

**TRANSPORTATION DEMAND  
MANAGEMENT PLAN**

**5160-5170 NINTH LINE  
RESIDENTIAL DEVELOPMENT  
CITY OF MISSISSAUGA,  
REGIONAL MUNICIPALITY OF PEEL**

**PREPARED FOR:  
BRANTHAVEN NINTH LINE INC.**

**PREPARED BY:  
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**DECEMBER 2021**

**CFCA FILE NO. 1871-6159**

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Revision Number	Date	Comments
Rev. 1	December 2021	1 <sup>st</sup> Submission



## 1.0 Executive Summary

C.F. Crozier & Associates Inc. (Crozier) was retained by Branthaven Ninth Line Inc. to prepare a Transportation Demand Management (TDM) Plan in support of the development application for the proposed residential development located at 5160-5170 Ninth Line in the City of Mississauga, Regional Municipality of Peel. The site is bound by a woodlot to the north, Ninth Line to the east, two low-rise detached buildings to the south and vacant lands to the west.

The purpose of the TDM plan is to assess the existing and future TDM opportunities near the subject site and TDM initiatives as part of the proposed development.

Per the Site Plan by ZO1 Architects (dated November 5, 2021), the development scope consists of a 6-storey apartment building with a total of 198 residential dwelling units. The proposed bicycle parking supply consists of 119 long-term spaces and 10 short-term spaces. A total of 228 parking spaces are proposed, including 2 accessible parking spaces. The site is proposed to be serviced by two full-move accesses connecting to CEC Road "F". The site connects ultimately to the external roadway via Street A and Street B at Ninth Line.

Analysis of existing TDM opportunities indicates the following:

- Approximately 38% of travellers in the study area currently use alternate primary modes of transportation, indicating an existing willingness by residents of the area to utilize alternate modes of transportation.
- The existing transit services in the study area provide connectivity to major transit terminals in the area which further provides connectivity to the rest of the Greater Toronto-Hamilton Area (GTHA).
- The existing pedestrian sidewalks and multi-use trails in the adjacent residential neighbourhood provide active transportation opportunities in the study area.

The planned future roadway improvements in the surrounding area on Ninth Line and Eglinton Avenue West will provide active transportation facilities, thus promoting walking and cycling as viable modes of transportation.

The future 407 Transitway Bus-Rapid Transit corridor (ultimately LRT) will improve mobility across the GTHA and contribute to reducing auto congestion, with the nearest operating stations to the subject property planned to be located on Britannia Road West and Trafalgar Road (located to the north and west of the subject property, respectively). The proximity of these stations to the proposed development will encourage the use of transit as an alternate mode of transportation.

The Site Plan illustrates pedestrian sidewalks on the north, south, and west sides of the apartment building and includes sidewalk connections to Ninth Line. Pedestrian facilities will be constructed in accordance with the construction standards set out in the Accessibility for Ontarians with Disabilities Act (AODA). The provision of sidewalks will facilitate safe and efficient pedestrian mobility within the site.

The site meets the City of Mississauga requirement of 119 long-term bicycle spaces and 10 short-term bicycle parking spaces. The proposed site specific infrastructure will further support the cycling transportation mode.

The analysis contained within this report was prepared using the Site Plan prepared by ZO1 Architects (dated November 5, 2021). Any minor revisions to the development concept are not expected to affect the conclusions contained within this report.

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## 2.0 Introduction

### 2.1 Background

C.F. Crozier & Associates Inc. (Crozier) was retained by Branthaven Ninth Line Inc. to prepare a Transportation Demand Management (TDM) Plan in support of the development application for the proposed residential development located at 5160-5170 Ninth Line in the City of Mississauga, Regional Municipality of Peel. The site is bound by a woodlot to the north, Ninth Line to the east, two low-rise detached buildings to the south and vacant lands to the west.

A Traffic Impact Study has been prepared and submitted separately to support the development application. The Traffic Impact Study assesses the impacts of traffic generated by the proposed development on the boundary road network and provides recommendations for any required mitigation measures. The TDM report reviews existing/ future TDM opportunities within the site's surrounding area as well as identifies site specific measures that may be considered at the site to further reduce single occupant vehicle trips.

### 2.2 Development Proposal

Per the Site Plan by ZO1 Architects (dated November 5, 2021, provided within **Appendix A**), the development scope consists of a 6-storey apartment building with a total of 198 residential dwelling units. A total of 228 parking spaces are proposed, including 2 accessible parking spaces. The site is proposed to be serviced by two full-move accesses connecting to CEC Road "F" as indicated in the site plan provided in **Appendix A**. The site connects ultimately to the external roadway via Street A and Street B at Ninth Line as illustrated in the Composite Plan provided in **Appendix A**. **Table 1** outlines the proposed development statistics.

**Table 1: Development Proposal**

Apartment Building Statistics			
Building Storey	One Bedroom Units	Two Bedroom Units	Total
Level 1	10	11	21
Level 2	21	14	35
Level 3	25	10	35
Level 4	28	9	37
Level 5	26	9	35
Level 6	26	9	35
<b>Total</b>	<b>136</b>	<b>62</b>	<b>198</b>
Parking Supply			
	Resident Spaces	Visitor Spaces	Total
Vehicle Parking	198	30	<b>228</b>
	Long-Term Bicycle Parking Spaces	Short-Term Bicycle Parking Spaces	Total
Bicycle Parking	119	10	<b>129</b>

## 2.3 Purpose and Scope

The City of Mississauga has requested analysis of TDM opportunities as a component of Traffic Impact Studies to reduce single-occupancy vehicle (SOV) trips and promote alternate modes of transportation. Given the scale of the proposed development, a comprehensive TDM plan has been prepared to support the proposed development. A Traffic Impact Study in support of the development application has been prepared and submitted separately to the City of Mississauga.

The purpose of the TDM plan is to assess the existing and future TDM opportunities near the subject site and TDM initiatives as part of the proposed development.

## 2.4 Development Lands

The subject property forms part of the Ninth Line composite lands located north of Eglinton Avenue. The site is located in a primarily residential area and is bound by a woodlot to the north, Ninth Line to the east, two low-rise detached buildings to the south and vacant lands to the west. The development lands include the following property parcels, with their respective existing conditions outlined:

- 5160 Ninth Line, a 0.295 ha property that currently consists of a single-storey animal hospital
- 0 Ninth Line (located between the 5160 and 5170 Ninth Line parcels), a 0.137 ha property that currently consists of a laneway
- 5170 Ninth Line, a 0.295 ha property that currently consists of a two-storey detached dwelling

See **Figure 1** for the site location. Refer to **Appendix A** for the property reports.

## 3.0 Existing TDM Opportunities

### 3.1 Existing Modal Split

Transportation Tomorrow Survey (TTS) data from the 2016 census year data was used to determine the existing modal split for trips exiting the study area. Results were filtered to trips entering and exiting 2006 GTA Zones 3615, 3616, 3809, 3810 and 3811 during the weekday a.m. and p.m. peak period. These zones consist of the residential zones along the Ninth Line corridor, and thus were considered to be appropriate for modal split analysis. The existing modal split is outlined in **Table 2**.

**Table 2: Existing Modal Split**

Mode	Percentage
Transit	9%
Cycling	2%
Auto Driver	63%
Auto / Taxi Passenger	17%
Walking	9%

The TTS survey data illustrates that although the predominant mode of transportation is auto driver, approximately 37% percent of travellers in the study area currently use alternate primary modes of transportation. These results indicate an existing willingness by residents of the area to utilize alternate modes of transportation, thereby reducing the barriers of entry for further TDM initiatives aimed at reducing SOV trips. **Appendix B** contains the TTS data.



**Figure 1: Site Location**

### 3.2 Existing Transit Services

There are several MiWay Transit and GO Transit bus routes in proximity of the proposed development. **Tables 3 and 4** outline the existing transit routes, direction, days of operation, peak hour headways, and the location of bus stops near the proposed development. The transit services described in **Table 4** outline the MiWay service pattern as of September 6, 2021. Local and express bus routes that possess stops within 400m and 800m walking distance of the site, respectively, are included as per the MTO's Transit Supportive Guidelines (2012). Although further than typical walking distances for transit access, bus routes at Winston Churchill Transitway Station were included within existing transit services. This was due to the station possesses high accessibility for bicycle and vehicle transportation with a carpool parking lot and a covered bicycle lock-up area.

**Table 3: Existing GO Transit Services**

Route	Start and End Points	Times of Operation	Peak Hour Headways (min)	Direction 1 Transit Stop <sup>1</sup>	Direction 2 Transit Stop <sup>1</sup>
25 GO Transit Waterloo / Mississauga	University of Waterloo to Square One	Monday – Sunday	~60 min	Winston Churchill Station (~3.5km ; ~15min by bike)	Winston Churchill Station (~3.5km ; ~15min by bike)
29 GO Transit Guelph / Mississauga	Guelph Central to Square One	Monday – Sunday	~60 min	Winston Churchill Station (~3.5km ; ~15min by bike)	Winston Churchill Station (~3.5km ; ~15min by bike)

*Note 1:* The calculated walking distance to each transit stop was determined from a baseline origin/destination point at the current 5170 Ninth Line driveway connection to Ninth Line. A 1.2m/s average walking speed as outlined in the City of Mississauga TIS guidelines was used. An average speed of 4.0m/s was assumed for biking.

**Table 4: Existing MiWay Transit Services**

Route	Start and End Points	Times of Operation	Peak Hour Headways (min)	Direction 1 Transit Stop <sup>1</sup>	Direction 2 Transit Stop <sup>1</sup>
9 Rathburn – Thomas	City Centre Transit Terminal to Churchill Meadows Community Centre	Monday - Sunday	~20 min	Erin Centre Boulevard at Longford Drive (400m; ~5.5min walk)	Erin Centre Boulevard at Longford Drive (450m; 6min walk)
35 Eglinton-Ninth Line	Kipling Bus Terminal to Churchill Meadows Community Centre	Monday - Sunday	8-10 min	Ninth Line at Skyview Street (80m ; <2min walk)	N/A
36 Colonial-Ridgeway	Winston Churchill Station to South Common Centre	Monday - Sunday	~30 min	Winston Churchill Station (~3.5km ; ~15min by bike)	N/A
45 Winston Churchill	Meadowvale Town Centre to Clarkson GO Station	Monday - Sunday	~15 min	Winston Churchill Station (~3.5km ; ~15min by bike)	Winston Churchill Station (~3.5km ; ~15min by bike)
109 Meadowvale Express	Meadowvale Town Centre to Kipling Station	Monday – Sunday	10-15 min	Winston Churchill Station (~3.5km ; ~15min by bike)	Winston Churchill Station (~3.5km ; ~15min by bike)

Note 1: The calculated walking distance to each transit stop was determined from a baseline origin/destination point at the current 5170 Ninth Line driveway connection to Ninth Line. A 1.2m/s average walking speed as outlined in the City of Mississauga TIS guidelines was used. An average speed of 4.0m/s was assumed for biking.

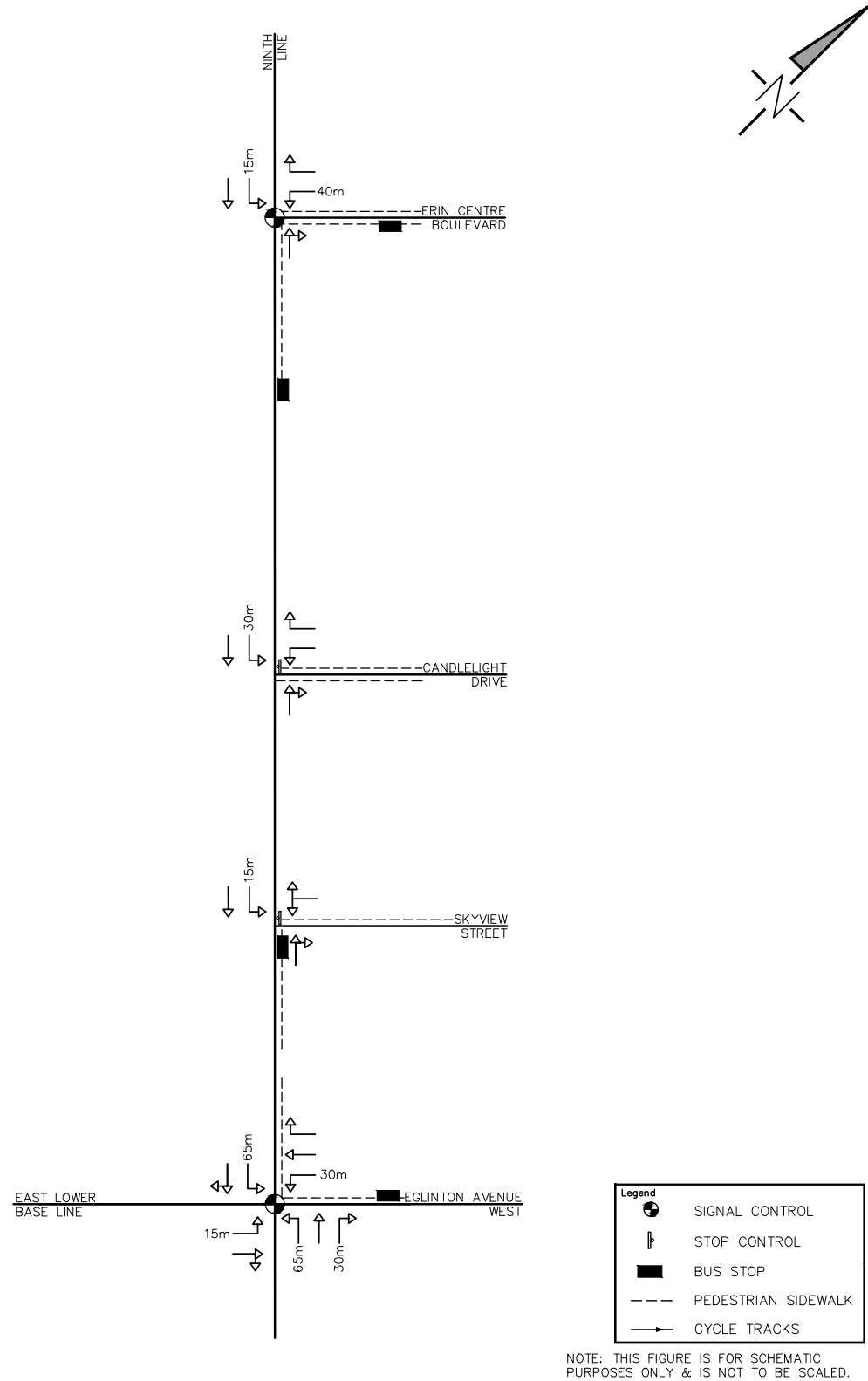
The two local routes within walking distance from the subject site offers good transit access to local destinations such as Erin Mills Town Centre, Mississauga City Centre, along with Middle and High schools in proximity to the subject site. Route 35 is a major crosstown route that connects with plenty of north-south bus routes. Further, MiWay route 9 provides connectivity to GO Transit at Streetsville GO along the Milton GO line.

Further, the Winston Churchill Station is an excellent transit attractor due to its location along the Mississauga Transitway. The route provides express service to several major destinations within Mississauga. Additionally, the station includes North-South transit service that connects with the Lakeshore GO line. This allows for good transit access both into Toronto to the east and towards Halton Region and Hamilton to the west.

Therefore, the existing transit services in the study area are sufficient to promote transit as a viable mode of transportation.

The boundary road network in **Figure 2** illustrates the existing bus stop locations in the study area. **Appendix C** contains relevant transit information.





**Figure 2: Existing Boundary Road Network**

### 3.3 Existing Active Transportation Network

The existing active transportation facilities on the boundary road network are described in **Table 5**. The boundary road network in **Figure 2** illustrates the existing pedestrian and cycling facilities in the study area.

**Table 5: Existing Active Transportation Network**

Roadway	Pedestrian Facilities	Separation from Roadway	Cycling Facilities	Separation from Roadway
Ninth Line	1.5 metre concrete sidewalk (east side from Eglinton Avenue West to Skyview Street)  Asphalt sidewalk (east side from bus stop north of Candlelight Drive to Erin Centre Boulevard)	Grass boulevard	None	N/A
Eglinton Avenue West	1.5 metre concrete sidewalk (north side)	Grass boulevard and Parking Lay-By	None	N/A
E. Lower Base Line	None	N/A	None	N/A
Erin Centre Boulevard	1.5 metre concrete sidewalk (both sides)	Grass boulevard	Bike Lane (both sides)	None
Candlelight Drive	1.5 metre concrete sidewalk (both sides)	Grass boulevard	None	N/A
Skyview Street	1.5 metre concrete sidewalk (north side)	Grass boulevard	None	N/A

## 4.0 Planned TDM Opportunities

### 4.1 Future Improvements

In June 2021, a Class Environment Assessment study was completed by the City of Mississauga concerning the Ninth Line corridor between Eglinton Avenue West and Derry Road West. The Ninth Line improvements include new transit and active transportation facilities along Ninth Line to accommodate future developmental growth on lands adjacent to Ninth Line. These improvements are identified within Section 10.1.3 of the Environmental Study Report, with specific configurations pertaining to the roadway outlined in Appendix M of the Environmental Study Report (excerpts provided in **Appendix D**). The roadway will include a 2.0 metre pedestrian sidewalk and 2.0 metre cycling track on both sides of the roadway.

The active transportation facilities proposed in the Ninth Line Environmental Study Report were evaluated using the City of Ottawa's Multimodal Level of Service Analysis Guidelines (2015). The Bicycle Level of Service (BLOS) evaluates cycling facilities for the level of traffic stress (LTS) experienced by cyclists. The BLOS can be evaluated at an intersection or along a roadway segment. The pedestrian level of service (PLOS) evaluates the quality of pedestrian facilities based on metrics related to comfort, safety and experience. The PLOS can be evaluated at an intersection or along a roadway segment. Similar to Level of Service used for evaluating intersection performance, both PLOS and BLOS are scored on a letter grade scale, with "A" being the best possible grade, and "F" being the worst possible grade.

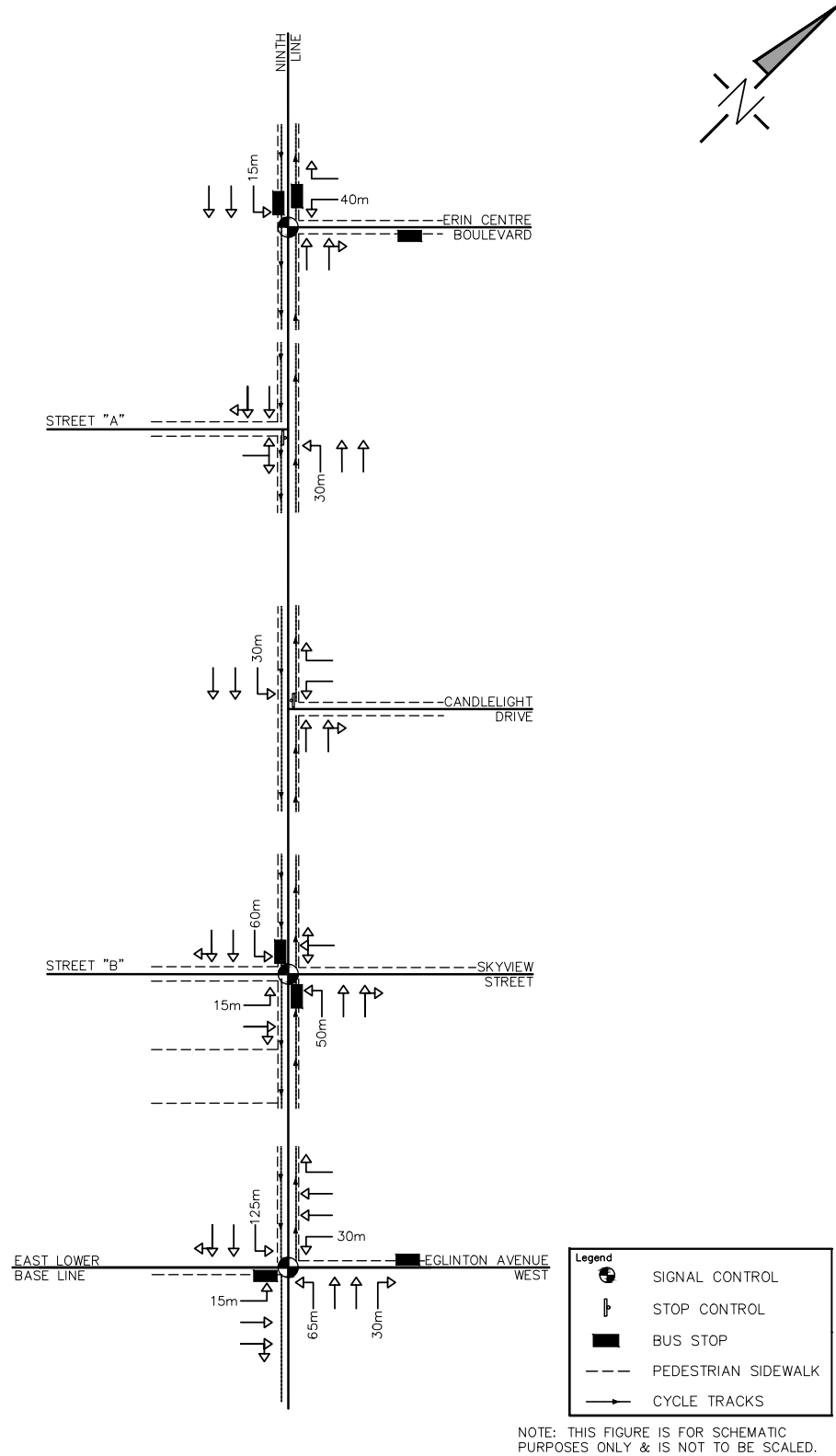
**Table 6** below outlines the Multimodal Level of Service of the future active transportation improvements near the subject site as outlined in the Environmental Study Report.

**Table 6: MMLOS of Future Ninth Line Active Transportation Facilities**

Roadway Segments					
From	To	West side BLOS	East side BLOS	West side PLOS	East side PLOS
Quiet Creek Drive (North Portion)	Skyview Street	A	A	B	B
Skyview Street	Stardust Drive	A	A	B	B
Intersections					
		West side BLOS	East side BLOS	Intersection PLOS	
Ninth Line and "Street A" (5150 Ninth Line Site Access)		B	B	D	
Ninth Line and Street B/ Skyview Street (5080, 5054, and 5034 Ninth Line Site Access)		C	C	D	

Note: Adopted from the Class EA for Ninth Line Improvements from Eglinton Avenue West to Derry Road West -Report (June 2021).

As shown in **Table 6**, the multimodal level of service of the future active transportation facilities is adequate. Near the subject site, bicyclists are expected to experience a BLOS "C" or better, while pedestrians are expected to experience a PLOS "D" or better. The active transportation improvements as a result of the Ninth Line EA are demonstrated in **Figure 3**, which considers the improvements proposed within the Environmental Study Report.



**Figure 3: Future Boundary Road Network**

In addition to the Ninth Line improvements outlined above, the City of Mississauga's 2018 Cycling Master Plan identifies future cycling improvements in proximity to the subject site. The plan recommends cycling improvements to Eglinton Avenue West between Ninth Line and Winston Churchill Boulevard in the form of a cycle track or separated bike lane. Further, a multi-use trail is recommended to be implemented west of Ninth Line from Eglinton Avenue West to just north of Argentia Road. This multi-use trail will be implemented on the western edge of the nearby 5080 and 5150 Ninth Line lands and will connect to the nearby Churchill Meadows Community Centre. These future improvements will promote the cycling transportation mode near the subject site.

Furthermore, future transit improvements are planned by the City of Mississauga. The "MiWay Five Transit Service Plan" is a transit service plan for the 2021 to 2025 period under development by the City of Mississauga. The plan will recommend refinements and expansion to the transit network to improve the system for users.

In the most recent MiWay Annual Service Plan (2020), Lisgar and Meadowvale Area routing changes are recommended to be implemented for October 26, 2020. The proposed changes include:

- A new transit hub at the future Churchill Meadows Community Centre and Park at 5320 Ninth Line (an approximately 10-minute walk from the subject site)
- An extension of bus routes 9, 35, and 39 to the future Churchill Meadows Community Centre and Park
- A new bus route (Route 50) from Meadowvale Town Centre to Winston Churchill Transitway Station
- A revised route 49, travelling from Streetsville GO and the neighbourhood adjacent to the subject property on Ninth Line

As part of the most recent service plan, implemented on October 25, 2021, the transit hub at Churchill Meadows Community Centre and Park has been opened and serves as the terminus of bus routes 9 and 35. The other improvements identified in the Annual Service Plan which have not yet been implemented would increase transit availability in the study area and promote transit as a viable mode of transportation to and from the subject property.

**Appendix D** contains excerpts on future roadway improvement information. **Appendix E** contains transit improvements information.

## **4.2 407 Transitway**

The MTO is planning the construction of an exclusive grade separated bus rapid transit (BRT) corridor, with the potential to be converted to a Light Rail Transit (LRT) corridor. The 407 Transitway will run parallel to Highway 407 and will span from Burlington to Pickering. The 407 Transitway infrastructure will provide infrastructure including an exclusive right-of-way, stations, park and ride, and passenger pick up and drop off services.

The intent of the 407 Transitway is to improve mobility across the GTHA by providing an accessible, cost-effective exclusive transit service. This will facilitate increased transit ridership (which will aid municipalities in achieving long-term transit ridership targets) and contribute to reducing auto congestion in the GTHA.

In August 2020, an Environmental Project Report was completed for the 407 Transitway segment between west of Brant Street in Burlington to west of Hurontario Street in Brampton. The report was

later approved by the Minister of the Environment, Conservation and Parks in October of 2020.

Station locations along the corridor were finalized as part of the Environmental Project Report. **Table 7** outlines the estimated future 407 Transitway service and the location of stations near the proposed development. Additionally, estimated vehicle trip generation and parking trip generation in 2041 is outlined in the associated Environmental Project Report. See **Appendix F** for report excerpts.

**Table 7: 407 Transitway Proposed Stations near subject site**

<b>Station Name</b>	<b>Location</b>	<b>2041 Peak Period Trips and Parking Generation<sup>1</sup></b>	<b>Distance</b>
<b>Britannia Road Station</b>	West of the Ninth Line and McDowell Drive Intersection	523 Passenger Boardings 120 parking spots	2.4 km (~10 min by bike)
<b>Trafalgar Road Station</b>	Southwest corner of the Highway 407 EB off-ramp and Trafalgar Road intersection	3095 Passenger Boardings 436 parking spots	4.2 km (~ 17 min by bike)

*Note 1: Peak period trips describe the estimated number of boardings/parking demand within the busiest 2 hour period during the 2041 AM peak period.*

Although this particular segment is not expected to be implemented within the first phase of the 407 Transitway, in the mid to long term, the proximity of the future BRT to the proposed development will further encourage the use of transit as an alternate mode of transportation. Refer to **Appendix F** for 407 Transitway Environmental Project Report excerpts.

## 5.0 Guiding Principles

The City of Mississauga and Region of Peel Official Plans emphasize the importance of TDM measures to meet future travel demand by reducing auto dependency and increasing the viability of alternate modes of transportation.

### 5.1 City of Mississauga Official Plan

Policy 8.5 of the City of Mississauga Official Plan states “Transportation Demand Management (TDM) measures encourage people to take fewer and shorter vehicle trips to support transit and active transportation choices, enhance public health and reduce harmful environmental impacts. TDM is most effective when supported by complementary land use planning, good urban design and transit improvements.”

### 5.2 Region of Peel Official Plan

Policy 5.9.9 of the Region of Peel Official Plan states “Growth in population and employment in Peel Region has led, and will continue to lead, to increased travel demand through the construction of new roads and the widening of existing roads. Such ‘supply side’ solutions, however, will not be enough in the future. Exclusive dependence on roads is neither sustainable nor desirable. It is necessary to also consider ‘demand side’ solutions, such as Transportation Demand Management measures. While TDM alone cannot be expected to meet the future growth in demand, it is an important component of the range of solutions that will be needed to meet forecasted travel demand.”

### **5.3 Performance Targets**

The Region of Peel Sustainable Transportation Strategy (approved by Regional council in February 2018) sets a sustainable mode share target of 50% by 2041 from the current 37% share of non-auto trips.

## **6.0 Proposed Development TDM Opportunities**

### **6.1 Walking**

The Site Plan (shown in **Appendix A**) illustrates 2.0m wide pedestrian sidewalks on the north, west and south sides of most of the proposed roadways within the site, along with at the lobby entrance. The sidewalks on the north and south sides of the proposed development are to connect with the west sidewalk along Ninth Line once the Ninth Line EA improvements are implemented; providing direct, short and convenient access to the external municipal active transportation facilities. Similar pedestrian connections are provided between the site and the rest of the adjacent composite plan. The provision of sidewalks will facilitate safe and efficient pedestrian mobility within the site.

Pedestrian facilities must be constructed in accordance with the construction standards set out in the Accessibility for Ontarians with Disabilities Act (AODA) and should include delineated pedestrian crossings at intersections to provide safe and convenient pedestrian mobility within the site, and to and from the future municipal pedestrian network on Ninth Line.

### **6.2 Cycling**

A total bicycle parking supply of 0.6 per unit (long-term) and 0.05 per unit (short-term) for residential is recommended by the City as well as the ongoing Parking Regulations Study. Based on these rates, the site requires a total of 119 long-term spaces and 10 short-term spaces. The site proposes 119 long-term and 10 short-term bicycle parking spaces. The proposed site specific infrastructure will further support cycling as a mode of transportation and encourage residents and nearby visitors to use the future cycling opportunities in the surrounding area.

