red				н	1 & 6		
DESIGN WALK SPEED	10 m	- 1100 /s (FDW ha	sed on full (	rossing @	1 2 m/s)		100		
	June	24 2014	Sea on ruil (	. Jaaniy @					
	June	, 2014 OFF	ΔM	рм	Phase Mode	Remarks			
NEMA Phase (Green Return)		All Other Times	06:30-10:00 M-F	15:00-19:00 M-F	(Fixed/Demanded or Callable)	4			
	Local Plan	C101S1	C101S2	C101S3					
1	WLK	010131	010152	010183		Pedestrian Minimum	IS:		
	FDW					NSWK = 7 sec, NSF	D = 17 sec		
	MIN 6					EWWK = 7 sec, EW	/FD = 22 sec		
	MAX 1 6				Callable & Extendable	EVV phase is callable actuation If a vehic	e by vehicle or pedestrian		
	AMB 3				by 5 m Selback loop	minimum EWG is 7	seconds. If ongoing vehicle		
	ALLR 1					demand exists on th	e stopbar loop, the EWG is		
0 Dec M88 D 1	SPLIT		11	11		capable of providing	vehicle extensions up to the		
2 Don Mills Rd	WLK 7 FDW 17					pedestrian minimum	estrian call is received, the		
	MIN 24				EWWK & EWFD are	e only displayed on the			
	MAX 1 24				pedestrian signal he	ads if a pedestrian call is			
	MAX 2 24				received. Extension	time is based on vehicle			
	AIVID 4 ALLR 2				NSG.	tension time is given to the			
	SPLIT	67	80	69		Side Street Passage	e Time = 3 sec		
3	WLK					Left-Turn Passage T	Time = 2 secs		
	FDW MIN 6					Vehicle demand on	Phase 3 &/or 7 calls and		
	MAX1 6				Callable & Extendable	ambers are always served together)			
	MAX 2 6				by setback loop	SF#1 disables NBLA	A at all times except 06:30-		
	AMB 3					10:00 & 15:00-19:00	), M-F.		
	ALLR 1			11	5+#2 disables EBLA	A & WBLA at all times except			
4 Barber Greene Rd	WLK 7				SF#3 disables SBLA	at all times except 06:30-			
	FDW 22					10:00 & 15:00-19:00	), M-F.		
	MIN 7				Callable by stopbar loop	SF#4 enables Max 2	2 (times to be determined).		
	MAX 2 20				Extendable by stoppar loop	ISIVI used to re-sync	IN NSG/NSWK only.		
\ <> /	AMB 4				shortdario by diopbar loop.				
	ALLR 3		/						
5	SPLIT	37	37	37					
	FDW								
	MIN 6								
	MAX 1 6				Callable & Extendable				
	MAX 2 16				by setback loop				
	ALLR 1								
	SPLIT		11	11					
6 Don Mills Rd	WLK 7			-					
	MIN 24								
	MAX 1 24								
	MAX 2 24				Fixed				
	AMB 4	<b></b>							
	SPLIT	67	80	69					
7	WLK								
	FDW								
	MIN 6				Callable & Extandable				
	MAX 2 6				by setback loop				
	AMB 3								
	ALLR 1								
8 Green Polt Dr	SPLIT			11					
o Green Beit Dr	FDW 22								
	MIN 7				Callable by stopbar loop				
	MAX 1 29				and/or pushbutton;				
	MAX 2 29				Extendable by stopbar loop.				
	ALLR 3								
	SPLIT	37	37	37					
L	CL	104	128	128					

LOCATION:	Donlands Av	e /Millwoods F	d & Pane Ave					DISTRICT:	Toronto & Fast York
MODE/COMMENT:	FXT	c / min woods i	tu u i upe Ave					COMPUTER SYSTEM:	TransSuite N
TCS:	642							CONTROLLER/CABINET TYPE:	Peek ATC-1000 /TS2T1
PREPARED/CHECKED BY		v							Ped & Ped
	Mov 4 2019	v						DESIGN WALK SPEED	1.0 m/s (EDW) based on full excession at 1.2 m/s)
	Way 4, 2010							CUANNEL (DDOD:	1.0 m/s (FDW based on run crossing at 1.2 m/s)
IMPLEMENTATION DATE.	April 20, 2018	5						CHANNEL/DROP:	5008/1
		055			NOUT	WICHD	r	CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHI	WKND	DVD OL	Phase Mode	
		All Other	06:30-09:30 M E	15:00-19:00 M E	23:00-6:30 Doily	10:00-19:00	DVP Closure		Bomarka
NEWA Flidse	Leeel Dien	Dettern 1	Dettern 2	Dettern 2	Daily	Dettern F	Dettern 16	(Fixed/Demanded or Callable)	Kenaks
	Split Toblo	Fallenn i	Falleni 2	Fallen 3	Falleni 4	Falleni 5	Fallent to	-	
	Split Table	Split I	Split 2	Split 3	Split 4	Split 5	Split 16		Pedestrian Minimums:
									FWWK = 7  sec, $FWED = 16  sec$
									EWWR = 7 Sec, EWPD = 10 Sec
NOT USED									
	AMB								
Donlands Ave	SFLIT								
	WIK 7								
	MIN 14								
	MAY1 30							Fixed (NBSA)	
	AMB 4								
	SPLIT	37	57	60	35	40	46		
	5	0.							1
3	WLK								
	FDW								
	MIN								
NOTUSED	MAX1								
	AMB								
	ALR								
	SPLIT								
Pape Ave									1
4	WLK 7								
	FDW 16								
	MIN 23							The state	
	MAX1 27							Fixed	
	AMB 3								
	ALR 3					4			
	SPLIT	33	43	40	35	30	34		
	/								
5	WLK								
	FDW								
NOT USED	MIN				1				
	MAX1								
	AMB								
	ALR								
Millwood Dd	SPLIT								4
	WILK -								
6	WLK 7								
	FDW 7								
	MAX4 22			4				Fixed (SBSA)	
			~						
$\sim \sim \sim$									
	SPLIT 3	37	57	60	35	40	46		
	51 611	01	01		00				1
7	WLK							7	
	FDW								
	MIN								
( NOT USED )	MAX								
	AMB								
	ALR								
	SPLIT								
	1	l							1
8	WLK 7								
	FDW 16								
	MIN 23								
( ACTIVATED )	MAX1 27								
	AMB 3		-						
	ALR 3								
	SPLIT	33	43	40	35	30	34		4
	CI	70	400	400	70	70	00		
		/0	100	100	70	70	80		
	UF	40	30	13	04	41	00		
	-1	1	1				1		

NOTES: 3-legged intersection, no east leg

LOCATION:	Pape Ave & I	Mortimer Ave						DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT							COMPUTER SYSTEM:	TransSuite N
PREPARED/CHECKED BY:	TZ/DS							CONFLICT FLASH:	Red & Red
PREPARATION DATE:	April 12, 201	8						DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	June 8, 2018	}						CHANNEL/DROP:	15/1
								CONTROLLER FIRMWARE:	32.63.10
		OFF	AM	PM	NGHT	WKND	DVP	Phase Mode	-
		All Other	06:30-09:30	15:00-19:00 M_E	23:00-6:30 Daily	10:00-19:00 Sat & Sun	Closure		Pomarka
NLINA I Hase	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16	(Fixed/Demanded or Callable)	Remarks
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 16	1	
									Pedestrian Minimums:
1	WLK								EWWK = 7 sec, EWFD = 13 sec
									NSWK = 7 sec, NSFD = 11 sec
NOT USED	MAX1								
	AMB								
	ALR								
Papa Av	SPLIT								
	WIK 7								
	FDW 11							Fixed	
	MIN 18								
	MAX1 37								
	AMB 3								
	ALR Z	42	48	45	43	40	49		
						10	10		1
3	WLK								
	FDW								
( NOT USED )	MIN MAX1								
	AMB								
	ALR								
	SPLIT								
Mortimer Av									
4	VVLK 7 FDW 13							Fixed	
	MIN 20							T IXEG	
	MAX1 22								
	AMB 3								
	ALR 3	28	30	35	27	30	31		
		20	52		21		51		
5	WLK								
	FDW								
( NOT USED )	MIN MAX1				1				
	AMB								
	ALR								
	SPLIT								4
Pape Av									
	VVLK 7 FDW 11							Fixed	
	MIN 18								
	MAX1 37								
V V V	AMB 3			0					
	ALR 2	40	10	45	12	10	40		
		42	40	40	43	40	43		1
7	WLK								
	FDW								
NOT USED	MIN								
	MAX1								
	ALR								
	SPLIT								
Mortimer Av									
8	VVLK 7							Fived	
	MIN 20							FIXEU	
	MAX1 22								
	AMB 3								
	ALR 3	20	20	25	07	20	04		
	SPLII	28	32	35	21	30	31		1
	CL	70	80	80	70	70	80		
	OF	2	57	74	64	51	77		

LOCATION:	Pape Ave	& Cos	sburn Ave						DISTRICT:	Toronto & East York
MODE/COMMENT:	FXT with	2-Wire	Polara APS	& LPI				COMPUTER SYSTEM:	TransSuite N	
TCS:	669							CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1	
PREPARED/CHECKED BY:	Parsons/M	MR						CONFLICT FLASH:	Red & Red	
PREPARATION DATE:	Septembe	er 11, 2	2018						DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE.	Septembe	ar 20, 1	2010						CONTROL LER FIRMWARE	3 018 1 2976
			OFF	AM	PM	NGHT	WKND		Phase Mode	0.010.112010
		ľ	All Other	06:30-09:30	15:00-19:00	23:00-6:30	10:00-19:00	DVP Closure		
NEMA Phase			Times	M-F	M-F	Daily	Sat & Sun		(Fixed/Demanded or Callable)	Remarks
	Local Pl	lan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16	(:	
	Split I a	ble	Split 1	Split 2	Split 3	Split 4	Split 5	Split 16		De de stries Misis unes
1	WIK									EWWK - 7 sec EWED - 13 sec
	FDW									NSWK = 7 sec, NSFD = 12 sec
	MIN									APS on during full NSWK & EWWK when activated by push
NOTUSED	MAX1									buttons
	AMB									Extended Push Activation = 3 secs
										NS Leading Pedestrian Interval - NSWK comes up 5 seconds
Pape Ave.		5								before NS vehicle green.
2	WLK	7							Fixed	
	FDW	12							Split shown includes 5 sec of NS	
	MIN	14							LPI	
	MAX1	37								
		3								
	SPLIT	3	43	53	53	43	43	50		
	0. 211		.•	30				30		1
3	WLK									
	FDW									
NOT USED	MIN									
	MAX1 AMB									
	ALR									
$\bigcirc$	SPLIT									
Cosburn Ave.										
4	WLK	7							Fixed	
	FDW	13								
	MAX1	20								
	AMB	4								
	ALR	2								
	SPLIT		27	27	27	27	27	30		-
5	WIK									
	FDW									
	MIN									
NOTUSED	MAX1									
	AMB									
Pape Ave.	WLK DLY	5								
6	WLK	7							Fixed	
	FDW	12							Split shown includes 5 sec of NS	
	MIN	14			4				LPI	
	MAX1	37								
	ALR	3 3								
	SPLIT	_	43	53	53	43	43	50		
										]
7	WLK									
	FDW									
NOT USED	MAX									
	AMB									
	ALR									
	SPLIT				-					4
Cosburn Ave.		_							<b>F</b> 1	
× /		7							Fixed	
	MIN	20								
	MAX1	21								
	AMB	4								
	ALR	2								
	SPLIT		27	27	27	27	27	30		4
	CL		70	80	80	70	70	80		
	OF		68	60	63	19	67	22		

Temporary Construction Timing Card											
LOCATION:	Overlea Blv	d & Thorncl	liffe Park Dr E			DISTRICT:	Toronto and East York				
MODE/COMMENT:	SA2-VMG w	ith PR, 2-Wi	ire Polara AP	S & RLC (WE	3)	COMPUTER SYSTEM:	TransSuite				
TCS:	679					CONTROLLER/CABINET TYPE:	PEEK ATC-1000/TS2T1				
PREPARED BY/DATE:	Ameneh Dia	alameh / Jul	y 10, 2019			CONFLICT FLASH:	Red & Red				
CHECKED BY/ DATE:	Carmen Lan	n / July 10, 2	2019			DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing @ 1.1m/s)				
IMPLEMENTATION DATE:	July 10, 201	9				CHANNEL/DROP:	4014/29				
						CONTROLLER FIRMWARE:	3.018.1.2976				
		OFF	AM	PM	NIGHT	Phase Mode	Remarks				
NEMA Phase		All Other Times	06:30-09:30 M-F	15:30-19:30 M-F	23:45-6:30 Daily	(Fixed/Demanded or Callable)					
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	1					
	Split Table	Split 1	Split 2	Split 3	Split 4		Dedactrice Minimumer				
1	WLK					Callable & Extendable	EWWK = 8 sec, EWFD = 19 sec				
	FDW					by 9m Setback Loop.	NSWK = 8 sec, NSFD = 28 sec				
	MIN 6 MAX1 7						NS phase is callable by vehicle and/or pedestrian actuation. If a				
	AMB 3						vehicle call is received, the minimum NSG is 7 seconds. It ongoing the vehicle domand exists in the detection zone, the NSG is capable of				
	ALR 1	1.1	10	4.0	7		providing vehicle extensions up to the maximum. If a pedestrian				
Overlea Blvd	SPLII	14	10	18			call is received, the pedestrian minimums will be served. The				
2	WLK 8					Fixed	NSWK & NSFD are only displayed on the pedestrian signal neads in a pedestrian call is received. Extension time is based on vehicle				
	FDW 19 MIN 27						demand. Unused extension time is given to the EWG.				
	MAX 1 27						During FREE plan, the signal rests in EWWK and				
	AMB 4						does not cycle through EWFD unless there is main street APS				
	ALR 2 SPLIT	33	41	39	27		side street vehicle and/or pedestrian demand.				
							times (WLK & FDW) for phases 2 & 6.				
3							The signal will serve the programmed WLK & FDW				
	MIN						green values.				
	MAX 1						Side Street Passage Time = 3 seconds.				
	AMB AI R						Left-Turn Passage Time = 2 sec				
	SPLIT						(when WBLA not called) for EWWK and 7 secs for NSWK when				
Thorncliffe Park Dr E						Collebia by Troficam overhead	activated by pushbutton.				
4	VVLK o FDW 28					detection and/or pushbutton;	Extended Push Activation = 3 secs				
	MIN 7					Extendable by Traficam					
	MAX 1 46 AMR 4					overhead detection.					
	ALR 3										
	SPLIT	53	53	53	36						
5	WLK										
	FDW										
( NOT USED )	MIN MAX 1										
	AMB										
Overlea Blvd	SPLII						1				
6	WLK 8					Fixed					
	FDW 19 MIN 27										
	MAX 1 38										
	AMB 4				4						
	SPLIT	47	57	57	38						
							1				
	WLK FDW										
	MIN			w							
	MAX 1										
	AIVIB										
	SPLIT			ļ	ļ						
Thorncliffe Park Dr E	WIK 8					Callable by Traficam overhead					
	FDW 28					detection and/or pushbutton;					
	MIN 7					Extendable by Traficam					
	AMB 4										
	ALR 3										
	SPLIT	53	53	53	36	l	•				
	CL	100	110	110	0						
	OF	82	2	24	FREE						

LOCATION:	Overlea Blvd	& Thorncli	ffe Park Dr W				DISTRICT:	North York	
TCS:	680						COMPUTER SYSTEM:	TransSuite	
MODE/COMMENT:	FXT with 2-W	/ire Polara /	APS				CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2T1	
PREPARED / CHECKED BY:	Behnam Ami	ni / Decemb	oer 24, 2018				CONFLICT FLASH:	Red & Red	
CHECKED BY / DATE:	Carmen Lam	/ Decembe	r 24, 2018				DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing @ 1.1m/s)	
IMPLEMENTATION DATE:	January 22, 2	2019					CHANNEL/DROP:	4014/28	
							CONTROLLER FIRMWARE:	3.018.1.2976	
		OFF	AM	PM	NIGHT	FRIDAY MID-			
						DAY			
NEMA Phase		All Other	06:30-09:30 M- F	15:30-19:30 M-F	23:45-06:30 Daily	12:00 - 15:30	Phase Mode	Remarks	
					Duily	Friday only	(Fixed/Demanded/Callable)		
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5			
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5		Podostrian Minimumo:	
1	WLK							EWWK = 8 sec., EWFD = 19 sec.	
	FDW							NSWK = 8 sec., NSFD = 26 sec.	
( NOT USED )								Left-Turn Passage Time = 2 sec	
	AMB							when activated by push buttons	
	ALR								
	SPLIT								
2	WIK 8								
	FDW 19						Fixed		
	MIN 27								
│	MAX1 42								
	ALR 3								
	SPLIT	49	48	59	49	40			
2									
3	FDW								
	MIN								
	MAX1								
	ALR								
	SPLIT								
Thorncliffe Park Dr W									
	WLK 8						Fixed		
	MIN 34						T IXED		
	MAX1 34								
	AMB 3								
	SPLIT	41	52	41	41	50			
5									
	MIN								
( NOT USED )	MAX1								
	AMB								
	SPLIT								
Overlea Blvd							<b>—</b>		
6	WLK 8								
< <> \	FDVV 19 MIN 27		· · · ·				Fixed		
	MAX1 42								
	AMB 4								
	ALR 3	49	48	59	49	40			
_				0.0				1	
7	WLK								
							Callable & Extendable		
	MAX 7						by sill selback loop		
	AMB 3								
	ALR 1		44						
Thorncliffe Park Dr W	SPLII		11					1	
8	WLK 8								
	FDW 26						Fixed		
	MAX1 34								
	AMB 3								
	ALR 4								
	SPLIT	41	41	41	41	50		4	
	CL	90	100	100	90	90			
	OF	21	44	68	1	87			
LOCATION:	Laird Dr & Mi	llwood Rd						DISTRICT:	North York
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MODE/COMMENT:	FXT with 2-W	ire Polara APS	3					COMPUTER SYSTEM:	TransSuite N
TCS:	682							CONTROLLER/CABINET TYPE:	EPAC 3668M51 / TS2T1
PREPARED BY / DATE:	Masoud Ram	ezani / Januar	y 02, 2019					CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Carmen Lam	/ January 10, 2	2019					DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	January 24, 2	019						CHANNEL/DROP:	2070/5
	1							CONTROLLER FIRMWARE:	
		OFF	AM	PM	NGHT	WKND		Phase Mode	
		All Other	06:30-09:30 M-F	15:00-19:00 M_F	23:00-6:30 Daily	10:00-19:00 Sat & Sun	DVP Closure		Bomorko
NEWA FIIdse	Local Plan	C1S1O1	C1S2O1		C15401		C453O1	(Fixed/Demanded or Callable)	Remains
	System Plan	Plan 1	Plan 4	Plan 7	Plan 10	Plan 13	Plan 61	-	
	Cycloni i lan				T Idit TO				Pedestrian Minimums:
1	WLK								NSWK = 7 sec. NSFD = 14 sec
	FDW								EWWK = 7 sec, EWFD = 14 sec
	MIN								Left Turn Passage Time = 2 sec
( NOT USED )	MAX 1								APS on for a Full Walk duration for NSWK and FWWK when
	AMB								activated by pushbuttons and when no arrows are displayed.
	ALR								
	SPLIT								Extended Push Activation = 3 sec
Laird Dr									
2	VVLK /							Fixed	
	FDVV 14								
	MAX 1 50								Y
	AMB 4								
	ALR 2								
	SPLIT	65	73	70	53	65	77		
									1
3	WLK								
	FDW								
( NOT USED )	MIN								
	MAX 1								
	AMB								
	ALR								
Millwood Pd	SPLIT								-
								Fixed	
4								Fixed	
	FDVV 14 MINI 21								
(	MAX 1 30								
	AMB 3								
	ALR 2								
	SPLIT	35	27	30	33	35	33		
5	WLK								
	FDW							Callable/extendable by 9m setback	
	MIN 6							Traficam detector.	
	MAX 1 21				1			EBRA on concurrently with NBLA	
	AMB 3								
		25	20	20	17	26	22		
Laird Dr		23	39	29	17	20			4
6	WLK 7							Fixed	
	FDW 14								
	MIN 21								
	MAX 1 34								
$\setminus \forall \mathbf{V}$	AMB 4		-						
	ALR 2			6					
	SPLIT	40	34	41	36	39	44		4
-									
	WLK								
	FDW								
NOT USED									
	ALR								
	SPLIT								
Millwood Rd									1
8	WLK 7							Fixed	
	FDW 14								
	MIN 21								
	MAX 1 30								
	AMB 3								
	ALR 2	0.5	07	00		05			
(North side crossing)	SPLII	35	27	30	33	35	33		4
	CI	100	100	100	86	100	110		
	OF	65	91	27	12	8	30		
	<u> </u>		01	21	12				

NOTES: T Intersection - No East Leg

E/B detection is for future uses.

LOCATION:	Southvale Dr	r & Millwood I	Rd / Leaside N	lemorial Gard	ens			DISTRICT:	North York
MODE/COMMENT:	FXT							COMPUTER SYSTEM:	TransSuite N
TCS:	685							CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED/CHECKED BY:	<i>HDR /</i> KB / P	v						CONFLICT FLASH:	Red & Red
PREPARATION DATE:	March 2, 201	8						DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	April 13, 201	8						CHANNEL/DROP:	5008/3
	·	-						CONTROLLER FIRMWARE	3 018 1 2976
		OFF	ΔΜ	PM	NGHT	WKND		Phase Mode	
			06:30-09:30	15.00-19.00	23:00-6:30	10.00-19.00	DVP		4
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	Closure		Remarks
NEINA I Huse	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16	(Fixed/Demanded or Callable)	Remarks
	Split Table		Fallen 2	Colit 2	Pallet 4	Pallet 5	Palletit 16	-	
	Split Table	Split I	Spiit 2	Spiit S	Spiit 4	Spiit 5	Spiit To		Dedectries Minimumer
									EVVVVK = 7  sec, EVVFD = 17  sec
	AIVIB								
									Phase 4 is callable and extendable by stopbar loop.
	SPLIT								Extension time is based on vehicle demand. Unused time is
Southvale Dr									
2	WLK 7							Fixed	SBLT and WBRT displayed simultaneously.
	FDW 17								Left-trun passage time = 2 sec.
	MIN 24								EB left-turn prohibited all times.
│	MAX1 41								
	AMB 4								
	ALR 3								
	SPLIT	48	53	43	40	51	58		
3	WLK								
	FDW								
	MIN								
( NOT USED )	MAX1								
	AMB								
	ALR								
	SPLIT								
Leaside Memorial Gardens							A		4
								Callable/Extendable by	
4									
	FDVV							stopbar loop	
	MIN 6								
	MAX1 7								
	AMB 3								
	ALR 3								
	SPLIT	13	13	13	13	13	13		
5	WLK								
	FDW								
	MIN								
( NOTUSED )	MAX1								
	AMB								
	ALR								
	SPLIT								
Southvale Dr									1
6	WLK 7							Fixed	
	FDW 17								
	MIN 24								
	MAX1 41								
	AMB 4								
	ALR 3								
	SPLIT	48	53	43	40	51	58		
			00						4
7									
	AMB								
	ALR								
	SPLIT								4
Millwoood Rd				F. C.					
8	WLK 7							Fixed	
	FDW 12								
	MIN 19								
	MAX1 23								
	AMB 3								
	ALR 3								
	SPLIT	29	34	44	27	32	39		
									1
	CL	90	100	100	80	96	110		
	OF	88	4	40	16	25	14		

NOTES: NS ped crossing on west side only.

LOCATION: MODE/COMMENT: TOS:	Millwood Ro SA2-VMG wi	I & Village Stati ith PR	ion / Redway R	d				DISTRICT: COMPUTER SYSTEM:	North York TransSuite N
TCS: PREPARED BY / DATE: CHECKED BY / DATE:	Masoud Ran Carmen Lan	nezani / Januar n / January 10. :	ry 02, 2019 2019					CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED:	Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	January 18,	2019						CHANNEL/DROP: CONTROLLER FIRMWARE:	5002/2 3.018.1.2976
NEMA Phase		OFF All Other Times	AM 06:30-09:30 M-F	PM 15:00-19:00 M-F	NGHT 23:00-6:30 Daily	WKND 10:00-19:00 Sat & Sun	DVP Closure	Phase Mode (Fixed/Demanded or Callable)	Remarks
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5	Split 16	-	Pedestrian Minimums:
	WLK FDW MIN 6 MAX1 7							Callable/Extendable by Stopbar Loop	EWWK = 7 sec, EWFD = 13 sec NSWK = 7 sec, NSFD = 20 sec Side Street Passage Time = 3 sec Left-Turn Passage Time = 2 sec
	AMB 3 ALR 1								NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 7 seconds. If ongoing vehicle demand exists on the stoppar loop, the NSG is
Millwood Rd	WIK 7	11	11	11		11	11	Fixed	capable of providing vehicle extensions up to the maximum. If a pedestrian call is received, the pedestrian minimums will be
	FDW 13 MIN 20	3							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
	AMB 4 ALR 3								Signal serves EWFD every cycle. The side street decision point is at the end of EWFD.
3	WLK	54	54	54	51	54	64		
NOT USED	FDW MIN MAX1 AMB ALR								
Redway Rd	SPLIT								-
	WLK         7           FDW         20           MIN         7           MAX1         27           AMB         4	)						Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	SPLIT	35	35	35	35	35	35		
5 NOT USED	WLK FDW MIN MAX1 AMB ALR								
Millwood Rd	SPLIT WLK 7						V	Fixed	-
	FDW 13 MIN 20 MAX1 59 AMB 4 ALR 3	3 ) 		C		ć			
7	SPLIT	65	65	65	51	65	75		-
NOT USED	FDW MIN MAX1 AMB ALR SPLIT								
8 Village Station	WLK FDW MIN 7 MAX1 27 AMB 4	,						Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	ALR 3 SPLIT	35	35	35	35	35	35		
	CL OF	100 73	100 50	100 73	86 14	100 28	110 84		

NOTES: No pedestrian crossing on the west side

LOCATION:	Millwood Rd	& Overlea Blv	/d					DISTRICT:	Toronto and East York
MODE/COMMENT:	FXT							COMPUTER SYSTEM:	TransSuite N
TCS:	687							CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED BY / DATE	Dinesh Wagl	e/ December 1	19, 2019					CONFLICT FLASH:	Red & Red
CHECKED BY / DATE	Masoud Ram	nezani/ Decem	ber 20, 2019					DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing at 1.1 m/s)
IMPLEMENTATION DATE:	December 23	8, 2019						CHANNEL/DROP:	5002/3
								CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NGHT	WKND		Phase Mode	
		All Other	06:30-09:30	15:00-19:00	23:00-6:30	10:00-19:00	DVP Closure		
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun		(Fixed/Demanded or Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 16		
	Split Table	Split 1	Split 2	Split 3	Split 4	Split 5	Split 16		
									Pedestrian Minimums:
	WLK							Callable/Extendable	NSWK = 8 sec, NSFD = 28 sec
	FDW							by set-back loop	EWWK = 8 sec, EWFD = 29 sec
	MIN 6								Left-turn passage time = 2 sec.
									on simultaneously with WBG
	AIVID 3								
		11	17	17		14	24		
Millwood Rd			17	17		14	24		
2	WIK 8							Fixed	
	FDW 28							T IXOU	
	MIN 36								
	MAX1 39								
	AMB 3.3								
	ALR 3.0								
	SPLIT	46	40	40	43	43	43		
_									1
3	WLK								
	FDW								
	MIN								
( NOT USED )	MAX1								
	AMB								
	ALR								
	SPLIT								
4	WLK 8								
	FDW 29								
	MIN 37								
	MAX1 37					1			
	AMB 3.0								
	ALR 3.0								
	SPLIT	43	43	43	43	43	43		4
5	WLK								
	FDVV								
( NOT USED									
Millwood Rd									1
6	WIK 8							Fixed	
	FDW 28								
	MIN 36								
	MAX1 50								
	AMB 3.3		~						
	ALR 3.0								
	SPLIT	57	57	57	43	57	67		
									1
7	WLK								
	FDW								
	MIN								
	MAX1								
	AMB								
	ALR								
	SPLIT								
Overlea Bl									
8	WLK 8							Fixed	
	FDW 29								
	MIN 37								
	MAX1 37								
	AMB 3.0								
	ALR 3.0								
	SPLIT	43	43	43	43	43	43		4
		105	105	105		105			
	CL	100	100	100	86	100	110		
	OF	24	23	56	52	81	61		

NOTES: T-Intersection - No West Leg - East/West pedestrian crossings on the south leg are prohibited.

LOCATION:		Don	Mills Rd &	Wynford Di	ſ		UTC Stages	Green Returns	
MODE/COMMENT:		FXT		-				В	2 & 6
TCS#/SCN#		822 /	/ 12881					F	4 & 8
CODER/CHECKED BY:		BS/⊦	łL					Н	1&6
DATE CREATED		Nove	ember 17, 20	016					
DISTRICT:		Nort	h York						
COMPUTER SYSTEM:		UTC	/SCOOT						
CONTROLLER/CABINE	Т:	PEE	K ATC-1000	/TS2T1					
CONFLICT:		Red							
DESIGN WALK SPEED:	<b>.</b>	1.0 n Marc	n/S (FDW Da	ased on tun	crossing	@ 1.2 m/s)			
FIRMWARE VERSION	<b>E</b> .	3.018	8.2976						
		0.010	OFF	AM	РМ	NGHT			
NEMA Phase			All Other	6:30-10:00	15:00-19:00	1:30-6:00	Phase Mode	P	omarks
(Green Return)			Times	M - F	M - F	Daily	or Callable)	, r	emarks
		Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4		Redectrian Minimu	m.
	FDW							NSWK = 7 sec, NS	n. FD = 14 sec
	MIN	6					Callable/Extendable	EWWK = 7 sec, EV	VFD = 24 sec
	MAX1	7					by 9m Setback Loop,	Left-Turn Passage	Time = 2 sec.
	MAX2	27						(times to be determ	A hined)
	ALLR	1						SF#4 enables MAX	2
	SPLIT	_	11	31	24	11		(times to be determ	nined)
Don Mills Rd		7 14						under LITC/SCOOT	e signal only resyncs
	MIN	21							control in the NGC.
	MAX1	66					Fixed		
	MAX2	66							
		4							
	SPLIT	2	72	52	59	52			
	WLK								
3	FDW								
( NOT USED	MAX1								
	MAX2								
	AMB								
	WLK	7							
4	FDW	24							
	MIN	31							
ACTIVATED	MAX1	31 41							
	AMB	3							
	ALLR	3							
	SPLIT		37	37	37	37			
5	FDW								
	MIN								
NOT USED	MAX1								
	MAX2								
	ALLR								
	SPLIT							ļ	
Don Mills Rd		7 17							
	MIN	21							
	MAX1	77					Fixed		
	MAX2	77							
		4							
	SPLIT	-	83	83	83	63			
	WLK								
	FDVV MIN								
( NOT USED )	MAX1								
	MAX2								
	AMB								
	ALLR SPI IT								
Wynford Dr	WLK	7						1	
8	FDW	24							
		31 21					Fixed		
	MAX2	41					LIYEO		
	AMB	3							
		3	07	07	07	07			
	CYCLE	=	120	120	120	100		1	

Notes: T-intersection (no west leg). No EW pedestrian crossing on the south side.

LOCATION:	Don	Mills Rd 8	Gateway B	Ivd North /	Science Centre Dr	UTC Stages	Green Returns
MODE/COMMENT:	SA2	-VMG with	WRM			В	2&6
PX/SCN:	138	9 / 12921				F	4 & 8
PREPARED/CHECKED BY	r: JS					н	1&6
PREPARED DATE:	Nov	ember 21,	2012				
DISTRICT:	Tore	onto and Ea	ast York				
COMPUTER SYSTEM:	UTC	:/ SCOOT					
CONTROLLER/CABINET	TYPE: Pee	k ATC 1000	) / TS2 T1				
CONFLICT FLASH:	Red	& Red					
DESIGN WALK SPEED:	1.0	m/s (FDW k	based on ful	I crossing (	⊉ 1.2 m/s)		
IMPLEMENTATION DATE:	: Dec	ember 11,	2012	DM	Dhase Made	1	
		All Other	06:45-09:30	15:00-19:00	(Fixed/Demended or Collebia)		
(Green Return)		Times	M-F	M-F	(Fixed/Demanded of Callable)	Rem	narks
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3			
						Pedestrian Minimur	ms:
	WLK FDW				Callable & Extendable	NSWK = 7 sec, NS FWWK = 7 sec, FV	FD = 28 sec VFD = 24 sec
	MIN 6				by 9 m Setback Loop	2	21000
	MAX1 6				24 hours, Daily.	EW phase is callab	le by vehicle or
	AMB 3					received, the minim	num EWG is 7
	ALLR 1	44	44	11		seconds. If ongoin	g vehicle demand
Don Mills Rd	SPLII		TT			capable of providing	a ioop, trie ⊑wG IS g vehicle
2	WLK 7				Fixed	extensions up to the	e maximum. If a
	MIN 35					pedestrian call is re	ns will be served.
	MAX1 35					The EWWK & EWF	D are only
	MAX2 72		-			displayed on the pe heads if a pedestria	edestrian signal
	ALLR 2					Extension time is ba	ased on vehicle
	SPLIT	78	78	78		demand. Unused e	xtension time is
3	WLK						
	FDW					NSFD reverts to NS	SWK if there is no
NOT USED	MAX1					of the NSFD.	actuality at the chu
	AMB					Side Street Passag	le Time = 3 sec
	SPLIT					main street FDW to	improve response
Science Centre Dr					Callable by Otenhan Iner	to side street vehic	le and pedestrian
4	FDW 24				and/or Pushbutton;	Left-Turn Passage	Time = 2 sec.
	MIN 7				Extendable by Stopbar loop.	SF#1 disables SBL	A (times to be
	MAX1 31 MAX2 32					SF#4 enables Max	2 (times to be
	AMB 4					determined).	,
	ALLR 3	39	39	39			
5	FDW						
NOT USED	MIN						
	MAX1 AMB						
	ALLR						
Don Mills Rd	SPLIT				-	-	
6	WLK 7				Fixed		
	FDW 28 MIN 35						
	MAX1 35						
	MAX2 72						
	ALLR 2						
	SPLIT	89	89	89		-	
7	WLK						
	FDW						
NOT USED	MAX1						
	AMB						
	SPLIT						
Gateway Blvd North						1	
× ×	FDW 24				Callable by Stopbar loop and/or Pushbutton:		
	MIN 7				Extendable by Stopbar loop.		
	MAX1 31 MAX2 32						
	AMB 4						
	ALLR 3	30	30	30			
	51 11					1	
	CL	128	128 1	128			
		· ·					

LOCATION:	Overlea Bl	vd & Willia	n Morgan D	r		DISTRICT:	Toronto and East York N
MODE/COMMENT:	SA2-VMG	with PR/WF	RM & 2-Wire	Polara APS		COMPUTER SYSTEM:	TransSuite
TCS:	1800					CONTROLLER/CABINET TYPE:	PEEK ATC-1000/TS2T1
PREPARED BY/DATE:	Tony Zhao	/ Decembe	r 31, 2018			CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Behnam A	mini /Janua	ary 22, 2019			DESIGN WALK SPEED:	0.9 m/s(FDW based on full crossing @ 1.1m/s)
IMPLEMENTATION DATE:	January 22	2, 2019				CHANNEL/DROP:	4081/5
						CONTROLLER FIRMWARE:	3.018.1.2976
		OFF	AM	PM	NIGHT	Phase Mode	Remarks
		All Other	06:30-09:30	15:30-19:30	23:45-6:30	(Fixed/Demanded or	
NEMA Phase	Local Plan	Times	M-F	M-F	Daily	Callable)	
	Split Table	Split 1	Split 2	Split 3	Split 4		
$\frown$							Pedestrian Minimums:
	WLK						EWWK = 8 sec, EWFD = 11 sec
	MIN						SB phase is callable by vabials and/or padactrian actuation.
NOT USED	MAX1						a vehicle call is received, the minimum SBG is 7 seconds. If
							ongoing vehicle demand exists on the detection zone, the SBC
	SPLIT						is capable of providing vehicle extensions up to the maximum.
Overlea Blvd							be served. The NSWK & NSFD are only displayed on the
2	WLK 8					Fixed	pedestrian signal heads if a pedestrian call is received.
	MIN 19		4				Extension time is based on vehicle demand. Unused extension time is given to the EWC
	MAX1 47						
	AMB 4 ALR 2						NGT FREE plan all times using split values as green times (WLK & EDW) for phases 2 & 6
	SPLIT	53	63	63	35		The signal will serve the programmed WLK & FDW
			/				values following WRM. Phase 4 & 8 time uses MAX1
3	WLK FDW						green values. Side Street Passage Time = 3 seconds
	MIN						APS on during 7s of EWWK & 7s of NSWK when activated by
NOTUSED	MAX1						pushbuttons
							Extended activation time = 3s
	SPLIT		4				Under coordinated plans 1, 2 and 3, the signal uses the PR
							rieature. Order free plan 4, the signal uses the WRW feature.
	WLK 8 FDW 23						
	MIN 7					callable by pushbuttons	
	MAX1 31						
	AMB 3						
	SPLIT	37	37	37	31		
5	FDW						
NOT USED	MIN						
	MAX1						
	AMB			<b>K</b>			
	SPLIT						
Overlea Blvd							
° / \	FDW 11						
( ≪	MIN 19					Fixed	
	MAX1 47						
	AIVIB 4 ALR 2						
	SPLIT	53	63	63	35		
7	WI K						
	FDW						
	MIN						
NOTUSED	MAX1						
	AIVID						
	SPLIT						
William Morgan Dr	WILK 0					Callable by video detection	
	FDW 23					and/or pushbutton:	
	MIN 7					Extendable by video detection.	
	MAX1 31						
	AIVIB 3 ALR 3						
	SPLIT	37	37	37	31		
			105	105	-		
	CL OF	90	100	100	0 Erec		
	UP.	01	00		FIEE		
1		ı	ı	L	i	1	1

NOTES: T Intersection with no south leg.

Inc.     1934     Convertion     C	LOCATION:	Overlea Blvo	d & East Yo	ork Town Ctr/C	Costco Access		DISTRICT:	Toronto and East York
Numeration in the second of the sec	TCS:	1834					COMPUTER SYSTEM:	TransSuite
Importantial product         Construct arises         End Ref         Construct arises         End	MODE/COMMENT:	SA2-VMG wi	ith WRM/PF	R and 2-Wire F	olara APS		CONTROLLER/CABINET TYPE:	PEEK ATC-1000 / TS2T1
OWNERS IN ADDIT         Description (Line)         Descriptio	PREPARED BY / DATE:	Qurat-ul-Ain	(Annie) / E	Sehnam Amin	/ December 2	4, 2018	CONFLICT FLASH:	Red & Red
APE-BelleVictorio AFE         January 22, 2013         Constraining 24           NETMA Prase         OFF         AI Clifer         Page 30001         Status 23         AI Clifer         Page 30001         Data 2012           NETMA Prase         AI Clifer         0633-0010         Status 23         Page 30011         Page 300111         Page 30011         Page 30011 <td>CHECKED BY/DATE</td> <td>Rebecca (Ca</td> <td>armen) Lam</td> <td>/ December 2</td> <td>24, 2018</td> <td></td> <td>DESIGN WALK SPEED:</td> <td>0.9 m/s (FDW based on full crossing @ 1.1 m/s)</td>	CHECKED BY/DATE	Rebecca (Ca	armen) Lam	/ December 2	24, 2018		DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing @ 1.1 m/s)
NEIA Phase         OFF         AM         PM         NOT           NEIA Phase         Image Part Phase         Set Table Part Phase         Part Phase Phase         Phase Phase Phase         Phase Phase Phase Phase         Phase	IMPLEMENTATION DATE:	January 22,	2019				CHANNEL/DROP:	4081/3
NEMA Plase         All Oter Instrument Spin Take Spin			OFF	AM	DM	NCT	CONTROLLER FIRMWARE:	3.018.1.2976
NEIAA Phase         Image: Solution of the sol			UFF	AIVI	PIVI	NGI		
Industry law         Image			All Other	06:30-09:30	15:30-19:30	23:45-06:30	Phase Mode	Remarks
Social Tries         Patient 2         Patient 3         Patient 4           1         Self 4         Se	NEWIA FIIdse		Times	IVI-F	IVI-F	Daily	(Fixed/Demanded/Callable)	
Image: Split Index         Split 2         Split 2 <thsplit 2<="" th=""> <thsplit 2<="" th=""> <thsplit 2<="" th=""></thsplit></thsplit></thsplit>		Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4		
1         Write Flow         Provide All         Provide The All		Split Table	Split 1	Split 2	Split 3	Split 4		Pedestrian Minimums:
Image: Stand	1	WLK						EWWK = 8 sec., EWFD = 18 sec.
MAX     Fill       AB     AB       AB     AB       AB     AB       Contraite Brok     Witk 8       P     Witk 8 <td></td> <td>FDW MIN 6</td> <td></td> <td></td> <td></td> <td></td> <td>Callable &amp; Extendable</td> <td>NSWK = 8 sec., NSFD = 25 sec.</td>		FDW MIN 6					Callable & Extendable	NSWK = 8 sec., NSFD = 25 sec.
AMB         3         Vertice all received, the information SIG is 7 seconds. It regular           2         Image: Signal		MAX1 7					by Sin October Loop	NS phase are callable by vehicle or pedestrian actuation. If a
Control         Statistic         1 <th1< th="">         1         1</th1<>		AMB 3						vehicle call is received, the minimum NSG is 7 seconds. If ongoing
2         Unit & 8         Provide         Pro		ALR 1 SPLIT	11	11	11	7		capable of providing vehicle extensions up to the maximum. If a
2         Witk 8         8         Image: Second S	Overlea Blvd							pedestrian call is received, the pedestrian minimums will be served.
Min. 23 ANB	2	WLK 8 FDW 18					Fixed	The NSWK & NSFD are only displayed on the pedestrian signal beads if a pedestrian call is received. Extension time is based on
MAX1         33 AR         AX         34 AR         2 2         During coordinated operation. It is algoal constantly cycles through man and FID algoant. It is algoant man algoant man algoant man and FID algoant. It is algoant man algoant man algoant man and FID algoant. It is algoant man algoant man algoant man and FID algoant. It is algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant man algoant malgoant man algoant man algoant man		MIN 26					T IACU	vehicle demand. Unused extension time is given to the EWG.
Arise         2		MAX1 33						During apardianted operation, the signal constantly surles through
SPUT         39         49         49         33         and padeatian demand.           3         WLK         WLK         POW		AIVIB 4 ALR 2						main street FDW to improve response time to side street vehicle
3         WLL         WLL         EWFD reverts to EWWK if there is no add street vehicle demand at the ewron add street vehicle and of the EWFD integendent and the ewron additional additexelectinadditexelectinal additional additional additional additi		SPLIT	39	49	49	33		and pedestrian demand.
OT USED         FDW MN MAX1 AAR ALR SPLIT         FDW MN MAX1 AAR ALR SPLIT         FDW MN MAX1 AAR ALR SPLIT         FDW MN AAR ALR SPLIT         FDW MAX1 AAR AAR AAR AAR AAR AAR AAR AAR AAR AA	2	WI K						EWFD reverts to EWWK if there is no side street vehicle demand at the end of the EWED
NOT USED     MN AAX1 AAB ALR SPLT     MN AX1 AAB ALR SPLT     MN AX1 AAB ALR SPLT     MN AX1 AAB ALR SPLT     MN AX1 AAB SPLT     MN AX1 AAB AAR AAR AAR AAR AAR AAR AAR AAR AAR		FDW						During FREE plan, the signal rests in EWWK and does not cycle
Alt R ALR SPLIT     Alt R SPLIT	NOT USED	MIN						through EWFD unless there is main street APS, side street vehicle
ALR         NGT FREE plan all time suggesplit values as green times (WLK & 8           4         WLK         8           PDW 25         Res Void State and Streen the programmed WLK & 8           AMB 3         AMB 3           AMB 3         AMB 3           MX1 7         AMB 4           ALR 2         A           SULT         11         11         7           MX1 7         AMB 3         AMB 4         AMB 4           ALR 2         39         49         49         33           Colatable by video detection and/or Push Button         Sec         AMB 4           ALR 4         ALR 4         A         A         A           SPUT         40         40         33         Colatable by		MAX1 AMB						
Best YorkTown Ctr.         WK & 8         K 8		ALR						NGT FREE plan all times using split values as green times (WLK & EDW) for phases 2.8.6. The signal will serve the programmed WLK
4     WLK 8     Image: Seconds of the second	East Vork Town Ctr	SPLIT						& FDW values following WRM. Phase 1, 5, 4 & 8 time uses MAX1
PDW     25     Side Site Passage Time - 3 seconds.       MAX1     33     ALR     4       ALR     4     40     40     40       S     WLK     8     Caliable by video delection and/or Push Button     Extendable by Traficam Delector       S     WLK     8     6       MAX1     33     ALR     4       ALR     1     11     11       S     WLK     8       SPLIT     10     11       S     WLK     8       SPLIT     11     11     11       G     WLK     8       SPLIT     13     11       ALR     2     2       MMX     7     WLK     8       SPLIT     13     11     11     7       G     WLK     8     SPLIT     39     49     33       ALR     2     SPLIT     39     49     33       T     WLK     8     SPLIT     13     14       DV USED     MAX     33     ALR     4       ALR     2     39     49     33       ALR     2     39     49     33       Coaltable by Video delection and/or Push Button     Extend	4	WLK 8						green values (callable and extendable).
Image: Second		FDW 25						Side Street Passage Time = 3 seconds.
AMB     3 ARR     40     40     40     33       5     WLK     BPUT     40     40     33       5     WLK     Flow     Gallable & Extendable by Traficam Detector     In a arrows are displayed.       8     WLK     B     Gallable & Extendable by Traficam Detector     Extended Push Advation = 3 sec       7     WLK     8     Gallable & Extendable by Traficam Detector     Fixed       7     WLK     8     Gallable & Extendable by Traficam Detector     Fixed       7     WLK     8     Gallable & Extendable by Traficam Detector     Fixed       8     WLK     8     Gallable & Extendable by Traficam Detector     Fixed       8     WLK     8     Gallable by Traficam Detector     Fixed       8     WLK     8     Gallable by Traficam Detector     Gallable by Traficam Detector       8     WLK     8     Gallable by Traficam Detector     Gallable by Traficam Detector       8     WLK     8     Gallable by Traficam Detector     Gallable by Traficam Detector       8     Gallable by Traficam Detector     Gallable by Traficam Detector     Gallable by Traficam Detector       8     Gallable by Traficam Detector     Free     Gallable by Traficam Detector       0     Garlable by Traficam Detector     Free		MIN / MAX1 33	4				Callable by video detection and/or Push Button	Lett-Turn Passage Time = 2 sec APS on during EWWK & NSWK periods when activated and when
ALR         4         40         40         40         33         Extendable by Traficam Detector         Extendable by Traficam Detector         Extendable by Traficam Detector           5         WLK         FDW         6         40         40         33         Callable & Extendable by Traficam Detector         Extendable by Traficam Detector         Extendable by Traficam Detector         Extendable by Traficam Detector           5         WLK         FDW         6         ANB         3         Callable & Extendable by Traficam Detector           6         WLK         8         FDW         11         11         7         Fixed           7         WLK         8         FDW         18         Fixed         Fixed         Fixed           8         FDW         18         Fixed         Fixed         Fixed         Fixed           8         FDW         18         Fixed         Fixed         Fixed         Fixed           8         FDW         7         MX1         33         Fixed         Fixed           8         FDW         7         Fixed         Fixed         Fixed         Fixed           8         FDW         7         Fixed         Fixed         Fixed <t< td=""><td></td><td>AMB 3</td><td></td><td></td><td></td><td></td><td></td><td>no arrows are displayed.</td></t<>		AMB 3						no arrows are displayed.
OLD         NO		ALR 4	40	40	40	33	Extendable by Traficam Detector	Extended Push Activation = 3 sec
5       WLK       FDW       Gallable & Extendable by 9m Setback Loop         MAX1       7       AMB       3         ALR       1       11       11       7         6       WLK       8       Fixed         7       WLK       8       7         PDW       18       ALR       1         8       WLK       8         PDW       13       ALR         8       WLK       8         PDW       13       ALR         ALR       2       ALR         ALR       2       ALR         8       WLK       8         PDW       13       ALR         ALR       2       ALR         ALR       2       ALR         ALR       2       ALR         ALR       4       40       40         ALR       4       40       40         ALR       4       40				40				•
Image: Control of the second secon	5	WLK					Callable 9 Extendable	
MAX1       7       MAX       7         8       WLK       8       Fixed         7       WLK       8       Fixed         7       WLK       8       Fixed         8       WLK       8       Fixed         8       Fixed       Fixed         8       Fixed       Fixed         0       Fixed       Fixed         0       Fixed       Fixed		MIN 6					by 9m Setback Loop	
AIRB 3 SPLIT       11       11       11       7         0       Verlea Blvd FDW 18 MiN 26 MAX1 33 AMB 4 ALR 2       Fixed       Fixed         7       VLK 8 FDW ALR 4 ALR 2       9       49       49       33         7       VLK 8 FDW MIN ALR 3 ALR 4 SPLIT       VLK 8 FDW SPLIT       Fixed       Callable by video detection and/or Push Button         8       VLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4 SPLIT       VLK 8 FDW 25 MIX 7 MAX1 33 AMB 3 ALR 4       Callable by video detection and/or Push Button         0       CL 90 OF 90 Free       90 100 100 Free       0 Free       Callable by Traficam Detector		MAX1 7						
SPLIT         11         11         11         11         11         11         7           6         WLK         8         FDW         18         FDW         FDW <td< td=""><td></td><td>AMB 3</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		AMB 3						
0       Overlea Bivd       WLK 8       Fixed         MN       MN       26       MAX1 33       AMB 4         AIR 2       SPLIT       39       49       49       33         7       WLK 8       SPLIT       39       49       49       33         7       WLK 8       FOW       MIN       MAX       MIN         MAX       AMB       ALR 8       SPLIT       SPLIT       SPLIT         8       WLK 8       FOW 25       MIN 7       MAX1 33       AMB 3       ALR 4       Extendable by video detection and/or Push Button         8       SPLIT       40       40       43       Extendable by Traficam Detector         0       CL       90       100       100       Free       MIN 7         MUTES:       WITES       WITES       MIN 7       MIN 7       MIN 7		SPLIT	11	11	11 🛌	7		
FDW       18         MN       26         MAXI       33         AMB       4         ALR       2         WLK       FDW         FDW       MIN         MAX       AMB         ALR       ALR         MAX1       33         ALR       4         Costco Access       WLK         SPLIT       40         MAX1       33         ALR       4         SPLIT       40         VUTES:       90         NOT USED       90         MIN       R         ALR       4         SPLIT       40         AC       33         ALR       4         SPLIT       40         ALR       4         SPLIT       40         VITES:       SPLIT	Overlea Blvd	WIK 8						
Image: Normal System       MiN 26 MAX1 33 AMB 4 ALR 2       MiN 26 MAX1 33 AMB 4 ALR 2         7       WLK FDW MiN MAX AMB ALR SPLIT       39       49       49       33         7       WLK FDW MiN MAX AMB ALR SPLIT       VICK SPLIT       8       Callable by video detection and/or Push Button         8       WLK 8 FDW 25 MiN 7 MAX1 33 AMB 3 ALR 4       Callable by video detection and/or Push Button         8       VLK 8 FDW 25 MiN 7 MAX1 33 ALR 4       Callable by video detection and/or Push Button         0       CC       67       94       16         0       CF       67       94       16		FDW 18					Fixed	
Image: Split state stat		MIN 26						
ALR       2         SPLIT       39       49       49       33         7       WLK       FDW       Image: SPLIT       Image: SPLIT       Image: SPLIT         8       MAX       AMB       ALR       SPLIT       Image: SPLIT       Image: SPLIT         8       MIN       T       MAX1       33       Image: SPLIT       Image: SPLIT       Image: SPLIT         8       MIN       T       MAX1       33       Image: SPLIT       Ima		AMB 4				4		
SPLIT         39         49         49         33           7         WLK FDW MIN MAX AMB ALR SPLIT         WLK FDW MIN MAX AMB ALR SPLIT         Callable by video detection and/or Push Button           8         WLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4 SPLIT         Callable by video detection and/or Push Button           0         CL OF         90         100         100         0 Free		ALR 2						
7     WLK     FDW       MAX     AMB       ALR     ALR       SPLIT     SPLIT       0     SPLIT       ALR     4       MAX     AMB       ALR     4       SPLIT     Callable by video detection and/or Push Button       Extendable by Traficam Detector       ALR     4       CL     90       OF     67       94     16		SPLIT	39	49	49	33		4
NOT USED     FDW MIN MAX AMB ALR     FDW AMB ALR     FDW AMB ALR     FDW AMB ALR     FDW AMB FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4     Callable by video detection and/or Push Button       Cultable by Video detection and/or Push Button     Callable by video detection and/or Push Button       Cultable by Video detection and/or Push Button       Cultable by Traficam Detector	7	WLK						
NOT USED     MAX AMB ALR SPLIT       Costco Access     WLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4 SPLIT       MMAX MB 3 ALR 4 SPLIT     Callable by video detection and/or Push Button Extendable by Traficam Detector       CL OF     90 67 94     100 100 94     0 Free		FDW						
AMB ALR SPLIT     AMB ALR SPLIT       0     0	NOT USED	MAX						
ALK SPLIT     SPLIT       Costco Access     WLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4 SPLIT     WLK 8 FDW 25 MIN 7 AMB 3 ALR 4 SPLIT     Callable by video detection and/or Push Button Extendable by Traficam Detector       CL     90     100     100     0 Free		AMB						
Costco Access     WLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4     WLK 8 FDW 25 MIN 7 AMB 3 ALR 4     Callable by video detection and/or Push Button       Callable by Video detection and/or Push Button       Callable by Traficam Detector       CL     90     100     100       OF     67     94     16		SPLIT						
8     WLK 8 FDW 25 MIN 7 MAX1 33 AMB 3 ALR 4 SPLIT     VLK 8 FDW 25 MIN 7 AMB 3 ALR 4     Callable by video detection and/or Push Button       Callable by Video detection and/or Push Button     Extendable by Traficam Detector       CL     90     100     100       OF     67     94     16	Costco Access	1						1
Min     7       Min     7       MAX1     33       AMB     3       ALR     4       SPLIT     40       40     40       33       CL     90       0F     67       94     16	8	WLK 8					Callable by video detection	
MAX1         33 AMB         AMB         3 ALR         Extendable by Traficam Detector           CL         90         100         100         0           OF         67         94         16         Free		MIN 7					and/or Push Button	
AMME         3 ALR         4         Extendable by Trancam Detector           SPLIT         40         40         40         33           CL         90         100         100         0           OF         67         94         16         Free		MAX1 33					Eutondoble hu Traffia - D. f. j	
SPLIT         40         40         33           CL         90         100         100         0           OF         67         94         16         Free		AIVIB 3 ALR 4					Extendable by Traficam Detector	
CL         90         100         100         0           OF         67         94         16         Free		SPLIT	40	40	40	33		4
OF 67 94 16 Free		CL	90	100	100	0		
		OF	67	94	16	Free		
	NOTES							

LOCATION:	Gateway Blvd & F	Private Acc/Gre	enoble Dr (N. A	ccess)	DISTRICT:	Toronto and East York N
PX:	1974				COMPUTER SYSTEM:	TransSuite
MODE/COMMENT:	FXT and LPI				CONTROLLER/CABINET TYPE:	Econolite ASC/3 1000 / TS2T1
PREPARED BY/DATE:	Ranajamil Iftikha	r/Ameneh Diala	ameh/January	28, 2020	CONFLICT FLASH:	Red & Red
CHECKED BY/DATE:	Ranajamil Iftikha	r/Ameneh Diala	ameh/January	28, 2020	DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	January 28, 2020				CHANNEL/DROP:	4093/1
					CONTROLLER FIRMWARE:	
		OFF	AM	PM		
NEMA Phase		All Other	06:45-09:30	15:15-18:45	Phase Mode	Remarks
	System Plan	1 Imes	M-F	M-F	(Fixed/Demanded/Callable)	
	Local Plan	Pattern 1	Pattern 2	Pattern 3		
						Pedestrian Minimums:
1	WLK					EWWK = 7 secs; EWFD = 16 secs
	MIN					NOVN = 12 Secs, NOPD = 22 Secs
( NOT USED )	MAX1					NS Leading Pedestrian Interval - NSWK
	AMB					comes up 5 seconds before NS vehicle green.
	ALR SPI IT					
Gateway Blvd						
2	WLK 7				Fixed	
	FDW 16					
	MAX1 23					
	AMB 3.0					
	ALR 3.6	20	20	20		
		30	30	30		1
3						
( NOT USED )						
Drivete Ace						
4	WLK 12				Fixed	2
	FDW 22					
	MIN 29				Split shown includes 5 sec of	
	MAX1 34 AMB 3.0				NS LPI	
	ALR 2.7					
	SPLIT	40	40	40		
5	WIK					
	FDW					
	MIN		/ -			
	MAX1					
	ALR					
	SPLIT					
Gateway Blvd						
6	VVLK /				Fixed	
	MIN 23					
	MAX1 23					
	AMB 3.0					
	SPLIT 3.0	30	30	30		
						1
7	WLK					
	MIN					
( NOT USED )	MAX1					
	AMB					
Grenoble Dr (N. Access)	DLY GRN 5					1
8	WLK 12				Fixed	
	FDW 22					
	IVIIN 29 MAX1 34				Split snown includes 5 sec of	
	AMB 3.0					
	ALR 2.7					
	SPLIT	40	40	40		4
	CL	70	70	70		
	OF	1	1	1		

NOTES:

Picked Up on TransSuite on May 27, 2013 at 14:42 p.m

LOCATION: MODE/COMMENT: TCS: PREPARED BY/DATE: CHECKED BY/DATE: IMPLEMENTATION DATE:	Pape Ave & F SAP with PR 2001 <i>CIMA+/</i> Febru Ameneh Dial March 3, 202	Floyd Ave & 2-Wire Pola Jary 3, 2020 ameh / Februa 0	ıra APS ary 14, 2020					DISTRICT: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNELDROP: CONTROLLER FIRMWARE:	Toronto & East York TransSuite N Peek ATC-1000 / M Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 5002/5 3.018.1.2976
		OFF All Othor	AM	PM	NGHT	WKND		Phase Mode	-
NEMA Phase		Times	M-F	M-F	Daily	Sat & Sun	Dir Globalo	(Fixed/Demanded or Callable)	Remarks
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5	Pattern 16 Split 16	(incondentation of Gallable)	
1	WLK	opiit	Opin 2	opiiro	Opin 1	opino	opiit to		Pedestrian Minimums: EWWK = 7 sec, EWFD = 13 sec
	MIN								NSWK = 7 sec, NSFD = 10 sec EW phase is callable by vehicle or pedestrian actuation
NOT USED	MAX1								vehicle and or pedestrian call is received, the maximum
	AMB ALR								pedestrian signal heads if a vehicle and/or pedestrian of
	SPLIT								received.
Pape Ave	WIK 7								APS on during 7 seconds of EWWK & 7 seconds of NS
	FDW 10								when activated by pushbutton.
	MIN 17							Fixed.	Extended Push Activation - 3 sec.
	AMB 3.0								
	ALR 2.6	40	50	50	40	40	50		
	OFLII	43	53	53	43	43	53		
3	WLK								
	MIN								
NOTUSED	MAX1								
	AMB								
	SPLIT								
Floyd Ave	WIK 7								
	FDW 13								
	MIN 20							Callable by stopbar	
	AMB 3.0							loop and or pushbutton.	
	ALR 3.6	07	07	07	07	07	07		
	SPLIT	21	21	21	21	21	21		
5	WLK						(		
	MIN								
NOTUSED	MAX1								
	ALR								
Dana Ava	SPLIT	4							-
6	WLK 7								
	FDW 10								
	MIN 17 MAX1 37							Fixed.	
	AMB 3.0								
	ALR 2.6 SPLIT	43	53	53	43	43	53		
									1
$' \land \land$	FDW								
	MIN								
	MAX1 AMB								
	ALR								
Floyd Ave	SPLIT								1
8	WLK 7			0					
	FDW 13 MIN 20							Callable by stoppar	
	MAX1 20							loop and or pushbutton.	
$\langle \rangle$	AMB 3.0 ALR 3.6								
	SPLIT	27	27	27	27	27	27		1
	CL	70	80	80	70	70	80		
	OF	19	50	47	48	29	57		
TES:								•	•

LOCATION: MODE/COMMENT:	Pape Ave & L FXT, Slave to	ipton Ave / P TCS 0345 wi	rivate Access th 2-Wire Pola	ira APS				DISTRICT: COMPUTER SYSTEM:	Scarborough TransSuite N
TCS: PREPARED/CHECKED BY: PREPARATION DATE: IMPLEMENTATION DATE:	2461 DS July 11, 2018 September 24	5, 2018						CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: CONTROLLER FIRMWARE:	Peek ATC-1000 / TS2T1 Red & Red 1.0 m/s (FDW based on full crossing @ 1.2 m/s) 3.018.2976
		OFF	AM	PM	NGHT	WKND		Phase Mode	
NEMA Phase		All Other Times	06:30-09:30 M-F	15:00-19:00 M-F	23:00-06:30 Daily	10:00-19:00 Sat & Sun	DVP Closure	(Fixed/Demanded/or Callable)	Remarks
	Local Plan Split Table	Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5	Pattern 16 Split 16		
1 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT								Pedestrian Minimums: EWWK = 7 sec., EWFD =13 sec. NSWK = 7 sec., NSFD = 17 sec. All FDW, AMB and ALR at this location are equal to those at TCS 0345 and are dictated by the longest required duration at either intersection. This signal (designated as the Slave) is interconnected by hardwire to the interpretion of Depforth & Depo (TCS 0345
Private Access 2	WLK 7 FDW 13 MIN 20 MAX1 31 AMB 3 ALR 4							Fixed	All vehicle and pedestrian displays at this signal are provided simultaneously at the Master signal (TCS 0345) via hardwire interconnect.
3 NOT USED	SPLIT WLK FDW MIN MAX1 AMB ALR SPLIT	38	52	55	34	44	47		rests in EWG/EWWK, waiting for a pulse from TCS 345. Once the pulse is received, the EWFD begins. This signal then cycles through EWY & EWDW, then ALR. Following the conclusion of the EW pedestrian and vehicle phases and associated clearance intervals, the signal rests in NSG/NSWK, waiting for a pulse from TCS 345. Once the pulse is received, the NSFD begins and the signal steps forward until it returns to resting in EWG/EWWK. If there is loss of interconnect, the signal will run the coordinated plans.
	WLK 7 FDW 17 MIN 24 MAX1 24 AMB 4 ALR 4 SPLIT	32	38	35	32	40	47	Fixed	Extended Push Activation = 3 seconds. APS on during FULL WALK duration of NSWK & EWWK periods when activated by Push Button.
5 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT	X							
6 6	WLK 7 FDW 13 MIN 20 MAX1 31 AMB 3 ALR 4 SPLIT F	38	52	55	34	44	47	Fixed	
7 NOT USED	WLK FDW MIN MAX1 AMB ALR SPLIT								
8	WLK 7 FDW 17 MIN 24 MAX1 24 AMB 4 ALR 4 SPLIT	32	38	35	32	40	47	Fixed	
			00	00	02			(Offsets only used during loss of	1
	OF	70 41	90 15	90 33	56	84 2	94 6	interconnect. See Remarks for instructions)	



# Appendix D

**Level of Service Criteria** 

# Vehicular Level of Service

### **Highway Capacity Manual 2000**

Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2000* (Transportation Research Board, 2000).

Table 1. Level of	Table 1. Level of Service Criteria for Signalized Intersections								
Level of Service	Average Control Delay (seconds/vehicle)	General Description							
А	≤10	Free Flow							
В	>10 - 20	Stable Flow (slight delays)							
С	>20 - 35	Stable flow (acceptable delays)							
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)							
E	>55 - 80	Unstable flow (intolerable delay)							
F <sup>1</sup>	>80	Forced flow (congested and queues fail to clear)							

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

1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Table 2 summarizes the LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections									
Level of Service	Average Control Delay (seconds/vehicle)								
A	0 – 10								
В	>10 - 15								
С	>15 – 25								
D	>25 – 35								
E	>35 – 50								
F <sup>1</sup>	>50								

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

1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

# **Pedestrian Level of Service**

Exhibit 4 – PLOS Segment Evaluation Table

		Matan Mahiala			Segme	nt PLOS	
Sidewalk Width	Boulevard Width	Traffic Volume	Presence of On-		Operating S	Speed (km/h)	
(iii)	(II)	(AADT)	Succurating	≤30	>30 or 50	>50 or 60	>60 <sup>1</sup>
		≤ 3000	N/A	А	А	А	В
	> 2	> 2000	Yes	А	В	В	N/A
		> 3000	No	А	В	С	D
		≤ 3000	N/A	А	А	А	В
2.0 or more	0.5 to 2	> 2000	Yes	А	В	С	N/A
		> 3000	No	А	С	D	E
		≤ 3000	NA	А	В	С	D
	0	2000	Yes	В	В	D	N/A
		> 2000	No	В	С	E	F
		≤ 3000	N/A	А	А	А	В
	> 2	. 2000	Yes	А	В	С	N/A
		> 3000	No	А	С	D	E
		≤ 3000	N/A	А	В	В	D
1.8	0.5 to 2	> 2000	Yes	А	С	С	N/A
		> 3000	No	В	С	E	E
		≤ 3000	N/A	А	В	С	D
	0	. 2000	Yes	В	С	D	N/A
		> 3000	No	С	D	F	F
		≤ 3000	N/A	С	С	С	С
	> 2	. 2000	Yes	С	С	D	N/A
		> 2000	No	С	D	E	E
1.5		≤ 3000	N/A	С	С	С	D
	0.5 to 2	> 2000	Yes	С	С	D	N/A
		> 3000	No	D	E	E	E
	0	N	/A	D	E	F <sup>2</sup>	F <sup>2</sup>
<1.5		N/A		F <sup>3</sup>	F <sup>3</sup>	F <sup>3</sup>	F <sup>3</sup>
No sidewalk		N/A		C <sup>4</sup>	F <sup>3</sup>	F <sup>3</sup>	F <sup>3</sup>

Notes:

1. On-street parking not provided on roadways with posted speed of 70 km/h or more

2. Sidewalk must be 1.8 m wide if no separation is provided (curb-face sidewalk) where speeds are high

3. Sidewalk must be 1.5 m wide to meet Provincial accessiblity standards

Ottawa Pedestrian Plan, 2014: "all new and reconstructed urban local roads where pedestrian facilities are required in accordance with these policies but no dedicated pedestrian facility is provided, require that roads be designed for a speed of 30 km/h or lower (pending development of a new 30 km/h roadway design standard)." Where a roadway is specifically designed as 'shared space', with appropriate design controls and features, it can achieve LOS A.
 Where a multi-use path is provided in lieu of sidewalks, the MUP can be evaluated using the same methodology.

Exhibit 6 – PETSI Evaluation Table

Pedestrian Exposure to Traffic LOS								
Points threshold	LOS							
≥90	А							
≥75	В							
≥60	С							
≥45	D							
≥30	E							
<30	F							

### Exhibit 7 – Pedestrian Delay Evaluation Table

Average Pedestrian Crossing Delay Compone	Average Pedestrian Crossing Delay Component										
Delay = 0.5 × (Cycle Length - Pedestrian Effective W Cycle Length	alk Time) <sup>2</sup>										
< 10 s per intersection leg	LOS A										
≥10 to 20 sec	LOS B										
>20 to 30 sec	LOSC										
>30 to 40 sec	LOS D										
>40 to 60 sec	LOS E										
> 60 sec	LOS F										

# **Bicycle Level of Service**

Exhibit 11 – BLOS Segment Evaluation Table

Type of Bikeway	·	LOS						
Physically Separated Bikeway (cycle	e tracks, protected bike lanes and multi-use paths). Physical separation refers to, but is not							
limited to curbs, raised medians, bo	llards and parking lanes (adjacent to the bike lane along the travelled way i.e. not curbside)	A						
Bike Lanes Not Adjacent Parking La	ane - Select Worst Scoring Criteria							
j	1 travel lane in each direction	А						
	2 travel lanes in each direction senarated by a raised median	B						
No. of Travel Lanes	2 travel lanes in each direction without a senarating median	C						
	More than 2 travel lanes in each direction	D						
	10 m wide bike lone (includes marked buffer and neved author width)	D A						
Rika Lana Width	2.1.6 Inf while bike lane (includes marked buffer and paved gutter width)	A						
DIKE LAHE WIUTI	21.5 m to <1.8 m wide bike lane (includes marked builer and paved guiler widin)	B						
	≥1.2 m to <1.5 m wide bike rane (includes marked builer and paved guiler widin)	L A						
	≤ 50 km/n operating speed	A						
Operating Speed	50 km/h operating speed							
	> 70 km/h operating speed	E						
Bike lane blockage	Rare	A						
(commercial areas)	Frequent	С						
Bike Lanes Adjacent to curbside Pa	rking Lane - Select Worst Scoring Criteria							
No. of Trough Lange	1 travel lane in each direction	А						
NO. OF HAVELLANES	2 or more travel lanes in each direction	С						
	5 m wide bike lane plus parking lane (includes marked buffer and paved outter width)							
	4.25 m wide bike lane plus parking lane (includes marked buffer and paved gutter width)	В						
Bike Lane and Parking Lane Width		5						
	≤ 4.0 m wide bike lane plus parking lane (includes marked buffer and paved gutter width)	С						
	< 40 km/h operating speed	А						
	50 km/h operating speed	В						
Operating Speed	60 km/h operating speed	D						
	> 70 km/h operating speed	F						
Bike lane blockage	Pare	Δ						
(commorcial areas)	Fraguent	л С						
(connectal areas)	Trequent	C						
	2 travel lances < 40 km/h, no marked contacting or algoritical as regidential	٨						
		A						
	2 to 3 travel lanes; $\leq$ 40 km/n	B						
	2 travel lanes; 50 km/h; no marked centerline or classified as residential	В						
No. of Iravel Lanes and Operating	2 to 3 travel lanes; 50 km/n	D						
Speed	4 to 5 travel lanes; $\leq$ 40 km/h	D						
	4 to 5 travel lanes; $\geq$ 50 km/h	E						
	6 or more travel lanes; ≤ 40 km/h	E						
	≥ 60 km/h	F						
Unsignalized Crossing along Route	no median refuge							
	3 or less lanes being crossed; ≤ 40 km/h	Α						
	4 to 5 lanes being crossed; ≤ 40 km/h	В						
	3 or less lanes being crossed; 50 km/h	В						
	4 to 5 lanes being crossed; 50 km/h	С						
No. of Travel Lanes on Side Street	3 or less lanes being crossed; 60 km/h	С						
and Operating Speed	4 to 5 lanes being crossed; 60 km/h	D						
	6 or more lanes being crossed; ≤ 40 km/h	E						
	3 or less lanes being crossed; $\geq$ 65 km/h	E						
	6 or more lanes being crossed; ≥ 50 km/h	F						
	4 to 5 lanes being crossed: ≥ 65 km/h	F						
Unsignalized Crossing along Route	with median refuge (> 1.8 m wide)	•						
	5 or less lanes being crossed: < 40 km/b	A						
	3 or less lanes being crossed: 50 km/h	A						
	6 or more lanes being crossed: < 40 km/h	B						
	4 to 5 Janes being crossed: 50 km/b	B						
	3 or less lanes being crossed: 60 km/h	R						
No. of Travel Lanes on Side Street	6 or more lanes being crossed; 50 km/h	C						
and Operating Speed	4 to E longs being crossed; 40 km/b	C						
	s or less lanes being crossed; ≥ 65 km/n	U F						
	6 or more lanes being crossed; 60 km/h	E –						
	4 to 5 lanes being crossed; $\geq$ 65 km/h	E						
	6 or more lanes being crossed; $\geq$ 65 km/h	F						

Rikeway and Intersection Type		201									
Bike Lanes or higher order facility of	n a Signalized Intersection Approach	LUJ									
Right-turn Lane and Turning Speed of	No impact on LTS (as long as cycling facility remains to the right of any turn lane - otherwise see pocket bike	lanes below)									
Motorists	Two-stage, left-turn bike box: < 50 km/h	А									
	No lane crossed, $\leq 50 \text{ km/h}$	В									
	1 lane crossed, ≤ 40 km/h	В									
Qualict Making a Laft turn and	No lane crossed, ≥ 60 km/h	С									
Cyclist Making a Leit-tuiti and Operating Speed of Meterists (refer	1 lane crossed, 50 km/h	С									
to figure)	2 or more lanes crossed, ≤ 40 km/h	D									
to lighte)	1 lane crossed, ≥ 60 km/h										
	∠ or more lanes crossed, ≥ 50 km/h										
	All other single left-turn lane configurations	F									
Desket Biles Lance and Circulized I	Dual lei-lum lanes (shared of exclusive)	F									
Pocket Bike Lanes on a Signalized I	ntersection Approach Dight turn long introduced to the right of the hike long and $\leq 50$ m long, turning encoded $\approx 25$ km/b (based on										
	regination and and the first of the first o	В									
Right-turn Lane and Turning Speed of	Rught-with lane introduced to the right of the bike lane and > 50 m long, turning speed $\leq$ 30 km/h (based on curb radii and angle of intersection)										
Motorists	Bike lane shifts to the left of the right-turn lane, turning speed $\leq 25$ km/h (based on curb radii and angle of intersection)	D									
	Right-turn lane with any other configurations	F									
	Dual right-turn lanes (shared or exclusive)										
	Two-stage, left-turn bike box; ≤ 50 km/h	А									
	No lane crossed, ≤ 50 km/h	В									
	l lane crossed, ≤ 40 km/h										
Cyclist Making a Left-turn and	No lane crossed, ≥ 60 km/h	С									
Operating Speed of Motorists (refer	1 lane crossed, 50 km/h										
to figure)	∠ ULTINUE TAILES CLOSSEO, ≤ 40 KM/N 1 Jane crossed > 60 km/h										
-	1 lane crossed, $\geq$ 60 km/h	E F									
	2 01 INDE Idiles Clossed, 2 50 Kill/II All other single left ture lane configurations	F									
	Dual left-trum lanes (shared or exclusive)	F									
Mixed Traffic on a Signalized Interse	ction Approach										
	Right-turn lane 25 to 50 m long, turning speed $\leq$ 25 km/h (based on curb radii and angle of intersection)	D									
Right-turn Lane and Turning Speed of	Right-turn lane 25 to 50 m long, turning speed > 25 km/h (based on curb radii and angle of intersection)	E									
Motorists	Right-turn lane longer than 50 m										
	Dual right-turn lanes (shared or exclusive)										
	Two-stage, left-turn bike box; ≤ 50 km/h	A									
	No lane crossed, $\leq$ 50 km/h										
	1 lane crossed, ≤ 40 km/h	В									
Cyclist Making a Left-turn and	No lane crossed, ≥ 60 km/h	D									
Operating Speed of Motorists (refer	1 Iane crossed, 50 km/h	D									
to figure)	2 or more lanes crossed, $\leq$ 40 km/n 1 lane grassed $\geq$ 40 km/h	D									
	1 Idle Closseu, 2 60 Kil/II 2 or more labos crossed $> 50$ km/b	F									
	All other single left.turn lane configurations	F									
	Dual left-turn lanes (shared or exclusive)	F									
Left-turn Configurations Two-stage, left-t	urn bike box No lane crossed One lane crossed										
<b></b>	\ \										
	One Lane Crossed										

### Exhibit 12 – BLOS Signalized Intersection Evaluation Table

Notes: 1. Pocket bike lanes are defined as bike lanes that develop near intersections between vehicular right turn lanes on the right side and vehicular through or left lanes on the left side. All other configurations of bike lanes or separated facility that remain against the edge of the curb/parking lane and require right turning vehicles to yield to through cyclists will not impact the level of traffic stress (i.e. are considered to be LOS A).

# **Transit Level of Service**

#### Exhibit 15 - TLOS Segment Evaluation Table

	Facility Type	Level/exposu frictio	ire to conge on and incid	Quantitative	1.05	
	racinty type	Congestion	Friction	Incident Potential	Measurement	103
	Segregated ROW	No	No	No	N/A	А
	No/limited parking/driveway friction	No	Low	Low	$C_f \le 60$	В
Busiane	Frequent parking/driveway friction	No	Medium	Medium	$C_{f} > 60$	С
	Limited parking/driveway friction	Yes	Low	Medium	$Vt/Vp \ge 0.8$	D
Mixed Traffic	Moderate parking/driveway friction	Yes	Medium	Medium	$Vt/Vp \le 0.6$	E
	Frequent parking/driveway friction	Yes	High	High	Vt/Vp < 0.4	F

Notes:

Cf, Conflict Factor = = (Number of driveways x crossing volume) / 1 km Vt/Vp is the ratio of average transit travel speed to posted speed limit

### Exhibit 16 - TLOS Signalized Intersection Evaluation Table

Delay	Typical Location	LOS
0	Grade Separation	А
≤10 sec	High Level TSP	В
<b>≤2</b> 0 sec		С
<b>≤3</b> 0 sec		D
≤40 sec	TSP & long cycle length	E
>40 sec	No TSP & long cycle length	F

Note: Delay includes travel time from end of queue to entering the intersection



# Appendix E

Synchro Modelling Parameters and Assumptions

# **Synchro Assumptions and Parameters**

# **Peak Hour Factor**

Within the Ontario Line West and South segments, and for the purpose of calibaring the AM peak hour Synchro model, the value of the northbound through movement at the intersection of Spadina Avenue and Adelaide Street was increased from the calculated value of 0.95 to 0.98. Similarly, for the purpose of the PM peak hour model calibration, the following changes to the calculated Peak Hour Factors values were applied:

- At the intersection of Spadina Avenue and Adelaide Street, the Peak Hour Factors value for the southbound left-turn movement was increased from the calculated value of 0.94 to 0.96;
- At the intersection of Dufferin Street and Liberty Street, the Peak Hour Factors value for the westbound through movement was increased from the calculated value of 0.88 to 0.90; and
- At the intersection of Lower Sherbourne Street and Lake Shore Boulevard East, the Peak Hour Factors value for the southbound shared through and right-turn movements was increased from the calculated value of 0.93 to 1.00.

Within the Ontario Line North segment, where certain movements were found to opeate over capacity within the busiest 15 minutes of the peak hour, the peak hour factors were set to 1.00 to reflect analysis of the entire peak hour for the following intersections:

- Don Mills Road/Overlea Boulevard (TCS 620)
- Don Mills Road/Eglinton Avenue East (TCS 454)
- Overlea Boulevard/Thorncliffe Park East/Beth Nealson Drive (TCS 679) for PM only.
- Overlea Boulevard/William Morgan Drive (TCS 1800) for AM only.
- Laird Drive/Wicksteed Avenue/McRae Drive (TCS 681) for AM only.
- Eglinton Avenue East/Leslie Street (TCS 453)

# Lost Time Adjustments

The Lost Time Adjust (LTA) values for all the movements were set to -1 second, except for the movements listed in *Table 2* and *Table 3*, to bring v/c values equal to or less than 1. For intersections along Laird Drive, Millwood Road and Pape Avenue, the same LTA's were adopted from the 2017 Signal Coordination Study for this corridor.

Intersection	INT	NB	NB	NB	SB	SB	SB	EB	EB	EB	WB	WB	WB
Name	ID	L	T	R	L	T	R	L	T	R	L	T	R
Eglinton Avenue East/Leslie Street	453						-3	-3					

## Table 1: AM Lost Time Adjustments

Don Mills Road/Eglinton Avenue East	454								-3	
Don Mills Road/Overlea Boulevard	620	-2								
Donlands Avenue/Millwoo d Road/Pape Avenue	642					-3				
Laird Drive/McRae Drive/Wickstee d Avenue	681		-3		-2					
Laird Drive/Millwood Road/Southvale Road/Malcolm Road	682	-1.5								
St Dennis Drive/Deauville (Ferrand Drive East)	3002			-3			-3			

If not listed, LTA = -1

# Table 2: PM Lost Time Adjustments

Intersection Name	INT ID	NB L	NB T	NB R	SB L	SB T	SB R	EB L	EB T	EB R	WB L	WB T	WB R
Lake Shore Boulevard/Lower Sherbourne Street		T				-3							
O'Connor Drive/Pape Avenue	442					-3							
Eglinton Avenue East/Leslie Street	453						-3						
Don Mills Road/Eglinton Avenue East	454				-2								
Don Mills Road/Overlea Boulevard	620	-1.5											
Donlands Avenue/Millwood Road/Pape Avenue	642					-3							
Overlea Boulevard/Thornclif fe Park Drive East (Beth Nealson)	679								-2.5				

Laird Drive/McRae Drive/Wicksteed Avenue	681		-3		-2						
Laird Drive/Millwood Road/Southvale Road/Malcolm Road	682	-3				-3		-3	-2		
Millwood Road/Overlea Boulevard	687		-3								
St Dennis Drive/Deauville (Ferrand Drive East)	300 2			-3			-3				

If not listed, LTA = -1

## **Ideal Saturation Flow Rates**

Default Ideal Saturation Flow Rate (ISF) of 1900 vphpl is used for all movements, except for the movements shown in *Table 4* and *Table 5*, in order to bring v/c values equal to or less than 1. For intersections along Laird Drive, Millwood Road and Pape Avenue, the same ISF's were adopted from the 2017 Signal Coordination Study for this corridor.

Intersection Name	TCS #	NBL	NBT	NB R	SB L	SBT	SB R	EB L	EB T	EB R	WB L	WB T	WB R
Pape Avenue/Danfort h Avenue	345					170 0							
O'Connor Drive/Pape Avenue	442		170 0			185 0							
Eglinton Avenue East/Leslie Street	453						200 0						
Don Mills Road/Overlea Boulevard	620	199 0											
Donlands Avenue/Millwoo d Road/Pape Avenue	642		200 0			200 5							
Pape Avenue/Mortime r Avenue	664		165 0			185 0							
Pape Avenue/Cosbur n Avenue	669		160 0			180 0							
Laird Drive/McRae Drive/Wicksteed Avenue	681		210 0										
Laird Drive/Millwood Road/Southvale Road/Malcolm Road	682					210 0							
Millwood Road/Redway Road/Village Station	686					210 0							
Pape Avenue/Floyd Avenue	2001		185 0			185 0							

### Table 3: AM Ideal Saturation Flow Rate Adjustments

Laird Drive/Commerci al Road	2220	165 0						
Laird Drive/Esandar Drive	2324	165 0		165 0				

If not listed, Ideal Saturation Flow Rate = 1900 vphpl

# Table 4: PM Ideal Saturation Flow Rate Adjustments

Intersection Name	TCS #	NB L	NB T	NB R	SB L	SBT	SB R	EBL	EB T	EB R	WB L	WB T	WB R
Pape Avenue/Danfort h Avenue	345	T				175 0							
O'Connor Drive/Pape Avenue	442		175 0			185 0							
Donlands Avenue/Millwoo d Road/Pape Avenue	642		210 0			220 0							
Pape Avenue/Mortime r Avenue	664		170 0			185 0							
Pape Avenue/Cosbur n Avenue	669		170 0			170 0							
Laird Drive/McRae Drive/Wicksteed Avenue	681		235 0										
Laird Drive/Millwood Road/Southvale Road/Malcolm Road	682	225 0	170 0			210 0		220 0		210 0			
Millwood Road/Overlea Boulevard	687		215 0										
Pape Avenue/Floyd Avenue	2001		170 0			170 0							
Laird Drive/Commerci al Road	2220		170 0										
Laird Drive/Esandar Drive	2324					165 0							

If not listed, Ideal Saturation Flow Rate = 1900 vphpl

# Lane Utilization Factor

Default Lane Utilization Factors are used for all movements, except for the following intersections shown in *Table 6*, to calibrate the HOV lanes:

Intersection	Direction	АМ	РМ
Don Mills/St Dennis Drive	Northbound	0.79	0.88
Don Mills/St Dennis Drive	Southbound	0.80	0.76
Don Mills/Gateway	Northbound	0.79	0.88
Don Mills/Gateway	Southbound	0.80	0.77
Overlea/William Morgan	Eastbound	0.61	0.61
Overlea/William Morgan	Westbound	0.61	0.61
Overlea/Thorncliffe Park E	Eastbound	0.65	0.62
Overlea/Thorncliffe Park E	Westbound	0.63	0.63
Overlea/Costco/East York Town Centre	Eastbound	0.63	0.62
Overlea/Costco/East York Town Centre	Westbound	0.65	0.64
Overlea/Thorncliffe Park W	Eastbound	0.67	0.63
Overlea/Thorncliffe Park W	Westbound	0.64	0.64
Overlea/Leaside Park	Eastbound	0.64	0.62
Overlea/Leaside Park	Westbound	0.63	0.62

Table 5: Lane Utilization Factors (LUF) calculated for Don Mills Road and Overlea Boulevard

Lane Utilization Factors for Laird Drive and Millwood Road were also adopted from the 2017 Signal Coordination Study to maintain the same calibration. These are listed in *Table 6*.

Intersection	Direction	AM	РМ
Laird Drive/McRae Drive/Wicksteed Avenue	Northbound	1.00	0.98
Laird Drive/Commercial Street	Northbound	0.80	0.75
Laird Drive/Esandar Drive	Northbound	0.80	0.95
Laird Drive/Esandar Drive	Southbound	0.70	0.75
Laird Drive/Millwood Road/Southvale Avenue	Northbound	0.95	0.80

Millwood Road/Redway Road/Village Station Road	Southbound	1.00	0.95
Millwood Road/Overlea Boulevard	Northbound	0.95	1.00
Pape Avenue/O'Connor Drive	Northbound	0.70	0.70
Pape Avenue/O'Connor Drive	Southbound	0.70	0.80
Pape Avenue/Cosburn Avenue	Northbound	0.70	0.70
Pape Avenue/Cosburn Avenue	Southbound	0.65	0.70
Pape Avenue/Floyd Avenue	Northbound	0.70	0.70
Pape Avenue/Floyd Avenue	Southbound	0.75	0.75
Pape Avenue/Mortimer Avenue	Northbound	0.70	0.70
Pape Avenue/Mortimer Avenue	Southbound	0.70	0.70

\*If unlisted, default Synchro-calculated LUF's were used.

For HOV lanes, the LUF assumptions and calculations are explained below:

There are currently High-Occupancy Vehicle (HOV) lanes in both directions along Don Mills Road, Overlea Boulevard and Pape Avenue within the study area. On Don Mills Road, the HOV lanes begin and end approximately 75 metres north of Overlea Boulevard at the south end, and 100 metres south of Eglinton at the north end. On Overlea Boulevard, the HOV lanes begin 60 metres west of Don Mills Road in the westbound direction, and end approximately 150 metres west of Overlea Boulevard in the eastbound direction. At the west end of Overlea Boulevard, the HOV lanes begin and end at Leaside Park Drive. The HOV lanes are in force from 7:00 to 10:00 and 15:00 to 19:00 Monday to Friday. During these times only buses, taxis, and vehicles with 3 or more people are permitted within the HOV lanes. Due to the ECLRT construction since 2015, the HOV lanes were removed from Eglinton Avenue East and Don Mills Road at that intersection.

# **Don Mills Road**

Lane utilization count data are available in the traffic impact study conducted by BA Group for 25 St Dennis Drive, and were used to calculate lane utilization factors (LUF) for Don Mills Road. The data was collected on November 2015, and is summarized in Table 7 below. The data are shown at the end of this appendix. These LUF's were applied to the north-south through-movement lane groups along Don Mills Road only.

Table 7: 2015 Lane Utilization Data for Don Mills Road

		AM	PM	AM	PM	AM	PM	AM	PM
Intersection	Direction	All	All	HOV	HOV	Per	Per	LUF	LUF
		GPL	GPL			GPL*	GPL*	_0.	_0.
Don Mills/St	Northbound	1701	1077	206	450	950 F	600 F	0.70	0 00
Dennis Drive	northbound	1701	13/7	300	430	000.0	000.0	0.79	0.00
Don Mills/St	Southbound	1602	1017	226	170	0/1 5	650 F	0 00	0.76
Dennis Drive	Southbound	1005	1317	320	170	041.5	000.0	0.00	0.70
Don	Northbound	1626	1/21	206	450	012	715 5	0.70	0 00
Mills/Gateway	INDITIDUTIO	1020	1431	300	400	015	715.5	0.79	0.00
Don	Southbound	1627	1176	326	178	813 5	588	0.80	0.77
Mills/Gateway	Coaliboaria			020		0.0.0	000	0.00	

\*Along Don Mills Road, there are two GPL's per direction, and one HOV lane per direction.

# **Overlea Drive**

Lane utilization count data was not available for Overlea Drive. In order to estimate the LUF's along Overlea Drive, the lane utilization data for Don Mills Road was used. It was assumed that the percentage of general traffic along Overlea Boulevard opting to use the HOV lanes would be the same as that for Don Mills Road. This percentage not only includes eligible vehicles such as high-occupancy passenger vehicles, taxis, bicycles and buses, but also unauthorized vehicles as well. The resulting percentages are shown in Table 8 below.

Intersection Oir on		All thru-traffic		Kerb Buses		Thru-bikes		All thru-cars		General Traffic using HOV		%cars HC	using DV
	on	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Don Mills/St Dennis	NB	2007	1827	34	30	3	1	1970	1796	269	419	13%	23%
Don Mills/St Dennis	SB	2009	1495	28	15	4	15	1977	1465	294	148	15%	10%
Don Mills/Gatewa y	NB	1932	1881	35	88	5	2	1892	1791	266	360	14%	19%
Don Mills/Gatewa y	SB	1953	1354	37	26	8	9	1908	1319	281	143	14%	11%
Average									14%	16%			

### Table 8: HOV lane usage

The average percentages of HOV lane utilization by general traffic was applied to general eastwest through traffic along Overlea Boulevard. The resulting LUF's are shown in Table 9.

#### Table 9: Lane Utilization Factor calculations for Overlea Boulevard

		Total		Curb-	lane	Gen	eral	Ger	neral						
		Throug	gh-	Bus		Tra	ffic	Tra	affic						
		Volume	es	Volum	nes	Thro	ugh-	HC	ΟV	Tota	l GPL	Total	HOV		
						Volu	mes	Usa	ge%	Volu	umes	Volu	mes	LL	JF
Intersection	Direction	AM	PM	AM	ΡM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Overlea/William										854	1073	192	226		
Morgan	Eastbound	1046	1299	53	22	993	1277	14%	16%					0.61	0.61
Overlea/William										882	859	189	193		
Morgan	Westbound	1071	1052	45	29	1026	1023	14%	16%					0.61	0.61
Overlea/Thorncliffe										352	598	107	142		
Park E	Eastbound	459	740	50	28	409	712	14%	16%					0.65	0.62
Overlea/Thorncliffe										428	491	109	124		
Park E	Westbound	537	615	39	31	498	584	14%	16%					0.63	0.63
Overlea/Costco/East										440	584	114	144		
York Town Centre	Eastbound	554	728	42	33	512	695	14%	16%					0.63	0.62
Overlea/Costco/East										420	430	127	117		
York Town Centre	Westbound	547	547	59	35	488	512	14%	16%					0.65	0.64
Overlea/Thorncliffe										364	528	123	137		
Park W	Eastbound	487	665	64	36	423	629	14%	16%					0.67	0.63
Overlea/Thorncliffe										314	436	90	124		
Park W	Westbound	404	560	39	41	365	519	14%	16%					0.64	0.64
										542	758	147	179		
Overlea/Leaside Park	Eastbound	689	937	59	35	630	902	14%	16%					0.64	0.62
										554	679	145	169		
Overlea/Leaside Park	Westbound	699	848	55	40	644	808	14%	16%					0.63	0.62

The LUF's along Overlea Boulevard are considerably lower than those along Don Mills Road. This reflects the larger impact on through-lane capacity by the HOV lanes on a narrower four lane road like Overlea Boulevard versus a wider six-lane road like Don Mills Road. However, given the fewer GPL's available, it is likely that the portion of illegal usage of the HOV lanes along Overlea Boulevard is higher than Don Mills Road. This makes the above LUF's conservative.

To confirm that non-compliance of HOV lanes occurs, an analysis of 2016 Transportation Tomorrow Survey (TTS) data was conducted. The data contains passenger vehicle trips with origins or destinations around the study area. The number of trips are tallied by the number of occupants per vehicle, and is summarized in Table 10 below. Detailed TTS query inputs and outputs are shown at the end of this appendix..

			PM	
	AM Trips	AM %	Trips	PM %
4		82%	59483	76%
1	19582			
2		15%	13752	18%
2	3656			
2+		3%	3653	6%
5*	571			

## Table 10: Amount of carpool trips around the study area

The comparison of the carpool rate versus the HOV lane usage by general traffic shows that there is a substantial amount of non-compliant traffic in the HOV lanes.

Mon Jun 15 2020 14:52:43 GMT-0400 (Eastern Daylight Time)

Frequency Distribution Query Form - Trip - 2016 v1.1

Field: Car pool - car\_pool

Filters:

(2006 GTA zone of origin - gta06\_orig In 226,237,236,235,238,234,239,218,225,219,224,242,243,241,240,244,245,283,284,217,220,221,222,223,261,260,248,246,247 or

2006 GTA zone of destination - gta06\_dest In 226,237,236,235,238,234,239,218,225,219,224,242,243,241,240,244,245,283,284,217,220,221,222,223,261,260,248,246,247) and

Start time of trip - start\_time In 630-730

and

Primary travel mode of trip - mode\_prime In D,P

Table: Trip 2016

Row:	Count:	Expanded:	%
Not applicable	164	4145	
1	938	19582	82%
2	163	3656	15%
3	22	571	2.384%
4	4	127	0.530%
5	1	7	0.029%
11	1	11	0.046%
Unknown/Refused	1	12	
Total:	1294	28110	

Mon Jun 15 2020 14:55:00 GMT-0400 (Eastern Daylight Time)

Frequency Distribution Query Form - Trip - 2016 v1.1

Field: Car pool - car\_pool

Filters:

(2006 GTA zone of origin - gta06\_orig In 226,237,236,235,238,234,239,218,225,219,224,242,243,241,240,244,245,283,284,217,220,221,222,223,261,260,248,246,247) or 2006 GTA zone of destination - gta06\_dest In 226,237,236,235,238,234,239,218,225,219,224,242,243,241,240,244,245,283,284,217,220,221,222,223,261,260,248,246,247) and Start time of trip - start\_time In 1600-1900 and Primary travel mode of trip - mode\_prime In D,P

Table: Trip 2016

Row:	Count:	Expanded:	%
Not applicable	715	15194	
1	2905	59483	75.8%
2	689	13752	17.5%
3	178	3653	4.7%
4	45	946	1.2%
5	14	505	0.6%
6	2	42	0.1%
7	1	8	0.0%
10	1	44	0.1%
Unknown/Refused	7	151	
Total:	4557	93779	



Turning Nevement Count (2. DON HILLS RD (NB HOV LANE) & GATEWAY BLVD N / SCIENCE CENTRE) HolD:					
		S Approach	N Approach	Int. Total	Int. Total
Start Time	Thru S:N	Approach Total	Approach Total	(15 min)	(1 hr)
07:30:00	54	54	0	54	
07:45:00	75	75	0	75	
08:00:00	77	77	0	77	
08:15:00	78	78	0	78	284
08:30:00	76	76	0	76	306
08:45:00	48	48	0	48	279
09:00:00	46	46	0	46	248
09:15:00	26	26	0	26	196
***BREAK***		· 	-	-	
16:00:00	108	108	0	108	
16:15:00	107	107	0	107	
16:30:00	122	122	0	122	
16:45:00	112	112	0	112	449
17:00:00	109	109	0	109	450
17:15:00	101	101	0	101	444
17:30:00	104	104	0	104	426
17:45:00	81	81	0	81	395
Grand Total	1324	1324	0	1324	-
Approach%	100%	-	-	-	-
Totals %	100%	100%	0%	-	-
Heavy	132	-	-	-	-

Turning Movement Count



-

-

BA Group 45 St. Clair Avenue West, Suite 300 Toronto ON, CANADA, M4V 1K9

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-

Heavy %

10%



Peak Hour : 0245 AM - 08-45 AM				
Start Time		S Approach	N Approach	Int. Total
Start Time	Thru	Approach Total	Approach Total	(15 min)
07:45:00	75	75	0	75
08:00:00	77	77	0	77
08:15:00	78	78	0	78
08:30:00	76	76	0	76
Grand Total	306	306	0	306
Approach%	100%	-	-	-
Totals %	100%	100%	0%	-
PHF	0.98	0.98	0	-
Неаvy	39	39	0	-
Heavy %	12.7%	12.7%	0%	-
Lights	267	267	0	-
Lights %	87.3%	87.3%	0%	-
Single-Unit Trucks	5	5	0	-
Single-Unit Trucks %	1.6%	1.6%	0%	-
Buses	34	34	0	-
Buses %	11.1%	11.1%	0%	-
Articulated Trucks	0	0	0	-
Articulated Trucks %	0%	0%	0%	-
Bicycles on Road	5	-	-	-
Bicycles on Road%	-			-



Peak Hour: 04:05 PM					
Start Time		S Approach	N Approach	Int. Total	
	Thru	Approach Total	Approach Total	(15 min)	
16:15:00	107	107	0	107	
16:30:00	122	122	0	122	
16:45:00	112	112	0	112	
17:00:00	109	109	0	109	
Grand Total	450	450	0	450	
Approach%	100%	-	-	-	
Totals %	100%	100%	0%	-	
PHF	0.92	0.92	0	-	
Неаvy	46	46	0	-	
Heavy %	10.2%	10.2%	0%	-	
Lights	404	404	0	-	
Lights %	89.8%	89.8%	0%	-	
Single-Unit Trucks	10	10	0	-	
Single-Unit Trucks %	2.2%	2.2%	0%	-	
Buses	36	36	0	-	
Buses %	8%	8%	0%	-	
Articulated Trucks	0	0	0	-	
Articulated Trucks %	0%	0%	0%	-	
Bicycles on Road	2	-	-	-	
Bicycles on Road%	-			-	






#### Turning Movement Count Location Name: DON MILLS RD (NB HOV LANE) & GATEWAY BLVD N / SCIENCE CENTRE Date: Wed, Nov 04, 2015





		Turning Novem	ent Count (1. DON MELLS RD (SB HOV	(LANE) & ST DENNES DR) HolD:		
	S Approach		N A	pproach	Int. Total	Int. Total
Start Time	Approach Total	Thru N:S	Peds N:	Approach Total	(15 min)	(1 hr)
07:30:00	0	47	0	47	47	
07:45:00	0	71	0	71	71	
08:00:00	0	97	0	97	97	
08:15:00	0	82	0	82	82	297
08:30:00	0	76	0	76	76	326
08:45:00	0	60	0	60	60	315
09:00:00	0	50	0	50	50	268
09:15:00	0	42	0	42	42	228
***BI	REAK***				-	
16:00:00	0	41	0	41	41	
16:15:00	0	38	0	38	38	
16:30:00	0	51	0	51	51	
16:45:00	0	33	0	33	33	163
17:00:00	0	38	0	38	38	160
17:15:00	0	44	0	44	44	166
17:30:00	0	44	0	44	44	159
17:45:00	0	52	0	52	52	178
Grand Total	0	866	0	866	866	-
Approach%	-	100%		-	-	-
Totals %	0%	100%		100%	-	-
Heavy	-	107		-	-	-



-

-

-

Heavy %

12.4%

-



	Peak Hour	: 0245 AM-08:45 AM			
Ctast Time	S Approach		ΝΑ	Int. Total	
Start Time	Approach Total	Thru	Peds	Approach Total	(15 min)
07:45:00	0	71	0	71	71
08:00:00	0	97	0	97	97
08:15:00	0	82	0	82	82
08:30:00	0	76	0	76	76
Grand Total	0	326	0	326	326
Approach%	-	100%		-	-
Totals %	0%	100%		100%	-
PHF	0	0.84		0.84	-
Heavy	0	31		31	-
Heavy %	0%	9.5%		9.5%	-
Lights	0	295		295	-
Lights %	0%	90.5%		90.5%	-
Single-Unit Trucks	0	4		4	-
Single-Unit Trucks %	0%	1.2%		1.2%	-
Buses	0	26		26	-
Buses %	0%	8%		8%	-
Articulated Trucks	0	1		1	-
Articulated Trucks %	0%	0.3%		0.3%	-
Bicycles on Road	-	7	0	-	-
Bicycles on Road%		-	%		-



	Peak Hour	:05:00 PM-06:00 PM			
Chart Time	S Approach		N Ap	Int. Total	
Start Time	Approach Total	Thru	Peds	Approach Total	(15 min)
17:00:00	0	38	0	38	38
17:15:00	0	44	0	44	44
17:30:00	0	44	0	44	44
17:45:00	0	52	0	52	52
Grand Total	0	178	0	178	178
Approach%	-	100%		-	-
Totals %	0%	100%		100%	-
PHF	0	0.86		0.86	-
Неаvy	0	11		11	-
Heavy %	0%	6.2%		6.2%	-
Lights	0	167		167	-
Lights %	0%	93.8%		93.8%	-
Single-Unit Trucks	0	1		1	-
Single-Unit Trucks %	0%	0.6%		0.6%	-
Buses	0	9		9	-
Buses %	0%	5.1%		5.1%	-
Articulated Trucks	0	1		1	-
Articulated Trucks %	0%	0.6%		0.6%	-
Bicycles on Road	-	8	0	-	-
Bicycles on Road%		-	%		-



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Project No:	7575.05
Project Name:	Inn On The Park
Study Location:	Don Mills Rd - Eglinton Ave E
Municipality:	Toronto
Study Date:	Wed July 9, 2014
Study Time:	7:30-9:30 & 4 - 6
Peak Hour:	8:00-9:00 am
Study Type:	HOV Lanes, Traffic

From The	e North						East				West				South					
End Time	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total
7:45	17	1	0	4	22	22	1	2	4	29	30	1	0	4	35	28	3	1	4	36
8:00	35	2	2	4	43	35	3	3	4	45	35	0	1	4	40	30	0	1	4	35
8:15	22	2	0	4	28	35	1	0	4	40	34	2	0	5	41	48	2	0	3	53
8:30	37	1	3	3	44	40	1	1	6	48	44	0	0	4	48	56	0	1	4	61
8:45	51	0	0	5	56	31	1	0	4	36	59	0	1	3	63	38	3	1	3	45
9:00	56	1	1	3	61	42	1	0	4	47	42	0	0	4	46	39	1	2	4	46
9:15	15	1	0	4	20	38	1	2	5	46	29	1	0	4	34	55	6	4	5	70
9:30	26	0	0	5	31	21	0	2	10	33	30	0	0	4	34	39	0	3	7	49
Total	259	8	6	32	305	264	9	10	41	324	303	4	2	32	341	333	15	13	34	395
Peak Hour																				
8:00-9:00	166	4	4	15	189	148	4	1	18	171	179	2	1	16	198	181	6	4	14	205

From The	North					East				West				South						
End Time	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total	Car	Medium	Heavy	Bus	Total
16:15	14	0	1	3	18	24	1	0	3	28	86	0	0	3	89	41	2	2	3	48
16:30	19	0	0	4	23	17	0	1	2	20	76	0	1	4	81	38	1	3	3	45
16:45	12	0	2	4	18	19	1	0	6	26	83	1	1	5	90	42	0	3	5	50
17:00	23	0	0	5	28	15	0	0	6	21	96	3	0	4	103	49	0	2	2	53
17:15	27	0	0	4	31	16	2	2	1	21	89	1	1	5	96	51	5	2	4	62
17:30	31	1	1	3	36	29	0	1	5	35	97	0	1	4	102	42	6	2	3	53
17:45	17	0	0	4	21	15	1	1	4	21	100	0	1	3	104	48	0	0	5	53
18:00	16	1	1	3	21	10	0	0	5	15	91	2	0	4	97	40	3	1	4	48
Total	159	2	5	30	196	145	5	5	32	187	718	7	5	32	762	351	17	15	29	412
Peak Hour					0					0					0					0
4:45-5:45	98	1	1	16	116	75	3	4	16	98	382	4	3	16	405	190	11	6	14	221

Full intersection count available at: <u>P:\75\75\05\Counts\TMC\Don Mills Rd - Eglinton Ave E\TMC Don Mills Rd - Eglinton Ave E 2014 05 09.xlsx</u>



# Appendix F

Synchro Output – Ontario Line West

## Queues 1: University Ave & Queen St

		-	ŧ	Ţ
Lane Group	FRI	<b>WRI</b>	INRI	2R1
Lane Group Flow (vph)	487	683	889	1601
v/c Ratio	0.45	0.60	0.32	0.60
Control Delay	22.3	27.4	10.0	20.8
Queue Delay	0.0	0.0	0.2	0.0
Total Delay	22.3	27.4	10.2	20.8
Queue Length 50th (m)	32.3	53.8	15.8	63.7
Queue Length 95th (m)	46.5	72.4	19.1	75.2
Internal Link Dist (m)	147.9	412.1	61.9	209.0
Turn Bay Length (m)				
Base Capacity (vph)	1086	1130	2762	2689
Starvation Cap Reductn	0	0	853	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.60	0.47	0.60
Interception Cummon				
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 1: University Ave & Queen St

	≯	-	$\mathbf{r}$	4	+	*	1	Ť	1	1	ţ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>∱1</b> ≱			A1⊅			4111			4111	
Traffic Volume (vph)	0	351	126	0	569	100	0	848	24	0	1430	139
Future Volume (vph)	0	351	126	0	569	100	0	848	24	0	1430	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		7.0			7.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.86			0.86	
Frpb, ped/bikes		0.90			0.94			0.99			0.96	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.98			1.00			0.99	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		2840			3014			5997			5811	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		2840			3014			5997			5811	
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
Adi. Flow (vph)	0	358	129	0	581	102	0	865	24	0	1459	142
RTOR Reduction (vph)	0	37	0	0	14	0	0	4	0	0	16	0
Lane Group Flow (vph)	0	450	0	0	669	0	0	885	0	0	1585	0
Confl. Peds. (#/hr)	624		538	538		624	768		931	931		768
Confl. Bikes (#/hr)			49			46			29			75
Heavy Vehicles (%)	0%	8%	6%	0%	7%	12%	0%	7%	9%	0%	6%	10%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases					Ū			_			0	
Actuated Green, G (s)		36.0			36.0			45.0			45.0	
Effective Green g (s)		37.0			37.0			46.0			46.0	
Actuated g/C Ratio		0.37			0.37			0.46			0.46	
Clearance Time (s)		8.0			8.0			6.0			6.0	
Lane Grn Can (ynh)		1050			1115			2758			2673	
v/s Ratio Prot		0.16			c0 22			0.15			c0 27	
v/s Ratio Porm		0.10			C0.22			0.15			0.27	
v/c Ratio		0.43			0.60			0.32			0 59	
Uniform Delay, d1		23.6			25.5			17.1			20.1	
Progression Eactor		1 00			1 00			0.57			1 00	
Incremental Delay, d2		1.00			2 /			0.37			1.00	
Delay (s)		24.9			2.4			10.0			21.0	
Level of Service		24.7			27.7			10.0 R			21.0	
Approach Delay (s)		24.9			27.9			10.0			21.0	
Approach LOS		24.7			27.7			10.0 B			21.0	
Approach 203		C			U			D			U	
Intersection Summary												
HCM 2000 Control Delay			20.1	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capacity	ratio		0.58									
Actuated Cycle Length (s)			100.0	S	um of los	t time (s)			14.0			
Intersection Capacity Utilization	۱		54.5%	IC	CU Level	of Service			А			
Analysis Period (min)			15									
HCM 2000 Control Delay HCM 2000 Volume to Capacity Actuated Cycle Length (s) Intersection Capacity Utilizatior Analysis Period (min)	ratio		20.1 0.58 100.0 54.5% 15	H Si IC	CM 2000 um of los CU Level (	Level of Stime (s)	Service		C 14.0 A			

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Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	674	541	124
v/c Ratio	0.47	0.34	0.34
Control Delay	8.3	7.7	21.8
Queue Delay	0.0	0.0	0.0
Total Delay	8.3	7.7	21.8
Queue Length 50th (m)	21.3	16.6	11.4
Queue Length 95th (m)	27.0	25.6	26.0
Internal Link Dist (m)	70.6	147.9	213.5
Turn Bay Length (m)			
Base Capacity (vph)	1421	1575	386
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.47	0.34	0.32
Intersection Summary			

	۶	-	+	•	1	1		
Movement	FBI	FBT	WBT	WBR	SBL	SBR		
Lane Configurations			<b>A</b> 1.		¥	0.511		
Traffic Volume (vph)	122	539	385	145	73	49		
Future Volume (vph)	122	539	385	145	73	49		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6		
Total Lost time (s)		4.0	4.0		5.0			
Lane Util. Factor		0.95	0.95		1.00			
Frpb, ped/bikes		1.00	0.81		0.92			
Flpb, ped/bikes		0.94	1.00		0.91			
Frt		1.00	0.96		0.95			
Flt Protected		0.99	1.00		0.97			
Satd. Flow (prot)		3189	2601		1446			
Flt Permitted		0.75	1.00		0.97			
Satd. Flow (perm)		2417	2601		1446			
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98		
Adj. Flow (vph)	124	550	393	148	74	50		
RTOR Reduction (vph)	0	0	46	0	29	0		
Lane Group Flow (vph)	0	674	495	0	95	0		
Confl. Peds. (#/hr)	565			565	118	142		
Confl. Bikes (#/hr)	10/	70/	(0)	40/	35	16		
Heavy Venicles (%)	1%	1%	6%	4%	0%	0%		
Bus Blockages (#/nr)	0	0	9	9	0	0		
Turn Type	Perm	NA	NA		Perm			
Protected Phases	n	2	0		0			
Actuated Crean C (c)	Z	40.0	40.0		0 10.0			
Effective Groop a (s)		49.0 50.0	49.0 50.0		19.0 20.0			
Actuated a/C Ratio		0.50	0.50		20.0 0.24			
Clearance Time (s)		5 0	5 0		6.0			
Vehicle Extension (s)		3.0 3.0	3.0 3.0		3.0 3.0			
Lane Grn Can (unh)		1/121	1520		3/0			
v/s Ratio Prot		1421	0.19		540			
v/s Ratio Perm		c0 28	0.17		c0 07			
v/c Ratio		0.47	0.32		0.28			
Uniform Delay, d1		10.0	8.9		26.6			
Progression Factor		0.70	1.00		1.00			
Incremental Delay, d2		1.0	0.6		0.5			
Delay (s)		8.1	9.5		27.1			
Level of Service		А	А		С			
Approach Delay (s)		8.1	9.5		27.1			
Approach LOS		А	А		С			
Intersection Summary								
HCM 2000 Control Delay			10.4	H	CM 2000	Level of Ser	vice	R
HCM 2000 Volume to Canacit	v ratio		0.40	11	2000			
Actuated Cycle Length (s)			85.0	Si	um of lost	time (s)		12.0
Intersection Capacity Utilization	on		63.2%		CU Level o	of Service		B
Analysis Period (min)			15					_
c Critical Lane Group								

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Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	722	408	64	163	110
v/c Ratio	0.44	0.29	0.20	0.41	0.21
Control Delay	11.4	7.8	22.7	25.3	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	7.8	22.7	25.3	20.8
Queue Length 50th (m)	32.0	11.6	7.4	19.7	12.0
Queue Length 95th (m)	44.2	16.2	17.0	36.8	23.9
Internal Link Dist (m)	195.0	89.2		65.9	131.1
Turn Bay Length (m)			25.0		
Base Capacity (vph)	1657	1394	313	397	516
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	0.44	0.29	0.20	0.41	0.21
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 3: John St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î»			4î»		ሻ	ef 👘			4	
Traffic Volume (vph)	7	624	62	52	324	15	61	52	105	21	76	9
Future Volume (vph)	7	624	62	52	324	15	61	52	105	21	76	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.0			4.0		5.0	5.0			5.0	
Lane Util. Factor		0.95			0.95		1.00	1.00			1.00	
Frpb, ped/bikes		0.93			0.97		1.00	0.73			0.97	
Flpb, ped/bikes		1.00			0.97		0.72	1.00			0.94	
Frt		0.99			0.99		1.00	0.90			0.99	
Flt Protected		1.00			0.99		0.95	1.00			0.99	
Satd. Flow (prot)		3069			3049		1266	1197			1658	
Flt Permitted		0.95			0.80		0.71	1.00			0.93	
Satd. Flow (perm)		2921			2465		953	1197			1555	
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)	7	650	65	54	338	16	64	54	109	22	79	9
RTOR Reduction (vph)	0	9	0	0	3	0	0	3	0	0	4	0
Lane Group Flow (vph)	0	713	0	0	405	0	64	160	0	0	106	0
Confl. Peds. (#/hr)	540		756	756		540	380		529	529		380
Confl. Bikes (#/hr)			62			316			23			64
Heavy Vehicles (%)	0%	6%	0%	2%	9%	7%	2%	6%	4%	0%	3%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		47.0			47.0		27.0	27.0			27.0	
Effective Green, g (s)		48.0			48.0		28.0	28.0			28.0	
Actuated g/C Ratio		0.56			0.56		0.33	0.33			0.33	
Clearance Time (s)		5.0			5.0		6.0	6.0			6.0	
Lane Grp Cap (vph)		1649			1392		313	394			512	
v/s Ratio Prot								c0.13				
v/s Ratio Perm		c0.24			0.16		0.07				0.07	
v/c Ratio		0.43			0.29		0.20	0.41			0.21	
Uniform Delay, d1		10.7			9.6		20.5	22.1			20.5	
Progression Factor		1.00			0.76		1.00	1.00			1.00	
Incremental Delay, d2		0.8			0.5		1.5	3.1			0.9	
Delay (s)		11.5			7.8		22.0	25.1			21.4	
Level of Service		В			А		С	С			С	
Approach Delay (s)		11.5			7.8			24.2			21.4	
Approach LOS		В			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			12.2	Ц	CM 2000	Level of	Service		R			
HCM 2000 Volume to Capacity ratio			0 / 2						U			
Actuated Cycle Length (s)			85 D	S	um of los	t time (s)			9.0			
Intersection Capacity Utilization			69.1%			of Service	2		7.0 C			
Analysis Period (min)			15	ic.			, 		0			
			15									

