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## General Committee

### Date

2018/06/13

### Time

9:00 AM

### Location

Civic Centre, Council Chamber,  
300 City Centre Drive, Mississauga, Ontario, L5B 3C1

### Members

Mayor Bonnie Crombie	
Councillor David Cook	Ward 1
Councillor Karen Ras	Ward 2
Councillor Chris Fonseca	Ward 3 (Chair)
Councillor John Kovac	Ward 4
Councillor Carolyn Parrish	Ward 5
Councillor Ron Starr	Ward 6
Councillor Nando Iannicca	Ward 7
Councillor Matt Mahoney	Ward 8
Councillor Pat Saito	Ward 9
Councillor Sue McFadden	Ward 10
Councillor George Carlson	Ward 11

### Contact

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### Find it Online

<http://www.mississauga.ca/portal/cityhall/generalcommittee>

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**GENERAL COMMITTEE INDEX - JUNE 13, 2018****1. CALL TO ORDER****2. APPROVAL OF AGENDA****3. DECLARATION OF CONFLICT OF INTEREST****4. PRESENTATIONS****5. DEPUTATIONS**

5.1. Cameron McCuaig, Resident regarding Inspire the World

5.2. Item 8.1 Raymond Chan, Government Relations, CAA

5.3. Item 8.2 Matthew Sweet, Manager, Active Transportation

**6. PUBLIC QUESTION PERIOD - 15 Minute Limit (5 minutes per speaker)**

Pursuant to Section 42 of the Council Procedure By-law 0139-2013, as amended:  
General Committee may grant permission to a member of the public to ask a question of  
General Committee, with the following provisions:

1. The question must pertain to a specific item on the current agenda and the speaker will state which item the question is related to.
2. A person asking a question shall limit any background explanation to two (2) statements, followed by the question.
3. The total speaking time shall be five (5) minutes maximum, per speaker.

**7. CONSENT AGENDA****8. MATTERS TO BE CONSIDERED**

8.1. Amendments to the City of Mississauga Tow Truck Licensing By-law 521-04.

8.2. 2018 Mississauga Cycling Master Plan

8.3. Designation of Bicycle Lanes and Multi-Use Trails – Various Locations (Wards 1, 3, 4, 5, 8, 9, 10, 11)

8.4. Review of City Services for Business Improvements Areas (BIAs)

8.5. Lower Driveway Boulevard Parking – Bacchus Crescent (Ward 3)

8.6. Traffic Calming - Sheridan Homelands Neighbourhood and Fieldgate Drive / Bough Beeches Boulevard Neighbourhood (Ward 2 and Ward 3)

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- 8.7. Burnhamthorpe Road West and Brickstone Mews - 15 Minute Parking (Ward 4)
  - 8.8. U-Turn Prohibition – Millcreek Drive and Derry Road West (Ward 9)
  - 8.9. Parking Prohibition – Glen Erin Drive (Ward 8)
  - 8.10. Parking Prohibition – Tenth Line West (Ward 10) Pedestrian
  - 8.11. Crossover Pilot Project (Wards 2, 3, 6, 10, 11)
  - 8.12. Courtneypark Drive East at Highway 410 Bridge Widening and Interchange Improvements (Ward 5)
  - 8.13. Single Source Award to Alectra Power Services Inc. for the Supply and Installation of LED Underpass Street Lighting
  - 8.14. Follow-up on the Storage of Region of Peel Waste and Recycling Collection Containers
  - 8.15. City Standard Designation and Single Source Contract Award to IPL Inc. for Outdoor Waste and Recycling Containers for City Parks File No. PRC000307
  - 8.16. Authorization to Enter into an Agreement with Metrolinx for the Redevelopment of the Meadowvale GO Station and New Station Operations West Facility
  - 8.17. Land Exchange with the Region of Peel for Property Related to Second Line West (Ward 11)
  - 8.18. Noise Control By-law Amendments for Construction Exemptions
  - 8.19. Certificate of Recognition (COR) Health & Safety Certification Program
  - 8.20. Mississauga population and employment forecasts for the 2019 Development Charges By-law Review and infrastructure and service planning
  - 8.21. Sole Source Contract Award to Unique Management Services, Inc. for Library Materials Recovery Service
  - 8.22. Single Source Recommendation with Remix Software, Inc. for Planning Software, Contract Negotiation and Award
  - 8.23. Sole Source Recommendation with Apple Inc. and Apple affiliates, "Apple" for Apple Products and Services, Contract negotiation and Award
  - 8.24. Servicing Agreement Assumption – Subdivision Servicing Agreement, City File M-1759 – 678604 Ontario Inc. (Ward 11)(Z-52)

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9. **ADVISORY COMMITTEE REPORTS**

9.1. Arts, Culture & Heritage Ad Hoc Committee Report 2 - 2018 May 29, 2018

9.2. Road Safety Committee Report 5 - 2018 - May 29, 2018

9.3. Governance Committee Report 2 -2018 - June 4, 2018

9.4. Heritage Advisory Committee Report 6-2018 - June 5, 2018

10. **MATTERS PERTAINING TO REGION OF PEEL COUNCIL**

11. **COUNCILLORS' ENQUIRIES**

12. **OTHER BUSINESS/ANNOUNCEMENTS**

13. **CLOSED SESSION**

(Pursuant to Subsection 239 (3.1) of the Municipal Act, 2001)

13.1. Education Session: Fire and Emergency Services

14. **ADJOURNMENT**



# City of Mississauga Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Amendments to the City of Mississauga Tow Truck Licensing By-law 521-04.**

## Recommendation

1. That the report from the Commissioner of Transportation and Works dated May 29, 2018 entitled "Amendments to the City of Mississauga Tow Truck Licensing By-law 521-04." be approved.
2. That the City of Mississauga Tow Truck Licensing By-law 521-04 be amended to reduce the experience requirement from seven years of a full Ontario "G" Licensing to five years of a full Ontario "G" Licensing.

## Background

On May 14, 2018 the Towing Industry Advisory Committee in its deliberations identified a concern within the industry that the current requirement for seven years of full Ontario "G" licensing contained in the Tow Truck Licensing By-law is excessive and unnecessarily limits the eligibility of a significant pool of potential licensees. The Committee requested that staff develop amendments that would ease these restrictions while maintaining the high standards for tow truck drivers licensed in Mississauga.

## Comments

The requirement that tow truck drivers have a minimum seven years of full Ontario G licensing was initially proposed by the Towing Industry Advisory Committee (TIAC) in February of 2012. On December 10, 2012 staff submitted a report to TIAC titled "Amendments to the Tow Truck Licensing By-law 521-04, as amended, Requirement for Driver Experience to become a Tow Truck Driver." The report identifies that the insurance industry already had in place restrictions of coverage for tow truck operators and that the amendment to the By-law would provide marginally increased assurance that operators would have the necessary experience to operate a tow truck when initially licensed.

General Committee	2018/05/29	2
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The Tow Truck Licensing By-law was subsequently amended on January 16, 2013 to require seven years of driving experience with a full Ontario “G” Licence.

A review of licensing practices in a number of Ontario jurisdictions has identified that there are no similar requirements currently in place.

In 2016 staff identified that the following amendments to the Tow Truck By-law made during the past six years have had a significant positive impact on tow truck drivers on road performance as a group:

1. Requirements for driver training
2. Personal protective wear
3. Criminal record searches
4. Driver's abstracts

Staff have committed to bringing a follow-up report to TIAC in early 2019 that will re-evaluate the effects of these amendments.

Discussions at TIAC over the recognition of driving experience from jurisdictions outside of Ontario to fulfill the proposed five year requirement and the issuance of a “conditional” licence for applicants who may not have the requisite driving experience but have maintained an exemplary driving record were also reviewed for this report.

Staff do not recommend the use of driving experience from outside of Ontario to fulfill requirements contained in the By-law. It is recognized that this experience may be valuable and appropriate to industry requirements, but the issue that arises is the inability to verify any documentation provided. Mobile Licensing Enforcement staff have access to the Province of Ontario database containing drivers’ records and as such, can confirm all information related to driver history. Staff would not be able to provide this level of certainty for records from other jurisdictions within Canada. The use of driving records from other nations is problematic for the same reason and would necessitate Mobile Licensing staff obtaining specimen documents from each jurisdiction for verification purposes as well as obtaining translation services for documents provided in languages other than English.

Staff also do not recommend the issuance of “conditional” licences where well defined, non-discretionary criteria is not in place to determine eligibility. A conditional licence based on the Licensing Manager’s discretionary assessment of a driving history, whether that be within Ontario or from another jurisdiction, would be subject to review by the Appeal Tribunal, a process that consumes significant staffing resources. A conditional licence based on “exemplary” driving records from Ontario would necessitate a value judgement as to what constitutes exemplary. Conditional licensing based on driving records from other jurisdictions would again necessitate obtaining specimen documentation, translation services and making value judgements as to the degree of equivalency that exists in each jurisdiction.

## Financial Impact

The reduction in required experience for the licensing of tow truck drivers would increase the number of licensed drivers and result in a nominal increase in licensing revenue. There would be minimal impact on resources as capacity is currently available to process additional licences within the existing staffing complement.

## Conclusion

Input from members of TIAC indicate that current insurance requirements within the industry provide sufficient assurance that drivers seeking to operate a tow truck will have the necessary experience and that a reduction to a five year full class G requirement is prudent. The amendment of the By-law at this juncture may skew the follow-up assessment of overall driver performance scheduled for early 2019; however, this issue can be addressed within the report.



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Michael Foley, Manager Mobile Licensing Enforcement

# City of Mississauga

## Corporate Report



Date: 2018/05/24

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng, MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**2018 Mississauga Cycling Master Plan**

## Recommendations

1. That the vision, goals, recommendations and actions of the 2018 Mississauga Cycling Master Plan, attached as Appendix 1 to the Corporate Report titled "2018 Mississauga Cycling Master Plan" dated May 24, 2018 from the Commissioner of Transportation and Works, be endorsed by Council; and
2. That Capital Funding Scenario C, as outlined in the Corporate Report titled "2018 Mississauga Cycling Master Plan" dated May 24, 2018 from the Commissioner of Transportation and Works, be endorsed by Council for inclusion in the 2019-2028 Capital Program.

## Report Highlights

- The 2018 Mississauga Cycling Master Plan is an update of the 2010 Plan, necessitated by evolving best practices in cycling infrastructure design and new thinking on network planning principles.
- Mississauga must build a Connected, Convenient and Comfortable cycling network that Mississauga residents and visitors of all ages and abilities will feel comfortable using.
- The implementation plan will aim to coordinate the construction of new infrastructure with scheduled road rehabilitation and major road construction projects, where possible.
- It is recommended that a capital funding scenario be endorsed whereby an average annual funding amount of \$5,262,500 would be requested through the Capital Budget process, resulting in a theoretical network build-out period of 27 years. This would be a significant improvement over the current level of funding and allow for strategic additions to the cycling network and more effective coordination with road rehabilitation and major road improvement projects.

## Background

The number of people riding bicycles for transportation in Mississauga is on the rise. According to Transportation Tomorrow Survey data, between 2011 and 2016 the number of bicycle trips on an average weekday in the city doubled from 0.3 percent to 0.6 percent of all trips. Cycling is also an important recreational activity in the city, with thousands of residents and visitors participating in annual cycling events like the Tour de Mississauga and local community rides, as well as using mobile apps to map their rides along Mississauga's roads and trails.

In 2010, Mississauga's Cycling Master Plan recommended a bicycle route network and supporting programs to create a multi-modal transportation system. That plan built upon existing trails and bicycle facilities to propose an expanded and connected bicycle network to provide access to key destinations. As a result of that plan and those that came before it, Mississauga has a developing cycling network composed of shared roadways (signed bicycle routes and sharrows), conventional bicycle lanes, boulevard multi-use trails, and off-road trails. Table 1 shows the kilometres of cycling facilities that were in place before the 2010 plan and at the beginning of 2017, when this update was initiated.

**Table 1: Lengths of Existing Cycling Network Facilities in Mississauga**

Cycling Facility Type	Constructed before 2010 (km)	Constructed from 2010 to 2016 (km)	Total (km)
Bicycle Lanes	29	25	54
Boulevard Multi-Use Trails	61	27	88
Off-Road Multi-Use Trails	205	16	221
Shared Routes	79	12	91
<b>Total (km)</b>	<b>374</b>	<b>80</b>	<b>454</b>

In January 2017, staff initiated a project to update the 2010 Cycling Master Plan. Evolving best practices in cycling infrastructure design and new thinking on network planning principles necessitated the update of the plan. This work is now completed and the resulting 2018 Cycling Master Plan is being brought forward in this report to present how it was developed, its findings and refreshed goals, its recommended cycling network and supporting programs, and its recommended implementation and monitoring plans. A final review copy of the 2018 Mississauga Cycling Master Plan Final Report can be found in Appendix 1 of this report.

## Comments

The 2018 Cycling Master Plan ("the Plan") is organized by the vision for cycling in Mississauga, the four goals that work together to realize the vision, and the specific recommendations and actions that will enable the City to achieve those goals.

### Vision

General Committee	2018/05/24	3
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The City of Mississauga will be a place where people choose to cycle for recreation, fitness and daily transportation needs. Cycling will become a way of life that supports vibrant, safe and connected communities and enhances our overall health and quality of life.

### Goals

The four goals of the Plan are to:

- Improve safety for cycling;
- Build a connected, convenient and comfortable bicycle network;
- Increase the number of cycling trips in Mississauga; and
- Foster a culture of cycling.

### Recommendations and Actions

The Plan's recommendations and actions are aimed at achieving its four overarching goals. They have been divided into the seven categories of project implementation to illustrate their key functions in delivering the Plan, as summarized in Table 2 below.

**Table 2: Recommended Actions of the Plan**

Category	Recommended Action
Planning	Coordinate with partner agencies to implement the Cycling Master Plan
	Examine the feasibility of a bike share system in Mississauga
	Integrate cycling network planning and supporting facilities into all city planning and capital improvement projects
	Expand the City's bicycle parking supply including short-term and long-term facilities on city-owned properties, commercial and residential land uses
	Establish programs for routine collection, maintenance, and publication of cycling data
Design	Design a Comfortable (Low Stress) Cycling Network that is suitable for "Interested but Concerned" cyclists, providing cycling opportunities to people of all ages and abilities
Funding	Continue and increase the City's annual budget allocated to implementing the Cycling Master Plan
	Leverage all available funding to expedite project delivery
Project Delivery	Use all available internal and external resources to implement Cycling Master Plan projects
Promotion and Education	Use targeted marketing and promotion to increase bicycle use
	Encourage school-based cycling education and promotion
	Provide education opportunities to bicyclists and motorists, about bicycle safety, the opportunities for, and the benefits of cycling
	Support police enforcement for cyclists and motorists to educate and reinforce safe cycling and driving practices
Operations and Maintenance	Maintain cycling routes so that they are comfortable and free of hazards
	Maintain bicycle parking
	Accommodate cyclists in construction / work zones
Evaluation	Develop a monitoring program to evaluate the impacts of new cycling facilities. Produce annual report on the progress of the Master Plan

### “Connected, Convenient and Comfortable”

Mississauga residents that participated in the project have indicated that the most significant barrier to cycling is feeling unsafe or uncomfortable. This reported stress most often comes from the feeling of danger among many cyclists, when they must share space on the road with motor vehicles. Many studies have shown a similar significance of “traffic stress” on cyclists in cities worldwide. Roadways provide direct access to people’s homes and destinations and they are the main routes for all travel modes including walking and cycling. Providing comfortable bicycle facilities within the road rights-of-way is necessary to encourage more people to cycle and increasing the number of cyclists using a roadway network, is one of the most effective ways to improve overall cyclist safety.

A successful cycling network is one that makes it possible for people to get to where they want to go (**Connected**) without significant detours (**Convenient**) and without exposing cyclists to conditions that are beyond their tolerance for traffic stress (**Comfortable**). Therefore, bicycle network planning and implementation must consider cyclists’ tolerance for traffic stress and work to reduce that stress so that the network will function as intended and achieve the Plan’s goals.

Building a safe and comfortable cycling network means choosing the right type of bicycle facility for each location. Bicycle facilities are chosen based on the goal of reducing the exposure of cyclists to traffic stress and conflict. As illustrated in Table 3 below, there is a range of bicycle facility types that provide more or less separation between motorists and cyclists.

**Table 3: Types of Bicycle Route Facilities**

Facility	Description
Raised Cycle Track	Bicycle Lanes that are physically separated by a curb and raised higher than the street, either to sidewalk level or slightly lower. Reserved for bicycle use only.
Separated Bicycle Lane	Bicycle Lanes that are physically separated from other traffic lanes by flexible posts, planters, parking stalls, curbs, or other barriers. Reserved for bicycle use only.
Buffered Bicycle Lane	Bicycle Lanes that have a painted buffer to provide extra space between cyclists and other traffic lanes. Reserved for bicycle use only.
Conventional Bicycle Lane	Signs and pavement markings. Reserved for bicycle use only.
Park Multi-Use Trail	Paved trails in park lands, shared by cyclists and pedestrians.
Boulevard Multi-Use Trail	Paved trails in the boulevard beside major roadways, shared by cyclists and pedestrians.
Paved Shoulders	On rural roads, paved shoulders provide a designated space for cyclists to ride.
Signed Bicycle Route	A route shared between cyclists and motorists on local streets with slower speeds and less traffic. May also include traffic calming and design elements to prioritize bicycles.
Sharrows and Signs	A route shared between cyclists and motorists. Includes signs and sharrow pavement markings. May also include traffic

	calming, low speed limits and design elements to prioritize bicycles.
Advisory Bike Lanes	On narrow roads with low traffic volumes and slow speeds, advisory bike lanes show the preferred space for cyclists on routes shared between cyclists and motorists.

In principle, greater separation is provided where traffic volumes and operating speeds increase. There are three types of separation that can be used:

- Spatial (dedicated space for bicycles separated by a painted line);
- Physical (physical barriers between the cycling facility and other motor vehicles like bollards, curbs, planters, or parked cars); and
- Time (stop controls or traffic signals that separate bicycle movements from turning motor vehicles).

One or more of these kinds of separation may be used depending on the facility type and the surrounding environment. However, a context sensitive approach to identifying appropriate bicycle facility types is critical. Many factors must be taken into account such as:

- the frequency of intersections and driveways;
- the visibility of cyclists particularly when separated from, or set back from the roadway;
- an increased potential for conflict at intersections and driveways that is introduced by two-way cycling facilities; and
- potential conflict between cyclists and pedestrians on mixed-use facilities.

This project followed the bicycle facility type selection process, outlined in Ontario Traffic Manual Book 18 (2013). This is a three-step process that begins by selecting a facility type based on motor vehicle speeds and volumes as shown in Figure 1 below; followed by a detailed look at other traffic and site specific characteristics to determine the most suitable kind of facility.



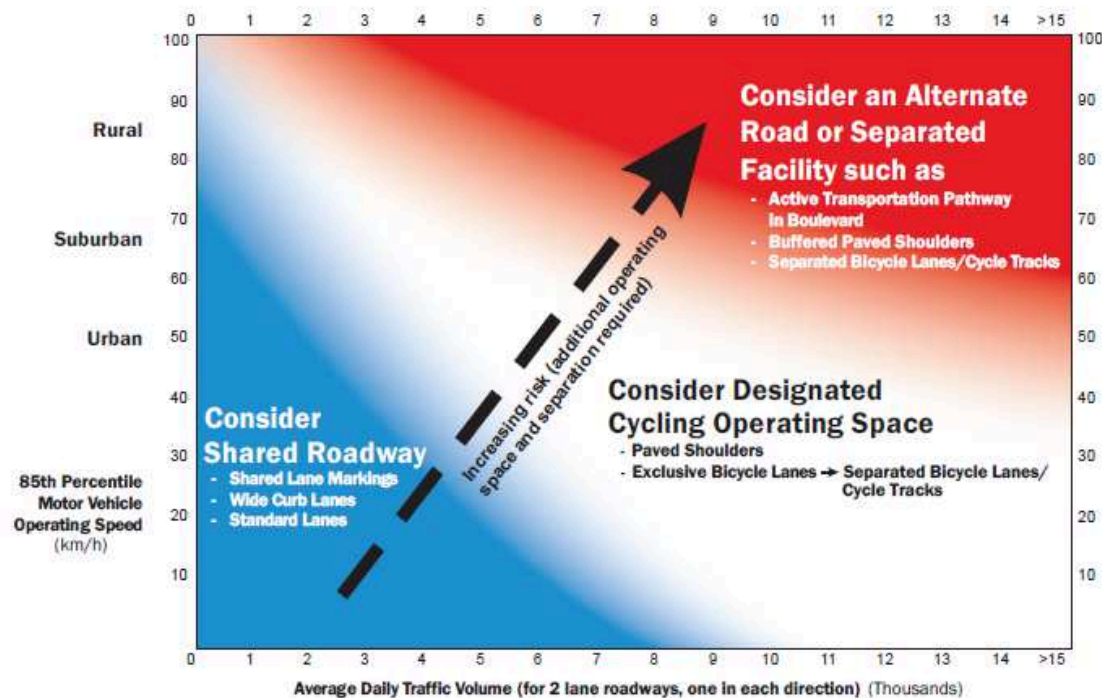


Figure 1: OTM Book 18 - Cycling Facility Pre-Selection Tool

Image Credit: MMM 2013

### Developing the Recommended Network

To understand the needs and opportunities to improve cycling in Mississauga, development of the Plan included a detailed review of all available cycling-related data and consultation with Mississauga residents and other stakeholders.

#### Public and Stakeholder Outreach

A thorough public engagement process was undertaken in the development of the Plan, including two public open houses, regular meetings with a working group of the Mississauga Cycling Advisory Committee, over 2,100 participants in the online Mississauga Cycling Survey, information tables at five local community events, and information tables at community centres and libraries in all 11 city wards. In addition to social media and print and digital advertising efforts, project staff also reached out to citizen committees, resident associations, business improvement associations and Smart Commute members, to encourage participation in the project. Along with the public outreach efforts, the project team engaged with technical stakeholders including internal and external partners. A full list of events and organizations that were consulted is available in Appendix IV of the Plan.

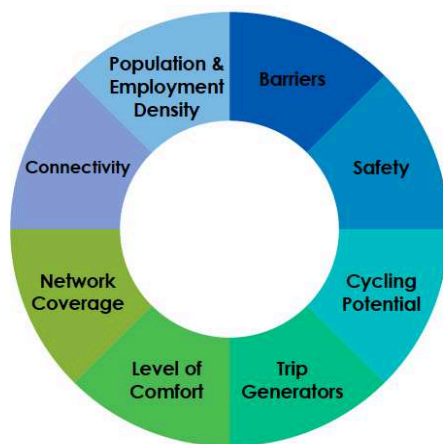
#### Planning the Cycling Network

Cycling network planning was guided by the vision and goals of the Plan, and informed by an analysis of the existing conditions, needs and opportunities research, and input from technical stakeholders and the community. Six route selection principles were developed during this

process, which were used to review the existing cycling network plan and to guide recommended changes.

#### Route Selection Principles:

- Integrate new facilities with the existing cycling network
- Provide continuous and barrier-free routes
- Provide connections to key destinations
- Prioritize connections to public transit
- Provide access to all neighborhoods
- Provide safe and comfortable routes



**Figure 2:** Cycling Network Analysis

Data analysis tools were developed using available cycling-related data to evaluate and update the proposed Cycling Network from the 2010 plan. Data categories are illustrated in Figure 2 above and include:

- **Population and Employment Density:** Canada Census data;
- **Connectivity:** Gap analysis of the existing and proposed network;
- **Network Coverage:** proximity of residences and businesses to the cycling network, and distance;
- **Level of Comfort:** Traffic stress analysis of the existing and proposed cycling routes;
- **Trip Generators:** Proximity of the bicycle network to community facilities, transit, and other important destinations;
- **Cycling Potential:** Location of short auto trips (5 km or less) that could potentially be converted to cycling trips - Transportation Tomorrow Survey data (2011);
- **Safety:** Peel Regional Police collision data; and
- **Barriers:** location of geographical and human-made barriers (rivers, ravines, highways, rail corridors).