## 7.0 Conclusions

Analysis of existing TDM opportunities indicates the following:

- Approximately 38% of travellers in the study area currently use alternate primary modes of transportation, indicating an existing willingness by residents of the area to utilize alternate modes of transportation;
- The existing transit services in the study area provide connectivity to major transit terminals in the area which further provides connectivity to the rest of the Greater Toronto-Hamilton Area (GTHA); and
- The existing pedestrian sidewalks and multi-use trails in the adjacent residential neighbourhood provide active transportation opportunities in the study area.

The planned future roadway improvements in the surrounding area on Ninth Line and Eglinton Avenue West will provide active transportation facilities, thus promoting walking and cycling as viable modes of transportation. Further, a multi-use path located on the western edge of the 5080 and 5150 Ninth Line properties will further promote the active transportation modes.

The future 407 Transitway Bus-Rapid Transit corridor (ultimately LRT) will improve mobility across the GTHA and contribute to reducing auto congestion, with the nearest operating stations to the subject property planned to be located on Britannia Road West and Trafalgar Road (located to the north and west of the subject property, respectively). The proximity of these stations to the proposed development will encourage the use of transit as an alternate mode of transportation.

The Site Plan illustrates pedestrian sidewalks on the north, south, and west sides of the apartment building and includes sidewalk connections to Ninth Line. Pedestrian facilities will be constructed in accordance with the construction standards set out in the Accessibility for Ontarians with Disabilities Act (AODA). The provision of sidewalks will facilitate safe and efficient pedestrian mobility within the site.

The site meets the City of Mississauga requirement of 119 long-term bicycle spaces and 10 short-term bicycle parking spaces. The proposed site specific infrastructure will further support the cycling transportation mode.

The analysis contained within this report was prepared using the Site Plan prepared by ZO1 Architects (dated November 5, 2021). Any minor revisions to the development concept are not expected to affect the conclusions contained with this report.

Respectfully submitted by,

**C.F. CROZIER & ASSOCIATES INC.**



Peter Apasnore, M.A.Sc., P.Eng., PTOE  
Project Engineer

/AH

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# APPENDIX A

## Site and Composite Plans

# APPENDIX A.1

## Site Plan

10 CONCEPT DESIGN									
Re zoning									
A001	Cover Sheet								
A002	Statistics & Drawing List								
A100	Site Context								
A101	Site Plan								
A200	P1 Floor Plan								
A201	Level 1 Floor Plan								
A202	Level 2 and 3 Floor Plan								
A203	Level 4 and 5 Floor Plan								
A204	Level 6 and MPH Floor Plan								
A400	Elevations								
A401	Courtyard Elevations								
A500	Bldg Sections								
A700	Shadow Study - June								
A701	Shadow Study - June								
A702	Shadow Study - March / September								
A703	Shadow Study - March / September								
A704	Shadow Study - December								
A800	Perspective Views								
A900	Render Perspective Views								
A901	Render Elevations								
A902	Render Elevations								

Landscape & Amenity Area

OBC Matrix	2
NTS	A002

NTS

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Z01



ONTARIO ASSOCIATION  
OF  
ARCHITECTS  
BONNIE A. CHAN  
LICENCE  
6291

BRANT**HAVEN**

## Statistics & Drawing List

L.B.

Project No.:	21014
--------------	-------

Drawing No.

A 002



- FOR SURVEY INFORMATION, PLEASE REFER TO  
JD BARNES DRAWINGS

- FOR TRAFFIC SIGNAGE PLAN, TRUCK TURNING  
PAT & OTHER TRAFFIC INFORMATION, PLEASE  
REFER TO CROZIER DRAWINGS

- SNOW WILL BE REMOVED FROM SITE

PLAN OF SURVEY OF  
LOTS 5160 AND 5170  
BLOCK 211 REGISTERED PLAN 43M-1664 &  
BLOCK 210 (ROAD WIDENING) REGISTERED PLAN  
43M-1664

## RESIDENTIAL F.F.E. @ L1 = 191.70

## General Notes



1 : 500

1  
A100

Z01

BRANT**HAVEN**

Drawing Title:

Scale: 1 : 500	Drawn by:  L.B.
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Checked by: B.C. & D.L.	Project No.: 21014
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Date:	Drawing No.:
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2021-11-05 A100

# A100



COFINI - 5160-5170 NINTH LINE, MISSISSAUGA, ON. L5M 0R5  
PROJECT NUMBER 21014

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TEL: 905-333-8364  
[www.branthaven.com](http://www.branthaven.com)

NAME: ZO1  
ADDRESS: 85 SCARSDALE RD. NORTH YORK, ON. M3B 2R2  
TEL: 647-636-8771  
[www.zo1.ca](http://www.zo1.ca)

NAME: FBDEV CONSULTING INC  
ADDRESS  
TEL:  
www.website.com

NAME: KORSIAK URBAN PLANNING  
ADDRESS: 277 LAKESHORE RD E #206, OAKVILLE, ON. L6J 1H9  
TEL: 905-257-0227  
[www.korsiak.com](http://www.korsiak.com)

NAME: JD BARNES  
ADDRESS: 140 RENFREW DR. Ste. 100. MARKHAM, ON. L3R 6B3  
TEL: 905-477-3600  
[www.jdbarnes.com](http://www.jdbarnes.com)

NAME: URBAN TECH  
ADDRESS: 3760 14TH AVENUE, Ste. 301. MARKHAM, ON. L3R 3T7  
TEL: 905-946-9461  
[www.urbantech.com](http://www.urbantech.com)

NAME ADESSO DESIGN INC.  
ADDRESS: 218 LOCKE ST. S, HAMILTON, ON. L8P 4B4  
TEL: 905-526-8876  
[www.adessodesigninc.ca](http://www.adessodesigninc.ca)

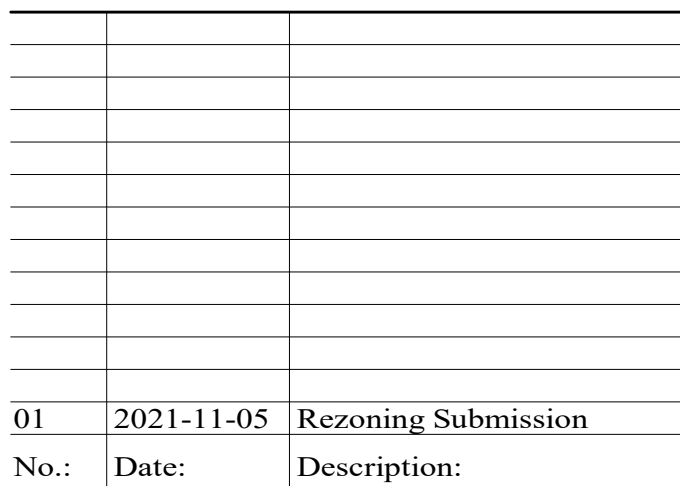
NAME: GRADIENT WIND ENGINEERING INC.  
ADDRESS: 127 WALGREEN RD. CARP, ON. K0A 1L0  
TEL: 613-836-0934  
[www.gradientwind.com](http://www.gradientwind.com)

NAME: DS CONSULTANTS LTD.  
ADDRESS: 6221 HWY 7 UNIT 16, WOODBRIDGE, ON. L4H 0K8  
TEL: 905-264-9393  
[www.dsconsultants.ca](http://www.dsconsultants.ca)

NAME: HGC ENGINEERING  
ADDRESS: 2000 ARGENTIA RD 1, Ste. 203, MISSISSAUGA, ON.  
L5N 1P7  
TEL: 905-826-4044  
[www.acoustical-consultants.com](http://www.acoustical-consultants.com)

NAME: CROZIER CONSULTING ENGINEERS  
ADDRESS: 211 YONGE ST. Ste. 301. TORONTO, ON. M5B 1M4  
TEL: 416-477-3392  
[www.cfcrozier.ca](http://www.cfcrozier.ca)

NAME: SAVANTA  
ADDRESS: 75 TIVERTON COURT, UNIT 100. MARKHAM, ON. L3R 4M8  
TEL: 1-800-810-3281  
[www.savanta.ca](http://www.savanta.ca)



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**ZO1**

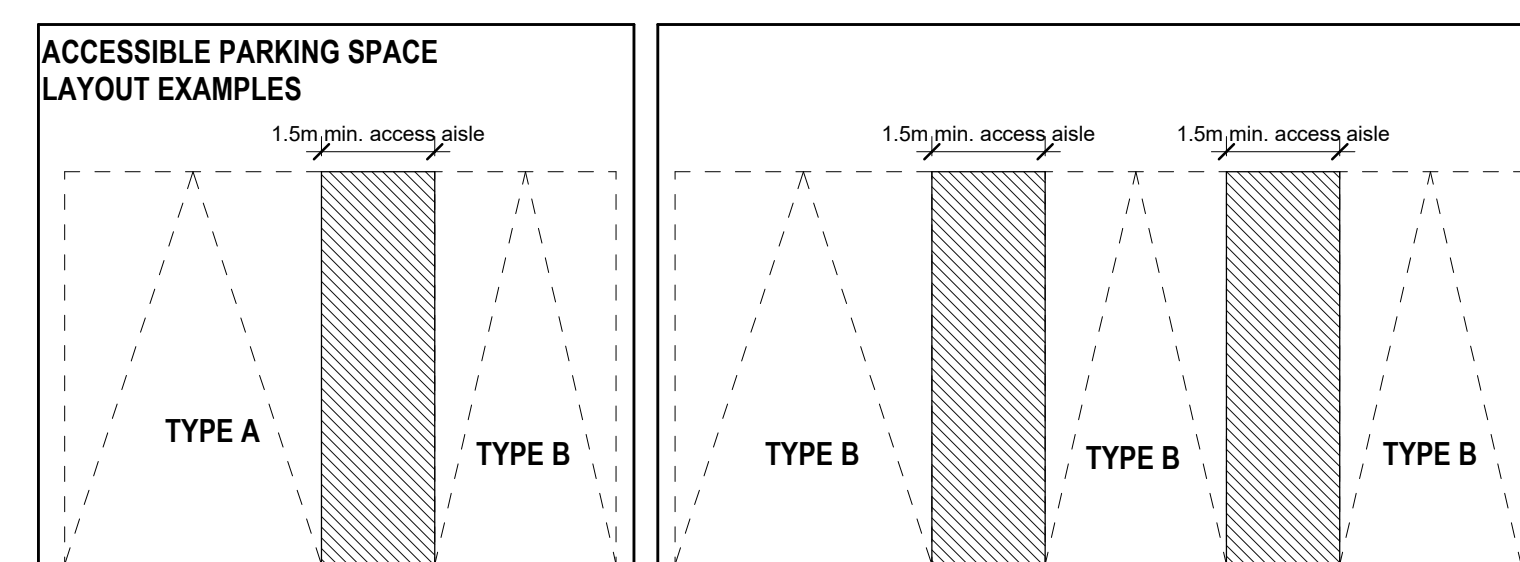
BRANT**HAVEN**

Drawing Title:

## Site Plan

Scale: 1 : 250	Drawn by: L.B.
Checked by: B.C. & D.L.	Project No.: 21014
Date: 2021-11-05	Drawing No.: A101





### P1 Floor Plan

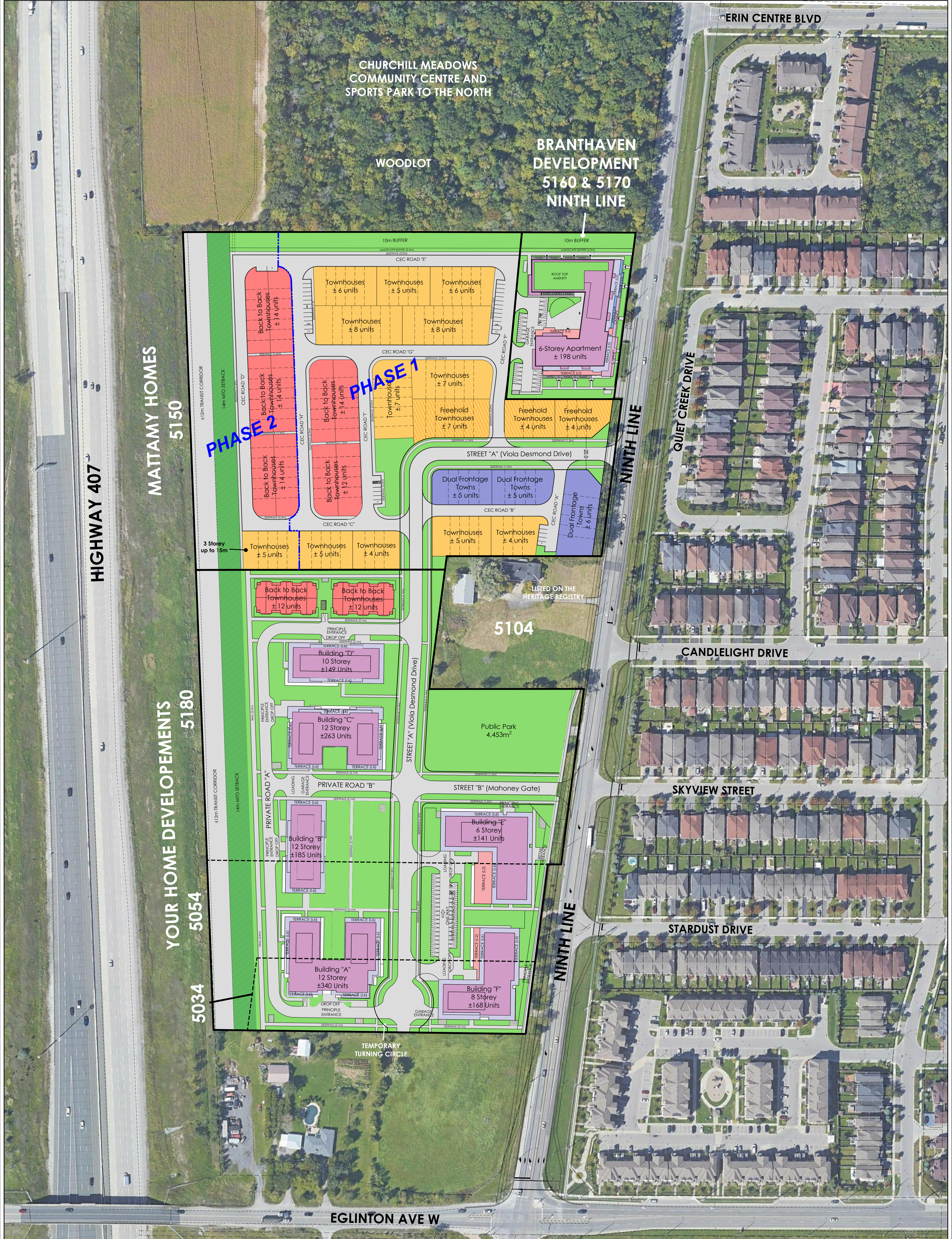
1  
A200

2021-11-05	A200
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# APPENDIX A.2

## Composite Plan





COMPOSITE PLAN

MATTAMY HOMES/YOUR HOME DEVELOPMENTS/BRANTHAVEN DEVELOPMENT



BRANTHAVEN

Scale 1:1000  
November 19, 2021



206-277 Lakeshore Road East  
Oakville, Ontario L6J 1H9  
T: 905-357-0227  
info@korsiak.com



# APPENDIX A.3

## Property Reports

## Property Details

**Address:** 5160 NINTH LINE  
**Legal Description:** PART LT 1, CON 9, NS - PT 5 20R21132  
**Roll Number:** 21-05-150-087-10906-0000  
**Common Name:**  
**Property Code:** RETAIL ONE STOREY < 10000 S.F.  
**Ward:** 10  
**Councillor:** SUE MCFADDEN  
**Area:** 2,960.13

## Property Zoning Information

The zone(s) for this property are listed below. To access the Mississauga Zoning By-law, please visit [www.mississauga.ca/zoningbylaw](http://www.mississauga.ca/zoningbylaw). If you have any questions about the zoning information displayed below, please contact 311 (905-615-4311 outside City limits) or visit [www.mississauga.ca/zoning](http://www.mississauga.ca/zoning).

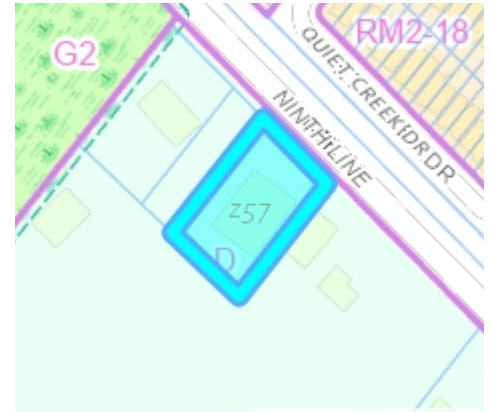
Zone	Master Bylaw	Enacting Bylaw	OMB Case/File No.	Status
<a href="#">D</a>	0225-2007	BL-0168/18	N/A	In Force

## Heritage Status

Mississauga's heritage, which extends over 10,000 years, includes archaeological resources, numerous residential, commercial and industrial buildings, views, vistas, ridge lines, scenic routes and a variety of natural heritage properties. For more information, please visit [www.mississauga.ca/heritage](http://www.mississauga.ca/heritage).

**Status:** NOT LISTED ON THE HERITAGE REGISTER  
**Conservation District:**  
**Bylaw:**  
**Bylaw Date:**  
**Designation Statement:**  
**Inventory Item:**

### Detail Map



### Aerial Map



## Property Details

**Address:** 0 NINTH LINE  
**Legal Description:** PART LT 1, CON 9, NS - PTS 4, 8 20R21132  
**Roll Number:** 21-05-150-087-10905-0000  
**Common Name:**  
**Property Code:** VACANT RESIDENTIAL LAND NOT ON WATER  
**Ward:** 10  
**Councillor:** SUE MCFADDEN  
**Area:** 1,370.28

## Property Zoning Information

The zone(s) for this property are listed below. To access the Mississauga Zoning By-law, please visit [www.mississauga.ca/zoningbylaw](http://www.mississauga.ca/zoningbylaw). If you have any questions about the zoning information displayed below, please contact 311 (905-615-4311 outside City limits) or visit [www.mississauga.ca/zoning](http://www.mississauga.ca/zoning).

Zone	Master Bylaw	Enacting Bylaw	OMB Case/File No.	Status
<a href="#">D</a>	0225-2007	BL-0168/18	N/A	In Force

## Heritage Status

Mississauga's heritage, which extends over 10,000 years, includes archaeological resources, numerous residential, commercial and industrial buildings, views, vistas, ridge lines, scenic routes and a variety of natural heritage properties. For more information, please visit [www.mississauga.ca/heritage](http://www.mississauga.ca/heritage).

**Status:** NOT LISTED ON THE HERITAGE REGISTER  
**Conservation District:**  
**Bylaw:**  
**Bylaw Date:**  
**Designation Statement:**  
**Inventory Item:**

### Detail Map



### Aerial Map



Aerial Imagery provided by First Base Solutions

## Property Details

**Address:** 5170 NINTH LINE  
**Legal Description:** PART LT 1, CON 9, NS - PT 3 20R21132  
**Roll Number:** 21-05-150-087-10904-0000  
**Common Name:**  
**Property Code:** SINGLE FAMILY DETACHED (NOT ON WATER)  
**Ward:** 10  
**Councillor:** SUE MCFADDEN  
**Area:** 2,947.58

## Property Zoning Information

The zone(s) for this property are listed below. To access the Mississauga Zoning By-law, please visit [www.mississauga.ca/zoningbylaw](http://www.mississauga.ca/zoningbylaw). If you have any questions about the zoning information displayed below, please contact 311 (905-615-4311 outside City limits) or visit [www.mississauga.ca/zoning](http://www.mississauga.ca/zoning).

Zone	Master Bylaw	Enacting Bylaw	OMB Case/File No.	Status
<a href="#">D</a>	0225-2007	BL-0168/18	N/A	In Force

## Heritage Status

Mississauga's heritage, which extends over 10,000 years, includes archaeological resources, numerous residential, commercial and industrial buildings, views, vistas, ridge lines, scenic routes and a variety of natural heritage properties. For more information, please visit [www.mississauga.ca/heritage](http://www.mississauga.ca/heritage).

**Status:** NOT LISTED ON THE HERITAGE REGISTER  
**Conservation District:**  
**Bylaw:**  
**Bylaw Date:**  
**Designation Statement:**  
**Inventory Item:**

### Detail Map



### Aerial Map



# APPENDIX B

## TTS Data

Column1.1	Column1.2	Column1.3	Column1.4	Column1.5	Column1.6	Column1.7	Column1.8	Column1.9	Column1.10	Column1.11
Wed Aug 18 2021 15:38:32 GMT-0400 (Eastern Daylight Time) - Run Time: 2454ms										
Cross Tabulation Query Form - Trip - 2016 v1.1										
Row: Planning district of origin - pd_orig										
Column: Primary travel mode of trip - mode_prime										
Filters:										
(2006 GTA zone of destination - gta06_dest In 3615 and Start time of trip - start_time In 0600-0900)	3616	3809	3810	3811						
Trip 2016										
Table:										
	Transit excluding GO rail	Cycle	Auto driver	Joint GO rail and local transit	Other	Auto passenger	School bus	Taxi passenger	Paid rideshare	Walk
PD 1 of Toronto	0	0	0	18	0	0	0	0	0	0
PD 2 of Toronto	0	0	17	0	0	16	0	0	0	0
PD 5 of Toronto	0	0	10	0	0	0	0	0	0	0
PD 7 of Toronto	0	0	14	0	0	0	0	0	0	0
PD 8 of Toronto	0	0	48	0	0	0	0	0	0	0
PD 9 of Toronto	0	0	61	0	0	0	0	0	0	0
PD 10 of Toronto	30	0	0	0	0	0	0	0	0	0
PD 11 of Toronto	0	0	25	0	0	0	0	0	0	0
Richmond Hill	34	0	0	0	0	0	0	0	0	0
Markham	0	0	0	0	0	0	21	0	0	0
Vaughan	33	0	48	0	0	20	62	0	0	106
Caledon	0	0	22	0	0	0	0	0	0	0
Brampton	0	0	167	0	0	19	0	0	0	0
Mississauga	432	401	7002	0	10	2857	671	19	39	3780
Halton Hills	0	0	86	0	0	19	0	0	0	0
Milton	0	0	363	0	0	95	0	0	0	0
Oakville	0	0	357	0	0	14	0	0	0	0
Burlington	0	0	10	0	0	0	0	0	0	0
Hamilton	0	0	11	0	0	0	0	0	0	0
Grimsby	0	0	27	0	0	0	0	0	0	0
City of Guelph	0	0	36	0	0	0	0	0	0	0
Guelph/Eramosa	0	0	19	0	0	0	0	0	0	0
Erin	0	0	49	0	0	49	0	0	0	0
Wasaga Beach	0	0	24	0	0	0	0	0	0	0



Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10	Column11	Column12
Wed Aug 18 2021 15:38:11 GMT-0400 (Eastern Daylight Time) - Run Time: 2579ms											
Cross Tabulation Query Form - Trip - 2016 v1.1											
Row: Planning district of origin - pd_orig											
Column: Primary travel mode of trip - mode_prime											
Filters:											
(2006 GTA zone of destination - gta06_dest In 3615											
3616	3809	3810	3811								
and											
Start time of trip - start_time In 1600-1900)											
Trip 2016											
Table:											
	Transit excluding GO rail	Cycle	Auto driver	GO rail only	Joint GO rail and local transit	Motorcycle	Auto passenger	School bus	Taxi passenger	Paid rideshare	Walk
PD 1 of Toronto	112	0	382	933	695	0	82	0	0	0	0
PD 2 of Toronto	0	0	171	0	0	0	0	0	0	0	0
PD 3 of Toronto	0	0	255	0	0	0	28	0	0	0	0
PD 4 of Toronto	21	0	148	0	0	0	0	0	0	23	0
PD 5 of Toronto	0	0	98	0	0	0	0	0	0	0	0
PD 6 of Toronto	0	0	44	0	0	0	19	0	0	0	0
PD 7 of Toronto	0	0	197	0	0	0	0	0	0	0	0
PD 8 of Toronto	0	0	464	0	0	0	38	0	0	0	0
PD 9 of Toronto	63	0	326	0	0	0	0	0	0	0	0
PD 10 of Toronto	180	0	254	0	0	0	0	0	0	0	0
PD 11 of Toronto	30	0	153	0	0	0	0	0	0	0	0
PD 12 of Toronto	0	0	37	0	0	0	0	0	0	0	0
PD 13 of Toronto	0	0	202	0	10	0	0	0	0	0	0
PD 16 of Toronto	0	0	75	0	0	0	0	0	0	0	0
Newmarket	0	0	38	0	0	0	0	0	0	0	0
Aurora	0	0	41	0	0	0	0	0	0	0	0
Richmond Hill	0	0	71	0	0	0	0	0	0	0	0
Markham	15	0	106	0	0	0	0	0	0	0	0
Vaughan	0	0	482	0	0	0	121	0	0	0	0
Caledon	0	0	36	0	0	0	0	0	0	0	0
Brampton	121	0	1341	0	0	17	82	0	0	0	0
Mississauga	937	383	11575	0	0	15	2173	131	80	49	741
Halton Hills	0	0	301	0	0	0	15	0	0	0	0
Milton	0	0	564	0	0	0	0	0	0	0	0
Oakville	90	0	1306	0	0	0	160	16	0	0	0
Burlington	61	0	392	0	0	0	23	0	0	0	0
Dundas	0	0	33	0	0	0	0	0	0	0	0
Hamilton	309	0	167	0	0	0	0	0	0	0	0
Lincoln	0	0	27	0	0	0	0	0	0	0	0
Kitchener	0	0	0	0	0	0	7	0	0	0	0
Cambridge	0	0	166	0	0	0	0	0	0	0	0
City of Guelph	46	0	141	0	0	0	0	0	0	0	0
Puslinch	0	0	19	0	0	0	0	0	0	0	0
Centre Wellington	0	0	12	0	0	0	0	0	0	0	0
Brantford	0	0	19	0	0	0	0	0	0	0	0
External	0	0	58	0	0	0	0	0	0	0	0



Column1.1	Column1.2	Column1.3	Column1.4	Column1.5	Column1.6	Column1.7	Column1.8	Column1.9
Wed Aug 18 2021 15:36:40 GMT-0400 (Eastern Daylight Time) - Run Time: 2819ms								
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Row: Planning district of destination - pd_dest								
Column: Primary travel mode of trip - mode_prime								
Filters:								
(2006 GTA zone of origin - gta06_orig In 3615	3616	3809	3810	3811				
and								
Start time of trip - start_time In 1600-1900)								
Trip 2016								
Table:								
	Transit excluding GO rail	Cycle	Auto driver	Joint GO rail and local transit	Auto passenger	School bus	Paid rideshare	Walk
PD 1 of Toronto	0	0	62	29	83	0	0	0
PD 2 of Toronto	0	0	46	0	0	0	0	0
PD 7 of Toronto	42	0	14	0	0	0	0	0
PD 8 of Toronto	29	0	32	0	13	0	0	0
PD 9 of Toronto	0	0	37	0	37	0	0	0
PD 10 of Toronto	53	0	0	0	0	0	0	0
Vaughan	0	0	41	0	30	0	0	0
Brampton	14	0	286	0	30	23	0	0
Mississauga	145	393	5793	0	2070	239	0	618
Halton Hills	0	0	37	0	44	0	0	0
Milton	0	0	315	0	47	0	0	0
Oakville	0	0	348	0	113	0	9	0
Burlington	0	0	12	0	0	0	0	0
Glanbrook	0	0	15	0	0	0	0	0
Hamilton	0	0	60	0	0	0	0	0
Grimsby	0	0	27	0	0	0	0	0
St. Catharines	0	0	75	0	62	0	0	0
Waterloo	0	0	0	0	44	0	0	0
Cambridge	0	0	38	0	12	0	0	0
City of Guelph	0	0	58	0	50	0	0	0
Guelph/Eramosa	0	0	19	0	0	0	0	0