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Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	170	424	32	124
v/c Ratio	0.14	0.29	0.08	0.28
Control Delay	3.9	9.4	25.4	1.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.9	9.4	25.4	1.6
Queue Length 50th (m)	2.5	17.1	4.1	0.0
Queue Length 95th (m)	6.5	25.0	11.0	0.0
Internal Link Dist (m)	476.0	195.0		
Turn Bay Length (m)			30.0	
Base Capacity (vph)	1185	1469	422	440
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	0.14	0.29	0.08	0.28
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 4: Peter St/Soho St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> 16			đ î ja		ሻ		1		\$	
Traffic Volume (vph)	0	68	92	92	306	0	30	0	117	0	0	0
Future Volume (vph)	0	68	92	92	306	0	30	0	117	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		6.0			6.0		6.0		6.0			
Lane Util. Factor		0.95			0.95		1.00		1.00			
Frpb, ped/bikes		0.63			1.00		1.00		0.68			
Flpb, ped/bikes		1.00			0.88		0.86		1.00			
Frt		0.91			1.00		1.00		0.85			
Flt Protected		1.00			0.99		0.95		1.00			
Satd. Flow (prot)		1912			2869		1354		1054			
Flt Permitted		1.00			0.83		0.95		1.00			
Satd. Flow (perm)		1912			2409		1354		1054			
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)	0	72	98	98	326	0	32	0	124	0	0	0
RTOR Reduction (vph)	0	39	0	0	0	0	0	0	91	0	0	0
Lane Group Flow (vph)	0	131	0	0	424	0	32	0	33	0	0	0
Confl. Peds. (#/hr)			536	536			118		220			
Confl. Bikes (#/hr)			4						97			
Heavy Vehicles (%)	2%	6%	6%	4%	9%	2%	14%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA		pm+pt	NA		Perm		Perm			
Protected Phases		2		1	6						4	
Permitted Phases				6			3		3	4		
Actuated Green, G (s)		53.0			53.0		23.0		23.0			
Effective Green, g (s)		54.0			54.0		24.0		24.0			
Actuated g/C Ratio		0.60			0.60		0.27		0.27			
Clearance Time (s)		7.0			7.0		7.0		7.0			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		1147			1445		361		281			
v/s Ratio Prot		0.07										
v/s Ratio Perm					c0.18		0.02		c0.03			
v/c Ratio		0.11			0.29		0.09		0.12			
Uniform Delay, d1		7.7			8.7		24.8		25.0			
Progression Factor		1.00			1.00		1.00		1.00			
Incremental Delay, d2		0.2			0.1		0.5		0.9			
Delay (s)		7.9			8.9		25.3		25.8			
Level of Service		A			A		С	05 7	С		0.0	
Approach Delay (s)		7.9			8.9			25.7			0.0	
Approach LOS		A			A			С			A	
Intersection Summary												
HCM 2000 Control Delay			12.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.29									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			25.0			
Intersection Capacity Utilizatio	n		60.0%	IC	U Level	of Service	<u>;</u>		В			
Analysis Period (min)			15									
c Critical Lane Group												

## Queues 5: Queen St & Augusta Avenue

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Lane Group	FRI	WBI	INRT	SRI
Lane Group Flow (vph)	885	494	87	130
v/c Ratio	0.45	0.27	0.21	0.32
Control Delay	5.9	7.3	15.6	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.9	7.3	15.6	21.6
Queue Length 50th (m)	19.1	15.4	5.8	12.8
Queue Length 95th (m)	25.3	23.3	15.6	26.2
Internal Link Dist (m)	125.3	476.0	21.1	101.0
Turn Bay Length (m)				
Base Capacity (vph)	1968	1822	436	431
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	0.45	0.27	0.20	0.30
Interception Cummon				
Intersection Summary				

## HCM Signalized Intersection Capacity Analysis 5: Queen St & Augusta Avenue

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፋጉ			ፋጉ			4			4	
Traffic Volume (vph)	36	715	46	28	389	28	33	21	24	69	42	5
Future Volume (vph)	36	715	46	28	389	28	33	21	24	69	42	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			0.97			0.97			0.99	
Flpb, ped/bikes		0.99			0.99			0.97			0.95	
Frt		0.99			0.99			0.96			0.99	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		3262			3154			1633			1738	
Flt Permitted		0.91			0.87			0.83			0.80	
Satd. Flow (perm)		2989			2764			1392			1430	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	40	794	51	31	432	31	37	23	27	77	47	6
RTOR Reduction (vph)	0	5	0	0	6	0	0	21	0	0	3	0
Lane Group Flow (vph)	0	880	0	0	488	0	0	66	0	0	127	0
Confl. Peds. (#/hr)	204		209	209		204	72		89	89		72
Confl. Bikes (#/hr)			2			20			2			36
Heavy Vehicles (%)	11%	5%	2%	7%	9%	4%	6%	0%	4%	0%	2%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		42.8			42.8			15.2			15.2	
Effective Green, g (s)		43.8			43.8			16.2			16.2	
Actuated g/C Ratio		0.63			0.63			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1870			1729			322			330	
v/s Ratio Prot												
v/s Ratio Perm		c0.29			0.18			0.05			c0.09	
v/c Ratio		0.47			0.28			0.21			0.38	
Uniform Delay, d1		6.9			6.0			21.7			22.7	
Progression Factor		0.63			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.4			0.3			0.7	
Delay (s)		5.2			6.4			22.0			23.4	
Level of Service		А			А			С			С	
Approach Delay (s)		5.2			6.4			22.0			23.4	
Approach LOS		А			А			С			С	
Intersection Summary												
Intersection Summary			0.0		CM 2000	Lovelof	Convioo		Λ			
HCM 2000 Control Delay		8.U	H		Level of	Service		A				
Horivi 2000 Volume to Capacit	y railo		0.45	C	im of los	t time (a)			10.0			
Actuated Cycle Length (s)		/0.0	51		t time (S)			10.0				
Intersection Capacity Utilizatio	11		00.1%	IC	U Level (	JI SELVICE	;		C			
Analysis Period (min)			15									

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Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	564	317	118
v/c Ratio	0.27	0.19	0.48
Control Delay	6.4	5.3	33.1
Queue Delay	0.0	0.0	0.0
Total Delay	6.4	5.3	33.1
Queue Length 50th (m)	16.0	7.2	10.4
Queue Length 95th (m)	23.8	10.3	m25.3
Internal Link Dist (m)	141.9	125.3	209.2
Turn Bay Length (m)			
Base Capacity (vph)	2119	1680	268
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.27	0.19	0.44
Intersection Summary			
intersection outfinding			

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

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Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	A			4ħ	- Y			
Traffic Volume (vph)	480	73	57	254	75	40		
Future Volume (vph)	480	73	57	254	75	40		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	5.0			5.0	5.0			
Lane Util. Factor	0.95			0.95	1.00			
Frpb. ped/bikes	0.93			1.00	0.93			
Flpb, ped/bikes	1.00			0.96	0.80			
Frt	0.98			1.00	0.95			
Flt Protected	1.00			0.99	0.97			
Satd. Flow (prot)	3150			3104	1205			
Flt Permitted	1.00			0.80	0.97			
Satd. Flow (perm)	3150			2512	1205			
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98		
Adi, Flow (vph)	490	74	58	259	77	41		
RTOR Reduction (vnh)	15	0	0	0	28	0		
Lane Group Flow (vph)	549	0	0	317	90	0		
Confl. Peds. (#/hr)	517	299	299	517	197	110		
Confl Bikes (#/hr)		13	277		177	17		
Heavy Vehicles (%)	6%	3%	0%	14%	8%	13%		
	NΔ	0,0	Perm	NΔ	Perm	1070		
Protected Phases	2		T CITI	6	T CITI			
Permitted Phases	2		6	U	8			
Actuated Green G (s)	43.2		Ũ	43.2	10.4			
Effective Green g (s)	44.2			44.2	11.4			
Actuated g/C Ratio	0.63			0.63	0.16			
Clearance Time (s)	6.0			6.0	6.0			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grn Can (vnh)	1989			1586	196			
v/s Ratio Prot	c0 17			1000	170			
v/s Ratio Perm	00.17			0.13	c0.07			
v/c Ratio	0.28			0.20	0.46			
Uniform Delay, d1	5.8			5.4	26.5			
Progression Factor	1.00			0.79	1.46			
Incremental Delay, d2	0.3			0.3	1.5			
Delay (s)	6.1			4.6	40.2			
Level of Service	А			A	D			
Approach Delay (s)	6.1			4.6	40.2			
Approach LOS	A			A	D			
Intersection Summary								
HCM 2000 Control Delay			9.6	Н	CM 2000	Level of Servi	се	А
HCM 2000 Volume to Capacit	y ratio		0.31					
Actuated Cycle Length (s)			70.0	S	um of lost	time (s)		13.0
Intersection Capacity Utilization	on		54.2%	IC	CU Level o	of Service		А
Analysis Period (min)			15					
c Critical Lane Group								

## Queues 7: John St & Richmond St

	+	•	1	Ļ
Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	651	48	184	168
v/c Ratio	0.27	0.20	0.32	0.32
Control Delay	9.3	22.2	22.2	18.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.3	22.2	22.2	18.8
Queue Length 50th (m)	16.9	5.2	20.8	15.6
Queue Length 95th (m)	23.1	13.4	36.7	30.6
Internal Link Dist (m)	363.8		47.8	65.9
Turn Bay Length (m)		20.0		
Base Capacity (vph)	2399	245	582	530
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	0.27	0.20	0.32	0.32
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 7: John St & Richmond St

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT	SBR
Lane Configurations	
Traffic Volume (vph) 0 0 0 40 532 53 46 177 0 0 113	48
Future Volume (vph)     0     0     0     40     532     53     46     177     0     0     113	48
Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	1900
Lane Width 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	3.6
Total Lost time (s)     4.0     5.0	
Lane Util. Factor 0.91 1.00 1.00 1.00	
Frpb, ped/bikes 0.94 1.00 1.00 0.89	
Flpb, ped/bikes 0.96 0.72 1.00 1.00	
Frt 0.99 1.00 1.00 0.96	
Flt Protected 1.00 0.95 1.00 1.00	
Satd. Flow (prot) 4260 1124 1792 1575	
Flt Permitted 1.00 0.64 1.00 1.00	
Satd. Flow (perm) 4260 754 1792 1575	
Peak-hour factor, PHF 0.92 0.92 0.92 0.96 0.96 0.96 0.96 0.96 0.92 0.92 0.96	0.96
Adi, Flow (vph) 0 0 0 42 554 55 48 184 0 0 118	50
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0
Lane Group Flow (vph) 0 0 0 0 647 0 48 184 0 0 149	0
Confl. Peds. (#/hr) 381 507 507 381 573 461 461	573
Confl. Bikes (#/hr) 36 318 377	1
Heavy Vehicles (%) 0% 0% 0% 3% 7% 4% 16% 6% 0% 0% 4%	2%
Bus Blockages (#/hr) 0 0 0 0 14 14 0 0 0 0 0	0
Turn Type Perm NA Perm NA NA	
Protected Phases 6 4 8	
Permitted Phases 6 4	
Actuated Green, G (s) 44.0 25.0 25.0 25.0	
Effective Green g (s) 45.0 26.0 26.0 26.0	
Actuated g/C Ratio 0.56 0.32 0.32 0.32	
Clearance Time (s) 5.0 6.0 6.0 6.0	
Lane Grn Can (vnb) 2396 245 582 511	
v/s Ratio Prot c0.10 0.09	
v/s Ratio Perm 0.15 0.06	
v/c Ratio	
Iniform Delay d1     9.0     19.5     20.3     20.1	
Progression Eactor 100 100 100 100	
Incremental Delay d2 0.3 1.8 1.4 1.4	
Delay (s) 93 212 217 216	
Level of Service A C C C	
Approach Delay (s) $0.0$ $9.3$ $21.6$ $21.6$	
$Anproach LOS \qquad A \qquad A \qquad C \qquad C$	
Intersection Summary	
HCM 2000 Control Delay 14.0 HCM 2000 Level of Service B	
HCM 2000 Volume to Capacity ratio 0.29	
Actuated Cycle Length (s)80.0Sum of lost time (s)9.0	
Intersection Capacity Utilization 61.0% ICU Level of Service B	
Analysis Period (min) 15	

### Queues 8: University Ave & Richmond St

	←	•	Ť	Ļ
Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1106	42	730	1604
v/c Ratio	0.76	0.48	0.24	0.54
Control Delay	32.4	38.0	13.9	4.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.4	38.0	13.9	4.0
Queue Length 50th (m)	68.4	5.0	21.9	9.5
Queue Length 95th (m)	85.2	#20.6	27.8	10.8
Internal Link Dist (m)	359.7		178.7	61.9
Turn Bay Length (m)		41.0		
Base Capacity (vph)	1448	88	3086	2950
Starvation Cap Reductn	0	0	0	137
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.76	0.48	0.24	0.57
Intersection Summary				

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

# HCM Signalized Intersection Capacity Analysis 8: University Ave & Richmond St

	۶	-	$\mathbf{F}$	•	-	•	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>€1</b> ∱Ъ		<u>۲</u>	1111			411126	
Traffic Volume (vph)	0	0	0	249	660	164	41	708	0	0	1392	164
Future Volume (vph)	0	0	0	249	660	164	41	708	0	0	1392	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					8.0		5.0	5.0			5.0	
Lane Util. Factor					0.91		1.00	0.86			0.86	
Frpb, ped/bikes					0.96		1.00	1.00			0.95	
Flpb, ped/bikes					0.94		0.96	1.00			1.00	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4020		1650	6052			5770	
Flt Permitted					0.99		0.10	1.00			1.00	
Satd. Flow (perm)					4020		174	6052			5770	
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
Adi Flow (vph)	0.77	0.77	0	257	680	169	42	730	0	0.77	1435	169
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	0	1105	0	42	730	0	0	1595	0
Confl Peds (#/hr)	192	0	195	195	1100	192	1009	,00	866	866	1070	1009
Confl Bikes (#/hr)	172		43	170		87	1007		214	000		1007
Heavy Vehicles (%)	0%	0%	0%	9%	14%	12%	5%	8%	0%	0%	5%	9%
	070	070	0/0	Perm	ΝΔ	1270	Perm	ΝΔ	070	0/0	ΝΔ	770
Protected Phases				1 CHII	8		1 CIIII	2			6	
Permitted Phases				8	U		2	L			U	
Actuated Green G (s)				0	35.0		50.0	50.0			50.0	
Effective Green g (s)					36.0		51.0	51.0			51.0	
Actuated q/C Ratio					0.36		0.51	0.51			0.51	
Clearance Time (s)					9.0		6.0	6.0			6.0	
Lano Crn Can (unb)					1//7		0.0	2006			2042	
ule Bip Cap (vpi)					1447		00	0 1 2			274Z	
V/S Ratio Prot					0.27		0.24	0.12			CU.20	
					0.27		0.24	0.24			0.54	
V/C Rallo Uniform Dolay, d1					0.70		0.40	0.24			16.6	
Dragrossion Eactor					20.2		10.9	1.00			0.01	
Incromontal Dolay, d2					2.0		17.00	0.2			0.21	
Delay (c)					১.୨ ২২ 1		17.4	12.0			0.0	
Lovel of Sorvice					JZ.1		33.3	13.0 D			4.U A	
Approach Dolay (c)		0.0			22.1		C	D 14.0			A	
Approach LOS		0.0 Δ			32.1 C			14.9 R			4.0 Δ	
Intersection Summany		Π			U			D			Л	
Intersection Summary			15.0				Conviso					
HUM 2000 Volume to Original	HCM 2000 Control Delay		15.3	Н	ICIVI 2000	Level of	Service		В			
HCIVI 2000 Volume to Capacity	ratio		0.63	~		4 4 line = (-)			10.0			
Actuated Cycle Length (s)	_		100.0	S	um of los	t time (s)			13.0			
Intersection Capacity Utilization	1		69.7%	10	U Level	of Service	<u>;</u>		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	1350	277	86	134
v/c Ratio	0.55	0.66	0.52	0.26
Control Delay	11.6	32.3	37.0	23.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	32.3	37.0	23.0
Queue Length 50th (m)	42.5	35.2	10.8	15.4
Queue Length 95th (m)	54.2	61.1	#26.8	28.9
Internal Link Dist (m)	200.8	125.9		208.2
Turn Bay Length (m)			15.0	
Base Capacity (vph)	2443	421	164	513
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	0.55	0.66	0.52	0.26
Intersection Summary				

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

# HCM Signalized Intersection Capacity Analysis 9: Peter St & Adelaide St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈቶኩ						ĥ		۲	•	
Traffic Volume (vph)	144	992	119	0	0	0	0	163	95	80	125	0
Future Volume (vph)	144	992	119	0	0	0	0	163	95	80	125	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		5.0						5.0		5.0	5.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frpb, ped/bikes		0.94						0.81		1.00	1.00	
Flpb, ped/bikes		0.93						1.00		0.77	1.00	
Frt		0.99						0.95		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4244						1384		1128	1712	
Flt Permitted		0.99						1.00		0.46	1.00	
Satd. Flow (perm)		4244						1384		548	1712	
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)	155	1067	128	0	0	0	0	175	102	86	134	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	1346	0	0	0	0	0	271	0	86	134	0
Confl. Peds. (#/hr)	545		452	452		545	433		629	629		433
Confl. Bikes (#/hr)			44			18			432			
Heavy Vehicles (%)	5%	5%	9%	0%	0%	0%	0%	8%	3%	23%	11%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		45.0						23.0		23.0	23.0	
Effective Green, g (s)		46.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.58						0.30		0.30	0.30	
Clearance Time (s)		6.0						6.0		6.0	6.0	
Lane Grp Cap (vph)		2440						415		164	513	
v/s Ratio Prot								c0.20			0.08	
v/s Ratio Perm		0.32								0.16		
v/c Ratio		0.55						0.65		0.52	0.26	
Uniform Delay, d1		10.6						24.4		23.3	21.3	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.9						7.8		11.5	1.2	
Delay (s)		11.5						32.1		34.7	22.5	
Level of Service		В			0.0			0		C	07.0	
Approach Delay (s)		11.5			0.0			32.1			21.3	
Approach LOS		В			А			С			C	
Intersection Summary			4		011 000		2 1					
HCM 2000 Control Delay			16.5	Н	CM 2000	Level of S	Service		В			
HCIVI 2000 Volume to Capacity	y ratio		0.59	<u> </u>	uno efi-	t = (-)			10.0			
Actuated Cycle Length (S)	2		80.0	S	um of Ios	t time (s)			10.0			
Intersection Capacity Utilizatio	11		15.3%	IC	U Level (	JI Service			D			
			15									

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Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1181	732	241	149	565
v/c Ratio	0.69	0.99	0.67	0.99	0.24
Control Delay	25.9	68.3	13.4	113.9	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	68.3	13.4	113.9	13.1
Queue Length 50th (m)	61.3	66.8	0.0	26.2	19.3
Queue Length 95th (m)	76.6	#104.0	#22.4	#62.6	25.9
Internal Link Dist (m)	195.4	122.2			453.1
Turn Bay Length (m)				60.0	
Base Capacity (vph)	1719	736	358	151	2401
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	0.69	0.99	0.67	0.99	0.24
Intersection Summary					

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

# HCM Signalized Intersection Capacity Analysis 10: Spadina Ave & Adelaide St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>₫</b> †Ъ						<b>^</b>	1	۲.	***	
Traffic Volume (vph)	124	879	119	0	0	0	0	717	229	142	537	0
Future Volume (vph)	124	879	119	0	0	0	0	717	229	142	537	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		6.0						5.0	5.0	17.0	5.0	
Lane Util. Factor		0.91						0.95	1.00	1.00	0.91	
Frpb, ped/bikes		0.97						1.00	0.44	1.00	1.00	
Flpb, ped/bikes		0.97						1.00	1.00	1.00	1.00	
Frt		0.98						1.00	0.85	1.00	1.00	
Flt Protected		0.99						1.00	1.00	0.95	1.00	
Satd. Flow (prot)		4544						3312	680	1703	4803	
Flt Permitted		0.99						1.00	1.00	0.95	1.00	
Satd. Flow (perm)		4544						3312	680	1703	4803	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.95	0.95
Adj. Flow (vph)	131	925	125	0	0	0	0	732	241	149	565	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	187	0	0	0
Lane Group Flow (vph)	0	1177	0	0	0	0	0	732	54	149	565	0
Confl. Peds. (#/hr)	384		315	315		384	617		589	589		617
Confl. Bikes (#/hr)			62			30			463			1
Heavy Vehicles (%)	5%	4%	6%	0%	0%	0%	0%	9%	4%	6%	8%	0%
Bus Blockages (#/hr)	0	2	2	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA						NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4								2			
Actuated Green, G (s)		33.0						19.0	19.0	7.0	44.0	
Effective Green, g (s)		34.0						20.0	20.0	8.0	45.0	
Actuated g/C Ratio		0.38						0.22	0.22	0.09	0.50	
Clearance Time (s)		7.0						6.0	6.0	18.0	6.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1716						736	151	151	2401	
v/s Ratio Prot								c0.22		c0.09	0.12	
v/s Ratio Perm		0.26							0.08			
v/c Ratio		0.69						0.99	0.35	0.99	0.24	
Uniform Delay, d1		23.5						34.9	29.6	40.9	12.8	
Progression Factor		1.00						1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.3						31.9	6.4	68.7	0.2	
Delay (s)		25.8						66.8	36.0	109.6	13.0	
Level of Service		С						E	D	F	В	
Approach Delay (s)		25.8			0.0			59.2			33.1	
Approach LOS		С			А			Е			С	
Intersection Summary												
HCM 2000 Control Delay			38.9	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	y ratio		0.82									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			28.0			
Intersection Capacity Utilization	n		79.6%	IC	CU Level	of Service	;		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	1195	57	115
v/c Ratio	0.45	0.16	0.31
Control Delay	9.2	12.4	22.0
Queue Delay	0.0	0.0	0.0
Total Delay	9.2	12.4	22.0
Queue Length 50th (m)	39.1	2.6	11.6
Queue Length 95th (m)	52.6	10.3	24.2
Internal Link Dist (m)	180.7	48.2	47.1
Turn Bay Length (m)			
Base Capacity (vph)	2680	352	374
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.45	0.16	0.31
Intersection Summary			

## HCM Signalized Intersection Capacity Analysis 11: Brant Street & Adelaide St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		.at <b>†</b> ⊅						eî 🕺			ę	
Traffic Volume (vph)	37	1036	86	0	0	0	0	27	28	68	44	0
Future Volume (vph)	37	1036	86	0	0	0	0	27	28	68	44	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1						5.4			5.4	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.97						0.76			1.00	
Flpb, ped/bikes		0.99						1.00			0.91	
Frt		0.99						0.93			1.00	
Flt Protected		1.00						1.00			0.97	
Satd. Flow (prot)		4681						1129			1549	
Flt Permitted		1.00						1.00			0.80	
Satd. Flow (perm)		4681						1129			1271	
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)	38	1068	89	0	0	0	0	28	29	70	45	0
RTOR Reduction (vph)	0	13	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	1182	0	0	0	0	0	37	0	0	115	0
Confl. Peds. (#/hr)	147		194						152	152		
Confl. Bikes (#/hr)			17						530			
Heavy Vehicles (%)	14%	5%	9%	2%	2%	2%	2%	23%	19%	9%	9%	2%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		38.9						19.6			19.6	
Effective Green, g (s)		39.9						20.6			20.6	
Actuated g/C Ratio		0.57						0.29			0.29	
Clearance Time (s)		5.1						6.4			6.4	
Lane Grp Cap (vph)		2668						332			374	
v/s Ratio Prot								0.03				
v/s Ratio Perm		0.25									c0.09	
v/c Ratio		0.44						0.11			0.31	
Uniform Delay, d1		8.7						18.0			19.2	
Progression Factor		1.02						1.00			1.00	
Incremental Delay, d2		0.5						0.7			2.1	
Delay (s)		9.4						18.7			21.3	
Level of Service		А						В			С	
Approach Delay (s)		9.4			0.0			18.7			21.3	
Approach LOS		А			А			В			С	
Intersection Summary												
HCM 2000 Control Dolou			10.0	11	CM 2000	Lovelof	Sonvico		D			
HCM 2000 Volume to Canacity	( ratio		0.40	П		Level U	Service		D			
Actuated Cycle Longth (c)	ταιιυ		70.0	C	um of loc	t time (c)			05			
Intersection Canacity Utilization	n		17.0%			of Service	<u>,</u>		9.0 A			
Analysis Period (min)			15	IC.			·		Λ			

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Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	878	230	246
v/c Ratio	0.33	0.57	0.77
Control Delay	8.7	19.9	35.2
Queue Delay	0.0	0.0	0.0
Total Delay	8.7	19.9	35.2
Queue Length 50th (m)	21.1	16.4	23.9
Queue Length 95th (m)	28.3	36.9	#61.5
Internal Link Dist (m)	197.3	118.6	209.2
Turn Bay Length (m)			
Base Capacity (vph)	2655	424	339
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.54	0.73
Intersection Summary			

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈቶኈ						ĥ			ર્સ	
Traffic Volume (vph)	38	774	48	0	0	0	0	83	142	137	104	0
Future Volume (vph)	38	774	48	0	0	0	0	83	142	137	104	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						5.0			5.0	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.98						0.73			1.00	
Flpb, ped/bikes		0.99						1.00			0.91	
Frt		0.99						0.91			1.00	
Flt Protected		1.00						1.00			0.97	
Satd. Flow (prot)		4724						1143			1584	
Flt Permitted		1.00						1.00			0.63	
Satd. Flow (perm)		4724						1143			1033	
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)	39	790	49	0	0	0	0	85	145	140	106	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	47	0	0	0	0
Lane Group Flow (vph)	0	869	0	0	0	0	0	183	0	0	246	0
Confl. Peds. (#/hr)	150		165				206		217	217		206
Confl. Bikes (#/hr)			14						437			1
Heavy Vehicles (%)	19%	5%	11%	2%	2%	2%	2%	11%	12%	3%	12%	2%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		38.2						20.8			20.8	
Effective Green, g (s)		39.2						21.8			21.8	
Actuated g/C Ratio		0.56						0.31			0.31	
Clearance Time (s)		5.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2645						355			321	
v/s Ratio Prot								0.16				
v/s Ratio Perm		0.18									c0.24	
v/c Ratio		0.33						0.52			0.77	
Uniform Delay, d1		8.3						19.8			21.8	
Progression Factor		1.00						1.00			0.79	
Incremental Delay, d2		0.3						1.3			10.4	
Delay (s)		8.6						21.0			27.7	
Level of Service		А						С			С	
Approach Delay (s)		8.6			0.0			21.0			27.7	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			14.2	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s)			70.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilizatio	n		62.8%	IC	U Level	of Service	;		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	NBT	NBR	SBT
Lane Group Flow (vph)	572	544	839
v/c Ratio	0.31	0.81	0.75
Control Delay	8.7	20.9	20.1
Queue Delay	0.0	0.0	0.0
Total Delay	8.7	20.9	20.1
Queue Length 50th (m)	16.8	53.9	53.5
Queue Length 95th (m)	m30.1	m#91.9	78.4
Internal Link Dist (m)	112.5		51.9
Turn Bay Length (m)			
Base Capacity (vph)	1846	672	1118
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.81	0.75
Intersection Summary			
intersection Summary			

# 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.

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations			**	1	002	41		
Traffic Volume (vph)	0	0	566	539	342	489		
Future Volume (vph)	0	0	566	539	342	489		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)			5.0	5.0		5.0		
Lane Util. Factor			0.95	1.00		0.95		
Frpb, ped/bikes			1.00	0.77		1.00		
Flpb, ped/bikes			1.00	1.00		0.96		
Frt			1.00	0.85		1.00		
Flt Protected			1.00	1.00		0.98		
Satd. Flow (prot)			3259	1187		3151		
Flt Permitted			1.00	1.00		0.61		
Satd. Flow (perm)			3259	1187		1964		
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99		
Adj. Flow (vph)	0	0	572	544	345	494		
RTOR Reduction (vph)	0	0	0	0	0	0		
Lane Group Flow (vph)	0	0	572	544	0	839		
Confl. Peds. (#/hr)				189	189			
Heavy Vehicles (%)	2%	2%	12%	6%	5%	12%		
Turn Type			NA	Perm	pm+pt	NA		
Protected Phases			2		1	6		
Permitted Phases				2	6			
Actuated Green, G (s)			50.0	50.0		50.0		
Effective Green, g (s)			51.0	51.0		51.0		
Actuated g/C Ratio			0.57	0.57		0.57		
Clearance Time (s)			6.0	6.0		6.0		
Vehicle Extension (s)			3.0	3.0		3.0		
Lane Grp Cap (vph)			1846	672		1112		
v/s Ratio Prot			0.18					
v/s Ratio Perm			0.01	c0.46		0.43		
v/c Ratio			0.31	0.81		0.75		
Uniform Delay, d1			10.2	15.6		14.8		
Progression Factor			0.81	0.75		1.00		
Incremental Delay, d2			0.3	1./		3.0		
Delay (S)			8.6	19.3		17.7		
Level of Service	0.0		A	В		B		
Approach LOS	0.0		13.8			I/./		
Approach LUS	A		В			В		
Intersection Summary								
HCM 2000 Control Delay			15.5	Н	ICM 2000	Level of Servic	9	В
HCM 2000 Volume to Capacit	y ratio		0.56					
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)		16.0
Intersection Capacity Utilization	n		72.8%	IC	CU Level	of Service		С
Analysis Period (min)			15					

## Queues 14: Portland Street & King Street

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Lane Group	EBR	WBR	NBT	SBT
Lane Group Flow (vph)	39	28	303	117
v/c Ratio	0.09	0.07	0.66	0.30
Control Delay	1.0	1.7	29.7	17.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.0	1.7	29.7	17.3
Queue Length 50th (m)	0.0	0.0	34.8	8.9
Queue Length 95th (m)	1.3	1.8	59.4	21.1
Internal Link Dist (m)			25.0	118.6
Turn Bay Length (m)				
Base Capacity (vph)	425	374	469	399
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	0.09	0.07	0.65	0.29
Intersection Summary				
# HCM Signalized Intersection Capacity Analysis 14: Portland Street & King Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>	1		•	1		\$			4	
Traffic Volume (vph)	0	0	38	0	0	27	29	189	76	19	55	39
Future Volume (vph)	0	0	38	0	0	27	29	189	76	19	55	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0		5.0			5.0	
Lane Util. Factor			1.00			1.00		1.00			1.00	
Frpb, ped/bikes			0.47			0.48		0.91			0.82	
Flpb, ped/bikes			1.00			1.00		0.96			0.97	
Frt			0.85			0.85		0.97			0.95	
Flt Protected			1.00			1.00		1.00			0.99	
Satd. Flow (prot)			697			630		1596			1365	
Flt Permitted			1.00			1.00		0.96			0.93	
Satd. Flow (perm)			697			630		1543			1276	
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)	0	0	39	0	0	28	30	195	78	20	57	40
RTOR Reduction (vph)	0	0	17	0	0	12	0	17	0	0	25	0
Lane Group Flow (vph)	0	0	22	0	0	16	0	286	0	0	92	0
Confl. Peds. (#/hr)	570		625	625		570	256		363	363		256
Confl. Bikes (#/hr)			47			46			21			68
Heavy Vehicles (%)	2%	8%	0%	0%	10%	15%	0%	2%	1%	0%	6%	8%
Bus Blockages (#/hr)	21	21	21	20	20	20	0	0	0	0	0	0
Turn Type			custom			custom	Perm	NA		Perm	NA	
Protected Phases		2	1		6	5		4			8	
Permitted Phases			2			6	4			8		
Actuated Green, G (s)			39.6			39.6		20.4			20.4	
Effective Green, g (s)			41.6			41.6		21.4			21.4	
Actuated g/C Ratio			0.55			0.55		0.29			0.29	
Clearance Time (s)			4.0			4.0		6.0			6.0	
Vehicle Extension (s)			3.0			3.0		3.0			3.0	
Lane Grp Cap (vph)			414			374		440			364	
v/s Ratio Prot			c0.01			0.00						
v/s Ratio Perm			0.03			0.02		c0.19			0.07	
v/c Ratio			0.05			0.04		0.65			0.25	
Uniform Delay, d1			7.7			7.6		23.5			20.6	
Progression Factor			1.00			1.00		1.00			1.00	
Incremental Delay, d2			0.2			0.2		3.3			0.4	
Delay (s)			7.9			7.8		26.8			21.0	
Level of Service			A			A		С			С	
Approach Delay (s)		7.9			7.8			26.8			21.0	
Approach LOS		A			A			С			С	
								Ū			•	
Intersection Summary												
HCM 2000 Control Delay			22.8	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	/ ratio		0.26	_								
Actuated Cycle Length (s)			75.0	Si	um of los	t time (s)			12.0			
Intersection Capacity Utilizatio	n		45.6%	IC	U Level	of Service	9		А			
Analysis Period (min)			15									

#### Queues 15: Spadina Ave & King Street

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Lane Group	EBR	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	54	25	49	792	550
v/c Ratio	0.09	0.05	0.37	0.41	0.36
Control Delay	0.3	0.2	50.5	21.2	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.2	50.5	21.2	26.2
Queue Length 50th (m)	0.0	0.0	8.7	37.1	29.9
Queue Length 95th (m)	0.0	0.0	19.9	47.6	40.1
Internal Link Dist (m)				128.7	122.2
Turn Bay Length (m)			60.0		
Base Capacity (vph)	619	529	131	1921	1527
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	0.09	0.05	0.37	0.41	0.36
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 15: Spadina Ave & King Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		•	1		•	*	۲.	ተተኈ			ተተኈ	
Traffic Volume (vph)	0	0	50	0	0	23	46	718	19	0	488	23
Future Volume (vph)	0	0	50	0	0	23	46	718	19	0	488	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0	5.0	5.0			5.0	
Lane Util. Factor			1.00			1.00	1.00	0.91			0.91	
Frpb, ped/bikes			0.73			0.69	1.00	0.99			0.98	
Flpb, ped/bikes			1.00			1.00	1.00	1.00			1.00	
Frt			0.85			0.85	1.00	1.00			0.99	
Flt Protected			1.00			1.00	0.95	1.00			1.00	
Satd. Flow (prot)			1050			916	1789	4797			4748	
Flt Permitted			1.00			1.00	0.95	1.00			1.00	
Satd. Flow (perm)			1050			916	1789	4797			4748	
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)	0	0	54	0	0	25	49	772	20	0	525	25
RTOR Reduction (vph)	0	0	30	0	0	14	0	3	0	0	5	0
Lane Group Flow (vph)	0	0	24	0	0	11	49	789	0	0	545	0
Confl. Peds. (#/hr)	500		392	392		500	273		349	349		273
Confl. Bikes (#/hr)			8			10			14			35
Heavy Vehicles (%)	0%	77%	14%	0%	2%	23%	2%	8%	6%	0%	8%	9%
Turn Type			custom			custom	Prot	NA			NA	
Protected Phases		2	1		6	5	7	4			8	
Permitted Phases			2			6						
Actuated Green, G (s)			42.4			42.4	3.6	39.4			29.8	
Effective Green, g (s)			44.4			44.4	4.6	40.4			30.8	
Actuated g/C Ratio			0.44			0.44	0.05	0.40			0.31	
Clearance Time (s)			4.0			4.0	6.0	6.0			6.0	
Vehicle Extension (s)			3.0			3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)			498			435	82	1941			1465	
v/s Ratio Prot			c0.00			0.00	0.03	c0.16			0.11	
v/s Ratio Perm			0.02			0.01						
v/c Ratio			0.05			0.03	0.60	0.41			0.37	
Uniform Delay, d1			15.7			15.6	46.7	21.2			26.9	
Progression Factor			1.00			1.00	1.00	1.00			1.00	
Incremental Delay, d2			0.2			0.0	11.2	0.6			0.7	
Delay (s)			15.9			15.6	57.9	21.8			27.7	
Level of Service			В			В	E	С			С	
Approach Delay (s)		15.9			15.6			23.9			27.7	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			24.9	Н	CM 2000	) Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.23									
Actuated Cycle Length (s)			99.8	S	um of los	st time (s)			20.0			
Intersection Capacity Utilizatio	n		65.0%	IC	CU Level	of Service	5		С			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 16: Bathurst Street & Fort York Boulevard

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Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	313	287	360	917	533
v/c Ratio	0.92	0.47	0.67	0.60	0.50
Control Delay	56.6	23.2	34.2	18.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	23.2	34.2	18.3	6.5
Queue Length 50th (m)	38.6	34.3	26.0	58.1	4.0
Queue Length 95th (m)	#79.4	55.1	39.9	79.5	12.6
Internal Link Dist (m)		65.7	51.4	65.1	550.9
Turn Bay Length (m)					
Base Capacity (vph)	341	658	605	1531	1072
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	0.92	0.44	0.60	0.60	0.50
Internetion Commencers					

Intersection Summary

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

Queue shown is maximum after two cycles.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	eî 👘			đ þ			ર્લ કિ			đ þ	
Traffic Volume (vph)	304	224	54	28	99	222	17	845	27	67	324	126
Future Volume (vph)	304	224	54	28	99	222	17	845	27	67	324	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.94			0.81			0.99			0.94	
Flpb, ped/bikes	0.95	1.00			0.98			1.00			0.99	
Frt	1.00	0.97			0.90			1.00			0.96	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1660	1668			2490			3211			2891	
Flt Permitted	0.40	1.00			0.90			0.94			0.71	
Satd. Flow (perm)	700	1668			2251			3017			2055	
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)	313	231	56	29	102	229	18	871	28	69	334	130
RTOR Reduction (vph)	0	10	0	0	30	0	0	2	0	0	33	0
Lane Group Flow (vph)	313	277	0	0	330	0	0	915	0	0	500	0
Confl. Peds. (#/hr)	221		266	266		221	271		246	246		271
Confl. Bikes (#/hr)			11			12			43			16
Heavy Vehicles (%)	4%	3%	4%	7%	8%	4%	0%	8%	8%	3%	11%	5%
Bus Blockages (#/hr)	0	4	4	0	0	0	16	16	16	16	16	16
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	31.4	31.4			19.4			44.6			44.6	
Effective Green, g (s)	32.4	32.4			20.4			45.6			45.6	
Actuated g/C Ratio	0.36	0.36			0.23			0.51			0.51	
Clearance Time (s)	5.0	7.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	337	600			510			1528			1041	
v/s Ratio Prot	c0.08	0.17										
v/s Ratio Perm	c0.25				0.15			c0.30			0.24	
v/c Ratio	0.93	0.46			0.65			0.60			0.48	
Uniform Delay, d1	26.2	22.1			31.5			15.7			14.5	
Progression Factor	1.00	1.00			1.00			1.00			0.39	
Incremental Delay, d2	30.9	0.6			2.8			1.7			1.1	
Delay (s)	57.1	22.7			34.4			17.5			6.8	
Level of Service	E	С			С			В			А	
Approach Delay (s)		40.7			34.4			17.5			6.8	
Approach LOS		D			С			В			А	
Intersection Summary							-		-			
HCM 2000 Control Delay			23.4	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.76									
Actuated Cycle Length (s)			90.0	Si	um of lost	time (s)			16.0			
Intersection Capacity Utilizati						<i>c</i> <b>o i</b>			<u> </u>			
	ion		105.0%	IC	U Level	of Service			G			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					\$			÷			el el	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	14	183	63	10	27	0	0	60	19
Future Volume (vph)	0	0	0	14	183	63	10	27	0	0	60	19
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	16	208	72	11	31	0	0	68	22
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total (vph)	296	42	90									
Volume Left (vph)	16	11	0									
Volume Right (vph)	72	0	22									
Hadj (s)	-0.08	0.15	-0.15									
Departure Headway (s)	4.1	4.8	4.5									
Degree Utilization, x	0.34	0.06	0.11									
Capacity (veh/h)	848	694	747									
Control Delay (s)	9.3	8.1	8.0									
Approach Delay (s)	9.3	8.1	8.0									
Approach LOS	А	А	А									
Intersection Summary												
Delay			8.9									
Level of Service			А									
Intersection Capacity Utiliz	ation		34.2%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$						el el	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	58	0	266	3	190	117	0	0	0	0	220	33
Future Volume (vph)	58	0	266	3	190	117	0	0	0	0	220	33
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
Hourly flow rate (vph)	60	0	274	3	196	121	0	0	0	0	227	34
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total (vph)	334	320	261									
Volume Left (vph)	60	3	0									
Volume Right (vph)	274	121	34									
Hadj (s)	-0.36	-0.07	-0.01									
Departure Headway (s)	4.8	5.0	5.5									
Degree Utilization, x	0.44	0.45	0.40									
Capacity (veh/h)	717	680	603									
Control Delay (s)	11.5	12.1	12.0									
Approach Delay (s)	11.5	12.1	12.0									
Approach LOS	В	В	В									
Intersection Summary												
Delay			11.8									
Level of Service			В									
Intersection Capacity Utilization	ation		65.6%	IC	CU Level	of Service			С			
Analysis Period (min)			15									

#### Queues 19: Strachan Avenue & E Liberty Street

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	217	334	16	7	267	529	6	346	135
v/c Ratio	0.48	0.45	0.12	0.01	0.53	0.54	0.02	0.47	0.30
Control Delay	25.5	5.1	21.3	12.7	13.4	15.1	15.5	21.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	5.1	21.3	12.7	13.4	15.1	15.5	21.0	5.2
Queue Length 50th (m)	25.7	1.4	1.7	0.2	19.2	49.7	0.6	38.4	0.0
Queue Length 95th (m)	45.7	18.0	6.2	2.7	31.7	76.1	2.8	60.9	10.4
Internal Link Dist (m)		105.0		80.5		84.8		117.7	
Turn Bay Length (m)	40.0				60.0		60.0		45.0
Base Capacity (vph)	448	735	133	524	501	984	331	737	451
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	0.48	0.45	0.12	0.01	0.53	0.54	0.02	0.47	0.30
Intersection Summary									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	eî		۲	el el		ľ	eî.		۲	•	1
Traffic Volume (vph)	204	2	312	15	2	5	251	485	12	6	325	127
Future Volume (vph)	204	2	312	15	2	5	251	485	12	6	325	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		3.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.96		1.00	0.90		1.00	1.00		1.00	1.00	0.70
Flpb, ped/bikes	0.93	1.00		1.00	1.00		0.96	1.00		0.95	1.00	1.00
Frt	1.00	0.85		1.00	0.89		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1675	1551		911	1545		1727	1874		1738	1902	951
Flt Permitted	0.75	1.00		0.41	1.00		0.41	1.00		0.47	1.00	1.00
Satd. Flow (perm)	1328	1551		396	1545		750	1874		855	1902	951
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)	217	2	332	16	2	5	267	516	13	6	346	135
RTOR Reduction (vph)	0	212	0	0	3	0	0	1	0	0	0	83
Lane Group Flow (vph)	217	122	0	16	4	0	267	528	0	6	346	52
Confl. Peds. (#/hr)	46		2	2		46	124		52	52		124
Confl. Bikes (#/hr)			12			46						62
Heavy Vehicles (%)	1%	100%	1%	100%	0%	0%	1%	1%	36%	0%	1%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	16
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	26.0	26.0		26.0	26.0		41.0	41.0		30.0	30.0	30.0
Effective Green, g (s)	27.0	27.0		27.0	27.0		42.0	42.0		31.0	31.0	31.0
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.52	0.52		0.39	0.39	0.39
Clearance Time (s)	6.0	6.0		6.0	6.0		4.0	7.0		7.0	7.0	7.0
Lane Grp Cap (vph)	448	523		133	521		491	983		331	737	368
v/s Ratio Prot		0.08			0.00		0.05	c0.28			0.18	
v/s Ratio Perm	c0.16			0.04			c0.23			0.01		0.05
v/c Ratio	0.48	0.23		0.12	0.01		0.54	0.54		0.02	0.47	0.14
Uniform Delay, d1	21.0	19.1		18.3	17.6		11.3	12.6		15.1	18.3	15.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.7	1.0		1.8	0.0		4.3	2.1		0.1	2.1	0.8
Delay (s)	24.7	20.1		20.1	17.6		15.6	14.7		15.2	20.5	16.7
Level of Service	С	С		С	В		В	В		В	С	В
Approach Delay (s)		21.9			19.4			15.0			19.4	
Approach LOS		С			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			18.2	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	ty ratio		0.54									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			14.0			
Intersection Capacity Utilizati	on		78.9%	IC	CU Level	of Service	е		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	12	252	735	546
v/c Ratio	0.03	0.81	0.60	0.39
Control Delay	0.5	43.6	11.2	9.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.5	43.6	11.2	9.3
Queue Length 50th (m)	0.0	28.9	30.2	21.5
Queue Length 95th (m)	0.4	#65.1	47.2	31.7
Internal Link Dist (m)	23.4	28.9	82.4	84.9
Turn Bay Length (m)				
Base Capacity (vph)	397	334	1227	1405
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	0.03	0.75	0.60	0.39
Intersection Summary				

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			đ þ				
Traffic Volume (vph)	5	0	6	176	0	56	2	240	434	84	419	0
Future Volume (vph)	5	0	6	176	0	56	2	240	434	84	419	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.81			0.94			0.68			1.00	
Flpb, ped/bikes		0.95			0.77			1.00			0.97	
Frt		0.92			0.97			0.90			1.00	
Flt Protected		0.98			0.96			1.00			0.99	
Satd. Flow (prot)		1341			1275			2048			3103	
Flt Permitted		0.90			0.77			0.95			0.74	
Satd. Flow (perm)		1229			1019			1955			2304	
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)	5	0	7	191	0	61	2	261	472	91	455	0
RTOR Reduction (vph)	0	9	0	0	30	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	3	0	0	222	0	0	701	0	0	546	0
Confl. Peds. (#/hr)	157		273	273		157	260		222	222		260
Confl. Bikes (#/hr)			15			25			2			13
Heavy Vehicles (%)	0%	2%	0%	1%	0%	4%	0%	12%	1%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	12	18	18	15	23	23
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.2			21.2			47.8			47.8	
Effective Green, g (s)		22.2			22.2			48.8			48.8	
Actuated g/C Ratio		0.28			0.28			0.61			0.61	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		341			282			1192			1405	
v/s Ratio Prot												
v/s Ratio Perm		0.00			c0.22			c0.36			0.24	
v/c Ratio		0.01			0.79			0.59			0.39	
Uniform Delay, d1		20.9			26.7			9.5			8.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			13.6			2.1			0.8	
Delay (s)		20.9			40.3			11.6			8.8	
Level of Service		С			D			В			А	
Approach Delay (s)		20.9			40.3			11.6			8.8	
Approach LOS		С			D			В			А	
Intersection Summary												
HCM 2000 Control Dolov			15 /	11	<u>CM 2000</u>	Lovelof	Convigo		D			
HCM 2000 Volume to Canaci	tu ratio		10.4	П		Level U	Service		D			
Actuated Cycle Length (c)	iy ratio		CO.U	C.	um of loc	t time (c)			0.0			
Actuated Cycle Leffglff (S)	on		0U.U 7/ 10/	5		t time (S)	\ \		9.0			
Analysis Deried (min)	JII		/4.1% 1E	IC	U Level (		;		U			
			15									

#### Queues 21: Roncesvalles Avenue & King Street

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Lane Group	EBT	EBR	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	512	758	422	317	116	64
v/c Ratio	0.98	0.49	0.49	0.41	0.28	0.13
Control Delay	69.8	1.1	28.4	32.0	29.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.8	1.1	28.4	32.0	29.9	0.6
Queue Length 50th (m)	93.8	0.0	31.5	25.6	17.0	0.0
Queue Length 95th (m)	#157.1	0.0	45.8	38.0	31.5	0.0
Internal Link Dist (m)	127.0		140.2	66.7	68.4	
Turn Bay Length (m)						25.0
Base Capacity (vph)	523	1560	854	777	415	477
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	0.98	0.49	0.49	0.41	0.28	0.13

#### Intersection Summary

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

Queue shown is maximum after two cycles.

Movement         EBI         EBI         EBI         WBI         WBI         WBI         NBI         NBI         NBR         SBI         SBR           Lane Configurations         1         1         4         1         4         1         4         1         7         7         62           Future Volume (vph)         0         497         735         3         330         77         181         109         17         36         77         62           Ideal Flow (vphpl)         1900         100         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.0		≯	-	$\rightarrow$	•	-	•	1	<b>†</b>	1	1	Ŧ	~
Lane Configurations       Image of the second	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)         0         497         735         3         330         77         181         109         17         36         77         62           Future Volume (vph)         0         497         735         3         330         77         181         109         17         36         77         62           Glael How (vph)         1900         180         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         1	Lane Configurations		<b>†</b>	1		đ þ			đ þ			સુ	*
Future Volume (vph)         0         497         73         3         330         77         181         199         190         1900 <th< td=""><td>Traffic Volume (vph)</td><td>0</td><td>497</td><td>735</td><td>3</td><td>330</td><td>77</td><td>181</td><td>109</td><td>17</td><td>36</td><td>77</td><td>62</td></th<>	Traffic Volume (vph)	0	497	735	3	330	77	181	109	17	36	77	62
Ideal Flow (phpl)         1900         100	Future Volume (vph)	0	497	735	3	330	77	181	109	17	36	77	62
Total Lost time (s)       7.0       3.0       7.0       6.0       6.0       6.0       6.0       6.0       6.0       6.0       7.0       1.00	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Ulil, Factor         1.00         1.00         0.95         0.95         1.00         1.00         0.95           Fipb, ped/bikes         1.00         0.96         0.97         0.99         1.00         0.95           Fipb, ped/bikes         1.00         1.00         1.00         1.00         0.95         0.97         0.99         1.00         0.89           Fil Protected         1.00         1.00         0.00         0.97         0.98         1.00         0.88         0.97         0.98         1.00         0.88         0.97 <td>Total Lost time (s)</td> <td></td> <td>7.0</td> <td>3.0</td> <td></td> <td>7.0</td> <td></td> <td></td> <td>6.0</td> <td></td> <td></td> <td>6.0</td> <td>6.0</td>	Total Lost time (s)		7.0	3.0		7.0			6.0			6.0	6.0
Frpb, ped/bikes       1.00       0.96       0.97       0.99       1.00       0.00         Filp, ped/bikes       1.00       1.00       1.00       1.00       1.00       1.00         Filt Protected       1.00       0.00       1.00       0.99       1.00       0.85         Filt Protected       1.00       1.00       1.00       0.97       0.99       1.00       0.85         Stat. Flow (port)       1.795       1560       2220       3229       1.535       1396         Stat. Flow (port)       1.795       1560       2857       3229       1.077       0.97 <td>Lane Util. Factor</td> <td></td> <td>1.00</td> <td>1.00</td> <td></td> <td>0.95</td> <td></td> <td></td> <td>0.95</td> <td></td> <td></td> <td>1.00</td> <td>1.00</td>	Lane Util. Factor		1.00	1.00		0.95			0.95			1.00	1.00
Flpb. ped/bikes       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Fith       1.00       0.85       0.97       0.99       1.00       0.85         Fith Protected       1.00       1.00       1.00       0.97       0.97       0.97       0.98       1.00         Satd. Flow (prot)       1795       1560       3220       3229       1535       1396         Fleb.rour factor, PHF       0.97 <td>Frpb, ped/bikes</td> <td></td> <td>1.00</td> <td>0.96</td> <td></td> <td>0.97</td> <td></td> <td></td> <td>0.99</td> <td></td> <td></td> <td>1.00</td> <td>0.95</td>	Frpb, ped/bikes		1.00	0.96		0.97			0.99			1.00	0.95
Frt       1.00       0.85       0.97       0.99       1.00       0.85         FI Protected       1.00       1.00       1.00       0.97       0.98       1.00         Stat. Flow (prot)       1795       1560       3220       3229       1535       1396         Stat. Flow (perm)       1795       1560       2857       3229       0.97<	Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	1.00
FIP Protected       1.00       1.00       0.97       0.98       1.00         Satd. Flow (prot)       1795       1560       3220       3229       1535       1396         FIP Promitted       1.00       1.00       0.89       0.97 </td <td>Frt</td> <td></td> <td>1.00</td> <td>0.85</td> <td></td> <td>0.97</td> <td></td> <td></td> <td>0.99</td> <td></td> <td></td> <td>1.00</td> <td>0.85</td>	Frt		1.00	0.85		0.97			0.99			1.00	0.85
Satd. Flow (prot)       1795       1560       3220       3229       1535       1396         Flt Permitted       1.00       0.89       0.97       0.98       1.00         Satd. Flow (perm)       1795       1560       2857       3229       1535       1396         Peak-hour factor, PHF       0.97 </td <td>Flt Protected</td> <td></td> <td>1.00</td> <td>1.00</td> <td></td> <td>1.00</td> <td></td> <td></td> <td>0.97</td> <td></td> <td></td> <td>0.98</td> <td>1.00</td>	Flt Protected		1.00	1.00		1.00			0.97			0.98	1.00
FIP Permitted       1.00       1.00       0.89       0.97       0.98       1.00         Satd. Flow (perm)       1795       1560       2857       3229       1535       1396         Peak-hour factor, PHF       0.97 <t< td=""><td>Satd. Flow (prot)</td><td></td><td>1795</td><td>1560</td><td></td><td>3220</td><td></td><td></td><td>3229</td><td></td><td></td><td>1535</td><td>1396</td></t<>	Satd. Flow (prot)		1795	1560		3220			3229			1535	1396
Sate         Flow (perm)         1795         1560         2857         3229         1535         1396           Peak-hour factor, PHF         0.97         116         1         1 <td>Flt Permitted</td> <td></td> <td>1.00</td> <td>1.00</td> <td></td> <td>0.89</td> <td></td> <td></td> <td>0.97</td> <td></td> <td></td> <td>0.98</td> <td>1.00</td>	Flt Permitted		1.00	1.00		0.89			0.97			0.98	1.00
Peak-hour factor, PHF       0.97 <t< td=""><td>Satd. Flow (perm)</td><td></td><td>1795</td><td>1560</td><td></td><td>2857</td><td></td><td></td><td>3229</td><td></td><td></td><td>1535</td><td>1396</td></t<>	Satd. Flow (perm)		1795	1560		2857			3229			1535	1396
Adj. Flow (vph)       0       512       758       3       340       79       187       112       18       37       79       64         RTOR Reduction (vph)       0       0       0       0       1       0       0       5       0       0       0       47         Lane Group Flow (vph)       0       512       758       0       401       0       0       312       0       0       16       17         Confl. Bikes (#/hr)       114       30       30       114       25       31       31       25         Confl. Bikes (#/hr)       1       3       2       7       148       0%       6%       24%       7%         Bus Blockages (#/hr)       0       0       9       9       9       10       <	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
RTOR Reduction (vph)       0       0       0       21       0       0       5       0       0       0       47         Lane Group Flow (vph)       0       512       758       0       401       0       0       312       0       0       116       17         Confl. Bikes (#/hr)       114       25       31       31       25       7         Heavy Vehicles (%)       0%       7%       1%       0%       5%       7%       2%       14%       0%       6%       24%       7%         Bus Blockages (#/hr)       0       0       9       9       9       10	Adj. Flow (vph)	0	512	758	3	340	79	187	112	18	37	79	64
Lane Group Flow (vph)       0       512       758       0       401       0       0       312       0       0       116       17         Confl. Bikes (#/hr)       114       30       30       114       25       31       31       25         Heavy Vehicles (%)       0%       7%       1%       0%       5%       7%       2%       14%       0%       6%       24%       7%         Bus Blockages (#/hr)       0       0       9       9       9       10	RTOR Reduction (vph)	0	0	0	0	21	0	0	5	0	0	0	47
Confl. Peds. (#/hr)         114         30         30         114         25         31         31         25           Confl. Bikes (#/hr)         1         3         2         7         7         8         8         7%         9%         14%         0%         6%         24%         7%         10         11	Lane Group Flow (vph)	0	512	758	0	401	0	0	312	0	0	116	17
Confl. Bikes (#/hr)         1         3         2         7           Heavy Vehicles (%)         0%         7%         1%         0%         5%         7%         14%         0%         6%         24%         7%           Bus Blockages (#/hr)         0         0         9         9         9         10         1	Confl. Peds. (#/hr)	114		30	30		114	25		31	31		25
Heavy Vehicles (%)       0%       7%       1%       0%       5%       7%       2%       14%       0%       6%       24%       7%         Bus Blockages (#/hr)       0       0       0       9       9       9       10 </td <td>Confl. Bikes (#/hr)</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td>2</td> <td></td> <td></td> <td>7</td>	Confl. Bikes (#/hr)			1			3			2			7
Bus Blockages (#/hr)         0         0         0         9         9         10	Heavy Vehicles (%)	0%	7%	1%	0%	5%	7%	2%	14%	0%	6%	24%	7%
Turn Type         NA         Free         Perm         NA         custom         NA         custom         NA         custom         NA         Perm           Protected Phases         2         6         7         7         8         8           Permitted Phases         Free         6         7         7         8         8           Actuated Green, G (s)         27.0         96.0         27.0         22.0         25.0         26.0         27.0         0.27 <td< td=""><td>Bus Blockages (#/hr)</td><td>0</td><td>0</td><td>0</td><td>9</td><td>9</td><td>9</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10</td></td<>	Bus Blockages (#/hr)	0	0	0	9	9	9	10	10	10	10	10	10
Protected Phases       2       6       7       7       8       8         Permitted Phases       Free       6       7       8       8         Actuated Green, G (s)       27.0       96.0       27.0       22.0       25.0 </td <td>Turn Type</td> <td></td> <td>NA</td> <td>Free</td> <td>Perm</td> <td>NA</td> <td></td> <td>custom</td> <td>NA</td> <td></td> <td>custom</td> <td>NA</td> <td>Perm</td>	Turn Type		NA	Free	Perm	NA		custom	NA		custom	NA	Perm
Permitted Phases         Free         6         7         8         8           Actuated Green, G (s)         27.0         96.0         27.0         22.0         25.0         25.0           Effective Green, g (s)         28.0         96.0         28.0         23.0         26.0         26.0         26.0           Actuated g/C Ratio         0.29         1.00         0.29         0.24         0.27         0.27           Clearance Time (s)         8.0         8.0         7.0         7.0         7.0         7.0           Lane Grp Cap (vph)         523         1560         833         773         415         378           v/s Ratio Prot         c0.29         0.14         0.01         0.08	Protected Phases		2	-		6		7	7		8	8	
Actuated Green, G (s)       27.0       96.0       27.0       22.0       25.0       25.0       25.0         Effective Green, g (s)       28.0       96.0       28.0       28.0       26.0       26.0       26.0         Actuated g/C Ratio       0.29       1.00       0.29       0.24       0.27       0.27         Clearance Time (s)       8.0       8.0       7.0       7.0       7.0         Lane Grp Cap (vph)       523       1560       833       773       415       378         v/s Ratio Pert       c0.29       0.10       0.08       0.01       v/s Ratio Perm       0.01       0.08         v/s Ratio Perm       c0.49       0.14       0.01       0.08       0.05       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Jelay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E	Permitted Phases			Free	6			7			8		8
Effective Green, g (s)       28.0       28.0       23.0       26.0       26.0         Actuated g/C Ratio       0.29       1.00       0.29       0.24       0.27       0.27         Clearance Time (s)       8.0       8.0       7.0       7.0       7.0       7.0         Lane Grp Cap (vph)       523       1560       833       773       415       378         v/s Ratio Prot       c0.29       0.10       0.08       0.01       0.01       0.08         v/s Ratio Perm       c0.49       0.14       0.01       0.08       0.05       0.01       0.028       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Approach LOS       C       C       C       C       C       C         Approach LOS       28.1       30.0       32.3       28.1       Approach LOS       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C	Actuated Green, G (s)		27.0	96.0		27.0			22.0			25.0	25.0
Actuated g/C Ratio       0.29       1.00       0.29       0.24       0.27       0.27         Clearance Time (s)       8.0       8.0       7.0       7.0       7.0         Lane Grp Cap (vph)       523       1560       833       773       415       378         v/s Ratio Prot       c0.29       0.10       0.08       0.08       0.01       0.08         v/s Ratio Perm       c0.49       0.14       0.01       0.08       0.28       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach LOS       C       C       C       C       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C       C         HCM 2000 Volume to Capacity ratio       0.74<	Effective Green, g (s)		28.0	96.0		28.0			23.0			26.0	26.0
Clearance time (s)         8.0         7.0	Actuated g/C Ratio		0.29	1.00		0.29			0.24			0.27	0.27
Lane Grp Cap (vph)       523       1560       833       //3       415       378         v/s Ratio Prot       c0.29       0.10       0.08       0.01       0.08         v/s Ratio Perm       c0.49       0.14       0.01       0.028       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach Delay (s)       28.1       30.0       32.3       28.1       Approach LOS       C       C       C         Intersection Summary       V/K       C       C       C       C       C       C       C       C       Image: C	Clearance Time (s)		8.0	45/0		8.0			7.0			7.0	7.0
V/S Ratio Prot         c0.29         0.10         0.08           v/s Ratio Perm         c0.49         0.14         0.01           v/c Ratio         0.98         0.49         0.48         0.40         0.28         0.05           Uniform Delay, d1         33.7         0.0         28.0         30.7         27.6         25.8           Progression Factor         1.00         1.00         1.00         1.00         1.00         1.00           Incremental Delay, d2         34.5         1.1         2.0         1.6         1.7         0.2           Delay (s)         68.2         1.1         30.0         32.3         29.3         26.1           Level of Service         E         A         C         C         C         C           Approach Delay (s)         28.1         30.0         32.3         28.1         Approach LOS         C         C           Intersection Summary         C         C         C         C         C         C           HCM 2000 Control Delay         29.1         HCM 2000 Level of Service         C         C         HCM 2000 Volume to Capacity ratio         0.74         Actuated Cycle Length (s)         19.0         Intersection Capacity Utilization	Lane Grp Cap (vph)		523	1560		833			//3			415	378
v/s Ratio Perm       c0.49       0.14       0.01         v/c Ratio       0.98       0.49       0.48       0.40       0.28       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach Delay (s)       28.1       30.0       32.3       28.1       Approach LOS       C       C       C         Intersection Summary       C       C       C       C       C       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C       C       C       C       C       C       C       C       C       Intersection Capacity ratio       0.74       C       C       C       C       C       Actuated Cycle Length (s)       96.0       Sum of lost time (s)       19.0 <td>v/s Ratio Prot</td> <td></td> <td>CU.29</td> <td>0.40</td> <td></td> <td>0.1.1</td> <td></td> <td></td> <td>0.10</td> <td></td> <td></td> <td>0.08</td> <td>0.01</td>	v/s Ratio Prot		CU.29	0.40		0.1.1			0.10			0.08	0.01
V/C Ratio       0.98       0.49       0.48       0.40       0.28       0.05         Uniform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach Delay (s)       28.1       30.0       32.3       28.1       Approach LOS       C       C         Intersection Summary       C       C       C       C       C       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C       C       C       C         HCM 2000 Volume to Capacity ratio       0.74              Actuated Cycle Length (s)       96.0       Sum of lost time (s)       19.0            Intersection Capacity Utilization       75.0%       ICU Level of Service <td>V/s Ratio Perm</td> <td></td> <td>0.00</td> <td>CU.49</td> <td></td> <td>0.14</td> <td></td> <td></td> <td>0.40</td> <td></td> <td></td> <td>0.00</td> <td>0.01</td>	V/s Ratio Perm		0.00	CU.49		0.14			0.40			0.00	0.01
Onliform Delay, d1       33.7       0.0       28.0       30.7       27.6       25.8         Progression Factor       1.00       1.00       1.00       1.00       1.00       1.00         Incremental Delay, d2       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach Delay (s)       28.1       30.0       32.3       28.1       Approach LOS       C       C         Intersection Summary       C       C       C       C       C       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C       C       HCM       C       C       C       C       C       Approach LOS       C       C       C       Image: C       C       C       C       C       C       C       C       C       Image: C       C       Image: C       C       C       C       C       C       Image: C       C       Image: C       Image: C       Image: C       Image: C       Image: C       Image: C       Ima	V/C Ratio		0.98	0.49		0.48			0.40			0.28	0.05
Progression Factor       1.00       1	Uniform Delay, d I		33.7	0.0		28.0			30.7			27.6	25.8
Incremental Delay, 02       34.5       1.1       2.0       1.6       1.7       0.2         Delay (s)       68.2       1.1       30.0       32.3       29.3       26.1         Level of Service       E       A       C       C       C       C         Approach Delay (s)       28.1       30.0       32.3       28.1       Approach LOS       C       C       C         Intersection Summary       C       C       C       C       C       C       C         HCM 2000 Control Delay       29.1       HCM 2000 Level of Service       C       C       HCM 2000 Level of Service       C       C         HCM 2000 Volume to Capacity ratio       0.74       0.74       19.0       19.0       110 <td>Progression Factor</td> <td></td> <td>1.00</td> <td>1.00</td> <td></td> <td>1.00</td> <td></td> <td></td> <td>1.00</td> <td></td> <td></td> <td>1.00</td> <td>1.00</td>	Progression Factor		1.00	1.00		1.00			1.00			1.00	1.00
Defay (s)66.21.130.032.329.326.1Level of ServiceEACCCCApproach Delay (s)28.130.032.328.1Approach LOSCCCCCIntersection SummaryHCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74	Incremental Delay, d2		34.5	1.1		2.0			1.0			1.7	0.2
Level of ServiceEACCCCCApproach Delay (s)28.130.032.328.1Approach LOSCCCCIntersection SummaryHCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74	Delay (S)		00.Z	1.1		30.0			32.3			29.3	20.1
Approach Delay (s)Zo.1So.0S2.3Zo.1Approach LOSCCCCIntersection SummaryHCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74CActuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)15	Approach Dolay (c)		۲ 20 1	A		20.0			22.2			20.1	C
Intersection SummaryHCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74Actuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)15	Approach LOS		20.1			30.0 C			32.3			20.1	
Intersection SummaryHCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74Actuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)15	Approach LOS		C			C			C			C	
HCM 2000 Control Delay29.1HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.74Actuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)151515	Intersection Summary												
HCM 2000 Volume to Capacity ratio0.74Actuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)151516	HCM 2000 Control Delay			29.1	Н	CM 2000	Level of	Service		С			
Actuated Cycle Length (s)96.0Sum of lost time (s)19.0Intersection Capacity Utilization75.0%ICU Level of ServiceDAnalysis Period (min)15	HCM 2000 Volume to Capacity	/ ratio		0.74	2			\ \		10.0			
Analysis Period (min) 15.0% ICU Level of Service D	Actuated Cycle Length (s)	_		96.0	S	um of los	t time (s)	)		19.0			
Analysis Period (min) 15	Intersection Capacity Utilization	n		/5.0%	IC	U Level	of Servic	e		D			
	Analysis Period (min)			15									

#### Queues 1: University Ave & Queen St

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	411	619	1232	1241
v/c Ratio	0.34	0.50	0.48	0.52
Control Delay	19.4	22.4	10.5	21.7
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	19.4	22.4	10.6	21.7
Queue Length 50th (m)	25.6	43.4	15.0	49.0
Queue Length 95th (m)	37.1	59.3	17.4	59.3
Internal Link Dist (m)	147.9	412.1	61.9	209.0
Turn Bay Length (m)				
Base Capacity (vph)	1222	1243	2581	2390
Starvation Cap Reductn	0	0	403	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.50	0.57	0.52
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 1: University Ave & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜1</b> ≱			- <b>†</b> 1>			tttp:			41117a	
Traffic Volume (vph)	0	332	75	0	504	109	0	1194	26	0	1096	133
Future Volume (vph)	0	332	75	0	504	109	0	1194	26	0	1096	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		7.0			7.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.86			0.86	
Frpb, ped/bikes		0.92			0.91			0.99			0.95	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			0.97			1.00			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		2936			2990			6139			5640	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		2936			2990			6139			5640	
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)	0	335	76	0	509	110	0	1206	26	0	1107	134
RTOR Reduction (vph)	0	19	0	0	18	0	0	3	0	0	21	0
Lane Group Flow (vph)	0	392	0	0	601	0	0	1229	0	0	1220	0
Confl. Peds. (#/hr)	1015		766	766		1015	731		1251	1251		731
Confl. Bikes (#/hr)			47			31			38			71
Heavy Vehicles (%)	0%	8%	7%	0%	5%	6%	0%	5%	1%	0%	8%	11%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases					-			_				
Actuated Green, G (s)		40.0			40.0			41.0			41.0	
Effective Green, g (s)		41.0			41.0			42.0			42.0	
Actuated g/C Ratio		0.41			0.41			0.42			0.42	
Clearance Time (s)		8.0			8.0			6.0			6.0	
Lane Grp Cap (vph)		1203			1225			2578			2368	
v/s Ratio Prot		0.13			c0 20			0.20			c0 22	
v/s Ratio Perm		0.10			00.20			0.20			00.22	
v/c Ratio		0.33			0.49			0.48			0.52	
Uniform Delay d1		20.1			21.8			21.0			21.5	
Progression Factor		1.00			1.00			0.47			1.00	
Incremental Delay, d2		0.7			1.4			0.6			0.8	
Delay (s)		20.8			23.2			10.5			22.3	
Level of Service		C			C			B			C	
Approach Delay (s)		20.8			23.2			10.5			22.3	
Approach LOS		C			C			B			C	
		•			•			2			0	
Intersection Summary												
HCM 2000 Control Delay			18.1	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.49									
Actuated Cycle Length (s)			100.0	Si	um of los	t time (s)			14.0			
Intersection Capacity Utilizatio	n		49.3%	IC	U Level	of Service			А			
Analysis Period (min)			15									

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Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	575	720	214
v/c Ratio	0.35	0.38	0.63
Control Delay	6.9	9.8	29.3
Queue Delay	0.0	0.0	0.0
Total Delay	6.9	9.8	29.3
Queue Length 50th (m)	15.0	29.2	21.8
Queue Length 95th (m)	19.7	39.9	44.5
Internal Link Dist (m)	70.6	147.9	213.5
Turn Bay Length (m)			
Base Capacity (vph)	1645	1888	351
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.35	0.38	0.61
Intersection Summary			

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Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations		<b>≜</b> 1.	<b>41</b>		¥				
Traffic Volume (vph)	54	487	631	46	81	120			
Future Volume (vph)	54	487	631	46	81	120			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6			
Total Lost time (s)	0.0	4.0	4.0	0.0	5.0	0.0			
Lane Util. Factor		0.95	0.95		1.00				
Frpb. ped/bikes		1.00	0.94		0.80				
Flpb. ped/bikes		0.97	1.00		0.90				
Frt		1.00	0.99		0.92				
Flt Protected		1.00	1.00		0.98				
Satd, Flow (prot)		3369	3200		1230				
Flt Permitted		0.83	1.00		0.98				
Satd. Flow (perm)		2796	3200		1230				
Peak-hour factor. PHF	0.94	0.94	0.94	0.94	0.94	0.94			
Adi, Flow (vph)	57	518	671	49	86	128			
RTOR Reduction (vph)	0	0	6	0	48	0			
Lane Group Flow (vph)	0	575	714	0	166	Õ			
Confl. Peds. (#/hr)	1394	2.0		1394	185	280			
Confl. Bikes (#/hr)					21	37			
Heavy Vehicles (%)	1%	4%	3%	2%	0%	0%			
Bus Blockages (#/hr)	0	0	9	9	0	0			
Turn Type	Perm	NA	NA		Perm				
Protected Phases		2	6						
Permitted Phases	2				8				
Actuated Green, G (s)		49.0	49.0		19.3				
Effective Green, g (s)		50.0	50.0		20.3				
Actuated g/C Ratio		0.59	0.59		0.24				
Clearance Time (s)		5.0	5.0		6.0				
Vehicle Extension (s)		3.0	3.0		3.0				
Lane Grp Cap (vph)		1644	1882		293				
v/s Ratio Prot			c0.22						
v/s Ratio Perm		0.21			c0.13				
v/c Ratio		0.35	0.38		0.57				
Uniform Delay, d1		9.1	9.3		28.5				
Progression Factor		0.68	1.00		1.00				
Incremental Delay, d2		0.6	0.6		2.5				
Delay (s)		6.8	9.9		31.0				
Level of Service		Α	Α		С				
Approach Delay (s)		6.8	9.9		31.0				
Approach LOS		А	А		С				
Intersection Summary									
HCM 2000 Control Delay			11.7	H	CM 2000	Level of Serv	vice	В	
HCM 2000 Volume to Capac	ity ratio		0.42						
Actuated Cycle Length (s)	,		85.0	S	um of lost	time (s)		12.0	
Intersection Capacity Utilizati	ion		62.6%	IC	CU Level d	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	559	612	105	146	136
v/c Ratio	0.34	0.42	0.43	0.35	0.30
Control Delay	10.7	8.9	29.0	24.6	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	8.9	29.0	24.6	23.5
Queue Length 50th (m)	23.9	21.2	13.2	17.7	16.2
Queue Length 95th (m)	33.7	24.7	28.3	33.2	30.5
Internal Link Dist (m)	195.0	89.2		65.9	131.1
Turn Bay Length (m)			25.0		
Base Capacity (vph)	1626	1469	244	419	456
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	0.34	0.42	0.43	0.35	0.30
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 3: John St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>∱1</b> ≱			-4↑		ľ	el e			\$	
Traffic Volume (vph)	14	456	39	58	481	17	96	61	72	25	73	26
Future Volume (vph)	14	456	39	58	481	17	96	61	72	25	73	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.0			4.0		5.0	5.0			5.0	
Lane Util. Factor		0.95			0.95		1.00	1.00			1.00	
Frpb, ped/bikes		0.93			0.97		1.00	0.73			0.88	
Flpb, ped/bikes		0.99			0.96		0.59	1.00			0.92	
Frt		0.99			1.00		1.00	0.92			0.97	
Flt Protected		1.00			0.99		0.95	1.00			0.99	
Satd. Flow (prot)		3077			3083		1042	1273			1480	
Flt Permitted		0.94			0.84		0.68	1.00			0.93	
Satd. Flow (perm)		2882			2604		741	1273			1386	
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)	15	501	43	64	529	19	105	67	79	27	80	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	559	0	0	612	0	105	146	0	0	136	0
Confl. Peds. (#/hr)	1928		1597	1597		1928	1091		847	847		1091
Confl. Bikes (#/hr)			271			62			83			89
Heavy Vehicles (%)	0%	5%	3%	9%	6%	6%	2%	0%	1%	0%	1%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		47.0			47.0		27.0	27.0			27.0	
Effective Green, g (s)		48.0			48.0		28.0	28.0			28.0	
Actuated g/C Ratio		0.56			0.56		0.33	0.33			0.33	
Clearance Time (s)		5.0			5.0		6.0	6.0			6.0	
Lane Grp Cap (vph)		1627			1470		244	419			456	
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.19			c0.24		c0.14				0.10	
v/c Ratio		0.34			0.42		0.43	0.35			0.30	
Uniform Delay, d1		10.0			10.5		22.3	21.6			21.2	
Progression Factor		1.00			0.76		1.00	1.00			1.00	
Incremental Delay, d2		0.6			0.8		5.5	2.3			1.7	
Delay (s)		10.6			8.8		27.7	23.9			22.9	
Level of Service		В			А		С	С			С	
Approach Delay (s)		10.6			8.8			25.5			22.9	
Approach LOS		В			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			13.3	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.42									
Actuated Cycle Length (s)			85.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilizatio	n		72.5%	IC	CU Level	of Service	:		С			
Analysis Period (min)			15									

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Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	206	662	78	149
v/c Ratio	0.51	0.41	0.17	0.38
Control Delay	13.9	9.9	26.5	3.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.9	9.9	26.5	3.8
Queue Length 50th (m)	4.1	27.5	10.3	0.0
Queue Length 95th (m)	14.8	37.2	21.2	3.9
Internal Link Dist (m)	476.0	195.0		
Turn Bay Length (m)			30.0	
Base Capacity (vph)	403	1607	472	392
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	0.51	0.41	0.17	0.38
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 4: Peter St/Soho St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜t</b> ≽			ፈጉ		ሻ		1		\$	
Traffic Volume (vph)	0	55	138	138	484	0	73	0	140	0	0	0
Future Volume (vph)	0	55	138	138	484	0	73	0	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		6.0			6.0		6.0		6.0			
Lane Util. Factor		0.95			0.95		1.00		1.00			
Frpb, ped/bikes		0.35			1.00		1.00		0.55			
Flpb, ped/bikes		1.00			0.90		0.68		1.00			
Frt		0.89			1.00		1.00		0.85			
Flt Protected		1.00			0.99		0.95		1.00			
Satd. Flow (prot)		1069			3014		1209		872			
Flt Permitted		1.00			0.75		0.95		1.00			
Satd. Flow (perm)		1069			2280		1209		872			
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)	0	59	147	147	515	0	78	0	149	0	0	0
RTOR Reduction (vph)	0	106	0	0	0	0	0	0	109	0	0	0
Lane Group Flow (vph)	0	100	0	0	662	0	78	0	40	0	0	0
Confl. Peds. (#/hr)			2029	2029			313		668			
Confl. Bikes (#/hr)			93						151			
Heavy Vehicles (%)	0%	5%	2%	2%	6%	0%	2%	0%	2%	0%	0%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA		pm+pt	NA		Perm		Perm			
Protected Phases		2		1	6						4	
Permitted Phases				6			3		3	4		
Actuated Green, G (s)		24.0			53.0		23.0		23.0			
Effective Green, g (s)		25.0			54.0		24.0		24.0			
Actuated g/C Ratio		0.28			0.60		0.27		0.27			
Clearance Time (s)		7.0			7.0		7.0		7.0			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		296			1563		322		232			
v/s Ratio Prot		0.09			c0.11							
v/s Ratio Perm					c0.14		c0.06		0.05			
v/c Ratio		0.34			0.42		0.24		0.17			
Uniform Delay, d1		25.9			9.7		25.9		25.4			
Progression Factor		1.00			1.00		1.00		1.00			
Incremental Delay, d2		3.1			0.8		1.8		1.6			
Delay (s)		29.0			10.5		27.6		27.0			
Level of Service		С			В		С		С			
Approach Delay (s)		29.0			10.5			27.2			0.0	
Approach LOS		С			В			С			А	
Intersection Summary												
HCM 2000 Control Delay			17.4	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.44									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			25.0			
Intersection Capacity Utilization	n		61.2%	IC	CU Level	of Service	<u>;</u>		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	460	923	202	96
v/c Ratio	0.28	0.49	0.62	0.28
Control Delay	5.0	9.3	34.8	23.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.0	9.3	34.8	23.1
Queue Length 50th (m)	8.8	34.6	26.4	10.1
Queue Length 95th (m)	m12.2	49.2	47.5	22.1
Internal Link Dist (m)	125.3	476.0	21.1	101.0
Turn Bay Length (m)				
Base Capacity (vph)	1659	1900	335	352
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	0.28	0.49	0.60	0.27
Intersection Summary				

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

#### HCM Signalized Intersection Capacity Analysis 5: Queen St & Augusta Avenue

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፋጉ			ፋጉ			4			4	
Traffic Volume (vph)	41	387	23	33	819	52	117	60	22	44	29	21
Future Volume (vph)	41	387	23	33	819	52	117	60	22	44	29	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.96			0.96			0.97			0.94	
Flpb, ped/bikes		0.99			0.99			0.87			0.93	
Frt		0.99			0.99			0.99			0.97	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3233			3304			1545			1575	
Flt Permitted		0.82			0.92			0.79			0.81	
Satd. Flow (perm)		2671			3059			1259			1308	
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)	42	395	23	34	836	53	119	61	22	45	30	21
RTOR Reduction (vph)	0	5	0	0	5	0	0	5	0	0	10	0
Lane Group Flow (vph)	0	455	0	0	918	0	0	197	0	0	86	0
Confl. Peds. (#/hr)	563		780	780		563	200		183	183		200
Confl. Bikes (#/hr)			19			2			40			35
Heavy Vehicles (%)	3%	4%	5%	0%	2%	0%	1%	0%	5%	0%	4%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		48.6			48.6			19.4			19.4	
Effective Green, g (s)		49.6			49.6			20.4			20.4	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1656			1896			321			333	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.30			c0.16			0.07	
v/c Ratio		0.28			0.48			0.61			0.26	
Uniform Delay, d1		7.0			8.3			26.3			23.8	
Progression Factor		0.66			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.9			3.4			0.4	
Delay (s)		5.0			9.1			29.8			24.2	
Level of Service		А			А			С			С	
Approach Delay (s)		5.0			9.1			29.8			24.2	
Approach LOS		А			А			С			С	
Intersection Summary												
			11 /		<u>CM 2000</u>	Lavalat	Comilao					
HCIVI 2000 Control Delay	u rot! -		11.4	H	CIVI 2000	Level of	Service		В			
HCIVI 2000 VOIUME to Capacity	y ralio		0.52	<u> </u>	um of last	$t t = \langle r \rangle$			10.0			
Actuated Cycle Length (S)	~		80.0	51	um of IOS	t time (S)			10.0			
Intersection Capacity Utilizatio	11		09.4%	IC	U Level (	UI SELVICE	;		C			
Analysis Period (min)			15									

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Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	374	435	208
v/c Ratio	0.19	0.24	0.86
Control Delay	5.7	4.8	57.8
Queue Delay	0.0	0.0	0.0
Total Delay	5.7	4.8	57.8
Queue Length 50th (m)	9.7	9.2	27.5
Queue Length 95th (m)	15.0	11.7	#67.3
Internal Link Dist (m)	141.9	125.3	209.2
Turn Bay Length (m)			
Base Capacity (vph)	2014	1823	241
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.19	0.24	0.86
Intersection Summary			

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

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Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	<b>≜t</b> ≽				¥.				
Traffic Volume (vph)	306	38	46	354	164	28			
Future Volume (vph)	306	38	46	354	164	28			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	5.0			5.0	5.0				
Lane Util. Factor	0.95			0.95	1.00				
Frpb. ped/bikes	0.93			1.00	0.95				
Flpb, ped/bikes	1.00			0.96	0.59				
Frt	0.98			1.00	0.98				
Flt Protected	1.00			0.99	0.96				
Satd Flow (prot)	3140			3258	989				
Flt Permitted	1.00			0.87	0.96				
Satd. Flow (perm)	3140			2860	989				
Peak-hour factor PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adi Flow (vnh)	222	/1	50.72	285	178	30			
RTOR Reduction (vnh)	12	0	0	0	7	0			
Lane Group Flow (vph)	362	0	0	/35	7 201	0			
Confl Pods (#/hr)	302	538	528	400	660	280			
Confl. Rikos (#/hr)		20	550		000	207			
Hoavy Vobiclos $(\%)$	6%	27 6%	2%	7%	1%	1%			
	070 NIA	070	Z /0	7 70 NIA	Dorm	470			
Turn Type	NA		Perm	NA	Perm				
Protected Pridses	Z		L	0	0				
Actuated Croop C (c)	E0 0		0	E0 0	0 10.0				
Actuated Green, G (S)	50.0			50.0	10.0				
Effective Green, g (S)	51.0			51.0	19.0				
Actuated g/C Ratio	0.04			0.04	0.24				
Clearance Time (S)	0.0			6.0	6.0				
Venicie Extension (s)	3.0			3.0	3.0				
Lane Grp Cap (vph)	2001			1823	234				
v/s Ratio Prot	0.12								
v/s Ratio Perm				c0.15	c0.20				
v/c Ratio	0.18			0.24	0.86				
Uniform Delay, d1	5.9			6.2	29.2				
Progression Factor	1.00			0.72	0.85				
Incremental Delay, d2	0.2			0.3	24.8				
Delay (s)	6.1			4.8	49.6				
Level of Service	А			А	D				
Approach Delay (s)	6.1			4.8	49.6				
Approach LOS	А			А	D				
Intersection Summary									
HCM 2000 Control Delay			14.4	Н	CM 2000	Level of Service	9	В	
HCM 2000 Volume to Capa	acity ratio		0.42						
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)		13.0	
Intersection Capacity Utilization	ation		52.9%	IC	CU Level o	of Service		А	
Analysis Period (min)			15						
c Critical Lane Group									

#### Queues 7: John St & Richmond St

	+	•	1	Ļ
Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1069	64	152	175
v/c Ratio	0.42	0.25	0.26	0.34
Control Delay	10.5	23.2	21.4	21.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.5	23.2	21.4	21.3
Queue Length 50th (m)	30.9	7.1	16.8	18.5
Queue Length 95th (m)	39.8	16.8	30.6	34.4
Internal Link Dist (m)	363.8		47.8	65.9
Turn Bay Length (m)		20.0		
Base Capacity (vph)	2568	255	593	513
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	0.42	0.25	0.26	0.34
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 7: John St & Richmond St

	۶	-	$\mathbf{\hat{z}}$	•	-	•	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					ፈቶኈ		ሻ	•			4	
Traffic Volume (vph)	0	0	0	97	920	42	63	150	0	0	131	43
Future Volume (vph)	0	0	0	97	920	42	63	150	0	0	131	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					4.0		5.0	5.0			5.0	
Lane Util. Factor					0.91		1.00	1.00			1.00	
Frpb, ped/bikes					0.98		1.00	1.00			0.90	
Flpb, ped/bikes					0.94		0.68	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					4560		1193	1827			1555	
Flt Permitted					1.00		0.63	1.00			1.00	
Satd. Flow (perm)					4560		787	1827			1555	
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
Adi, Flow (vph)	0	0	0	98	929	42	64	152	0	0	132	43
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	1064	0	64	152	0	0	167	0
Confl. Peds. (#/hr)	451	Ū	476	476		451	871		428	428		871
Confl. Bikes (#/hr)			94	110		58	0,1		629	120		011
Heavy Vehicles (%)	0%	0%	0%	2%	4%	0%	3%	4%	0%	0%	8%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases				1 Onn	6		1 Onn	4			8	
Permitted Phases				6	Ū		4				Ŭ	
Actuated Green G (s)				U	44 0		25.0	25.0			25.0	
Effective Green a (s)					45.0		26.0	26.0			26.0	
Actuated g/C Ratio					0.56		0.32	0.32			0.32	
Clearance Time (s)					5.0		6.0	6.0			6.0	
Lane Grn Can (ynh)					2565		255	593			505	
v/s Ratio Prot					2000		200	0.08			c0 11	
v/s Ratio Perm					0.23		0.08	0.00			00.11	
v/c Ratio					0.23		0.00	0.26			0 33	
Uniform Delay, d1					10.0		19.8	19.9			20.4	
Progression Factor					1 00		1 00	1 00			1 00	
Incremental Delay, d2					0.5		2.3	1.00			1.00	
Delay (s)					10.5		2.0	20.9			22.2	
Level of Service					R		22.2 C	20.7			22.2 C	
Approach Delay (s)		0.0			10.5		U	21.3			22.2	
Approach LOS		0.0 A			но.9 В			21.5 C			C	
Intersection Summary					-			-			-	
HCM 2000 Control Dolay			13 5		CM 2000	Lovolof	Sorvico		R			
HCM 2000 Volume to Capacity	ratio		0.20				JEIVILE		D			
Actuated Cycle Length (s)	1010		80.00	ç	um of los	t time (s)			0 0			
Intersection Canacity Utilization	า		7/ 0%			nf Service	2		7.0 D			
Analysis Period (min)			14.770				,		U			
c Critical Lane Group			15									

#### Queues 8: University Ave & Richmond St

	-	1	Ť	Ŧ
Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1226	82	1062	1207
v/c Ratio	0.73	0.61	0.36	0.48
Control Delay	28.5	42.6	17.3	7.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.5	42.6	17.3	7.3
Queue Length 50th (m)	72.3	11.4	36.8	12.2
Queue Length 95th (m)	89.0	#34.9	44.7	14.1
Internal Link Dist (m)	359.7		178.7	61.9
Turn Bay Length (m)		41.0		
Base Capacity (vph)	1685	135	2982	2521
Starvation Cap Reductn	0	0	0	74
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.61	0.36	0.49
Intersection Summary				

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

> Synchro 9 Report Page 15

# HCM Signalized Intersection Capacity Analysis 8: University Ave & Richmond St

	≯	-	$\mathbf{r}$	1	-	•	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					-a†b		٦	1111			4111	
Traffic Volume (vph)	0	0	0	185	814	190	80	1030	0	0	921	250
Future Volume (vph)	0	0	0	185	814	190	80	1030	0	0	921	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					8.0		5.0	5.0			5.0	
Lane Util. Factor					0.91		1.00	0.86			0.86	
Frpb, ped/bikes					0.94		1.00	1.00			0.88	
Flpb, ped/bikes					0.95		0.92	1.00			1.00	
Frt					0.98		1.00	1.00			0.97	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4214		1607	6346			5357	
Flt Permitted					0.99		0.17	1.00			1.00	
Satd. Flow (perm)					4214		289	6346			5357	
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
Adi, Flow (vph)	0	0	0	191	839	196	82	1062	0	0	949	258
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	1226	0	82	1062	0	0	1204	0
Confl Peds (#/hr)	329	Ū	352	352	1220	329	1150	1002	1243	1243	1201	1150
Confl Bikes (#/hr)	027		36	002		76	1100		241	1210		1100
Heavy Vehicles (%)	0%	0%	0%	7%	7%	6%	3%	3%	0%	0%	4%	6%
Turn Type	0,0	0.10	0.0	Perm	NΔ	0,0	Perm	NΔ	070	070	NΔ	0.10
Protected Phases				T CITI	8		1 CIIII	2			6	
Permitted Phases				8	0		2	2			U	
Actuated Green G (s)				0	39.0		46.0	46.0			46.0	
Effective Green a (s)					40.0		40.0	40.0			40.0	
Actuated q/C Ratio					0.40		0.47	0.47			0.47	
Clearance Time (s)					9.40		6.0	6.0			6.0	
Lane Grn Can (ynh)					1685		135	2082			2517	
v/s Ratio Prot					1005		155	0.17			0.22	
v/s Ratio Porm					0.20		c0 28	0.17			0.22	
v/c Ratio					0.27		0.61	0.36			0.48	
Uniform Delay, d1					25.4		10.01	16.0			18.1	
Drogrossion Factor					1.00		1 00	1 0.9			0.37	
Incremental Delay, d2					2.8		1.00	0.3			0.57	
Delay (s)					2.0		28.2	17.2			0.0	
Level of Service					20.2		JU.J	17.2 R			Λ.5	
Approach Delay (s)		0.0			28.2		D	18.7			73	
Approach LOS		0.0 A			20.2 C			10.7 B			7.3 A	
Intersection Summary		~						5				
HCM 2000 Control Dolou			10.1		CM 2000	Lovelof	Sonico		П			
HCM 2000 Volume to Consett	ratio		10.1	Н		Level OI	Service		В			
Actuated Cycle Length (c)	1010		0.00	C	um of loo	time (c)			12.0			
Actuated Cycle Length (S)	<b>`</b>		01.00/	5		f Sorular	<b>`</b>		13.0			
Analysis Daried (min)	1		01.U% 1E	IC	JU Level (		;		D			
C Critical Lane Group			10									

	-	t	1	Ļ
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	963	283	100	169
v/c Ratio	0.38	0.64	0.59	0.31
Control Delay	9.8	31.7	40.6	23.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.8	31.7	40.6	23.5
Queue Length 50th (m)	26.6	36.3	12.8	19.7
Queue Length 95th (m)	34.7	61.9	#33.4	35.0
Internal Link Dist (m)	200.8	125.9		208.2
Turn Bay Length (m)			15.0	
Base Capacity (vph)	2541	439	170	553
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	0.38	0.64	0.59	0.31
Intersection Summarv				

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

# HCM Signalized Intersection Capacity Analysis 9: Peter St & Adelaide St

	۶	-	$\mathbf{r}$	4	-	•	1	1	۲	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈተኩ						4		۲	•	
Traffic Volume (vph)	87	779	77	0	0	0	0	174	103	98	166	0
Future Volume (vph)	87	779	77	0	0	0	0	174	103	98	166	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		5.0						5.0		5.0	5.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frpb, ped/bikes		0.95						0.82		1.00	1.00	
Flpb, ped/bikes		0.94						1.00		0.74	1.00	
Frt		0.99						0.95		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		4421						1450		1189	1845	
Flt Permitted		1.00						1.00		0.45	1.00	
Satd. Flow (perm)		4421						1450		567	1845	
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)	89	795	79	0	0	0	0	178	105	100	169	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	963	0	0	0	0	0	279	0	100	169	0
Confl. Peds. (#/hr)	793		663	663		793	606		876	876		606
Confl. Bikes (#/hr)			47			65			150			
Heavy Vehicles (%)	3%	2%	3%	0%	0%	0%	0%	3%	1%	12%	3%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		45.0						23.0		23.0	23.0	
Effective Green, g (s)		46.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.58						0.30		0.30	0.30	
Clearance Time (s)		6.0						6.0		6.0	6.0	
Lane Grp Cap (vph)		2542						435		170	553	
v/s Ratio Prot								c0.19			0.09	
v/s Ratio Perm		0.22								0.18		
v/c Ratio		0.38						0.64		0.59	0.31	
Uniform Delay, d1		9.2						24.3		23.8	21.6	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.4						7.1		14.1	1.4	
Delay (s)		9.7						31.3		37.9	23.0	
Level of Service		А						С		D	С	
Approach Delay (s)		9.7			0.0			31.3			28.5	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			17.1	H	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacit	ty ratio		0.48									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			11.0			
Intersection Capacity Utilization	on		70.6%	IC	U Level	of Service	:		С			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 10: Spadina Ave & Adelaide St

	-	Ť	1	1	Ŧ
Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	923	557	152	131	598
v/c Ratio	0.52	0.74	0.42	0.99	0.25
Control Delay	22.4	39.3	3.5	121.2	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	39.3	3.5	121.2	13.8
Queue Length 50th (m)	43.8	47.3	0.0	23.1	21.0
Queue Length 95th (m)	56.0	65.2	0.0	#57.7	28.2
Internal Link Dist (m)	195.4	122.2			453.1
Turn Bay Length (m)				60.0	
Base Capacity (vph)	1770	756	363	132	2370
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	0.52	0.74	0.42	0.99	0.25
Intercaction Summary					

Intersection Summary

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

Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis 10: Spadina Ave & Adelaide St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€1 <b>†</b> Ъ						<u></u>	1	٦	***	
Traffic Volume (vph)	126	645	97	0	0	0	0	524	143	126	562	0
Future Volume (vph)	126	645	97	0	0	0	0	524	143	126	562	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		6.0						5.0	5.0	17.0	5.0	
Lane Util. Factor		0.91						0.95	1.00	1.00	0.91	
Frpb, ped/bikes		0.96						1.00	0.45	1.00	1.00	
Flpb, ped/bikes		0.95						1.00	1.00	1.00	1.00	
Frt		0.98						1.00	0.85	1.00	1.00	
Flt Protected		0.99						1.00	1.00	0.95	1.00	
Satd. Flow (prot)		4552						3406	702	1703	4848	
Flt Permitted		0.99						1.00	1.00	0.95	1.00	
Satd. Flow (perm)		4552						3406	702	1703	4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.96	0.94	0.94
Adj. Flow (vph)	134	686	103	0	0	0	0	557	152	131	598	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	118	0	0	0
Lane Group Flow (vph)	0	923	0	0	0	0	0	557	34	131	598	0
Confl. Peds. (#/hr)	540		576	576		540	1107		985	985		1107
Confl. Bikes (#/hr)			20			78			105			2
Heavy Vehicles (%)	2%	2%	0%	0%	0%	0%	0%	6%	4%	6%	7%	0%
Turn Type	Perm	NA						NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4								2			
Actuated Green, G (s)		34.0						19.0	19.0	6.0	43.0	
Effective Green, g (s)		35.0						20.0	20.0	7.0	44.0	
Actuated g/C Ratio		0.39						0.22	0.22	0.08	0.49	
Clearance Time (s)		7.0						6.0	6.0	18.0	6.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1770						756	156	132	2370	
v/s Ratio Prot								c0.16		c0.08	0.12	
v/s Ratio Perm		0.20							0.05			
v/c Ratio		0.52						0.74	0.22	0.99	0.25	
Uniform Delay, d1		21.1						32.6	28.6	41.5	13.4	
Progression Factor		1.00						1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.1						6.3	3.2	75.7	0.3	
Delay (s)		22.2						38.9	31.8	117.2	13.7	
Level of Service		С						D	С	F	В	
Approach Delay (s)		22.2			0.0			37.4			32.3	
Approach LOS		С			А			D			С	
Intersection Summary												
HCM 2000 Control Delay			29.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.64		2 2000	2010101	2 0. 1.00		Ŭ			
Actuated Cycle Length (s)			90.0	Si	um of los	t time (s)			28.0			
Intersection Capacity Utilizati	on		76.1%	IC	U Level	of Service	2		_0.0			
Analysis Period (min)			15						-			

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	-	•	•
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	863	138	103
v/c Ratio	0.29	0.32	0.33
Control Delay	3.4	16.8	27.8
Queue Delay	0.0	0.0	0.0
Total Delay	3.4	16.8	27.8
Queue Length 50th (m)	10.3	9.6	12.7
Queue Length 95th (m)	13.3	23.8	26.1
Internal Link Dist (m)	180.7	48.2	47.1
Turn Bay Length (m)			
Base Capacity (vph)	3021	436	309
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.32	0.33
Intersection Summary			

### HCM Signalized Intersection Capacity Analysis 11: Brant Street & Adelaide St

	≯	-	$\mathbf{r}$	4	-	•	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€†₽						eî 🗧			र्स	
Traffic Volume (vph)	43	706	28	0	0	0	0	62	62	64	29	0
Future Volume (vph)	43	706	28	0	0	0	0	62	62	64	29	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1						5.4			5.4	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.98						0.86			1.00	
Flpb, ped/bikes		0.97						1.00			0.88	
Frt		0.99						0.93			1.00	
Flt Protected		1.00						1.00			0.97	
Satd. Flow (prot)		4835						1532			1606	
Flt Permitted		1.00						1.00			0.72	
Satd. Flow (perm)		4835						1532			1199	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	784	31	0	0	0	0	69	69	71	32	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	42	0	0	0	0
Lane Group Flow (vph)	0	858	0	0	0	0	0	96	0	0	103	0
Confl. Peds. (#/hr)	229		289						173	173		
Confl. Bikes (#/hr)			6						84			
Heavy Vehicles (%)	7%	2%	4%	0%	0%	0%	0%	2%	0%	0%	4%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		48.9						19.6			19.6	
Effective Green, g (s)		49.9						20.6			20.6	
Actuated g/C Ratio		0.62						0.26			0.26	
Clearance Time (s)		5.1						6.4			6.4	
Lane Grp Cap (vph)		3015						394			308	
v/s Ratio Prot								0.06				
v/s Ratio Perm		0.18									c0.09	
v/c Ratio		0.28						0.24			0.33	
Uniform Delay, d1		6.9						23.5			24.1	
Progression Factor		0.46						1.00			1.00	
Incremental Delay, d2		0.2						1.5			2.9	
Delay (s)		3.4						25.0			27.0	
Level of Service		А						С			С	
Approach Delay (s)		3.4			0.0			25.0			27.0	
Approach LOS		А			А			С			С	
Intercection Summary												
HIGH 2000 Control Dolor			0.2		CM 2000	Louglas	Convice		٨			
HCM 2000 Volume to Consel	u rotio		<u>ک</u> ک	Н		Level of	Service		A			
ncivi 2000 volume to Capacit	y ratio		0.30	C	um of loo	t time (c)			10 E			
Actualed Cycle Length (S)	n		00.0	5		f time (S)	、 、		10.5			
Analysis Doriod (min)	// 1		07.070 1E	IC	O Level		;		D			
Analysis Fellou (IIIII)			10									

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	-	1	¥
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	723	232	211
v/c Ratio	0.25	0.56	0.50
Control Delay	2.1	22.5	30.0
Queue Delay	0.0	0.0	0.0
Total Delay	2.1	22.5	30.0
Queue Length 50th (m)	2.8	19.9	25.3
Queue Length 95th (m)	m9.3	39.7	40.0
Internal Link Dist (m)	197.3	118.6	209.2
Turn Bay Length (m)			
Base Capacity (vph)	2893	453	469
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.51	0.45
Intersection Summary			
intersection Summary			

m Volume for 95th percentile queue is metered by upstream signal.
	≯	-	$\rightarrow$	1	-	•	1	<b>†</b>	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>€1</b> †Ъ						eî 👘			र्भ	
Traffic Volume (vph)	47	575	66	0	0	0	0	99	122	36	164	0
Future Volume (vph)	47	575	66	0	0	0	0	99	122	36	164	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						5.0			5.0	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.95						0.80			1.00	
Flpb, ped/bikes		0.97						1.00			0.96	
Frt		0.99						0.93			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		4585						1380			1791	
Flt Permitted		1.00						1.00			0.90	
Satd. Flow (perm)		4585						1380			1634	
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)	49	605	69	0	0	0	0	104	128	38	173	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	58	0	0	0	0
Lane Group Flow (vph)	0	720	0	0	0	0	0	174	0	0	211	0
Confl. Peds. (#/hr)	220		282				413		352	352		413
Confl. Bikes (#/hr)			32						75			4
Heavy Vehicles (%)	11%	2%	3%	0%	0%	0%	0%	3%	3%	3%	2%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		49.4						19.6			19.6	
Effective Green, g (s)		50.4						20.6			20.6	
Actuated g/C Ratio		0.63						0.26			0.26	
Clearance Time (s)		5.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2888						355			420	
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.16									c0.13	
v/c Ratio		0.25						0.49			0.50	
Uniform Delay, d1		6.5						25.2			25.3	
Progression Factor		0.30						1.00			1.00	
Incremental Delay, d2		0.2						1.1			0.9	
Delay (s)		2.1						26.3			26.4	
Level of Service		А						С			С	
Approach Delay (s)		2.1			0.0			26.3			26.4	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			11.3	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.33									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	n		59.5%	IC	U Level	of Service	;		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	NBT	NBR	SBT
Lane Group Flow (vph)	640	393	928
v/c Ratio	0.36	0.69	0.84
Control Delay	12.4	22.6	25.4
Queue Delay	0.0	0.0	0.0
Total Delay	12.4	22.6	25.4
Queue Length 50th (m)	28.8	42.4	59.6
Queue Length 95th (m)	39.9	76.3	#93.0
Internal Link Dist (m)	112.5		51.9
Turn Bay Length (m)			
Base Capacity (vph)	1765	569	1108
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.36	0.69	0.84
Intersection Summary			

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

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Movement	WBI	WBR	NBT	NBR	SBI	SBT			
	VVDL	WDR		100	JDL				
Traffic Volume (vnh)	0	0	63/	380	220	<b>4</b> 1			
Future Volume (vph)	0	0	63/	380	227	690			
Ideal Flow (vphpl)	1000	1000	1000	1000	1000	1000			
Total Lost time (s)	1700	1700	5.0	5.0	1700	5.0			
Lano Iltil Factor			0.05	1.00		0.05			
Ernh nod/bikos			1.00	0.70		1.00			
Elph_pod/bikos			1.00	1.00		0.07			
Ert			1.00	0.85		1.00			
Flt Drotoctod			1.00	1.00		0.00			
Satd Elow (prot)			2///	1111		0.99			
Elt Dormittod			1 00	1 00		0.64			
Satd Flow (norm)			2///	1111		2154			
Deak hour feater DUE	0.00	0.00	0.00	0.00	0.00	2104			
Peak-nour lactor, PHF	0.99	0.99	0.99	0.99	0.99	0.99			
Auj. FIOW (Vpn)	0	0	640	393	231	697			
KTOK Reduction (vpn)	0	0	0	0	0	0			
Lane Group Flow (vpn)	0	0	640	393	0	928			
Confl. Peds. (#/hr)	,	,		281	281				
Confl. Bikes (#/hr)	6	6	101	00/	00/	70/			
Heavy venicies (%)	0%	0%	6%		2%	1%			
Turn Type			NA	Perm	pm+pt	NA			
Protected Phases			2		1	6			
Permitted Phases				2	6				
Actuated Green, G (s)			40.0	40.0		40.0			
Effective Green, g (s)			41.0	41.0		41.0			
Actuated g/C Ratio			0.51	0.51		0.51			
Clearance Time (s)			6.0	6.0		6.0			
Vehicle Extension (s)			3.0	3.0		3.0			
Lane Grp Cap (vph)			1765	569		1103			
v/s Ratio Prot			0.19						
v/s Ratio Perm				0.35		c0.43			
v/c Ratio			0.36	0.69		0.84			
Uniform Delay, d1			11.7	14.7		16.7			
Progression Factor			1.00	1.00		1.00			
Incremental Delay, d2			0.6	6.7		5.9			
Delay (s)			12.3	21.5		22.7			
Level of Service			В	С		С			
Approach Delay (s)	0.0		15.8			22.7			
Approach LOS	А		В			С			
Intersection Summary									
HCM 2000 Control Delay			19.0	H	ICM 2000	Level of Service	e	В	
HCM 2000 Volume to Capacit	ty ratio		0.54						
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)		16.0	
Intersection Capacity Utilization	on		66.7%	IC	CU Level	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

#### Queues 14: Portland Street & King Street

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Lane Group	EBR	WBR	NBT	SBT
Lane Group Flow (vph)	37	63	215	199
v/c Ratio	0.11	0.20	0.56	0.49
Control Delay	2.6	4.4	26.4	24.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	2.6	4.4	26.4	24.0
Queue Length 50th (m)	0.0	0.9	22.6	20.0
Queue Length 95th (m)	2.7	5.1	42.5	38.3
Internal Link Dist (m)			25.0	118.6
Turn Bay Length (m)				
Base Capacity (vph)	328	318	399	419
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	0.11	0.20	0.54	0.47
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 14: Portland Street & King Street

	≯	-	$\mathbf{r}$	•	+	*	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		•	1		•	1		\$			\$	
Traffic Volume (vph)	0	0	36	0	0	61	48	104	57	20	117	55
Future Volume (vph)	0	0	36	0	0	61	48	104	57	20	117	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0		5.0			5.0	
Lane Util. Factor			1.00			1.00		1.00			1.00	
Frpb, ped/bikes			0.36			0.36		0.89			0.81	
Flpb, ped/bikes			1.00			1.00		0.91			0.98	
Frt			0.85			0.85		0.96			0.96	
Flt Protected			1.00			1.00		0.99			0.99	
Satd. Flow (prot)			548			530		1428			1425	
Flt Permitted			1.00			1.00		0.90			0.95	
Satd. Flow (perm)			548			530		1298			1365	
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)	0	0	37	0	0	63	49	107	59	21	121	57
RTOR Reduction (vph)	0	0	16	0	0	19	0	19	0	0	19	0
Lane Group Flow (vph)	0	0	21	0	0	44	0	196	0	0	180	0
Confl. Peds. (#/hr)	1018		996	996		1018	573		584	584		573
Confl. Bikes (#/hr)			45			45			79			53
Heavy Vehicles (%)	0%	9%	0%	2%	7%	2%	4%	3%	4%	0%	2%	4%
Bus Blockages (#/hr)	18	18	18	17	17	17	0	0	0	0	0	0
Turn Type			custom			custom	Perm	NA		Perm	NA	
Protected Phases		2	1		6	5		4			8	
Permitted Phases			2			6	4			8		
Actuated Green, G (s)			39.8			39.8		20.2			20.2	
Effective Green, g (s)			41.8			41.8		21.2			21.2	
Actuated g/C Ratio			0.56			0.56		0.28			0.28	
Clearance Time (s)			4.0			4.0		6.0			6.0	
Vehicle Extension (s)			3.0			3.0		3.0			3.0	
Lane Grp Cap (vph)			327			316		366			385	
v/s Ratio Prot			0.01			c0 01		000			000	
v/s Ratio Perm			0.03			0.07		c0.15			0.13	
v/c Ratio			0.06			0.14		0.54			0.47	
Uniform Delay, d1			7.6			8.0		22.7			22.2	
Progression Factor			1.00			1.00		1.00			1.00	
Incremental Delay, d2			0.4			0.9		1.5			0.9	
Delay (s)			8.0			8.9		24.3			23.1	
Level of Service			A			A		С			С	
Approach Delay (s)		8.0			8.9			24.3			23.1	
Approach LOS		A			A			С			С	
								-			-	
Intersection Summary												
HCM 2000 Control Delay			20.8	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.28	_								
Actuated Cycle Length (s)			75.0	Si	um of los	t time (s)			12.0			
Intersection Capacity Utilizatio	n		48.2%	IC	CU Level	of Service	9		А			
Analysis Period (min)			15									

#### Queues 15: Spadina Ave & King Street

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Lane Group	EBR	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	115	54	81	709	863
v/c Ratio	0.20	0.12	0.63	0.36	0.63
Control Delay	0.8	0.9	65.1	20.5	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	65.1	20.5	31.5
Queue Length 50th (m)	0.0	0.0	14.7	32.3	51.0
Queue Length 95th (m)	0.0	1.0	#34.7	42.0	65.1
Internal Link Dist (m)				128.7	122.2
Turn Bay Length (m)			60.0		
Base Capacity (vph)	568	462	129	1957	1376
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	0.20	0.12	0.63	0.36	0.63
Intercaction Summary					

Intersection Summary

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

Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis 15: Spadina Ave & King Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		•	1		•	1	1	<b>^</b>			<u>ተተ</u> ኑ	
Traffic Volume (vph)	0	0	107	0	0	50	75	639	20	0	749	54
Future Volume (vph)	0	0	107	0	0	50	75	639	20	0	749	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0	5.0	5.0			5.0	
Lane Util. Factor			1.00			1.00	1.00	0.91			0.91	
Frpb, ped/bikes			0.61			0.55	1.00	0.98			0.96	
Flpb, ped/bikes			1.00			1.00	1.00	1.00			1.00	
Frt			0.85			0.85	1.00	1.00			0.99	
Flt Protected			1.00			1.00	0.95	1.00			1.00	
Satd. Flow (prot)			955			857	1755	4887			4691	
Flt Permitted			1.00			1.00	0.95	1.00			1.00	
Satd. Flow (perm)			955			857	1755	4887			4691	
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)	0	0	115	0	0	54	81	687	22	0	805	58
RTOR Reduction (vph)	0	0	65	0	0	30	0	4	0	0	8	0
Lane Group Flow (vph)	0	0	50	0	0	24	81	705	0	0	855	0
Confl. Peds. (#/hr)	1916		1306	1306		1916	995		1462	1462		995
Confl. Bikes (#/hr)			45			69			144			58
Heavy Vehicles (%)	0%	61%	4%	0%	50%	4%	4%	5%	5%	0%	7%	4%
Turn Type			custom			custom	Prot	NA			NA	
Protected Phases		2	1		6	5	7	4			8	
Permitted Phases			2			6						
Actuated Green, G (s)			40.0			40.0	4.8	38.2			27.4	
Effective Green, g (s)			42.0			42.0	5.8	39.2			28.4	
Actuated g/C Ratio			0.44			0.44	0.06	0.41			0.30	
Clearance Time (s)			4.0			4.0	6.0	6.0			6.0	
Vehicle Extension (s)			3.0			3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)			446			400	105	1991			1384	
v/s Ratio Prot			c0.01			0.00	c0.05	0.14			c0.18	
v/s Ratio Perm			0.04			0.02						
v/c Ratio			0.11			0.06	0.77	0.35			0.62	
Uniform Delay, d1			16.1			15.7	44.5	19.7			29.2	
Progression Factor			1.00			1.00	1.00	1.00			1.00	
Incremental Delay, d2			0.5			0.3	28.8	0.5			2.1	
Delay (s)			16.6			16.0	73.4	20.2			31.3	
Level of Service			В			В	E	С			С	
Approach Delay (s)		16.6			16.0			25.7			31.3	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			27.5	Н	CM 2000	) Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.35									
Actuated Cycle Length (s)			96.2	S	um of los	st time (s)			20.0			
Intersection Capacity Utilizatio	n		65.0%	IC	U Level	of Servic	е		С			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 16: Bathurst Street & Fort York Boulevard

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Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	221	206	254	622	1024
v/c Ratio	0.61	0.36	0.44	0.38	0.92
Control Delay	31.2	25.0	18.0	14.4	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	25.0	18.0	14.4	32.8
Queue Length 50th (m)	29.9	27.0	10.1	36.4	86.1
Queue Length 95th (m)	48.2	45.2	21.1	49.2	#136.4
Internal Link Dist (m)		65.7	51.4	65.1	550.9
Turn Bay Length (m)					
Base Capacity (vph)	362	638	672	1628	1119
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	0.61	0.32	0.38	0.38	0.92