General Committee	2018/05/24	8
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### Proposed Cycling Network

The 2018 Cycling Master Plan envisions a comfortable, connected and convenient cycling network that includes separated bike lanes, cycle tracks, multi-use trails, conventional bike lanes and shared routes. Once implemented, these facilities will create a cycling network that Mississauga residents and visitors of all ages and abilities will feel comfortable using.

The approximate lengths of each facility type to be built or upgraded, including the approximate cost, are summarized in Table 4 below.

**Table 4: Summary of proposed cycling network upgrades, additions and costs**

Facility Type	Existing Length (km)	Upgrade Length (km)	Additional Length (km)	Total Length (km)	Total Cost (\$ million)
Cycle Tracks / Separated Bike Lanes	0	20	150	170	106.8
Bike Lanes	51	1	56	108	12.4
Multi-Use Trails (Boulevards)	68	15	125	208	40.8
Shared Routes	87	0	131	218	6.6
Multi-Use Trails (Parks)	70	34	89	193	67.3
<b>Totals</b>	<b>276</b>	<b>70</b>	<b>551</b>	<b>897</b>	<b>233.9</b>

**Note:** Lengths may differ from other sources due to the measuring methodology used. Parkland multi-use trail lengths only include major trails, and minor trails that connect cycling facilities.

### **Implementing the Plan - Next Steps**

The Cycling Master Plan is a long-term plan that, when fully implemented, will improve safety for cycling, provide a connected, convenient and comfortable bicycle network, increase the number of cycling trips in Mississauga and foster a culture of cycling. It is a Plan that belongs to Mississauga residents and will continue to be guided by the community. As each cycling network project is implemented, community members and other stakeholders will have the opportunity to provide input. For the cycling network to achieve the goals of the Plan, it must be complete with no gaps. Completing the cycling network is a key priority to meeting Official Plan, Strategic Plan and Climate Strategy goals.

The implementation plan makes the assumption that, ideally, the total proposed cycling network should be built within a 20-year timeframe. The plan will aim to coordinate the construction of new infrastructure with scheduled road rehabilitation and major road construction projects, where possible. It will take into account the different funding streams for facilities along roadways and those on parklands, as well as noting where facilities can be funded by other parties, such as Metrolinx or a private developer.

The City of Mississauga currently funds its cycling infrastructure through two departmental budgets: Transportation and Works (within road rights-of-way (ROWs)), and Community

Services (within parkland). The total estimated costs of the plan, provided in Table 5 below, are based on stand-alone construction of all cycling facilities and upgrades.

**Table 5: Total Cost of Network and Structures**

<b>Transportation &amp; Works: Network Components</b>		<b>Cost</b>
Primary Network		\$134,000,000
Secondary Network		\$34,000,000
Off-Road Trail Crossings		\$18,000,000
Major Crossing Structures		\$43,000,000
<b>Community Services: Network Components</b>		<b>Cost</b>
Off-Road Trail Network		\$38,000,000
<b>Total Network and Structures Cost</b>		<b>\$267,000,000</b>

## Strategic Plan

Implementation of the Cycling Master Plan will support all of the City's Strategic Pillars for Change. Investments in cycling will increase transportation capacity, improve access to transit and provide mobility choices for those who do not drive or have access to a vehicle, supporting the pillars of **Move**, **Belong** and **Connect**. The pillar of **Prosper** will be supported as connected and convenient cycling infrastructure can attract innovative and economical solutions for businesses, such as bicycle-based delivery. Finally, an increased uptake of cycling will help to improve local air quality and preserve our environment, supporting the pillar of **Green**.

## Financial Impact

### Recommended Funding

The Active Transportation Office (within the Transportation and Works Department) programs the capital plan for cycling infrastructure on City-owned road rights-of-way (ROWs). Capital planning for off-road trails outside of road ROWs is led by the Community Services Department. As a result, there are two funding recommendations, one for the Roads Service Area and a second for the Parks and Forestry Service Area.

#### Recommended Funding – Roads Service Area

Four capital funding scenarios for the cycling infrastructure to be planned, budgeted and constructed by the Roads Service Area were developed, based on the number of years to complete the network, as summarized in Table 6 below. This represents the primary and secondary on-road networks, which make up the bulk of the total cycling network.

**Table 6: Transportation and Works Funding Scenarios**

<b>Scenarios:</b>	<b>A (current)</b>	<b>B</b>	<b>C</b>	<b>D</b>
Yearly funding allotment	\$1,450,000	\$3,575,000	\$5,262,500	\$6,950,000
Length constructed per year (km)	5	12	18	25
Years to complete network	95	40	27	20

Major crossings require more detailed design work to determine budget estimates that are beyond the scope of this plan. These structures are typically funded on a project-to-project basis, and thus not included in the 20-year funding scenarios.

It is recommended that Capital Funding Scenario C be adopted, which represents a theoretical build-out period of 27 years, and requested through the Capital Budget process. This would result in a significant improvement over the current level of funding and would allow for strategic additions to the cycling network as well as more effective coordination with road rehabilitation and major road improvement projects. In addition, provincial and federal grants could potentially close the gap to reduce the network build-out period. Table 7 below illustrates the differences between the scenarios with respect to strategic network buildout and project coordination.

**Table 7: Capital Funding Scenario Comparisons**

<b>Scenarios:</b>	<b>A (current)</b>	<b>B</b>	<b>C</b>	<b>D</b>
Yearly funding allotment	\$1,450,000	\$3,575,000	\$5,262,500	\$6,950,000
Strategic Network Buildout	None	Low	High	Very High
Project Coordination	Medium	High	Very High	Very High

The recommended scenario, as summarised in Table 8 below, proposes an average annual capital funding amount of \$5,262,500 in the Roads Service Area, managed by the Active Transportation Office, for new and upgraded cycling facilities, including bicycle parking and intersection enhancement programs.

**Table 8: Recommended Capital Funding Scenario**

<b>Funding Level (Scenario C)</b>	
Yearly Network Cost	\$5,062,500
Years to Complete	27
km per year (new and upgrades)	18
Parking and Intersections	\$200,000
<b>Total Yearly cost</b>	<b>\$5,262,500</b>

### Recommended Funding – Parks and Forestry Service Area

Trails through parklands are programmed, budgeted and built by the Community Services Department, in coordination with the Active Transportation Office. Trail construction and rehabilitation has been consistent, and major network pieces are funded and under construction. Funding from the Region of Peel and the Ontario Municipal Commuter Cycling program has been fairly consistent. Community Services funds construction on a project-to-project basis. This is considered adequate at current levels. Following approval of the Cycling Master Plan, project prioritization will be undertaken by the Community Services Department, in consultation with the Active Transportation Office.

## **Conclusion**

The 2018 Mississauga Cycling Master Plan illustrates the critical steps that the City must take in order to increase the number of residents who will choose to ride a bicycle. The vision of this plan is that Mississauga can be a place where cycling is a way of life for all. Only by providing a Connected, Convenient and Comfortable network of cycling infrastructure, with consistent annual funding and commitment from all departments to grow and improve that network, will the City move towards achieving the vision and goals of the Master Plan, towards being a City where people choose to cycle for recreation, fitness and daily transportation needs.

## **Attachments**

Appendix 1: 2018 Mississauga Cycling Master Plan - Draft




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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Matthew Sweet, Manager, Active Transportation





MISSISSAUGA

# Cycling Master Plan



## Table of Contents

<b>1. Executive Summary</b>	<b>1</b>	<b>7. Recommended Supporting Programs</b>	<b>59</b>
<b>2. Introduction</b>	<b>9</b>	7.1 Bicycle Parking	59
<b>3. Goals and Recommendations</b>	<b>12</b>	7.2 Bike Share	62
3.1 Vision	12	7.3 Promotion and Education	65
3.2 Goals	12	<b>8. Implementing the Plan</b>	<b>67</b>
3.3 Recommendations and Actions	12	8.1 Capital Plan Coordination	67
3.4 Policy Context	19	8.2 Capital Cost Estimates	70
3.5 Evolving Design Guidance	22	8.3 Bike Parking and Intersection Enhancement	70
<b>4. Existing Cycling Network</b>	<b>23</b>	8.4 Recommended Funding	70
<b>5. Needs and Opportunities</b>	<b>25</b>	<b>9. Evaluating the Plan's Success</b>	<b>72</b>
5.1 Bicycle Trips	25	9.1 Performance Measures	72
5.2 Region of Peel Cordon Count	26	9.2 Data Sources	75
5.3 School-Based Travel	27	<b>10. Next Steps</b>	<b>76</b>
5.4 Recreational Cycling	27	10.1 How we can continue to work together	76
5.5 Bicycle Collisions	29	<b>11. Appendices List</b>	<b>78</b>
5.6 Public and Stakeholder Outreach	31		
5.7 Levels of Traffic Stress	33		
<b>6. Recommended Cycling Network</b>	<b>26</b>		
6.1 Planning the Cycling Network	36		
6.2 Types of Bicycle Facilities	39		
6.3 Proposed Cycling Network	42		
6.4 Corridor Studies and Complete Streets	49		
6.5 Proposed Upgrades	49		
6.6 Intersections	51		
6.7 Multi-Use Trails	55		
6.8 Maintaining the Cycling Network	58		



# 1 | Executive Summary

## Introduction

The number of people riding bicycles for transportation in Mississauga is on the rise. According to Transportation Tomorrow Survey data, between 2011 and 2016 the number of bicycle trips on an average weekday in the city doubled from 0.3 percent to 0.6 percent of all trips. Cycling is also an important recreational activity in the city, with thousands of residents and visitors participating in annual cycling events like the Tour de Mississauga and local community rides, as well as using mobile apps to map their rides along Mississauga's roads and trails.

In 2010, Mississauga's Cycling Master Plan recommended a bicycle route network and supporting programs to create a multi-modal transportation system. That plan built upon existing trails and bicycle facilities to propose an expanded and connected bicycle network to provide access to key destinations. As a result of that plan and those that came before it, Mississauga has a developing cycling network composed of shared roadways (signed bicycle routes and sharrows), conventional bicycle lanes, boulevard multi-use trails, and off-road trails. The table below shows the kilometres of cycling facilities that were in place before the 2010 plan and at the beginning of 2017, when this update was initiated.

**Lengths of Existing Cycling Network Facilities in Mississauga**

Cycling Facility Type	Constructed before 2010 (km)	Constructed from 2010 to 2016 (km)	Total (km)
Bicycle Lanes	29	25	54
Boulevard Multi-Use Trails	61	27	88
Off-Road Multi-Use Trails	205	16	221
Shared Routes	79	12	91
<b>Total (km)</b>	<b>374</b>	<b>80</b>	<b>454</b>

In January 2017, staff initiated a project to update the 2010 Cycling Master Plan. Evolving best practices in cycling infrastructure design and new thinking on network planning principles necessitated the update of the plan. This work is now completed and the resulting 2018 Cycling Master Plan is being brought forward in this report to present how it was developed, its findings and refreshed goals, its recommended cycling network and supporting programs, and its recommended implementation and monitoring plans.



## Vision, Goals and Recommendations

The 2018 Cycling Master Plan (“the Plan”) is organized by the vision for cycling in Mississauga, the four goals that work together to realize the vision, and the specific recommendations and actions that will enable the City to achieve those goals.

### Vision

The City of Mississauga will be a place where people choose to cycle for recreation, fitness and daily transportation needs. Cycling will become a way of life that supports vibrant, safe and connected communities and enhances our overall health and quality of life.

### Goals

The four goals of the Plan are to:

- Improve safety for cycling;
- Build a connected, convenient and comfortable bicycle network;
- Increase the number of cycling trips in Mississauga; and
- Foster a culture of cycling.

### Recommendations and Actions

The Plan’s recommendations and actions are aimed at achieving its four overarching goals. They have been divided into the seven categories of project implementation to illustrate their key functions in delivering the Plan, as summarized in the table to the right.

### Recommended Actions of the Plan

Category	Recommended Action
Planning	Coordinate with partner agencies to implement the Cycling Master Plan
	Examine the feasibility of a bike share system in Mississauga
	Integrate cycling network planning and supporting facilities into all city planning and capital improvement projects
Design	Expand the City’s bicycle parking supply including short-term and long-term facilities on city-owned properties, commercial and residential land uses
	Establish programs for routine collection, maintenance, and publication of cycling data
	Design a Comfortable (Low Stress) Cycling Network that is suitable for “Interested but Concerned” cyclists, providing cycling opportunities to people of all ages and abilities
Funding	Continue and increase the City’s annual budget allocated to implementing the Cycling Master Plan
	Leverage all available funding to expedite project delivery
Project Delivery Promotion and Education	Use all available internal and external resources to implement Cycling Master Plan projects
	Use targeted marketing and promotion to increase bicycle use
	Encourage school-based cycling education and promotion
	Provide education opportunities to bicyclists and motorists, about bicycle safety, the opportunities for, and the benefits of cycling
Operations and Maintenance	Support police enforcement for cyclists and motorists to educate and reinforce safe cycling and driving practices
	Maintain cycling routes so that they are comfortable and free of hazards
	Maintain bicycle parking
Evaluation	Accommodate cyclists in construction / work zones
	Develop a monitoring program to evaluate the impacts of new cycling facilities. Produce annual report on the progress of the Master Plan

## “Connected, Convenient and Comfortable”

Mississauga residents that participated in the project have indicated that the most significant barrier to cycling is feeling unsafe or uncomfortable. This reported stress most often comes from the feeling of danger among many cyclists, when they must share space on the road with motor vehicles. Many studies have shown a similar significance of “traffic stress” on cyclists in cities worldwide. Roadways provide direct access to people’s homes and destinations and they are the main routes for all travel modes including walking and cycling. Providing comfortable bicycle facilities within the road rights-of-way is necessary to encourage more people to cycle and increasing the number of cyclists using a roadway network, is one of the most effective ways to improve overall cyclist safety.

A successful cycling network is one that makes it possible for people to get to where they want to go (**Connected**) without significant detours (**Convenient**) and without exposing cyclists to conditions that are beyond their tolerance for traffic stress (**Comfortable**). Therefore, bicycle network planning and implementation must consider cyclists’ tolerance for traffic stress and work to reduce that stress so that the network will function as intended and achieve the Plan goals.

### Types of Bicycle Route Facilities

Facility	Description
Raised Cycle Track	Bicycle lanes that are physically separated by a curb and raised higher than the street, either to sidewalk level or slightly lower. Reserved for bicycle use only.
Separated Bicycle Lane	Bicycle lanes that are physically separated from other traffic lanes by flexible posts, planters, parking stalls, curbs, or other barriers. Reserved for bicycle use only.
Buffered Bicycle Lane	Bicycle lanes that have a painted buffer to provide extra space between cyclists and other traffic lanes. Reserved for bicycle use only.
Conventional Bicycle Lane	Signs and pavement markings. Reserved for bicycle use only.
Park Multi-Use Trail	Paved trails in park lands, shared by cyclists and pedestrians.
Boulevard Multi-Use Trail	Paved trails in the boulevard beside major roadways, shared by cyclists and pedestrians.
Paved Shoulders	On rural roads, paved shoulders provide a designated space for cyclists to ride.
Signed Bicycle Route	A route shared between cyclists and motorists on local streets with slower speeds and less traffic. May also include traffic calming and design elements to prioritize bicycles.
Sharrows and Signs	A route shared between cyclists and motorists. Includes signs and sharrow pavement markings. May also include traffic calming, low speed limits and design elements to prioritize bicycles.
Advisory Bike Lanes	On narrow roads with low traffic volumes and slow speeds, advisory bike lanes show the preferred space for cyclists on routes shared between cyclists and motorists.

Building a safe and comfortable cycling network means choosing the right type of bicycle facility for each location. Bicycle facilities are chosen based on the goal of reducing the exposure of cyclists to traffic stress and conflict. As illustrated in the table on the previous page, there is a range of bicycle facility types that provide more or less separation between motorists and cyclists. In principle, greater separation is provided where traffic volumes and operating speeds increase. There are three types of separation that can be used:

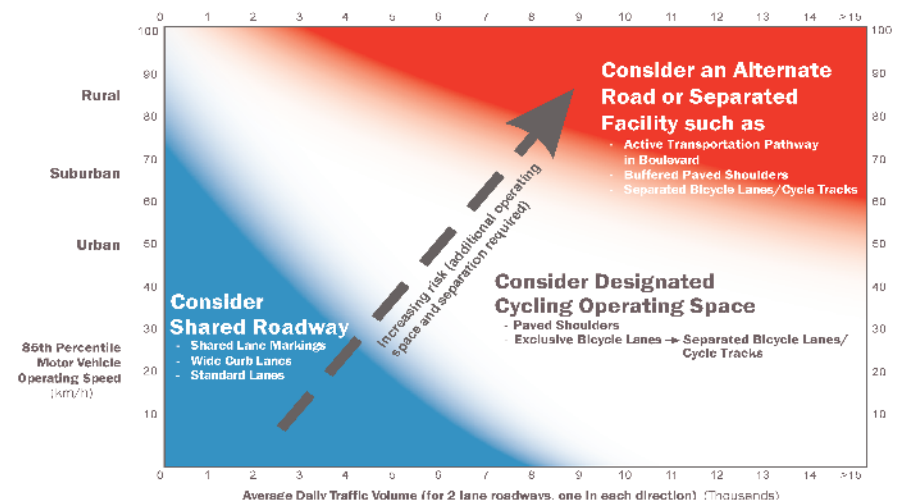
- Spatial (dedicated space for bicycles separated by a painted line);
- Physical (physical barriers between the cycling facility and other motor vehicles like bollards, curbs, planters, or parked cars); and
- Time (stop controls or traffic signals that separate bicycle movements from turning motor vehicles).

One or more of these kinds of separation may be used depending on the facility type and the surrounding environment. However, a context sensitive approach to identifying appropriate bicycle facility types is critical. Many factors must be taken into account such as:

- the frequency of intersections and driveways;
- the visibility of cyclists particularly when separated from, or set back from the roadway;
- an increased potential for conflict at intersections and driveways that is introduced by two-way cycling facilities; and
- potential conflict between cyclists and pedestrians on mixed-use facilities.

This project followed the bicycle facility type selection process, outlined in Ontario Traffic Manual Book 18 (2013). This is a three-step process that begins by selecting a facility type based on motor vehicle speeds and volumes as shown in the figure below; followed by a detailed look at other traffic and site specific characteristics to determine the most suitable kind of facility.

### OTM Book 18 - Cycling Facility Pre-Selection Tool (Image Credit: MMM 2013)



### Developing the Recommended Network

To understand the needs and opportunities to improve cycling in Mississauga, development of the Plan included a detailed review of all available cycling-related data and consultation with Mississauga residents and other stakeholders.

## Public and Stakeholder Outreach

A thorough public engagement process was undertaken in the development of the Plan, including two public open houses, regular meetings with a working group of the Mississauga Cycling Advisory Committee, information tables at five local community events, and information tables at community centres and libraries in all 11 city wards. In addition to social media and print and digital advertising efforts, project staff also reached out to citizen committees, resident associations, business improvement associations and Smart Commute members, to encourage participation in the project. Along with the public outreach efforts, the project team engaged with technical stakeholders including internal and external partners. A full list of events and organizations that were consulted is available in Appendix VII of the Plan.

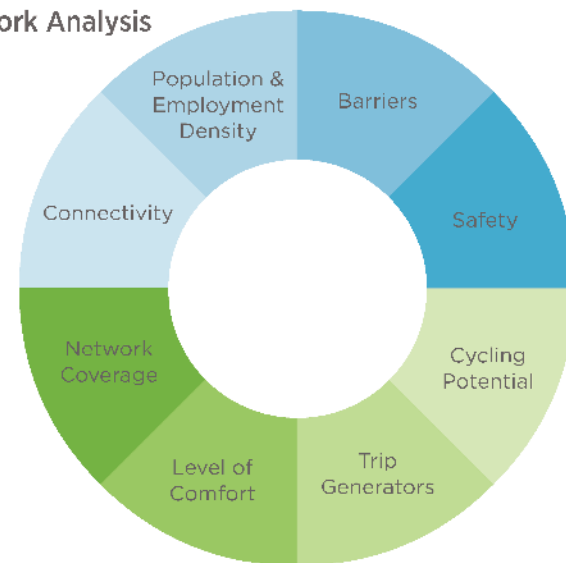
## Planning the Cycling Network

Cycling network planning was guided by the vision and goals of the Plan, and informed by an analysis of the existing conditions, needs and opportunities research, and input from technical stakeholders and the community. Six route selection principles were developed during this process, which were used to review the existing cycling network plan and to guide recommended changes.

### Route Selection Principles:

- Integrate new facilities with the existing cycling network
- Provide continuous and barrier-free routes
- Provide connections to key destinations
- Prioritize connections to public transit
- Provide access to all neighborhoods
- Provide safe and comfortable routes

## Cycling Network Analysis



Data analysis tools were developed using available cycling-related data to evaluate and update the proposed Cycling Network from the 2010 plan. Data categories are illustrated in the figure above and include:

- **Population and Employment Density:** Canada Census data;
- **Connectivity:** Gap analysis of the existing and proposed network;
- **Network Coverage:** proximity of residences and businesses to the cycling network, and distance;
- **Level of Comfort:** Traffic stress analysis of the existing and proposed cycling routes;
- **Trip Generators:** Proximity of the bicycle network to community facilities, transit, and other important destinations;
- **Cycling Potential:** Location of short auto trips (5 km or less) that could potentially be converted to cycling trips - Transportation Tomorrow Survey data (2011);

- **Safety:** Peel Regional Police collision data; and
- **Barriers:** location of geographical and human-made barriers (rivers, ravines, highways, rail corridors).

### Proposed Cycling Network

The 2018 Cycling Master Plan envisions a comfortable, connected and convenient cycling network that includes separated bike lanes, cycle tracks, multi-use trails, conventional bike lanes and shared routes. Once implemented, these facilities will create a cycling network that Mississauga residents and visitors of all ages and abilities will feel comfortable using.

The approximate lengths of each facility type to be built or upgraded, including the approximate cost, are summarized in the table below.

Summary of proposed cycling network upgrades, additions and costs

Facility Type	Existing Length (km)	Upgrade Length (km)	Additional Length (km)	Total Length (km)	Total Cost (\$ million)
Cycle Tracks/Separated Bike Lanes	0	20	150	170	106.8
Bike Lanes	51	1	56	108	12.4
Multi-Use Trails (Boulevard)	68	15	125	208	40.8
Shared Routes	87	0	131	218	6.6
Multi-Use Trails (Parks)	70	34	89	193	67.3
<b>Totals</b>	<b>276</b>	<b>70</b>	<b>551</b>	<b>897</b>	<b>233.9</b>

Note: Lengths may differ from other sources due to the measuring methodology used. Parkland multi-use trail lengths only include major trails, and minor trails that connect cycling facilities.



## Implementing the Plan

### Next Steps

The Cycling Master Plan is a long-term plan that, when fully implemented, will improve safety for cycling, provide a connected, convenient and comfortable bicycle network, increase the number of cycling trips in Mississauga and foster a culture of cycling. It is a Plan that belongs to Mississauga residents and will continue to be guided by the community. As each cycling network project is implemented, community members and other stakeholders will have the opportunity to provide input. For the cycling network to achieve the goals of the Plan, it must be complete with no gaps. Completing the cycling network is a key priority to meeting Official Plan, Strategic Plan and Climate Strategy goals.

The implementation plan makes the assumption that, ideally, the total proposed cycling network should be built within a 20-year timeframe. The plan will aim to coordinate the construction of new infrastructure with scheduled road rehabilitation and major road construction projects, where possible. It will take into account the different funding streams for facilities along roadways and those on parklands, as well as noting where facilities can be funded by other parties, such as Metrolinx or a private developer.

The City of Mississauga currently funds its cycling infrastructure through two departmental budgets: Transportation and Works (within road rights-of-way (ROWs)), and Community Services (within parkland). The total estimated costs of the plan, provided in the table to the right, are based on stand-alone construction of all cycling facilities and upgrades.