Inbound	AM	Markham	0	0	0	0	0	0	0	0	21	0	0	0
Inbound	AM	Vaughan	33	0	48	0	0	0	0	20	62	0	0	106
Inbound	AM	Caledon	0	0	22	0	0	0	0	0	0	0	0	0
Inbound	AM	Brampton	0	0	167	0	0	0	0	19	0	0	0	0
Inbound	AM	Mississauga	432	401	7002	0	0	0	10	2857	671	19	39	3780
Inbound	AM	Halton Hills	0	0	86	0	0	0	0	19	0	0	0	0
Inbound	AM	Milton	0	0	363	0	0	0	0	95	0	0	0	0
Inbound	AM	Oakville	0	0	357	0	0	0	0	14	0	0	0	0
Inbound	AM	Burlington	0	0	10	0	0	0	0	0	0	0	0	0
Inbound	AM	Hamilton	0	0	11	0	0	0	0	0	0	0	0	0
Inbound	AM	Grimsby	0	0	27	0	0	0	0	0	0	0	0	0
Inbound	AM	City of Guelph	0	0	36	0	0	0	0	0	0	0	0	0
Inbound	AM	Guelph/Eram	0	0	19	0	0	0	0	0	0	0	0	0
Inbound	AM	Erin	0	0	49	0	0	0	0	49	0	0	0	0
Inbound	AM	Wasaga Beach	0	0	24	0	0	0	0	0	0	0	0	0
Outbound	PM	PD 1 of Toronto	0	0	62	0	29	0	0	83	0	0	0	0
Outbound	PM	PD 2 of Toronto	0	0	46	0	0	0	0	0	0	0	0	0
Outbound	PM	PD 7 of Toronto	42	0	14	0	0	0	0	0	0	0	0	0
Outbound	PM	PD 8 of Toronto	29	0	32	0	0	0	0	13	0	0	0	0
Outbound	PM	PD 9 of Toronto	0	0	37	0	0	0	0	37	0	0	0	0
Outbound	PM	PD 10 of Toronto	53	0	0	0	0	0	0	0	0	0	0	0
Outbound	PM	Vaughan	0	0	41	0	0	0	0	30	0	0	0	0
Outbound	PM	Brampton	14	0	286	0	0	0	0	30	23	0	0	0
Outbound	PM	Mississauga	145	393	5793	0	0	0	0	2070	239	0	0	618
Outbound	PM	Halton Hills	0	0	37	0	0	0	0	44	0	0	0	0
Outbound	PM	Milton	0	0	315	0	0	0	0	47	0	0	0	0
Outbound	PM	Oakville	0	0	348	0	0	0	0	113	0	0	9	0
Outbound	PM	Burlington	0	0	12	0	0	0	0	0	0	0	0	0
Outbound	PM	Glanbrook	0	0	15	0	0	0	0	0	0	0	0	0
Outbound	PM	Hamilton	0	0	60	0	0	0	0	0	0	0	0	0
Outbound	PM	Grimsby	0	0	27	0	0	0	0	0	0	0	0	0
Outbound	PM	St. Catharines	0	0	75	0	0	0	0	62	0	0	0	0
Outbound	PM	Waterloo	0	0	0	0	0	0	0	44	0	0	0	0
Outbound	PM	Cambridge	0	0	38	0	0	0	0	12	0	0	0	0
Outbound	PM	City of Guelph	0	0	58	0	0	0	0	50	0	0	0	0
Outbound	PM	Guelph/Eram	0	0	19	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 1 of Toronto	112	0	382	933	695	0	0	82	0	0	0	0
Inbound	PM	PD 2 of Toronto	0	0	171	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 3 of Toronto	0	0	255	0	0	0	0	28	0	0	0	0
Inbound	PM	PD 4 of Toronto	21	0	148	0	0	0	0	0	0	0	23	0
Inbound	PM	PD 5 of Toronto	0	0	98	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 6 of Toronto	0	0	44	0	0	0	0	19	0	0	0	0
Inbound	PM	PD 7 of Toronto	0	0	197	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 8 of Toronto	0	0	464	0	0	0	0	38	0	0	0	0
Inbound	PM	PD 9 of Toronto	63	0	326	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 10 of Toronto	180	0	254	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 11 of Toronto	30	0	153	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 12 of Toronto	0	0	37	0	0	0	0	0	0	0	0	0
Inbound	PM	PD 13 of Toronto	0	0	202	0	10	0	0	0	0	0	0	0
Inbound	PM	PD 16 of Toronto	0	0	75	0	0	0	0	0	0	0	0	0
Inbound	PM	Newmarket	0	0	38	0	0	0	0	0	0	0	0	0
Inbound	PM	Aurora	0	0	41	0	0	0	0	0	0	0	0	0
Inbound	PM	Richmond Hill	0	0	71	0	0	0	0	0	0	0	0	0
Inbound	PM	Markham	15	0	106	0	0	0	0	0	0	0	0	0
Inbound	PM	Vaughan	0	0	482	0	0	0	0	121	0	0	0	0
Inbound	PM	Caledon	0	0	36	0	0	0	0	0	0	0	0	0
Inbound	PM	Brampton	121	0	1341	0	0	17	0	82	0	0	0	0
Inbound	PM	Mississauga	937	383	11575	0	0	15	0	2173	131	80	49	741
Inbound	PM	Halton Hills	0	0	301	0	0	0	0	15	0	0	0	0
Inbound	PM	Milton	0	0	564	0	0	0	0	0	0	0	0	0



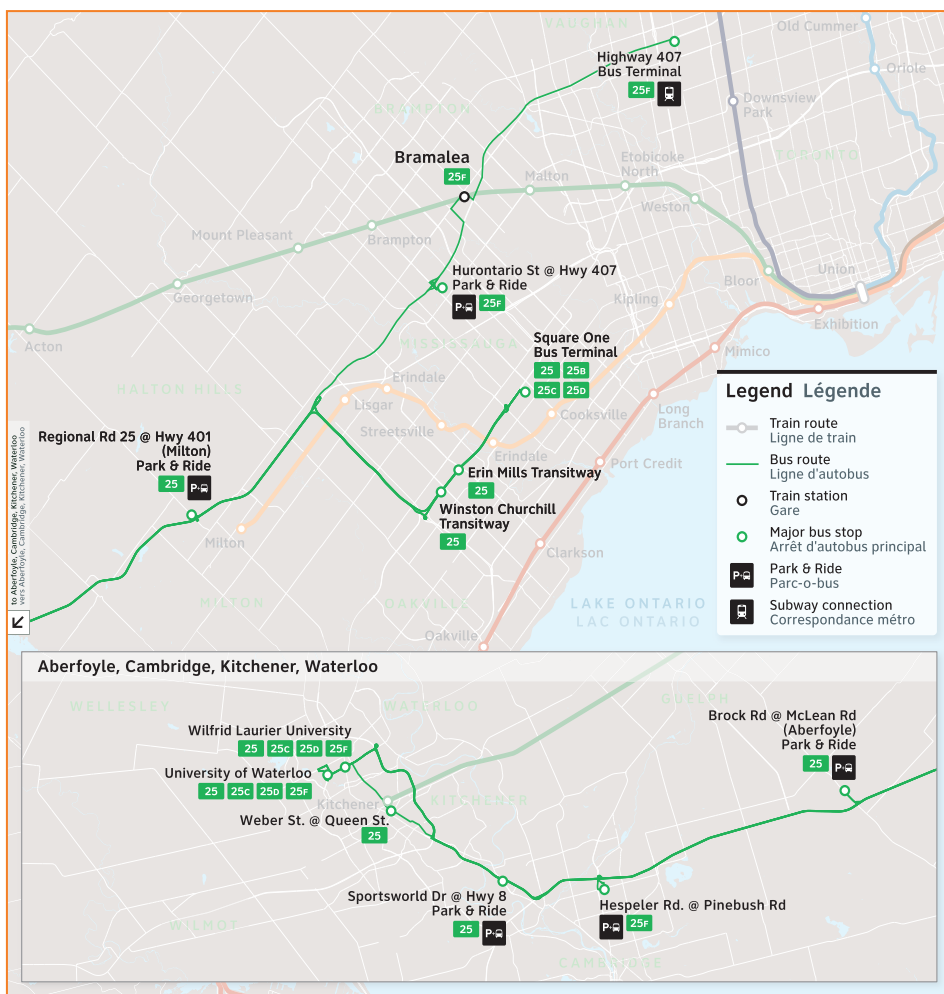
# APPENDIX C

## Transit Information

# 25

Route number  
Numéro du trajet

## Waterloo/Mississauga



### CONTACT US

1-888-438-6646  
416-869-3200  
TTY/ATS:  
1-800-387-3652

gotransit.com/schedules

@GOtransitBus

See Something?  
Say Something.  
24/7 Transit Safety Dispatch:  
1-877-297-0642

prestocard.ca

Sign-up for email or  
text alerts/ Inscrivez-  
vous pour recevoir des  
alertes par courriel ou  
message texte.  
gotransit.com/OnTheGO

*Face coverings are mandatory on  
GO Transit. Let's keep each other safe.*

*Le port d'un masque est obligatoire lors de  
vos trajets sur GO Transit. Protégeons notre  
santé les uns les autres.*

18-08-2021

## Waterloo/ Mississauga



GO Bus Schedule/  
Horaire des autobus GO

METROLINX

25

Waterloo  
Kitchener  
Cambridge  
Aberfoyle  
Milton  
Mississauga  
Brampton  
Toronto

### Daily / Quotidiennement

Includes GO Bus routes 25 / Inclut  
les trajets 25 d'autobus GO

Effective / À partir de:

4 SEPTEMBER  
SEPTEMBRE 2021



## How to read our schedules

### Step 1

Find the station or terminal you are departing from. Stops are listed across the top in the order they are served.

### Step 2

The upper left corner tells you what day the schedule is for and the direction of travel.

### Step 3

Look across the rows for available departure times.

### Step 4

Not all trains or buses stop at every station. If you see → the train or bus will not stop at that station.

### Schedule times shown in 24-hour clock

Midnight to noon  
00 01 - 12 00  
Noon to midnight  
12 01 - 24 00



## Legend



Bus trips



Trip does not serve this location.



GO Bus service is accessible to passengers using mobility devices at this location.



Parking available.

## Bicycles

1. Bicycles are not allowed in Union Station or on-board trains during morning rush hour (6:30-9:30) and evening rush hour (15:30-18:30), Monday to Friday.
2. Foldable bicycles are allowed on-board trains at all times.

2

## Notes

D

Stops to discharge passengers on request only.

For the latest schedule information and updates, please visit [gotransit.com/schedules](https://gotransit.com/schedules).

## Comment lire nos horaires

### Étape 1

Trouvez votre gare ou terminus de départ. La liste des arrêts est donnée en haut dans l'ordre dans lequel ils sont desservis.

### Étape 2

Le coin supérieur gauche vous indique le jour pour lequel l'horaire est donné et la direction de circulation.

### Étape 3

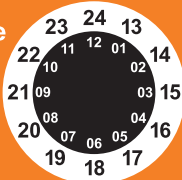
Regardez dans les rangées pour obtenir les heures de départ offertes.

### Étape 4

Les trains ou les autobus ne s'arrêtent pas tous à chaque gare. Si vous voyez le symbole → le train ou l'autobus ne s'arrêtera pas à cette gare.

### Indications selon un système horaire de 24 heures

De minuit à midi:  
00 01 - 12 00  
De midi à minuit:  
12 01 - 24 00



## Légende



Horaire des autobus



Trajet ne sert pas cette station.



Service d'autobus GO accessible aux personnes utilisant des aides à la mobilité à cet endroit.



Stationnement disponible.

## Vélos

1. Les vélos ne sont pas autorisés dans la gare Union ou à bord des trains du lundi au vendredi, pendant l'heure de pointe (6:30-9:30) et pendant l'heure de pointe du soir (15:30-18:30).
2. Les vélos pliables sont permis à bord des trains en tout temps.

3

## Notes

D

Arrêt sur demande seulement.

Pour consulter les horaires les plus récents et les mises à jour, veuillez visiter [gotransit.com/schedules](https://gotransit.com/schedules).

Monday to Friday (except holidays) Du lundi au vendredi (sauf les jours fériés)											
EASTBOUND / EN DIRECTION EST											
Route Number Numéro du trajet	Zone→	Waterloo 27 Dp	Waterloo 27 Dp	Kitchener 27 Dp	Kitchener 26 Dp	Cambridge 26 Dp	Puslinch 39 Dp	Milton 24 Dp	Mississauga 21 Dp	Mississauga 21 Dp	Mississauga 20 Dp
Trip Number Numéro du parcours		University of Waterloo D	Wilfrid Laurier University D	Weber St. W. @ Queen St. N. D	Sportsworld Dr. @ Hwy. 8 D	Hespeler Rd. @ Pinebush Rd. D	Brock Rd. @ McLean Rd. (Aberfoyle) D	Regional Rd. 25 @ Hwy. 401 D	Winston Churchill Transitway Station D	Erin Mills Transitway Station D	Square One D
25	25140	05 30	05 33	05 41	05 55	06 04	06 20	06 36	06 57	07 00	07 15
25	25200	06 15	06 18	06 26	06 40	06 50	07 10	07 29	07 57	08 00	08 15
25	25250	07 10	07 13	07 23	07 38	07 48	08 10	08 29	08 57	09 00	09 15
25	25290	08 20	08 23	08 33	08 48	08 58	09 20	09 36	09 57	10 00	10 15
25	25330	09 25	09 28	09 38	09 53	10 03	10 25	10 41	10 57	11 00	11 15
25	25370	10 25	10 28	10 38	10 53	11 03	11 25	11 41	11 57	12 00	12 15
25	25390	10 55	11 03	11 13	11 28	11 38	12 00	12 16	12 32	12 35	12 50
25	25410	11 25	11 33	11 43	11 58	12 08	12 30	12 46	13 02	13 05	13 20
25	25430	11 55	12 03	12 13	12 28	12 38	13 00	13 16	13 32	13 35	13 50
25	25450	12 25	12 33	12 43	12 58	13 08	13 30	13 46	14 02	14 05	14 20
25	25470	12 55	13 03	13 13	13 28	13 38	14 00	14 16	14 32	14 35	14 50
25	25500	13 25	13 33	13 43	13 58	14 08	14 30	14 46	15 02	15 05	15 20
25	25530	13 55	14 03	14 13	14 28	14 38	15 00	15 16	15 32	15 35	15 50
25	25560	14 20	14 28	14 38	14 53	15 06	15 30	15 46	16 07	16 10	16 25
25	25590	14 50	14 58	15 08	15 23	15 36	16 00	16 16	16 37	16 40	16 55
25	25620	15 20	15 28	15 38	15 53	16 06	16 30	16 46	17 07	17 10	17 25
25	25650	15 50	15 58	16 08	16 23	16 36	17 00	17 21	17 42	17 45	18 00
25	25670	16 20	16 28	16 38	16 53	17 06	17 25	17 41	18 02	18 05	18 20
25	25690	16 50	16 58	17 08	17 23	17 36	17 55	18 11	18 32	18 35	18 50
25	25710	17 20	17 28	17 38	17 53	18 06	18 25	18 41	19 02	19 05	19 20
25	25730	17 55	18 03	18 13	18 28	18 41	19 00	19 16	19 37	19 40	19 55
25	25750	18 30	18 33	18 43	18 58	19 08	19 30	19 46	20 07	20 10	20 25
25	25770	19 00	19 03	19 13	19 28	19 38	20 00	20 16	20 37	20 40	20 55
25	25790	19 30	19 33	19 43	19 58	20 07	20 25	20 41	21 02	21 05	21 20
25	25810	20 00	20 03	20 13	20 28	20 37	20 55	21 11	21 32	21 35	21 50
25	25830	20 30	20 33	20 43	20 58	21 07	21 25	21 41	21 57	22 00	22 15
25	25860	21 30	21 33	21 43	21 58	22 07	22 25	22 41	22 57	23 00	23 15
25	25890	22 35	22 38	22 46	23 00	23 09	23 25	23 41	23 57	00 00	00 15

Monday to Friday (except holidays) Du lundi au vendredi (sauf les jours fériés)											
WESTBOUND / EN DIRECTION OUEST											
Route Number Numéro du trajet	Zone→	Mississauga 20 Dp	Mississauga 21 Dp	Mississauga 21 Dp	Winston Churchill Transitway Station D	Regional Rd. 25 @ Hwy. 401 D	Puslinch 39 Dp	Cambridge 26 Dp	Kitchener 26 Dp	Kitchener 27 Dp	Waterloo 27 Dp
Trip Number Numéro du parcours		Square One D	Erin Mills Transitway Station D	Winston Churchill Transitway Station D	Regional Rd. 25 @ Hwy. 401 D	Brock Rd. @ McLean Rd. (Aberfoyle) D	Hespeler Rd. @ Pinebush Rd. D	Sportsworld Dr. @ Hwy. 8 D	Weber St. @ Queen St. D	Wilfrid Laurier University D	University of Waterloo D
25	25051	05 45	05 53	05 56	06 18	06 35	06 52	07 01	07 14	07 27	07 40
25	25111	06 45	06 53	06 56	07 18	07 35	07 52	08 01	08 14	08 27	08 40
25	25151	07 15	07 23	07 26	07 48	08 05	08 22	08 31	08 44	08 57	09 10
25	25181	07 50	07 58	08 01	08 23	08 40	08 57	09 06	09 19	09 32	09 45
25	25211	08 20	08 28	08 31	08 53	09 10	09 27	09 36	09 49	10 02	10 15
25	25221	08 45	08 53	08 56	09 18	09 35	09 52	10 01	10 14	10 27	10 40
25	25251	09 15	09 23	09 26	09 48	10 05	10 22	10 31	10 44	10 57	11 10
25	25271	09 45	09 53	09 56	10 18	10 35	10 52	11 01	11 14	11 27	11 40
25	25291	10 15	10 23	10 26	10 48	11 05	11 22	11 31	11 44	11 57	12 10
25	25301	10 45	10 53	10 56	11 18	11 35	11 52	12 01	12 14	12 27	12 40
25	25331	11 15	11 23	11 26	11 48	12 05	12 22	12 31	12 44	12 57	13 10
25	25341	11 45	11 53	11 56	12 18	12 35	12 52	13 01	13 14	13 27	13 40
25	25371	12 15	12 23	12 26	12 48	13 05	13 22	13 31	13 44	13 57	14 10
25	25381	12 45	12 53	12 56	13 18	13 35	13 52	14 01	14 14	14 27	14 40
25	25411	13 15	13 23	13 26	13 48	14 05	14 22	14 31	14 44	14 57	15 10
25	25421	13 45	13 53	13 56	14 18	14 35	14 52	15 01	15 19	15 32	15 45
25	25451	14 15	14 23	14 26	14 48	15 05	15 22	15 31	15 49	16 02	16 15
25	25461	14 45	14 53	14 56	15 18	15 35	15 52	16 01	16 19	16 32	16 45
25	25491	15 15	15 23	15 26	15 50	16 10	16 29	16 38	16 56	17 09	17 25
25	25521	15 45	15 53	15 56	16 20	16 40	16 59	17 08	17 26	17 39	17 55
25	25551	16 15	16 23	16 26	16 50	17 10	17 29	17 38	17 56	18 09	18 25
25	25581	16 50	16 58	17 01	17 25	17 45	18 04	18 13	18 31	18 44	19 00
25	25611	17 15	17 23	17 26	17 50	18 10	18 29	18 38	18 56	19 09	19 25
25	25641	17 50	17 58	18 01	18 25	18 45	19 02	19 11	19 29	19 42	19 55
25	25671	18 15	18 23	18 26	18 50	19 10	19 27	19 36	19 54	20 07	20 20
25	25691	18 45	18 53	18 56	19 18	19 35	19 52	20 01	20 16	20 29	20 40
25	25711	19 15	19 23	19 26	19 48	20 05	20 22	20 31	20 46	20 59	21 10
25	25721	19 45	19 53	19 56	20 18	20 35	20 52	21 01	21 14	21 24	21 35
25	25771	20 45	20 53	20 56	21 18	21 35	21 52	21 59	22 11	22 19	22 30
25	25801	21 45	21 53	21 56	22 18	22 35	22 52	22 59	23 11	23 19	23 30
25	25841	22 45	22 53	22 56	23 18	23 35	23 51	23 57	00 09	00 17	00 25
25	25871	23 45	23 53	23 56	00 18	00 35	00 51	00 57	01 09	01 17	01 25



Saturday and Sunday Samedi et Dimanche											
EASTBOUND / EN DIRECTION EST											
Route Number Numéro du trajet	Zone→	Waterloo 27	Dp	Waterloo 27	Kitchener 27	Waterloo 26	Kitchener 26	Waterloo 27	Kitchener 27	Waterloo 26	Kitchener 26
Trip Number Numéro du parcours		University of Waterloo		Wilfrid Laurier University		Weber St. W. @ Queen St. N.		Sportsworld Dr. @ Hwy. 8		Hespeler Rd. @ Pinebush Rd.	
25	25110	05 00	05 03	05 11	05 25	05 34	05 50	06 06	06 24	06 27	06 40
25	25170	05 55	05 58	06 08	06 23	06 32	06 50	07 06	07 24	07 27	07 40
25	25230	06 55	06 58	07 08	07 23	07 32	07 50	08 06	08 24	08 27	08 40
25	25270	07 50	07 53	08 03	08 18	08 27	08 45	09 01	09 22	09 25	09 40
25	25310	08 50	08 53	09 03	09 18	09 27	09 45	10 01	10 22	10 25	10 40
25	25350	09 45	09 48	09 58	10 13	10 23	10 45	11 01	11 22	11 25	11 40
25	25380	10 35	10 38	10 48	11 03	11 13	11 35	11 51	12 12	12 15	12 30
25	25400	11 05	11 08	11 18	11 33	11 43	12 05	12 21	12 42	12 45	13 00
25	25420	11 35	11 38	11 48	12 03	12 13	12 35	12 51	13 12	13 15	13 30
25	25440	12 05	12 08	12 18	12 33	12 43	13 05	13 21	13 42	13 45	14 00
25	25460	12 35	12 38	12 48	13 03	13 13	13 35	13 51	14 12	14 15	14 30
25	25480	13 05	13 08	13 18	13 33	13 43	14 05	14 21	14 42	14 45	15 00
25	25510	13 35	13 38	13 48	14 03	14 13	14 35	14 51	15 12	15 15	15 30
25	25540	14 05	14 08	14 18	14 33	14 43	15 05	15 21	15 42	15 45	16 00
25	25570	14 35	14 38	14 48	15 03	15 13	15 35	15 51	16 12	16 15	16 30
25	25600	15 05	15 08	15 18	15 33	15 43	16 05	16 21	16 42	16 45	17 00
25	25630	15 35	15 38	15 48	16 03	16 13	16 35	16 51	17 12	17 15	17 30
25	25660	16 05	16 08	16 18	16 33	16 43	17 05	17 21	17 42	17 45	18 00
25	25680	16 35	16 38	16 48	17 03	17 13	17 35	17 51	18 12	18 15	18 30
25	25700	17 05	17 08	17 18	17 33	17 43	18 05	18 21	18 42	18 45	19 00
25	25720	17 35	17 38	17 48	18 03	18 13	18 35	18 51	19 12	19 15	19 30
25	25740	18 05	18 08	18 18	18 33	18 43	19 05	19 21	19 42	19 45	20 00
25	25770	18 45	18 48	18 58	19 13	19 23	19 45	20 01	20 22	20 25	20 40
25	25810	19 50	19 53	20 03	20 18	20 28	20 50	21 06	21 24	21 27	21 40
25	25840	20 55	20 58	21 08	21 23	21 32	21 50	22 06	22 24	22 27	22 40
25	25870	21 55	21 58	22 08	22 23	22 32	22 50	23 06	23 24	23 27	23 40
25	25900	22 55	22 58	23 08	23 23	23 32	23 50	00 06	00 24	00 27	00 40

Saturday and Sunday Samedi et Dimanche											
WESTBOUND / EN DIRECTION OUEST											
Route Number Numéro du trajet	Zone→	Mississauga 20	Dp	Mississauga 21	Mississauga 21	Mississauga 21	Winston Churchill Transitway Station	Milton 24	Regional Rd. 25 @ Hwy. 401	Puslinch 39	Cambridge 26
Trip Number Numéro du parcours		Square One		Erin Mills Transitway Station		Winston Churchill Transitway Station		Regional Rd. 25 @ Hwy. 401		Brock Rd. @ McLean Rd. (Aberfoyle)	
25	25081	06 10	06 18	06 21	06 43	07 00	07 17	07 24	07 36	07 44	07 55
25	25141	07 10	07 18	07 21	07 43	08 00	08 16	08 22	08 35	08 45	08 55
25	25201	08 10	08 18	08 21	08 43	09 00	09 17	09 24	09 37	09 49	10 00
25	25241	09 10	09 18	09 21	09 43	10 00	10 17	10 24	10 37	10 49	11 00
25	25281	10 10	10 18	10 21	10 43	11 00	11 17	11 24	11 37	11 49	12 00
25	25321	11 10	11 18	11 21	11 43	12 00	12 17	12 26	12 41	12 53	13 05
25	25361	12 10	12 18	12 21	12 43	13 00	13 17	13 26	13 41	13 53	14 05
25	25391	12 50	12 58	13 01	13 23	13 40	13 57	14 06	14 21	14 33	14 45
25	25411	13 20	13 28	13 31	13 53	14 10	14 27	14 36	14 51	15 03	15 15
25	25431	13 50	13 58	14 01	14 23	14 40	14 57	15 06	15 21	15 33	15 45
25	25451	14 20	14 28	14 31	14 53	15 10	15 27	15 36	15 51	16 03	16 15
25	25471	14 50	14 58	15 01	15 23	15 40	15 57	16 06	16 21	16 33	16 45
25	25501	15 20	15 28	15 31	15 53	16 10	16 27	16 36	16 51	17 03	17 15
25	25531	15 50	15 58	16 01	16 23	16 40	16 57	17 06	17 21	17 33	17 45
25	25561	16 20	16 28	16 31	16 53	17 10	17 27	17 36	17 51	18 03	18 15
25	25591	16 50	16 58	17 01	17 23	17 40	17 57	18 06	18 21	18 33	18 45
25	25621	17 20	17 28	17 31	17 53	18 10	18 27	18 36	18 51	19 03	19 15
25	25651	17 50	17 58	18 01	18 23	18 40	18 57	19 06	19 21	19 33	19 45
25	25671	18 20	18 28	18 31	18 53	19 10	19 27	19 36	19 51	20 03	20 15
25	25691	18 50	18 58	19 01	19 23	19 40	19 57	20 06	20 21	20 33	20 45
25	25711	19 20	19 28	19 31	19 53	20 10	20 27	20 36	20 49	20 59	21 10
25	25731	19 50	19 58	20 01	20 23	20 40	20 57	21 06	21 19	21 29	21 40
25	25751	20 20	20 28	20 31	20 53	21 10	21 27	21 36	21 49	21 59	22 10
25	25771	20 50	20 58	21 01	21 23	21 40	21 57	22 06	22 19	22 29	22 40
25	25781	21 10	21 18	21 21	21 43	22 00	22 17	22 26	22 39	22 49	23 00
25	25821	22 10	22 18	22 21	22 43	23 00	23 17	23 24	23 36	23 44	23 55
25	25851	23 10	23 18	23 21	23 43	00 00	00 16	00 22	00 34	00 42	00 50
25	25881	00 10	00 18	00 21	00 43	01 00	01 16	01 22	01 34	01 42	01 50

# 29

Route number  
Numéro du trajet

## Guelph/Mississauga



### CONTACT US

1-888-438-6646  
416-869-3200  
TTY/ATS:  
1-800-387-3652

[gotransit.com/schedules](https://gotransit.com/schedules)

@GOtransitBus

See Something?  
Say Something.  
24/7 Transit Safety Dispatch:  
1-877-297-0642

[prestocard.ca](https://prestocard.ca)

Sign-up for email or  
text alerts/ Inscrivez-  
vous pour recevoir des  
alertes par courriel ou  
message texte.  
[gotransit.com/OnTheGO](https://gotransit.com/OnTheGO)

*Face coverings are mandatory on  
GO Transit. Let's keep each other safe.*

*Le port d'un masque est obligatoire lors de  
vos trajets sur GO Transit. Protégeons notre  
santé les uns les autres.*

18-09-2021

## Guelph/ Mississauga



GO Bus Schedule/  
Horaire des autobus GO

METROLINX

29

- Kipling Bus Terminal
- Renforth Transitway
- Dixie Transitway
- Square One GO
- Erin Mills  
Transitway Station
- Winston Churchill  
Transitway Station
- Regional Rd.25 @  
Hwy.401 Park & Ride
- Aberfoyle Park & Ride
- University of  
Guelph
- Guelph Central

### Daily / Quotidiennement

Includes GO Bus route 29 /  
Inclut le trajet 29 d'autobus GO

Effective / À partir de:

4 SEPTEMBER 2021 / 4 SEPTEMBRE 2021

How to read our schedules

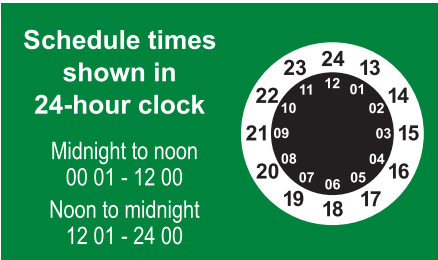
- Step 1**

Find the station or terminal you are departing from. Stops are listed across the top in the order they are served.
- Step 2**




The upper left corner tells you what day the schedule is for and the direction of travel.
- Step 3**

Look across the rows for available departure times.
- Step 4**

Not all trains or buses stop at every station. If you see → the train or bus will not stop at that station.



Legend

-  Bus trips
-  GO Bus service is accessible to passengers using mobility devices at this location.
-  Parking available.

For the latest schedule information and updates, please visit [gotransit.com/schedules](http://gotransit.com/schedules).

Notes

- Fri** Trip Operates on Fridays ONLY.
- Sun** Trip Operates on Sundays ONLY.
- S** Seasonal trip.

Bicycles

1. Bicycles are not allowed in Union Station or on-board trains during morning rush hour (6:30-9:30) and evening rush hour (15:30-18:30), Monday to Friday.
2. Foldable bicycles are allowed on-board trains at all times.

Comment lire nos horaires

- Étape 1**

Trouvez votre gare ou terminus de départ. La liste des arrêts est donnée en haut dans l'ordre dans lequel ils sont desservis.
- Étape 2**




Le coin supérieur gauche vous indique le jour pour lequel l'horaire est donné et la direction de circulation.
- Étape 3**

Regardez dans les rangées pour obtenir les heures de départ offertes.
- Étape 4**

Les trains ou les autobus ne s'arrêtent pas tous à chaque gare. Si vous voyez le symbole → le train ou l'autobus ne s'arrêtera pas à cette gare.



Légende

-  Horaire des autobus
-  Service d'autobus GO accessible aux personnes utilisant des aides à la mobilité à cet endroit.
-  Stationnement disponible.

Pour consulter les horaires les plus récents et les mises à jour, veuillez visiter [gotransit.com/schedules](http://gotransit.com/schedules).