#### Intersection Summary

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

Queue shown is maximum after two cycles.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۳	eî 🕺			đ þ			đ þ			đþ.	
Traffic Volume (vph)	212	167	31	18	97	129	24	552	21	210	434	339
Future Volume (vph)	212	167	31	18	97	129	24	552	21	210	434	339
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.95			0.84			0.99			0.92	
Flpb, ped/bikes	0.92	1.00			0.98			1.00			0.97	
Frt	1.00	0.98			0.92			0.99			0.95	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1631	1706			2691			3362			2862	
Flt Permitted	0.48	1.00			0.92			0.88			0.66	
Satd. Flow (perm)	823	1706			2475			2969			1923	
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)	221	174	32	19	101	134	25	575	22	219	452	353
RTOR Reduction (vph)	0	7	0	0	108	0	0	2	0	0	63	0
Lane Group Flow (vph)	221	199	0	0	146	0	0	620	0	0	961	0
Confl. Peds. (#/hr)	196		207	207		196	223		190	190		223
Confl. Bikes (#/hr)			37			13			3			24
Heavy Vehicles (%)	3%	4%	0%	6%	6%	1%	4%	3%	0%	1%	6%	2%
Bus Blockages (#/hr)	0	3	3	0	0	0	16	16	16	16	16	16
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.2	32.2			18.2			53.8			53.8	
Effective Green, g (s)	33.2	33.2			19.2			54.8			54.8	
Actuated g/C Ratio	0.33	0.33			0.19			0.55			0.55	
Clearance Time (s)	5.0	7.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	354	566			475			1627			1053	
v/s Ratio Prot	c0.06	0.12										
v/s Ratio Perm	c0.14				0.06			0.21			c0.50	
v/c Ratio	0.62	0.35			0.31			0.38			0.91	
Uniform Delay, d1	26.1	25.3			34.7			12.9			20.4	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	3.4	0.4			0.4			0.7			11.8	
Delay (s)	29.5	25.6			35.1			13.6			32.2	
Level of Service	С	С			D			В			С	
Approach Delay (s)		27.6			35.1			13.6			32.2	
Approach LOS		С			D			В			С	
Intersection Summary												
HCM 2000 Control Delay			26.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.87									
Actuated Cycle Length (s)			100.0	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliz	ation		111.7%	IC	U Level	of Service	)		Н			
Analysis Period (min)			15									
a Critical Lana Crown												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					\$			ę			el el	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	25	388	95	6	23	0	0	85	50
Future Volume (vph)	0	0	0	25	388	95	6	23	0	0	85	50
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	28	441	108	7	26	0	0	97	57
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total (vph)	577	33	154									
Volume Left (vph)	28	7	0									
Volume Right (vph)	108	0	57									
Hadj (s)	-0.07	0.11	-0.18									
Departure Headway (s)	4.3	5.6	5.1									
Degree Utilization, x	0.69	0.05	0.22									
Capacity (veh/h)	809	569	635									
Control Delay (s)	16.6	8.9	9.6									
Approach Delay (s)	16.6	8.9	9.6									
Approach LOS	С	А	А									
Intersection Summary												
Delay			14.8									
Level of Service			В									
Intersection Capacity Utiliz	ation		47.9%	IC	CU Level	of Service	2		А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$						eî 👘	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	48	0	131	12	350	82	0	0	0	0	126	26
Future Volume (vph)	48	0	131	12	350	82	0	0	0	0	126	26
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
Hourly flow rate (vph)	49	0	135	12	361	85	0	0	0	0	130	27
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total (vph)	184	458	157									
Volume Left (vph)	49	12	0									
Volume Right (vph)	135	85	27									
Hadj (s)	-0.32	-0.04	-0.03									
Departure Headway (s)	4.6	4.5	5.3									
Degree Utilization, x	0.23	0.58	0.23									
Capacity (veh/h)	740	771	604									
Control Delay (s)	8.9	13.5	9.9									
Approach Delay (s)	8.9	13.5	9.9									
Approach LOS	А	В	А									
Intersection Summary												
Delay			11.7									
Level of Service			В									
Intersection Capacity Utiliza	ation		59.1%	IC	CU Level	of Service	;		В			
Analysis Period (min)			15									

#### Queues 19: Strachan Avenue & E Liberty Street

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	187	209	6	6	254	567	3	568	224	
v/c Ratio	0.39	0.26	0.03	0.01	0.64	0.58	0.02	0.92	0.41	
Control Delay	23.3	0.8	18.5	0.0	20.2	15.8	19.0	48.9	8.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.3	0.8	18.5	0.0	20.2	15.8	19.0	48.9	8.0	
Queue Length 50th (m)	21.4	0.0	0.6	0.0	18.1	54.8	0.3	82.1	4.4	
Queue Length 95th (m)	38.5	0.0	3.2	0.0	40.9	83.8	2.1	#141.0	20.2	
Internal Link Dist (m)		105.0		80.5		84.8		117.7		
Turn Bay Length (m)	40.0				60.0		60.0		45.0	
Base Capacity (vph)	475	810	187	683	398	986	137	618	543	
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	0.39	0.26	0.03	0.01	0.64	0.58	0.02	0.92	0.41	

#### Intersection Summary

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

Queue shown is maximum after two cycles.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	¢Î		ľ	et 🗧		ľ	¢Î		۲	1	1
Traffic Volume (vph)	181	0	203	6	0	6	246	544	6	3	551	217
Future Volume (vph)	181	0	203	6	0	6	246	544	6	3	551	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		3.0	6.0		6.0	6.0	6.0
Lane Util. Factor	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	0.95		1.00	1.00		1.00	1.00	0.90
Flpb, ped/bikes	0.97	1.00		1.00	1.00		1.00	1.00		0.98	1.00	1.00
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1776	1595		910	1557		1807	1878		894	1902	1293
Flt Permitted	0.75	1.00		0.58	1.00		0.14	1.00		0.45	1.00	1.00
Satd. Flow (perm)	1409	1595		557	1557		262	1878		425	1902	1293
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)	187	0	209	6	0	6	254	561	6	3	568	224
RTOR Reduction (vph)	0	138	0	0	4	0	0	0	0	0	0	123
Lane Group Flow (vph)	187	71	0	6	2	0	254	567	0	3	568	101
Confl. Peds. (#/hr)	17		2	2		17	27		24	24		27
Confl. Bikes (#/hr)												29
Heavy Vehicles (%)	0%	0%	0%	100%	0%	0%	1%	1%	100%	100%	1%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	12
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	26.0	26.0		26.0	26.0		41.0	41.0		25.0	25.0	25.0
Effective Green, g (s)	27.0	27.0		27.0	27.0		42.0	42.0		26.0	26.0	26.0
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.52	0.52		0.32	0.32	0.32
Clearance Time (s)	6.0	6.0		6.0	6.0		4.0	7.0		7.0	7.0	7.0
Lane Grp Cap (vph)	475	538		187	525		388	985		138	618	420
v/s Ratio Prot		0.04			0.00		c0.11	0.30			c0.30	
v/s Ratio Perm	c0.13			0.01			0.24			0.01		0.08
v/c Ratio	0.39	0.13		0.03	0.00		0.65	0.58		0.02	0.92	0.24
Uniform Delay, d1	20.2	18.4		17.7	17.6		14.4	12.9		18.4	26.0	19.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.4	0.5		0.3	0.0		8.3	2.4		0.3	21.0	1.4
Delay (s)	22.7	18.9		18.1	17.6		22.8	15.4		18.6	47.0	21.1
Level of Service	С	В		В	В		С	В		В	D	С
Approach Delay (s)		20.7			17.8			17.7			39.6	
Approach LOS		С			В			В			D	
Intersection Summary					<u></u>		<u> </u>					
HCM 2000 Control Delay			26.9	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.65	_	<u>.</u> .				4 : 6			
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			14.0			
Intersection Capacity Utiliza	tion		81.5%	IC	U Level	of Service	9		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	13	586	612	464
v/c Ratio	0.02	0.98	0.46	0.40
Control Delay	11.5	55.4	14.3	16.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.5	55.4	14.3	16.6
Queue Length 50th (m)	0.9	79.9	27.1	24.3
Queue Length 95th (m)	3.7	#148.3	39.1	34.8
Internal Link Dist (m)	23.4	28.9	82.4	84.9
Turn Bay Length (m)				
Base Capacity (vph)	706	597	1324	1169
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	0.02	0.98	0.46	0.40
Intersection Summary				

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			đ þ			41	
Traffic Volume (vph)	5	4	2	376	0	151	0	379	159	58	350	0
Future Volume (vph)	5	4	2	376	0	151	0	379	159	58	350	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.97			0.87			1.00	
Flpb, ped/bikes		0.99			0.93			1.00			0.98	
Frt		0.98			0.96			0.96			1.00	
Flt Protected		0.98			0.97			1.00			0.99	
Satd. Flow (prot)		1785			1583			2893			3343	
Flt Permitted		0.86			0.78			1.00			0.79	
Satd. Flow (perm)		1566			1279			2893			2672	
Peak-hour factor, PHF	0.88	0.88	0.88	0.90	0.90	0.90	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	5	2	418	0	168	0	431	181	66	398	0
RTOR Reduction (vph)	0	1	0	0	23	0	0	58	0	0	0	0
Lane Group Flow (vph)	0	12	0	0	563	0	0	554	0	0	464	0
Confl. Peds. (#/hr)	64		79	79		64	107		178	178		107
Confl. Bikes (#/hr)			18			16			36			
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	2%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	9	16	16	18	25	25
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		35.0			35.0			34.0			34.0	
Effective Green, g (s)		36.0			36.0			35.0			35.0	
Actuated g/C Ratio		0.45			0.45			0.44			0.44	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		704			575			1265			1169	
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.01			c0.44						0.17	
v/c Ratio		0.02			0.98			0.44			0.40	
Uniform Delay, d1		12.2			21.6			15.7			15.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			32.0			1.1			1.0	
Delay (s)		12.2			53.7			16.8			16.3	
Level of Service		В			D			В			В	
Approach Delay (s)		12.2			53.7			16.8			16.3	
Approach LOS		В			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			29.5	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capacity	/ ratio		0.71									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilization	n		82.5%	IC	U Level	of Service	•		Е			
Analysis Period (min)			15									



# Appendix G

Synchro Output – Ontario Line South

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	380	773	546	339
v/c Ratio	0.22	0.45	0.41	0.26
Control Delay	12.9	27.4	38.3	22.0
Queue Delay	3.4	1.2	2.3	0.0
Total Delay	16.2	28.7	40.6	22.0
Queue Length 50th (m)	18.4	50.4	50.6	21.6
Queue Length 95th (m)	26.6	70.0	66.0	33.0
Internal Link Dist (m)	35.0	76.3	61.6	171.4
Turn Bay Length (m)				
Base Capacity (vph)	1703	1716	1327	1285
Starvation Cap Reductn	1207	677	623	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.77	0.74	0.78	0.26
Intersection Summarv				

# HCM Signalized Intersection Capacity Analysis 1: Yonge St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		- <b>†</b> †			- 44			- 11			- 11	
Traffic Volume (vph)	0	372	0	0	758	0	0	535	0	0	332	0
Future Volume (vph)	0	372	0	0	758	0	0	535	0	0	332	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.6			4.6			4.6			4.6	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3376			3402			3374			3269	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3376			3402			3374			3269	
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)	0	380	0	0	773	0	0	546	0	0	339	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	380	0	0	773	0	0	546	0	0	339	0
Confl. Peds. (#/hr)	712		726	726		712	991		765	765		991
Confl. Bikes (#/hr)			27			32			34			27
Heavy Vehicles (%)	0%	5%	0%	0%	4%	100%	100%	7%	20%	0%	10%	20%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	2	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		44.4			44.4			34.4			34.4	
Effective Green, g (s)		45.4			45.4			35.4			35.4	
Actuated g/C Ratio		0.50			0.50			0.39			0.39	
Clearance Time (s)		5.6			5.6			5.6			5.6	
Lane Grp Cap (vph)		1703			1716			1327			1285	
v/s Ratio Prot		0.11			c0.23			c0.16			0.10	
v/s Ratio Perm												
v/c Ratio		0.22			0.45			0.41			0.26	
Uniform Delay, d1		12.5			14.3			19.8			18.5	
Progression Factor		1.00			1.84			1.87			1.15	
Incremental Delay, d2		0.3			0.8			0.8			0.5	
Delay (s)		12.8			27.0			37.9			21.8	
Level of Service		В			С			D			С	
Approach Delay (s)		12.8			27.0			37.9			21.8	
Approach LOS		В			С			D			С	
Intersection Summary												
HCM 2000 Control Delay			26.4	Н	CM 2000		Sorvico		C			
HCM 2000 Volume to Canacit	v ratio		0.4	11		Level U			C			
Actuated Cycle Length (s)	yrano		90 0	S	um of los	t time (s)			0.2			
Intersection Canacity Litilization	n		45.3%			of Service	2		Δ			
Analysis Period (min)	// 1		15.570	ic.			,		~			
			15									

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Lane Group	WRI	INRT	2R1
Lane Group Flow (vph)	1607	474	353
v/c Ratio	0.64	0.45	0.33
Control Delay	7.0	25.1	25.2
Queue Delay	0.1	0.0	0.0
Total Delay	7.0	25.1	25.2
Queue Length 50th (m)	15.4	33.4	34.5
Queue Length 95th (m)	17.5	47.1	48.8
Internal Link Dist (m)	78.6	120.6	61.6
Turn Bay Length (m)			
Base Capacity (vph)	2525	1065	1079
Starvation Cap Reductn	45	0	0
Spillback Cap Reductn	94	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.66	0.45	0.33
Intersection Summary			

# HCM Signalized Intersection Capacity Analysis 2: Yonge St & Richmond St

Movement     EBL     EBL     EBR     WBL     WBT     WBR     NBL     NBT     NBR     SBL     SBL     SBR       Lane Configurations          •         •		≯	-	$\mathbf{\hat{z}}$	4	-	*	1	1	1	1	ţ	~
Lane Configurations   Image: Configurations <thimage: configurations<="" th="">   Image: Configuratio</thimage:>	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Lane Configurations					-€†Ъ			<b>*</b>			<b>*</b>	
Fulure Volume (vph)     0     0     190     1900	Traffic Volume (vph)	0	0	0	197	1177	105	0	436	0	0	325	0
Ideal Flow (vphpl)     1900 <td>Future Volume (vph)</td> <td>0</td> <td>0</td> <td>0</td> <td>197</td> <td>1177</td> <td>105</td> <td>0</td> <td>436</td> <td>0</td> <td>0</td> <td>325</td> <td>0</td>	Future Volume (vph)	0	0	0	197	1177	105	0	436	0	0	325	0
Lane Width     3.6	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)     5.0     5.0     5.0     5.0       Lane UII. Factor     0.91     0.95     0.95       Fipb, ped/bikes     0.98     1.00     1.00       Fipb, ped/bikes     0.99     1.00     1.00       Fit Protected     0.99     1.00     1.00       Satd. Flow (prot)     4549     3195     3239       Fit Permitted     0.99     1.00     1.00       Satd. Flow (prot)     4549     3195     3239       Perk-hour factor, PHF     0.92<	Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Lane Util. Factor   0.91   0.95   .095     Fpb, ped/bikes   0.98   1.00   1.00     Fpb, ped/bikes   0.99   1.00   1.00     Frit   0.99   1.00   1.00     Fit Protected   0.99   1.00   1.00     Satd. Flow (prot)   4549   3195   3239     Fit Permitted   0.99   1.00   1.00     Satd. Flow (perm)   0.92<	Total Lost time (s)					5.0			5.0			5.0	
Frpb, ped/bikes     0.98     1.00     1.00       Flpb, ped/bikes     0.96     1.00     1.00       Flp, ped/bikes     0.99     1.00     1.00       Flt Protected     0.99     1.00     1.00       Sald. Flow (prot)     4549     3195     3239       Peak-hour factor, PHF     0.92	Lane Util. Factor					0.91			0.95			0.95	
Flpb, ped/bikes   0.96   1.00   1.00     Frt   0.99   1.00   1.00     Flt Protected   0.99   1.00   1.00     Satd. Flow (port)   4549   3195   3239     Flt Permitted   0.99   1.00   1.00     Satd. Flow (perm)   4549   3195   3239     Peak-hour factor, PHF   0.92	Frpb, ped/bikes					0.98			1.00			1.00	
Frt   0.99   1.00   1.00     FIP Protected   0.99   1.00   1.00     Satd. Flow (port)   4549   3195   3239     FIP Permitted   0.99   1.00   1.00     Satd. Flow (perm)   4549   3195   3239     Peak-hour factor, PHF   0.92	Flpb, ped/bikes					0.96			1.00			1.00	
Fli Protected   0.99   1.00   1.00     Satd. Flow (prot)   4549   3195   3239     Fli Permitted   0.99   1.00   1.00     Satd. Flow (perm)   4549   3195   3239     Peak-hour factor, PHF   0.92 <t< td=""><td>Frt</td><td></td><td></td><td></td><td></td><td>0.99</td><td></td><td></td><td>1.00</td><td></td><td></td><td>1.00</td><td></td></t<>	Frt					0.99			1.00			1.00	
Satd. Flow (prot)   4549   3195   3239     FI Permitted   0.99   1.00   1.00     Satd. Flow (perm)   4549   3195   3239     Peak-hour factor, PHF   0.92   0   0.92	Flt Protected					0.99			1.00			1.00	
Fli Permitted   0.99   1.00   1.00     Satd. Flow (perm)   4549   3195   3239     Peak-hour factor, PHF   0.92   0.93   0.01   0.01   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0 </td <td>Satd. Flow (prot)</td> <td></td> <td></td> <td></td> <td></td> <td>4549</td> <td></td> <td></td> <td>3195</td> <td></td> <td></td> <td>3239</td> <td></td>	Satd. Flow (prot)					4549			3195			3239	
Satd. Flow (perm)     4549     3195     3239       Peak-hour factor, PHF     0.92	Flt Permitted					0.99			1.00			1.00	
Peak-hour factor, PHF     0.92	Satd. Flow (perm)					4549			3195			3239	
Adj. Flow (vph)   0   0   0   214   1279   114   0   474   0   0   353   0     RTOR Reduction (vph)   0   <	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
RTOR Reduction (vph)   0	Adi. Flow (vph)	0	0	0	214	1279	114	0	474	0	0	353	0
Lane Group Flow (vph)     0     0     0     1607     0     474     0     0     353     0       Confl. Peds. (#/hr)     259     327     327     259     1047     745     745     1047       Confl. Bikes (#/hr)     22     23     376     376     376     376       Heavy Vehicles (%)     0%     0%     0%     2%     5%     7%     0%     13%     0%     0%     13%     14%     13%     13%     14%     13%     14%     13%     14%     13%     14%     14%     13%     14%     14%     14%     14%     14%     14%     14%     14%     14%     14%	RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Confl. Peds. (#/hr)     259     327     327     259     1047     745     745     1047       Confl. Bikes (#/hr)     22     23     376 <t< td=""><td>Lane Group Flow (vph)</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1607</td><td>0</td><td>0</td><td>474</td><td>0</td><td>0</td><td>353</td><td>0</td></t<>	Lane Group Flow (vph)	0	0	0	0	1607	0	0	474	0	0	353	0
Confl. Bikes (#/hr)     22     23     376       Heavy Vehicles (%)     0%     0%     0%     2%     5%     7%     0%     13%     0%     0%     11%     13%       Bus Blockages (#/hr)     0     0     0     0     0     0     0     0     0     0     2     0       Turn Type     Perm     NA     NA     NA     NA     NA       Protected Phases     8     2     6     6     6     6       Permitted Phases     8     2     6     6     6     6     6       Permitted Phases     8     2     6	Confl. Peds. (#/hr)	259		327	327		259	1047		745	745		1047
Heavy Vehicles (%)   0%   0%   0%   2%   5%   7%   0%   13%   0%   0%   11%   13%     Bus Blockages (#/hr)   0	Confl. Bikes (#/hr)			22			23						376
Bus Blockages (#/hr)     0	Heavy Vehicles (%)	0%	0%	0%	2%	5%	7%	0%	13%	0%	0%	11%	13%
Description     Perm     NA     NA     NA       Protected Phases     8     2     6       Permitted Phases     8     2     6       Actuated Green, G (s)     49.0     29.0     29.0       Effective Green, g (s)     50.0     30.0     30.0       Actuated g/C Ratio     0.56     0.33     0.33       Clearance Time (s)     6.0     6.0     6.0       Lane Grp Cap (vph)     2527     1065     1079       //s Ratio Prot     c0.15     0.11     //s Ratio Perm       //c Ratio     0.64     0.45     0.33       Jniform Delay, d1     13.7     23.5     22.4       Progression Factor     0.42     1.00     1.08       ncremental Delay, d2     1.1     1.3     0.8       Delay (s)     6.9     24.8     25.0	Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Number     Numer     Numer     Numer <td>Turn Type</td> <td></td> <td></td> <td></td> <td>Perm</td> <td>NA</td> <td></td> <td></td> <td>NA</td> <td></td> <td></td> <td>NA</td> <td></td>	Turn Type				Perm	NA			NA			NA	
Bernitted Phases     8       Actuated Green, G (s)     49.0     29.0     29.0       Effective Green, g (s)     50.0     30.0     30.0       Actuated g/C Ratio     0.56     0.33     0.33       Clearance Time (s)     6.0     6.0     6.0       Lane Grp Cap (vph)     2527     1065     1079       //s Ratio Prot     c0.15     0.11       //s Ratio Perm     0.35	Protected Phases				1 01111	8			2			6	
Actuated Green, G (s)   49.0   29.0   29.0     Effective Green, g (s)   50.0   30.0   30.0     Actuated g/C Ratio   0.56   0.33   0.33     Clearance Time (s)   6.0   6.0   6.0     Lane Grp Cap (vph)   2527   1065   1079     v/s Ratio Prot   c0.15   0.11     v/s Ratio Perm   0.35	Permitted Phases				8	U			-			0	
Effective Green, g (s)   50.0   30.0   30.0     Actuated g/C Ratio   0.56   0.33   0.33     Clearance Time (s)   6.0   6.0   6.0     Lane Grp Cap (vph)   2527   1065   1079     //s Ratio Prot   c0.15   0.11     //s Ratio Perm   0.35	Actuated Green G (s)				0	49.0			29.0			29.0	
Actuated g/C Ratio   0.56   0.33   0.33     Actuated g/C Ratio   0.56   0.33   0.33     Clearance Time (s)   6.0   6.0   6.0     Lane Grp Cap (vph)   2527   1065   1079     v/s Ratio Prot   c0.15   0.11     v/s Ratio Perm   0.35	Effective Green g (s)					50.0			30.0			30.0	
Clearance Time (s)   6.0   6.0   6.0     Lane Grp Cap (vph)   2527   1065   1079     //s Ratio Prot   c0.15   0.11     //s Ratio Perm   0.35	Actuated g/C Ratio					0.56			0.33			0.33	
Lane Grp Cap (vph)     2527     1065     1079       V/s Ratio Prot     c0.15     0.11       v/s Ratio Perm     0.35     v/c Ratio     0.64     0.45     0.33       Jniform Delay, d1     13.7     23.5     22.4       Progression Factor     0.42     1.00     1.08       ncremental Delay, d2     1.1     1.3     0.8       Delay (s)     6.9     24.8     25.0	Clearance Time (s)					6.0			6.0			6.0	
Lanc Grp edp (vpr)   2327   1005   1077     V/s Ratio Prot   c0.15   0.11     v/s Ratio Perm   0.35   0.64   0.45   0.33     Uniform Delay, d1   13.7   23.5   22.4     Progression Factor   0.42   1.00   1.08     ncremental Delay, d2   1.1   1.3   0.8     Delay (s)   6.9   24.8   25.0	Lane Grn Can (vnh)					2527			1065			1079	
0.35   0.45   0.33     v/c Ratio   0.64   0.45   0.33     Uniform Delay, d1   13.7   23.5   22.4     Progression Factor   0.42   1.00   1.08     ncremental Delay, d2   1.1   1.3   0.8     Delay (s)   6.9   24.8   25.0	v/s Ratio Prot					2021			c0 15			0.11	
v/c Ratio   0.64   0.45   0.33     Uniform Delay, d1   13.7   23.5   22.4     Progression Factor   0.42   1.00   1.08     ncremental Delay, d2   1.1   1.3   0.8     Delay (s)   6.9   24.8   25.0	v/s Ratio Perm					0 35			00.10			0.11	
Uniform Delay, d1     13.7     23.5     22.4       Progression Factor     0.42     1.00     1.08       ncremental Delay, d2     1.1     1.3     0.8       Delay (s)     6.9     24.8     25.0	v/c Ratio					0.55			0.45			0 33	
Progression Factor     0.42     1.00     1.08       Incremental Delay, d2     1.1     1.3     0.8       Delay (s)     6.9     24.8     25.0	Uniform Delay, d1					13.7			23.5			22.4	
Incremental Delay, d2     1.1     1.3     0.8       Delay (s)     6.9     24.8     25.0	Progression Factor					0.42			1 00			1.08	
Delay (s) 6.9 24.8 25.0	Incremental Delay, d2					11			1.00			0.8	
5 0.7 24.0 20.0	Delay (s)					6.9			24.8			25.0	
	Level of Service					Δ			24.0			20.0	
$\frac{1}{4}$	Approach Delay (s)		0.0			69			2/1.8			25.0	
$\frac{1}{2}$	Approach LOS		0.0			0.7			24.0			23.0	
	Approach 203		Λ			Л			C			C	
ntersection Summary	Intersection Summary												
HCM 2000 Control Delay 13.0 HCM 2000 Level of Service B	HCM 2000 Control Delay			13.0	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity ratio 0.56	HCM 2000 Volume to Capacity	y ratio		0.56									
Actuated Cycle Length (s)90.0Sum of lost time (s)10.0	Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
ICU Level of Service B	Intersection Capacity Utilizatio	n		56.9%	IC	CU Level	of Service	:		В			
Analysis Period (min) 15	Analysis Period (min)			15									

#### Queues 3: Victoria St & Queen St

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Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	445	816	176	40	230
v/c Ratio	0.23	0.42	0.41	0.13	0.31
Control Delay	14.7	5.0	27.5	11.2	26.4
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	14.7	5.0	28.1	11.2	26.4
Queue Length 50th (m)	31.7	15.4	29.1	0.7	16.2
Queue Length 95th (m)	45.3	19.1	48.8	m4.1	25.9
Internal Link Dist (m)	76.3	66.0	62.2		20.3
Turn Bay Length (m)					
Base Capacity (vph)	1916	1943	430	303	753
Starvation Cap Reductn	0	0	74	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.42	0.49	0.13	0.31
Intersection Summary					

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

# HCM Signalized Intersection Capacity Analysis 3: Victoria St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b> 12			A			र्स	1		đ þ	
Traffic Volume (vph)	0	340	65	0	684	58	41	119	36	33	142	35
Future Volume (vph)	0	340	65	0	684	58	41	119	36	33	142	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.5			4.5			4.3	4.3		4.3	
Lane Util. Factor		0.95			0.95			1.00	1.00		0.95	
Frpb, ped/bikes		0.91			0.93			1.00	0.61		0.93	
Flpb, ped/bikes		1.00			1.00			0.92	1.00		0.96	
Frt		0.98			0.99			1.00	0.85		0.98	
Flt Protected		1.00			1.00			0.99	1.00		0.99	
Satd. Flow (prot)		3109			3149			1709	988		2947	
Flt Permitted		1.00			1.00			0.87	1.00		0.89	
Satd. Flow (perm)		3109			3149			1506	988		2636	
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
Adi, Flow (vph)	0	374	71	0	752	64	45	131	40	36	156	38
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	21	0	1	0
Lane Group Flow (vph)	0	445	0	0	814	0	0	176	19	0	229	0
Confl. Peds. (#/hr)	1132		1118	1118		1132	728		473	473		728
Confl. Bikes (#/hr)			25			31			31			15
Heavy Vehicles (%)	0%	2%	0%	0%	3%	5%	0%	1%	0%	3%	4%	11%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4		4	8	-	
Actuated Green, G (s)		54.5			54.5			24.7	24.7		24.7	
Effective Green, g (s)		55.5			55.5			25.7	25.7		25.7	
Actuated g/C Ratio		0.62			0.62			0.29	0.29		0.29	
Clearance Time (s)		5.5			5.5			5.3	5.3		5.3	
Lane Grp Cap (vph)		1917			1941			430	282		752	
v/s Ratio Prot		0.14			c0.26				202			
v/s Ratio Perm		0.11			00.20			c0.12	0.02		0.09	
v/c Ratio		0.23			0.42			0.41	0.07		0.30	
Uniform Delay, d1		7.7			8.9			26.0	23.4		25.2	
Progression Factor		1.84			0.49			0.93	0.89		1.00	
Incremental Delay, d2		0.3			0.6			2.6	0.4		1.0	
Delay (s)		14.5			4.9			26.9	21.2		26.2	
Level of Service		В			A			С	С		С	
Approach Delay (s)		14.5			4.9			25.9	-		26.2	
Approach LOS		В			A			С			С	
		5										
Intersection Summary												
HCM 2000 Control Delay			12.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.42									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			8.8			
Intersection Capacity Utilization			64.3%	IC	CU Level	of Service	;		С			
Analysis Period (min)			15									

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Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	1547	235	195
v/c Ratio	0.57	0.33	0.23
Control Delay	11.1	24.2	17.4
Queue Delay	0.0	0.0	0.0
Total Delay	11.2	24.2	17.4
Queue Length 50th (m)	48.7	15.8	8.0
Queue Length 95th (m)	60.1	25.5	13.8
Internal Link Dist (m)	168.3	4.7	62.2
Turn Bay Length (m)			
Base Capacity (vph)	2720	706	855
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	77	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.59	0.33	0.23
Intersection Summary			

# HCM Signalized Intersection Capacity Analysis 5: Victoria St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>€1</b> ∱Ъ			-4 <b>↑</b>			At}	
Traffic Volume (vph)	0	0	0	33	1282	93	111	103	0	0	91	86
Future Volume (vph)	0	0	0	33	1282	93	111	103	0	0	91	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.91			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.81	
Flpb, ped/bikes					0.99			0.85			1.00	
Frt					0.99			1.00			0.93	
Flt Protected					1.00			0.97			1.00	
Satd. Flow (prot)					4881			2859			2555	
Flt Permitted					1.00			0.72			1.00	
Satd. Flow (perm)					4881			2118			2555	
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)	0	0	0	36	1409	102	122	113	0	0	100	95
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	0	1538	0	0	235	0	0	191	0
Confl. Peds. (#/hr)	335		266	266		335	528		327	327		528
Confl. Bikes (#/hr)			643						41			25
Heavy Vehicles (%)	0%	0%	0%	6%	2%	1%	6%	2%	0%	0%	3%	8%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					49.0			29.0			29.0	
Effective Green, g (s)					50.0			30.0			30.0	
Actuated g/C Ratio					0.56			0.33			0.33	
Clearance Time (s)					6.0			6.0			6.0	
Lane Grp Cap (vph)					2711			706			851	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.32			c0.11				
v/c Ratio					0.57			0.33			0.22	
Uniform Delay, d1					13.0			22.5			21.6	
Progression Factor					0.79			1.00			0.79	
Incremental Delay, d2					0.9			1.3			0.6	
Delay (s)					11.2			23.8			17.7	
Level of Service					В			С			В	
Approach Delay (s)		0.0			11.2			23.8			17.7	
Approach LOS		А			В			С			В	
Intersection Summary												
HCM 2000 Control Delay			13.3	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.48									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	n		74.5%	IC	CU Level	of Service	<u>;</u>		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	10	134	299	587	435	
v/c Ratio	0.02	0.51	0.72	0.36	0.31	
Control Delay	23.9	35.4	36.8	13.7	9.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.9	35.4	36.8	13.7	9.2	
Queue Length 50th (m)	1.3	19.4	40.8	53.5	17.3	
Queue Length 95th (m)	5.0	37.7	#75.9	70.2	25.5	
Internal Link Dist (m)	10.1		77.6	171.4	233.8	
Turn Bay Length (m)		22.0				
Base Capacity (vph)	527	263	416	1643	1384	
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	0.51	0.72	0.36	0.31	
Intersection Summary						

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
Lane Configurations     Image: Configuration in the image: Configurating in the image: Configuration in the image: Configuration in th
Traffic Volume (vph)     0     9     0     122     134     138     0     407     127     90     306     0       Future Volume (vph)     0     9     0     122     134     138     0     407     127     90     306     0       Ideal Flow (vph)     1900
Future Volume (vph)0901221341380407127903060Ideal Flow (vphpl)1900
Ideal Flow (vphpl)19001
Lane Width3.6
Total Lost time (s)5.05.05.05.05.0Lane Util. Factor1.001.001.000.950.95Frpb, ped/bikes1.001.000.860.841.00Flpb, ped/bikes1.000.721.001.000.94Frt1.001.000.920.961.00Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.91
Lane Util. Factor1.001.001.000.950.95Frpb, ped/bikes1.001.000.860.841.00Flpb, ped/bikes1.000.721.001.000.94Frt1.001.000.920.961.00Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.910.91
Frpb, ped/bikes1.001.000.860.841.00Flpb, ped/bikes1.000.721.001.000.94Frt1.001.000.920.961.00Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.91
Flpb, ped/bikes1.000.721.001.000.94Frt1.001.000.920.961.00Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.91
Frt1.001.000.920.961.00Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.91
Flt Protected1.000.951.001.000.99Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.910.91
Satd. Flow (prot)19001197139926363101Flt Permitted1.000.751.001.000.72Satd. Flow (perm)1900947139926362264Peak-hour factor, PHF0.910.910.910.910.910.910.910.91
Flt Permitted     1.00     0.75     1.00     1.00     0.72       Satd. Flow (perm)     1900     947     1399     2636     2264       Peak-hour factor, PHF     0.91
Satd. Flow (perm)     1900     947     1399     2636     2264       Peak-hour factor, PHF     0.91
Peak-hour factor, PHF 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
Adj. Flow (vph) 0 10 0 134 147 152 0 447 140 99 336 0
RTOR Reduction (vph)     0     0     0     27     0     33     0
Lane Group Flow (vph) 0 10 0 134 272 0 0 554 0 0 435 0
Confl. Peds. (#/hr)     196     208     208     196     470     529     529     470
Confl. Bikes (#/hr) 20 30 11
Heavy Vehicles (%) 0% 0% 0% 9% 1% 15% 0% 12% 10% 10% 7% 25%
Bus Blockages (#/hr) 0 0 0 0 0 0 0 0 0 0 0 2 0
Turn Type NA Perm NA NA Perm NA
Protected Phases 4 8 2 6
Permitted Phases 8 6
Actuated Green, G (s) 24.0 24.0 24.0 54.0 54.0
Effective Green, g (s) 25.0 25.0 25.0 55.0 55.0
Actuated g/C Ratio 0.28 0.28 0.28 0.61 0.61
Clearance Time (s)     6.0     6.0     6.0     6.0
Lane Grp Cap (vph) 527 263 388 1610 1383
v/s Ratio Prot 0.01 c0.19 c0.21
v/s Ratio Perm 0.14 0.19
v/c Ratio 0.02 0.51 0.70 0.34 0.31
Uniform Delay, d1 23.6 27.3 29.1 8.6 8.4
Progression Factor     1.00     1.00     1.78     1.00
Incremental Delay, d2 0.1 6.9 10.1 0.6 0.6
Delay (s) 23.7 34.2 39.2 15.8 9.0
Level of Service C C D B A
Approach Delay (s) 23.7 37.7 15.8 9.0
Approach LOS C D B A
Intersection Summary
HCM 2000 Control Delay 20.3 HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio 0.45
Actuated Cycle Length (s) 90.0 Sum of lost time (s) 10.0
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15

#### Queues 7: Victoria St & Shuter St

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Lane Group	FRT	WRT	NRT	SRT
Lane Group Flow (vph)	253	546	223	211
v/c Ratio	0.33	0.71	0.29	0.26
Control Delay	9.3	17.8	12.7	14.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.3	17.8	12.7	14.1
Queue Length 50th (m)	14.4	46.5	7.3	7.9
Queue Length 95th (m)	27.1	80.6	14.7	15.1
Internal Link Dist (m)	77.6	70.3	54.4	38.1
Turn Bay Length (m)				
Base Capacity (vph)	774	773	771	812
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	0.33	0.71	0.29	0.26
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 7: Victoria St & Shuter St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			đ þ			đ þ	
Traffic Volume (vph)	28	131	67	87	287	112	52	82	65	36	97	55
Future Volume (vph)	28	131	67	87	287	112	52	82	65	36	97	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.90			0.92			0.87			0.85	
Flpb, ped/bikes		0.98			0.96			0.90			0.95	
Frt		0.96			0.97			0.95			0.96	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		1561			1593			2621			2719	
Flt Permitted		0.91			0.89			0.83			0.86	
Satd. Flow (perm)		1429			1433			2198			2373	
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)	31	147	75	98	322	126	58	92	73	40	109	62
RTOR Reduction (vph)	0	18	0	0	16	0	0	49	0	0	33	0
Lane Group Flow (vph)	0	235	0	0	530	0	0	174	0	0	178	0
Confl. Peds. (#/hr)	436		365	365		436	337		228	228		337
Confl. Bikes (#/hr)			41			4			13			8
Heavy Vehicles (%)	4%	0%	9%	6%	1%	0%	0%	3%	2%	0%	1%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		36.0		-	36.0		_	22.0			22.0	
Effective Green, g (s)		37.0			37.0			23.0			23.0	
Actuated g/C Ratio		0.53			0.53			0.33			0.33	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		755			757			722			779	
v/s Ratio Prot		700			101			,			,	
v/s Ratio Perm		0.16			c0.37			c0.08			0.08	
v/c Ratio		0.31			0.70			0.24			0.23	
Uniform Delay, d1		9.3			12.4			17.1			17.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			5.4			0.8			0.7	
Delay (s)		10.4			17.7			17.9			17.7	
Level of Service		B			B			B			B	
Approach Delay (s)		10.4			17.7			17.9			17.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			16.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	ty ratio		0.52									
Actuated Cycle Length (s)	-		70.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	on		91.9%	IC	U Level	of Service	<u>;</u>		F			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	498	591	667	579
v/c Ratio	0.32	0.39	0.56	0.51
Control Delay	16.6	15.9	4.6	23.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.6	15.9	4.6	23.7
Queue Length 50th (m)	31.6	32.9	4.4	39.7
Queue Length 95th (m)	48.0	45.3	5.7	55.1
Internal Link Dist (m)	242.7	62.5	67.4	123.1
Turn Bay Length (m)				
Base Capacity (vph)	1573	1519	1196	1127
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	0.32	0.39	0.56	0.51
Intersection Summary				

#### HCM Signalized Intersection Capacity Analysis 10: Bay St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜1</b> ≽			<b>≜</b> 1₀			<b>≜t</b> ≽			**	
Traffic Volume (vph)	0	418	55	0	463	99	0	552	82	0	429	121
Future Volume (vph)	0	418	55	0	463	99	0	552	82	0	429	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		7.8			7.8			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.96			0.94			0.94			0.91	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.97	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3275			3165			3200			3020	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3275			3165			3200			3020	
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	440	58	0	487	104	0	581	86	0	452	127
RTOR Reduction (vph)	0	1	0	0	0	0	0	5	0	0	4	0
Lane Group Flow (vph)	0	497	0	0	591	0	0	662	0	0	575	0
Confl. Peds. (#/hr)	634		622	622		634	568		723	723		568
Confl. Bikes (#/hr)			43			33			102			36
Heavy Vehicles (%)	0%	2%	2%	0%	1%	6%	0%	4%	5%	67%	6%	3%
Bus Blockages (#/hr)	9	9	9	11	11	11	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		42.2			42.2			32.5			32.5	
Effective Green, g (s)		43.2			43.2			33.5			33.5	
Actuated g/C Ratio		0.48			0.48			0.37			0.37	
Clearance Time (s)		8.8			8.8			6.5			6.5	
Lane Grp Cap (vph)		1572			1519			1191			1124	
v/s Ratio Prot		0.15			c0.19			c0.21			0.19	
v/s Ratio Perm												
v/c Ratio		0.32			0.39			0.56			0.51	
Uniform Delay, d1		14.3			15.0			22.4			21.9	
Progression Factor		1.11			1.00			0.13			1.00	
Incremental Delay, d2		0.5			0.8			1.6			1.7	
Delay (s)		16.4			15.7			4.6			23.6	
Level of Service		В			В			А			С	
Approach Delay (s)		16.4			15.7			4.6			23.6	
Approach LOS		В			В			А			С	
Intersection Summarv												
HCM 2000 Control Delay			14.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	itv ratio		0.46						5			
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			13.3			
Intersection Capacity Utilizati	on		58.7%	IC	CU Level	of Service	<u>;</u>		B			
Analysis Period (min)			15						-			

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Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	293	46	630	509
v/c Ratio	0.11	0.08	0.54	0.45
Control Delay	0.4	0.5	26.5	13.6
Queue Delay	0.0	0.0	0.0	0.2
Total Delay	0.4	0.5	26.5	13.8
Queue Length 50th (m)	0.0	0.0	46.1	13.3
Queue Length 95th (m)	0.0	m0.0	62.4	20.7
Internal Link Dist (m)	172.3		120.3	67.4
Turn Bay Length (m)		27.0		
Base Capacity (vph)	2550	574	1168	1135
Starvation Cap Reductn	0	0	0	151
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.11	0.08	0.54	0.52
Intersection Summary				

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

# HCM Signalized Intersection Capacity Analysis 11: Bay St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					***	1		<b>^</b>			<b>^</b>	
Traffic Volume (vph)	0	0	0	11	264	43	0	592	0	0	478	0
Future Volume (vph)	0	0	0	11	264	43	0	592	0	0	478	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.67		1.00			1.00	
Flpb, ped/bikes					0.99	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			1.00	
Flt Protected					1.00	1.00		1.00			1.00	
Satd. Flow (prot)					4590	1005		3505			3406	
Flt Permitted					1.00	1.00		1.00			1.00	
Satd. Flow (perm)					4590	1005		3505			3406	
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)	0	0	0	12	281	46	0	630	0	0	509	0
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	293	30	0	630	0	0	509	0
Confl. Peds. (#/hr)	328		314	314		328	910		1239	1239		910
Confl. Bikes (#/hr)			61						47			30
Heavy Vehicles (%)	0%	0%	0%	18%	11%	7%	0%	3%	0%	0%	6%	40%
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					49.0	49.0		29.0			29.0	
Effective Green, g (s)					50.0	50.0		30.0			30.0	
Actuated g/C Ratio					0.56	0.56		0.33			0.33	
Clearance Time (s)					6.0	6.0		6.0			6.0	
Lane Grp Cap (vph)					2550	558		1168			1135	
v/s Ratio Prot								c0.18			0.15	
v/s Ratio Perm					0.06	0.03						
v/c Ratio					0.11	0.05		0.54			0.45	
Uniform Delay, d1					9.5	9.2		24.4			23.5	
Progression Factor					0.04	0.06		1.00			0.52	
Incremental Delay, d2					0.1	0.1		1.8			1.1	
Delay (s)					0.4	0.7		26.2			13.5	
Level of Service					А	А		С			В	
Approach Delay (s)		0.0			0.4			26.2			13.5	
Approach LOS		А			А			С			В	
Intersection Summary												
HCM 2000 Control Delay			15.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.27									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	n		41.7%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

	-	1	1	1
Lane Group	WBT	NBL	NBT	SBR
Lane Group Flow (vph)	1044	220	313	34
v/c Ratio	0.54	0.41	0.21	0.07
Control Delay	23.3	19.4	23.0	0.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.3	19.4	23.0	0.3
Queue Length 50th (m)	53.8	22.8	23.8	0.0
Queue Length 95th (m)	66.9	m37.4	m32.4	0.1
Internal Link Dist (m)	141.8		32.1	
Turn Bay Length (m)				
Base Capacity (vph)	1937	538	1482	502
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	0.54	0.41	0.21	0.07
Intersection Summary				

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

# HCM Signalized Intersection Capacity Analysis 16: York St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>^</b>		۲	<b>^</b>				1
Traffic Volume (vph)	0	0	0	0	847	103	200	285	0	0	0	31
Future Volume (vph)	0	0	0	0	847	103	200	285	0	0	0	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					6.5		6.1	6.1				6.1
Lane Util. Factor					0.91		1.00	0.95				1.00
Frpb, ped/bikes					0.96		1.00	1.00				0.66
Flpb, ped/bikes					1.00		0.67	1.00				1.00
Frt					0.98		1.00	1.00				0.86
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					4744		1171	3539				1085
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					4744		1171	3539				1085
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)	0	0	0	0	931	113	220	313	0	0	0	34
RTOR Reduction (vph)	0	0	0	0	15	0	48	0	0	0	0	20
Lane Group Flow (vph)	0	0	0	0	1029	0	172	313	0	0	0	14
Confl. Peds. (#/hr)	260		486	486		260	305		646	646		305
Confl. Bikes (#/hr)			113			1			9			12
Heavy Vehicles (%)	0%	0%	0%	0%	4%	2%	3%	2%	0%	0%	0%	0%
Turn Type					NA		Perm	NA				Perm
Protected Phases					8			2				
Permitted Phases							2					6
Actuated Green, G (s)					39.5		40.9	40.9				40.9
Effective Green, g (s)					40.5		41.9	41.9				41.9
Actuated g/C Ratio					0.40		0.42	0.42				0.42
Clearance Time (s)					7.5		7.1	7.1				7.1
Lane Grp Cap (vph)					1921		490	1482				454
v/s Ratio Prot					c0.22		170	0.09				
v/s Ratio Perm					00.22		c0.15	0107				0.01
v/c Ratio					0.54		0.35	0.21				0.03
Uniform Delay, d1					22.6		19.8	18.5				17.1
Progression Factor					1.00		1.36	1.22				1.00
Incremental Delay, d2					1.1		1.8	0.3				0.1
Delay (s)					23.7		28.7	22.9				17.2
Level of Service					С		С	С				В
Approach Delay (s)		0.0			23.7		-	25.3			17.2	_
Approach LOS		A			С			С			В	
Intersection Summary												
HCM 2000 Control Delay			24.1	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	/ ratio		0.44									
Actuated Cycle Length (s)			100.0	S	um of los	t time (s)			16.6			
Intersection Capacity Utilizatio	n		83.6%	IC	CU Level	of Service	;		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	1057	33	18	122
v/c Ratio	0.35	0.08	0.05	0.38
Control Delay	9.8	27.4	5.1	33.0
Queue Delay	0.6	0.0	0.0	0.0
Total Delay	10.4	27.4	5.1	33.0
Queue Length 50th (m)	45.1	4.5	0.0	17.8
Queue Length 95th (m)	m55.9	11.7	3.1	33.5
Internal Link Dist (m)	35.6	76.2		111.0
Turn Bay Length (m)				
Base Capacity (vph)	3063	430	328	319
Starvation Cap Reductn	1505	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.08	0.05	0.38
Intersection Summary				

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€¶¶}-						•	1		ę	
Traffic Volume (vph)	31	902	50	0	0	0	0	31	17	66	47	0
Future Volume (vph)	31	902	50	0	0	0	0	31	17	66	47	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.7						5.6	5.6		5.6	
Lane Util. Factor		0.91						1.00	1.00		1.00	
Frpb, ped/bikes		0.98						1.00	0.78		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.89	
Frt		0.99						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		0.97	
Satd. Flow (prot)		4722						1812	1277		1620	
Flt Permitted		1.00						1.00	1.00		0.80	
Satd. Flow (perm)		4722						1812	1277		1342	
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)	33	970	54	0	0	0	0	33	18	71	51	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	1051	0	0	0	0	0	33	4	0	122	0
Confl. Peds. (#/hr)	212		117	117		212	63		153	153		63
Confl. Bikes (#/hr)			60						6			6
Heavy Vehicles (%)	3%	7%	4%	0%	0%	0%	0%	6%	0%	2%	2%	0%
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2								4	8		
Actuated Green, G (s)		57.3						20.4	20.4		20.4	
Effective Green, g (s)		58.3						21.4	21.4		21.4	
Actuated g/C Ratio		0.65						0.24	0.24		0.24	
Clearance Time (s)		5.7						6.6	6.6		6.6	
Lane Grp Cap (vph)		3058						430	303		319	
v/s Ratio Prot								0.02				
v/s Ratio Perm		0.22							0.00		c0.09	
v/c Ratio		0.34						0.08	0.01		0.38	
Uniform Delay, d1		7.2						26.6	26.2		28.8	
Progression Factor		1.33						1.00	1.00		1.00	
Incremental Delay, d2		0.3						0.3	0.1		3.5	
Delay (s)		9.9						27.0	26.3		32.2	
Level of Service		А						С	С		С	
Approach Delay (s)		9.9			0.0			26.7			32.2	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			12.8	Н	CM 2000	l evel of	Service		R			
HCM 2000 Volume to Canacity	ratio		0.35		2000				U			
Actuated Cycle Length (s)	Tullo		90 0	S	um of los	t time (s)			10.3			
Intersection Canacity Utilization	n		66.1%			of Service	2		ГО.О С.			
Analysis Period (min)			15						v			
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Lane Group	EBL	EBT	EBR	NBT	SBT							
Lane Group Flow (vph)	71	806	119	864	843							
v/c Ratio	0.16	0.54	0.23	0.79	0.95							
Control Delay	16.7	20.6	6.1	34.3	45.6							
Queue Delay	0.0	0.0	0.0	0.4	0.0							
Total Delay	16.7	20.6	6.1	34.7	45.6							
Queue Length 50th (m)	7.2	52.6	2.1	71.0	73.7							
Queue Length 95th (m)	15.7	69.6	11.9	93.5	#109.7							
Internal Link Dist (m)		187.4		7.4	112.2							
Turn Bay Length (m)			35.0									
Base Capacity (vph)	457	1489	510	1087	887							
Starvation Cap Reductn	0	0	0	35	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.16	0.54	0.23	0.82	0.95							
Intersection Summary												

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	<b>^</b>	1					<b>^</b>				
Traffic Volume (vph)	67	766	113	0	0	0	0	821	0	143	657	0
Future Volume (vph)	67	766	113	0	0	0	0	821	0	143	657	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)	5.0	5.0	5.0					6.0			6.0	
Lane Util. Factor	1.00	0.95	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.67					1.00			1.00	
Flpb, ped/bikes	0.61	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					1.00			1.00	
Flt Protected	0.95	1.00	1.00					1.00			0.99	
Satd. Flow (prot)	1055	3438	1052					3374			3385	
Flt Permitted	0.95	1.00	1.00					1.00			0.53	
Satd. Flow (perm)	1055	3438	1052					3374			1803	
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)	71	806	119	0	0	0	0	864	0	151	692	0
RTOR Reduction (vph)	0	0	55	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	71	806	64	0	0	0	0	864	0	0	843	0
Confl. Peds. (#/hr)	514		227	227		514	333		216	216		333
Confl. Bikes (#/hr)			74						2			3
Heavy Vehicles (%)	5%	5%	3%	0%	0%	0%	0%	7%	13%	2%	6%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							6		
Actuated Green, G (s)	38.0	38.0	38.0					28.0			39.0	
Effective Green, g (s)	39.0	39.0	39.0					29.0			40.0	
Actuated g/C Ratio	0.43	0.43	0.43					0.32			0.44	
Clearance Time (s)	6.0	6.0	6.0					7.0			7.0	
Lane Grp Cap (vph)	457	1489	455					1087			941	
v/s Ratio Prot		c0.23						0.26			c0.08	
v/s Ratio Perm	0.07		0.06								c0.32	
v/c Ratio	0.16	0.54	0.14					0.79			0.90	
Uniform Delay, d1	15.5	18.9	15.4					27.8			23.1	
Progression Factor	1.00	1.00	1.00					1.00			1.19	
Incremental Delay, d2	0.7	1.4	0.6					6.0			11.1	
Delay (s)	16.2	20.3	16.0					33.8			38.4	
Level of Service	В	С	В					С			D	
Approach Delay (s)		19.5			0.0			33.8			38.4	
Approach LOS		В			A			С			D	
Intersection Summary												
HCM 2000 Control Delay			30.0	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	city ratio		0.75									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			14.0			
Intersection Capacity Utiliza	tion		80.5%	IC	U Level	of Service	:		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	263	1414	50	540	658
v/c Ratio	0.39	0.84	0.08	0.64	0.73
Control Delay	17.3	26.1	0.2	14.1	31.8
Queue Delay	1.0	48.0	0.0	0.0	0.0
Total Delay	18.3	74.1	0.2	14.1	31.8
Queue Length 50th (m)	28.0	107.2	0.0	42.1	58.0
Queue Length 95th (m)	46.5	137.1	0.3	m43.1	76.2
Internal Link Dist (m)		83.0		112.2	6.5
Turn Bay Length (m)			25.0		
Base Capacity (vph)	671	1690	643	839	901
Starvation Cap Reductn	212	510	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	1.20	0.08	0.64	0.73
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 65: Jarvis St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				5	<b>^</b>	1		- <b>€</b> †			<b>^</b>	
Traffic Volume (vph)	0	0	0	247	1329	47	85	423	0	0	483	135
Future Volume (vph)	0	0	0	247	1329	47	85	423	0	0	483	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)				5.0	5.0	5.0		7.0			7.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.83		1.00			0.96	
Flpb, ped/bikes				0.79	1.00	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.97	
Flt Protected				0.95	1.00	1.00		0.99			1.00	
Satd. Flow (prot)				1406	3539	1227		3378			3273	
Flt Permitted				0.95	1.00	1.00		0.59			1.00	
Satd. Flow (perm)				1406	3539	1227		2007			3273	
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)	0	0	0	263	1414	50	90	450	0	0	514	144
RTOR Reduction (vph)	0	0	0	0	0	26	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	263	1414	24	0	540	0	0	629	0
Confl. Peds. (#/hr)	116		152	152		116	123		76	76		123
Confl. Bikes (#/hr)			37			18			16			3
Heavy Vehicles (%)	0%	0%	0%	2%	2%	9%	8%	5%	0%	0%	3%	1%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Actuated Green, G (s)				42.0	42.0	42.0		34.0			23.0	
Effective Green, g (s)				43.0	43.0	43.0		35.0			24.0	
Actuated g/C Ratio				0.48	0.48	0.48		0.39			0.27	
Clearance Time (s)				6.0	6.0	6.0		8.0			8.0	
Lane Grp Cap (vph)				671	1690	586		902			872	
v/s Ratio Prot					c0.40			c0.05			c0.19	
v/s Ratio Perm				0.19		0.02		0.18				
v/c Ratio				0.39	0.84	0.04		0.60			0.72	
Uniform Delay, d1				15.1	20.4	12.5		21.9			30.0	
Progression Factor				1.00	1.00	1.00		0.53			0.94	
Incremental Delay, d2				1.7	5.1	0.1		1.9			5.1	
Delay (s)				16.8	25.5	12.6		13.6			33.1	
Level of Service				В	С	В		В			С	
Approach Delay (s)		0.0			23.8			13.6			33.1	
Approach LOS		А			С			В			С	
Intersection Summary												
HCM 2000 Control Delay			24.0	Н	CM 2000	Level of	Service		С			_
HCM 2000 Volume to Capacity	ratio		0.78									
Actuated Cycle Length (s)			90.0	Si	um of los	t time (s)			15.0			
Intersection Capacity Utilization	า		94.2%	IC	U Level	of Servic	е		F			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 68: Church St & Queen St

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	399	813	517	502
v/c Ratio	0.30	0.46	0.74	0.54
Control Delay	4.2	23.4	26.2	26.3
Queue Delay	0.0	0.0	1.1	0.0
Total Delay	4.2	23.4	27.3	26.3
Queue Length 50th (m)	5.7	70.7	14.7	35.4
Queue Length 95th (m)	7.3	89.7	57.9	50.7
Internal Link Dist (m)	79.5	24.7	67.4	165.8
Turn Bay Length (m)				
Base Capacity (vph)	1316	1763	699	936
Starvation Cap Reductn	0	0	53	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.30	0.46	0.80	0.54
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 68: Church St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î»			र्स कि			4î b			4î b	
Traffic Volume (vph)	59	242	66	34	678	36	101	333	41	24	377	61
Future Volume (vph)	59	242	66	34	678	36	101	333	41	24	377	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.7			4.7			4.7			4.7	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.93			0.98			0.97			0.95	
Flpb, ped/bikes		0.99			0.99			0.97			0.99	
Frt		0.97			0.99			0.99			0.98	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		3053			3351			3148			3116	
Flt Permitted		0.75			0.92			0.67			0.91	
Satd. Flow (perm)		2303			3087			2124			2836	
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)	64	263	72	37	737	39	110	362	45	26	410	66
RTOR Reduction (vph)	0	4	0	0	3	0	0	8	0	0	13	0
Lane Group Flow (vph)	0	395	0	0	810	0	0	509	0	0	489	0
Confl. Peds. (#/hr)	323		427	427		323	335		383	383		335
Confl. Bikes (#/hr)			64			16			58			35
Heavy Vehicles (%)	5%	3%	2%	3%	2%	0%	1%	7%	0%	9%	8%	2%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		50.3			50.3			28.3			28.3	
Effective Green, g (s)		51.3			51.3			29.3			29.3	
Actuated g/C Ratio		0.57			0.57			0.33			0.33	
Clearance Time (s)		5.7			5.7			5.7			5.7	
Lane Grp Cap (vph)		1312			1759			691			923	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.26			c0.24			0.17	
v/c Ratio		0.30			0.46			0.74			0.53	
Uniform Delay, d1		10.0			11.3			26.9			24.7	
Progression Factor		0.36			1.99			0.73			1.00	
Incremental Delay, d2		0.6			0.8			6.5			2.2	
Delay (s)		4.2			23.2			26.1			26.9	
Level of Service		А			С			С			С	
Approach Delay (s)		4.2			23.2			26.1			26.9	
Approach LOS		А			С			С			С	
Intersection Summary												
HCM 2000 Control Delay	Control Delay 21.3				CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	ne to Capacity ratio 0.56											
Actuated Cycle Length (s)	d Cycle Length (s) 90.0			Si	um of los	t time (s)			9.4			
Intersection Capacity Utiliza	ation		85.3%	IC	CU Level	of Service	;		E			
Analysis Period (min)			15									
a Critical Lana Crown												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	373	655	530	615
v/c Ratio	0.23	0.38	0.41	0.31
Control Delay	8.0	20.6	34.2	18.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.0	20.6	34.2	18.8
Queue Length 50th (m)	11.2	31.7	41.9	25.4
Queue Length 95th (m)	m17.9	50.1	57.1	34.1
Internal Link Dist (m)	65.5	76.7	58.1	168.6
Turn Bay Length (m)				
Base Capacity (vph)	1620	1730	1282	1953
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	0.23	0.38	0.41	0.31
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 71: Jarvis St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> 1≽			<b>4</b> 14			<b>≜t</b> ≽			<b>ቀ</b> ቶር <sub>አ</sub>	
Traffic Volume (vph)	0	282	72	0	607	15	0	420	84	0	535	49
Future Volume (vph)	0	282	72	0	607	15	0	420	84	0	535	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.9			4.9			4.6			4.6	
Lane Util. Factor		0.95			0.95			0.95			0.91	
Frpb, ped/bikes		0.95			1.00			0.97			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			1.00			0.98			0.99	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3185			3450			3216			4936	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3185			3450			3216			4936	
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	297	76	0	639	16	0	442	88	0	563	52
RTOR Reduction (vph)	0	25	0	0	2	0	0	18	0	0	12	0
Lane Group Flow (vph)	0	348	0	0	653	0	0	512	0	0	603	0
Confl. Peds. (#/hr)	136		205	205		136	147		136	136		147
Confl. Bikes (#/hr)			43			19			21			5
Heavy Vehicles (%)	0%	2%	4%	0%	2%	0%	0%	5%	9%	0%	2%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		44.1			44.1			34.4			34.4	
Effective Green, g (s)		45.1			45.1			35.4			35.4	
Actuated g/C Ratio		0.50			0.50			0.39			0.39	
Clearance Time (s)		5.9			5.9			5.6			5.6	
Lane Grp Cap (vph)		1596			1728			1264			1941	
v/s Ratio Prot		0.11			c0.19			c0.16			0.12	
v/s Ratio Perm												
v/c Ratio		0.22			0.38			0.40			0.31	
Uniform Delay, d1		12.6			13.8			19.7			18.9	
Progression Factor		0.70			1.43			1.77			1.00	
Incremental Delay, d2		0.3			0.6			0.9			0.4	
Delay (s)		9.1			20.4			35.8			19.3	
Level of Service		A			С			D			В	
Approach Delay (s)		9.1			20.4			35.8			19.3	
Approach LOS		A			С			D			В	
					Ū			5			5	
Intersection Summary			01.0		014 0000	1 1 . 6 .			-			
HCIVI 2000 Control Delay			21.9	Н	CIVI 2000	Level of S	Service		C			
HCIVI 2000 Volume to Capacity	<i>ratio</i>		0.39	~		1 1 line - ( )			0 5			
Actuated Cycle Length (s)			90.0	S	um of Ios'	t time (s)			9.5			
Intersection Capacity Utilization	n		43.8%	IC	U Level	or Service	2		A			
Analysis Period (min)			15									

#### Queues 86: Sherbourne Street & Shuter St

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	40	239	32	419	343	310
v/c Ratio	0.12	0.30	0.08	0.49	0.49	0.44
Control Delay	13.6	14.7	13.5	18.6	19.9	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	14.7	13.5	18.6	19.9	18.4
Queue Length 50th (m)	3.3	21.7	3.1	46.5	36.4	31.1
Queue Length 95th (m)	9.0	36.7	m7.3	65.7	59.1	51.7
Internal Link Dist (m)		290.9		182.0	164.7	110.1
Turn Bay Length (m)	25.0		15.0			
Base Capacity (vph)	320	801	425	849	700	710
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	0.13	0.30	0.08	0.49	0.49	0.44
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	eî 🕺		ľ	•			eî.			eî 🕺	
Traffic Volume (vph)	38	185	44	31	375	27	0	302	27	0	251	47
Future Volume (vph)	38	185	44	31	375	27	0	302	27	0	251	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.95		1.00	0.99			0.96			0.96	
Flpb, ped/bikes	0.92	1.00		0.84	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1625	1732		1496	1836			1687			1702	
Flt Permitted	0.40	1.00		0.58	1.00			1.00			1.00	
Satd. Flow (perm)	693	1732		920	1836			1687			1702	
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)	40	193	46	32	391	28	0	315	28	0	261	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	4	0	0	8	0
Lane Group Flow (vph)	40	239	0	32	419	0	0	339	0	0	302	0
Confl. Peds. (#/hr)	86		102	102		86	90		132	132		90
Confl. Bikes (#/hr)			55			7			261			47
Heavy Vehicles (%)	3%	2%	2%	3%	2%	4%	11%	5%	0%	14%	1%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	9	9	9	9	9	9
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	36.0	36.0		36.0	36.0			32.0			32.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0			33.0			33.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.41			0.41	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	320	801		425	849			695			702	
v/s Ratio Prot		0.14			c0.23			c0.20			0.18	
v/s Ratio Perm	0.06			0.03								
v/c Ratio	0.12	0.30		0.08	0.49			0.49			0.43	
Uniform Delay, d1	12.3	13.4		12.0	15.0			17.3			16.8	
Progression Factor	1.00	1.00		1.07	1.08			1.00			1.00	
Incremental Delay, d2	0.8	1.0		0.3	1.9			2.4			1.9	
Delay (s)	13.1	14.4		13.1	18.1			19.7			18.7	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		14.2			17.8			19.7			18.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			17.7	H	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capaci	ity ratio		0.49									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			10.0			
Intersection Capacity Utilizati	on		58.0%	IC	U Level	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	1056	330	62	216
v/c Ratio	0.39	0.65	0.32	0.37
Control Delay	10.8	32.4	28.8	25.8
Queue Delay	0.4	2.0	0.0	0.0
Total Delay	11.2	34.4	28.8	25.8
Queue Length 50th (m)	33.4	47.0	8.0	28.5
Queue Length 95th (m)	41.9	75.7	19.3	47.4
Internal Link Dist (m)	84.4	80.5		115.7
Turn Bay Length (m)			70.0	
Base Capacity (vph)	2692	508	193	578
Starvation Cap Reductn	1032	76	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.64	0.76	0.32	0.37
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈተኩ						f,		۲.	•	
Traffic Volume (vph)	81	869	43	0	0	0	0	267	43	58	203	0
Future Volume (vph)	81	869	43	0	0	0	0	267	43	58	203	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						5.0		5.0	5.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frpb, ped/bikes		0.99						0.95		1.00	1.00	
Flpb, ped/bikes		0.96						1.00		0.84	1.00	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		4653						1558		1454	1795	
Flt Permitted		1.00						1.00		0.39	1.00	
Satd. Flow (perm)		4653						1558		602	1795	
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)	86	924	46	0	0	0	0	284	46	62	216	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1051	0	0	0	0	0	323	0	62	216	0
Confl. Peds. (#/hr)	218		129	129		218	156		336	336		156
Confl. Bikes (#/hr)			49			1			24			57
Heavy Vehicles (%)	8%	5%	12%	0%	0%	0%	0%	11%	12%	5%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	9	9	0	0	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		51.0						28.0		28.0	28.0	
Effective Green, g (s)		52.0						29.0		29.0	29.0	
Actuated g/C Ratio		0.58						0.32		0.32	0.32	
Clearance Time (s)		5.0						6.0		6.0	6.0	
Lane Grp Cap (vph)		2688						502		193	578	
v/s Ratio Prot								c0.21			0.12	
v/s Ratio Perm		0.23								0.10		
v/c Ratio		0.39						0.64		0.32	0.37	
Uniform Delay, d1		10.4						26.1		23.1	23.5	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.4						6.2		4.4	1.8	
Delay (s)		10.8						32.3		27.4	25.3	
Level of Service		В						С		С	С	
Approach Delay (s)		10.8			0.0			32.3			25.8	
Approach LOS		В			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			17.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.48									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilization	۱		53.0%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 108: Lower Jarvis St & King Street

	$\mathbf{i}$	1	•	1	Ŧ
Lane Group	EBR	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	24	116	127	836	837
v/c Ratio	0.05	0.74	0.48	0.66	0.62
Control Delay	0.2	57.1	9.3	21.8	21.5
Queue Delay	0.0	0.0	0.0	0.2	0.3
Total Delay	0.2	57.1	9.3	22.0	21.8
Queue Length 50th (m)	0.0	11.3	0.0	50.9	51.6
Queue Length 95th (m)	0.0	#38.8	5.5	70.3	70.0
Internal Link Dist (m)				102.6	72.1
Turn Bay Length (m)					
Base Capacity (vph)	517	157	265	1264	1351
Starvation Cap Reductn	0	0	0	52	131
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.05	0.74	0.48	0.69	0.69
Intersection Summary					

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			1	۲		1		At≱			At≱	
Traffic Volume (vph)	0	0	22	107	0	117	0	646	123	0	748	22
Future Volume (vph)	0	0	22	107	0	117	0	646	123	0	748	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0	3.0		3.0		5.0			5.0	
Lane Util. Factor			1.00	1.00		1.00		0.95			0.95	
Frpb, ped/bikes			0.47	1.00		1.00		0.95			0.99	
Flpb, ped/bikes			1.00	1.00		1.00		1.00			1.00	
Frt			0.86	1.00		0.85		0.98			1.00	
Flt Protected			1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)			633	1571		1514		3111			3372	
Flt Permitted			1.00	0.95		1.00		1.00			1.00	
Satd. Flow (perm)			633	1571		1514		3111			3372	
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)	0	0	24	116	0	127	0	702	134	0	813	24
RTOR Reduction (vph)	0	0	22	0	0	114	0	20	0	0	2	0
Lane Group Flow (vph)	0	0	2	116	0	13	0	816	0	0	835	0
Confl. Peds. (#/hr)	528		429	429		528	220		206	206		220
Confl. Bikes (#/hr)			79			16			3			5
Heavy Vehicles (%)	0%	6%	19%	12%	9%	4%	0%	9%	11%	0%	6%	14%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type			Perm	Prot		Prot		NA			NA	
Protected Phases				1		5		4			8	
Permitted Phases			1									
Actuated Green, G (s)			7.0	7.0		7.0		31.0			31.0	
Effective Green, g (s)			8.0	8.0		8.0		32.0			32.0	
Actuated g/C Ratio			0.10	0.10		0.10		0.40			0.40	
Clearance Time (s)			4.0	4.0		4.0		6.0			6.0	
Lane Grp Cap (vph)			63	157		151		1244			1348	
v/s Ratio Prot				c0.07		0.01		c0.26			0.25	
v/s Ratio Perm			0.00									
v/c Ratio			0.04	0.74		0.08		0.66			0.62	
Uniform Delay, d1			32.5	35.0		32.7		19.5			19.1	
Progression Factor			1.00	0.81		0.45		1.00			1.00	
Incremental Delay, d2			1.1	25.9		1.1		2.7			2.1	
Delay (s)			33.7	54.1		15.6		22.2			21.3	
Level of Service			С	D		В		С			С	
Approach Delay (s)		33.7			34.0			22.2			21.3	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			23.4	H	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capacit	y ratio		0.41									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			14.0			
Intersection Capacity Utilization	n		49.2%	IC	U Level	of Service	:		А			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	925	398	530
v/c Ratio	0.39	0.38	0.47
Control Delay	3.7	23.6	21.5
Queue Delay	0.0	0.0	0.4
Total Delay	3.7	23.6	21.9
Queue Length 50th (m)	9.8	27.0	22.1
Queue Length 95th (m)	m11.9	39.1	39.9
Internal Link Dist (m)	129.9	119.9	67.4
Turn Bay Length (m)			
Base Capacity (vph)	2373	1042	1117
Starvation Cap Reductn	0	0	209
Spillback Cap Reductn	0	12	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.39	0.39	0.58
Intersection Summary			
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# HCM Signalized Intersection Capacity Analysis 114: Church St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>€1</b> ∱Ъ			-4 <b>↑</b>			<b>≜1</b> ≱	
Traffic Volume (vph)	0	0	0	292	398	143	26	332	0	0	415	62
Future Volume (vph)	0	0	0	292	398	143	26	332	0	0	415	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.91			0.95			0.95	
Frpb, ped/bikes					0.96			1.00			0.96	
Flpb, ped/bikes					0.92			0.99			1.00	
Frt					0.97			1.00			0.98	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					4342			3397			3206	
Flt Permitted					0.98			0.89			1.00	
Satd. Flow (perm)					4342			3026			3206	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	0	0	0	324	442	159	29	369	0	0	461	69
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	0	0	0	916	0	0	398	0	0	517	0
Confl Peds (#/hr)	164	Ū	159	159	,	164	249	0,0	313	313	017	249
Confl Bikes (#/hr)	101		213	107		101	217		40	010		26
Heavy Vehicles (%)	0%	0%	0%	0%	3%	1%	4%	5%	0%	0%	5%	11%
Turn Type	070	0,0	0.10	Perm	NA		Perm	NA	070	0,0	NA	
Protected Phases				1 Onn	8		1 OIIII	2			6	
Permitted Phases				8	Ū		2	2			Ū	
Actuated Green G (s)				0	48.0		2	30.0			30.0	
Effective Green a (s)					49.0			31.0			31.0	
Actuated q/C Ratio					0.54			0 34			0 34	
Clearance Time (s)					6.0			6.0			6.0	
Lane Grn Can (vnh)					2363			10/12			110/	
v/s Ratio Prot					2303			1042			c0 16	
v/s Ratio Porm					0.21			0 1 3			CO. 10	
v/c Ratio					0.21			0.13			0.47	
Uniform Delay, d1					11.8			22.20			23.1	
Progression Factor					0.29			1.00			0.90	
Incremental Delay, d2					0.27			1.00			1 3	
Delay (s)					2.7			22.2			22.0	
Level of Service					Δ			23.5			22.0	
Approach Delay (s)		0.0			27			22.3			22.0	
Approach LOS		A			3.7 A			23.3 C			22.0 C	
Intersection Summary												
HCM 2000 Control Delay			13.2	Η	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.42									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilizatio	n		60.2%	10	CU Level	of Service	)		B			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	1050	96	97
v/c Ratio	0.31	0.25	0.29
Control Delay	6.4	22.4	30.6
Queue Delay	0.0	0.0	0.0
Total Delay	6.4	22.4	30.6
Queue Length 50th (m)	26.3	9.7	13.6
Queue Length 95th (m)	33.1	22.0	26.5
Internal Link Dist (m)	108.1	67.9	129.6
Turn Bay Length (m)			
Base Capacity (vph)	3424	441	387
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.22	0.25
Intersection Summary			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€†₽						4Î			र्स	
Traffic Volume (vph)	78	849	70	0	0	0	0	62	29	36	56	0
Future Volume (vph)	78	849	70	0	0	0	0	62	29	36	56	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						5.6			5.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		1.00						1.00			0.98	
Frt		0.99						0.96			1.00	
Flt Protected		1.00						1.00			0.98	
Satd. Flow (prot)		4785						1701			1805	
Flt Permitted		1.00						1.00			0.85	
Satd. Flow (perm)		4785						1701			1558	
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)	82	894	74	0	0	0	0	65	31	38	59	0
RTOR Reduction (vph)	0	8	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	1042	0	0	0	0	0	76	0	0	97	0
Confl. Peds. (#/hr)	19		32	32		19	89		43	43		89
Confl. Bikes (#/hr)			32			3			2			3
Heavy Vehicles (%)	4%	7%	6%	0%	0%	0%	0%	5%	7%	3%	2%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		61.1						16.8			16.8	
Effective Green, g (s)		62.1						17.8			17.8	
Actuated g/C Ratio		0.69						0.20			0.20	
Clearance Time (s)		5.5						6.6			6.6	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		3301						336			308	
v/s Ratio Prot								0.04				
v/s Ratio Perm		0.22									c0.06	
v/c Ratio		0.32						0.23			0.31	
Uniform Delay, d1		5.5						30.3			30.9	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		0.3						0.3			0.6	
Delay (s)		5.8						30.7			31.5	
Level of Service		A			0.0			C			C	
Approach Delay (s)		5.8			0.0			30.7			31.5	
Approach LOS		А			A			С			С	
Intersection Summary												
HCM 2000 Control Delay			9.7	Н	CM 2000	Level of	Service		А			
HCM 2000 Volume to Capacit	y ratio		0.32									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.1			
Intersection Capacity Utilizatio	n		47.6%	IC	U Level	of Service	;		A			
Analysis Period (min)			15									
C Critical Lane Group												

### HCM Unsignalized Intersection Capacity Analysis 128: Frederick Street & Front St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> 1₽			<b>∱1</b> }			4			\$	
Traffic Volume (veh/h)	23	284	2	32	797	30	5	7	29	7	11	27
Future Volume (Veh/h)	23	284	2	32	797	30	5	7	29	7	11	27
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)	25	309	2	35	866	33	5	8	32	8	12	29
Pedestrians		29			26			127			187	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		3			3			12			18	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		109			104							
pX, platoon unblocked	0.79						0.79	0.79		0.79	0.79	0.79
vC, conflicting volume	1086			438			1054	1643	308	1406	1628	666
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	591			438			550	1292	308	993	1272	61
tC, single (s)	4.2			4.2			7.5	6.5	6.9	7.8	6.5	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	96			96			97	91	95	89	87	95
cM capacity (veh/h)	623			973			181	87	592	75	89	621
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	180	156	468	466	45	49						
Volume Left	25	0	35	0	5	8						
Volume Right	0	2	0	33	32	29						
cSH	623	1700	973	1700	258	170						
Volume to Capacity	0.04	0.09	0.04	0.27	0.17	0.29						
Queue Length 95th (m)	1.0	0.0	0.8	0.0	4.7	8.6						
Control Delay (s)	2.0	0.0	1.1	0.0	21.8	34.5						
Lane LOS	А		А		С	D						
Approach Delay (s)	1.0		0.5		21.8	34.5						
Approach LOS					С	D						
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utiliza	ition		57.7%	IC	CU Level	of Service			В			
Analysis Period (min)			15									

### Queues 129: Adelaide St & Parliament Street

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Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	93	852	311	333
v/c Ratio	0.10	0.44	0.32	0.36
Control Delay	4.1	7.1	24.0	25.4
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	4.1	7.2	24.0	25.4
Queue Length 50th (m)	2.1	9.1	20.6	23.3
Queue Length 95th (m)	3.9	11.3	31.4	34.8
Internal Link Dist (m)		90.9	68.1	90.3
Turn Bay Length (m)				
Base Capacity (vph)	924	1942	974	921
Starvation Cap Reductn	0	279	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.10	0.51	0.32	0.36
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	A						đβ			4 <b>†</b>	
Traffic Volume (vph)	89	730	88	0	0	0	0	275	24	30	290	0
Future Volume (vph)	89	730	88	0	0	0	0	275	24	30	290	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3						4.9			4.9	
Lane Util. Factor	1.00	0.95						0.95			0.95	
Frpb, ped/bikes	1.00	1.00						0.99			1.00	
Flpb, ped/bikes	0.96	1.00						1.00			1.00	
Frt	1.00	0.98						0.99			1.00	
Flt Protected	0.95	1.00						1.00			1.00	
Satd. Flow (prot)	1610	3362						3097			3276	
Flt Permitted	0.95	1.00						1.00			0.90	
Satd. Flow (perm)	1610	3362						3097			2953	
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)	93	760	92	0	0	0	0	286	25	31	302	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	93	842	0	0	0	0	0	304	0	0	333	0
Confl. Peds. (#/hr)	34		13	13		34	66		69	69		66
Confl. Bikes (#/hr)			17						11			9
Heavy Vehicles (%)	9%	6%	10%	0%	0%	0%	0%	15%	13%	7%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)	50.7	50.7						27.1			27.1	
Effective Green, g (s)	51.7	51.7						28.1			28.1	
Actuated g/C Ratio	0.57	0.57						0.31			0.31	
Clearance Time (s)	6.3	6.3						5.9			5.9	
Lane Grp Cap (vph)	924	1931						966			921	
v/s Ratio Prot		c0.25						0.10				
v/s Ratio Perm	0.06										c0.11	
v/c Ratio	0.10	0.44						0.31			0.36	
Uniform Delay, d1	8.6	10.9						23.6			24.0	
Progression Factor	0.44	0.60						1.00			1.00	
Incremental Delay, d2	0.2	0.7						0.9			1.1	
Delay (s)	4.0	7.2						24.5			25.1	
Level of Service	А	А						С			С	
Approach Delay (s)		6.9			0.0			24.5			25.1	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			14.1	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.41									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.2			
Intersection Capacity Utiliza	tion		62.9%	IC	CU Level	of Service	;		В			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 140: Berkeley St & King Street

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	296	576	92	138
v/c Ratio	0.15	0.25	0.29	0.34
Control Delay	5.2	6.8	22.7	23.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	6.8	22.7	23.9
Queue Length 50th (m)	7.1	18.7	9.3	14.7
Queue Length 95th (m)	9.8	22.0	17.5	24.4
Internal Link Dist (m)	110.1	92.3	87.5	67.9
Turn Bay Length (m)				
Base Capacity (vph)	2009	2296	374	466
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	0.15	0.25	0.25	0.30
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 140: Berkeley St & King Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜1</b> ≱			<b>≜1</b> ≱			\$			\$	
Traffic Volume (vph)	0	185	46	0	435	14	30	29	13	7	78	23
Future Volume (vph)	0	185	46	0	435	14	30	29	13	7	78	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.4			4.4			5.5			5.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.91			0.99			0.98			0.96	
Flpb, ped/bikes		1.00			1.00			0.94			1.00	
Frt		0.97			1.00			0.98			0.97	
Flt Protected		1.00			1.00			0.98			1.00	
Satd. Flow (prot)		3080			3551			1555			1721	
Flt Permitted		1.00			1.00			0.85			0.98	
Satd. Flow (perm)		3080			3551			1354			1693	
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	0	237	59	0	558	18	38	37	17	9	100	29
RTOR Reduction (vph)	0	21	0	0	2	0	0	11	0	0	12	0
Lane Group Flow (vph)	0	275	0	0	574	0	0	81	0	0	126	0
Confl. Peds. (#/hr)	167		216	216		167	167		59	59		167
Confl. Bikes (#/hr)			84			13			19			4
Heavy Vehicles (%)	0%	2%	13%	0%	1%	7%	14%	7%	0%	0%	4%	0%
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		50.7			50.7			17.4			17.4	
Effective Green, g (s)		51.7			51.7			18.4			18.4	
Actuated g/C Ratio		0.65			0.65			0.23			0.23	
Clearance Time (s)		5.4			5.4			6.5			6.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1990			2294			311			389	
v/s Ratio Prot		0.09			c0.16							
v/s Ratio Perm								0.06			c0.07	
v/c Ratio		0.14			0.25			0.26			0.32	
Uniform Delay, d1		5.5			6.0			25.2			25.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.3			0.4			0.5	
Delay (s)		5.6			6.2			25.7			26.1	
Level of Service		А			А			С			С	
Approach Delay (s)		5.6			6.2			25.7			26.1	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			10.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.27									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			9.9			
Intersection Capacity Utilization	n		41.5%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 144: King Street & George Street

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	291	585	101	128
v/c Ratio	0.14	0.27	0.28	0.31
Control Delay	7.0	7.0	25.5	24.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.0	7.0	25.5	24.3
Queue Length 50th (m)	12.2	18.3	11.7	14.1
Queue Length 95th (m)	16.6	25.8	24.4	28.3
Internal Link Dist (m)	80.5	81.9	93.1	76.2
Turn Bay Length (m)				
Base Capacity (vph)	2069	2143	373	424
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	0.14	0.27	0.27	0.30
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 144: King Street & George Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> ⊅			- <b>†</b> Ъ			4			4	
Traffic Volume (vph)	0	242	23	0	503	29	36	48	7	14	63	40
Future Volume (vph)	0	242	23	0	503	29	36	48	7	14	63	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6			5.5			5.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.94			0.98			0.98			0.95	
Flpb, ped/bikes		1.00			1.00			0.96			0.97	
Frt		0.99			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3304			3427			1678			1673	
Flt Permitted		1.00			1.00			0.84			0.96	
Satd. Flow (perm)		3304			3427			1442			1618	
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)	0	266	25	0	553	32	40	53	8	15	69	44
RTOR Reduction (vph)	0	9	0	0	5	0	0	4	0	0	10	0
Lane Group Flow (vph)	0	282	0	0	580	0	0	97	0	0	118	0
Confl. Peds. (#/hr)	713		587	587		713	115		247	247		115
Confl. Bikes (#/hr)			79			14			13			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	7%	6%	2%	0%	0%	0%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		48.9			48.9			19.0			19.0	
Effective Green, g (s)		49.9			49.9			20.0			20.0	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		5.6			5.6			6.5			6.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2060			2137			360			404	
v/s Ratio Prot		0.09			c0.17							
v/s Ratio Perm								0.07			c0.07	
v/c Ratio		0.14			0.27			0.27			0.29	
Uniform Delay, d1		6.2			6.8			24.1			24.3	
Progression Factor		1.19			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.3			0.4			0.4	
Delay (s)		7.5			7.1			24.5			24.7	
Level of Service		А			А			С			С	
Approach Delay (s)		7.5			7.1			24.5			24.7	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			10.9	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.28									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			10.1			
Intersection Capacity Utilization	۱		40.1%	IC	U Level	of Service	<u>;</u>		А			
Analysis Period (min)			15									

#### Queues 159: Lower Jarvis St & Front St

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	40	279	95	528	637	852
v/c Ratio	0.17	0.23	0.30	0.40	0.60	0.60
Control Delay	29.7	25.1	21.8	20.3	19.7	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7
Total Delay	29.7	25.1	21.8	20.3	19.7	19.8
Queue Length 50th (m)	3.7	12.9	11.0	33.2	39.7	53.6
Queue Length 95th (m)	m10.0	24.4	23.0	46.2	57.2	72.2
Internal Link Dist (m)		41.0		78.3	121.4	102.6
Turn Bay Length (m)	35.0		55.0			
Base Capacity (vph)	241	1218	314	1307	1062	1418
Starvation Cap Reductn	0	0	0	0	0	254
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.23	0.30	0.40	0.60	0.73
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>≜î</b> ≽		ሻ	A⊅			đ þ			et îb	
Traffic Volume (vph)	38	208	57	90	479	23	67	483	55	24	709	77
Future Volume (vph)	38	208	57	90	479	23	67	483	55	24	709	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.92		1.00	0.98			0.98			0.97	
Flpb, ped/bikes	0.86	1.00		0.75	1.00			0.99			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1456	3035		1289	3259			3040			3203	
Flt Permitted	0.39	1.00		0.58	1.00			0.72			0.92	
Satd. Flow (perm)	605	3035		788	3259			2211			2956	
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)	40	219	60	95	504	24	71	508	58	25	746	81
RTOR Reduction (vph)	0	4	0	0	4	0	0	7	0	0	6	0
Lane Group Flow (vph)	40	275	0	95	524	0	0	630	0	0	846	0
Confl. Peds. (#/hr)	389		515	515		389	514		261	261		514
Confl. Bikes (#/hr)			18			7			6			4
Heavy Vehicles (%)	5%	4%	7%	4%	7%	9%	8%	12%	11%	4%	6%	5%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	35.0	35.0		35.0	35.0			42.0			42.0	
Effective Green, g (s)	36.0	36.0		36.0	36.0			43.0			43.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.48			0.48	
Clearance Time (s)	6.0	6.0		6.0	6.0			7.0			7.0	
Lane Grp Cap (vph)	242	1214		315	1303			1056			1412	
v/s Ratio Prot		0.09			c0.16							
v/s Ratio Perm	0.07			0.12				0.28			c0.29	
v/c Ratio	0.17	0.23		0.30	0.40			0.60			0.60	
Uniform Delay, d1	17.3	17.8		18.4	19.3			17.2			17.2	
Progression Factor	1.56	1.40		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.3	0.4		2.4	0.9			2.5			1.9	
Delay (s)	28.3	25.4		20.9	20.2			19.6			19.1	
Level of Service	С	С		С	С			В			В	
Approach Delay (s)		25.7			20.3			19.6			19.1	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			20.4	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.51									
Actuated Cycle Length (s)			90.0	Si	um of los	t time (s)			11.0			
Intersection Capacity Utiliza	tion		103.3%	IC	U Level	of Service	<u>;</u>		G			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 164: Parliament St & Front St

	٦	→	4	+	1	Ŧ
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	33	317	168	871	479	364
v/c Ratio	0.14	0.19	0.35	0.51	0.51	0.38
Control Delay	14.2	12.1	16.3	16.3	20.8	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	12.1	16.3	16.3	20.8	19.7
Queue Length 50th (m)	2.9	14.3	16.8	50.2	28.6	21.5
Queue Length 95th (m)	8.5	21.6	31.4	66.4	43.1	32.8
Internal Link Dist (m)		87.7		140.6	136.0	125.7
Turn Bay Length (m)	45.0		40.0			
Base Capacity (vph)	230	1679	480	1692	931	969
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	0.14	0.19	0.35	0.51	0.51	0.38
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	A12		٦ ۲	A			đ þ			đ þ	
Traffic Volume (vph)	31	271	27	158	781	38	92	250	108	60	234	48
Future Volume (vph)	31	271	27	158	781	38	92	250	108	60	234	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.96			0.99	
Flpb, ped/bikes	0.98	1.00		0.94	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1742	3342		1629	3377			2923			3062	
Flt Permitted	0.25	1.00		0.56	1.00			0.78			0.79	
Satd. Flow (perm)	459	3342		960	3377			2308			2455	
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)	33	288	29	168	831	40	98	266	115	64	249	51
RTOR Reduction (vph)	0	9	0	0	4	0	0	34	0	0	15	0
Lane Group Flow (vph)	33	309	0	168	867	0	0	445	0	0	349	0
Confl. Peds. (#/hr)	89		79	79		89	53		129	129		53
Confl. Bikes (#/hr)			28			5			17			17
Heavy Vehicles (%)	0%	4%	7%	3%	4%	13%	8%	13%	9%	8%	11%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	3
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	44.0	44.0		44.0	44.0			34.0			34.0	
Effective Green, g (s)	45.0	45.0		45.0	45.0			35.0			35.0	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.39			0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	229	1671		480	1688			897			954	
v/s Ratio Prot		0.09			c0.26							
v/s Ratio Perm	0.07			0.18				c0.19			0.14	
v/c Ratio	0.14	0.18		0.35	0.51			0.50			0.37	
Uniform Delay, d1	12.1	12.4		13.6	15.1			20.8			19.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.3	0.2		2.0	1.1			2.0			1.1	
Delay (s)	13.4	12.6		15.6	16.3			22.8			20.7	
Level of Service	В	В		В	В			С			С	
Approach Delay (s)		12.7			16.2			22.8			20.7	
Approach LOS		В			В			С			С	
Interception Cummons												
Intersection Summary			17.0			Louist - C	Comila		D			
HCIVI 2000 Control Delay	H		17.8	H	CIVI 2000	Level of	Service		В			
HCIVI 2000 VOIUME TO Capacit	ity ratio		0.51	<u> </u>	um of last	time (a)			10.0			
Actuated Cycle Length (S)	on		90.0	SI		t time (S)			10.0			
Intersection Capacity Utilizati	on		97.2%	IC	U Level (	DI SERVICE	;		F			
Analysis Penod (min)			15									

### Queues 166: Cherry St & Front St

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	6	63	24	33	146	162	22	282
v/c Ratio	0.02	0.11	0.05	0.09	0.24	0.18	0.16	0.27
Control Delay	18.0	18.9	0.2	19.0	20.5	5.4	30.2	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	18.9	0.2	19.0	20.5	5.4	30.2	10.6
Queue Length 50th (m)	0.6	6.5	0.0	3.4	15.8	14.6	3.3	21.9
Queue Length 95th (m)	3.1	14.6	0.0	9.3	29.0	3.1	6.0	37.0
Internal Link Dist (m)		133.9			121.8	134.8		120.9
Turn Bay Length (m)	15.0		20.0	45.0			45.0	
Base Capacity (vph)	414	614	509	384	629	915	144	1053
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	0.01	0.10	0.05	0.09	0.23	0.18	0.15	0.27
Intersection Summary								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦ ۲	•	1	7	eî.			र्स	1		ર્લ	
Traffic Volume (vph)	6	59	22	31	125	11	32	119	20	0	221	41
Future Volume (vph)	6	59	22	31	125	11	32	119	20	0	221	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0			6.0	4.0		6.0	
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	0.87	1.00	0.99			1.00	1.00		0.98	
Flpb, ped/bikes	0.95	1.00	1.00	0.92	1.00			0.99	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99	1.00		1.00	
Satd. Flow (prot)	1695	1756	1220	1457	1798			1648	1389		1716	
Flt Permitted	0.66	1.00	1.00	0.72	1.00			0.90	1.00		1.00	
Satd. Flow (perm)	1185	1756	1220	1098	1798			1501	1389		1716	
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)	6	63	24	33	134	12	34	128	22	0	238	44
RTOR Reduction (vph)	0	0	17	0	0	0	0	0	0	0	7	0
Lane Group Flow (vph)	6	63	7	33	146	0	0	162	22	0	275	0
Confl. Peds. (#/hr)	67		55	55		67	45		66	66		45
Confl. Bikes (#/hr)			21			5			17			11
Heavy Vehicles (%)	0%	7%	14%	13%	2%	9%	6%	13%	15%	0%	6%	2%
Turn Type	Perm	NA	Perm	Perm	NA		custom	NA	custom		NA	
Protected Phases		4			8			26	1		26	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)	20.8	20.8	20.8	20.8	20.8			45.2	3.1		45.2	
Effective Green, g (s)	21.8	21.8	21.8	21.8	21.8			46.2	4.1		46.2	
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27			0.58	0.05		0.58	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0				5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				3.0			
Lane Grp Cap (vph)	322	478	332	299	489			866	71		990	
v/s Ratio Prot		0.04			c0.08				0.02		c0.16	
v/s Ratio Perm	0.01		0.01	0.03				0.11				
v/c Ratio	0.02	0.13	0.02	0.11	0.30			0.19	0.31		0.28	
Uniform Delay, d1	21.3	22.0	21.3	21.8	23.0			8.0	36.6		8.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.48	0.84		1.00	
Incremental Delay, d2	0.0	0.1	0.0	0.2	0.3			0.5	2.5		0.7	
Delay (s)	21.3	22.1	21.3	22.0	23.4			4.4	33.2		9.2	
Level of Service	С	С	С	С	С			А	С		А	
Approach Delay (s)		21.8			23.1			7.8			9.2	
Approach LOS		С			С			А			А	
Intersection Summary												
HCM 2000 Control Delay			13.8	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.30		2000				-			
Actuated Cycle Length (s)	·)		80.0	S	um of lost	t time (s)			16.0			
Intersection Capacity Utiliza	tion		76.7%	IC	CU Level	of Service	9		D			
Analysis Period (min)			15									
o Critical Lana Crown												

### Queues 169: Lower Jarvis St & The Esplanade

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	131	227	728	880
v/c Ratio	0.32	0.53	0.51	0.49
Control Delay	13.5	27.5	11.5	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.5	27.5	11.5	10.9
Queue Length 50th (m)	7.4	28.2	29.4	35.2
Queue Length 95th (m)	19.6	46.8	47.5	54.0
Internal Link Dist (m)	196.1	283.3	225.3	121.4
Turn Bay Length (m)				
Base Capacity (vph)	412	429	1423	1780
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	0.32	0.53	0.51	0.49
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4			đ þ			ፈጉ	
Traffic Volume (vph)	18	42	65	64	135	18	63	567	68	6	755	84
Future Volume (vph)	18	42	65	64	135	18	63	567	68	6	755	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.9			4.9			4.6			4.6	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.83			0.98			0.97			0.98	
Flpb, ped/bikes		0.98			0.93			1.00			1.00	
Frt		0.93			0.99			0.99			0.98	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1290			1601			3033			3204	
Flt Permitted		0.94			0.87			0.80			0.95	
Satd. Flow (perm)		1220			1415			2434			3047	
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)	19	44	68	67	141	19	66	591	71	6	786	88
RTOR Reduction (vph)	0	46	0	0	4	0	0	10	0	0	10	0
Lane Group Flow (vph)	0	85	0	0	223	0	0	718	0	0	870	0
Confl. Peds. (#/hr)	182		240	240		182	101		139	139		101
Confl. Bikes (#/hr)			47			12			6			10
Heavy Vehicles (%)	6%	2%	11%	2%	2%	6%	16%	10%	10%	17%	6%	16%
Bus Blockages (#/hr)	4	4	4	4	4	4	0	4	4	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		23.0			23.0			45.5			45.5	
Effective Green, g (s)		24.0			24.0			46.5			46.5	
Actuated g/C Ratio		0.30			0.30			0.58			0.58	
Clearance Time (s)		5.9			5.9			5.6			5.6	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		366			424			1414			1771	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.16			c0.30			0.29	
v/c Ratio		0.23			0.53			0.51			0.49	
Uniform Delay, d1		21.1			23.3			10.0			9.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.5			4.6			1.3			1.0	
Delay (s)		22.5			27.9			11.3			10.8	
Level of Service		С			С			В			В	
Approach Delay (s)		22.5			27.9			11.3			10.8	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			13.7	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	ity ratio		0.54									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			12.5			
Intersection Capacity Utilizati	on		75.4%	IC	CU Level	of Service	;		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	154	52	304	13	246
v/c Ratio	0.31	0.36	0.09	0.34	0.03	0.27
Control Delay	19.8	21.2	7.3	8.1	6.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	21.2	7.3	8.1	6.9	7.3
Queue Length 50th (m)	11.8	14.7	2.8	16.1	0.7	12.3
Queue Length 95th (m)	24.9	29.3	7.1	29.6	2.7	23.2
Internal Link Dist (m)	283.3	301.6		269.4		134.5
Turn Bay Length (m)			30.0		35.0	
Base Capacity (vph)	415	422	566	887	373	909
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	0.31	0.36	0.09	0.34	0.03	0.27
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		ሻ	4Î		٦	4Î	
Traffic Volume (vph)	30	72	15	37	86	15	47	204	69	12	170	51
Future Volume (vph)	30	72	15	37	86	15	47	204	69	12	170	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.94			0.96		1.00	0.92		1.00	0.95	
Flpb, ped/bikes		0.94			0.92		0.89	1.00		0.85	1.00	
Frt		0.98			0.99		1.00	0.96		1.00	0.97	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1493			1529		1582	1522		1137	1565	
Flt Permitted		0.90			0.90		0.59	1.00		0.54	1.00	
Satd. Flow (perm)		1359			1386		991	1522		652	1565	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	80	17	41	96	17	52	227	77	13	189	57
RTOR Reduction (vph)	0	8	0	0	6	0	0	18	0	0	15	0
Lane Group Flow (vph)	0	122	0	0	148	0	52	286	0	13	231	0
Confl. Peds. (#/hr)	167		220	220		167	84		127	127		84
Confl. Bikes (#/hr)			74			16			84			73
Heavy Vehicles (%)	3%	8%	8%	11%	2%	0%	0%	10%	0%	33%	13%	0%
Bus Blockages (#/hr)	4	4	4	4	4	4	0	5	5	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.0			20.0		39.0	39.0		39.0	39.0	
Effective Green, g (s)		21.0			21.0		40.0	40.0		40.0	40.0	
Actuated g/C Ratio		0.30			0.30		0.57	0.57		0.57	0.57	
Clearance Time (s)		6.0			6.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		407			415		566	869		372	894	
v/s Ratio Prot								c0.19			0.15	
v/s Ratio Perm		0.09			c0.11		0.05			0.02		
v/c Ratio		0.30			0.36		0.09	0.33		0.03	0.26	
Uniform Delay, d1		18.8			19.2		6.8	7.9		6.6	7.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.9			2.4		0.3	1.0		0.2	0.7	
Delay (s)		20.7			21.6		7.1	8.9		6.7	8.2	
Level of Service		С			С		А	А		А	А	
Approach Delay (s)		20.7			21.6			8.7			8.2	
Approach LOS		С			С			А			А	
Intersection Summary												
HCM 2000 Control Delay			12.5	Ц	CM 2000	Level of	Service		R			
HCM 2000 Volume to Cana	city ratio		0.34	11	SIM 2000	LEVELU			D			
Actuated Cycle Length (s)	orty ratio		70.04	C	um of los	t time (s)			0 0			
Intersection Canacity Litiliza	tion		50.0			nf Service	1		7.0 R			
Analysis Poriod (min)			15	IC					D			
			10									

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Lane Group	WBL	WBR	NBT	SBT				
Lane Group Flow (vph)	90	103	537	402				
v/c Ratio	0.17	0.22	0.36	0.30				
Control Delay	18.6	5.6	11.6	11.7				
Queue Delay	0.0	0.0	0.0	0.0				
Total Delay	18.6	5.6	11.6	11.7				
Queue Length 50th (m)	8.5	0.0	20.5	15.7				
Queue Length 95th (m)	18.1	9.5	30.7	24.3				
Internal Link Dist (m)	379.6		245.4	136.0				
Turn Bay Length (m)	15.0							
Base Capacity (vph)	545	476	1475	1323				
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	0.17	0.22	0.36	0.30				
Intersection Summary								
	4	*	t	۲	1	Ļ		
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Movement	WRI	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	K	1	<b>A1</b>	NUR		44		
Traffic Volume (vnh)	82	9/	<b>∆</b> 37	52	20	<b>শ।</b> ३२७		
Future Volume (vph)	82	94	437	52	30	327		
Ideal Flow (vnhnl)	1900	1900	1900	1900	1900	1900		
Lane Width	35	3 5	3 5	3 5	35	3.5		
Total Lost time (s)	4.2	4.2	5.0	0.0	0.0	5.0		
Lane Util Factor	1 00	1 00	0.95			0.95		
Frnb ned/bikes	1.00	0.87	0.97			1.00		
Find ped/bikes	1.00	1 00	1.00			0.99		
Frt	1.00	0.85	0.98			1.00		
Flt Protected	0.95	1 00	1 00			0.99		
Satd Flow (prot)	1750	1302	3012			3150		
Flt Permitted	0.95	1.00	1.00			0.86		
Satd, Flow (perm)	1750	1302	3012			2723		
Peak-hour factor PHF	0.91	0.91	0.91	0.91	0.91	0.91		
Adi, Flow (vph)	90	103	480	57	43	359		
RTOR Reduction (vnh)	0	71	13	0	0	0		
Lane Group Flow (vph)	90	32	524	0	0	402		
Confl Peds (#/hr)	128	110	021	150	150	102		
Confl. Bikes (#/hr)	120	8		14	100			
Heavy Vehicles (%)	2%	5%	14%	4%	13%	11%		
Bus Blockages (#/hr)	0	4	0	0	0	0		
Turn Type	Prot	Perm	NA		Perm	NA		
Protected Phases	. 101		2			6		
Permitted Phases	Ū	8	_		6	2		
Actuated Green, G (s)	20.8	20.8	33.0		0	33.0		
Effective Green, a (s)	21.8	21.8	34.0			34.0		
Actuated a/C Ratio	0.31	0.31	0.49			0.49		
Clearance Time (s)	5.2	5.2	6.0			6.0		
Lane Grp Cap (vph)	545	405	1462			1322		
v/s Ratio Prot	c0.05		c0.17					
v/s Ratio Perm		0.02				0.15		
v/c Ratio	0.17	0.08	0.36			0.30		
Uniform Delay, d1	17.5	17.0	11.2			10.9		
Progression Factor	1.00	1.00	1.00			1.00		
Incremental Delay, d2	0.7	0.4	0.7			0.6		
Delay (s)	18.1	17.4	11.9			11.5		
Level of Service	В	В	В			В		
Approach Delay (s)	17.7		11.9			11.5		
Approach LOS	В		В			В		
Intersection Summery								
Intersection Summary			10.7				22	D
HCM 2000 Volume to 0	h . nat! -		12.7	Н	ICINI 2000	Level of Servi	ce	В
HCIVI 2000 Volume to Capaci	iy ratio		0.27				10	2
Actuated Cycle Length (s)			/0.0	S	oum of losi	t time (S)	12.	2
Intersection Capacity Utilization	UN		00.2%	IC	JU Level (	DI Service		В
Analysis Period (min)			15					

### Queues 173: Cherry St & Mill St

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	101	263	96	43	145	11	288
v/c Ratio	0.09	0.18	0.66	0.18	0.10	0.19	0.08	0.34
Control Delay	18.3	13.0	31.6	19.1	14.9	14.7	31.6	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	13.0	31.6	19.1	14.9	14.7	31.6	21.0
Queue Length 50th (m)	3.7	6.5	33.3	10.0	3.3	11.5	1.7	29.8
Queue Length 95th (m)	9.8	16.3	58.4	20.0	11.3	28.5	m6.3	56.2
Internal Link Dist (m)		379.6		303.0		221.1		134.8
Turn Bay Length (m)	30.0		45.0		25.0		25.0	
Base Capacity (vph)	394	571	397	543	420	769	148	845
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	0.09	0.18	0.66	0.18	0.10	0.19	0.07	0.34
Intersection Summary								

# HCM Signalized Intersection Capacity Analysis 173: Cherry St & Mill St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	ţ,		۲	4		۲.	•		۲	ĥ	
Traffic Volume (vph)	33	57	33	234	76	10	38	129	0	10	235	21
Future Volume (vph)	33	57	33	234	76	10	38	129	0	10	235	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	6.9	6.9		6.9	6.9		5.3	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.95		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.96	1.00		0.96	1.00		0.93	1.00		1.00	1.00	
Frt	1.00	0.95		1.00	0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1534	1557		1556	1545		1467	1648		1487	1695	
Flt Permitted	0.69	1.00		0.69	1.00		0.58	1.00		0.95	1.00	
Satd. Flow (perm)	1122	1557		1133	1545		901	1648		1487	1695	
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)	37	64	37	263	85	11	43	145	0	11	264	24
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	37	77	0	263	96	0	43	145	0	11	284	0
Confl. Peds. (#/hr)	29		32	32		29	53		17	17		53
Confl. Bikes (#/hr)			57			21			22			14
Heavy Vehicles (%)	12%	7%	12%	10%	16%	20%	13%	14%	0%	20%	9%	0%
Bus Blockages (#/hr)	0	0	0	0	4	4	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Prot	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)	27.0	27.0		27.0	27.0		32.4	32.4		1.4	38.8	
Effective Green, g (s)	28.0	28.0		28.0	28.0		33.4	33.4		2.4	39.8	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.42	0.42		0.03	0.50	
Clearance Time (s)	7.9	7.9		7.9	7.9		6.3	6.3		5.0	6.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	392	544		396	540		376	688		44	843	
v/s Ratio Prot		0.05			0.06			0.09		0.01	c0.17	
v/s Ratio Perm	0.03			c0.23			0.05					
v/c Ratio	0.09	0.14		0.66	0.18		0.11	0.21		0.25	0.34	
Uniform Delay, d1	17.5	17.8		22.0	18.0		14.3	14.9		37.9	12.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.92	1.64	
Incremental Delay, d2	0.1	0.1		4.2	0.2		0.6	0.7		2.9	1.1	
Delay (s)	17.6	17.9		26.2	18.2		14.9	15.6		37.6	20.9	
Level of Service	В	B		С	В		В	B		D	С	
Approach Delay (s)		17.8			24.0			15.4			21.6	
Approach LOS		В			С			В			С	
Intersection Summary												
HCM 2000 Control Delay			20.8	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.50									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			16.2			
Intersection Capacity Utiliza	ation		64.2%	IC	U Level	of Service	;		С			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues <u>177: Parliament Street & Shuter Street</u>

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	46	51	63	372	483	413
v/c Ratio	0.13	0.08	0.11	0.44	0.49	0.33
Control Delay	9.6	3.0	13.5	16.9	17.9	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	3.0	13.5	16.9	17.9	14.1
Queue Length 50th (m)	2.4	0.3	5.3	36.4	25.7	18.2
Queue Length 95th (m)	m5.4	m2.0	12.0	57.2	38.3	27.9
Internal Link Dist (m)		193.7		105.8	133.9	96.6
Turn Bay Length (m)	25.0		25.0			
Base Capacity (vph)	359	660	567	836	<b>99</b> 5	1254
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	0.13	0.08	0.11	0.44	0.49	0.33
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	f,		ľ	ef 👘			र्स कि			đ þ	
Traffic Volume (vph)	41	13	32	56	300	31	111	271	48	20	269	79
Future Volume (vph)	41	13	32	56	300	31	111	271	48	20	269	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	0.90		1.00	0.99			0.97			0.94	
Flpb, ped/bikes	0.97	1.00		0.91	1.00			0.96			0.99	
Frt	1.00	0.89		1.00	0.99			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1711	1424		1654	1850			3155			3133	
Flt Permitted	0.44	1.00		0.72	1.00			0.72			0.92	
Satd. Flow (perm)	798	1424		1260	1850			2313			2877	
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)	46	15	36	63	337	35	125	304	54	22	302	89
RTOR Reduction (vph)	0	20	0	0	4	0	0	12	0	0	31	0
Lane Group Flow (vph)	46	31	0	63	368	0	0	471	0	0	382	0
Confl. Peds. (#/hr)	57		84	84		57	147		103	103		147
Confl. Bikes (#/hr)			65			10			35			6
Heavy Vehicles (%)	3%	23%	3%	0%	1%	7%	3%	5%	4%	5%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	3	0	3	3
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	35.0	35.0		35.0	35.0			33.0			33.0	
Effective Green, g (s)	36.0	36.0		36.0	36.0			34.0			34.0	
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.42			0.42	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	359	640		567	832			983			1222	
v/s Ratio Prot		0.02			c0.20							
v/s Ratio Perm	0.06			0.05				c0.20			0.13	
v/c Ratio	0.13	0.05		0.11	0.44			0.48			0.31	
Uniform Delay, d1	12.8	12.4		12.7	15.1			16.6			15.3	
Progression Factor	0.67	0.45		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.7	0.1		0.4	1.7			1.7			0.7	
Delay (s)	9.2	5.7		13.1	16.8			18.3			15.9	
Level of Service	А	А		В	В			В			В	
Approach Delay (s)		7.4			16.3			18.3			15.9	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			16.2	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (s)			80.0	Si	um of losi	t time (s)			10.0			
Intersection Capacity Utilization	on		81.6%	IC	U Level	of Service	;		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	252	560	537	462
v/c Ratio	0.23	0.51	0.35	0.27
Control Delay	28.6	26.1	10.6	9.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.6	26.1	10.6	9.7
Queue Length 50th (m)	17.6	39.8	23.0	18.5
Queue Length 95th (m)	25.5	50.6	30.0	24.4
Internal Link Dist (m)	397.1	72.4	96.7	133.9
Turn Bay Length (m)				
Base Capacity (vph)	1082	1098	1523	1699
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	0.23	0.51	0.35	0.27
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					A1⊅			đ þ			4î»	
Traffic Volume (vph)	0	191	21	0	424	46	61	337	53	23	318	47
Future Volume (vph)	0	191	21	0	424	46	61	337	53	23	318	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1			4.7			4.7	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.98			0.97			0.97	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		0.99			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			1.00	
Satd. Flow (prot)		3343			3391			3198			3257	
Flt Permitted		1.00			1.00			0.82			0.91	
Satd. Flow (perm)		3343			3391			2653			2960	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	227	25	0	505	55	73	401	63	27	379	56
RTOR Reduction (vph)	0	10	0	0	10	0	0	12	0	0	12	0
Lane Group Flow (vph)	0	242	0	0	550	0	0	525	0	0	450	0
Confl. Peds. (#/hr)	164		148	148		164	169		169	169		169
Confl. Bikes (#/hr)			5			2			5			1
Heavy Vehicles (%)	0%	3%	5%	0%	2%	0%	3%	7%	8%	9%	6%	4%
Bus Blockages (#/hr)	10	10	10	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		27.9			27.9			50.3			50.3	
Effective Green, g (s)		28.9			28.9			51.3			51.3	
Actuated g/C Ratio		0.32			0.32			0.57			0.57	
Clearance Time (s)		6.1			6.1			5.7			5.7	
Lane Grp Cap (vph)		1073			1088			1512			1687	
v/s Ratio Prot		0.07			c0.16							
v/s Ratio Perm								c0.20			0.15	
v/c Ratio		0.23			0.51			0.35			0.27	
Uniform Delay, d1		22.4			24.8			10.4			9.8	
Progression Factor		1.32			1.00			1.00			1.00	
Incremental Delay, d2		0.5			1.7			0.6			0.4	
Delay (s)		30.0			26.4			11.0			10.2	
Level of Service		С			С			В			В	
Approach Delay (s)		30.0			26.4			11.0			10.2	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			18.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.40									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.8			
Intersection Capacity Utilizatio	n		62.1%	IC	CU Level	of Service	<u>;</u>		В			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 187: Sherbourne Street & Queen Street