### Total Cost of Network and Structures

Network Components	Cost
Primary Network	\$134,000,000
Secondary Network	\$34,000,000
Off-Road Trail Network (Community Services)	\$38,000,000
Off-Road Trail Road Crossings (Transportation & Works)	\$18,000,000
Major Crossing Structures	\$43,000,000
<b>Total Network and Structures Cost</b>	<b>\$267,000,000</b>

### Funding Scenarios

The Active Transportation Office, (within the Transportation and Works Department), programs the capitals plan for cycling infrastructure on Mississauga-owned road rights-of-way (ROWs). Capital planning for off-road trails outside of road ROWs is led by the Community Services Department. As a result, there are two funding recommendations, one for Roads Service Area and a second for the Parks and Forestry Service Area.

### Funding Scenarios—Roads Service Area

Four capital funding scenarios for the cycling infrastructure to be planned, budgeted and constructed by the Roads Service Area were developed, based on the number of years to complete the network, as summarized in the next table. This represents the primary and secondary on-road networks, which make up the bulk of the total cycling network.

### Transportation and Works Funding Scenarios

Scenarios	A (current)	B	C	D
Yearly funding allotment	\$1,450,000	\$3,575,000	\$5,262,500	\$6,950,000
Length constructed per year (km)	5	12	18	25
Years to complete network	95	40	27	20

Major crossings require more detailed design work to determine budget estimates that are beyond the scope of this plan. These structures are typically funded on a project-to-project basis, and thus not included in the 20-year funding scenarios.

### Funding—Parks and Forestry Service Area

Trails through parklands are programmed, budgeted and built by the Community Services Department, in coordination with the Active Transportation Office. Trail construction and rehabilitation has been consistent, and major network pieces are funded and under construction. Funding from the Region of Peel and Ontario Municipal Commuter Cycling program has been fairly consistent. Community Services funds construction on a project-to-project basis. This is considered adequate at current levels. Following approval of the Cycling Master Plan, project prioritization will be undertaken by the Community Services Department, in consultation with the Active Transportation Office.

### Conclusion

The Cycling Master Plan is a long-term plan that will continue to be implemented over the next several years. It is a Plan that belongs to Mississauga residents and will continue to be guided by the community. As each cycling network project is implemented, community members and other stakeholders will have the opportunity to provide input. For the cycling network to achieve the goals of the Plan it must be complete with no gaps. Completing the cycling network is a key priority to meet Official Plan, Strategic Plan and Climate Strategy goals.



## 2 | Introduction



The number of people riding bicycles for transportation in Mississauga is on the rise. According to Transportation Tomorrow Survey data, between 2011 and 2016 the number of bicycle trips on an average weekday in the city doubled from 0.3% to 0.6% of all trips. Cycling is also an important recreational activity in the city, with thousands of residents and visitors participating in annual cycling events like the Tour de Mississauga and local community rides, and using mobile apps to map their rides along Mississauga's roads and trails.

Beginning with the first boulevard multi-use trail on Rathburn Road in 1985, the City of Mississauga has been working to include bicycles in the city's transportation and trail networks so that more people choose to ride bicycles for all kinds of trips—to work, to school, to run an errand, go out to dinner or a show, meet a friend at the mall, or just to get some exercise.

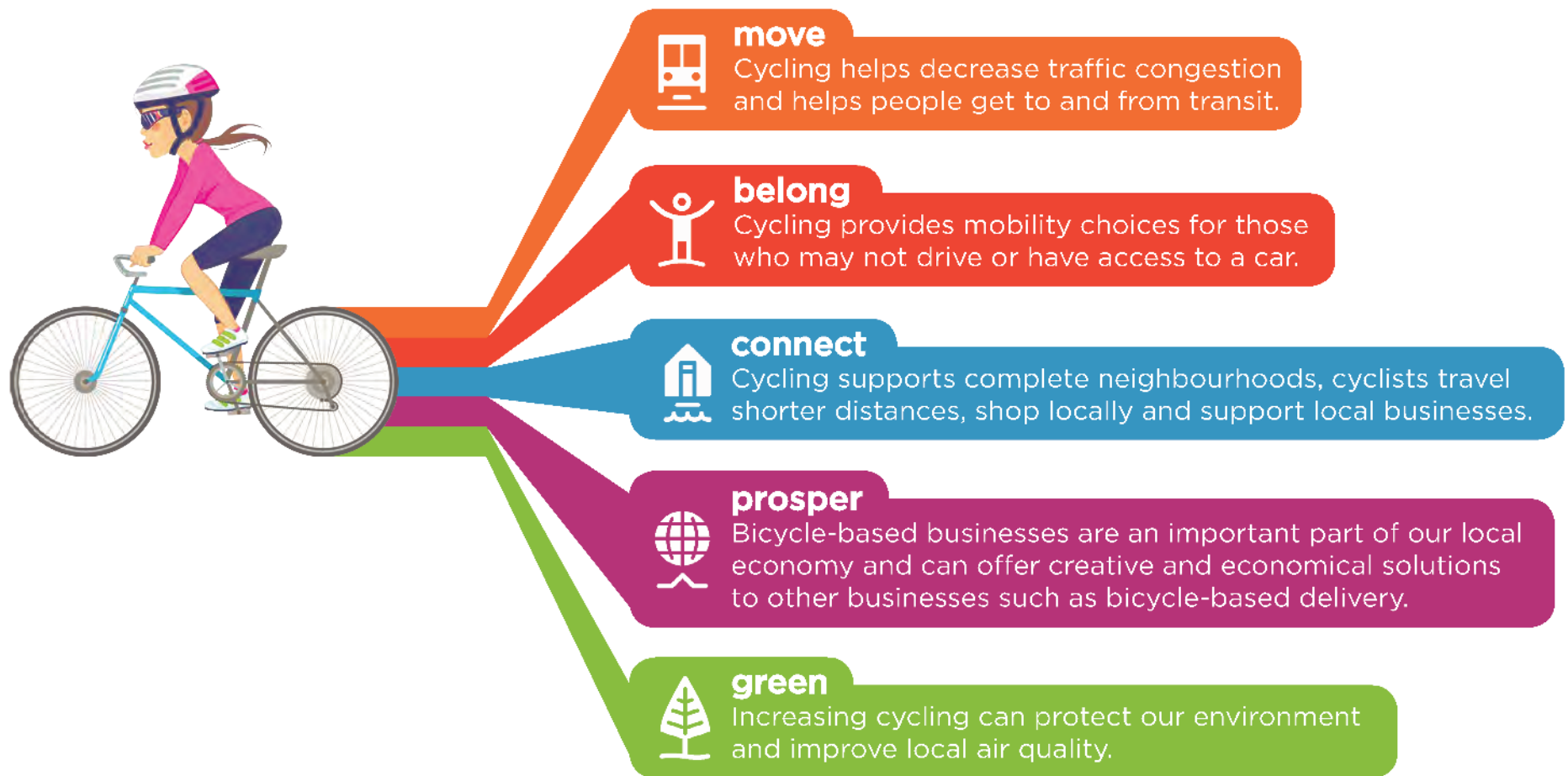
Cycling is an environmentally responsible way to travel, and it is also a healthy and economically smart choice. Choosing to ride a bicycle regularly can reduce the costs of owning a car and can help to reduce the risk of many chronic diseases that cost our health care system billions of dollars a year. When included as part of the transportation system, cycling along with public transit, can help to reduce traffic congestion. 82% of all trips in Mississauga on an average weekday that are 5 km or less are completed in cars. Many of these trips could feasibly be converted to cycling if connected, convenient, safe and comfortable cycling routes were available.

Mississauga's 2010 Cycling Master Plan recommended a bicycle route network and supporting programs to create a multi-modal transportation system. As a result of that plan and those that came before it, Mississauga has a developing cycling network composed of shared roadways (signed bicycle routes and sharrows), conventional bicycle lanes, boulevard multi-use trails, and off-road trails.

The purpose of the 2018 Cycling Master Plan is to transform Mississauga into a bicycle-friendly city, where people will choose to cycle for recreation, fitness and daily transportation needs. This plan is focused on making cycling more comfortable, convenient, and fun so that it is a viable means of achieving many of the City's Strategic Plan goals.

As such, this plan recommends a network of connected cycling facilities that are comfortable for cyclists of all ages and abilities. It also recommends policies and programs that will support cycling by all types of cyclists.

**Figure 1:** Connection Between Cycling and Mississauga's Strategic Plan Goals





The Plan is divided into the following sections:

- **Chapter 3: Goals and Recommendations**  
This chapter outlines the Vision, Goals and Recommendations for the Cycling Master Plan. It lists all the recommendations and actions required to move the plan forward, as well as the policy documents which support the Cycling Master Plan.
- **Chapter 4: Existing Cycling Network**  
Chapter 4 is a snapshot of the cycling facilities implemented as of 2017. It provides a picture of the progress to date and sets the stage for Chapter 5.
- **Chapter 5: Needs and Opportunities**  
Chapter 5 provides a summary of cycling data collected in Mississauga since the 2010 Cycling Master Plan. This information gives us a clearer picture of the impacts of the cycling network development outlined in Chapter 4, and the issues that need to be addressed to achieve the Plan's vision.
- **Chapter 6: Recommended Cycling Network**  
This chapter outlines a recommended cycling network that will meet the needs of cyclists of all ages and abilities. It includes information on the planning process that was used, the recommended routes and types of facilities, and how these will create a connected, comfortable and convenient network for travelling by bicycle.
- **Chapter 7: Recommended Supporting Programs**  
Chapter 7 discusses the programs that are needed to help support more people cycling for recreation and for transportation—programs like bicycle parking, education and promotion.
- **Chapter 8: Implementing the Plan**  
Chapter 8 outlines the funding needed to implement this plan, and how long the build-out would take under various funding scenarios. It also outlines the recommended five-year network implementation plan.
- **Chapter 9: Evaluating the Plan's Success**  
Tracking the progress of a plan is necessary to measure its success. This chapter provides a framework of measurable objectives and data sources that will be collected over time and used to evaluate the Plan step by step.
- **Chapter 10: Next Steps**  
The Cycling Master Plan is a long-term plan that will be implemented over the next several years. Chapter 10 outlines the process that cycling projects follow, how decisions are made and where there are opportunities to help shape those projects.
- **Chapter 11: Appendices**  
Appendices are provided at the end of this report with additional supporting research and more detailed information. This is a list of appendices with supporting research and more detailed information that led in the development of the Cycling Master Plan.

## 3 | Goals and Recommendations

This chapter is organized by the Vision for cycling in Mississauga, the four goals that work together to realize the Vision, and the specific recommendations and actions that will enable us to achieve those goals.

### 3.1 Vision

The City of Mississauga will be a place where people choose to cycle for recreation, fitness and daily transportation needs. Cycling will become a way of life that supports vibrant, safe and connected communities and enhances our overall health and quality of life.

### 3.2 Goals

The four goals of the Cycling Master Plan are:

1. Improve safety for cycling.
2. Build a connected, convenient and comfortable bicycle network.
3. Increase the number of cycling trips in Mississauga.
4. Foster a culture of cycling.

### 3.3 Recommendations and Actions

The Plan's recommendations and actions are aimed at achieving the four overarching goals. They have been divided into the seven categories of project implementation to illustrate their key functions in delivering the plan.

**Table 1: Recommendations and Actions**

1.0 Planning	
1.1 <b>Coordinate with partner agencies to implement the Cycling Master Plan.</b>	1.1.1 Work with Regional, Provincial and Federal governments, partner agencies, transit authorities, major landowners, property managers, employers and institutions to ensure that Cycling Master Plan recommendations are incorporated into their planning and areas of responsibility.
	1.1.2 Work with Regional, Provincial and Federal governments, partner agencies, transit authorities, major landowners, property managers, employers and institutions to incorporate their plans and programs into the funding, study, design, and construction of Cycling Master Plan projects, whenever project scope allows.
	1.1.3 Work with MiWay, Metrolinx/GO transit to improve bicycle access to transit stations and stops, and on transit vehicles, including during peak hours.
	1.1.4 Work with MiWay, Metrolinx/GO transit to provide and maintain secure bicycle parking at transit stations and stops.
1.2 <b>Examine the feasibility of a bike share system in Mississauga.</b>	1.2.1 Undertake a feasibility study to examine the potential for a bike share system; for example in the Downtown, Port Credit, and/or combined areas that would support the Hurontario LRT project, anticipated to be completed in 2022.
	1.2.2 Examine opportunities to implement a pilot bike share project in Mississauga in the short-term to inform feasibility analyses.
1.3 <b>Integrate cycling network planning and supporting facilities into all City planning and capital improvement projects.</b>	1.3.1 Update Official Plan Schedule 7 Long-Term Cycling Routes to include recommended updates to primary on-road and off-road cycling routes and ensure alignment with provincial and regional cycling network plans.
	1.3.2 Examine opportunities to prioritize shared cycling routes in the City's Traffic Calming Policy.
	1.3.3 Coordinate Traffic Calming plans on designated cycling routes with the Active Transportation Office to ensure bicycle-friendly designs.
	1.3.4 Include consideration of cycling access and safety in Transportation Impact Assessments of new developments.
	1.3.5 Work with the Community Services Department to establish a prioritization matrix for implementation of Off-Road Trails which includes consideration of cycling network, connectivity and coordination opportunities.



<b>1.4 Expand the City's bicycle parking supply including short-term and long-term facilities on city-owned properties, commercial and residential land uses.</b>	1.4.1 Launch a comprehensive bicycle parking program to be managed by the Active Transportation Office with a dedicated staff lead and consistent funding.
	1.4.2 Include bicycle parking standards for new developments in the Zoning By-law as recommended through the Transportation Demand Management Strategy.
	1.4.3 Produce bicycle parking design guidelines to support implementation of bike parking on private property as recommended through the Transportation Demand Management Strategy.
	1.4.4 Conduct a bike parking audit of all city-owned buildings and Parks and establish priorities for expanding bicycle parking supply at these city facilities.
	1.4.5 Research enhanced bicycle parking facilities and develop demonstration projects for facilities such as bicycle lockers, bike corrals and sheltered bicycle parking.
	1.4.6 In cooperation with MiWay, and other potential partners, determine the viability of implementing a bike station/bike room at the City Centre Transit Terminal.
	1.4.7 Review city special event procedures and policies for bicycle parking and update to include bicycle parking requirements.
<b>1.5 Establish programs for routine collection, maintenance, and publication of cycling data.</b>	1.5.1 Develop a bicycle counting program that integrates with the City's Traffic Data Management system, and includes annual or bi-annual city-wide cycling counts and establishes baseline data.
	1.5.2 Routinely post up-to-date cycling network and bicycle parking information on the City's Open Data portal.
	1.5.3 Collect cycling facility maintenance, repair and upgrade information, and include cycling facility condition data in the City's asset management system.
	1.5.4 Provide access to bicycle count data on the City's Open Data portal.
	1.5.5 Expand the number of automated bicycle counters at key locations across the city.
	1.5.6 Work with Region of Peel to identify opportunities for improving cycling data collection through the Region of Peel cordon count program and other monitoring programs.

## 2.0 Design

**2.1 Design a Comfortable (Low Stress) Cycling Network that is suitable for “Interested but Concerned” cyclists, providing cycling opportunities to people of all ages and abilities.**

- 2.1.1 Design a connected and comfortable network of cycling facilities as recommended in **Figure 14**.
- 2.1.2 Develop a bicycle facility design guide that would include: all types of on-road and off-road bicycle facilities recommended in the Cycling Network, and a toolbox of context sensitive intersection crossing treatments tailored to the Mississauga context.
- 2.1.3 Update Mississauga Roadway Engineering Standards and Guidelines to improve safety for cyclists and all road users, including identification of appropriate design and control vehicles, and updated guidance on curb radii.
- 2.1.4 Develop a plan to retrofit intersections along existing bicycle facilities that will, wherever technically possible, include bicycle-integrated designs and remove barriers such as dismount and walk requirements, and obstacles including traffic light standards, P-gates and bollards.
- 2.1.5 Develop a program to enhance existing on-road and off-road cycling facilities identified for upgrade in the Cycling Master Plan to ensure the design of cycling facilities is consistent with best practices and achieves the design quality that will be recommended in the Mississauga bicycle facility design guide.
- 2.1.6 Provide intersection treatments on all future bicycle facilities to clearly indicate the correct positioning and right of way for cyclists and motorists, and improve safety for all road users.
- 2.1.7 Request authorization from the Province of Ontario to implement a pilot project to test bicycle crossings at mid-block and roundabout locations where pedestrian crossovers are warranted by current provincial guidance.
- 2.1.8 Investigate opportunities to engage with experts in the field of cycling such as convening design workshops with international experts and City planning and design staff to address challenging cycling facility design problems and tailor them to the Mississauga context.
- 2.1.9 Design and construct Primary boulevard trails and Primary off-road trails with consideration for separating cyclists and pedestrians, or protecting for future separation wherever appropriate.
- 2.1.10 Implement a pilot project to install and evaluate a protected intersection.
- 2.1.11 Coordinate the design of all cycling facilities with operations staff to identify potential maintenance issues and design strategies to help mitigate these issues.
- 2.1.12 Continue to implement the City’s wayfinding program across the Cycling Network.

3.0 Funding	
3.1 Continue and increase the City's annual budget allocated to implementing the Cycling Master Plan.	3.1.1 Through the City budget planning process, establish an annual cycling budget with a view to the recommended horizon year for the Cycling Master Plan.
	3.1.2 Through the City budget planning process, assess and prepare for future staffing, consultant, and capital funding needs as projects arise.
3.2 Leverage all available funding to expedite project delivery.	3.2.1 Pursue funding from all available grant sources and use existing cycling budget to match grant funding as needed.
	3.2.2 Actively develop Cycling Master Plan projects to ensure the City is in the best position to compete for available grants.
4.0 Project Delivery	
4.1 Use all available internal and external resources to implement Cycling Master Plan projects.	4.1.1 Over the short-term, create a minimum of two new staff positions in the Active Transportation office to support the planning, consultation, engineering and evaluation of cycling facilities.
	4.1.2 Develop and execute a long-term staffing plan that includes City staff and consultant support and is sufficient to implement recommended cycling network projects including all internal and external consultation and engagement activities.
	4.1.3 Expand staff capabilities in the Active Transportation Office to include full time staff with GIS expertise and provide access to City data.
5.0 Promotion and Education	
<i>Encouragement</i>	
5.1 Use targeted marketing and promotion to increase bicycle use.	5.1.1 Develop a public brand to represent cycling infrastructure, and initiatives that promote Mississauga as a “bike-friendly city”.
	5.1.2 Create public communication channels for the Active Transportation Office, including a website, e-mail newsletters and social media presence.
	5.1.3 Provide up-to-date, convenient information about the cycling network, cycling programs and bicycle parking through the online public communication channels and published cycling maps.
	5.1.4 Celebrate and promote the opening of new bicycle facilities.
	5.1.5 Support TDM Plan initiatives related to Smart Commute members and other major employers to promote cycling among employees, through marketing, promotion, incentives and infrastructure like bike parking and employee bike share.



	5.1.6 Work with Metrolinx/GO Transit and MiWay to promote the use of bicycle parking on transit properties, and combined cycling-transit commuting as part of a multi-modal transportation system.
	5.1.7 Support community organizations and other third parties that are delivering community cycling events.
<i>Education</i>	
<b>5.2 Encourage school-based cycling education and promotion.</b>	5.2.1 Promote and support Region of Peel's School Travel Planning, Bike to School Week, and the school bike rack program.
<b>5.3 Provide education opportunities to bicyclists and motorists, about bicycle safety, the opportunities for, and the benefits of cycling.</b>	5.3.1 Work with partners to develop education campaigns, resources and content targeting cycling safety on different types of cycling facilities so that drivers and cyclists become more familiar with how cycling facilities operate and public perceptions better reflect empirical evidence on bicycle facility safety.
	5.3.2 Continue the Cycling Ambassador program to promote safe cycling and support public engagement.
	5.3.3 Provide and promote bicycle skills training programs for cyclists of all ages and abilities.
<i>Enforcement</i>	
<b>5.4 Support police enforcement for cyclists and motorists to educate and reinforce safe cycling and driving practices.</b>	5.4.1 Collaborate with Peel Regional Police to support focused enforcement on cycling and driving behaviours with the greatest crash risk / injury severity and encourage cycling.
<b>6.0 Operations and Maintenance</b>	
<b>6.1 Maintain cycling routes so that they are comfortable and free of hazards.</b>	6.1.1 Develop a maintenance program for the cycling network that specifies maintenance activities, and establishes cycling route classifications for levels of service including priority routes.
	6.1.2 Update 311 information categories to better promote the collection of information specific to cycling through 311 and the Pingstreet mobile app.
	6.1.3 Promote Pingstreet to cyclists and use this tool to solicit maintenance-related feedback on the cycling network.
	6.1.4 Establish a winter cycling network, and promote winter cycling in coordination with the Region of Peel.

<b>6.2 Maintain bicycle parking.</b>	6.2.1 Develop a program to manage the repair of damaged bicycle racks and the removal of abandoned bicycles from city-owned bicycle parking.
	6.2.2 Include existing and future bicycle parking locations in the City's asset management database.
<b>6.3 Accommodate cyclists in construction/work zones.</b>	6.3.1 Develop mandatory accommodations for bicycles in work zones, including requirements for temporary routes and detours.
<b>7.0 Evaluation</b>	
<b>7.1 Develop a monitoring program to evaluate the impacts of new cycling facilities.</b>	7.1.1 Collect before and after data on new cycling facilities to evaluate the impact on all road users such as bicycle and motor vehicle volumes, travel time and speed analyses and intercept survey data.
<b>7.2 Produce an annual report on the progress of the Cycling Master Plan.</b>	7.2.1 Prepare an annual report on cyclist count data and it's relation to Cycling Master Plan goals and Recommendations.
	7.2.2 Prepare and present a report to the Cycling Advisory Committee or City Council outlining the progress in achieving the goals of the Cycling Master Plan based on the Plan's Performance Monitoring Framework.

### 3.4 Policy Context

Many local, regional and provincial policies provide context for this Plan and have informed the planning process. A full list of the plans, policies and other resource documents that provide the background policy framework for this project is included in **Appendix IV**.

#### 3.4.1 Official Plan and Strategic Plan

Mississauga's Official Plan envisions a city where integrated land use and transportation planning will create an environment of "distinct, complete communities" that support many different options for moving safely and conveniently around the city. The city's Strategic Plan vision of vibrant, safe, and connected communities is supported by five Strategic Pillars of Change: Move, Belong, Connect, Prosper, and Green. Cycling Master Plan goals and recommendations contribute to each of these pillars, and are specifically aligned with Strategic Plan goals to develop a transit-oriented city and connected communities with more mobility choices.

Both the Official Plan and Strategic Plan position cycling as a key part of a multi-modal transportation system that also includes walking, public transit, shared mobility, personal motor vehicles, and goods movement. Cycling Master Plan goals and recommendations are consistent with this vision and together with the Transportation Master Plan, Transportation Demand Management Strategy and Implementation Plan, and Parking Master Plan, outline the actions needed to achieve it.

#### 3.4.2 New and Developing Transportation Policies

##### Transportation Safety and Vision Zero

In December 2017, the Council of the Region of Peel adopted the framework of *Vision Zero* to reduce the number of injuries and fatalities on regional roads. *Vision Zero*, a concept that originated in Sweden in 1997, is a framework that coordinates efforts and resources among agencies and stakeholders to prevent fatal and serious injuries from motor vehicle collisions. The framework derives its name from the principle that no loss of life is acceptable, and therefore life and health should never be exchanged for other benefits in society. The Vision Zero framework acknowledges that the way the transportation system is designed, built and operated must be changed, because it is not possible to expect that people will not make mistakes. This means that safety should be prioritized over speed, convenience or cost, and the transportation system should be forgiving of human error.

To realize this vision, the Region of Peel has developed a Transportation Safety Strategic and Operational Plan in cooperation with the City of Mississauga and other major stakeholders. The long-term concept for the plan will be zero fatal and injury collisions, with a near-term goal of 10% reduction in fatal and injury collisions by 2022 on Regional roads. By adopting of the Vision Zero framework, the Region of Peel has committed to working collaboratively with partner agencies, including the City of Mississauga, to develop new programs and enhance existing programs to promote road safety.