Notes

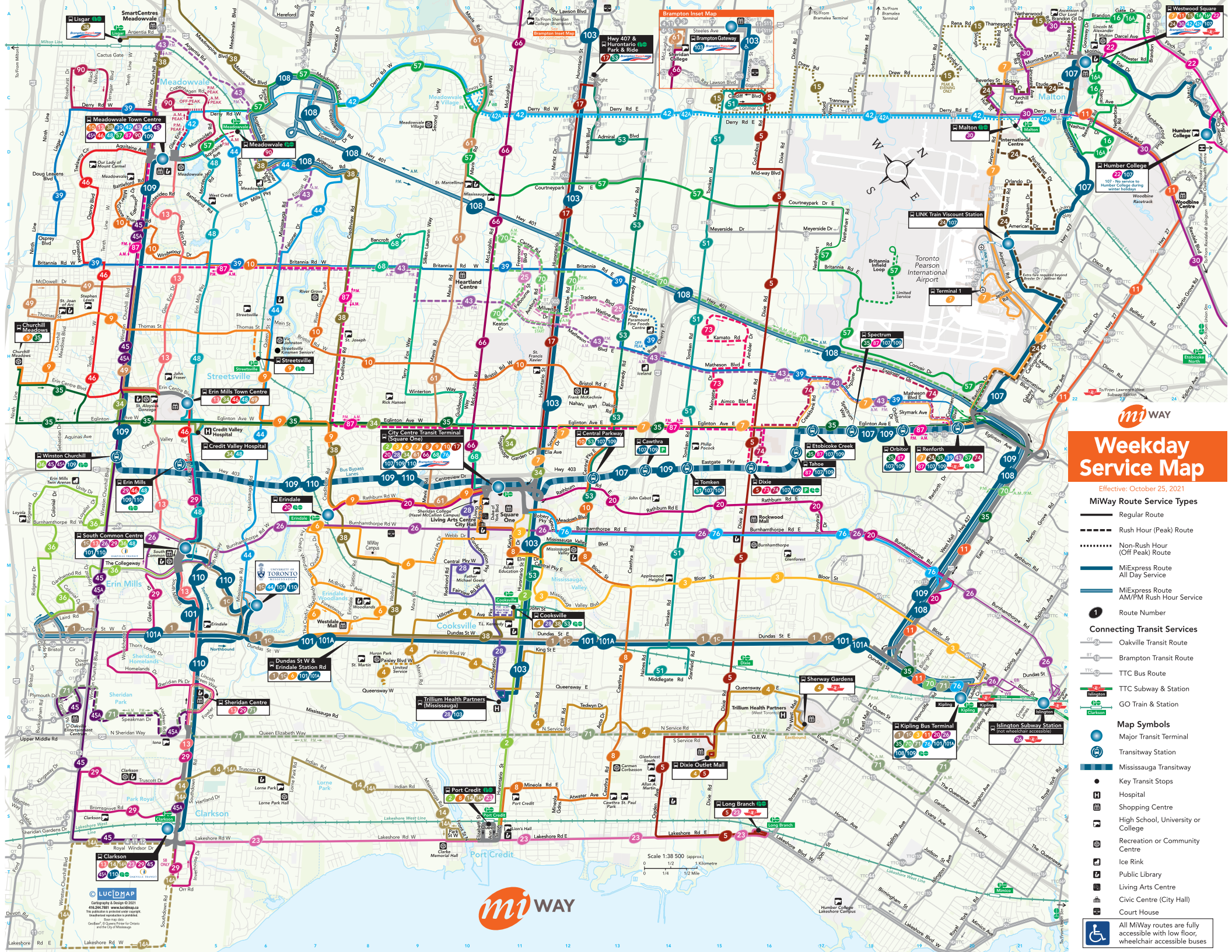
- Fri** Service offert les vendredi SEULEMENT.
- Sun** Service offert les dimanche SEULEMENT.
- S** Horaire saisonnier.

Vélos

1. Les vélos ne sont pas autorisés dans la gare Union ou à bord des trains du lundi au vendredi, pendant l'heure de pointe (6:30-9:30) et pendant l'heure de pointe du soir (15:30-18:30).
2. Les vélos pliables sont permis à bord des trains en tout temps.







# miWAY

## Weekday Service Map

Effective: October 25, 2021

### MiWay Route Service Types

- Regular Route
- Rush Hour (Peak) Route
- Non-Rush Hour (Off Peak) Route
- MiExpress Route All Day Service
- MiExpress Route AM/PM Rush Hour Service
- Route Number

### Connecting Transit Services

- Oakville Transit Route
- Brampton Transit Route
- TTC Bus Route
- TTC Subway & Station
- GO Train & Station

### Map Symbols

- Major Transit Terminal
- Transitway Station
- Mississauga Transitway
- Key Transit Stops
- Hospital
- Shopping Centre
- High School, University or College
- Recreation or Community Centre
- Ice Rink
- Public Library
- Living Arts Centre
- Civic Centre (City Hall)
- Court House
- All MiWay routes are fully accessible with low floor, wheelchair accessible buses



Scale 1:38 500 (approx.)  
0 1/2 1 Kilometre  
0 1/4 1/2 Mile

**LUCIDMAP**  
Cartography & Design © 2021  
416.242.7811 www.lucidmap.ca  
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Route may vary.  
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<https://www.triplinx.ca/>

Printing date: 10/24/2021



Erin Centre Blvd At Longford Dr, MISSISSAUGA



9

Rathburn-Thomas

Towards City Centre Transit Terminal Drop Off

Date: Monday, 10/25/2021

## Schedule

### Scheduled Departure Times from this Stop

Eastbound

#### Morning

4am	5am	6am	7am	8am	9am	10am	11am	12pm
	5:07 am	6:16 am	7:17 am	8:18 am	9:26 am	10:21 am	11:15 am	12:09 pm
	5:35 am	6:34 am	7:35 am	8:38 am	9:54 am	10:48 am	11:42 am	12:36 pm
	5:58 am	6:59 am	7:57 am	8:58 am				

#### Afternoon/Evening

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:03 pm	2:24 pm	3:18 pm	4:12 pm	5:20 pm	6:01 pm	7:05 pm	8:09 pm	9:13 pm	10:02 pm	11:02 pm
1:30 pm	2:51 pm	3:45 pm	4:38 pm	5:41 pm	6:22 pm	7:27 pm	8:29 pm	9:37 pm	10:27 pm	11:27 pm
1:57 pm			4:59 pm		6:43 pm	7:49 pm	8:49 pm		10:52 pm	

#### Evening

12am
12:07 am
12:32 am

Schedules are given as a guideline, and depend on traffic conditions.



Bus

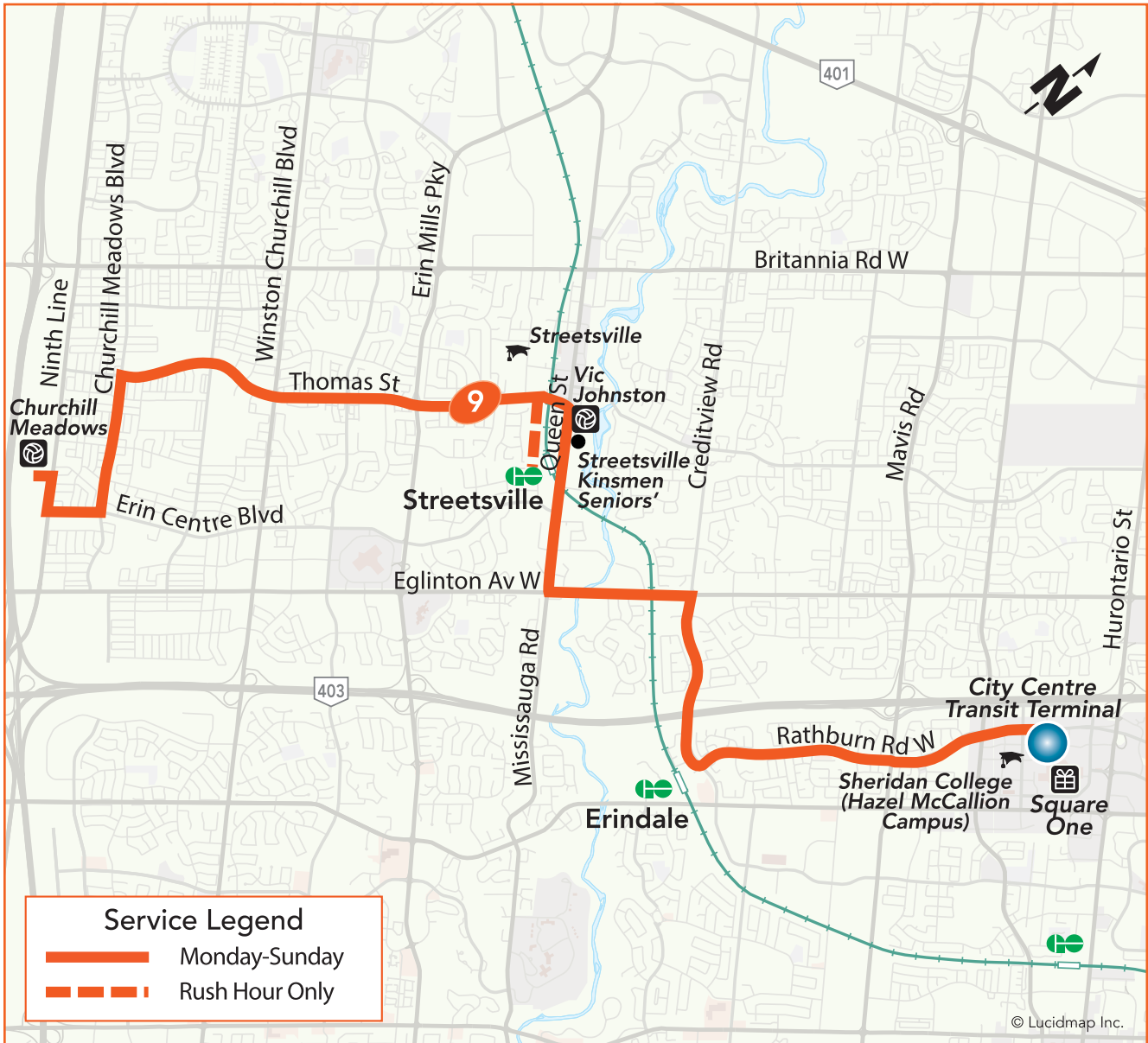


# 9

# Rathburn-Thomas

**Local Route**  
**Monday to Sunday**

**Eastbound** to City Centre Transit Terminal  
**Westbound** to Churchill Meadows Community Centre



## Legend

- |                                    |                    |                  |
|------------------------------------|--------------------|------------------|
| Terminal                           | TTC Subway Station | Library          |
| Transitway Station                 | GO Train Station   | Community Centre |
| High School, University or College | Hospital           | Shopping Centre  |

Effective: October 25, 2021


<https://www.triplinx.ca/>

Printing date: 10/24/2021

Erin Centre Blvd At Longford Dr, MISSISSAUGA

**9**

Rathburn-Thomas



Towards Churchill Meadows Community Centre / Erin Centre Blvd At Longford Dr

Date: Monday, 10/25/2021

## Schedule

### Scheduled Departure Times from this Stop

Westbound

#### Morning

4am	5am	6am	7am	8am	9am	10am	11am	12pm
		6:17 am	7:06 am	8:10 am	9:13 am	10:08 am	11:04 am	12:25 pm
		6:44 am	7:26 am	8:30 am	9:40 am	10:36 am	11:31 am	12:52 pm
			7:49 am	8:49 am			11:58 am	

#### Afternoon/Evening

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:19 pm	2:13 pm	3:07 pm	4:02 pm	5:08 pm	6:13 pm	7:14 pm	8:16 pm	9:02 pm	10:18 pm	11:00 pm
1:46 pm	2:40 pm	3:35 pm	4:29 pm	5:29 pm	6:34 pm	7:35 pm	8:37 pm	9:28 pm	10:44 pm	11:30 pm
			4:47 pm	5:52 pm	6:56 pm	7:53 pm		9:53 pm		11:50 pm

#### Evening

12am	1am
12:23 am	1:13 am
12:48 am	

Schedules are given as a guideline, and depend on traffic conditions.



Bus

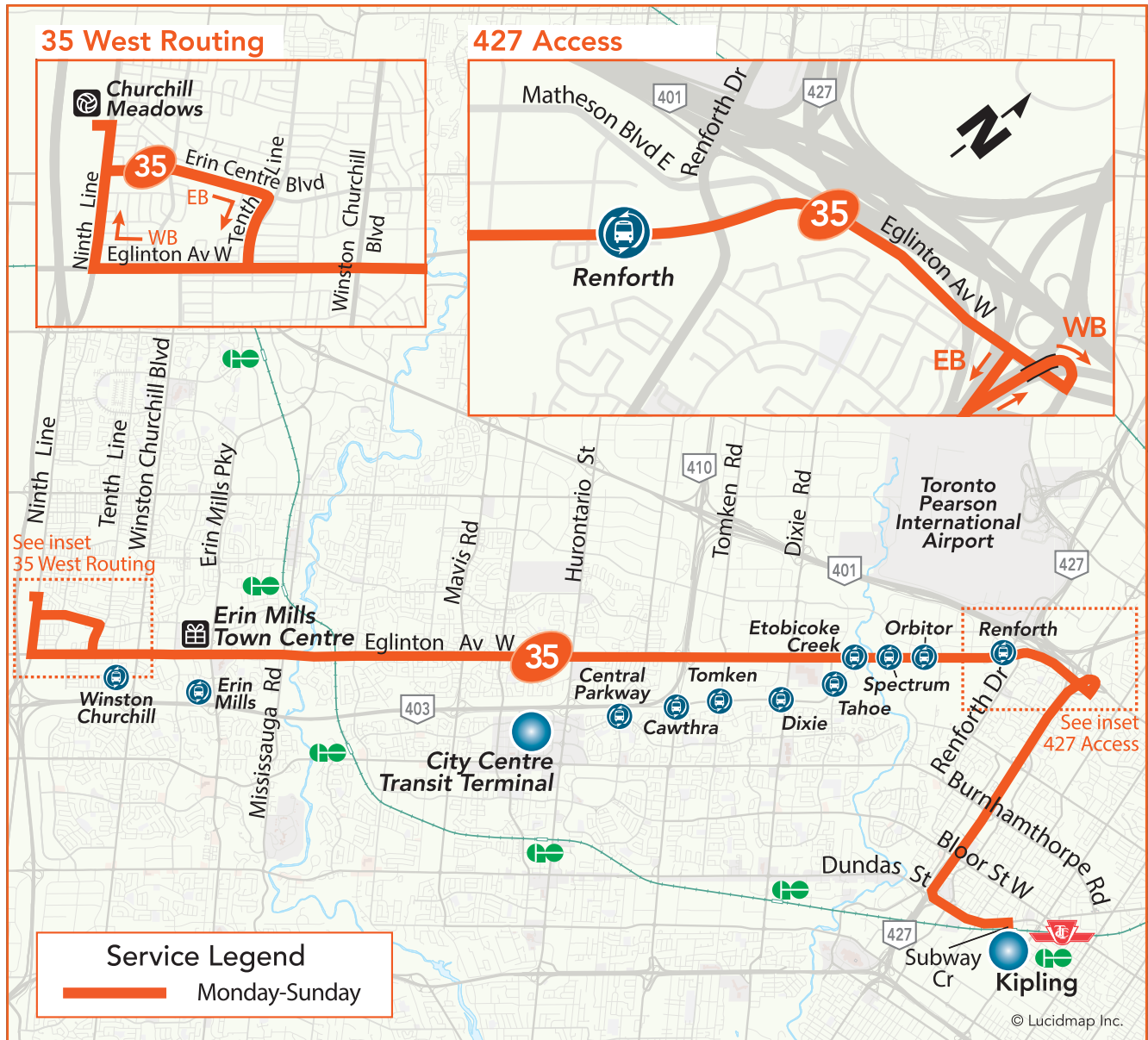


# 35

# Eglinton

**Local Route**  
**Monday to Sunday**

**Eastbound** to Kipling Bus Terminal  
**Westbound** to Churchill Meadows Community Centre



## Legend

- |                                    |                    |                  |
|------------------------------------|--------------------|------------------|
| Terminal                           | TTC Subway Station | Library          |
| Transitway Station                 | GO Train Station   | Community Centre |
| High School, University or College | Hospital           | Shopping Centre  |

Effective: October 25, 2021




<https://www.triplinx.ca/>

Printing date: 10/24/2021

**Ninth Line At Skyview St, MISSISSAUGA****35****Eglinton**

**Towards Churchill Meadows Community Centre / Eglinton Ave At Creditview Rd / Erin Centre Blvd  
At Longford Dr / Erin Centre Blvd At Winston Churchill Blvd**

Date: **Monday, 10/25/2021****Schedule****Scheduled Departure Times from this Stop**

Westbound

**Morning**

4am	5am	6am	7am	8am	9am	10am	11am	12pm
	5:09 am	6:04 am	7:07 am	8:07 am	9:10 am	10:05 am	11:00 am	12:02 pm
	5:29 am	6:17 am	7:20 am	8:18 am	9:20 am	10:16 am	11:10 am	12:25 pm
	5:49 am	6:30 am	7:32 am	8:29 am	9:32 am	10:28 am	11:20 am	12:48 pm
		6:43 am	7:43 am	8:39 am	9:42 am	10:38 am	11:30 am	
		6:55 am	7:55 am	8:50 am	9:53 am	10:49 am	11:40 am	
				8:59 am			11:51 am	

Afternoon/Evening

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:10 pm	2:15 pm	3:12 pm	4:04 pm	5:05 pm	6:03 pm	7:03 pm	8:06 pm	9:09 pm	10:06 pm	11:06 pm
1:32 pm	2:34 pm	3:24 pm	4:16 pm	5:19 pm	6:14 pm	7:07 pm	8:14 pm	9:19 pm	10:16 pm	11:16 pm
1:54 pm	2:37 pm	3:29 pm	4:27 pm	5:25 pm	6:21 pm	7:16 pm	8:24 pm	9:28 pm	10:34 pm	11:34 pm
	2:56 pm	3:41 pm	4:39 pm	5:31 pm	6:24 pm	7:22 pm	8:32 pm	9:37 pm	10:54 pm	
	2:59 pm	3:53 pm	4:52 pm	5:42 pm	6:29 pm	7:27 pm	8:42 pm	9:46 pm		
				5:53 pm	6:40 pm	7:36 pm	8:50 pm	9:56 pm		
				5:58 pm	6:49 pm	7:46 pm	8:59 pm			
					6:58 pm	7:56 pm				

Evening

12am	1am	2am
12:22 am	1:17 am	2:17 am
12:48 am	1:47 am	

Schedules are given as a guideline, and depend on traffic conditions.



# 36

# Colonial-Ridgeway

**Local Route**  
**Monday to Sunday**

**Northbound** to Winston Churchill Station  
**Southbound** to South Common Centre



## Legend

- |                                    |                    |                  |
|------------------------------------|--------------------|------------------|
| Terminal                           | TTC Subway Station | Library          |
| Transitway Station                 | GO Train Station   | Community Centre |
| High School, University or College | Hospital           | Shopping Centre  |

Effective: February 26, 2018




<https://www.triplinx.ca/>

Printing date: 10/24/2021



Winston Churchill Station East Platform 5, MISSISSAUGA

**36**

Colonial-Ridgeway

Towards South Common Centre Bus Terminal Platform F

Date: Monday, 10/25/2021

## Schedule



Boarding only at this stop.

## Scheduled Departure Times from this Stop

Southbound

### Morning

4am	5am	6am	7am	8am	9am	10am	11am	12pm
	5:41 am	6:11 am	7:11 am	8:11 am	9:11 am	10:11 am	11:11 am	12:11 pm
		6:41 am	7:41 am	8:41 am	9:41 am	10:41 am	11:41 am	12:41 pm

### Afternoon/Evening

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:11 pm	2:11 pm	3:11 pm	4:11 pm	5:11 pm	6:11 pm	7:11 pm	8:11 pm	9:11 pm	10:11 pm	11:11 pm
1:41 pm	2:18 pm	3:41 pm	4:41 pm	5:41 pm	6:41 pm	7:41 pm	8:41 pm	9:41 pm	10:41 pm	11:41 pm
	2:41 pm									

### Evening

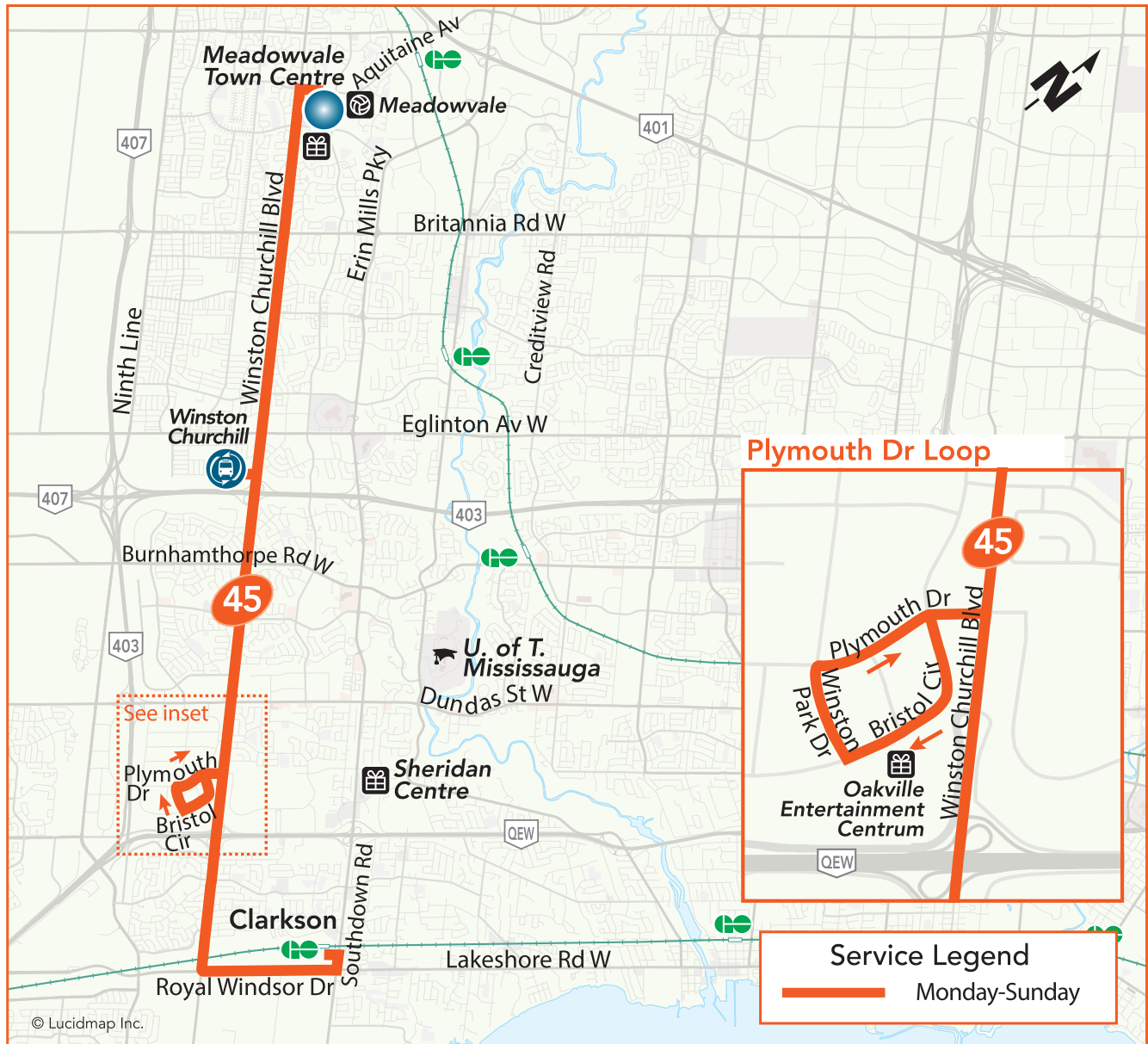
12am	1am
12:11 am	1:13 am
12:41 am	

# 45

# Winston Churchill

**Local Route**  
**Monday to Sunday**

**Northbound** to Meadowvale Town Centre  
**Southbound** to Clarkson GO Station



## Legend

- |                                    |                    |                  |
|------------------------------------|--------------------|------------------|
| Terminal                           | TTC Subway Station | Library          |
| Transitway Station                 | GO Train Station   | Community Centre |
| High School, University or College | Hospital           | Shopping Centre  |

Effective: February 27, 2017


<https://www.triplinx.ca/>

Printing date: 10/24/2021

**Winston Churchill Station West Platform 3, MISSISSAUGA**
**45** Winston Churchill
Towards **Meadowvale Town Centre Drop Off**Date: **Monday, 10/25/2021****Schedule****Scheduled Departure Times from this Stop**

Northbound

**Morning**

4am	5am	6am	7am	8am	9am	10am	11am	12pm
	5:53 am	6:25 am	7:00 am	8:08 am	9:00 am	10:01 am	11:01 am	12:01 pm
		6:41 am	7:14 am	8:26 am	9:14 am	10:21 am	11:21 am	12:22 pm
			7:33 am	8:42 am	9:33 am	10:41 am	11:41 am	12:42 pm
			7:52 am		9:47 am			

**Afternoon**

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:02 pm	2:03 pm	3:13 pm	4:11 pm	5:02 pm	6:14 pm	7:04 pm	8:22 pm	9:22 pm	10:22 pm	11:22 pm
1:23 pm	2:21 pm	3:37 pm	4:25 pm	5:23 pm	6:33 pm	7:20 pm	8:52 pm	9:52 pm	10:52 pm	11:52 pm
1:44 pm	2:39 pm	3:48 pm	4:47 pm	5:38 pm	6:47 pm	7:48 pm				
	2:59 pm			5:59 pm						

Schedules are given as a guideline, and depend on traffic conditions.

Bus


<https://www.triplinx.ca/>

Printing date: 10/24/2021



Winston Churchill Station East Platform 5, MISSISSAUGA

**45**

Winston Churchill

Towards Clarkson Go Station Platform 6

Date: Monday, 10/25/2021

## Schedule

### Scheduled Departure Times from this Stop

Southbound

#### Morning

4am	5am	6am	7am	8am	9am	10am	11am	12pm
4:56 am	5:25 am	6:07 am	7:03 am	8:13 am	9:04 am	10:00 am	11:00 am	12:01 pm
	5:48 am	6:25 am	7:20 am	8:30 am	9:22 am	10:20 am	11:20 am	12:21 pm
		6:44 am	7:37 am	8:47 am	9:40 am	10:40 am	11:41 am	12:41 pm
			7:55 am					

#### Afternoon

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	1
1:02 pm	2:05 pm	3:02 pm	4:14 pm	5:08 pm	6:02 pm	7:12 pm	8:25 pm	9:26 pm	10:26 pm	
1:23 pm	2:25 pm	3:20 pm	4:32 pm	5:26 pm	6:20 pm	7:24 pm	8:56 pm	9:56 pm	10:56 pm	
1:44 pm	2:44 pm	3:38 pm	4:50 pm	5:44 pm	6:38 pm	7:47 pm				
		3:56 pm			6:55 pm					

Schedules are given as a guideline, and depend on traffic conditions.



Bus



109

# Meadowvale Express

## Express Route Monday to Sunday

**Northbound** to Meadowvale Town Centre  
**Southbound** to Kipling Bus Terminal



## Legend



Terminal



## Transitway Station



High School, University or College



TTC Subway Station



GO Train Station



Hospital



Library



Community Centre



## Shopping Centre

Effective: January 4, 2021




<https://www.triplinx.ca/>

Printing date: 10/24/2021



Winston Churchill Station West Platform 4, MISSISSAUGA

**109**

Meadowvale Express

Towards City Centre Transit Terminal Platform N / Meadowvale Town Centre Drop Off

Date: Monday, 10/25/2021

## Schedule

### Scheduled Departure Times from this Stop

Northbound

#### Morning

4am	5am	6am	7am	8am	9am	10am	11am	12pm
	5:55 am	6:09 am	7:09 am	8:07 am	9:03 am	10:05 am	11:08 am	12:08 pm
		6:24 am	7:23 am	8:22 am	9:17 am	10:25 am	11:28 am	12:28 pm
		6:39 am	7:37 am	8:36 am	9:30 am	10:46 am	11:48 am	12:48 pm
		6:54 am	7:52 am	8:49 am	9:47 am			

#### Afternoon

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
1:09 pm	2:09 pm	3:04 pm	4:06 pm	5:07 pm	6:03 pm	7:13 pm	8:04 pm	9:10 pm	10:09 pm	11:09 pm
1:29 pm	2:19 pm	3:19 pm	4:16 pm	5:17 pm	6:14 pm	7:18 pm	8:12 pm	9:25 pm	10:23 pm	11:23 pm
1:49 pm	2:30 pm	3:34 pm	4:29 pm	5:27 pm	6:26 pm	7:26 pm	8:23 pm	9:34 pm	10:38 pm	11:38 pm
	2:49 pm	3:50 pm	4:43 pm	5:35 pm	6:32 pm	7:34 pm	8:34 pm	9:41 pm	10:53 pm	11:53 pm
		3:58 pm	4:55 pm	5:46 pm	6:45 pm	7:40 pm	8:40 pm	9:55 pm		
				5:57 pm	6:59 pm	7:53 pm	8:55 pm			

Schedules are given as a guideline, and depend on traffic conditions.