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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	266	580	46	317	40	310
v/c Ratio	0.17	0.33	0.19	0.52	0.18	0.53
Control Delay	6.0	22.6	23.6	26.9	23.5	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	22.6	23.6	26.9	23.5	26.7
Queue Length 50th (m)	7.1	47.6	5.6	42.3	4.8	40.6
Queue Length 95th (m)	10.1	64.6	13.9	67.0	12.5	65.3
Internal Link Dist (m)	194.8	397.1		106.3		164.7
Turn Bay Length (m)			25.0		25.0	
Base Capacity (vph)	1565	1753	245	612	228	587
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	0.17	0.33	0.19	0.52	0.18	0.53
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ þ			4 î b		7	eî 👘		ľ	el 🕺	
Traffic Volume (vph)	34	190	23	21	463	55	43	259	36	37	230	59
Future Volume (vph)	34	190	23	21	463	55	43	259	36	37	230	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.7			4.7		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.97			0.97		1.00	0.97		1.00	0.96	
Flpb, ped/bikes		0.98			0.99		0.91	1.00		0.88	1.00	
Frt		0.99			0.98		1.00	0.98		1.00	0.97	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3300			3326		1623	1791		1542	1702	
Flt Permitted		0.84			0.94		0.42	1.00		0.42	1.00	
Satd. Flow (perm)		2785			3120		724	1791		674	1702	
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)	37	204	25	23	498	59	46	278	39	40	247	63
RTOR Reduction (vph)	0	9	0	0	10	0	0	5	0	0	10	0
Lane Group Flow (vph)	0	257	0	0	570	0	46	312	0	40	300	0
Confl. Peds. (#/hr)	161		140	140		161	152		202	202		152
Confl. Bikes (#/hr)			5						18			6
Heavy Vehicles (%)	0%	2%	4%	5%	2%	0%	2%	2%	3%	4%	2%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	9	9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		49.3			49.3		29.5	29.5		29.5	29.5	
Effective Green, g (s)		50.3			50.3		30.5	30.5		30.5	30.5	
Actuated g/C Ratio		0.56			0.56		0.34	0.34		0.34	0.34	
Clearance Time (s)		5.7			5.7		5.5	5.5		5.5	5.5	
Lane Grp Cap (vph)		1556			1743		245	606		228	576	
v/s Ratio Prot								0.17			c0.18	
v/s Ratio Perm		0.09			c0.18		0.06			0.06		
v/c Ratio		0.17			0.33		0.19	0.51		0.18	0.52	
Uniform Delay, d1		9.6			10.7		21.0	23.8		20.9	23.9	
Progression Factor		0.64			2.12		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			0.4		1.7	3.1		1.7	3.3	
Delay (s)		6.4			23.2		22.7	26.9		22.6	27.2	
Level of Service		А			С		С	С		С	С	
Approach Delay (s)		6.4			23.2			26.4			26.7	
Approach LOS		А			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			21.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacit	ty ratio		0.40									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.2			
Intersection Capacity Utilization	on		76.6%	IC	CU Level	of Service	<u>;</u>		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBL	SBL	SBT
Lane Group Flow (vph)	589	1215	1	33	206
v/c Ratio	0.46	0.60	0.00	0.14	0.56
Control Delay	35.3	34.1	37.0	39.8	36.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	34.1	37.0	39.8	36.4
Queue Length 50th (m)	39.8	68.3	0.2	6.3	31.0
Queue Length 95th (m)	51.5	80.0	1.7	15.4	56.0
Internal Link Dist (m)	129.2	5.3			269.4
Turn Bay Length (m)			35.0	25.0	
Base Capacity (vph)	1283	2040	206	242	367
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	0.46	0.60	0.00	0.14	0.56
Intersection Summary					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€†¢			ৰাাফ		1	el 🗍		ľ	el 🕺	
Traffic Volume (vph)	171	287	89	10	971	149	1	0	0	31	76	115
Future Volume (vph)	171	287	89	10	971	149	1	0	0	31	76	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		6.0			6.0		8.0			8.0	8.0	
Lane Util. Factor		0.91			0.86		1.00			1.00	1.00	
Frpb, ped/bikes		0.99			0.99		1.00			1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.96			0.94	1.00	
Frt		0.98			0.98		1.00			1.00	0.91	
Flt Protected		0.98			1.00		0.95			0.95	1.00	
Satd. Flow (prot)		4575			5970		1715			1405	1485	
Flt Permitted		0.98			1.00		0.53			0.76	1.00	
Satd. Flow (perm)		4575			5970		954			1120	1485	
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)	184	309	96	11	1044	160	1	0	0	33	82	124
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	0	565	0	0	1215	0	1	0	0	33	161	0
Confl. Peds. (#/hr)	7		15	15		7	38		37	37		38
Confl. Bikes (#/hr)						1			65			59
Heavy Vehicles (%)	1%	10%	7%	0%	6%	3%	0%	0%	0%	20%	9%	5%
Turn Type	Split	NA		Split	NA		Perm			Perm	NA	
Protected Phases	2	2		. 1	1			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		32.0			40.0		25.0			25.0	25.0	
Effective Green, g (s)		33.0			41.0		26.0			26.0	26.0	
Actuated g/C Ratio		0.28			0.34		0.22			0.22	0.22	
Clearance Time (s)		7.0			7.0		9.0			9.0	9.0	
Lane Grp Cap (vph)		1258			2039		206			242	321	
v/s Ratio Prot		c0.12			c0.20						c0.11	
v/s Ratio Perm							0.00			0.03		
v/c Ratio		0.45			0.60		0.00			0.14	0.50	
Uniform Delay, d1		36.0			32.7		36.9			37.9	41.3	
Progression Factor		1.00			1.00		1.00			1.00	1.00	
Incremental Delay, d2		1.2			1.3		0.0			1.2	5.5	
Delay (s)		37.1			33.9		36.9			39.1	46.8	
Level of Service		D			С		D			D	D	
Approach Delay (s)		37.1			33.9			36.9			45.7	
Approach LOS		D			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			36.2	Н	ICM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity	y ratio		0.52									
Actuated Cycle Length (s)			120.0	S	um of los	t time (s)			20.0			
Intersection Capacity Utilizatio	n		76.7%	10	CU Level	of Service	;		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		<b>^</b>			5	
Traffic Volume (veh/h)	0	918	0	0	80	0
Future Volume (Veh/h)	0	918	0	0	80	0
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)	0	987	0	0	86	0
Pedestrians		91	3		46	
Lane Width (m)		3.7	0.0		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		9	0		5	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)		189	132			
pX, platoon unblocked						
vC, conflicting volume	46				378	137
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	46				378	137
tC, single (s)	4.1				6.9	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				85	100
cM capacity (veh/h)	1504				562	777
Direction, Lane #	EB 1	EB 2	EB 3	SB 1		
Volume Total	329	329	329	86		
Volume Left	0	0	0	86		
Volume Right	0	0	0	0		
cSH	1700	1700	1700	562		
Volume to Capacity	0.19	0.19	0.19	0.15		
Queue Length 95th (m)	0.0	0.0	0.0	4.1		
Control Delay (s)	0.0	0.0	0.0	12.6		
Lane LOS				В		
Approach Delay (s)	0.0			12.6		
Approach LOS				В		
Intersection Summary						
Average Delay			10			
Intersection Capacity Utiliz	zation		37.3%	IC	Ulevelo	of Service
Analysis Period (min)			15	10		

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	•	1		र्स	Ý	
Traffic Volume (veh/h)	295	13	6	609	13	11
Future Volume (Veh/h)	295	13	6	609	13	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	321	14	7	662	14	12
Pedestrians	9			2	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			0	10	
Right turn flare (veh)				Ŭ	10	
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC. conflicting volume			436		1107	424
vC1, stage 1 conf vol			100			
vC2, stage 2 conf vol						
vCu, unblocked vol			436		1107	424
tC, single (s)			4 4		6.4	6.5
tC, 2 stage (s)					5.1	5.0
tF (s)			2.5		3.5	35
p0 queue free %			99		93	98
cM capacity (veh/h)			880		208	522
Direction Long #	<b>FD 1</b>	ГРЭ		ND 1	200	022
Direction, Lane #	201	ED 2				
	321	14	009 7	20		
Volume Leit	0	14	/	14		
	1700	1700	0	12		
USH Volume to Consolity	0.10	1/00	880	288		
Volume to Capacity	0.19	0.01	0.01	0.09		
Queue Lengin 95in (m)	0.0	0.0	0.2	2.Z		
Control Delay (s)	0.0	0.0	0.2	18.7		
Lane LUS	0.0		A			
Approach Delay (s)	0.0		0.2	18.7		
Approach LUS				C		
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utiliza	ation		52.2%	IC	U Level	of Service
Analysis Period (min)			15			

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	287	1027	295	609
v/c Ratio	0.22	0.76	0.28	0.53
Control Delay	8.8	14.6	12.3	17.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.8	14.6	12.3	17.5
Queue Length 50th (m)	8.3	56.0	10.5	29.3
Queue Length 95th (m)	14.9	79.2	18.5	43.5
Internal Link Dist (m)	23.4	183.2	89.2	52.7
Turn Bay Length (m)				
Base Capacity (vph)	1303	1343	1069	1149
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	0.22	0.76	0.28	0.53
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î b			4î b			đ þ			र्स कि	
Traffic Volume (vph)	28	185	62	152	730	105	44	176	63	79	408	98
Future Volume (vph)	28	185	62	152	730	105	44	176	63	79	408	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.97			0.98			0.97			0.98	
Flpb, ped/bikes		1.00			0.99			0.99			0.99	
Frt		0.97			0.98			0.97			0.97	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		3256			3386			3283			3395	
Flt Permitted		0.82			0.83			0.81			0.85	
Satd. Flow (perm)		2692			2822			2675			2918	
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)	29	193	65	158	760	109	46	183	66	82	425	102
RTOR Reduction (vph)	0	34	0	0	13	0	0	38	0	0	24	0
Lane Group Flow (vph)	0	253	0	0	1014	0	0	257	0	0	585	0
Confl. Peds. (#/hr)	181		93	93		181	90		134	134		90
Confl. Bikes (#/hr)			63			23			40			11
Heavy Vehicles (%)	0%	3%	5%	1%	1%	1%	7%	1%	3%	0%	0%	1%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	5	5
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		32.0			32.0			26.0			26.0	
Effective Green, g (s)		33.0			33.0			27.0			27.0	
Actuated g/C Ratio		0.47			0.47			0.39			0.39	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		1269			1330			1031			1125	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.36			0.10			c0.20	
v/c Ratio		0.20			0.76			0.25			0.52	
Uniform Delay, d1		10.8			15.3			14.6			16.5	
Progression Factor		1.00			0.68			1.00			1.00	
Incremental Delay, d2		0.4			4.1			0.6			1.7	
Delay (s)		11.1			14.5			15.2			18.2	
Level of Service		В			В			В			В	
Approach Delay (s)		11.1			14.5			15.2			18.2	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			15.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (s)			70.0	Si	um of los	t time (s)			10.0			
Intersection Capacity Utilization	on		100.4%	IC	CU Level	of Service	;		G			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	393	578	73	52
v/c Ratio	0.27	0.35	0.12	0.10
Control Delay	13.3	4.9	13.1	10.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.3	4.9	13.1	10.8
Queue Length 50th (m)	15.0	3.2	4.7	2.5
Queue Length 95th (m)	23.1	4.4	12.7	9.0
Internal Link Dist (m)	183.2	212.4	62.4	59.6
Turn Bay Length (m)				
Base Capacity (vph)	1460	1673	592	543
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	0.27	0.35	0.12	0.10
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đþ.			đþ.			4			4	
Traffic Volume (vph)	55	282	29	28	502	7	14	36	18	17	10	21
Future Volume (vph)	55	282	29	28	502	7	14	36	18	17	10	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			5.9			5.9	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.97	
Flpb, ped/bikes		0.99			1.00			0.99			0.98	
Frt		0.99			1.00			0.96			0.94	
Flt Protected		0.99			1.00			0.99			0.98	
Satd. Flow (prot)		3490			3569			1758			1661	
Flt Permitted		0.81			0.92			0.95			0.91	
Satd. Flow (perm)		2863			3296			1685			1536	
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)	59	303	31	30	540	8	15	39	19	18	11	23
RTOR Reduction (vph)	0	9	0	0	1	0	0	12	0	0	15	0
Lane Group Flow (vph)	0	384	0	0	577	0	0	61	0	0	37	0
Confl. Peds. (#/hr)	56		43	43		56	53		61	61		53
Confl. Bikes (#/hr)			4			1						2
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%	0%	3%	0%	0%	0%	5%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		34.5			34.5			23.1			23.1	
Effective Green, g (s)		35.5			35.5			24.1			24.1	
Actuated g/C Ratio		0.51			0.51			0.34			0.34	
Clearance Time (s)		5.5			5.5			6.9			6.9	
Lane Grp Cap (vph)		1451			1671			580			528	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.17			c0.04			0.02	
v/c Ratio		0.26			0.35			0.10			0.07	
Uniform Delay, d1		9.8			10.3			15.6			15.4	
Progression Factor		1.35			0.42			1.00			1.00	
Incremental Delay, d2		0.4			0.5			0.4			0.3	
Delay (s)		13.7			4.9			16.0			15.7	
Level of Service		В			А			В			В	
Approach Delay (s)		13.7			4.9			16.0			15.7	
Approach LOS		В			А			В			В	
Intersection Summary												
HCM 2000 Control Delay			9.3	Н	CM 2000	Level of	Service		А			
HCM 2000 Volume to Capac	city ratio		0.25									
Actuated Cycle Length (s)			70.0	S	um of los	t time (s)			10.4			
Intersection Capacity Utiliza	tion		66.6%	IC	U Level	of Service	<u>;</u>		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	505	740	41	34
v/c Ratio	0.23	0.33	0.10	0.07
Control Delay	13.7	7.7	18.5	8.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.7	7.7	18.5	8.2
Queue Length 50th (m)	27.8	25.0	3.8	0.3
Queue Length 95th (m)	39.8	35.1	10.3	5.9
Internal Link Dist (m)	212.4	22.4		41.4
Turn Bay Length (m)				
Base Capacity (vph)	2236	2276	441	510
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	0.23	0.33	0.09	0.07
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>4</b> 12		٦	4			4	
Traffic Volume (vph)	0	490	0	0	711	7	40	3	30	0	0	0
Future Volume (vph)	0	490	0	0	711	7	40	3	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		5.0	5.0				
Lane Util. Factor		0.95			0.95		1.00	1.00				
Frpb, ped/bikes		1.00			1.00		1.00	0.94				
Flpb, ped/bikes		1.00			1.00		0.97	1.00				
Frt		1.00			1.00		1.00	0.86				
Flt Protected		1.00			1.00		0.95	1.00				
Satd. Flow (prot)		3402			3461		1762	1556				
Flt Permitted		1.00			1.00		0.76	1.00				
Satd. Flow (perm)		3402			3461		1404	1556				
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)	0	505	0	0	733	7	41	3	31	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	505	0	0	739	0	41	11	0	0	0	0
Confl. Peds. (#/hr)	38		49	49		38	33		54	54		33
Heavy Vehicles (%)	0%	6%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA				
Protected Phases		2			6			4			8	
Permitted Phases	2						4			8		
Actuated Green, G (s)		43.0			43.0		16.0	16.0				
Effective Green, g (s)		44.0			44.0		17.0	17.0				
Actuated g/C Ratio		0.63			0.63		0.24	0.24				
Clearance Time (s)		5.0			5.0		6.0	6.0				
Vehicle Extension (s)		3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)		2138			2175		340	377				
v/s Ratio Prot		0.15			c0.21			0.01				
v/s Ratio Perm							c0.03					
v/c Ratio		0.24			0.34		0.12	0.03				
Uniform Delay, d1		5.7			6.1		20.7	20.2				
Progression Factor		1.98			1.00		1.00	1.00				
Incremental Delay, d2		0.3			0.4		0.2	0.0				
Delay (s)		11.5			6.6		20.8	20.2				
Level of Service		В			А		С	С				
Approach Delay (s)		11.5			6.6			20.6			0.0	
Approach LOS		В			А			С			А	
Intersection Summary												
HCM 2000 Control Delay			9.2	Н	CM 2000	Level of	Service		А			
HCM 2000 Volume to Capacity	ratio		0.28									
Actuated Cycle Length (s)			70.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilization	ſ		44.1%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			•			•	
Traffic Volume (veh/h)	14	0	21	42	0	36	0	278	0	0	420	0
Future Volume (Veh/h)	14	0	21	42	0	36	0	278	0	0	420	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	0	23	47	0	40	0	309	0	0	467	0
Pedestrians		30			59			1			182	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		3			6			0			18	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1028	865	498	859	865	550	497			368		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1028	865	498	859	865	550	497			368		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	96	80	100	90	100			100		
cM capacity (veh/h)	144	269	540	235	269	417	1046			1132		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	87	309	467								
Volume Left	16	47	0	0								
Volume Right	23	40	0	0								
cSH	254	294	1700	1700								
Volume to Capacity	0.15	0.30	0.18	0.27								
Queue Length 95th (m)	4.1	9.2	0.0	0.0								
Control Delay (s)	21.7	22.3	0.0	0.0								
Lane LOS	С	С										
Approach Delay (s)	21.7	22.3	0.0	0.0								
Approach LOS	С	С										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utiliz	ation		42.1%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	681	517	601	415
v/c Ratio	0.39	0.30	0.44	0.30
Control Delay	14.6	19.5	17.1	23.9
Queue Delay	44.7	0.0	4.6	0.0
Total Delay	59.3	19.5	21.7	23.9
Queue Length 50th (m)	36.3	34.3	51.5	29.7
Queue Length 95th (m)	48.7	46.6	70.6	42.0
Internal Link Dist (m)	35.0	76.3	61.6	171.4
Turn Bay Length (m)				
Base Capacity (vph)	1753	1719	1378	1373
Starvation Cap Reductn	1122	0	688	0
Spillback Cap Reductn	146	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.08	0.30	0.87	0.30
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 1: Yonge St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b> †			- <b>†</b> †			<b>^</b>			<b>†</b> †	
Traffic Volume (vph)	0	667	0	0	507	0	0	589	0	0	407	0
Future Volume (vph)	0	667	0	0	507	0	0	589	0	0	407	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.6			4.6			4.6			4.6	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3476			3409			3505			3491	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3476			3409			3505			3491	
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)	0	681	0	0	517	0	0	601	0	0	415	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	681	0	0	517	0	0	601	0	0	415	0
Confl. Peds. (#/hr)	1145		954	954		1145	1676		1509	1509		1676
Confl. Bikes (#/hr)			31			55			20			53
Heavy Vehicles (%)	0%	2%	0%	0%	4%	0%	0%	3%	33%	0%	3%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	2	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		44.4			44.4			34.4			34.4	
Effective Green, g (s)		45.4			45.4			35.4			35.4	
Actuated g/C Ratio		0.50			0.50			0.39			0.39	
Clearance Time (s)		5.6			5.6			5.6			5.6	
Lane Grp Cap (vph)		1753			1719			1378			1373	
v/s Ratio Prot		c0.20			0.15			c0.17			0.12	
v/s Ratio Perm												
v/c Ratio		0.39			0.30			0.44			0.30	
Uniform Delay, d1		13.7			13.0			20.0			18.8	
Progression Factor		1.00			1.45			0.80			1.23	
Incremental Delay, d2		0.7			0.4			0.9			0.6	
Delay (s)		14.4			19.3			16.9			23.7	
Level of Service		В			В			В			С	
Approach Delay (s)		14.4			19.3			16.9			23.7	
Approach LOS		В			В			В			С	
Intersection Summary			10.0	<u> </u>								
HCM 2000 Control Delay			18.0	H	CM 2000	Level of S	Service		В			
HCIVI 2000 Volume to Capacity	ratio		0.41	-					0.0			
Actuated Cycle Length (s)			90.0	Si	um of los	t time (s)			9.2			
Intersection Capacity Utilization	ו		42.8%	IC	U Level	of Service			A			
Analysis Period (min)			15									

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Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	1469	545	440
v/c Ratio	0.63	0.47	0.38
Control Delay	8.7	25.3	55.2
Queue Delay	0.0	0.3	1.5
Total Delay	8.8	25.6	56.7
Queue Length 50th (m)	18.6	38.7	43.3
Queue Length 95th (m)	21.1	53.3	58.5
Internal Link Dist (m)	78.6	120.6	61.6
Turn Bay Length (m)			
Base Capacity (vph)	2347	1168	1163
Starvation Cap Reductn	63	0	519
Spillback Cap Reductn	0	181	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.55	0.68
Intersection Summarv			

# HCM Signalized Intersection Capacity Analysis 2: Yonge St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					₽₽₽			<b>^</b>			<u></u>	
Traffic Volume (vph)	0	0	0	386	873	92	0	501	0	0	405	0
Future Volume (vph)	0	0	0	386	873	92	0	501	0	0	405	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.91			0.95			0.95	
Frpb, ped/bikes					0.97			1.00			1.00	
Flpb, ped/bikes					0.88			1.00			1.00	
Frt					0.99			1.00			1.00	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					4225			3505			3491	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					4225			3505			3491	
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)	0	0	0	420	949	100	0	545	0	0	440	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1469	0	0	545	0	0	440	0
Confl. Peds. (#/hr)	627		642	642		627	2387		1540	1540		2387
Confl. Bikes (#/hr)			44			35						224
Heavy Vehicles (%)	0%	0%	0%	2%	3%	2%	0%	3%	0%	0%	3%	17%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					49.0			29.0			29.0	
Effective Green, g (s)					50.0			30.0			30.0	
Actuated g/C Ratio					0.56			0.33			0.33	
Clearance Time (s)					6.0			6.0			6.0	
Lane Grp Cap (vph)					2347			1168			1163	
v/s Ratio Prot								c0.16			0.13	
v/s Ratio Perm					0.35							
v/c Ratio					0.63			0.47			0.38	
Uniform Delay, d1					13.6			23.7			22.9	
Progression Factor					0.55			1.00			2.35	
Incremental Delay, d2					1.1			1.3			0.9	
Delay (s)					8.6			25.0			54.6	
Level of Service					А			С			D	
Approach Delay (s)		0.0			8.6			25.0			54.6	
Approach LOS		А			А			С			D	
Internetion Commence												
Intersection Summary			00 5				0 1		0			
HCM 2000 Control Delay			20.5	Н	ICM 2000	Level of	Service		C			
HCIVI 2000 Volume to Capacity	y ratio		0.57						10.0			
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilizatio	n		54./%	IC	U Level	of Service			A			
Analysis Period (min)			15									

### Queues 3: Victoria St & Queen St

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Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	727	433	251	70	232
v/c Ratio	0.36	0.23	0.61	0.23	0.32
Control Delay	24.5	6.3	31.7	18.2	26.7
Queue Delay	4.7	0.0	0.9	0.0	0.0
Total Delay	29.2	6.3	32.6	18.2	26.7
Queue Length 50th (m)	67.7	13.3	28.8	3.8	16.4
Queue Length 95th (m)	88.3	17.3	53.6	m13.9	26.3
Internal Link Dist (m)	76.3	66.0	62.2		20.3
Turn Bay Length (m)					
Base Capacity (vph)	2005	1915	413	302	723
Starvation Cap Reductn	1188	0	40	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.89	0.23	0.67	0.23	0.32
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 3: Victoria St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		A			<b>≜1</b> ≱			र्स	1		đ þ	
Traffic Volume (vph)	0	613	84	0	372	43	70	171	67	34	124	65
Future Volume (vph)	0	613	84	0	372	43	70	171	67	34	124	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.5			4.5			4.3	4.3		4.3	
Lane Util. Factor		0.95			0.95			1.00	1.00		0.95	
Frpb, ped/bikes		0.94			0.91			1.00	0.64		0.87	
Flpb, ped/bikes		1.00			1.00			0.91	1.00		0.97	
Frt		0.98			0.98			1.00	0.85		0.96	
Flt Protected		1.00			1.00			0.99	1.00		0.99	
Satd. Flow (prot)		3251			3099			1708	983		2858	
Flt Permitted		1.00			1.00			0.84	1.00		0.88	
Satd. Flow (perm)		3251			3099			1447	983		2531	
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)	0	639	88	0	388	45	73	178	70	35	129	68
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	21	0	1	0
Lane Group Flow (vph)	0	727	0	0	428	0	0	251	49	0	231	0
Confl. Peds. (#/hr)	1231		1043	1043		1231	641		352	352		641
Confl. Bikes (#/hr)			50			62			29			32
Heavy Vehicles (%)	13%	0%	2%	0%	2%	2%	0%	0%	6%	6%	1%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4		4	8		
Actuated Green, G (s)		54.5			54.5			24.7	24.7		24.7	
Effective Green, g (s)		55.5			55.5			25.7	25.7		25.7	
Actuated g/C Ratio		0.62			0.62			0.29	0.29		0.29	
Clearance Time (s)		5.5			5.5			5.3	5.3		5.3	
Lane Grp Cap (vph)		2004			1911			413	280		722	
v/s Ratio Prot		c0.22			0.14							
v/s Ratio Perm								c0.17	0.05		0.09	
v/c Ratio		0.36			0.22			0.61	0.17		0.32	
Uniform Delay, d1		8.5			7.7			27.8	24.2		25.3	
Progression Factor		2.78			0.81			0.90	1.02		1.00	
Incremental Delay, d2		0.5			0.3			5.9	1.2		1.2	
Delay (s)		24.2			6.5			31.0	25.7		26.5	
Level of Service		С			A			С	С		С	
Approach Delay (s)		24.2			6.5			29.8			26.5	
Approach LOS		С			A			С			С	
Intersection Summary												
ICM 2000 Control Delay 21.1		21.1	Н	CM 2000	Level of	Service		С				
HCM 2000 Volume to Capacity	ratio		0.44									
Actuated Cycle Length (s) 90.0		90.0	S	um of los	t time (s)			8.8				
Intersection Capacity Utilization	า		63.7%	IC	CU Level	of Service	<u>;</u>		В			
Analysis Period (min)			15									

	←	Ť	ŧ
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	1478	307	257
v/c Ratio	0.55	0.41	0.31
Control Delay	11.5	25.2	21.9
Queue Delay	0.0	0.0	0.0
Total Delay	11.5	25.2	21.9
Queue Length 50th (m)	48.4	21.3	10.1
Queue Length 95th (m)	57.9	31.8	21.4
Internal Link Dist (m)	168.3	4.7	62.2
Turn Bay Length (m)			
Base Capacity (vph)	2689	755	826
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	82	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.57	0.41	0.31
Intersection Summarv			

# HCM Signalized Intersection Capacity Analysis 5: Victoria St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>€1</b> ∱Ъ			-4 <b>↑</b>			<b>∱1</b> ≽	
Traffic Volume (vph)	0	0	0	33	1126	141	103	167	0	0	104	122
Future Volume (vph)	0	0	0	33	1126	141	103	167	0	0	104	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.91			0.95			0.95	
Frpb, ped/bikes					0.96			1.00			0.77	
Flpb, ped/bikes					0.99			0.89			1.00	
Frt					0.98			1.00			0.92	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					4813			3016			2469	
Flt Permitted					1.00			0.74			1.00	
Satd. Flow (perm)					4813			2266			2469	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adi Flow (vph)	0.00	0.00	0.00	38	1280	160	117	190	0.00	0.00	118	139
RTOR Reduction (vph)	0	0	0	0	14	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	1464	0	0	307	0	0	254	0
Confl Peds (#/hr)	415	0	280	280		415	583	507	330	330	204	583
Confl Bikes (#/hr)	110		177	200		110	505		23	550		300
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	6%	4%	0%	0%	3%	5%
	070	070	070	Dorm	NIA	170	Dorm	NA	070	070		570
Protected Phases				r Ciiii	NA g		F CHII	2			6	
Pormitted Phases				Q	0		2	2			0	
Actuated Green G (s)				U	10 0		2	20.0			20.0	
Effective Green, G (S)					49.0 50.0			27.0			29.0	
Actuated a/C Patio					0.56			0.33			0.33	
Clearance Time (s)					6.0			6.0			6.0	
					2672			755			0.0	
ule GIP Cap (vpii)					2073			755			023	
V/S Ratio Prot					0.20			c0 14			0.10	
					0.50			0.14			0.21	
V/C Rallo Uniform Dolay, d1					0.00			0.41			0.31	
Dragrassian Faster					12.0			23.1			22.3	
Progression Factor					0.84			1.00			0.94	
Delay (c)					0.8			1.0			0.9	
Delay (S)					11.0 D			24.8			22.0	
Level of Service		0.0			D 11.4			24.0			22.0	
Approach LOS		0.0			11.0 D			24.8			22.0	
Approach LOS		А			D			U			U	
Intersection Summary												
HCM 2000 Control Delay			14.9	Н	ICM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.49									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	n		73.0%	IC	CU Level	of Service	;		С			
Analysis Period (min)			15									
c Critical Lane Group												

	-	1	-	1	۰.	
Lane Group	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	204	71	194	587	415	
v/c Ratio	0.39	0.33	0.48	0.33	0.31	
Control Delay	28.9	31.2	24.2	13.3	9.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	28.9	31.2	24.2	13.3	9.2	
Queue Length 50th (m)	28.5	9.7	20.0	55.2	16.5	
Queue Length 95th (m)	47.6	21.8	40.1	73.4	24.5	
Internal Link Dist (m)	10.1		77.6	171.4	233.8	
Turn Bay Length (m)		22.0				
Base Capacity (vph)	527	214	405	1796	1333	
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	0.39	0.33	0.48	0.33	0.31	
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		•		٦.	eî 👘			<b>∱1</b> ≽				
Traffic Volume (vph)	0	200	0	70	72	119	0	454	122	114	293	0
Future Volume (vph)	0	200	0	70	72	119	0	454	122	114	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		1.00		1.00	0.78			0.87			1.00	
Flpb, ped/bikes		1.00		0.75	1.00			1.00			0.93	
Frt		1.00		1.00	0.91			0.97			1.00	
Flt Protected		1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)		1900		1342	1326			2938			3137	
Flt Permitted		1.00		0.55	1.00			1.00			0.69	
Satd. Flow (perm)		1900		772	1326			2938			2182	
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)	0	204	0	71	73	121	0	463	124	116	299	0
RTOR Reduction (vph)	0	0	0	0	38	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	204	0	71	156	0	0	585	0	0	415	0
Confl. Peds. (#/hr)	373		447	447		373	1092		454	454		1092
Confl. Bikes (#/hr)			12			1			27			51
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	7%	3%	5%	13%	2%	122%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type		NA		Perm	NA			NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases				8						6		
Actuated Green, G (s)		24.0		24.0	24.0			54.0			54.0	
Effective Green, g (s)		25.0		25.0	25.0			55.0			55.0	
Actuated g/C Ratio		0.28		0.28	0.28			0.61			0.61	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)		527		214	368			1795			1333	
v/s Ratio Prot		0.11			c0.12			c0.20				
v/s Ratio Perm				0.09							0.19	
v/c Ratio		0.39		0.33	0.43			0.33			0.31	
Uniform Delay, d1		26.3		25.9	26.6			8.5			8.4	
Progression Factor		1.00		1.00	1.00			1.50			1.00	
Incremental Delay, d2		2.1		4.1	3.6			0.4			0.6	
Delay (s)		28.4		30.0	30.2			13.2			9.0	
Level of Service		С		С	С			В			А	
Approach Delay (s)		28.4			30.1			13.2			9.0	
Approach LOS		С			С			В			А	
Interception Summony												
			17.0		014 0000		<u> </u>					
HCM 2000 Voltage to Or			17.2	H	CIVI 2000	Level of	Service		В			
HCIVI 2000 VOIUme to Capacit	y ratio		0.36	C	um of last	time (a)			10.0			
Actuated Cycle Length (S)			90.0	SI	um of Iosi	t time (s)			10.0			
Intersection Capacity Utilization	DU		85.2%	IC	U Level (	DI Service			E			
Analysis Period (min)			15									

### Queues 7: Victoria St & Shuter St

		←	ŧ	T
	-	MOT	I	T
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	465	392	267	294
v/c Ratio	0.52	0.51	0.37	0.42
Control Delay	13.0	11.9	20.2	22.0
Queue Delay	2.4	0.0	0.0	0.0
Total Delay	15.3	11.9	20.2	22.0
Queue Length 50th (m)	39.2	28.7	13.8	16.4
Queue Length 95th (m)	63.3	50.9	23.8	27.4
Internal Link Dist (m)	77.6	70.3	54.4	38.1
Turn Bay Length (m)				
Base Capacity (vph)	887	766	730	696
Starvation Cap Reductn	288	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.78	0.51	0.37	0.42
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 7: Victoria St & Shuter St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$			đ þ			đ þ	
Traffic Volume (vph)	42	292	102	80	182	106	29	130	92	72	154	50
Future Volume (vph)	42	292	102	80	182	106	29	130	92	72	154	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.91			0.90			0.81			0.89	
Flpb, ped/bikes		0.98			0.97			0.95			0.91	
Frt		0.97			0.96			0.94			0.97	
Flt Protected		1.00			0.99			0.99			0.99	
Satd. Flow (prot)		1641			1561			2620			2796	
Flt Permitted		0.94			0.82			0.89			0.79	
Satd. Flow (perm)		1542			1302			2339			2247	
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
Adi, Flow (vph)	45	311	109	85	194	113	31	138	98	77	164	53
RTOR Reduction (vph)	0	1	0	0	18	0	0	29	0	0	23	0
Lane Group Flow (vph)	0	464	0	0	374	0	0	238	0	0	271	0
Confl. Peds. (#/hr)	476		533	533		476	558		264	264		558
Confl. Bikes (#/hr)			16			25			25			22
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		45.0			45.0			23.0			23.0	
Effective Green, a (s)		46.0			46.0			24.0			24.0	
Actuated g/C Ratio		0.58			0.58			0.30			0.30	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		886			748			701			674	
v/s Ratio Prot					1.10						07.1	
v/s Ratio Perm		c0.30			0.29			0.10			c0.12	
v/c Ratio		0.52			0.50			0.34			0.40	
Uniform Delay, d1		10.3			10.1			21.8			22.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.2			2.4			1.3			1.8	
Delay (s)		12.6			12.5			23.1			24.1	
Level of Service		В			В			С			С	
Approach Delay (s)		12.6			12.5			23.1			24.1	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			16.9	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	ty ratio		0.48									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	on		89.4%	IC	U Level	of Service	)		E			
Analysis Period (min)			15									
c Critical Lane Group												

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	-	WDT	I	T
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	377	498	479	640
v/c Ratio	0.21	0.28	0.50	0.69
Control Delay	11.4	11.9	25.5	31.2
Queue Delay	0.0	0.0	1.6	0.0
Total Delay	11.4	11.9	27.0	31.2
Queue Length 50th (m)	16.9	23.3	44.5	50.0
Queue Length 95th (m)	24.6	32.5	61.0	68.9
Internal Link Dist (m)	242.7	62.5	67.4	123.1
Turn Bay Length (m)				
Base Capacity (vph)	1762	1781	966	930
Starvation Cap Reductn	0	0	306	0
Spillback Cap Reductn	18	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.28	0.73	0.69
Intersection Summarv				

### HCM Signalized Intersection Capacity Analysis 10: Bay St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> 1≽			<b>≜</b> 16			<b>≜t</b> ≽			44	
Traffic Volume (vph)	0	305	41	0	408	51	0	345	96	0	415	174
Future Volume (vph)	0	305	41	0	408	51	0	345	96	0	415	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		7.8			7.8			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.95			0.96			0.89			0.87	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.96	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3291			3328			3042			2923	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3291			3328			3042			2923	
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)	0	332	45	0	443	55	0	375	104	0	451	189
RTOR Reduction (vph)	0	0	0	0	0	0	0	3	0	0	4	0
Lane Group Flow (vph)	0	377	0	0	498	0	0	476	0	0	636	0
Confl. Peds. (#/hr)	780		855	855		780	635		987	987		635
Confl. Bikes (#/hr)			52			30			55			56
Heavy Vehicles (%)	0%	1%	0%	0%	0%	2%	0%	2%	2%	0%	4%	1%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		47.2			47.2			27.5			27.5	
Effective Green, a (s)		48.2			48.2			28.5			28.5	
Actuated g/C Ratio		0.54			0.54			0.32			0.32	
Clearance Time (s)		8.8			8.8			6.5			6.5	
Lane Grp Cap (vph)		1762			1782			963			925	
v/s Ratio Prot		0.11			c0 15			0.16			c0 22	
v/s Ratio Perm		0.111			00.10			0.10			00.22	
v/c Ratio		0.21			0.28			0.49			0.69	
Uniform Delay, d1		11.0			11.4			24.9			26.9	
Progression Eactor		1.00			1.00			0.95			1.00	
Incremental Delay, d2		0.3			0.4			1.8			4.2	
Delay (s)		11.2			11.8			25.4			31.0	
Level of Service		B			B			С			С	
Approach Delay (s)		11.2			11.8			25.4			31.0	
Approach LOS		B			B			С			С	
		D			5						Ū	_
Intersection Summary			04.4		014 0000	1 1 6	<u> </u>					
HCM 2000 Control Delay			21.1	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capacity	/ ratio		0.43	-					40.0			
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			13.3			
Intersection Capacity Utilization	n		59.6%	IC	CU Level	ot Service	•		В			
Analysis Period (min)			15									

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Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	348	48	426	477
v/c Ratio	0.14	0.10	0.32	0.36
Control Delay	1.7	0.4	20.6	41.7
Queue Delay	0.0	0.0	0.0	1.7
Total Delay	1.7	0.4	20.6	43.4
Queue Length 50th (m)	0.9	0.0	26.8	46.2
Queue Length 95th (m)	1.3	m0.0	38.3	61.7
Internal Link Dist (m)	172.3		120.3	67.4
Turn Bay Length (m)		27.0		
Base Capacity (vph)	2534	465	1336	1324
Starvation Cap Reductn	0	0	0	654
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.10	0.32	0.71
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 11: Bay St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					***	1		<b>^</b>			<b>^</b>	
Traffic Volume (vph)	0	0	0	3	321	45	0	396	0	0	444	0
Future Volume (vph)	0	0	0	3	321	45	0	396	0	0	444	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.59		1.00			1.00	
Flpb, ped/bikes					1.00	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			1.00	
Flt Protected					1.00	1.00		1.00			1.00	
Satd. Flow (prot)					4956	877		3539			3505	
Flt Permitted					1.00	1.00		1.00			1.00	
Satd. Flow (perm)					4956	877		3539			3505	
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
Adi. Flow (vph)	0	0	0	3	345	48	0	426	0	0	477	0
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	348	30	0	426	0	0	477	0
Confl. Peds. (#/hr)	609		652	652		609	1130		2122	2122		1130
Confl. Bikes (#/hr)			83						93			86
Heavy Vehicles (%)	0%	0%	0%	33%	4%	9%	0%	2%	0%	100%	3%	0%
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8	-	8					-	
Actuated Green, G (s)				-	45.0	45.0		33.0			33.0	
Effective Green, g (s)					46.0	46.0		34.0			34.0	
Actuated g/C Ratio					0.51	0.51		0.38			0.38	
Clearance Time (s)					6.0	6.0		6.0			6.0	
Lane Grp Cap (vph)					2533	448		1336			1324	
v/s Ratio Prot					2000	110		0.12			c0 14	
v/s Ratio Perm					0.07	0.03		0.12			00.11	
v/c Ratio					0.07	0.00		0 32			0.36	
Uniform Delay d1					11.6	11 1		19.8			20.2	
Progression Factor					0.14	0.01		1 00			2 01	
Incremental Delay d2					0.1	0.01		0.6			0.6	
Delay (s)					17	0.2		20.4			41.2	
Level of Service					Δ	0.0 A		20.1 C			D	
Approach Delay (s)		0.0			16	7.		20.4			41.2	
Approach LOS		A			A			С			D	
Intersection Summary												
HCM 2000 Control Delay			22.3	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	/ ratio		0.23									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilization	n		41.7%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group			-									
	-	1	1	1								
------------------------	-------	-------	-------	------								
Lane Group	WBT	NBL	NBT	SBR								
Lane Group Flow (vph)	987	334	262	53								
v/c Ratio	0.50	0.63	0.17	0.11								
Control Delay	22.8	26.6	22.0	2.2								
Queue Delay	0.0	0.0	0.0	0.0								
Total Delay	22.8	26.6	22.0	2.2								
Queue Length 50th (m)	50.1	38.4	17.8	0.0								
Queue Length 95th (m)	62.4	m60.0	m25.5	3.5								
Internal Link Dist (m)	141.8		32.1									
Turn Bay Length (m)												
Base Capacity (vph)	1992	526	1512	473								
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	0.50	0.63	0.17	0.11								
Intersection Summary												

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

# HCM Signalized Intersection Capacity Analysis 16: York St & Richmond St

Movement         EBL         EBI         EBI         WBL         WBL         WBL         NBL         NBL         NBL         SBL         SBL         SBR           Lane Configurations		≯	-	$\mathbf{r}$	4	+	*	1	1	1	1	ŧ	~
Lanc Configurations         ↑↑↑         ↑↑         ↑↑         ↑↑         ↑↑           Traffic Volume (vph)         0         0         0         853         75         314         246         0         0         0         50           Icure Volume (vph)         1900	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic OxIome (vph)         0         0         0         0         853         75         314         246         0         0         0         55           Future Volume (vph)         1900         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000 <td< td=""><td>Lane Configurations</td><td></td><td></td><td></td><td></td><td><u> ተተ</u>ጉ</td><td></td><td>٦</td><td><b>^</b></td><td></td><td></td><td></td><td>1</td></td<>	Lane Configurations					<u> ተተ</u> ጉ		٦	<b>^</b>				1
Future Volume (vph)         0	Traffic Volume (vph)	0	0	0	0	853	75	314	246	0	0	0	50
Ideal Flow (phph)         1900 <td>Future Volume (vph)</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>853</td> <td>75</td> <td>314</td> <td>246</td> <td>0</td> <td>0</td> <td>0</td> <td>50</td>	Future Volume (vph)	0	0	0	0	853	75	314	246	0	0	0	50
Lane With         3.6         3	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Last time (s)       6.5       6.1       6.1       6.1       6.1         Lane Util, Factor       0.91       1.00       0.95       1.00         Flpb, ped/bikes       0.96       1.00       1.00       0.62         Flpb, ped/bikes       1.00       0.05       1.00       1.00         Flpb, ped/bikes       1.00       0.95       1.00       1.00         Flpb, ped/bikes       1.00       0.95       1.00       1.00         Satd. Flow (prot)       4895       1144       3610       1016         Pack-hour factor, PHF       0.94<	Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Lane Util, Factor       0,91       1.00       0,95       1.00         Fpb, ped/bikes       0,96       1.00       0.63       1.00       0.62         Fpb, ped/bikes       1.00       0.03       1.00       0.86         Fit Protected       1.00       0.95       1.00       0.86         Satd. Flow (pert)       4895       1144       3610       1.00         Satd. Flow (pertn)       4895       1144       3610       1.01         Peak-hour factor, PHF       0.94	Total Lost time (s)					6.5		6.1	6.1				6.1
Fpb, ped/bikes       0.96       1.00       1.00       0.63         Fpb, ped/bikes       1.00       0.63       1.00       1.00         FrI       0.99       1.00       1.00       0.86         FI Protecled       1.00       0.95       1.00       1.00         Satd. Flow (prot)       4895       1144       3610       106         FI Protecled       1.00       0.95       1.00       1.00         Satd. Flow (perm)       4895       1144       3610       106         Peak-hour factor, PHF       0.94 </td <td>Lane Util. Factor</td> <td></td> <td></td> <td></td> <td></td> <td>0.91</td> <td></td> <td>1.00</td> <td>0.95</td> <td></td> <td></td> <td></td> <td>1.00</td>	Lane Util. Factor					0.91		1.00	0.95				1.00
Fipb, ped/bikes       1.00       0.63       1.00       1.00         Fit Protected       0.99       1.00       1.00       0.86         Fit Protected       1.00       0.95       1.00       1.00         Satal, Flow (port)       4895       1144       3610       1.00         Satal, Flow (perm)       4895       1144       3610       1.00         Peak-hour factor, PHF       0.94 </td <td>Frpb, ped/bikes</td> <td></td> <td></td> <td></td> <td></td> <td>0.96</td> <td></td> <td>1.00</td> <td>1.00</td> <td></td> <td></td> <td></td> <td>0.62</td>	Frpb, ped/bikes					0.96		1.00	1.00				0.62
Fri       0.99       1.00       1.00       0.86         FIP Protected       1.00       0.95       1.00       1.00         Satt. Flow (port)       4895       1144       3610       1016         Perak-hour factor, PHF       0.94 <td< td=""><td>Flpb, ped/bikes</td><td></td><td></td><td></td><td></td><td>1.00</td><td></td><td>0.63</td><td>1.00</td><td></td><td></td><td></td><td>1.00</td></td<>	Flpb, ped/bikes					1.00		0.63	1.00				1.00
Flt Protected       1.00       0.95       1.00       1.00         Sald. Flow (prot)       4895       1144       3610       1016         Flt Permitted       1.00       0.95       1.00       1.00         Sald. Flow (perm)       4895       1144       3610       1016         Perak-hour factor, PHF       0.94       <	Frt					0.99		1.00	1.00				0.86
Satd. Flow (prot)       4895       1144       3610       1016         FI Permitted       1.00       0.95       1.00       1.00         Satd. Flow (perm)       4895       1144       3610       1016         Peak-hour factor, PHF       0.94 <td>Flt Protected</td> <td></td> <td></td> <td></td> <td></td> <td>1.00</td> <td></td> <td>0.95</td> <td>1.00</td> <td></td> <td></td> <td></td> <td>1.00</td>	Flt Protected					1.00		0.95	1.00				1.00
Fit Permitted       1.00       0.95       1.00       1.00         Sata Flow (perm)       4895       1144       3610       1010         Peak-hour factor, PHF       0.94 <td< td=""><td>Satd. Flow (prot)</td><td></td><td></td><td></td><td></td><td>4895</td><td></td><td>1144</td><td>3610</td><td></td><td></td><td></td><td>1016</td></td<>	Satd. Flow (prot)					4895		1144	3610				1016
Satd. Flow (perm)         4895         1144         3610         1016           Peak-hour factor, PHF         0.94	Flt Permitted					1.00		0.95	1.00				1.00
Peak-hour factor, PHF         0.94         0.93         131         106         106         131         122         100         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         <	Satd. Flow (perm)					4895		1144	3610				1016
Adj. Flow (vph)       0       0       0       0       907       80       334       262       0       0       0       53         RTOR Reduction (vph)       0	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
RTOR Reduction (vph)       0	Adi, Flow (vph)	0	0	0	0	907	80	334	262	0	0	0	53
Lane Group Flow (vph)       0       0       0       977       0       286       262       0       0       0       22         Confl. Peds. (#/hr)       637       693       637       421       1106       1106       421         Confl. Bikes (#/hr)       128       6       52         Heavy Vehicles (%)       0%       0%       0%       1%       0%	RTOR Reduction (vph)	0	0	0	0	10	0	48	0	0	0	0	31
Confl. Peds. (#/ht)         637         693         693         637         421         1106         1106         421           Confl. Bikes (#/hr)         128         6         52         1106         1106         106         421           Confl. Bikes (#/hr)         128         6         52         1106         1106         106         421           Confl. Bikes (#/hr)         128         6         52         1106         106         421           Confl. Bikes (#/hr)         0%	Lane Group Flow (vph)	0	0	0	0	977	0	286	262	0	0	0	22
Confl. Bikes (#/hr)         128         6         52           Heavy Vehicles (%)         0%	Confl. Peds. (#/hr)	637	Ū	693	693		637	421	202	1106	1106	Ū	421
Heavy Vehicles (%)         0%	Confl. Bikes (#/hr)			128	0.0					6	1100		52
Interview         Interview <thinterview< th=""> <thinterview< th=""> <thi< td=""><td>Heavy Vehicles (%)</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>1%</td><td>1%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td></thi<></thinterview<></thinterview<>	Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Init of po         Init         Init         Init         Init           Protected Phases         8         2         6           Actuated Green, G (s)         39.5         40.9         40.9         40.9           Effective Green, g (s)         40.5         41.9         41.9         41.9           Actuated g/C Ratio         0.40         0.42         0.42         0.42           Clearance Time (s)         7.5         7.1         7.1         7.1           Lane Grp Cap (vph)         1982         479         1512         425           v/s Ratio Prot         c0.20         0.07         0.02         0.02           v/s Ratio Prot         c0.25         0.02         0.02         0.02           v/s Ratio Perm         c0.25         1.00         1.20         1.19         1.00           Uniform Delay, d1         22.1         22.5         18.2         17.3         1.73           Progression Factor         1.00         1.20         1.19         1.00           Incremental Delay, d2         0.9         5.0         0.2         0.2           Delay (s)         0.0         23.0         32.0         21.8         17.5           Approach LOS <td>Turn Type</td> <td></td> <td></td> <td></td> <td></td> <td>NA</td> <td></td> <td>Perm</td> <td>NA</td> <td></td> <td></td> <td></td> <td>Perm</td>	Turn Type					NA		Perm	NA				Perm
Permitted Phases         2         6           Actuated Green, G (s)         39.5         40.9         40.9           Effective Green, g (s)         40.5         41.9         41.9           Actuated g/C Ratio         0.40         0.42         0.42           Clearance Time (s)         7.5         7.1         7.1           Lane Grp Cap (vph)         1982         479         1512         425           v/s Ratio Perm         c0.25         0.02         0.07         0.05           V/s Ratio Perm         c0.25         0.02         0.7         0.05           Uniform Delay, d1         22.1         22.5         18.2         17.3           Progression Factor         1.00         1.20         1.19         1.00           Incremental Delay, d2         0.9         5.0         0.2         0.2           Delay (s)         23.0         32.0         21.8         17.5           Level of Service         C         C         C         B           Approach Delay (s)         0.0         23.0         27.6         17.5           Approach Delay (s)         0.0         23.0         27.6         HC           HCM 2000 Control Delay         24.5	Protected Phases					8		1 OIIII	2				1 Onn
Actuated Green, G (s)         39.5         40.9         40.9           Effective Green, g (s)         40.5         41.9         41.9           Actuated g/C Ratio         0.40         0.42         0.42         0.42           Clearance Time (s)         7.5         7.1         7.1         7.1           Lane Grp Cap (vph)         1982         479         1512         425           v/s Ratio Port         c0.20         0.07         0.02         0.02           v/s Ratio Perm         c0.25         0.02         0.07           v/s Ratio Perm         c0.25         0.02         0.07           v/s Ratio         0.49         0.60         0.17         0.05           Uniform Delay, d1         22.1         22.5         18.2         17.3           Progression Factor         1.00         1.20         1.19         1.00           Incremental Delay, d2         0.9         5.0         0.2         0.2           Delay (s)         0.0         23.0         32.0         21.8         17.5           Level of Service         C         C         C         B         Approach LOS         A         C         C         B           Intersection Summary <td>Permitted Phases</td> <td></td> <td></td> <td></td> <td></td> <td>U</td> <td></td> <td>2</td> <td>2</td> <td></td> <td></td> <td></td> <td>6</td>	Permitted Phases					U		2	2				6
Actuated of construction of con	Actuated Green G (s)					39 5		40.9	40.9				40.9
Actuated g/C Ratio       0.40       0.42       0.42       0.42         Actuated g/C Ratio       0.40       0.42       0.42       0.42         Clearance Time (s)       7.5       7.1       7.1       7.1         Lane Grp Cap (vph)       1982       479       1512       425         v/s Ratio Prot       c0.20       0.07       0.02         v/s Ratio Perm       c0.25       0.02         v/s Ratio Perm       c0.25       18.2       17.3         Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d1       22.1       22.5       18.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       32.0       21.8       17.5         Approach LOS       A       C       C       B       B         Intersection Summary	Effective Green a (s)					40.5		41.9	41.9				41.9
Clearance Time (s)       7.5       7.1       7.1       7.1         Lane Grp Cap (vph)       1982       479       1512       425         v/s Ratio Prot       c0.20       0.07       v/s         v/s Ratio Perm       c0.25       0.02         v/c Ratio       0.49       0.60       0.17       0.05         Uniform Delay, d1       22.1       22.5       18.2       17.3         Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Intersection Summary       4       C       C       B         Intersection Summary       0.54       4       C       C         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E         Analysis Period (min)       15       15       15       16.6	Actuated q/C Ratio					0.40		0.42	0.42				0.42
Initial control (b)         100         1111         1111         1111	Clearance Time (s)					7 5		7 1	7 1				7 1
Lair of b cap (vpr)       17.02       17.12       17.12       17.22         v/s Ratio Prot       c0.20       0.07       0.02         v/s Ratio Perm       c0.25       0.02         v/c Ratio       0.49       0.60       0.17       0.05         Uniform Delay, d1       22.1       22.5       18.2       17.3         Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary       17.5       HCM 2000 Control Delay       24.5       HCM 2000 Level of Service       C         HCM 2000 Volume to Capacity ratio       0.54        C       C       HCM         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6       Intersection Capacity Utilization       83.1%       ICU Level of Service       E       Analysis Period (min)       15 <td>Lane Grn Can (ynh)</td> <td></td> <td></td> <td></td> <td></td> <td>1982</td> <td></td> <td>/79</td> <td>1512</td> <td></td> <td></td> <td></td> <td>/25</td>	Lane Grn Can (ynh)					1982		/79	1512				/25
vis Ratio Frot       c0.20       c0.07         v/s Ratio Perm       c0.25       0.02         v/c Ratio       0.49       0.60       0.17       0.05         Uniform Delay, d1       22.1       22.5       18.2       17.3         Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary       4       5       HCM 2000 Level of Service       C         HCM 2000 Control Delay       24.5       HCM 2000 Level of Service       C         HCM 2000 Volume to Capacity ratio       0.54       C       C         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E         Analysis Period (min)       15       15       15	v/s Ratio Prot					c0 20		477	0.07				423
v/c Ratio       0.49       0.60       0.17       0.05         Uniform Delay, d1       22.1       22.5       18.2       17.3         Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary       44.5       HCM 2000 Level of Service       C       C         HCM 2000 Volume to Capacity ratio       0.54       4       C       B         Intersection Capacity ratio       0.54       4       C       C       A         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E       4         Analysis Period (min)       15       15       16.6       16       16	v/s Ratio Perm					0.20		c0 25	0.07				0.02
Unit Nation         0.00         0.00         0.01         0.00         0.01           Uniform Delay, d1         22.1         22.5         18.2         17.3           Progression Factor         1.00         1.20         1.19         1.00           Incremental Delay, d2         0.9         5.0         0.2         0.2           Delay (s)         23.0         32.0         21.8         17.5           Level of Service         C         C         C         B           Approach Delay (s)         0.0         23.0         27.6         17.5           Approach Delay (s)         0.0         23.0         27.6         17.5           Approach LOS         A         C         C         B           Intersection Summary         4.5         HCM 2000 Level of Service         C         HC           HCM 2000 Volume to Capacity ratio         0.54         -         -         -           Actuated Cycle Length (s)         100.0         Sum of lost time (s)         16.6         -           Intersection Capacity Utilization         83.1%         ICU Level of Service         E         -           Analysis Period (min)         15         15         -         -         -	v/c Ratio					0/0		0.60	0.17				0.02
Progression Factor       1.00       1.20       1.19       1.00         Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary       HCM 2000 Control Delay       24.5       HCM 2000 Level of Service       C         HCM 2000 Volume to Capacity ratio       0.54       4       4       4       4       4         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6       16.6       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E       16.6         Analysis Period (min)       15       15       16       16       16	Uniform Delay, d1					22.47		22.5	18.2				17.3
Incremental Delay, d2       0.9       5.0       0.2       0.2         Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary         HCM 2000 Control Delay       24.5       HCM 2000 Level of Service       C         HCM 2000 Volume to Capacity ratio       0.54       4       4       4         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E       4         Analysis Period (min)       15       15       16.6       16.6	Progression Factor					1 00		1 20	1 10.2				1 00
Delay (s)       23.0       32.0       21.8       17.5         Level of Service       C       C       C       B         Approach Delay (s)       0.0       23.0       27.6       17.5         Approach LOS       A       C       C       B         Intersection Summary       4       C       C       C         HCM 2000 Control Delay       24.5       HCM 2000 Level of Service       C         HCM 2000 Volume to Capacity ratio       0.54       4       4       4         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       16.6       16.6         Intersection Capacity Utilization       83.1%       ICU Level of Service       E       4         Analysis Period (min)       15       15       4       4       4	Incremental Delay, d2					0.0		5.0	0.2				0.2
Dotaly (s)CCCCCLevel of ServiceCCCBApproach Delay (s)0.023.027.617.5Approach LOSACCBIntersection SummaryHCM 2000 Control Delay24.5HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.54	Delay (s)					23.0		32.0	21.8				17.5
Approach Delay (s)0.023.027.617.5Approach LOSACCBIntersection SummaryHCM 2000 Control Delay24.5HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.54	Level of Service					23.0		J2.0	21.0				17.5 R
Approach LOSACCBIntersection SummaryHCM 2000 Control Delay24.5HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.54Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)1515100.0	Approach Delay (s)		0.0			23.0		C	27.6			175	D
Intersection SummaryHCM 2000 Control Delay24.5HCM 2000 Volume to Capacity ratio0.54Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)15	Approach LOS		0.0 Δ			23.0			27.0			17.5 B	
Intersection SummaryHCM 2000 Control Delay24.5HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.54Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)15	Intersection Summers					0			0				
HCM 2000 Control Delay24.5HCM 2000 Level of ServiceCHCM 2000 Volume to Capacity ratio0.54Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)1515ICU Level of ServiceICU Level of Service				24.5		014 0000	Lauralia	C		0			
HCN/2000 volume to Capacity ratio0.54Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)151516.6	HCIVI 2000 Voltaria ta Ora			24.5	Н	CIVI 2000	Level of	Service		C			
Actuated Cycle Length (s)100.0Sum of lost time (s)16.6Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)15	HCIVI 2000 VOIUme to Capacity	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0.54	6	um of las-	t time (a)			1//			
Intersection Capacity Utilization83.1%ICU Level of ServiceEAnalysis Period (min)15	Actuated Cycle Length (S)	<b>~</b>		100.0	5	um of IOS	t time (S)			10.0			
Analysis Period (IIIII) 15	Intersection Capacity Utilization	[]		83.1% 15	IC	U Level (	DI Service	;		E			
c Critical Lano Group	Andrysis Periou (IIIII)			15									

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Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	1511	80	28	238
v/c Ratio	0.48	0.18	0.09	0.72
Control Delay	10.9	28.7	9.4	45.9
Queue Delay	3.2	0.0	0.0	0.0
Total Delay	14.0	28.7	9.4	45.9
Queue Length 50th (m)	80.9	11.0	0.0	38.0
Queue Length 95th (m)	91.2	22.5	5.7	#70.5
Internal Link Dist (m)	35.6	76.2		111.0
Turn Bay Length (m)				
Base Capacity (vph)	3128	443	318	329
Starvation Cap Reductn	1481	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.92	0.18	0.09	0.72
Intersection Summary				

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈተኩ						•	1		र्स	
Traffic Volume (vph)	30	1302	103	0	0	0	0	76	27	91	135	0
Future Volume (vph)	30	1302	103	0	0	0	0	76	27	91	135	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.7						5.6	5.6		5.6	
Lane Util. Factor		0.91						1.00	1.00		1.00	
Frpb, ped/bikes		0.97						1.00	0.79		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.93	
Frt		0.99						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		0.98	
Satd. Flow (prot)		4816						1865	1233		1632	
Flt Permitted		1.00						1.00	1.00		0.83	
Satd. Flow (perm)		4816						1865	1233		1387	
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)	32	1371	108	0	0	0	0	80	28	96	142	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	21	0	0	0
Lane Group Flow (vph)	0	1501	0	0	0	0	0	80	7	0	238	0
Confl. Peds. (#/hr)	287		177	177		287	161		149	149		161
Confl. Bikes (#/hr)			161						9			3
Heavy Vehicles (%)	7%	3%	0%	0%	0%	0%	0%	3%	4%	7%	7%	0%
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2								4	8		
Actuated Green, G (s)		57.3						20.4	20.4		20.4	
Effective Green, g (s)		58.3						21.4	21.4		21.4	
Actuated g/C Ratio		0.65						0.24	0.24		0.24	
Clearance Time (s)		5.7						6.6	6.6		6.6	
Lane Grp Cap (vph)		3119						443	293		329	
v/s Ratio Prot								0.04				
v/s Ratio Perm		0.31							0.01		c0.17	
v/c Ratio		0.48						0.18	0.02		0.72	
Uniform Delay, d1		8.1						27.3	26.3		31.6	
Progression Factor		1.31						1.00	1.00		1.00	
Incremental Delay, d2		0.4						0.9	0.1		13.0	
Delay (s)		11.0						28.2	26.4		44.5	
Level of Service		В						С	С		D	
Approach Delay (s)		11.0			0.0			27.7			44.5	
Approach LOS		В			А			С			D	
Intersection Summary												
HCM 2000 Control Delay			16.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.55									
Actuated Cycle Length (s)	,		90.0	S	um of los	t time (s)			10.3			
Intersection Capacity Utilizatio	n		75.2%	IC	U Level	of Service	;		D			
Analysis Period (min)			15									

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Lane Group	EBL	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	210	1238	71	774	523
v/c Ratio	0.45	0.82	0.16	0.69	0.88dl
Control Delay	22.0	27.8	2.6	30.3	13.4
Queue Delay	0.0	0.6	0.0	0.3	0.0
Total Delay	22.0	28.3	2.6	30.6	13.4
Queue Length 50th (m)	24.9	95.7	0.0	60.6	25.6
Queue Length 95th (m)	44.4	122.8	4.6	80.5	38.8
Internal Link Dist (m)		187.4		7.4	112.2
Turn Bay Length (m)			35.0		
Base Capacity (vph)	463	1518	457	1129	891
Starvation Cap Reductn	0	0	0	68	0
Spillback Cap Reductn	0	67	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.85	0.16	0.73	0.59
Intersection Summary					

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	<b>^</b>	1					<b>^</b>				
Traffic Volume (vph)	195	1151	66	0	0	0	0	720	0	191	296	0
Future Volume (vph)	195	1151	66	0	0	0	0	720	0	191	296	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)	5.0	5.0	5.0					6.0			6.0	
Lane Util. Factor	1.00	0.95	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.61					1.00			1.00	
Flpb, ped/bikes	0.60	1.00	1.00					1.00			0.98	
Frt	1.00	1.00	0.85					1.00			1.00	
Flt Protected	0.95	1.00	1.00					1.00			0.98	
Satd. Flow (prot)	1070	3505	928					3505			3339	
Flt Permitted	0.95	1.00	1.00					1.00			0.54	
Satd. Flow (perm)	1070	3505	928					3505			1834	
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)	210	1238	71	0	0	0	0	774	0	205	318	0
RTOR Reduction (vph)	0	0	40	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	210	1238	31	0	0	0	0	774	0	0	523	0
Confl. Peds. (#/hr)	568		313	313		568	401		314	314		401
Confl. Bikes (#/hr)			245			1			7			9
Heavy Vehicles (%)	1%	3%	6%	0%	0%	0%	0%	3%	1%	2%	6%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							6		
Actuated Green, G (s)	38.0	38.0	38.0					28.0			39.0	
Effective Green, a (s)	39.0	39.0	39.0					29.0			40.0	
Actuated g/C Ratio	0.43	0.43	0.43					0.32			0.44	
Clearance Time (s)	6.0	6.0	6.0					7.0			7.0	
Lane Grp Cap (vph)	463	1518	402					1129			948	
v/s Ratio Prot		c0.35						c0.22			c0.05	
v/s Ratio Perm	0.20	00100	0.03					00.22			0.20	
v/c Ratio	0.45	0.82	0.08					0.69			0.88dl	
Uniform Delay, d1	18.0	22.3	14.9					26.5			18.4	
Progression Factor	1.00	1.00	1.00					1.00			0.61	
Incremental Delay, d2	3.2	4.9	0.4					3.4			2.2	
Delay (s)	21.2	27.3	15.3					29.9			13.4	
Level of Service	С	С	В					С			В	
Approach Delay (s)		25.9			0.0			29.9			13.4	
Approach LOS		С			А			С			В	
Intersection Summary												
HCM 2000 Control Delay			24.7	H	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.74									
Actuated Cycle Length (s)	,		90.0	S	um of los	t time (s)			14.0			
Intersection Capacity Utilizat	ion		91.0%	IC	U Level	of Service	:		E			
Analysis Period (min)			15									
dl Defacto Left Lane. Reco	ode with 1	though la	ane as a l	eft lane.								

### Queues 65: Jarvis St & Richmond St

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Lane Group	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	85	1106	111	634	472
v/c Ratio	0.12	0.68	0.17	0.63	0.49
Control Delay	14.8	22.0	3.8	29.5	19.6
Queue Delay	0.0	22.1	0.0	0.0	0.0
Total Delay	14.8	44.0	3.8	29.5	19.6
Queue Length 50th (m)	8.2	76.5	0.2	55.8	20.7
Queue Length 95th (m)	16.6	98.5	8.8	70.9	29.0
Internal Link Dist (m)		83.0		112.2	6.5
Turn Bay Length (m)			25.0		
Base Capacity (vph)	680	1628	652	999	959
Starvation Cap Reductn	0	552	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	1.03	0.17	0.63	0.49
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 65: Jarvis St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				5	<b>*</b> *	1					44	
Traffic Volume (vph)	0	0	0	82	1062	107	133	475	0	0	364	89
Future Volume (vph)	0	0	0	82	1062	107	133	475	0	0	364	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)				5.0	5.0	5.0		7.0			7.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.82		1.00			0.95	
Flpb, ped/bikes				0.84	1.00	1.00		0.98			1.00	
Frt				1.00	1.00	0.85		1.00			0.97	
Flt Protected				0.95	1.00	1.00		0.99			1.00	
Satd. Flow (prot)				1493	3574	1303		3447			3240	
Flt Permitted				0.95	1.00	1.00		0.67			1.00	
Satd. Flow (perm)				1493	3574	1303		2319			3240	
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
Adi. Flow (vph)	0	0	0	85	1106	111	139	495	0	0	379	93
RTOR Reduction (vph)	0	0	0	0	0	59	0	0	0	0	24	0
Lane Group Flow (vph)	0	0	0	85	1106	52	0	634	0	0	448	0
Confl. Peds. (#/hr)	115		122	122		115	184		112	112		184
Confl. Bikes (#/hr)			48			35			20			9
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%	2%	2%	0%	0%	2%	5%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8	0	8	2	_			0	
Actuated Green, G (s)				40.0	40.0	40.0	-	36.0			25.0	
Effective Green, g (s)				41.0	41.0	41.0		37.0			26.0	
Actuated g/C Ratio				0.46	0.46	0.46		0.41			0.29	
Clearance Time (s)				6.0	6.0	6.0		8.0			8.0	
Lane Grp Cap (vph)				680	1628	593		1053			936	
v/s Ratio Prot				000	c0.31	070		c0.05			0.14	
v/s Ratio Perm				0.06	00.01	0.04		c0 19			0.11	
v/c Ratio				0.00	0.68	0.09		0.60			0 48	
Uniform Delay d1				14 1	19.3	13.9		20.7			26.4	
Progression Factor				1 00	1 00	1 00		1.31			0.72	
Incremental Delay d2				0.4	2.3	0.3		2.0			17	
Delay (s)				14.5	21.6	14.2		29.2			20.7	
Level of Service				B	C	B		C			С	
Approach Delay (s)		0.0		2	20.5	2		29.2			20.7	
Approach LOS		A			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			22.8	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.67									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			15.0			
Intersection Capacity Utilizatio	n		84.4%	IC	U Level	of Servic	е		E			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 68: Church St & Queen St

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	702	438	564	464
v/c Ratio	0.42	0.34	0.70	0.57
Control Delay	4.2	10.6	20.0	27.4
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	4.2	10.6	20.3	27.4
Queue Length 50th (m)	11.0	13.8	13.9	33.2
Queue Length 95th (m)	15.7	26.9	18.4	48.6
Internal Link Dist (m)	79.5	24.7	67.4	165.8
Turn Bay Length (m)				
Base Capacity (vph)	1662	1280	803	812
Starvation Cap Reductn	0	0	31	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.34	0.73	0.57
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 68: Church St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î»			4î b			4î b			4î b	
Traffic Volume (vph)	62	549	49	32	338	41	81	370	79	62	321	54
Future Volume (vph)	62	549	49	32	338	41	81	370	79	62	321	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.7			4.7			4.7			4.7	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.97			0.96			0.95			0.96	
Flpb, ped/bikes		0.99			0.99			0.98			0.98	
Frt		0.99			0.98			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3270			3272			3219			3276	
Flt Permitted		0.87			0.86			0.75			0.75	
Satd. Flow (perm)		2854			2839			2436			2459	
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)	66	584	52	34	360	44	86	394	84	66	341	57
RTOR Reduction (vph)	0	6	0	0	9	0	0	10	0	0	12	0
Lane Group Flow (vph)	0	696	0	0	429	0	0	554	0	0	452	0
Confl. Peds. (#/hr)	389		586	586		389	293		373	373		293
Confl. Bikes (#/hr)			15			37			19			52
Heavy Vehicles (%)	2%	2%	4%	6%	1%	0%	0%	1%	0%	0%	1%	2%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4			8	
Permitted Phases	2	_		6			4			8	-	
Actuated Green, G (s)		50.3		-	39.3			28.3		-	28.3	
Effective Green, g (s)		51.3			40.3			29.3			29.3	
Actuated g/C Ratio		0.57			0.45			0.33			0.33	
Clearance Time (s)		5.7			5.7			5.7			5.7	
Lane Grp Cap (vph)		1663			1271			793			800	
v/s Ratio Prot		c0.04			1271			170			000	
v/s Ratio Perm		c0.20			0.15			c0.23			0.18	
v/c Ratio		0.42			0.34			0.70			0.56	
Uniform Delay, d1		10.9			16.2			26.5			25.1	
Progression Factor		0.32			0.63			0.58			1.00	
Incremental Delay, d2		0.8			0.7			4.7			2.9	
Delay (s)		4.3			10.9			20.1			28.0	
Level of Service		A			B			C			C	
Approach Delay (s)		4.3			10.9			20.1			28.0	
Approach LOS		A			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			14.8	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity ratio 0.54			0.54									
Actuated Cycle Length (s)			90.0	Si	um of lost	t time (s)			12.4			
Intersection Capacity Utilizatio	n		83.9%	IC	U Level	of Service	2		E			
Analysis Period (min)			15									

### Queues 71: Jarvis St & Queen St

	-	←	t	Ţ
Long Croun	гот			
Lane Group	EBI	WBI	INBT	SBI
Lane Group Flow (vph)	831	471	648	496
v/c Ratio	0.48	0.27	0.50	0.26
Control Delay	19.1	14.3	11.5	17.9
Queue Delay	0.0	0.0	0.4	0.0
Total Delay	19.1	14.3	11.9	17.9
Queue Length 50th (m)	50.5	25.1	25.7	19.6
Queue Length 95th (m)	64.7	37.3	37.8	27.2
Internal Link Dist (m)	65.5	76.7	58.1	168.6
Turn Bay Length (m)				
Base Capacity (vph)	1720	1738	1297	1941
Starvation Cap Reductn	0	0	231	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.27	0.61	0.26
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 71: Jarvis St & Queen St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> ⊅			A1⊅			A1⊅			ተተኈ	
Traffic Volume (vph)	0	722	42	0	409	24	0	466	130	0	411	45
Future Volume (vph)	0	722	42	0	409	24	0	466	130	0	411	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)		4.9			4.9			4.6			4.6	
Lane Util. Factor		0.95			0.95			0.95			0.91	
Frpb, ped/bikes		0.98			0.98			0.94			0.97	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.99	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3424			3460			3248			4899	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		3424			3460			3248			4899	
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)	0	785	46	0	445	26	0	507	141	0	447	49
RTOR Reduction (vph)	0	4	0	0	4	0	0	21	0	0	15	0
Lane Group Flow (vph)	0	827	0	0	467	0	0	627	0	0	481	0
Confl. Peds. (#/hr)	241		243	243		241	218		182	182		218
Confl. Bikes (#/hr)			29			45			12			14
Heavy Vehicles (%)	17%	1%	2%	0%	0%	0%	0%	1%	2%	0%	1%	2%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases												
Actuated Green, G (s)		44.1			44.1			34.4			34.4	
Effective Green, g (s)		45.1			45.1			35.4			35.4	
Actuated g/C Ratio		0.50			0.50			0.39			0.39	
Clearance Time (s)		5.9			5.9			5.6			5.6	
Lane Grp Cap (vph)		1715			1733			1277			1926	
v/s Ratio Prot		c0.24			0.13			c0.19			0.10	
v/s Ratio Perm												
v/c Ratio		0.48			0.27			0.49			0.25	
Uniform Delay, d1		14.8			12.9			20.5			18.4	
Progression Factor		1.22			1.09			0.52			1.00	
Incremental Delay, d2		1.0			0.4			1.3			0.3	
Delay (s)		19.0			14.5			11.9			18.7	
Level of Service		В			B			В			В	
Approach Delay (s)		19.0			14.5			11.9			18.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			16.2	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.49									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.5			
Intersection Capacity Utilizatio	n		48.3%	IC	U Level	of Service			А			
Analysis Period (min)			15									

#### Queues 86: Sherbourne Street & Shuter St

	٦	-	4	+	1	ŧ
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	48	645	35	200	387	410
v/c Ratio	0.12	0.79	0.20	0.25	0.54	0.58
Control Delay	13.4	27.3	21.6	19.2	20.6	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	27.3	21.6	19.2	20.6	21.6
Queue Length 50th (m)	4.0	79.6	3.5	20.2	41.9	45.3
Queue Length 95th (m)	10.1	#129.3	m12.7	32.4	67.2	72.5
Internal Link Dist (m)		290.9		182.0	164.7	110.1
Turn Bay Length (m)	25.0		15.0			
Base Capacity (vph)	390	813	175	803	723	710
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	0.12	0.79	0.20	0.25	0.54	0.58

#### Intersection Summary

# 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.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	eî 👘		5	•			el 🕺			eî 👘	
Traffic Volume (vph)	44	492	95	32	152	30	0	313	39	0	325	48
Future Volume (vph)	44	492	95	32	152	30	0	313	39	0	325	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.95		1.00	0.93			0.95			0.94	
Flpb, ped/bikes	0.70	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1281	1759		1772	1737			1739			1706	
Flt Permitted	0.63	1.00		0.20	1.00			1.00			1.00	
Satd. Flow (perm)	844	1759		381	1737			1739			1706	
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)	48	541	104	35	167	33	0	344	43	0	357	53
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	6	0
Lane Group Flow (vph)	48	645	0	35	200	0	0	381	0	0	404	0
Confl. Peds. (#/hr)	179		141	141		179	162		191	191		162
Confl. Bikes (#/hr)			14			65			105			232
Heavy Vehicles (%)	0%	1%	0%	3%	0%	0%	7%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	6	6	6	7	7	7
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	36.0	36.0		36.0	36.0			32.0			32.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0			33.0			33.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.41			0.41	
	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	390	813		1/6	803			/1/			/03	
v/s Ratio Prot	0.07	CU.37		0.00	0.12			0.22			CU.24	
V/S Ratio Perm	0.06	0.70		0.09	0.05			0 5 0			0 57	
V/C RallO	0.1Z	0.79		0.20	0.25			0.53			0.57	
Uniform Delay, d I	12.3	10.3		12.7	13.1			1/./			10.1	
Progression Factor	1.00	1.00		1.30	1.38			1.00			1.00	
Incremental Delay, d2	0.0	7.8 24.1		2.5	U./ 10.7			2.8			3.4 21 5	
Delay (S) Loval of Sarvica	12.9 D	20.1		20.0 D	10.7 D			20.5			21.0	
Approach Dolay (s)	D	25.2		Б	10 D			20.5			21.5	
Approach LOS		23.2 C			10.9 B			20.5 C			21.5 C	
Intersection Summary								Ū.				
HCM 2000 Control Delay			22 1	<u> </u>	CM 2000		Service		ſ			
HCM 2000 Volume to Canaci	ty ratio		0.60	11		LEVELUI			C			
Actuated Cycle Length (s)	ly ratio		80.07 80.0	Si	im of los	t time (s)			10.0			
Intersection Canacity Litilization	on		65.9%			of Service			10.0 C			
Analysis Period (min)	011		15						U			
c Critical Lane Group			10									

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Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	1425	361	101	312
v/c Ratio	0.52	0.65	0.57	0.51
Control Delay	12.1	32.2	40.2	28.5
Queue Delay	1.0	3.4	0.0	0.0
Total Delay	13.1	35.6	40.2	28.5
Queue Length 50th (m)	49.7	52.0	14.4	43.4
Queue Length 95th (m)	60.9	81.5	#34.9	67.8
Internal Link Dist (m)	84.4	80.5		115.7
Turn Bay Length (m)			70.0	
Base Capacity (vph)	2760	552	177	606
Starvation Cap Reductn	975	111	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.80	0.82	0.57	0.51
Intersection Summary				

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>€1</b> †Ъ						et 🗧		۲	•	
Traffic Volume (vph)	59	1260	77	0	0	0	0	310	44	99	306	0
Future Volume (vph)	59	1260	77	0	0	0	0	310	44	99	306	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						5.0		5.0	5.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frpb, ped/bikes		0.98						0.95		1.00	1.00	
Flpb, ped/bikes		0.98						1.00		0.84	1.00	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		4764						1699		1491	1883	
Flt Permitted		1.00						1.00		0.35	1.00	
Satd. Flow (perm)		4764						1699		552	1883	
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)	60	1286	79	0	0	0	0	316	45	101	312	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	1418	0	0	0	0	0	356	0	101	312	0
Confl. Peds. (#/hr)	253		146	146		253	176		417	417		176
Confl. Bikes (#/hr)			168			2			54			21
Heavy Vehicles (%)	2%	4%	8%	0%	0%	0%	0%	2%	11%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	7	7	0	0	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		51.0						28.0		28.0	28.0	
Effective Green, g (s)		52.0						29.0		29.0	29.0	
Actuated g/C Ratio		0.58						0.32		0.32	0.32	
Clearance Time (s)		5.0						6.0		6.0	6.0	
Lane Grp Cap (vph)		2752						547		177	606	
v/s Ratio Prot		2702						c0.21			0.17	
v/s Ratio Perm		0.30						00121		0.18	0.1.7	
v/c Ratio		0.52						0.65		0.57	0.51	
Uniform Delay, d1		11.4						26.1		25.3	24.8	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.7						5.9		12.7	3.1	
Delay (s)		12.1						32.0		38.0	27.9	
Level of Service		В						С		D	С	
Approach Delay (s)		12.1			0.0			32.0			30.4	
Approach LOS		В			A			С			С	
Intersection Summary												
HCM 2000 Control Delay			18.8	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.56									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilizatio	n		63.2%	IC	U Level	of Service	,		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBR	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	76	65	125	860	388
v/c Ratio	0.14	0.44	0.50	0.69	0.30
Control Delay	0.5	37.3	10.4	22.3	17.5
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	0.5	37.3	10.4	22.4	17.5
Queue Length 50th (m)	0.0	6.8	0.0	51.8	20.5
Queue Length 95th (m)	0.0	14.4	5.0	72.1	30.7
Internal Link Dist (m)				102.6	72.1
Turn Bay Length (m)					
Base Capacity (vph)	552	149	249	1244	1273
Starvation Cap Reductn	0	0	0	24	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.44	0.50	0.70	0.30
Intersection Summary					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			1	5		1		<b>≜</b> t≽			<b>≜</b> t≽	
Traffic Volume (vph)	0	0	71	60	0	116	0	600	200	0	343	18
Future Volume (vph)	0	0	71	60	0	116	0	600	200	0	343	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0	3.0		3.0		5.0			5.0	
Lane Util. Factor			1.00	1.00		1.00		0.95			0.95	
Frpb, ped/bikes			0.45	1.00		1.00		0.92			0.97	
Flpb, ped/bikes			1.00	1.00		1.00		1.00			1.00	
Frt			0.86	1.00		0.85		0.96			0.99	
Flt Protected			1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)			702	1708		1543		3107			3273	
Flt Permitted			1.00	0.95		1.00		1.00			1.00	
Satd. Flow (perm)			/02	1/08		1543		3107			3273	
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)	0	0	/6	65	0	125	0	645	215	0	369	19
RTOR Reduction (vph)	0	0	69	0	0	114	0	40	0	0	5	0
Lane Group Flow (vph)	0	0	/	65	0	11	0	820	0	0	383	0
Confl. Peds. (#/hr)	487		817	817		487	359		280	280		359
Conii. Bikes (#/nr)	00/	100/	30	20/	Γ0/	98	00/	40/	10/	00/	00/	10
Heavy vehicles (%)	0%	13%	3%	3%	5% 0	2%	0%	4%	4%	0%	8%	0%
Bus Blockages (#/III)	9	9	9 Dorm	9 Drot	9	9 Drot	0		0	0		0
Turri Type Dretected Dhaces			Perm	PI01		PIOL		NA 4			NA o	
Protected Phases			1	1		5		4			0	
Actuated Groop G (s)			6.0	6.0		6.0		30.0			30.0	
Effective Green a (s)			7.0	0.0		7.0		30.0			30.0	
Actuated q/C Ratio			0.09	0.0		0.09		0 39			0 39	
Clearance Time (s)			4.0	4.0		4.0		6.0			6.0	
Lane Grn Can (vnh)			61	149		135		1203			1268	
v/s Ratio Prot			01	c0.04		0.01		c0.26			0.12	
v/s Ratio Perm			0.01	00.01		0.01		00.20			0.12	
v/c Ratio			0.11	0.44		0.08		0.68			0.30	
Uniform Delay, d1			33.6	34.6		33.5		20.4			17.0	
Progression Factor			1.00	0.80		0.45		1.00			1.00	
Incremental Delay, d2			3.6	8.9		1.2		3.1			0.6	
Delay (s)			37.2	36.7		16.2		23.5			17.6	
Level of Service			D	D		В		С			В	
Approach Delay (s)		37.2			23.2			23.5			17.6	
Approach LOS		D			С			С			В	
Intersection Summary												
HCM 2000 Control Delay			22.6	H	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			14.0			
Intersection Capacity Utilizatio	n		49.6%	IC	U Level	of Service	2		A			
Analysis Period (min)			15									
C CHIICALLANE GROUD												

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Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	681	457	437
v/c Ratio	0.29	0.44	0.38
Control Delay	5.4	25.1	20.1
Queue Delay	0.0	0.1	0.3
Total Delay	5.4	25.1	20.4
Queue Length 50th (m)	10.5	32.1	18.0
Queue Length 95th (m)	13.5	45.5	33.8
Internal Link Dist (m)	129.9	119.9	67.4
Turn Bay Length (m)			
Base Capacity (vph)	2342	1042	1158
Starvation Cap Reductn	0	0	276
Spillback Cap Reductn	0	46	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.46	0.50
Intersection Summarv			

# HCM Signalized Intersection Capacity Analysis 114: Church St & Richmond St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					-€¶¶}-			-4 <b>↑</b>			A	
Traffic Volume (vph)	0	0	0	174	313	140	30	390	0	0	384	18
Future Volume (vph)	0	0	0	174	313	140	30	390	0	0	384	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.91			0.95			0.95	
Frpb, ped/bikes					0.94			1.00			0.98	
Flpb, ped/bikes					0.92			0.99			1.00	
Frt					0.97			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					4210			3484			3464	
Flt Permitted					0.99			0.89			1.00	
Satd. Flow (perm)					4210			3127			3464	
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
Adi, Flow (vph)	0	0	0	189	340	152	33	424	0	0	417	20
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	0	678	0	0	457	0	0	433	0
Confl Peds (#/hr)	186	Ū	224	224	0.0	186	283		402	402	100	283
Confl. Bikes (#/hr)	100		64			100	200		16	102		50
Heavy Vehicles (%)	0%	0%	0%	0%	2%	2%	3%	2%	0%	0%	2%	0%
Turn Type	070	0.10	070	Perm	NA	270	Perm	NA	0.0	0,0	NA	0.10
Protected Phases				1 Onn	8		1 OIIII	2			6	
Permitted Phases				8	U		2	2			U	
Actuated Green G (s)				0	49.0		2	29.0			29.0	
Effective Green a (s)					50.0			30.0			30.0	
Actuated q/C Ratio					0.56			0 33			0 33	
Clearance Time (s)					6.0			6.0			6.0	
Lane Grn Can (vnh)					2228			10/12			1154	
v/s Ratio Prot					2330			1042			0.13	
v/s Ratio Porm					0.16			c0 15			0.15	
v/c Ratio					0.10			0.44			0.38	
Uniform Delay, d1					10.6			23 /			22.0	
Progression Factor					0.49			1 00			0.85	
Incremental Delay, d2					0.47			1.00			0.00	
Delay (s)					5.4			2/1.8			20.2	
Level of Service					Δ			24.0			20.2	
Approach Delay (s)		0.0			5.4			2/1.8			20.2	
Approach LOS		A			.ч А			24.0 C			20.2 C	
Intersection Summarv												
HCM 2000 Control Delay			15.1	н	CM 2000	Level of	Service		B			
HCM 2000 Volume to Capacity	ratio		0.35						U			
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.0			
Intersection Capacity Utilizatio	n		58.6%	10	CU Level	of Service	;		B			
Analysis Period (min)			15				-		U			
c Critical Lane Group			10									

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Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	1550	108	94
v/c Ratio	0.44	0.28	0.31
Control Delay	7.5	22.0	31.1
Queue Delay	0.0	0.0	0.0
Total Delay	7.6	22.0	31.1
Queue Length 50th (m)	45.0	10.7	13.2
Queue Length 95th (m)	54.7	23.8	26.3
Internal Link Dist (m)	108.1	67.9	129.6
Turn Bay Length (m)			
Base Capacity (vph)	3552	452	358
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	341	1	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.48	0.24	0.26
Intersection Summary			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ፈትኩ						4Î			र्भ	
Traffic Volume (vph)	53	1367	52	0	0	0	0	66	37	46	44	0
Future Volume (vph)	53	1367	52	0	0	0	0	66	37	46	44	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						5.6			5.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.99						0.97			1.00	
Flpb, ped/bikes		1.00						1.00			0.98	
Frt		0.99						0.95			1.00	
Flt Protected		1.00						1.00			0.98	
Satd. Flow (prot)		4965						1726			1773	
Flt Permitted		1.00						1.00			0.79	
Satd. Flow (perm)		4965						1726			1442	
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)	56	1439	55	0	0	0	0	69	39	48	46	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1546	0	0	0	0	0	84	0	0	94	0
Confl. Peds. (#/hr)	30		45	45		30	73		44	44		73
Confl. Bikes (#/hr)			76			1			8			1
Heavy Vehicles (%)	4%	4%	2%	0%	0%	0%	0%	3%	3%	4%	2%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			8	
Permitted Phases	2									8		
Actuated Green, G (s)		61.1						16.8			16.8	
Effective Green, g (s)		62.1						17.8			17.8	
Actuated g/C Ratio		0.69						0.20			0.20	
Clearance Time (s)		5.5						6.6			6.6	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		3425						341			285	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.31									c0.07	
v/c Ratio		0.45						0.25			0.33	
Uniform Delay, d1		6.3						30.4			31.0	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		0.4						0.4			0.7	
Delay (s)		6.7						30.8			31.7	
Level of Service		А						С			С	
Approach Delay (s)		6.7			0.0			30.8			31.7	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			9.5	Н	CM 2000	Level of	Service		А			
HCM 2000 Volume to Capacity	/ ratio		0.42									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			10.1			
Intersection Capacity Utilizatio	n		56.4%	IC	CU Level	of Service	;		В			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Unsignalized Intersection Capacity Analysis 128: Frederick Street & Front St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>4</b> 16			<b>4</b> 16			4			\$	
Traffic Volume (veh/h)	25	749	4	21	566	32	9	11	46	11	8	27
Future Volume (Veh/h)	25	749	4	21	566	32	9	11	46	11	8	27
Sign Control		Free			Free			Stop			Stop	
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)	27	797	4	22	602	34	10	12	49	12	9	29
Pedestrians		16			54			392			365	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		2			5			38			36	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		109			104							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	1001			1193			1640	2290	846	1590	2275	699
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	867			1193			1548	2242	846	1495	2226	544
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.8	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.1	3.3
p0 queue free %	94			94			0	14	73	0	26	90
cM capacity (veh/h)	473			365			8	14	181	5	12	289
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	426	402	323	335	71	50						
Volume Left	27	0	22	0	10	12						
Volume Right	0	4	0	34	49	29						
cSH	473	1700	365	1700	29	16						
Volume to Capacity	0.06	0.24	0.06	0.20	2.43	3.04						
Queue Length 95th (m)	1.4	0.0	1.5	0.0	63.8	Err						
Control Delay (s)	1.7	0.0	2.1	0.0	940.5	Err						
Lane LOS	А		А		F	F						
Approach Delay (s)	0.9		1.0		940.5	Err						
Approach LOS					F	F						
Intersection Summary												
Average Delay			353.5									
Intersection Capacity Utiliza	ition		58.1%	IC	CU Level	of Service			В			
Analysis Period (min)			15									

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Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	87	1464	451	357
v/c Ratio	0.09	0.74	0.42	0.38
Control Delay	3.5	11.5	25.4	25.6
Queue Delay	0.0	0.0	0.9	0.0
Total Delay	3.5	11.5	26.3	25.6
Queue Length 50th (m)	1.7	94.7	31.5	25.1
Queue Length 95th (m)	3.3	121.3	44.8	37.1
Internal Link Dist (m)		90.9	68.1	90.3
Turn Bay Length (m)				
Base Capacity (vph)	972	1972	1072	936
Starvation Cap Reductn	0	0	361	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.09	0.74	0.63	0.38
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	<b>≜</b> †Ъ						<b>≜</b> 15-			-a†	
Traffic Volume (vph)	81	1218	143	0	0	0	0	387	33	31	301	0
Future Volume (vph)	81	1218	143	0	0	0	0	387	33	31	301	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3						4.9			4.9	
Lane Util. Factor	1.00	0.95						0.95			0.95	
Frpb, ped/bikes	1.00	1.00						0.99			1.00	
Flpb, ped/bikes	0.97	1.00						1.00			1.00	
Frt	1.00	0.98						0.99			1.00	
Flt Protected	0.95	1.00						1.00			1.00	
Satd. Flow (prot)	1693	3418						3416			3403	
Flt Permitted	0.95	1.00						1.00			0.88	
Satd. Flow (perm)	1693	3418						3416			3002	
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)	87	1310	154	0	0	0	0	416	35	33	324	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	87	1454	0	0	0	0	0	444	0	0	357	0
Confl. Peds. (#/hr)	23		11	11		23	89		78	78		89
Confl. Bikes (#/hr)			50			2			7			5
Heavy Vehicles (%)	5%	4%	10%	0%	0%	0%	0%	4%	6%	3%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases	-	2						4			8	_
Permitted Phases	2	50 7						07.4		8	07.4	
Actuated Green, G (s)	50.7	50.7						27.1			27.1	
Effective Green, g (s)	51.7	51.7						28.1			28.1	
Actuated g/C Ratio	0.57	0.57						0.31			0.31	
Clearance Time (s)	6.3	6.3						5.9			5.9	
Lane Grp Cap (vph)	9/2	1963						1066			937	_
v/s Ratio Prot	0.05	c0.43						c0.13			0.40	
v/s Ratio Perm	0.05	0.74						0.40			0.12	_
V/C Ratio	0.09	0.74						0.42			0.38	
Uniform Delay, d I	8.6	14.2						24.5			24.2	_
Progression Factor	0.38	0.63						1.00			1.00	
Incremental Delay, d2	0.2	2.4						1.Z			1.Z	
Delay (S)	3.4	11.4 D						25.7			25.3	
Level of Service	A	D 10.0			0.0			25.7			25.2	
Approach LOS		10.9 D			0.0			20.7			20.3	
		D			A			C			C	
Intersection Summary			45.0		<u></u>		<u> </u>					
HCM 2000 Control Delay			15.9	H	CM 2000	Level of	Service		В			_
HCM 2000 Volume to Capac	city ratio		0.63	-	<u></u>				10.0			
Actuated Cycle Length (s)	•		90.0	Si	um of los	t time (s)			10.2			
Intersection Capacity Utilizat	ion		19.2%	IC	U Level	of Service	;		D			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 140: Berkeley St & King Street

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	546	326	144	98
v/c Ratio	0.25	0.15	0.39	0.25
Control Delay	6.5	6.0	23.9	20.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.5	6.0	23.9	20.7
Queue Length 50th (m)	16.8	9.3	14.7	9.3
Queue Length 95th (m)	23.1	13.8	28.5	20.0
Internal Link Dist (m)	110.1	92.3	87.5	67.9
Turn Bay Length (m)				
Base Capacity (vph)	2176	2213	426	458
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	0.25	0.15	0.34	0.21
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 140: Berkeley St & King Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		A			<b>≜1</b> ≱			4			4	
Traffic Volume (vph)	0	423	52	0	263	21	32	59	34	10	56	20
Future Volume (vph)	0	423	52	0	263	21	32	59	34	10	56	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.4			4.4			5.5			5.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.96			0.96			0.97			0.96	
Flpb, ped/bikes		1.00			1.00			0.97			0.99	
Frt		0.98			0.99			0.96			0.97	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3350			3416			1677			1716	
Flt Permitted		1.00			1.00			0.90			0.96	
Satd. Flow (perm)		3350			3416			1525			1656	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	486	60	0	302	24	37	68	39	11	64	23
RTOR Reduction (vph)	0	11	0	0	7	0	0	18	0	0	15	0
Lane Group Flow (vph)	0	535	0	0	319	0	0	126	0	0	83	0
Confl. Peds. (#/hr)	232		189	189		232	131		82	82		131
Confl. Bikes (#/hr)			27			53			18			19
Heavy Vehicles (%)	0%	2%	6%	0%	2%	0%	0%	2%	3%	10%	2%	0%
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		50.7			50.7			17.4			17.4	
Effective Green, g (s)		51.7			51.7			18.4			18.4	
Actuated g/C Ratio		0.65			0.65			0.23			0.23	
Clearance Time (s)		5.4			5.4			6.5			6.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2164			2207			350			380	
v/s Ratio Prot		c0.16			0.09							
v/s Ratio Perm								c0.08			0.05	
v/c Ratio		0.25			0.14			0.36			0.22	
Uniform Delay, d1		6.0			5.5			25.9			25.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.1			0.6			0.3	
Delay (s)		6.2			5.7			26.5			25.3	
Level of Service		A			A			С			С	
Approach Delay (s)		6.2			5.7			26.5			25.3	
Approach LOS		A			A			С			С	
Intersection Summary												
HCM 2000 Control Delay			10.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.28									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			9.9			
Intersection Capacity Utilization	1		41.5%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

### Queues 144: King Street & George Street

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FRI	WRI	NRI	SBT
646	414	144	170
0.32	0.20	0.37	0.40
8.4	6.4	26.9	27.0
0.6	0.0	0.0	0.0
9.0	6.4	26.9	27.0
29.8	11.8	17.3	20.3
37.3	17.2	31.9	36.3
80.5	81.9	93.1	76.2
2029	2108	402	434
944	0	0	0
0	0	0	0
0	0	0	0
0.60	0.20	0.36	0.39
	EBT 646 0.32 8.4 0.6 9.0 29.8 37.3 80.5 2029 944 0 0 0.60	►BT       WBT         646       414         0.32       0.20         8.4       6.4         0.6       0.0         9.0       6.4         29.8       11.8         37.3       17.2         80.5       81.9         2029       2108         944       0         0       0         0.60       0.20	←       ←         EBT       WBT       NBT         646       414       144         0.32       0.20       0.37         8.4       6.4       26.9         0.6       0.0       0.0         9.0       6.4       26.9         29.8       11.8       17.3         37.3       17.2       31.9         80.5       81.9       93.1         700       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0         00       0       0

# HCM Signalized Intersection Capacity Analysis 144: King Street & George Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		A1⊅			<b>≜</b> ⊅			4			4	
Traffic Volume (vph)	0	502	67	0	334	30	37	78	11	16	102	32
Future Volume (vph)	0	502	67	0	334	30	37	78	11	16	102	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6			5.5			5.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.93			0.96			0.97			0.96	
Flpb, ped/bikes		1.00			1.00			0.96			0.98	
Frt		0.98			0.99			0.99			0.97	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3234			3366			1738			1734	
Flt Permitted		1.00			1.00			0.88			0.96	
Satd. Flow (perm)		3234			3366			1554			1671	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	570	76	0	380	34	42	89	12	18	116	36
RTOR Reduction (vph)	0	13	0	0	8	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	633	0	0	406	0	0	140	0	0	163	0
Confl. Peds. (#/hr)	857		499	499		857	155		221	221		155
Confl. Bikes (#/hr)			27			74			10			12
Heavy Vehicles (%)	0%	1%	0%	0%	1%	3%	0%	1%	0%	0%	0%	0%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		48.9			48.9			19.0			19.0	
Effective Green, g (s)		49.9			49.9			20.0			20.0	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		5.6			5.6			6.5			6.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2017			2099			388			417	
v/s Ratio Prot		c0.20			0.12							
v/s Ratio Perm								0.09			c0.10	
v/c Ratio		0.31			0.19			0.36			0.39	
Uniform Delay, d1		7.0			6.4			24.7			24.9	
Progression Factor		1.19			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.2			0.6			0.6	
Delay (s)		8.8			6.6			25.3			25.6	
Level of Service		А			А			С			С	
Approach Delay (s)		8.8			6.6			25.3			25.6	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			11.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.34									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			10.1			
Intersection Capacity Utilization	n		41.4%	IC	U Level	of Service	;		А			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 159: Lower Jarvis St & Front St

	٦	-	4	-	1	Ŧ
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	58	497	34	580	634	404
v/c Ratio	0.24	0.34	0.14	0.41	0.50	0.32
Control Delay	10.0	8.0	17.9	19.1	18.9	16.3
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay	10.0	8.0	17.9	19.8	18.9	16.3
Queue Length 50th (m)	3.2	13.9	3.5	35.5	39.1	22.3
Queue Length 95th (m)	m6.5	17.2	9.7	48.1	53.2	32.1
Internal Link Dist (m)		41.0		78.3	121.4	102.6
Turn Bay Length (m)	35.0		55.0			
Base Capacity (vph)	239	1443	243	1425	1279	1278
Starvation Cap Reductn	0	0	0	503	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.34	0.14	0.63	0.50	0.32
Intersection Summary						

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

	٦	-	$\mathbf{r}$	1	-	*	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	A		7	A12			đ þ			đ þ	
Traffic Volume (vph)	52	418	24	30	499	17	49	452	63	20	270	70
Future Volume (vph)	52	418	24	30	499	17	49	452	63	20	270	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.97		1.00	0.99			0.97			0.93	
Flpb, ped/bikes	0.85	1.00		0.78	1.00			0.98			0.99	
Frt	1.00	0.99		1.00	1.00			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1463	3407		1298	3370			3200			3100	
Flt Permitted	0.37	1.00		0.42	1.00			0.87			0.90	
Satd. Flow (perm)	569	3407		577	3370			2807			2800	
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)	58	470	27	34	561	19	55	508	71	22	303	79
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	58	492	0	34	577	0	0	634	0	0	402	0
Confl. Peds. (#/hr)	567		995	995		567	607		331	331		607
Confl. Bikes (#/hr)			18			42			11			10
Heavy Vehicles (%)	4%	1%	4%	7%	4%	6%	2%	4%	2%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.0	37.0		37.0	37.0			40.0			40.0	
Effective Green, g (s)	38.0	38.0		38.0	38.0			41.0			41.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.46			0.46	
Clearance Time (s)	6.0	6.0		6.0	6.0			7.0			7.0	
Lane Grp Cap (vph)	240	1438		243	1422			1278			1275	
v/s Ratio Prot		0.14			c0.17							
v/s Ratio Perm	0.10			0.06				c0.23			0.14	
v/c Ratio	0.24	0.34		0.14	0.41			0.50			0.32	
Uniform Delay, d1	16.7	17.6		16.0	18.1			17.2			15.6	
Progression Factor	0.43	0.42		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.3	0.6		1.2	0.9			1.4			0.6	
Delay (s)	9.5	8.1		17.2	19.0			18.6			16.2	
Level of Service	А	А		В	В			В			В	
Approach Delay (s)		8.2			18.9			18.6			16.2	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			15.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.45									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			11.0			
Intersection Capacity Utiliza	tion		103.3%	IC	CU Level	of Service	;		G			
Analysis Period (min)			15									
c Critical Lane Group												

#### Queues 164: Parliament St & Front St

	٦	→	∢	+	1	Ŧ
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	55	825	135	572	585	389
v/c Ratio	0.16	0.49	0.59	0.34	0.64	0.40
Control Delay	13.9	15.6	29.1	14.0	23.7	19.9
Queue Delay	0.0	1.1	0.0	0.0	0.0	0.0
Total Delay	13.9	16.7	29.1	14.0	23.7	19.9
Queue Length 50th (m)	5.0	45.8	15.8	29.2	38.1	23.2
Queue Length 95th (m)	11.9	61.1	#38.7	40.4	56.0	35.2
Internal Link Dist (m)		87.7		140.6	136.0	125.7
Turn Bay Length (m)	45.0		40.0			
Base Capacity (vph)	336	1680	228	1686	920	972
Starvation Cap Reductn	0	575	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	0.16	0.75	0.59	0.34	0.64	0.40
Internetien Commencer						

Intersection Summary

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

Queue shown is maximum after two cycles.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	<b>≜1</b> ≱		ľ	A			đ þ			đ þ	
Traffic Volume (vph)	53	689	103	130	516	33	95	274	193	58	258	58
Future Volume (vph)	53	689	103	130	516	33	95	274	193	58	258	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.97		1.00	0.99			0.90			0.97	
Flpb, ped/bikes	0.94	1.00		0.95	1.00			0.99			0.98	
Frt	1.00	0.98		1.00	0.99			0.95			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1608	3333		1607	3362			2864			3122	
Flt Permitted	0.40	1.00		0.27	1.00			0.79			0.78	
Satd. Flow (perm)	673	3333		457	3362			2277			2456	
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)	55	718	107	135	538	34	99	285	201	60	269	60
RTOR Reduction (vph)	0	13	0	0	5	0	0	35	0	0	17	0
Lane Group Flow (vph)	55	812	0	135	567	0	0	550	0	0	373	0
Confl. Peds. (#/hr)	131		184	184		131	126		228	228		126
Confl. Bikes (#/hr)			16			47			55			26
Heavy Vehicles (%)	4%	1%	8%	5%	4%	6%	6%	4%	3%	7%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	3
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	44.0	44.0		44.0	44.0			34.0			34.0	
Effective Green, g (s)	45.0	45.0		45.0	45.0			35.0			35.0	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.39			0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	336	1666		228	1681			885			955	
v/s Ratio Prot		0.24			0.17							
v/s Ratio Perm	0.08			c0.30				c0.24			0.15	
v/c Ratio	0.16	0.49		0.59	0.34			0.62			0.39	
Uniform Delay, d1	12.3	14.9		16.0	13.5			22.2			19.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	1.0		10.8	0.5			3.3			1.2	
Delay (s)	13.3	15.9		26.8	14.1			25.4			21.0	
Level of Service	В	В		С	В			С			С	
Approach Delay (s)		15.7			16.5			25.4			21.0	
Approach LOS		В			В			С			С	
Intersection Summary												
HIGH 2000 Control Dolow			10.0		CM 2000	Loval of	Condoo					
HCM 2000 Volume to Coner	oitu rotio		19.0	H		Level of	Service		В			
Actuated Cycle Length (a)	JILY TALLO		00.0	C.	im of loo	time (a)			10.0			
Intersection Canacity Hilizet	tion		90.0	50		of Sorvice	<b>`</b>		10.0 E			
Analysis Doried (min)	UUH		77.0% 15	IC	O LEVEL		;		F			
			10									

### Queues 166: Cherry St & Front St

	≯	→	$\mathbf{r}$	1	+	1	1	Ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	18	215	82	66	101	159	57	377
v/c Ratio	0.05	0.34	0.15	0.20	0.17	0.21	0.35	0.44
Control Delay	18.4	21.8	2.3	20.8	19.6	15.0	39.6	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	21.8	2.3	20.8	19.6	15.0	39.6	14.0
Queue Length 50th (m)	1.8	24.1	0.0	7.0	10.6	11.7	9.3	33.2
Queue Length 95th (m)	6.2	41.2	4.2	16.2	21.3	38.5	20.7	53.5
Internal Link Dist (m)		133.9			121.8	134.8		120.9
Turn Bay Length (m)	15.0		20.0	45.0			45.0	
Base Capacity (vph)	393	651	546	348	615	751	168	861
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	0.05	0.33	0.15	0.19	0.16	0.21	0.34	0.44
Intersection Summary								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	<b>†</b>	1	۲.	¢Î,			र्च	1		eî 🗧	
Traffic Volume (vph)	17	198	75	61	72	21	32	114	52	0	322	25
Future Volume (vph)	17	198	75	61	72	21	32	114	52	0	322	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0			6.0	4.0		6.0	
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	0.88	1.00	0.97			1.00	1.00		0.96	
Flpb, ped/bikes	0.92	1.00	1.00	0.93	1.00			0.93	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99	1.00		1.00	
Satd. Flow (prot)	1543	1860	1332	1586	1759			1659	1566		1676	
Flt Permitted	0.69	1.00	1.00	0.60	1.00			0.87	1.00		1.00	
Satd. Flow (perm)	1124	1860	1332	995	1759			1467	1566		1676	
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)	18	215	82	66	78	23	35	124	57	0	350	27
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	18	215	28	66	101	0	0	159	57	0	374	0
Confl. Peds. (#/hr)	104		60	60		104	428		79	79		428
Confl. Bikes (#/hr)			14			54			21			22
Heavy Vehicles (%)	6%	1%	5%	5%	0%	0%	0%	6%	2%	0%	7%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	custom		NA	
Protected Phases		4			8			26	1		26	
Permitted Phases	4		4	8			26					
Actuated Green, G (s)	26.0	26.0	26.0	26.0	26.0			40.0	4.8		40.0	
Effective Green, g (s)	27.0	27.0	27.0	27.0	27.0			41.0	5.8		41.0	
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34			0.51	0.07		0.51	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0				5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				3.0			
Lane Grp Cap (vph)	379	627	449	335	593			751	113		858	
v/s Ratio Prot		c0.12			0.06				0.04		c0.22	
v/s Ratio Perm	0.02		0.02	0.07				0.11				
v/c Ratio	0.05	0.34	0.06	0.20	0.17			0.21	0.50		0.44	
Uniform Delay, d1	17.8	19.9	17.9	18.8	18.6			10.7	35.7		12.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.31	1.01		1.00	
Incremental Delay, d2	0.1	0.3	0.1	0.3	0.1			0.6	3.5		1.6	
Delay (s)	17.9	20.2	18.0	19.1	18.8			14.6	39.6		13.8	
Level of Service	В	С	В	В	В			В	D		В	
Approach Delay (s)		19.5			18.9			21.2			13.8	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM 2000 Control Delay			17.8	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.42						_			
Actuated Cycle Length (s)	.,		80.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ition		92.1%	IC	U Level	of Service	)		F			
Analysis Period (min)	-		15									
c Critical Lana Croup												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	281	200	560	351
v/c Ratio	0.70	0.71	0.35	0.19
Control Delay	31.4	38.7	9.3	8.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	31.4	38.7	9.3	8.3
Queue Length 50th (m)	31.3	25.1	21.4	12.5
Queue Length 95th (m)	56.6	#48.8	32.0	19.4
Internal Link Dist (m)	196.1	283.3	225.3	121.4
Turn Bay Length (m)				
Base Capacity (vph)	410	290	1621	1847
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	0.69	0.69	0.35	0.19
Intersection Summary				

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			đ þ			đ þ	
Traffic Volume (vph)	46	115	100	99	72	16	43	426	52	2	317	7
Future Volume (vph)	46	115	100	99	72	16	43	426	52	2	317	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.9			4.9			4.6			4.6	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.86			0.97			0.95			0.99	
Flpb, ped/bikes		0.96			0.91			0.97			1.00	
Frt		0.95			0.99			0.98			1.00	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1379			1529			3035			3286	
Flt Permitted		0.92			0.61			0.90			0.95	
Satd. Flow (perm)		1280			952			2735			3133	
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
Adi, Flow (vph)	49	124	108	106	77	17	46	458	56	2	341	8
RTOR Reduction (vph)	0	27	0	0	4	0	0	10	0	0	2	0
Lane Group Flow (vph)	0	254	0	0	196	0	0	550	0	0	349	0
Confl. Peds. (#/hr)	345		389	389		345	283		223	223		283
Confl. Bikes (#/hr)			20			21			8			19
Heavy Vehicles (%)	7%	5%	5%	2%	6%	0%	7%	6%	6%	0%	7%	0%
Bus Blockages (#/hr)	2	2	2	2	2	2	0	4	4	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		22.4			22.4			46.1			46.1	
Effective Green, g (s)		23.4			23.4			47.1			47.1	
Actuated g/C Ratio		0.29			0.29			0.59			0.59	
Clearance Time (s)		5.9			5.9			5.6			5.6	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		374			278			1610			1844	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.21			c0.20			0.11	
v/c Ratio		0.68			0.70			0.34			0.19	
Uniform Delay, d1		25.0			25.2			8.5			7.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.9			7.9			0.6			0.2	
Delay (s)		29.8			33.1			9.0			7.8	
Level of Service		С			С			А			А	
Approach Delay (s)		29.8			33.1			9.0			7.8	
Approach LOS		С			С			А			А	
Intersection Summary												
HCM 2000 Control Delay			16.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	ity ratio		0.48									
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)			11.5			
Intersection Capacity Utilizati	on		69.0%	IC	U Level	of Service	;		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	205	177	48	285	17	416
v/c Ratio	0.54	0.48	0.11	0.29	0.03	0.43
Control Delay	22.6	24.4	7.8	8.5	6.1	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	24.4	7.8	8.5	6.1	10.3
Queue Length 50th (m)	17.8	18.1	2.6	16.7	1.1	35.1
Queue Length 95th (m)	37.2	35.4	7.1	29.0	m2.6	57.7
Internal Link Dist (m)	283.3	301.6		269.4		134.5
Turn Bay Length (m)			30.0		35.0	
Base Capacity (vph)	383	372	420	970	506	974
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	0.54	0.48	0.11	0.29	0.03	0.43
Intersection Summary						

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		۲.	ĥ		۲	4	
Traffic Volume (vph)	30	100	67	61	95	13	46	239	35	16	337	62
Future Volume (vph)	30	100	67	61	95	13	46	239	35	16	337	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		5.0			5.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.80			0.97		1.00	0.96		1.00	0.96	
Flpb, ped/bikes		0.96			0.87		0.90	1.00		0.84	1.00	
Frt		0.95			0.99		1.00	0.98		1.00	0.98	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1263			1438		1539	1691		1500	1688	
Flt Permitted		0.93			0.84		0.45	1.00		0.56	1.00	
Satd. Flow (perm)		1189			1227		735	1691		885	1688	
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)	31	104	70	64	99	14	48	249	36	17	351	65
RTOR Reduction (vph)	0	27	0	0	4	0	0	4	0	0	9	0
Lane Group Flow (vph)	0	178	0	0	173	0	48	281	0	17	407	0
Confl. Peds. (#/hr)	190		453	453		190	110		128	128		110
Confl. Bikes (#/hr)			37			39			104			75
Heavy Vehicles (%)	7%	7%	9%	5%	6%	8%	4%	3%	3%	0%	4%	5%
Bus Blockages (#/hr)	2	2	2	2	2	2	0	4	4	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.0			20.0		39.0	39.0		39.0	39.0	
Effective Green, g (s)		21.0			21.0		40.0	40.0		40.0	40.0	
Actuated g/C Ratio		0.30			0.30		0.57	0.57		0.57	0.57	
Clearance Time (s)		6.0			6.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		356			368		420	966		505	964	
v/s Ratio Prot								0.17			c0.24	
v/s Ratio Perm		c0.15			0.14		0.07			0.02		
v/c Ratio		0.50			0.47		0.11	0.29		0.03	0.42	
Uniform Delay, d1		20.2			20.0		6.9	7.7		6.6	8.5	
Progression Factor		1.00			1.00		1.00	1.00		0.89	1.07	
Incremental Delay, d2		5.0			4.3		0.6	0.8		0.1	1.3	
Delay (s)		25.2			24.2		7.4	8.5		5.9	10.4	
Level of Service		С			С		А	А		А	В	
Approach Delay (s)		25.2			24.2			8.3			10.3	
Approach LOS		С			С			А			В	
Intersection Summary												
HCM 2000 Control Dolor			145		CM 2000	Lovelof	Sonvice		D			
HCM 2000 Volume to Caree	ity rotio		14.5	Н		Level of	Service		В			
HCIVI 2000 VOIUME to Capac	ity ratio		0.45	C	um of los	t time (a)			0.0			
Actualed Cycle Length (S)	on		/0.0	SI	um of Ios	t time (S)			9.0			
Intersection Capacity Utilizati	UN		04./%	IC	U Level	UI SERVICE	;		C			
Analysis Peniod (min)			15									

c Critical Lane Group

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Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	97	108	670	621
v/c Ratio	0.17	0.25	0.46	0.47
Control Delay	18.7	5.8	11.7	13.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.7	5.8	11.7	13.4
Queue Length 50th (m)	9.2	0.0	25.0	26.7
Queue Length 95th (m)	19.2	9.8	37.5	39.3
Internal Link Dist (m)	379.6		245.4	136.0
Turn Bay Length (m)	15.0			
Base Capacity (vph)	555	439	1455	1332
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	0.17	0.25	0.46	0.47
Intersection Summary				

	4	•	t	۲	5	Ļ		
Movement	WBI	WBR	NBT	NBR	SBI	SBT		
Lane Configurations	<u> </u>	1	<b>A</b> 1	NBR	<u>JDL</u>	4		
Traffic Volume (vph)	87	97	465	138	57	502		
Future Volume (vph)	87	97	465	138	57	502		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	35	3 5	3 5	35	35	3.5		
Total Lost time (s)	4.2	4.2	5.0	0.0	0.0	5.0		
Lane Util Factor	1 00	1.00	0.95			0.95		
Ernh ned/hikes	1.00	0.74	0.88			1.00		
Find ned/bikes	1.00	1.00	1.00			0.98		
Frt	1.00	0.85	0.97			1.00		
Flt Protected	0.95	1.00	1.00			0.99		
Satd Flow (prot)	1785	1172	2917			3309		
Flt Permitted	0.95	1 00	1 00			0.82		
Satd Flow (perm)	1785	1172	2917			2744		
Peak-hour factor DUE	0.00	0 00	0 00	0 00	0 00	0 00		
	0.90	102	517	152	63	558		
RTOR Reduction (unb)	0	7/	20	100	03	000		
Lano Group Flow (vph)	07	2/	621	0	0	621		
Confl Dods (#/br)	77 /12	106	031	272	272	021		
Confl. Rikos (#/hr)	413	190		273 //1	215			
$U_{0,0,0}$ $V_{0,0}$ $(\%)$	0%	93 0%	10/	41	0%	60/		
Rus Blockagos (#/br)	070	2	4 /0	4 /0	070	078		
	Drot	Dorm		0	Dorm			
Turri Type Drotoctod Dhacoc	P101 0	Penn	NA 2		Pelill	NA 4		
Protected Phases	0	0	Z		6	0		
Actuated Croop C (c)	20.0	0 20.0	22.0		0	22.0		
Effective Creen, g (s)	20.0	20.0	24.0			33.0		
Actuated a/C Datio	2 I.O 0 21	21.0 0.21	0.40			0.40		
Clearance Time (c)	0.31	0.31	0.49			0.49		
	5.2	2.C	0.0			0.0		
Lane Grp Cap (vpn)	555	364	1416			1332		
V/S RATIO Prot	CU.U5	0.00	0.22			-0.00		
v/s Ralio Perm	0 17	0.03	0.45			CU.23		
V/C Kallo	U.I/	0.09	0.45			0.47		
Unilorm Delay, d I	1/.5	1/.1	11.8			12.0		
Progression Factor	1.00	1.00	1.00			1.00		
Incremental Delay, d2	0.7	0.5	1.0			1.2		
Delay (S)	18.2	17.6	12.8			13.1 D		
Level of Service	17 O	В	10 O			B		
Approach Delay (s)	17.9		12.8			13.1		
Approach LUS	В		В			В		
Intersection Summary								
HCM 2000 Control Delav			13.7	Н	CM 2000	Level of Servi	ce B	
HCM 2000 Volume to Capa	acity ratio		0.33					
Actuated Cycle Length (s)	.,		70.0	S	um of lost	t time (s)	11.2	
Intersection Capacity Utiliza	ation		63.5%	IC	CU Level	of Service	B	
Analysis Period (min)			15					
			10					

c Critical Lane Group

## Queues 173: Cherry St & Mill St

	≯	-	1	-	1	1	1	Ŧ
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	202	193	67	26	159	8	476
v/c Ratio	0.13	0.34	0.55	0.11	0.09	0.19	0.06	0.57
Control Delay	18.9	18.2	28.1	18.3	15.2	14.6	41.6	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	18.2	28.1	18.3	15.2	14.6	41.6	11.3
Queue Length 50th (m)	5.2	18.8	23.2	6.8	2.0	12.6	1.0	19.0
Queue Length 95th (m)	12.7	35.0	43.7	14.9	8.2	30.9	m3.2	45.9
Internal Link Dist (m)		379.6		303.0		221.1		134.8
Turn Bay Length (m)	30.0		45.0		25.0		25.0	
Base Capacity (vph)	385	596	352	592	299	836	138	839
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	0.13	0.34	0.55	0.11	0.09	0.19	0.06	0.57
Intersection Summary								