In February 2018, Mississauga City Council also passed a resolution to adopt Vision Zero. An operational plan is under development and near term goals for the reduction of fatal and injury collisions are under consideration.

Cycling Master Plan goals and recommendations are closely aligned with the concept of Vision Zero. Designing a comfortable Cycling Network that is suitable for “Interested but Concerned” cyclists will provide cycling opportunities to people of all ages and abilities. It will also help to improve safety for all road users by including design features that will improve visibility, reduce conflicts, and slow traffic speeds at potential conflict points. Similarly, Promotion and Education, Operations and Maintenance, and Evaluation recommendations all strive to achieve a safe cycling environment that is a critical part of a Vision Zero framework.

#### Transportation Master Plan

The City’s first Transportation Master Plan (TMP) is being developed to provide a strategic, long-term planning framework to guide transportation decision-making for all travel modes, including cycling, until 2041. The TMP will set priorities in support of the City’s Strategic Plan, and will be designed to work in tandem with the City’s Official Plan to realize the vision of a multi-modal transportation system in Mississauga.

The Cycling Master Plan was developed in close coordination with the developing TMP. The Cycling Master Plan goals and recommendations will help to achieve the TMP vision and goals, and will directly support the TMP’s recommended action items.

#### Transportation Demand Management Strategy and Implementation Plan

The Transportation Demand Management (TDM) Strategy and Implementation Plan highlights the importance of multi-modal transportation to a rapidly growing, urbanizing city like Mississauga. The Strategy’s objectives include more efficient use of existing transportation infrastructure and shifting travel behaviour away from personal motor vehicles to other more sustainable modes including cycling. The Strategy frames cycling in the broader context of TDM and demonstrates the important role that cycling plays in an efficient, effective and sustainable transportation system.

Cycling Master Plan goals and recommendations will help to realize the Strategy’s objectives by guiding implementation of the Bicycle Route Network and supporting programs needed to increase the attractiveness of cycling in Mississauga.

#### Parking Master Plan

The Parking Master Plan and Implementation Strategy will guide future decisions regarding the provision and management of automobile parking in Mississauga. Similar to the TMP, this plan has been under development at the same time as the Cycling Master Plan update. The plan recognizes the importance of parking to the transportation system and recommends a strategic approach to parking provision and management that will support the City’s vision of a multi-modal transportation system for people of all ages and abilities that does not require dependence on personal automobiles for travel. The Parking Master

Plan acknowledges that the Cycling Master Plan and TDM Strategy and Implementation Plan have both analyzed and provided recommendations with regard to the supply and management of bike parking on public and private property. Parking Master Plan recommendations include incorporating bicycle parking rates in the City's Zoning By-law, developing bicycle parking design guidelines and incorporating this guidance into the City's Urban Design Guidelines and Standards.

### Region of Peel Sustainable Transportation Strategy

The Region of Peel Sustainable Transportation Strategy (STS) is a component of the Region's Long Range Transportation Plan (LRTP) which outlines the Region's strategy for addressing long-term transportation and growth-related issues. The STS emphasizes the need to plan for environmental, social, and economic sustainability and identifies the Region's roles and responsibilities relating to sustainable transportation modes: walking, cycling, carpooling, transit, and teleworking. The STS envisions a transportation network where 50% of peak period trips are taken by sustainable modes by 2041. Recommended actions regarding cycling aim to provide comfortable, continuous cycling facilities, improve year-round maintenance of cycling facilities, expand bicycle parking and other end-of-trip facilities, and promote cycling across the Region. A regional cycling network has been identified as a key component of the STS. This cycling network was closely coordinated with the Cycling Master Plan update and is consistent with Cycling Master Plan recommendations.

### Provincial Cycling Network Plans

#### *Metrolinx 2041 Regional Transportation Plan*

In September 2017, Metrolinx, the Province's Transportation Agency officially released the draft version of its 2041 Regional Transportation Plan for the Greater Toronto and Hamilton (GTHA). The Plan's vision is for a sustainable transportation system that is aligned with land use, and supports healthy and complete communities. The Plan identifies a Regional Cycling Network that will grow from the existing 990 km today to 2,000 km of connected cycling facilities. The plan also aims to double the number of walking and cycling trips and sees 60% of school trips being made by walking or cycling in the GTHA by 2041. Regional Cycling Network development was undertaken in consultation with the City of Mississauga and is reflected in Cycling Master Plan recommendations.

#### *Ontario Ministry of Transportation Cycling Strategy: CycleON*

Ontario's cycling strategy envisions a future where Ontario is recognized as the best Canadian province for cycling and ranked among the top 10 jurisdictions worldwide for cycling. This includes a built environment that supports and promotes safe cycling for people of all ages and provides an interconnected cycling network across the province.

The Strategy's second Action Plan proposal was released for public comment in February 2018. Proposed actions include sustained investment in new cycling infrastructure through the Climate Change Action Plan 2017-2021, developing a long-term implementation plan for the recommended province-wide cycling network, providing public education and support for safety and promotional initiatives, improving cycling safety and increasing opportunities for cycling tourism.



### 3.4.3 Provincial Legislation

There have also been important changes to provincial legislation in the last few years that aim to improve safety for all road users including cyclists. Some of these changes create opportunities for municipalities to improve conditions for cycling. Recent changes include:

- Allowing bicycle traffic signals to be used to direct bicycle traffic at intersections;
- Requiring cyclists to obey bicycle traffic signals where they exist;
- Requiring motorists to leave a one-metre distance between themselves and cyclists when passing;
- Increased penalties for opening a vehicle door into the path of a cyclist or any other road user; and
- Increased fines for cyclists who don't comply with the requirements for lights, reflectors and reflective material.

New Provincial legislation is also being developed to introduce new and harsher penalties for distracted driving, careless driving, driving under the influence of alcohol or drugs, and failing to yield to pedestrians at pedestrian crossings.

### 3.5 Evolving Design Guidance

Bicycle facility design in North America is a field that is rapidly changing and evolving. Design guidance is regularly updated as design solutions are reviewed and adapted to improve cycling safety and comfort, encourage cycling for a variety of trip purposes and support people of all ages and abilities to ride bicycles. Several bicycle facility design manuals have been developed and updated since Mississauga's first Cycling Master Plan and have informed the direction and recommendations of this Plan including the Transportation Association of Canada Geometric Design Guide for Canadian Roads (June 2017), Ontario Traffic Manual Book 18 (2013), which is on schedule for update in 2018, and other local and regional design guidance being developed and tested in the GTHA, across Canada and throughout the United States. A list of current design guides reviewed for this project are included in **Appendix V**. These and other international sources should be taken into consideration for current cycling network projects and to provide context for Recommendation 2.1: Design a Comfortable (Low Stress) Cycling Network that is suitable for "Interested but Concerned" cyclists, providing cycling opportunities to people of all ages and abilities.

## 4 Existing Cycling Network

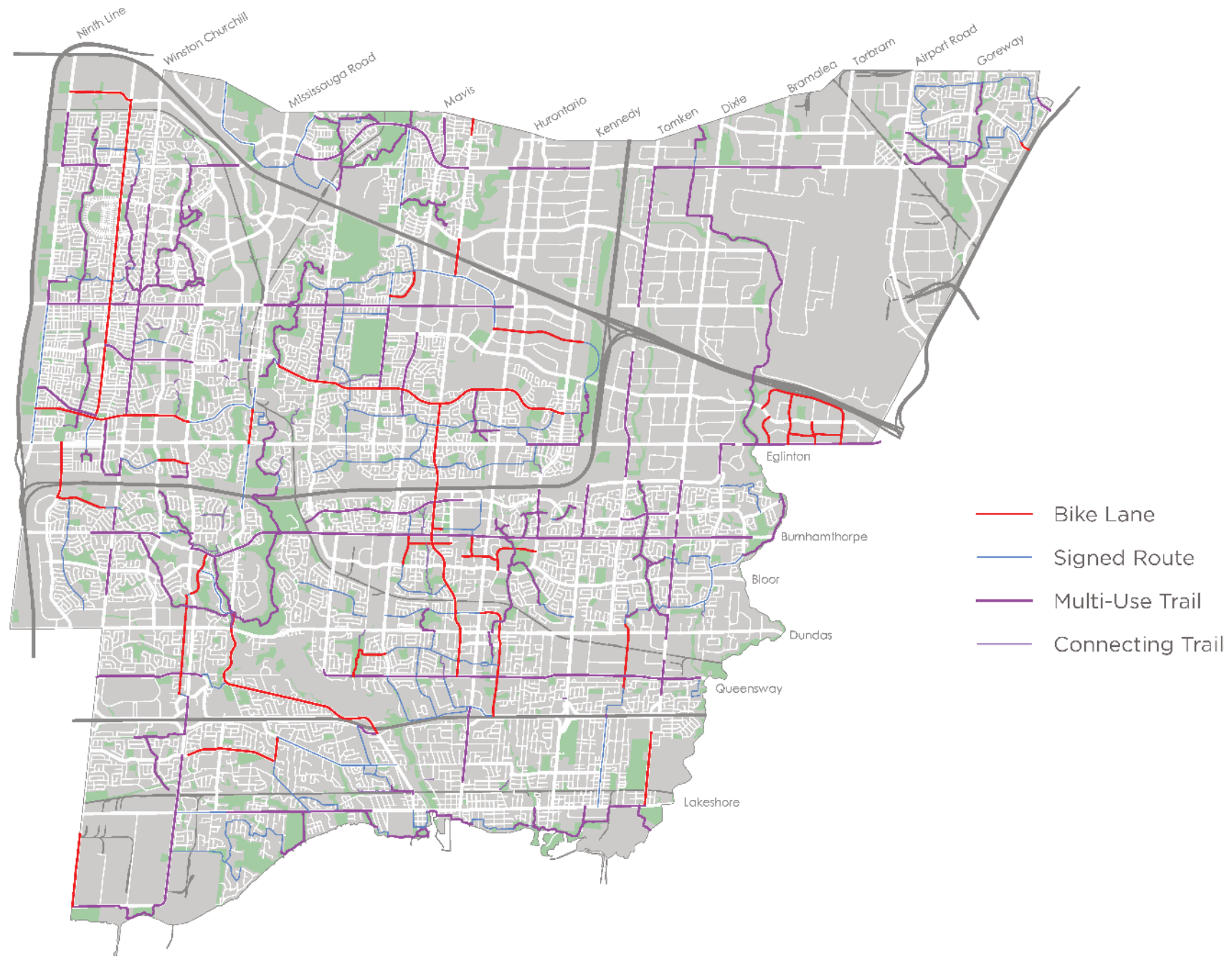
The City of Mississauga has a developing cycling network composed of shared roadways (signed bicycle routes and sharrows), conventional bicycle lanes, boulevard multi-use trails, and off-road trails in parks.

**Figure 2** shows the existing bicycle network. In 2010, the City's Cycling Master Plan built upon existing trails and bicycle facilities to propose an expanded and connected bicycle network that provides access to key destinations. **Table 2** shows the kilometres of cycling facilities that were in place before the 2010 plan and up to the time this project was initiated.

**Table 2:** Existing Cycling Network Facilities by Kilometre (km)

Bicycle Facility Type	# of km before 2010	# of km 2010-2016	Total
Bicycle Lanes	29	25	54
Boulevard Trails	61	27	88
Off-Road Trails	205	16	221
Shared Routes	79	12	91
<b>TOTALS</b>	<b>374</b>	<b>80</b>	<b>454</b>

Figure 2: Existing Cycling Network





## 5 | Needs and Opportunities

To understand the needs and opportunities to improve cycling in Mississauga, this project included a detailed review of all available cycling-related data and consultation with Mississauga residents and other stakeholders. The results of this review are summarized in this section. An existing conditions assessment completed in Phase 1 of the project is provided in **Appendix VI**.

### 5.1 Bicycle Trips

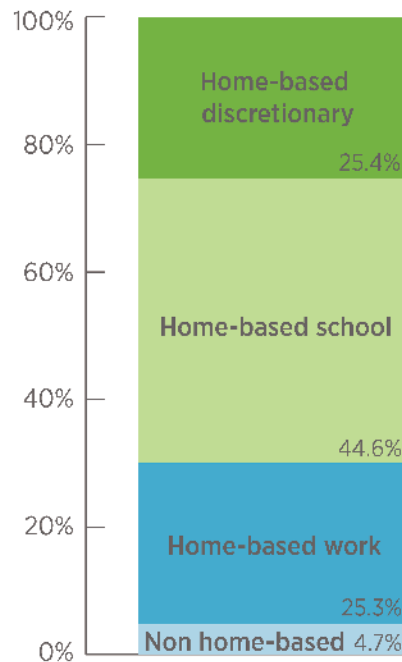
Once every 5 years, the Canada Census Survey collects data on how people are travelling for work-related trips, for example by car, public transit, bicycle or walking. Canada Census data from 2011 and 2016 both showed that 0.3% of Mississauga residents reported that they use cycling as their main mode of commuting to work.

The Transportation Tomorrow Survey (TTS) is a randomized telephone survey about how, why, and where residents travel on a typical day in the Greater Toronto Area (GTA). This includes work-related trips and other kinds of trips. 2011 TTS data showed 0.3% of all trips in Mississauga were by bicycle during a typical day. 2016 TTS data showed an increase in bicycle mode share to 0.6% of all trips.

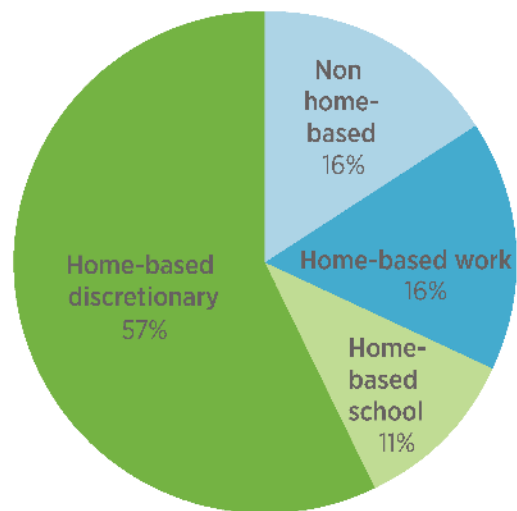
According to these surveys, bicycle use in Mississauga has seen growth over the last few years. However, it is important to remember that these surveys collect information from a very small sample size of cyclists; they do not count all types of bicycle trips (e.g. recreational bicycle trips and some other types of trips are not recorded). In addition, some past surveys have been administered by landline phone which may have excluded younger and middle aged residents who are less likely to have a landline phone but may be more likely to use bicycles. As a result, it is possible that the amount of cycling in Mississauga is underrepresented by these surveys.

TTS data may be useful in helping to indicate potential for cycling. According to the 2016 TTS, 87% of bicycle trips in Mississauga are 5 km long or less. On a typical weekday, approximately 82% of all trips in Mississauga that are 5 km or less are completed in a car. Many of these trips could feasibly be taken by bicycle.

**Figure 3:** Purpose of *current* bicycle trips (Source: TTS 2016)



**Figure 4:** Purpose of *potential* bicycle trips\* (Source: TTS 2016)



\* non-cycling, non-walking trips 5km or less

Workplace commute data is also collected by the local Transportation Management Association (TMA): Smart Commute Mississauga, also known as SustainMobility. Annual surveys of all Smart Commute member businesses ask employees about how they travel to work. The most recent survey data shows 7% of Smart Commute members in Mississauga cycle to work but only 2% commute by bicycle regularly. Reported barriers to cycling for Smart Commute members included the absence of cycling facilities especially on busy arterial roads and through highway interchanges, a lack of secure bicycle parking at many workplaces, and long commute distances.

## 5.2 Region of Peel Cordon Count

The Region of Peel, in partnership with other municipalities in the GTA and the Ontario Ministry of Transportation, delivers a Cordon Count program. The program counts vehicles that pass counting stations which are grouped together to form a screenline. Counts take place over a 15-hour period from 5:30 a.m. to 8:30 p.m. with full counts (all stations) done once every five years and partial counts in between.

Bicycle counts from the 2006, 2011 and 2016 Cordon Count Program are shown in **Table 3**. Counts show a moderate increase in total numbers of bicycles passing the count stations in Mississauga over 11 years.



**Table 3:** Total number of cyclists captured through the Cordon Count Program

(Source: Region of Peel Cordon Count Program, full count years)

Year	Total cyclist counts
2006	7,028
2011	9,862
2016	13,359

Partial counts taken in 2009 and 2014 showed more cyclists passing the Lakeshore Road West and Credit River counting station than the other stations. This station is consistently in the top five busiest stations for all count years, showing that this is an important location for cycling activity.

### 5.3 School-Based Travel

Region of Peel's School Travel Planning (STP) program gathers data on school travel through surveys and traffic counts at participating schools. Preliminary traffic counts and family travel surveys show that cycling activity to schools is relatively low: 1-2% of students at participating schools biked to school on their own; and less than 1% of students cycled with an adult. The feeling among parents that cycling is not safe is a significant barrier to having more children travel by bicycle. However, this feeling varies depending on the location of the school and whether there are comfortable cycling facilities available. When asked about specific safety issues, parents noted high volumes and speeds of traffic and bad driver behaviour like illegal parking and failing to stop at intersections.

### 5.4 Recreational Cycling

People in Mississauga do not only ride bicycles for transportation. Cycling is an important recreational activity. Many successful recreational cycling events are hosted by city staff and the Mississauga Cycling Advisory Committee, a volunteer, citizen-led committee working to support cycling in Mississauga. In 2017, the committee hosted 24 community rides in different neighbourhoods across the city and the 2017 Tour de Mississauga hosted 1,690 cyclists of all ages on rides of various distances around the city.

Mobile apps that record the distance, time and route of cycling trips provide some information about recreational cycling in Mississauga. Strava is one app that is popular among recreational cyclists. 2016 Strava data recorded approximately 80,000 cycling trips in the City of Mississauga. However, this information relies on people downloading and using the app and users tend to be heavily skewed toward male cyclists. 85% of users cycling in Mississauga in 2016 identified as male. But even though it is only a partial picture, the information shown in **Figure 5** tells us that recreational cycling is occurring all across the city on roadways as well as trails.

Figure 5: Recreational cycling trips recorded on Strava in 2016



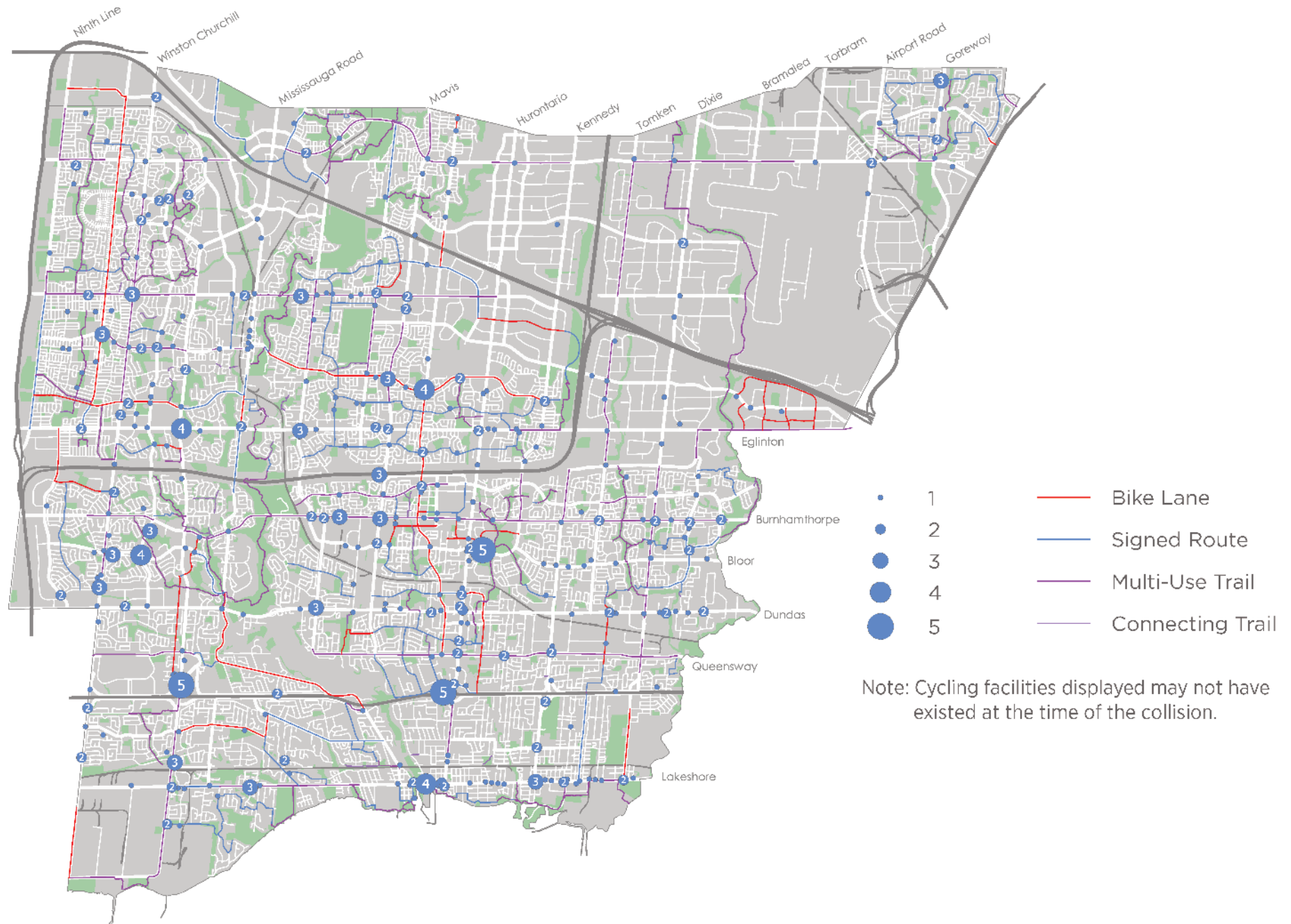
## 5.5 Bicycle Collisions

Over a four-year period from 2010–2013 there were 473 reported collisions involving bicycles in Mississauga. Of these, 380 collisions occurred on Mississauga roads and 93 collisions on Region of Peel roads. **Figure 6** shows the location of bicycle-related collisions during this four-year period. A detailed analysis of these collisions showed the following trends:

- Half of all bicycle collisions in Mississauga from 2010–2013 resulted in injury, 3% were major injuries and 1% fatal.
- 60% of bicycle collisions that occurred on Region of Peel regional roads within the City of Mississauga resulted in injury. These are wider, busier roadways.
- Turning movements at intersections pose a key safety risk to cyclists. 90% of all collisions in the four-year period occurred at or near an intersection. Improvements to intersection design to increase the visibility of cycling activity and limit motor vehicle turning speeds will help to improve safety and comfort for all road users.
- Most collisions happened during the morning and evening peak traffic periods when roads are very busy.
- More than half (61%) of all collisions involved a cyclist riding on the sidewalk. Sidewalk riding is illegal, except for bikes with wheels 50 cm or less in diameter, because sidewalks are not designed for bicycle use and riding on them is a risk to safety. However, a significant number of cyclists seen riding on sidewalks supports 2017 Cycling Survey results showing that the majority of cyclists or non-cyclists who would like to cycle are not comfortable sharing the road with motor vehicle traffic. Bicycle facilities that provide separation from motor vehicle traffic are needed in certain locations to provide a safer alternative to sidewalk riding.
- 32% of drivers failed to yield the right of way to cyclists and 9% of cyclists failed to yield the right of way to motor vehicles. In many cases, conventional road designs do not communicate the presence, correct location and right of way for cyclists. Roadway designs that include clearly marked facilities for cyclists, accompanied by driver and cyclist education, are needed to improve safety and communicate the rights and responsibilities of all road users.
- 47% of all collisions included cyclists under the age of 25.
- 5% of drivers and 8% of cyclists disobeyed traffic control.



**Figure 6: Collisions involving bicycles 2010–2013**





## 5.6 Public and Stakeholder Outreach

This project incorporated a thorough public engagement process that involved several public outreach events including two public open houses, regular meetings with a working group of the Mississauga Cycling Advisory committee, information tables at five local community events and information tables at community centres and libraries in all 11 city wards. In addition to social media, print and digital advertising efforts, project staff also reached out to citizen committees, Residents' Associations, BIAs and Smart Commute members to encourage participation in the project. Along with the public outreach, the project team engaged with technical stakeholders including internal and external partners. A full list of events and organizations that were consulted is available in **Appendix VII**.

