

TRAFFIC IMPACT STUDY

**3171 LAKESHORE ROAD WEST
TOWN OF OAKVILLE,
REGIONAL MUNICIPALITY OF HALTON**

**OFFICIAL PLAN AMENDMENT,
ZONING BY-LAW AMENDMENT &
DRAFT PLAN OF SUBDIVISION**

**PREPARED FOR:
VOGUE WYCLIFFE (OAKVILLE) LIMITED**

PREPARED BY:

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**ORIGINAL: DECEMBER 2017
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Revision Number	Date	Comments
Rev. 0	December 2017	First Submission
Rev. 1	July 2019	Second Submission – TIS Addendum to reflect updated development proposal
Rev. 2	February 2022	Third Submission – TIS Addendum to reflect updated development proposal

1.0 Executive Summary

C.F. Crozier & Associates Inc. (Crozier) was retained by Vogue Wycliffe (Oakville) Limited to undertake a Traffic Impact Study (TIS) in support of the Official Plan Amendment, Zoning By-Law Amendment and Draft Plan of Subdivision application for a residential development located at 3171 Lakeshore Road West in the Town of Oakville. A Traffic Impact Study was prepared by Crozier in December 2017 and concluded that the development proposal for 22 single-family detached dwelling units is supportable from a traffic operations perspective. Further, an Addendum was prepared in July 2019 to reflect an updated development proposal.

Given the change in site plan from the July 2019 Traffic Study, this TIS Addendum addresses the traffic impacts associated with the most current site plan proposal. The new development proposal includes 8 semi-detached dwelling units and 27 dual frontage townhomes. The new development proposal includes an internal roadway that connects to Lakeshore Road West at the approximate location of West Street. The site (30 units) will be served via the connection at Lakeshore Road; only the 5 units fronting the Victoria Street cul-de-sac will use Victoria Street. The condo-Road connection to the Victoria Street cul-de-sac will include retractable bollards for emergency access only.

The proposed development is forecast to generate 18 and 24 total two-way trips during the weekday a.m. and p.m. peak hours, respectively. This corresponds to 15 and 20 total two-way trips through the Lakeshore Road West main site access, and 3 and 4 total two-way trips through the Victoria Street minor site access.

Considering the projected trips and travel routes, this TIS Addendum analyzes the Lakeshore Road West and West Street / Site Access as the sole study intersection. Turning movement counts were conducted by Spectrum Traffic at the study intersection on Tuesday June 29, 2021, between 6:00 a.m. - 10:00 a.m. and 3:00 p.m. - 7:00 p.m. The stop-controlled study intersection is operating satisfactorily under existing conditions at a level of service (LOS) "C" with all movements below capacity and no 95th percentile queueing issues.

As requested by the Town of Oakville in the previous submissions, a five year horizon (i.e., 2026) and a compounded growth rate of 1% per annum was incorporated herein.

The stop-controlled study intersection of Lakeshore Road at Victoria Street is expected to continue operating satisfactorily under 2026 future background conditions. The intersection is forecast to operate below capacity at a LOS "D" and "F" during the a.m. and p.m. peak hours, respectively. No queueing issues are forecast.

Site traffic from both the main site access opposite to West Street and the Victoria Street minor access were considered to project future total traffic at the study intersection. Under 2026 future total conditions, the stop controlled intersection of Lakeshore Road West and West Street / the proposed site access is expected to operate at a LOS "D" and "F" during the a.m. and p.m. peak hours, respectively. Delays of up 50.6 seconds and no queueing issues are forecast during the peak hours.

The Condo Road connection to Lakeshore Road West will be at the approximate location of the easterly access to the existing Garden Centre, therefore, similar to the existing access and the West Street connection, no safety issues related to sightlines is forecast.

In conclusion, the proposed development can be supported from a traffic operations perspective as the site's traffic is forecast to be accommodated by the boundary road network and. Any minor changes to the Site Plan will not materially affect the conclusions contained within this report.

TABLE OF CONTENTS

1.0	Executive Summary	iii
2.0	Introduction	1
2.1	Background.....	1
2.2	Development Proposal.....	1
2.3	Purpose and Scope.....	1
3.0	Existing Conditions	2
3.1	Development Lands	2
3.2	Study Intersections	2
3.3	Boundary Road Network	2
3.4	Transit Operations	3
3.5	Traffic Data.....	3
3.6	Traffic Modelling.....	3
3.7	Intersection Operations	3
4.0	Future Background Conditions	4
4.1	Horizon Years	4
4.2	Growth Rate.....	4
4.3	Intersection Operations	4
5.0	Site Generated Traffic	5
5.1	Trip Generation.....	5
5.2	Trip Distribution and Assignment	6
6.0	Future Total Conditions	7
6.1	Basis of Assessment.....	7
6.2	Intersection Operations	7
7.0	Warrants Assessment	8
8.0	Conclusions.....	8

LIST OF TABLES

Table 1:	2021 Existing Traffic Operations
Table 2:	2026 Future Background Traffic Operations
Table 3:	Trip Generation
Table 4:	2026 Future Total Traffic Operations

LIST OF APPENDICES

Appendix A:	Town of Oakville Excerpts
Appendix B:	Transit Data
Appendix C:	Traffic Data
Appendix D:	LOS Definitions
Appendix E:	Detailed Capacity Analysis Worksheets
Appendix F:	TTS Data
Appendix G:	Warrants Assessment Excerpts

LIST OF FIGURES

Figure 1:	Site Plan
Figure 2:	Site Location
Figure 3:	2021 Existing Traffic Volumes
Figure 4:	2026 Future Background Traffic
Figure 5:	Site Trip Distribution
Figure 6:	Site Trip Assignment
Figure 7:	2026 Future Total Traffic Volumes

2.0 Introduction

2.1 Background

C.F. Crozier & Associates Inc. (Crozier) was retained by Vogue Wycliffe (Oakville) Limited to undertake a Traffic Impact Study (TIS) in support of the Official Plan Amendment, Zoning By-Law Amendment and Draft Plan of Subdivision application for a residential development located at 3171 Lakeshore Road West in the Town of Oakville.

A Traffic Impact Study was prepared by Crozier in December 2017 and concluded that the development proposal for 22 single-family detached dwelling units is supportable from a traffic operations perspective. Further, an Addendum was prepared in July 2019 to reflect an updated development proposal. Given the change in site plan from the July 2019 Traffic Study, this TIS Addendum addresses the traffic impacts associated with the most current site plan proposal presented herein.

2.2 Development Proposal

Per the Site Plan prepared by VA3 Design Inc. (dated January 19, 2022), the new development proposal includes 8 semi-detached dwelling units and 27 dual frontage townhomes. Of the 35 total dwelling units, 30 dwelling units will front an internal condo roadway that is proposed to connect to the existing road network at the Lakeshore Road West and West Street intersection. Furthermore, 5 dwelling units will front a northern extension of Victoria Street which ends in a cul-de-sac south of the subject land. As the new access configuration has shifted the main site access onto Lakeshore Road West, a Traffic Impact Study Addendum became required to address the traffic related impacts of the proposed changes. **Figure 1** illustrates the Site Plan.

The previous development proposal in 2017 consisted of 25 single-detached dwelling units with adjoining lands considered and the extension of Victoria Street to connect the segments east and west of the subject property. The development proposal in 2019 consisted of the same site statistics as the current development proposal (27 townhomes and 8 semi-detached dwelling units), with a single site access servicing the entire development at Victoria Street (southern segment). These previous site plans are no longer being pursued.

2.3 Purpose and Scope

The purpose of the study is to evaluate the transportation-related impacts of the proposed development on the boundary road network and to recommend any required mitigation measures, if warranted.

The study reviews the following main aspects of the proposed development from a transportation engineering perspective:

- Existing, future background, and future total traffic operations on the boundary road network during the weekday a.m. and p.m. peak hours;
- Forecasted trip generation and distribution of the proposed development;
- Mitigation measures to support the proposed development, if required;
- Warrants Assessment on the need for intersection signalization

The study has been completed in accordance with the procedures set out in the Region of Halton's "Transportation Impact Study Guidelines" (January 2015). The scope of work in this Addendum is similar to the scope of work in the previous study and the 2019 Addendum, which was based on confirmed Terms of Reference with Town of Oakville staff via correspondence (Phone call, Syed Rizvi/Alexander Fleming, May 10, 2017).

3.0 Existing Conditions

3.1 Development Lands

The subject property covers an area of approximately 1.00 ha. A Garden Centre currently exists on the subject lands with two existing accesses to Lakeshore Road West. The subject property is zoned as RL3-0 and RL8 "Residential Low" per Town of Oakville Zoning By-Law 2014-014. **Appendix A** contains the zoning information for the subject property.

The subject property is bound by existing residential developments to the north, Lakeshore Road West to the east, existing residential developments to the south and the existing Victoria Street alignment to the west. **Figure 2** illustrates the site location.

3.2 Study Intersections

Given the new development proposal, As previously noted in **Section 2.2**, the revised site plan now calls for a site access connection to Lakeshore Road West at West Street serving the majority of the dwelling units (30 units), with 5 dwelling units being serviced by Victoria Street. Therefore, the Lakeshore Road West and West Street / Site Access intersection was analyzed.

Study intersections pertaining to the Victoria Street were not analyzed due to the immaterial trip generation from the 5 units fronting the cul-de-sac (refer to **Section 5.1**).

3.3 Boundary Road Network

Lakeshore Road West is an east-west minor arterial roadway with an urban cross-section. At the study intersection, however, the road travels north-south and has been designated as such for the purposes of Synchro analysis. Lakeshore Road West is under the jurisdiction of the Town of Oakville with a posted speed limit of 50 km/h. The roadway consists of two travel lanes and a two-way left-turn lane (TWLTL). Bicycle lanes exist on both sides of the roadway, separated from the travel lanes by a solid white line. An approximate 2.0 metre concrete sidewalk exists directly adjacent to the north side of the roadway. An approximate 1.5 metre concrete sidewalk exists on the south side of the roadway, separated by an in-grass boulevard.

West Street is a north-south local roadway running perpendicular to Lakeshore Road West. West Street is under the jurisdiction of the Town of Oakville with an assumed speed limit of 50 km/h per municipal regulation. The roadway consists of two travel lanes. The roadway possesses gravel shoulders that permits on-street parking along the roadway. No bike lanes or sidewalks are located along the length of the street. The roadway was modelled as east-west for the purposes of Synchro analysis.

The sole study intersection of Lakeshore Road West and West Street is stop controlled on the minor approach only (West Street). The north and south Lakeshore Road West approaches possess a left turn lane via the two-way left-turn lane, along with a shared through and right-turn lane. The West

Street east approach has a single shared lane for left, right and through movements. Finally, the existing Garden centre site access has a single shared lane for left, right and through movements.

3.4 Transit Operations

Oakville Transit operates Bus Route 14 (Lakeshore Road West) within the study area. The route connects GO Appleby to GO Oakville and spans east-west on Lakeshore Road West. The route operates from Monday to Sunday with peak hour transit headways of 30 minutes during the weekday. There are bus stops located at the north-east and south-west corners of the intersection of Lakeshore Road West and Chalmers Street.

Appendix B contains relevant transit information.

3.5 Traffic Data

As no turning movement counts (TMC's) were available from the Town of Oakville, TMC's were commissioned and conducted by Spectrum Traffic staff at the study intersection on Tuesday June 30, 2021, between 6:00 a.m. - 10:00 a.m. and 3:00 p.m. - 7:00 p.m. These time periods are reflective of commuter peak hours and thus were considered appropriate for traffic analysis of the proposed development.

Intersection analysis was conducted utilizing peak hour factors (PHFs) as calculated for each intersection approach. For the Lakeshore Road West approaches, the PHFs were calculated directly, while for the minor approaches, a peak hour factor of 0.85 was assigned and assumed to be sufficient.

The traffic count data and signal timing plans are contained in **Appendix C**. PHFs as calculated for the Lakeshore Road approaches are included in the traffic count data. **Figure 3** illustrates the 2021 existing traffic volumes.

3.6 Traffic Modelling

The boundary road network was modelled in Synchro 9.2 using existing roadway geometrics, collected traffic data and signal timings from the provided timing plans. For the purposes of the model, the two-way left-turn lane was modelled as a standard left turn lane at the study intersection.

The results for signalized intersection operations were derived from Synchro. The results for unsignalized intersection operations were derived using HCM2000 methodology. 95th percentile queue lengths were derived from Synchro.