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

## HCM Signalized Intersection Capacity Analysis 173: Cherry St & Mill St

	٠	-	$\mathbf{\hat{z}}$	4	-	•	1	1	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		۲	4		<u>۲</u>	•		۲	4	
Traffic Volume (vph)	47	131	55	178	54	7	24	146	0	7	411	27
Future Volume (vph)	47	131	55	178	54	7	24	146	0	7	411	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	6.9	6.9		6.9	6.9		5.3	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.95		1.00	0.97		1.00	1.00		1.00	0.98	
Flpb, ped/bikes	0.91	1.00		0.91	1.00		0.87	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1463	1647		1511	1686		1368	1789		1384	1681	
Flt Permitted	0.71	1.00		0.63	1.00		0.45	1.00		0.95	1.00	
Satd. Flow (perm)	1098	1647		1004	1686		649	1789		1384	1681	
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
Adi, Flow (vph)	51	142	60	193	59	8	26	159	0	8	447	29
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	51	183	0	193	67	0	26	159	0	8	473	0
Confl. Peds. (#/hr)	67		84	84		67	139		55	55		139
Confl. Bikes (#/hr)			17			114			15			31
Heavy Vehicles (%)	11%	3%	6%	7%	4%	14%	13%	5%	20%	29%	9%	4%
Bus Blockages (#/hr)	0	0	0	0	3	3	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Prot	NA	
Protected Phases	1 onn	4		1 01111	8		1 onn	2		1	6	
Permitted Phases	4			8	Ū		2	_			0	
Actuated Green, G (s)	27.0	27.0		27.0	27.0		32.4	32.4		1.4	38.8	
Effective Green, g (s)	28.0	28.0		28.0	28.0		33.4	33.4		2.4	39.8	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.42	0.42		0.03	0.50	
Clearance Time (s)	7.9	7.9		7.9	7.9		6.3	6.3		5.0	6.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	384	576		351	590		270	746		41	836	
v/s Ratio Prot	001	0.11		001	0.04		210	0.09		0.01	c0.28	
v/s Ratio Perm	0.05	0.11		c0.19	0.01		0.04	0.07		0.01	00.20	
v/c Ratio	0.13	0.32		0.55	0.11		0.10	0.21		0.20	0.57	
Uniform Delay, d1	17.7	19.0		20.9	17.6		14.1	14.9		37.9	14.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.22	0.60	
Incremental Delay, d2	0.2	0.3		1.8	0.1		0.7	0.7		2.2	2.6	
Delay (s)	17.9	19.3		22.7	17.7		14.8	15.6		48.5	11.1	
Level of Service	В	В		С	В		В	В		D	В	
Approach Delay (s)		19.0			21.4			15.5			11.7	
Approach LOS		В			С			В			В	
Intersection Summarv												
HCM 2000 Control Delay			16.0	H	CM 2000	Level of	Service		R			
HCM 2000 Volume to Capac	ity ratio		0.59		2000	LOVOI OI	0011100		D			
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			16.2			
Intersection Capacity Utilizati	on		84.6%		ULevel	of Service	•		F			
Analysis Period (min)			15	10	2 201011				-			
c Critical Lane Group												

## Queues <u>177: Parliament Street & Shuter Street</u>

	٦	-	1	+	Ť	ŧ
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	134	419	55	123	497	369
v/c Ratio	0.24	0.51	0.17	0.15	0.43	0.29
Control Delay	6.1	8.8	14.9	12.3	16.8	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	8.8	14.9	12.3	16.8	14.2
Queue Length 50th (m)	8.2	40.4	4.8	9.5	25.7	16.5
Queue Length 95th (m)	m9.3	m44.6	11.7	18.4	36.8	25.0
Internal Link Dist (m)		193.7		105.8	133.9	96.6
Turn Bay Length (m)	25.0		25.0			
Base Capacity (vph)	552	829	324	829	1166	1267
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	0.24	0.51	0.17	0.15	0.43	0.29
Intersection Summary						

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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	eî.		ľ	el el			đ þ			đ þ	
Traffic Volume (vph)	118	294	75	48	94	14	77	311	49	18	250	57
Future Volume (vph)	118	294	75	48	94	14	77	311	49	18	250	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.99			0.98			0.95	
Flpb, ped/bikes	0.94	1.00		0.96	1.00			0.97			1.00	
Frt	1.00	0.97		1.00	0.98			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1720	1816		1727	1829			3332			3187	
Flt Permitted	0.68	1.00		0.40	1.00			0.81			0.92	
Satd. Flow (perm)	1227	1816		722	1829			2717			2927	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	134	334	85	55	107	16	88	353	56	20	284	65
RTOR Reduction (vph)	0	12	0	0	7	0	0	12	0	0	22	0
Lane Group Flow (vph)	134	407	0	55	116	0	0	485	0	0	347	0
Confl. Peds. (#/hr)	57		66	66		57	134		83	83		134
Confl. Bikes (#/hr)			10			25			15			17
Heavy Vehicles (%)	0%	0%	3%	2%	1%	7%	1%	1%	2%	6%	4%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	3	0	3	3
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	35.0	35.0		35.0	35.0			33.0			33.0	
Effective Green, g (s)	36.0	36.0		36.0	36.0			34.0			34.0	
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.42			0.42	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)	552	817		324	823			1154			1243	
v/s Ratio Prot		c0.22			0.06							
v/s Ratio Perm	0.11			0.08				c0.18			0.12	
v/c Ratio	0.24	0.50		0.17	0.14			0.42			0.28	
Uniform Delay, d1	13.6	15.6		13.1	12.9			16.1			15.0	
Progression Factor	0.39	0.49		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.6	1.3		1.1	0.4			1.1			0.6	
Delay (s)	5.9	9.0		14.2	13.3			17.2			15.6	
Level of Service	А	А		В	В			В			В	
Approach Delay (s)		8.2			13.6			17.2			15.6	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			13.3	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.46									
Actuated Cycle Length (s)			80.0	Si	um of los	t time (s)			10.0			
Intersection Capacity Utilization	tion		87.4%	IC	U Level	of Service	<u>;</u>		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	638	274	482	383
v/c Ratio	0.30	0.14	0.57	0.47
Control Delay	4.7	7.1	30.1	28.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.7	7.1	30.1	28.2
Queue Length 50th (m)	13.0	9.0	36.4	27.6
Queue Length 95th (m)	16.2	14.0	51.7	41.0
Internal Link Dist (m)	397.1	72.4	96.7	133.9
Turn Bay Length (m)				
Base Capacity (vph)	2111	2027	853	816
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	0.30	0.14	0.57	0.47
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> †}			A12∍			đ þ			đ þ	
Traffic Volume (vph)	0	551	43	0	203	52	30	371	47	31	286	39
Future Volume (vph)	0	551	43	0	203	52	30	371	47	31	286	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.7			4.7			5.1			5.1	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.95			0.97			0.97	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			0.97			0.98			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3428			3293			3367			3314	
Flt Permitted		1.00			1.00			0.90			0.87	
Satd. Flow (perm)		3428			3293			3047			2912	
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)	0	592	46	0	218	56	32	399	51	33	308	42
RTOR Reduction (vph)	0	6	0	0	5	0	0	10	0	0	11	0
Lane Group Flow (vph)	0	632	0	0	269	0	0	472	0	0	372	0
Confl. Peds. (#/hr)	184		260	260		184	188		240	240		188
Confl. Bikes (#/hr)			13			4			7			7
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	3%	2%	0%	0%	4%	3%
Bus Blockages (#/hr)	9	9	9	9	9	9	0	0	0	0	0	0
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		54.3			54.3			23.9			23.9	
Effective Green, g (s)		55.3			55.3			24.9			24.9	
Actuated g/C Ratio		0.61			0.61			0.28			0.28	
Clearance Time (s)		5.7			5.7			6.1			6.1	
Lane Grp Cap (vph)		2106			2023			843			805	
v/s Ratio Prot		c0.18			0.08							
v/s Ratio Perm								c0.15			0.13	
v/c Ratio		0.30			0.13			0.56			0.46	
Uniform Delay, d1		8.2			7.3			27.9			27.0	
Progression Factor		0.54			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.1			2.7			1.9	
Delay (s)		4.8			7.4			30.5			28.9	
Level of Service		А			А			С			С	
Approach Delay (s)		4.8			7.4			30.5			28.9	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			17.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.38									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.8			
Intersection Capacity Utilization	۱		61.1%	IC	CU Level	of Service	è		В			
Analysis Period (min)			15									
c Critical Lane Group												

## Queues 187: Sherbourne Street & Queen Street

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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	635	294	34	316	88	374
v/c Ratio	0.37	0.18	0.17	0.53	0.40	0.64
Control Delay	8.2	9.5	24.5	27.7	30.1	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	9.5	24.5	27.7	30.1	31.1
Queue Length 50th (m)	40.4	12.5	4.2	42.5	11.6	53.4
Queue Length 95th (m)	56.0	20.7	11.6	67.6	25.5	82.9
Internal Link Dist (m)	194.8	397.1		106.3		164.7
Turn Bay Length (m)			25.0		25.0	
Base Capacity (vph)	1729	1609	196	593	221	587
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	0.37	0.18	0.17	0.53	0.40	0.64
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ર્ન કિ			4î b		ľ	el 🕴		ľ	ę.	
Traffic Volume (vph)	56	545	22	29	212	47	33	263	47	86	328	38
Future Volume (vph)	56	545	22	29	212	47	33	263	47	86	328	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.7			4.7		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.99			0.94		1.00	0.96		1.00	0.98	
Flpb, ped/bikes		0.98			0.99		0.94	1.00		0.87	1.00	
Frt		0.99			0.98		1.00	0.98		1.00	0.98	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3379			3217		1717	1787		1579	1778	
Flt Permitted		0.89			0.86		0.33	1.00		0.41	1.00	
Satd. Flow (perm)		3028			2791		599	1787		677	1778	
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)	57	556	22	30	216	48	34	268	48	88	335	39
RTOR Reduction (vph)	0	3	0	0	18	0	0	7	0	0	5	0
Lane Group Flow (vph)	0	632	0	0	276	0	34	309	0	88	369	0
Confl. Peds. (#/hr)	185		151	151		185	116		225	225		116
Confl. Bikes (#/hr)			2			3			6			19
Heavy Vehicles (%)	2%	2%	0%	0%	1%	0%	0%	1%	0%	0%	2%	0%
Bus Blockages (#/hr)	9	9	9	10	10	10	0	0	0	0	7	7
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		50.3			50.3		28.5	28.5		28.5	28.5	
Effective Green, g (s)		51.3			51.3		29.5	29.5		29.5	29.5	
Actuated g/C Ratio		0.57			0.57		0.33	0.33		0.33	0.33	
Clearance Time (s)		5.7			5.7		5.5	5.5		5.5	5.5	
Lane Grp Cap (vph)		1725			1590		196	585		221	582	
v/s Ratio Prot								0.17			c0.21	
v/s Ratio Perm		c0.21			0.10		0.06			0.13		
v/c Ratio		0.37			0.17		0.17	0.53		0.40	0.63	
Uniform Delay, d1		10.5			9.2		21.6	24.6		23.4	25.7	
Progression Factor		0.73			1.16		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.2		1.9	3.4		5.3	5.2	
Delay (s)		8.2			10.9		23.5	28.0		28.7	30.9	
Level of Service		A			В		С	С		С	С	
Approach Delay (s)		8.2			10.9			27.5			30.5	
Approach LOS		A			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			18.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			9.2			
Intersection Capacity Utilizatio	n		97.2%	IC	U Level	of Service	;		F			
Analysis Period (min)			15									
C Critical Lane Group												

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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	738	1033	2	3	66	404
v/c Ratio	0.48	0.55	0.03	0.01	0.25	0.98
Control Delay	34.8	35.8	39.0	37.0	42.0	78.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	35.8	39.0	37.0	42.0	78.4
Queue Length 50th (m)	51.3	58.7	0.4	0.6	13.0	82.5
Queue Length 95th (m)	63.8	69.9	2.8	3.2	25.9	#145.7
Internal Link Dist (m)	129.2	5.3		75.9		269.4
Turn Bay Length (m)			35.0		25.0	
Base Capacity (vph)	1522	1888	61	407	264	413
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	0.48	0.55	0.03	0.01	0.25	0.98

### Intersection Summary

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

Queue shown is maximum after two cycles.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		aî <b>≜</b> î⊧			<b>ជាដ្</b>		٦	eî 🕺		۲	4Î	
Traffic Volume (vph)	169	491	26	30	783	148	2	3	0	61	157	247
Future Volume (vph)	169	491	26	30	783	148	2	3	0	61	157	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		6.0			6.0		8.0	8.0		8.0	6.0	
Lane Util. Factor		0.91			0.86		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.89	1.00	
Frt		0.99			0.98		1.00	1.00		1.00	0.91	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		4925			6128		1749	1879		1536	1570	
Flt Permitted		0.99			1.00		0.15	1.00		0.76	1.00	
Satd. Flow (perm)		4925			6128		283	1879		1222	1570	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	1.00	1.00
Adi, Flow (vph)	182	528	28	32	842	159	2	3	0	66	157	247
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	48	0
Lane Group Flow (vph)	0	735	0	0	1033	0 0	2	3	0	66	356	0
Confl Peds (#/hr)	2	,00	8	8	1000	2	41	0	76	76	000	41
Confl Bikes (#/hr)	2		U	0		2			56	70		40
Heavy Vehicles (%)	1%	2%	12%	0%	3%	0%	0%	0%	0%	3%	1%	2%
	Snlit		1270	Snlit	ΝΔ	070	Perm	ΝΔ	070	Perm	NΔ	270
Protected Phases	2 2	2		5pm 1	1		1 CIIII	4		1 Chin	4	
Permitted Phases	2	2					4			4	т.	
Actuated Green G (s)		36.0			36.0		25.0	25.0		25.0	25.0	
Effective Green a (s)		37.0			37.0		26.0	26.0		26.0	28.0	
Actuated q/C Ratio		0.31			0.31		0.22	0.22		0.22	0.23	
Clearance Time (s)		7.0			7.0		9.0	9.0		9.0	9.0	
Lano Crn Can (ynh)		1510			100		61	407		264	366	
v/s Patio Prot		c0 15			c0 17		01	0.00		204	c0 23	
v/s Natio Frot		0.15			CU.17		0.01	0.00		0.05	0.25	
		0.40			0 55		0.01	0.01		0.05	0.07	
Uniform Dolay, d1		22.7			24.5		27.1	26.0		22.0	15.6	
Dragrossion Eactor		1 00			1 00		1 00	1 00		1 00	40.0	
Incromontal Dolay, d2		1.00			1.00		1.00	0.0		1.00	1.00	
Dolay (s)		2/1.0			25.7		20.1	26.0		2.J	40.7 86.6	
Lovel of Service		J4.0			55.7 D		JU. 1	JU.7		41.Z	00.0 E	
Approach Dolay (s)		318			25.7		D	27 /		D	80.2	
Approach LOS		54.0 C			55.7 D			57.4 D			60.2 F	
Intersection Summary												
HCM 2000 Control Delay			44 7	H	ICM 2000	l evel of	Service		П			
HCM 2000 Volume to Canacity	ratio		0.65	11	2000				U			
Actuated Cycle Length (s)	Tallo		120.0	ç	um of los	t time (s)			20.0			
Intersection Canacity Utilization	า		80.5%	10		nf Service	2		20.0			
Analysis Period (min)	1		15				,		U			
c Critical Lane Group			10									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		<b>^</b>			5	
Traffic Volume (veh/h)	0	1434	0	0	84	0
Future Volume (Veh/h)	0	1434	0	0	84	0
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)	0	1526	0	0	89	0
Pedestrians		103	8		78	
Lane Width (m)		3.7	0.0		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		10	0		8	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)		189	132			
pX, platoon unblocked						
vC, conflicting volume	78				595	181
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	78				595	181
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				78	100
cM capacity (veh/h)	1416				407	695
Direction Lane #	FR 1	FRJ	FR 2	SR 1		
		E00	ED 3	00		
	900	900	909	07 00		
Volume Dight	0	0	0	89		
	1700	U 1700	U 1700	0		
LOA Volume to Conseitu	1700	0.20	0.20	407		
Volume to Capacity	0.30	0.30	0.30	0.22		
Queue Lengin 95in (m)	0.0	0.0	0.0	0.3		
Control Delay (S)	0.0	0.0	0.0	10.3		
Lane LUS	0.0					
Approach Delay (S)	0.0			16.3		
Approach LUS				C		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utili	zation		47.4%	IC	U Level o	of Service
Analysis Period (min)			15			

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	•	1		स	¥	
Traffic Volume (veh/h)	592	20	6	446	5	12
Future Volume (Veh/h)	592	20	6	446	5	12
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)	630	21	6	474	5	13
Pedestrians	58			11	149	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	6			1	15	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			800		1323	790
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			800		1323	790
tC, single (s)			4.4		6.8	6.3
tC, 2 stage (s)						
tF (s)			2.5		3.9	3.4
p0 gueue free %			99		96	96
cM capacity (veh/h)			600		114	322
Direction Lane #	FR 1	FR 2	WB 1	NR 1		
Volume Total	630	21	480	18		
Volume Left	0	0	6	5		
Volume Right	0	21	0	13		
cSH	1700	1700	600	214		
Volume to Capacity	0.37	0.01	0.01	0.08		
Queue Length 95th (m)	0.0	0.0	0.2	21		
Control Delay (s)	0.0	0.0	0.3	23.4		
Lane LOS	0.0	0.0	A	С		
Approach Delay (s)	0.0		0.3	23.4		
Approach LOS	0.0		0.0	C		
Interception Summary				5		
			0.5			
Average Delay	tta a		0.5			f Carela
Intersection Capacity Utiliza	auon		44.2%	IC	U Level (	DI Service
Analysis Period (min)			15			

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	768	533	555	517
v/c Ratio	0.76	0.59	0.39	0.62
Control Delay	25.6	28.1	10.6	21.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.6	28.1	10.6	21.8
Queue Length 50th (m)	44.8	32.6	19.5	27.3
Queue Length 95th (m)	64.9	49.5	28.9	42.4
Internal Link Dist (m)	23.4	183.2	89.2	52.7
Turn Bay Length (m)				
Base Capacity (vph)	1006	902	1416	836
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	0.76	0.59	0.39	0.62
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ þ			eî îr			4 î b			đ þ	
Traffic Volume (vph)	79	610	64	57	324	141	88	368	87	119	313	75
Future Volume (vph)	79	610	64	57	324	141	88	368	87	119	313	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.99			0.93			0.98			0.98	
Flpb, ped/bikes		0.99			1.00			0.99			0.99	
Frt		0.99			0.96			0.98			0.98	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		3446			3172			3413			3312	
Flt Permitted		0.81			0.75			0.77			0.71	
Satd. Flow (perm)		2792			2377			2662			2380	
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)	81	622	65	58	331	144	90	376	89	121	319	77
RTOR Reduction (vph)	0	10	0	0	54	0	0	21	0	0	20	0
Lane Group Flow (vph)	0	758	0	0	479	0	0	535	0	0	497	0
Confl. Peds. (#/hr)	239		120	120		239	129		145	145		129
Confl. Bikes (#/hr)			28			66			22			23
Heavy Vehicles (%)	3%	0%	2%	2%	0%	1%	0%	0%	2%	0%	2%	4%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	4	4
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		2			6		7	4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		24.0			24.0			34.0			23.0	
Effective Green, g (s)		25.0			25.0			35.0			24.0	
Actuated g/C Ratio		0.36			0.36			0.50			0.34	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		997			848			1416			816	
v/s Ratio Prot								c0.04				
v/s Ratio Perm		c0.27			0.20			0.15			c0.21	
v/c Ratio		0.76			0.56			0.38			0.61	
Uniform Delay, d1		19.9			18.1			10.8			19.1	
Progression Factor		1.00			1.62			1.00			1.00	
Incremental Delay, d2		5.5			2.6			0.8			3.4	
Delay (s)		25.3			32.0			11.6			22.5	
Level of Service		С			С			В			С	
Approach Delay (s)		25.3			32.0			11.6			22.5	
Approach LOS		С			С			В			С	
Intersection Summary												
HCM 2000 Control Delay			23.0	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.65									
Actuated Cycle Length (s)			70.0	S	um of los	t time (s)			13.0			
Intersection Capacity Utilizatio	n		93.4%	IC	CU Level	of Service	е		F			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	701	541	122	178
v/c Ratio	0.46	0.35	0.20	0.30
Control Delay	5.8	16.6	11.6	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.8	16.6	11.6	10.9
Queue Length 50th (m)	11.0	30.4	6.7	8.6
Queue Length 95th (m)	15.4	44.1	17.1	21.7
Internal Link Dist (m)	183.2	212.4	62.4	59.6
Turn Bay Length (m)				
Base Capacity (vph)	1511	1543	611	592
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	0.46	0.35	0.20	0.30
Intersection Summary				

06/16/2020

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ þ			eî îr			\$			\$	
Traffic Volume (vph)	70	592	11	44	460	15	14	59	44	38	45	87
Future Volume (vph)	70	592	11	44	460	15	14	59	44	38	45	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			5.9			5.9	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			0.99			0.97			0.97	
Flpb, ped/bikes		0.99			1.00			1.00			0.99	
Frt		1.00			1.00			0.95			0.93	
Flt Protected		0.99			1.00			0.99			0.99	
Satd. Flow (prot)		3524			3535			1758			1699	
Flt Permitted		0.84			0.85			0.95			0.91	
Satd. Flow (perm)		2977			3034			1689			1566	
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)	73	617	11	46	479	16	15	61	46	40	47	91
RTOR Reduction (vph)	0	1	0	0	3	0	0	30	0	0	54	0
Lane Group Flow (vph)	0	700	0	0	538	0	0	92	0	0	124	0
Confl. Peds. (#/hr)	180		41	41		180	50		63	63		50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		34.5			34.5			23.1			23.1	
Effective Green, g (s)		35.5			35.5			24.1			24.1	
Actuated g/C Ratio		0.51			0.51			0.34			0.34	
Clearance Time (s)		5.5			5.5			6.9			6.9	
Lane Grp Cap (vph)		1509			1538			581			539	
v/s Ratio Prot												
v/s Ratio Perm		c0.23			0.18			0.05			c0.08	
v/c Ratio		0.46			0.35			0.16			0.23	
Uniform Delay, d1		11.1			10.3			15.9			16.3	
Progression Factor		0.45			1.54			1.00			1.00	
Incremental Delay, d2		0.7			0.6			0.6			1.0	
Delay (s)		5.7			16.5			16.5			17.3	
Level of Service		A			В			В			B	
Approach Delay (s)		5.7			16.5			16.5			17.3	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			11.7	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	ty ratio		0.37									
Actuated Cycle Length (s) 70.0			S	um of los	t time (s)			10.4				
Intersection Capacity Utilizati	on		67.9%	IC	CU Level	of Service	;		С			
Analysis Period (min)			15									

c Critical Lane Group

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Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	809	528	83	54	14
v/c Ratio	0.37	0.24	0.25	0.11	0.03
Control Delay	3.7	7.0	21.2	12.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	7.0	21.2	12.3	3.4
Queue Length 50th (m)	7.3	16.3	8.2	2.8	0.0
Queue Length 95th (m)	10.8	24.0	18.4	10.0	2.0
Internal Link Dist (m)	212.4	22.4		41.4	30.6
Turn Bay Length (m)					
Base Capacity (vph)	2183	2190	341	514	496
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	0.37	0.24	0.24	0.11	0.03
Intersection Summary					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					A⊅		۳.	eî 👘			4	
Traffic Volume (vph)	8	769	0	0	481	26	80	29	23	4	0	10
Future Volume (vph)	8	769	0	0	481	26	80	29	23	4	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		5.0	5.0			5.0	
Lane Util. Factor		0.95			0.95		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.98		1.00	0.97			0.94	
Flpb, ped/bikes		1.00			1.00		0.93	1.00			0.99	
Frt		1.00			0.99		1.00	0.93			0.90	
Flt Protected		1.00			1.00		0.95	1.00			0.99	
Satd. Flow (prot)		3495			3328		1381	1585			1581	
Flt Permitted		0.95			1.00		0.75	1.00			0.94	
Satd. Flow (perm)		3324			3328		1088	1585			1510	
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)	8	801	0	0	501	27	83	30	24	4	0	10
RTOR Reduction (vph)	0	0	0	0	4	0	0	18	0	0	11	0
Lane Group Flow (vph)	0	809	0	0	524	0	83	36	0	0	3	0
Confl. Peds. (#/hr)	154		94	94		154	67		49	49		67
Confl. Bikes (#/hr)						3						10
Heavy Vehicles (%)	0%	3%	0%	0%	6%	0%	23%	18%	0%	0%	0%	0%
Bus Blockages (#/hr)	6	6	6	6	6	6	0	0	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2						4			8		
Actuated Green, G (s)		43.0			43.0		16.0	16.0			16.0	
Effective Green, g (s)		44.0			44.0		17.0	17.0			17.0	
Actuated g/C Ratio		0.63			0.63		0.24	0.24			0.24	
Clearance Time (s)		5.0			5.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		2089			2091		264	384			366	
v/s Ratio Prot					0.16			0.02				
v/s Ratio Perm		c0.24					c0.08				0.00	
v/c Ratio		0.39			0.25		0.31	0.09			0.01	
Uniform Delay, d1		6.4			5.7		21.7	20.5			20.1	
Progression Factor		0.42			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.5			0.3		0.7	0.1			0.0	
Delay (s)		3.2			6.0		22.4	20.6			20.1	
Level of Service		А			А		С	С			С	
Approach Delay (s)		3.2			6.0			21.7			20.1	
Approach LOS		А			А			С			С	
Intersection Summary												
HCM 2000 Control Delay			6.1	Н	CM 2000	Level of	Service		А			
HCM 2000 Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (s)	-		70.0	Si	um of los	t time (s)			9.0			
Intersection Capacity Utilization	n		51.0%	IC	U Level	of Service	;		А			
Analysis Period (min)			15									

c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$			•			•	
Traffic Volume (veh/h)	8	0	29	17	0	20	0	346	0	0	282	0
Future Volume (Veh/h)	8	0	29	17	0	20	0	346	0	0	282	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	8	0	30	18	0	21	0	357	0	0	291	0
Pedestrians		47			72			3			27	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		5			7			0			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	743	767	341	753	767	456	338			429		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	743	767	341	753	767	456	338			429		
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	96	93	100	96	100			100		
cM capacity (veh/h)	272	297	672	266	297	551	1176			1061		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	38	39	357	291								
Volume Left	8	18	0	0								
Volume Right	30	21	0	0								
cSH	513	368	1700	1700								
Volume to Capacity	0.07	0.11	0.21	0.17								
Queue Length 95th (m)	1.8	2.7	0.0	0.0								
Control Delay (s)	12.6	15.9	0.0	0.0								
Lane LOS	В	С										
Approach Delay (s)	12.6	15.9	0.0	0.0								
Approach LOS	В	С										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utiliza	tion		35.0%	IC	CU Level	of Service	;		А			
Analysis Period (min)			15									



# Appendix H

Synchro Output – Ontario Line North

Queues 88: Laird Dr & Eglir	nton Ave	9						06/26/2020
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Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBT	
Lane Group Flow (vph)	711	305	714	209	362	163	285	
v/c Ratio	0.42	0.68	0.38	0.79	0.58	0.24	0.64	
Control Delay	23.9	20.7	14.4	53.3	37.0	11.8	47.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.9	20.7	14.4	53.3	37.0	11.8	47.9	
Queue Length 50th (m)	37.9	34.1	45.1	36.1	69.6	14.8	60.1	
Queue Length 95th (m)	54.6	50.9	57.7	#68.2	100.5	23.3	89.5	
Internal Link Dist (m)	181.1		392.2		78.8		110.3	
Turn Bay Length (m)		125.0		75.0				
Base Capacity (vph)	1688	602	1879	264	622	887	442	
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	0.42	0.51	0.38	0.79	0.58	0.18	0.64	
Intersection Summary								

#### HCM Signalized Intersection Capacity Analysis 88: Laird Dr & Eglinton Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€†₽		ľ	A1⊅		1	•	1		\$	
Traffic Volume (vph)	7	513	184	302	668	39	207	358	161	20	255	7
Future Volume (vph)	7	513	184	302	668	39	207	358	161	20	255	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		5.0		3.0	5.0		3.0	5.0	3.0		5.0	
Lane Util. Factor		0.91		1.00	0.95		1.00	1.00	1.00		1.00	
Frpb, ped/bikes		0.97		1.00	0.99		1.00	1.00	0.94		1.00	
Flpb, ped/bikes		1.00		0.99	1.00		0.99	1.00	1.00		1.00	
Frt		0.96		1.00	0.99		1.00	1.00	0.85		1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)		4273		1607	3263		1568	1823	1360		1839	
Flt Permitted		0.93		0.30	1.00		0.34	1.00	1.00		0.96	
Satd. Flow (perm)		3985		508	3263		563	1823	1360		1764	_
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
Adi Flow (vph)	7	518	186	305	675	39	209	362	163	20	258	7
RTOR Reduction (vph)		43	0	0	3	0	0	0	21	0	1	
Lane Group Flow (vph)	0	668	0	305	711	0	209	362	142	0	284	0
Confl Peds (#/hr)	67		75	75		67	76	002	59	59	201	76
Confl Bikes (#/hr)	01		1	10		01	10		00	00		1
Heavy Vehicles (%)	15%	10%	6%	4%	8%	0%	6%	1%	8%	0%	1%	0%
Bus Blockages (#/hr)	0	20	20	- 70	0,0	0 /0	0,0	5	5	0 /0	0	0,0
	Porm	NA	20	nm+nt	NA	•	nm+nt	NA	nm+ov	Dorm	NA	
Protected Phases	r enn	2		pin+pi 1	6		pπ+pt 7	4	piii+0V 1	I CIIII	8	
Permitted Phases	2	2		6	0		1	4	4	8	0	
Actuated Green G (c)	2	18.6		0 83	68.0		40.0	40.0	55 /	0	20.0	
Effective Croop g (s)		40.0		60.0	60.0		40.0	40.0	57.4		29.0	
Actuated a/C Patia		49.0		09.0	0.59		41.0	41.0	0.49		0.25	
Clearance Time (a)		6.0		0.00	0.00		1.0	0.34	0.40		0.25	
Vehicle Extension (c)		2.0		4.0	2.0		4.0	2.0	4.0		2.0	
		3.0		2.0	1070		2.0	0.0	2.0		3.0	
Lane Grp Cap (vpn)		1647		442	1876		259	022	000		441	
v/s Ratio Prot		0.47		CU.U9	0.22		CU.U5	0.20	0.03		0.40	
V/s Ratio Perm		0.17		CU.30	0.00		CU.22	0.50	0.07		0.16	_
V/C Ratio		0.41		0.69	0.38		0.81	0.58	0.22		0.64	
Uniform Delay, d1		24.8		14.2	13.9		36.7	32.5	18.2		40.2	_
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2		0.7		3.7	0.6		15.7	3.9	0.1		7.1	_
Delay (s)		25.6		17.9	14.4		52.5	36.4	18.3		47.3	
Level of Service		C		В	В		D	D	В		D	
Approach Delay (s)		25.6			15.5			37.0			47.3	
Approach LOS		С			В			D			D	
Intersection Summary												
HCM 2000 Control Delay			27.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacit	y ratio		0.77									
Actuated Cycle Length (s)			120.0	S	um of lost	time (s)			16.0			
Intersection Capacity Utilization	n		110.0%	IC	U Level o	of Service	)		Н			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 1

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 2

Queues							
345: Pape Ave & D	anforth	Ave					06/26/2020
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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	90	441	105	1145	520	562	
v/c Ratio	0.67	0.26	0.29	0.65	0.65	0.84	
Control Delay	44.2	12.1	14.8	17.6	26.9	32.3	
Queue Delay	4.6	0.0	0.0	0.2	0.0	13.5	
Total Delay	48.8	12.1	14.8	17.7	26.9	45.8	
Queue Length 50th (m)	10.8	20.3	9.7	70.5	36.4	54.4	
Queue Length 95th (m)	#37.2	29.2	20.5	91.6	54.0	#78.2	
Internal Link Dist (m)		181.3		166.4	120.0	60.0	
Turn Bay Length (m)	40.0		58.0				
Base Capacity (vph)	135	1701	367	1750	795	667	
Starvation Cap Reductn	0	0	0	0	0	97	
Spillback Cap Reductn	15	0	0	97	1	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.75	0.26	0.29	0.69	0.65	0.99	
Intersection Summary							

## HCM Signalized Intersection Capacity Analysis 345: Pape Ave & Danforth Ave

345: Pape Ave & D	Danforth	Ave		,							06/2	26/2020
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	۲	A12		۲.	đβ			4 î b			đ þ	
Traffic Volume (vph)	84	385	25	98	972	93	91	308	85	95	298	130
Future Volume (vph)	84	385	25	98	972	93	91	308	85	95	298	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1700	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.97			0.93			0.95	
Flpb, ped/bikes	0.96	1.00		0.84	1.00			0.99			0.97	
Frt	1.00	0.99		1.00	0.99			0.97			0.96	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1538	3248		1385	3338			3019			2674	
Flt Permitted	0.16	1.00		0.48	1.00			0.69			0.69	
Satd. Flow (perm)	259	3248		703	3338			2114			1859	
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
Adi, Flow (vph)	90	414	27	105	1045	100	98	331	91	102	320	140
RTOR Reduction (vph)	0	5	0	0	8	0	0	20	0	0	6	(
Lane Group Flow (vph)	90	436	0	105	1137	0	0	500	0	0	556	(
Confl. Peds. (#/hr)	380		262	262		380	163		388	388		163
Confl Bikes (#/hr)			4			21			135			22
Heavy Vehicles (%)	5%	7%	4%	2%	2%	6%	0%	4%	6%	4%	4%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	7	7	0	7	7
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1 Unit	2		T OILI	6		T OITH	8		1 Onn	4	
Permitted Phases	2	-		6	Ū		8	Ū		4	-	
Actuated Green G (s)	46.0	46.0		46.0	46.0		Ū	32.0			32.0	
Effective Green, a (s)	47.0	47.0		47.0	47.0			33.0			32.0	
Actuated a/C Ratio	0.52	0.52		0.52	0.52			0.37			0.36	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grn Can (vnh)	135	1606		367	17/3			775			660	
v/s Patio Prot	100	0.13		307	0.34			115			000	
v/s Ratio Porm	of 25	0.15		0.15	0.34			0.24			o0 20	
v/s Ratio	0.67	0.26		0.10	0.65			0.24			0.00	
V/C Rallo Uniform Doloy, d1	15.9	11.0		12.1	15.6			0.00			0.04	
Dragragaion Faster	10.0	1.9		12.1	10.0			23.0			20.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			10.7	
Incremental Delay, uz	20.1	10.0		2.0	1.9			4.1			10.7	
Delay (S)	30.9	12.Z		14.0 D	17.5			21.0			31.3	
	U	40.7		D	17.0			07.0			24.2	
Approach Delay (s)		10.7			17.2			21.8			31.3	
Approach LUS		В			В			U			U	
Intersection Summary												
HCM 2000 Control Delay			21.8	H	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.74									
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			11.0			
Intersection Capacity Utilization	ation		104.0%	IC	U Level c	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 3

Existing AM 06/26/2020 Baseline

Synchro 10 Report

Page 4

Queues	)'Conno	r Dr			06/26/20
442.1 ape / we a c	001110				
	-	-	<b>†</b>	Ŧ	
Lane Group	EBT	WBT	NBT	SBT	
Lane Group Flow (vph)	413	536	583	520	
v/c Ratio	0.56	0.44	0.87	0.71	
Control Delay	24.8	13.8	37.2	24.7	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	24.8	13.8	37.2	24.7	
Queue Length 50th (m)	26.2	24.4	53.3	40.9	
Queue Length 95th (m)	40.1	34.6	#86.7	65.8	
Internal Link Dist (m)	280.7	212.5	67.9	380.3	
Turn Bay Length (m)					
Base Capacity (vph)	743	1227	673	733	
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	0.56	0.44	0.87	0.71	
Intersection Summary					

Queues

## HCM Signalized Intersection Capacity Analysis 442: Pape Ave & O'Connor Dr

442: Pape Ave & C	)'Conno	r Dr									06/2	26/2020
	٦	-	$\mathbf{\hat{z}}$	1	+	•	•	t	۲	1	Ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		41Þ			đþ.			4 î b			đþ.	
Traffic Volume (vph)	130	240	14	149	335	15	24	332	159	13	303	167
Future Volume (vph)	130	240	14	149	335	15	24	332	159	13	303	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1700	1900	1900	1850	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		6.0			6.0			6.0			5.0	
Lane Util. Factor		0.95			0.95			*0.70			*0.70	
Frpb, ped/bikes		1.00			1.00			0.99			0.98	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.99			1.00			0.96			0.95	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		3230			3441			1968			1989	
Flt Permitted		0.67			0.67			0.90			0.93	
Satd. Flow (perm)		2190			2343			1773			1843	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.86	0.93	0.93	0.93	0.93
Adi, Flow (vph)	140	258	15	160	360	16	26	386	171	14	326	180
RTOR Reduction (vph)	0	3	0	0	3	0	0	31	0	0	43	C
Lane Group Flow (vph)	0	410	0	0	533	0	0	552	0	0	478	C
Confl. Peds. (#/hr)	51	-	18	18		51	34		23	23	-	34
Confl. Bikes (#/hr)			2						3			8
Heavy Vehicles (%)	12%	4%	0%	1%	1%	0%	13%	10%	4%	0%	13%	10%
Bus Blockages (#/hr)	0	2	2	0	2	2	0	19	19	0	33	33
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2	-		6	· ·		4			8	v	
Actuated Green, G (s)	-	26.0		, in the second s	38.0			29.0		Ű	29.0	
Effective Green a (s)		27.0			39.0			29.0			30.0	
Actuated g/C Ratio		0.34			0.49			0.36			0.38	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grn Can (ynh)		730			1265			642			691	
v/s Ratio Prot		100			c0.05			042			001	
v/s Patio Porm		c0 10			0.16			c0 31			0.26	
v/c Ratio		0.55			0.10			0.86			0.20	
I Iniform Delay, d1		21.6			13.2			23.6			21.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.0			1.00			14.0			5.6	
Delay (c)		24.6			1/1 3			37.6			26.7	
Level of Service		24.0			14.J R			J7.0			20.7	
Approach Doloy (c)		24.6			14.2			27.6			26.7	
Approach LOS		24.0			14.J R			J7.0			20.7	
Approach 203		U			D			U			U	
Intersection Summary			00.4		014 0000		<u> </u>					
HCIVI 2000 Control Delay	-1441		26.1	Н	CIVI 2000	Level of :	Service		C			
HUN 2000 Volume to Capa	city ratio		0.67	~		e ()			45.0			
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)			15.0			
Intersection Capacity Utiliza	tion		89.0%	IC	U Level c	of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 5

Existing AM 06/26/2020 Baseline

Synchro 10 Report

Page 6

Queues							
453: Eglinton Ave	& Leslie	St					06/26/2020
	۶	-	+	•	1	~	
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Group Flow (vph)	778	319	278	76	472	1088	
v/c Ratio	0.98	0.47	0.99	0.27	0.54	1.00	
Control Delay	83.0	32.6	111.9	13.1	29.0	42.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	83.0	32.6	111.9	13.1	29.0	42.2	
Queue Length 50th (m)	119.4	66.3	83.6	0.0	94.8	~191.3	
Queue Length 95th (m)	#160.8	94.3	#142.1	14.3	127.6	#311.8	
Internal Link Dist (m)		469.4	421.6		301.6		
Turn Bay Length (m)							
Base Capacity (vph)	794	676	281	286	882	1085	
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	0.98	0.47	0.99	0.27	0.54	1.00	
Intersection Summary							
~ Volume exceeds capac	ity, queue is	theoreti	cally infinit	le.			
Queue shown is maximi	um after two	cycles.					
# 95th percentile volume	exceeds cap	bacity, q	ueue may	be longer			

Queue shown is maximum after two cycles.

453: Edlinton Ave	itersectio & Leslie	on Cap St			06/26/2020			
g	۶	-	+	•	1			
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ሻሻ	•	•	1	ሻ	1		
Traffic Volume (vph)	778	319	278	76	472	1088		
Future Volume (vph)	778	319	278	76	472	1088		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	2000		
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0	3.0		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00		
Frpb, ped/bikes	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		
Frt	1.00	1.00	1.00	0.85	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3219	1537	1623	1291	1789	1481		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3219	1537	1623	1291	1789	1481		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Adi, Flow (vph)	778	319	278	76	472	1088		
RTOR Reduction (vph)	0	0	0	63	0	335		
Lane Group Flow (vph)	778	319	278	13	472	753		
Confl. Peds. (#/hr)	5			5	2	4		
Heavy Vehicles (%)	10%	17%	16%	15%	2%	8%		
Bus Blockages (#/hr)	0	16	5	17	0	14		
Turn Type	Prot	NA	NA	Perm	Prot	Perm		
Protected Phases	5	2	6		4			
Permitted Phases	•	-	· ·	6		4		
Actuated Green, G (s)	34.0	65.0	25.0	25.0	73.0	73.0		
Effective Green, g (s)	37.0	66.0	26.0	26.0	74.0	76.0		
Actuated q/C Ratio	0.25	0.44	0.17	0.17	0.49	0.51		
Clearance Time (s)	6.0	6.0	6.0	6.0	60	6.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grn Can (vnh)	79/	676	281	223	882	750		
v/s Ratio Prot	c0 24	0.21	c0 17	225	0.26	150		
v/s Ratio Perm	00.24	0.21	00.17	0.01	0.20	c0 51		
v/c Ratio	0.98	0 47	0 90	0.06	0.54	1 00		
Uniform Delay, d1	56 1	29.7	61 0	51.8	26.2	37.0		
Progression Factor	1 00	1.00	1.00	1.00	1.00	1 00		
Incremental Delay, d?	26.6	24	51 1	0.5	2.3	33.7		
Delay (s)	82.8	32.4	112 9	52.3	28.5	70.7		
Level of Service	02.0 F	02.0	F	02.0 D	20.0	F		
Annroach Delay (s)		68.0	99 0	J	57 9	L		
Approach LOS		00.0	55.5 F		57.5 F			
		-			-			
Intersection Summary			00.5		014 0000	Level of C 1		
HCM 2000 Control Delay			66.5	H	CM 2000	Level of Service	E	
HUN 2000 Volume to Capa	acity ratio		1.01	<u>^</u>		( )	42.0	
Actuated Cycle Length (s)	-41		150.0	Si	um of los	t ume (s)	13.0	
Intersection Capacity Utiliza	ation		86.9%	IC	U Level (	DI SERVICE	E	
Analysis Period (min)			15					
c Critical Lane Group								

Synchro 10 Report Page 7

Existing AM 06/26/2020 Baseline

Synchro 10 Report

Page 8

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Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	533	102	360	125	82	1425	160	94	1372	
v/c Ratio	0.64	0.95	0.35	0.26	0.52	0.92	0.23	0.59	0.95	
Control Delay	43.8	139.2	35.5	7.4	31.1	46.8	4.4	36.2	52.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	43.8	139.2	35.5	7.4	31.1	46.8	4.4	36.2	52.4	
Queue Length 50th (m)	59.3	28.7	39.0	0.9	10.0	192.1	0.6	11.5	190.4	
Queue Length 95th (m)	79.0	#65.0	52.5	14.8	23.8	#229.3	13.4	27.7	#240.5	
Internal Link Dist (m)	501.4		171.7			122.9			271.9	
Turn Bay Length (m)		110.0			60.0		60.0	70.0		
Base Capacity (vph)	830	107	1042	473	162	1556	699	161	1444	
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	0.64	0.95	0.35	0.26	0.51	0.92	0.23	0.58	0.95	
Intersection Summary										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longer						

Queue shown is maximum after two cycles.

#### HCM Signalized Intersection Capacity Analysis 454: Don Mills Rd & Eglinton Ave

	⊁	-+	$\mathbf{i}$	1	-	•	•	Ť	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		<b>≜</b> 1⊾		×	**	1		**	1		<b>A</b> 1.	
Traffic Volume (vph)	0	333	200	102	360	125	82	1425	160	94	1309	6
Future Volume (vph)	0	333	200	102	360	125	82	1425	160	94	1309	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		5.0	7.0	7.0	6.0	9.0	9.0	6.0	9.0	
Lane Util. Factor		0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Ernh ped/bikes		0.99		1.00	1.00	0.82	1.00	1.00	0.91	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	
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd, Flow (prot)		3155		1674	3041	1152	1706	3510	1382	1825	3289	
Flt Permitted		1.00		0.95	1.00	1.00	0.06	1.00	1.00	0.07	1.00	
Satd. Flow (perm)		3155		1674	3041	1152	116	3510	1382	125	3289	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adi, Flow (vph)	0	333	200	102	360	125	82	1425	160	94	1309	63
RTOR Reduction (vph)	0	64	0	0	0	79	0	0	87	0	2	(
Lane Group Flow (vph)	0	469	0	102	360	46	82	1425	73	94	1370	(
Confl. Peds. (#/hr)	128		3	3		128	61		113	113		61
Confl. Bikes (#/hr)			1	-					2			2
Heavy Vehicles (%)	2%	13%	1%	9%	15%	16%	7%	4%	7%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	21	0	0	0	0	0	27	27
Turn Type		NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases						8	2		2	6	-	
Actuated Green, G (s)		33.0		6.0	47.0	47.0	68.7	61.1	61.1	67.3	60.4	
Effective Green, g (s)		34.0		9.0	48.0	48.0	70.7	62.1	62.1	69.3	61.4	
Actuated g/C Ratio		0.24		0.06	0.34	0.34	0.51	0.44	0.44	0.49	0.44	
Clearance Time (s)		8.0		8.0	8.0	8.0	7.0	10.0	10.0	7.0	10.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		766		107	1042	394	156	1556	613	157	1442	
v/s Ratio Prot		c0.15		c0.06	0.12		0.03	0.41		c0.03	c0.42	
v/s Ratio Perm						0.04	0.23		0.05	0.26		
v/c Ratio		0.61		0.95	0.35	0.12	0.53	0.92	0.12	0.60	0.95	
Uniform Delay, d1		47.1		65.3	34.3	31.5	26.8	36.5	22.9	28.1	37.8	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		3.6		71.6	0.9	0.6	3.2	10.0	0.4	6.0	14.4	
Delay (s)		50.8		136.9	35.2	32.1	30.0	46.5	23.3	34.1	52.3	
Level of Service		D		F	D	С	С	D	С	С	D	
Approach Delay (s)		50.8			52.2			43.4			51.1	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			48.2	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity	ratio		0.82									
Actuated Cycle Length (s)			140.0	S	um of lost	time (s)			27.0			
Intersection Capacity Utilization			106.7%	IC	U Level o	of Service	)		G			

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 9 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 10

Queues 620: Don Mills Rd & Overlea Blvd 06/26/2020												
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	505	207	224	292	353	183	176	782	43	902	469	
v/c Ratio	0.76	0.30	0.43	0.82	0.82	0.49	1.00	0.49	0.19	0.84	0.72	
Control Delay	61.5	27.1	12.1	51.8	65.6	18.1	98.9	38.7	27.3	53.6	28.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	61.5	27.1	12.1	51.8	65.6	18.1	98.9	38.7	27.3	53.6	28.4	
Queue Length 50th (m)	70.6	37.3	13.2	44.6	94.4	10.2	31.9	64.7	7.3	125.7	70.5	
Queue Length 95th (m)	85.4	56.3	35.1	#90.1	#163.0	36.3	#79.5	78.2	15.1	152.2	90.4	
Internal Link Dist (m)		588.9			228.1			206.1		491.1		
Turn Bay Length (m)	90.0			130.0		130.0	65.0		45.0			
Base Capacity (vph)	804	698	519	354	430	377	176	1609	230	1079	712	
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	0.63	0.30	0.43	0.82	0.82	0.49	1.00	0.49	0.19	0.84	0.66	
Intersection Summary												
# 95th percentile volume e	exceeds cap	pacity, qu	eue may	be longe	r.							

# 95th percentile volume exceeds capacity, queu Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis 620: Don Mills Rd & Overlea Blvd

	۶	-	*	4	ł	*	<	1	1	¢	Ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	•	7	٦	<b>↑</b>	1	٦	4 <b>4</b> 1		٦		1
Traffic Volume (vph)	505	207	224	292	353	183	176	681	101	43	902	469
Future Volume (vph)	505	207	224	292	353	183	176	681	101	43	902	469
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1990	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.0	6.0	3.0	6.0	6.0	2.0	6.0		3.0	6.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.91		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.67	1.00	1.00	0.68	1.00	0.96		1.00	1.00	0.80
Flpb, ped/bikes	1.00	1.00	1.00	0.85	1.00	1.00	1.00	1.00		0.98	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		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)	3219	1571	984	1466	1537	998	1701	4763		1597	3380	1172
Flt Permitted	0.95	1.00	1.00	0.63	1.00	1.00	0.12	1.00		0.26	1.00	1.00
Satd. Flow (perm)	3219	1571	984	969	1537	998	209	4763		441	3380	1172
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	505	207	224	292	353	183	176	681	101	43	902	469
RTOR Reduction (vph)	0	0	82	0	0	98	0	13	0	0	0	29
Lane Group Flow (vph)	505	207	142	292	353	85	176	769	0	43	902	440
Confl. Peds. (#/hr)	261		318	318		261	285		277	277		285
Heavy Vehicles (%)	10%	13%	11%	6%	13%	2%	12%	3%	7%	12%	8%	12%
Bus Blockages (#/hr)	0	19	0	0	24	22	0	0	0	0	0	0
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4		3	8		5	2		<u> </u>	6	7
Permitted Phases			4	8		8	2			6		6
Actuated Green, G (s)	28.6	63.0	63.0	46.4	39.4	39.4	53.4	46.4		50.6	45.0	73.6
Effective Green, g (s)	29.6	64.0	64.0	48.4	40.4	40.4	57.4	47.4		52.6	46.0	75.6
Actuated g/C Ratio	0.21	0.44	0.44	0.34	0.28	0.28	0.40	0.33		0.37	0.32	0.52
Clearance Time (s)	6.0	7.0	7.0	4.0	7.0	7.0	4.0	7.0		4.0	7.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	661	698	437	353	431	279	176	1567		214	1079	615
v/s Ratio Prot	c0.16	0.13		c0.05	0.23		c0.06	0.16		0.01	c0.27	0.15
v/s Ratio Perm			0.14	c0.23		0.09	0.33			0.06		0.23
v/c Ratio	0.76	0.30	0.33	0.83	0.82	0.31	1.00	0.49		0.20	0.84	0.72
Uniform Delay, d1	53.9	25.6	26.0	42.2	48.4	40.8	36.5	38.6		30.3	45.5	26.0
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	5.2	1.1	2.0	14.6	15.8	2.8	67.8	1.1		0.5	7.7	4.0
Delay (s)	59.2	26.7	28.0	56.8	64.2	43.6	104.3	39.7		30.7	53.2	30.0
Level of Service	E	С	С	E	E	D	F	D		С	D	С
Approach Delay (s)		44.5			57.0			51.6			44.8	
Approach LOS		D			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			48.8	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	icity ratio		0.83									
Actuated Cycle Length (s)			144.0	S	um of lost	time (s)			20.0			
Intersection Capacity Utiliza	ation		95.5%	IC	U Level o	of Service	)		F			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 11 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 12

621: Don Mills Rd &	& St De	nnis D	r					06/26/2020
	≯	-	←	1	1	1	ŧ	
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	4	7	237	5	1560	106	1534	
v/c Ratio	0.02	0.02	0.40	0.04	0.65	0.48	0.52	
Control Delay	33.5	20.9	20.1	14.0	19.3	17.4	10.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	33.5	20.9	20.1	14.0	19.3	17.4	10.9	
Queue Length 50th (m)	0.7	0.2	11.5	0.5	107.1	8.1	75.8	
Queue Length 95th (m)	3.6	3.9	22.8	2.7	129.3	20.4	89.3	
Internal Link Dist (m)		106.5	342.7		231.1		135.1	
Turn Bay Length (m)				45.0		100.0		
Base Capacity (vph)	281	440	701	133	2413	227	2938	
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	0.01	0.02	0.34	0.04	0.65	0.47	0.52	
Intersection Summary								

# HCM Signalized Intersection Capacity Analysis 621: Don Mills Rd & St Dennis Dr

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	eî 🔒			đ þ		٦ ۲	<b>4†</b> \$		1	4 <b>4</b> 1	
Traffic Volume (vph)	4	1	6	114	1	114	5	1432	81	103	1483	5
Future Volume (vph)	4	1	6	114	1	114	5	1432	81	103	1483	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	*0.79		1.00	*0.80	
Frpb, ped/bikes	1.00	0.98			0.96		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	0.94	1.00			0.99		1.00	1.00		1.00	1.00	
Frt	1.00	0.87			0.93		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1724	1637			2777		1822	4086		1772	4266	
Flt Permitted	0.58	1.00			0.81		0.12	1.00		0.08	1.00	
Satd. Flow (perm)	1057	1637			2305		227	4086		141	4266	
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)	4	1	6	118	1	118	5	1476	84	106	1529	5
RTOR Reduction (vph)	0	5	0	0	92	0	0	4	0	0	0	0
Lane Group Flow (vph)	4	2	0	0	145	0	5	1556	0	106	1534	0
Confl. Peds. (#/hr)	65		11	11		65	10		76	76		10
Confl. Bikes (#/hr)			1						3			4
Heavy Vehicles (%)	0%	0%	0%	10%	0%	11%	0%	4%	12%	3%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	10	10	0	34	34	0	28	28
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	25.4	25.4			25.4		69.8	69.8		81.6	81.6	
Effective Green, q (s)	26.4	26.4			26.4		70.8	70.8		82.6	82.6	
Actuated q/C Ratio	0.22	0.22			0.22		0.59	0.59		0.69	0.69	
Clearance Time (s)	7.0	7.0			7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	232	360			507		133	2410		216	2936	
v/s Ratio Prot		0.00						c0.38		0.04	c0.36	
v/s Ratio Perm	0.00				c0.06		0.02			0.30		
v/c Ratio	0.02	0.01			0.29		0.04	0.65		0.49	0.52	
Uniform Delay, d1	36.6	36.6			39.0		10.3	16.3		11.8	9.1	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.0			0.3		0.5	1.3		1.8	0.7	
Delay (s)	36.7	36.6			39.3		10.8	17.6		13.5	9.8	
Level of Service	D	D			D		В	В		В	A	
Approach Delay (s)		36.6			39.3			17.6			10.0	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			15.6	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capac	itv ratio		0.55									
Actuated Cycle Length (s)			120.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utilizat	ion		87.4%	IC	ULevel	of Service			F			
Analysis Period (min)			15		2 20.010				-			
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 13

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 14

Queues 642: Pape Ave/Mill	wood P	Ч			06/26/2
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		T		ŧ	
Lane Group	WBR	NBT	SBL	SBT	
Lane Group Flow (vph)	568	996	425	554	
v/c Ratio	0.39	0.79	0.27	0.54	
Control Delay	14.3	33.1	9.2	13.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	14.3	33.1	9.2	13.2	
Queue Length 50th (m)	32.5	88.6	18.2	48.0	
Queue Length 95th (m)	45.6	113.4	22.0	57.4	
Internal Link Dist (m)		58.1		602.2	
Turn Bay Length (m)					
Base Capacity (vph)	1461	1258	1549	1020	
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	0.39	0.79	0.27	0.54	
Intersection Summary					

#### HCM Signalized Intersection Capacity Analysis 642: Pape Ave/Millwood Rd

	4	•	1	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations		11	<b>41</b>		55	*			
Traffic Volume (vph)	0	540	940	7	404	526			
Future Volume (vph)	0	540	940	7	404	526			
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2005			
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5			
Total Lost time (s)		6.0	5.0		6.0	4.0			
Lane Util, Factor		0.88	0.95		0.97	1.00			
Frpb. ped/bikes		1.00	1.00		1.00	1.00			
Flpb, ped/bikes		1.00	1.00		1.00	1.00			
Frt		0.85	1.00		1.00	1.00			
Flt Protected		1.00	1.00		0.95	1.00			
Satd, Flow (prot)		2811	3309		3038	1925			
Flt Permitted		1.00	1.00		0.95	1.00			
Satd, Flow (perm)		2811	3309		3038	1925			
Peak-hour factor PHF	0.95	0.95	0.95	0.95	0.95	0.95			
Adi Flow (vnh)	0.00	568	989	0.00	425	554			
RTOR Reduction (vph)	0	28	1	0	-25	0			
Lane Group Flow (vph)	0	540	995	0	425	554			
Confl Peds (#/hr)	1	0-0	555	0	723	00-			
Confl Bikes (#/hr)	1			4					
Heavy Vehicles (%)	0%	0%	6%	-4	1/1%	3%			
Bus Blockages (#/br)	0 /0	0 /8	33	33	14 /0	0			
Turn Turno	0	Dorm		55	Brot	NA			
Turri Type		Penn	INA 4		PIOL	NA			
Protected Phases		2	4		0	6			
Actuated Crean C (a)		E0.0	27.0		E0 0	50.0			
Actualed Green, G (S)		50.0	37.0		50.0	50.0			
Effective Green, g (s)		51.0	38.0		51.0	53.0			
Actualed g/C Ralio		0.51	0.30		0.51	0.55			
		7.0	0.0		7.0	7.0			
Lane Grp Cap (vph)		1433	1257		1549	1020			
V/S Katio Prot		0.40	CU.30		0.14	0.00			
v/s Ratio Perm		0.19				c0.29			
v/c Ratio		0.38	0.79		0.27	0.54			
Unitorm Delay, d1		14.9	27.5		14.0	15.5			
Progression Factor		1.00	1.00		0.62	0.70			
Incremental Delay, d2		8.0	5.2		0.4	2.0			
Delay (s)		15.6	32.7		9.1	12.9			
Level of Service	1- 1	В	С		A	В			
Approach Delay (s)	15.6		32.7			11.3			
Approach LOS	B		С			В			
Intersection Summary									
HCM 2000 Control Delay			20.6	Н	CM 2000	Level of Servic	e	С	
HCM 2000 Volume to Canac	itv ratio		0.67						
Actuated Cycle Length (s)	,		100.0	S	um of lost	time (s)		12.0	
Intersection Capacity Utilizati						- (-)			
	ion		53.0%	10	CUL evel (	of Service		Α	
Analysis Period (min)	ion		53.0% 15	IC	CU Level o	of Service		A	

#### Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 15 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 16

Queues	Aortimor	Δυο					06/26/2020
	lorumer	Ave					00/20/20/20/20/20/20/20/20/20/20/20/20/2
	٦	-	1	+	1	ŧ	
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	57	247	66	519	545	555	
v/c Ratio	0.55	0.41	0.22	0.86	0.65	0.52	
Control Delay	46.0	22.0	21.6	40.4	17.8	8.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.0	22.0	21.6	40.4	17.8	8.5	
Queue Length 50th (m)	7.0	27.1	7.1	71.9	38.7	39.3	
Queue Length 95th (m)	#23.8	46.3	16.6	#125.2	62.7	60.2	
Internal Link Dist (m)		133.4		85.4	130.3	176.8	
Turn Bay Length (m)	40.0		25.0				
Base Capacity (vph)	103	598	296	607	835	1069	
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	0.55	0.41	0.22	0.86	0.65	0.52	
Intersection Summary							

# HCM Signalized Intersection Capacity Analysis 664: Pape Ave & Mortimer Ave

664: Pape Ave & N	/lortimer	Ave									06/2	26/2020
	٦	-	$\mathbf{r}$	4	-	*	1	1	۲	1	Ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	٦	4Î		٦	4			ፋጉ			4î>	
Traffic Volume (vph)	55	206	34	64	477	26	54	414	60	26	436	77
Future Volume (vph)	55	206	34	64	477	26	54	414	60	26	436	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1650	1900	1900	1850	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			6.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			*0.70			*0.70	
Frpb, ped/bikes	1.00	0.98		1.00	1.00			0.98			0.98	
Flpb, ped/bikes	0.98	1.00		0.94	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1589	1752		1578	1793			1935			2184	
Flt Permitted	0.18	1.00		0.53	1.00			0.81			0.90	
Satd. Flow (perm)	308	1752		878	1793			1576			1968	
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
Adi, Flow (vph)	57	212	35	66	492	27	56	427	62	27	449	79
RTOR Reduction (vph)	0	7	0	0	3	0	0	9	0	0	11	(
Lane Group Flow (vph)	57	240	0	66	516	0	0	536	0	0	544	(
Confl. Peds. (#/hr)	56		85	85		56	48		82	82	-	48
Confl. Bikes (#/hr)			3			2			3			4
Heavy Vehicles (%)	4%	2%	0%	0%	2%	0%	2%	10%	0%	4%	9%	2%
Bus Blockages (#/hr)	0	4	4	0	4	4	0	19	19	0	19	19
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8	-		2	_		6	-	
Actuated Green G (s)	26.0	26.0		26.0	26.0			42.0			42.0	
Effective Green a (s)	27.0	27.0		27.0	27.0			42.0			43.0	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.52			0.54	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grn Can (ynh)	103	591		296	605			827			1057	
v/s Ratio Prot	100	0.14		200	c0 29			021			1007	
v/s Patio Porm	0 10	0.14		0.08	00.25			c0 3/			0.28	
v/c Ratio	0.15	0.41		0.00	0.85			0.65			0.20	
I Iniform Delay, d1	21.6	20.3		19.0	24.7			13.7			11.8	
Progression Factor	1 00	1.00		1 00	1.00			1.00			0.59	
Incremental Delay, d2	10.7	2.1		1.00	14.2			3.0			1.7	
Dolay (c)	/1 3	2.1		20.7	38.0			17.6			8.6	
Level of Service	41.J	22.4		20.7	JU.9			17.0 B			0.0	
Approach Doloy (c)	U	25.0		U	26.0			17.6			20	
Approach LOS		23.3			JU.9			17.0 B			0.0	
Approach LOS		U			U			D			A	
Intersection Summary												
HCM 2000 Control Delay			22.0	H	CM 2000	Level of S	Service		C			
HCM 2000 Volume to Capa	icity ratio		0.73									
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)			11.0			
Intersection Capacity Utiliza	ation		95.9%	IC	U Level c	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 18

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 17

Queues	achurn	A.v.o					06/26/2020
009. Pape Ave & C	ospum	Ave					00/20/2020
	٦	-	4	-	1	Ŧ	
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	52	159	129	274	521	543	
v/c Ratio	0.28	0.37	0.51	0.62	0.50	0.52	
Control Delay	27.7	24.8	33.1	31.3	10.6	11.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.7	24.8	33.1	31.3	10.6	11.8	
Queue Length 50th (m)	6.2	18.1	16.5	34.8	27.4	33.4	
Queue Length 95th (m)	15.8	34.1	33.5	59.0	43.7	52.2	
Internal Link Dist (m)		234.9		366.5	91.3	79.6	
Turn Bay Length (m)	27.5		24.0				
Base Capacity (vph)	187	434	251	444	1038	1046	
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	0.28	0.37	0.51	0.62	0.50	0.52	
Intersection Summary							

HCM Signalized Intersection Capacity Analysis 669: Pape Ave & Cosburn Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	Þ		ሻ	Þ			4î»			4î»	
Traffic Volume (vph)	49	129	22	123	220	40	9	414	72	24	456	36
Future Volume (vph)	49	129	22	123	220	40	9	414	72	24	456	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1600	1900	1900	1800	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			*0.70			*0.65	
Frpb, ped/bikes	1.00	0.97		1.00	0.96			0.95			0.97	
Flpb, ped/bikes	0.86	1.00		0.84	1.00			1.00			0.99	
Frt	1.00	0.98		1.00	0.98			0.98			0.99	
Fit Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1452	1553		1361	1589			1818			1955	
Flt Permitted	0.45	1.00		0.64	1.00			0.94			0.91	
Satd. Flow (perm)	681	1553		913	1589			1712			1774	
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
Adi, Flow (vph)	52	136	23	129	232	42	9	436	76	25	480	38
RTOR Reduction (vph)	0	7	0	0	8	0	0	12	0	0	5	0
Lane Group Flow (vph)	52	152	0	129	266	0	0	509	0	0	538	0
Confl. Peds. (#/hr)	195		169	169		195	231		155	155		231
Confl. Bikes (#/hr)			4			5			2			5
Heavy Vehicles (%)	0%	11%	5%	4%	8%	0%	12%	10%	3%	5%	9%	0%
Bus Blockages (#/hr)	0	10	10	0	10	10	0	19	19	0	19	19
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6	-	
Actuated Green, G (s)	21.0	21.0		21.0	21.0			47.0			47.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0			48.0			47.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.60			0.59	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grn Can (ynh)	187	427		251	436			1027			1042	
v/s Ratio Prot	107	0.10		201	c0 17			1021			1042	
v/s Ratio Perm	0.08	0.10		0.14	00.11			0.30			c0 30	
v/c Ratio	0.00	0.36		0.14	0.61			0.50			0.52	
I Iniform Delay, d1	22.8	23.3		24.5	25.3			Q 1			9.8	
Progression Factor	1.00	1.00		1 00	1.00			1.00			1.00	
Incremental Delay, d2	3.7	23		7 3	6.2			1.00			1.00	
Delay (s)	26.4	25.6		31.8	31.5			10.8			11.6	
Level of Service	20.4	20.0		01.0	01.0			10.0 B			B	
Approach Delay (c)	U	25.8		U	31.6			10.8			11.6	
Approach LOS		23.0 C			01.0 C			10.0 B			H.0	
Intersection Summary												
HCM 2000 Control Delay			18.0	н	CM 2000	l ovol of 9	Service		B			
HCM 2000 Control Delay	oitu rotio		0.55		0101 2000	Level OI			D			
Actuated Cycle Length (c)	ony rdliu		80.0	0	um of loot	time (c)			11.0			
Intersection Canacity Hilizo	tion		80.7%			of Sorvice			11.0 D			
Analysis Period (min)	luon		15	IC	O Level (	in Service			U			
c Critical Lane Group			10									

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 19 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 20

Queues 679: Thorncliffe Park Dr/Beth Nealson Dr & Overlea Blvd												
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT			
Lane Group Flow (vph)	53	583	272	840	62	117	387	211	81			
v/c Ratio	0.37	0.79	0.64	0.77	0.16	0.20	0.56	0.53	0.15			
Control Delay	36.8	40.1	20.9	23.5	27.1	27.1	10.2	35.5	19.2			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	36.8	40.1	20.9	23.5	27.1	27.1	10.2	35.5	19.2			
Queue Length 50th (m)	8.2	82.6	27.1	99.8	9.3	17.8	12.2	36.3	8.4			
Queue Length 95th (m)	22.2	#137.7	49.4	142.1	19.3	31.4	40.2	60.2	19.2			
Internal Link Dist (m)		158.9		165.4		218.3			673.7			
Turn Bay Length (m)	30.0		40.0		30.0		80.0	60.0				
Base Capacity (vph)	142	738	423	1088	496	743	787	504	699			
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	0.37	0.79	0.64	0.77	0.13	0.16	0.49	0.42	0.12			
Intersection Summary												
# 95th percentile volume e	exceeds ca	apacity, que	eue may	be longer								

Queue shown is maximum after two cycles.

#### HCM Signalized Intersection Capacity Analysis 679: Thorncliffe Park Dr/Beth Nealson Dr & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	A1⊅		٦	A1⊅		٦	•	1	٦	ĥ	
Traffic Volume (vph)	50	459	95	258	537	261	59	111	368	200	54	23
Future Volume (vph)	50	459	95	258	537	261	59	111	368	200	54	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		3.0	5.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	*0.65		1.00	*0.63		1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	0.96		1.00	0.96		1.00	1.00	0.96	1.00	0.97	
Flpb, ped/bikes	0.97	1.00		0.99	1.00		0.91	1.00	1.00	0.97	1.00	
Frt	1.00	0.97		1.00	0.95		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1742	1961		1777	1899		1569	1741	1434	1644	1603	
Flt Permitted	0.21	1.00		0.17	1.00		0.70	1.00	1.00	0.68	1.00	
Satd. Flow (perm)	382	1961		325	1899		1164	1741	1434	1180	1603	
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)	53	483	100	272	565	275	62	117	387	211	57	24
RTOR Reduction (vph)	0	9	0	0	19	0	0	0	203	0	16	0
Lane Group Flow (vph)	53	574	0	272	821	0	62	117	184	211	65	0
Confl. Peds. (#/hr)	43		163	163		43	108		35	35		108
Confl. Bikes (#/hr)			2			14			2			6
Heavy Vehicles (%)	2%	10%	16%	2%	9%	4%	6%	9%	4%	8%	10%	5%
Bus Blockages (#/hr)	0	36	36	0	40	0	0	3	11	0	5	5
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	39.9	39.9		61.0	61.0		36.0	36.0	36.0	36.0	36.0	
Effective Green, a (s)	40.9	40.9		62.0	62.0		37.0	37.0	37.0	37.0	37.0	
Actuated g/C Ratio	0.37	0.37		0.56	0.56		0.34	0.34	0.34	0.34	0.34	
Clearance Time (s)	6.0	6.0		4.0	6.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grn Can (vnh)	142	729		422	1070		391	585	482	396	539	
v/s Ratio Prot		0.29		0.11	c0 43			0.07	102	000	0.04	
v/s Ratio Perm	0 14	0.20		0.26	00.10		0.05	0.01	0.13	c0 18	0.01	
v/c Ratio	0.37	0 79		0.64	0 77		0.16	0.20	0.38	0.53	0.12	
Uniform Delay, d1	25.2	30.7		15.9	18.4		25.6	26.0	27.8	29.5	25.2	
Progression Factor	1 00	1 00		1 00	1 00		1 00	1 00	1.00	1 00	1 00	
Incremental Delay, d2	7 4	8.4		3.4	5.3		0.2	0.2	0.5	14	0.1	
Delay (s)	32.6	39.1		19.3	23.7		25.8	26.1	28.3	30.9	25.3	
Level of Service	C	D		B	C		C	C	C	C	C	
Approach Delay (s)	Ŭ	38.6		-	22.6		Ũ	27.6	Ŭ	Ű	29.4	
Approach LOS		D			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.3	Н	CM 2000	Level of S	Service		C			
HCM 2000 Volume to Cana	city ratio		0.70									
Actuated Cycle Length (s)			110.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utiliza	tion		89.9%	10	CU Level o	of Service			F			
Analysis Period (min)			15						_			
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 21 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 22
Queues				الربيا						06/26/2020
660: Thomcime Pa				iva	+	•	t	1	Ļ	00/20/2020
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	123	518	100	37	566	238	136	84	143	
v/c Ratio	0.70	0.61	0.26	0.20	0.69	0.43	0.17	0.21	0.23	
Control Delay	46.7	29.1	8.8	22.0	27.6	18.2	10.0	24.6	9.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.7	29.1	8.8	22.0	27.6	18.2	10.0	24.6	9.5	
Queue Length 50th (m)	20.6	56.3	1.8	4.5	64.8	26.4	8.5	11.3	5.8	
Queue Length 95th (m)	m#39.2	m87.9	m8.4	11.9	94.5	42.2	19.2	22.7	18.7	
Internal Link Dist (m)		202.4			182.3		191.7		166.5	
Turn Bay Length (m)	40.0		20.0	40.0				30.0		
Base Capacity (vph)	175	846	378	185	826	553	802	402	611	
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	0.70	0.61	0.26	0.20	0.69	0.43	0.17	0.21	0.23	
Intersection Summary										
# 95th percentile volume	exceeds ca	pacity, qu	eue may	be longer						
Queue shown is maxim	um after two	cycles.								
m Volume for 95th perce	ntile queue i	is metered	l by upstr	eam sign	al.					

# HCM Signalized Intersection Capacity Analysis 680: Thorncliffe Park Dr W & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	<b>^</b>	1	7	A12		1	el el		ľ	el el	
Traffic Volume (vph)	116	487	94	35	404	128	224	70	58	79	42	92
Future Volume (vph)	116	487	94	35	404	128	224	70	58	79	42	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		3.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	*0.67	1.00	1.00	*0.64		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.68	1.00	0.97		1.00	0.95		1.00	0.94	
Flpb, ped/bikes	0.96	1.00	1.00	0.88	1.00		0.97	1.00		0.91	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.93		1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1701	2015	780	1469	1929		1622	1679		1631	1564	
Flt Permitted	0.23	1.00	1.00	0.29	1.00		0.61	1.00		0.67	1.00	
Satd. Flow (perm)	417	2015	780	441	1929		1047	1679		1151	1564	
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
Adi, Flow (vph)	123	518	100	37	430	136	238	74	62	84	45	98
RTOR Reduction (vph)	0	0	50	0	16	0	0	30	0	0	64	0
Lane Group Flow (vph)	123	518	50	37	550	0	238	106	0	84	79	0
Confl. Peds. (#/hr)	62		166	166		62	77		121	121		77
Confl. Bikes (#/hr)			6			15			2			3
Heavy Vehicles (%)	3%	15%	13%	9%	12%	2%	9%	0%	2%	2%	0%	6%
Bus Blockages (#/hr)	0	50	50	0	38	38	0	0	0	0	0	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		2			6		3	8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0		45.0	45.0		34.0	34.0	
Effective Green, a (s)	42.0	42.0	42.0	42.0	42.0		46.0	46.0		35.0	35.0	
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42		0.46	0.46		0.35	0.35	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0		4.0	7.0		7.0	7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Gro Cap (vph)	175	846	327	185	810		527	772		402	547	
v/s Ratio Prot		0.26	021		0.28		c0.04	0.06		.02	0.05	
v/s Ratio Perm	c0 30	0.20	0.06	0.08	0.20		c0 17	0.00		0.07	0.00	
v/c Ratio	0.70	0.61	0.15	0.20	0.68		0.45	0 14		0.21	0 14	
Uniform Delay d1	23.9	22.6	18.0	18.4	23.5		17.5	15.6		22.8	22.3	
Progression Factor	1 14	1 15	1.37	1 00	1 00		1.00	1.00		1.00	1.00	
Incremental Delay d2	15.9	24	0.7	2.4	4.6		0.6	0.4		12	0.6	
Delay (s)	43.2	28.4	25.4	20.8	28.1		18.1	15.9		24.0	22.8	
Level of Service	<u>.</u>	C	C	C	C		B	B		C	C	
Approach Delay (s)	-	30.5	Ũ	Ŭ	27.6		2	17.3		Ŭ	23.2	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			26.2	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.59									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			15.0			
Intersection Capacity Utiliza	ation		121.7%	IC	U Level o	of Service	)		Н			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 23

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 24

681: Laird Dr & Mc	Rae Dr/	Wickst	eed A	ve					06/26/2020
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	116	340	53	235	19	728	78	683	
v/c Ratio	0.26	0.74	0.16	0.63	0.23	0.65	0.85	0.77	
Control Delay	30.0	43.5	31.0	40.2	35.5	32.7	96.6	39.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	30.0	43.5	31.0	40.2	35.5	32.7	96.6	39.4	
Queue Length 50th (m)	17.5	58.8	8.1	38.6	2.8	59.8	14.1	63.5	
Queue Length 95th (m)	31.9	#96.9	18.0	63.9	9.5	78.3	#41.6	84.6	
Internal Link Dist (m)		109.4		394.2		190.1		32.0	
Turn Bay Length (m)	10.0		90.0		20.0		65.0		
Base Capacity (vph)	440	458	331	374	83	1112	92	886	
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	0.26	0.74	0.16	0.63	0.23	0.65	0.85	0.77	
Intersection Summary									

# HCM Signalized Intersection Capacity Analysis 681: Laird Dr & McRae Dr/Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	4Î		٦ ۲	4Î		۲.	<b>≜</b> †}		۲.	<b>≜</b> 1≽	
Traffic Volume (vph)	116	306	34	53	189	46	19	662	66	78	567	116
Future Volume (vph)	116	306	34	53	189	46	19	662	66	78	567	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2100	1900	1900	1900	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	4.0		5.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	*1.00		1.00	0.95	
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		0.99	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	0.99		1.00	0.97	
Fit Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1574	1621		1327	1461		1173	3563		1373	3056	
Flt Permitted	0.95	1.00		0.95	1.00		0.23	1.00		0.21	1.00	
Satd. Flow (perm)	1574	1621		1327	1461		288	3563		309	3056	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adi, Flow (vph)	116	306	34	53	189	46	19	662	66	78	567	116
RTOR Reduction (vph)	0	4	0	0	9	0	0	8	0	0	0	0
Lane Group Flow (vph)	116	336	0	53	226	0	19	720	0	78	683	0
Confl. Peds. (#/hr)	5		16	16		5	6		9	9		6
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	7%	12%	12%	27%	22%	24%	43%	13%	17%	22%	11%	17%
Bus Blockages (#/hr)	0	4	4	0	4	4	0	5	5	0	5	5
Turn Type	Snlit	NA		Snlit	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8		1 OIIII	2		T OIL	6	
Permitted Phases		•		· ·	v		2	-		6	v	
Actuated Green G (s)	27.0	27.0		24.0	24.0		28.0	28.0		28.0	28.0	
Effective Green, a (s)	28.0	28.0		25.0	25.0		29.0	31.0		30.0	29.0	
Actuated g/C Ratio	0.28	0.28		0.25	0.25		0.29	0.31		0.30	0.29	
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		3.0	3.0		3.0	3.0	
Lane Grn Can (vnh)	440	453		331	365		83	1104		92	886	
v/s Ratio Prot	0.07	c0 21		0.04	c0 15		00	0.20		02	0.22	
v/s Ratio Perm	0.07	60.21		0.04	60.15		0.07	0.20		c0 25	0.22	
v/c Ratio	0.26	0 74		0.16	0.62		0.07	0.65		0.85	0.77	
Iniform Delay, d1	28.0	32.7		29.3	33.3		27.0	29.8		32.9	32.5	
Progression Factor	1.00	1.00		1 00	1 00		1.00	1 00		1 00	1.00	
Incremental Delay, d2	1.00	10.4		1.00	7.7		6.3	3.0		58.7	6.4	
Delay (c)	20.4	/3.1		30.3	/1.0		33.3	32.8		01.6	38.0	
Loval of Sanciaa	23.4	4J.1		00.0	41.0		00.0	J2.0		51.0 E	JU.3	
Approach Doloy (c)	U	20.7		U	20.0		U	22.0		Г	44.2	
Approach LOS		39.7 D			39.0 D			JZ.0			44.3 D	
Appidacii LOG		U			U			0			D	
Intersection Summary												
HCM 2000 Control Delay			38.9	Н	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capa	icity ratio		0.75									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			18.0			
Intersection Capacity Utiliza	ation		93.6%	IC	U Level o	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												
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Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 26

06/26/2020

Existing AM 06/26/2020 Baseline

Queues 682: Millwood Rd 8	2 Laird F	)r				06/26/2020
002. Willwood Part	<u> </u>	<u>``</u>	1	t	ţ	
Lane Group	EBL	EBR	NBL	NBT	SBT	
Lane Group Flow (vph)	273	426	609	780	706	
v/c Ratio	0.91	0.68	0.98	0.37	0.72	
Control Delay	72.4	9.6	52.1	14.0	34.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.4	9.6	52.1	14.0	34.9	
Queue Length 50th (m)	51.8	0.0	109.2	65.4	61.6	
Queue Length 95th (m)	#97.9	27.8	#166.4	100.1	82.4	
Internal Link Dist (m)	84.7			203.7	60.0	
Turn Bay Length (m)			66.0			
Base Capacity (vph)	301	628	632	2110	977	
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	0.91	0.68	0.96	0.37	0.72	
Intersection Summary						

# HCM Signalized Intersection Capacity Analysis 682: Millwood Rd & Laird Dr

	٦	*	1	Ť	Ŧ	∢			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	N.	1	N.	<b>*</b> *	<b>≜1</b> .				
Traffic Volume (vph)	268	417	597	764	537	155			
Future Volume (vph)	268	417	597	764	537	155			
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900			
Lane Width	3.0	3.5	3.0	3.5	3.5	3.5			
Total Lost time (s)	5.0	5.0	2.5	5.0	5.0				
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95				
Frpb, ped/bikes	1.00	0.95	1.00	1.00	0.99				
Flpb, ped/bikes	0.98	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	0.97				
Flt Protected	0.95	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	1370	1347	1452	3104	3204				
Flt Permitted	0.95	1.00	0.20	1.00	1.00				
Satd. Flow (perm)	1370	1347	303	3104	3204				
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98			
Adi, Flow (vph)	273	426	609	780	548	158			
RTOR Reduction (vph)	0	332	0	0	26	0			
Lane Group Flow (vph)	273	94	609	780	680	0			
Confl. Peds. (#/hr)	11	4	4			4			
Confl Bikes (#/hr)		29				13			
Heavy Vehicles (%)	21%	13%	16%	15%	12%	35%			
Bus Blockages (#/hr)	0	0	0	0	5	5			
Turn Type	Perm	Perm	nm+nt	NA	NA				
Protected Phases	T OIIII	T OILI	5	2	6				
Permitted Phases	4	4	2	-	Ŭ				
Actuated Green G (s)	21.0	21.0	67.0	67.0	28.7				
Effective Green, a (s)	22.0	22.0	68.5	68.0	29.7				
Actuated g/C Ratio	0.22	0.22	0.68	0.68	0.30				
Clearance Time (s)	6.0	6.0	4.0	6.0	6.0				
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0				
ane Grn Can (vnh)	301	296	618	2110	951				
v/s Ratio Prot	001	200	cf) 35	0.25	0.21				
v/s Ratio Perm	c0 20	0.07	c0.33	0.23	0.21				
v/c Ratio	0.20	0.07	0.02	0.37	0.72				
Iniform Delay, d1	38.0	32.7	22.4	6.8	31.4				
Progression Factor	1 00	1.00	1 10	1.96	1 00				
Incremental Delay d?	32.7	2.8	30.0	0.4	4.6				
Delay (s)	70.7	35.5	54.5	13.8	36.0				
Level of Service	10.1	00.0 D	00 D	10.0 P	00.0 D				
Approach Delay (s)	/0.2	U	J	31.7	36.0				
Approach LOS	49.3 D			- 31.7 C	30.0 D				
Approach 203	U			C	D				
Intersection Summary									
HCM 2000 Control Delay			37.2	Н	CM 2000	Level of Service		D	
HCM 2000 Volume to Capa	city ratio		1.01						
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)	1:	3.5	
Intersection Capacity Utilization	ation		83.1%	IC	CU Level of	of Service		E	
Analysis Period (min)			15						
c Critical Lane Group									

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 27

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 28

Queues								
686: Millwood Rd &	Redwa	ay Rd/	Village	Static	on Rd			06/26/2020
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Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	24	19	41	26	1399	24	937	
v/c Ratio	0.16	0.10	0.19	0.06	0.51	0.08	0.28	
Control Delay	37.7	15.4	19.4	3.4	4.0	1.7	1.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.7	15.4	19.4	3.4	4.0	1.7	1.4	
Queue Length 50th (m)	4.4	0.2	2.6	0.3	9.7	0.3	7.5	
Queue Length 95th (m)	9.6	5.5	9.8	m1.3	m29.3	m0.8	15.3	
Internal Link Dist (m)		106.5	196.5		249.2		203.7	
Turn Bay Length (m)	45.0			100.0		20.0		
Base Capacity (vph)	341	439	462	432	2723	325	3318	
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	0.07	0.04	0.09	0.06	0.51	0.07	0.28	
Intersection Summary								
m Volume for 95th percent	tile queue i	s metered	d by upstr	eam sigr	ial.			

		2	<u> </u>									,
	•	→	$\mathbf{r}$	1	-	•	1	Ť	1	>	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations	ľ	eî Î			\$		ľ	A		ľ	A1⊅	
Traffic Volume (vph)	22	1	16	11	2	24	23	1252	7	22	809	34
Future Volume (vph)	22	1	16	11	2	24	23	1252	7	22	809	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2100	1900
Lane Width	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0	3.0	3.5	3.5
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0		3.0	7.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	*1.00	
Frpb, ped/bikes	1.00	0.94			0.99		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	
Frt	1.00	0.86			0.91		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1532	1427			1665		1603	3400		1604	3972	
Flt Permitted	0.73	1.00			0.90		0.32	1.00		0.15	1.00	
Satd. Flow (perm)	1177	1427			1523		539	3400		257	3972	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	1	18	12	2	27	26	1391	8	24	899	38
RTOR Reduction (vph)	0	16	0	0	24	0	0	0	0	0	2	C
Lane Group Flow (vph)	24	3	0	0	17	0	26	1399	0	24	935	C
Confl. Peds. (#/hr)			3	3			1		9	9		1
Confl. Bikes (#/hr)			17			3						
Heavy Vehicles (%)	10%	0%	7%	0%	0%	0%	5%	3%	0%	5%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	9	9	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		8			4			2		1	6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)	8.7	8.7			8.7		71.9	71.9		78.3	78.3	
Effective Green, g (s)	9.7	9.7			9.7		72.9	72.9		79.3	78.3	
Actuated g/C Ratio	0.10	0.10			0.10		0.73	0.73		0.79	0.78	
Clearance Time (s)	6.0	6.0			6.0		7.0	7.0		4.0	7.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	114	138			147		392	2478		249	3110	
v/s Ratio Prot		0.00						c0.41		0.00	c0.24	
v/s Ratio Perm	c0.02				0.01		0.05			0.07		
v/c Ratio	0.21	0.02			0.11		0.07	0.56		0.10	0.30	
Uniform Delay, d1	41.6	40.8			41.2		3.9	6.2		3.5	3.1	
Progression Factor	1.00	1.00			1.00		0.40	0.44		0.36	0.31	
Incremental Delay, d2	0.9	0.1			0.3		0.2	0.6		0.0	0.2	
Delay (s)	42.5	40.9			41.6		1.7	3.3		1.3	1.1	
Level of Service	D	D			D		A	A		A	A	
Approach Delay (s)		41.8			41.6			3.2			1.1	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			3.7	H	CM 2000	Level of S	Service		A			
HCM 2000 Volume to Capacity	y ratio		0.52									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utilizatio	n		52.9%	IC	U Level o	of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 29

Page 30

Queues							
687: Millwood Rd &	Overle	a Blvo	ł				06/26/202
	4	×	1	1	*	ţ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	372	316	1066	526	243	628	
v/c Ratio	0.38	0.40	0.94	0.59	0.95	0.24	
Control Delay	22.1	7.9	41.6	3.2	67.8	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.1	7.9	41.6	3.2	67.8	15.3	
Queue Length 50th (m)	23.5	17.7	65.7	0.5	44.4	37.2	
Queue Length 95th (m)	33.0	33.1	#143.5	m1.7	#81.2	46.6	
Internal Link Dist (m)	167.2		602.2			145.4	
Turn Bay Length (m)	125.0				75.0		
Base Capacity (vph)	985	796	1136	888	260	2663	
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	0.38	0.40	0.94	0.59	0.93	0.24	
Intersection Summary							
# 95th percentile volume e	xceeds car	pacity, qu	Jeue mav	be longer			
Queue shown is maximur	n after two	cycles.		<b>.</b>			

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

HCM Signalized Intersection Capacity Analysis 687: Millwood Rd & Overlea Blvd

	4	•	Ť	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	55	1	**	1	5	***			
Traffic Volume (voh)	346	294	991	489	226	584			
Future Volume (vph)	346	294	991	489	226	584			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	3.0	3.5	3.5	3.0	3.0	3.5			
Total Lost time (s)	5.0	3.0	6.0	5.0	3.0	6.0			
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frob. ped/bikes	1.00	0.98	1.00	0.96	1.00	1.00			
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	0.85	1.00	1.00			
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00			
Satd, Flow (prot)	2817	1467	3300	1158	1212	4932			
Flt Permitted	0.95	1.00	1.00	1.00	0.11	1.00			
Satd, Flow (perm)	2817	1467	3300	1158	136	4932			
Peak-hour factor PHF	0.93	0.93	0.93	0.93	0.93	0.93			
Adi Flow (vph)	372	316	1066	526	243	628			
RTOR Reduction (vph)	0.2	5	0001	76	0	0			
I ane Group Flow (vph)	372	311	1066	450	243	628			
Confl Peds (#/hr)	0.2	11		49	49	020			
Confl Bikes (#/hr)		18		83	10				
Heavy Vehicles (%)	16%	5%	3%	13%	39%	4%			
Bus Blockages (#/hr)	0	4	24	24	0	0			
Turn Type	Prot	nm+ov	NA	nm+ov	nm+nt	NA			
Protected Phases	8	1	2	8	1	6			
Permitted Phases	Ū	8	-	2	6	Ū			
Actuated Green, G (s)	34.0	49.6	33.4	67.4	53.0	53.0			
Effective Green a (s)	35.0	51.6	34.4	69.4	54.0	54.0			
Actuated g/C Ratio	0.35	0.52	0.34	0.69	0.54	0.54			
Clearance Time (s)	6.0	4.0	7.0	6.0	4.0	7.0			
Vehicle Extension (s)	3.0	2.0	3.0	3.0	2.0	3.0			
Lane Grn Can (vnh)	985	756	1135	803	252	2663			
v/s Ratio Prot	0.13	0.07	0.32	c0 20	c0 16	0.13			
v/s Ratio Perm	0.10	0.14	0.02	0.19	c0.36	0.10			
v/c Ratio	0.38	0.41	0 94	0.56	0.96	0.24			
Uniform Delay, d1	24.3	14.9	31.8	7 7	28.9	12.1			
Progression Factor	0.86	0.55	0.87	0.31	0.81	1.24			
Incremental Delay d2	0.00	0.00	12.9	22	45.5	0.2			
Delay (s)	21.9	8.4	40.6	4.6	68.9	15.2			
Level of Service	C	A	D	e	F	B			
Approach Delay (s)	15.7		28.7		_	30.2			
Approach LOS	В		C			C			
Intersection Summary									
HCM 2000 Control Delay			26.3	H	ICM 2000	Level of Servi	ce	С	
HCM 2000 Volume to Capa	city ratio		0.83						
Actuated Cycle Length (s)			100.0	S	Sum of los	t time (s)	14	1.0	
Intersection Capacity Utiliza	ition		79.9%	10	CU Level (	of Service		D	
Analysis Period (min)			15						
c Critical Lane Group									
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Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 31

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 32

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Lane Group	FBI	FBT	WBI	WBT	WBR	NBI	NBT	SBI	SBT	
Lane Group Flow (yph)	3	7	157	10	140	14	1515	149	1503	
v/c Ratio	0.02	0.02	0.50	0.02	0.33	0.11	0.64	0.74	0.54	
Control Delay	36.7	26.9	47.8	36.6	11.2	15.2	20.0	39.7	12.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.7	26.9	47.8	36.6	11.2	15.2	20.0	39.7	12.2	
Queue Length 50th (m)	0.6	0.6	34.1	1.9	3.5	1.6	103.4	14.3	76.4	
Queue Length 95th (m)	3.1	4.4	56.1	6.6	20.2	5.3	121.2	#45.5	89.5	
Internal Link Dist (m)		252.4		156.9			491.1		231.1	
Turn Bay Length (m)	35.0		50.0			25.0		70.0		
Base Capacity (vph)	203	443	322	450	434	129	2370	201	2767	
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	0.01	0.02	0.49	0.02	0.32	0.11	0.64	0.74	0.54	

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis 1389: Don Mills Rd & Gateway Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	eî		ľ	•	1	1	4 <b>4</b> 16		1	4 <b>4</b> 1	
Traffic Volume (vph)	3	3	4	152	10	136	14	1379	90	145	1444	14
Future Volume (vph)	3	3	4	152	10	136	14	1379	90	145	1444	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	*0.79		1.00	*0.80	
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.90	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	0.91	1.00		0.97	1.00	1.00	0.99	1.00		1.00	1.00	
Frt	1.00	0.91		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	999	1709		1578	1746	1335	1816	4148		1674	4165	
Flt Permitted	0.75	1.00		0.75	1.00	1.00	0.12	1.00		0.08	1.00	
Satd. Flow (perm)	790	1709		1251	1746	1335	228	4148		138	4165	
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
Adi, Flow (vph)	3	3	4	157	10	140	14	1422	93	149	1489	14
RTOR Reduction (vph)	0	3	0	0	0	92	0	5	0	0	1	0
Lane Group Flow (vph)	3	4	0	157	10	49	14	1510	0	149	1502	0
Confl. Peds. (#/hr)	70		26	26		70	25		61	61		25
Confl. Bikes (#/hr)			4			5						
Heavy Vehicles (%)	67%	0%	0%	12%	10%	10%	0%	6%	12%	9%	8%	22%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	13	13	0	16	16
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		nm+nt	NA	
Protected Phases	i onn	4		1 01111	8	1 01111	1 Unit	2		1	6	
Permitted Phases	4	- 1		8	Ū	8	2	-		6	Ŭ	
Actuated Green, G (s)	31.0	31.0		31.0	31.0	31.0	72 0	72 0		84.0	84.0	
Effective Green, g (s)	32.0	32.0		32.0	32.0	32.0	73.0	73.0		85.0	85.0	
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.25	0.57	0.57		0.66	0.66	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grn Can (vnh)	107	427		312	/36	333	130	2365		100	2765	
v/s Patio Prot	137	427		312	430	555	150	0.36		c0.05	0.36	
v/s Ratio Porm	0.00	0.00		c0 13	0.01	0.04	0.06	0.50		c0.44	0.50	
v/s Ratio Ferri	0.00	0.01		0.50	0.02	0.04	0.00	0.64		0.75	0.54	
Uniform Delay, d1	36.1	36.1		/1 2	36.2	37 /	12.6	18.6		10.75	11.3	
Drinom Delay, un	1 00	1 00		1 00	1.00	1 00	1 00	1 00		1 00	1.0	
Incremental Delay, d2	0.0	0.0		1.00	0.0	0.2	1.00	1.00		1/ 3	0.8	
Delay (c)	36.2	36.1		12.5	36.2	37.6	1/ 3	10.0		33.7	12.1	
Level of Service	JU.2	JU.1		42.J	JU.2	J7.0	14.J	13.3 B		55.7	12.1 R	
Approach Doloy (c)	U	26.1		U	40.0	U	U	10.0		U	14.0	
Approach LOS		JU.1			40.0			13.3 B			14.0 B	
		U			U			D			D	
Intersection Summary												
HCM 2000 Control Delay			18.9	Н	CM 2000	Level of	Service		В			
HCIM 2000 Volume to Capa	city ratio		0.69	-					44.6			
Actuated Cycle Length (s)			128.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utiliza	ation		96.5%	IC	U Level o	ot Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 33 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 34

Queues		14		<b>\</b>	06/00/00
1800: Overlea Bivo		am ivio	organ L	Jr	00/20/2020
	۲	-	+	1	
Lane Group	EBL	EBT	WBT	SBL	
Lane Group Flow (vph)	9	1046	1125	33	
v/c Ratio	0.12	0.91	0.96	0.07	
Control Delay	13.9	32.5	39.0	18.7	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	13.9	32.5	39.0	18.7	
Queue Length 50th (m)	0.7	138.5	157.4	3.1	
Queue Length 95th (m)	3.6	#218.1	#240.7	9.8	
Internal Link Dist (m)		165.4	588.9	90.1	
Turn Bay Length (m)	10.0				
Base Capacity (vph)	77	1145	1174	498	
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	0.12	0.91	0.96	0.07	
Intersection Summary					

1800: Overlea Blvd	& Willia	am Mo	rgan D	)r				06/26/2020
	۶	-	+	•	1	1		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	<b>N</b>	44	<b>4</b> 1,		¥			
Traffic Volume (vph)	9	1046	1071	54	23	10		
Future Volume (vph)	9	1046	1071	54	23	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	5.0	5.0	5.0		5.0			
Lane Util. Factor	1.00	*0.61	*0.61		1.00			
Frob. ped/bikes	1.00	1.00	0.99		0.97			
Flpb, ped/bikes	1.00	1.00	1.00		1.00			
Frt	1.00	1.00	0.99		0.96			
Flt Protected	0.95	1.00	1.00		0.97			
Satd, Flow (prot)	1825	1975	2022		1536			
Elt Permitted	0.07	1 00	1 00		0.97			
Satd Flow (perm)	132	1975	2022		1536			
Peak hour factor, DHE	1.00	1.00	1.00	1.00	1.00	1.00		
Adi Flow (vph)	1.00	1046	1071	5/	1.00	10		
PTOP Peduction (uph)	0	1040	2	04	23	0		
Long Croup Elow (vph)	0	1046	1102	0	26	0		
Confl Bodo (#/br)	9	1040	1125	54	20	0		
Confl. Peus. (#/III) Confl. Bikos (#/br)	54			04 12	12	02		
Conii. Dikes (#/iii)	00/	00/	C0/	100/	1.40/	100/		
Heavy venicles (%)	0%	8%	0%	10%	14%	10%		
BUS BIOCKAGES (#/III)	0	45	35	35	0	0		
Turn Type	Perm	NA	NA		Prot			
Protected Phases	0	2	6		4			
Permitted Phases	2	57.0	57.0		04.0			
Actuated Green, G (s)	57.0	57.0	57.0		31.0			
Effective Green, g (s)	58.0	58.0	58.0		32.0			
Actuated g/C Ratio	0.58	0.58	0.58		0.32			
Clearance Time (s)	6.0	6.0	6.0		6.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	76	1145	1172		491			
v/s Ratio Prot		0.53	c0.56		c0.02			
v/s Ratio Perm	0.07							
v/c Ratio	0.12	0.91	0.96		0.05			
Uniform Delay, d1	9.5	18.8	19.9		23.5			
Progression Factor	1.00	1.00	1.00		1.00			
Incremental Delay, d2	3.2	12.6	18.0		0.0			
Delay (s)	12.6	31.3	37.8		23.6			
Level of Service	В	С	D		С			
Approach Delay (s)		31.2	37.8		23.6			
Approach LOS		С	D		С			
Intersection Summary								
HCM 2000 Control Delay			34.4	н	CM 2000	Level of Service	0	
HCM 2000 Volume to Capac	ity ratio		0.64	T	SIN 2000	Lover of Oct VICe	0	
Actuated Cycle Length (c)	ity ratio		100.04	C.	um of lost	time (s)	10.0	
Intersection Canacity Litilizati	ion		64.4%	- 3		of Service	10.0	
IIIICI SCUIULI GADAGILY ULIIZAL			04.4 /0	IC IC	O LEVELO		0	
Analysis Pariod (min)			15					

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 35

Existing AM 06/26/2020 Baseline

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBR	
Lane Group Flow (vph)	38	640	65	608	12	35	7	9	
v/c Ratio	0.09	0.53	0.17	0.50	0.04	0.09	0.02	0.02	
Control Delay	9.3	19.6	9.7	18.7	22.7	9.3	22.2	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.3	19.6	9.7	18.7	22.7	9.3	22.2	0.0	
Queue Length 50th (m)	3.1	78.0	5.3	70.6	1.5	0.4	0.9	0.0	
Queue Length 95th (m)	7.3	111.1	11.1	102.2	5.3	6.8	3.9	0.0	
Internal Link Dist (m)		177.6		158.9		59.0			
Turn Bay Length (m)	90.0		40.0						
Base Capacity (vph)	446	1216	396	1222	482	573	477	629	
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	0.09	0.53	0.16	0.50	0.02	0.06	0.01	0.01	

HCM Signalized Intersection Capacity Analysis 1834: East York Town Centre/Costco Driveway & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	<b>≜t</b> ≽		<u> </u>	<b>^</b>		ň	ţ,		ň	•	1
Traffic Volume (vph)	35	554	35	60	547	12	11	3	29	6	Ö	8
Future Volume (vph)	35	554	35	60	547	12	11	3	29	6	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		6.0	6.0		6.0		6.0
Lane Util. Factor	1.00	*0.63		1.00	*0.65		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		0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.98	1.00		0.99		1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.86		1.00		0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95		1.00
Satd. Flow (prot)	1770	2005		1752	1946		1782	1621		1816		1257
Flt Permitted	0.27	1.00		0.23	1.00		0.76	1.00		0.73		1.00
Satd. Flow (perm)	511	2005		426	1946		1420	1621		1403		1257
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)	38	602	38	65	595	13	12	3	32	7	0	9
RTOR Reduction (vph)	0	2	0	0	1	0	0	25	0	0	0	7
Lane Group Flow (vph)	38	638	0	65	607	0	12	10	0	7	0	2
Confl. Peds. (#/hr)	6		14	14		6	26		6	6		26
Confl. Bikes (#/hr)									7			3
Heavy Vehicles (%)	3%	12%	3%	4%	15%	17%	0%	0%	0%	0%	2%	25%
Bus Blockages (#/hr)	0	33	33	0	50	50	0	0	0	0	0	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	60.5	56.4		63.1	57.7		21.2	21.2		21.2		21.2
Effective Green, g (s)	62.5	57.4		65.1	58.7		22.2	22.2		22.2		22.2
Actuated g/C Ratio	0.62	0.57		0.65	0.59		0.22	0.22		0.22		0.22
Clearance Time (s)	4.0	6.0		4.0	6.0		7.0	7.0		7.0		7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	383	1150		362	1142		315	359		311		279
v/s Ratio Prot	0.01	c0.32		c0.01	0.31			0.01				
v/s Ratio Perm	0.06			0.11			c0.01			0.00		0.00
v/c Ratio	0.10	0.55		0.18	0.53		0.04	0.03		0.02		0.01
Uniform Delay, d1	7.5	13.3		7.3	12.4		30.5	30.5		30.4		30.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	0.1	1.9		0.2	1.8		0.0	0.0		0.0		0.0
Delay (s)	7.7	15.2		7.5	14.2		30.6	30.5		30.4		30.3
Level of Service	A	В		A	В		С	С		С		С
Approach Delay (s)		14.8			13.5			30.5			30.4	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			14.9	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	city ratio		0.39									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utiliza	ation		60.1%	IC	CU Level o	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 37 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 38

Queues										
1907: Brentcliffe Ro	d & Wic	ksteed	Ave							06/26/2020
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	369	132	16	171	15	72	78	70	199	
v/c Ratio	0.41	0.10	0.02	0.19	0.07	0.22	0.40	0.21	0.37	
Control Delay	5.6	5.5	3.7	7.1	23.1	21.0	30.6	25.0	4.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	5.6	5.5	3.7	7.1	23.1	21.0	30.6	25.0	4.7	
Queue Length 50th (m)	12.7	3.6	0.4	6.9	1.6	6.1	8.7	7.5	0.0	
Queue Length 95th (m)	28.9	15.4	2.2	18.0	5.8	15.7	19.9	17.0	11.1	
Internal Link Dist (m)		394.2		170.3		46.9		140.1		
Turn Bay Length (m)	70.0		20.0		20.0		40.0		40.0	
Base Capacity (vph)	901	1276	960	912	412	590	359	600	541	
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	0.41	0.10	0.02	0.19	0.04	0.12	0.22	0.12	0.37	
Intersection Summary										

### HCM Signalized Intersection Capacity Analysis 1907: Brentcliffe Rd & Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	4		٦	ĥ		ሻ	ĥ		٦	<b>↑</b>	7
Traffic Volume (vph)	362	102	27	16	109	59	15	56	15	76	69	195
Future Volume (vph)	362	102	27	16	109	59	15	56	15	76	69	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	3.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00		0.99	1.00		0.95	1.00		0.99	1.00	1.00
Frt	1.00	0.97		1.00	0.95		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1768	1791		1816	1598		1736	1818		1511	1883	1436
Flt Permitted	0.60	1.00		0.67	1.00		0.71	1.00		0.71	1.00	1.00
Satd. Flow (perm)	1121	1791		1285	1598		1300	1818		1130	1883	1436
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)	369	104	28	16	111	60	15	57	15	78	70	199
RTOR Reduction (vph)	0	9	0	0	21	0	0	13	0	0	0	151
Lane Group Flow (vph)	369	123	0	16	150	0	15	59	0	78	70	48
Confl. Peds. (#/hr)	4		7	7		4	30		9	9		30
Heavy Vehicles (%)	3%	3%	4%	0%	2%	33%	0%	2%	0%	19%	2%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	7
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	48.0	42.9		39.0	37.9		8.3	8.3		8.3	8.3	14.4
Effective Green, g (s)	49.0	43.9		41.0	38.9		9.3	9.3		9.3	9.3	16.4
Actuated g/C Ratio	0.72	0.64		0.60	0.57		0.14	0.14		0.14	0.14	0.24
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Gro Cap (vph)	871	1151		787	910		177	247		153	256	344
v/s Ratio Prot	c0.04	0.07		0.00	0.09			0.03			0.04	0.01
v/s Ratio Perm	c0.26			0.01			0.01			c0.07		0.02
v/c Ratio	0.42	0 11		0.02	0 16		0.08	0.24		0.51	0 27	0.14
Uniform Delay, d1	3.5	4.7		5.5	7.0		25.8	26.3		27.4	26.5	20.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.2		0.0	0.4		0.2	0.5		2.7	0.6	0.2
Delay (s)	3.9	4.9		5.5	7.4		26.0	26.8		30.0	27.0	20.6
Level of Service	A	A		A	A		C	C		C	C	C
Approach Delay (s)		4.1			7.2			26.7			24.0	
Approach LOS		A			A			С			С	
Intersection Summary												
HCM 2000 Control Delay			12.5	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	city ratio		0.46									
Actuated Cycle Length (s)			68.3	S	um of lost	time (s)			13.0			
Intersection Capacity Utiliza	ition		66.6%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 39 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 40

Queues	& Gate	way B	vd				06/26/2020
	<u> </u>		<b>-</b>	t	1	ţ	
Lane Group	EBL	EBT	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	88	175	147	162	93	275	
v/c Ratio	0.29	0.16	0.16	0.32	0.18	0.35	
Control Delay	19.9	9.0	10.6	14.6	13.5	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.9	9.0	10.6	14.6	13.5	5.9	
Queue Length 50th (m)	8.2	4.1	4.1	12.7	7.2	6.3	
Queue Length 95th (m)	18.8	10.1	9.8	25.5	15.7	19.6	
Internal Link Dist (m)		156.9	464.4	27.6		232.2	
Turn Bay Length (m)	45.0				40.0		
Base Capacity (vph)	302	1128	896	512	508	777	
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	0.29	0.16	0.16	0.32	0.18	0.35	
Intersection Summary							

1974: Grenoble Dr	& Gate	way Bl	vd								00/2	6/2020
	≯	+	*	4	Ļ	•	•	Ť	1	1	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	۲	<b>^</b>			4 î b			\$		۲	4Î	
Traffic Volume (vph)	84	87	81	14	73	54	105	40	11	89	81	183
Future Volume (vph)	84	87	81	14	73	54	105	40	11	89	81	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6			4.7		4.7	4.7	
Lane Util. Factor	1.00	0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.95			0.88			0.99		1.00	0.92	
Flpb, ped/bikes	0.76	1.00			0.99			0.96		0.95	1.00	
Frt	1.00	0.93			0.94			0.99		1.00	0.90	
Flt Protected	0.95	1.00			0.99			0.97		0.95	1.00	
Satd. Flow (prot)	1253	3080			2668			1691		1643	1546	
Flt Permitted	0.66	1.00			0.92			0.67		0.68	1.00	
Satd. Flow (perm)	869	3080			2468			1175		1173	1546	
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
Adi, Flow (vph)	88	91	84	15	76	56	109	42	11	93	84	191
RTOR Reduction (vph)	0	55	0	0	36	0	0	4	0	0	108	C
Lane Group Flow (vph)	88	120	0	0	111	0	0	158	0	93	167	C
Confl. Peds. (#/hr)	192		61	61		192	140		98	98		140
Confl. Bikes (#/hr)			1	-		3			2			1
Heavy Vehicles (%)	11%	6%	2%	0%	10%	19%	4%	3%	0%	5%	2%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2	_		6			8			4		
Actuated Green, G (s)	23.4	23.4			23.4		-	29.3		29.3	29.3	
Effective Green, g (s)	24.4	24.4			24.4			30.3		30.3	30.3	
Actuated g/C Ratio	0.35	0.35			0.35			0.43		0.43	0.43	
Clearance Time (s)	6.6	6.6			6.6			5.7		5.7	5.7	
Lane Grn Can (ynh)	302	1073			860			508		507	669	
v/s Ratio Prot	002	0.04			000			000		001	0.11	
v/s Ratio Perm	c0 10	0.01			0.04			c0 13		0.08	0.11	
v/c Ratio	0.29	0 11			0.13			0.31		0.00	0.25	
Uniform Delay, d1	16.5	15.5			15.5			13.0		12.2	12.6	
Progression Factor	1.00	1 00			1 00			1 00		1.00	1.00	
Incremental Delay, d2	2.4	0.2			0.3			1.00		0.8	0.9	
Delay (s)	19.0	15.7			15.9			14.6		13.0	13.5	
Level of Service	B	R			R			B		B	10.0 B	
Approach Delay (s)	5	16.8			15.9			14.6		U	13.4	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			14.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.29		0	2010.01	50.1100		-			
Actuated Cycle Length (s)			70.0	S	um of lost	time (s)			12.3			
Intersection Capacity Utiliza	ation		103.8%	IC	U Level o	of Service			G			
Analysis Period (min)			15		2 201010				3			
a Critical Lana Crown												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 41 Existing AM 06/26/2020 Baseline

2001: Pape Ave &	Floyd A	ve			06/26/20
	+	+	1	ţ	
Lane Group	EBT	WBT	NBT	SBT	
Lane Group Flow (vph)	44	81	504	602	
v/c Ratio	0.12	0.19	0.36	0.40	
Control Delay	19.5	15.6	15.8	8.7	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	19.5	15.6	15.8	8.7	
Queue Length 50th (m)	3.9	5.2	41.7	29.8	
Queue Length 95th (m)	11.4	15.4	m59.7	44.2	
Internal Link Dist (m)	127.1	161.7	176.8	84.7	
Turn Bay Length (m)					
Base Capacity (vph)	379	435	1407	1508	
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	0.12	0.19	0.36	0.40	
Intersection Summary					
m Volume for 95th percen	itile queue i	s metere	d by upstr	eam signa	al.