### 5.6.1 Project Website

The project website, *DoesCyclingMoveYou.ca*, was the primary source of all project information for the public. The website included links to the 2016-17 Mississauga Cycling Survey, an interactive map of the cycling network, quick polls, and opportunities for review and comment on project materials during all phases of the project. Over 3,500 people participated in the project by visiting the website, filling out one or more surveys or speaking with the project team at events. Input was received from the public and stakeholders through all four phases of the project from establishing existing conditions to reviewing the draft plan.

The central themes that were communicated through public engagement include:

- Building a network of connected cycling facilities;
- Physically separated bicycle facilities along busy streets;

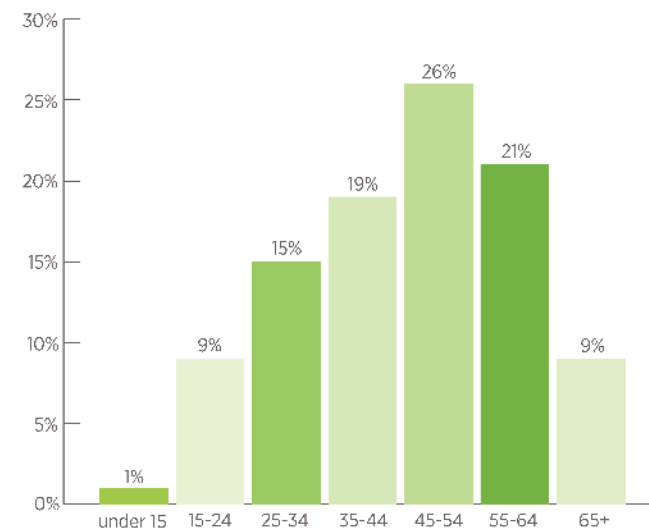
- Protected crossings where trails intersect with roadways;
- Separating pedestrians and cyclists on busy trails;
- Improving surface conditions on unpaved trails; and
- Designing intersections to include bicycle facilities

### 5.6.2 Mississauga Cycling Survey

From October 2016 to October 2017, a Cycling Survey was available online and was offered in-person at Celebration Square over two days in December 2016. The survey was promoted using the City's social media channels and through the *Does Cycling Move You?* website. A detailed summary of survey results is available in **Appendix VII**.

There was broad participation in the survey by people between the ages of 25 and 64 as shown in **Figure 7**. As detailed in **Appendix VII**, focused outreach to youth and elderly residents through community events helped to boost participation by groups that were less represented in the 2016-17 survey results.

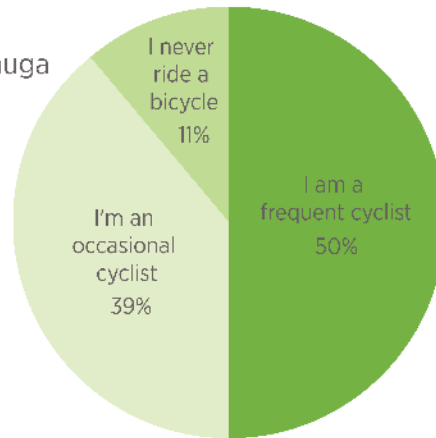
**Figure 7: Age of 2016-17 Cycling Survey Participants**



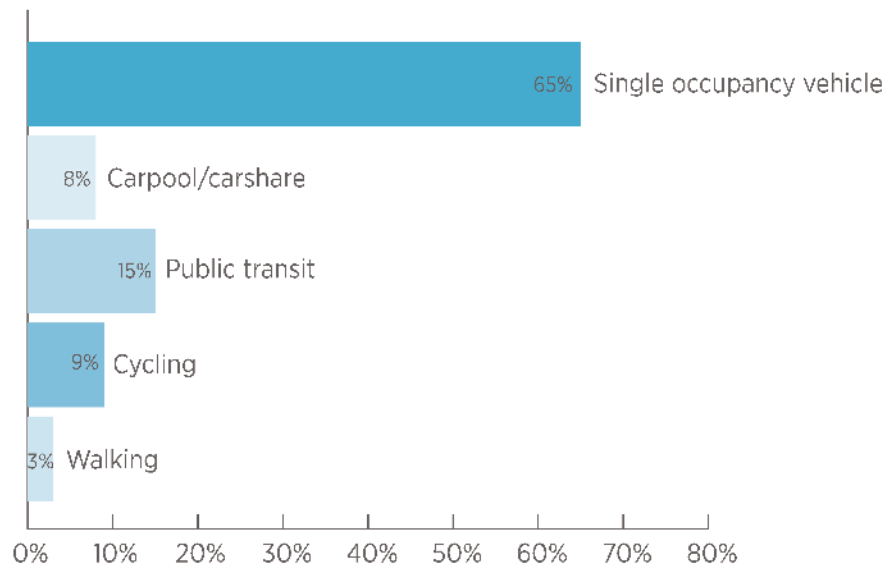
### Bicycle usage & regular mode of transportation

As shown in **Figures 8 and 9**, out of 2,170 participants, a strong majority identified as frequent or occasional cyclists, but less than 10% said they used cycling as their main mode of transportation. 11% of participants said they never use bicycles.

**Figure 8: Bicycle Usage**  
(Source: 2016-17 Mississauga Cycling Survey)



**Figure 9: Regular Mode of Transportation**  
(Source: 2016-17 Mississauga Cycling Survey)



### Reasons people don't ride bicycles more often

When asked why they do not cycle more often, over half of cyclists chose a response related to feeling uncomfortable sharing the roadway with motor vehicles. "Feel unsafe on the road" was chosen by 31% of cyclists followed by "lack of bike lanes/off-road trails," chosen by 29%.

Just under a third of non-cyclists (29%) chose "feel unsafe on the road" as their number one reason for not cycling, while another third (32%) said "I don't have a bicycle." (60% of non-cyclists surveyed do not own a bicycle.)

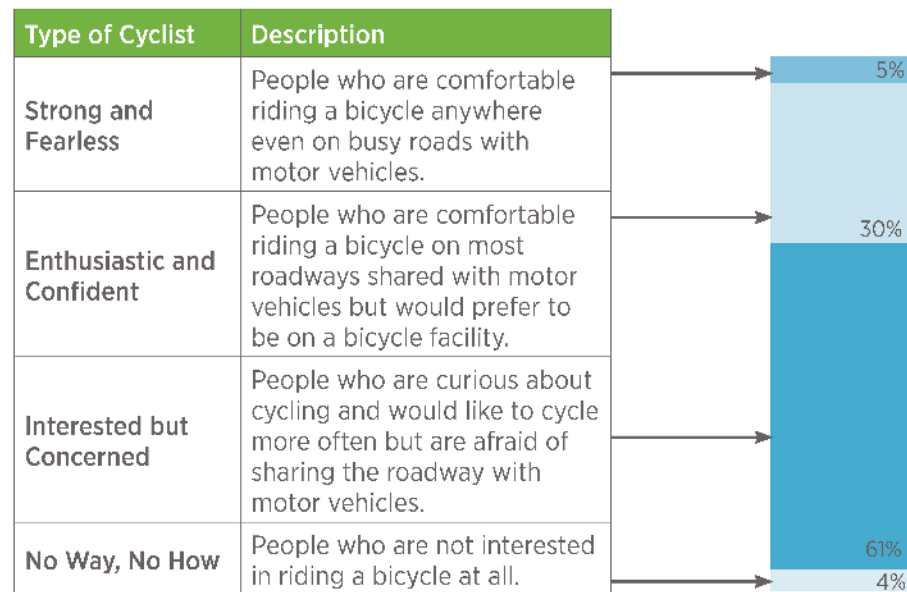
65% of cyclists and 26% of non-cyclists said that more protected cycling facilities would encourage them to cycle more often.

Although weather and distance are often perceived as being significant deterrents to cycling, less than a quarter of cyclists (18%) said that distance was their number one reason for not cycling more often. And an equal proportion of cyclists said that weather was the primary reason for not cycling more often. Similarly, among non-cyclists, only 18% identified weather as their number one reason for not cycling.

### Level of Comfort

Survey participants were asked to report their level of comfort when cycling on different types of bicycle facilities. Based on these results, survey participants were divided into four types of cyclists. These types were originally developed for a 2006 study by Roger Geller, a City Planner from Portland, Oregon. Since this first study, the categories continue to be used by many US and Canadian cities to better understand the market for increasing cycling for transportation, and what is needed to accommodate that market. These categories are described in the table section of **Figure 10**.

**Figure 10:** Types of Cyclists & Percentage of Each Type  
(Source: Mississauga Cycling Survey)



The Mississauga Cycling Survey showed that most survey participants are “Interested but Concerned” about cycling in Mississauga as shown in the bar graph section of **Figure 9**. These numbers show that 96% of survey participants would continue to cycle, cycle more often, or start cycling if more comfortable bicycle facilities were in place.

### 5.7 Levels of Traffic Stress

Mississauga residents that participated in the project said that the most significant barrier to cycling is feeling unsafe or uncomfortable. This reported stress most often comes from the feeling of danger among many cyclists when they must share space on the road with motor vehicles. Many studies have shown a similar significance of “traffic stress” on cyclists in cities worldwide. Roadways provide direct access to people’s homes and destinations and they are the main routes for all travel modes including walking and cycling. Providing comfortable bicycle facilities on roadways is necessary to encourage more people to cycle and increasing the number of cyclists using a roadway network is one of the most effective ways to improve overall cyclist safety.<sup>1,2</sup>

A successful cycling network is one that makes it possible for people to get to where they want to go (connected) without significant detours (convenient) and without exposing cyclists to conditions that are beyond their tolerance for traffic stress (comfortable). Therefore, bicycle network planning and implementation must consider cyclists’ tolerance for traffic stress and work to reduce that stress so that the network will function as intended and achieve the plan goals.

1. Ontario Traffic Manual Book 18. Dec 2013. p.25.
2. Jacobsen, PL. “Safety in numbers: more walkers and bicyclists, safer walking and bicycling.” *Injury Prevention*. 2003, Issue 9, pp.205-209.

Bicycle facilities that require very little interaction with motor vehicles are low stress. The level of traffic stress is typically related to the speed and the volume of motor vehicle traffic and the amount of separation between cyclists and motor vehicles. For example, a local neighbourhood street with low traffic volumes and speeds is low stress, but a busy roadway that provides physical separation between cyclists and motor vehicles can also be considered low stress. Different people will tolerate different levels of traffic stress; a strong and fearless cyclist will feel less stress than an interested but concerned cyclist.

As described in Section 5.6.2, the majority of people who participated in this project identified themselves as “interested but concerned cyclists.” A Level of Traffic Stress (LTS) analysis was completed for the existing cycling network and an LTS rating was provided for each segment of the existing cycling network. The LTS ratings illustrate the experience for the majority of cyclists or would-be cyclists, i.e., those who identify as interested but concerned when cycling on the existing cycling network. The traffic stress analysis is an objective evaluation based on available traffic data. The definitions of the levels of traffic stress are described in **Table 4** and a discussion of the methodology used to develop the LTS analysis is provided in **Appendix VIII**.

**Table 4:** Levels of Traffic Stress—Definitions

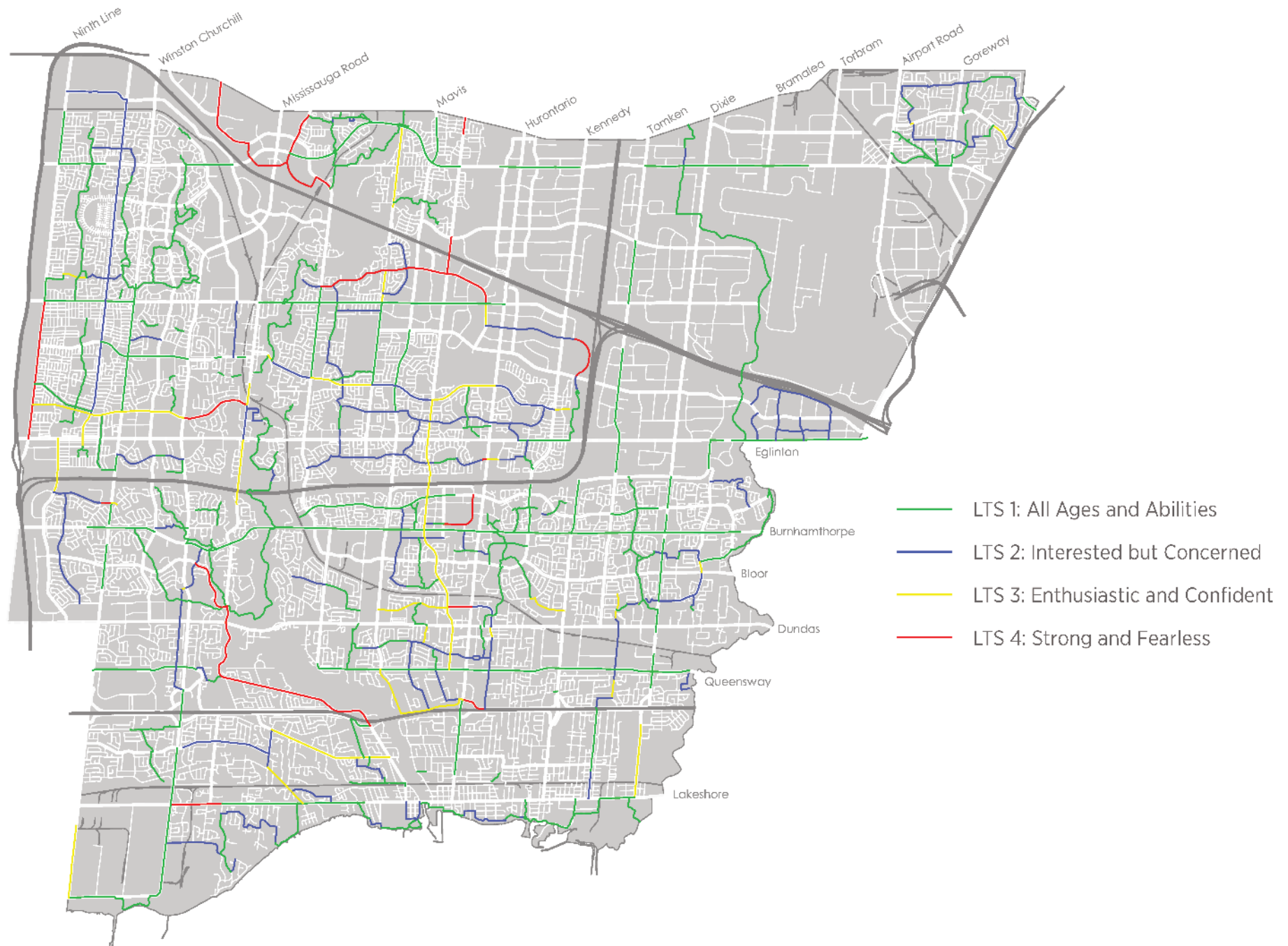
<b>LTS 1</b>	Low traffic stress and requiring lower attention from cyclists. Suitable for almost all cyclists, including children (interested but concerned cyclists)
<b>LTS 2</b>	Low traffic stress but requiring attention and therefore suitable to most adult cyclists, (interested but concerned cyclists)
<b>LTS 3</b>	More traffic stress than level 2, suitable for adults who are confident cyclists (enthusiastic and confident cyclists)
<b>LTS 4</b>	Highest level of stress, suitable for strong and fearless cyclists

**Figure 11** shows the level of traffic stress associated with different cycling facilities across the existing cycling route network (as of March 2018). The map helps to illustrate where lower stress bicycle facilities are interrupted by high-stress gaps in the cycling network, and where some existing bicycle facilities may not be comfortable enough to be used by most cyclists.

A traffic stress analysis was also completed for the recommended cycling network and is discussed further in Section 6.3.



**Figure 11: Level of Traffic Stress of the Existing Cycling Network**





## 6 Recommended Cycling Network

This chapter presents a recommended bicycle route network for the City of Mississauga that will meet the needs of cyclists of all ages and abilities and supports the vision of Mississauga as a city where people choose to cycle for recreation, fitness and daily transportation needs. The recommended network was developed through public and stakeholder consultation, analyses of available data on cycling safety, comfort and demand, and guided by the Plan's vision and goals. This chapter includes information on how the network was planned, the recommended routes and types of bicycle route facilities, and how these create a connected, comfortable and convenient network for travelling by bicycle.

### 6.1 Planning the Cycling Network

Cycling Network planning was guided by the vision and goals of the Plan, and informed by an analysis of the existing conditions, needs and opportunities research, and input from technical stakeholders and the community. Six route selection principles were developed during this process and used to review the Bicycle Network and guide recommended changes.

#### Route Selection Principles:

1. Integrate new facilities with the existing cycling network
2. Provide continuous and barrier-free routes
3. Provide connections to key destinations
4. Prioritize connections to public transit
5. Provide access to all neighborhoods
6. Provide safe and comfortable routes

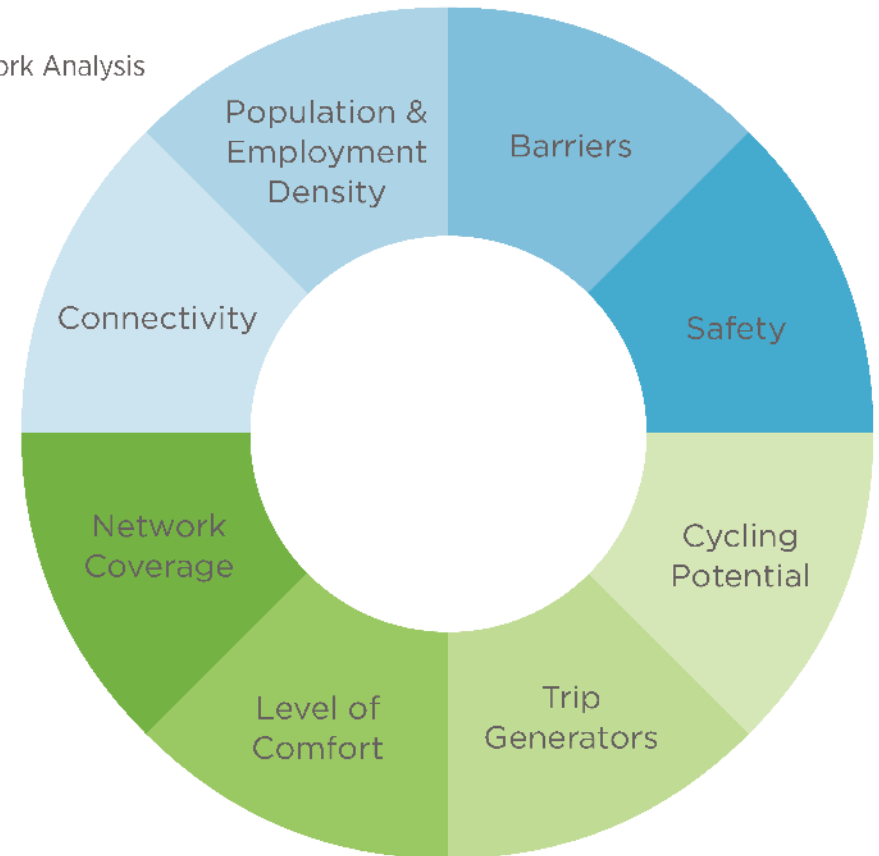
Data analysis tools were developed using available cycling-related data to evaluate and update the 2010 proposed Cycling Network. Data categories are illustrated in **Figure 12** and include:

- **Population and Employment Density**—Canada Census data;
- **Connectivity**—gap analysis of the existing and proposed network;
- **Network Coverage**—proximity of residences and businesses to the cycling network, and distance;

- **Level of Comfort**—traffic stress analysis of the existing and proposed cycling routes (See section 5.4 and **Appendix VIII**);
- **Trip Generators**—proximity of the bicycle network to community facilities, transit, and other important destinations;
- **Cycling Potential**—location of short auto trips (5 km or less) that could potentially be converted to cycling trips—Transportation Tomorrow Survey data (2011);
- **Safety**—Peel Regional Police collision data (See section 5.2); and
- **Barriers**—location of geographical and human-made barriers (rivers, ravines, highways, rail corridors).

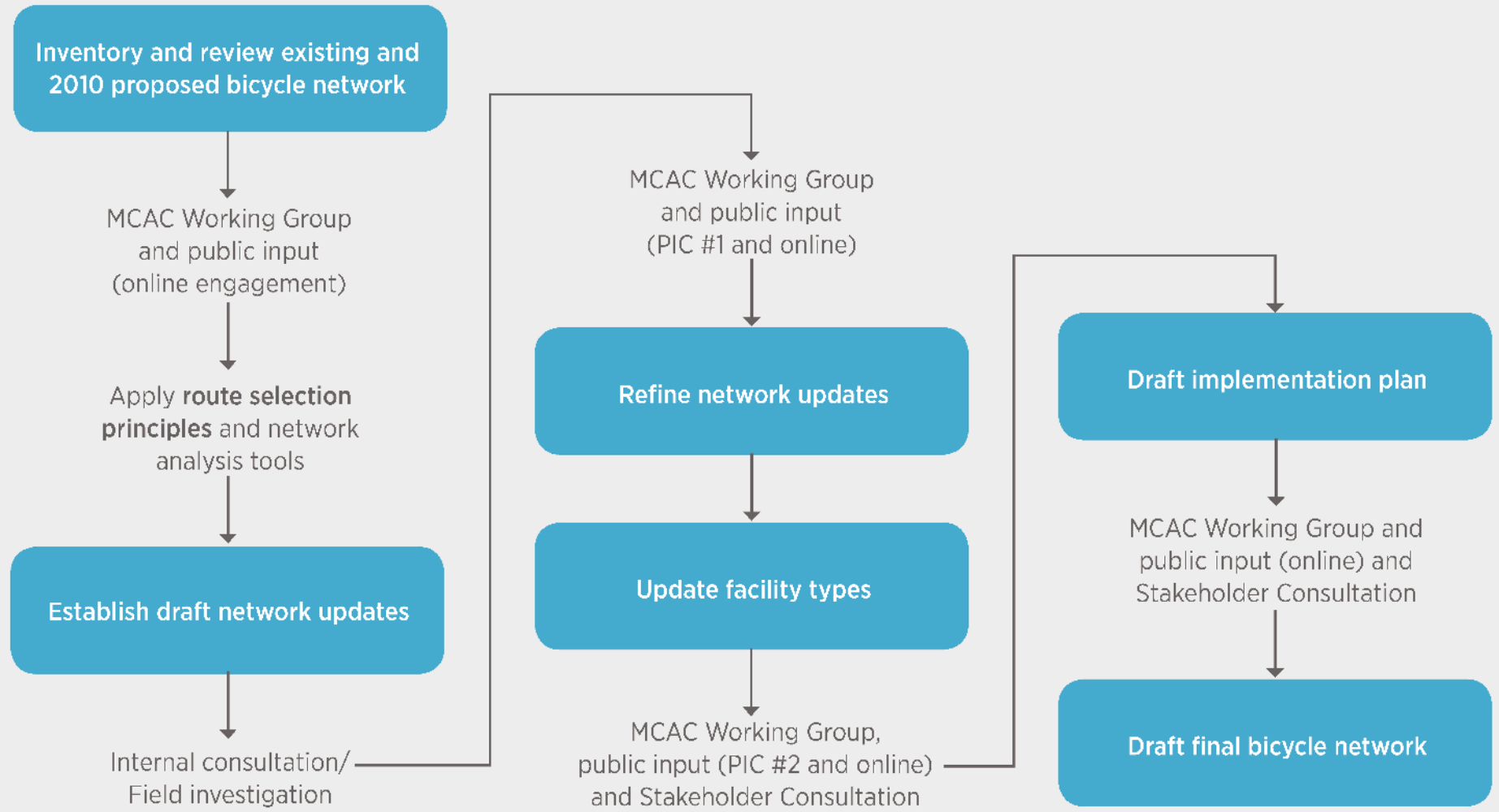
More information on the Cycling Network analysis is provided in **Appendix III**.