Intersections are assessed using a Level of Service (LOS) metric with ranges of delay assigned a letter from "A" to "F"; "A" representing low delays and "F" representing heavy delays. The LOS definitions for signalized and unsignalized intersections are included in **Appendix D**.

3.7 Intersection Operations

The existing intersection operations at the study intersections were analyzed using the existing traffic volumes illustrated in **Figure 3**. Detailed capacity analysis worksheets are included in **Appendix E**.

Table 1 outlines the 2021 existing traffic operations.

Table 1: 2021 Existing Traffic Operations

Intersection	Control	Peak Hour	Level of Service ¹	Control Delay	Critical v/c ratio ²	95 th Percentile Queue Length > Storage Length ¹
Lakeshore Road West and West Street	Stop (Minor Street)	A.M.	C	21.5 s	0.50 (NBTR)	None
		P.M.	C	23.7 s	0.65 (SBTR)	None

Note 1: The Level of Service of a unsignalized intersection is based on the critical control delay per approach. The 95th percentile queue lengths were derived from Sim-Traffic reports using 3 minute seeding, 10-minute simulation and an average of 5 runs.

Note 2: The critical v/c ratio is considered to be the maximum v/c ratio for movements at the intersection where the maximum v/c ratio does not exceed the critical thresholds. All v/c ratios for through or shared through/turning movements exceeding 0.85 and all v/c ratios for exclusive turning movements exceeding 0.95 are listed and highlighted per the Region's TIS Guidelines.

The stop-controlled intersection of Lakeshore Road West and West Street is operating below capacity at a LOS "C" during the weekday a.m. and p.m. peak hours. A maximum control delay of 23.7 seconds (westbound movements) and volume-to-capacity ratio of 0.65 in the p.m. peak hour. These operations indicate that there is reserve capacity on the boundary road network for future traffic growth.

4.0 Future Background Conditions

4.1 Horizon Years

Per the Region's Transportation Impact Study guidelines, horizon years consisting of five years and potentially ten years from the date of full build-out must be analyzed. The year of full build-out is unknown but it is expected to occur on a short-term scale (ie. within two years).

The previous studies separately analyzed the 2022 and 2024 horizon years to reflect a five-year horizon from the date of study (2017 TIS, 2019 TIS Addendum). For consistency, the five-year horizon from the date of study was analyzed in this Addendum. Therefore, the 2026 horizon year was analyzed.

4.2 Growth Rate

Crozier was advised by Town of Oakville staff to apply a compounded growth rate of 1% per annum to existing traffic volumes in the original study. For consistency, this growth rate was applied in this Addendum.

4.3 Intersection Operations

The 2026 future background intersection operations at the study intersections were analyzed using the 2026 future background traffic volumes illustrated in **Figure 4**. Detailed capacity analysis worksheets are included in **Appendix E. Table 2** outlines the 2026 future background traffic operations.

Table 2: 2026 Future Background Traffic Operations

Intersection	Control	Peak Hour	Level of Service ¹	Control Delay	Critical v/c ratio ²	95 th Percentile Queue Length > Storage Length ¹
Lakeshore Road West and West Street	Stop (Minor Street)	A.M.	C	23.0 s	0.53 (NBTR)	None
		P.M.	D	25.9 s	0.63 (SBTR)	None

Note 1: The Level of Service of a unsignalized intersection is based on the critical control delay per approach. The 95th percentile queue lengths were derived from Sim-Traffic reports using 3 minute seeding, 10-minute simulation and an average of 5 runs.

Note 2: The critical v/c ratio is considered to be the maximum v/c ratio for movements at the intersection where the maximum v/c ratio does not exceed the critical thresholds. All v/c ratios for through or shared through/turning movements exceeding 0.85 and all v/c ratios for exclusive turning movements exceeding 0.95 are listed and highlighted per the Region's TIS Guidelines.

The stop-controlled minor intersection of Lakeshore Road West and West Street is projected to operate below capacity at a LOS "D" or better during the weekday a.m. and p.m. peak hours. A maximum control delay of 25.9 seconds (westbound movements) and volume-to-capacity ratio of 0.65 in the p.m. peak hour.

5.0 Site Generated Traffic

The proposed development will result in additional vehicles on the boundary road network that would otherwise not exist. The proposed development will also result in additional turning movements at the study intersections. Further, the proposed development will remove existing traffic movements from the garden centre. This section analyzes each of these elements to arrive at a net trip assignment that can be added to the future background scenario.

5.1 Trip Generation

Trip generation for the proposed development was forecasted using published data from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, which has been released since the preparation of the previous Traffic Impact Study. The ITE Trip Generation Manual is a compendium of industry collected trip generation data across North America for a variety of land uses and is used industry-wide as a source for trip generation forecasts.

Land Use Category (LUC) 220 "Multifamily Housing (Low-Rise)" was applied all 35 dwelling units. Trip generation based on the fitted curve equation methodology were higher and adopted herein to be conservative.

As previously discussed in **Section 2.2**, 30 of the dwelling units are proposed to be serviced by a site access off of Lakeshore Road West, while 5 dwelling units are proposed to be serviced by an extension of the southern segment of Victoria Street. Thus, separate trip generations for each portion of the development have been provided.

Table 3 outlines the trip generation for the proposed development.

Table 3: Trip Generation

Development Access	ITE Land Use Category	Units	Peak Hour	Trips Generated		
				Inbound	Outbound	Total
Condo Road at Lakeshore Road West/ West Street	LUC 220 "Multifamily Housing (Low-Rise)"	30	A.M.	3	12	15
			P.M.	13	7	20
Victoria Street		5	A.M.	1	2	3
			P.M.	3	1	4
Total Development Trip Generation		35	A.M.	4	14	18
			P.M.	16	8	24

The proposed development is expected to generate 18 and 24 total two-way trips during the weekday a.m. and p.m. peak hours, respectively. Given the sole residential land use, no internal synergy trips or pass-by trips are expected for the proposed development.

As part of the proposed development, the existing garden centre will be removed. Thus, the traffic associated with the current Garden centre must be removed from the study intersection. Thus, the traffic movements associated with the site access west approach were removed from the 2026 Total Traffic scenario as these trips originate from the garden centre.

5.2 Trip Distribution and Assignment

The trips generated by the development were distributed to the boundary roadways in the previous Traffic Impact Study Addendum based on 2016 Transportation Tomorrow Survey (TTS) data. TTS is a comprehensive survey of transportation characteristics of households in the Greater Toronto Area (GTA) and surrounding areas.

TTS results were filtered to reflect auto trips exiting from the 2006 GTA zone that the subject property is currently located in (4001) between 7:00 a.m. - 10:00 a.m. The zone is residential in nature, and thus the TTS results will be appropriate for the proposed residential development. Trip distribution was determined based on the most convenient route of travel between each origin-destination pair. Refer to **Appendix F** for the TTS data.

The resulting trip distribution is as follows:

- 75% to the east (e.g., Toronto, Mississauga, Oakville, etc.)
- 5% to the north (e.g., Milton, etc.)
- 20% to the west (e.g., Burlington, Hamilton, etc.)

Trips arriving from and departing to the east are expected to do so via Lakeshore Road West, where they will either use the Queen Elizabeth Way (QEW) via Bronte Road or continue on Lakeshore Road West. Trips arriving from and departing to the north are expected to do so via Lakeshore Road West and Bronte Road. Trips arriving from and departing to the west are expected to do so via Lakeshore Road West (towards Burlington) or the QEW. Trips utilizing the QEW would be expected to access the highway from the site via Lakeshore Road West and Great Lakes Boulevard / Burloak Drive.

As previously outlined, the proposed development is expected to generate 3 and 4 total two-way trips via Victoria Street during the weekday a.m. and p.m. peak period, respectively. These trip generation forecasts are negligible from a traffic operations perspective and are typically not associated with traffic operational issues nor external roadway improvements. Nevertheless, to forecast worst-case

traffic operations, these vehicle movements were introduced to the study intersection as southbound and northbound through movements travelling to and from the minor site access, respectively.

Considering the above, the trip distributions at the study intersection of the Condo Road at Lakeshore Road West / West Street are presented in **Figure 5** and the site trip assignment is shown in **Figure 6**.

6.0 Future Total Conditions

6.1 Basis of Assessment

The traffic impacts arising from the proposed development were assessed based on the site generated traffic illustrated in **Figure 6**. The resulting total traffic volumes for the weekday a.m. and p.m. peak hours are illustrated in **Figure 7**.

6.2 Intersection Operations

The 2026 future total intersection operations at the study intersections were analyzed using the 2026 future total traffic volumes illustrated in **Figure 7**. Detailed capacity analysis worksheets are included in **Appendix E**.

Table 4 outlines the 2026 future background traffic operations.

Table 4: 2026 Future Total Traffic Operations

Intersection	Control	Peak Hour	Level of Service ¹	Control Delay	Critical v/c ratio ²	95 th Percentile Queue Length > Storage Length ₁
Lakeshore Road West and West Street	Stop (Minor Street)	A.M.	D	29.6 s (EBLTR)	0.53 (NBTR)	None
		P.M.	F	50.6 s (EBLTR)	0.64 (SBTR)	None

Note 1: The Level of Service of a unsignalized intersection is based on the critical control delay per approach. The 95th percentile queue lengths were derived from Sim-Traffic reports using 3 minute seeding, 10-minute simulation and an average of 5 runs.

Note 2: The critical v/c ratio is considered to be the maximum v/c ratio for movements at the intersection where the maximum v/c ratio does not exceed the critical thresholds. All v/c ratios for through or shared through/turning movements exceeding 0.85 and all v/c ratios for exclusive turning movements exceeding 0.95 are listed and highlighted per the Region's TIS Guidelines.

The boundary road network is expected to operate at a LOS "F" during the weekday p.m. peak hour under 2026 future total conditions, with no critical volume-to-capacity ratios or 95th percentile queue lengths. A maximum control delay of 50.6 seconds is expected at the site access during the p.m. peak period. The forecasted control delay is typical for stop-controlled connections during peak hours and traffic is expected to operate with minimal delays to the minor connections outside the peaks.

To further assess the adequacy of the existing stop control in the future study horizon, a warrants assessment was conducted to determine if the intersection warrants traffic signalization. The results of the warrants assessment are discussed in **Section 7.0**.

The Condo Road connection to Lakeshore Road West will be at the approximate location of the easterly access to the existing Garden Centre, therefore, similar to the existing access and the West Street connection, no safety issues related to sightlines is forecast.

7.0 Warrants Assessment

Traffic signal warrant analysis was conducted using an Ontario Traffic Manual (OTM) Book 12 configured excel sheet based on the average hourly volume approach. Traffic signals were found to be not warranted at the study intersection of Lakeshore Road and West Street under the study horizons. The traffic signal control warrant results for the critical study intersections under the 2026 total traffic volumes scenario are presented in **Appendix G**. Additionally, given the low volumes at the site access, no left turn lanes are warranted at the proposed site accesses.

8.0 Conclusions

The analysis contained within this report has resulted in the following key findings:

- Analysis of 2021 existing traffic conditions indicate that the study intersection operates at LOS "C" or better during the weekday a.m. and p.m. peak hour.
- The stop-controlled study intersection of Lakeshore Road at Victoria Street is expected to continue operating satisfactorily under 2026 future background conditions. The intersection is forecast to operate below capacity at a LOS "C" and "D" during the a.m. and p.m. peak hours, respectively. No queueing issues are forecast.
- The proposed development is forecast to generate 18 and 24 total two-way trips during the weekday a.m. and p.m. peak hours, respectively. This corresponds to 15 and 20 total two-way trips through the Lakeshore Road West main site access, and 3 and 4 total two-way trips through the Victoria Street minor site access.
- Under 2026 Total Traffic, the stop controlled West Street and site access connections to Lakeshore Road are expected to operate at a LOS "D" and "F" during the a.m. and p.m. peak hours, respectively. Delays of up 50.6 seconds and no queueing issues are forecasted.
- Based on the signal warrant analysis, traffic signals are not warranted at the study intersection of Lakeshore Road and West Street under the study horizons.
- The Condo Road connection to Lakeshore Road West will be at the approximate location of the easterly access to the existing Garden Centre, therefore, similar to the existing access and the West Street connection, no safety issues related to sightlines are forecast.

In conclusion, the proposed development can be supported from a traffic operations perspective as the site's traffic is forecast to be accommodated by the boundary road network and. Any minor changes to the Site Plan will not materially affect the conclusions contained within this report.