### HCM Signalized Intersection Capacity Analysis 2001: Pape Ave & Floyd Ave

	۶	-	$\mathbf{\hat{z}}$	4	+	•	•	Ť	۲	1	ŧ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4JÞ			đ þ	
Traffic Volume (vph)	23	10	10	15	28	35	14	452	17	16	538	24
Future Volume (vph)	23	10	10	15	28	35	14	452	17	16	538	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1850	1900	1900	1850	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		6.0			6.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			*0.70			*0.75	
Frpb, ped/bikes		0.98			0.96			0.99			0.99	
Flpb, ped/bikes		0.96			0.99			1.00			1.00	
Frt		0.97			0.94			0.99			0.99	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1679			1641			2222			2378	
Flt Permitted		0.82			0.94			0.93			0.93	
Satd. Flow (perm)		1420			1557			2065			2216	
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)	24	10	10	16	29	36	15	471	18	17	560	25
RTOR Reduction (vph)	0	8	0	0	28	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	36	0	0	53	0	0	502	0	0	600	0
Confl. Peds. (#/hr)	60		59	59		60	55		61	61		55
Confl. Bikes (#/hr)									6			7
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%	0%	10%	0%	0%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	19	19	0	19	19
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			51.0			51.0	
Effective Green, q (s)		17.0			17.0			52.0			52.0	
Actuated g/C Ratio		0.21			0.21			0.65			0.65	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		301			330			1342			1440	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.03			0.24			c0.27	
v/c Ratio		0.12			0.16			0.37			0.42	
Uniform Delay, d1		25.5			25.7			6.5			6.7	
Progression Factor		1.00			1.00			1.99			1.00	
Incremental Delay, d2		0.2			0.2			0.6			0.9	
Delay (s)		25.6			25.9			13.5			7.6	
Level of Service		С			С			В			А	
Approach Delay (s)		25.6			25.9			13.5			7.6	
Approach LOS		С			С			В			A	
Intersection Summary												
HCM 2000 Control Delay			11.9	H	CM 2000	Level of	Service		B			
HCM 2000 Volume to Capacity	ratio		0.35		2 2000				5			
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)			11.0			
Intersection Capacity Utilization	n		54.0%		U Level o	of Service			Α			
Analysis Period (min)	•		15		0 201010				~ ~			
c Critical Lane Group			10									

Existing AM 06/26/2020 Baseline

Queues

Synchro 10 Report Page 43

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 44

Queues							
2220: Laird Dr & C	ommerc	ial Rd					06/26/2
	-	4	+	Ť	1	ţ	
Lane Group	EBT	WBL	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	25	91	10	1090	13	691	
v/c Ratio	0.08	0.38	0.03	0.69	0.05	0.29	
Control Delay	14.2	27.3	11.2	16.2	5.8	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.2	27.3	11.2	16.2	5.8	5.9	
Queue Length 50th (m)	1.5	10.9	0.1	43.8	0.4	14.8	
Queue Length 95th (m)	5.6	18.2	2.9	#136.7	2.9	38.2	
nternal Link Dist (m)	76.1		131.6	73.2		190.1	
Turn Bay Length (m)		55.0			30.0		
Base Capacity (vph)	559	453	577	1582	303	2394	
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	0.04	0.20	0.02	0.69	0.04	0.29	

### Intersection Summary

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

HCM Signalized Intersection Capacity Analysis 2220: Laird Dr & Commercial Rd

	۶	-	$\mathbf{F}$	∢	•	۰.	1	Ť	۲	1	ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		۲	î,			đ þ		٦	<b>†</b> 1,	
Traffic Volume (vph)	10	2	11	85	1	8	7	793	96	12	634	8
Future Volume (vph)	10	2	11	85	1	8	7	793	96	12	634	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1650	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)		5.0		5.0	5.0			6.0		3.0	5.0	
Lane Util. Factor		1.00		1.00	1.00			*0.80		1.00	0.95	
Frpb, ped/bikes		0.99		1.00	0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00		1.00	1.00	
Frt		0.94		1.00	0.86			0.99		1.00	1.00	
Flt Protected		0.98		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1698		1630	1601			2444		1439	3329	
Flt Permitted		0.89		0.74	1.00			0.95		0.15	1.00	
Satd. Flow (perm)		1542		1271	1601			2322		224	3329	
Peak-hour factor. PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.81	0.93	0.93	0.93	0.93
Adi, Flow (vph)	11	2	12	91	1	9	8	979	103	13	682	9
RTOR Reduction (vph)	0	10	0	0	7	0	0	6	0	0	1	0
Lane Group Flow (vph)	0	15	0	91	3	0	0	1084	0	13	690	0
Confl. Peds. (#/hr)	5		4	4		5	9		14	14		9
Confl. Bikes (#/hr)			5									
Heavy Vehicles (%)	0%	0%	0%	3%	0%	0%	0%	4%	2%	17%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	5	0	5	5
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		p pt	6	
Permitted Phases	4	•		8	Ū		2	-		6	v	
Actuated Green G (s)		10.9		10.9	10.9			41.9		47 1	47 1	
Effective Green a (s)		11.9		11.9	11.9			41.9		48.1	48.1	
Actuated g/C Ratio		0.17		0.17	0.17			0.60		0.69	0.69	
Clearance Time (s)		6.0		6.0	6.0			6.0		4.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0		2.0	3.0	
Lane Grn Can (vnh)		262		216	272			1389		192	2287	
v/s Ratio Prot		202		210	0.00			1000		0.00	c0 21	
v/s Ratio Perm		0.01		c0 07	0.00			c0 47		0.00	00.21	
v/c Ratio		0.06		0.42	0.01			0.78		0.07	0.30	
Uniform Delay, d1		24.3		26.0	24.1			10.6		4 9	4.3	
Progression Eactor		1 00		1 00	1 00			1 00		1.0	1.00	
Incremental Delay, d2		0.1		1.00	0.0			4.4		0.1	0.3	
Delay (s)		24.4		27.3	24.2			15.0		5.0	47	
Level of Service		0		21.0 C	C			B		Δ	Δ	
Approach Delay (s)		24.4		0	27.0			15.0		~	47	
Approach LOS		24.4 C			21.0 C			B			4.7 A	
Intersection Summary												
HCM 2000 Control Delay			12.0	H	CM 2000	Level of 9	Service		R			
HCM 2000 Volume to Canac	ity ratio		0.60		5111 2000	Lover OF c			۵			
Actuated Cycle Length (c)	ity fallo		70.0	0.	im of lost	time (c)			14.0			
Intersection Canacity Litilizet	ion		54 7%	50		of Service			14.0			
Analysis Period (min)			J4.7 /0 15	IC.	O Level (	of Service			A			
c Critical Lane Group			10									

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 46

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 45

Queues	andarl	Dr				06/26/202
	Sanuari					00,20,202
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Lane Group	WBL	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	57	19	1018	98	777	
v/c Ratio	0.40	0.06	0.62	0.31	0.50	
Control Delay	45.6	0.4	13.0	5.6	6.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	45.6	0.4	13.0	5.6	6.6	
Queue Length 50th (m)	10.5	0.0	62.3	2.8	30.8	
Queue Length 95th (m)	19.8	0.0	130.0	10.6	77.9	
Internal Link Dist (m)		128.7	78.5		74.1	
Turn Bay Length (m)	55.0			60.0		
Base Capacity (vph)	264	386	1635	328	1562	
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	0.22	0.05	0.62	0.30	0.50	
Intersection Summary						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		۲	î,			<b>†</b> 12		5	44	
Traffic Volume (vph)	0	0	0	54	0	18	0	913	54	93	738	0
Future Volume (vph)	0	0	0	54	0	18	0	913	54	93	738	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1650	1900	1900	1650	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)				4.0	4.0			6.0		3.0	6.0	
Lane Util. Factor				1.00	1.00			*0.80		1.00	*0.70	
Frpb, ped/bikes				1.00	0.96			1.00		1.00	1.00	
Flpb, ped/bikes				0.99	1.00			1.00		1.00	1.00	
Frt				1.00	0.85			0.99		1.00	1.00	
Flt Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1328	944			2270		1452	1950	
Flt Permitted				0.76	1.00			1.00		0.19	1.00	
Satd, Flow (perm)				1059	944			2270		287	1950	
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
Adi Flow (vph)	0.00	0.00	0.00	57	0.00	19	0	961	57	98	777	0.00
RTOR Reduction (vph)	0	0	0	0	17	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	57	2	0	0	1016	0	98	777	C
Confl Peds (#/hr)	17	v	11	11	-	17	· ·		2	2		
Confl Bikes (#/hr)			23			5			-	-		
Heavy Vehicles (%)	0%	0%	0%	25%	0%	62%	0%	12%	25%	16%	16%	0%
Bus Blockages (#/br)	0 /0	0 /0	0 /0	20/0	0 /0	02.70	0 /0	5	2370	0	5	5
	0	•	0	Perm	ΝΔ	0	0	ΝΔ	0	nm+nt	ΝΔ	
Protected Phases		Δ		T CITI	8			2		1	6	
Permitted Phases	4	т		8	0			2		6	U	
Actuated Green G (c)	-			11 1	11 1			68.0		77.0	77 0	
Effective Green, g (s)				12.1	12.1			68.0		78.0	77.0	
Actuated a/C Patio				0.12	0.12			0.60		0.70	0.78	
Clearance Time (s)				5.0	5.0			6.0		4.0	60	
Vehicle Extension (s)				3.0	3.0			3.0		2.0	3.0	
				100	114			1504		2.0	1510	
Lane Grp Cap (vpn)				120	0.00			1004		290	1519	
V/s Ratio Prot				-0.05	0.00			CU.45		0.02	CU.40	
v/s Ralio Perm				0.45	0.00			0.65		0.24	0.51	
V/C Ratio				0.45	0.02			0.05		0.33	0.51	
Uniform Delay, d I				40.8	38.7			0.0		3.7	4.1	
Progression Factor				1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2				2.5	0.1			Z. 1		0.2	1.2	
Delay (S)				43.3	30.0			10.9		4.0	5.5	
Level of Service		0.0		D	U			B		A	A	
Approach Delay (s)		0.0			42.2			10.9			5.1	
Approach LUS		A			D			В			A	
Intersection Summary												
HCM 2000 Control Delay			9.5	Н	CM 2000	Level of S	Service		A			
HCM 2000 Volume to Capacity	/ ratio		0.61									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			13.0			
Intersection Capacity Utilization	n		59.5%	IC	CU Level of	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 2324: Laird Dr & Esandar Dr

Existing AM 06/26/2020 Baseline

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 47

Synchro 10 Report Page 48

2461: Pape Ave &	Lipton A	ve				06/26/2020
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Lane Group	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	16	15	46	521	608	
v/c Ratio	0.02	0.03	0.10	0.48	0.57	
Control Delay	7.6	11.3	2.7	37.0	26.4	
Queue Delay	0.0	0.0	0.0	3.2	0.5	
Total Delay	7.6	11.3	2.7	40.2	26.9	
Queue Length 50th (m)	0.6	1.2	0.0	47.0	44.1	
Queue Length 95th (m)	3.6	4.3	3.8	60.9	60.9	
Internal Link Dist (m)	90.3		75.3	60.0	383.8	
Turn Bay Length (m)						
Base Capacity (vph)	765	461	442	1095	1061	
Starvation Cap Reductn	0	0	0	459	0	
Spillback Cap Reductn	37	22	0	0	148	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.02	0.03	0.10	0.82	0.67	
Intersection Summary						

## HCM Signalized Intersection Capacity Analysis 2461: Pape Ave & Lipton Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$		ľ	¢Î			4î Þ			4 î b	
Traffic Volume (vph)	6	1	8	14	0	43	3	456	26	33	501	32
Future Volume (vph)	6	1	8	14	0	43	3	456	26	33	501	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			7.0			7.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		0.96		1.00	0.77			0.96			0.99	
Flpb, ped/bikes		0.92		0.94	1.00			1.00			0.98	
Frt		0.92		1.00	0.85			0.99			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1546		1149	808			3329			3443	
Flt Permitted		0.95		0.75	1.00			0.95			0.89	
Satd. Flow (perm)		1490		903	808			3168			3068	
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)	6	1	9	15	0	46	3	490	28	35	539	34
RTOR Reduction (vph)	0	4	0	0	22	0	0	5	0	0	5	0
Lane Group Flow (vph)	0	12	0	15	24	0	0	516	0	0	603	0
Confl. Peds. (#/hr)	147		38	38		147	83		543	543		83
Confl. Bikes (#/hr)									5			1
Heavy Vehicles (%)	0%	0%	0%	50%	2%	56%	0%	5%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		45.0		45.0	45.0			30.0			30.0	
Effective Green, q (s)		46.0		46.0	46.0			31.0			31.0	
Actuated g/C Ratio		0.51		0.51	0.51			0.34			0.34	
Clearance Time (s)		7.0		7.0	7.0			8.0			8.0	
Lane Grp Cap (vph)		761		461	412			1091			1056	
v/s Ratio Prot					c0.03							
v/s Ratio Perm		0.01		0.02				0.16			c0.20	
v/c Ratio		0.02		0.03	0.06			0.47			0.57	
Uniform Delay d1		10.8		10.9	11.1			23.1			24.1	
Progression Factor		1 00		1 00	1 00			1.55			1 00	
Incremental Delay, d2		0.0		0.1	0.3			11			22	
Delay (s)		10.9		11.1	11.3			37.0			26.3	
Level of Service		B		B	B			D			C	
Approach Delay (s)		10.9		-	11.3			37.0			26.3	
Approach LOS		B			B			D			C	
· +		_			_			-			-	_
Intersection Summary			20.0		014 0000	Laural of	0		0			
HCM 2000 Volume to Control	oit ratio		30.0	Н		Level of	Service		U			
Actuated Cycle Length (2)	acity ratio		0.20	0	um of la -	time (c)			12.0			
Actuated Cycle Length (S)	otion		90.0	S	UIII OF IOST	ume (S)			13.0			
Analysis Daried (min)	auon		02.0%	IC	O Level (	n Service	;		В			
Analysis Period (min)			15									

c Critical Lane Group

Existing AM 06/26/2020 Baseline

Queues

Synchro 10 Report Page 49 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 50

3002: Deauville Ln	& St De	ennis D	)r						06/26/2020
	۶	-	•	←	Ť	1	ţ	1	
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	78	169	201	333	153	193	122	32	
v/c Ratio	0.16	0.20	0.40	0.35	0.34	0.38	0.24	0.06	
Control Delay	10.1	6.2	13.4	4.2	19.9	5.3	18.2	3.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.1	6.2	13.4	4.2	19.9	5.3	18.2	3.9	
Queue Length 50th (m)	5.0	6.3	15.1	6.2	14.6	0.0	11.2	0.0	
Queue Length 95th (m)	11.8	15.2	29.8	18.2	28.4	12.2	22.6	3.7	
Internal Link Dist (m)		143.8		151.5	96.9		97.1		
Turn Bay Length (m)						15.0		15.0	
Base Capacity (vph)	492	857	502	955	451	506	504	527	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.16	0.20	0.40	0.35	0.34	0.38	0.24	0.06	
Intersection Summary									

# HCM Signalized Intersection Capacity Analysis 3002: Deauville Ln & St Dennis Dr

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	2	el el		ľ	¢Î			ę	1		ŧ	1
Traffic Volume (vph)	71	91	63	183	89	214	55	85	176	37	74	29
Future Volume (vph)	71	91	63	183	89	214	55	85	176	37	74	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.93		1.00	0.96			1.00	0.82		1.00	0.90
Flpb, ped/bikes	0.98	1.00		0.87	1.00			0.97	1.00		0.96	1.00
Frt	1.00	0.94		1.00	0.89			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	1.00
Satd. Flow (prot)	1728	1578		1406	1615			1546	1118		1689	1469
Flt Permitted	0.52	1.00		0.65	1.00			0.85	1.00		0.87	1.00
Satd. Flow (perm)	944	1578		962	1615			1336	1118		1494	1469
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
Adi Flow (vph)	78	100	69	201	98	235	60	93	193	41	81	32
RTOR Reduction (vph)	0	33	0	0	112	0	0	0	128	0	0	21
Lane Group Flow (vph)	78	136	0	201	221	0	0	153	65	0	122	11
Confl Peds (#/hr)	27		106	106		27	53		103	103		53
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	3%	5%	4%	13%	6%	0%	15%	6%	11%	11%	5%	0%
Bus Blockages (#/hr)	0,0	3	3	0	0	0	0	19	19	0	0	0,0
Turn Type	Porm	NΔ	<u> </u>	Perm	NΔ	•	Perm	NΔ	Perm	Perm	NΔ	Perm
Protected Phases	I GIIII	2		1 Chin	6		1 Gilli	8	1 GIIII	1 GIIII	4	1 Cilli
Permitted Phases	2	2		6	0		8	0	8	Δ	-	4
Actuated Green, G (s)	36.1	36.1		36.1	36.1		0	23.0	23.0	7	23.0	23.0
Effective Green, a (s)	37.1	37.1		37.1	37.1			24.0	24.0		24.0	24.0
Actuated a/C Patio	0.52	0.52		0.52	0.52			0.34	0.3/		0.34	0.34
Clearance Time (c)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Long Crp Cop (uph)	402	0.0		501	0.0			450	277		504	405
v/a Batia Brat	492	020		501	042			400	311		504	490
V/S Ratio Prot	0.00	0.09		-0.01	0.14			-0.11	0.06		0.00	0.01
V/S Ralio Perm	0.00	0.17		0.40	0.06			0.24	0.00		0.00	0.01
V/C Rallo Uniform Dolou d1	0.10	0.17		10.2	0.20			17.6	0.17		17.0	15.7
Unitorni Delay, di	0.9	0.9		10.5	9.4			17.0	10.0		17.0	10.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, uz	0.7	0.4		2.4	10.0			10.1	16.0		17.0	15.7
Delay (S)	9.0	9.5		12.7 D	10.Z			10.1 D	10.0		17.Z	15.7
Level of Service	A	A		В	В			B	В		B	В
Approach Delay (s)		9.4			11.1			17.4			16.9	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			13.2	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capac	city ratio		0.38									_
Actuated Cycle Length (s)			71.1	S	um of lost	time (s)			10.0			
Intersection Capacity Utilization	tion		70.4%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 51 Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 52

HCM Unsignalized Intersection Capacity Analysis	
9001: Don Mills Rd & Rochefort Dr	

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		<b>*††</b>		ľ	<u></u>
Traffic Volume (veh/h)	1	156	1511	39	21	1590
Future Volume (Veh/h)	1	156	1511	39	21	1590
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)	1	170	1642	42	23	1728
Pedestrians	59		2			
Lane Width (m)	3.7		3.7			
Walking Speed (m/s)	1.1		1.1			
Percent Blockage	6		0			
Right turn flare (veh)						
Madless from a			Maria			Mana

Right turn hare (ven)											
Median type			None			None					
Median storage veh)											
Upstream signal (m)			159			294					
pX, platoon unblocked	0.84	0.78			0.78						
vC, conflicting volume	2346	627			1743						
vC1, stage 1 conf vol											
vC2, stage 2 conf vol											
vCu, unblocked vol	166	0			951						
tC, single (s)	6.8	7.0			4.1						
tC, 2 stage (s)											
tF (s)	3.5	3.3			2.2						
p0 queue free %	100	79			96						
cM capacity (veh/h)	621	794			536						
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4			
Volume Total	171	657	657	370	23	576	576	576			
Volume Left	1	0	0	0	23	0	0	0			
Volume Right	170	0	0	42	0	0	0	0			
cSH	792	1700	1700	1700	536	1700	1700	1700			
Volume to Capacity	0.22	0.39	0.39	0.22	0.04	0.34	0.34	0.34			
Queue Length 95th (m)	6.2	0.0	0.0	0.0	1.0	0.0	0.0	0.0			
Control Delay (s)	10.8	0.0	0.0	0.0	12.0	0.0	0.0	0.0			
Lane LOS	В				В						
Approach Delay (s)	10.8	0.0			0.2						
Approach LOS	В										
Intersection Summary											
Average Delay			0.6								
Intersection Capacity Utilization	ı		47.1%	IC	U Level o	of Service			A		
Analysis Period (min)			15								

### HCM Unsignalized Intersection Capacity Analysis 9002: Ferrand Dr W & Eglinton Ave E ramp

06/26/2020

	۶	$\mathbf{\hat{z}}$	1	1	Ŧ	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			្រា	î,	
Traffic Volume (veh/h)	77	89	0	4	8	1
Future Volume (Veh/h)	77	89	0	4	8	1
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)	84	97	0	4	9	1
Pedestrians	12					
Lane Width (m)	3.7					
Walking Speed (m/s)	1.1					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC. conflicting volume	26	22	22			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	26	22	22			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	91	100			
cM capacity (veh/h)	984	1041	1576			
Direction Lane #	FR 1	NR 1	SB 1			
Volume Total	181	4	10			
Volume Left	84	0	0			
Volume Right	97	0	1			
ren	1014	1576	1700			
Volume to Canacity	0.18	0.00	0.01			
Oueue Length 95th (m)	/ 0	0.00	0.01			
Control Delay (s)	4.5	0.0	0.0			
	3.J A	0.0	0.0			
Approach Doloy (c)	0.2	0.0	0.0			
Approach LOS	9.5	0.0	0.0			
Appidacii 200	~					
Intersection Summary						
Average Delay			8.7			
Intersection Capacity Utiliza	ation		23.0%	IC	CU Level c	of Service
Analysis Period (min)			15			

06/26/2020

Existing AM 06/26/2020 Baseline

HCM Unsignalized Intersection Capacity Analysis	
9006 Rochefort Dr & Ferrand Dr W	

06/26/2020

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ų	4Î		Y	
Traffic Volume (veh/h)	11	33	148	51	9	77
Future Volume (Veh/h)	11	33	148	51	9	77
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	36	161	55	10	84
Pedestrians		2	4		15	
Lane Width (m)		3.7	3.7		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	231				268	206
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	231				268	206
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.3
p0 queue free %	99				99	90
cM capacity (veh/h)	1273				682	822
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	48	216	94			
Volume Left	12	0	10			
Volume Right	0	55	84			
cSH	1273	1700	804			
Volume to Capacity	0.01	0.13	0.12			
Queue Length 95th (m)	0.2	0.0	3.0			
Control Delay (s)	2.0	0.0	10.1			
Lane LOS	А		В			
Approach Delay (s)	2.0	0.0	10.1			
Approach LOS			В			
Intersection Summary						
Average Delav			2.9			
Intersection Capacity Utiliza	ation		24.7%	IC	U Level o	of Service
Analysis Period (min)			15	10	2 20.010	
			10			

9020: Pape Ave &	Gamble	Ave	-	-	-						06/2	26/2020
	۶	+	*	4	Ļ	•	*	Ť	*	1	Ŧ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			4			4î»			4î»	
Traffic Volume (veh/h)	22	8	36	16	14	48	34	426	17	14	393	24
Future Volume (Veh/h)	22	8	36	16	14	48	34	426	17	14	393	24
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	23	8	37	16	14	49	35	439	18	14	405	25
Pedestrians		147			139			14			13	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		14			13			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								104			330	
pX, platoon unblocked												
vC, conflicting volume	951	1258	376	942	1262	380	577			596		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	951	1258	376	942	1262	380	577			596		
tC, single (s)	7.6	6.5	7.0	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 %	80	93	93	88	88	91	96			98		
cM capacity (veh/h)	115	122	527	130	121	536	868			862		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	68	79	254	238	216	228						
Volume Left	23	16	35	0	14	0						
Volume Right	37	49	0	18	0	25						
cSH	203	239	868	1700	862	1700						
Volume to Capacity	0.34	0.33	0.04	0.14	0.02	0.13						
Queue Length 95th (m)	10.6	10.5	1.0	0.0	0.4	0.0						
Control Delay (s)	31.4	27.3	1.7	0.0	0.8	0.0						
Lane LOS	D	D	А		Α							
Approach Delay (s)	31.4	27.3	0.9		0.4							
Approach LOS	D	D										
Intersection Summary												
Average Delay			4.5									
Intersection Capacity Utiliza	ation		46.3%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

### Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 55 Existing AM 06/26/2020 Baseline

HCM Unsignalized Intersection Capacity Analysis 9025: Pape Ave & Sammon Ave

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	1
Lane Configurations	Y		<b>≜1</b> ≽				
Traffic Volume (veh/h)	65	49	518	18	15	536	
Future Volume (Veh/h)	65	49	518	18	15	536	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	68	52	545	19	16	564	
Pedestrians	75					3	
Lane Width (m)	3.7					3.7	
Walking Speed (m/s)	1.1					1.1	
Percent Blockage	7					0	
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)						154	
pX, platoon unblocked							
vC, conflicting volume	944	360			639		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	944	360			639		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	72	91			98		
cM capacity (veh/h)	241	596			888		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	120	363	201	204	376		
Volume Left	68	0	0	16	0		
Volume Right	52	0	19	0	0		
cSH	325	1700	1700	888	1700		
Volume to Capacity	0.37	0.21	0.12	0.02	0.22		
Queue Length 95th (m)	12.5	0.0	0.0	0.4	0.0		
Control Delay (s)	22.4	0.0	0.0	0.9	0.0		
Lane LOS	С			А			
Approach Delay (s)	22.4	0.0		0.3			
Approach LOS	С						
Intersection Summary							
Average Delay			2.3				
Intersection Capacity Utilizat	tion		39.7%	IC	U Level o	of Service	,
Analysis Period (min)			15				

06/26/2020 9026: Pape Ave & Fulton Ave ~ ٦ 1 t ŧ  $\mathbf{i}$ EBL NBT SBT SBR Movement EBR NBI **4**↑ 567 γ **†1**→ 535 Lane Configurations Traffic Volume (veh/h) 57 9 5 51 Future Volume (Veh/h) 9 5 51 567 535 57 Sign Control Stop Free Free Grade 0% 0% 0% Peak Hour Factor 0.93 0.93 0.93 0.93 0.93 0.93 Hourly flow rate (vph) 10 5 55 610 575 61 Pedestrians 16 29 8 Lane Width (m) 3.7 3.7 3.7 Walking Speed (m/s) 1.1 1.1 1.1 Percent Blockage 3 1 1 Right turn flare (veh) Median type None None Median storage veh) Upstream signal (m) 201 pX, platoon unblocked vC, conflicting volume 363 665 1058 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol tC, single (s) 1058 665 363 6.9 6.8 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 99 94 95 cM capacity (veh/h) 908 203 613 EB 1 Direction, Lane # NB 1 NB 2 SB 1 SB 2 Volume Total 15 258 407 383 253 Volume Left 55 10 0 0 0 Volume Right 61 5 0 0 0 cSH 261 908 1700 1700 1700 Volume to Capacity 0.06 0.06 0.24 0.23 0.15 Queue Length 95th (m) 1.5 0.0 0.0 0.0 1.4 Control Delay (s) 19.6 2.5 0.0 0.0 0.0 Lane LOS С Α Approach Delay (s) 19.6 1.0 0.0 Approach LOS С Intersection Summary Average Delay 0.7 Intersection Capacity Utilization Analysis Period (min) 51.5% ICU Level of Service А 15

HCM Unsignalized Intersection Capacity Analysis

06/26/2020

Existing AM 06/26/2020 Baseline

HCM Unsignalized Intersection Capacity Analysis 9027: Pape Ave & Aldwych Ave

	<	•	<b>†</b>	1	1	Ŧ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		<b>≜t</b> ⊾				-
Traffic Volume (veh/h)	13	64	554	43	27	513	
Future Volume (Veh/h)	13	64	554	43	27	513	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Hourly flow rate (vph)	13	66	571	44	28	529	
Pedestrians	38		1			38	
Lane Width (m)	3.7		3.7			3.7	
Walking Speed (m/s)	1.1		1.1			1.1	
Percent Blockage	4		0			4	
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)						250	
pX, platoon unblocked							
vC, conflicting volume	952	384			653		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	952	384			653		
tC, single (s)	6.8	6.9			4.3		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.3		
p0 queue free %	95	89			97		
cM capacity (veh/h)	243	577			859		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	79	381	234	204	353		
Volume Left	13	0	0	28	0		
Volume Right	66	0	44	0	0		
cSH	471	1700	1700	859	1700		
Volume to Capacity	0.17	0.22	0.14	0.03	0.21		
Queue Length 95th (m)	4.5	0.0	0.0	0.8	0.0		
Control Delay (s)	14.2	0.0	0.0	1.6	0.0		
Lane LOS	В			А			
Approach Delay (s)	14.2	0.0		0.6			
Approach LOS	В						
Intersection Summary							
Average Delay			1.2				
Intersection Capacity Utiliz	ation		52.6%	IC	ULevel	of Service	
Analysis Period (min)			15		0 201011		
			10				

06/26/2020 9028: Pape Ave & Browning Ave ~ ٦ 1 t  $\mathbf{i}$ EBL NBT SBT SBR Movement EBR NBL **↑↑** 530 **††** 517 Lane Configurations 7 Traffic Volume (veh/h) 67 29 0 0 Future Volume (Veh/h) 67 29 0 530 517 0 Sign Control Stop Free Free Grade 0% 0% 0% Peak Hour Factor 0.99 0.99 0.99 0.99 0.99 0.99 Hourly flow rate (vph) 68 29 0 535 522 0 Pedestrians 43 36 3 Lane Width (m) 3.7 3.7 3.7 Walking Speed (m/s) 1.1 1.1 1.1 Percent Blockage 4 0 3 Right turn flare (veh) Median type None None Median storage veh) Upstream signal (m) 293 pX, platoon unblocked vC, conflicting volume 307 565 868 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol tC, single (s) 565 868 307 6.9 6.8 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 96 100 75 cM capacity (veh/h) 665 963 270 EB 1 Direction, Lane # EB 2 NB 1 NB 2 SB 1 SB 2 Volume Total 68 29 268 268 261 261 Volume Left 68 0 0 0 0 0 Volume Right 29 0 0 0 0 0 cSH 1700 270 665 1700 1700 1700 Volume to Capacity 0.25 0.04 0.16 0.16 0.15 0.15 Queue Length 95th (m) 1.0 0.0 0.0 0.0 7.4 0.0 Control Delay (s) 22.7 10.7 0.0 0.0 0.0 0.0 Lane LOS С В Approach Delay (s) 19.1 0.0 0.0 Approach LOS С Intersection Summary Average Delay 1.6 Intersection Capacity Utilization Analysis Period (min) 25.9% ICU Level of Service А 15

HCM Unsignalized Intersection Capacity Analysis

### Existing AM 06/26/2020 Baseline

Synchro 10 Report Page 59

06/26/2020

Existing AM 06/26/2020 Baseline

HCM Unsignalized Intersection Capacity Analysis	
9033 Leaside Park Dr & Overlea Blvd	

Movement         EBT         EBR         WBL         WBT         NBL         NBR           Lane Configurations $\uparrow \uparrow$ $\uparrow \uparrow $
Lane Configurations $\uparrow$
Traffic Volume (veh/h)         689         26         28         699         23         29           Future Volume (Veh/h)         689         26         28         699         23         29           Sign Control         Free         Free         Stop         23         29           Sign Control         Free         Stop         0%         0%         0%           Peak Hour Factor         0.96         0.96         0.96         0.96         0.96         0.96         0.96           Hourly flow rate (vph)         718         27         29         728         24         30           Pedestrians         7         11         33         1         1.1         1.1         1.1         1.1           Lane Width (m)         3.7         3.7         3.7         Walking Speed (m/s)         1.1
Future Volume (Veh/h)         689         26         28         699         23         29           Sign Control         Free         Free         Stop         Stop         Grade         0%
Sign Control         Free         Free         Stop           Grade         0%         0%         0%         0%           Peak Hour Factor         0.96         0.96         0.96         0.96         0.96         0.96           Peak Hour Factor         0.96         0.96         0.96         0.96         0.96         0.96           Hourly flow rate (vph)         718         27         29         728         24         30           Pedestrians         7         11         33         1         1         33           Lane Width (m)         3.7         3.7         3.7         3.7         3.7           Walking Speed (m/s)         1.1         1.1         1.1         1.1         1.1           Percent Blockage         1         1         3         Right turn flare (veh)         Weidian storage veh)         Upstream signal (m)         191         226           pX, platoon unblocked
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Peak Hour Factor         0.96         Pedestrians         7         11         33         233           Pedestrians         7         1.1         <
Hourly flow rate (vph)         718         27         29         728         24         30           Pedestrians         7         11         33         37         37         37         37           Lane Width (m)         3.7         3.7         3.7         3.7         3.7         37           Walking Speed (m/s)         1.1         1.1         1.1         1.1         1.1         1.1           Percent Blockage         1         1         3         3         37         37           Right turn flare (veh)          1         3         3         3         3         3         37           Median storage veh)           226          5         5         5         5         7         1194         416         vC2, conflicting volume         778         1194         416         1         6.9         6.9         10, 226         163         567         5         3.3         3         9         194         416         567         5         3.2         3         3         3         3         3         3         3         3         3         3         3         3         3         3
Pedestrians         7         11         33           Lane Width (m)         3.7         3.7         3.7           Walking Speed (m/s)         1.1         1.1         1.1           Percent Blockage         1         1         3           Right turn flare (veh)         1         3         3           Median type         None         None         None           Median storage veh)         Upstream signal (m)         191         226           pX, platoon unblocked
Lane Width (m)         3.7         3.7         3.7         3.7           Walking Speed (m/s)         1.1         1.1         1.1         1.1           Percent Blockage         1         1         3         Right turn flare (veh)           Median type         None         None         None           Median storage veh)         Upstream signal (m)         191         226           yX, platon unblocked         vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol           vC2, stage 1 conf vol         vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC2, stage (s)           tF (s)         2.2         3.5         3.3         90 queue free %         96         85         95           cM capacity (veh/h)         822         163         567         114         567         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Right         0         27         0         0         30         25H         1700         1700         269         170         269         170
Walking Speed (m/s)         1.1         1.1         1.1         1.1           Percent Blockage         1         1         3           Right turn flare (veh)         Median storage veh)             Upstream signal (m)         191         226            pX, platoon unblocked         vC, conflicting volume         778         1194         416           vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC4, unblocked vol         7778         1194         416           tC, single (s)         4.1         6.9         6.9         6.9         6.9         6.9           tC, single (s)         4.1         6.9         6.9         56         95         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         54         54           Volume Left         0         0         27         0         0         30         25H         1700         1700         269         20         0         24         24         20         0         30         25H         1700         1700         269 <td< td=""></td<>
Percent Blockage         1         1         3           Right turn flare (veh)         None         None         None           Median type         None         None         None           Wedian storage veh)         Upstream signal (m)         191         226           pX, platoon unblocked         vC, conflicting volume         778         1194         416           vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC4, unblocked vol         778         1194         416           tC2, stage 2 conf vol         vC4, unblocked vol         778         1194         416         6.9         6.9         10, 22, 3.5         3.3         90         96         85         95         67         22         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Right         0         27         0         0         30         30           GGSH         1700         1700         822         1700         1700         269         Volume Right         0.27         0         0         3
Right turn flare (veh)         None         None           Median type         None         None           Median storage veh)         Upstream signal (m)         191         226           pX, platoon unblocked         778         1194         416           vC2, stage 1 conf vol         v22         1194         416           vC1, stage 1 conf vol         v23         1194         416           vC2, stage 2 conf vol         v24         1194         416           tC, single (s)         4.1         6.9         6.9         6.9           tC, stage (s)         tfr (s)         22         3.5         3.3         30           p0 queue free %         96         85         95         567         2163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Right         0         27         0         0         30         25         24         Volume to Capacity         0.28         0.16         0.4         0.21         0.21         0.20         92         V21         0.0
Median type         None         None           Median storage veh)
Median storage veh)         191         226           Upstream signal (m)         191         226           pX, platoon unblocked         vC, conflicting volume         778         1194         416           vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC4, unblocked vol         778         1194         416           vC2, stage 2 conf vol         vC4, unblocked vol         778         1194         416           vC3, stage 2 conf vol         vC4, unblocked vol         778         1194         416           vC3, stage 2 conf vol         vC4, unblocked vol         778         1194         416           vC3, stage 2 conf vol         vC4, unblocked vol         778         1194         416           vC3, stage 2 conf vol         vC4         4.1         6.9         6.9           tC, single (s)         4.1         6.9         6.9         56           vC4 concertifier 6%         96         85         95         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         <
Upstream signal (m)         191         226           pX, platoon unblocked         778         1194         416           vC, conflicting volume         778         1194         416           vC1, stage 1 conf vol         vc2, stage 2 conf vol         vc2, stage 1         416           vC2, stage 2 conf vol         778         1194         416           vC, single (s)         4.1         6.9         6.9           tC, 2 stage (s)
Exp. platon unblocked         Translow         Exp.           vC, conflicting volume         778         1194         416           vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol           vC2, unblocked vol         778         1194         416           tC, single (s)         4.1         6.9         6.9           tC, 2 stage (s)         tr         5         3.3           p0 queue free %         96         85         95           cM capacity (veh/h)         822         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0.27         0         0         30         cSH         1700         1700         269         Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20         Volume to Equatify (shight (m)         0.0         0.0         5.6         Control Delay (sh)         0.0         0.0
VC, conflicting volume         778         1194         416           vC2, stage 2 conf vol           vC1, unblocked vol         778         1194         416           tC, single (s)         4.1         6.9         6.9           tC, single (s)         4.1         6.9         6.9           tC, stage 2 conf vol         vc1, unblocked vol         778         1194         416           tC, single (s)         4.1         6.9         6.9         15         15         3.3           p0 queue free %         96         85         95         cM         567         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         27         0         0         30         25H         1700         1700         269         Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20         0.21         0.20         0.21         0.21         0.20<
vC1, stage 1 conf vol       vC2, stage 2 conf vol         vC2, stage 2 conf vol       vCu, unblocked vol         vC1, stage (s)       4.1         tC, stage (s)       4.1         tF (s)       2.2         age (s)       3.5         tF (s)       96         age (s)       822         tF (s)       822         Direction, Lane #       EB 1         EB 2       WB 1         Volume Total       479         Volume Left       0         0       27       0         Volume to Capacity       0.28       0.16       0.4         Volume to Capacity       0.28       0.16       0.4       0.21         Volume to Capacity       0.28       0.16       0.4       0.21       0.21         Queue Length 95th (m)       0.0       0.8       0.0       0.56
VC2, stage 2 conf vol           vC2, stage (s)           tf (s)           g0 queue free %           96           822           163           567           Direction, Lane #           EB 1           EB 2           WB 1           VB 2           VB 3           NB 1           Volume Total           479           0 </td
vCu, unbjocked vol         778         1194         416           tC, single (s)         4.1         6.9         6.9           tC, 2 stage (s)         5         95         3.3           p0 queue free %         96         85         95           cM capacity (veh/h)         822         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         30         cSH         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         Queue Length 95th (m)         0.0         0.8         0.0         0.5         56
tC, single (s)         4.1         6.9         6.9           tC, 2 stage (s)
It, 2 stage (s)         It
If (s)         2.2         3.5         3.3           p0 queue free %         96         85         95           cM capacity (veh/h)         822         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Edft         0         0         29         0         0         24           Volume Right         27         0         0         0         30         cSH         1700         1700         822         1700         1700         269         Volume to Capacity         0.28         0.16         0.4         0.21         0.20         92         0         0         24           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         92         0         0         269         Volume to Length 95th (m)         0.0         0.8         0.0         0.0         5.6         Control Delay (s)         0.0         0.9         9.5         0.0         0.21         17.7
p0 queue free %         96         85         95           cM capacity (veh/h)         822         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         30         30           cSH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         269           Volueue Length 95th (m)         0.0         0.8         0.0         0.0         5.6         2           Control Delay (s)         0.0         0.9         9.5         0.0         0.21         12.7
cM capacity (veh/h)         822         163         567           Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         30         364           SGH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20           Queue Length 95th (m)         0.0         0.0         9.5         0.0         0.0         21.7
Direction, Lane #         EB 1         EB 2         WB 1         WB 2         WB 3         NB 1           Volume Total         479         266         29         364         364         54           Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         0         30           cSH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         0           Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         9.5         0.0         0.0         21.7
Volume Total         479         266         29         364         364         54           Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         30         365           KH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         20           Queue Length 95th (m)         0.0         0.8         0.0         0.0         5.6         Control Delay (s)         0.0         0.9         5.0         0.0         21.7
Volume Left         0         0         29         0         0         24           Volume Right         0         27         0         0         30           cSH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.20         0.20           Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         9.5         0.0         0.0         21.7
Volume Right         0         27         0         0         30           cSH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20           Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         9.5         0.0         0.0         21.7
cSH         1700         1700         822         1700         1700         269           Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20           Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         0.9         0.0         0.21         2.17
Volume to Capacity         0.28         0.16         0.04         0.21         0.21         0.20           Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         9.5         0.0         0.21.7
Queue Length 95th (m)         0.0         0.0         0.8         0.0         0.0         5.6           Control Delay (s)         0.0         0.0         9.5         0.0         0.0         21.7
Control Delay (s) 0.0 0.0 9.5 0.0 0.0 21.7
Lane LOS A C
Approach Delay (s) 0.0 0.4 21.7
Approach LOS C
Intersection Summary
Average Delay 0.9
Intersection Capacity Utilization 36.6% ICU Level of Service
Analysis Period (min) 15

#### HCM Unsignalized Intersection Capacity Analysis 06/26/2020 9034: Clarke St & Wicksteed Ave ۰. ٦ 1 ~ ← ŧ 1 ۶ $\mathbf{i}$ EBL WBT Movement EBT EBR WBL WBR NBL NBT NBR SBT SR Lane Configurations 4 4 4 4 Traffic Volume (veh/h) 16 184 179 0 15 0 6 0 2 0 Future Volume (Veh/h) 16 184 1 0 179 6 0 0 0 2 0 15 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) 17 200 1 0 195 7 0 0 0 2 0 16 Pedestrians 3 2 1 Lane Width (m) 3.7 3.7 3.7 Walking Speed (m/s) 1.1 1.1 1.1 Percent Blockage 0 0 0 Right turn flare (veh) Median type None None Median storage veh) Upstream signal (m) 194 pX, platoon unblocked vC, conflicting volume 203 203 451 440 206 437 436 200 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 203 203 200 451 440 206 437 436 tC, single (s) 4.1 4.1 7.1 6.5 6.2 7.6 6.5 6.3 tC, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 4.0 4.0 3.4 p0 queue free % 100 100 100 100 98 99 100 100 cM capacity (veh/h) 1380 1366 502 504 831 449 506 811 EB 1 SB 1 Direction, Lane # WB1 NB1 Volume Total 218 202 0 18 Volume Left 17 0 0 2 Volume Right 16 1 0 7 cSH 1380 1366 744 1700 Volume to Capacity 0.01 0.00 0.00 0.02 Queue Length 95th (m) 0.3 0.0 0.6 0.0 Control Delay (s) 0.7 0.0 0.0 10.0 Lane LOS А Α А Approach Delay (s) 0.0 10.0 0.7 0.0 Approach LOS А A Intersection Summary

0.8

15

ICU Level of Service

33.9%

Existing AM 06/26/2020 Baseline

Existing AM 06/26/2020 Baseline

Intersection Capacity Utilization Analysis Period (min)

Average Delay

Synchro 10 Report Page 62

А

HCM Unsignalized Intersection Capacity Analysis 9035: Copeland St & Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	5	127	31	32	167	0	29	2	34	1	0	1
Future Volume (Veh/h)	5	127	31	32	167	0	29	2	34	1	0	1
Sign Control		Free			Free			Stop			Stop	
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)	5	137	33	34	180	0	31	2	37	1	0	1
Pedestrians					2			4			1	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.1			1.1			1.1	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		394										
pX, platoon unblocked												
vC, conflicting volume	181			174			416	416	160	452	433	181
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	181			174			416	416	160	452	433	181
tC, single (s)	4.1			4.3			7.7	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			4.0	4.0	3.5	3.5	4.0	3.3
p0 queue free %	100			97			93	100	96	100	100	100
cM capacity (veh/h)	1405			1317			445	512	827	482	498	866
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	175	214	70	2								
Volume Left	5	34	31	1								
Volume Right	33	0	37	1								
cSH	1405	1317	592	619								
Volume to Capacity	0.00	0.03	0.12	0.00								
Queue Length 95th (m)	0.1	0.6	3.0	0.1								
Control Delay (s)	0.2	1.4	11.9	10.8								
Lane LOS	A	А	В	В								
Approach Delay (s)	0.2	1.4	11.9	10.8								
Approach LOS			В	В								
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilizatio	n		35.4%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis 9036: Leslie St & Wicksteed Ave

9036: Leslie St & V	Vickstee	ed Ave	•	,	,						06/2	6/2020
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	10	129	16	14	177	135	5	0	3	124	10	14
Future Volume (Veh/h)	10	129	16	14	177	135	5	0	3	124	10	14
Sign Control		Free			Free			Stop			Stop	
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)	11	142	18	15	195	148	5	0	3	136	11	15
Pedestrians		5			5			2			1	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	344			162			500	549	158	481	484	275
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	344			162			500	549	158	481	484	275
tC, single (s)	4.4			4.1			7.3	6.5	6.5	7.2	6.7	6.4
tC, 2 stage (s)												
tF (s)	2.5			2.2			3.7	4.0	3.6	3.6	4.2	3.4
p0 queue free %	99			99			99	100	100	71	98	98
cM capacity (veh/h)	1074			1426			425	433	805	472	447	729
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	171	358	8	162								
Volume Left	11	15	5	136								
Volume Right	18	148	3	15								
cSH	1074	1426	517	486								
Volume to Capacity	0.01	0.01	0.02	0.33								
Queue Length 95th (m)	0.2	0.2	0.4	11.0								
Control Delay (s)	0.6	0.4	12.1	16.1								
Lane LOS	A	А	В	С								
Approach Delay (s)	0.6	0.4	12.1	16.1								
Approach LOS			В	С								
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization	ation		39.9%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

Existing AM 06/26/2020 Baseline

06/26/2020

Existing AM 06/26/2020 Baseline

Queues	
87: Brentcliffe Rd & Eglinton Ave	06/26/2020
Lane Group	
Lane Group Flow (vph)	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	

Starvation Cap Reducth		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

87: Brentcliffe Rd & Eg	glintc	on Ave									00/2	20/2020
	٭	-	$\mathbf{r}$	•	-	۰.	1	t	1	1	Ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		<b>^</b>	1	۳.	<b>≜t</b> ≽			ų	1		\$	
Traffic Volume (vph)	0	Ö	0	0	0	0	0	Ö	0	0	0	(
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	(
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)												
Lane Util. Factor												
Frt												
Flt Protected												
Satd. Flow (prot)												
Flt Permitted												
Satd. Flow (perm)												
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)	0	0	0	0	0	0	0	0	0	0	0	(
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	(
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	C
Turn Type			Perm	pm+pt					pm+ov			
Protected Phases		2	-	1	6			8	1		4	
Permitted Phases			2	6			8		8	4		
Actuated Green, G (s)												
Effective Green, g (s)												
Actuated q/C Ratio												
Clearance Time (s)												
Vehicle Extension (s)												
Lane Gro Cap (vph)												
v/s Ratio Prot												
v/s Ratio Perm												
v/c Ratio												
Uniform Delay, d1												
Progression Factor												
Incremental Delay, d2												
Delay (s)												
Level of Service												
Approach Delay (s)		0.0			0.0			0.0			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			0.0	H	CM 2000	Level of S	Service		A			
HCM 2000 Volume to Capacity r	atio		0.00									
Actuated Cycle Length (s)			126.0	S	um of lost	time (s)			8.5			
Intersection Capacity Utilization			0.0%	IC	U Level o	of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 1

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 2

Queues 88: Laird Dr & Eglir	nton Ave	9						06/26/2020
	-	∢	←	•	Ť	۲	ŧ	
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBT	
Lane Group Flow (vph)	807	353	647	221	257	185	271	
v/c Ratio	0.47	0.80	0.34	0.79	0.41	0.24	0.61	
Control Delay	24.6	28.3	13.9	52.1	32.7	7.4	46.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.6	28.3	13.9	52.1	32.7	7.4	46.6	
Queue Length 50th (m)	44.7	40.7	39.7	38.4	46.0	10.0	56.5	
Queue Length 95th (m)	59.5	63.8	51.2	#71.2	69.3	20.5	84.8	
Internal Link Dist (m)	181.1		392.2		78.8		110.3	
Turn Bay Length (m)		125.0		75.0				
Base Capacity (vph)	1700	475	1904	280	625	811	442	
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	0.47	0.74	0.34	0.79	0.41	0.23	0.61	
Intersection Summary								

### HCM Signalized Intersection Capacity Analysis 88: Laird Dr & Eglinton Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		-€¶\$		۲.	đβ		۲.	•	1		4	
Traffic Volume (vph)	7	542	218	335	591	24	210	244	176	21	230	7
Future Volume (vph)	7	542	218	335	591	24	210	244	176	21	230	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		5.0		3.0	5.0		3.0	5.0	3.0		5.0	
Lane Util. Factor		0.91		1.00	0.95		1.00	1.00	1.00		1.00	
Frpb, ped/bikes		0.98		1.00	0.99		1.00	1.00	0.95		1.00	
Flpb, ped/bikes		1.00		1.00	1.00		0.99	1.00	1.00		1.00	
Frt		0.96		1.00	0.99		1.00	1.00	0.85		1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)		4361		1661	3308		1600	1831	1436		1838	
Flt Permitted		0.93		0.26	1.00		0.36	1.00	1.00		0.96	
Satd. Flow (perm)		4074		448	3308		608	1831	1436		1767	
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
Adi, Flow (vph)	7	571	229	353	622	25	221	257	185	22	242	7
RTOR Reduction (vph)	0	57	0	0	3	0	0	0	49	0	1	0
Lane Group Flow (vph)	0	750	0	353	644	0	221	257	136	0	270	0
Confl. Peds. (#/hr)	54		56	56		54	62		47	47		62
Confl Bikes (#/hr)			1			2						
Heavy Vehicles (%)	15%	8%	4%	1%	7%	0%	4%	1%	4%	0%	1%	0%
Bus Blockages (#/hr)	0	20	20	0	0	0	0	4	4	0	0	0
	Perm	NA		nm+nt	NA		nm+nt	NA	nm+ov	Perm	NA	-
Protected Phases	1 Unit	2		1	6		7	4	1	1 Onn	8	
Permitted Phases	2	-		6	Ū		4	-	4	8	U	
Actuated Green G (s)	-	47 A		68.0	68.0		40.0	40.0	56.6	Ŭ	29.0	
Effective Green g (s)		48.4		69.0	69.0		41.0	41.0	58.6		30.0	
Actuated g/C Ratio		0.40		0.58	0.58		0.34	0.34	0.49		0.25	
Clearance Time (s)		6.0		4.0	6.0		4 0	6.0	4.0		6.0	
Vehicle Extension (s)		3.0		2.0	3.0		2.0	3.0	2.0		3.0	
Lane Grn Can (vph)		16/13		435	1902		273	625	701		441	
v/s Patio Prot		1040		c0 12	0.10		c0.05	023	0.03		771	
v/s Patio Porm		0.18		c0.12	0.13		c0.00	0.14	0.03		0.15	
v/s Ratio		0.10		0.81	0.34		0.81	0.41	0.07		0.15	
Uniform Delay, d1		26.2		15.3	13.5		37.0	30.3	17 /		30.01	
Progression Factor		1.00		1.00	1.00		1 00	1 00	1.00		1.00	
Incremental Delay, d2		0.0		10.4	0.5		15.2	2.0	0.0		6.2	
Delay (s)		27.1		25.7	13.0		52.2	2.0	17.4		46.1	
Level of Service		21.1		23.1	1J.3 D		J2.2	J2.J	17.4 D		40.1	
		27.1		U	10.1		U	24.0	D		46.1	
Approach LOS		27.1 C			B			54.0 C			40.1 D	
Intersection Summary												
HCM 2000 Control Delay			27.5	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacit	v ratio		0.85									
Actuated Cycle Length (s)			120.0	S	um of lost	time (s)			16.0			
Intersection Capacity Utilization	n		110.0%	IC	U Level o	of Service	)		Н			
Analysis Period (min)			15									
c Critical Lane Group			-									

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 4

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 3

Queues							
345: Pape Ave & D	anforth	Ave					06/26/2020
	۶	-	4	+	Ť	ŧ	
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	90	818	67	525	585	512	
v/c Ratio	0.27	0.44	0.27	0.31	0.86	0.98	
Control Delay	13.7	13.1	14.6	11.8	43.2	53.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	13.7	13.1	14.6	11.8	43.2	53.1	
Queue Length 50th (m)	7.8	41.3	5.8	24.5	49.1	15.7	
Queue Length 95th (m)	17.4	54.8	14.5	34.2	#78.5	#72.2	
Internal Link Dist (m)		181.3		166.4	120.0	60.0	
Turn Bay Length (m)	40.0		58.0				
Base Capacity (vph)	334	1856	249	1699	682	522	
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	0.27	0.44	0.27	0.31	0.86	0.98	
Intersection Summary							

# HCM Signalized Intersection Capacity Analysis 345: Pape Ave & Danforth Ave

345: Pape Ave & L	anforth	Ave									06/2	20/2020
	٠	-	$\mathbf{F}$	1	-	•	1	1	1	1	Ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations	<u>۲</u>	<b>≜</b> ⊅		<u>۲</u>	<b>∱1</b> ≽			ፋጉ			ብ î ቅ	
Traffic Volume (vph)	88	760	41	66	410	105	84	375	114	84	244	14
Future Volume (vph)	88	760	41	66	410	105	84	375	114	84	244	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1750	190
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.
Total Lost time (s)	6.0	6.0		6.0	6.0			7.0			8.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.92			0.92			0.88	
Flpb, ped/bikes	0.81	1.00		0.89	1.00			0.98			0.97	
Frt	1.00	0.99		1.00	0.97			0.97			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1315	3404		1474	3123			2952			2534	
Flt Permitted	0.44	1.00		0.29	1.00			0.73			0.67	
Satd. Flow (perm)	615	3404		458	3123			2183			1708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.89	0.98
Adj. Flow (vph)	90	776	42	67	418	107	86	383	116	86	274	15
RTOR Reduction (vph)	0	4	0	0	0	0	0	4	0	0	11	(
Lane Group Flow (vph)	90	814	0	67	525	0	0	581	0	0	502	1
Confl. Peds. (#/hr)	636		628	628		636	389		739	739		38
Confl. Bikes (#/hr)			9			10			34			153
Heavy Vehicles (%)	4%	2%	0%	2%	2%	0%	3%	3%	1%	2%	5%	49
Bus Blockages (#/hr)	0	0	0	0	0	0	0	8	8	0	8	1
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	48.0	48.0		48.0	48.0			27.0			27.0	
Effective Green, a (s)	49.0	49.0		49.0	49.0			28.0			27.0	
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.31			0.30	
Clearance Time (s)	7.0	7.0		7.0	7.0			8.0			8.0	
Lane Grp Cap (vph)	334	1853		249	1700			679			512	
v/s Ratio Prot		c0.24			0.17							
v/s Ratio Perm	0 15	00.21		0 15	0.11			0 27			c0 29	
v/c Ratio	0.27	0 44		0.27	0.31			0.86			0.98	
Uniform Delay d1	10.9	12.3		10.9	11.2			29.1			31.2	
Progression Factor	1 00	1.00		1 00	1 00			1 00			0.54	
Incremental Delay, d2	2.0	0.8		2.6	0.5			13.1			33.3	
Delay (s)	12.9	13.0		13.6	11.7			42.2			50.1	
Level of Service	B	B		B	B			D			D	
Approach Delay (s)	-	13.0		-	11 9			42.2			50 1	
Approach LOS		B			B			T2.2			D	
		D									U	
Intersection Summary			00.0		014 0000	Laural						
HCM 2000 Control Delay			26.6	H	CM 2000	Level of S	Service		C			
HCM 2000 Volume to Capa	icity ratio		0.63	•		r ()			44.0			
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utiliza	ation		101.2%	IC	U Level o	of Service			G			
Analysis Period (min) c Critical Lane Group			15									

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 5

Existing PM 06/26/2020 Baseline

Queues 442: Pape Ave & C	)'Conno	r Dr			06/
	<b>→</b>	+	Ť	ţ	
Lane Group	EBT	WBT	NBT	SBT	
Lane Group Flow (vph)	532	469	582	550	
v/c Ratio	0.56	0.39	0.97	0.70	
Control Delay	20.7	10.4	56.7	25.4	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	20.7	10.4	56.7	25.4	
Queue Length 50th (m)	31.3	17.7	57.0	38.8	
Queue Length 95th (m)	46.4	25.6	#102.7	60.1	
Internal Link Dist (m)	280.7	212.5	67.9	380.3	
Turn Bay Length (m)					
Base Capacity (vph)	945	1201	601	789	
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	0.56	0.39	0.97	0.70	
Intersection Summary					

## HCM Signalized Intersection Capacity Analysis 442: Pape Ave & O'Connor Dr

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	_	-	•	4	•	`			1	*	+	*
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations		4 P			ન નિ			€Î î•			ર્ની કે	
Traffic Volume (vph)	169	332	10	218	211	21	14	368	177	12	348	16
Future Volume (vph)	169	332	10	218	211	21	14	368	177	12	348	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1750	1900	1900	1850	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.
Total Lost time (s)		6.0			6.0			5.0			3.0	
Lane Util. Factor		0.95			0.95			*0.70			*0.80	
Frpb, ped/bikes		1.00			1.00			0.98			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		1.00			0.99			0.95			0.95	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		3287			3369			1944			2365	
Flt Permitted		0.68			0.59			0.93			0.93	
Satd. Flow (perm)		2288			2024			1809			2201	
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)	176	346	10	227	220	22	15	383	184	12	362	174
RTOR Reduction (vph)	0	2	0	0	5	0	0	36	0	0	46	(
Lane Group Flow (vph)	0	530	0	0	465	0	0	546	0	0	504	(
Confl. Peds. (#/hr)	33		16	16		33	20		31	31		20
Confl. Bikes (#/hr)			2			2			5			
Heavy Vehicles (%)	5%	4%	60%	1%	3%	0%	293%	1%	17%	250%	0%	17%
Bus Blockages (#/hr)	0	2	2	0	2	2	0	13	13	0	22	22
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	-	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		32.0			43.0			24.0			24.0	
Effective Green g (s)		33.0			44.0			25.0			27.0	
Actuated g/C Ratio		0.41			0.55			0.31			0.34	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grn Can (vnh)		943			1247			565			742	
v/s Ratio Prot		010			c0.04			000			142	
v/s Ratio Perm		c0 23			0.17			c0.30			0.23	
v/c Ratio		0.56			0.37			0.97			0.68	
Uniform Delay, d1		18.0			10.2			27.1			22.8	
Progression Factor		1 00			1 00			1.00			1.00	
Incremental Delay, d2		2.4			0.9			30.5			5.0	
Delay (s)		20.4			11.0			57.6			27.7	
Level of Service		20.4 C			B			F			C.	
Approach Delay (s)		20.4			11.0			57.6			27.7	
Approach LOS		C			B			E			C	
Intersection Summary		-			_			_			-	
HCM 2000 Control Delow			30.4	U	CM 2000	Lovel of	Sonvico		C			
HCM 2000 Control Delay	hu rotio		30.4	Н		Level Of	Selvice		U U			
Actuated Cycle Length (a)	ly ralio		0.09	0		time (c)			14.0			
Actuated Cycle Length (S)			00.0	5		une (S)			14.0			
Analysis Deried (min)	וונ		00.3%	IC	O Level C	o Service	;		U			

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 7

Existing PM 06/26/2020 Baseline

Synchro 10 Report

Page 8

Queues		<i>.</i>					00/00/0000
453: Eglinton Ave	& Leslie	St					06/26/2020
	٦	-	-	×	1	~	
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Group Flow (vph)	765	299	382	88	507	852	
v/c Ratio	0.88	0.34	0.84	0.20	0.79	0.90	
Control Delay	62.3	17.8	54.0	3.4	50.4	24.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	62.3	17.8	54.0	3.4	50.4	24.7	
Queue Length 50th (m)	105.3	43.0	106.7	0.1	125.0	73.4	
Queue Length 95th (m)	#137.0	62.4	#154.1	m3.0	170.5	#180.9	
Internal Link Dist (m)		469.4	421.6		301.6		
Turn Bay Length (m)							
Base Capacity (vph)	866	874	454	442	639	942	
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	0.88	0.34	0.84	0.20	0.79	0.90	
Intersection Summary							
# 95th percentile volume	exceeds ca	pacity, qu	ueue may	be longer			
Queue shown is maxim	um after two	cycles.					
m Volume for 95th percer	ntile queue i	s metere	d by upstr	eam sign	al.		

HCM Signalized In	tersectio	on Cap	oacity A	Analysi	S			06/26/2020
400. Eginton Ave		51	+	•	ς.	1		00/20/2020
		-	•		*	*		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ካካ	<b>↑</b>	<b>↑</b>	1	<u>۲</u>	1		
Traffic Volume (vph)	765	299	382	88	507	852		
Future Volume (vph)	765	299	382	88	507	852		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	3.0		
Lane Util. Factor	0.97	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		
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	1.00	1.00	0.85	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3278	1550	1719	1428	1755	1460		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3278	1550	1719	1428	1755	1460		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	765	299	382	88	507	852		
RTOR Reduction (vph)	0	0	0	65	0	390		
Lane Group Flow (vph)	765	299	382	23	507	462		
Confl. Peds. (#/hr)	3							
Heavy Vehicles (%)	8%	16%	10%	7%	4%	6%		
Bus Blockages (#/hr)	0	16	4	16	0	13		
Turn Type	Prot	NA	NA	Perm	Prot	Perm		
Protected Phases	5	2	6		4			
Permitted Phases				6		4		
Actuated Green, G (s)	36.0	78.0	36.0	36.0	50.0	50.0		
Effective Green, g (s)	37.0	79.0	37.0	37.0	51.0	53.0		
Actuated g/C Ratio	0.26	0.56	0.26	0.26	0.36	0.38		
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	866	874	454	377	639	552		
v/s Ratio Prot	c0.23	0.19	c0.22		0.29			
v/s Ratio Perm				0.02		c0.32		
v/c Ratio	0.88	0.34	0.84	0.06	0.79	0.84		
Uniform Delay, d1	49.4	16.5	48.7	38.5	39.8	39.6		
Progression Factor	1.00	1.00	0.76	0.32	1.00	1.00		
Incremental Delay, d2	10.6	1.1	16.2	0.3	9.8	14.1		
Delay (s)	60.0	17.5	53.1	12.6	49.6	53.7		
Level of Service	E	В	D	В	D	D		
Approach Delay (s)		48.1	45.6		52.2			
Approach LOS		D	D		D			
Intersection Summary								
HCM 2000 Control Delay			49.6	H	CM 2000	Level of Servic	e D	
HCM 2000 Volume to Capa	acity ratio		0.86					
Actuated Cycle Length (s)			140.0	Si	um of los	t time (s)	15.0	
Intersection Capacity Utiliza	ation		82.5%	IC	U Level	of Service	E	
Analysis Period (min)			15					
c Critical Lane Group								

Synchro 10 Report Page 9 Existing PM 06/26/2020 Baseline

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Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	642	76	265	108	86	1396	234	202	1206	
v/c Ratio	0.85	0.88	0.24	0.23	0.44	0.92	0.34	0.89	0.77	
Control Delay	62.4	133.8	35.1	6.9	21.0	48.5	10.2	72.4	35.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	62.4	133.8	35.1	6.9	21.0	48.5	10.2	72.4	35.3	
Queue Length 50th (m)	85.1	21.3	28.2	0.0	10.1	189.4	12.9	39.0	143.4	
Queue Length 95th (m)	#105.6	#52.3	39.6	13.2	18.0	#228.0	31.9	#84.5	171.2	
Internal Link Dist (m)	501.4		171.7			122.9			271.9	
Turn Bay Length (m)		110.0			60.0		60.0	70.0		
Base Capacity (vph)	755	86	1082	473	196	1518	698	226	1561	
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	0.85	0.88	0.24	0.23	0.44	0.92	0.34	0.89	0.77	
Intersection Summary										
# 95th percentile volume	exceeds ca	pacity, qu	eue may	be longer						

Queue shown is maximum after two cycles.

### HCM Signalized Intersection Capacity Analysis 454: Don Mills Rd & Eglinton Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>≜</b> 16		1	44	1	1	<b>^</b>	1	1	<b>≜1</b> }	
Traffic Volume (vph)	2	473	167	76	265	108	86	1396	234	202	1111	95
Future Volume (vph)	2	473	167	76	265	108	86	1396	234	202	1111	95
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	6.0	9.0	9.0	5.0	9.0	
Lane Util. Factor		0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.84	1.00	1.00	0.91	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	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3345		1722	3295	1218	1771	3544	1422	1825	3356	
Flt Permitted		0.95		0.95	1.00	1.00	0.13	1.00	1.00	0.06	1.00	
Satd. Flow (perm)		3192		1722	3295	1218	240	3544	1422	116	3356	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adi, Flow (vph)	2	473	167	76	265	108	86	1396	234	202	1111	95
RTOR Reduction (vph)	0	25	0	0	0	73	0	0	89	0	4	0
Lane Group Flow (vph)	0	617	0	76	265	35	86	1396	145	202	1202	0
Confl. Peds. (#/hr)	114		1	1		114	47		114	114		47
Confl. Bikes (#/hr)			1			2						8
Heavy Vehicles (%)	0%	6%	0%	6%	7%	12%	3%	3%	4%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	17	0	0	0	0	0	19	19
Turn Type	Perm	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4				-	8	2		2	6		
Actuated Green, G (s)		31.0		6.0	45.0	45.0	65.0	59.0	59.0	75.0	64.0	
Effective Green g (s)		32.0		7.0	46.0	46.0	67.0	60.0	60.0	79.0	65.0	
Actuated g/C Ratio		0.23		0.05	0.33	0.33	0.48	0.43	0.43	0.56	0.46	
Clearance Time (s)		8.0		8.0	8.0	8.0	7.0	10.0	10.0	7.0	10.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grn Can (vnh)		729		86	1082	400	191	1518	609	224	1558	
v/s Ratio Prot		120		c0 04	0.08	100	0.02	0.39	000	c0.08	0.36	
v/s Ratio Perm		c0 19		00.04	0.00	0.03	0.02	0.00	0.10	c0.42	0.00	
v/c Ratio		0.85		0.88	0.24	0.00	0.15	0.92	0.10	0.42	0.77	
I Iniform Delay, d1		51.6		66.1	34.3	32.5	23.2	37.7	25.5	42.5	31.3	
Progression Factor		1.08		1.00	1.00	1.00	1 00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		9.3		59.9	0.5	0.4	1.00	10.5	0.9	34.7	3.8	
Delay (s)		65.1		126.0	34.9	32.9	24.9	48.2	26.4	77.2	35.1	
Level of Service		50.1		120.0 F	04.0 C	02.0 C	24.5 C	-0.2 D	20.4 C	F	00.1	
Approach Delay (s)		65.1			49.8	v	Ū	44.1	Ŭ	-	41.1	
Approach LOS		E			43.0 D			D			D	
Intersection Summary												
HCM 2000 Control Delay			46.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	v ratio		0.92									
Actuated Cycle Length (s)	,		140.0	S	um of lost	time (s)			29.0			
Intersection Capacity Utilization	n		133.7%	IC	ULevel	of Service	,		Н			
Analysis Period (min)			15		2 20.010							
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 11 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 12

Queues 620: Overlea Blvd &	Don N	/ills Ro	ł								06/2	6/2020
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	447	549	272	125	279	46	181	1112	59	779	583	
v/c Ratio	0.71	0.66	0.35	0.36	0.51	0.09	0.96	0.75	0.36	0.76	0.76	
Control Delay	60.9	33.9	7.4	20.4	44.7	0.3	90.4	47.1	34.3	52.2	28.8	
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	60.9	33.9	7.4	20.4	44.7	0.3	90.4	47.1	34.3	52.2	28.8	
Queue Length 50th (m)	62.1	117.9	10.6	15.9	64.7	0.0	34.8	102.9	10.6	106.7	101.6	
Queue Length 95th (m)	76.1	159.2	28.9	25.9	99.6	0.0	#73.5	120.5	20.3	130.6	130.8	
Internal Link Dist (m)		588.9			228.1			206.1		491.1		
Turn Bay Length (m)	90.0			130.0		130.0	65.0		45.0			
Base Capacity (vph)	927	831	784	352	542	518	189	1487	165	1023	899	
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	0.48	0.66	0.35	0.36	0.51	0.09	0.96	0.75	0.36	0.76	0.65	
Intersection Summary												

## HCM Signalized Intersection Capacity Analysis 620: Overlea Blvd & Don Mills Rd

	۶	-+	$\mathbf{x}$		-	•	•	<b>†</b>	1	×	Ļ	-
Movement	FBI	FBT	FBR	WBI	WBT	WBR	NBI	NBT	NBR	SBI	SBT	SB
Lane Configurations	**		1	*		#	*	<b>##1</b>		*	**	
Traffic Volume (vph)	447	549	272	125	279	46	181	874	238	59	779	58
Future Volume (vph)	447	549	272	125	279	46	181	874	238	59	779	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	190
Total Lost time (s)	5.0	6.0	6.0	3.0	60	6.0	2.5	6.0	1000	3.0	6.0	5
Lane I Itil Factor	0.97	1 00	1 00	1.00	1.00	1 00	1.00	0.91		1.00	0.95	1.0
Emb ped/bikes	1.00	1.00	0.90	1.00	1.00	0.88	1.00	0.01		1.00	1.00	0.9
Finh ned/bikes	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.0
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.8
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.0
Satd Flow (prot)	3340	1761	1434	1783	1667	1313	1736	4736		1786	3510	1/180
Elt Permitted	0.95	1.00	1 00	0.40	1.00	1 00	0.15	1 00		0.12	1.00	1.00
Satd Flow (perm)	3340	1761	1434	748	1667	1313	273	4736		218	3510	1/180
Back hour factor, DUE	1 00	1.00	1 00	1 00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adi Elow (upb)	1.00	540	272	125	270	1.00	101	07/	220	1.00	770	F.0
PTOP Reduction (vph)	447	049	108	125	219	40	0	3/	230	0	0	50
Lane Group Flow (vph)	447	5/0	164	125	270	15	181	1078	0	50	770	53
Confl Pede (#/br)	70	J43	63	63	215	70	40	1070	1/3	1/3	115	33
Confl Bikes (#/hr)	15		05	00		13	40		145	145		4
Heavy Vehicles (%)	6%	3%	3%	1%	6%	5%	5%	3%	1%	2%	1%	69
Bus Blockages (#/br)	0 /0	1/1	0	170	20	11	0	0	1/0	2 /0	4 /0	0/
	Drot	14	Derm	0	20	Dorm	0	NIA	0	0	NIA	
Turri Type Protoctod Phases	7	NA 4	Perm	pm+pt	NA 0	Penn	pm+pt	1NA 2		pm+pt 1	INA 6	pin+o
Parmitted Phases	1	4	4	0	0	0	2	2		6	0	
Actuated Green G (c)	26.2	67.0	67.0	52.8	45.8	45.8	101	12.4		46.6	41.0	67 '
Effective Creep a (a)	20.2	69.0	69.0	52.0	40.0	40.0	49.4	42.4		40.0	41.0	60 1
Actuated a/C Patia	0.10	0.0	0.47	0 20	40.0	40.0	0.26	43.4		40.0	42.0	0.4
	0.19	0.47	0.47	0.30	0.52	0.32	0.30	0.30		0.34	0.29	0.40
Vehicle Extension (c)	2.0	7.0	2.0	4.0	2.0	2.0	4.0	2.0		4.0	2.0	0.0
	0.0	0.0	3.0	3.0	5.0	3.0	3.0	3.0		3.0	1000	
Lane Grp Cap (vpn)	0.42	-0.24	0//	342	0.47	420	-0.00	1427		145	1023	-0.1
V/s Ratio Prot	0.13	CU.31	0.44	0.02	0.17	0.04	CU.U6	0.23		0.02	0.22	CU. 14
V/s Ratio Perm	0.74	0.00	0.11	0.12	0.50	0.01	CU.30	0.70		0.12	0.70	0.2
V/C Ratio	0.71	0.00	0.24	0.37	0.52	0.04	0.98	0.76		0.41	0.76	0.73
Uniform Delay, d'i	54.7	29.1	22.7	29.9	39.4	33.2	40.5	45.5		34.6	46.4	30.4
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	3.7	4.1	0.9	0.7	3.5	0.2	59.Z	3.8		1.9	5.4	4.4
Delay (s)	58.4	33.3	23.5	30.5	42.9 D	33.3	99.7	49.3		36.5	51.8	34.
Level of Service	E	10.0	U	U	U 00.5	U	F	D		U	U	(
Approach Delay (s)		40.0			38.5			56.3			44.2	
Approach LOS		U			U			E			U	
Intersection Summary												
HCM 2000 Control Delay			45.9	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	y ratio		0.84									
Actuated Cycle Length (s)			144.0	S	um of los	time (s)			20.0			
Intersection Capacity Utilization	n		93.6%	IC	U Level of	of Service	)		F			
Analysis Dariad (min)			15									

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 13

Existing PM 06/26/2020 Baseline

Queues								00/00/0000
621: Don Mills Rd &	& St De	nnis D	r					06/26/2020
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Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	15	12	328	4	2109	118	1259	
v/c Ratio	0.09	0.03	0.49	0.02	0.79	0.59	0.44	
Control Delay	35.6	20.1	26.0	13.5	23.4	31.1	10.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.6	20.1	26.0	13.5	23.4	31.1	10.0	
Queue Length 50th (m)	2.7	0.5	20.4	0.4	151.2	11.3	60.1	
Queue Length 95th (m)	8.4	5.4	34.2	2.2	175.7	30.6	72.0	
Internal Link Dist (m)		106.5	342.7		231.1		135.1	
Turn Bay Length (m)				45.0		100.0		
Base Capacity (vph)	194	448	772	179	2675	206	2844	
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	0.08	0.03	0.42	0.02	0.79	0.57	0.44	
Intersection Summary								

# HCM Signalized Intersection Capacity Analysis 621: Don Mills Rd & St Dennis Dr

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	ţ,			đ þ		٦	<b>44</b> 12		٦	<b>44</b> b	
Traffic Volume (vph)	15	3	9	168	0	154	4	1921	146	116	1225	9
Future Volume (vph)	15	3	9	168	0	154	4	1921	146	116	1225	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	*0.88		1.00	*0.76	
Frpb, ped/bikes	1.00	0.97			0.96		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	0.97	1.00			0.99		0.99	1.00		1.00	1.00	
Frt	1.00	0.89			0.93		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1468	1657			3095		1810	4567		1789	4152	
Flt Permitted	0.47	1.00			0.80		0.16	1.00		0.05	1.00	
Satd. Flow (perm)	731	1657			2548		306	4567		103	4152	
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
Adi, Flow (vph)	15	3	9	171	0	157	4	1960	149	118	1250	9
RTOR Reduction (vph)	0	7	0	0	98	0	0	6	0	0	0	0
Lane Group Flow (vph)	15	5	0	0	230	0	4	2103	0	118	1259	0
Confl. Peds. (#/hr)	49		22	22		49	34		75	75		34
Confl. Bikes (#/hr)						6			1			15
Heavy Vehicles (%)	20%	0%	0%	1%	0%	2%	0%	4%	5%	2%	3%	34%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	30	0	15	15
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	25.8	25.8			25.8		69.2	69.2		81.2	81.2	
Effective Green, a (s)	26.8	26.8			26.8		70.2	70.2		82.2	82.2	
Actuated q/C Ratio	0.22	0.22			0.22		0.59	0.59		0.69	0.69	
Clearance Time (s)	7.0	7.0			7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Gro Cap (vph)	163	370			569		179	2671		197	2844	
v/s Ratio Prot		0.00					-	c0.46		c0.04	0.30	
v/s Ratio Perm	0.02				c0.09		0.01			0.37		
v/c Ratio	0.09	0.01			0.40		0.02	0.79		0.60	0.44	
Uniform Delay, d1	37.0	36.3			39.8		10.5	19.2		22.4	8.5	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.0			0.5		0.2	2.4		4.8	0.5	
Delay (s)	37.2	36.3			40.3		10.7	21.6		27.3	9.0	
Level of Service	D	D			D		В	C		C	A	
Approach Delay (s)		36.8			40.3			21.6		-	10.6	
Approach LOS		D			D			C			В	
Intersection Summary												
HCM 2000 Control Delay			19.3	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capac	citv ratio		0.67		2000							
Actuated Cycle Length (s)	,		120.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utilizat	ion		82.9%	IC	ULevel	of Service			F			
Analysis Period (min)			15		2 201010				-			
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 15 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 16

623: Don Mills Rd & Barber Greene Rd/Green Belt Dr	6/26/2020
Lane Group	
Lane Group Flow (vph)	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

#### HCM Signalized Intersection Capacity Analysis 06/26/2020 623: Don Mills Rd & Barber Greene Rd/Green Belt Dr 1 1 ٦ 7 ← ŧ $\mathbf{i}$ EBL NBT NRR Movement EBT EBR WBL WBT WBR NBL SBI SBT **†††** Lane Configurations - **†**†Þ Þ ۴. Traffic Volume (vph) 0 ٥ 0 0 0 0 Future Volume (vph) 0 0 0 0 0 0 0 0 0 0 0 0 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 Total Lost time (s) Lane Util. Factor Frt Flt Protected Satd. Flow (prot) Flt Permitted Satd. Flow (perm) 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) 0 0 0 0 0 0 0 0 0 0 0 0 RTOR Reduction (vph) Lane Group Flow (vph) 0 Turn Type Perm Perm Perm Protected Phases 8 2 6 4 Permitted Phases 4 Actuated Green, G (s) Effective Green, g (s) Actuated g/C Ratio Clearance Time (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm v/c Ratio Uniform Delay, d1 Progression Factor Incremental Delay, d2 Delay (s) Level of Service Approach Delay (s) 0.0 0.0 0.0 00 Approach LOS А А А Α Intersection Summary HCM 2000 Control Delay 0.0 HCM 2000 Level of Service Α HCM 2000 Volume to Capacity ratio 0.00 Actuated Cycle Length (s) 45.0 Sum of lost time (s) 7.0 Intersection Capacity Utilization Analysis Period (min) 0.0% ICU Level of Service А 15 c Critical Lane Group

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 17 Existing PM 06/26/2020 Baseline

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642: Pape Ave/Ivill	wood R	a			00/20/
	•	t	1	ŧ	
Lane Group	WBR	NBT	SBL	SBT	
Lane Group Flow (vph)	702	644	856	606	
v/c Ratio	0.47	0.46	0.51	0.58	
Control Delay	11.8	24.7	10.8	13.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	11.8	24.7	10.8	13.1	
Queue Length 50th (m)	32.3	48.5	29.8	41.4	
Queue Length 95th (m)	47.6	64.2	37.0	52.2	
Internal Link Dist (m)		58.1		602.2	
Turn Bay Length (m)					
Base Capacity (vph)	1506	1386	1681	1045	
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	0.47	0.46	0.51	0.58	
Intersection Summary					

# HCM Signalized Intersection Capacity Analysis 642: Pape Ave/Millwood Rd

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations		11	<b>≜1</b> ⊾		ካካ	*		
Traffic Volume (vph)	0	674	614	4	822	582		
Future Volume (vph)	0	674	614	4	822	582		
Ideal Flow (vphpl)	1900	1900	2100	1900	1900	2200		
Lane Width	3.5	3.5	3.5	3.5	3.5	3.0		
Total Lost time (s)		6.0	5.0		6.0	4.0		
Lane Util Eactor		0.88	0.95		0.97	1 00		
Ernb ped/bikes		1.00	1.00		1.00	1.00		
Flpb ped/bikes		1.00	1.00		1.00	1.00		
Frt		0.85	1.00		1.00	1.00		
Elt Protected		1 00	1.00		0.95	1.00		
Satd Flow (prot)		2756	3648		3298	1973		
Elt Permitted		1 00	1 00		0.95	1.00		
Satd Flow (perm)		2756	3648		3298	1973		
Peak hour factor PHF	0.06	0.06	0.96	0.06	0.06	0.96		
Adi Elow (voh)	0.90	702	640	0.90	856	606		
PTOP Reduction (vph)	0	102	040	4	000	000		
Long Croup Flow (vph)	0	601	642	0	956	606		
Confl Bikos (#/br)	0	001	045	14	000	000		
Comin. Dires (#/m)	00/	20/	70/	00/	E0/	20/		
Reavy vehicles (%)	0%	2%	1 % E	0%	5%	2% E		
Bus blockages (#/11)	0	0	5	5	0	5		
Turn Type		Perm	NA		Prot	NA		
Protected Phases		0	4		6	0		
Permitted Phases		2	07.0		50.0	6		
Actuated Green, G (s)		50.0	37.0		50.0	50.0		
Effective Green, g (s)		51.0	38.0		51.0	53.0		
Actuated g/C Ratio		0.51	0.38		0.51	0.53		
Clearance Time (s)		7.0	6.0		7.0	7.0		
Lane Grp Cap (vph)		1405	1386		1681	1045		
v/s Ratio Prot			c0.18		0.26			
v/s Ratio Perm		0.22				c0.31		
v/c Ratio		0.43	0.46		0.51	0.58		
Uniform Delay, d1		15.4	23.3		16.2	15.9		
Progression Factor		1.00	1.00		0.59	0.67		
Incremental Delay, d2		1.0	1.1		1.0	2.2		
Delay (s)		16.3	24.5		10.7	12.8		
Level of Service		В	С		В	В		
Approach Delay (s)	16.3		24.5			11.6		
Approach LOS	В		С			В		
Intersection Summary								
HCM 2000 Control Delay			15.7	Н	CM 2000	Level of Service	e B	
HCM 2000 Volume to Capacit	ty ratio		0.55					
Actuated Cycle Length (s)			100.0	Su	um of lost	time (s)	12.0	
Intersection Capacity Utilization			= 1 001	10		( ) · (		
	on		51.9%	IC	U Level c	of Service	A	
Analysis Period (min)	on		51.9% 15	IC	U Level c	of Service	A	

### Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 19

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 20

Queues	ortime						06/26/2020
		AVC					00/20/20/20/20/20/20/20/20/20/20/20/20/2
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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	67	540	38	281	714	531	
v/c Ratio	0.20	0.81	0.30	0.42	0.85	0.56	
Control Delay	19.1	33.5	25.5	20.4	29.8	12.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.1	33.5	25.5	20.4	29.8	12.2	
Queue Length 50th (m)	6.7	70.9	4.0	30.1	63.2	19.2	
Queue Length 95th (m)	15.6	#122.1	12.3	50.1	#90.0	31.3	
Internal Link Dist (m)		133.4		85.4	130.3	176.8	
Turn Bay Length (m)	40.0		25.0				
Base Capacity (vph)	328	668	127	665	837	952	
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	0.20	0.81	0.30	0.42	0.85	0.56	
Intersection Summary							

# HCM Signalized Intersection Capacity Analysis 664: Pape Ave & Mortimer Ave

664: Pape Ave & N	& Mortimer Ave								06/26/2			
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	۲.	4		٦.	4Î			ፋጉ			ፋቡ	
Traffic Volume (vph)	65	465	59	37	246	26	57	483	78	28	411	76
Future Volume (vph)	65	465	59	37	246	26	57	483	78	28	411	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1700	1900	1900	1850	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)	5.0	5.0		5.0	5.0			6.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			*0.70			*0.70	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.96	
Flpb, ped/bikes	0.98	1.00		0.97	1.00			0.99			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1651	1767		1545	1760			2042			2158	
Flt Permitted	0.50	1.00		0.21	1.00			0.83			0.87	
Satd. Flow (perm)	876	1767		340	1760			1702			1882	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.84	0.97	0.97	0.97	0.97
Adj. Flow (vph)	67	479	61	38	254	27	59	575	80	29	424	78
RTOR Reduction (vph)	0	6	0	0	5	0	0	8	0	0	12	(
Lane Group Flow (vph)	67	534	0	38	276	0	0	706	0	0	520	(
Confl. Peds. (#/hr)	29		85	85		29	124		83	83		124
Confl. Bikes (#/hr)						1			4			
Heavy Vehicles (%)	0%	2%	2%	6%	3%	8%	0%	8%	0%	0%	9%	3%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	13	13	0	13	13
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2	_		6	-	
Actuated Green G (s)	29.0	29.0		29.0	29.0			39.0		-	39.0	
Effective Green a (s)	30.0	30.0		30.0	30.0			39.0			40.0	
Actuated g/C Ratio	0.38	0.38		0.38	0.38			0.49			0.50	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grn Can (ynh)	328	662		127	660			829			9/1	
v/s Ratio Prot	520	c0 30		121	0.16			023			341	
v/s Ratio Porm	0.00	0.50		0.11	0.10			0 11			0.20	
v/s Ratio	0.00	0.91		0.11	0.42			0.95			0.20	
V/C NdIIU	16.0	22.4		17.6	19.5			19.0			12.0	
Dregrossion Easter	1.00	1.00		1 00	10.0			1 00			0.74	
Incremental Delay d2	1.00	10.0		5.0	1.00			10.7			0.74	
Dolou (o)	10.2	22.6		22.5	20.5			29.7			10.2	
Deldy (S)	10.J	JZ.0		23.5	20.5			20.7			12.3 D	
	D	21.0		U	20.0			20.7			10.0	
Approach LOC		31.0			20.0			20.7			12.3 D	
Approach LOS		U			U			U			Б	
Intersection Summary												
HCM 2000 Control Delay			24.2	H	CM 2000	Level of S	Service		C			
HCM 2000 Volume to Capa	acity ratio		0.83									
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)			11.0			
Intersection Capacity Utiliza	ation		99.9%	IC	U Level o	of Service			F			
Analysis Period (min) c Critical Lane Group			15									

### Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 22

Existing PM 06/26/2020 Baseline

Queues 669: Pape Ave & C	lueues 69: Pape Ave & Cosburn Ave												
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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT							
Lane Group Flow (vph)	67	298	89	141	627	605							
v/c Ratio	0.28	0.64	0.54	0.33	0.58	0.58							
Control Delay	26.5	32.1	39.2	21.8	12.2	12.9							
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0							
Total Delay	26.5	32.1	39.2	21.8	12.2	12.9							
Queue Length 50th (m)	8.0	38.5	11.5	14.1	36.6	36.7							
Queue Length 95th (m)	18.4	64.0	#29.4	28.8	57.0	56.9							
Internal Link Dist (m)		234.9		366.5	91.3	79.6							
Turn Bay Length (m)	27.5		24.0										
Base Capacity (vph)	243	464	164	429	1079	1049							
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	0.28	0.64	0.54	0.33	0.58	0.58							
Intersection Summary													

## HCM Signalized Intersection Capacity Analysis 669: Pape Ave & Cosburn Ave

669: Pape Ave & C	Cosburn	Ave									06/2	26/2020
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	۲.	4		٦.	4			ፋጉ			ፋቡ	
Traffic Volume (vph)	66	254	38	87	101	37	21	461	103	39	498	2
Future Volume (vph)	66	254	38	87	101	37	21	461	103	39	498	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1700	1900	1900	1700	190
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			*0.70			*0.70	
Frpb, ped/bikes	1.00	0.96		1.00	0.92			0.93			0.97	
Flpb, ped/bikes	0.75	1.00		0.83	1.00			0.99			0.99	
Frt	1.00	0.98		1.00	0.96			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1261	1666		1398	1502			1950			2074	
Flt Permitted	0.67	1.00		0.41	1.00			0.92			0.85	
Satd. Flow (perm)	885	1666		599	1502			1788			1778	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.92	0.98	0.98	0.93	0.9
Adi, Flow (vph)	67	259	39	89	103	38	21	501	105	40	535	3(
RTOR Reduction (vph)	0	7	0	0	17	0	0	7	0	0	3	(
Lane Group Flow (vph)	67	291	0	89	124	0	0	620	0	0	602	(
Confl. Peds. (#/hr)	276		279	279		276	396		209	209		39
Confl Bikes (#/hr)			2			2			6			
Heavy Vehicles (%)	0%	4%	0%	0%	10%	0%	0%	7%	1%	0%	6%	0%
Bus Blockages (#/hr)	0	6	6	0	6	6	0	13	13	0	13	1:
Turn Tyne	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1 Unit	4		1 Onn	8		T OIL	2		1 Onn	6	
Permitted Phases	4	-		8	Ŭ		2	-		6	Ŭ	
Actuated Green, G (s)	21.0	21.0		21.0	21.0		-	47.0		Ű	47 0	
Effective Green, a (s)	22.0	22.0		22.0	22.0			48.0			47.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.60			0.59	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Grn Can (ynh)	2/13	458		16/	/13			1072			1044	
v/s Ratio Prot	240	c0 17		104	0.08			1072			1044	
v/s Ratio Porm	0.00	60.17		0.15	0.00			o0 25			0.24	
v/s Ratio	0.00	0.64		0.15	0.20			0.50			0.54	
V/C NdIIU	0.20	25.5		24.7	22.0			0.00			10.30	
Dregrossion Easter	1.00	20.0		24.7	1.00			9.0			1 00	
Incremental Delay d2	1.00	1.00		12.2	1.00			1.00			1.00	
Dolov (c)	2.0	22.1		27.0	24.9			12.0			12.5	
Deldy (S)	20.0	32.1		57.0	24.0			12.1 D			12.0 D	
	U	20.0		U	20.5			10.1			10.6	
Approach LOC		30.9			29.5			12.1 D			12.0 D	
Approach LOS		U			U			D			Б	
Intersection Summary												
HCM 2000 Control Delay			18.2	H	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.61									
Actuated Cycle Length (s)			80.0	S	um of lost	time (s)			11.0			
Intersection Capacity Utiliza	ation		89.1%	IC	U Level o	of Service			E			
Analysis Period (min) c Critical Lane Group			15									

### Existing PM 06/26/2020 Baseline

Existing PM 06/26/2020 Baseline

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	66	806	267	770	88	89	245	266	234	
v/c Ratio	0.42	1.00	0.76	0.71	0.31	0.14	0.38	0.63	0.40	
Control Delay	38.8	65.9	39.0	22.5	29.2	24.9	4.8	37.5	24.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	38.8	65.9	39.0	22.5	29.2	24.9	4.8	37.5	24.7	
Queue Length 50th (m)	10.4	136.4	37.2	86.7	13.9	13.3	0.0	48.2	32.2	
Queue Length 95th (m)	27.2	#227.5	#69.7	138.8	25.2	22.7	15.1	70.5	48.9	
Internal Link Dist (m)		158.9		165.4		218.3			673.7	
Turn Bay Length (m)	30.0		40.0		30.0		80.0	60.0		
Base Capacity (vph)	156	809	360	1086	353	761	736	518	717	
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	0.42	1.00	0.74	0.71	0.25	0.12	0.33	0.51	0.33	

Queue shown is maximum after two cycles.

### HCM Signalized Intersection Capacity Analysis 679: Thorncliffe Park Dr/Beth Nealson Dr & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Υ.	<b>≜</b> 16		2	≜1≽		1	•	1	1	ĥ	
Traffic Volume (vph)	66	740	66	267	615	155	88	89	245	266	143	91
Future Volume (vph)	66	740	66	267	615	155	88	89	245	266	143	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	3.5		3.0	5.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	*0.62		1.00	*0.63		1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.96		1.00	1.00	0.93	1.00	0.94	
Flpb, ped/bikes	0.94	1.00		1.00	1.00		0.91	1.00	1.00	0.95	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	0.94	
Fit Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1644	2093		1807	1948		1467	1783	1393	1648	1630	
Flt Permitted	0.24	1.00		0.09	1.00		0.54	1.00	1.00	0.70	1.00	
Satd. Flow (perm)	418	2093		173	1948		829	1783	1393	1213	1630	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	66	740	66	267	615	155	88	89	245	266	143	91
RTOR Reduction (vph)	0	3	0	0	9	0	0	0	160	0	23	0
Lane Group Flow (vph)	66	803	0	267	761	0	88	89	85	266	211	0
Confl. Peds. (#/hr)	91		131	131		91	148		64	64		148
Confl. Bikes (#/hr)			18			9			8			5
Heavy Vehicles (%)	4%	5%	0%	1%	6%	6%	13%	6%	2%	5%	3%	4%
Bus Blockages (#/hr)	0	28	28	0	41	0	0	4	15	0	3	3
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	39.9	39.9		59.8	59.8		37.2	37.2	37.2	37.2	37.2	
Effective Green, q (s)	40.9	42.4		60.8	60.8		38.2	38.2	38.2	38.2	38.2	
Actuated g/C Ratio	0.37	0.39		0.55	0.55		0.35	0.35	0.35	0.35	0.35	
Clearance Time (s)	6.0	6.0		4.0	6.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	155	806		346	1076		287	619	483	421	566	
v/s Ratio Prot		c0.38		c0.12	0.39			0.05			0.13	
v/s Ratio Perm	0.16			0.31			0.11		0.06	c0.22		
v/c Ratio	0.43	1.00		0.77	0.71		0.31	0.14	0.18	0.63	0.37	
Uniform Delay, d1	25.8	33.7		29.1	18.1		26.2	24.7	25.0	30.0	26.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.3	30.8		10.2	3.9		0.6	0.1	0.2	3.1	0.4	
Delay (s)	34.1	64.5		39.3	22.0		26.8	24.8	25.1	33.1	27.3	
Level of Service	С	E		D	С		С	С	С	С	С	
Approach Delay (s)		62.2			26.4			25.4			30.4	
Approach LOS		E			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			38.0	Н	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capa	city ratio		0.81									
Actuated Cycle Length (s)			110.0	S	um of lost	time (s)			12.5			
Intersection Capacity Utiliza	tion		105.6%	IC	U Level o	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 25 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 26

680: Thorncliffe Pa	30: Thorncliffe Park Dr W & Overlea Blvd													
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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT					
Lane Group Flow (vph)	105	700	194	78	730	202	135	142	183					
v/c Ratio	0.60	0.60	0.33	0.46	0.68	0.56	0.23	0.36	0.30					
Control Delay	28.7	18.0	7.9	26.0	20.8	33.6	15.1	27.5	14.6					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	28.7	18.0	7.9	26.0	20.8	33.6	15.1	27.5	14.6					
Queue Length 50th (m)	11.0	58.4	3.3	9.0	74.9	31.3	10.8	20.3	13.7					
Queue Length 95th (m)	m19.2	m82.9	m15.0	24.3	106.8	54.9	24.2	36.8	30.0					
Internal Link Dist (m)		202.4			182.3		191.7		166.5					
Turn Bay Length (m)	40.0		20.0	40.0				30.0						
Base Capacity (vph)	175	1164	588	168	1068	359	592	393	601					
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	0.60	0.60	0.33	0.46	0.68	0.56	0.23	0.36	0.30					
Intersection Summary														
m Volume for 95th percer	ntile queue i	s metered	d by upstr	eam sign	al.									

### HCM Signalized Intersection Capacity Analysis 680: Thorncliffe Park Dr W & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	- • • •	1	ሻ	A1⊅		٦	f,		ሻ	ĥ	
Traffic Volume (vph)	100	665	184	74	560	134	192	66	63	135	71	103
Future Volume (vph)	100	665	184	74	560	134	192	66	63	135	71	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	*0.63	1.00	1.00	*0.64		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.76	1.00	0.95		1.00	0.93		1.00	0.90	
Flpb, ped/bikes	0.94	1.00	1.00	0.94	1.00		0.88	1.00		0.90	1.00	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.93		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1702	2197	1024	1547	1993		1582	1593		1590	1571	
Flt Permitted	0.19	1.00	1.00	0.19	1.00		0.62	1.00		0.67	1.00	
Satd. Flow (perm)	332	2197	1024	317	1993		1028	1593		1123	1571	
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)	105	700	194	78	589	141	202	69	66	142	75	108
RTOR Reduction (vph)	0	0	46	0	12	0	0	34	0	0	52	0
Lane Group Flow (vph)	105	700	148	78	718	0	202	101	0	142	131	0
Confl. Peds. (#/hr)	122		117	117		122	173		140	140		173
Confl. Bikes (#/hr)			9			9						
Heavy Vehicles (%)	1%	4%	8%	11%	8%	3%	2%	4%	5%	3%	2%	0%
Bus Blockages (#/hr)	0	28	28	0	31	31	0	0	0	0	0	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	52.0	52.0	52.0	52.0	52.0		34.0	34.0		34.0	34.0	
Effective Green, g (s)	53.0	53.0	53.0	53.0	53.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53		0.35	0.35		0.35	0.35	
Clearance Time (s)	7.0	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	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	175	1164	542	168	1056		359	557		393	549	
v/s Ratio Prot		0.32			c0.36			0.06			0.08	
v/s Ratio Perm	0.32		0.14	0.25			c0.20			0.13		
v/c Ratio	0.60	0.60	0.27	0.46	0.68		0.56	0.18		0.36	0.24	
Uniform Delay, d1	16.2	16.2	12.9	14.6	17.3		26.3	22.5		24.2	23.1	
Progression Factor	0.98	0.99	1.03	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.6	1.5	0.8	9.0	3.5		6.3	0.7		2.6	1.0	
Delay (s)	25.4	17.5	14.1	23.6	20.8		32.6	23.3		26.8	24.1	
Level of Service	С	В	В	С	С		С	С		С	С	
Approach Delay (s)		17.7			21.1			28.8			25.2	
Approach LOS		В			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			21.3	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	city ratio		0.63									
Actuated Cycle Length (s)			100.0	S	um of lost	t time (s)			12.0			
Intersection Capacity Utiliza	tion		121.7%	IC	U Level o	of Service			Н			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 27 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 28

681: Laird Dr & Mcl	Jeues 31: Laird Dr & McRae Dr/Wicksteed Ave													
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT						
Lane Group Flow (vph)	201	192	133	333	51	777	203	841						
v/c Ratio	0.54	0.50	0.34	0.79	0.54	0.81	0.97	0.83						
Control Delay	39.4	37.7	33.7	46.4	58.3	42.9	83.5	39.0						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	39.4	37.7	33.7	46.4	58.3	42.9	83.5	39.0						
Queue Length 50th (m)	34.1	31.9	21.2	53.8	8.8	71.6	28.2	78.3						
Queue Length 95th (m)	56.6	53.3	37.7	#96.5	#25.1	92.4	#69.1	102.3						
Internal Link Dist (m)		109.4		392.3		190.1		32.0						
Turn Bay Length (m)	10.0		90.0		20.0		65.0							
Base Capacity (vph)	374	386	393	419	94	961	209	1019						
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	0.54	0.50	0.34	0.79	0.54	0.81	0.97	0.83						
Intersection Summary														

# HCM Signalized Intersection Capacity Analysis 681: Laird Dr & McRae Dr/Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	4Î		۲.	¢Î,		۲.	<b>≜</b> †}		۲	<b>≜</b> 1≽	
Traffic Volume (vph)	197	180	8	130	179	147	50	679	82	199	633	191
Future Volume (vph)	197	180	8	130	179	147	50	679	82	199	633	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2350	1900	1900	1900	1900
Lane Width	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	4.0		2.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	*0.98		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	0.99		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	0.93		1.00	0.98		1.00	0.97	
Fit Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1560	1604		1574	1562		1556	3964		1529	3090	
Flt Permitted	0.95	1.00		0.95	1.00		0.26	1.00		0.16	1.00	
Satd. Flow (perm)	1560	1604		1574	1562		428	3964		258	3090	
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
Adi Flow (vph)	201	184	8	133	183	150	51	693	84	203	646	195
RTOR Reduction (vph)	0	2	0	0	29	0	0	10	0	0	0	0
Lane Group Flow (vph)	201	190	0	133	304	ů 0	51	767	Ő	203	841	Ő
Confl. Peds. (#/hr)	11		5	5		11	4		30	30	•	4
Confl Bikes (#/hr)			Ŭ	, in the second se		1						
Heavy Vehicles (%)	8%	15%	25%	7%	9%	11%	8%	11%	11%	10%	11%	6%
Bus Blockages (#/hr)	0	2	2070	0	2	2	0	4	4	0	4	4
Turn Type	Solit	NΔ	-	Split	NΔ	-	Perm	ΝΔ		nm+nt	ΝΔ	<u> </u>
Protected Phases	٥pin 4	4		8	8		T CITI	2		phi - pi	6	
Permitted Phases	т	7		U	0		2	2		6	U	
Actuated Green G (s)	23.0	23.0		24.0	24.0		21.0	21.0		32.0	32.0	
Effective Green, a (s)	24.0	24.0		25.0	25.0		22.0	24.0		34.0	33.0	
Actuated a/C Ratio	0.24	0.24		0.25	0.25		0.22	0.24		0 34	0.33	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		4.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		2.0	3.0	
Lane Grn Can (vnh)	37/	38/		303	300		0/	051		2.0	1010	
v/a Ratio Brat	0 12	0.12		0.09	0.10		94	0.10		202	0.27	
v/s Ralio Prol	CU. 13	0.12		0.00	CU. 19		0.12	0.19		0.25	CU.27	
v/s Ratio Perm	0.54	0.50		0.24	0.79		0.12	0.91		1.00	0 02	
V/C Nalio	22.2	22.0		20.7	24.0		24.5	25.9		20.0	20.03	
Dragrossion Easter	1.00	1.00		1.00	1 00		1.00	1.00		29.0	1 00	
Progression Factor	1.00	1.00		1.00	14.0		20.6	1.00		1.00	1.00	
Deley (e)	20.6	4.5		2.3	14.2		20.0	1.3		04.0	20 5	
Deidy (S)	J0.0	37.3		33.0	49.1		00.Z	43.1		93.0 F	30.5	
Level of Service	D	20.0		C	116		<b></b>	42.0		- F	40.0	
Approach LOS		30.U			44.0 D			43.0 D			49.Z	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			45.2	H	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			18.0			
Intersection Capacity Utilization			89.7%	IC	U Level o	of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 30

06/26/2020

Existing PM 06/26/2020 Baseline
Queues	& Laird	Dr				06/26/202
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	<u> </u>	•		T	÷	
Lane Group	EBL	EBR	NBL	NBT	SBT	
Lane Group Flow (vph)	390	697	539	710	1083	
v/c Ratio	0.89	0.90	0.95	0.46	0.81	
Control Delay	59.6	27.7	71.1	5.4	31.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.6	27.7	71.1	5.4	31.9	
Queue Length 50th (m)	72.7	44.0	84.8	15.5	93.1	
Queue Length 95th (m)	#125.0	#118.7	#143.1	17.0	119.4	
Internal Link Dist (m)	148.1			203.7	60.0	
Turn Bay Length (m)			66.0			
Base Capacity (vph)	437	776	572	1547	1336	
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	0.89	0.90	0.94	0.46	0.81	
Intersection Summary						

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

HCM Signalized Intersection Capacity Analysis
682: Millwood Rd & Laird Dr

	≯	$\mathbf{F}$	•	Ť	ŧ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
ane Configurations	ň	1	ň	<b>#</b> #	<b>≜1</b> ⊾			
Traffic Volume (vph)	374	669	517	682	759	280		
Future Volume (vph)	374	669	517	682	759	280		
deal Flow (vphpl)	2200	2100	2250	1700	2100	1900		
ane Width	3.0	3.5	3.0	3.5	3.5	3.5		
Total Lost time (s)	3.0	2.0	1.0	5.0	3.0			
ane Util. Factor	1.00	1.00	1.00	*0.80	0.95			
Frob. ped/bikes	1.00	1.00	1.00	1.00	0.99			
Flob ped/bikes	0.99	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.96			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1620	1576	1765	2380	3375			
Fit Permitted	0.95	1.00	0.10	1.00	1.00			
Satd Flow (perm)	1620	1576	189	2380	3375			
Peak-hour factor PHF	0.96	0.96	0.96	0.96	0.96	0.96		
Adi Flow (vnh)	300	697	530	710	701	202		
RTOR Reduction (vph)	030	352	003	110	38	0		
ane Group Flow (vph)	390	344	530	710	1045	0		
Confl Peds (#/hr)	8	5	11	710	1040	11		
Confl Rikes (#/hr)	0	1	11			4		
Heavy Vehicles (%)	19%	12%	13%	13%	11%	9%		
Rus Blockages (#/br)	13/0	12/0	13 /0	13 /0	11/0	J /0		
	Borm	0	D munt		4	4		
uni Type Protected Phones	remi	Over	pin+pt	A/I	NA 6			
Pormitted Phases	A	5	5	2	0			
	4	24.0	64.0	64.0	25.4			
Actuated Green, G (S)	24.0	24.0	67.0	04.0	35.4			
Inective Green, g (s)	21.0	20.0	07.0	0.00	38.4			
Actuated g/C Katio	0.27	0.27	0.07	0.00	0.38			
Jearance Time (s)	0.0	4.0	4.0	0.0	0.0			
venicle Extension (s)	3.0	2.0	2.0	3.0	3.0			
ane Grp Cap (vph)	437	419	561	1547	1296			
/s Ratio Prot		0.22	c0.26	0.30	c0.31			
/s Ratio Perm	c0.24	0.05	0.38	0.15				
/c Ratio	0.89	0.82	0.96	0.46	0.81			
Unitorm Delay, d1	35.1	34.5	28.3	8.7	27.5			
rogression Factor	1.00	1.00	1.74	0.50	1.00			
ncremental Delay, d2	23.1	11.6	27.0	0.9	5.5			
Delay (s)	58.2	46.1	76.1	5.3	32.9			
_evel of Service	E	D	E	A	С			
Approach Delay (s)	50.4			35.9	32.9			
Approach LOS	D			D	С			
ntersection Summary								
HCM 2000 Control Delav			39.6	H	CM 2000	Level of Service	D	
HCM 2000 Volume to Capaci	ty ratio		0.90					
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)	11.0	
Intersection Capacity Utilization	on		79.5%	IC	U Level o	of Service	D	
			15					
Analysis Period (min)								

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 31

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 32

Queues										
686: Millwood Rd &	Redwa	ay Rd/\	Village	Statio	n Rd			06/26/2020		
	۶	-	←	•	Ť	1	ŧ			
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT			
Lane Group Flow (vph)	45	98	70	51	1061	36	1433			
v/c Ratio	0.17	0.28	0.22	0.37	0.46	0.10	0.57			
Control Delay	30.4	17.8	17.2	19.6	8.2	9.1	12.2			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	30.4	17.8	17.2	19.6	8.2	9.1	12.2			
Queue Length 50th (m)	6.5	7.1	4.7	2.5	28.7	2.6	73.6			
Queue Length 95th (m)	15.1	19.3	15.2	#23.1	90.6	m3.5	m89.6			
Internal Link Dist (m)		106.5	196.5		249.2		203.7			
Turn Bay Length (m)	45.0			100.0		20.0				
Base Capacity (vph)	386	494	439	137	2311	385	2527			
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	0.12	0.20	0.16	0.37	0.46	0.09	0.57			
Intersection Summary										
# 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.										