**Figure 12:** Cycling Network Analysis



The Cycling Network planning process is illustrated in **Figure 13**. There were several opportunities for public and stakeholder input during the network planning. Comments were received in-person, by email, telephone and through the *Does Cycling Move You?* website. Two Public Information Centres (PIC), or “open houses,” were held to directly gather public input and display the work to date.

**Figure 13:** Cycling Network Planning Process





## 6.2 Types of Bicycle Facilities

A bicycle network that encourages more people to cycle is one that offers a safe and comfortable environment for cyclists of all ages and abilities. Dedicated bicycle facilities improve safety and comfort by separating cyclists from motorized vehicle traffic and/or reducing traffic speeds.<sup>3</sup> These measures are at the heart of the Vision Zero approach to eliminating traffic fatalities.

Existing cycling facilities in Mississauga include:

- Conventional bike lanes;
- Shared routes where bicycles share the roadway with cars; and
- Multi-use trails (two-way trails shared by cyclists and pedestrians).

There are several other types of bicycle facilities that are designed to provide safe and comfortable cycling conditions on different roadway environments. **Table 5** shows the different types of bicycle facilities being implemented in Canadian and North American cities.

3. Teschke, K. et al. "Route Infrastructure and the Risk of Injuries to Bicyclists: A Case-Crossover Study." *American Journal of Public Health*. 2012, 102:12, pp.2336-2343.

**Table 5:** Types of Bicycle Route Facilities

Facility	Description
Conventional Bicycle Lane	Signs and pavement markings. Reserved for bicycle use only.
Buffered Bicycle Lane	Bicycle lanes that have a painted buffer to provide extra space between cyclists and other traffic lanes. Reserved for bicycle use only.
Separated Bicycle Lane	Bicycle lanes that are physically separated from other traffic lanes by flexible posts, planters, parking stalls, curbs, or other barriers. Reserved for bicycle use only.
Raised Cycle Track	Bicycle lanes that are physically separated by a curb and raised higher than the street, either to sidewalk level or slightly lower. Reserved for bicycle use only.
Park Multi-Use Trail	Paved trails in park lands, shared by cyclists and pedestrians.
Boulevard Multi-Use Trail	Paved trails in the boulevard beside major roadways, shared by cyclists and pedestrians.
Paved Shoulders	On rural roads, paved shoulders provide a designated space for cyclists to ride.
Signed Bicycle Route	A route shared between cyclists and motorists on local streets with slower speeds and less traffic. May also include traffic calming and design elements to prioritize bicycles.
Sharrows and Signs	A route shared between cyclists and motorists. Includes signs and sharrow pavement markings. May also include traffic calming, low speed limits and design elements to prioritize bicycles.
Advisory Bike Lanes	On narrow roads with low traffic volumes and slow speeds, advisory bike lanes show the preferred space for cyclists on routes shared between cyclists and motorists.

### 6.2.1 Choosing Bicycle Facility Types

Building a safe and comfortable cycling network means choosing the right type of bicycle facility for each location. Bicycle facilities are chosen based on the goal of reducing the exposure of cyclists to traffic stress and conflict. As illustrated in **Table 5**, there is a range of bicycle facility types that provide more or less separation between motorists and cyclists. In principle, greater separation should be provided where traffic volumes and operating speeds are higher. There are three types of separation that can be used:

1. Spatial (dedicated space for bicycles separated by a painted line);
2. Physical (physical barriers between the cycling facility and other motor vehicles like bollards, curbs, planters, or parked cars); and
3. Time (stop controls or traffic signals that separate bicycle movements from turning motor vehicles).

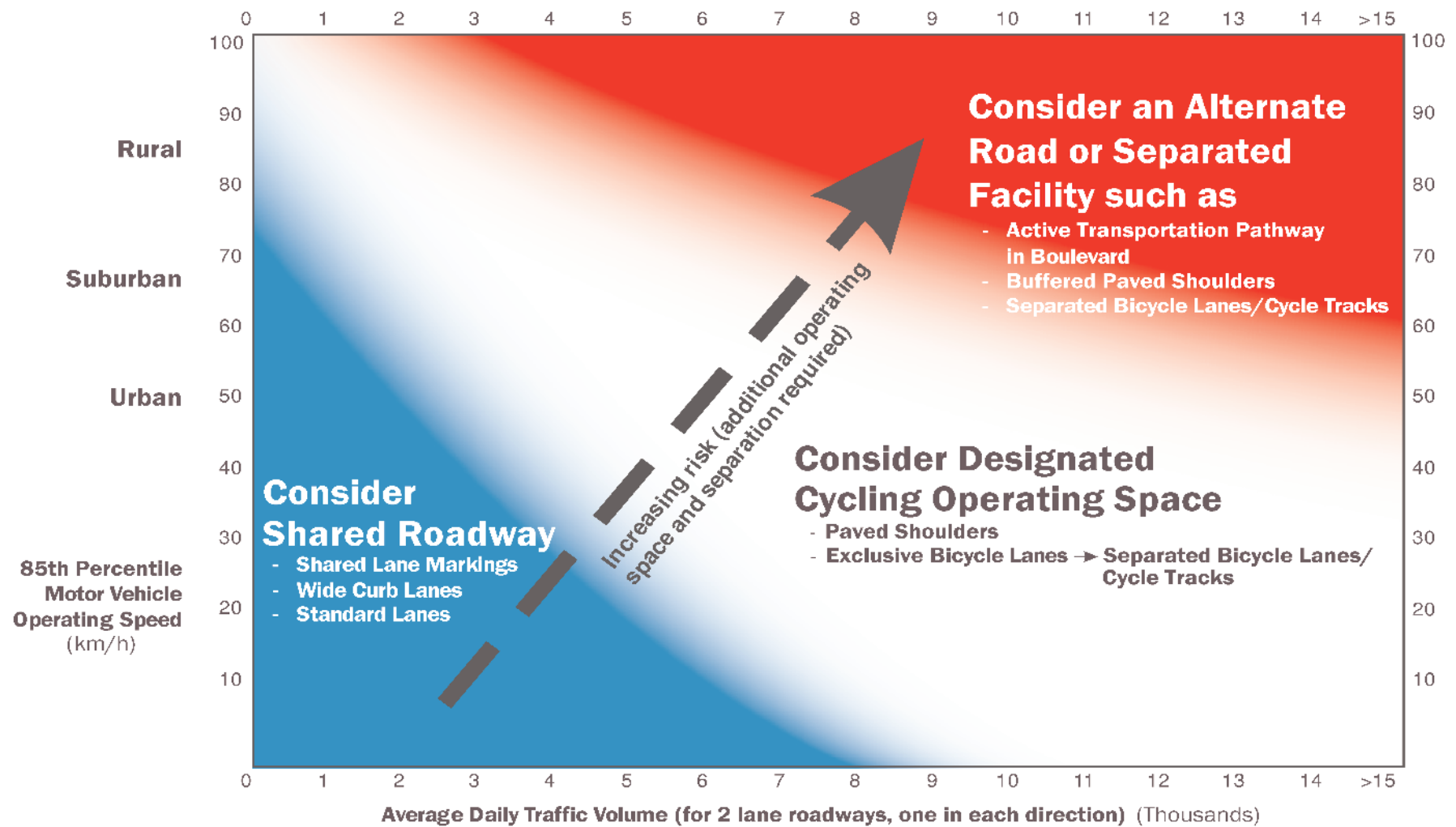
One or more of these kinds of separation may be used depending on the facility type and the surrounding environment. However, a context sensitive approach to identifying appropriate bicycle facility types is critical. Many factors must be taken into account such as:

- the frequency of intersections and driveways;
- the visibility of cyclists particularly when separated from, or set back from the roadway;
- an increased potential for conflict at intersections and driveways that is introduced by two-way cycling facilities; and
- potential conflict between cyclists and pedestrians on mixed-use facilities.

This project followed the bicycle facility type selection process outlined in Ontario Traffic Manual Book 18 (2013). This is a three-step process that begins by selecting a facility type based on motor vehicle speeds and volumes as shown in **Figure 14**, followed by a detailed look at other traffic and site specific characteristics to determine the most suitable kind of facility.



Figure 14: OTM Book 18—Cycling Facility Pre-Selection Tool (Image Credit: MMM 2013)



### 6.3 Proposed Cycling Network

The Cycling Master Plan envisions a comfortable, connected and convenient cycling network that includes separated bike lanes, cycle tracks, multi-use trails, conventional bike lanes and shared routes as summarized in **Table 6**. Once implemented, these facilities will create a cycling network that Mississauga residents and visitors of all ages and abilities will feel comfortable using.

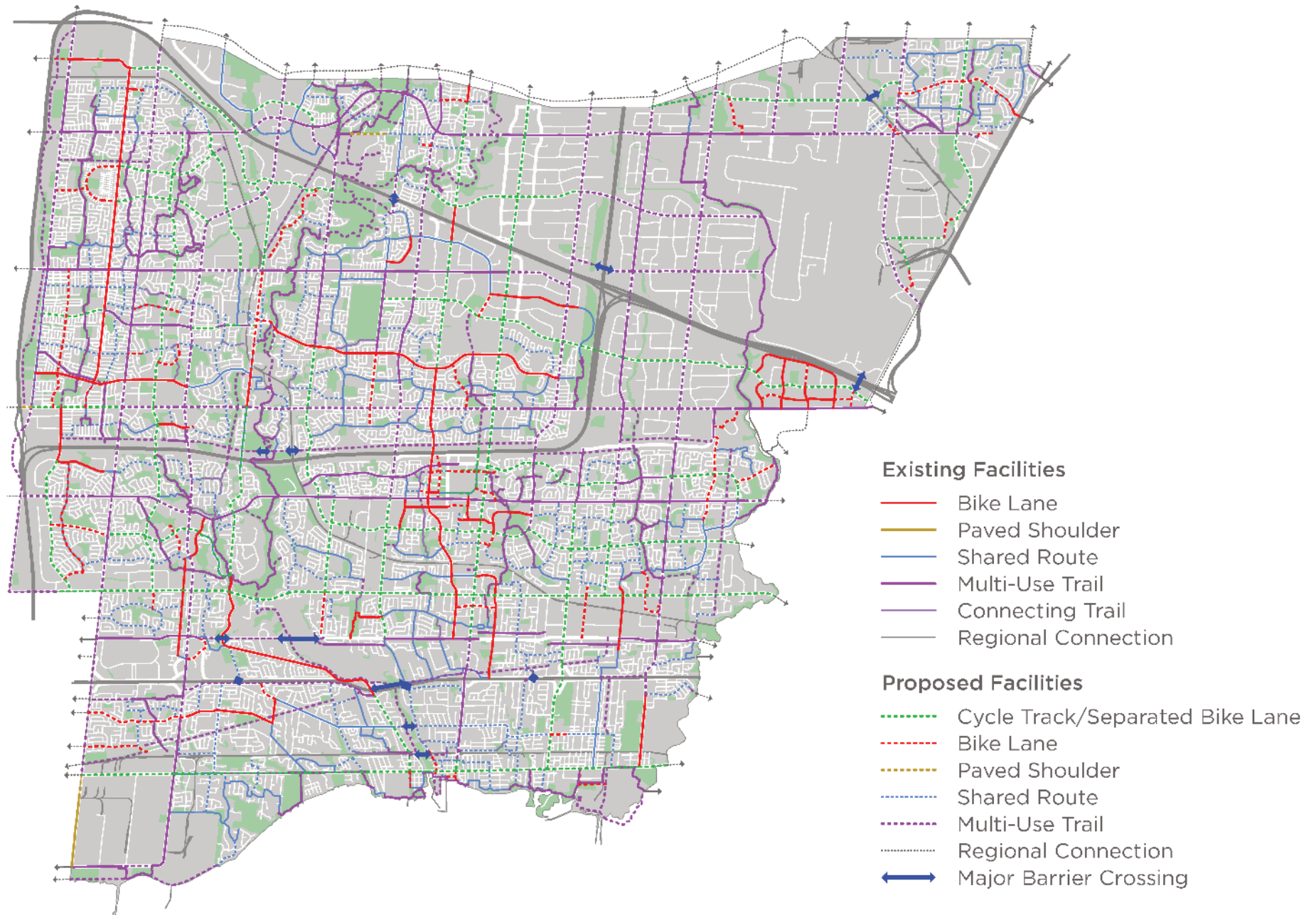
**Table 6:** Summary of cycling network facilities lengths and costs

Facility Type	Existing km	Upgrade km	Upgrade cost	New km	New Cost	Total km	Total Cost
Cycle Tracks/Separated Bike Lanes	0	20	\$9,416,000	150	\$97,430,000	170	\$106,846,000
Bike Lanes	51	1	\$46,000	56	\$12,360,000	108	\$12,406,000
Multi-Use Trails (Boulevard)	68	15	\$0	125	\$40,838,000	208	\$40,838,000
Shared Routes	87	0	\$0	131	\$6,591,000	218	\$6,591,000
Multi-Use Trails (Parks)	70	34	\$15,821,000	89	\$51,456,000	193	\$67,277,000
<b>Totals</b>	<b>276</b>	<b>70</b>	<b>\$25,283,000</b>	<b>551</b>	<b>\$208,675,000</b>	<b>897</b>	<b>\$233,958,000</b>

Note that lengths may differ from other sources due to the measuring methodology used. Parkland multi-use trail lengths only include major trails, and minor trails that connect cycling facilities.

The proposed Cycling Network is illustrated in **Figure 15**. More detailed information on proposed cycling network routes is provided in **Appendix I**.

Figure 15: Proposed Cycling Network



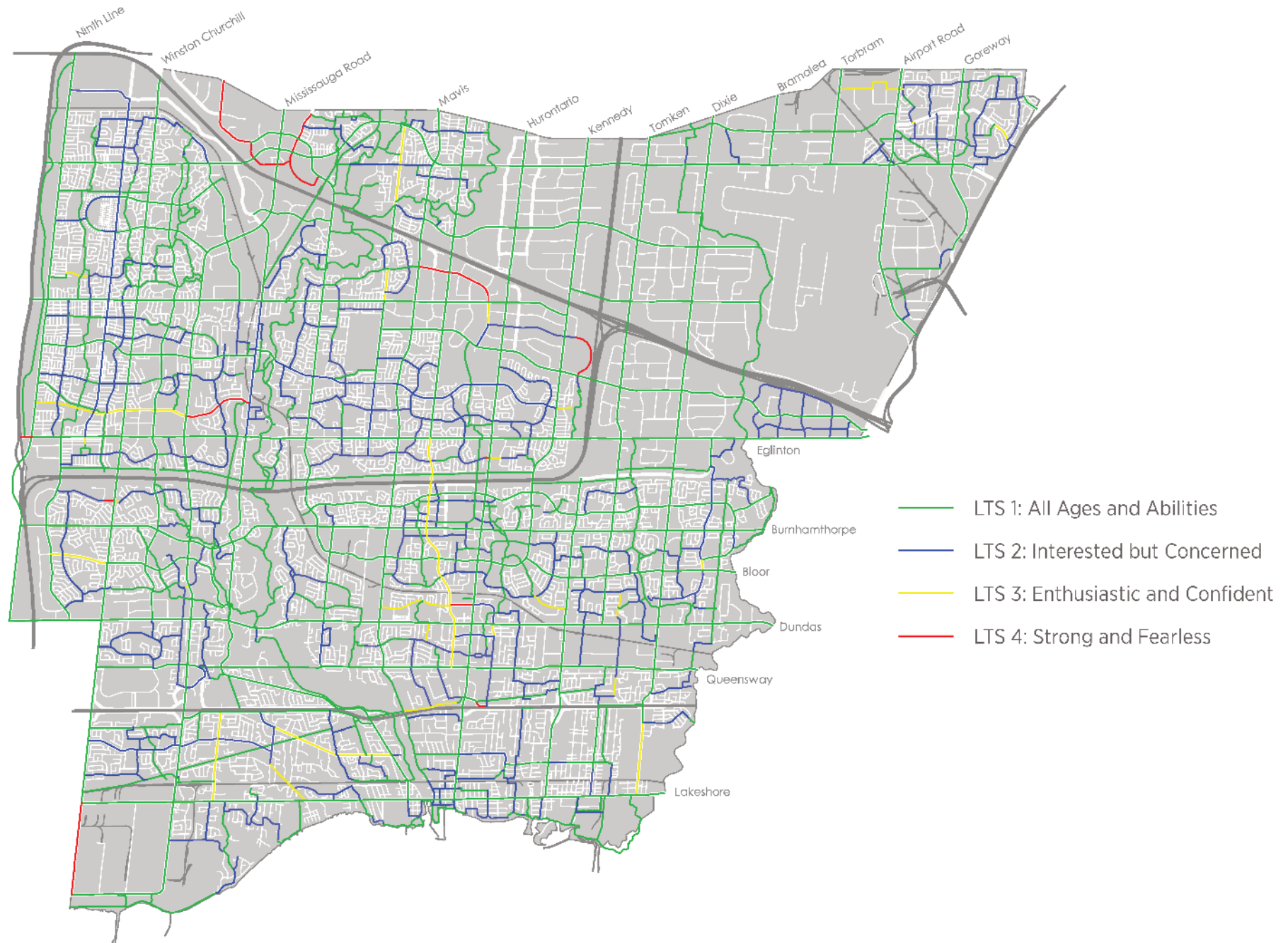
A level of traffic stress analysis was completed for the proposed cycling network to illustrate how segments of the recommended cycling network facilities would serve different types of cyclists. For more information on the level of traffic stress analysis see Section 5.7. **Figure 16** shows what the LTS ratings of the Proposed Cycling Network would be when implemented. These LTS ratings show the expected LTS when all recommended facilities and proposed facility upgrades have been implemented. Proposed upgrades to existing bicycle facilities are discussed in Section 6.4.

The majority of recommended cycling facilities provide a comfortable cycling environment for cyclists of all ages and abilities. In a few instances, existing cycling routes are not comfortable for cyclists of all ages and abilities and have not been identified for upgrade. These facilities include routes with more rural conditions where cycling volumes are expected to be low, or routes where comfortable alternative routes are located nearby.

Level of Travel Stress analyses in other cities often show local, residential roads as very comfortable for cyclists of all ages and abilities (LTS 1). Because Mississauga has a suburban built-form, with relatively wide, local, residential roads, and higher posted and operating speeds on local roads than in more urban locations, most of Mississauga's local roads are classified as LTS 2. (Although LTS 2 is comfortable for most adult cyclists, it tends to be less comfortable for children and can be a deterrent to cycling for children and their parents). In some cases, traffic calming measures may be an option to reduce the traffic stress on these cycling routes.



**Figure 16: Level of Traffic Stress of the Proposed Cycling Network**



### 6.3.1 Classifying Bicycle Routes

Recommended cycling network routes have been organized into primary and secondary cycling routes. These classifications help to clarify the role these routes play within the cycling network and will help to prioritize new and developing programs and priorities for the network such as design strategies, maintenance and existing facility upgrades.

The purpose of the primary cycling routes is to provide direct connections to and between key destinations and locations identified in the City's Official Plan, such as the Downtown, Major Nodes; Community Nodes; Corporate Centres; Intensification Corridors; Major Transit Station Areas; and connect to adjacent municipalities.

Secondary cycling routes are intended to connect the primary cycling routes with local neighbourhoods and neighbourhood-based destinations.

Figure 17: Primary Cycling Routes

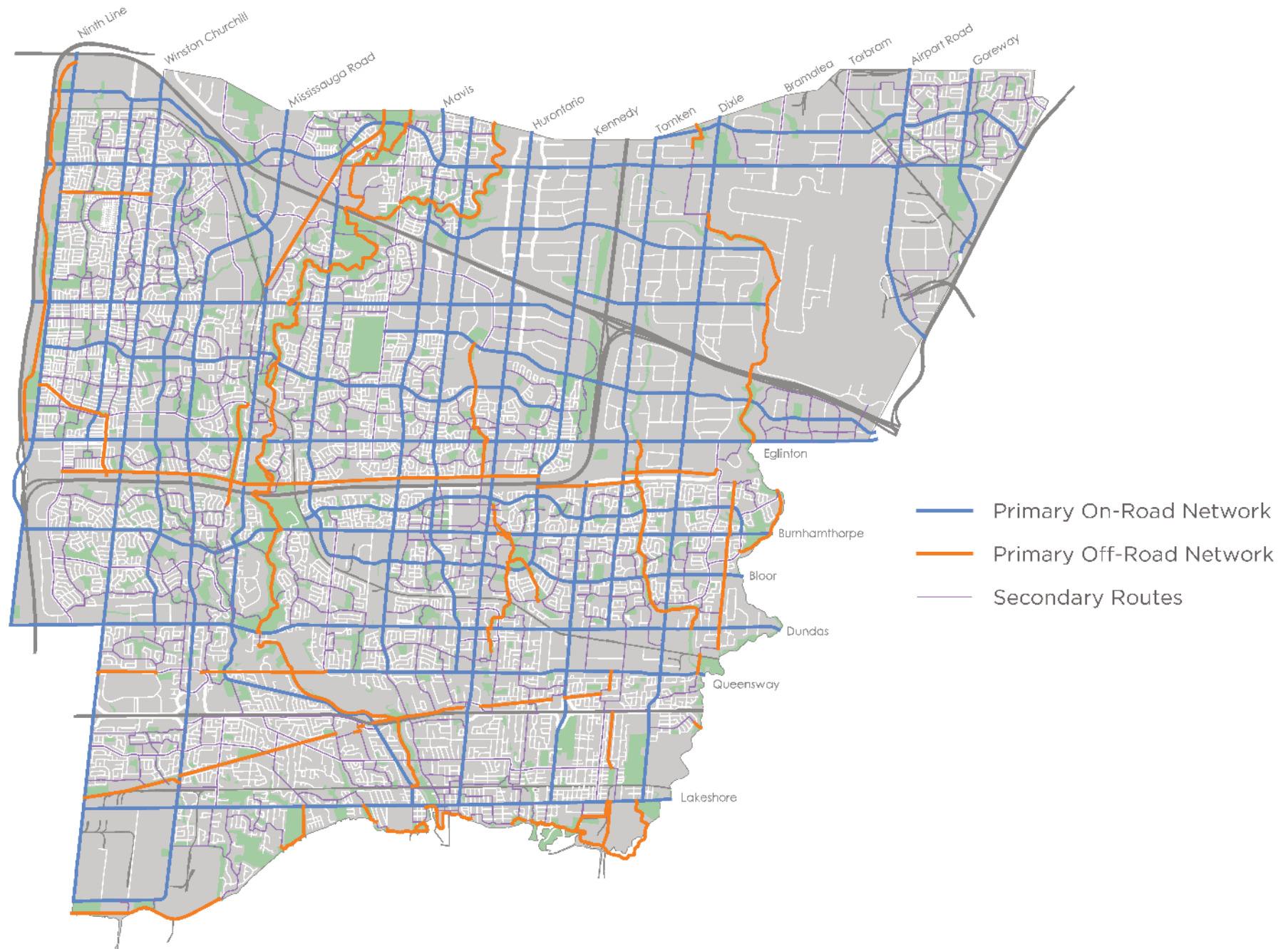
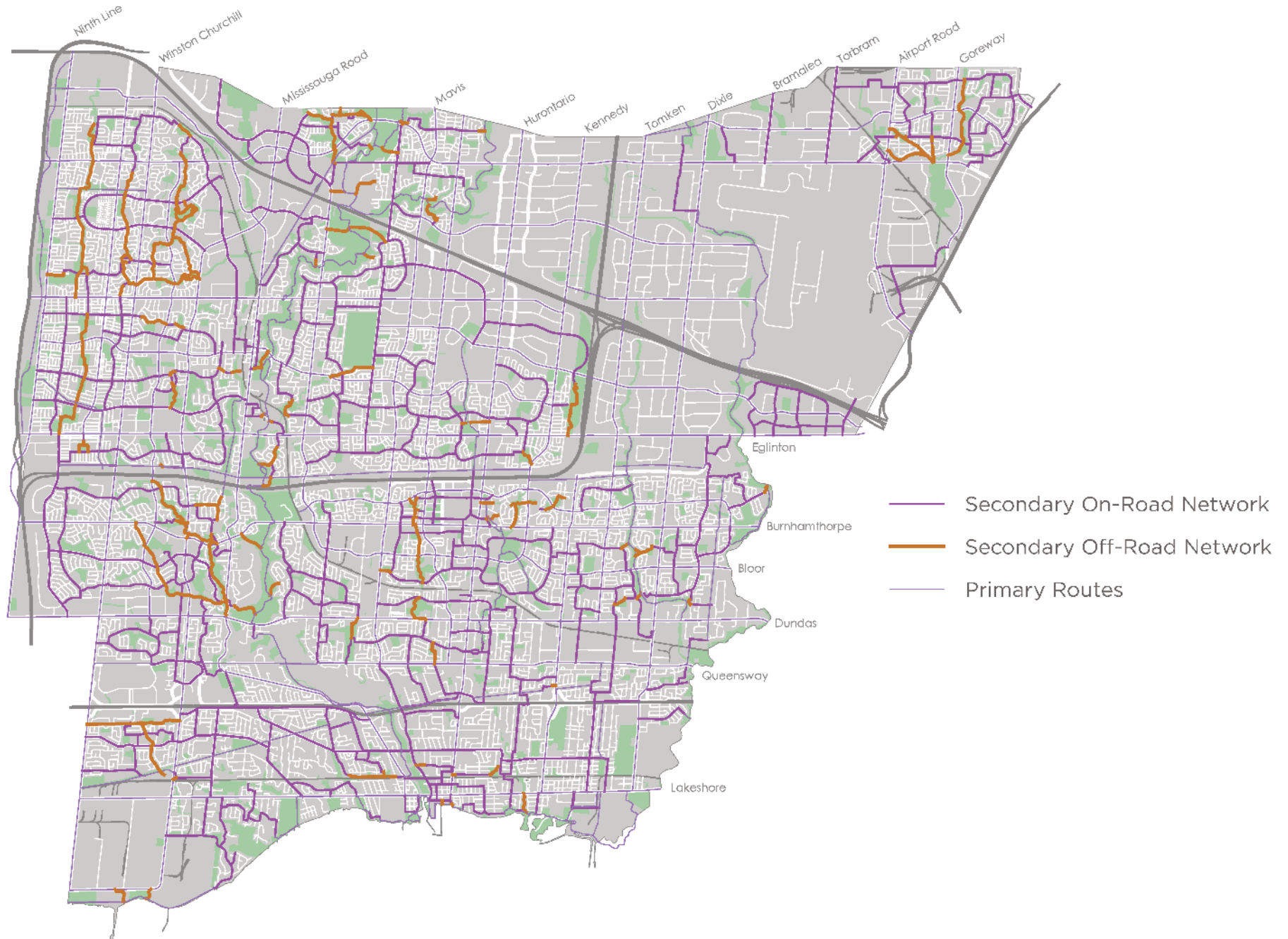


Figure 18: Secondary Cycling Routes





## 6.4 Corridor Studies and Complete Streets

A “Complete Streets” approach describes a process to create a comprehensive, integrated transportation network for all kinds of travel modes. Mississauga’s Strategic Plan promotes a Complete Streets approach which is supported through Mississauga Official Plan policies to promote and enable multi-modal transportation.