Respectfully submitted by,

C.F. CROZIER & ASSOCIATES INC.



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Project Manager

/AH/MI

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APPENDIX A

Town of Oakville Zoning By-Law 2014-014 Excerpts

APPENDIX B

Transit Data

OAKVILLE TRANSIT

Weekday Route Map

3
Solid line indicates regular service route.

10
Dashed line indicates rush hour or limited service route, or change in routing pattern.

Please note that not all routes operate on Saturday, Sunday/Holidays.

Saturday Routes:

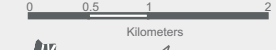
3 4 5 5A 6 13 14 14A 15 18
19 20 24 26 28

Sunday/Holidays Routes:

3 4 5 6 13 14 14A 15 18 19
20 24 28

- 1 Centennial Pool
- 2 Central Library
- 3 Church and Dunn bus stop
- 4 Erchless Estates
- 5 George's Square
- 6 Lakeside Park
- 7 Oakville Centre for the Performing Arts
- 8 Oakville Museum
- 9 Tannery Park
- 10 Towne Square
- 11 Trafalgar Park Community Centre

Map effective March 3, 2019



Downtown Oakville

Oakville Trafalgar Memorial Hospital

3 5 5A

Uptown Core

5 5A 19 20 24

Laird & Ridgeway

6 12 120

Dundas & Walkers 407 GO Carpool

5 5A

Appleby GO

14 14A

Bronte GO

3 4 6 10 13 18 28 33 34

Oakville GO

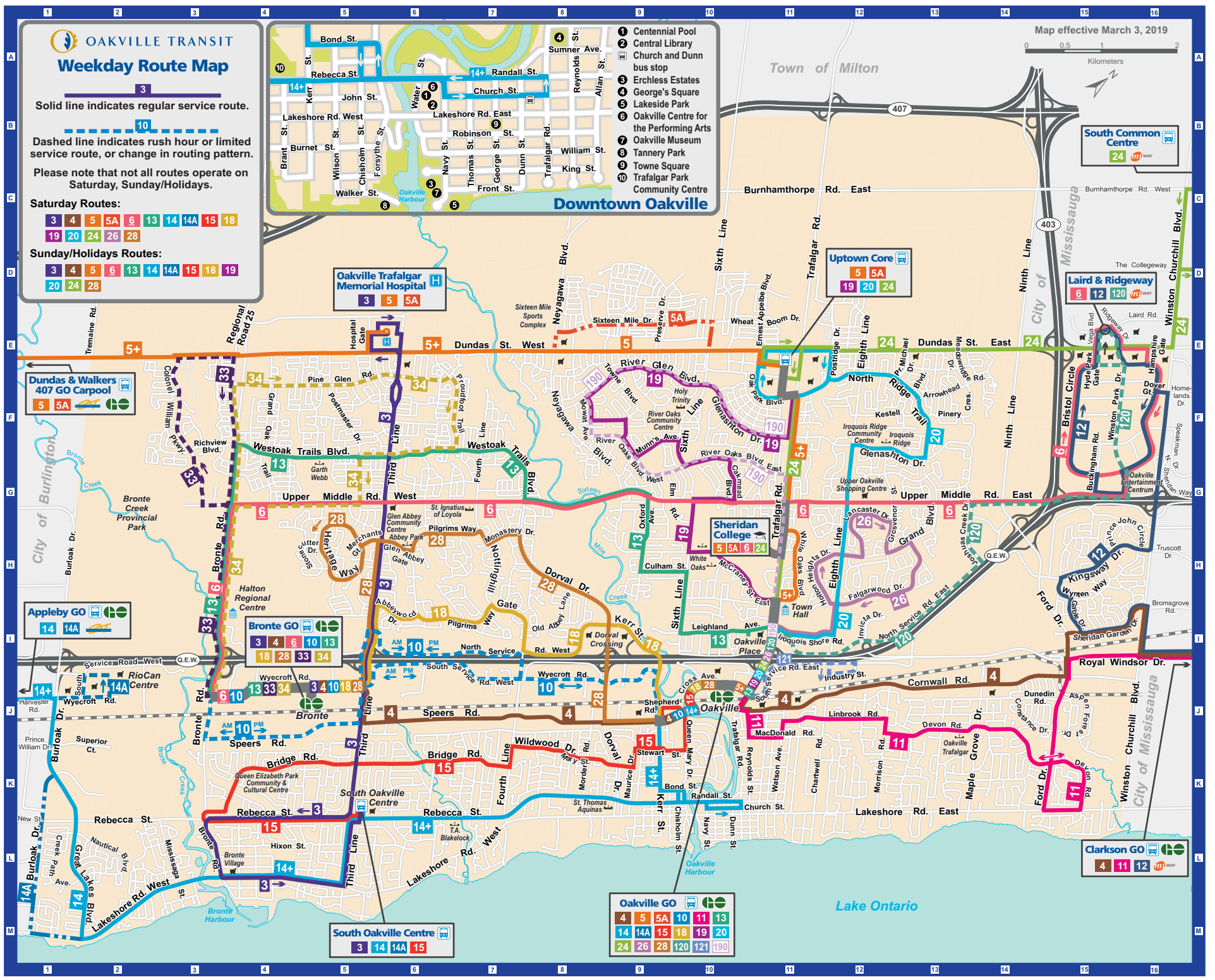
4 5 5A 10 11 13 14 14A 15 18 19 20 24 26 28 120 121 190

South Oakville Centre

3 14 14A 15

Clarkson GO

4 11 12



Oakville Transit service schedules

Effective June 27, 2021 until further notice

14 14A Lakeshore West

See next page for schedules toward Appleby GO.

14 14A Oakville GO

Timepoint	Route	Appleby GO (Depart)	Harvester & Appleby	Harvester & Burloak	RioCan Centre	Burloak & New	Great Lakes & Rebecca	Lakeshore & Great Lakes	Lakeshore & Bronte	South Oakville Centre (Ar.)	South Oakville Centre (Dp.)	Rebecca & Kerr	Church & Dunn	Bond & Kerr	Oakville GO (Arrive)	
Monday to Friday																
To Oakville GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.																
a.m.	14A	--	--	--	--	--	--	--	--	--	--	--	5:52	5:56	6:05	
	14	<i>This trip begins at Burloak & Prince William at 5:52 a.m.</i>					5:54	5:57	6:00	6:07	6:12	6:19	6:25	6:29	6:38	
	14A	6:07	6:11	6:14	--	6:16	--	6:19	6:22	6:28	6:42	6:49	6:55	6:59	7:08	
	14	6:43	6:47	6:50	--	--	6:54	6:57	7:00	7:07	7:12	7:19	7:25	7:29	7:38	
	14A	7:13	7:17	7:20	--	7:23	--	7:27	7:30	7:37	7:42	7:49	7:55	7:59	8:08	
	14	7:43	7:47	7:50	--	--	7:54	7:57	8:00	8:07	8:12	8:19	8:25	8:29	8:38	
	14A	8:07	8:11	8:14	8:17	8:23	--	8:27	8:30	8:37	8:42	8:49	8:55	8:59	9:08	
	14	8:43	8:47	8:50	--	--	8:54	8:57	9:00	9:07	9:12	9:19	9:25	9:29	9:38	
	14A	9:07	9:11	9:14	9:17	9:23	--	9:27	9:30	9:37	9:42	9:49	9:55	9:59	10:08	
	14	9:43	9:47	9:50	--	--	9:54	9:57	10:00	10:07	10:12	10:19	10:25	10:29	10:38	
		<i>and alternating – every 24/36 minutes</i>			<i>every 60 minutes</i>			<i>every 30 minutes</i>								
p.m.	14A	5:07	5:11	5:14	5:17	5:23	--	5:27	5:30	5:37	5:42	5:49	5:55	5:59	6:08	
	14	5:43	5:47	5:50	--	--	5:54	5:57	6:00	6:07	6:12	6:19	6:25	6:29	6:38	
	14A	6:07	6:11	6:14	6:17	6:23	--	6:27	6:30	6:37	6:42	6:49	6:55	6:59	7:08	
	14	6:43	6:47	6:50	--	--	6:54	6:57	7:00	7:07	7:12	7:19	7:25	7:29	7:38	
	14A	7:07	7:11	7:14	7:17	7:23	--	7:27	7:30	7:37	7:42	7:49	7:55	7:59	8:08	
	14	7:43	7:47	7:50	--	--	7:54	7:57	8:00	8:07	8:12	8:19	8:25	8:29	8:38	
	14A	8:07	8:11	8:14	8:17	8:23	--	8:27	8:30	8:37	8:42	8:49	8:55	8:59	9:08	
	14	8:43	8:47	8:50	--	--	8:54	8:57	9:00	9:07	9:12	9:19	9:25	9:29	9:38	
	14A	9:07	9:11	9:14	9:17	9:23	--	9:27	9:30	9:37	9:42	9:49	9:55	9:59	10:08	
	14	10:07	10:11	10:14	10:17	10:23	--	10:27	10:30	10:37	10:42	10:49	10:55	10:59	11:08	
14A	11:07	11:11	11:14	11:17	11:23	--	11:27	11:30	11:37	11:40	11:46	11:50	11:54	12:00		
Saturday																
To Oakville GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.																
a.m.	14A	--	--	--	--	--	--	--	--	--	--	--	6:55	6:59	7:08	
	14	<i>This trip begins at Burloak & Prince William at 6:52 a.m.</i>					6:54	6:57	7:00	7:07	7:12	7:19	7:25	7:29	7:38	
	14A	7:07	7:11	7:14	7:17	7:23	--	7:27	7:30	7:37	7:42	7:49	7:55	7:59	8:08	
	14	7:43	7:47	7:50	--	--	7:54	7:57	8:00	8:07	8:12	8:19	8:25	8:29	8:38	
	14A	8:07	8:11	8:14	8:17	8:23	--	8:27	8:30	8:37	8:42	8:49	8:55	8:59	9:08	
	14	8:43	8:47	8:50	--	--	8:54	8:57	9:00	9:07	9:12	9:19	9:25	9:29	9:38	
			<i>and alternating – every 24/36 minutes</i>			<i>every 60 minutes</i>			<i>every 30 minutes</i>							
	p.m.	14A	6:07	6:11	6:14	6:17	6:23	--	6:27	6:30	6:37	6:42	6:49	6:55	6:59	7:08
		14	6:43	6:47	6:50	--	--	6:54	6:57	7:00	7:07	7:12	7:19	7:25	7:29	7:38
		14A	7:07	7:11	7:14	7:17	7:23	--	7:27	7:30	7:37	7:42	7:49	7:55	7:59	8:08
14		7:43	7:47	7:50	--	--	7:54	7:57	8:00	8:07	8:12	8:19	8:25	8:29	8:38	
14A		8:07	8:11	8:14	8:17	8:23	--	8:27	8:30	8:37	8:42	8:49	8:55	8:59	9:08	
14		8:43	8:47	8:50	--	--	8:54	8:57	9:00	9:07	9:12	9:19	9:25	9:29	9:38	
14A		9:07	9:11	9:14	9:17	9:23	--	9:27	9:30	9:37	9:42	9:49	9:55	9:59	10:08	
14		10:07	10:11	10:14	10:17	10:23	--	10:27	10:30	10:37	10:42	10:49	10:55	10:59	11:08	
14A		11:07	11:11	11:14	11:17	11:23	--	11:27	11:30	11:37	11:40	11:46	11:50	11:54	12:00	
Sunday / Holidays																
To Oakville GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.																
a.m.	14A	--	--	--	--	--	--	--	--	--	--	--	7:55	7:59	8:08	
	14	<i>This trip begins at Burloak & Prince William at 7:52 a.m.</i>					7:54	7:57	8:00	8:07	8:12	8:19	8:25	8:29	8:38	
	14A	8:07	8:11	8:14	8:17	8:23	--	8:27	8:30	8:37	8:42	8:49	8:55	8:59	9:08	
	14	8:43	8:47	8:50	--	--	8:54	8:57	9:00	9:07	9:12	9:19	9:25	9:29	9:38	
	14A	9:07	9:11	9:14	9:17	9:23	--	9:27	9:30	9:37	9:42	9:49	9:55	9:59	10:08	
	14	9:43	9:47	9:50	--	--	9:54	9:57	10:00	10:07	10:12	10:19	10:25	10:29	10:38	