Bus


<https://www.triplinx.ca/>

Printing date: 10/24/2021



Winston Churchill Station East Platform 6, MISSISSAUGA

**109**

Meadowvale Express

Towards Kipling Terminal Platform 14

Date: Monday, 10/25/2021

## Schedule

### Scheduled Departure Times from this Stop

Southbound

#### Morning

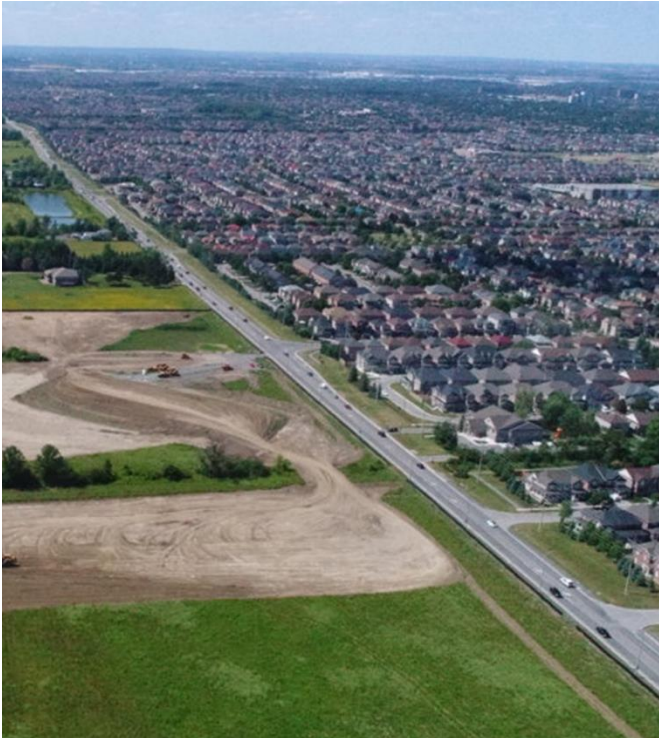
4am	5am	6am	7am	8am	9am	10am	11am	12pm
4:32 am	5:11 am	6:05 am	7:00 am	8:07 am	9:01 am	10:01 am	11:01 am	12:01 pm
4:45 am	5:17 am	6:20 am	7:12 am	8:16 am	9:15 am	10:21 am	11:21 am	12:21 pm
4:59 am	5:24 am	6:28 am	7:20 am	8:29 am	9:24 am	10:41 am	11:41 am	12:41 pm
	5:37 am	6:36 am	7:32 am	8:41 am	9:41 am			
	5:45 am	6:48 am	7:45 am	8:49 am				
	5:52 am		7:58 am					

#### Afternoon

1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	1'
1:01 pm	2:01 pm	3:05 pm	4:02 pm	5:13 pm	6:13 pm	7:11 pm	8:05 pm	9:04 pm	10:02 pm	
1:21 pm	2:21 pm	3:19 pm	4:17 pm	5:28 pm	6:28 pm	7:29 pm	8:19 pm	9:19 pm	10:14 pm	
1:41 pm	2:26 pm	3:32 pm	4:31 pm	5:43 pm	6:42 pm	7:47 pm	8:34 pm	9:34 pm	10:29 pm	
	2:31 pm	3:47 pm	4:45 pm	5:58 pm	6:57 pm		8:49 pm	9:48 pm		
	2:42 pm		4:59 pm							
	2:53 pm									

# APPENDIX D

## Future Roadway Improvement Information



# **Traffic Analysis Report – Phase 3**

Schedule 'C' Class Environmental  
Assessment for Ninth Line from  
Eglinton Avenue West to Derry Road  
West

City of Mississauga

June 15, 2021



## 6 Active Transportation Analysis

This section will document the analysis of the proposed active transportation facilities along Ninth Line in the future between Derry Road and Eglinton Avenue. The improvements include sidewalks of 2 metres wide on both sides of Ninth Line separated by approximately 3 to 5.5 metres of boulevard on the west side, and 3 to 18 metres of boulevards on the east side. Cycling tracks of 2 metres wide are also proposed on both sides, 1 metre away from the curb and gutter.

### 6.1 Pedestrian Level of Service (PLOS)

A PLOS analysis evaluates the pedestrian comfort, safety and convenience of pedestrian facilities at the user level. The PLOS methodology is based on the City of Ottawa's Multimodal Level of Service (MMLOS) Analysis Guidelines (2015). PLOS is calculated at the intersection and midblock locations to recognize the differences in experience a pedestrian may experience at both types of locations.

#### 6.1.1 PLOS Methodology

**Segment PLOS** evaluation uses a look-up table approach based on considerations such as cross-section and roadway characteristics. Characteristics include sidewalk and boulevard widths, traffic volumes, presence of on-street parking, and posted speeds. Higher segment scores are characterized by locations where lower vehicle speeds, lower volumes, wider sidewalks, and larger boulevards with ample separation from moving traffic are present. Lower segment scores are observed in locations where high vehicle speeds, narrow sidewalks, and minimal separation from traffic are present.

**Intersection PLOS** uses the Pedestrian Exposure to Traffic at Signalized Intersections (PETSI) and assigns points based on a number of crossing characteristics (e.g., crossing distance, presence of a median, presence of a crossing refuge, turning restrictions, right hand turn characteristics, curb radii, etc.). The score of each intersection approach is averaged to determine the overall intersection PLOS. The City of Ottawa MMLOS guidelines only provides directions regarding the evaluation of signalized intersections, not unsignalized intersections.

As the Ninth Line EA study area contains context-specific elements such as unsignalized intersections, certain modifications and assumptions have been made to adapt the Ottawa methodology to the study area. These revisions include:

- Understanding that stop / yield controlled intersections affect the pedestrian experience the same way a "permissive" signalized movement does, such as when a right-turn-on-red is allowed and a green is permissive. Because the turn is allowed based on driver judgment, pedestrians will feel less safe where a car is waiting to make the turn in their vicinity.

The inputs for the PLOS are summarized in **Exhibit 6-1**.

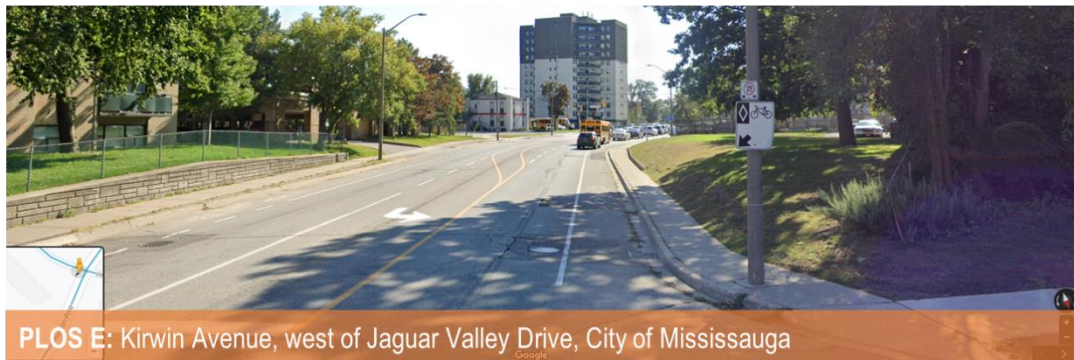


Segment	Intersections
Sidewalk and Boulevard Width	Crossing Width
Vehicle Volumes	Corner Radius
Vehicle Speed	Potential Conflicts
Physical Separation (e.g., street parking)	Visibility

### Exhibit 6-1. Inputs for Pedestrian LOS

PLOS scores range between “A” and “F” to help describe a variety of pedestrian conditions:

- **PLOS “A” to “C”** describes an environment that is attractive to most pedestrians, including locations where lower speeds and volumes, wider sidewalks, and larger boulevards with ample separation from moving traffic are present. Crosswalks are provided on all four legs of the intersections and with shorter crossing distances at intersections. A high quality pedestrian environment is shown in **Exhibit 6-2**, receiving a PLOS “A” thanks to a wide sidewalk that is offset from the road via a planted boulevard.
- **PLOS “D” to “E”** has elements may not appeal to pedestrians due to narrow sidewalks, lack of separation from traffic, longer crossing distances, etc. Though acceptable, streets with narrow sidewalks and minimal separation from high volume and/or high speed roads receive PLOS scores between “D” and “E. An example in the City of Mississauga can be seen in **Exhibit 6-2**.
- **PLOS “F”** refers to a pedestrian environment that is not adequate, locations without any facility or where no buffer is provided adjacent to high speed and high volume traffic. No crosswalks provided and long crossing distances at intersections. The high adjacent traffic speeds, lack of separation from vehicles and narrow sidewalk explain the PLOS “F” example in **Exhibit 6-2**.



## Exhibit 6-2: Segment PLOS Examples

Source: Google Streetview

**Exhibit 6-3** also shows examples of intersection PLOS.





**PLOS A:** City Centre Dr at Duke of York Blvd, City of Mississauga



**PLOS C:** Rathburn Rd at Hammerson Dr, City of Mississauga



**PLOS F:** Hurontario St at Square One Dr, City of Mississauga

### Exhibit 6-3: Intersection PLOS Examples

Source: Google Streetview

## 6.1.2 PLOS Results

Future intersection and segment PLOS based on the Preferred Alternative is summarized in **Table 6-1** and **Table 6-2**.

**Table 6-1. Future Intersection PLOS**

North-South Street	East-West Street	Future PLOS
Ninth Line	Derry Road	E
	Beacham Street	C
	Street B North	D

North-South Street	East-West Street	Future PLOS
	Doug Leavens Boulevard / Street F	C
	Street C	C
	Foxwood Avenue / Street B South	C
	Osprey Boulevard / Street A	C
	Britannia Road	E
	McDowell Drive	C
	Thomas Street	D
	Tacc Drive	C
	Erin Centre Boulevard	D
	Site Access	D
	Skyview Street	D
	Eglinton Avenue	E

Table 6-2. Future Segment PLOS

Segment	From	To	West Side	East Side
Segment 1	Derry Avenue	Lisgar Neighbourhood Square Access	B	B
Segment 2	Lisgar Neighbourhood Square Access	Doug Leavens Boulevard	B	B
Segment 3	Doug Leavens Boulevard	Osprey Boulevard	B	C
Segment 4	Osprey Boulevard	North end of Osprey Marsh (240m N of Parkgate Drive)	C	B
Segment 5	North end of Osprey Marsh (240m N of Parkgate Drive)	Parkgate Drive	B	B
Segment 6	Parkgate Drive	Britannia Road	C	B
Segment 7	Britannia Road	Thomas Street	B	B
Segment 8	Thomas Street	Deepwood Heights	B	B
Segment 9	Deepwood Heights	Tacc Drive	C	B
Segment 10	Tacc Drive	35m South of Tacc Drive	B	B
Segment 11	35m South of Tacc Drive	130m North of Janice Drive	B	B
Segment 12	130m North of Janice Drive	Janice Drive	B	B

Segment	From	To	West Side	East Side
<b>Segment 13</b>	Janice Drive	Henrietta Way	<b>B</b>	<b>B</b>
<b>Segment 14</b>	Henrietta Way	Mayla Drive	<b>B</b>	<b>B</b>
<b>Segment 15</b>	Mayla Drive	Erin Centre Boulevard	<b>B</b>	<b>B</b>
<b>Segment 16</b>	Erin Centre Boulevard	Quiet Creek Drive (North Portion)	<b>B</b>	<b>C</b>
<b>Segment 17</b>	Quiet Creek Drive (North Portion)	Skyview Street	<b>B</b>	<b>B</b>
<b>Segment 18</b>	Skyview Street	Stardust Drive	<b>B</b>	<b>B</b>
<b>Segment 19</b>	Stardust Drive	133m North of Eglinton Avenue	<b>B</b>	<b>B</b>
<b>Segment 20</b>	133m North of Eglinton Avenue	Eglinton Avenue	<b>B</b>	<b>B</b>

Intersection PLOS results indicate intersections along Ninth Line will operate at LOS C to E in the future preferred alternative, compared to LOS B to E under existing conditions. Results have not changed significantly, as the LOS B captured in existing conditions only reflects one intersection at Foxwood Avenue. Contributing factors to the scoring despite future proposed changes include additional through lanes from the Ninth Line widening, turning lanes to accommodate critical movements, and new approaches at existing intersections due to future developments west of Ninth Line. To further improve pedestrian conditions, it is recommended the detailed design considers measures such as reducing curb radii, providing high-visibility/tactile markings at crosswalks, and including items such as medians, curb extensions, and bollards.

Segment PLOS results operate at LOS B to C along both sides of Ninth Line for the future preferred alternative, compared to LOS F on the west side and LOS B to F on the east side under existing conditions. The provision of a dedicated pedestrian facility on the west side of Ninth Line to serve the new developments is a key contributor to the score improvement. Other proposed characteristics that improve the scoring on both sides of the corridor include consistent 2 meter sidewalks, wide boulevards (3 to 18 metres) separating the sidewalk from road traffic, and reduced posted speeds along the corridor.

## 6.2 Biking Level of Service (BLOS)

Similar to the PLOS analysis, the BLOS also used the City of MMLOS Analysis Guidelines (2015). The facilities are assessed using considerations such as user comfort, safety, and convenience. BLOS is calculated both at the intersection and mid-block in recognition that a cyclist's experience is determined by the conditions both between crossings and at the crossing itself.

## 6.2.1 BLOS Methodology

**Segment BLOS** evaluation uses a look-up table approach based on roadway characteristics and facility type and quality. The score is influenced by factors such as facility type, street width, vehicular speed, and parking characteristics.

**Intersection BLOS**, a similar look-up table approach is used to evaluate the left- and right-turning conditions for cyclists at the intersection. Intersection BLOS is affected by vehicular turning and operating speeds, vehicular dual turning lanes and bike boxes. Other impediments to cyclists seeking to turn right or left (such as right-turn lane length and crossing distances) also factor into the assessment. Intersection BLOS is the function of right-turn LOS and left-turn LOS. The average score of all approaches (north, south, west and east) is then used to determine the overall intersection BLOS.

Segment BLOS is most sensitive to facility type, with physically separated bikeways such as cycle tracks, protected bike lanes and multi-use paths receiving a score of 'A' while cycling in mixed traffic conditions with varying operating speeds and street widths generally scoring lower – 'D' to 'F'. The scoring ranges as follows:

- **BLOS 'A' to 'B'** describes a setting with physically separated facilities such as cycle tracks, protected bike lanes, and multi-use paths (MUP) that are attractive to most cyclists and typically result in scores within this range. Other situations with scores in this range include designated bike lanes that are wider than 1.5 m, or ones adjacent to roads with low speeds or with raised medians separating two lanes of traffic in each direction. Shared roadways may receive scores in this range if they are low volume residential streets with low speeds (50 km/h and lower), no marked centerline and with less than three lanes of traffic in all directions. At intersections, continuous cycling facilities are provided and separated from vehicles and pedestrians.
- **BLOS 'C' to 'D'** refers to locations with designated bike lanes adjacent to roads with high speeds or high number of lanes or ones that are narrower than 1.5 m may result in scores in this range. Shared facilities on low volume, low speed streets with wide curb lanes provide some comfort but the majority of cyclists typically will not cycle. Greater conflicts at intersections with turning vehicles are experienced.
- **BLOS 'E' to 'F'** is characteristic of non-separated, shared roadways with high traffic volumes and speeds, and no accommodations at intersections.

The complete, detailed BLOS methodology is provided in **Appendix I**. Examples of segment and intersection BLOS are shown in **Exhibit 6-4** and **Exhibit 6-5**, respectively





#### Exhibit 6-4: BLOS Examples

Source: Google Streetview



**BLOS A:** City Centre Dr at Living Arts Blvd, City of Mississauga



**BLOS C:** Confederation Pkwy at City Centre Dr, City of Mississauga



**BLOS F:** Hurontario St at Square One Dr, City of Mississauga

## Exhibit 6-5: Intersection BLOS Examples

Source: Google Streetview

### 6.2.2 BLOS Results

Future intersection and segment BLOS based on the preferred design is summarized in **Table 6-3** and **Table 6-4**.

**Table 6-3. Future Intersection BLOS**

N-S street	E-W street	Future BLOS
Ninth Line	Derry Road	C
	Beacham Street	B
	Street B North	B
	Doug Leavens Boulevard / Street F	C
	Street C	B

N-S street	E-W street	Future BLOS
	Foxwood Avenue / Street B South	B
	Osprey Boulevard / Street A	C
	Britannia Road	C
	McDowell Drive	B
	Thomas Street	B
	Tacc Drive	B
	Erin Centre Boulevard	B
	Site Access	B
	Skyview Street	C
	Eglinton Avenue	D

Table 6-4. Future Segment BLOS

Segment	From	To	West side	East side
<b>Segment 1</b>	Derry Avenue	Lisgar Neighbourhood Square Access	A	A
<b>Segment 2</b>	Lisgar Neighbourhood Square Access	Doug Leavens Boulevard	A	A
<b>Segment 3</b>	Doug Leavens Boulevard	Osprey Boulevard	A	A
<b>Segment 4</b>	Osprey Boulevard	North end of Osprey Marsh (240m N of Parkgate Drive)	A	A
<b>Segment 5</b>	North end of Osprey Marsh (240m N of Parkgate Drive)	Parkgate Drive	A	A
<b>Segment 6</b>	Parkgate Drive	Brittania Road	A	A
<b>Segment 7</b>	Brittania Road	Thomas Street	A	A
<b>Segment 8</b>	Thomas Street	Deepwood Heights	A	A
<b>Segment 9</b>	Deepwood Heights	Tacc Drive	A	A
<b>Segment 10</b>	Tacc Drive	35m South of Tacc Drive	A	A
<b>Segment 11</b>	35m South of Tacc Drive	130m North of Janice Drive	A	A
<b>Segment 12</b>	130m North of Janice Drive	Janice Drive	A	A
<b>Segment 13</b>	Janice Drive	Henrietta Way	A	A
<b>Segment 14</b>	Henrietta Way	Mayla Drive	A	A



Segment	From	To	West side	East side
<b>Segment 15</b>	Mayla Drive	Erin Centre Boulevard	A	A
<b>Segment 16</b>	Erin Centre Boulevard	Quiet Creek Drive (North Portion)	A	A
<b>Segment 17</b>	Quiet Creek Drive (North Portion)	Skyview Street	A	A
<b>Segment 18</b>	Skyview Street	Stardust Drive	A	A
<b>Segment 19</b>	Stardust Drive	133m North of Eglinton Avenue	A	A
<b>Segment 20</b>	133m North of Eglinton Avenue	Eglinton Avenue	A	A

Intersection BLOS results indicate intersections along Ninth Line will operate at LOS B to D in the future preferred alternative, compared to LOS D to E in the existing conditions. Results have improved at all intersections along the corridor primarily due to the provision of shared protected pedestrian and cycling cross-rides to accommodate left turns.

Segment BLOS results indicate operations of LOS A along both sides of Ninth Line for the future preferred alternative, compared to primarily LOS F in the existing conditions. The 2-metre wide dedicated cycling facility and reduced posted speeds both contribute to the improved scoring.

## 7 Conclusions

### 7.1 Signal Warrant Analysis

Signal warrant analyses were conducted for several locations along Ninth Line, including any unsignalized intersections of major collectors and access driveways for new developments. The warrant followed the criteria outlined in *Ontario Traffic Manual – Book 12 Traffic Signals, March 2012* (OTM Book 12). Ninth Line at Beacham Street and at Tacc Drive both warrant signalization based on 4-hour volumes. The McDowell Drive intersection did not warrant signalization based on OTM Book 12 methodology; however, signalization is recommended due to high volumes and delays experienced on side streets during the PM peak hour. It is noted the signal at Tacc Drive is required by 2031 whereas the signal at McDowell Drive is required by 2041.

### 7.2 Traffic Operations

Analysis for both 2031 and 2041 horizon years under all 3 future scenarios show traffic operations at the major intersections of Derry Road, Britannia Road, and Eglinton Avenue operate at or near capacity during the AM and PM peak hours, with LOS 'E' or 'F' and multiple critical movements, especially for exclusive turning movements. Other intersections (including minor intersections and Highway 407 ramps) have some critical movements but operate below capacity. Travel demand management (TDM) should be provided to support growth along Ninth Line and relieve the





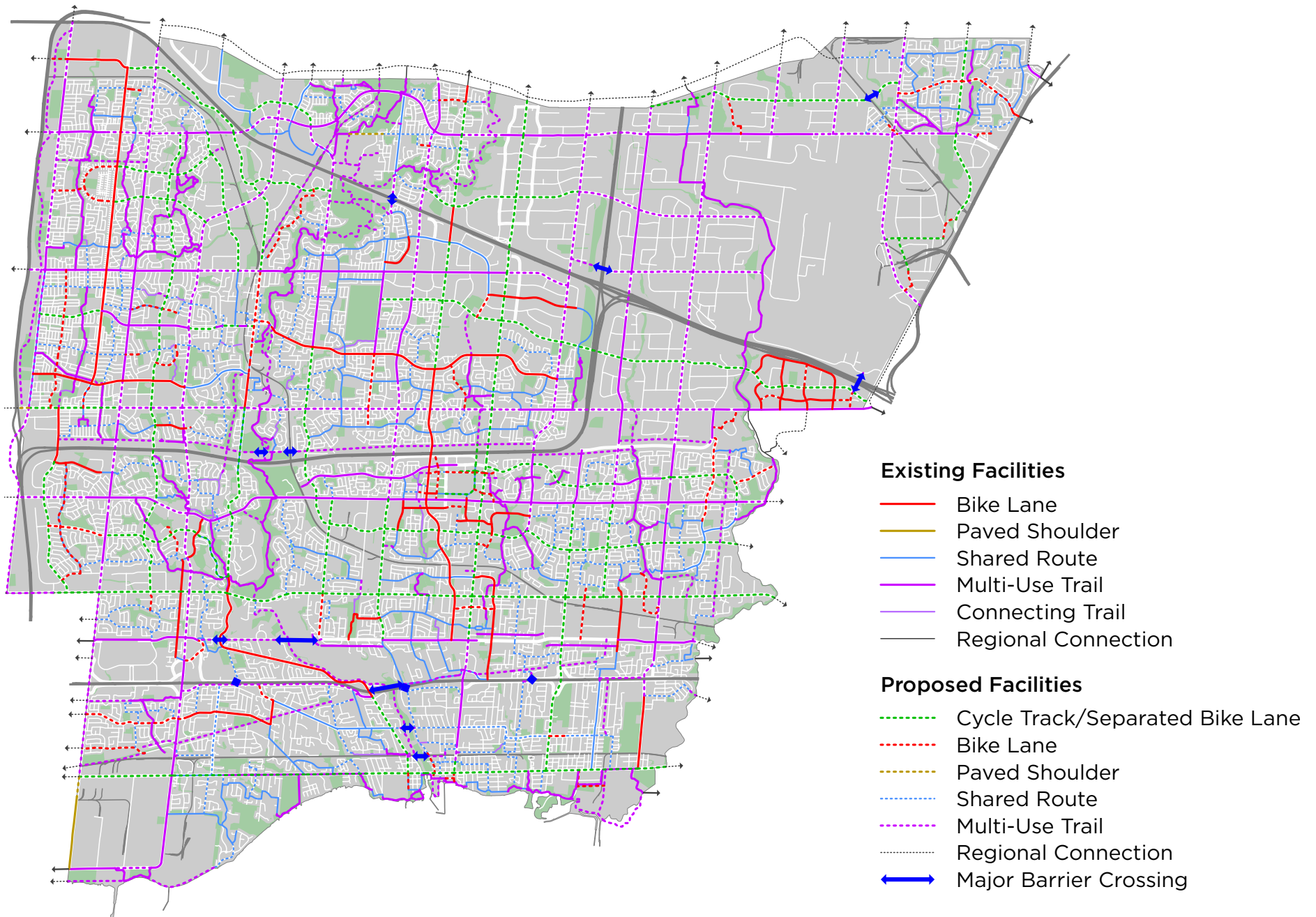
MISSISSAUGA

# Cycling Master Plan

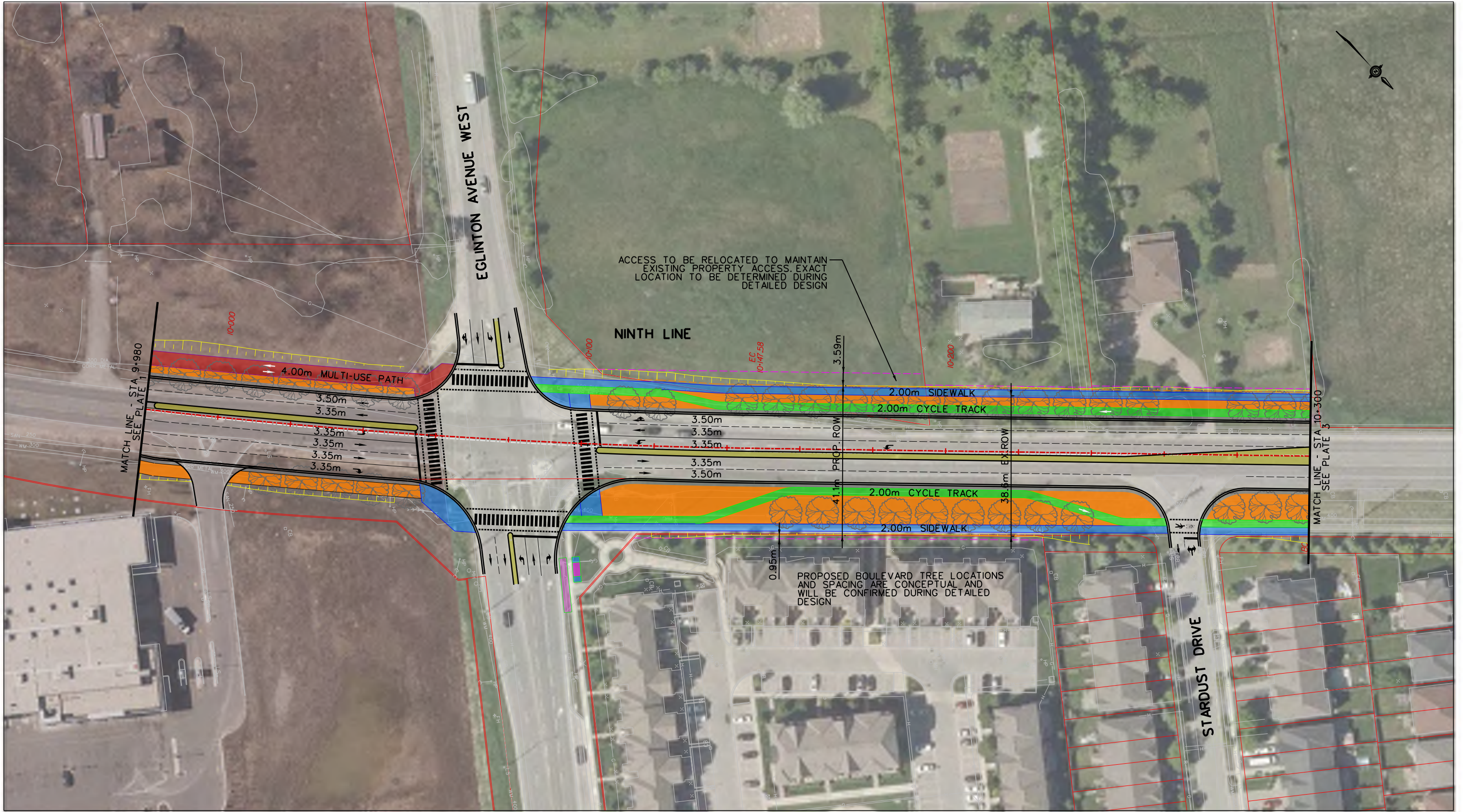




Figure I-1: Cycling Network Map







NOTE: PROPOSED BOULEVARD TREE LOCATIONS AND SPACING ARE CONCEPTUAL AND WILL BE CONFIRMED DURING DETAILED DESIGN

LEGEND

- |                               |                        |                        |                                    |
|-------------------------------|------------------------|------------------------|------------------------------------|
| PROPOSED CENTRELINE           | PROPOSED GRADING LIMIT | PROPOSED BUS STOPS     | EXISTING REGIONAL FLOODPLAIN SPILL |
| PROPOSED RIGHT-OF-WAY (ROW)   | PROPOSED GRADING       | PROPOSED RAISED MEDIAN |                                    |
| PROPOSED SIDEWALK             | PROPOSED CURB          | EXISTING CENTRELINE    |                                    |
| PROPOSED CYCLE TRACK          | PROPOSED DAYLIGHTING   | EXISTING PROPERTY LINE |                                    |
| PROPOSED MULTI-USE PATH (MUP) | PROPOSED BOULEVARD     | EXISTING WATERCOURSE   |                                    |



MISSISSAUGA

NINTH LINE IMPROVEMENTS  
( EGLINTON AVE W TO DERRY RD W )  
ENVIRONMENTAL ASSESSMENT  
PLAN

9+980 TO 10+300

PLAN NO.