# HCM Signalized Intersection Capacity Analysis 686: Millwood Rd & Redway Rd/Village Station Rd

	≯	-	$\mathbf{r}$	1	+	•	•	1	1	1	Ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦.	ţ,			4		۲	<b>≜t</b> ≽		۲	<b>†</b> 1,	
Traffic Volume (vph)	42	5	87	29	2	35	48	996	1	34	1287	60
Future Volume (vph)	42	5	87	29	2	35	48	996	1	34	1287	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0	3.0	3.5	3.5
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0		3.0	6.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.98			0.98		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	
Frt	1.00	0.86			0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1685	1577			1651		1201	3468		1683	3473	
Flt Permitted	0.75	1.00			0.84		0.16	1.00		0.21	1.00	
Satd. Flow (perm)	1334	1577			1422		206	3468		377	3473	
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
Adi Flow (vph)	45	5	93	31	2	37	51	1060	1	36	1369	64
RTOR Reduction (vph)	0	40	0	0	30	0	0	0		0	2	0
I ane Group Flow (vph)	45	58	Ő	0	40	0	51	1061	0	36	1431	Ő
Confl Peds (#/hr)			5	5		v	8		15	15		8
Confl Bikes (#/hr)			2	, in the second se		14	Ű			10		1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%	40%	0%	1800%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0,0	0,0	0	0	0	6	6	0,0	0	0
	Perm	NΔ	0	Perm	ΝΔ	•	Perm	ΝΔ	•	nm+nt	ΝΔ	
Protected Phases	1 Cilli	8		T CIIII	4		r cim	2		1	6	
Permitted Phases	8	Ū		4			2	-		6	Ū	
Actuated Green, G (s)	17.7	17 7		-	17 7		61.6	61.6		69.3	69.3	
Effective Green g (s)	18.7	18.7			18.7		62.6	62.6		70.3	70.3	
Actuated q/C Ratio	0.19	0.19			0.19		0.63	0.63		0.70	0.70	
Clearance Time (s)	6.0	6.0			6.0		7.0	7.0		4.0	7.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		2.0	3.0	
	240	204			265		120	2170		2.0	2441	
v/a Patia Prot	249	294			205		120	0.21		0.01	2441	
v/s Ratio Prot	0.02	CU.04			0.02		0.25	0.51		0.01	60.41	
v/s Ratio	0.03	0.20			0.03		0.25	0.40		0.07	0.50	
Uniform Delay, d1	3/1 2	3/1 3			34.0		0.40	10.49		5.5	7.5	
Progression Eactor	1.00	1.00			1 00		0.65	0.60		1 /1	1.0	
Incremental Delay, d2	0.4	0.3			0.3		8.5	0.00		0.0	0.5	
Delay (s)	34.6	34.6			34.3		14.5	6.8		7.8	9.5	
Level of Service	04.0	04.0			04.0 C		14.5 R	0.0		۸.0	J.U A	
Approach Delay (c)	U	34.6			3/1 3		D	71		~	0.5	
Approach LOS		04.0			04.0			7.1			3.J A	
Appidacii EOS		U			U			~			~	
Intersection Summary							<u> </u>					
HCM 2000 Control Delay			10.5	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.52									
Actuated Cycle Length (s)			100.0	S	um of lost	t time (s)			14.0			_
Intersection Capacity Utilization	n		59.6%	IC	CU Level o	of Service	)		В			
Analysis Period (min)			15									_
c Critical Lane Group												
Existing PM 06/26/2020 Basel	line									S	ynchro 10	Report

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 33

Synchro 10 Report Page 34

Queues 687: Millwood Rd &	& Overle	a Blvd	l				06/26/2020
	4	•	Ť	1	1	ţ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	463	345	655	686	354	1000	
v/c Ratio	0.42	0.41	0.45	0.71	0.87	0.37	
Control Delay	21.8	7.7	20.4	8.4	39.2	13.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.8	7.7	20.4	8.4	39.2	13.9	
Queue Length 50th (m)	32.4	20.4	36.9	22.2	49.6	50.3	
Queue Length 95th (m)	41.7	37.5	48.7	38.6	#81.6	61.7	
Internal Link Dist (m)	167.2		602.2			145.4	
Turn Bay Length (m)	125.0				75.0		
Base Capacity (vph)	1111	849	1459	960	410	2715	
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	0.42	0.41	0.45	0.71	0.86	0.37	
Intersection Summary							

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

# HCM Signalized Intersection Capacity Analysis 687: Millwood Rd & Overlea Blvd

Novement         WBL         WBR         NBT         NBR         SBL         SBT           Lane Configurations         Yi		-	•	1	1	1	Ŧ	
Lane Configurations         Y	Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Traffic Volume (vph)       444       331       629       659       340       960         Uture Volume (vph)       444       331       629       659       340       960         Lane Width       3.5       3.5       3.5       3.0       3.0       3.5         Total Lost time (s)       5.0       3.0       4.0       5.0       3.0       6.0         Lane Wil, Factor       0.97       1.00       1.00       1.00       1.00       1.00         Fipb, ped/bikes       1.00       0.97       1.00       0.98       1.00       1.00         Firth       1.00       0.95       1.00       1.00       1.00       1.00       1.00         Statl. Flow (port)       3177       1509       3996       1275       1449       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96       0.96         Adj, Flow (ph)       452       655       686       354       1000       000       275         Confl. Peds. (#hr)       1       24       31       31       31       200       24         Confl. Peds. (#hr)       1       24       31       31	ane Configurations	ካካ	1	**	1	5	***	
Tuture Volume (vph)         444         331         629         659         340         960           deal Flow (vphpl)         1900         1900         1900         1900         1900         1900           ane Width         3.5         3.5         3.5         3.5         3.5         3.5         3.5           Total Lost time (s)         5.0         3.0         4.0         5.0         3.0         6.0           ane Width         3.5         3.5         3.5         3.0         6.0         3.0         6.0           ane Width         3.0         4.0         5.0         3.0         6.0         3.0         6.0           ane Width         3.0         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         3.0         3.1	Traffic Volume (vph)	444	331	629	659	340	960	
deal Flow (vphp)       1900       1900       2150       1900       1900         ane Wildh       3.5       3.5       3.0       3.0       3.5         Total Lost time (s)       5.0       3.0       4.0       5.0       3.0       0.0         Trpb, ped/bikes       1.00       0.97       1.00       1.00       1.00       1.00       1.00         Flpb, ped/bikes       1.00       0.00       1.00       1.00       1.00       1.00         Fit       1.00       0.85       1.00       1.00       1.00       1.00         Fit       Protected       0.95       1.00       1.00       1.00       1.00         Satd. Flow (port)       3177       1509       3996       1275       1419       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Alg, Flow (vph)       452       345       655       666       344       1000         Confl. Peds. (Wh)       1       24       31       31       1         Confl. Peds. (Wh)       1       24       31       31       1         Confl. Peds. (Wh)       0       2       16 <t< td=""><td>Future Volume (vph)</td><td>444</td><td>331</td><td>629</td><td>659</td><td>340</td><td>960</td><td></td></t<>	Future Volume (vph)	444	331	629	659	340	960	
Lane Width         3.5         3.5         3.5         3.0         3.0         3.5           Total Lost time (s)         5.0         3.0         4.0         5.0         3.0         6.0           Lane Util. Factor         0.97         1.00         1.00         1.00         0.91           Fipb, ped/bikes         1.00         0.97         1.00         0.98         1.00         1.00           Fipb, ped/bikes         1.00         1.00         1.00         1.00         1.00         1.00           Fit Pretricted         0.95         1.00         1.00         0.95         1.00         1.00           Satd. Flow (perm)         3177         1509         3996         1275         1449         5029           Peak-hour factor, PHF         0.96         0.96         0.96         0.96         0.96         0.96           Adj. Flow (pph)         463         309         655         621         354         1000           Confl. Reduction (vph)         0         36         0         65         0         0           Lane Group Flow (vph)         463         309         655         621         354         1000           Confl. Reds (#/hr)         0<	Ideal Flow (vphpl)	1900	1900	2150	1900	1900	1900	
Total Lost time (s)       5.0       3.0       4.0       5.0       3.0       6.0         Lane Uli. Factor       0.97       1.00       1.00       1.00       0.91         Fipb, ped/bikes       1.00       0.97       1.00       0.98       1.00       1.00         Fipb, ped/bikes       1.00       1.00       1.00       1.00       1.00       1.00         Fit Protected       0.95       1.00       1.00       0.95       1.00       1.00       0.95       1.00         Satd. Flow (pert)       3177       1509       3996       1275       412       5029       Peak-hour factor, PHF       0.96 <td< td=""><td>Lane Width</td><td>3.5</td><td>3.5</td><td>3.5</td><td>3.0</td><td>3.0</td><td>3.5</td><td></td></td<>	Lane Width	3.5	3.5	3.5	3.0	3.0	3.5	
Lane Util. Factor 0.97 1.00 *1.00 1.00 1.00 0.91 Frpb, ped/bikes 1.00 0.97 1.00 0.98 1.00 1.00 Frpb, ped/bikes 1.00 1.00 1.00 1.00 1.00 Frt 0.00 85 1.00 0.85 1.00 0.95 1.00 Satd. Flow (prot) 3177 1509 3996 1275 1449 5029 Fit Protected 0.95 1.00 1.00 1.00 0.95 1.00 Satd. Flow (perm) 3177 1509 3996 1275 412 5029 Peak-hour factor, PHF 0.96 0.96 0.96 0.96 0.96 0.96 Adj, Flow (vph) 462 345 655 686 354 1000 RTOR Reduction (vph) 0 36 0 65 0 0 Lane Group Flow (vph) 463 309 655 621 354 1000 Confl. Peds. (#/hr) 1 24 31 31 Confl. Bikes (#/hr) 0 2 16 16 0 0 Tum Type Prot pm+ov NA pm+ov pm+pt NA Protected Phases 8 1 2 8 1 6 Actuated Green, G (s) 34.0 49.5 33.5 67.5 53.0 53.0 Effective Green, g (s) 35.0 51.5 36.5 69.5 54.0 54.0 Actuated Green, G (s) 34.0 49.5 33.5 67.5 53.0 53.0 Effective Green, g (s) 35.0 51.5 36.5 69.5 54.0 54.0 Actuated Green, G (s) 34.0 49.5 33.5 67.5 53.0 53.0 Effective Green, g (s) 35.0 51.5 36.5 69.5 54.0 54.0 Actuated Green, G (s) 34.0 49.5 33.5 67.5 53.0 53.0 Effective Green, g (s) 35.0 51.5 36.5 69.5 54.0 54.0 Actuated g/C Ratio 0.35 0.52 0.36 0.70 0.54 0.54 Clearance Time (s) 6.0 4.0 7.0 0.90 0.37 Uniform Delay, d1 24.7 14.8 24.1 9.1 15.9 13.2 Progression Factor 0.83 0.69 0.80 0.88 1.41 1.02 Incremental Delay, d2 9.9 0.1 0.9 4.2 20.1 0.3 Delay (s) 21.5 10.3 20.1 12.1 42.6 13.8 Level of Service C B C B D B Approach Lelay (s) 16.7 16.0 21.3 Approach Lelay (s) 16.7 16.0 21.3 Approach LOS B B C Intersection Summary HCM 2000 Control Delay 16.7 16.0 Sam of lost time (s) 12.1 Intersection Capacity Utilization 83.8% ICU Level of Service I HCM 2000 Volume to Capacity ratio 0.83 Actuated Green Green (s) 16.7 16.0 21.3 Approach LOS B B B C Intersection Capacity Utilization 83.8% ICU Level of Service I Analysis Period (min) 15 c. Critical Leng Group 15 c.	Total Lost time (s)	5.0	3.0	4.0	5.0	3.0	6.0	
Frpb, ped/bikes         1.00         0.97         1.00         1.00         1.00           Flpb, ped/bikes         1.00         1.00         1.00         1.00         1.00           Flpb, ped/bikes         1.00         0.85         1.00         0.85         1.00           Flt Protected         0.95         1.00         1.00         0.95         1.00           Satd. Flow (port)         3177         1509         3996         1275         1449         5029           Satd. Flow (perm)         3177         1509         3996         1275         142         5029           Peak-hour factor, PHF         0.96         0.96         0.96         0.96         0.96           Adj. Flow (ph)         463         309         655         621         354         1000           Confl. Bikes (#hn)         1         24         31         31         Heavy Vehicles (%         9%         2%         3%         8%         16%         2%         Bus Blockages (#hn)         0         2         16         0         0         1         104         104         104         104         104         104         104         104         144         16         100         10	Lane Util. Factor	0.97	1.00	*1.00	1.00	1.00	0.91	
Fipb, ped/bikes       1.00       1.00       1.00       1.00       1.00         Fit Protected       0.95       1.00       0.85       1.00       0.95       1.00         Satd. Flow (prot)       3177       1509       3996       1275       1449       5029         Fit Permitted       0.95       1.00       1.00       0.07       1.00       2029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Adj. Flow (pem)       3177       1509       3996       1275       412       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Adj. Flow (vph)       462       345       655       686       354       1000       Confl. Peds. (#/nr)       1       24       31       31         Confl. Peds. (#/nr)       1       24       31       31	Frpb, ped/bikes	1.00	0.97	1.00	0.98	1.00	1.00	
Frt       1.00       0.85       1.00       1.00       1.00         Fit Protected       0.95       1.00       1.00       0.95       1.00         Satd, Flow (prot)       3177       1509       3996       1275       1449       5029         Fit Promitted       0.95       0.00       1.00       1.00       0.027       1.00         Satd, Flow (perm)       3177       1509       3996       1275       412       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Adj, Flow (vph)       462       345       655       686       354       1000         Confl. Rikes (#hr)       1       24       31       31	Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	
Fit Protected       0.95       1.00       1.00       0.95       1.00         Satd. Flow (port)       3177       1509       3996       1275       1449       5029         Fit Permitted       0.95       1.00       1.00       0.27       1.00       So29         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Adj. Flow (vph)       462       345       655       686       354       1000         Confl. Bikes (#hr)       1       24       31       31         Confl. Bikes (#hr)       1       24       31       31         Protected Phases       8       1       2       6         Actuated Green, G (s)       34.0       49.5       33.5       67.5       53.0       53.0         Protected Phases       8       2       6       44.4       44.4       44.4       45.4       45.4         Cearance Time (s)       6.0       4.0       7.0       53.0       53.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0	Frt	1.00	0.85	1.00	0.85	1.00	1.00	
Satd. Flow (prot)       3177       1509       3996       1275       1449       5029         FI Permitted       0.95       1.00       1.00       0.27       1.00         Satd. Flow (perm)       3177       1509       3996       1275       412       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96         Adj. Flow (vph)       462       345       655       686       354       1000         Confl. Peds. (#hr)       1       24       31       31       31         Confl. Peds. (#hr)       20       31       31       31         Confl. Peds. (#hr)       0       2       16       16       0       0         Tum Type       Prot       pm+ov       NA       pm+ov       pm+pt       NA         Protected Phases       8       1       2       6       6       4       4       53.0       53.0       53.0       Effective Green, g (s)       35.0       55.5       55.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       54.0       56.0       54.0	Fit Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Fit Permitted       0.95       1.00       1.00       1.00       0.27       1.00         Satd. Flow (perm)       3177       1509       3996       1275       412       5029         Peak-hour factor, PHF       0.96       0.96       0.96       0.96       0.96       0.96         Adj, Flow (ph)       462       345       655       686       354       1000         RTOR Reduction (vph)       0       36       0       65       0       0         Lane Group Flow (vph)       463       309       655       621       354       1000         Confl. Bikes (#hr)       1       24       31       31	Satd. Flow (prot)	3177	1509	3996	1275	1449	5029	
Satd. Flow (perm)         3177         1509         3996         1275         412         5029           Peak-hour factor, PHF         0.96         0.96         0.96         0.96         0.96         0.96           Adj. Flow (vph)         462         345         655         686         354         1000           RTOR Reduction (vph)         0         36         0         655         621         354         1000           Confl. Bikes (#hr)         1         24         31         31             Heavy Vehicles (%)         9%         2%         3%         8%         16%         2%           Bus Blockages (#hr)         0         2         16         16         0         0           Tum Type         Prot         Prot         NA         pm+ov         pm+pt         NA           Protected Phases         8         2         6           Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0         S3.0         S4.0         Actuated Green, G (s)         3.0         2.0         3.0         3.0         2.0         3.0         2.0         3.0         2.0         3.0 <td>Flt Permitted</td> <td>0.95</td> <td>1.00</td> <td>1.00</td> <td>1.00</td> <td>0.27</td> <td>1.00</td> <td></td>	Flt Permitted	0.95	1.00	1.00	1.00	0.27	1.00	
Peak-hour factor, PHF         0.96         0.96         0.96         0.96         0.96         0.96           Adj. Flow (vph)         462         345         655         686         354         1000           RTOR Reduction (vph)         0         36         0         655         0         0           Lane Group Flow (vph)         463         309         655         621         354         1000           Confl. Peds. (#/hr)         1         24         31         31	Satd. Flow (perm)	3177	1509	3996	1275	412	5029	
Adj. Flow (vph)       462       345       655       686       354       1000         RTOR Reduction (vph)       0       36       0       65       0       0         Lane Group Flow (vph)       463       309       655       621       354       1000         Confl. Peds. (#/hr)       1       24       31       31         Confl. Bikes (#/hr)       0       2       16       16       0       0         Tum Type       Prot       pm+ov       NA       pm+ov       pm+pt       NA         Protected Phases       8       1       2       8       1       6         Permitted Phases       8       2       6       6       4       7.0       53.0       53.0       54.0         Actuated Green, G (s)       34.0       49.5       33.5       67.5       53.0       54.0       54.0         Actuated g/C Ratio       0.35       0.52       0.36       0.70       0.54       0.54       0.54         Clearance Time (s)       6.0       4.0       7.0       6.0       4.0       7.0         Vehicle Extension (s)       3.0       2.0       3.0       2.0       3.0       1.0	Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	
RTOR Reduction (vph)         0         36         0         65         0         0           Lane Group Flow (vph)         463         309         655         621         354         1000           Confl. Rikes (#hr)         1         24         31         31         31           Confl. Rikes (#hr)         0         2         16         16         0         0           Turn Type         Prot         pm+ov         NA         pm+pt         NA           Protected Phases         8         1         2         8         1         6           Permitted Phases         8         2         6         6         6         6           Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0         53.0         54.0         54.0         6         6         6         6         6         6         6         6         7.0         6.0         4.0         7.0         6.0         4.0         7.0         6         0         7.0         6         6         6         7.0         5         6         6         6         6         6         7.0         6         7.0         8 <td>Adj. Flow (vph)</td> <td>462</td> <td>345</td> <td>655</td> <td>686</td> <td>354</td> <td>1000</td> <td></td>	Adj. Flow (vph)	462	345	655	686	354	1000	
Lane Group Flow (vph)         463         309         655         621         354         1000           Confl. Bikes (#hr)         1         24         31         31           Confl. Bikes (#hr)         20         31           Heavy Vehicles (%)         9%         2%         3%         8%         16%         2%           Bus Blockages (#hr)         0         2         16         16         0         0           Tum Type         Prot pm+ov         NA         pm+ov         pm+pt         NA           Protected Phases         8         1         6         Permitted Phases         8         2         6           Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0         54.0	RTOR Reduction (vph)	0	36	0	65	0	0	
Confl. Peds. (#/hr)         1         24         31         31           Confl. Bikes (#/hr)         20         31	Lane Group Flow (vph)	463	309	655	621	354	1000	
Confl. Bikes (#hr)         20         31           Heavy Vehicles (%)         9%         2%         3%         8%         16%         2%           Bus Blockages (#hr)         0         2         16         16         0         0           Tum Type         Prot pm+ov         NA         pm+ov         pm+pt         NA           Protected Phases         8         1         2         8         1         6           Permitted Phases         8         2         6         6         Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         54.0           Actuated Green, g (s)         35.0         51.5         36.5         69.5         54.0         54.0           Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Gro Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm	Confl. Peds. (#/hr)	1	24		31	31		
Heavy Vehicles (%)       9%       2%       3%       8%       16%       2%         Bus Blockages (#/hr)       0       2       16       16       0       0         Tum Type       Prot       pm+ov       NA       pm+pt       NA         Protected Phases       8       1       2       8       1       6         Permitted Phases       8       2       6       6       6         Actuated Green, G (s)       34.0       49.5       33.5       67.5       53.0       53.0         Effective Green, g (s)       35.0       51.5       36.5       69.5       54.0       Actuated g(C Ratio       0.35       0.52       0.36       0.70       0.54       0.54       Clearance Time (s)       6.0       4.0       7.0       6.0       4.0       7.0       0.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.0       3.0       3.0       2.	Confl. Bikes (#/hr)		20		31			
Bus Blockages (#/hr)         0         2         16         16         0         0           Tum Type         Prot pm+ov         NA         pm+ov         pm+pt         NA           Protected Phases         8         1         2         8         1         6           Perotected Phases         8         2         6         6         6           Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0           Effective Green, g (s)         35.0         51.5         36.5         69.5         54.0         54.0           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm         0.14         0.24         c0.34         .0         .0         .0           v/s Ratio Perm         0.14         0.24         c0.34         .0         .0         .0         .0         .0         .0         .0         .0         .0	Heavy Vehicles (%)	9%	2%	3%	8%	16%	2%	
Turn Type         Prot         pm+ov         NA         pm+pv         pmA           Protected Phases         8         1         2         8         1         6           Permitted Phases         8         2         6         Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         54.0           Actuated Green, G (s)         35.0         51.5         36.5         69.5         54.0         54.0           Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         2.0         3.0         2.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm         0.14         0.24         c0.34         w/c Ratio         0.42         0.40         0.45         0.70         0.90         0.37           Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2         Progression Factor         0.83	Bus Blockages (#/hr)	0	2	16	16	0	0	
Protected Phases         8         1         2         8         1         6           Permitted Phases         8         2         6         Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0           Effective Green, g (s)         35.0         51.5         36.5         69.5         54.0         54.0           Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm         0.14         0.24         c0.34         v/c Ratio         0.42         0.40         0.45         0.70         0.90         0.37           Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2         Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02         Incremental Delay, d2 <t< td=""><td>Turn Type</td><td>Prot</td><td>pm+ov</td><td>NA</td><td>pm+ov</td><td>pm+pt</td><td>NA</td><td></td></t<>	Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA	
Permitted Phases         8         2         6           Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0           Effective Green, g (s)         35.0         51.5         36.5         69.5         54.0         Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm         0.14         0.24         c0.34         .0         .0         .0           v/s Ratio Perm         0.14         0.24         c0.34         .0	Protected Phases	8	<u> </u>	2	. 8	1	6	
Actuated Green, G (s)         34.0         49.5         33.5         67.5         53.0         53.0           Effective Green, g (s)         35.0         51.5         36.5         69.5         54.0         54.0           Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Port         0.15         0.07         0.16         c0.25         c0.15         0.20           v/s Ratio Perm         0.14         0.24         c0.34	Permitted Phases		8		2	6		
Effective Green, g (s)       35.0       51.5       36.5       69.5       54.0       54.0         Actuated g/C Ratio       0.35       0.52       0.36       0.70       0.54       0.54         Clearance Time (s)       6.0       4.0       7.0       6.0       4.0       7.0         Vehicle Extension (s)       3.0       2.0       3.0       3.0       2.0       3.0         Lane Grp Cap (vph)       1111       777       1458       886       393       2715         v/s Ratio Prot       0.15       0.07       0.16       c0.25       c0.15       0.20         v/s Ratio Prot       0.14       0.24       c0.34       w/       w/       w/       w/       exitio       0.42       0.44       0.45       0.70       0.90       0.37         Uniform Delay, d1       24.7       14.8       24.1       9.1       15.9       13.2       Progression Factor       0.83       0.69       0.80       0.88       1.41       1.02       Incremental Delay, d2       0.9       0.1       0.9       4.2       20.1       0.3       Delay (s)       16.7       16.0       21.3       Approach Delay (s)       16.7       16.0       21.3       Approach Delay (s)	Actuated Green, G (s)	34.0	49.5	33.5	67.5	53.0	53.0	
Actuated g/C Ratio         0.35         0.52         0.36         0.70         0.54         0.54           Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Prot         0.15         0.07         0.16         c0.25         c0.15         0.20           v/s Ratio Perm         0.14         0.24         c0.34         v/c Ratio         0.42         0.40         0.45         0.70         0.90         0.37           Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2           Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02           Incremental Delay, d2         0.9         0.1         0.9         4.2         20.1         0.3           Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         D <td< td=""><td>Effective Green, g (s)</td><td>35.0</td><td>51.5</td><td>36.5</td><td>69.5</td><td>54.0</td><td>54.0</td><td></td></td<>	Effective Green, g (s)	35.0	51.5	36.5	69.5	54.0	54.0	
Clearance Time (s)         6.0         4.0         7.0         6.0         4.0         7.0           Vehicle Extension (s)         3.0         2.0         3.0         2.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Perm         0.15         0.07         0.16         c0.25         c0.15         0.20           v/s Ratio Perm         0.14         0.24         c0.34	Actuated g/C Ratio	0.35	0.52	0.36	0.70	0.54	0.54	
Vehicle Extension (s)         3.0         2.0         3.0         3.0         2.0         3.0           Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Prot         0.15         0.07         0.16         c0.25         c0.15         0.20           v/s Ratio Perm         0.14         0.24         c0.34         v/v/v/v/v/v/v/v/v/v/v/v/v/v/v/v/v/v/v/	Clearance Time (s)	6.0	4.0	7.0	6.0	4.0	7.0	
Lane Grp Cap (vph)         1111         777         1458         886         393         2715           v/s Ratio Prot         0.15         0.07         0.16         c0.25         c0.15         0.20           v/s Ratio Perm         0.14         0.24         c0.34         v/v         v	Vehicle Extension (s)	3.0	2.0	3.0	3.0	2.0	3.0	
v/s Ratio Prot       0.15       0.07       0.16       c0.25       c0.15       0.20         v/s Ratio Perm       0.14       0.24       c0.34       v/c       v/c       Ratio       0.42       c0.34       v/c         v/c Ratio       0.42       0.40       0.45       0.70       0.90       0.37         Unform Delay, d1       24.7       14.8       24.1       9.1       15.9       13.2         Progression Factor       0.83       0.69       0.80       0.88       1.41       1.02         Incremental Delay, d2       0.9       0.1       0.9       4.2       20.1       0.3         Delay (s)       21.5       10.3       20.1       12.1       42.6       13.8         Level of Service       C       B       C       B       D       B         Approach LOS       B       B       C       Intersection Summary         HCM 2000 Control Delay       18.2       HCM 2000 Level of Service       B         Actuated Cycle Length (s)       100.0       Sum of lost time (s)       12.0         Intersection Capacity Utilization       83.8%       ICU Level of Service       E         Analysis Period (min)       15       c. <td< td=""><td>Lane Grp Cap (vph)</td><td>1111</td><td>777</td><td>1458</td><td>886</td><td>393</td><td>2715</td><td></td></td<>	Lane Grp Cap (vph)	1111	777	1458	886	393	2715	
v/s Ratio Perm         0.14         0.24         c0.34           v/c Ratio         0.42         0.40         0.45         0.70         0.90         0.37           Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2           Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02           Incremental Delay, d2         0.9         0.1         0.9         4.2         20.1         0.3           Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         C         B         D         B           Approach Delay (s)         16.7         16.0         21.3         Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         C         Intersection Summary         E         E         HCM 2000 Level of Service         B           HCM 2000 Volume to Capacity ratio         0.83         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E	v/s Ratio Prot	0.15	0.07	0.16	c0.25	c0.15	0.20	
v/c Ratio         0.42         0.40         0.45         0.70         0.90         0.37           Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2           Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02           Incremental Delay, d2         0.9         0.1         0.9         4.2         20.1         0.3           Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         C         B         D         B           Approach Delay (s)         16.7         16.0         21.3         Approach LOS         B         C           Intersection Summary         HCM 2000 Control Delay         18.2         HCM 2000 Level of Service         B           HCM 2000 Volume to Capacity ratio         0.83         -         -         -           Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E           Analysis Period (min)         15         c.         Critical Lane Groun         - </td <td>v/s Ratio Perm</td> <td></td> <td>0.14</td> <td></td> <td>0.24</td> <td>c0.34</td> <td></td> <td></td>	v/s Ratio Perm		0.14		0.24	c0.34		
Uniform Delay, d1         24.7         14.8         24.1         9.1         15.9         13.2           Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02           Incremental Delay, d2         0.9         0.1         0.9         4.2         20.1         0.3           Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         C         B         Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         C         C         Intersection Summary         FC           HCM 2000 Control Delay         18.2         HCM 2000 Level of Service         B         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E         Analysis Period (min)         15         c.         Critical Lane Group         E	v/c Ratio	0.42	0.40	0.45	0.70	0.90	0.37	
Progression Factor         0.83         0.69         0.80         0.88         1.41         1.02           Incremental Delay, d2         0.9         0.1         0.9         4.2         20.1         0.3           Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         D         B         Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         B         C         Intersection Summary           HCM 2000 Control Delay         18.2         HCM 2000 Level of Service         B           Actuated Cycle Length (s)         10.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E           Analysis Period (min)         15         c.         Critical Lane Group         E	Uniform Delay, d1	24.7	14.8	24.1	9.1	15.9	13.2	
Incremental Delay, d2 0.9 0.1 0.9 4.2 20.1 0.3 Delay (s) 21.5 10.3 20.1 12.1 42.6 13.8 Level of Service C B C B D B Approach Delay (s) 16.7 16.0 21.3 Approach LOS B B C Intersection Summary HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio 0.83 Actuated Cycle Length (s) 10.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 83.8% ICU Level of Service E Analysis Period (min) 15 c C C C C C C C C C C C C C C C C C C	Progression Factor	0.83	0.69	0.80	0.88	1.41	1.02	
Delay (s)         21.5         10.3         20.1         12.1         42.6         13.8           Level of Service         C         B         C         B         D         B           Approach Delay (s)         16.7         16.0         21.3         Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         B         C         Intersection Summary           HCM 2000 Control Delay         18.2         HCM 2000 Level of Service         B           HCM 2000 Volume to Capacity ratio         0.83         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E           Analysis Period (min)         15         C         C         C	Incremental Delay, d2	0.9	0.1	0.9	4.2	20.1	0.3	
Level of Service         C         B         C         B         D         B           Approach Delay (s)         16.7         16.0         21.3         Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         C         B         C         Intersection Summary         Intersection Summary         8         R         C         B         C         Intersection Council Delay         18.2         HCM 2000 Level of Service         B         HCM 2000 Volume to Capacity ratio         0.83         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E         Analysis Period (min)         15         C </td <td>Delay (s)</td> <td>21.5</td> <td>10.3</td> <td>20.1</td> <td>12.1</td> <td>42.6</td> <td>13.8</td> <td></td>	Delay (s)	21.5	10.3	20.1	12.1	42.6	13.8	
Approach Delay (s)         16.7         16.0         21.3           Approach LOS         B         B         C           Intersection Summary         KCM 2000 Centrol Delay         18.2         HCM 2000 Level of Service         B           HCM 2000 Volume to Capacity ratio         0.83         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E           Analysis Period (min)         15         c.         c.         c.	Level of Service	С	В	С	В	D	В	
Approach LOS         B         B         C           Intersection Summary         Intersection Summary         Intersection Summary           HCM 2000 Control Delay         18.2         HCM 2000 Level of Service         B           HCM 2000 Volume to Capacity ratio         0.83         Actuated Cycle Length (s)         100.0         Sum of lost time (s)         12.0           Intersection Capacity Utilization         83.8%         ICU Level of Service         E           Analysis Period (min)         15         c.         c.         c.	Approach Delay (s)	16.7		16.0			21.3	
Intersection Summary HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio 0.83 Actuated Cycle Length (s) 100.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 83.8% ICU Level of Service E Analysis Period (min) 15 c Critical Lane Groun	Approach LOS	В		В			С	
HCM 2000 Control Delay     18.2     HCM 2000 Level of Service     B       HCM 2000 Volume to Capacity ratio     0.83     Actuated Cycle Length (s)     100.0     Sum of lost time (s)     12.0       Actuated Cycle Length (s)     100.0     Sum of lost time (s)     12.0       ntersection Capacity Utilization     83.8%     ICU Level of Service     E       Analysis Period (min)     15     2     2	ntersection Summarv							
IOL         IOL <td>HCM 2000 Control Delay</td> <td></td> <td></td> <td>18.2</td> <td>Н</td> <td>ICM 2000</td> <td>Level of Servic</td> <td>e R</td>	HCM 2000 Control Delay			18.2	Н	ICM 2000	Level of Servic	e R
Actuated Cycle Length (s) 100.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 83.8% ICU Level of Service E Analysis Period (min) 15 c. Critical Lane Group	HCM 2000 Volume to Can	acity ratio		0.83			20.010100100	- D
Intersection Capacity Utilization 83.8% ICU Level of Service E Analysis Period (min) 15 c. critical lane Group	Actuated Cycle Length (s)	adity ratio		100.0	9		t time (s)	12 0
Analysis Period (min) 15	Intersection Canacity Litiliz	ation		83.8%	10		of Service	12.0 F
c Critical Lane Group	Analysis Period (min)			15	N N			
	c Critical Lane Group			10				

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 35

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 36

Queues 822: Don Mills Rd & Wynford Dr	06/26/2020
Lane Group	
Lane Group Flow (vph)	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

# HCM Signalized Intersection Capacity Analysis 822: Don Mills Rd & Wynford Dr

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WBL

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Movement

Lane Configurations Traffic Volume (vph) Future Volume (vph)

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NBT

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NBR

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06/26/2020

Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)								
Lane Util. Factor								
Frt								
Flt Protected								
Satd. Flow (prot)								
Flt Permitted								
Satd. Flow (perm)								
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	0	0	0	0	0	0		
RTOR Reduction (vph)	0	0	0	0	0	0		
Lane Group Flow (vph)	0	0	0	0	0	0		
Turn Type	Prot	Perm			Perm			
Protected Phases	8		2			6		
Permitted Phases		8			6			
Actuated Green, G (s)								
Effective Green, g (s)								
Actuated g/C Ratio								
Clearance Time (s)								
Lane Grp Cap (vph)								
v/s Ratio Prot								
v/s Ratio Perm								
v/c Ratio								
Uniform Delay, d1								
Progression Factor								
Incremental Delay, d2								
Delay (s)								
Level of Service								
Approach Delay (s)	0.0		0.0			0.0		
Approach LOS	A		A			A		
Intersection Summary								
HCM 2000 Control Delay			0.0	H	CM 2000	Level of Service	A	
HCM 2000 Volume to Capacity	ratio		0.00					
Actuated Cycle Length (s)			45.0	Si	um of lost	time (s)	7.0	
Intersection Capacity Utilization	n		0.0%	IC	U Level o	of Service	Α	
Analysis Period (min)			15					
c Critical Lane Group								

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SBL

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Synchro 10 Report Page 37

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 38

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Lane Group	EBL	EBT	▼ WBL	WBT	WBR	NBL	NBT	SBL	▼ SBT	
Lane Group Flow (vph)	3	21	172	5	141	6	1652	170	1338	
v/c Ratio	0.01	0.05	0.52	0.01	0.32	0.04	0.63	0.77	0.49	
Control Delay	36.3	19.9	48.2	36.2	12.5	13.2	19.5	40.5	11.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.3	19.9	48.2	36.2	12.5	13.2	19.5	40.5	11.4	
Queue Length 50th (m)	0.6	1.2	37.6	1.0	5.2	0.6	99.8	16.4	66.7	
Queue Length 95th (m)	3.1	7.8	60.7	4.4	22.3	2.7	115.1	#51.2	78.8	
Internal Link Dist (m)		252.4		156.9			491.1		231.1	
Turn Bay Length (m)	35.0		50.0			25.0		70.0		
Base Capacity (vph)	346	431	338	495	454	153	2643	220	2753	
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	0.01	0.05	0.51	0.01	0.31	0.04	0.63	0.77	0.49	

Queue shown is maximum after two cycles.

## HCM Signalized Intersection Capacity Analysis 1389: Don Mills Rd & Gateway Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	ĥ		٦	•	1	٦	4 <b>4</b> 1>		ሻ	4 <b>4</b> 1>	
Traffic Volume (vph)	3	6	14	160	5	131	6	1435	101	158	1232	12
Future Volume (vph)	3	6	14	160	5	131	6	1435	101	158	1232	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	*0.88		1.00	*0.77	
Frpb, ped/bikes	1.00	0.95		1.00	1.00	0.91	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	0.93	1.00		0.95	1.00	1.00	0.99	1.00		1.00	1.00	
Frt	1.00	0.89		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1695	1630		1676	1921	1435	1807	4626		1789	4146	
Flt Permitted	0.75	1.00		0.74	1.00	1.00	0.14	1.00		0.08	1.00	
Satd. Flow (perm)	1346	1630		1312	1921	1435	270	4626		157	4146	
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
Adi, Flow (vph)	3	6	15	172	5	141	6	1543	109	170	1325	13
RTOR Reduction (vph)	0	11	0	0	0	86	0	6	0	0	1	0
Lane Group Flow (vph)	3	10	0	172	5	56	6	1646	0	170	1337	0
Confl. Peds. (#/hr)	58		45	45		58	37		74	74		37
Confl. Bikes (#/hr)			4			5			1			
Heavy Vehicles (%)	0%	0%	0%	3%	0%	4%	0%	6%	2%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	15	15	0	13	13
Turn Tyne	Perm	NA		Perm	NA	Perm	Perm	NA		nm+nt	NA	
Protected Phases	1 Unit	4		1 Unit	8	1 Unit	1 Unit	2		1	6	
Permitted Phases	4	- 1		8	Ū	8	2	-		6	Ŭ	
Actuated Green G (s)	31.0	31.0		31.0	31.0	31.0	72 0	72 0		84.0	84.0	
Effective Green, a (s)	32.0	32.0		32.0	32.0	32.0	73.0	73.0		85.0	85.0	
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.25	0.57	0.57		0.66	0.66	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grn Can (ynh)	336	407		328	/80	358	153	2638		210	2753	
v/s Patio Prot	000	0.01		520	400	550	100	0.36		c0.05	0.32	
v/s Ratio Porm	0.00	0.01		0 12	0.00	0.04	0.02	0.50		0.46	0.52	
v/s Ralio Perm	0.00	0.02		0.52	0.01	0.04	0.02	0.62		0.79	0.40	
V/C NdIU Uniform Dolov, d1	26.1	26.2		0.5Z	26.1	27.5	12.04	10.02		10.70	10.7	
Drogrossion Easter	1.00	1.00		41.4	1.00	1.00	1 00	10.5		1 00	1.00	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, uz	0.0	26.0		1.0	0.0	27.7	10.5	10.5		15.7	0.0	
Delay (S)	30.1	30.2		42.9	30.1	37.7	12.0 D	19.5		35.Z	II.3 D	
	U	20.0		U	10.5	U	D	D		U	D	
Approach Delay (s)		30.2			40.5			19.4			14.0	
Approach LOS		U			U			В			В	
Intersection Summary												
HCM 2000 Control Delay			19.1	H	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	me to Capacity ratio 0.72											_
Actuated Cycle Length (s)			128.0	S	um of lost	time (s)			14.0			
Intersection Capacity Utiliza	ation		96.0%	IC	U Level o	of Service			F			_
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 39 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 40

1800: Overlea Blvd	& Willi	iam Mo	organ D	)r	06/26/2020
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Lane Group	EBL	EBT	WBT	SBL	
Lane Group Flow (vph)	20	1412	1182	87	
v/c Ratio	0.26	0.91	0.78	0.22	
Control Delay	22.4	28.6	20.3	25.8	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	22.4	28.6	20.3	25.8	
Queue Length 50th (m)	1.9	~258.1	165.7	10.7	
Queue Length 95th (m)	9.5	#322.2	#250.8	21.8	
Internal Link Dist (m)		165.4	588.9	90.1	
Turn Bay Length (m)	10.0				
Base Capacity (vph)	76	1554	1507	553	
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	0.26	0.91	0.78	0.16	
Intersection Summary					
<ul> <li>Volume exceeds capacit</li> </ul>	tv. aueue i	s theoreti	callv infinit	e.	
Queue shown is maximu	m after two	o cvcles.	. ,		
# 95th percentile volume e	exceeds ca	apacity o	ieue mav	he longer	r

Queue shown is maximum after two cycles.

Queues

	≯	-	-	•	1	1		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ň	44	<b>≜1</b> }		۰Y			
Traffic Volume (vph)	18	1299	1052	36	68	12		
Future Volume (vph)	18	1299	1052	36	68	12		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	5.0	5.0	5.0		5.0			
Lane Util, Factor	1.00	*0.61	*0.61		1.00			
Frob. ped/bikes	1.00	1.00	1.00		0.99			
Flpb, ped/bikes	1.00	1.00	1.00		1.00			
Frt	1.00	1.00	1.00		0.98			
Flt Protected	0.95	1.00	1.00		0.96			
Satd, Flow (prot)	1560	2191	2123		1709			
Flt Permitted	0.07	1.00	1.00		0.96			
Satd, Flow (perm)	109	2191	2123		1709			
Peak-hour factor PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adi Flow (vnh)	20	1412	1143	39	74	13		
RTOR Reduction (vnh)	0	0	1	0	7	0		
Lane Group Flow (vph)	20	1412	1181	0	80	0		
Confl Peds (#/hr)	36	1412	1101	36	12	25		
Confl Bikes (#/hr)	00			9	12	20		
Heavy Vehicles (%)	17%	4%	5%	0%	6%	0%		
Bus Blockages (#/hr)	0	14	21	21	0	0		
	Dorm	NA	NA	21	Prot	Ū		
Protected Phases	I CIIII	2	6		1101			
Permitted Phases	2	2	0		4			
Actuated Green G (s)	67.7	67.7	67.7		20.3			
Effective Green, a (s)	68.7	68.7	68.7		20.0			
Actuated a/C Patio	0.60	0.60	0.60		0.21			
Clearance Time (c)	6.0	6.0	6.0		6.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0			
	3.0	1505	1450		3.0			
Lane Grp Cap (vpn)	74	1505	1458		304			
V/S Ratio Prot	0.40	CU.04	0.56		CU.U5			
v/s Ratio Perm	0.18	0.04	0.04		0.00			
V/C Ratio	0.27	0.94	0.81		0.22			
Uniform Delay, d1	6.0	13.8	11.0		32.5			
Progression Factor	1.00	1.00	1.00		1.00			
Incremental Delay, d2	8.8	12.5	5.0		0.3			
Delay (s)	14.8	26.3	16.0		32.8			
Level of Service	В	U	В		C			
Approach Delay (s)		26.1	16.0		32.8			
Approach LOS		С	В		C			
Intersection Summary								
HCM 2000 Control Delay			21.9	H	CM 2000	Level of Service	e C	
HCM 2000 Volume to Capa	icity ratio		0.77					
Actuated Cycle Length (s)			100.0	Su	um of lost	time (s)	10.0	
Intersection Capacity Utilization	ation		61.4%	IC	U Level o	of Service	В	
Analysis Period (min)			15					
c Critical Lane Group								

HCM Signalized Intersection Capacity Analysis

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 41

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 42

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	159	829	119	699	56	122	127	35	174	
v/c Ratio	0.48	0.76	0.44	0.63	0.17	0.25	0.41	0.07	0.35	
Control Delay	13.6	27.3	14.0	22.0	26.2	8.5	32.6	24.1	5.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	13.6	27.3	14.0	22.0	26.2	8.5	32.6	24.1	5.8	
Queue Length 50th (m)	13.6	117.6	10.0	84.3	7.4	3.1	17.9	4.5	0.0	
Queue Length 95th (m)	23.3	#179.7	18.0	119.1	16.3	14.9	32.8	11.1	13.6	
Internal Link Dist (m)		177.6		158.9		59.0		68.9		
Turn Bay Length (m)	90.0		40.0							
Base Capacity (vph)	337	1093	273	1112	441	616	419	653	608	
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	0.47	0.76	0.44	0.63	0.13	0.20	0.30	0.05	0.29	

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis 1834: East York Town Centre/Costco Driveway & Overlea Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	<b>≜t</b> ≽		٦	44		ň	î,		٦	•	1
Traffic Volume (vph)	149	728	52	112	547	110	53	23	92	119	33	164
Future Volume (vph)	149	728	52	112	547	110	53	23	92	119	33	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	*0.62		1.00	*0.64		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.98		1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.94	1.00		0.98	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	0.88		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1750	2050		1787	2079		1681	1622		1727	1921	1452
Flt Permitted	0.20	1.00		0.13	1.00		0.73	1.00		0.68	1.00	1.00
Satd. Flow (perm)	360	2050		237	2079		1299	1622		1233	1921	1452
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)	159	774	55	119	582	117	56	24	98	127	35	174
RTOR Reduction (vph)	0	3	0	0	8	0	0	73	0	0	0	130
Lane Group Flow (vph)	159	826	0	119	691	0	56	49	0	127	35	44
Confl. Peds. (#/hr)	35		44	44		35	70		21	21		70
Confl. Bikes (#/hr)			4									1
Heavy Vehicles (%)	4%	9%	2%	2%	9%	0%	2%	0%	2%	4%	0%	4%
Bus Blockages (#/hr)	0	25	25	0	27	27	0	0	0	0	0	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	59.0	52.2		58.8	52.1		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	61.0	53.2		60.8	53.1		25.1	25.1		25.1	25.1	25.1
Actuated g/C Ratio	0.61	0.53		0.61	0.53		0.25	0.25		0.25	0.25	0.25
Clearance Time (s)	4.0	6.0		4.0	6.0		7.0	7.0		7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	328	1090		263	1103		326	407		309	482	364
v/s Ratio Prot	c0.04	c0.40		0.03	0.33			0.03			0.02	
v/s Ratio Perm	0.26			0.24			0.04			c0.10		0.03
v/c Ratio	0.48	0.76		0.45	0.63		0.17	0.12		0.41	0.07	0.12
Uniform Delay, d1	10.1	18.4		11.8	16.5		29.3	28.9		31.3	28.6	28.9
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	4.9		1.2	2.7		0.3	0.1		0.9	0.1	0.1
Delay (s)	11.2	23.3		13.0	19.2		29.6	29.0		32.2	28.6	29.1
Level of Service	В	С		В	В		С	С		С	С	С
Approach Delay (s)		21.4			18.3			29.2			30.2	
Approach LOS		С			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			22.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.63									
Actuated Cycle Length (s)		100.0 Sum of lost time (s)						14.0				
Intersection Capacity Utiliza	ition		68.5% ICU Level of Service						С			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 43 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 44

Queues										
1907: Brentcliffe Ro	d & Wic	ksteed	Ave							06/26/2020
	≯	-	4	←	•	Ť	1	ŧ	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	197	302	32	164	27	100	59	71	208	
v/c Ratio	0.22	0.24	0.04	0.16	0.14	0.33	0.31	0.24	0.41	
Control Delay	3.7	7.1	3.2	7.0	25.3	19.5	29.0	26.1	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	3.7	7.1	3.2	7.0	25.3	19.5	29.0	26.1	5.2	
Queue Length 50th (m)	5.4	10.1	0.8	7.1	2.9	6.6	6.4	7.7	0.0	
Queue Length 95th (m)	13.2	34.7	3.1	17.1	8.9	18.0	15.9	17.5	11.5	
Internal Link Dist (m)		392.3		170.9		151.6		144.1		
Turn Bay Length (m)	70.0		20.0		20.0		40.0		40.0	
Base Capacity (vph)	909	1278	863	1031	382	580	383	600	513	
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	0.22	0.24	0.04	0.16	0.07	0.17	0.15	0.12	0.41	
Intersection Summary										

# HCM Signalized Intersection Capacity Analysis 1907: Brentcliffe Rd & Wicksteed Ave

	۶	+	*	4	ţ	*	•	1	1	*	ţ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	4Î		٦	ĥ		٦.	4		٦	<b>↑</b>	7
Traffic Volume (vph)	187	269	18	30	116	40	26	58	37	56	67	198
Future Volume (vph)	187	269	18	30	116	40	26	58	37	56	67	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	3.0
Lane Util. Factor	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	1.00		1.00	0.98		1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00		0.99	1.00		0.89	1.00		0.98	1.00	1.00
Frt	1.00	0.99		1.00	0.96		1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	1846		1813	1779		1627	1736		1656	1883	1386
Flt Permitted	0.61	1.00		0.58	1.00		0.71	1.00		0.69	1.00	1.00
Satd. Flow (perm)	1127	1846		1099	1779		1217	1736		1207	1883	1386
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)	197	283	19	32	122	42	27	61	39	59	71	208
RTOR Reduction (vph)	0	2	0	0	13	0	0	34	0	0	0	161
Lane Group Flow (vph)	197	300	0	32	151	0	27	66	0	59	71	47
Confl. Peds. (#/hr)	9		14	14		9	68		13	13		68
Heavy Vehicles (%)	3%	3%	0%	0%	1%	10%	0%	4%	0%	8%	2%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	7
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	47.4	41.4		40.0	37.7		7.3	7.3		7.3	7.3	13.3
Effective Green, a (s)	48.7	42.4		42.0	38.7		8.3	8.3		8.3	8.3	15.3
Actuated g/C Ratio	0.73	0.63		0.63	0.58		0.12	0.12		0.12	0.12	0.23
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	885	1168		724	1027		150	215		149	233	316
v/s Ratio Prot	c0.02	c0.16		0.00	0.08			0.04			0.04	0.02
v/s Ratio Perm	0.14			0.03			0.02			c0.05		0.02
v/c Ratio	0.22	0.26		0.04	0 15		0.18	0.31		0.40	0.30	0.15
Uniform Delay, d1	2.9	5.4		4 7	6.5		26.3	26.7		27.0	26.7	20.7
Progression Factor	1.00	1 00		1 00	1 00		1 00	1.00		1.00	1 00	1 00
Incremental Delay, d2	0.1	0.5		0.0	0.3		0.6	0.8		17	0.7	0.2
Delay (s)	3.0	5.9		4.8	6.8		26.9	27.5		28.8	27.5	20.9
Level of Service	A	A		A	A		C	C		C	C	C
Approach Delay (s)		4.8			6.5			27.4			23.6	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			13.0	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	city ratio		0.29									
Actuated Cycle Length (s)			67.0	S	um of lost	time (s)			13.0			
Intersection Capacity Utiliza	ation		58.1%	IC	CU Level o	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 45

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 46

Queues	& Gate	way B	vd				06/26/2020
	•	<u>→</u>	<b>•</b>	t	1	ţ	
Lane Group	EBL	EBT	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	159	126	225	178	24	276	
v/c Ratio	0.41	0.11	0.21	0.29	0.05	0.35	
Control Delay	21.2	9.4	7.0	14.1	11.9	6.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.2	9.4	7.0	14.1	11.9	6.0	
Queue Length 50th (m)	15.5	3.0	3.7	14.1	1.8	6.7	
Queue Length 95th (m)	30.7	8.1	10.4	26.8	5.6	20.1	
Internal Link Dist (m)		156.9	464.4	27.6		232.2	
Turn Bay Length (m)	45.0				40.0		
Base Capacity (vph)	391	1168	1094	617	516	781	
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	0.41	0.11	0.21	0.29	0.05	0.35	
Intersection Summary							

HCM Signalized Intersection Capacity Analysis 1974: Grenoble Dr & Gateway Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	<u></u>			4 î b			÷		٢	¢Î	
Traffic Volume (vph)	143	61	52	15	59	128	70	81	9	22	80	168
Future Volume (vph)	143	61	52	15	59	128	70	81	9	22	80	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6			4.7		4.7	4.7	
Lane Util. Factor	1.00	0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.97			0.97			0.99		1.00	0.92	
Flpb, ped/bikes	0.98	1.00			1.00			0.97		0.93	1.00	
Frt	1.00	0.93			0.91			0.99		1.00	0.90	
Fit Protected	0.95	1.00			1.00			0.98		0.95	1.00	
Satd. Flow (prot)	1745	3245			3076			1795		1705	1560	
Fit Permitted	0.61	1.00			0.93			0.78		0.66	1.00	
Satd. Flow (perm)	1123	3245			2874			1422		1193	1560	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	159	68	58	17	66	142	78	90	10	24	89	187
RTOR Reduction (vph)	0	38	0	0	93	0	0	3	0	0	106	0
Lane Group Flow (vph)	159	88	0	0	132	0	0	1/5	0	24	1/0	0
Confil. Peds. (#/nr)	22		34	34		22	157		121	121		157
Contil. Bikes (#/nr)	00/	00/	5	00/	00/	40/	00/	00/	1	00/	00/	00/
Heavy Venicles (%)	2%	2%	0%	0%	2%	4%	0%	0%	0%	0%	0%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	_
Protected Phases	0	2		0	6		0	8			4	
Permitted Phases	2	00.4		0	02.4		8	00.0		4	00.0	
Actualed Green, G (S)	23.4	23.4			23.4			29.3		29.3	29.3	
Actuated a/C Datia	24.4	24.4			24.4			0.42		0.42	0.42	
Actualed g/C Ratio	0.55	0.35			0.35			0.45		0.45	0.45	
	201	1121			1001			0.7 61E		5.7	0.7 67E	
Lane Grp Cap (vpn)	391	1131			1001			015		010	0/5	
V/S Ralio Prot	o0 1/	0.03			0.05			0 12		0.02	0.11	
v/s Ralio Perm	0.14	0.09			0.05			0.29		0.02	0.25	
V/C Raliu Uniform Doloy, d1	17.2	15.2			15.6			12.0		11.5	12.6	
Drogrossion Eactor	17.5	10.0			1.00			12.0		1.0	12.0	
Incremental Delay, d2	3.1	0.1			0.3			1.00		0.2	0.0	
Delay (s)	20.4	15.4			15.8			14.0		11.7	13.5	
Level of Service	20. <del>4</del> C	10.4 B			10.0 B			14.0 B		B	10.0 B	
Approach Delay (s)	Ŭ	18.2			15.8			14 0		5	13.4	
Approach LOS		B			10.0 B			B			B	
		-			-							_
Intersection Summary												
HCM 2000 Control Delay			15.4	.4 HCM 2000 Level of Service					В			
HCM 2000 Volume to Cap	acity ratio		0.32	32 Our of loot fine (c)					10.5			_
Actuated Cycle Length (s)			/0.0	.0 Sum of lost time (s)					12.3			
intersection Capacity Utiliz	ation		103.8%	IC	U Level o	of Service			G			
Analysis Period (min)			15									

c Critical Lane Group

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 47 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 48

2001: Pape Ave &	Floyd A	ve			06/26/202
	-	+	1	Ŧ	
Lane Group	EBT	WBT	NBT	SBT	
Lane Group Flow (vph)	57	83	687	701	
v/c Ratio	0.15	0.20	0.52	0.51	
Control Delay	18.5	13.6	7.7	10.8	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	18.5	13.6	7.7	10.8	
Queue Length 50th (m)	4.6	4.3	20.2	40.1	
Queue Length 95th (m)	13.2	14.6	m35.7	51.0	
Internal Link Dist (m)	127.1	161.7	176.8	84.7	
Turn Bay Length (m)					
Base Capacity (vph)	386	422	1315	1371	
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	0.15	0.20	0.52	0.51	
Intersection Summary					
m Volume for 95th percen	tile queue i	s metere	d by upstr	eam sign	al.

# HCM Signalized Intersection Capacity Analysis 2001: Pape Ave & Floyd Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4JÞ			ર્સ કે	
Traffic Volume (vph)	24	13	16	20	14	42	11	586	35	24	532	24
Future Volume (vph)	24	13	16	20	14	42	11	586	35	24	532	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1700	1900	1900	1700	1900
Lane Width	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			*0.70			*0.75	
Frpb, ped/bikes		0.98			0.96			0.98			0.99	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.96			0.93			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1651			1603			2088			2270	
Flt Permitted		0.84			0.91			0.94			0.90	
Satd. Flow (perm)		1424			1481			1957			2045	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.82	0.92
Adi, Flow (vph)	26	14	17	22	15	46	12	637	38	26	649	26
RTOR Reduction (vph)	0	13	0	0	36	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	44	0	0	47	0	0	684	0	0	699	0
Confl. Peds. (#/hr)	45		49	49		45	110		142	142		110
Confl. Bikes (#/hr)									3			5
Heavy Vehicles (%)	5%	0%	0%	0%	0%	3%	10%	7%	0%	5%	6%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	13	13	0	13	13
	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1 Unit	4		1 onn	8		1 Onn	2		T OILL	6	
Permitted Phases	4	•		8	, v		2	-		6	v	
Actuated Green, G (s)		16.0		Ŭ	16.0		-	51.0		, in the second se	51.0	
Effective Green a (s)		17.0			17.0			51.0			51.0	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grn Can (vnh)		302			314			1247			1303	
v/s Patio Prot		502			514			1241			1000	
v/s Patio Porm		0.03			c0 03			c0 35			0.34	
v/s Ratio		0.03			0.15			0.55			0.54	
Uniform Delay, d1		25.6			25.6			8.1			8.0	
Progression Eactor		1.00			1.00			0.1			1.00	
Incremental Delay, d2		0.2			0.2			11			1.00	
		25.8			25.8			6.0			0.6	
Level of Service		20.0			20.0			0.5			J.U	
Approach Delay (s)		25.8			25.8			60			90	
Approach LOS		23.0 C			23.0 C			0.3 A			3.0 A	
Intersection Summary												
HCM 2000 Control Delay			0.8	H	CM 2000	Lovel of 9	Sonvico		٨			
HCM 2000 Volume to Canacit	ly ratio		0.45		5111 2000	LOVEI UI V			~			
Actuated Cycle Length (a)	ly ratio		80.0	c,	um of loot	time (s)			12.0			
Intersection Canacity   Itilization	n		64.0%			of Service			12.0			
Analysis Period (min)			04.0 /0 15	IC IC	O Level (	o Service			0			
C Critical Lane Group			13									

Existing PM 06/26/2020 Baseline

Queues

Synchro 10 Report Page 49 Existing PM 06/26/2020 Baseline

2220: Laird Dr & Co	ommerc	ial Rd					00/00
							06/26
	-	•	+	1	1	Ŧ	
Lane Group	EBT	WBL	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	12	240	43	922	27	733	
v/c Ratio	0.03	0.68	0.07	0.79	0.09	0.36	
Control Delay	12.3	32.3	0.2	24.9	7.7	9.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.3	32.3	0.2	24.9	7.7	9.0	
Queue Length 50th (m)	0.6	27.8	0.0	51.8	1.2	23.8	
Queue Length 95th (m)	3.6	44.2	0.0	#142.3	4.7	42.1	
Internal Link Dist (m)	76.1		131.6	73.2		190.1	
Turn Bay Length (m)		55.0			30.0		
Base Capacity (vph)	576	470	708	1170	305	2021	
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	0.51	0.06	0.79	0.09	0.36	

## Intersection Summary

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

## HCM Signalized Intersection Capacity Analysis 2220: Laird Dr & Commercial Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		۲	ĥ			đþ.		1	¢β	
Traffic Volume (vph)	5	1	6	230	0	41	3	767	115	26	701	3
Future Volume (vph)	5	1	6	230	0	41	3	767	115	26	701	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1700	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)		5.0		5.0	5.0			6.0		3.0	5.0	
Lane Util. Factor		1.00		1.00	1.00			*0.75		1.00	0.95	
Frpb, ped/bikes		0.99		1.00	0.98			0.99		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00		1.00	1.00	
Frt		0.93		1.00	0.85			0.98		1.00	1.00	
Flt Protected		0.98		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1700		1666	1489			2355		1617	3431	
Flt Permitted		0.92		0.75	1.00			0.95		0.14	1.00	
Satd. Flow (perm)		1604		1315	1489			2245		240	3431	
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
Adi, Flow (vph)	5	1	6	240	0	43	3	799	120	27	730	3
RTOR Reduction (vph)	0	4	0	0	31	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	8	0	240	12	0	0	912	0	27	733	0
Confl. Peds. (#/hr)	9		1	1		9	17		54	54		17
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	0%	0%	1%	0%	5%	0%	3%	0%	4%	3%	34%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	4	0	4	4
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6	-	
Actuated Green, G (s)		17.8		17.8	17.8			33.8		40.2	40.2	
Effective Green, g (s)		18.8		18.8	18.8			33.8		41.2	41.2	
Actuated g/C Ratio		0.27		0.27	0.27			0.48		0.59	0.59	
Clearance Time (s)		6.0		6.0	6.0			6.0		4.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0		2.0	3.0	
Lane Grp Cap (vph)		430		353	399			1084		208	2019	
v/s Ratio Prot					0.01					0.01	c0 21	
v/s Ratio Perm		0.00		c0 18	0.01			c0 41		0.07	00.21	
v/c Ratio		0.02		0.68	0.03			0.84		0.13	0.36	
Uniform Delay d1		18.8		22.9	18.9			15.8		7.9	7.5	
Progression Factor		1.00		1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.0		5.1	0.0			7.9		0.1	0.5	
Delay (s)		18.8		28.1	18.9			23.7		8.0	8.0	
Level of Service		B		C	B			C		Δ	Δ	
Approach Delay (s)		18.8		Ű	26.7			23.7			8.0	
Approach LOS		B			C			C			A	
Intersection Summary												
HCM 2000 Control Delay			18 1	н	CM 2000	Level of 9	Service		B			
HCM 2000 Volume to Canaci	tv ratio		0.76		5.77 2000	20101010			5			
Actuated Cycle Length (s)	y ratio		70.0	Q	um of lost	time (s)			14.0			
Intersection Canacity Litilization	on		59.3%	10		of Service			14.0 R			
Analysis Period (min)	011		15						5			
c. Critical Lane Group			15									

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 52

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 51

Queues	andarl	Dr				06/26/2020
	Sanuari					00/20/20
	•	•	Ť	-	÷	
Lane Group	WBL	WBT	NBT	SBL	SBT	
Lane Group Flow (vph)	134	44	1008	192	897	
v/c Ratio	0.64	0.11	0.51	0.52	0.55	
Control Delay	51.3	0.5	11.9	9.3	8.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	51.3	0.5	11.9	9.3	8.7	
Queue Length 50th (m)	24.4	0.0	51.0	8.5	45.2	
Queue Length 95th (m)	40.2	0.0	80.7	19.6	82.9	
Internal Link Dist (m)		128.7	78.5		74.1	
Turn Bay Length (m)	55.0			60.0		
Base Capacity (vph)	302	488	1973	375	1617	
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	0.44	0.09	0.51	0.51	0.55	
Intersection Summary						

## HCM Signalized Intersection Capacity Analysis 2324: Laird Dr & Esandar Dr

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		۲.	4Î			<b>≜</b> †}		1	<b>^</b>	
Traffic Volume (vph)	0	0	0	131	0	43	0	895	93	188	879	C
Future Volume (vph)	0	0	0	131	0	43	0	895	93	188	879	C
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1650	1900
Lane Width	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5
Total Lost time (s)				4.0	4.0			5.0		3.0	6.0	
Lane Util. Factor				1.00	1.00			0.95		1.00	*0.75	
Frpb, ped/bikes				1.00	0.93			1.00		1.00	1.00	
Flpb, ped/bikes				0.99	1.00			1.00		1.00	1.00	
Frt				1.00	0.85			0.99		1.00	1.00	
Flt Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1520	1263			3120		1559	2227	
Flt Permitted				0.76	1.00			1.00		0.23	1.00	
Satd. Flow (perm)				1211	1263			3120		371	2227	
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
Adi, Flow (vph)	0	0	0	134	0	44	0	913	95	192	897	0
RTOR Reduction (vph)	0	0	0	0	36	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	0	0	134	8	0	0	1002	0	192	897	0
Confl. Peds. (#/hr)	37		6	6		37			8	8		
Confl. Bikes (#/hr)			8			13			2			
Heavy Vehicles (%)	0%	0%	0%	10%	0%	17%	0%	12%	6%	8%	9%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	4	0	4	4
Turn Type				Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8						6		
Actuated Green, G (s)				16.4	16.4			62.0		72.6	72.6	
Effective Green, g (s)				17.4	17.4			63.0		73.6	72.6	
Actuated g/C Ratio				0.17	0.17			0.63		0.74	0.73	
Clearance Time (s)				5.0	5.0			6.0		4.0	6.0	
Vehicle Extension (s)				3.0	3.0			3.0		2.0	3.0	
Lane Grp Cap (vph)				210	219			1965		363	1616	
v/s Ratio Prot					0.01			0.32		0.04	c0.40	
v/s Ratio Perm				c0.11						0.35		
v/c Ratio				0.64	0.03			0.51		0.53	0.56	
Uniform Delay, d1				38.4	34.3			10.1		5.5	6.3	
Progression Factor				1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2				6.2	0.1			0.9		0.6	1.4	
Delay (s)				44.6	34.4			11.0		6.2	7.7	
Level of Service				D	С			В		А	А	
Approach Delay (s)		0.0			42.1			11.0			7.4	
Approach LOS		А			D			В			А	
Intersection Summary												
HCM 2000 Control Delay			11.7	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity	ratio		0.58									
Actuated Cycle Length (s)			100.0	S	um of lost	time (s)			12.0			
Intersection Capacity Utilization	1		66.3%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 53

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 54

2461: Pape Ave &	Lipton A	ve				06/26/2020
	+	4	ł	1	ţ	
Lane Group	EBT	WBL	WBT	NBT	SBT	
Lane Group Flow (vph)	33	29	70	579	495	
v/c Ratio	0.05	0.07	0.18	0.60	0.50	
Control Delay	1.1	10.4	4.7	21.1	27.0	
Queue Delay	0.0	0.0	0.0	1.6	0.0	
Total Delay	1.1	10.4	4.7	22.7	27.0	
Queue Length 50th (m)	0.0	2.2	0.7	23.4	35.8	
Queue Length 95th (m)	1.7	6.3	6.8	m34.4	50.4	
Internal Link Dist (m)	90.3		75.3	60.0	383.8	
Turn Bay Length (m)						
Base Capacity (vph)	708	409	381	970	984	
Starvation Cap Reductn	0	0	0	221	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.07	0.18	0.77	0.50	
Intersection Summary						
m Volume for 95th percent	tile queue is	metered	l by upst	ream sign	al.	

## HCM Signalized Intersection Capacity Analysis 2461: Pape Ave & Lipton Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢		ľ	4Î			<b>≜</b> 1,			4î b	
Traffic Volume (vph)	17	0	16	28	0	69	2	551	15	19	433	33
Future Volume (vph)	17	0	16	28	0	69	2	551	15	19	433	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			7.0			7.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		0.92		1.00	0.67			0.98			0.97	
Flpb, ped/bikes		0.85		0.84	1.00			1.00			0.99	
Frt		0.93		1.00	0.85			1.00			0.99	
Flt Protected		0.97		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1361		971	650			3266			3435	
Flt Permitted		0.89		0.74	1.00			0.95			0.91	
Satd. Flow (perm)		1249		752	650			3114			3143	
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)	17	0	16	29	0	70	2	562	15	19	442	34
RTOR Reduction (vph)	0	15	0	0	28	0	0	2	0	0	6	0
Lane Group Flow (vph)	0	18	0	29	42	0	0	577	0	0	489	0
Confl. Peds. (#/hr)	273		111	111		273	155		803	803		155
Heavy Vehicles (%)	0%	0%	0%	58%	2%	69%	0%	9%	7%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		48.0		48.0	48.0			27.0			27.0	
Effective Green, g (s)		49.0		49.0	49.0			28.0			28.0	
Actuated g/C Ratio		0.54		0.54	0.54			0.31			0.31	
Clearance Time (s)		7.0		7.0	7.0			8.0			8.0	
Lane Grp Cap (vph)		680		409	353			968			977	
v/s Ratio Prot					c0.06							
v/s Ratio Perm		0.01		0.04				c0.19			0.16	
v/c Ratio		0.03		0.07	0.12			0.60			0.50	
Uniform Delay, d1		9.5		9.7	10.0			26.2			25.3	
Progression Factor		1.00		1.00	1.00			0.72			1.00	
Incremental Delay, d2		0.1		0.3	0.7			2.0			1.8	
Delay (s)		9.5		10.0	10.7			20.9			27.1	
Level of Service		A		В	В			С			С	
Approach Delay (s)		9.5			10.5			20.9			27.1	
Approach LOS		А			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			22.3	H	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	city ratio		0.29									
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			13.0			
Intersection Capacity Utilizat	tion		53.4%	IC	U Level o	of Service			А			
Analysis Period (min)			15									
c Critical Lane Group												

Queues

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 56

5002. Deauville LIT		IIIIS L	<u></u>	+	•		1	1	00/20/2020
	-	-	¥.			1	+	•	
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	51	159	165	158	137	253	283	221	
v/c Ratio	0.09	0.18	0.32	0.18	0.28	0.42	0.66	0.38	
Control Delay	9.2	8.0	12.1	5.2	18.8	4.9	28.2	6.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	8.0	12.1	5.2	18.8	4.9	28.2	6.6	
Queue Length 50th (m)	3.2	8.3	11.7	4.7	12.8	0.0	30.9	3.4	
Queue Length 95th (m)	8.1	17.2	23.7	12.9	25.4	13.7	#56.0	16.9	
Internal Link Dist (m)		143.8		151.5	96.9		97.1		
Turn Bay Length (m)						15.0		15.0	
Base Capacity (vph)	586	881	510	873	484	607	432	587	
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	0.09	0.18	0.32	0.18	0.28	0.42	0.66	0.38	
Intersection Summary									
# 95th percentile volume e	xceeds car	acity, qu	eue mav	be longer.					

# HCM Signalized Intersection Capacity Analysis 3002: Deauville Ln & St Dennis Dr

5002. Deauville LI	a SI DE	Innis L	7								00/2	20/2020
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations	۲.	4Î		٦	4Î			ę	1		र्भ	i
Traffic Volume (vph)	47	115	31	152	69	76	50	76	233	180	80	20
Future Volume (vph)	47	115	31	152	69	76	50	76	233	180	80	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	190
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.0
Frpb, ped/bikes	1.00	0.95		1.00	0.94			1.00	0.86		1.00	0.8
Flpb, ped/bikes	0.93	1.00		0.84	1.00			0.97	1.00		0.93	1.0
Frt	1.00	0.97		1.00	0.92			1.00	0.85		1.00	0.8
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.97	1.0
Satd. Flow (prot)	1648	1686		1437	1620			1741	1288		1715	136
Flt Permitted	0.66	1.00		0.66	1.00			0.80	1.00		0.71	1.0
Satd. Flow (perm)	1140	1686		993	1620			1413	1288		1260	136
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	0.9
Adj. Flow (vph)	51	125	34	165	75	83	54	83	253	196	87	22
RTOR Reduction (vph)	0	14	0	0	40	0	0	0	166	0	0	12
Lane Group Flow (vph)	51	145	0	165	118	0	0	137	87	0	283	10
Confl. Peds. (#/hr)	57		129	129		57	90		81	81		9
Confl. Bikes (#/hr)			1			1			4			
Heavy Vehicles (%)	3%	4%	4%	7%	0%	6%	0%	2%	5%	0%	2%	19
Bus Blockages (#/hr)	0	3	3	0	0	0	0	8	8	0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perr
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	35.0	35.0		35.0	35.0			23.0	23.0		23.0	23.
Effective Green, g (s)	36.0	36.0		36.0	36.0			24.0	24.0		24.0	24.
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.34	0.34		0.34	0.3
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.
Lane Grp Cap (vph)	586	867		510	833			484	441		432	46
v/s Ratio Prot		0.09			0.07							
v/s Ratio Perm	0.04			c0.17				0.10	0.07		c0.22	0.0
v/c Ratio	0.09	0.17		0.32	0.14			0.28	0.20		0.66	0.2
Uniform Delay, d1	8.6	9.0		9.9	8.9			16.7	16.2		19.5	16.
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.0
Incremental Delay, d2	0.3	0.4		1.7	0.4			0.3	0.2		3.6	0.
Delay (s)	8.9	9.4		11.6	9.3			17.1	16.4		23.1	16.
Level of Service	A	А		В	А			В	В		С	
Approach Delay (s)		9.3			10.4			16.6			20.2	
Approach LOS		А			В			В			С	
Intersection Summary												
			15.4	H	CM 2000	Level of S	Service		В			
HCM 2000 Control Delay			1.1.4						5			
HCM 2000 Control Delay HCM 2000 Volume to Capa	city ratio		0.46	11	2000							
HCM 2000 Control Delay HCM 2000 Volume to Capa Actuated Cycle Length (s)	city ratio		0.46	S	um of lost	time (s)			10.0			
HCM 2000 Control Delay HCM 2000 Volume to Capa Actuated Cycle Length (s)	city ratio		0.46 70.0 71.7%	Si	um of lost	time (s)			10.0 C			
HCM 2000 Control Delay HCM 2000 Volume to Capa Actuated Cycle Length (s) Intersection Capacity Utiliza Analysis Period (min)	city ratio		0.46 70.0 71.7%	Si	um of lost	time (s) of Service			10.0 C			

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 58

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 57

3006: Gateway Blv	/d & Gre	noble	Dr		06/26/2020
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Lane Group	WBL	WBR	NBT	SBT	
Lane Group Flow (vph)	222	39	818	178	
v/c Ratio	0.33	0.07	0.59	0.17	
Control Delay	10.4	3.7	5.2	8.7	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	10.4	3.7	5.2	8.7	
Queue Length 50th (m)	10.9	0.0	6.7	4.2	
Queue Length 95th (m)	22.3	3.6	16.3	8.6	
Internal Link Dist (m)	108.9		172.3	464.4	
Turn Bay Length (m)					
Base Capacity (vph)	681	589	1382	1019	
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	0.33	0.07	0.59	0.17	
Intersection Summary					

## HCM Signalized Intersection Capacity Analysis 3006: Gateway Blvd & Grenoble Dr

۰. 1 ŧ t € 1 SBT Movement WBL WBR NBT NBR SBL **↑1**→ 258 **4**↑ 115 Lane Configurations Traffic Volume (vph) 211 519 54 37 Future Volume (vph) 211 37 258 519 54 115 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 Total Lost time (s) 3.5 3.5 3.5 3.5 Lane Util. Factor 1.00 1.00 0.95 0.95 Frpb, ped/bikes 1.00 0.96 0.95 1.00 Flpb, ped/bikes Frt 1.00 1.00 1.00 1.00 1.00 0.85 0.90 1.00 Flt Protected 0.95 1.00 1.00 0.98 Satd. Flow (prot) 1615 1343 2525 3250 Flt Permitted 0.95 1.00 1.00 0.73 Satd. Flow (perm) 1615 1343 2525 2413 Peak-hour factor, PHF 0.95 0.95 0.95 0.95 0.95 0.95 Adj. Flow (vph) 222 39 272 546 57 121 RTOR Reduction (vph) 315 0 23 0 0 0 Lane Group Flow (vph) 503 222 16 0 0 178 Confl. Peds. (#/hr) 35 43 43 6 12% 17% 7% Heavy Vehicles (%) 13% 17% 4% Bus Blockages (#/hr) 0 34 34 0 18 0 Turn Type NA Prot Perm NA Perm Protected Phases 2 6 8 Permitted Phases 6 8 Actuated Green, G (s) 18.0 18.0 18.0 18.0 Effective Green, g (s) 19.0 19.0 19.0 19.0 Actuated g/C Ratio 0.42 0.42 0.42 0.42 Clearance Time (s) 4.5 4.5 4.5 4.5 567 1018 Lane Grp Cap (vph) 681 1066 v/s Ratio Prot c0.14 c0.20 v/s Ratio Perm 0.01 0.07 v/c Ratio 0.33 0.03 0.47 0.17 Uniform Delay, d1 8.7 7.6 9.4 8.1 Progression Factor 1.00 1.00 1.00 1.00 Incremental Delay, d2 1.3 0.1 1.5 0.4 Delay (s) 10.0 7.7 10.9 8.5 Level of Service В Α А A Approach Delay (s) Approach LOS 9.6 10.9 8.5 А В А Intersection Summary 10.3 HCM 2000 Level of Service HCM 2000 Control Delay B HCM 2000 Volume to Capacity ratio 0.40 45.0 Actuated Cycle Length (s) Sum of lost time (s) 7.0 Intersection Capacity Utilization 56.0% ICU Level of Service В Analysis Period (min) 15

c Critical Lane Group

Queues

Synchro 10 Report Page 59 Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 60

HCM Unsignalized Intersection Capacity Analysis	
9001: Don Mills Rd & Rochefort Dr	

9001: Don Mills Rd	& Roch	nefort I	Dr	<b>,</b>	,					06/26/2020
	4	*	Ť	۲	1	ţ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
ane Configurations	- M		44¢		۲.	***				
Fraffic Volume (veh/h)	1	211	1236	24	5	1349				
uture Volume (Veh/h)	1	211	1236	24	5	1349				
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)	1	229	1343	26	5	1466				
Pedestrians	73		3							
ane Width (m)	3.7		3.7							
Nalking Speed (m/s)	1.1		1.1							
Percent Blockage	7		0							
Right turn flare (veh)										
Median type			None			None				
Median storage veh)										
Jpstream signal (m)			159			294				
X, platoon unblocked	0.84									
C, conflicting volume	1931	534			1442					
/C1, stage 1 conf vol										
/C2, stage 2 conf vol										
Cu, unblocked vol	1446	534			1442					
C, single (s)	6.8	6.9			4.1					
C, 2 stage (s)										
F (s)	3.5	3.3			2.2					
0 queue free %	99	50			99					
M capacity (veh/h)	96	462			444					
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4		
/olume Total	230	537	537	295	5	489	489	489		
/olume Left	1	0	0	0	5	0	0	0		
/olume Right	229	0	0	26	0	0	0	0		
SH	455	1700	1700	1700	444	1700	1700	1700		
/olume to Capacity	0.51	0.32	0.32	0.17	0.01	0.29	0.29	0.29		
Queue Length 95th (m)	21.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0		
Control Delay (s)	20.7	0.0	0.0	0.0	13.2	0.0	0.0	0.0		
ane LOS	С				В					
Approach Delay (s)	20.7	0.0			0.0					
Approach LOS	С									
ntersection Summary										
Average Delay			1.6							
ntersection Capacity Utiliza	tion		45.9%	IC	U Level of	of Service			Α	
Analysis Period (min)			15							

# HCM Unsignalized Intersection Capacity Analysis 9002: Ferrand Dr W & Eglinton Ave E ramp

Movement

06/26/2020 ~ ≯ > 1 t ŧ EBL EBR NBL NBT SBT SBR Y Æ Þ 35 35 29 10 4 29 1 7 10 4 Stop Free Free 0% 0.92 0% 0% 0.92 0.92 0.92 0.92 0.92 38 32 1 8 11 4 10 1

Movement	EBL	EBK	NBL	NBT	SBT	SBR		
Lane Configurations	- Y			÷.	ĥ			
Traffic Volume (veh/h)	35	29	1	7	10	4		
Future Volume (Veh/h)	35	29	1	7	10	4		
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)	38	32	1	8	11	4		
Pedestrians	10				1			
Lane Width (m)	3.7				3.7			
Walking Speed (m/s)	1.1				1.1			
Percent Blockage	1				0			
Right turn flare (veh)								
Median type				None	None			
Median storage veh)								
Upstream signal (m)								
pX, platoon unblocked								
vC, conflicting volume	34	23	25					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	34	23	25					
tC, single (s)	6.4	6.2	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	96	97	100					
cM capacity (veh/h)	974	1050	1588					
Direction Lane #	FB 1	NB 1	SB 1					
Volume Total	70	9	15					
Volume Left	38	1	0					
Volume Right	32	0	4					
cSH	1007	1588	1700					
Volume to Capacity	0.07	0.00	0.01					
Queue Length 95th (m)	17	0.0	0.0					
Control Delay (s)	8.8	0.8	0.0					
Lane LOS	A	A	0.0					
Approach Delay (s)	8.8	0.8	0.0					
Approach LOS	A	5.0	0.0					
Intersection Summary								
Average Delay			6.7					
Intersection Capacity Utilizati	ion		16.6%	IC	CU Level of	f Service	А	
Analysis Period (min)			15					

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 62

HCM Unsignalized Intersection Capacity Analysis 9006: Rochefort Dr & Ferrand Dr W

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		र्स	4Î		Y	
Traffic Volume (veh/h)	5	129	126	2	11	30
Future Volume (Veh/h)	5	129	126	2	11	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	140	137	2	12	33
Pedestrians		4	5		16	
Lane Width (m)		3.7	3.7		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	155				309	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155				309	158
tC, single (s)	4.3				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.4				3.6	3.3
p0 queue free %	100				98	96
cM capacity (veh/h)	1303				651	866
Direction Lane #	EB 1	WR 1	SR 1			
Volume Total	1/5	130	15			
Volume Loft	140	109	40			
Volume Pight	5	2	32			
	1302	1700	706			
Volume to Conseitu	1303	0.09	0.06			
Ouque Length OEth (m)	0.00	0.00	0.00			
Queue Length 95th (III)	0.1	0.0	1.4			
Control Delay (S)	0.3	0.0	9.0			
Larreach Deley (a)	A 0.2	0.0	A			
Approach LOS	0.3	0.0	9.0			
Approach LUS			A			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utili	zation		22.1%	IC	U Level o	of Service
Analysis Period (min)			15			
• ( )						

9007: Deauville Ln	/Ferran	d Dr E	& Roc	, hefort	Dr						06/2	6/2020
	٦	+	*	4	t	*	*	1	*	*	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		\$			\$			\$			\$	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	(
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	(
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	(
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	0	0	0	0								
Volume Left (vph)	0	0	0	0								
Volume Right (vph)	0	0	0	0								
Hadj (s)	0.00	0.00	0.00	0.00								
Departure Headway (s)	3.9	3.9	3.9	3.9								
Degree Utilization, x	0.00	0.00	0.00	0.00								
Capacity (veh/h)	917	917	917	917								
Control Delay (s)	6.9	6.9	6.9	6.9								
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	А	A	А	А								
Intersection Summary												
Delay			0.0									
Level of Service			А									
Intersection Capacity Utiliza	tion		0.0%	IC	U Level o	of Service			A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

Existing PM 06/26/2020 Baseline

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 64

HCM Unsignalized Intersection Capacity Analysis 9008: East York Town Centre West & Overlea Blvd

06/26/2020

	-	$\mathbf{r}$	1	+	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	<b>≜1</b> 6				5	1	_
Traffic Volume (veh/h)	0	0	0	0	0	0	
Future Volume (Veh/h)	0	0	0	0	0	0	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	0	0	0	0	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)	206			201			
pX, platoon unblocked							
vC, conflicting volume			0		0	0	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			0		0	0	
tC, single (s)			4.1		6.8	6.9	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	100	
cM capacity (veh/h)			1622		1023	1084	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	
Volume Total	0	0	0	0	0	0	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	0	0	0	0	
cSH	1700	1700	1700	1700	1700	1700	
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	0.00	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS					Α	Α	
Approach Delay (s)	0.0		0.0		0.0		
Approach LOS					А		
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utiliz	ation		0.0%	IC	U Level o	of Service	;
Analysis Period (min)			15				

## HCM Unsignalized Intersection Capacity Analysis 9010: Laird Dr & Parklea Dr

	٦	$\mathbf{r}$	•	t	Ļ	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			<u>^</u>	<b>†</b> 1>	
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0
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)	0	0	0	0	0	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)				265	103	
pX, platoon unblocked						
vC, conflicting volume	0	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1023	1084	1622			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	0	0	0	0	0	
Volume Left	0	0	0	Ó	0	
Volume Right	0	0	0	0	0	
cSH	1700	1700	1700	1700	1700	
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	0.0	0.0		0.0		
Approach LOS	А					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utiliza	ation		0.0%	IC	CU Level o	of Service
Analysis Period (min)			15			

## Existing PM 06/26/2020 Baseline

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 66

HCM Unsignalized Intersection Capacity Analysis
9011: Laird Dr & Vanderhoof Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		Þ			\$			4î»			4î b	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	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)								160			207	
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
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 %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1084	1023	896	1084	1622			1622		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	0	0	0	0	0						
Volume Left	0	0	0	0	0	0						
Volume Right	0	0	0	0	0	0						
cSH	1700	1700	1700	1700	1700	1700						
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	0.00						
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0						
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Lane LOS	А	А										
Approach Delay (s)	0.0	0.0	0.0		0.0							
Approach LOS	А	А										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilizati	on		0.0%	IC	U Level o	of Service			A			
Analysis Period (min)			15									

#### HCM Unsignalized Intersection Capacity Analysis 9012: Laird Dr & Parkhust Blvd \* \* ۶ ← ŧ • -+ $\mathbf{F}$ Movement EBL EBT EBR WBL WBT WBR NBL NBT Lane Configurations Traffic Volume (veh/h) Future Volume (Veh/h) Sign Control Grade 4**1 4**) 0 Þ 0 0 0 0 0 0 0 0 0 0 0 0 0 Stop Stop Free

Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	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)								56			312	
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
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 %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1084	1023	896	1084	1622			1622		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3					
Volume Total	0	0	0	0	0	0	0					
Volume Left	0	0	0	0	0	0	0					
Volume Right	0	0	0	0	0	0	0					
cSH	1700	1700	1700	1700	1700	1700	1700					
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Lane LOS	Α	А										
Approach Delay (s)	0.0	0.0	0.0		0.0							
Approach LOS	A	А										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilizatio	n		0.0%	IC	U Level o	of Service			A			
Analysis Period (min)			15									

## Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 67

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 68

06/26/2020

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HCM Unsignalized Intersection Capacity Analysis 9013: Laird Dr & Stickney Ave

	≯	$\mathbf{r}$	1	Ť	ţ	~
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			41	<b>≜</b> †}	
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0
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)	0	0	0	0	0	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)				282	97	
pX. platoon unblocked					0.	
vC. conflicting volume	0	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu_unblocked vol	0	0	0			
tC. single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	0.0	0.0				
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1023	1084	1622			
on opposity (rotan)	1020	1001				
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	0	0	0	0	0	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	0	
cSH	1700	1700	1700	1700	1700	
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	
Lane LOS	А					
Approach Delay (s)	0.0	0.0		0.0		
Approach LOS	А					
Intersection Summary						
Average Delay			0.0			
Intersection Canacity Utilization	20		0.0%	10		f Sonvico
Analysis Period (min)			0.0 /0	ic	O Level 0	I GEI VICE
Analysis Penou (min)			13			

HCM Unsignalized Intersection Capacity Analysis 9014: Laird Dr & Industrial Street

	4	*	t	۲	1	Ŧ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	Y		<b>≜</b> 1₽			-۠			
Traffic Volume (veh/h)	0	0	0	0	0	0			
Future Volume (Veh/h)	0	0	0	0	0	0			
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)	0	0	0	0	0	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)			237			143			
pX, platoon unblocked			20.						
vC. conflicting volume	0	0			0				
vC1_stage 1 conf vol	Ŭ	Ŭ			Ű				
vC2, stage 2 conf vol									
vCu, unblocked vol	0	0			0				
tC, single (s)	6.8	6.9			4.1				
tC 2 stage (s)	0.0	0.0			-1.1				
tF (s)	35	33			22				
n() queue free %	100	100			100				
cM capacity (veh/h)	1023	1084			1622				
	1020	1304			1022			_	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2				
Volume Total	0	0	0	0	0				
Volume Left	0	0	0	0	0				
Volume Right	0	0	0	0	0				
cSH	1700	1700	1700	1700	1700				
Volume to Capacity	0.00	0.00	0.00	0.00	0.00				
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0				
Control Delay (s)	0.0	0.0	0.0	0.0	0.0				
Lane LOS	A								
Approach Delay (s)	0.0	0.0		0.0					
Approach LOS	А								
Intersection Summarv							l		
Average Delay			0.0						
Intersection Canacity Utiliza	ation		0.0%	IC		of Service			
Analysis Period (min)			15		C LOVER				

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 70

HCM Unsignalized Intersection Capacity Analysis 9015: Laird Dr & Lea Avenue

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			1			1		A			<b>≜</b> †}	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	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)								98			281	
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
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 %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1084	1023	896	1084	1622			1622		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	0	0	0	0	0						
Volume Left	0	0	0	0	0	0						
Volume Right	0	0	0	0	0	0						
cSH	1700	1700	1700	1700	1700	1700						
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	0.00						
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0						
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Lane LOS	А	А										
Approach Delay (s)	0.0	0.0	0.0		0.0							
Approach LOS	А	Α										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utiliza	tion		0.0%	IC	U Level o	of Service			А			
Analysis Period (min)			15									

## HCM Unsignalized Intersection Capacity Analysis 9016: Laird Dr & Kenrae Road

	٦	$\mathbf{\hat{z}}$	•	Ť	ŧ	∢	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Y			4 î ji	<b>≜</b> †}		
Traffic Volume (veh/h)	0	0	0	0	0	0	
Future Volume (Veh/h)	0	0	0	0	0	0	
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)	0	0	0	0	0	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)				155	102		
pX, platoon unblocked							
vC, conflicting volume	0	0	0				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	0	0	0				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	1023	1084	1622				
				07.4			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	0	0	0	0	0		
Volume Left	0	0	0	0	0		
Volume Right	0	0	0	0	0		
cSH	1700	1700	1700	1700	1700		
Volume to Capacity	0.00	0.00	0.00	0.00	0.00		
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0		
Control Delay (s)	0.0	0.0	0.0	0.0	0.0		
Lane LOS	Α						
Approach Delay (s)	0.0	0.0		0.0			
Approach LOS	А						
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utiliza	ation		0.0%	IC	U Level c	f Service	
Analysis Period (min)			15				

Existing PM 06/26/2020 Baseline

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 72

HCM Unsignalized Intersection Capacity Analysis 9017: Laird Dr & Canvarco Road

ŧ ₹ ∕⊷ f € Movement WBL W/RR NBT NBR SBL SBT W Lane Configurations **۸**۴ **4**ħ Traffic Volume (veh/h) 0 0 0 Future Volume (Veh/h) 0 0 0 0 0 0 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) 0 0 0 0 0 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) 84 174 pX, platoon unblocked vC, conflicting volume 0 0 0 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 0 0 0 tC, single (s) 6.8 6.9 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 100 100 100 1622 cM capacity (veh/h) 1023 1084 Direction, Lane # WB 1 NB 1 NB 2 SB 1 SB 2 Volume Total 0 0 0 0 0 Volume Left 0 0 0 0 Volume Right 0 0 0 0 ٥ cSH 1700 1700 1700 1700 1700 Volume to Capacity 0.00 0.00 0.00 0.00 0.00 Queue Length 95th (m) 0.0 0.0 0.0 0.0 0.0 Control Delay (s) 0.0 0.0 0.0 0.0 0.0 Lane LOS Α Approach Delay (s) 0.0 0.0 0.0 Approach LOS A Intersection Summary Average Delay 0.0 Intersection Capacity Utilization 0.0% ICU Level of Service А Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis 9018: Pape Ave & Woodville Ave 06/26/2020 ۰. ٠ ٩ -EBR Movement EBL EBT W/RI WBT WBR NBI NBT NRR SBI Lane Configurations 4 4î þ 4Þ 4 Traffic Volume (veh/h) 0 0 0 0 Future Volume (Veh/h) 0 0 0 0 0 0 0 0 0 0 0 0 Sign Control Stop Stop Free Free Grade 0% 0% 0% 0% Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 Hourly flow rate (vph) 0 0 0 0 0 0 0 0 0 0 0 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) 341 92 pX, platoon unblocked vC, conflicting volume 0 0 0 0 0 0 0 0 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 0 0 0 0 0 0 0 0 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 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 % 100 100 100 100 100 100 100 100 cM capacity (veh/h) 1023 896 1084 1023 896 1084 1622 1622 Direction, Lane # EB 1 WB 1 NB 1 NB 2 SB 1 SB 2 Volume Total 0 0 0 0 0 0 Volume Left 0 0 0 Volume Right 0 0 0 0 ٥ 0 cSH 1700 1700 1700 1700 1700 1700 Volume to Capacity 0.00 0.00 0.00 0.00 0.00 0.00 Queue Length 95th (m) 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (s) 0.0 0.0 0.0 0.0 0.0 0.0 Lane LOS Α Α Approach Delay (s) 0.0 0.0 0.0 0.0 Approach LOS А A Intersection Summary Average Delay 0.0 Intersection Capacity Utilization 0.0% ICU Level of Service А Analysis Period (min) 15

Synchro 10 Report Page 73

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 74 HCM Unsignalized Intersection Capacity Analysis 9020: Pape Ave & Gamble Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4î»			4î»	
Traffic Volume (veh/h)	13	7	30	2	2	16	34	462	46	10	379	22
Future Volume (Veh/h)	13	7	30	2	2	16	34	462	46	10	379	22
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)	14	7	32	2	2	17	36	486	48	11	399	23
Pedestrians		181			113			9			57	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		17			11			1			5	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								104			330	
pX, platoon unblocked												
vC, conflicting volume	1004	1332	401	961	1320	437	603			647		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1004	1332	401	961	1320	437	603			647		
tC. single (s)	7.8	6.5	7.0	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	94	93	98	98	96	96			99		
cM capacity (veh/h)	102	109	482	130	111	485	818			848		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	53	21	279	291	210	222						
Volume Left	14	2	36	0	11	0						
Volume Right	32	17	0	48	0	23						
cSH	198	307	818	1700	848	1700						
Volume to Capacity	0.27	0.07	0.04	0.17	0.01	0.13						
Queue Length 95th (m)	7.9	1.7	1.0	0.0	0.3	0.0						
Control Delay (s)	29.7	17.6	1.7	0.0	0.6	0.0						
Lane LOS	D	C	A		A							
Approach Delay (s)	29.7	17.6	0.8		0.3							
Approach LOS	D	С										
Intersection Summary												
Average Delay			24									
Intersection Canacity Utilization	on		51.1%	IC	Ulevelo	of Service			Α			
Analysis Period (min)			15		2 20.010							

#### HCM Unsignalized Intersection Capacity Analysis 9021: Pape Ave & Gowan Ave ۶ 1+ \* \* → $\mathbf{i}$ NBL NBT EBL EBT WBL WBT WBR Movement EBR Lane Configurations Traffic Volume (veh/h) **4** 4 0

										-		
Lane Configurations		4			4			ፋጉ			ፋጉ	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	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)								109			115	
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
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 %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1084	1023	896	1084	1622			1622		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	0	0	0	0	0						
Volume Left	0	0	0	0	0	0						
Volume Right	0	0	0	0	0	0						
cSH	1700	1700	1700	1700	1700	1700						
Volume to Capacity	0.00	0.00	0.00	0.00	0.00	0.00						
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0						
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Lane LOS	А	А										
Approach Delay (s)	0.0	0.0	0.0		0.0							
Approach LOS	А	А										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilizat	tion		0.0%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

## Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 75

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 76

06/26/2020

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HCM Unsignalized Intersection Capacity Analysis 9025: Pape Ave & Sammon Ave

	-	•	<b>†</b>	1	1	Ŧ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		<b>≜1</b> 6			<b>≜</b> î,	_
Traffic Volume (veh/h)	12	14	543	22	14	456	
Future Volume (Veh/h)	12	14	543	22	14	456	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Hourly flow rate (vph)	12	14	554	22	14	465	
Pedestrians	99		1			3	
Lane Width (m)	3.7		3.7			3.7	
Walking Speed (m/s)	1.1		1.1			1.1	
Percent Blockage	9		0			0	
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)						154	
pX, platoon unblocked							
vC, conflicting volume	926	390			675		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	926	390			675		
tC, single (s)	6.8	7.1			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.4			2.2		
p0 queue free %	95	97			98		
cM capacity (veh/h)	242	536			840		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	26	369	207	169	310		
Volume Left	12	0	0	14	0		
Volume Right	14	0	22	0	0		
cSH	343	1700	1700	840	1700		
Volume to Capacity	0.08	0.22	0.12	0.02	0.18		
Queue Length 95th (m)	1.9	0.0	0.0	0.4	0.0		
Control Delay (s)	16.3	0.0	0.0	0.9	0.0		
Lane LOS	С			А			
Approach Delay (s)	16.3	0.0		0.3			
Approach LOS	С						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utiliza	ition		33.7%	IC	U Level	of Service	•
Analysis Period (min)			15				

06/26/2020 9026: Pape Ave & Fulton Ave 1 ~ ٦ t ŧ  $\mathbf{i}$ EBL NBT SBT SBR Movement EBR NBI ¥ **4**↑ 615 **†1**, 439 Lane Configurations Traffic Volume (veh/h) 11 32 48 16 Future Volume (Veh/h) 11 16 32 615 439 48 Sign Control Stop Free Free Grade 0% 0% 0% Peak Hour Factor 0.99 0.99 0.99 0.99 0.99 0.99 Hourly flow rate (vph) 11 16 32 621 443 48 Pedestrians 10 9 Lane Width (m) 3.7 3.7 Walking Speed (m/s) 1.1 1.1 Percent Blockage 1 1 Right turn flare (veh) Median type None None Median storage veh) Upstream signal (m) 201 pX, platoon unblocked vC, conflicting volume 256 491 850 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol tC, single (s) 850 256 491 7.7 6.8 4.1 tC, 2 stage (s) tF (s) 3.5 3.7 2.2 p0 queue free % 97 97 96 cM capacity (veh/h) 292 1083 639 Direction, Lane # EB 1 NB 1 NB 2 SB 1 SB 2 Volume Total 27 239 414 295 196 Volume Left 32 11 0 0 0 Volume Right 16 48 0 0 0 cSH 430 1083 1700 1700 1700 Volume to Capacity 0.06 0.03 0.24 0.17 0.12 Queue Length 95th (m) 0.7 0.0 0.0 0.0 1.5 Control Delay (s) 13.9 1.4 0.0 0.0 0.0 Lane LOS В А Approach Delay (s) 13.9 0.5 0.0 Approach LOS В Intersection Summary Average Delay 0.6 Intersection Capacity Utilization Analysis Period (min) 47.8% ICU Level of Service А 15

HCM Unsignalized Intersection Capacity Analysis

## Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 77

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 78 HCM Unsignalized Intersection Capacity Analysis 9027: Pape Ave & Aldwych Ave

	<	•	T.	1	1	↓	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	M		<b>≜1</b> 6				
Traffic Volume (veh/h)	8	11	636	25	21	434	
Future Volume (Veh/h)	8	11	636	25	21	434	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Hourly flow rate (vph)	8	11	663	26	22	452	
Pedestrians	80		6			34	
Lane Width (m)	3.7		3.7			3.7	
Walking Speed (m/s)	1.1		1.1			1.1	
Percent Blockage	7		1			3	
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)						250	
pX, platoon unblocked							
vC, conflicting volume	1032	458			769		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1032	458			769		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	96	98			97		
cM capacity (veh/h)	207	497			790		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	19	442	247	173	301		
Volume Left	8	0	0	22	0		
Volume Right	11	0	26	0	0		
cSH	313	1700	1700	790	1700		
Volume to Capacity	0.06	0.26	0.15	0.03	0.18		
Queue Length 95th (m)	1.5	0.0	0.0	0.7	0.0		
Control Delay (s)	17.2	0.0	0.0	1.5	0.0		
Lane LOS	С			А			
Approach Delay (s)	17.2	0.0		0.5			
Approach LOS	С						
Intersection Summarv							
Average Delay			0.5				
Intersection Capacity Utiliza	ation		44.3%	IC	ULevel	of Service	•
Analysis Period (min)			15	10	2 20.01		

06/26/2020 9028: Pape Ave & Browning Ave ~ ٦ 1 t  $\mathbf{i}$ EBL NBT SBT SBR Movement EBR NBL **††** 571 **††** 442 Lane Configurations Traffic Volume (veh/h) 90 44 0 0 Future Volume (Veh/h) 90 44 0 571 442 0 Sign Control Stop Free Free Grade 0% 0% 0% Peak Hour Factor 0.97 0.97 0.97 0.97 0.97 0.97 Hourly flow rate (vph) 93 45 0 589 456 0 Pedestrians 45 27 6 Lane Width (m) 3.7 3.7 3.7 Walking Speed (m/s) 1.1 1.1 1.1 Percent Blockage 4 1 3 Right turn flare (veh) Median type None None Median storage veh) Upstream signal (m) 293 pX, platoon unblocked vC, conflicting volume 279 501 822 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol tC, single (s) 822 501 279 6.8 6.9 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 68 93 100 cM capacity (veh/h) 1015 295 690 Direction, Lane # EB 1 EB 2 NB 1 NB 2 SB 1 SB 2 Volume Total 93 45 294 294 228 228 Volume Left 93 0 0 0 0 0 Volume Right 0 45 0 ٥ 0 0 cSH 690 1700 295 1700 1700 1700 Volume to Capacity 0.32 0.07 0.17 0.17 0.13 0.13 Queue Length 95th (m) 10.0 0.0 0.0 0.0 1.6 0.0 Control Delay (s) 22.7 10.6 0.0 0.0 0.0 0.0 Lane LOS С В Approach Delay (s) 18.8 0.0 0.0 Approach LOS С Intersection Summary Average Delay 2.2 Intersection Capacity Utilization Analysis Period (min) 28.9% ICU Level of Service А 15

HCM Unsignalized Intersection Capacity Analysis

## Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 79

06/26/2020

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 80

HCM Unsignalized Intersection Capacity Analysis	
9033 Leaside Park Dr & Overlea Blvd	

	-	$\mathbf{r}$	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>41</b>		3	**	¥.	
Traffic Volume (veh/h)	937	62	36	848	29	36
Future Volume (Veh/h)	937	62	36	848	29	36
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	966	64	37	874	30	37
Pedestrians	1			7	19	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			1	2	
Right turn flare (veh)					-	
Median type	None			None		
Median storage veh)						
Unstream signal (m)	191			226		
nX platoon unblocked	101			225		
vC, conflicting volume			1049		1529	541
vC1. stage 1 conf vol					.020	•
vC2_stage 2 conf vol						
vCu, unblocked vol			1049		1529	541
tC, single (s)			6.4		6.8	6.9
tC, 2 stage (s)			0.1		0.0	5.0
tF (s)			3.4		3.5	3.3
p0 queue free %			85		67	92
cM capacity (veh/h)			252		92	479
Direction Lane #	FR 1	EB 2	WR 1	WR 2	WR 3	NR 1
Volume Total	644	386	37	437	437	67
Volume Left	044	000	37	437	437	30
Volume Leit	0	64	0	0	0	37
	1700	1700	252	1700	1700	166
Volume to Canacity	0.38	0.23	0.15	0.26	0.26	0.40
Ousual anoth 05th (m)	0.50	0.25	0.15	0.20	0.20	12 5
Queue Lengin 95in (m)	0.0	0.0	01 7	0.0	0.0	13.5
Long LOS	0.0	0.0	21.7	0.0	0.0	40.5 E
Lane LUS Approach Doloy (c)	0.0		0.0			40.5
Approach Delay (s)	0.0		0.9			40.5
Approach LOS						E
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utiliz	ation		42.7%	IC	CU Level o	of Service
Analysis Period (min)			15			

## HCM Unsignalized Intersection Capacity Analysis 9034: Clarke St & Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	80	298	1	0	190	20	1	0	1	2	0	17
Future Volume (Veh/h)	80	298	1	0	190	20	1	0	1	2	0	17
Sign Control		Free			Free			Stop			Stop	
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)	83	310	1	0	198	21	1	0	1	2	0	18
Pedestrians		2									3	
Lane Width (m)		3.7									3.7	
Walking Speed (m/s)		1.1									1.1	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		195										
pX, platoon unblocked				0.97			0.97	0.97	0.97	0.97	0.97	
vC, conflicting volume	222			311			705	698	310	689	688	214
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			279			684	677	279	667	667	214
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			100	100	100	99	100	98
cM capacity (veh/h)	1326			1250			330	341	745	346	346	828
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	394	219	2	20								
Volume Left	83	0	1	2								
Volume Right	1	21	1	18								
cSH	1326	1250	458	726								
Volume to Capacity	0.06	0.00	0.00	0.03								
Queue Lenath 95th (m)	1.5	0.0	0.1	0.6								
Control Delay (s)	2.1	0.0	12.9	10.1								
Lane LOS	А		В	В								
Approach Delay (s)	2.1	0.0	12.9	10.1								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization	ation		45.6%	IC	U Level o	of Service			А			
Analysis Period (min)			15									

Existing PM 06/26/2020 Baseline

Synchro 10 Report Page 82

HCM Unsignalized Intersection Capacity Analysis 9035: Copeland St & Wicksteed Ave

9035: Copeland St	& Wick	steed /	Ave	,	,						06/2	26/2020
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	0	311	10	27	167	0	30	3	173	2	2	7
Future Volume (Veh/h)	0	311	10	27	167	0	30	3	173	2	2	7
Sign Control		Free			Free			Stop			Stop	
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)	0	334	11	29	180	0	32	3	186	2	2	8
Pedestrians								6				
Lane Width (m)								3.7				
Walking Speed (m/s)								1.1				
Percent Blockage								1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		394										
pX, platoon unblocked												
vC, conflicting volume	180			351			592	584	346	765	589	180
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	180			351			592	584	346	765	589	180
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			92	99	73	99	100	99
cM capacity (veh/h)	1396			1190			389	414	694	229	411	868
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	345	209	221	12								
Volume Left	0	29	32	2								
Volume Right	11	0	186	8								
cSH	1396	1190	618	526								
Volume to Capacity	0.00	0.02	0.36	0.02								
Queue Length 95th (m)	0.0	0.6	12.3	0.5								
Control Delay (s)	0.0	1.3	14.0	12.0								
Lane LOS		А	В	В								
Approach Delay (s)	0.0	1.3	14.0	12.0								
Approach LOS			В	В								
Intersection Summary												
Average Delay			4.5									
Intersection Capacity Utilization	ation		53.0%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

## HCM Unsignalized Intersection Capacity Analysis 9036: Leslie St & Wicksteed Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	137	296	12	3	158	174	29	17	16	115	2	12
Future Volume (Veh/h)	137	296	12	3	158	174	29	17	16	115	2	12
Sign Control		Free			Free			Stop			Stop	
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)	146	315	13	3	168	185	31	18	17	122	2	13
Pedestrians		2						5			1	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
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	354			333			901	978	326	907	892	264
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	354			333			901	978	326	907	892	264
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	88			100			86	92	98	41	99	98
cM capacity (veh/h)	1198			1232			229	220	716	208	247	778
Direction Lone #	ED 1	\M/D 1	ND 1	CD 1			-		-			-
Volume Total	474	256	IND I	107								
	4/4	350	00	137								
Volume Left	140	3	31	122								
	13	100	074	13								
CSH Mahama ta Cana aitu	1198	1232	2/4	224								
Volume to Capacity	0.12	0.00	0.24	0.61								
Queue Length 95th (m)	3.2	0.1	7.0	27.0								
Control Delay (s)	3.5	0.1	22.3	43.4								
Lane LOS	A	A	C	E								
Approach Delay (s)	3.5	0.1	22.3	43.4								
Approach LOS			С	E								
Intersection Summary												
Average Delay			8.8									
Intersection Capacity Utilization	tion		65.7%	IC	U Level o	of Service			С			
Analysis Period (min)			15									

Existing PM 06/26/2020 Baseline

HCM Unsignalized Intersection Capacity Analysis 9037: Beth Nealson Dr & Wicksteed Ave

	-	$\mathbf{r}$	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	¢î			र्भ	۰Y	
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadi (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	А	А	А			
Intersection Summary						
Delay			0.0			
Level of Service			А			
Intersection Capacity Utilization	ation		0.0%	IC	U Level o	of Service
Analysis Period (min)			15			



# Appendix I

Multi-Modal Level of Service Assessment – Ontario Line West

Consultant Scenario	AECOM Existing Conditions (2020) -	AM Peak	Project Date	Ontario Line S 22/06/2020	iubway	]																							
	INTERSECTIONS		Queen St & I	University Ave			Queen St & S	St. Patrick St			Queen St	& John St			Queen St &	Peter/Soho St			Queen St &	Augusta Ave			Queen St &	& Portland St			Richmond	St & John St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST		SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes	8 Modian > 2.4 m	9 Median > 2.4 m	4 No Modian - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m		4 No Modian - 2.4 m	3 No Median - 2.4 m	0 - 2 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Modian - 2.4 m	0 - 2 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Modian - 2.4 m	0 - 2 No Modian - 2.4 m	0 - 2 No Median - 2.4 m	4 No Modian - 2.4 m	4 No Modian - 2.4 m		0 - 2 No Median - 2.4 m	4 No Modian - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m	4 No Modian - 2.4 m	4 No Modian - 2.4 m
	Conflicting Left Turns	No left turn / Prohit	b. No left turn / Prohib.	No left turn / Prohib	No left turn / Prohib	Permissive		Permissive	No left turn / Prohib	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib	Protected/	No left turn / Prohib	Permissive	Permissive	Permissive	Permissive	Permissive		Permissive	No left turn / Prohib	Permissive	No left turn / Prohib	Permissive	No left turn / Prohib	Permissive
		Permissive or yield	d Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield		Ma state to see	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive Permissive or yield	Permissive or yield	Ma sinha tara	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield		Permissive or yield	Permissive or yield	Ma chaba burn	Permissive or yield	No state to see	No. data tura	Permissive or yield
	Right Turns on Red (PToP) 2	control PTOP allowed	control PTOP allowed	control PTOP allowed	control	control PTOP allowed		NO right turn	control RTOR allowed	control PTOR allowed	control	control PTOP allowed	control	control PTOP allowed	control RTOR allowed	control RTOR allowed	PTOP prohibited	control	control RTOR allowed	control RTOR allowed	control PTOP allowed		control RTOR allowed	control	NO right turn	control PTOP allowed	NO right turn	NO right turn	control PTOP allowed
	Ped Signal Leading Interval?	Yes	Yes	No	No	Yes		No	No	No	No	No	No	No	No	No	No	No	No	No	No		No	No	No	No	No	No	No
an	Right Turn Channel Corner Radius	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m		No Right Turn No Right Turn	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Right Turn No Right Turn	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m	No Channel 10-15m		No Channel 10-15m	No Channel 10-15m	No Right Turn No Right Turn	No Channel 10-15m	No Right Turn No Right Turn	No Right Turn No Right Turn	No Channel 10-15m
stri	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis
de	PETSI Score	markings	markings -7	markings 64	markings 64	markings 90		markings 74	markings 81	markings 88	markings 73	markings 56	markings 56	markings 93	markings 73	markings 64	markings 74	markings	markings 88	markings 56	markings 56	-	markings 88	markings 64	markings 74	markings 78	markings 88	markings 82	markings 56
Ье	Ped. Exposure to Traffic LoS	F	F	c	c	A	-	c	в	в	c	D	D	A	c	c	c	в	В	D	D	-	в	c	с	в	В	в	D
	Cycle Length	100	100	100	100	85		85	85	85	85	85	85	90	90	90	90	70	70	70	70		70	70	70	80	80	80	80
	Effective Walk Time	19	19	36	36	45		8	8	37	37	16	16	24	11	8	8	27	27	8	8		30	7	7	33	33	8	8
	Average Pedestrian Delay	33	33	20	20	9		35	35	14	14	28	28	24	35	37	37	13	13	27	27		11	28	28	14 P	14	32	32
	Pedestrial Delay Los	F	F	Č l	Č I	Â		D	D D	B	<u> </u>	Ď	Ď	Č	D	D D	D	B	B	Ď	Ď		B	<u> </u>	Č	B	B	D	Ď
	Level of Service			F				<u> </u>			· · ·													0				)	
	Approach From	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST	_	SOLITH	FAST	WEST	NORTH	SOUTH	FAST	
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	000111	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane,	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane,	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration	iniada ritarito	made Hand	mixed Harlo	Mildo Hallo	Mixed Hame		Mixed Harto	mada mano	mada Hamo	made Hand	made Hano	mada marito	made mano	Cycletrack or MUP	mada Hano	made Hand	Mixed Hand	initia riano	Mixed Harris			initia riano	Mixed Hamo	mad mano	made ritano	made Humo	Cycletrack or MUP	
_	ELSE blank> Dedicated Right Turning Speed																												
	Cyclist Through Movement						-								Not Applicable											· · · · · · · · · · · · · · · · · · ·		Not Applicable	
c	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	
ö	Left Turn Approach	≥ 2 lanes crossed	i ≥ 2 lanes crossed	One lane crossed	One lane crossed	No lane crossed		One lane crossed	One lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed		No lane crossed	One lane crossed	One lane crossed		One lane crossed	No lane crossed	
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h		> 40 to ≤ 50 km/h	≤ 40 km/h	
		D	D	B	B	B	-	B	B D	B	D	B	B D	B	B	B	B	B	B	B	B	-	B D	B	B	-	D	B D	
	Level of Service			<u> </u>				<u> </u>				<u> </u>				R				R D				R				<u> </u>	
-=	Average Signal Delay	≤ 30 sec	≤ 10 sec	≤ 30 sec	≤ 30 sec			≤ 10 sec	≤ 10 sec			≤ 10 sec	≤ 20 sec			≤ 10 sec	≤ 10 sec			≤ 10 sec	≤ 10 sec			≤ 10 sec	≤ 10 sec				
sus		D	В	D	D	-	-	В	В	-	-	В	С	-	-	В	В	-	-	В	В	-	-	В	В	-	-	-	-
L L	Level of Service			D			E	3				C				В				В				В					

	INTERSECTIONS		Richmond St &	& University Ave			Adelaide St	& Peter St			Adelaide St &	Spadina Ave			Adelaide St	& Brant St			Adelaide St	& Portland St			Adelaide St 8	& Bathurst St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	8 Median > 2.4 m	9 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	8 No Median - 2.4 m	8 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	
	Conflicting Left Turns	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	Protected/	
	Conflicting Right Turns	Permissive or yield control	No right turn	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	No right turn	Permissive Permissive or yield control	
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	
_	Ped Signal Leading Interval?	No Na Channal	No Na Diabt Tura	No Na Diabt Tura	No No Channel	No No Diabt Turn	No Na Channal	No No Channel	No No Diaba Tura	No No Diabt Turn	No Na Channal	No No Channel	No Na Dialat Tura	No No Diabt Turn	No No Channel	No No Channel	No No Diabt Tura	No No Diabt Tura	No No Channel	No No Channel	No No Diabt Ture	No No Dialth Turn	No No Diabt Ture	No Na Channal	
au	Corner Radius	10-15m	No Right Turn	No Right Turn	10-15m	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	No Right Turn	10-15m	
Ē		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	
ŝ	Crosswalk Type	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	
eq	PETSI Score	6	1	82	56	74	64	56	79	9	-1	56	82	106	96	56	82	106	96	56	82	66	66	59	
<u>a</u>	Ped. Exposure to Traffic LoS	F	F	В	D	С	С	D	В	F	F	D	В	Α	Α	D	В	Α	Α	D	В	С	С	D	-
	Cycle Length	100	100	100	100	80	80	80	80	90	90	90	90	70	70	70	70	70	70	70	70	90	90	90	
	Effective Walk Time	18	18	35	35	30	30	10	10	8	8	8	33	30	30	7	7	28	28	10	10	7	7	23	
	Average Pedestrian Delay	34	34	21	21	16	16	31	31	37	37	37	18	11	11	28	28	13	13	26	26	38	38	25	
	Pedestrian Delay LoS	D	D	С	С	В	В	D	D	D	D	D	В	В	В	С	C	В	В	С	С	D	D	С	
	Level of Comise	F	F	С	D	С	С	D	D	F	F	D	В	В	В	D	С	В	В	D	С	D	D	D	
	Level of Service			F			D	1			F	=			C	)			I	D			ŗ	>	
	Approach From	NORTH	SOUTH	EAST		NORTH	SOUTH		WEST	NORTH	SOUTH		WEST	NORTH	SOUTH		WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Pocket Bike Lane		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic		
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE blank>																						> 50 m		
	Dedicated Right Turning Speed																						≤ 25 km/h		
e	Cyclist Through Movement			Not Applicable	-	Not Applicable	Not Applicable	-	Not Applicable	Not Applicable		-	Not Applicable			-	Not Applicable			-	Not Applicable	Not Applicable	F		
Š.	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Separated	Separated	-	Separated	Separated	Separated	-	Separated	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	-	Separated	Separated	Mixed Traffic	-	-
Bic	Left Turn Approach		≥ 2 lanes crossed	No lane crossed		2-stage, LT box			2-stage, LT box	No lane crossed			No lane crossed	No lane crossed			No lane crossed	No lane crossed			No lane crossed	2-stage, LT box	≥ 2 lanes crossed		
	Operating Speed		≤ 40 km/h	≤ 40 km/h		> 40 to ≤ 50 km/h			≤ 40 km/h	≤ 40 km/h			≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		≤ 40 km/h	> 40 to ≤ 50 km/h			≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		
	Left Turning Cyclist	-	D	В	-	Α	•	-	A	В	-	-	В	В	-	-	В	В	-	-	В	A	D	•	•
	Lovel of Service	-	D	В	-	Α	-		Α	В	-	-	В	В	-	-	В	В	-	-	В	Α	F		
	Level of Gervice			D			A				E	3			E	3				В					
Sit	Average Signal Delay	≤ 10 sec	≤ 20 sec								≤ 40 sec		≤ 30 sec				≤ 10 sec				≤ 10 sec		≤ 20 sec		
ans	Lovel of Service	В	C	-	-	-	-	-	-	-	E	-	D	-	-	-	В	-	-	-	В	-	C	-	-
E .	Level of Service		(	С			-				E				B	3				B			(		

Consultant Scenario	AECOM Existing Conditions (2020) - A	M Peak	Project Date	Ontario Line Su 22/06/2020	Ibway																
	INTERSECTIONS		King St &	Portland St			King St & S	Spadina Ave			Bathurst St &	Fort York Blvd			East Liberty St	& Strachan Ave			East Liberty S	t & Dufferin St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	
	Lanes	0 - 2	0 - 2	4	4	9	9	4	4	4	4	5	5	5	3	4	3	4	4	0 - 2	
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	Protected	Protected/	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Protected/	Permissive	Permissive	Permissive	
	Conflicting Right Turns	Protected	Protected	Permissive or yield	Permissive or yield	Protected	Protected	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
<b>_</b>	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	
<u>ia</u>	Corner Radius	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	
str	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Std transverse	Std transverse	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	
<u>ë</u>	crocontaint rypo	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	
eq	PETSI Score	101	101	56	56	-13	-13	64	64	56	56	40	40	37	70	53	70	56	56	88	
<u> </u>	Ped. Exposure to Traffic LoS	Α	Α	D	D	F	F	С	С	D	D	E	E	E	С	D	С	D	D	В	-
	Cycle Length	75	75	75	75	95	95	95	95	90	90	90	90	80	80	80	80	80	80	80	
	Effective Walk Time	20	20	8	8	7	7	23	11	8	20	19	19	8	8	27	16	12	12	35	
	Average Pedestrian Delay	20	20	30	30	41	41	27	37	37	27	28	28	32	32	18	26	29	29	13	
	Pedestrian Delay LoS	С	С	D	D	E	E	С	D	D	С	С	С	D	D	В	С	С	С	В	-
		С	С	D	D	F	F	С	D	D	D	E	E	E	D	D	С	D	D	В	-
	Level of Service			D				F				É				Ē				)	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	0
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane,	Curb Bike Lane,	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane,	Curb Bike Lane,	Pocket Bike Lane	Curb Bike Lane,	Mixed Traffic	Mixed Traffic				
	IF Dedicated Right Turn Lane					Cycletrack or MUP	Cycletrack or MUP					Cycletrack or MUP	Cycletrack or MUP		Cycletrack or MUP						
	THEN Right Turn Configuration,			≤ 50 m	≤ 50 m			≤ 50 m	≤ 50 m					≤ 50 m Introduced							
	ELSE <blank></blank>													right turn lane							
O	Dedicated Right Turning Speed			≤ 25 km/h	≤ 25 km/h	Net Annlinghia	Net Annlineble	≤ 25 km/h	≤ 25 km/h			Net Annlinghia	Net Annlineble	≤ 25 km/h	Net Annlinghia						
<u></u>	Separated or Mixed Traffic	Mixed Troffie	Mixed Troffie	Mixed Troffie	Mixed Troffic	Not Applicable	Separated	Mixed Troffie	Mixed Troffie	Mixed Troffie	Mixed Troffie	Sonarated	Soporated	Separated	Separated	Mixed Troffie	Mixed Troffic				
<u></u>	Separated of Mixed Traffic	wixeu franc	wixeu franc	wixeu franc	wixeu franc	Separateu	Separateu	wixeu franc	Witkeu Trainc	Wixeu Hame	Witkeu Traffic	Separateu	Separateu	Separateu	Separateu	wixeu franc					
Ξ	Left Turn Approach	No lane crossed	No lane crossed			No lane crossed	No lane crossed			One lane crossed	One lane crossed	No lane crossed	1 lane crossed	No lane crossed	1 lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h			≤ 40 km/h	≤ 40 km/h			≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	-	-	В	В	-	-	В	В	В	С	В	В	В	В	D	D	В	В
	Loval of Samiaa	В	В	-	-	В	В	-	-	В	В	В	С	В	В	В	В	D	D	В	В
	Level of Service			В				В			(	C				В			I		
Si.	Average Signal Delay							≤ 20 sec		≤ 10 sec	≤ 20 sec			≤ 20 sec				≤ 10 sec	≤ 20 sec		
ans	Lauri et Damian	-	-	-	-	-	-	С	-	В	С	-	-	С	-	-	-	В	С	-	-
Ĕ	Level of Service			-				С			(	C				C					