Oakville Transit service schedules

Effective June 27, 2021 until further notice

14 14A Lakeshore West														
Timepoint	Route	Oakville GO (Depart)	Speers & Kerr	Church & Dunn	Rebecca & Kerr	South Oakville Centre (Ar.)	South Oakville Centre (Dp.)	Lakeshore & Bronte	Lakeshore & Great Lakes	Great Lakes & Rebecca	Burloak & Rebecca	RioCan Centre	Harvester & Burloak	Appleby GO (Arrive)
Monday to Friday														
To Appleby GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.														
a.m.	14A	6:05	6:08	6:17	6:20	6:28	6:37	6:44	6:47	--	6:51	--	6:55	7:04
	14	6:40	6:44	6:53	6:56	7:04	7:07	7:14	7:17	7:20	--	--	7:24	7:33
	14A	7:10	7:14	7:23	7:26	7:34	7:37	7:44	7:47	--	7:51	--	7:56	8:07
	14	7:40	7:44	7:53	7:56	8:04	8:07	8:14	8:17	8:20	--	--	8:24	8:33
	14A	8:10	8:14	8:23	8:26	8:34	8:37	8:44	8:47	--	8:51	8:56	8:58	9:07
	14	8:40	8:44	8:53	8:56	9:04	9:07	9:14	9:17	9:20	--	--	9:24	9:33
	<i>and alternating – every 30 minutes</i>									<i>every 60 minutes</i>			<i>every 26/34 min.</i>	
p.m.	14A	5:10	5:14	5:23	5:26	5:34	5:37	5:44	5:47	--	5:51	5:56	5:58	6:07
	14	5:40	5:44	5:53	5:56	6:04	6:07	6:14	6:17	6:20	--	--	6:24	6:33
	14A	6:10	6:14	6:23	6:26	6:34	6:37	6:44	6:47	--	6:51	6:56	6:58	7:07
	14	6:40	6:44	6:53	6:56	7:04	7:07	7:14	7:17	7:20	--	--	7:24	7:33
	14A	7:10	7:14	7:23	7:26	7:34	7:37	7:44	7:47	--	7:51	7:56	7:58	8:07
	14	7:40	7:44	7:53	7:56	8:04	8:07	8:14	8:17	8:20	--	--	8:24	8:33
	14A	8:10	8:14	8:23	8:26	8:34	8:37	8:44	8:47	--	8:51	8:56	8:58	9:07
	14A	9:10	9:14	9:23	9:26	9:34	9:37	9:44	9:47	--	9:51	9:56	9:58	10:07
14A	10:10	10:14	10:23	10:26	10:34	10:37	10:44	10:47	--	10:51	10:56	10:58	11:07	
14A	11:40	11:44	11:53	11:56	12:04	12:04	12:11	12:14	--	12:18	<i>Ends at Burloak/Rebecca</i>			
Saturday														
To Appleby GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.														
a.m.	14A	7:10	7:14	7:23	7:26	7:34	7:37	7:44	7:47	--	7:51	7:56	7:58	8:07
	14	7:40	7:44	7:53	7:56	8:04	8:07	8:14	8:17	8:20	--	--	8:24	8:33
	14A	8:10	8:14	8:23	8:26	8:34	8:37	8:44	8:47	--	8:51	8:56	8:58	9:07
	14	8:40	8:44	8:53	8:56	9:04	9:07	9:14	9:17	9:20	--	--	9:24	9:33
		<i>and alternating – every 30 minutes</i>									<i>every 60 minutes</i>			<i>every 26/34 min.</i>
p.m.	14A	6:10	6:14	6:23	6:26	6:34	6:37	6:44	6:47	--	6:51	6:56	6:58	7:07
	14	6:40	6:44	6:53	6:56	7:04	7:07	7:14	7:17	7:20	--	--	7:24	7:33
	14A	7:10	7:14	7:23	7:26	7:34	7:37	7:44	7:47	--	7:51	7:56	7:58	8:07
	14	7:40	7:44	7:53	7:56	8:04	8:07	8:14	8:17	8:20	--	--	8:24	8:33
	14A	8:10	8:14	8:23	8:26	8:34	8:37	8:44	8:47	--	8:51	8:56	8:58	9:07
	14A	9:10	9:14	9:23	9:26	9:34	9:37	9:44	9:47	--	9:51	9:56	9:58	10:07
	14A	10:10	10:14	10:23	10:26	10:34	10:37	10:44	10:47	--	10:51	10:56	10:58	11:07
	14A	11:40	11:44	11:53	11:56	12:04	12:04	12:11	12:14	--	12:18	<i>Ends at Burloak/Rebecca</i>		
Sunday / Holidays														
To Appleby GO – 14 via Great Lakes Blvd., 14A via Burloak Dr.														
a.m.	14A	8:10	8:14	8:23	8:26	8:34	8:37	8:44	8:47	--	8:51	8:56	8:58	9:07
	14	8:40	8:44	8:53	8:56	9:04	9:07	9:14	9:17	9:20	--	--	9:24	9:33
	14A	9:10	9:14	9:23	9:26	9:34	9:37	9:44	9:47	--	9:51	9:56	9:58	10:07
	14	9:40	9:44	9:53	9:56	10:04	10:07	10:14	10:17	10:20	--	--	10:24	10:33
		<i>and alternating – every 30 minutes</i>									<i>every 60 minutes</i>			<i>every 26/34 min.</i>
p.m.	14	5:40	5:44	5:53	5:56	6:04	6:07	6:14	6:17	6:20	--	--	6:24	6:33
	14A	6:10	6:14	6:23	6:26	6:34	6:37	6:44	6:47	--	6:51	6:56	6:58	7:07
	14	6:40	6:44	6:53	6:56	7:04	7:07	7:14	7:17	7:20	--	--	7:24	7:33
14A	7:10	7:14	7:23	7:26	7:34	7:37	7:44	7:47	--	7:51	7:56	7:58	8:07	

15 Bridge

Timepoint	Oakville GO (Depart)	Stewart & Kerr	Bridge & Fourth Line	Bridge & Third Line	Bronte & Rebecca	South Oakville Centre (Ar.)	South Oakville Centre (Dp.)	Bronte & Rebecca	Bridge & Third Line	Bridge & Fourth Line	Stewart & Kerr	Oakville GO (Arrive)
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Monday to Friday

a.m.	To South Oakville Centre						To Oakville GO					
	6:10	6:19	6:25	6:29	6:34	6:37	6:38	6:42	6:48	6:53	6:59	7:08
	7:10	7:19	7:25	7:29	7:34	7:37	7:38	7:42	7:48	7:53	7:59	8:08
8:10	8:19	8:25	8:29	8:34	8:37	8:38	8:42	8:48	8:53	8:59	9:08	

15 Bridge

Timepoint	Oakville GO (Depart)	Stewart & Kerr	Bridge & Fourth Line	Bridge & Third Line	Bronte & Rebecca	South Oakville Centre (Ar.)	South Oakville Centre (Dp.)	Bronte & Rebecca	Bridge & Third Line	Bridge & Fourth Line	Stewart & Kerr	Oakville GO (Arrive)
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Saturday

a.m.	To South Oakville Centre						To Oakville GO					
	--	--	--	--	--	--	7:08	7:12	7:18	7:23	7:29	7:38
	7:40	7:49	7:55	7:59	8:04	8:07	8:08	8:12	8:18	8:23	8:29	8:38
8:40	8:49	8:55	8:59	9:04	9:07	9:08	9:12	9:18	9:23	9:29	9:38	

APPENDIX C

Traffic Data



Turning Movement Count (1 . LAKESHORE RD W & WEST ST)

Start Time	N Approach NORTH DRIVEWAY						E Approach LAKESHORE RD W						S Approach WEST ST						W Approach LAKESHORE RD W						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	0	0	0	0	0	0	10	0	0	0	10	1	0	0	0	0	1	0	35	0	0	0	35	46	
06:15:00	0	0	0	0	1	0	0	18	0	0	0	18	0	0	1	0	1	1	0	39	0	0	0	39	58	
06:30:00	0	0	0	0	4	0	0	28	1	0	0	29	0	0	0	0	3	0	0	37	0	0	0	37	66	
06:45:00	0	0	0	0	2	0	0	25	0	0	1	25	1	0	0	0	3	1	2	58	0	0	0	60	86	256
07:00:00	0	0	0	0	7	0	0	25	1	0	0	26	0	0	0	0	9	0	1	63	0	0	0	64	90	300
07:15:00	0	0	0	0	4	0	0	34	1	0	0	35	1	0	2	0	2	3	0	70	0	0	1	70	108	350
07:30:00	0	0	0	0	4	0	0	40	1	0	0	41	1	0	0	0	3	1	0	89	0	0	0	89	131	415
07:45:00	0	0	0	0	3	0	0	45	0	0	0	45	1	0	0	0	3	1	0	78	0	0	0	78	124	453
08:00:00	0	0	0	0	5	0	0	45	0	0	0	45	3	0	1	0	6	4	1	104	0	0	1	105	154	517
08:15:00	0	0	0	0	6	0	0	50	2	0	3	52	2	0	2	0	6	4	0	97	0	0	0	97	153	562
08:30:00	0	0	0	0	3	0	0	60	2	0	1	62	1	0	1	0	2	2	1	101	0	0	0	102	166	597
08:45:00	0	0	0	0	1	0	0	66	0	0	0	66	3	0	4	0	5	7	1	108	0	0	0	109	182	655
09:00:00	0	0	0	0	2	0	0	81	0	0	0	81	0	0	0	0	7	0	4	100	0	0	2	104	185	686
09:15:00	0	0	0	0	3	0	0	69	3	0	0	72	2	0	1	0	3	3	0	78	0	0	0	78	153	686
09:30:00	1	0	0	0	14	1	0	81	0	0	0	81	3	0	1	0	5	4	3	109	1	0	0	113	199	719
09:45:00	0	0	0	0	8	0	0	57	2	0	0	59	0	0	0	0	2	0	0	103	0	0	0	103	162	699
BREAK																										
15:00:00	0	0	0	0	1	0	0	132	0	0	0	132	2	0	1	0	0	3	2	86	1	0	1	89	224	
15:15:00	0	0	0	0	0	0	2	117	1	0	0	120	1	0	0	0	1	1	1	109	0	0	0	110	231	
15:30:00	0	0	1	0	3	1	2	141	0	0	1	143	2	0	3	0	0	5	0	99	0	0	1	99	248	
15:45:00	2	0	1	0	4	3	5	160	1	0	0	166	1	0	0	0	0	1	1	111	0	0	0	112	282	985
16:00:00	0	0	1	0	2	1	0	144	4	0	0	148	0	0	0	0	3	0	4	96	1	0	0	101	250	1011
16:15:00	0	0	1	0	0	1	1	158	3	0	0	162	2	1	3	0	4	6	2	109	1	0	0	112	281	1061
16:30:00	2	0	0	0	1	2	1	151	3	0	0	155	1	0	0	0	2	1	2	122	0	0	0	124	282	1095
16:45:00	1	0	0	0	4	1	0	141	1	0	0	142	2	0	0	0	3	2	1	120	0	0	0	121	266	1079
17:00:00	0	0	0	0	1	0	1	154	2	0	0	157	3	0	0	0	4	3	3	105	0	0	0	108	268	1097
17:15:00	1	0	0	0	1	1	1	149	1	0	0	151	1	0	3	0	1	4	2	110	0	0	0	112	268	1084
17:30:00	0	0	0	0	1	0	0	125	2	0	0	127	3	0	1	0	5	4	0	91	0	0	0	91	222	1024
17:45:00	1	0	0	0	1	1	0	140	1	0	0	141	0	0	2	0	2	2	2	92	1	0	0	95	239	997
18:00:00	0	0	0	0	0	0	0	114	2	0	0	116	0	0	1	0	0	1	2	77	0	0	0	79	196	925
18:15:00	0	0	0	0	0	0	0	94	0	0	0	94	1	0	0	0	0	1	2	66	0	0	0	68	163	820
18:30:00	0	0	0	0	0	0	0	90	1	0	0	91	1	0	0	0	0	1	0	89	0	0	0	89	181	779
18:45:00	0	0	0	0	0	0	0	69	2	0	0	71	1	0	1	0	1	2	1	64	0	0	0	65	138	678
Grand Total	8	0	4	0	86	12	13	2813	37	0	6	2863	40	1	28	0	86	69	38	2815	5	0	6	2858	5802	-
Approach%	66.7%	0%	33.3%	0%	-	-	0.5%	98.3%	1.3%	0%	-	-	58%	1.4%	40.6%	0%	-	-	1.3%	98.5%	0.2%	0%	-	-	-	-
Totals %	0.1%	0%	0.1%	0%	0.2%	0.2%	0.2%	48.5%	0.6%	0%	49.3%	49.3%	0.7%	0%	0.5%	0%	1.2%	0.7%	48.5%	0.1%	0%	49.3%	49.3%	-	-	-
Heavy	0	0	0	0	-	-	0	51	1	0	-	-	2	0	0	0	-	-	2	54	0	0	-	-	-	-
Heavy %	0%	0%	0%	0%	-	-	0%	1.8%	2.7%	0%	-	-	5%	0%	0%	0%	-	-	5.3%	1.9%	0%	0%	-	-	-	-
Bicycles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycle %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Peak Hour: 08:45 AM - 09:45 AM Weather: Clear Sky (22.07 °C)