Providing a complete transportation network does not mean that every street must provide dedicated facilities for all transportation modes, instead it means that the whole transportation network will provide convenient, safe, and connected routes for all modes of transportation throughout the city. Some streets may be prioritized for one or more modes over others. For the purposes of bicycle network planning, roadways in Mississauga that provide direct and continuous connections across the city, such as arterial roads, major collectors and parallel streets are corridors that must be evaluated as Complete Street Corridors, particularly where there are no continuous parallel routes.

Recommended on-street bicycle facilities on arterial roads, major collectors or parallel streets should be evaluated as part of a Complete Street Corridor Study. Most major and minor arterial and major collector streets with proposed bicycle facilities that are intended to achieve LTS 1 or 2, will require further study. Further study is needed to evaluate the suitability of each roadway for the proposed treatment and to better understand the impact cycling facilities will have on other modes of transportation. These major streets provide access to key cycling destinations, provide direct connections across the city and/or to adjacent municipalities and there are no parallel routes available that can provide the same function for the cycling network. Many of Mississauga’s

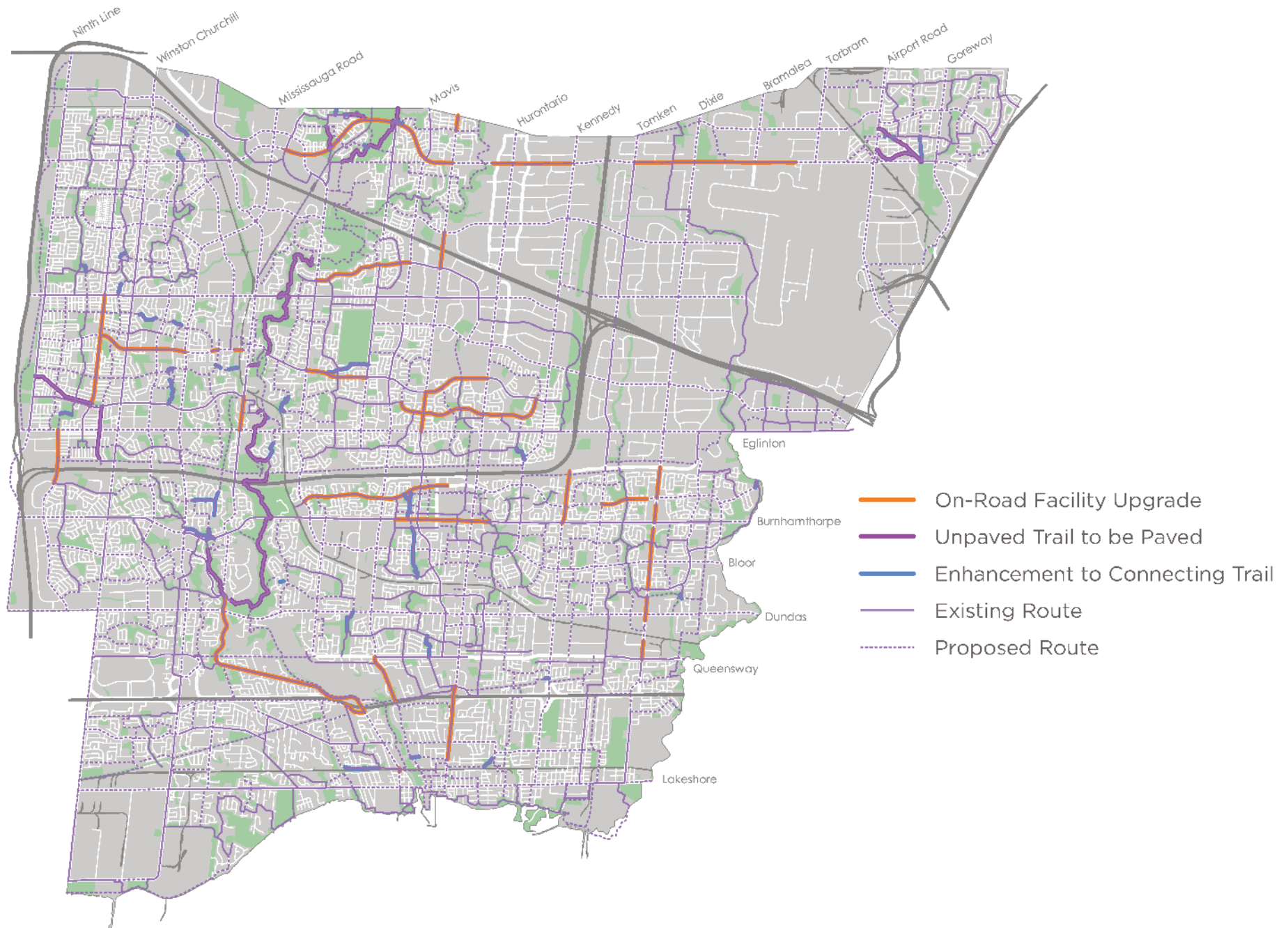
arterial and major collector roads serve this important function for many different modes of transportation, which is why further study is required to understand the impacts to all modes including cycling.

## 6.5 Proposed Upgrades

Design guidance for cycling facilities is continuing to evolve as more bicycle facilities are built and evaluated. (See Section 3.5). This includes information on design features like facility widths, clearance from obstacles, pavement markings, surface materials, and different kinds of separation, as well traffic calming devices and other tools to improve safety and comfort for cyclists on shared cycling routes.

Producing geometric design standards and guidelines for bicycle facilities that are specific to Mississauga is an important step to building new bicycle facilities and providing upgrades to existing facilities so that they are safe and comfortable for cyclists of all ages and abilities. It is recommended that the City of Mississauga create a bicycle facility design guide that is informed by the most up-to-date design guidance and periodically update the guide to reflect advances in this field. (See Recommendation 2.1.2 in Section 3.3). Locations where upgrades to the existing bicycle network are recommended are shown in **Figure 19**. More information on bicycle facility design best practices is provided in the sections below and in **Appendix VIII**.

**Figure 19:** Recommended upgrades to existing cycling network (on-road routes and trails)



## 6.6 Intersections

Safe and comfortable intersection design reduces delays for everyone while also reducing conflicts and the risk of injury in the event of a collision. Intersections are where conflicts are most likely to occur and there are several variables that have an impact on safe intersection design:

- Bicycle facility type;
- Traffic volumes (all modes);
- Design speed;
- Roadway width;
- Delay (for all modes);
- Current and future land use;
- On-street parking; and
- Roadway geometry and topography.

Intersection designs that are safe, comfortable and convenient for cyclists and all other road users are those that:

- Provide good sight distance (so that all road users can be seen when moving through the intersection);

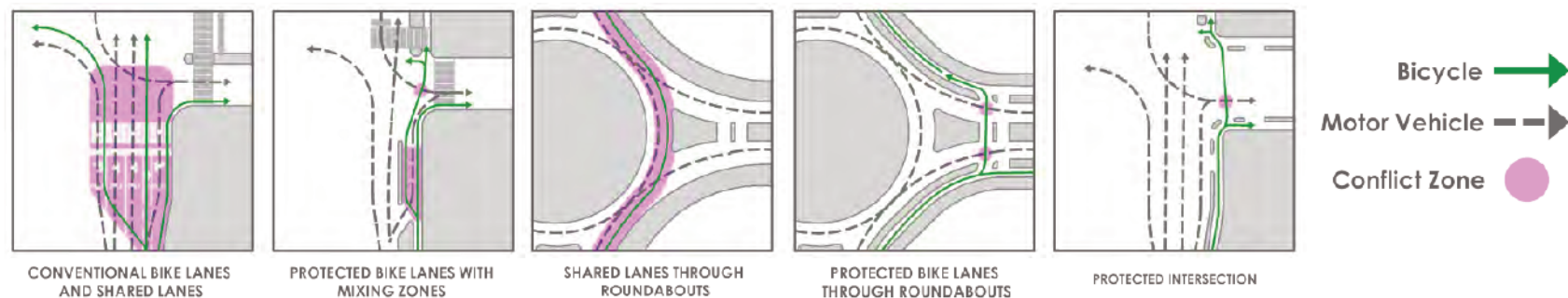
- Reduce the potential for conflict between road users;
- Reduce speeds at conflict points so that if there is a collision severe injuries are less likely; and
- Clearly communicate where vehicles, bicycles and pedestrians should be and who has priority.

Different types of intersections provide more or less exposure to conflicts as illustrated in **Figure 20**, with conventional bike lanes and shared lanes having the highest exposure to conflicts and protected intersections the lowest.

Improving safety and comfort at intersections where bicycle facilities cross roadways or driveways is necessary to build a connected, comfortable and convenient cycling network. The design of intersections on new bicycle routes must consider updated policy and design guidance and principles for safe intersection design.







Intersection improvements are planned within the context of each project. Options for improvements include design elements that have already been used in Mississauga and new design elements and principles such as those shown in **Figure 21**.

**Figure 20:** Conflict zones for cyclists and motorists at different types of intersections  
(Image adapted from MassDOT Separated Bike Lane Planning & Design Guide)











**Figure 21:** Intersection design elements for comfortable cycling

<p>1.</p>  <p>Unsignalized and signalized crossrides</p>	<p>4.</p>  <p>Protected mid-block crossings</p>
<p>2.</p>  <p>Green pavement markings</p>	<p>5.</p>  <p>Protected crossings at roundabouts</p>
<p>3.</p>  <p>Pavement markings through intersections</p>	<p>6.</p>  <p>Fully protected intersections</p>



<p>7.</p>  <p>✓</p> <p>Recessed crossings</p>	<p>10.</p>  <p>✗</p> <p>Reduced radii on highway ramps to slow down turning traffic at highway interchanges</p>
<p>8.</p>  <p>✓</p> <p>Reduced corner radii to slow down turning traffic</p>	<p>11.</p>  <p>✓</p> <p>Two-stage left turn bike boxes</p>
<p>9.</p>  <p>✗</p> <p>Removal of channelized right turn lanes</p>	<p>12.</p>  <p>✓</p> <p>Pavement markings and geometry at driveways to slow traffic and improve visibility of cycling facilities, particularly multi-use trails</p>

### 6.6.1 Roundabouts

Current national and provincial design guidance supports a shared bicycle route in single lane roundabouts if traffic speeds and volumes are low. Cyclists move into the centre of the roundabout and share this space with motor vehicles. It may be appropriate to separate cycling routes at some single lane roundabouts if they are part of a cycling route that is intended to provide a comfortable facility for cyclists of all ages and abilities. Multi-lane roundabouts typically have higher traffic volumes and speeds and are not suitable for shared-use therefore a separated bike path is recommended by current Canadian design guides.

However, provincial design guidance identifies Type 2 pedestrian crossovers (PXOs) and crossing guards as the two appropriate crossing controls for roundabouts. At roundabouts where a separated bike path is recommended, a PXO would require that cyclists dismount and walk across the intersection under current provincial law. This introduces a significant challenge to developing bicycle-friendly intersections at roundabouts. Expecting cyclists to dismount and walk at intersections is not recommended due to the significant energy required by cyclists to stop and start. Cyclists should be accommodated along the full length of a cycling route, including through all types of intersections.<sup>4</sup>

There are a small number of existing roundabouts in Mississauga and several more are in the process of being planned and designed. Many of these locations are on designated cycling routes and other roadways used by cyclists. Safe crossings that accommodate cyclists are needed at roundabouts and must be developed in partnership with the province of Ontario to remove regulatory barriers.

### 6.6.2 Mid-Block Crossings

There are several locations in the existing cycling network where mid-block crossing treatments are needed to improve safety and comfort for cyclists. Mid-block crossings are needed to provide access across roadways where there is no crossing control. These may be locations where cycling routes on local roadways intersect with major roadways, or where off-road trails intersect with roadways mid-block. There are many different types of crossing treatments that could include elements like signage, pavement markings, traffic calming devices, or signals. The type of crossing treatment is selected based on the context of each crossing. Factors such as traffic volumes, number of traffic lanes, distance from adjacent intersections, and sight lines for cyclists, pedestrians and motor vehicles must be considered. Pedestrian crossovers (PXOs) are an example of mid-block crossing treatments but, as noted previously, under current provincial law cyclists must dismount and walk when using a PXO. It is recommended that mid-block crossing treatments should accommodate both cyclists and pedestrians. The City of Mississauga should work with the Province of Ontario to allow the accommodation of cyclists at mid-block crossing locations where PXOs are warranted.

4. *Ontario Traffic Manual Book 18*. 2013, p.9.



## 6.7 Multi-Use Trails

Multi-use trails are an important part of Mississauga's active transportation network. They are located in parks, along green corridors (creek and river valleys and hydro corridors), and in the boulevards of several major arterial roads. Multi-use trails are shared by pedestrians and cyclists, including people pushing strollers or using walkers, roller blades, skateboards, wheelchairs, or other non-motorized modes of transportation. Because they are separated from the roadway, multi-use trails offer a comfortable environment for people of all ages and abilities. But, there is potential for conflict at intersections and driveways, and between different kinds of trail users travelling at different speeds. These conflicts can impact safety on multi-use trails.

Available design guidance, research and feedback from community members and other stakeholders show the following elements (as shown in **Figure 22**) would improve conditions on existing trails, and ensure safety and comfort on new trails.

**Figure 22:** Multi-use trail design elements for comfortable cycling

1.



Separating cyclists and pedestrians on busy multi-use trails and trails that are intended to provide for higher speed commuting

2.



Using consistent surface materials along the full length of a multi-use trail, to clearly communicate where the trail begins and ends, and where pedestrian-only areas exist, including at intersections

3.



Providing a paved or suitably compacted surface to allow for bicycles to operate safely

6.



Designing driveway crossings so that they are visible, reduce conflicts and communicate the right of way for cyclists and pedestrians

4.



Designing new trails and upgrading existing trails so that obstacles like utility poles, bollards and other street furniture are not located on the operating portion of the trail

7.



Installing a continuous centreline (broken or solid where appropriate) and other pavement markings as needed to communicate the correct location and direction of travel and where overtaking is permitted

5.



Avoiding the use of barrier gates (P-gates) as they can be a hazard for trail users including persons with visual or other impairments

8.



Considering lighting on linear trails that function as comfortable commuter cycling route alternatives to major roadways



### 6.7.1 Driveways and Intersections Along Multi-use Trails

In practice, well-designed driveway crossings of multi-use trails and two-way bike paths follow one of two basic designs: “Bend-out” crossings or “Bend-in” crossings as illustrated in **Figure 23**:

*Bend-out Crossing:* A bend-out crossing is typically used when there is a high volume of trail users and motor vehicle traffic. This design aims to provide spatial separation between vehicles entering or exiting the driveway and trail users. This increases the visibility of trail users and provides more reaction time to help avoid conflicts. Extra space between the roadway and trail crossing also gives vehicles entering or exiting the driveway a place to stop and wait for traffic to clear without having to block the trail, or hold up traffic on the roadway.

*Bend-in Crossing:* A bend-in crossing is typically used when bicycle and motor vehicle traffic volumes are lower. It aims to increase visibility of cyclists at intersections by bringing them into the sight lines of vehicles approaching the intersection, and includes elements like smaller curb radii to slow down traffic turning traffic. Wider driveways or intersections may have a median, to stop traffic from making wide turns in front of crossing cyclists.

Pavement markings are an important feature of all multi-use trail crossings and should indicate pedestrian and cyclist paths. Bicycle signals are also needed at signalized intersections and can be used to separate bicycle crossing time from turning motor vehicles where turning volumes are high. Additional design features such as raised crossings and medians may also be incorporated into either of these types of intersection designs where appropriate to provide additional safety benefits.

**Figure 23:** “Bend-in” and “Bend-out” boulevard trail crossing  
(Image credit: TAC Bicycle Integrated Design, 2017)

## 6.8 Maintaining the Cycling Network

Regular, reliable year-round maintenance is a critical part of a comfortable and safe cycling network that will encourage and facilitate cycling all year round.

Bicycles are affected by surface conditions more so than motor vehicles. Bicycles are more likely to get a flat tire, damaged wheel, or to lose control because of obstacles, debris or damage to the surface of a roadway or trail. This could include small potholes or cracks; small amounts of ice, snow or water; wet leaves in autumn; and small pieces of glass, loose gravel or other debris. Thus, the maintenance needs for cycling facilities may be different than for pedestrian and motor vehicle routes.

When designing cycling facilities, it is important to plan for maintenance. New types of bicycle facilities proposed in this Plan, like separated bicycle lanes, must be wide enough to allow for maintenance vehicles to pass. The type of separation used (flexible bollards, planters, curbs, etc.) might impact maintenance depending on the season and the maintenance equipment.

Although cycling activity is reduced in the winter months, year-round cycling is important to people who may have limited transportation options like students or people working at times or in locations where transit is not always available. The popularity of winter recreational cycling is also on the rise with fat bikes and tires designed for winter traction on snow and ice.

A coordinated cycling facility maintenance program that includes priority winter cycling routes is recommended to support a comfortable and safe cycling network.



## 7 Recommended Supporting Programs

### 7.1 Bicycle Parking

Bicycle parking is an important part of a connected, convenient and comfortable bicycle network and a bicycle-friendly city. Countries with the highest cycling rates in the world like the Netherlands, Denmark and Germany, have made strong investments in building and maintaining a large bicycle parking supply and they recognize this as a key reason why so many people use bicycles. Similarly, cities in the GTHA, elsewhere in Ontario and the US have developed city-wide bicycle parking programs to support bicycle use for recreation and transportation.

People who choose to ride bicycles must be confident that there will be safe and secure places to park at their destinations. They may need to park their bicycles for a couple of hours, a full workday or even overnight. Different kinds of bicycle parking are needed to meet these different needs.

#### 7.1.1 Short-Term Bicycle Parking

In Mississauga, short-term bike parking is available on some sidewalks in Port Credit, Clarkson, and the downtown area, and at many community centres and recreational facilities. Short-term bicycle parking is also available at GO Transit stations, the City Centre Transit Terminal and Mississauga Transitway stations. Mississauga residents told us they would also benefit from more and better quality bicycle parking at other kinds of destinations like:

- Older community centres and libraries;
- Cultural centres, such as the Civic Centre, the Living Arts Centre, and the Hershey Centre;
- Busy streets with front-facing businesses;
- MiWay transit terminals;
- Elementary, middle and secondary schools;
- Parks and the waterfront; and
- Shopping plazas.

More short-term bicycle parking is needed across the city to provide secure bicycle parking at many different types of destinations.



### 7.1.2 Long-Term Bicycle Parking at Transit Stations

Bicycle parking at transit stations provides the option of getting to transit by bicycle which could reduce the need for large parking lots and parking structures. However, many people will not feel comfortable parking their bicycles at a transit station or stop for several hours or all day if the

bike parking is not secure. Starting in 2018, Metrolinx will begin installing secure bicycle parking stations (long-term bicycle parking) at all GO Transit stations. It is recommended that long-term bicycle parking be provided at other transit terminals to support more people cycling to public transit.

**Figure 24:** Examples of short-term and long-term bicycle parking

Short-term bicycle parking



Long-term bicycle parking at transit station





### 7.1.3 Bicycle Parking at Schools

In 2014, Region of Peel Public Health introduced a Bicycle Parking Program to fund, install and monitor bicycle racks at participating schools. After installing new racks at 41 schools in the region, there was a 21% increase in bicycles being parked at those schools. By the end of 2017, 125 new bicycle racks had been installed at 79 schools in the region. Approximately half of those schools are in Mississauga.

### 7.1.4 Bicycle Parking on Private Property

Mississauga's Transportation Demand Management Strategy and Implementation Plan has developed bicycle parking standards to be included in the City's Zoning By-law. Once added into the By-law, these standards will require new commercial and residential developments to build long-term and short-term bicycle parking and in some cases facilities like showers and lockers. This will provide bicycle parking at new apartment buildings, condos and office buildings, where people live and work, to help make cycling more attractive.

As the cycling route network continues to develop, the demand for bicycle parking will continue to increase. A dedicated city-wide bicycle parking program is recommended to increase bicycle use, support a connected, convenient and comfortable cycling network and foster a culture of cycling in Mississauga by:

- Supporting the implementation of bicycle parking through the Zoning By-law
- Proactively identifying bicycle parking needs and priorities;
- Purchasing, installing and maintaining different types of bicycle parking on public property; and
- Promoting bicycle parking programs operated by partners like Metrolinx and the Region of Peel.

**Figure 25:** Cover of Mississauga's 2018 Transportation Demand Management Strategy



## 7.2 Bike Share

Public bike share systems are popular in many cities. They provide 24-hour access to shared bicycles. Public bike systems are designed for one-way trips, like a taxi. Bicycles are picked up and parked at a docking station, or at a designated location within a service area. Bike share service areas are usually in downtown or other areas where there is a dense population of people living and working, and where there are dedicated bicycle routes.

Bike share systems are a popular strategy to encourage more cycling, and have been successfully implemented and expanded in many cities worldwide. From 2010 to 2016, the number of bike share systems in the United States grew from four to 55, and in Canada from one to five. (Two of these systems have been implemented in the GTHA: Toronto and Hamilton.)