P-02

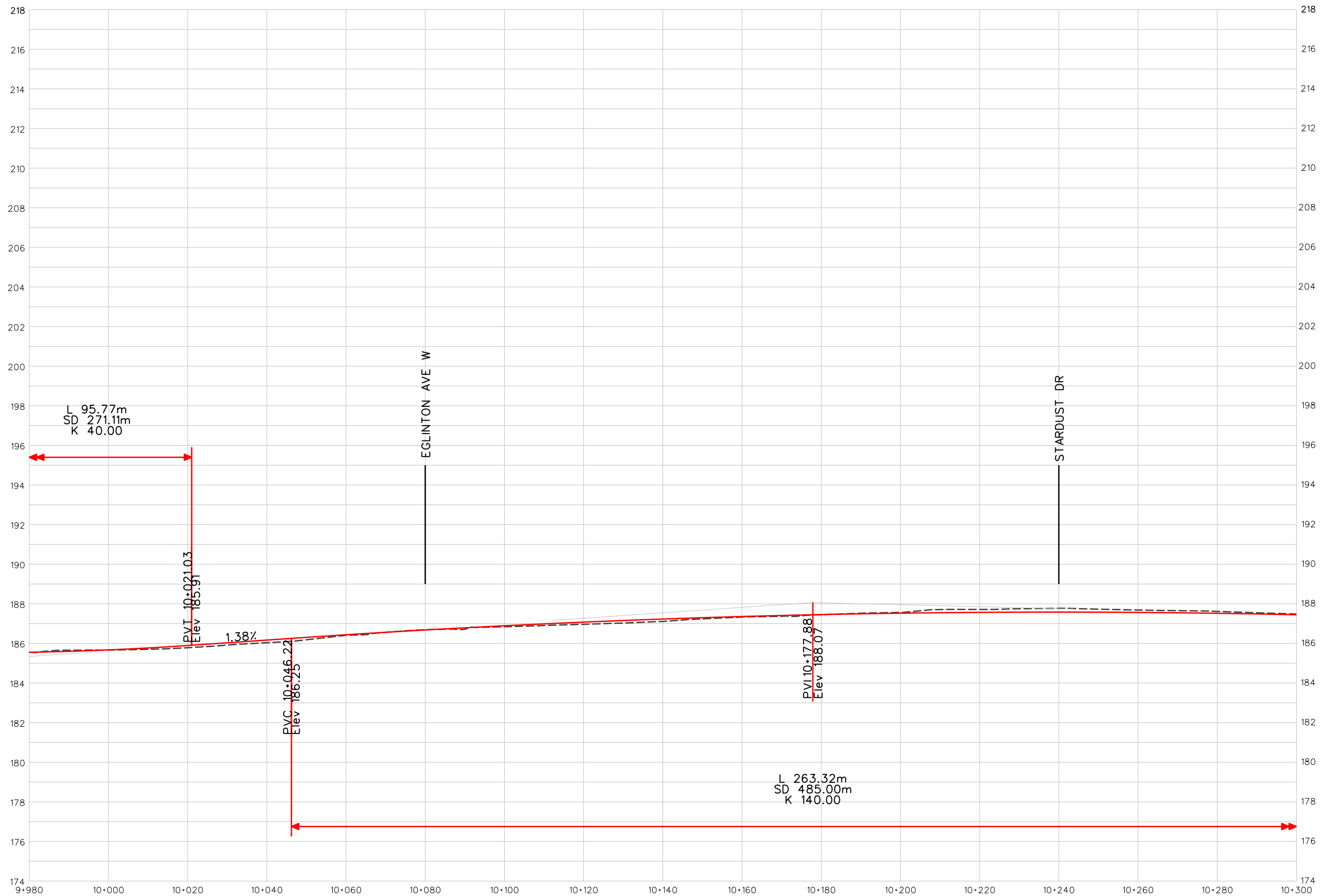
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DATE

JUNE 2021





LEGEND

— PROPOSED PROFILE

- - - EXISTING GROUND



NINTH LINE IMPROVEMENTS  
(EGLINTON AVE W TO DERRY RD W)  
ENVIRONMENTAL ASSESSMENT  
PROFILE

9+980 TO 10+300

PLAN NO.

PF-02

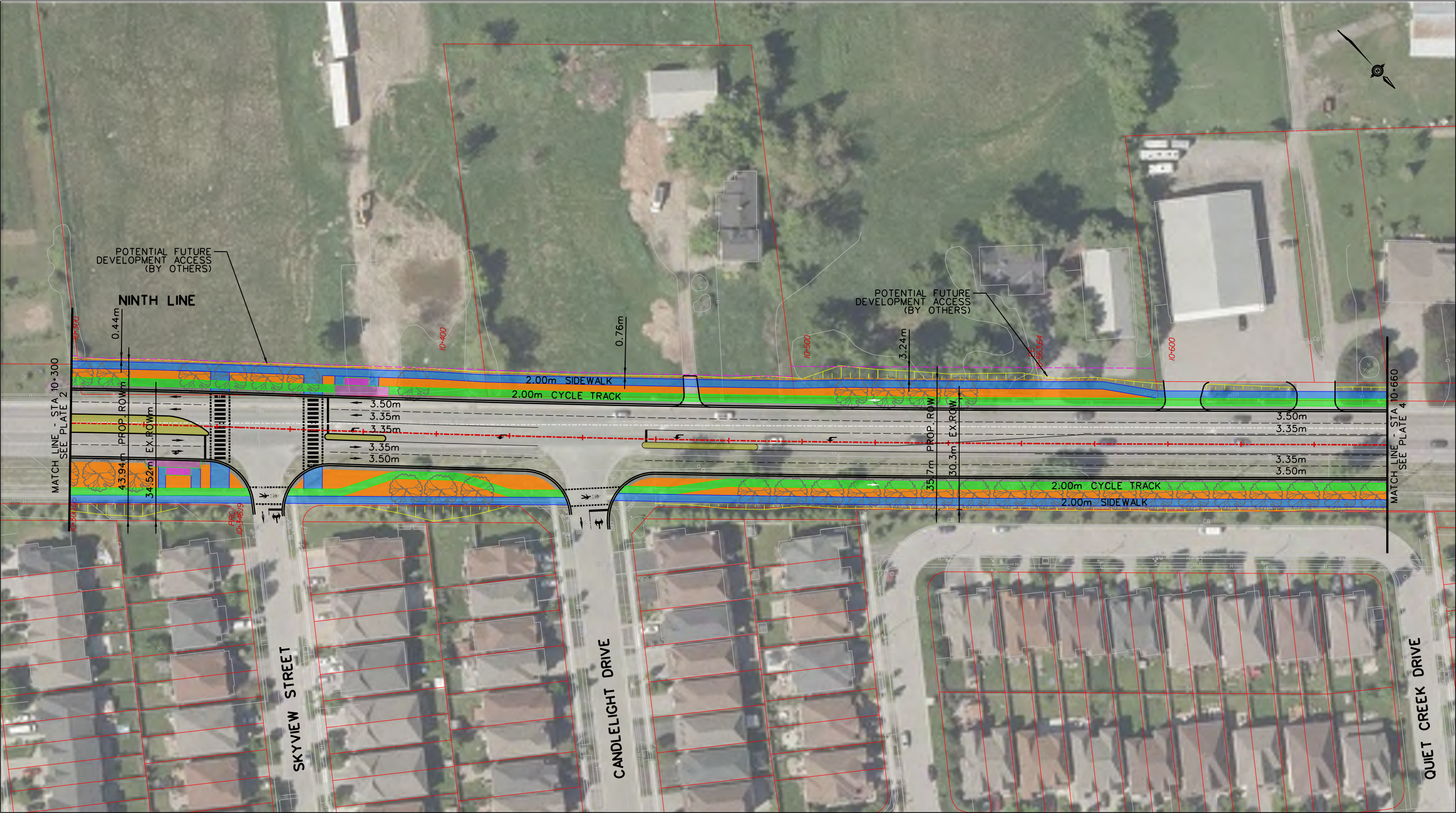
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JUNE 2021





NOTE: PROPOSED BOULEVARD TREE LOCATIONS AND SPACING ARE CONCEPTUAL AND WILL BE CONFIRMED DURING DETAILED DESIGN

LEGEND			
PROPOSED CENTRELINE	PROPOSED GRADING LIMIT	PROPOSED BUS STOPS	EXISTING REGIONAL FLOODPLAIN SPILL
PROPOSED RIGHT-OF-WAY (ROW)	PROPOSED GRADING	PROPOSED RAISED MEDIAN	
PROPOSED SIDEWALK	PROPOSED CURB	EXISTING CENTRELINE	
PROPOSED CYCLE TRACK	PROPOSED DAYLIGHTING	EXISTING PROPERTY LINE	
PROPOSED MULTI-USE PATH (MUP)	PROPOSED BOULEVARD	EXISTING WATERCOURSE	



NINTH LINE IMPROVEMENTS  
(EGLINTON AVE W TO DERRY RD W)  
ENVIRONMENTAL ASSESSMENT  
PLAN

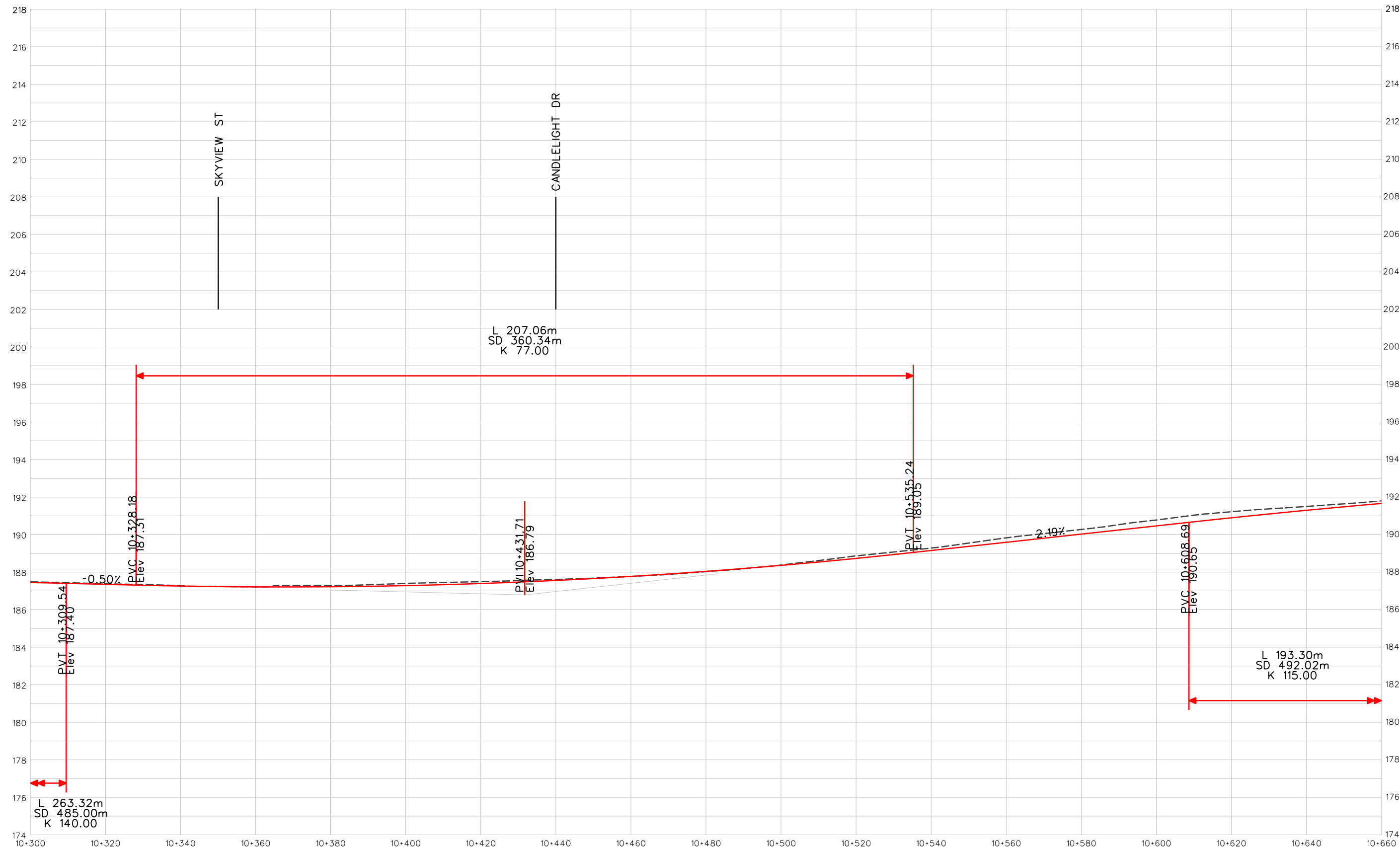
10+300 TO 10+660

PLAN NO.  
**P-03**

SCALE  
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DATE  
JUNE 2021





LEGEND

— PROPOSED PROFILE

- - - EXISTING GROUND



NINTH LINE IMPROVEMENTS  
(EGLINTON AVE W TO DERRY RD W)  
ENVIRONMENTAL ASSESSMENT  
PROFILE  
10+300 TO 10+660

PLAN NO.

PF-03

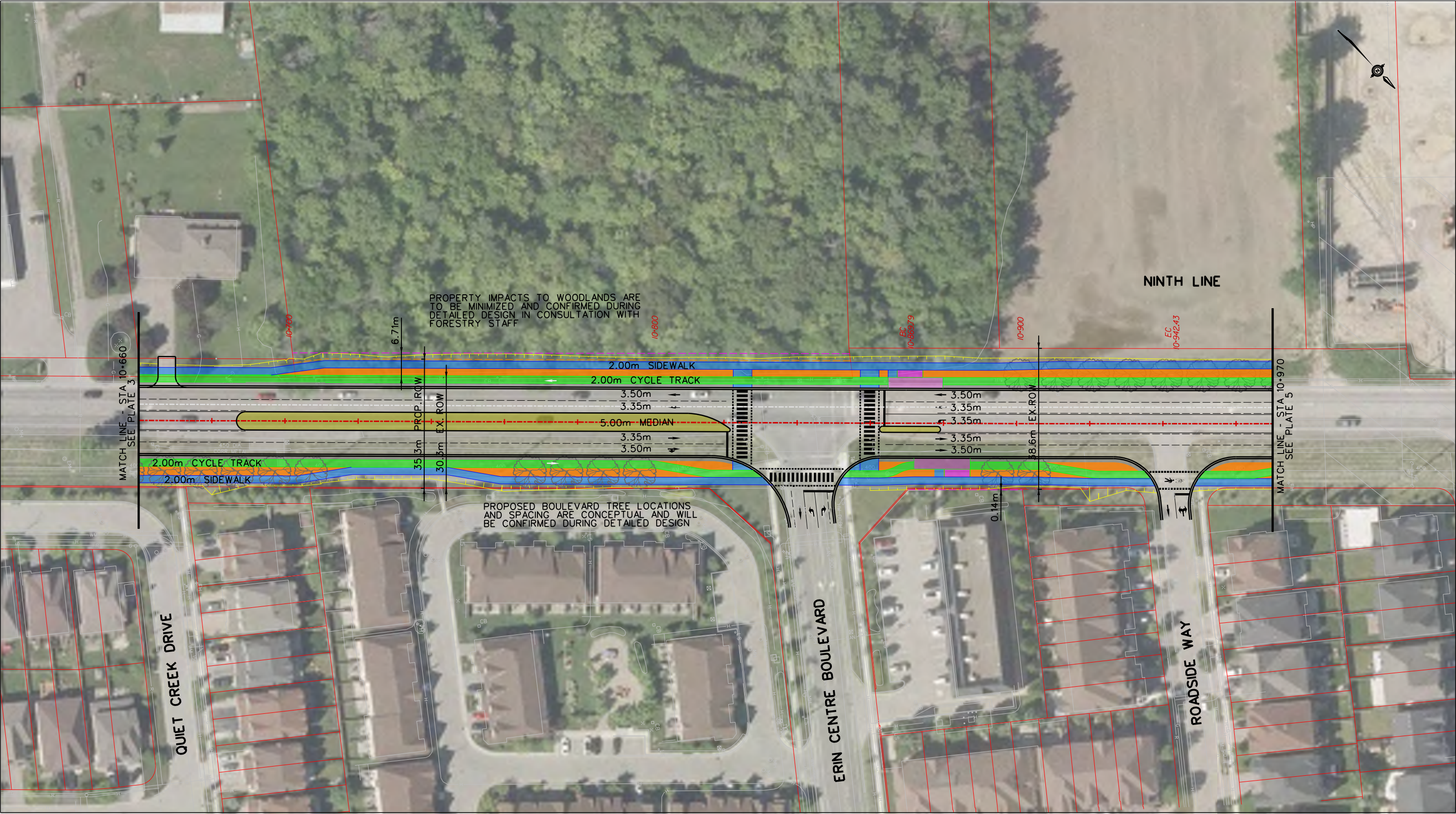
SCALE

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DATE


JUNE 2021





NOTE: PROPOSED BOULEVARD TREE LOCATIONS AND SPACING ARE CONCEPTUAL AND WILL BE CONFIRMED DURING DETAILED DESIGN

LEGEND			
	PROPOSED CENTRELINE		PROPOSED GRADING LIMIT
	PROPOSED RIGHT-OF-WAY (ROW)		PROPOSED GRADING
	PROPOSED SIDEWALK		PROPOSED CURB
	PROPOSED CYCLE TRACK		PROPOSED DAYLIGHTING
	PROPOSED MULTI-USE PATH (MUP)		PROPOSED BOULEVARD
	PROPOSED BUS STOPS		EXISTING CENTRELINE
	PROPOSED RAISED MEDIAN		EXISTING PROPERTY LINE
	EXISTING REGIONAL FLOODPLAIN SPILL		EXISTING WATERCOURSE



NINTH LINE IMPROVEMENTS  
(EGLINTON AVE W TO DERRY RD W)  
ENVIRONMENTAL ASSESSMENT  
PLAN

10+660 TO 10+970

PLAN NO.  
P-04

SCALE  
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DATE  
JUNE 2021





LEGEND

— PROPOSED PROFILE

- - - EXISTING GROUND



NINTH LINE IMPROVEMENTS  
(EGLINTON AVE W TO DERRY RD W)  
ENVIRONMENTAL ASSESSMENT  
PROFILE

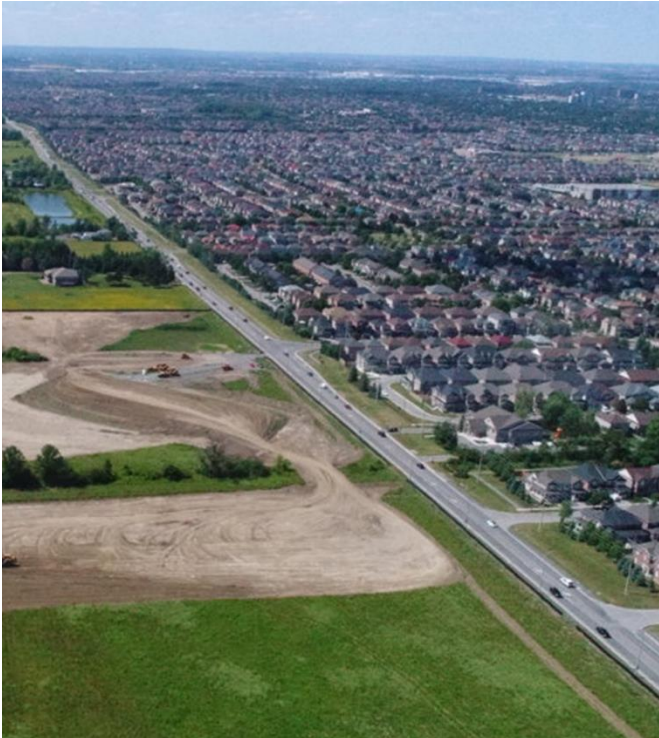
10+660 TO 10+970

PLAN NO.  
**PF-04**

SCALE  
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DATE  
JUNE 2021





# Environmental Study Report

Schedule 'C' Class Environmental  
Assessment for Ninth Line from  
Eglinton Avenue West to Derry Road  
West

City of Mississauga

June 2021



# 1 Introduction

The City of Mississauga has completed a Schedule 'C' Municipal Class Environmental Assessment (Class EA) study for Ninth Line Improvements between Eglinton Avenue West and Derry Road West. The EA study is being completed in accordance with the planning and design process for Schedule 'C' projects as outlined in the Municipal Engineers Association (MEA), Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011, and 2015).

Ninth Line is a north-south arterial road in the City of Mississauga. The study area spans approx. 6.2 km from Eglinton Avenue West to Derry Road West and consists of a 2 lane semi-rural road cross-section with a centre two-way left-turn lane. Ninth Line is adjacent to the last remaining greenfield land in Mississauga, which is planned to be sustainable, transit-supportive, connected and distinct. Current and future Ninth Line residents will have access to a linked natural heritage system, multi-use trails, parks and open spaces. Higher-order transit, community uses, and facilities and a variety of housing choices and employment opportunities are also anticipated to realize this vision for the emerging neighbourhood, as outlined in the Shaping Ninth Line Study.

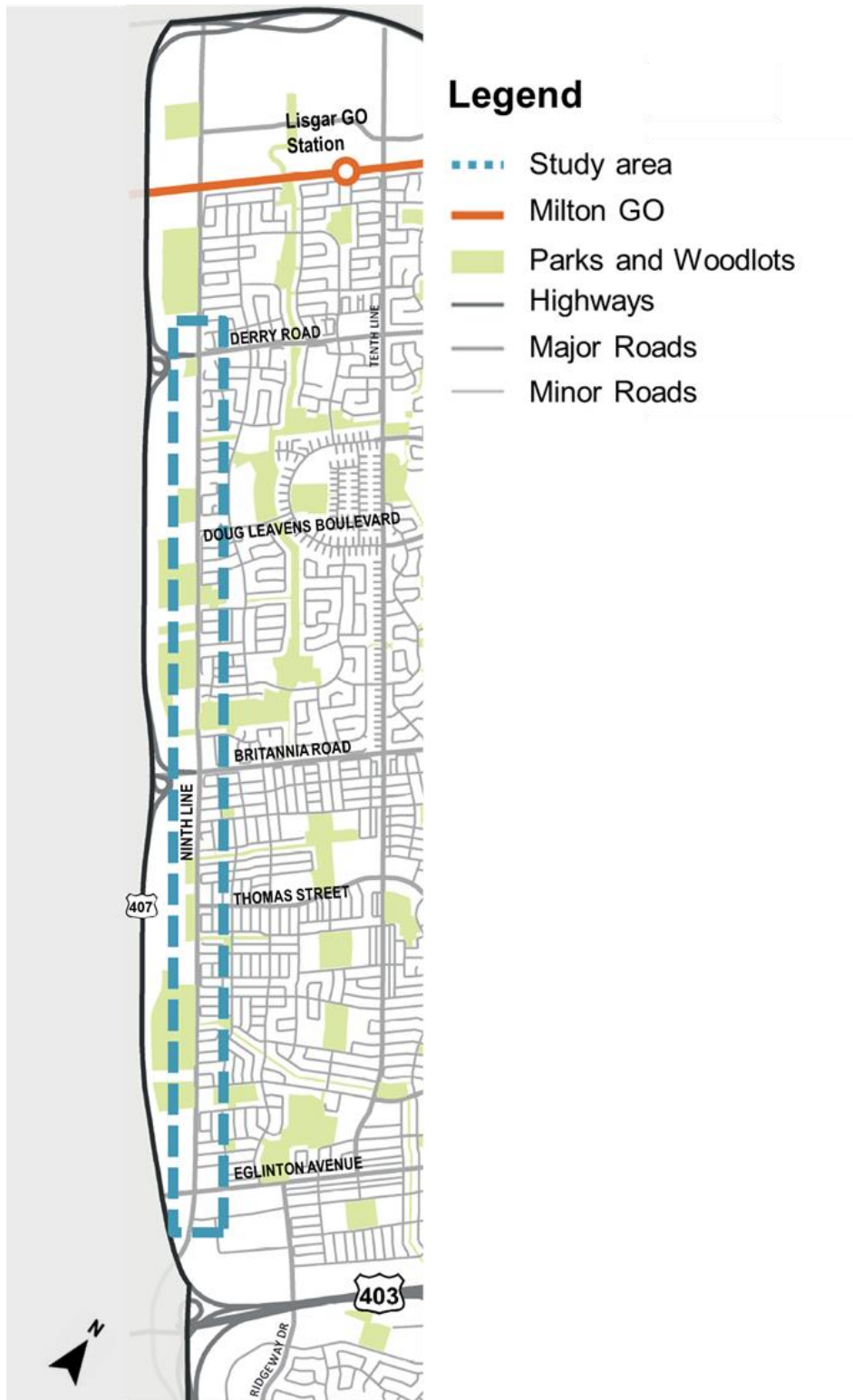
## 1.1 Study Purpose

The purpose of this study is to confirm the need for multi-modal improvements to Ninth Line which support new development and improve mobility for all road users, explore alternative solutions and identify a preferred solution. Alternative designs will be developed to address the preferred solution, evaluated and a preferred design will be selected which strikes a balance between transportation engineering and environmental protection principles. The Preferred Preliminary Design will develop the technically preferred design to a 30% design level of detail, incorporating feedback from stakeholders and identifying opportunities to support the City's vision in which "everyone and everything will have the freedom to move safely, easily, and efficiently to anywhere at any time".

## 1.2 Study Area

Ninth Line is a north-south arterial road in the western part of the City of Mississauga in the Region of Peel. It connects Highway 403 to the south and Highway 401 to the north. The City of Mississauga Ninth Line jurisdiction begins at Highway 407, continuing north across Highway 401 where it terminates at Steeles Avenue in Halton Region. The study area spans the segment of Ninth Line between Eglinton Avenue West and Derry Road West.

Within the study limits, Ninth Line currently has a posted speed limit of 70 km/h and a 2-lane semi-rural road cross-section (one lane in each direction) with a centre two-way left-turn lane. Sidewalks are discontinuous and cycling facilities do not exist for the majority of the study area. The total length of roadway for the project is approximately 6.2 km, as shown in **Exhibit 1-1**.



**Exhibit 1-1: Ninth Line Study Area and Corridor**

## 1.3 Environmental Assessment Process

An overview of the Environmental Assessment Act of Ontario (EAA), the Municipal Class Environmental Assessment (MCEA) process, and the Canadian Environmental Assessment Act, 2012 (CEAA 2012) is provided in this section as they relate to the Ninth Line Class EA.

### 1.3.1 Municipal Class Environmental Assessment Process

The Environmental Assessment Act of Ontario (EAA) provides for the protection, conservation, and management of the environment in Ontario. The EAA applies to municipalities and to activities including municipal road projects. Activities with common characteristics and common potential effects may be assessed as part of a “class” and are therefore approved subject to compliance with the pre-approved Class EA process.

The Municipal Class Environmental Assessment (MCEA) process is an approved Class EA process that applies to municipal infrastructure projects including roads, water, and wastewater. This process provides a comprehensive planning approach to consider alternative solutions and evaluate their impacts on a set of criteria (e.g. transportation, environmental, social, engineering considerations) and determine mitigating measures to arrive at a preferred alternative for addressing the problem (or opportunity). The Class EA process involves a rigorous public consultation component that includes various provincial and municipal agencies, Indigenous communities, and the public, at each of the project stages.

The Ninth Line Class EA study was undertaken in accordance with the guidelines of the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015). Due to the type of project, anticipation for potential effects, and estimated capital costs, the Ninth Line Class EA is defined as a Schedule ‘C’ project. A Schedule ‘C’ project involves either the construction of new facilities or major modifications to existing facilities. Modifications to existing facilities could include road widening, intersection improvements, and/or other operational improvements.

**Exhibit 1-2** illustrates the sequence of activities within the approved Class EA process leading to project implementation. The phases for this study are summarized below:

**Phase 1 (Problem and Opportunity)** – Establish the vision and identify the problem (deficiency) or opportunity.

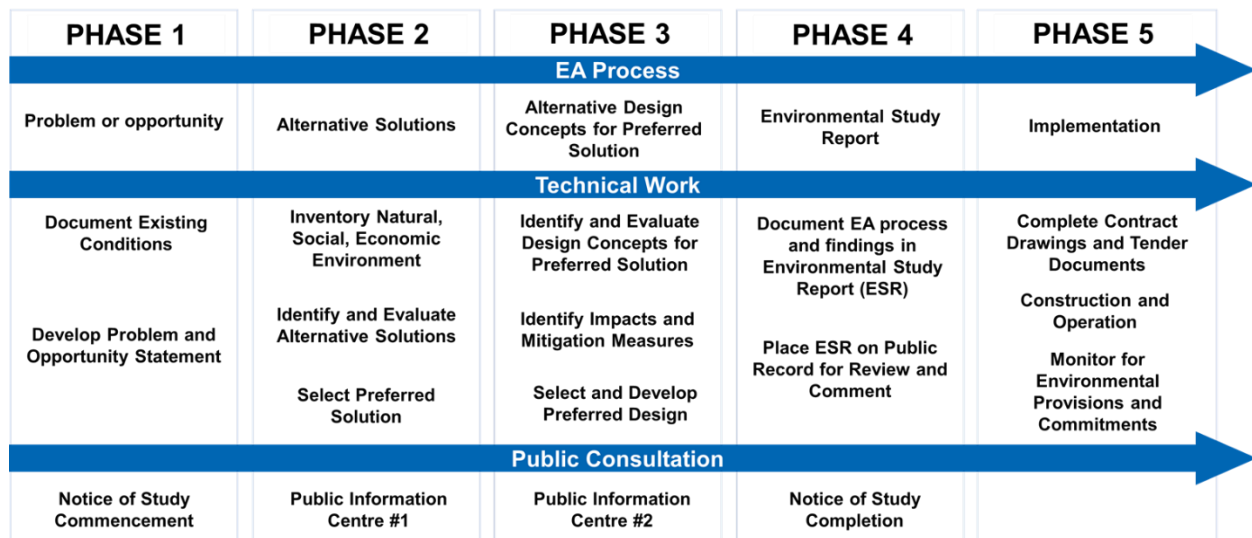
**Phase 2 (Alternative Solutions)** – Identify alternative solutions to address the problem or opportunity considering the existing environment, and establish the preferred solution considering public and agency input.

**Phase 3 (Alternative Design Concepts for Preferred Solution)** – Examine alternative methods of implementing the preferred solution, based on the existing environment, public and agency input, anticipated environmental effects, and methods of minimizing negative effects and maximizing positive effects.

**Phase 4 (Environmental Study Report)** – Document in an Environmental Study Report (ESR) a summary of the study background, problem statement, alternative solutions,

alternative designs, and the public consultation process. Place the ESR on public record for a minimum 30 calendar days for review and notify completion of the ESR and opportunity for Part II Order requests.

**Phase 5 (Implementation)** – This phase involves detailed design and the preparation of contract/tender documents followed by construction, operation, and monitoring. This phase is not within the scope of the Ninth Line Class EA study.



## Exhibit 1-2: Class EA Process

### 1.3.2 Part II Orders

After the ESR is finalized, it will be filed and placed on public record for a minimum of 30 calendar days for review by the public and review agencies. At the time the report is filed, a Notice of Study Completion will be advertised, to advise the public and other stakeholders where the ESR may be seen and reviewed, and how to submit public comments. The Notice will also advise the public and other stakeholders of their right to request a Part II Order, and how and when such a request should be submitted.