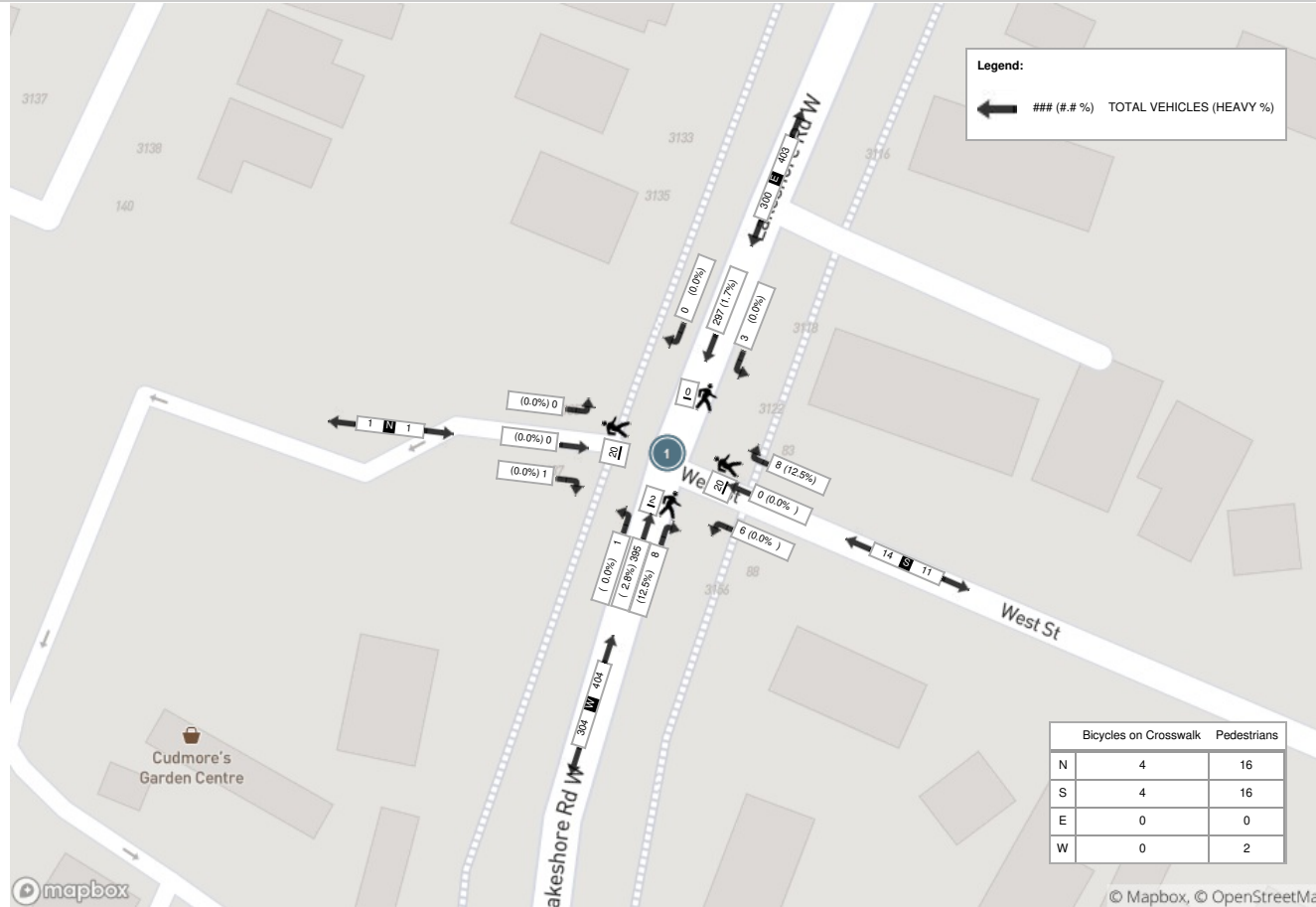
Start Time	N Approach NORTH DRIVEWAY						E Approach LAKESHORE RD W						S Approach WEST ST						W Approach LAKESHORE RD W						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
08:45:00	0	0	0	0	1	0	0	66	0	0	0	66	3	0	4	0	5	7	1	108	0	0	0	109	182
09:00:00	0	0	0	0	2	0	0	81	0	0	0	81	0	0	0	0	7	0	4	100	0	0	2	104	185
09:15:00	0	0	0	0	3	0	0	69	3	0	0	72	2	0	1	0	3	3	0	78	0	0	0	78	153
09:30:00	1	0	0	0	14	1	0	81	0	0	0	81	3	0	1	0	5	4	3	109	1	0	0	113	199
Grand Total	1	0	0	0	20	1	0	297	3	0	0	300	8	0	6	0	20	14	8	395	1	0	2	404	719
Approach%	100%	0%	0%	0%	-	-	0%	99%	1%	0%	-	-	57.1%	0%	42.9%	0%	-	-	2%	97.8%	0.2%	0%	-	-	-
Totals %	0.1%	0%	0%	0%	0.1%	0.1%	0%	41.3%	0.4%	0%	0.1%	0.1%	1.1%	0%	0.8%	0%	1.9%	1.1%	54.9%	0.1%	0%	0%	56.2%	-	-
PHF	0.25	0	0	0	0.25	0.25	0	0.92	0.25	0	0.93	0.67	0	0.38	0	0.5	0.5	0.91	0.25	0	0.89	-	-	-	
Heavy	0	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	1	11	0	0	12	-	-	-	
Heavy %	0%	0%	0%	0%	0%	0%	0%	1.7%	0%	0%	1.7%	12.5%	0%	0%	0%	7.1%	12.5%	2.8%	0%	0%	3%	-	-	-	
Lights	1	0	0	0	1	1	0	276	3	0	279	7	0	5	0	12	5	370	1	0	376	-	-	-	
Lights %	100%	0%	0%	0%	100%	100%	0%	92.9%	100%	0%	93%	87.5%	0%	83.3%	0%	85.7%	62.5%	93.7%	100%	0%	93.1%	-	-	-	
Single-Unit Trucks	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	1	6	0	0	7	-	-	-	
Single-Unit Trucks %	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	12.5%	0%	0%	0%	7.1%	12.5%	1.5%	0%	0%	1.7%	-	-	-	
Buses	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	-	-	-	
Buses %	0%	0%	0%	0%	0%	0%	0%	0.7%	0%	0%	0.7%	0%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.5%	-	-	-
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	-	-	-	
Articulated Trucks %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.8%	0%	0%	0.7%	-	-	-
Bicycles on Road	0	0	0	0	0	0	0	16	0	0	16	0	0	1	0	1	2	14	0	0	16	-	-	-	
Bicycles on Road %	0%	0%	0%	0%	0%	0%	0%	5.4%	0%	0%	5.3%	0%	0%	0%	16.7%	0%	7.1%	25%	3.5%	0%	0%	4%	-	-	-
Pedestrians	-	-	-	-	16	-	-	-	-	-	0	-	-	-	-	-	16	-	-	-	-	2	-	-	-
Pedestrians %	-	-	-	-	38.1%	-	-	-	-	-	0%	-	-	-	-	-	38.1%	-	-	-	-	4.8%	-	-	-
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	0	-	-	-
Bicycles on Crosswalk %	-	-	-	-	9.5%	-	-	-	-	-	0%	-	-	-	-	-	9.5%	-	-	-	-	0%	-	-	-



Peak Hour: 04:15 PM - 05:15 PM Weather: Light Rain (30.62 °C)

Start Time	N Approach NORTH DRIVEWAY						E Approach LAKESHORE RD W						S Approach WEST ST						W Approach LAKESHORE RD W						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
16:15:00	0	0	1	0	0	1	1	158	3	0	0	162	2	1	3	0	4	6	2	109	1	0	0	112	281
16:30:00	2	0	0	0	1	2	1	151	3	0	0	155	1	0	0	0	2	1	2	122	0	0	0	124	282
16:45:00	1	0	0	0	4	1	0	141	1	0	0	142	2	0	0	0	3	2	1	120	0	0	0	121	266
17:00:00	0	0	0	0	1	0	1	154	2	0	0	157	3	0	0	0	4	3	3	105	0	0	0	108	268
Grand Total	3	0	1	0	6	4	3	604	9	0	0	616	8	1	3	0	13	12	8	456	1	0	0	465	1097
Approach%	75%	0%	25%	0%	-	-	0.5%	98.1%	1.5%	0%	-	-	66.7%	8.3%	25%	0%	-	-	1.7%	98.1%	0.2%	0%	-	-	-
Totals %	0.3%	0%	0.1%	0%	0.4%	0.4%	0.3%	55.1%	0.8%	0%	56.2%	56.2%	0.7%	0.1%	0.3%	0%	1.1%	1.1%	0.7%	41.6%	0.1%	0%	42.4%	42.4%	-
PHF	0.38	0	0.25	0	0.5	0.5	0.75	0.96	0.75	0	0.95	0.95	0.67	0.25	0.25	0	0.5	0.5	0.67	0.93	0.25	0	0.94	0.94	-
Heavy	0	0	0	0	0	0	0	9	0	0	9	9	1	0	0	0	1	1	0	8	0	0	8	8	-
Heavy %	0%	0%	0%	0%	0%	0%	0%	1.5%	0%	0%	1.5%	1.5%	12.5%	0%	0%	0%	8.3%	8.3%	0%	1.8%	0%	0%	1.7%	1.7%	-
Lights	3	0	1	0	4	4	3	593	9	0	605	605	7	1	3	0	11	11	8	444	1	0	453	453	-
Lights %	100%	0%	100%	0%	100%	100%	100%	98.2%	100%	0%	98.2%	98.2%	87.5%	100%	100%	0%	91.7%	91.7%	100%	97.4%	100%	0%	97.4%	97.4%	-
Single-Unit Trucks	0	0	0	0	0	0	0	6	0	0	6	6	0	0	0	0	0	0	0	4	0	0	4	4	-
Single-Unit Trucks %	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0.9%	0%	0%	0.9%	0.9%	-
Buses	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	2	0	0	2	2	-
Buses %	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0%	0.4%	0.4%	-
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	1	0	2	0	0	2	2	-
Articulated Trucks %	0%	0%	0%	0%	0%	0%	0%	0.2%	0%	0%	0.2%	0.2%	12.5%	0%	0%	0%	8.3%	8.3%	0%	0.4%	0%	0%	0.4%	0.4%	-
Bicycles on Road	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	4	0	0	4	4	-
Bicycles on Road %	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.9%	0%	0%	0.9%	0.9%	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	10	-	-	-	-	-	-	0	-	-
Pedestrians %	-	-	-	-	21.1%	-	-	-	-	-	0%	-	-	-	-	52.6%	-	-	-	-	-	-	0%	-	-
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	3	-	-	-	-	-	-	0	-	-
Bicycles on Crosswalk %	-	-	-	-	10.5%	-	-	-	-	-	0%	-	-	-	-	15.8%	-	-	-	-	-	-	0%	-	-

Peak Hour: 08:45 AM - 09:45 AM Weather: Clear Sky (22.07 °C)



Peak Hour: 04:15 PM - 05:15 PM Weather: Light Rain (30.62 °C)



APPENDIX D

LOS Definitions

Level of Service Definitions

Two-Way Stop Controlled Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	EXCELLENT. Large and frequent gaps in traffic on the main roadway. Queuing on the minor street is rare.
B	> 10 and ≤ 15	VERY GOOD. Many gaps exist in traffic on the main roadway. Queuing on the minor street is minimal.
C	> 15 and ≤ 25	GOOD. Fewer gaps exist in traffic on the main roadway. Delay on minor approach becomes more noticeable.
D	> 25 and ≤ 35	FAIR. Infrequent and shorter gaps in traffic on the main roadway. Queue lengths develop on the minor street.
E	> 35 and ≤ 50	POOR. Very infrequent gaps in traffic on the main roadway. Queue lengths become noticeable.
F	> 50	UNSATISFACTORY. Very few gaps in traffic on the main roadway. Excessive delay with significant queue lengths on the minor street.



