Consultant	AECOM	DM Deals	Project	Ontario Line S	ubway																				
Scenario	Existing Conditions (2020) -	- PM Peak	Date	22/06/2020			0				0	9. Jahr 04			0	D-1/0			0	A			0	Dentlend Ct	
	INTERSECTIONS	_	Queen St &	University Ave			Queen St 8	St. Patrick St			Queen St	& John St			Queen St &	Peter/Sono St			Queen St &	Augusta Ave			Queen St &	Portland St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST		SOUTH	EAST	WEST
	Median	8 Median > 2.4 m	9 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m		4 No Median - 2.4 m	3 No Median - 2.4 m	0 - 2 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m		0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohit	b. No left turn / Prohi	<ul> <li>b. No left turn / Prohib</li> </ul>	No left turn / Prohib.	. Permissive		Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Protected/ Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Permissive		Permissive	No left turn / Prohit	o. Permissive
	Conflicting Right Turns	Permissive or yield	d Permissive or yiel	d Permissive or yield	Permissive or yield	Permissive or yield		No right turn	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield	No right turn	Permissive or yield	Permissive or yield	Permissive or yield	Permissive or yield		Permissive or yield	Permissive or yield	No right turn
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed		RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed	RTOR prohibited
	Ped Signal Leading Interval?	Yes	Yes	No	No	Yes		No	No	No	No	No	No	No	No	No	No	No	No	No	No		No	No	No
B	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel		No Right Turn	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel		No Channel	No Channel	No Right Turn
÷.		Zebra stripe hi-vis	Zebra stripe hi-vis	s Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
es	Crosswalk Type	markings	markings	markings	markings	markings		markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings		markings	markings	markings
ed	PETSI Score	8	-7	64	64	90		74	81	88	73	56	56	93	73	64	74	88	88	56	56		88	64	74
۹.	Ped. Exposure to Traffic LoS	F	F	С	С	А	-	С	В	В	С	D	D	А	С	С	С	В	В	D	D		В	С	С
	Cycle Length	100	100	100	100	85		85	85	85	85	85	85	90	90	90	90	80	80	80	80		80	80	80
	Effective Walk Time	23	23	32	32	45		8	8	3/	3/	16	16	24	11	8	8	3/	3/	8	8		40	/	/
	Average Pedestrian Delay	30	30	23	23	9		35	35	14 P	14	28	28	24	35	37	3/	12	12	32	32		10	33	33
	Fedestrian Delay LOS					A	-			P P				C C			D								
	Level of Service	F				A	-			в			U	ر د			U	В	В						
				F				D				D				D				D				<u>D</u>	
	Approach Fror	n north	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST		SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane,														-,										
	THEN Right Turn Configuration,																								
	Dedicated Right Turning Speed																								
<u>e</u>	Cyclist Through Movement						-								Not Applicable										
Ś	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic
Bic	Left Turn Approach	≥ 2 lanes crossed	d ≥ 2 lanes crossed	d One lane crossed	One lane crossed	No lane crossed		One lane crossed	One lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed		No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	D	D	В	В	В	-	В	В	В	D	В	В	В	В	В	В	В	В	В	В	-	В	В	В
	Lauri d'Annia	D	D	В	В	В	-	В	В	В	D	В	В	В	В	В	В	В	В	В	В		В	В	В
	Level of Service			D				В				D				В				В				В	
si.	Average Signal Delay	≤ 30 sec	≤ 20 sec	≤ 30 sec	≤ 30 sec			≤ 10 sec	≤ 10 sec			≤ 10 sec	≤ 20 sec			≤ 20 sec	≤ 30 sec			≤ 10 sec	≤ 10 sec			≤ 10 sec	≤ 10 sec
ä	Loval of Samiaa	D	С	D	D	-	-	В	В	-	-	В	C	-	-	C	Ď	-	-	В	В		-	В	В
Ĥ	Lever of Service			D				В				C				D				B				В	
-														-				-							

Multi-Modal	Level of Service - Intersect	ions Form																							
Consultant	AECOM		Project	Ontario Line S	ubway	٦																			
Scenario	Existing Conditions (2020) -	PM Peak	Date	22/06/2020	-																				
	INTERSECTIONS		Richmond	d St & John St			Richmond St a	& University Ave			Adelaide S	t & Peter St			Adelaide St 8	Spadina Ave			Adelaide S	t & Brant St			Adelaide St 8	& Portland St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	3 No Median - 2.4 m	3 n No Median - 2.4 n	4 m No Median - 2.4 m	4 No Median - 2.4 m	8 Median > 2.4 m	9 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	8 No Median - 2.4 m	8 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohit	b. Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib	. Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.
	Conflicting Right Turns	Permissive or yield control	d No right turn	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	d No right turn	No right turn	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	Permissive or yield control	d No right turn	No right turn	Permissive or yield control	Permissive or yield control	d No right turn
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR prohibited	d RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited
-	Right Turn Channel	No Channel	No Right Turn	No No Right Turn	No No Channel	No No Channel	No No Right Turn	No No Right Turn	No No Channel	No No Right Turn	No No Channel	No Channel	No Right Turn	No No Right Turn	No No Channel	No No Channel	No No Right Turn	No Right Turn	No No Channel	No No Channel	No No Right Turn	No No Right Turn	No No Channel	No No Channel	No No Right Turn
a.	Corner Radius	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn	No Right Turn	10-15m	10-15m	No Right Turn
sti	Crosswalk Type	Std transverse	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
e	PETSI Score	78	88	82	56	6	1	82	56	74	64	56	79	9	-1	56	82	106	96	56	82	106	96	56	82
Ъ	Ped. Exposure to Traffic LoS	B	B	B	D	F	F	B	D	c	c	D	B	F	F	D	B	A	A	D	B	A	A	D	B
	Cycle Length	80	80	80	80	100	100	100	100	80	80	80	80	90	90	90	90	80	80	80	80	80	80	80	80
	Effective Walk Time	33	33	8	8	22	22	31	31	30	30	10	10	9	9	8	32	40	40	7	7	38	38	10	10
	Average Pedestrian Delay	14	14	32	32	30	30	24	24	16	16	31	31	36	36	37	19	10	10	33	33	11	11	31	31
	Pedestrian Delay LoS	В	В	D	D	D	D	C	С	В	В	D	D	D	D	D	В	В	В	D	D	В	В	D	D
	Level of Service	В	В	D	D	F	F	C	D	С	C	D	D	F	F	D	В	В	В	<u> </u>	D	В	В	D	D
				D				F				D				F				د				<u>م</u>	
	Approach From	1 NORTH	SOUTH	EAST		NORTH	SOUTH	EAST		NORTH	SOUTH		WEST	NORTH	SOUTH		WEST	NORTH	SOUTH		WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUF	Pocket Bike Lane		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP
	THEN Right Turn Configuration, ELSE blank>																								
۵	Dedicated Right Turning Speed			Not Applicable				Not Applicable		Not Applicable	Not Applicable		Not Applicable	Not Applicable			Not Applicable				Not Applicable				Not Applicable
<u>i</u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated		Mixed Traffic	Mixed Traffic	Separated		Separated	Separated		Separated	Separated	Separated		Separated	Mixed Traffic	Mixed Traffic		Separated	Mixed Traffic	Mixed Traffic		Separated
Bicy	Left Turn Approach		One lane crossed	d No lane crossed			≥ 2 lanes crossed	No lane crossed		2-stage, LT box	oopuratou		2-stage, LT box	No lane crossed	oopuratou		No lane crossed	No lane crossed			No lane crossed	No lane crossed			No lane crossed
	Operating Speed		< 40 km/b	< 40 km/h			< 40 km/b	< 40 km/b		< 10 km/b			< 40 km/b	< 10 km/b			< 40 km/b	< 40 km/b	< 40 km/b		< 40 km/b	< 40 km/b			< 10 km/b
	Left Turning Cyclist	-	B	B	-	-	D	B	-	A	-	-	A	B	-	-	B	B	-		B	B	-		B
		-	В	В	-	-	D	В	-	А	-	-	Α	В	-	-	В	В	-		В	В	-		В
	Level of Service			В				D				Α				В				в			E	3	
	Average Signal Delay					≤ 10 sec	≤ 20 sec								≤ 40 sec										
Su		-		-	-	B	С	-	-		-	-	-		E	-	-		-		-	-			-
Tra	Level of Service			-				С				-				E				-					

Consultant Scenario	AECOM Existing Conditions (2020) - I	PM Peak	Project Date	Ontario Line Sul 22/06/2020	bway																				
	INTERSECTIONS		Adelaide St	& Bathurst St			King St &	Portland St			King St & S	Spadina Ave			Bathurst St &	Fort York Blvd			East Liberty St	& Strachan Ave	9		East Liberty S	t & Dufferin St	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	
	Lanes	5 No Modian 2.4 m	5 No Modian - 3.4 m	4 No Modian 2.4 m		0 - 2 No Modion - 3.4 m	0 - 2 No Modian 2.4 m	4 No Modian 2.4 m	4 No Modian 3.4 m	9 No Modion 2.4 m	9 No Modian 3.4 m	4 No Modian 2.4 m	4 No Modian 2.4 m	4 No Modian 2.4 m	4 No Modian 2.4 m	5 No Modian 3.4 m	5 No Modian 3.4 m	5 No Modian 2.4 m	3 No Modian 3.4 m	4 No Modian 2.4 m	3 No Modian 2.4 m	4 No Modian 2.4 m	4 No Modian 2.4 m	0 - 2 No Modian 2.4 m	
		No left turn / Prohib	No left turn / Probib	Protected/		No left turn / Probib	No left turn / Prohib	Permissive	Permissive	No left turn / Prohib	No left turn / Probib	No left turn / Prohib	Protected	Protected/	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Protected/	Permissive	Permissive	Permissive	
	Connicting Eart runns	No leit turri / i torilo	. No left turn / Tronib.	Permissive Permissive or vield		NO ISIT (GITT/ TTOTID)	. No lot turn/ Fronib.	Permissive or vield	Permissive or vield	No leit turri i Tonio.	. No left turn/ 1 tonib.	Permissive or vield	Permissive or vield	Permissive Permissive or vield	Permissive or vield	Permissive or vield	Permissive or vield	Permissive or vield	Permissive or vield	Permissive or vield	Permissive Permissive or vield	Permissive or vield	Permissive or vield	Permissive or vield	
	Conflicting Right Turns	No right turn	No right turn	control		Protected	Protected	control	control	Protected	Protected	control	control	control	control	control	control	control	control	control	control	control	control	control	
	Right Turns on Red (RToR) ?	RTOR prohibited	RTOR prohibited	RTOR prohibited		RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	
-	Ped Signal Leading Interval?	No Right Turn	No Right Turn	No No Channel		No No Channel	NO No Channel	No No Channel	No No Channel	NO No Channel	NO No Channel	NO No Channel	No No Channel	No No Channel	No No Channel	No No Channel	No No Channel	No No Channel	NO No Channel	NO No Channel	NO No Channel	No No Channel	NO No Channel	No No Channel	
a.	Corner Radius	No Right Turn	No Right Turn	10-15m		10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	
řt.	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Std transverse	Std transverse	Std transverse	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	
<u>e</u>		markings	markings	markings		markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	
ĕ	PETSI Score	66	66	59		101	101	56	56	-13	-13	64	64	56	56	40	40	37	70	53	70	56	56	88	
<u>a</u>	Ped. Exposure to Traffic LoS	С	С	D	-	А	Α	D	D	F	F	С	С	D	D	E	E	E	С	D	С	D	D	В	-
	Cycle Length	80	80	80		75	75	75	75	95	95	95	95	100	100	100	100	80	80	80	80	80	80	80	
	Effective Walk Time	7	/	13		20	20	8	8	1		23	11	8	22	15	27	8	8	27	11	24	24	24	
	Average Pedestrian Delay	33	33	28		20	20	30	30	41	41	2/	3/	42	30	36	2/	32	32	18	30	20	20	20	
	Fedestrian Delay L05				-	C C				-				-				-							-
	Level of Service			ן ט ן	-	L L				F	F		U	E		<b>–</b>	E	E	U		U	U		L L	-
				D				D				F				<u> </u>				E				)	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	0
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic			Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Pocket Bike Lane	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration,		> 50 m					≤ 50 m	≤ 50 m			≤ 50 m	≤ 50 m					≤ 50 m Introduced							
	ELSE blank> Dedicated Bight Turning Speed		< 05 hm/h					< 05 hm/h	< 05 lum/h			< 05 km/h	< 05 hm/h					< OF hm/h							
٥	Cyclist Through Movement	Not Applicable	= 25 KH/H	-	-			5 25 Kill/II	3 23 KII/II	Not Applicable	Not Applicable	5 25 KII/II	3 23 KH/H			Not Applicable	Not Applicable	B	Not Applicable						
<u> K</u>	Separated or Mixed Traffic	Separated	Mixed Traffic	-	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
ic.	Loff Turn Approach	2 stage   T box	> 2 Japan granged			No long ground	No long grouped			No long grouped	No long ground			One lane granged	One lane ground	No long grouped	1 long grouped	No long grossed	1 long ground	One lane ground	One lane grassed	One lane granged	One lane areased	No long grossed	No long grossed
	Leit Tum Approach	2-stage, LT box	Z lanes clossed			NO lane crossed	NO IANE CROSSED			NO IANE CLOSSED	NO IANE CIOSSED			One lane crossed	One lane crossed	NO IANE CIOSSED	Tiane crossed	NO IARIE CROSSED	r lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	NO TARIE CLOSSED
	Operating Speed	≤ 40 km/h	≤ 40 km/h			≤ 40 km/h	≤ 40 km/h			≤ 40 km/h	≤ 40 km/h			≤ 40 km/h	≤ 40 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	A	D	-	-	В	В	-	-	В	В	-	-	В	В	c	D	В	В	В	B	В	В	В	В
	Level of Service	A	F		-	В	в	-	-	В	В		-	В	В	C	D	В	В	<u> </u>	В	в	в	В	В
				F				В				В								В				3	
	Average Signal Delay							≤ 10 sec				≤ 10 sec		≤ 40 sec	≤ 20 sec			≤ 30 sec				≤ 20 sec	≤ 20 sec		
an	Level of Service	-	-	-	-	-	-	В	-	-	-	В	-	E	С	-	-	D	-	-	-	С	С	-	-
Ē.				-				В				B				E				D				C	

# Multi-Modal Level of Service - Segments Form

Consultant	AECOM		Project	Ontario Line Subway		1	
Scenario	MMLOS Assessment - Existing Conditions (2020)		Date	22/06/2020		]	
SEGMENTS		Queen Street	Section	Section	Section	Section	Section
SEGMENTS			Universtiy Ave - St. Patrick St	St Patrick - John	John - Peter	Peter - Augusta	Augusta - Portland
strian	Sidewalk Width	_	≥ 2 m	≥ 2 m	≥ 2 m	≥ 2 m	≥ 2 m
	Boulevard Width		0.5 - 2 m	0.5 - 2 m	0.5 - 2 m	0.5 - 2 m	0.5 - 2 m
	Avg Daily Curb Lane Traffic Volume		> 3000	> 3000	> 3000	> 3000	> 3000
	Operating Speed		> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h
	On-Street Parking		no	no	no	no	no
<u>ě</u>	Exposure to Traffic PLoS	E	С	C	С	C	C
Ped	Effective Sidewalk Width		2.0 m	2.0 m	2.0 m	2.0 m	2.0 m
	Pedestrian Volume		1000 ped/hr	1000 ped/hr	2000 ped/hr	1000 ped/hr	1000 ped/hr
	Crowding PLoS		В	В	С	В	В
	Level of Service		С	С	С	С	С
	Type of Cycling Facility	D	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Number of Travel Lanes		4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total
	Operating Speed		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	# of Lanes & Operating Speed LoS		D	D	D	D	D
	Bike Lane (+ Parking Lane) Width		<u>≥ 1.8 m</u>			≥ <del>1.8 m</del>	<u>≥ 1.8 m</u>
	Bike Lane Width LoS		A	-	-	A	A
Bicyc	Bike Lane Blockages		Rare			Rare	Rare
	Blockage LoS		A	-	-	A	A
	Median Refuge Width (no median = < 1.8 m)			< 1.8 m refuge	< 1.8 m refuge	< 1.8 m refuge	< 1.8 m refuge
	No. of Lanes at Unsignalized Crossing			≤ 3 lanes	≤ 3 lanes	≤ 3 lanes	≤ 3 lanes
	Sidestreet Operating Speed			>40 to 50 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Unsignalized Crossing - Lowest LoS		-	В	А	А	А
	Level of Service		-	D	D	D	D
Transit	Facility Type	D	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8
	Level of Service		D	D	D	D	D

# Multi-Modal Level of Service - Segments Form

Consultant	AECOM		Project	Ontario Line Subway
Scenario	MMLOS Assessment - Existing Condition	ns (2020)	Date	22/06/2020
		Richmond	Section	
SEGMENTS		Street	Universtiy Ave - John St	
	Sidewalk Width Boulevard Width	В	≥ 2 m < 0.5	
c	Avg Daily Curb Lane Traffic Volume		≤ 3000	
<u>o</u>	Operating Speed		> 30 to 50 km/h	
str	On-Street Parking		no	
e V	Exposure to Traffic PLoS		В	
<b>BO</b>	Effective Sidewalk Width		2.0 m	
<u>د</u>	Pedestrian Volume		500 ped /hr	
	Crowding PLoS		В	
	Level of Service		В	
	Type of Cycling Facility		Physically Separated	
	Number of Travel Lanes		4-5 lanes total	
	Operating Speed		<u> </u>	
	# of Lanes & Operating Speed LoS		A	
<b>U</b>	Bike Lane (+ Parking Lane) Width		<u>≥ 1.8 m</u>	
Ū	Bike Lane Width LoS	Α	A	
S S	Bike Lane Biockages			
	Biockage Los Median Potuge Width (no median – < 1.8 m)		<u>A</u>	
	No. of Lanes at Unsignalized Crossing			
	Sidestreet Operating Speed			
	Unsignalized Crossing - Lowest LoS		A	
	Level of Service		A	
	Facility Type			
. S	Friction or Ratio Transit:Posted Speed			
Tran	Level of Service	D	-	

## Multi-Modal Level of Service - Segments Form

Consultant	AECOM MMLOS Assessment - Existing Conditions (2020)		Project	Ontario Line Subway		
Scenario			Date	22/06/2020		
Adelaide		Section	Section	Section	Section	
SEGMENTS		Street	Peter St-Spadina Ave	Spadina Ave-Brant St	Brant St-Portland St	Portland St-Bathurst St
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume Crowding PLoS	E	≥ 2 m < 0.5 > 3000 > 30 to 50 km/h no C 2.0 m 500 ped /hr B	≥ 2 m < 0.5 > 3000 > 30 to 50 km/h no C 2.0 m 250 ped/hr B	1.5 m < 0.5 m > 3000 > 30 to 50 km/h no E 1.2 m 250 ped/hr B	1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h no E 1.2 m 250 ped/hr B
Bicycle	Type of Cycling Facility Number of Travel Lanes Operating Speed # of Lanes & Operating Speed LoS Bike Lane (+ Parking Lane) Width Bike Lane Width LoS Bike Lane Blockages Blockage LoS Median Refuge Width (no median = < 1.8 m) No. of Lanes at Unsignalized Crossing Sidestreet Operating Speed Unsignalized Crossing - Lowest LoS Level of Service	D	Physically Separated 4-5 lanes total ≤ 40 km/h A ≥1.8 m A Rare A A A A	Physically Separated           4-5 lanes total           ≤ 40 km/h           A           -           -                       - <td>Physically Separated           4-5 lanes total           ≤ 40 km/h           A           -           -   <td>Physically Separated 4-5 lanes total ≤40 km/h A ≥1.8 m A Rare A &lt;1.8 m refuge ≤3 lanes ≤40 km/h A A A</td></td>	Physically Separated           4-5 lanes total           ≤ 40 km/h           A           -           - <td>Physically Separated 4-5 lanes total ≤40 km/h A ≥1.8 m A Rare A &lt;1.8 m refuge ≤3 lanes ≤40 km/h A A A</td>	Physically Separated 4-5 lanes total ≤40 km/h A ≥1.8 m A Rare A <1.8 m refuge ≤3 lanes ≤40 km/h A A A
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	D	Mixed Traffic Vt/Vp ≥ 0.8 D	Mixed Traffic Vt/Vp ≥ 0.8 D	Mixed Traffic Vt/Vp ≥ 0.8 D	Mixed Traffic Vt/Vp ≥ 0.8 D
Consultant	AECOM		Project	Ontario Line Subway		
------------	--	-------------	--	---------------------		
Scenario	<b>MMLOS Assessment - Existing Condition</b>	ns (2020)	Date	22/06/2020		
SEGMENTS		King Street	Section Spadina Ave-Portland St			
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume Crowding PLoS Level of Service	B	≥ 2 m 0.5 - 2 m ≤ 3000 > 30 to 50 km/h no A 2.0 m 1000 ped/hr B B			
Bicycle	Type of Cycling Facility Number of Travel Lanes Operating Speed # of Lanes & Operating Speed LoS Bike Lane (+ Parking Lane) Width Bike Lane Width LoS Bike Lane Blockages Blockage LoS Median Refuge Width (no median = < 1.8 m) No. of Lanes at Unsignalized Crossing Sidestreet Operating Speed Unsignalized Crossing - Lowest LoS	D	Mixed Traffic         4-5 lanes total         ≤ 40 km/h         D         ≥ 1.8 m         A         Rare         A               A </td <td>-</td>	-		
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	В	Bus lane Cf ≤ 60 B			

Consultant	AECOM		Project	Ontario Line Subway
Scenario	<b>MMLOS Assessment - Existing Condition</b>	ns (2020)	Date	22/06/2020
		Univers <u>ity</u>	Section	
SEGMENTS		Avenue	Queen St-Richmond St	
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume	С	≥ 2 m 0.5 - 2 m > 3000 > 30 to 50 km/h no C 3.0 m 1000 ped/hr	
	Crowding PLoS Level of Service		С	
Bicycle	Type of Cycling Facility Number of Travel Lanes Operating Speed # of Lanes & Operating Speed LoS Bike Lane (+ Parking Lane) Width Bike Lane Width LoS Bike Lane Blockages Blockage LoS Median Refuge Width (no median = < 1.8 m) No. of Lanes at Unsignalized Crossing Sidestreet Operating Speed Unsignalized Crossing - Lowest LoS	-	Mixed Traffic ≥ 6 lanes total ≤ 40 km/h E ≥ 1.8 m A Rare A -	-
<b>Γransit</b>	Level of Service         Facility Type         Friction or Ratio Transit:Posted Speed         Level of Service	D	- Mixed Traffic Vt/Vp ≥ 0.8 D	

Consultant	AECOM		Project	Ontario Line Subway
Scenario	MMLOS Assessment - Existing Condition	ns (2020)	Date	22/06/2020
		Spadina	Section	1
SEGMENTS		Avenue	Adelaide-King	1
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking <u>Exposure to Traffic PLoS</u> Effective Sidewalk Width Pedestrian Volume	В	≥ 2 m 0.5 - 2 m ≤ 3000 > 30 to 50 km/h no A 2.0 m 1000 ped/hr	
	Crowding PLoS Level of Service		в В	
Bicycle	Type of Cycling Facility Number of Travel Lanes Operating Speed # of Lanes & Operating Speed LoS Bike Lane (+ Parking Lane) Width Bike Lane Width LoS Bike Lane Blockages Blockage LoS Median Refuge Width (no median = < 1.8 m) No. of Lanes at Unsignalized Crossing Sidestreet Operating Speed		Curbside Bike Lane ≥ 3 each direction ≤ 50 km/h D ≥ 1.8 m A Rare A	-
	Level of Service		-	
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	Α	Segregated ROW Vt/Vp ≥ 0.8 A	



# **Appendix J**

Multi-Modal Level of Service Assessment – Ontario Line South

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway	]							
	INTERSECTIONS		Queen Street	/ Yonge Street			Richmond Stree	et / Yonge Stree	t		Queen Street	Victoria Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m			
	Conflicting Left Turns	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.					
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control					
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No					
E	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel					
lestria	Corner Radius Crosswalk Type	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Zebra stripe hi-vis markings					
Jec.	PETSI Score	82	82	82	82	84	84	56	82	56	53	61	64
-	Ped. Exposure to Traffic LoS	В	В	В	В	В	В	D	В	D	D	С	С
	Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
	Effective Walk Time	31	31	21	21	36	36	17	17	41	41	13	13
	Average Pedestrian Delay	19	19	26	26	16	16	30	30	13	13	33	33
	Pedestrian Delay LoS	В	В	C	C	В	В	D	D	В	В	D	D
		В	В	С	С	В	В	D	D	D	D	D	D
	Level of Service			C				D				D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic					
٥	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
ycl	Dedicated Right Turning Speed												
<u>.</u>	Cyclist Through Movement							Not Applicable	-				
B	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Operating Speed	$\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$	No lane crossed $\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$		$\leq 40 \text{ km/h}$	One lane crossed $\leq 40 \text{ km/h}$	$\leq 40 \text{ km/h}$	No lane crossed $\leq 40 \text{ km/h}$
	Left Turning Cyclist	В	В	B	В	В	В	B	-	В	B	B	B
		В	В	В	В	В	В	В	-	В	В	В	В
	Level of Service			3				В				В	
	Average Signal Delay	≤ 30 sec	≤ 40 sec	≤ 30 sec	≤ 20 sec	≤ 30 sec	≤ 30 sec					≤ 10 sec	≤ 20 sec
ans		D	E	D	С	D	D	-	-	-	-	В	С
Tra	Level of Service			E				D				C	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	g Conditions (2020)	Project Date	Ontario Lin 22/06/2020	e Subway	]							
	INTERSECTIONS		Richmond Stree	et / Victoria Stree	et		Shuter Street	/ Yonge Street			Shuter Street	Victoria Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
Ę	Right Turn Channel	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	10-15m Std transverse	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis
ede	PETSI Score	markings	markings 74	markings 56	markings	markings	markings 56	markings 73	markings	markings	markings	markings	markings
۵.	Ped Exposure to Traffic LoS	С.	<u>с</u>		B	D			B	D	D	D	D
	Cycle Length	90	90	90	90	90	90	90	90	70	70	70	70
	Effective Walk Time	36	36	17	17	11	11	41	41	23	23	7	7
	Average Pedestrian Delay	16	16	30	30	35	35	13	13	16	16	28	28
	Pedestrian Delay LoS	В	В	D	D	D	D	В	В	В	В	С	С
		С	С	D	D	D	D	С	В	D	D	D	D
	Level of Service			D				D	•		·	D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed	1											
Č	Cyclist Through Movement			Not Applicable	-				-			Not Applicable	Not Applicable
Ë	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Mixed Traffic	Mixed Traffic	Separated	Separated
	Left Turn Approach	No lane crossed	One lane crossed	No lane crossed		One lane crossed	No lane crossed	One lane crossed		One lane crossed	One lane crossed	No lane crossed	No lane crossed
	Left Turning Cyclist	≤ 40 km/n	≤ 40 Km/n	≤ 40 km/n		≤ 40 KM/M	≤ 40 km/n	≤ 40 km/n	_	≤ 40 KIII/II B	≤ 40 Km/m	≤ 40 KM/M	≤ 40 KM/M
		B	B	B	_	B	B	B	-	B	B	B	B
	Level of Service			R				R B				B	
	Average Signal Delay					< 10 sec	< 20 sec					-	
su		_		<u></u>		= 10 Sec	= 20 Sec		<u> </u>		-		
Tra	Level of Service			-				C				-	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditions (2020)	Project Date	Ontario Lin 22/06/2020	e Subway								
	INTERSECTIONS		Queen Stree	t / Bay Street			Richmond Str	eet / Bay Street			<b>Richmond Str</b>	eet / York Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR prohibited No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed Yes	RTOR prohibited Yes
an	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn
lestria	Corner Radius Crosswalk Type	10-15m Std transverse markings	10-15m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Std transverse markings	No Right Turn Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings
)ec	PETSI Score	61	64	64	61	82	82	56	82	64	74	66	84
	Ped. Exposure to Traffic LoS	С	С	С	С	В	В	D	В	С	С	С	В
	Cycle Length	90	90	90	90	90	90	90	90	100	100	100	100
	Effective Walk Time	15	15	19	19	36	36	16	16	26	26	33	33
	Average Pedestrian Delay	31	31	28	28	16	16	30	30	27	27	22	22
	Pedestrian Delay LoS	D	D	С	C	В	В	D	D	C	С	С	C
	Lovel of Comvise	D	D	С	С	В	В	D	D	C	C	C	С
	Level of Service		l i i i i i i i i i i i i i i i i i i i	D				D				С	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed	1											
ि	Cyclist Through Movement							Not Applicable	-			Not Applicable	-
<u>.</u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Separated	-
	Left Turn Approach	No lane crossed	No lane crossed < 40 km/b	No lane crossed < 40 km/b	No lane crossed < 40 km/b	No lane crossed	No lane crossed < 40 km/b	No lane crossed < 40 km/b		No lane crossed < 40 km/h	≥ 2 lanes crossed < 40 km/b	No lane crossed < 40 km/b	
	Left Turning Cyclist	В	B	В	B	B	B	B	-	В	D	B	-
		В	В	В	В	В	В	В	-	В	D	В	-
	Level of Service			3				В				D	
÷	Average Signal Delay			≤ 20 sec	≤ 20 sec								
ans		-	-	С	С	-	-	-	-	-		-	-
Ε	Level of Service			C				-				-	

Consultant	AECOM	Project	Ontario Line Subway
Scenario	MMLOS Assessment - AM Existing Conditions (2020)	Date	22/06/2020

	INTERSECTIONS		Adelaide Street	t / George Street			Adelaide Stree	et / Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes	3	3	4	4	4	4	7	4
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Protected/ Permissive	Permissive	No left turn / Prohib.	Permissive
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No
u	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	Conventional with Receiving Lane	No Right Turn	No Channel
tri	Corner Radius	No Right Turn	10-15m	No Right Turn	10-15m	No Right Turn	10-15m	No Right Turn	10-15m
est.	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
p		markings	markings	markings	markings	markings	markings	markings	markings
Ъ В	PETSI Score	91	81	82	56	74	57	33	56
	Ped. Exposure to Traffic LoS	Α	В	В	D	С	D	E	D
		90	90	90	90	90	90	90	90
	Average Redestrian Delay	44	44	/ 20	/	26	20	19	8 27
	Pedestrian Delay LoS	IZ P	12 P		<u> </u>	23			57
		D	D						
	Level of Service	D			D				
				D				<u>E</u>	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane,								
	THEN Right Turn Configuration, ELSE <blank></blank>								
cle	Dedicated Right Turning Speed								
С С	Cyclist Through Movement			-	Not Applicable			-	Not Applicable
ä	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	-	Separated
	Left Turn Approach	No lane crossed			No lane crossed	One lane crossed			No lane crossed
	L oft Turning Cyclist	≤ 40 km/n			≤ 40 km/n	≤ 40 km/n			≤ 40 km/n
		B			B	B			B
	Level of Service			B				B	
-	Average Signal Delay								
sur		-	-	-	-	-	<u>-</u>	-	-
Tra	Level of Service			-				-	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	g Conditions (2020)	Project Date	Ontario Lin 22/06/2020	e Subway	]							
	INTERSECTIONS		<b>Richmond Stre</b>	et / Jarvis Street	t		Queen Street /	/ Church Street			Queen Street	/ Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	Protected/ Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	. No left turn / Prohib.
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control							
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No							
an	Right Turn Channel	Conventional with Receiving Lane	No Right Turn	No Channel	No Right Turn	No Channel							
stri	Corner Radius	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis
ede		markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings
ے م	PETSI Score	65	74	40	82	56	56	56	56	64	64	64	64
	Ped. Exposure to Traffic LoS	С	С	E	В	D	D	D	D	С	С	С	С
	Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
	Effective Walk Time	29	29	14	10	37	37	16	16	27	27	22	22
	Average Pedestrian Delay	21	21	32	36	16	16	30	30	22	22	26	26
	Pedestrian Delay LoS	C	С	D	D	В	В	D	D	C	С	С	С
	Lovel of Service	C	С	E	D	D	D	D	D	C	C	C	C
				E				D				C	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic							
(I)	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed												
ර	Cyclist Through Movement			Not Applicable	-								
ä	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic							
	Left Turn Approach Operating Speed		One lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h		One lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h			
	Left Turning Cyclist	-	В	В	-	В	В	В	В	В	В	В	В
		-	В	В	-	В	В	В	В	В	В	В	В
	Level of Service			В				В				В	
Si	Average Signal Delay							≤ 30 sec	≤ 10 sec	≤ 20 sec	≤ 40 sec	≤ 30 sec	≤ 10 sec
an:	Level of Service	-	-	-	-	-	-	D	В	С	E	D	В
E .				-				D				E	

Consultant Scenario	AECOM MMLOS Assessment - Existing Cor	nditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway	]							
	INTERSECTIONS		Shuter Street / S	herbourne Stree	et	A	Adelaide Street /	Sherbourne Stre	et		King Street /	Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib	. No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	Permissive	No left turn / Prohib.
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed Yes	RTOR allowed Yes
u	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis
ed	PETSI Score	markings 64	markings 64	markings 40	markings 40	markings	markings 48	markings 56	markings	markings	markings 64	markings	markings 66
<u> </u>	Ped Exposure to Traffic LoS	04 C				50 D		D	B	04 C	 	0	
	Cycle Length	80	80	80	80	90	90	90	90	80	80	80	80
	Effective Walk Time	27	27	22	22	38	38	14	14	7	7	25	25
	Average Pedestrian Delay	18	18	21	21	15	15	32	32	33	33	19	19
	Pedestrian Delay LoS	В	В	С	С	В	В	D	D	D	D	В	В
		С	С	E	E	D	D	D	D	D	D	D	С
	Level of Service			E				D				D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed												
C A	Cyclist Through Movement	Not Applicable	Not Applicable		Not Applicable	Not Applicable	Not Applicable	-	Not Applicable				
<u>.</u>	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic	Separated	Separated	Separated	-	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach Operating Speed	2-stage, LT box ≤ 40 km/h	2-stage, LT box ≤ 40 km/h	≥ 2 lanes crossed ≤ 40 km/h	≥ 2 lanes crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h		No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	One lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h
	Left Turning Cyclist	A	Α	D	D	В	В	-	В	В	В	В	В
	Level of Service	A	Α	D	D	В	В	-	В	В	В	В	В
	Level of Service			D				В				3	
sit	Average Signal Delay	≤ 20 sec	≤ 20 sec			≤ 30 sec	≤ 40 sec			≤ 30 sec	≤ 30 sec	≤ 40 sec	≤ 40 sec
an		С	С	-	-	D	E	-	-	D	D	E	E
Ĕ	Level of Service			C				E				E	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Richmond Stree	et / Church Stree	t		Adelaide Street	/ Berkeley Stree	et		Front Street / Lo	wer Jarvis Stree	et
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed Yes	RTOR prohibited Yes	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
Ľ	Right Turn Channel	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Textured/coloured	10-15m Textured/coloured	10-15m Textured/coloured	10-15m Textured/coloured
pa	DETSI Saara	markings	markings	markings	markings	markings	markings	markings	markings	pavement	pavement	pavement	pavement
ă.		04	74		04	01	91		<u> </u>	50		40	40
	Ped. Exposure to Traffic LoS	C	C	D	В	В	A	D	В	D	D	E	E
	Effective Walk Time	90	90 35	90 17	90 17	90	90 46	90 7	90 7	90 20	90	90	90
	Average Pedestrian Delay	17	17	30	30	11	11	38	38	20	20	20	20
	Pedestrian Delay LoS	В	B	D	D	В	B	D	D	C	<u> </u>	C	C
		C		D	D	B	B			D		E	F
	Level of Service		<u> </u>										
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane,		Mixed Traffic	Mixed Traffic	Enor	Curb Bike Lane,	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
/cle	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed</blank>												
<u>i</u>	Cyclist Through Movement			Not Applicable	-			-	Not Applicable				
Ω	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	No lane crossed	One lane crossed	No lane crossed		No lane crossed	No lane crossed		No lane crossed	One lane crossed	One lane crossed	≥ 2 lanes crossed < 40 km/b	≥ 2 lanes crossed < 40 km/b
	Left Turning Cyclist	B	B	B	-	= 40 KH/H	B	-	B	B	B	D	D
		В	В	B	-	В	B	_	B	B	В	D	D
	Level of Service			 B				B				D	
	Average Signal Delay												
su		-	-	<u> </u>	_	-	-		-	-		-	
Tra	Level of Service			-				-				-	

Consultant Scenario	AECOM MMLOS Assessment - AM Existi	ing Conditions (20	Project 20) Date	Ontario L 22/06/202	ine Subway 0								
	INTERSECTIONS	ŀ	Adelaide Street /	Parliament Stree	et		King Street / E	Berkeley Street			King Street /	George Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
u	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Textured/coloured	10-15m Textured/coloured	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Std transverse markings
eq	PETSI Score	74	64	99	<b>40</b>	88	88	61	53	85	<b>85</b>	61	61
<u> </u>	Ped. Exposure to Traffic LoS	с	С	Α	Е	В	В	С	D	В	В	С	С
	Cycle Length	90	90	90	90	80	80	80	80	80	80	80	80
	Effective Walk Time	34	34	10	10	34	34	7	7	36	36	7	7
	Average Pedestrian Delay	17	17	36	36	13	13	33	33	12	12	33	33
						-							
	Pedestrian Delay LoS	В	В	D	D	В	В	D	D	В	В	D	D
	Pedestrian Delay LoS	В	B	D	D	B	B	D	D	B	B	D	D
	Pedestrian Delay LoS Level of Service	B C	B C	D D	D E	B B	B	D D	D D	B B	B B	D D	D D
	Pedestrian Delay LoS Level of Service	B C	B C	D D E	D E	B B	B B I	D D D	D D	B	B	D D D	D D
	Pedestrian Delay LoS Level of Service Approach From	B C NORTH	B C SOUTH	D D E EAST	D E WEST	B B NORTH	B B SOUTH	D D EAST	D D WEST	B B NORTH	B B SOUTH	D D EAST	D D WEST
	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach	B C NORTH Mixed Traffic	B C SOUTH Mixed Traffic	D D E EAST	D E WEST Curb Bike Lane, Cycletrack or MUP	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic
<u></u>	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE blank>	B C NORTH Mixed Traffic	B C SOUTH Mixed Traffic	D D E EAST	D E WEST Curb Bike Lane, Cycletrack or MUP	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic
ycle	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed</blank>	B C NORTH Mixed Traffic	B C SOUTH Mixed Traffic	D D E EAST	D E WEST Curb Bike Lane, Cycletrack or MUP	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic
sicycle	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed Cyclist Through Movement</blank>	B C NORTH Mixed Traffic	B C SOUTH Mixed Traffic	D D E EAST	D E WEST Curb Bike Lane, Cycletrack or MUP Not Applicable	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic	B B NORTH Mixed Traffic	B B SOUTH Mixed Traffic	D D EAST Mixed Traffic	D D WEST Mixed Traffic
Bicycle	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed Cyclist Through Movement Separated or Mixed Traffic Left Turn Approach</blank>	B C NORTH Mixed Traffic Mixed Traffic One Jane crossed	B C SOUTH Mixed Traffic Mixed Traffic	D D E EAST -	D E WEST Curb Bike Lane, Cycletrack or MUP Not Applicable Separated	B B NORTH Mixed Traffic Mixed Traffic	B B SOUTH Mixed Traffic Mixed Traffic	D D EAST Mixed Traffic Mixed Traffic	D D WEST Mixed Traffic Mixed Traffic	B B NORTH Mixed Traffic Mixed Traffic	B B SOUTH Mixed Traffic Mixed Traffic	D D EAST Mixed Traffic Mixed Traffic	D WEST Mixed Traffic Mixed Traffic
Bicycle	Pedestrian Delay LoS         Level of Service         Approach From         Bicycle Lane Arrangement on Approach         IF Dedicated Right Turn Lane,         THEN Right Turn Configuration,         ELSE <blank>         Dedicated Right Turning Speed         Cyclist Through Movement         Separated or Mixed Traffic         Left Turn Approach         Operating Speed</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	D D E EAST - -	D E WEST Curb Bike Lane, Cycletrack or MUP Not Applicable Separated No lane crossed ≤ 40 km/h	B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	D D EAST Mixed Traffic Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	D WEST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h	D U U U U U U U U U U U U U U U U U U U
Bicycle	Pedestrian Delay LoS Level of Service Approach From Bicycle Lane Arrangement on Approach IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed Cyclist Through Movement Separated or Mixed Traffic Left Turn Approach Operating Speed Left Turning Cyclist</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D E EAST - -	D E WEST Curb Bike Lane, Cycletrack or MUP Cycletrack or MUP	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D EAST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D WEST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B	D U U U U U U U U U U U U U U U U U U U
Bicycle	Pedestrian Delay LoS         Level of Service         Approach From         Bicycle Lane Arrangement on Approach         IF Dedicated Right Turn Lane,         THEN Right Turn Configuration,         ELSE <blank>         Dedicated Right Turning Speed         Cyclist Through Movement         Separated or Mixed Traffic         Left Turn Approach         Operating Speed         Left Turning Cyclist</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D E EAST - -	D E WEST Curb Bike Lane, Cycletrack or MUP Voletrack or MUP	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D EAST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D WEST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B	D U U U U U U U U U U U U U U U U U U U
Bicycle	Pedestrian Delay LoS         Level of Service         Approach From         Bicycle Lane Arrangement on Approach         IF Dedicated Right Turn Lane,         THEN Right Turn Configuration,         ELSE <blank>         Dedicated Right Turning Speed         Cyclist Through Movement         Separated or Mixed Traffic         Left Turning Cyclist         Level of Service</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B B	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	D D E EAST - - B	D E WEST Curb Bike Lane, Cycletrack or MUP Cycletrack or MUP Not Applicable Separated No lane crossed ≤ 40 km/h B B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D D EAST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D U U U U U U U U U U U U U U U U U U U	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B	D U U U U U U U U U U U U U U U U U U U
Bicycle	Pedestrian Delay LoS         Level of Service         Approach From         Bicycle Lane Arrangement on Approach         IF Dedicated Right Turn Lane,         THEN Right Turn Configuration,         ELSE <blank>         Dedicated Right Turning Speed         Cyclist Through Movement         Separated or Mixed Traffic         Left Turning Speed         Left Turning Cyclist         Level of Service</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B B B	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D D E EAST - - B	D E WEST Curb Bike Lane, Cycletrack or MUP Cycletrack or MUP	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	D D EAST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	D D WEST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B B B	D D WEST WEST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B C D S S S S S S S S S S S S S S S S S S
Bicycle	Pedestrian Delay LoS         Level of Service         Approach From         Bicycle Lane Arrangement on Approach         IF Dedicated Right Turn Lane,         THEN Right Turn Configuration,         ELSE <blank>         Dedicated Right Turning Speed         Cyclist Through Movement         Separated or Mixed Traffic         Left Turning Speed         Left Turning Cyclist         Level of Service         Average Signal Delay</blank>	B C NORTH Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B B B C S S S S S S S S S S S S S S S	B C SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	D D E EAST - - B	D E WEST Curb Bike Lane, Cycletrack or MUP Voletrack or MUP Separated No lane crossed ≤ 40 km/h B B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B B C S 30 sec	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B B B B B B	D D EAST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B	D D WEST Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B	B B NORTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B B	B B SOUTH Mixed Traffic Mixed Traffic No lane crossed ≤ 40 km/h B B B B	D D EAST Mixed Traffic Mixed Traffic One lane crossed ≤ 40 km/h B B B B B B B	D U U U U U U U U U U U U U U U U U U U

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditi <mark>ons (2020</mark>	Project ) Date	Ontario Lin 22/06/2020	e Subway								
	INTERSECTIONS		Front Street / P	arliament Street		-	Front Street	Cherry Street		Т	he Esplanade / L	ower Jarvis Stre	eet
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	8 No Median - 2.4 m	8 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Protected/ Permissive	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
rian	Right Turns on Red (RToR) ? Ped Signal Leading Interval? Right Turn Channel Corner Radius	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR allowed Yes No Channel 10-15m	RTOR allowed Yes No Channel 10-15m	RTOR prohibited No No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR prohibited No No Channel 10-15m	RTOR allowed Yes No Channel 10-15m	RTOR allowed Yes No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m
est	Crosswalk Type	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
ede	PETSI Score	56	56	42	42	2	-9	73	59	58	58	88	88
Ĕ.	Ped. Exposure to Traffic LoS	D	D	E	E	F	F	С	D	D	D	В	В
	Cycle Length	90	90	90	90	80	80	80	80	70	70	70	70
	Effective Walk Time	28	28	18	18	8	8	12	24	11	11	32	32
	Average Pedestrian Delay	21	21	29	29	32	32	29	20	25	25	10	10
	Pedestrian Delay LoS	С	С	С	С	D	D	С	С	С	С	В	В
	Level of Service	D	D	E	E	F	F	С	D	D	D	В	В
	Level of Service			E				F			I	כ	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed												
C C	Cyclist Through Movement					Not Applicable	Not Applicable						
ä	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	D	D	В	В	В	В	D	D	В	В
	Loval of Sarvisa	В	В	D	D	В	В	В	В	D	D	В	В
				D				В					
Sit	Average Signal Delay		≤ 20 sec			≤ 10 sec	≤ 10 sec				≤ 20 sec	≤ 30 sec	≤ 30 sec
an:	Loval of Service	-	С	-	-	В	В	-	-	-	С	D	D
Ē.				C				В			I	2	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditions (2020	Project Date	Ontario Lin 22/06/2020	e Subway								
	INTERSECTIONS	The	Esplanade / Low	ver Sherbourne	Street		Mill Street / Pa	arliament Street			Mill Street /	Cherry Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	5 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m		8 No Median - 2.4 m	8 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive		Permissive	Protected/ Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control		Permissive or yield control	No right turn	Protected/ Permissive	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed		RTOR prohibited	RTOR allowed	RTOR prohibited	RTOR allowed
	Ped Signal Leading Interval?	No No Observati	No	No No Okana al	No Na Okamat	No No Dialet Tama	No	No Na Ohannal		No	No Na Dialat Taura	No Na Okamat	No Na Okanasi
au	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel		No Channel	No Right Turn	No Channel	No Channel
Ē		Zebra stripe hi-vis	Zehra strine hi-vis	Zehra strine hi-vis	Zehra strine hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zehra stripe hi-vis		Zehra strine hi-vis	Zehra strine hi-vis	Zehra strine hi-vis	Zehra strine hi-vis
es	Crosswalk Type	markings	markings	markings	markings	markings	markings	markings		markings	markings	markings	markings
ed	PETSI Score	40	40	88	88	74	64	73		-6	6	43	88
<u> </u>	Ped. Exposure to Traffic LoS	E	E	В	В	С	С	С	-	F	F	E	В
	Cycle Length	70	70	70	70	70	70	70		80	80	80	80
	Effective Walk Time	7	7	28	28	8	8	21		7	7	14	26
	Average Pedestrian Delay	28	28	13	13	27	27	17		33	33	27	18
	Pedestrian Delay LoS	С	С	В	В	C	С	В	-	D	D	С	В
	Level of Service	E	E	В	В	С	С	C	-	F	F	E	В
				E				C				F	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed					<b>P</b>							
Š	Cyclist Through Movement	Not Applicable	Not Applicable						-	Not Applicable	Not Applicable	Not Applicable	
i	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Separated	Separated	Separated	Mixed Traffic
	Left Turn Approach	No lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	No lane crossed	One lane crossed		≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	В	В	В	В	В	-	D	D	D	В
	Level of Service	В	В	В	В	В	В	В	-	D	D	D	В
				B				B				D	
Sit	Average Signal Delay		≤ 10 sec	≤ 30 sec	≤ 30 sec			≤ 20 sec		≤ 30 sec	≤ 20 sec		
an:	Lovel of Service	-	В	D	D	-	-	С	-	D	С	-	-
μ μ				D				C				D	

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Shuter Street / F	Parliament Stree	t		Queen Street / F	Parliament Stree	t		Queen Street / S	herbourne Stree	et
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
_	Ped Signal Leading Interval?	NO No Channol	No No Pight Turp	NO No Channol	NO No Channol	INO No Channol	NO No Pight Turp	NO No Channol	NO No Channol	No No Channol	NO No Pight Turp	NO No Channol	NO No Channol
ar	Corner Radius	10-15m	No Right Turn	10-15m	10-15m	10-15m	No Right Turn	10-15m	10-15m	10-15m	No Right Turn	10-15m	10-15m
it.		Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
e e	Crosswaik Type	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings
ed	PETSI Score	56	66	56	56	56	66	64	64	40	50	56	56
<u> </u>	Ped. Exposure to Traffic LoS	D	С	D	D	D	С	С	С	Е	D	D	D
	Cycle Length	80	80	80	80	90	90	90	90	90	90	90	90
	Effective Walk Time	22	22	19	19	15	15	37	37	32	32	13	13
	Average Pedestrian Delay	21	21	23	23	31	31	16	16	19	19	33	33
	Pedestrian Delay LoS	C	C	<u>с</u>	C	D	D	В	В	В	В	D	D
	Level of Service	D	C	D	D	D	D	C	C	E	D	D	D
				D				D				E	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE blank>												
e e	Dedicated Right Turning Speed	l											
Š	Cyclist Through Movement									Not Applicable	Not Applicable		
in	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic
	Left Turn Approach	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	D	D	В	В	В	В	В	В	В	В
	Level of Service	В	В	D	D	В	В	В	В	В	В	В	В
				D				B				3	
Sit	Average Signal Delay	≤ 20 sec	≤ 20 sec			≤ 20 sec	≤ 20 sec	≤ 30 sec	≤ 30 sec	≤ 30 sec	≤ 30 sec	≤ 30 sec	≤ 10 sec
an	Level of Service	С	С	-	-	С	С	D	D	D	D	D	В
L L				C				D					

Consultant Scenario	AECOM MMLOS Assessment - AM Existing	g Conditi <mark>ons (202</mark> 0	Project ) Date	Ontario Lin 22/06/2020	e Subway								
	INTERSECTIONS	Lake Shore	e Boulevard East	/ Lower Sherbo	ourne Street		Gerrard Street	Carlaw Avenue			Gerrard Street	/ Pape Avenue	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 Median > 2.4 m	4 Median > 2.4 m	7 Median > 2.4 m	6 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed							
c	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
<u>.</u>	Corner Radius	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m
str	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Std transverse	Std transverse	Std transverse
de		markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings
Ъ С	PETSIScore	61	58	13	31	56	56	58	58	85	85	55	55
	Ped. Exposure to Traffic LoS	C 100	D 100	<b>F</b>	E	D 70	D 70	D 70	D 70	<b>B</b>	<b>B</b>	D 70	D 70
	Effective Walk Time	23	120	120	120	70 17	70 17	70 11	70 11	70	70 21	70 8	70
	Average Pedestrian Delay	39	46	52	52	20	20	25	25	17	17	27	27
	Pedestrian Delay LoS	D	E	E	E	C	C	C	C	В	В	C	С
	Level of Service	D	E	F	E	D	D	D	D	В	В	D	D
				-	•			D	•			D	•
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic									
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed	I											
Š	Cyclist Through Movement	Not Applicable	Not Applicable										
i	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic									
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≥ 60 km/h	≥ 60 km/h	≤ 40 km/h							
						В	B	<u>в</u>	B	В	B	<u>в</u>	B
	Level of Service		<u> </u>		<u> </u>	В	В	<u> </u>	В	В	<u> </u>	<u> </u>	В
								В				В	
Si	Average Signal Delay					≤ 20 sec		≤ 20 sec	≤ 20 sec			≤ 10 sec	≤ 20 sec
an	Level of Service	-	-	-	-	С	-	С	С	-	-	В	С
E E				-				C				C	

Consultant	AECOM	Project	Ontario Line Subway
Scenario	MMLOS Assessment - AM Existing Conditions (2020)	Date	22/06/2020

	NTERSECTIONS		Gerrard Street	t / Marjory Ave	
	Crossing Side	NORTH	SOUTH	EAST	WEST
	Lanes	0 - 2	0 - 2	4	4
	Median	No Median - 2.4 m	No Median - 2.4 m	Median > 2.4 m	Median > 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
rian	Right Turns on Red (RToR) ? Ped Signal Leading Interval? Right Turn Channel Corner Radius	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m	RTOR allowed No No Channel 10-15m
esti	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
ed	PETSI Score	85	85	55	55
<u>م</u>	Ped. Exposure to Traffic LoS	В	В	D	D
	Cycle Length	70	70	70	70
	Effective Walk Time	28	28	8	8
	Average Pedestrian Delay	13	13	27	27
	Pedestrian Delay LoS	В	В	rd Street / Marjory AveUTH EAST WES-244an - 2.4 mMedian > 2.4 mMedian >issivePermissive or yield controlPermissive controlPermissive controlissivePermissive or yield controlPermissive controlPermissive controlallowedRTOR allowed NoRTOR all No ChannelNo Chanlel No Channel 10-15 m 10-15No Chanlel no Channel no Channel15m10-15m 10-15m10-15 10-15555555553DD07070888327273CC3DD07070888327273CC3DD	C
	Level of Service	В	В	rrard Street / Marjory AveSOUTH EAST WE0 - 2440 - 244adian - 2.4 mMedian > 2.4 mMedianermissive Permissive or yield Permissive controlssive or yieldPermissive or yield controlPermissive controlControlRTOR allowedRTOR NoNoNoNoOC hannelNo ChannelNo ChannelNo ChannelNo ChannelNo Channel10-15m10-15m10-15markingsmarkingsmarkingsmarkingsmarkingsmarkings85555BD170707288613272BC0DDDSOUTH EAST WEded Traffic< Mixed Traffic< Mixedane crossedOne lane crossedOne lane40 km/h≤ 40 km/h≤ 40BBBBBBBBBBBBBBBC10 sec≤ 20-B0	D
	Approach From	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>				
cle	Dedicated Right Turning Speed				
c	Cyclist Through Movement				
Ë	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach Operating Speed	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	One lane crossed ≤ 40 km/h	One lane crossed ≤ 40 km/h
	Left Turning Cyclist	В	В	В	В
		В	В	В	В
	Level of Service		E	3	
	Average Signal Delay			≤ 10 sec	≤ 20 sec
sue		-	-	В	С
Tra	Level of Service		(		

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Queen Street	/ Yonge Street			Richmond Stree	et / Yonge Street			Queen Street	Victoria Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m			
	Conflicting Left Turns	No left turn / Prohib.	Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.					
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control					
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No					
an	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel					
destri	Corner Radius Crosswalk Type	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Std transverse markings	10-15m Std transverse markings	10-15m Zebra stripe hi-vis markings					
)e(	PETSI Score	82	82	82	82	84	84	56	82	56	53	61	64
	Ped. Exposure to Traffic LoS	В	В	В	В	В	В	D	В	D	D	С	С
	Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
	Effective Walk Time	31	31	21	21	36	36	16	16	41	41	13	13
	Average Pedestrian Delay	19	19	26	26	16	16	30	30	13	13	33	33
	Pedestrian Delay LoS	В	В	C	C	В	В	D	D	В	В	D	D
	Level of Service	В	В	С	C	В	В	D	D	D	D	D	D
	Level of Service			C				D				D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic					
۵	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
, ci	Dedicated Right Turning Speed												
<u>í</u>	Cyclist Through Movement							Not Applicable	-				
Ξ Ω	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach Operating Speed	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h		One lane crossed ≤ 40 km/h	One lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h	No lane crossed ≤ 40 km/h					
	Left Turning Cyclist	В	В	В	В	В	В	В	-	В	В	В	В
		В	В	В	В	В	В	В	-	В	В	В	В
	Level of Service			3				B				B	
	Average Signal Delay	≤ 30 sec	≤ 20 sec	≤ 20 sec	≤ 20 sec	> 40 sec	≤ 30 sec					≤ 10 sec	≤ 30 sec
ans		D	С	С	С	F	D	-	-	-	-	В	D
Ĕ	Level of Service			2				F				D	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Richmond Stree	et / Victoria Stree	et	172	Shuter Street	/ Yonge Street			Shuter Street	Victoria Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	. Permissive	Permissive	No left turn / Prohib.	. Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
L C	Right Turn Channel	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	10-15m Std transverse	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Zebra stripe hi-vis
pa	DETSI Seoro	markings	markings 74	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings
ď			 	D		50	50	13	0	50	D	D	D
	Ped. Exposure to Traffic Los	00	00	00	<b>D</b>	00	00	00	<b>D</b>	80	80	80	80
	Effective Walk Time	90 36	90 36	90 17	90 17	90 11	90 11	90 41	90 41	32	32	8	8
	Average Pedestrian Delay	16	16	30	30	35	35	13	13	14	14	32	32
	Pedestrian Delay LoS	В	В	D	D	D	D	В	В	В	В	D	D
	Level of Service	С	С	D	D	D	D	С	В	D	D	D	D
				D								D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP
Ð	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
C le	Dedicated Right Turning Speed												
С С	Cyclist Through Movement			Not Applicable	-				-			Not Applicable	Not Applicable
<u></u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Mixed Traffic	Mixed Traffic	Separated	Separated
	Left Turn Approach	No lane crossed	One lane crossed	No lane crossed		One lane crossed	No lane crossed	One lane crossed		One lane crossed	One lane crossed	No lane crossed	No lane crossed
	Left Turning Cyclist	≤ 40 km/m	≤ 40 km/m	5 40 KII/II	-	5 40 KII/II	≤ 40 km/m	≤ 40 km/m	-	≤ 40 km/m	= 40 KII/II	≤ 40 km/m	≤ 40 km/m
		B	B	B	_	B	B	B	_	B	B	B	B
	Level of Service			 R				 R				 R	
.=	Average Signal Delay					< 10 sec	< 20 sec						
su			-			= 10 360	- 20 300			_			
Tran	Level of Service			-				C				-	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Queen Stree	t / Bay Street			Richmond Str	eet / Bay Street			Richmond Str	eet / York Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR prohibited No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed Yes	RTOR prohibited Yes
u	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn
lestria	Corner Radius Crosswalk Type	10-15m Std transverse markings	10-15m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Std transverse markings	No Right Turn Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings
)ec	PETSI Score	61	64	64	61	82	82	56	82	64	74	66	84
	Ped. Exposure to Traffic LoS	С	С	С	С	В	В	D	В	С	С	С	В
	Cycle Length	90	90	90	90	90	90	90	90	100	100	100	100
	Effective Walk Time	20	20	14	14	32	32	20	20	26	26	33	33
	Average Pedestrian Delay	27	27	32	32	19	19	27	27	27	27	22	22
	Pedestrian Delay LoS	C	С	D	D	В	В	С	С	C	C	С	C
	Level of Service	С	C	D	D	В	В	D	С	С	C	С	С
	Level of Service			כ				D				С	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	
Ø	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed	I											
ۍ د	Cyclist Through Movement							Not Applicable	-			Not Applicable	-
<u>m</u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	Separated	-
	Left Turn Approach	No lane crossed < 40 km/h	No lane crossed < 40 km/h	No lane crossed < 40 km/h	No lane crossed < 40 km/h	No lane crossed < 40 km/h	No lane crossed < 40 km/h	No lane crossed < 40 km/h		No lane crossed < 40 km/h	≥ 2 lanes crossed < 40 km/h	No lane crossed < 40 km/h	
	Left Turning Cyclist	B	B	B	B	В	B	B	-	B	D	B	-
		В	В	В	В	В	В	В	-	В	D	В	-
	Level of Service			3				В				D	
	Average Signal Delay			≤ 20 sec	≤ 20 sec								
ans		-	-	С	С	-	-	-	-	-	-	-	-
Ë	Level of Service			C				-				-	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing Conditions	Project s (2020) Date	Ontario Lin 22/06/2020	e Subway					
	INTERSECTIONS		Adelaide Street	t / George Street			Adelaide Stree	et / Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes	3 No Madian - 2.4 m	3 No Madian - 2.4 m	4 No Madian - 2.4 m	4 Na Madian - 2.4 m	4 No Madian - 2.4 m	4 No Madian - 2.4 m	7 No Median - 2.4 m	4 No Madian - 2.4 m
		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	Protected/	No Median - 2.4 m	No Median - 2.4 m	
	Conflicting Left Turns	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No
Ē	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Right Turn	Conventional with	No Right Turn	No Channel
tria	Corner Radius	No Right Turn	10-15m	No Right Turn	10-15m	No Right Turn	10-15m	No Right Turn	10-15m
est	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
ed	PETSI Score	91	81	82	<b>56</b>	<b>74</b>	<b>57</b>	<b>33</b>	<b>56</b>
<u>п</u>	Ped. Exposure to Traffic LoS	Α	В	В	D	С	D	E	D
	Cycle Length	90	90	90	90	90	90	90	90
	Effective Walk Time	44	44	7	7	26	26	19	8
	Average Pedestrian Delay	12	12	38	38	23	23	28	37
	Pedestrian Delay LoS	В	В	D	D	С	С	С	D
	Loval of Sanviao	В	В	D	D	С	D	E	D
	Level of Service			D				E	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>								
C e	Dedicated Right Turning Speed								
С С	Cyclist Through Movement			-	Not Applicable			-	Not Applicable
ä	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	-	Separated
	Left Turn Approach	No lane crossed			No lane crossed	One lane crossed			No lane crossed
	Left Turning Cyclist	≤ 40 km/n	-	-	≤ 40 km/n	≤ 40 km/n	-	_	≤ 40 km/n
		B	-	-	B	B	-	-	B
	Level of Service			B				B	
	Average Signal Delay								
sui		-	-	-	-	-	-	-	-
Tra	Level of Service			-				-	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Lin	e Subway								
	INTERSECTIONS	,	Richmond Stre	et / Jarvis Street	1		Queen Street	/ Church Street			Queen Street	/ Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	Protected/ Permissive	Permissive	No left turn / Prohib.	. Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.			
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No							
an	Right Turn Channel	Conventional with Receiving Lane	No Right Turn	No Channel	No Right Turn	No Channel							
destri	Corner Radius Crosswalk Type	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings							
Lee Lee	PETSI Score	65	74	40	82	56	56	56	56	64	64	64	64
_	Ped. Exposure to Traffic LoS	С	С	E	В	D	D	D	D	С	С	С	С
	Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
	Effective Walk Time	27	27	12	16	37	23	16	16	27	27	22	22
	Average Pedestrian Delay	22	22	34	30	16	25	30	30	22	22	26	26
	Pedestrian Delay LoS	С	С	D	D	В	С	D	D	С	С	С	С
		С	С	E	D	D	D	D	D	С	С	С	С
	Level of Service			Ē				D				Ċ	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic							
Ø	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
, To	Dedicated Right Turning Speed												
ට	Cyclist Through Movement			Not Applicable	-								
<u> </u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic							
	Left Turn Approach		One lane crossed	No lane crossed		One lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed
	Operating Speed		≤ 40 km/h	≤ 40 km/h		≤ 40 km/h							
	Left Turning Cyclist	-	<u> </u>	<u> </u>	-	В	<u> </u>	<u> </u>	<u> </u>	В	<u> </u>	В	В
	Level of Service	-	В	В	-	В	В	В	В	В	В	В	В
				В				B				В	
Sit	Average Signal Delay							≤ 20 sec	≤ 10 sec	≤ 20 sec	≤ 20 sec	≤ 20 sec	≤ 20 sec
an	Lovel of Service	-	-	-	-	-	-	С	В	С	С	С	С
μĒ.				-				C				С	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	g Conditions (2020)	Project Date	Ontario Lin 22/06/2020	e Subway	_							
	INTERSECTIONS		Shuter Street / S	herbourne Stree	et	A	delaide Street /	Sherbourne Stre	et		King Street /	Jarvis Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	No left turn / Prohib.	No left turn / Prohib.	. No left turn / Prohib.	Permissive	No left turn / Prohib.
	Conflicting Right Turns Right Turns on Red (RToR) ?	Permissive or yield control RTOR allowed	No right turn RTOR prohibited	Permissive or yield control RTOR allowed	Permissive or yield control RTOR allowed	No right turn RTOR prohibited	Permissive or yield control RTOR allowed						
_	Pice Signal Leading Interval?	No Channel	No Channel	No Channel	No Channel	No Pight Turn	No Channel	No Channel	No Pight Turn	No Channel	No Channel	Tes No Channal	Tes No Channal
iar						No Right Turn			No Right Turn				
destr	Corner Radius Crosswalk Type	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
L L L	PETSI Score	64	64	40	40	58	48	56	82	64	64	58	66
	Ped. Exposure to Traffic LoS	С	С	E	E	D	D	D	В	С	С	D	С
	Cycle Length	80	80	80	80	90	90	90	90	80	80	80	80
	Effective Walk Time	25	25	19	19	38	38	14	14	6	6	24	24
	Average Pedestrian Delay	19	19	23	23	15	15	32	32	34	34	20	20
	Pedestrian Delay LoS	В	B	C	С	В	В	D	D	D	D	С	C
	Level of Service	C	C	E	E	D	D	D	D	D	D	D	C
			l i i i i i i i i i i i i i i i i i i i	E			l l	D			l l	D	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
Cle Cle	Dedicated Right Turning Speed	I											
C C	Cyclist Through Movement	Not Applicable	Not Applicable		Not Applicable	Not Applicable	Not Applicable	-	Not Applicable				
ä	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic	Separated	Separated	Separated	-	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	2-stage, LT box	2-stage, LT box	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	No lane crossed		No lane crossed	No lane crossed	No lane crossed	One lane crossed	No lane crossed
	Loft Turning Cyclist	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n		≤ 40 km/n	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n	≤ 40 km/n
			<u>^</u>	D		B	B		B	B	D	B	B
	Level of Service					Б	D	 D	D	D	D	<u> </u>	D
	Average Signal Delay	< 20 000	< 20.000			< 40 000	< 40 000			< 20 000	< 30 000		< 10 000
USI							≥ 40 Sec						
Tran	Level of Service			D				E				E	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Lin 22/06/2020	e Subway								
	INTERSECTIONS		Richmond Stree	et / Church Stree	et		Adelaide Street	/ Berkeley Stree	t		Front Street / Lo	wer Jarvis Stree	et
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	. No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR prohibited No	RTOR allowed Yes	RTOR prohibited Yes	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
an	Right Turn Channel	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel						
destri	Corner Radius Crosswalk Type	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	No Right Turn Zebra stripe hi-vis markings	10-15m Textured/coloured pavement	10-15m Textured/coloured pavement	10-15m Textured/coloured pavement	10-15m Textured/coloured pavement
Pec	PETSI Score	64	74	58	84	81	91	56	82	56	56	40	40
_	Ped. Exposure to Traffic LoS	С	С	D	В	В	А	D	В	D	D	E	E
	Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
	Effective Walk Time	36	36	16	16	46	46	7	7	22	22	18	18
	Average Pedestrian Delay	16	16	30	30	11	11	38	38	26	26	29	29
	Pedestrian Delay LoS	В	В	D	D	В	В	D	D	C	C	C	C
	Level of Service	C	С	D	D	В	В	D	D	D	D	E	E
	Level of Service			D				D				E	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
۵)	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
)c	Dedicated Right Turning Speed	•											
<u>ડ</u>	Cyclist Through Movement			Not Applicable	-			-	Not Applicable				
<u> </u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	-	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	No lane crossed	One lane crossed	No lane crossed		No lane crossed	No lane crossed		No lane crossed	One lane crossed	One lane crossed	≥ 2 lanes crossed	$\geq 2$ lanes crossed
	Left Turning Cyclist	= 40 km/m	= 40 KH/H	<u>= 40 km/m</u>	_	= 40 km/m	= 40 KII/II	_	= 40 KII/II	= 40 km/m	<u>≤ 40 km/n</u>		
		B	B	B	_	В	B	_	B	B	B	D	D
	Level of Service			 B				B				2	
	Average Signal Delay												
sur		-	-	-	-	-	-	-	-	-	-		-
Trar	Level of Service			-				-				-	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway	]							
	INTERSECTIONS		Adelaide Street /	Parliament Stre	et		King Street / I	Berkeley Street			King Street /	George Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.
	Conflicting Right Turns	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
Ľ	Right Turn Channel	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	No Right Turn Zebra stripe hi-vis	10-15m Zebra stripe hi-vis	10-15m Textured/coloured	10-15m Textured/coloured	10-15m Std transverse	10-15m Std transverse	10-15m Std transverse	10-15m Std transverse	10-15m Std transverse	10-15m Std transverse
eq	PETSI Score	markings 74	markings 64	aq		pavement 88	pavement	markings 61	markings 53	markings 85	markings 85	markings 61	markings 61
<u>م</u>	Ped Exposure to Traffic LoS	С С		Δ	F	B	B	с.	0	B	B	C C	с.
	Cycle Length	90	90	90	90	80	80	80	80	80	80	80	80
	Effective Walk Time	34	34	30 10	10	35	35	7	7	36	36	7	7
	Average Pedestrian Delay	17	17	36	36	13	13	33	33	12	12	33	33
	Pedestrian Delay LoS	В	В	D	D	В	В	D	D	В	В	D	D
		C	C	D	F	B	B	D	D	B	В	D	D
	Level of Service			F								D	
	Approach From	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST	NORTH	SOUTH	FAST	WEST
			30011	LAST	Curb Bike Lane,		300m		WEST				WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed I raffic		Cycletrack or MUP	Mixed I raffic	Mixed I raffic	Mixed I raffic	Mixed Traffic	Mixed I raffic	Mixed Traffic	Mixed Traffic	Mixed I raffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed												
C C	Cyclist Through Movement			-	Not Applicable								
<u> </u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	One lane crossed	No lane crossed		No lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Left Turning Cyclist	5 40 KII/II	≤ 40 km/m	_	5 40 KM/M	≤ 40 km/m	≤ 40 Km/m	≤ 40 Km/m	S 40 KII/II	5 40 KII/II	S 40 KH/H	5 40 KII/II	≤ 40 km/m
		B	B	_	B	B	B	B	B	B	B	B	B
	Level of Service			R				R				B	
.=	Average Signal Delay	≤ 30 sec				≤ 30 sec	≤ 30 sec			≤ 30 sec	≤ 30 sec	≤ 10 sec	≤ 10 sec
su		D	_	-	-	D	D	-	-	D	D	B	<b>B</b>
Tran	Level of Service			D				D				D	

Consultant Scena <mark>ri</mark> o	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Front Street / P	arliament Street			Front Street /	Cherry Street		Т	he Esplanade / L	ower Jarvis Stre	eet
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	8 No Median - 2.4 m	8 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Protected/ Permissive	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR)?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
au	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
Ë	Corner Radius	10-15m Zehro string hi vie	10-15M Zehro string hi vie	10-15m Zehro string hi vie	10-15M Zehro string hi vie	10-15m Zahra atrina hi via	10-15M Zehre string hi vie	10-15M Zehro string hi vie	10-15M Zahra atrina hi via	10-15m Zehro string hi vie	10-15M Zehro string hi vie	10-15M Zahra atrina hi via	10-15M Zehre string hi vie
st	Crosswalk Type	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis
ede	PETSI Score	56	56	42	42	2	-9	<b>73</b>	<b>59</b>	58	<b>58</b>	88	88
ď	Ped. Exposure to Traffic LoS	D	D	E	E	F	F	С	D	D	D	В	В
	Cycle Length	90	90	90	90	80	80	80	80	70	70	70	70
	Effective Walk Time	28	28	18	18	8	8	12	24	11	11	32	32
	Average Pedestrian Delay	21	21	29	29	32	32	29	20	25	25	10	10
	Pedestrian Delay LoS	С	С	С	С	D	D	С	С	С	С	В	В
	Level of Service	D	D	E	E	F	F	С	D	D	D	В	В
	Level of Service			Ε				F			[	)	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
Ø	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
c e	Dedicated Right Turning Speed												
ີ ວິ	Cyclist Through Movement					Not Applicable	Not Applicable						
iii iii iii iii iii iii iii iii iii ii	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	D	D	В	В	В	В	D	D	В	В
	Lovel of Service	В	В	D	D	В	В	В	В	D	D	В	В
				D				В			[	)	
	Average Signal Delay		≤ 30 sec			≤ 20 sec	≤ 30 sec				≤ 10 sec	≤ 40 sec	≤ 30 sec
ans	Level of Service	-	D	-	-	С	D		-	-	В	E	D
<u> </u>				D				D			E	Ξ	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS	The	Esplanade / Low	ver Sherbourne S	Street		Mill Street / Pa	arliament Street			Mill Street /	Cherry Street	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	5 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m		8 No Median - 2.4 m	8 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive		Permissive	Protected/ Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control		Permissive or yield control	No right turn	Protected/ Permissive	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed		RTOR prohibited	RTOR allowed	RTOR prohibited	RTOR allowed
	Ped Signal Leading Interval?	NO	No No N	No	NO	NO	No	NO		No		No	No
trian	Corner Radius	No Channel 10-15m	No Channel 10-15m Zohro stripo bi vio	No Channel 10-15m	No Channel 10-15m	No Right Turn No Right Turn	No Channel 10-15m Zohro stripo bi vio	No Channel 10-15m Zehro string hi vig		No Channel 10-15m	No Right Turn No Right Turn	No Channel 10-15m Zebre etrine bi vie	No Channel 10-15m Zehra atrina hi via
SS 1	Crosswalk Type	Zebia stripe ni-vis	Zebia stripe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis	Zebra sinpe ni-vis	Zebia suipe ni-vis	Zebra stripe ni-vis		Zebra stripe ni-vis	Zebia suipe ni-vis	Zebra stripe ni-vis	Zebra stripe ni-vis
ede	PETSI Score	<b>40</b>	<b>40</b>	88	88	<b>74</b>	64	<b>73</b>		-6	6	43	88
<u>م</u>	Ped. Exposure to Traffic LoS	E	E	В	В	С	С	С	-	F	F	E	В
	Cycle Length	70	70	70	70	70	70	70		80	80	80	80
	Effective Walk Time	7	7	28	28	8	8	21		7	7	14	26
	Average Pedestrian Delay	28	28	13	13	27	27	17		33	33	27	18
	Pedestrian Delay LoS	С	С	В	В	C	С	В	-	D	D	С	В
	Level of Service	E	E	В	В	С	С	С	-	F	F	E	В
	Level of Service			E				C				F	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed	I											
Č	Cyclist Through Movement	Not Applicable	Not Applicable						-	Not Applicable	Not Applicable	Not Applicable	
Ξ	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	-	Separated	Separated	Separated	Mixed Traffic
	Left Turn Approach	No lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	No lane crossed	One lane crossed		≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	В	В	В	В	В	-	D	D	D	В
	Level of Service	В	В	В	В	В	В	В	-	D	D	D	В
				B				В				)	
Sit	Average Signal Delay		≤ 10 sec	≤ 30 sec	≤ 30 sec		≤ 20 sec			≤ 20 sec	≤ 20 sec		
an	Level of Service	-	В	D	D	-	С	-	-	С	С	-	-
L L	Level of Service			D				C				C	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS		Shuter Street / F	Parliament Street	t		Queen Street / F	Parliament Stree	t		Queen Street / S	herbourne Stree	et
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
c	Right Turn Channel	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel
ria	Corner Radius	10-15m	No Right Turn	10-15m	10-15m	10-15m	No Right Turn	10-15m	10-15m	10-15m	No Right Turn	10-15m	10-15m
stl	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis
de	PETSI Score	markings 56	markings 66	markings 56	56	markings 56	markings 66	markings 64	markings 64		markings 50	markings 56	markings 56
Å	Ped. Exposure to Traffic LoS	D	<u>с</u>		D	D	<u>с</u>	<u>с</u>	C	E	D	D	D
	Cycle Length	80	80	80	80	90	90	90	90	90	90	90	90
	Effective Walk Time	22	22	20	20	11	11	41	41	33	33	13	13
	Average Pedestrian Delay	21	21	23	23	35	35	13	13	18	18	33	33
	Pedestrian Delay LoS	С	С	С	С	D	D	В	В	В	В	D	D
	Level of Service	D	С	D	D	D	D	C	С	E	D	D	D
				2				D				E	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
cle	Dedicated Right Turning Speed	I											
c	Cyclist Through Movement									Not Applicable	Not Applicable		
ä	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic
	Left Turn Approach	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/n	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/n
		B	B			B	B	B	B	B	B	B	B
	Level of Service			<u>י</u> ר				B		5		B	
	Average Signal Delay	≤ 20 sec	≤ 20 sec			≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 40 sec	≤ 40 sec	≤ 30 sec	≤ 20 sec	≤ 10 sec
sur		С	С	-	-	В	В	D	E	Е	D	С	В
Tra	Level of Service			C				E				E	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing	Conditions (2020)	Project Date	Ontario Line 22/06/2020	e Subway								
	INTERSECTIONS	Lake Shore	e Boulevard Eas	t / Lower Sherbo	ourne Street		Gerrard Street /	/ Carlaw Avenue			Gerrard Street	/ Pape Avenue	
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 Median > 2.4 m	4 Median > 2.4 m	7 Median > 2.4 m	6 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m	4 Median > 2.4 m	4 Median > 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
_ _	Ped Signal Leading Interval?	N0 No Channel	N0 No Channel	N0 No Channel	NO No Channel	N0 No Channel	N0 No Channel	N0 No Channel	NO No Channel	NO No Channel	N0 No Channel	N0 No Channel	N0 No Channel
ar	Corner Radius	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m	10-15m
șt.	Crosswalk Type	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Zebra stripe hi-vis	Std transverse	Std transverse	Std transverse	Std transverse
<u>e</u>		markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings	markings
ec	PETSI Score	61	58	13	31	56	56	58	58	85	85	55	55
<u>е</u>	Ped. Exposure to Traffic LoS	С	D	F	E	D	D	D	D	В	В	D	D
	Cycle Length	120	120	120	120	70	70	70	70	70	70	70	70
	Effective Walk Time	19	19	8	8	9	9	19	8	21	21	8	8
	Average Pedestrian Delay	43	43	52	52	27	27	19	27	17	17	27	27
	Pedestrian Delay LoS	E	<u> </u>	E	E	C	C	В	C	В	В	С	C
	Lovel of Service	E	E	F	E	D	D	D	D	В	B	D	D
				F				D				5	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic					
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>												
	Dedicated Right Turning Speed												
Š	Cvclist Through Movement	Not Applicable	Not Applicable										
ğ	Separated or Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic					
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≥ 60 km/h	≥ 60 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h				
	Left Turning Cyclist	D	D	С	С	В	В	В	В	В	В	В	В
	Lovel of Service	D	D	С	С	В	В	В	В	В	В	В	В
				D				В			l	3	
sit	Average Signal Delay					≤ 30 sec		≤ 40 sec	≤ 30 sec			≤ 20 sec	≤ 10 sec
an		-	-	-	-	D	-	E	D	-	-	С	В
Ê	Level of Service			-				E				C	

Consultant Scenario	AECOM MMLOS Assessment - PM Existing Conditions	(2020) Date	Ontario Line 3 22/06/2020	Subway	
	INTERSECTIONS		Gerrard Stree	t / Mariory Ave	
	Crossing Side	NOPTH		EAST	WEST
	Lanes	0 - 2	0 - 2	4	4
	Median	No Median - 2.4 m	No Median - 2.4 m	Median > 2.4 m	Median > 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	<b>RTOR</b> allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	No	No	No	No
an Ce	Right Turn Channel	No Channel	No Channel	No Channel	No Channel
Li.	Corner Radius	10-15m	10-15m	10-15m	10-15m
st	Crosswalk Type	Std transverse	Std transverse	Std transverse	Std transverse
ede	PETSI Score	<b>85</b>	<b>85</b>	<b>55</b>	<b>55</b>
Ľ	Ped. Exposure to Traffic LoS	В	В	D	D
	Cycle Length	70	70	70	70
	Effective Walk Time	28	28	8	8
	Average Pedestrian Delay	13	13	27	27
	Pedestrian Delay LoS	В	В	С	С
		В	В	D	D
			[	0	
	Approach From	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration.				
Û	ELSE <blank></blank>				
<u>с</u>	Dedicated Right Turning Speed				
ပ်	Cyclist Through Movement				
<u>in</u>	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	No lane crossed	No lane crossed	One lane crossed	One lane crossed
	Operating Speed	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Left Turning Cyclist	В	В	В	В
	Level of Service	В	В	В	В
			E	3	
	Average Signal Delay			≤ 10 sec	≤ 10 sec
Ü				D	D
				D	D

Consultant Scenario	AECOM MMLOS Assessment - Existing Condition	ns (2020)	Project Date	Ontario Line Subway 22/06/2020
SEGMENTS		Shuter Street	Section	Section
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume Crowding PLoS	E	1-Yonge St to Victoria St 1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h no E 1.5 m 500 ped /hr B	2-Sherbourne St to Parliament St 1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h yes E 1.5 m 250 ped/hr B
Bicycle	Type of Cycling Facility         Number of Travel Lanes         Operating Speed         # of Lanes & Operating Speed LoS         Bike Lane (+ Parking Lane) Width         Bike Lane (+ Parking Lane) Width LoS         Bike Lane Blockages         Blockage LoS         Median Refuge Width (no median = < 1.8 m)	B	Curbside Bike Lane $\leq$ 1 each direction $\leq$ 50 km/hA> 1.8 mACareACareA $\leq$ 1.8 m refuge $\leq$ 3 lanes $\leq$ 40 km/hA	Mixed Traffic $2-3$ lanes total $\leq 40$ km/hB<1.8 m refuge
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	-	-	-

Consultant	AECOM		Project	<b>Ontario Line Subway</b>			
Scenario	MMLOS Assessment - Existing Condition	ns (2020)	Date	22/06/2020			
SECMENTS		Queen Street	Section	Section	Section	Section	Section
SEGMENTS			1-Jarvis St to Church St	2-Church St to Victoria St	3- Victoria St to Yonge St	4-Yonge St to Bay St	5-Bay St to University Ave
	Sidewalk Width		1.5 m	≥ 2 m	1.8 m	1.8 m	1.8 m
	Boulevard Width		< 0.5 m	< 0.5	< 0.5 m	< 0.5 m	< 0.5 m
<b>_</b>	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000	≤ 3000	≤ 3000	≤ 3000
<u>.</u>	Operating Speed		> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h
tt.	On-Street Parking	-	no	no	no	no	no
ő	Exposure to Traffic PLoS	E	E	В	В	В	В
Ď	Effective Sidewalk Width		1.5 m	2.5 m	2.0 m	2.0 m	2.0 m
ے ا	Pedestrian Volume		1000 ped/hr	1000 ped/hr	1000 ped/hr	500 ped /hr	250 ped/hr
	Crowding PLoS		С	В	В	В	В
	Level of Service		E	В	В	В	В
	Type of Cycling Facility		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Number of Travel Lanes		4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total
	Operating Speed		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	# of Lanes & Operating Speed LoS		D	D	D	D	D
	Bike Lane (+ Parking Lane) Width						
	Bike Lane Width LoS		-	-	-	-	-
Š	Bike Lane Blockages	О					
<u>.</u>	Blockage LoS		-	-	-	-	-
m	Median Refuge Width (no median = < 1.8 m)		< 1.8 m refuge	< 1.8 m refuge		< 1.8 m refuge	< 1.8 m refuge
	No. of Lanes at Unsignalized Crossing		≤ 3 lanes	≤ 3 lanes		≤ 3 lanes	≤ 3 lanes
	Sidestreet Operating Speed		≤ 40 km/h	≤ 40 km/h		≤ 40 km/h	≤ 40 km/h
	Unsignalized Crossing - Lowest LoS		А	А	-	А	А
	Level of Service		D	D	-	D	D
	Facility Type		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
N.	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8
Tran	Level of Service	D	D	D	D	D	D

Consultant	AECOM		Project	Ontario Line Subway				
Scenario	MMLOS Assessment - Existing Condition	ns (2020)	Date	22/06/2020		]		
SECMENTS		Dichmond Street	Section	Section	Section	Section	Section	Section
SEGIVIENTS		Richmond Street	1-Jarvis St to Chucrh St	2-Church St to Victoria St	3-Victoria St to Yonge St	4-Yonge St to Bay St	5-Bay St to York St	6-York St to University Ave
	Sidewalk Width		1.5 m	1.8 m	1.5 m	1.8 m	1.8 m	1.5 m
	Boulevard Width		< 0.5 m	< 0.5 m	< 0.5 m	< 0.5 m	< 0.5 m	< 0.5 m
<b>_</b>	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000	≤ 3000	≤ 3000	≤ 3000	≤ 3000
<u></u>	Operating Speed		> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h
i i i i i i i i i i i i i i i i i i i	On-Street Parking	_	no	no	no	no	no	no
B S S	Exposure to Traffic PLoS	E	E	В	E	В	В	E
ğ	Effective Sidewalk Width		1.5 m	2.0 m	1.5 m	2.0 m	2.0 m	1.5 m
e	Pedestrian Volume		250 ped/hr	500 ped /hr	500 ped /hr	500 ped /hr	500 ped /hr	500 ped /hr
	Crowding PLoS		В	В	В	В	В	В
	Level of Service		E	В	E	В	В	E
	Type of Cycling Facility		Physically Separated	Physically Separated	Physically Separated	Physically Separated	Physically Separated	Physically Separated
	Number of Travel Lanes							
	Operating Speed							
	# of Lanes & Operating Speed LoS		_	_	_	-	-	_
	Bike Lane (+ Parking Lane) Width							
<del>–</del>	Bike Lane Width LoS		-	-	-	-	-	-
Š	Bike Lane Blockages	Δ						
<u>.</u>	Blockage LoS	~	-	-	-	-	-	-
<u>m</u>	Median Refuge Width (no median = < 1.8 m)							
	No. of Lanes at Unsignalized Crossing							
	Sidestreet Operating Speed							
	Unsignalized Crossing - Lowest LoS		A	A	A	A	A	A
	Level of Service		Α	Α	Α	Α	Α	Α
÷	Facility Type							
ડા	Friction or Ratio Transit:Posted Speed							
Trar	Level of Service	-	-	-	-	-	-	-

Consultant Scenario	AECOM MMLOS Assessment - Existing Condition	ns (2020)	Project Date	Ontario Line Subway 22/06/2020		
SEGMENTS		Adelaide Street	Section 1-Jarvis St to George St	Section 2-George St to Sherbourne St	Section 3-Sherbourne St to Berkeley St	Section 4-Berkeley St to Parliament St
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume Crowding PLoS Level of Service	E	1.8 m < 0.5 m ≤ 3000 > 30 to 50 km/h no B 2.0 m 250 ped/hr B B	1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h yes E 1.5 m 250 ped/hr B E	1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h yes E 1.5 m 250 ped/hr B E	1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h no E 1.5 m 250 ped/hr B E
Bicycle	Type of Cycling Facility         Number of Travel Lanes         Operating Speed         # of Lanes & Operating Speed LoS         Bike Lane (+ Parking Lane) Width         Bike Lane (+ Parking Lane) Width         Bike Lane Blockages         Blockage LoS         Median Refuge Width (no median = < 1.8 m)	A	Physically Separated A A A	Physically Separated  Physically Separated  A  A  A	Physically Separated  -  -  A  A	Physically Separated  Physically Separated  A
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	-	-	-	_	_

Consultant Scenario	AECOM MMLOS Assessment - Existing Conditio	ns (2020)	Project Date	Ontario Line Subway 22/06/2020		
SEGMENTS		King Street	Section 1-Jarvis St to George St	Section	Section	
Pedestrian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed On-Street Parking <u>Exposure to Traffic PLoS</u> Effective Sidewalk Width Pedestrian Volume <u>Crowding PLoS</u> Level of Service	Е	1.5 m < 0.5 m ≤ 3000 > 30 to 50 km/h no E 1.5 m 1000 ped/hr C E		-	
Bicycle	Type of Cycling Facility         Number of Travel Lanes         Operating Speed         # of Lanes & Operating Speed LoS         Bike Lane (+ Parking Lane) Width         Bike Lane Width LoS         Bike Lane Blockages         Blockage LoS         Median Refuge Width (no median = < 1.8 m)		Mixed Traffic 4-5 lanes total ≤ 40 km/h D - - - -		- - - -	
Transit	Facility Type Friction or Ratio Transit:Posted Speed Level of Service	E	Mixed Traffic Vt/Vp ≤ 0.6 E		-	



Consultant	tant AECOM		Project	Ontario Line Subway 22/06/2020		1	
Scenario MMLOS Assessment - Existing Cor		ns (2020)	Date			]	
SEGMENTS		Janvis Stroot	Section	Section	Section	Section	Section
SEGMENTS		Jaivis Street	1-Queen St to Richmond St	2-Richmond St to Adelaide St	3-Adelaide St to King St	4-King St to Front St	5-Front St to The Esplanade
Pedestrian	Sidewalk Width	Е	1.8 m	1.5 m	1.5 m	1.5 m	1.8 m
	Boulevard Width		< 0.5 m	< 0.5 m	< 0.5 m	< 0.5 m	< 0.5 m
	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000	≤ 3000	≤ 3000	≤ 3000
	Operating Speed		> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h	> 30 to 50 km/h
	On-Street Parking		no	no	no	no	no
	Exposure to Traffic PLoS		В	E	E	E	В
	Effective Sidewalk Width		2.0 m	1.5 m	1.5 m	1.5 m	2.0 m
	Pedestrian Volume		250 ped/hr	500 ped /hr	500 ped /hr	500 ped /hr	250 ped/hr
	Crowding PLoS		В	В	В	В	В
	Level of Service		В	E	E	E	В
Bicycle	Type of Cycling Facility	D	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Number of Travel Lanes		4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total	4-5 lanes total
	Operating Speed		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	# of Lanes & Operating Speed LoS		D	D	D	D	D
	Bike Lane (+ Parking Lane) Width						
	Bike Lane Width LoS		-	-	-	-	-
	Bike Lane Blockages						
	Blockage LoS		-	-	-	-	-
	Median Refuge Width (no median = < 1.8 m)						< 1.8 m refuge
	No. of Lanes at Unsignalized Crossing						≤ 3 lanes
	Sidestreet Operating Speed						≤ 40 km/h
	Unsignalized Crossing - Lowest LoS		-	-	-	-	Α
	Level of Service		-	_	-	-	D
Transit	Facility Type	D	Mixed Traffic	Mixed Traffic	Mixed Traffic		
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8		
	Level of Service		D	D	D	-	-


# Appendix K

Multi-Modal Level of Service Assessment – Ontario Line North

Consultant Scenario	HDR MMLOS Assessment - Existin	ng Condition (	Project Date	Ontario Line 3 15/06/2020	Subway								
	INTERSECTIONS		1 - Eglinton Avei	nue & Laird Driv	e	2 -	Eglinton Avenu	e & Don Mills Ro	bad	3	- St Dennis Drive	e & Don Mills Ro	bad
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	0 - 2 No Median - 2.4 m	5 No Median - 2.4 m	6 No Median - 2.4 m	5 No Median - 2.4 m	6 No Median - 2.4 m	7 No Median - 2.4 m	5 No Median - 2.4 m	6 No Median - 2.4 m	7 No Median - 2.4 m	7 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m
	Conflicting Left Turns	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive	Protected	Protected	Permissive	Permissive	Permissive	Permissive	Permissive	Protected/ Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
E	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
tri	Corner Radius	5-10m	5-10m	5-10m	5-10m	10-15m	10-15m	10-15m	10-15m	5-10m	5-10m	5-10m	5-10m
Pedest	Crosswalk Type	Zebra stripe hi-vis markings	Std transverse markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings					
	PETSI Score	89	38	24	41	31	15	40	23	5	5	71	71
	Ped. Exposure to Traffic LoS	В	E	F	E	E	F	E	F	F	F	С	С
	Cycle Length	120	120	120	120	140	140	140	140	120	120	120	120
	Effective Walk Time	8	19	47	23	14	9	21	7	57	45	8	8
	Average Pedestrian Delay	52	43	22	39	57	61	51	63	17	23	52	52
	Pedestrian Delay LoS	E	E	С	D	E	F	E	F	В	С	E	E
	Lovel of Service	E	E	F	E	E	F	E	F	F	F	E	E
				F			F	=			le de la companya de	F	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration,	> 50 m											
e	Dedicated Right Turning Speed	≤ 25 km/h <b>F</b>											
c, Z	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
Bi	Left Turn Approach	No lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed						
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h				
	Left Turning Cyclist	В	D	E	E	F	F	F	F	F	F	D	В
	Lovel of Service	F	D	E	E	F	F	F	F	F	F	D	В
				-				-				-	
sit	Average Signal Delay	> 40 sec	≤ 40 sec	≤ 20 sec	≤ 30 sec	> 40 sec	> 40 sec	≤ 40 sec	> 40 sec	≤ 20 sec	≤ 30 sec	≤ 30 sec	≤ 30 sec
an		F	E	С	D	F	F	E	F	С	D	D	D
Tr	Level of Service			F									

Consultant Scenario	HDR MMLOS Asse	essment - Exist	Project Date	Ontario Line 15/06/2020	Subway	• • •									
4 - G	ateway Bouleva	rd N & Don Mills	Road	5 - G	ateway Bouleva	d S & Don Mills	Road	6 - Ove	erlea Boulevard	& Thorncliffe Pa	rk Drive	7 - Ove	erlea Boulevard a	& Thorncliffe Pa	rk Drive
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
7 No Median - 2.4 m	7 No Median - 2.4 m	5 No Median - 2.4 m Protected/	4 No Median - 2.4 m	7 No Median - 2.4 m	7 No Median - 2.4 m	5 No Median - 2.4 m Protected/	6 No Median - 2.4 m Protected/	3 No Median - 2.4 m	5 No Median - 2.4 m Protected/	5 No Median - 2.4 m	5 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m Protected/
Permissive	Permissive	Permissive	Permissive	Permissive	Protected/ Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed No	RTOR allowed	RTOR allowed No	RTOR allowed No	RTOR allowed No
No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
5-10m Zebra stripe hi-vis markings	5-10m Zebra stripe hi-vis markings	5-10m Zebra stripe hi-vis markings	5-10m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	10-15m Zebra stripe hi-vis markings	5-10m Zebra stripe hi-vis markings							
8	8	<b>41</b>	57	7	7	<b>40</b>	23	74	41	<b>41</b>	<b>41</b>	74	74	<b>41</b>	41
F	F	E	D	F	F	E	F	С	E	E	E	С	С	E	E
128	128	128	128	144	144	144	144	110	110	110	110	100	100	100	100
55	44	8	8	16	16	8	42	18	18	32	14	8	8	33	33
21	28	56	56	57	57	64	36	38	38	28	42	42	42	22	22
С	С	<u> </u>	E	E	E	F	D	D	D	C	E	E	E	С	С
F	F	E	E	F	F	F	F	D	E	E	E	E	E	E	E
		F				-				E				<u>E</u>	
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Mixed Traffic					
		Bike lane shifts to the left of right turn													
		≤ 25 km/h													
Mixed Traffic	Mixed Traffic	D Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Mixed Traffic					
≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	≥ 2 lanes crossed	One lane crossed	1 lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed			
> 60 km/h	> 60 km/h	> 40 to < 50 km/h	> 40 to < 50 km/h	> 50 to $< 60$ km/h	> 50 to < 60 km/h	> 40 to < 50 km/h	> 40 to < 50 km/h	> 40 to $< 50$ km/h	> 40 to < 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 40 to $< 50$ km/h	> 40 to < 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h
F	F	E	D	F	F	E	E	D	C	F	F	B	D	F	F
F	F	Е	D	F	F	E	E	D	С	F	F	В	D	F	F
		F								F				F	
≤ 20 sec	≤ 20 sec	≤ 40 sec	≤ 30 sec	> 40 sec	> 40 sec	≤ 40 sec	≤ 40 sec	≤ 40 sec	≤ 20 sec	≤ 30 sec	> 40 sec	≤ 30 sec	≤ 30 sec	≤ 30 sec	≤ 20 sec
С	С	E	D	F	F	E	E	E	С	D	F	D	D	D	С
		E								F				D	

Consultant Scenario	HDR MMLOS Asse	ssment - Exis	Project Date	Ontario Line 3 15/06/2020	Subway	• -									
	8 - Laird Drive 8	Millwood Road	I	9 -	Overlea Bouleva	rd & Millwood R	load	1	I0 - Millwood Roa	d & Pape Ave	nue	1	1 - O'Connor Dri	ve & Pape Aven	ue
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
4 No Median - 2.4 m	5 No Median - 2.4 m		4 No Median - 2.4 m	7 No Median - 2.4 m	6 No Median - 2.4 m	5 Median > 2.4 m		6 No Median - 2.4 m	4 No Median - 2.4 m		4 Median > 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m
Protected/ Permissive	Permissive		Permissive	Permissive	Permissive	Protected/ Permissive		Protected/ Permissive	No left turn / Prohib.		No left turn / Prohib.	Protected/ Permissive	Permissive	Permissive	Permissive
No right turn	Permissive or yield control		Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control		No right turn	Permissive or yield control		Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No		No	No	No	No		No	No		No	No	No	No	No
No Channel	No Channel		Conv'tl without Receiving Lane	No Channel	No Channel	No Channel		Conv'tl without Receiving Lane	No Right Turn		Conv'tl without Receiving Lane	No Channel	No Channel	No Channel	No Channel
5-10m	0-3m		>25m	10-15m	10-15m	10-15m		>25m	No Right Turn		>25m	5-10m Zahara atria a hiaria	5-10m Zahara atria a hiaria	5-10m Zahara atria a hiaria	5-10m Zahara atria a hiaria
markings	markings		markings	markings	markings	markings		markings	markings		markings	Zebra surpe ni-vis markings	Zebra stripe ni-vis markings	Zepra surpe ni-vis markings	Zebra stripe ni-vis markings
<b>59</b>	<b>40</b>		<b>54</b>	4	20	<b>40</b>		<b>26</b>	71		<b>64</b>	57	57	57	57
D	E	-	D	F	F	E	-	F	С	-	С	D	D	D	D
100	100	1	100	100	100	100	1	100	1	1	100	80	80	80	80
17	64	1	10	43	8	8	1	51	1	1	13	11	11	28	17
34	6	0	41	16	42	42	0	12	0	0	38	30	30	17	25
D	Α	Α	E	В	E	E	Α	В	Α	Α	D	D	D	В	C
D	E	Α	E	F	F	E	Α	F	С	Α	D	D	D	D	D
	E					F			F					D	
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Pocket Bike Lane	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
			≤ 50 m		> 50 m Introduced right turn lane										
			≤ 25 km/h		≤ 25 km/h										
			D	Not Applicable	D	Not Applicable	Not Applicable			-					
Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Separated	Separated	Mixed Traffic	Mixed Traffic	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
No lane crossed	≥ 2 lanes crossed	No lane crossed	One lane crossed	No lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed		One lane crossed			One lane crossed	One lane crossed	One lane crossed	One lane crossed
> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h		> 50 to < 60 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h
В	E	В	D	С	С	F	F	-	E	-	-	D	D	D	D
В	E	В	D	С	D	F	F	-	E	-	-	D	D	D	D
≤ 40 sec	≤ 40 sec		≤ 40 sec	≤ 30 sec	≤ 20 sec	≤ 20 sec		≤ 20 sec	≤ 40 sec	≤ 20 sec		≤ 30 sec	> 40 sec	≤ 20 sec	≤ 30 sec
E	E	-	E	D	С	С	-	С	E	С	-	D	F	С	D
	E					)			E					F	

Consultant Scenario	HDR MMLOS Asse	ssment - Exist	Project Date	Ontario Line S 15/06/2020	Subway	• • •	
12	- Cosuburn Ave	nue & Pape Aver	nue	13	- Mortimer Aver	nue & Pape Aven	ue
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
4 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m	3 No Median - 2.4 m	4 No Median - 2.4 m	4 No Median - 2.4 m	0 - 2 No Median - 2.4 m	0 - 2 No Median - 2.4 m
Permissive							
Permissive or yield control RTOR allowed No							
No Channel							
5-10m Zebra stripe hi-vis markings							
57	57	74	74	57	57	89	89
D	D	С	С	D	D	В	В
70	70	70	70	70	70	70	70
18	18 <b>19</b>	13 23	13 23	18 <b>19</b>	18 <b>19</b>	15 22	15 22
B	B	<u> </u>	<u> </u>	B	B	C	C
D	D	C	C	D	D	C	С
	[	D				D	
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
		Not Applicable	Not Applicable				
Mixed Traffic	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
One lane crossed	One lane crossed	1 lane crossed	1 lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed
> 40 to < 50 km/b	> 40 to < 50 km/h	> 40 to < 50 km/b	> 40 to < 50 km/b	> 40 to < 50 km/b			
<b>D</b>	<b>D</b>	<b>C</b>	<b>C</b>		<b>D</b>	<b>B</b>	<b>B</b>
D	D	С	С	D	D	В	В
≤ 30 sec	≤ 30 sec	≤ 20 sec	≤ 20 sec	≤ 20 sec	> 40 sec	≤ 20 sec	≤ 30 sec
D	D	С	С	С	F	С	D
						F	

Consultant Scenario	HDR MMLOS Assessment - Existi	ng Condition (	Project Date	Ontario Line 3 15/06/2020	Subway	]							
	INTERSECTIONS	14	- Danforth Aver	nue & Pape Aver	nue	15 - Don Mills Road & Wynford Drive				16 - Barber Mills Road & Barber Greene Road			
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes Median	4 No Median - 2.4 m	4 No Median - 2.4 m	5 No Median - 2.4 m	5 No Median - 2.4 m	7 No Median - 2.4 m	6 No Median - 2.4 m	5 No Median - 2.4 m	0 - 2 No Median - 2.4 m	7 No Median - 2.4 m	7 No Median - 2.4 m	4 No Median - 2.4 m	3 No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	No left turn / Prohib.	Protected/ Permissive	No left turn / Prohib.	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive
Ē	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control	No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ? Ped Signal Leading Interval?	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR prohibited No	RTOR allowed No	RTOR allowed No	RTOR allowed No	RTOR allowed No
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	Receiving Lane	No Right Turn	No Channel	No Right Turn	No Channel	No Channel	No Channel	No Channel
estria	Corner Radius Crosswalk Type	5-10m Textured/coloured	5-10m Textured/coloured	5-10m Textured/coloured	5-10m Textured/coloured	10-15m Std transverse	No Right Turn	5-10m Zebra stripe hi-vis	No Right Turn	5-10m Zebra stripe hi-vis	5-10m Zebra stripe hi-vis	5-10m Zebra stripe hi-vis	5-10m Zebra stripe hi-vis
Pede	PETSI Score	57	57	41	41	13		<b>41</b>		8	8	57	74
	Ped. Exposure to Traffic LoS	D	D	E	E	F	_	E	_	F	F	D	С
	Cycle Length	84	84	84	84	144	144	144	144	120	120	120	120
	Effective Walk Time	14	14	28	28	7	7	7	7	7	7	7	7
	Average Pedestrian Delay	29	29	19	19	65	65	65	65	53	53	53	53
	Pedestrian Delay LoS	С	С	В	В	F	F	F	F	E	E	E	E
		D	D	E	E	F	F	F	F	F	F	E	E
	Level of Service			Ē				F				F	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank> Dedicated Right Turning Speed</blank>												
cle	Cyclist Through Movement												
cy	Separated or Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
<u>n</u>	Left Turn Approach	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed		≥ 2 lanes crossed		≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	> 40 to ≤ 50 km/h		> 50 to < 60 km/h	> 50 to < 60 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h
		D	D	E	E	F	-	E	-	F	F	D	D
	Level of Service	<u>D</u>	U	<u> </u>	<u> </u>	г	-	<u> </u>		<u> </u>		E	D
	Average Signal Delay	< 40 sec	< 30 sec	< 20 sec	< 20 sec	< 30 sec	< 20 sec	> 40 sec		< 30 sec	< 30 sec	< 40 sec	< 40 sec
nsi		F	_ 00 000	<u> </u>	<u> </u>	_ 00 000		F		D	_ 00 000	F	F
Trai	Level of Service			E				F				E	

#### Multi-Modal Level of Service - Segments Form

Consultant Scenario	HDR MMLOS Assessment - Existing	Project ODate	Ontario Line Subway 16-Jun-20								
SEGMENTS		A - Eglinton Ave W	B - Eglinton Ave E	C - Laird	D - Don Mills Road (Eglinton to Rochefort)	E - Don Mills Road M (Rochefort to St Dennis)	F - Don Mills Road S (St Denis to Gateway)	G - Don Mills Road SS	H - Gateway	I - Overlea (Don Mills to E of Thorncliffe)	J - Overlea (E of Thorncliffe to Thorncliffe)
	Sidewalk Width	1.5 m	1.5 m	1.8 m	1.5 m	1.5 m	1.5 m	1.8 m	1.8 m	1.8 m	1.8 m
rian	Boulevard Width	< 0.5 m	< 0.5 m	< 0.5 m	0.5 - 2 m	> 2 m	0.5 - 2 m	> 2 m	0.5 - 2 m	< 0.5 m	0.5 - 2 m
	Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000
	Operating Speed	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 30 to 50 km/h	> 50 to 60 km/h	> 50 to 60 km/h
st	Un-Street Parking	no	no	no	no	no	no	yes	yes	no	no
<u>ě</u>	Exposure to Tramic PLoS	F 4 5 m	F	F	E	E A C and	E				E
ĕ	Effective Sidewalk wildth	1.5 m	1.5 M	1.5 m	1.5 m	1.5 m	1.5 m	2.0 m	1.5 m	1.5 m	1.5 m
e.	Pedestrian Volume	250 ped/nr	250 ped/nr	250 ped/nr	250 ped/nr	250 ped/hr	250 ped/hr	250 ped/nr	250 ped/hr	250 ped/nr	250 ped/hr
	Crowding PLos		B	P	B	• • • • • • • • • • • • • • • • • • •	<b>•</b>	P	в	B	
	Level of Service	F	F	F	E	E	E	C	С	E Contra de	E
	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Physically Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Number of Travel Lanes	4-5 lanes total	4-5 lanes total	4-5 lanes total	≥ 6 lanes total	≥ 6 lanes total	≥ 6 lanes total	<del>2 ea. dir. (no median)</del>	2-3 lanes total	4-5 lanes total	4-5 lanes total
	Operating Speed	≥ 50 to 60 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h	<del>&gt;50 to 70 km/h</del>	>40 to <50 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h
	# of Lanes & Operating Speed LoS	E	E	E	F	F	F	A	D	E	E
ch.	Bike Lane (+ Parking Lane) Width	<u>≥ 1.8 m</u>			≥ <del>1.8 m</del>	≥ <del>1.8 m</del>	<u>≥ 1.8 m</u>	≥ <del>1.8 m</del>		≥ <del>1.8 m</del>	≥ <del>1.8 m</del>
<del></del>	Bike Lane Width LoS	A	-	-	A	A	A	A	-	A	A
S S	Bike Lane Blockages	Rare			Rare	Rare	Rare	Rare		Rare	Rare
<u>.0</u>	Blockage LoS	A	-	-	A	A	A	A	-	A	A
<u> </u>	Median Refuge Width (no median = < 1.8 m)	< 1.8 m refuge	< 1.8 m refuge	< 1.8 m refuge	≥ 1.8 m refuge	≥ 1.8 m refuge	≥ 1.8 m refuge	< 1.8 m refuge	≥ 1.8 m refuge	< 1.8 m refuge	≥ 1.8 m refuge
	No. of Lanes at Unsignalized Crossing	4-5 lanes	4-5 lanes	4-5 lanes	4-5 lanes	4-5 lanes	4-5 lanes	<del>≤ 3 lanes</del>	≤ 3 lanes	4-5 lanes	≤ 3 lanes
	Sidestreet Operating Speed	>40 to 50 km/h	>40 to 50 km/h	>40 to 50 km/h	>40 to 50 km/h	>40 to 50 km/h	>40 to 50 km/h	<del>&gt;50 to 60 km/h</del>	≤ 40 km/h	>40 to 50 km/h	>40 to 50 km/h
	Unsignalized Crossing - Lowest LoS	С	С	С	В	B	В	A	А	С	A
	Level of Service	E	E	E	F	F	F	А	D	E	E
sit	Facility Type	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
an	Friction or Ratio Transit:Posted Speed	Vt/Vp ≤ 0.6	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8	Vt/Vp ≤ 0.6	Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8
E E	Level of Service	E	D	D	D	D	D	D	E	D	D

#### Multi-Modal Level of Service - Segments Form

Consultant Scenario	HDR MMLOS Assessment - Existing	Project CoDate	Ontario Line Subway 16-Jun-20								
SEGMENTS		K - Overlea (Thorncliffe to Millwood Road)	L - Thorncliffe	M - Wicksteed	N - Millwood N	O - Millwood S	P - Pape N	Q - Pape NM	R - Pape SM	S - Pape S	T - Brentcliff
rian	Sidewalk Width Boulevard Width Avg Daily Curb Lane Traffic Volume Operating Speed	1.8 m > 2 m > 3000 > 50 to 60 km/h	1.5 m > 2 m > 3000 > 30 to 50 km/h	1.5 m < 0.5 m > 3000 > 50 to 60 km/h	1.8 m < 0.5 m > 3000 > 50 to 60 km/h	1.5 m < 0.5 m > 3000 > 50 to 60 km/h	1.5 m < 0.5 m > 3000 > 30 to 50 km/h	≥ 2 m < 0.5 > 3000 > 30 to 50 km/h	≥ 2 m < 0.5 > 3000 > 30 to 50 km/h	1.8 m < 0.5 m > 3000 > 30 to 50 km/h	1.8 m < 0.5 m > 3000 > 30 to 50 km/h
Pedest	Chi-Street Parking Exposure to Traffic PLoS Effective Sidewalk Width Pedestrian Volume Crowding PLoS Level of Service	D 1.5 m 250 ped/hr B D	C 1.5 m 250 ped/hr B C	F 1.5 m 250 ped/hr B	F 1.5 m 250 ped/hr B	F 1.5 m 250 ped/hr B F	E 1.5 m 250 ped/hr B E	B 2.0 m 250 ped/hr B B	B 1.5 m 250 ped/hr B B	1.5 m 250 ped/hr B	D 1.5 m 250 ped/hr B D
	Type of Cycling Facility Number of Travel Lanes Operating Speed # of Lanes & Operating Speed LoS	Mixed Traffic 4-5 lanes total ≥ 50 to 60 km/h	Mixed Traffic ≤ 2 (no centreline) >40 to <50 km/h	Mixed Traffic 2-3 lanes total ≥ 50 to 60 km/h	Mixed Traffic 4-5 lanes total ≥ 50 to 60 km/h	Curbside Bike Lane ≥ 3 each direction >50 to 70 km/h	Mixed Traffic 4-5 lanes total >40 to <50 km/h	Mixed Traffic 2-3 lanes total ≤ 40 km/h	Mixed Traffic 2-3 lanes total ≤ 40 km/h	Mixed Traffic 4-5 Ianes total ≤ 40 km/h	Mixed Traffic 2-3 lanes total >40 to <50 km/h
ycle	Bike Lane (+ Parking Lane) Width Bike Lane Width LoS Bike Lane Blockages	≥ <del>1.8 m</del> A <del>Rare</del>	•	•	≥ 1.8 m A Rare	≥1.5 to <1.8 m B Rare	≥ <u>1.8 m</u> A Rare	<mark>≥1.8 m</mark> A Rare	- -	≥1.8 m A Rare	<mark>≥1.8 m</mark> A Rare
Bic	Biockage Los Median Refuge Width (no median = < 1.8 m) No. of Lanes at Unsignalized Crossing Sidestreet Operating Speed	A < 1.8 m refuge 4-5 lanes >40 to 50 km/h		- < 1.8 m refuge ≤ 3 lanes >50 to 60 km/h	A ≥ 1.8 m refuge ≤ 3 lanes >50 to 60 km/h	A ≥ 1.8 m refuge ≤ 3 lanes >50 to 60 km/h	A < 1.8 m refuge 4-5 lanes >40 to 50 km/h	A < 1.8 m refuge 4-5 lanes ≤ 40 km/h	< 1.8 m refuge 4-5 lanes ≤ 40 km/h	A < 1.8 m refuge 4-5 lanes ≤ 40 km/h	A < 1.8 m refuge ≤ 3 lanes >40 to 50 km/h
	Unsignalized Crossing - Lowest LoS Level of Service	c E	B B	c E	B E	B D	C E	B B	B	B B D	B D

# Multi-Modal Level of Service - Segments Form

Consultant	
Scenario	

HDR Project
MMLOS Assessment - Existing C

Ontario Line Subway 16-Jun-20

			V Den Mille Drive Falinaten te	10/ Don Millo Drive Munford to
SEGMENTS		U - Beth Nealson Drive	V - Don Willis Driv e- Eglington to	W - Don Millis Drive - Wyntord to Barber Greene
SLOWILINTS			vvymora	
	Sidewalk Width	1.5 m	1.5 m	1.5 m
	Boulevard Width	< 0.5 m	< 0.5 m	0.5 - 2 m
~	Avg Daily Curb Lane Traffic Volume	> 3000	> 3000	> 3000
a	Operating Speed	> 30 to 50 km/h	> 50 to 60 km/h	> 50 to 60 km/h
Ę	On-Street Parking	no	no	no
<b>B</b> S	Exposure to Traffic PLoS	E	F	E
<b>T</b>	Effective Sidewalk Width	1.5 m	1.5 m	1.5 m
e e e e e e e e e e e e e e e e e e e	Pedestrian Volume	250 ped/hr	250 ped/hr	250 ped/hr
	Crowding PLoS	В	В	В
	Level of Service	E	F	E
	Type of Cycling Facility	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Number of Travel Lanes	≤ 2 (no centreline)	≥ 6 lanes total	≥ 6 lanes total
	Operating Speed	>40 to <50 km/h	≥ 50 to 60 km/h	≥ 50 to 60 km/h
	# of Lanes & Operating Speed LoS	В	F	F
	Bike Lane (+ Parking Lane) Width	<u>≥ 1.8 m</u>		
	Bike Lane Width LoS	A	-	-
S S	Bike Lane Blockages	Rare		
<u>.</u>	Blockage LoS	A	-	-
<b>m</b>	Median Refuge Width (no median = < 1.8 m)	< 1.8 m refuge	< 1.8 m refuge	< 1.8 m refuge
	No. of Lanes at Unsignalized Crossing	≤ 3 lanes	≥ 6 lanes	≥ 6 lanes
	Sidestreet Operating Speed	>40 to 50 km/h	>40 to 50 km/h	>40 to 50 km/h
	Unsignalized Crossing - Lowest LoS	В	F	F
	Level of Service	В	F	F