On July 21, 2020, the Ontario province passed the *COVID-19 Economic Recovery Act*, which included important amendments to the Environmental Assessment (EA) Act. The amendments to the EA Act included, changes to the Part II Order Request (PIOR) process and sets up the authority of the Ministry of Environment Conservation and Parks (MECP) to create new regulations that would replace all Class EAs, including the Municipal Class Environmental Assessment (MCEA) process.

#### 1.3.2.1 NEW APPEAL PROCESS

As part of the new appeal process, implemented by the amendments to the EA, proponents will continue to issue a Notice of Study Completion and place the EA documentation/Environmental Study Report (ESR) on the public record for 30-days; however, instead of concerns being filed with the Ministry, concerns will be addressed to the proponent. The PIOR process will only

apply if the objective deals with aboriginal or treaty rights. All other concerns, the PIOR process has been replaced with an additional 30-day window for the Ministry to decide if the Minister should take any action. Regional coordinators from the Ministry of Environment, Conservation and Parks (MECP) will continue their role of monitoring MCEA projects. During the additional 30 days the Minister will decide if the project will be elevated (PIOR granted) or if it will be approved with conditions. If the Minister advises the proponent that the project will be approved but with conditions, the Minister has more time to draft these conditions. If there is no response from the Minister within the additional 30-days, the proponent may proceed with the project.

### 1.3.3 Canadian Environmental Assessment Act

Under the Canadian Environmental Assessment Act, 2012 (CEAA, 2012), a federal environmental assessment study may be required to comply with the physical activities that constitute a “designated project”, under the project list identified in the Regulations Amending the Regulations Designating Physical Activities, 2013. This project list ensures that federal environmental assessments are focused on the major projects with the greatest potential for significant adverse environmental impacts to matters of federal jurisdiction.

The Ninth Line Class EA study does not constitute a “designated project” and therefore does not require an Environmental Assessment under the CEAA, 2012. However, the Minister of the Environment, Conservation and Parks may order an assessment for any project not included in the project list, where there may be adverse environmental effects related to federal jurisdiction.

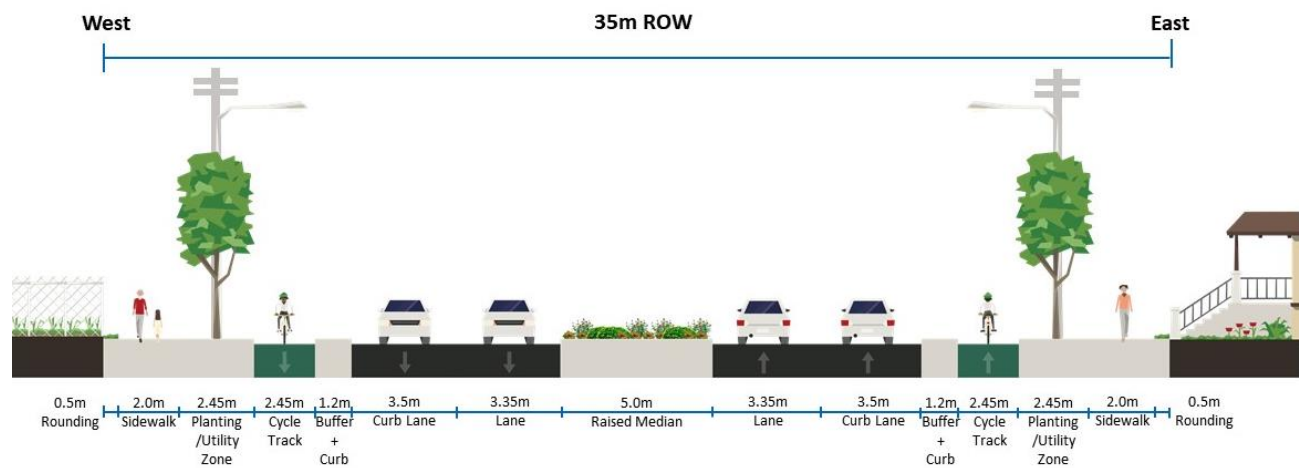


The vertical alignment aims to minimize impacts to existing entrances and driveways, minimize impacts on watercourse crossings, and reduce grading impacts to adjacent properties and features. The proposed vertical alignment is illustrated on the preliminary design drawings in **Appendix M**.

During Detailed Design, when additional drainage and hydraulic information is available, opportunities to raise the proposed roadway profile at the Osprey Marsh structure to mitigate / reduce / eliminate overtopping of Ninth Line will be considered. Additional discussion is outlined in **Section 10.1.12**.

### 10.1.3 Typical Cross-Section

Using the Official Plan ROW of 35m for the study corridor, the EA Study approved design criteria, feedback from the City of Mississauga staff during the stakeholder workshop, and feedback from the public, the following midblock typical section was developed for the preferred design as presented in **Exhibit 10-1**.



#### Exhibit 10-1: Typical cross-section

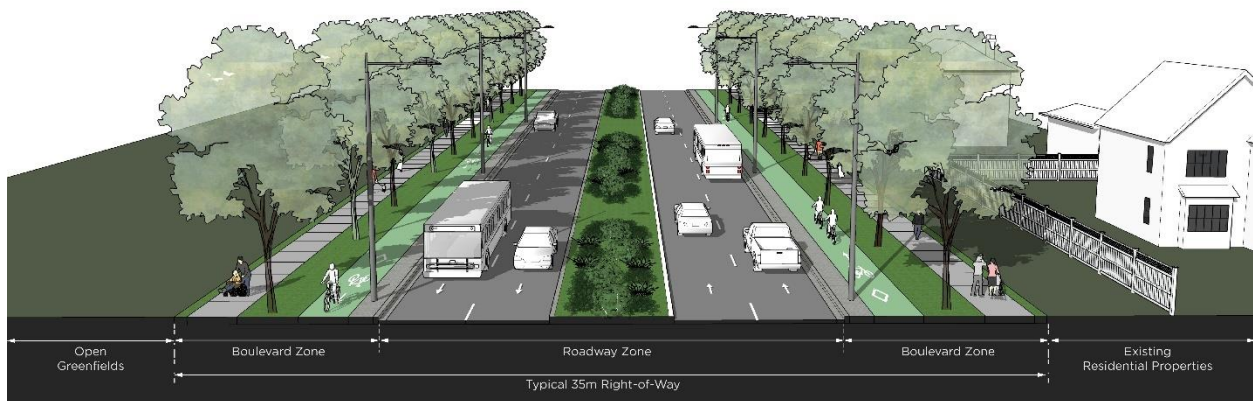
Key features of the cross-section include:

- Four general purpose lanes, two lanes in each direction (3.35m inner lanes and 3.5m curb lanes)
- 2.0m Boulevard Cycle Tracks, both sides of the road
- 2.0m Sidewalks on both sides
- 5.0m raised / painted centre median where feasible (the median width also accommodates left-turn lanes at intersections)
- Landscaping within the boulevards (where feasible), generally allocated between the sidewalk and cycle track where available right-of-way exists. A minimum tree planting opportunity is shown in the boulevard where 2.45m planting zone is available
- Landscaping within the median as feasible
- Utility zones for overhead utilities (streetlights and hydro poles) designated either between the cycle track and curb or within the planting zone between the cycle track and sidewalk, and underground utility corridors

- Fully urbanized and corridor illumination
- 0.5m curb and gutter
- 0.5m grading buffer

Grading will be contained within the proposed right-of-way (where feasible). In areas where grading extends beyond the proposed right-of-way, grading easements or property acquisition may be required as discussed in **Section 10.1.8**.

The following conceptual renderings were prepared to illustrate the preferred preliminary design recommended for the Ninth Line corridor at three different locations. It is noted these renderings are conceptual only, and exact locations of proposed street trees and streetlights / hydro poles etc. will be confirmed in Detail Design.

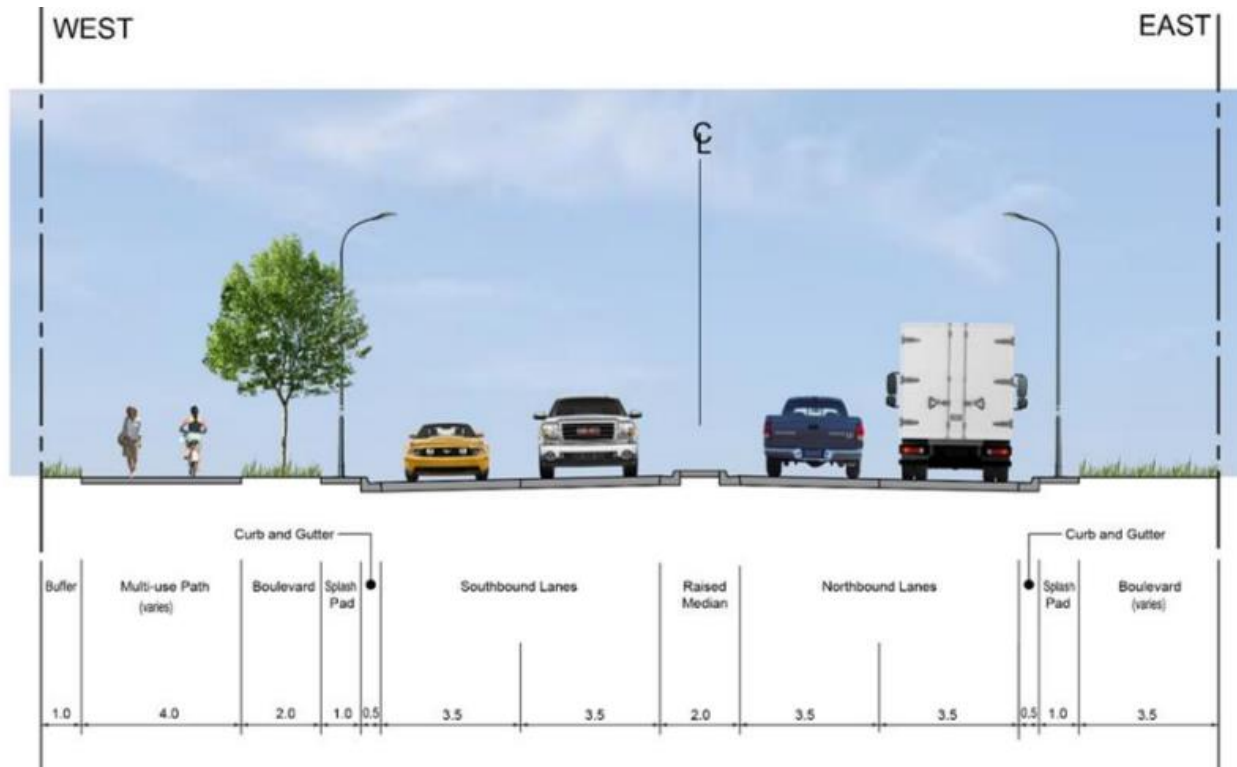


## Exhibit 10-2: Rendering A – Ninth Line, between Deepwood Heights to Brinwood Gate (Looking North)

Rendering A includes:

- Four lanes (two lanes in each direction)
- Raised centre median with low-lying shrubs and/or grass
- Separated boulevard cycle tracks and sidewalks on both sides
- Landscaping between cycle tracks and sidewalks on both sides





**Exhibit 10-5: Halton Region Ninth Line EA Typical Section North of 407 ETR**

#### 10.1.4 Cycling and Pedestrian Facilities

Continuous pedestrian and cycling facilities, consisting of 2.0m boulevard cycle tracks (in the same direction of travel as vehicles) and 2.0m sidewalks on both sides of Ninth Line are proposed between Eglinton Avenue West and Derry Road West. Crossride Treatments to provide increased visibility and dedicated space to accommodate pedestrians and cyclists are proposed at all signalized and unsignalized intersections.

A multi-use path (MUP) is introduced for a small segment along Ninth Line on the west side, adjacent to 6056 Ninth Line (St. Peter's Church and Cemetery) to mitigate grading impacts into the existing cemetery lands / property line.

Under existing conditions, active transportation connections from local roads adjacent to Ninth Line are present. These active transportation connections to be maintained. Location details to be confirmed during detailed design in consultation with Mississauga staff.

#### 10.1.5 Transit Provisions

The study area is currently serviced by existing bus routes with additional future bus routes to be implemented by MiWay. Proposed bus stop locations were identified in the preferred design in consultation with MiWay. The transit amenities (bus stops/pads) conform to MiWay Standard Drawing 2240.085. However, in constrained locations, these amenities conform to Standard

Drawing 2240.083 and 2240.092. Stop locations and transit infrastructure should be re-confirmed during detailed design in consultation with MiWay.

Intersection radii at locations where existing and proposed bus routes were identified by MiWay were determined based on MiWay's design vehicle specifications of both 40' and 60' buses. In consultation with MiWay, bus encroachments, either partially or fully, into the second receiving lane is not recommended and should be avoided as it poses operational safety concerns. Thus, proposed curb radii are designed to accommodate such recommendation.

At locations where the cycle track intersects with the bus platform, the passenger standing area with shelter is proposed behind the cycle track. At signalized intersections, nearside bus platforms and shelters are located adjacent to the curb, where the cycle track transitions behind the bus shelter as per MiWay Standard Drawing 2240.085. Bus platform/shelter configuration identified on the preferred design are site specific based on the available property and site constraints.

The locations of the proposed bus stops/pads are illustrated on the preliminary design drawings in **Appendix M**.

### 10.1.6 Streetscaping and Landscaping

A context-sensitive and thoughtful streetscape is integral to promote high-quality urban design, serve as community entrances, and encourage pedestrian-friendly and transit-oriented neighbourhoods. Opportunities for streetscaping are identified on the preliminary design of Ninth Line and may include elements such as plantings in boulevards, street furnishings, and public art.

#### **Furnishing Zones, Pavements and Street furniture**

To provide continuous, unimpeded sidewalks and bike lanes, furnishing zones are proposed to accommodate street lighting, transit shelters, site furnishings, street trees and utilities. These furnishing zones, in most cases, also serve as buffers between cycling infrastructure and the pedestrian clearway to one side and the roadway to the other.

Street furnishings, including benches, planters, waste receptacles and other amenities should be constructed of durable and high-quality materials, and placed along the length of the corridor, with increased concentrations in the segments with more urban cross-sections, where pedestrian volumes are greater, and people are more likely to congregate.

#### **Street Trees**

Street trees are proposed on both sides of the corridor, mostly along the entire length of Ninth Line. Space for tree planting is constrained at a few segments due to limited availability of space within the right-of-way. Additionally, no tree plantings are included within the boulevard, which is adjacent to the natural heritage features to reduce impacts to these sensitive areas.

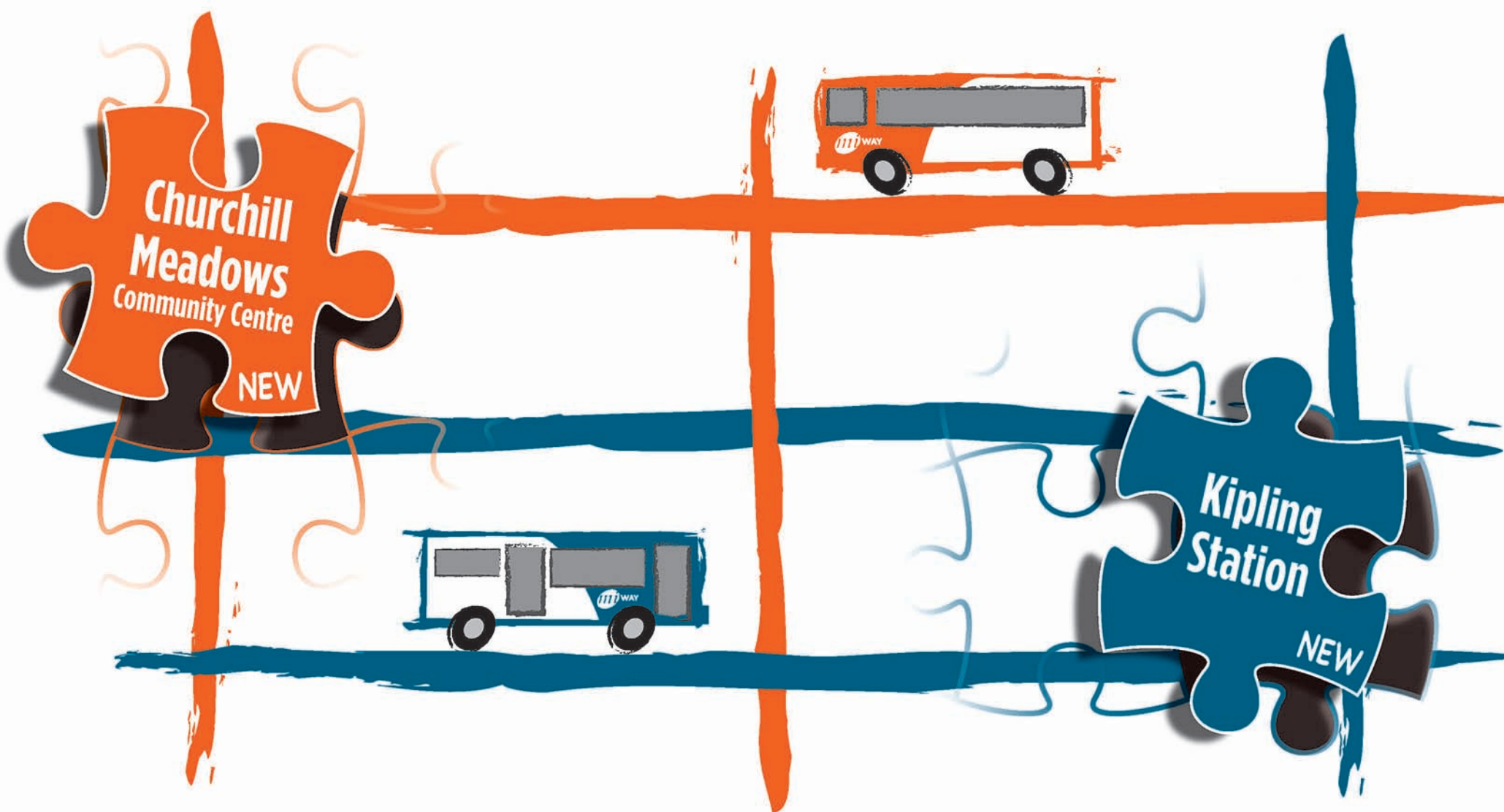
# APPENDIX E

## Future Transit Improvements Information



# We want your feedback!

## MiWay 2020 Annual Service Plan



In 2020, MiWay will enhance the grid network by connecting to new transit hubs at Kipling Station and Churchill Meadows Community Centre, as part of the **MiWay Five Transit Service Plan (2016-2020)**.

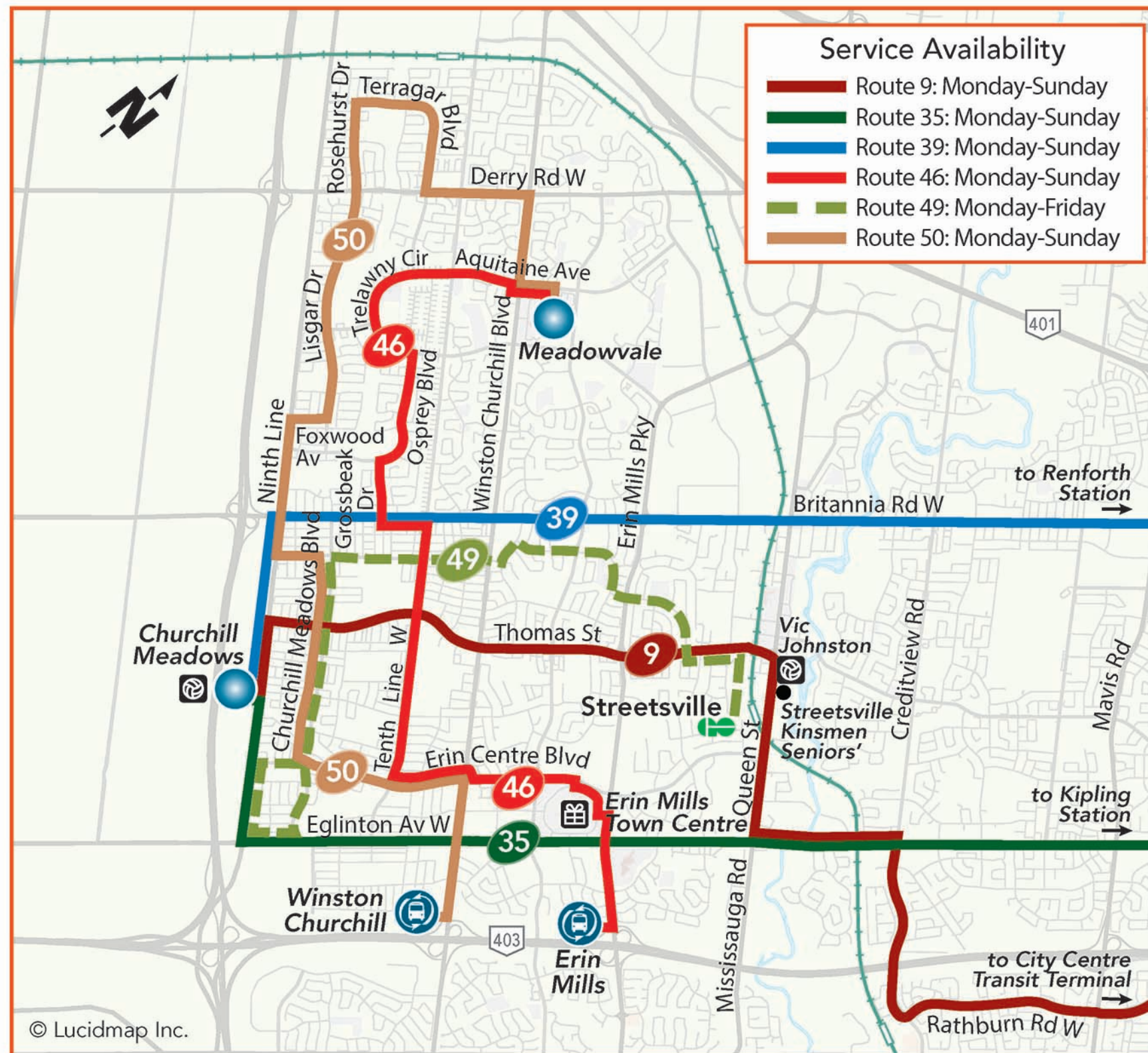
MiWay routes will be restructured to integrate with these new transit hubs and meet the City's strategic goal of developing a transit-oriented city.

We're inviting you to learn about how the upcoming changes can improve your commute throughout Mississauga.



# Lisgar and Meadowvale Area Routing Changes and Integrating the New Churchill Meadows Community Centre and Park

Proposed Improvements: October 26, 2020



Note: No changes to Route 46 Tenth Line - Osprey.

## Revised routes to service the new Churchill Meadows Community Centre on Ninth Line

### Monday to Sunday

- 9 Rathburn-Thomas
- 35 Eglinton-Ninth Line
- 39 Britannia

## Route 35A Eglinton-Tenth Line

### Monday to Friday

Route 35A Eglinton-Tenth Line will be merged with Route 35 Eglinton-Ninth Line to eliminate variants.

## Route 49 McDowell

### Monday to Friday

Revised routing to eliminate service duplication and expand service to Peacock Drive and Vista Boulevard.

## Route 50 Lisgar-Churchill Meadows (NEW)

### Monday to Sunday

New route travelling between Meadowvale Town Centre and the Winston Churchill Transitway Station, replacing Route 39 along Lisgar Drive and Route 9 on Churchill Meadows Boulevard.

## Route 90 Terragar-Copenhagen Loop

### Monday to Saturday

Cancelled as part of the new introduction of Route 50.

\* Subject to budget approval



Corridors



Frequency



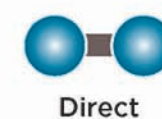
Service



Express



Transitway



Direct



Connections



Employment



Schools



Cities



# APPENDIX F

## 407 Transitway Information

# Chapter 1 – Introduction



**407 TRANSITWAY – WEST OF BRANT STREET TO WEST OF HURONTARIO STREET**  
**MINISTRY OF TRANSPORTATION - CENTRAL REGION**



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# 1. INTRODUCTION

The 407 Transitway project from west of Brant Street to west of Hurontario Street encompasses the Design of an exclusive all grade-separated 43 km runningway and eight station facilities adjacent to the 407 ETR Corridor. The 407 Transitway will provide transit service across the GTA and will link a variety of major urban centres and transit intermodal hubs. The 407 Transitway will be implemented as a busway (BRT); however, the design and footprint of the BRT will allow opportunity to convert to light rail transit (LRT) in the future, if needed.

This Environmental Project Report (EPR) is a document whose main purpose is to provide a comprehensive summary of each step in the study, including;

- Transportation system assessment and derivation of the potential ridership forecast;
- Summary of the existing conditions along the corridor;
- Identification and assessment of alignment and station alternatives;
- Selection of the preferred alignment and station locations;
- Assessment of any environmental impacts of the preferred alternative and the identification of measures to mitigate or reduce any negative impacts;
- Commitments being made by MTO in regard to the future implementation phases;
- Summary of consultation activities with agencies, Indigenous and Métis communities and members of the public; and,
- Potential implementation plan.

The EPR also includes the environmental and technical specialized reports as appendices of the document.

## 1.1. 407 Transitway Background and Status

The complete planned 407 Transitway is a 150 km high-speed public transit facility on a separate right-of-way. It will parallel the existing 407 ETR from Burlington (Halton Region) to the Highway 35/115 interchange (Durham Region) (**Figure 1.1**). To meet rapidly growing transportation demands, a cross GTA (east-west) transit facility has been identified as a key element of the future. The 407 Transitway is intended to form a northern spine parallel to the Lakeshore GO corridor that will connect the municipalities in this corridor. The 407 Transitway will also integrate with north-south transit services by providing stations for quick and convenient transfers. The 407 Transitway is a component of the official plans of the stakeholder municipalities and is part of the Province’s Move Ontario 2020 Project and the Metrolinx Rapid Transit Plan.

The Ministry of Transportation (MTO) has been actively planning and protecting the required land for the 407 Transitway for the past 30 years. For the section between the Burlington GO Station and Markham Road, the Ministry completed corridor protection studies to ensure that the land required for the 407 Transitway was protected from Provincial land disposal and private development activities.

MTO has received Ministry of the Environment, Conservation and Parks (MECP) approval under the Transit Project Assessment Process (TPAP) Regulation for the sections located between Hurontario Street in Brampton and Brock Road in Pickering and has finalized the TPAP study from Brant Street to Hurontario Street, which is presented in this EPR. For the section between Brock Road and the Highway 35/115 interchange, the Ministry has received Environmental Assessment (EA) approval for the 407 Transitway corridor as part of the Highway 407 East Completion/Transitway EA study.

This current study extends from west of Brant Street (City of Burlington) to west of Hurontario Street (City of Brampton). This section was covered by two MTO Transitway Corridor Protection Studies (CPS) completed in December 1998 and December 2005 and is also designated in the Provincial Parkway Belt West Plan. MTO is seeking TPAP approval for the 407 Transitway, stations, and associated facilities for this section. The study objectives are explained below.

The map illustrates the proposed Ontario Line transit route through the Greater Toronto Area. The route is segmented into five main sections, each with a specific status:

- TW3 (TPAP COMPLETED):** Located in the northwest, this segment runs from the Halton Hills area through Brampton and Mississauga, connecting to the existing network near the Airport.
- TW1 (TPAP COMPLETED):** This segment runs through the central part of the region, including areas like Vaughan, Richmond Hill, and Markham, connecting to the existing network near the Kennedy station.
- TW2 (TPAP COMPLETED):** This segment continues the route through the east, passing through areas like Markham, Richmond Hill, and Oshawa, connecting to the existing network near the Brock station.
- TW4 (STUDY AREA):** This segment is highlighted in green and yellow, indicating it is a study area. It runs from the Halton Hills area through Brampton and Mississauga, connecting to the existing network near the Airport.
- EAST COMPLETION (EA COMPLETED):** This segment is highlighted in black, indicating it is completed. It runs from the Brock station through Oshawa and Clarington, connecting to the existing network near the Bowmanville station.

The map also shows major highways (401, 404, 403, 402) and various cities and regions (Halton Hills, Halton, Brampton, Mississauga, Peel, Toronto, York, Durham, Oshawa, Clarington). A north arrow is located in the top right corner.

The primary purpose and objectives of the undertaking include the following:

- Improve integration with the regional transportation network – connecting to the Spadina Subway, the future Yonge Subway Extension, GO Lakeshore, Kitchener, Barrie, Richmond Hill and Stouffville rail lines, the future Hurontario LRT, as well as Halton, Peel, York and Durham Transit systems;
- Reduce automobile dependence and greenhouse gas emissions, contributing to climate change effects; and,
- Identify land protection requirements to accommodate the 407 Transitway infrastructure.



To support these objectives, the scope required that the following activities be undertaken:

- Maintain and apply the comprehensive set of approved design standards for the 407 Transitway, created and approved during the design of the Central, Highway 400 to Kennedy Road section;
- Update and develop detailed ridership estimates based on a 2041 horizon year with projections to 2051;
- Gather existing conditions and future municipal plans, and identify and evaluate alignment and station alternatives, and select preferred design;
- Conduct detailed field investigations in support of the preferred option; assess the environmental effects and develop a mitigation plan for any negative impacts generated by the preferred design;
- Deliver a cost-effective, safe, and innovative design and staging plan for this 43 km section of the 407 Transitway for busway technology that allows for conversion to light rail transit (LRT) in the future, promotes transit ridership and optimizes transit operation and integration; and,
- Recommend and present a phased implementation strategy.