Adapted from Highway Capacity Manual 2000, Transportation Research Board

APPENDIX E

Detailed Capacity Analysis Worksheets



















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2021 Existing Conditions AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1	6	0	8	1	790	8	3	297	0
Future Volume (vph)	0	0	1	6	0	8	1	790	8	3	297	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865			0.924			0.998				
Fl _t Protected					0.979		0.950			0.950		
Satd. Flow (prot)	0	1629	0	0	1704	0	1789	1880	0	1789	1883	0
Fl _t Permitted					0.979		0.950			0.950		
Satd. Flow (perm)	0	1629	0	0	1704	0	1789	1880	0	1789	1883	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.7			7.7			6.4			6.1	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	1	7	0	9	1	849	9	3	334	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	16	0	1	858	0	3	334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	55.0%						ICU Level of Service B					
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2021 Existing Conditions AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	6	0	8	1	790	8	3	297	0
Future Volume (Veh/h)	0	0	1	6	0	8	1	790	8	3	297	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	1	7	0	9	1	849	9	3	334	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1200	1200	334	1196	1196	854	334			858		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1200	1200	334	1196	1196	854	334			858		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	97	100			100		
cM capacity (veh/h)	157	184	708	162	185	359	1225			783		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	1	16	1	858	3	334						
Volume Left	0	7	1	0	3	0						
Volume Right	1	9	0	9	0	0						
cSH	708	234	1225	1700	783	1700						
Volume to Capacity	0.00	0.07	0.00	0.50	0.00	0.20						
Queue Length 95th (m)	0.0	1.7	0.0	0.0	0.1	0.0						
Control Delay (s)	10.1	21.5	7.9	0.0	9.6	0.0						
Lane LOS	B	C	A		A							
Approach Delay (s)	10.1	21.5	0.0		0.1							
Approach LOS	B	C										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			55.0%		ICU Level of Service					B		
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street



















Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	1.4	7.6	1.6
Average Queue (m)	0.3	1.8	0.3
95th Queue (m)	2.6	7.2	2.8
Link Distance (m)	46.6	95.0	75.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2021 Existing Conditions PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	3	1	8	1	456	8	9	906	3
Future Volume (vph)	1	0	3	3	1	8	1	456	8	9	906	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.892			0.913			0.997				
Flt Protected		0.990			0.986		0.950			0.950		
Satd. Flow (prot)	0	1663	0	0	1696	0	1789	1878	0	1789	1883	0
Flt Permitted		0.990			0.986		0.950			0.950		
Satd. Flow (perm)	0	1663	0	0	1696	0	1789	1878	0	1789	1883	0
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.9			8.0			6.7			6.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	1	0	4	4	1	9	1	490	9	10	1018	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	14	0	1	499	0	10	1021	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	57.9%					ICU Level of Service B						
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2021 Existing Conditions PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	3	3	1	8	1	456	8	9	906	3
Future Volume (Veh/h)	1	0	3	3	1	8	1	456	8	9	906	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	1	0	4	4	1	9	1	490	9	10	1018	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1541	1540	1020	1538	1538	494	1021			499		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1541	1540	1020	1538	1538	494	1021			499		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	96	99	98	100			99		
cM capacity (veh/h)	91	114	287	92	115	575	680			1065		
Direction, Lane #												
	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	5	14	1	499	10	1021						
Volume Left	1	4	1	0	10	0						
Volume Right	4	9	0	9	0	3						
cSH	201	207	680	1700	1065	1700						
Volume to Capacity	0.02	0.07	0.00	0.29	0.01	0.60						
Queue Length 95th (m)	0.6	1.6	0.0	0.0	0.2	0.0						
Control Delay (s)	23.4	23.7	10.3	0.0	8.4	0.0						
Lane LOS	C	C	B		A							
Approach Delay (s)	23.4	23.7	0.0		0.1							
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			57.9%		ICU Level of Service					B		
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street



















Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	5.5	7.7	4.6
Average Queue (m)	1.1	1.5	1.2
95th Queue (m)	5.3	6.6	5.9
Link Distance (m)	46.6	95.0	75.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0



















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2026 Future Background AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1	6	0	8	1	830	8	3	312	0
Future Volume (vph)	0	0	1	6	0	8	1	830	8	3	312	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865			0.924			0.999				
Fl _t Protected					0.979		0.950			0.950		
Satd. Flow (prot)	0	1629	0	0	1704	0	1789	1882	0	1789	1883	0
Fl _t Permitted					0.979		0.950			0.950		
Satd. Flow (perm)	0	1629	0	0	1704	0	1789	1882	0	1789	1883	0
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.9			8.0			6.7			6.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	1	7	0	9	1	892	9	3	351	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	16	0	1	901	0	3	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	57.1%					ICU Level of Service B						
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2026 Future Background AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	6	0	8	1	830	8	3	312	0
Future Volume (Veh/h)	0	0	1	6	0	8	1	830	8	3	312	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	1	7	0	9	1	892	9	3	351	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1260	1260	351	1256	1256	896	351			901		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1260	1260	351	1256	1256	896	351			901		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	95	100	97	100			100		
cM capacity (veh/h)	143	170	692	147	171	339	1208			754		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	1	16	1	901	3	351						
Volume Left	0	7	1	0	3	0						
Volume Right	1	9	0	9	0	0						
cSH	692	216	1208	1700	754	1700						
Volume to Capacity	0.00	0.07	0.00	0.53	0.00	0.21						
Queue Length 95th (m)	0.0	1.8	0.0	0.0	0.1	0.0						
Control Delay (s)	10.2	23.0	8.0	0.0	9.8	0.0						
Lane LOS	B	C	A		A							
Approach Delay (s)	10.2	23.0	0.0		0.1							
Approach LOS	B	C										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			57.1%		ICU Level of Service					B		
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street



















Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	1.4	7.7	1.6
Average Queue (m)	0.3	1.9	0.3
95th Queue (m)	2.6	7.3	2.8
Link Distance (m)	46.6	95.0	75.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0



















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2026 Future Background PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	3	1	8	1	479	8	9	952	3
Future Volume (vph)	1	0	3	3	1	8	1	479	8	9	952	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.892			0.913			0.997				
Flt Protected		0.990			0.986		0.950			0.950		
Satd. Flow (prot)	0	1663	0	0	1696	0	1789	1878	0	1789	1883	0
Flt Permitted		0.990			0.986		0.950			0.950		
Satd. Flow (perm)	0	1663	0	0	1696	0	1789	1878	0	1789	1883	0
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.9			8.0			6.7			6.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	1	0	4	4	1	9	1	515	9	10	1070	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	14	0	1	524	0	10	1073	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	60.3%						ICU Level of Service B					
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2026 Future Background PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	3	3	1	8	1	479	8	9	952	3
Future Volume (Veh/h)	1	0	3	3	1	8	1	479	8	9	952	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	1	0	4	4	1	9	1	515	9	10	1070	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1618	1618	1072	1616	1614	520	1073			524		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1618	1618	1072	1616	1614	520	1073			524		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	95	99	98	100			99		
cM capacity (veh/h)	80	102	268	81	103	556	650			1043		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	5	14	1	524	10	1073						
Volume Left	1	4	1	0	10	0						
Volume Right	4	9	0	9	0	3						
cSH	183	187	650	1700	1043	1700						
Volume to Capacity	0.03	0.08	0.00	0.31	0.01	0.63						
Queue Length 95th (m)	0.6	1.8	0.0	0.0	0.2	0.0						
Control Delay (s)	25.2	25.9	10.5	0.0	8.5	0.0						
Lane LOS	D	D	B		A							
Approach Delay (s)	25.2	25.9	0.0		0.1							
Approach LOS	D	D										
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			60.3%		ICU Level of Service					B		
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street



















Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	5.5	7.7	4.6
Average Queue (m)	1.1	1.5	1.2
95th Queue (m)	5.3	6.6	5.9
Link Distance (m)	46.6	95.0	75.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0



















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2026 Future Total AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	0	2	6	0	8	1	832	8	3	312	2
Future Volume (vph)	10	0	2	6	0	8	1	832	8	3	312	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.924			0.999			0.999	
Flt Protected		0.959			0.979		0.950			0.950		
Satd. Flow (prot)	0	1772	0	0	1704	0	1789	1882	0	1789	1882	0
Flt Permitted		0.959			0.979		0.950			0.950		
Satd. Flow (perm)	0	1772	0	0	1704	0	1789	1882	0	1789	1882	0
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.9			8.0			6.7			6.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	12	0	2	7	0	9	1	895	9	3	351	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	16	0	1	904	0	3	353	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	54.3%					ICU Level of Service A						
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2026 Future Total AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	6	0	8	1	832	8	3	312	2
Future Volume (Veh/h)	10	0	2	6	0	8	1	832	8	3	312	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	12	0	2	7	0	9	1	895	9	3	351	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1264	1264	352	1260	1260	900	353			904		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1264	1264	352	1260	1260	900	353			904		
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 %	92	100	100	95	100	97	100			100		
cM capacity (veh/h)	142	169	692	146	169	337	1206			752		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	14	16	1	904	3	353						
Volume Left	12	7	1	0	3	0						
Volume Right	2	9	0	9	0	2						
cSH	160	215	1206	1700	752	1700						
Volume to Capacity	0.09	0.07	0.00	0.53	0.00	0.21						
Queue Length 95th (m)	2.2	1.8	0.0	0.0	0.1	0.0						
Control Delay (s)	29.6	23.1	8.0	0.0	9.8	0.0						
Lane LOS	D	C	A		A							
Approach Delay (s)	29.6	23.1	0.0		0.1							
Approach LOS	D	C										
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			54.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street



















Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	8.3	7.7	1.6
Average Queue (m)	3.0	1.9	0.3
95th Queue (m)	9.1	7.3	2.8
Link Distance (m)	46.6	95.0	75.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0



















Lanes, Volumes, Timings
 1: Lakeshore Road West & Site Access/West Street

2026 Future Total PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	1	3	0	8	3	480	8	9	955	10
Future Volume (vph)	6	0	1	3	0	8	3	480	8	9	955	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.907			0.997			0.998	
Flt Protected		0.958			0.985		0.950			0.950		
Satd. Flow (prot)	0	1774	0	0	1683	0	1789	1878	0	1789	1880	0
Flt Permitted		0.958			0.985		0.950			0.950		
Satd. Flow (perm)	0	1774	0	0	1683	0	1789	1878	0	1789	1880	0
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		65.1			106.3			89.4			84.2	
Travel Time (s)		4.9			8.0			6.7			6.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	7	0	1	4	0	9	3	516	9	10	1073	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	0	0	13	0	3	525	0	10	1084	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	60.9%						ICU Level of Service B					
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 1: Lakeshore Road West & Site Access/West Street

2026 Future Total PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	1	3	0	8	3	480	8	9	955	10
Future Volume (Veh/h)	6	0	1	3	0	8	3	480	8	9	955	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	7	0	1	4	0	9	3	516	9	10	1073	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1630	1630	1078	1620	1630	520	1084			525		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1630	1630	1078	1620	1630	520	1084			525		
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 %	91	100	100	95	100	98	100			99		
cM capacity (veh/h)	79	100	266	81	100	556	643			1042		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	8	13	3	525	10	1084						
Volume Left	7	4	3	0	10	0						
Volume Right	1	9	0	9	0	11						
cSH	87	199	643	1700	1042	1700						
Volume to Capacity	0.09	0.07	0.00	0.31	0.01	0.64						
Queue Length 95th (m)	2.2	1.6	0.1	0.0	0.2	0.0						
Control Delay (s)	50.6	24.3	10.6	0.0	8.5	0.0						
Lane LOS	F	C	B		A							
Approach Delay (s)	50.6	24.3	0.1		0.1							
Approach LOS	F	C										
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utilization			60.9%		ICU Level of Service					B		
Analysis Period (min)			15									

Intersection: 1: Lakeshore Road West & Site Access/West Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (m)	8.2	7.7	2.2	4.6
Average Queue (m)	2.4	1.5	0.4	1.2
95th Queue (m)	8.4	6.6	2.9	5.9
Link Distance (m)	46.6	95.0	73.3	75.6
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

APPENDIX F

TTS Data

Wed Jun 12 2019 11:26:00 GMT-0400 (Eastern Daylight Time) - Run Time: 2120ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Planning district of destination - pd_dest

Column: Primary travel mode of trip - mode_prime

Filters:

(Start time of trip - start_time In 700-1000

and

2006 GTA zone of origin - gta06_orig In 4001

and

Primary travel mode)

Trip 2016

Table:

	Auto driver	% total	Direction
PD 1 of Toronto	67	2.3%	East
PD 7 of Toronto	59	2.0%	East
PD 8 of Toronto	57	1.9%	East
Markham	22	0.7%	East
Brampton	57	1.9%	East
Mississauga	487	16.4%	East
Milton	65	2.2%	North
Oakville	1580	53.2%	East
Burlington	382	12.9%	West
Hamilton	132	4.4%	West
Kitchener	29	1.0%	West
Brantford	16	0.5%	West
External	15	0.5%	West
	2968	100%	

Direction	% of trips	% assumed
East	78.5%	75%
West	19.3%	20%
North	2.2%	5%

APPENDIX G

Warrants Assessment

Input Data Sheet

Analysis Sheet

Results Sheet

Proposed Collision

What are the intersecting roadways?