### 1.3. Study Area

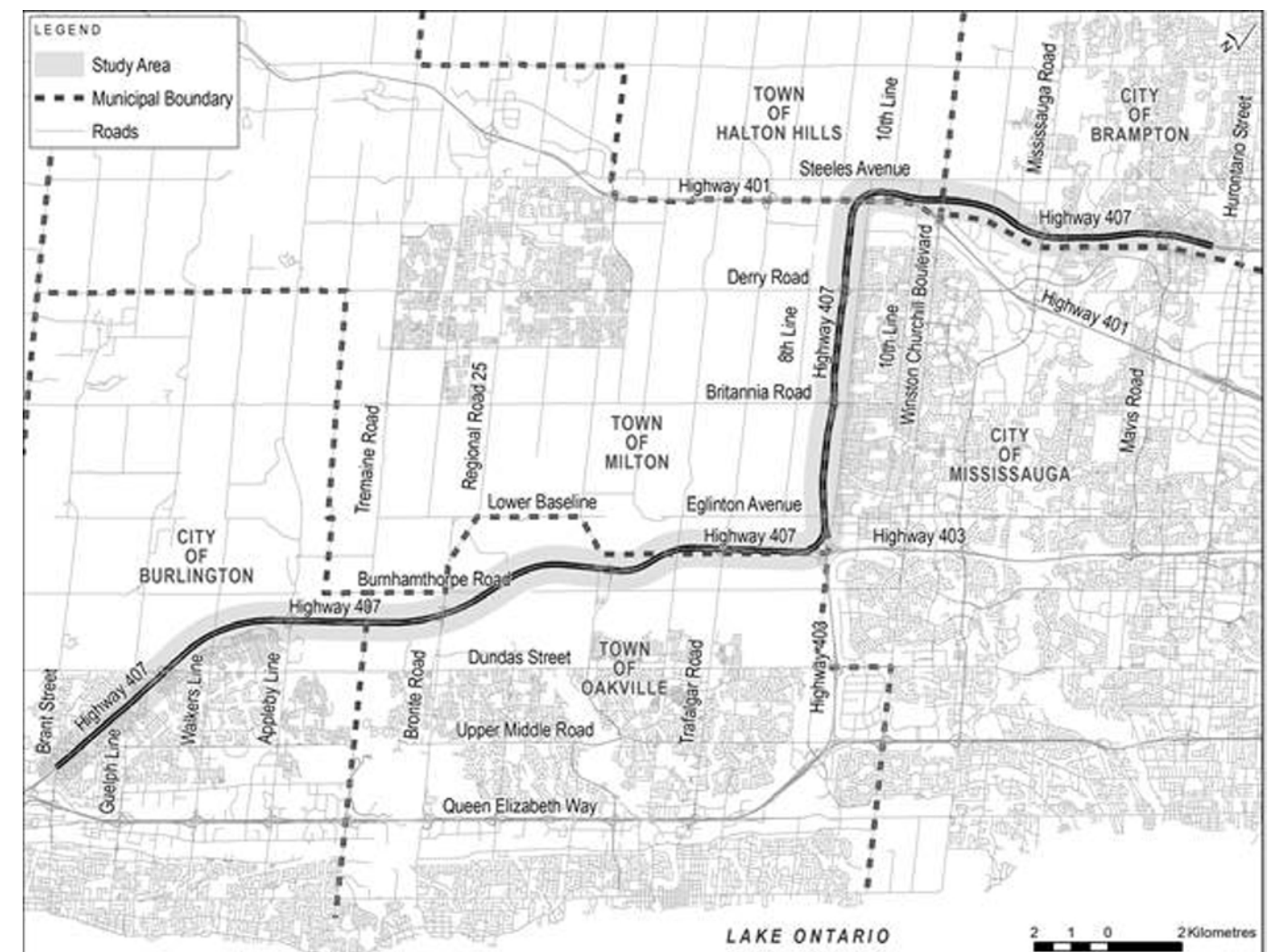
The study area encompasses the proposed section of 407 Transitway corridor from west of Brant Street in the City of Burlington, Region of Halton, to west of Hurontario Street in the City of Mississauga, Region of Peel. **Figure 1.2** illustrates an area of 500 m on each side of the alignment that was covered by the study area; however, the boundaries in which the environmental effects were identified and assessed; and the reason(s) why these areas were considered to be sufficient, is explained below:

- **Terrestrial:** MTO Environmental Reference for Highway Design (2013) states that for all terrestrial ecosystems field investigations, the study area be defined as within the existing and proposed ROW and adjacent lands for 120 m unless a sensitive receptor located more than a distance of 120 m is likely to be adversely affected. As the majority of the anticipated impacts are footprint impacts the project team believes that the study area limits adequately address any terrestrial impacts.
- **Fish Habitat:** MTO Environmental Guide for Fish and Fish Habitat (latest version) presents minimum requirements for area of field investigation which consists of 50 m upstream and 200 m downstream of the limits of the proposed ROW. Further, the zone of detailed field investigation conducted for this study is greater than the area prescribed by the Guide. It consisted of 50 m upstream and downstream. The prescribed area for this zone by the Guide is 20 m upstream and 50 m downstream. Please note that the upstream and downstream distance is measured from the thalweg of the stream and not the straight linear distance from the proposed ROW.
- **Groundwater:** The purpose of the Secondary Source Groundwater Assessment was to identify hydrogeological constraints to the implementation of the 407 Transitway and to assess potential impacts on existing groundwater resources. The 1 km corridor study area is sufficient to identify any potential impacts and requirements for future study at a later phase.

- **Property Contamination and Waste, Archaeology, Cultural Heritage:** The potential impacts are footprint impacts in nature therefore the 1 km wide corridor was determined to be adequate to identify any impacts for the implementation of the transitway.
- **Noise:** Noise Sensitive Areas were identified regardless of size and location. The study area limits cover the noise sensitive areas that will be potentially affected.
- **Air:** The physical boundary does not have any meaning. Impacts were assessed at a much larger regional scale. A detailed description is presented in the Air Quality Report regarding the study area limits.

The assessed boundaries are within the 500 m set-back on either side of the runningway named the study area in the EPR.

**FIGURE 1.2: STUDY AREA**



### 1.4. Transit Project Assessment Process

This study was conducted following the Transit Project Assessment Process (TPAP) under Ontario Regulation 231/08: Transit Projects and Metrolinx Undertakings. This regulation allows proponents of all public transit projects to proceed with the TPAP process rather than as traditionally done through Part II of the *Environmental Assessment Act*. The TPAP is a fully-prescribed process in which the proponent must follow specified procedures and timeframes. The Minister of the Environment, Conservation and Parks (MECP) determines if the final transit project can proceed. This integrated TPAP approach is illustrated in **Figure 1.3**.

The study was comprised of three stages: The Planning Stage, the Pre-TPAP (Transit Project Assessment

Process), and the TPAP stage. The Environmental Project Report (EPR) encompasses the background of the project, studies, analysis, functional and initial design, evaluation of alternatives, findings and recommendations of the completed stages. Consultation was carried out throughout the process.

As per the regulation, the six-month TPAP process is broken down into three distinct phases:

- The **120-day** consultation and Final EPR preparation period;
- The **30-day** Public, Stakeholder, Regulatory Agencies, and Indigenous and Métis Communities review period; and,
- The **35-day** period for the MECP to respond to all inquiries.

**Figure 1.4** illustrates the comprehensive process as detailed by the MECP.

FIGURE 1.3: STUDY PROCESS

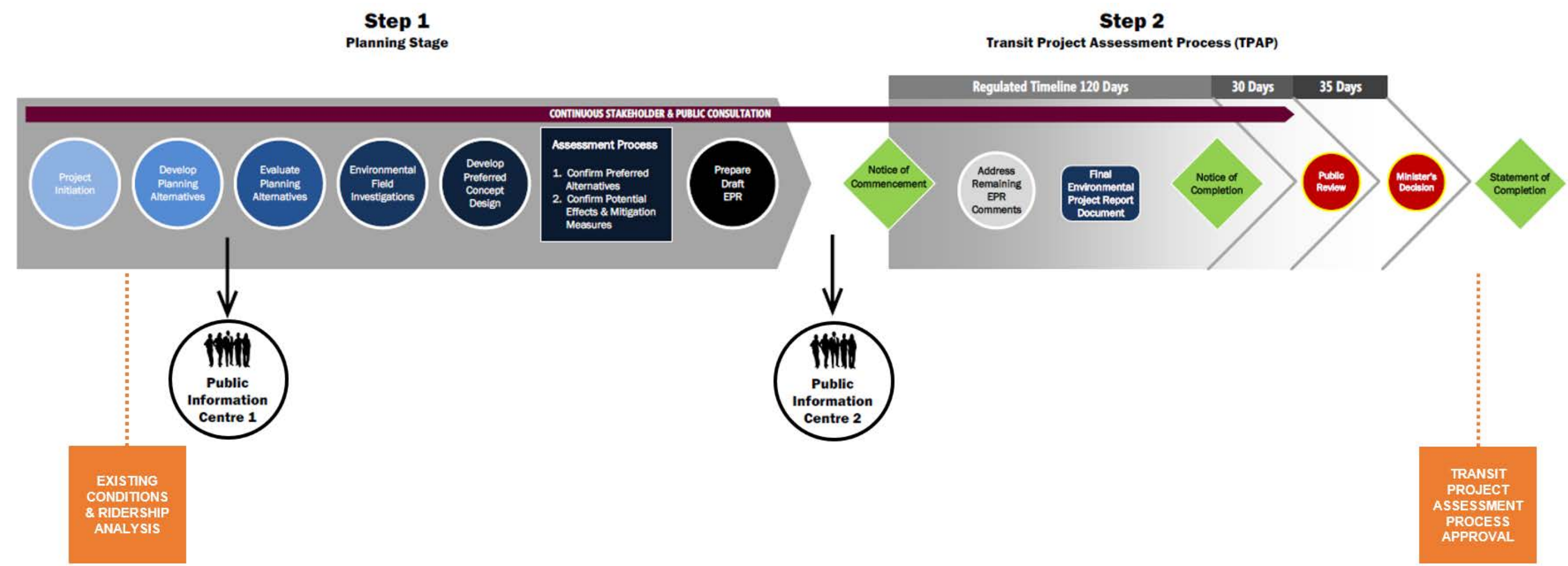
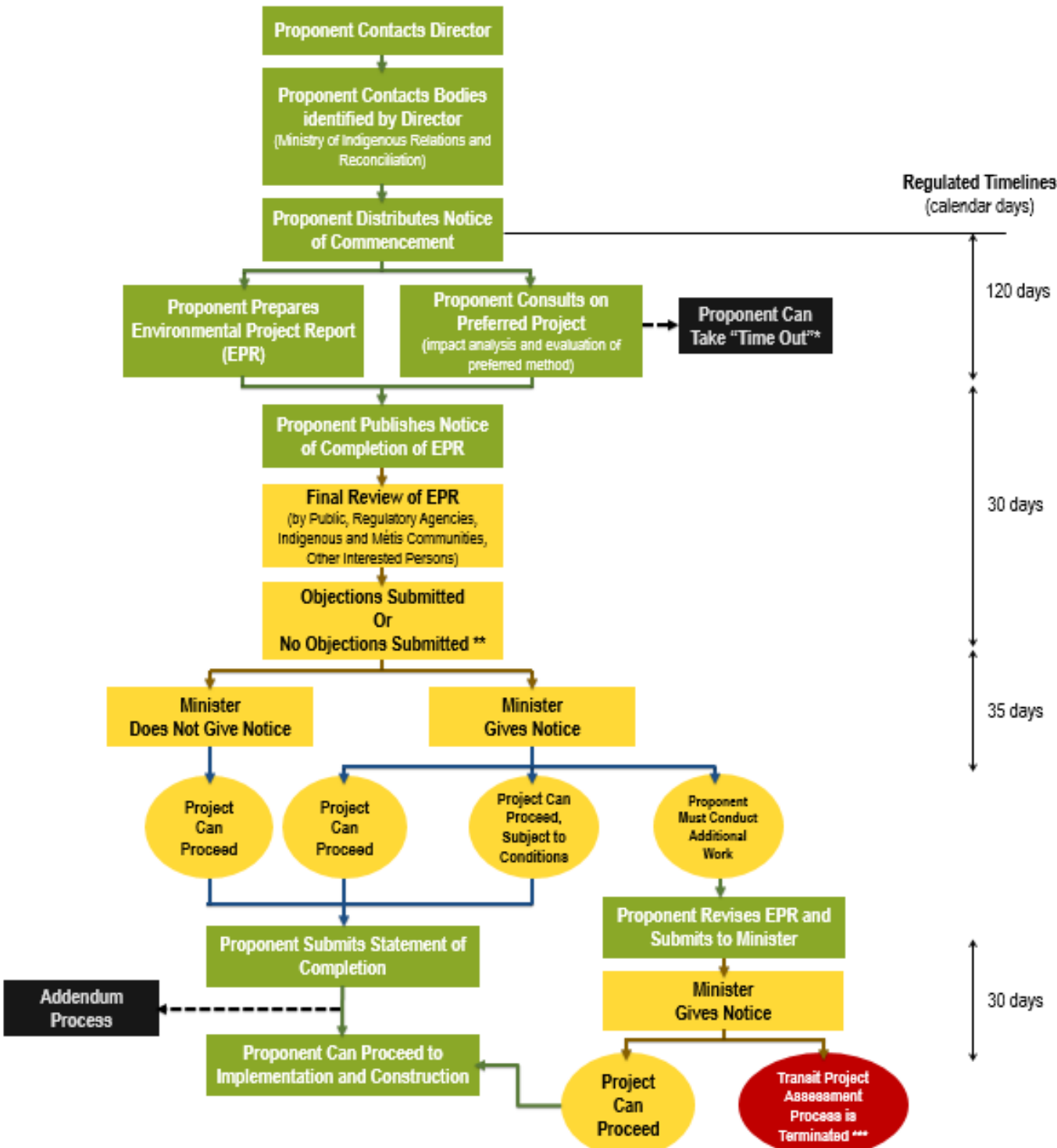




FIGURE 1.4: TPAP PROCESS



\* Proponent can take a "time out" only when there is a potential negative impact on a matter of provincial importance that relates to the natural environment or has cultural heritage value or interest or on a constitutionally protected Aboriginal or treaty right.

\*\* Given the Minister's authority to act, concerns or objections should be on the basis that a proposed transit project may have a potential negative impact on a matter of provincial importance that relates to the natural environment or has a cultural heritage value or interest or on a constitutionally protected Aboriginal or treaty right.

\*\*\* Proponent must follow an approved class environmental assessment process (refer to Part (I.1) or the process under Part II of the *Environmental Assessment Act*).

## 1.5. Background and Context

### 1.5.1. Statutory Requirements

#### 1.5.1.1. Provincial Legislation - Environmental Assessment Act of Ontario

As noted in **Section 1.4** above, this study followed the Transit Project Assessment Process as per the *Transit Projects and Metrolinx Undertakings, Ontario Regulation 231/08*. This 120-day consultation period started concurrently with the publication of the "Notice of Commencement of the TPAP".

#### 1.5.1.2. Other Provincial Legislation

The 407 Transitway is subject to, and will be carried out in accordance with, all applicable Provincial legislation including the *Planning Act*, the *Public Transportation and Highway Improvement Act*, the *Freedom of Information Act and Protection of Privacy Act*, the *Ontario Heritage Act*, the *Endangered Species Act*, the *Clean Water Act*, and the *Environmental Protection Act*, among others.

#### 1.5.1.3. Federal Legislation –Impact Assessment Act

Federal environmental assessment requirements for this project were investigated early in the study process to identify and address the federal *Impact Assessment Act* requirements. A review of the new legislation and its regulation, the "Physical Activities Regulations" (SOR/2019-285), determined that this project is not identified as a "designated project" that requires an environmental assessment by the Impact Assessment Agency of Canada. Therefore, a Federal environmental assessment process is not required. Nevertheless, Federal agencies and their interests including Fisheries and Oceans Canada, Environment Canada, Transport Canada and others were consulted throughout the study.

### 1.5.2. Policy Context

Outlined below are the most relevant transportation policies documented in plans and publications by the various levels of government with influence on the planning of the 407 Transitway.

#### 1.5.2.1. Provincial Policy Statement 2020

The Provincial Policy Statement (PPS) (Ministry of Municipal Affairs and Housing, 2020) is issued under Section 3 of the *Planning Act* and provides policy direction on matters of provincial interest related to land use planning and development. The PPS (2020) replaces the previous PPS issued on April 30, 2014. The policy statement includes a range of policies related to three main themes: building strong communities; wise use and management of resources; and, protecting public health and safety.

One of the visions in the PPS, 2014 is the development of land use patterns that promote a mix of housing, employment, parks and open spaces, and transportation choices that facilitate pedestrian mobility and other modes of travel as well as connectivity among transportation modes. Land use

# Appendix B – Traffic Reports



**407 TRANSITWAY – WEST OF BRANT STREET TO WEST OF HURONTARIO STREET**  
**MINISTRY OF TRANSPORTATION - CENTRAL REGION**





Final Report

# Trafalgar Station Traffic Impact Study

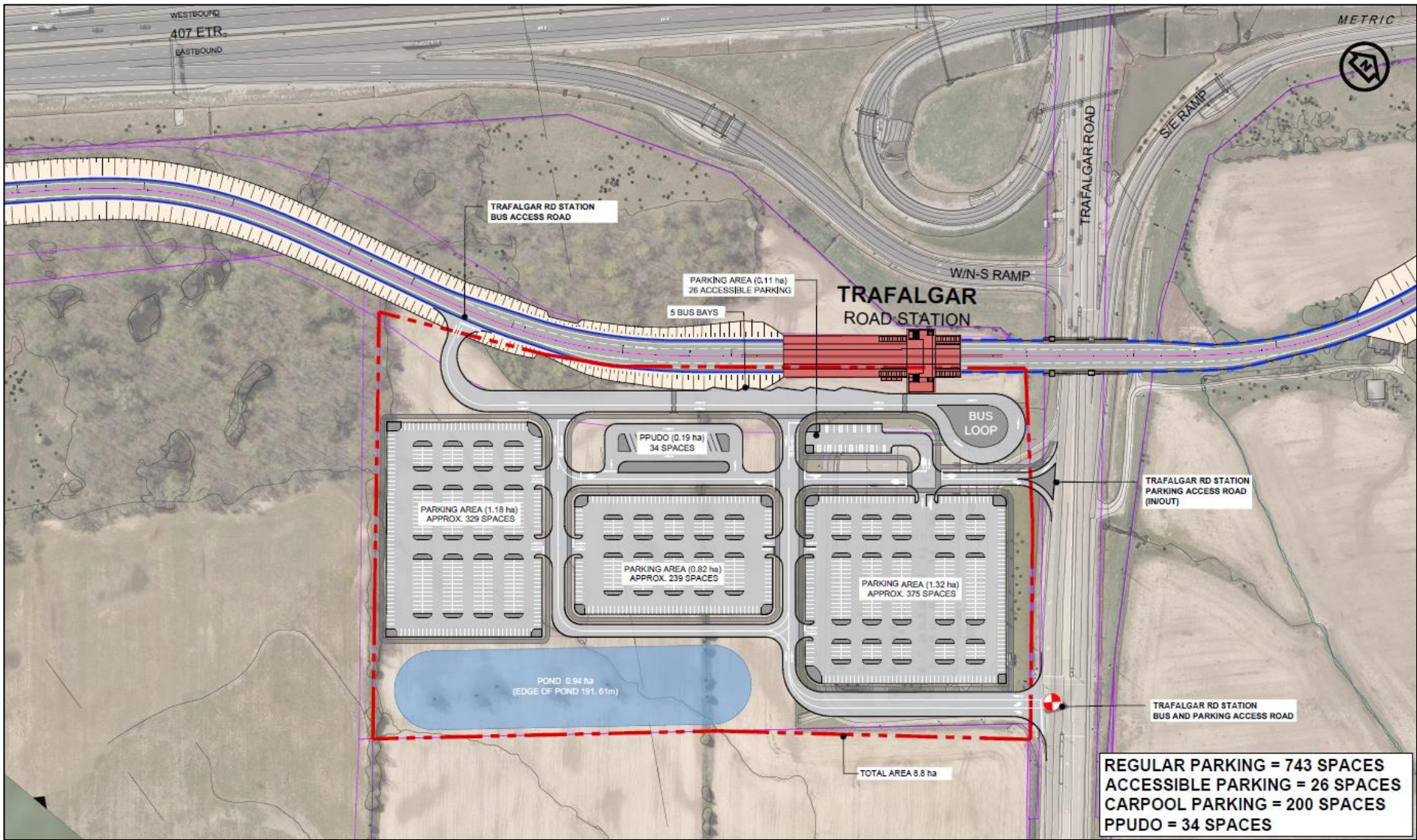
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Highway 407 Transitway-4



Prepared for Ministry of Transportation, Ontario  
by IBI Group  
November 15, 2019

Exhibit 1-2: Proposed Station Layout



## 3.2 Transit

Trafalgar road has been identified in Halton Region's Transportation Master Plan as a 'Bus Rapid Transit' (BRT) corridor and it is expected that significant improvements will be conducted to accommodate the BRT.

## 3.3 Active Transportation

The City of Oakville Active Transportation Master Plan has identified Trafalgar Road as a future in boulevard multi-purpose trail. This would connect to the Transitway station to active transportation network in Oakville. There also is a proposed off road trail that would serve as an alternate connection between the Transitway station and William Halton Parkway west of Trafalgar Road.

## 3.4 Station Traffic

### 3.4.1 Station Trip Generation

Ridership forecasts were provided by MTO and sourced from MTO's Greater Golden Horseshoe Travel Demand Model V4. The model is an advanced state-of-practice multi-modal travel demand model that estimates future travel demands within the Greater Golden Horseshoe. The GGHM was developed to forecast peak period demand in support of the Growth Plan policies and has the capability of predicting mode shifts resulting from new public transit infrastructure. It can also be used to test network response to changes in link characteristics such as transit vehicle frequency, operating speed, station location, and parking availability.

The GGH model accounts for planned and committed road and transit projects sourced from Metrolinx Regional Transportation Plan and local transportation plans. While it is possible that additional projects will be funded over the upcoming years, this model represents a conservative approach.

With input from the MTO, a horizon year of 2031 was selected as the baseline for determining road and intersection requirements as part of this traffic impact study. As MTO's GGH model is to a 2041 horizon, ridership projections for 2031 were not available. Therefore the 2041 demands were carried forward on the basis that entry and exit volumes would be conservative (the resulting turning lanes and queue storage would accommodate 2031 demand) as provided in Exhibit 3-2.

**Exhibit 3-2: 2041 AM Peak (2-hour) Boardings**

STATION	TOTAL 2-HR BOARDINGS	2-HR PARK-AND-RIDE	2-HR WALK / TRANSIT	% PARK-AND-RIDE	% WALK / TRANSIT
Dundas	923	510	413	55%	45%
Appleby	227	207	20	91%	9%
Bronte	306	90	216	29%	71%
<b>Trafalgar</b>	<b>3,095</b>	<b>436</b>	<b>2,659</b>	<b>14%</b>	<b>86%</b>
Britannia	523	136	387	26%	74%
Derry	911	334	577	37%	63%
Mississauga	982	82	900	8%	92%
<b>Total:</b>	<b>6,967</b>	<b>1,795</b>	<b>5,172</b>	<b>26%</b>	<b>74%</b>





Final Report

# Britannia Station Traffic Impact Study

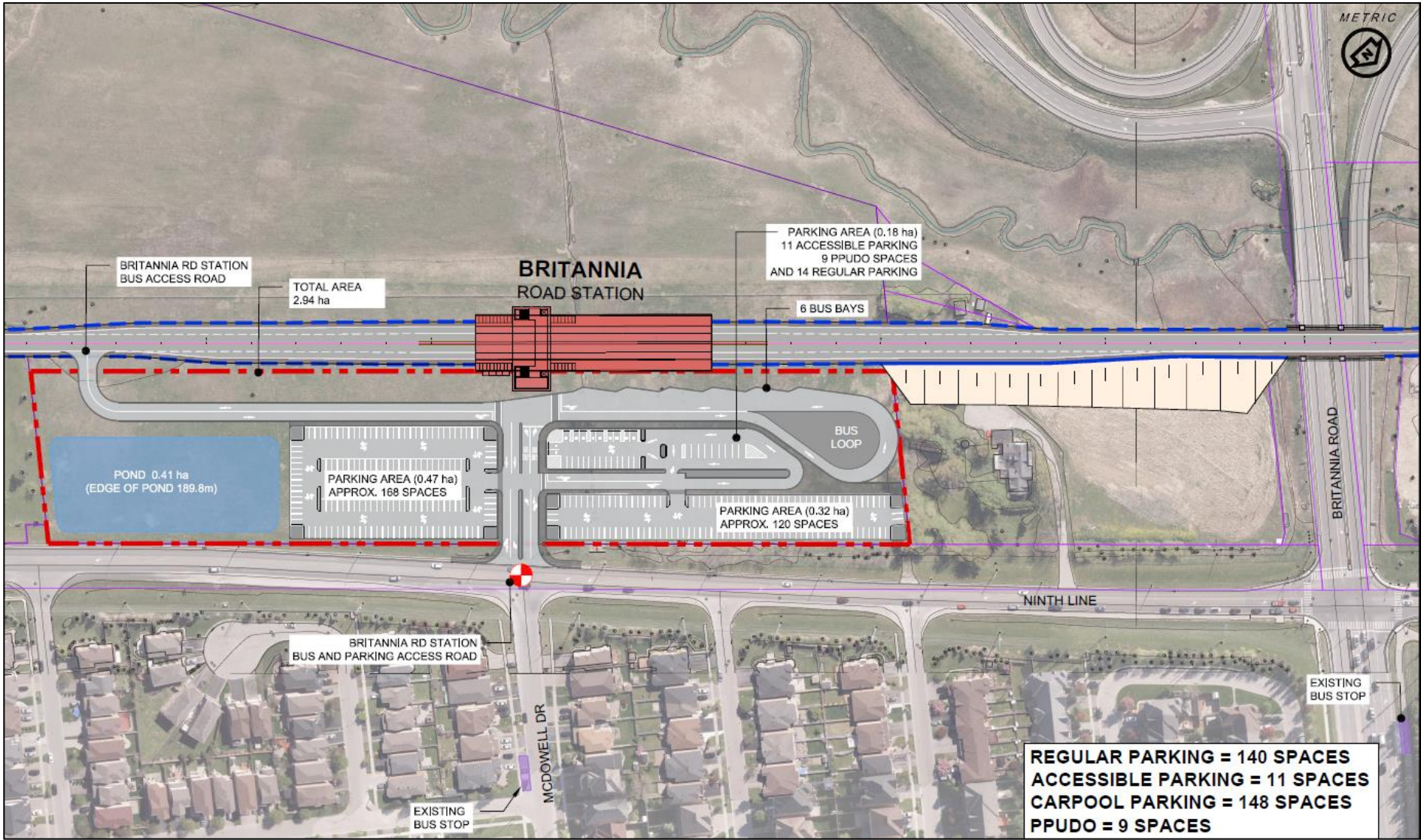
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Highway 407 Transitway-4



Prepared for Ministry of Transportation, Ontario  
by IBI Group  
November 15, 2019

Exhibit 1-2: Proposed Station Layout



can also be used to test network response to changes in link characteristics such as transit vehicle frequency, operating speed, station location, and parking availability.

The GGH model accounts for planned and committed road and transit projects sourced from Metrolinx Regional Transportation Plan and local transportation plans. While it is possible that additional projects will be funded over the upcoming years, this model presents a conservative approach.

With input from the MTO, a horizon year of 2031 was selected as the baseline for determining road and intersection requirements as part of this traffic impact study. As MTO's GGH model is to a 2041 horizon, ridership projections for 2031 were not available. Therefore the 2041 demands were carried forward on the basis that entry and exit volumes would be conservative (the resulting turning lanes and queue storage would accommodate 2031 demand) as provided in Exhibit 3-1.

### Exhibit 3-1: 2041 AM Peak (2-hour) Boardings

STATION	TOTAL 2-HR BOARDINGS	2-HR PARK-AND-RIDE	2-HR WALK / TRANSIT	% PARK-AND-RIDE	% WALK / TRANSIT
Dundas	923	510	413	55%	45%
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Derry	911	334	577	37%	63%
Mississauga	982	82	900	8%	92%
<b>Total:</b>	<b>6,967</b>	<b>1,795</b>	<b>5,172</b>	<b>26%</b>	<b>74%</b>

From the above exhibit, two hour park-and-ride boardings were equated to two hour inbound vehicle trips at an assumed factor of 10:11, or 1.1 riders per park-and-ride vehicle. To convert to a.m. inbound peak hour volumes, a factor of 0.56 was applied. This factor was developed through a review of existing travel patterns using Transportation Tomorrow Survey (TTS 2016) data. The resulting a.m. peak hour inbound vehicle flow is 69 vph and rounded to 70 vph.

Further processing of forecasts was required to estimate a.m. outbound traffic, associated with kiss-n-ride drop off trips, and p.m. peak hour traffic. The ITE Trip Generation Manual (9<sup>th</sup> edition) provided ratios of inbound to outbound and a.m. to p.m. traffic for typical park-and-ride bus stations. Average trip generation rates for bus stations with park-and-ride lots are indicated in Exhibit 3-2. Using the ratios provided, Exhibit 3-3 lists the estimated station traffic generated give the above assumptions.



# ENVIRONMENTAL PROJECT REPORT



**407 TRANSITWAY – WEST OF BRANT STREET TO WEST OF HURONTARIO STREET**

**MINISTRY OF TRANSPORTATION - CENTRAL REGION**

**ASSIGNMENT # 2016-E-0038      G.W.P. 16-20003**

**AUGUST 13, 2020**