Lakeshore Road & West Street

GO TO Justification:

What is the direction of the Main Road street?

East-West

When was the data collected?

Future Total 2026

Justification 1 - 4: Volume Warrants

a.- Number of lanes on the Main Road?

b.- Number of lanes on the Minor Road?

c.- How many approaches?

d.- What is the operating environment? Population >= 10,000 AND Speed < 70 km/hr

e.- What is the eight hour vehicle volume at the intersection? (Please fill in table below)

Hour Ending	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
7:00	1	328	4	4	0	1	3	317	3	2	0	4	18
8:00	1	328	4	4	0	1	3	317	3	2	0	4	18
9:00	1	328	4	4	0	1	3	317	3	2	0	4	18
12:00	1	328	4	4	0	1	3	317	3	2	0	4	18
13:00	1	328	4	4	0	1	3	317	3	2	0	4	18
16:00	1	328	4	4	0	1	3	317	3	2	0	4	18
17:00	1	328	4	4	0	1	3	317	3	2	0	4	18
18:00	1	328	4	4	0	1	3	317	3	2	0	4	18
Total	8	2,624	32	32	0	8	24	2,536	24	16	0	32	144

Justification 5: Collision Experience

Preceding Months	Number of Collisions*
1-12	0
13-24	0
25-36	0

* Include only collisions that are susceptible to correction through the installation of traffic signal control

Justification 6: Pedestrian Volume

a.- Please fill in table below summarizing total pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume									
Factored 8 hour pedestrian volume	0		0		0		0		
% Assigned to crossing rate	23%		34%		30%		100%		
Net 8 Hour Pedestrian Volume at Crossing									0
Net 8 Hour Vehicular Volume on Street Being Crossed									2,000

b.- Please fill in table below summarizing delay to pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume	0	0	0	0	0	0	0	0	
Total 8 hour pedestrians delayed greater than 10 seconds	10	10	1	6	2	4	0	0	
Factored volume of total pedestrians	0		0		0		0		
Factored volume of delayed pedestrians	30		8		8		0		
% Assigned to Crossing Rate	23%		34%		30%		100%		
Net 8 Hour Volume of Total Pedestrians									0
Net 8 Hour Volume of Delayed Pedestrians									12

Results Sheet

[Input Sheet](#)

[Analysis Sheet](#)

[Proposed Collision](#)

Intersection: Lakeshore Road & West Street

Count Date: Future Total 2026

Summary Results

	Justification	Compliance	Signal Justified?	
			YES	NO
1. Minimum Vehicular Volume	A Total Volume	93 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Volume	6 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Delay to Cross Traffic	A Main Road	91 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Road	32 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Combination	A Justificaton 1	6 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Justification 2	32 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. 4-Hr Volume		3 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. Collision Experience		0 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-------------------------	--	-----	--------------------------	-------------------------------------

6. Pedestrians	A Volume	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Delay	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>

FIGURES

BLOCK 2
CONDOMINIUM TOWNHOUSES
& SEMI-DETACHED DWELLINGS
32 units

BLOCK 1
STREET
TOWNHOUSES
3 units

AREA OF VICTORIA
 STREET CUL-DE-SAC
 (NOT INCLUDED IN SITE)

NOTE: REFER TO
 LANDSCAPE PLANS
 FOR FENCE TYPES
 AND LOCATIONS

LAKESHORE ROAD WEST

SCALE
 0 25m

PROPOSED ACCESS
 EASEMENT (121.25m²)

SITE STATISTICS SUMMARY (WITH OVERALL LOT AREA)

DRAFT PLAN OF SUBDIVISION PART OF LOT
 32, CONCESSION 4, SOUTH OF DUNDAS
 STREET (GEOGRAPHIC TOWNSHIP OF
 BRALGAR) AND BLOCK 09, REGISTERED
 PLAN 22-01-0000-0000-0000-0000
 REGIONAL MUNICIPALITY OF HALTON

TOWNING :	RM1-XX
OVERALL LOT AREA: (LOT AREA OWNED BY DEVELOPER)	9,925.86m ² 2.45 ACRES 1,180.19m ²
SITE AREA, NOT INCLUDING CONDO ROAD (STREET ROWS)	8,193.89m ² 2,033 ACRES 926.19m ²
GROSS FLOOR AREA:	PART 9, GROUP C 3 STOREY BUILDINGS/SEMS 7,961.20m ² (92,288' OF SITE AREA)
TOTAL UNIT COVERAGE:	2,856.23m ² (34.62% OF SITE AREA)
DENSITY:	39.02 PER 100
32 UNITS TOTAL (NOT INCLUDING 3 STREET TOWNS)	15.76 PER ACRE
PARKING :	27 TOWN HOUSES RESIDENCE PARKING PROVIDED (1 INTERNAL & 1 EXTERNAL) 54 SPACES TOTAL (8 SEMI-DETACHED HOUSES RESIDENCE PARKING PROVIDED (1 INTERNAL & 2 EXTERNAL) 12 SPACES TOTAL NEIGHBOR PARKING: 35 x 0.25 = 8.75 14 VISITOR PARKING PROVIDED (INCLUDES 1 ACCESSIBLE SPACE)

UNITS BEING REFERENCED (INCLUDES 2-11 FROM SEMI-DETACHED)	8
5.80m DUAL FRONTAGE TOWN HOME	27
TOTAL	35 UNITS

10.65m SEMI-DETACHED

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	SD-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	SD-2B	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
3	SD-1B	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
4	SD-2B	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
5	SD-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
6	SD-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
7	SD-2B	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
8	SD-1B	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

5.80m STANDARD TOWN BUILDING 1A (FREE HOLD)

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
3	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
4	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
5	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
6	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
7	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
8	SB-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

5.40m DUAL FRONTAGE TOWN BUILDING 1 (CONDO)

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
3	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
4	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
5	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
6	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
7	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
8	DF-1A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

5.40m DUAL FRONTAGE TOWN BUILDING 2 (CONDO)

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
3	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
4	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
5	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
6	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
7	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
8	DF-2A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

5.40m DUAL FRONTAGE TOWN BUILDING 3 (CONDO)

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
3	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
4	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
5	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
6	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
7	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
8	DF-3A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

5.80m STANDARD TOWN BUILDING 4 (CONDO)

LOT No.	Model	G.A. (G.A.)	Lot Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)	Frontage (m)	Depth (m)	Area (m ²)
1	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
2	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
3	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
4	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
5	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
6	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
7	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
8	SB-4A	74.52	106.20	34.62	31.79	208.45	60.12	18.72	24.28	10.44	10.44	10.44
TOTAL			2028.40	90.17	814.50	2250.63	36.19	259.98	1176.18	52.26	10.44	10.44

KEY PLAN

SUBJECT PROPERTY

VOGUE WYCLIFFE (OAKVILLE) LTD.
 215 Connaughts Rd
 Suite 120
 Oakville, ON L6M 1R4
 416.830.2252
 vcltd.com

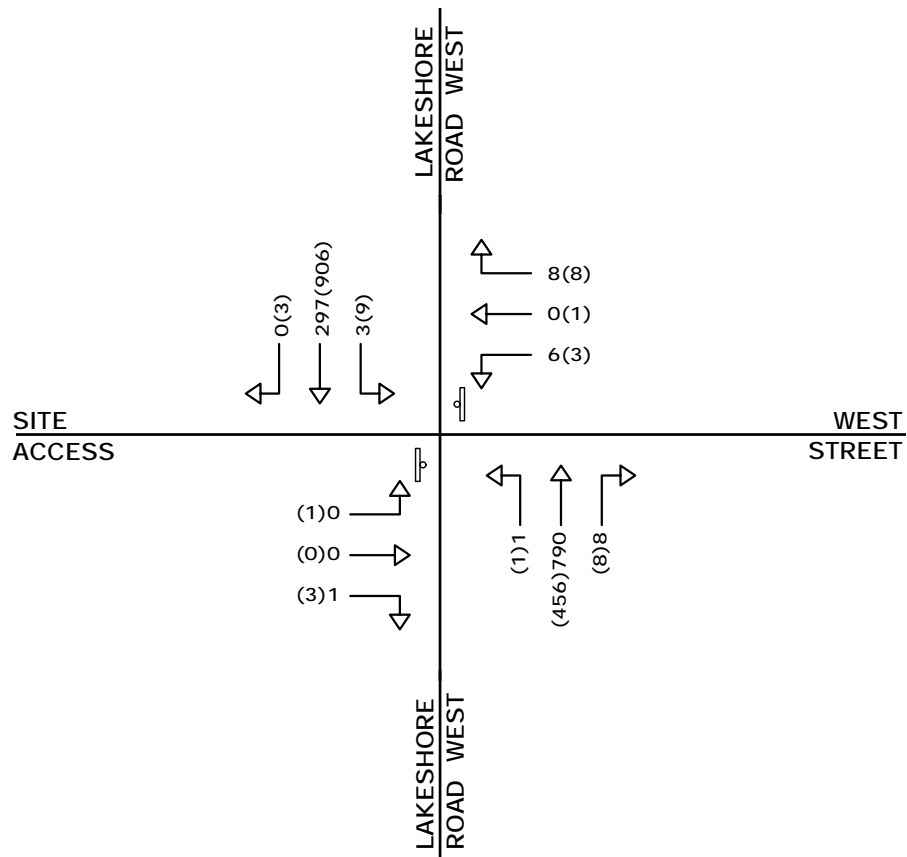
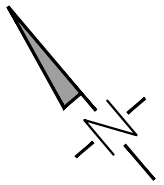
DESIGN
 215 Connaughts Rd
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VOGUE WYCLIFFE (OAKVILLE) LTD.
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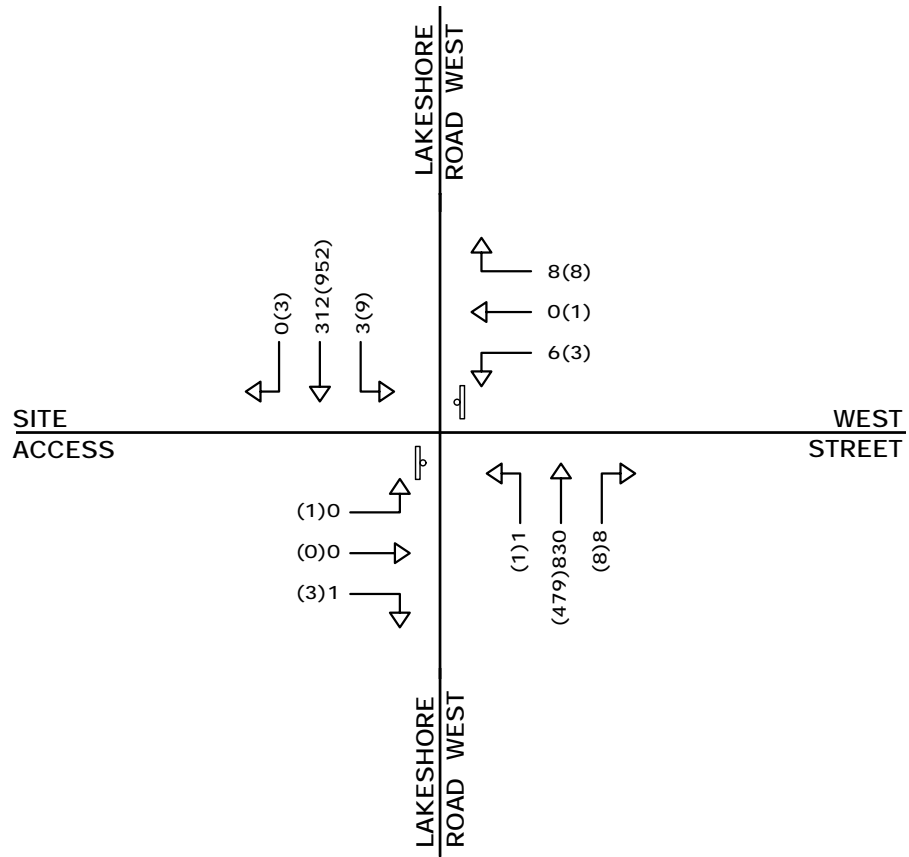
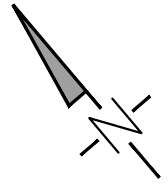
NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

Legend	Project	3171 LAKESHORE ROAD WEST		 CROZIER & ASSOCIATES Consulting Engineers The HarbourEdge Building, 40 Huron Street, Suite 301, Collingwood, ON L9Y 4R3 705 446-3510 T 705 446-3520 F www.crozier.ca info@crozier.ca				
	Drawing	SITE LOCATION						
Drawn By		A.H.	Design By	A.H.	Project	1159-4614		
Scale		N.T.S.	Date	JULY, 2021	Check By	P.A.	Drawing	FIG. 2



NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

Legend  SIGNAL CONTROL  STOP CONTROL XX(YY) A.M. (P.M.) PEAK HOUR TRAFFIC VOLUMES	Project 3171 LAKESHORE ROAD WEST	 CROZIER & ASSOCIATES Consulting Engineers The HarbourEdge Building, 40 Huron Street, Suite 301, Collingwood, ON L9Y 4R3 705 446-3510 T 705 446-3520 F info@crozier.ca
	Drawing 2021 EXISTING TRAFFIC VOLUMES	



NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

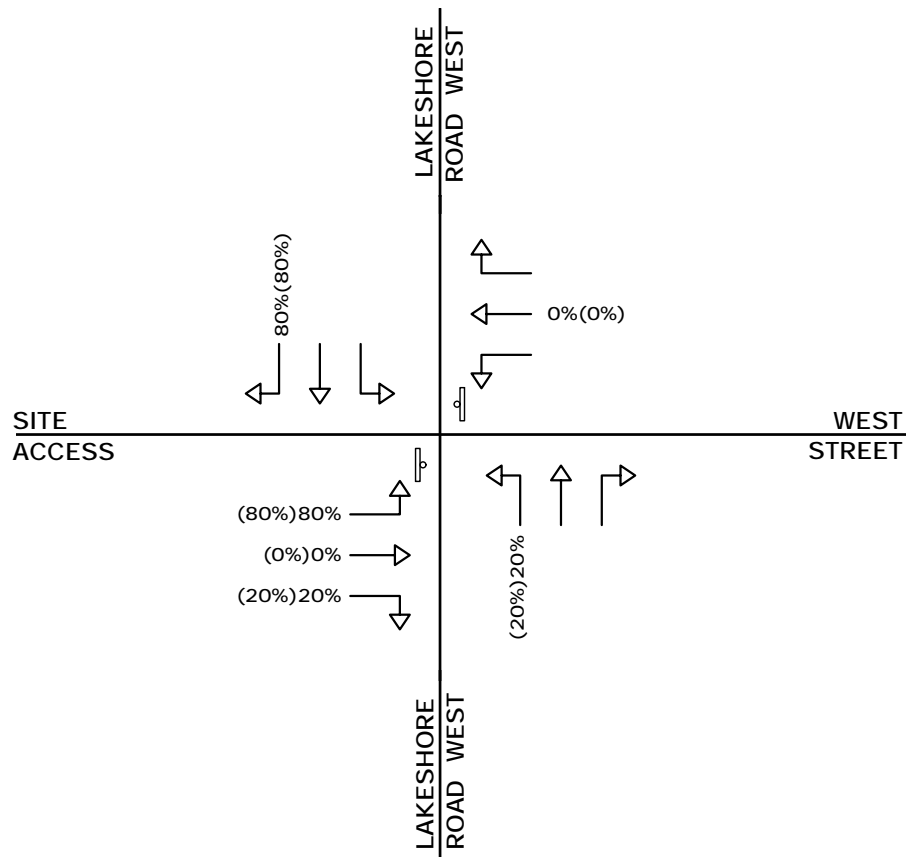
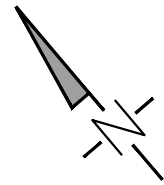
	SIGNAL CONTROL
	STOP CONTROL
XX(YY)	A.M. (P.M.) PEAK HOUR TRAFFIC VOLUMES

Project	3171 LAKESHORE ROAD WEST	
Drawing	2026 FUTURE BACKGROUND TRAFFIC VOLUMES	





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Drawn By	A.H.	Design By	A.H.	Project	1159-4614	
Scale	N.T.S.	Date	JULY, 2021	Check By	P.A.	
					Drawing	FIG. 4



NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

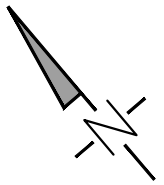
	SIGNAL CONTROL
	STOP CONTROL
XX(YY)	A.M. (P.M.) PEAK HOUR TRAFFIC VOLUMES

Project	3171 LAKESHORE ROAD WEST	
Drawing	SITE TRIP DISTRIBUTION	

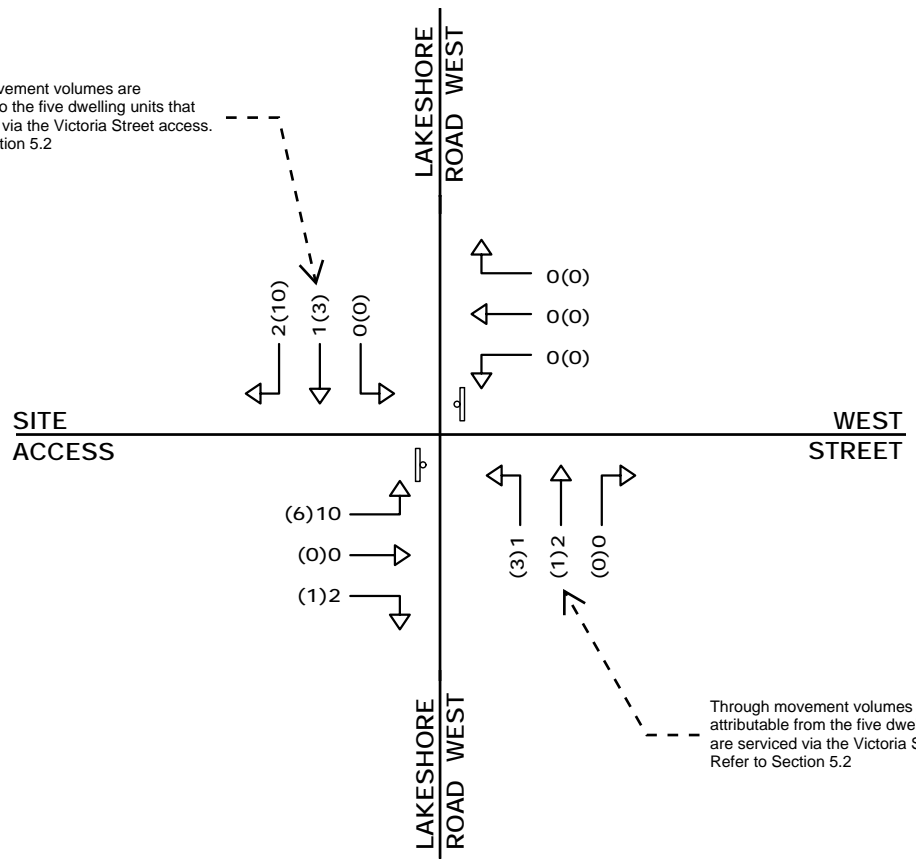


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Drawn By	A.H.	Design By	A.H.	Project	1159-4614	
Scale	N.T.S.	Date	JULY, 2021	Check By	P.A.	
					Drawing	FIG. 5



Through movement volumes are attributable to the five dwelling units that are serviced via the Victoria Street access. Refer to Section 5.2



Through movement volumes are attributable from the five dwelling units that are serviced via the Victoria Street access. Refer to Section 5.2

NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

	SIGNAL CONTROL
	STOP CONTROL
XX(YY)	A.M. (P.M.) PEAK HOUR TRAFFIC VOLUMES

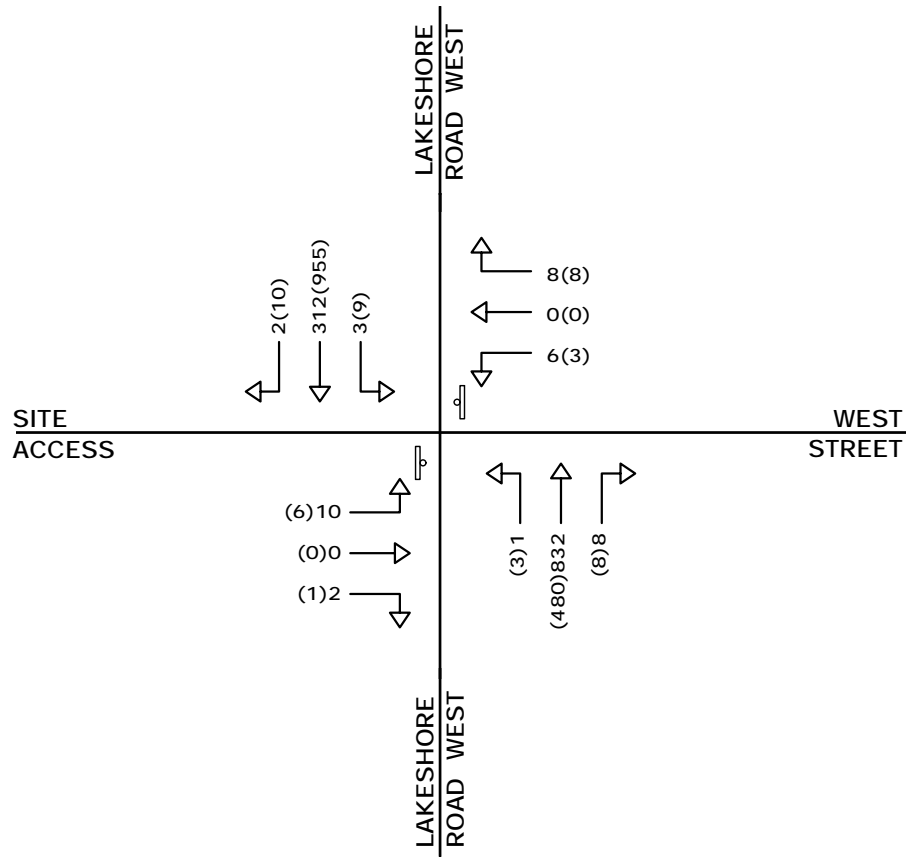
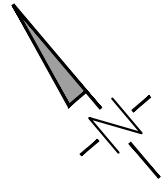
Project	3171 LAKESHORE ROAD WEST	
Drawing	SITE TRIP ASSIGNMENT	



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Drawn By	A.H.	Design By	A.H.	Project	1159-4614	
Scale	N.T.S.	Date	JULY, 2021	Check By	P.A.	
					Drawing	FIG. 6



NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

	SIGNAL CONTROL
	STOP CONTROL
XX(YY)	A.M. (P.M.) PEAK HOUR TRAFFIC VOLUMES

Project	3171 LAKESHORE ROAD WEST	
Drawing	2026 FUTURE TOTAL TRAFFIC VOLUMES	



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Drawn By	A.H.	Design By	A.H.	Project	1159-4614	
Scale	N.T.S.	Date	JULY, 2021	Check By	P.A.	
					Drawing	FIG. 7