In suburban cities like Mississauga, access to transit is a key priority to make public transit more accessible and encourage its use. Bike share can help address these “first and last mile” challenges of public transit by providing access between public transit at the origin and/or destination of transit trips and add value to transit investments.

Bike share provides several benefits to cyclists:

- Access to a bicycle without having to own and maintain one;
- The option to use a bike for some parts of a trip and not others, or only one-way;
- Access to a bicycle at one or both ends of a transit trip;
- Removes any worry about bicycle parking or theft; and
- Provides a travel option that is very affordable.

Most people participating in the Cycling Master Plan project said they would like to use Bike Share for errands, shopping, recreation and/or commuting.

Mississauga’s Downtown, Port Credit and area in between as shown in **Figure 27** is home to approximately 150,000 residents as well as others visiting the area, and includes important business, work, transit and entertainment destinations. Cities with bike share programs like Hamilton have similar population densities and destinations in their bike share service areas. However, bike share programs also need connected cycling routes on which people feel comfortable riding. The Cycling Network in Mississauga is still developing. Recommended cycling routes on several major corridors like Hurontario Street, Dundas Street and Lakeshore Road are not in place now, but will be key connecting cycling corridors within this area.

Successful bike share programs increase cycling trips and promote a culture of cycling. The next step toward building a successful bike share system in Mississauga is to understand the market for bike share, the best technology, operating model and appropriate timing with the developing cycling network.

**Figure 26:** Different types of bike share systems

### *Station-based bike share*

- Bikes must be parked at fixed docking stations
- Payment made at station, on website or mobile app
- Bikes unlocked at station
- Bikes cannot be reserved



### *Bike-based bike share*

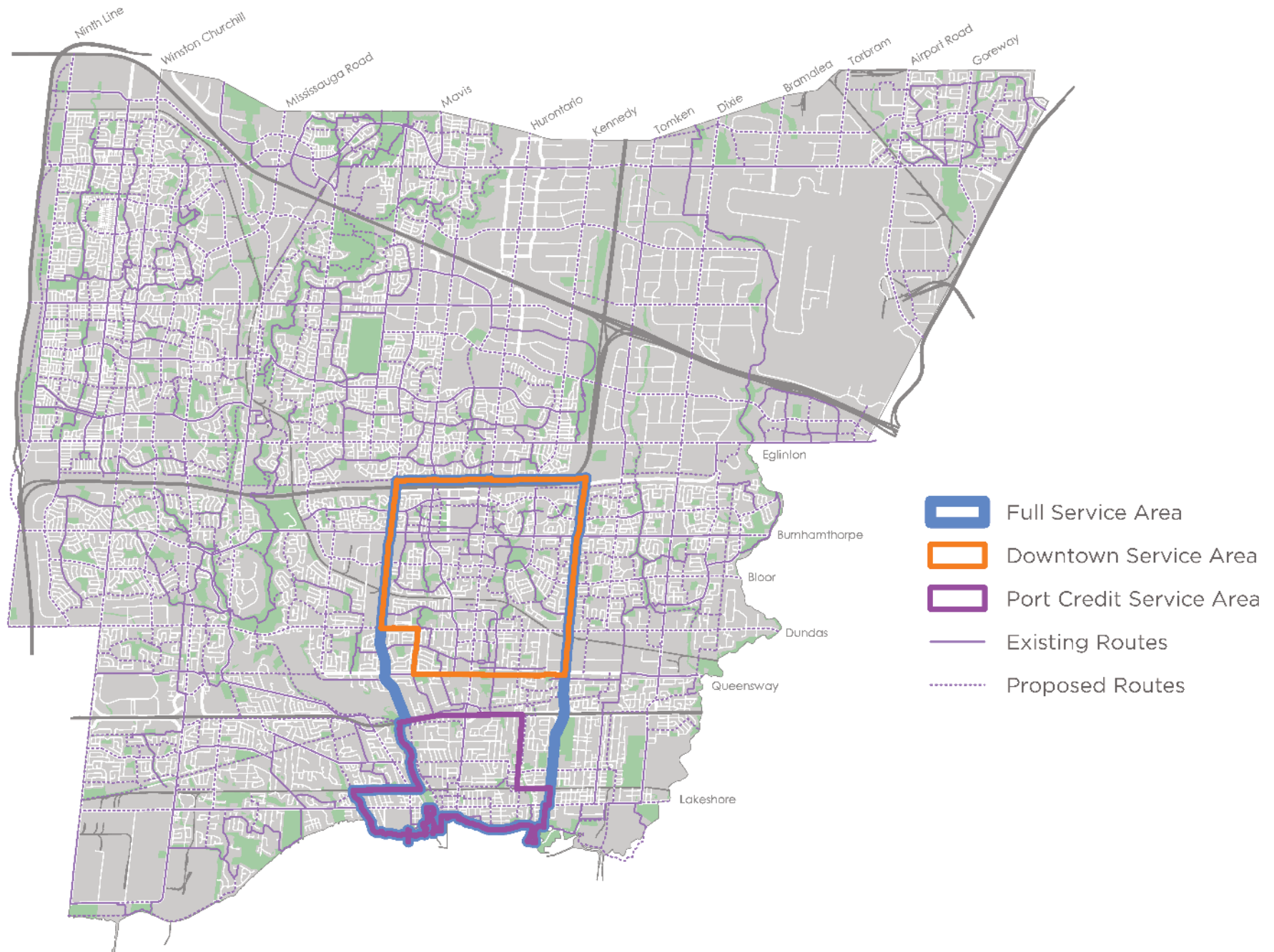
- GPS equipped bikes must be parked in service area
- No stations but may have designated parking areas
- Payment made on website or mobile app
- Bikes reserved and unlocked by mobile app



Photo Credit: Raise the Hammer



**Figure 27:** What could a bike share service area look like in Mississauga?





### 7.3 Promotion and Education

Promotion and education programs are an important complement to bicycle route infrastructure and play a critical role in improving safety for cycling, increasing the number of cycling trips, and fostering a culture of cycling. Studies have shown that the decision to start cycling is significantly influenced by the physical environment but also other factors including individual desires, abilities and social influences.

Mississauga has made significant progress in increasing awareness of cycling in the city. The efforts of Active Transportation Office staff, Mississauga Cycling Advisory Committee (MCAC) members, Region of Peel staff and other stakeholders have created annual programs that promote a cycling culture to residents. In 2017 these programs included:

- Bike Month;
- Bike to School Week;
- MCAC Community Rides and the Tour de Mississauga, which combined hosted approximately 4,000 cyclists;
- Mississauga Bike Challenge and Mississauga Bikes website providing online information and incentives for cycling; and
- Cycling Ambassador program.

During project consultation, people indicated that they would like to have more information about cycling issues, such as the timing and location of upcoming cycling network projects; where to report problems like potholes or a lack of bicycle parking; where to go with general questions related to cycling; and how to show support for new cycling network infrastructure. All across the City we heard from residents who would like to see more education opportunities and campaigns to educate cyclists and drivers about how to interact safely on the City's roadways.

Cycling events like the annual Tour de Mississauga and MCAC's Community Rides are popular among many different types of cyclists and have helped to foster a cycling culture in the city.

The City's Recreation Department currently offers cycling skills education based on the nationally-recognized CAN-BIKE program. The program currently focuses on entry-level skills and has between 50 and 80 participants each year.

The City's Cycling Ambassador program was first recommended in Mississauga's 2010 Cycling Master Plan. Cycling Ambassadors are a team of summer staff whose job it is to promote and model safe cycling across the city. By engaging with communities across Mississauga, these staff members help to encourage cycling by promoting new programs and facilities, and educate cyclists and drivers by distributing safety information. They may also provide support to cycling network projects by helping to engage and consult with community members.

#### 7.3.1 The Five Es

The "five Es" is a framework that is often used to acknowledge that improvements to transportation safety, including cycling, are best accomplished through a combination of well-designed infrastructure and other supporting projects and programs. The five Es are:

- Engineering;
- Education;
- Encouragement;
- Enforcement; and
- Evaluation.

The proposed Cycling Network and design-focused recommendations in Section 3 of this Plan outline a strategic role and responsibility for the City to address Engineering-related initiatives that will support Cycling Master Plan goals. Evaluation is also a critical part of improving cycling safety and achieving Master Plan goals and is discussed in Section 9.

Promotion and Education programs and projects play the important role of addressing the remaining three Es:

- Education programs improve cycling safety and awareness. This can include live training or print/digital resources that teach cycling skills and teach drivers how to share the road safely with bicycles.
- Encouragement programs provide incentives and support for people so that they are motivated to try cycling.
- Enforcement programs ensure that all road users including cyclists are operating legally and respectfully. Police and by-law enforcement are an important part of enforcement programs, as is signage to remind road users of their legal rights and responsibilities.

Promotion and Education recommendations and actions in Chapter 3 are categorized under the above three Es.

It is recommended that Mississauga grow and support Cycling Promotion and Education programs and initiatives described in Chapter 3 and continue to foster relationships with key partners including Peel Regional Police, Public Health, and Regional Transportation staff, Smart Commute Mississauga and members of the local cycling community.

More detail about cycling promotion and education is outlined in **Appendix IX**.



## 8 | Implementing the Plan

The implementation plan for the cycling network was developed by using a 20-year implementation timeframe, and aiming to coordinate most new infrastructure with scheduled road rehabilitation and major road construction projects. It takes into account the different funding streams for facilities along roadways, and those on parklands, as well as noting where facilities are funded by other parties, such as Metrolinx or a private developer.

The City of Mississauga funds its cycling infrastructure through two departments: Transportation and Works (within street right-of-ways), and Community Services (within parkland).

The total plan costs below are based on stand-alone construction of all cycling facilities and upgrades:

Primary Network	\$134,000,000
Secondary Network	\$34,000,000
Off-Road Trail Network (Community Services)	\$38,000,000
Off-Road Trail Road Crossings (Transportation & Works)	\$18,000,000
Major Crossing Structures	\$43,000,000
<b>Total Network and Structures Cost</b>	<b>\$267,000,000</b>

Note that all costs in this report are estimates, and expressed in 2018 dollars. Full project lists can be found in **Appendix I**. More details about the implementation plan and five-year coordinated plan projects can be found in **Appendix II**.

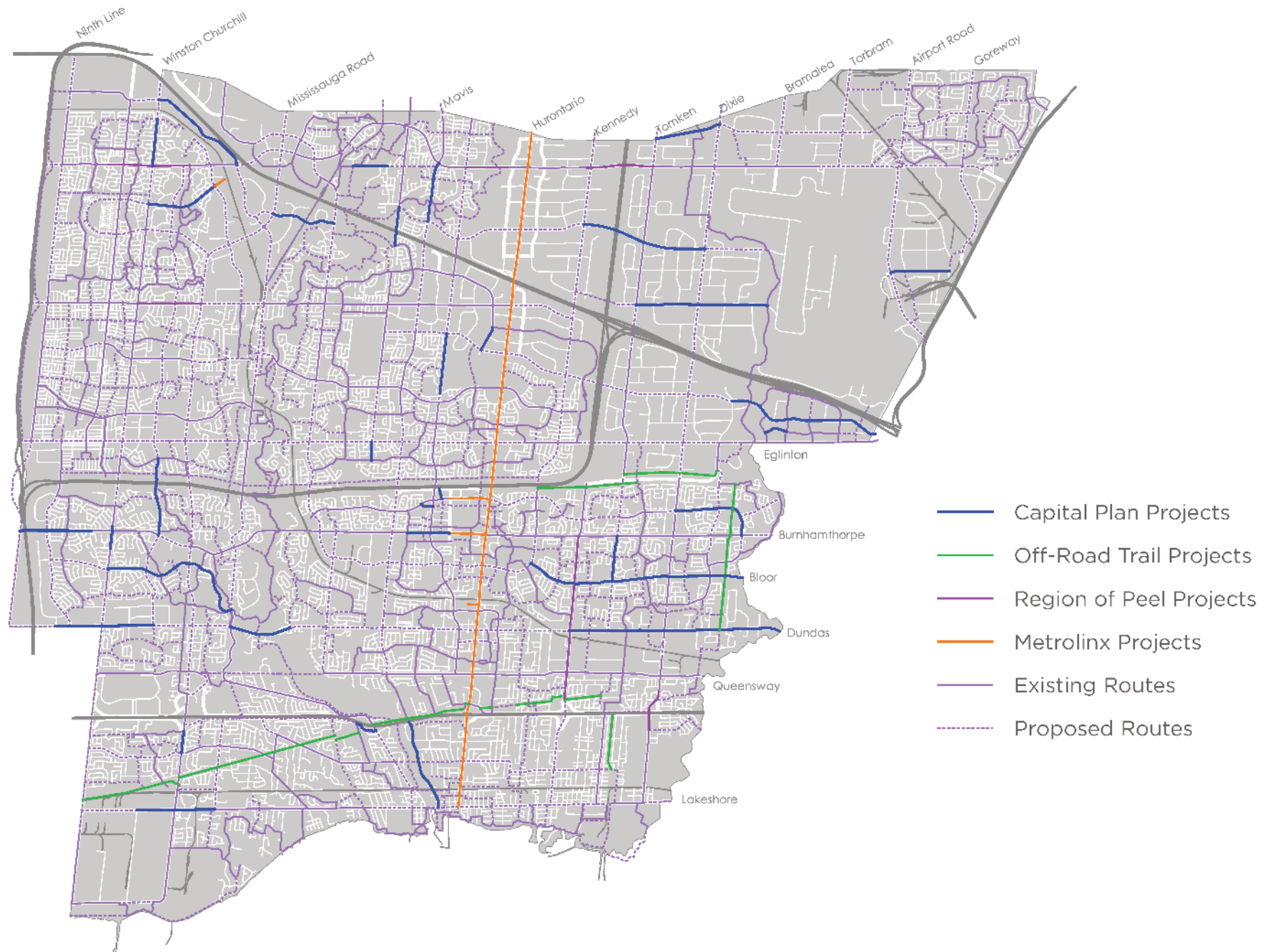
### 8.1 Capital Plan Coordination

A major consideration of the implementation plan is the extent to which it takes advantage of the Roads Service Area capital plan, which outlines scheduled road rehabilitation and major construction with five-year and ten-year horizons, respectively. Many proposed cycling facilities would realize cost savings and public benefits by being implemented in coordination with these projects. Cost savings can be most realized on projects that require moving curbs and adding new pavement, such as to install cycle tracks. Other cycling facility types, such

as signed routes, or the addition of bike lanes where there is already sufficient pavement width, may not benefit as much financially by being implemented in coordination with road rehabilitation or major construction; however, other benefits can be realized through coordination, including faster implementation of cycling infrastructure, less overall construction disruption to the roadway, and less perception of “missed opportunities” and repeated road construction.



**Figure 28: Five-Year Implementation Plan Map**



## 8.2 Capital Cost Estimates

Costs for implementation are based on unit costs in **Table 7**. These are estimates, and final costs will be determined through detailed design of each bicycle network project. The unit costs of bicycle facilities new to Mississauga have been estimated based on experience in other cities. Cost assumptions for these facilities will be refined over time, based on experience in the Mississauga context.

Opportunities for cost savings will be investigated for all projects including work such as signs and pavement markings which may be completed in-house by City staff at lower cost.

**Table 7:** Unit costs by facility type and construction

Cycling Facility	Cost per km
Cycle Track or Separated Bike Lane: <i>Road widening with full curb reconstruction</i>	\$990,000
Cycle Track or Separated Bike Lane: <i>Road widening coordinated with road rehabilitation project</i>	\$720,000
Separated Bike Lane: <i>Addition or lane conversion on existing roadway</i>	\$220,000
Multi-Use Trails and Off-Road Trails: <i>Addition to boulevard or parkland</i>	\$580,000
Bike Lane: <i>Road widening with full curb reconstruction</i>	\$870,000
Bike Lane: <i>Road widening coordinated with road rehabilitation project</i>	\$350,000
Bike Lane or Advisory Bike Lane: <i>Addition or lane conversion on existing roadway</i>	\$60,000
Paved Shoulder: <i>Addition to edge of roadway</i>	\$90,000
Shared Route with traffic calming: <i>Addition to existing roadway</i>	\$50,000

## 8.3 Bike Parking and Intersection Enhancement

The Cycling Master Plan recommends an annual bike parking program as well as intersection improvements. \$50,000 per year would allow the installation/replacement of approximately 100 bike parking spaces a year. \$150,000 would fund approximately three intersection improvements per year, at \$50,000 each, when coordinated with scheduled intersection improvements. There are approximately one to two intersection improvements programmed per year in the capital plan. This funding could increase the rate of intersection improvements for cycling facilities.

- Bike Parking Program:  
\$50,000 per year
- Intersection Enhancement Program:  
\$150,000 per year
- **Total: \$200,000 per year**

## 8.4 Recommended Funding

The Active Transportation Office, (within the Transportation and Works Department), programs the capital plan for cycling infrastructure on Mississauga-owned road rights-of-way (ROWs). Capital planning for off-road trails outside of road ROWs is led by the Community Services Department. As a result, there are two funding components, one for Roads Service Area and a second for the Parks and Forestry Service Area.

### 8.4.1 Funding Scenarios—Roads Service Area

Four funding scenarios based on the number of years to complete the network and for the cycling infrastructure to be planned, budgeted and constructed by Transportation and Works (T&W) capital planning area, were developed as summarized in Table 8 below. This represents the primary and secondary on-road networks, which make up the bulk of the total cycling network.

**Table 8:** Roads Service Area Funding Scenarios

Scenarios	A (current)	B	C	D
Yearly funding allotment	\$1,450,000	\$3,575,000	\$5,262,500	\$6,950,000
Length constructed per year (km)	5	12	18	25
Years to complete network	95	40	27	20

Major crossings require more detailed design work to get cost estimates that are beyond the scope of this plan. These structures are typically funded on a project-to-project basis, and thus not included in the 20-year funding scenarios.

### 8.4.2 Funding—Parks and Forestry Service Area

Trails through parklands are planned, budgeted and built by the Community Services department, in coordination with the Active Transportation Office. Trail construction and rehabilitation has been consistent, and major network pieces are funded and under construction. Funding from the Region of Peel and Ontario Municipal Commuter Cycling program has been fairly consistent. Community Services seeks funding for construction on a project-to-project basis. The current levels of funding for Community Service's trails are currently considered adequate. Following approval of the Cycling Master Plan, an update to the priority of projects will be undertaken by Community Services in consultation with the Active Transportation Office.



## 9 | Evaluating the Plan's Success

Measuring the progress of a plan step by step helps to identify what is working and what changes, if any, are needed to meet a plan's goals over time.

This chapter provides a list of performance measures (objectives that can be measured) and identifies the data that will be collected by the City and its partners to measure them. This information will be used for regular progress reports on the Plan. Some information will be available annually, while other data is collected less often and will be reported less frequently.

### 9.1 Performance Measures

**Table 10** shows a list of recommended performance measures to monitor and evaluate the progress of the Plan. These performance measures were developed in collaboration with internal city divisions and external partners. They are based on available data wherever possible and will be further supported through this Plan as described in Chapter 3, Recommendation 1.5: Establish programs for routine collection, maintenance, and publication of cycling data.

**Table 10:** Recommended Performance Measures

GOAL	OBJECTIVE	MEASUREMENT
Improve safety for cycling	Reduce bicycle collision rates	Bicycle collision rates
	Reduce the severity of bicycle collisions	Proportion of severe injuries and fatalities
	Increase awareness of bicycle safety among drivers	Number of people participating in bicycle safety driver education programming
	Increase awareness of bicycle safety among cyclists	Number of people participating in cycling safety training and education programming; and distribution of cycling safety education materials
	Increase awareness of bicycle safety among the general public	Social media stats from cycling safety campaigns targeting cyclists and drivers



GOAL	OBJECTIVE	MEASUREMENT
<b>Increase the number of cycling trips in Mississauga</b>	Increase the number of cycling trips city-wide	Number of cyclists travelling by bike on a typical day in Mississauga as a proportion of total trips
	Increase the number of short cycling trips (5 km or less) city-wide	Proportion of short distance trips (5 km or less) that are made by bicycle
	Increase the number of cycling trips in certain locations (e.g. downtown)	Number of cyclists entering and exiting certain zones or neighbourhoods
	Increase the number of Smart Commute members cycling to work	Proportion of employees cycling to work at Smart Commute member workplaces
	Increase the number of school-age children (elementary, middle and high school) cycling to school	Proportion of school-age children cycling to school
	Increase the number of cyclists accessing transit	Proportion of transit users accessing GO Rail Stations by bike; and number of bike racks on MiWay buses being used
<b>Build a connected, convenient and comfortable bicycle network</b>	Increase the number of cycling facility projects being monitored	Proportion of new projects being monitored for before and after conditions on new cycling facilities
	Increase the number of residents served by cycling routes	Proportion of the City's population within a certain distance to the cycling network
	Increase the number of key destinations served by cycling routes	Proportion of key destinations served by cycling network
	Increase the number of key destinations with bicycle parking facilities	Proportion of key destinations with bicycle parking
	Achieve consistent investment in completing the cycling network and providing end of trip facilities	Annual budget for cycling master plan projects
		Proportion of budget spent
		Amount of extra funding from other agencies
		Proportion of outside funding spent
	Increase the number of cycling friendly intersections	Proportion of intersections in cycling network with cycling friendly designs
	Improve cycling facility maintenance on priority routes	Proportion of priority cycling routes prioritized for maintenance
	Improve winter conditions for cyclists	Proportion of priority cycling routes in winter maintenance program
	Increase proportion of cycling facilities designed to updated Mississauga standards	Proportion of km lengths
		Proportion of intersections
	Increase overall length of cycling facilities in the cycling network	Number of km of new cycling facilities by facility type

GOAL	OBJECTIVE	MEASUREMENT
Foster a culture of cycling	Increase public awareness of cycling	Number of social media impressions focused on cycling
		Number of cycling-related alerts or messages sent through the City's Roads App / collected through Pingstreet
		Number of face to face engagements
		Total number of programs and campaigns delivered (either as lead or as partner with agency or community group)
		Number of headlines about cycling in local media
		Level of satisfaction of existing cyclists / Probability of non-cyclists taking up cycling
	Increase participation in cycling-related events or programs	Number of participants in cycling courses (e.g. CAN-BIKE).
		Number of participants / organizations participating in cycling events
		Number of different types of cycling events—targeting different kinds of cycling
		Number of different groups / ages / demographics represented at cycling events
	Increase cycling participation in other community events	Number of community events with cycling included in some way
	Achieve consistent investment in cycling education, promotion and programming	\$ allocated to cycling education and promotion in annual budget
		% of allocated \$ spent
		\$ of extra funding from outside agencies
		% of outside funding spent

## 9.2 Data Sources

There are several data sources that include bicycle ridership data for Mississauga including large survey data sets from the Transportation Tomorrow Survey (TTS) and Statistics Canada census data.

The City's Transportation and Works Division and the Region of Peel count bicycles on specific bicycle facilities. Turning movement counts are taken regularly at many intersections. There is also a cordon count conducted by the Region of Peel which is a vehicle survey that counts the number of people driving and cycling into and out of different areas within the Region. Counting stations are typically along municipal borders on highways and major roadways which may not be where most cycling activity occurs.

Collision data is collected by Peel Regional Police and provided to the City and the Region as raw data. This includes bicycle-related collisions.

With each of these data sources there are limitations and room for improvement. Large survey data sets that gather cycling-related information from very small sample sizes are of limited use. Bicycle counts may show significant variability from year to year because of the sensitivity of bicycle ridership to issues like cold, snowy winter months, rainy weather or other storm events, and different patterns of peak activity during the day based on the location and its potential to support cycling trips for various purposes like shopping, errands, recreation and entertainment. Counting methods that are designed for motor vehicles may not be taken at locations where cyclists are riding, they may not accurately count the number of cyclists and in some cases they may categorize cyclists as pedestrians, especially if they are riding on sidewalks or through pedestrian crossings.

A bicycle counting program that is designed to provide more reliable data on bicycle ridership is needed to establish better baseline data and continue to monitor the outcomes of Cycling Master Plan investments.



## 10 | Next Steps

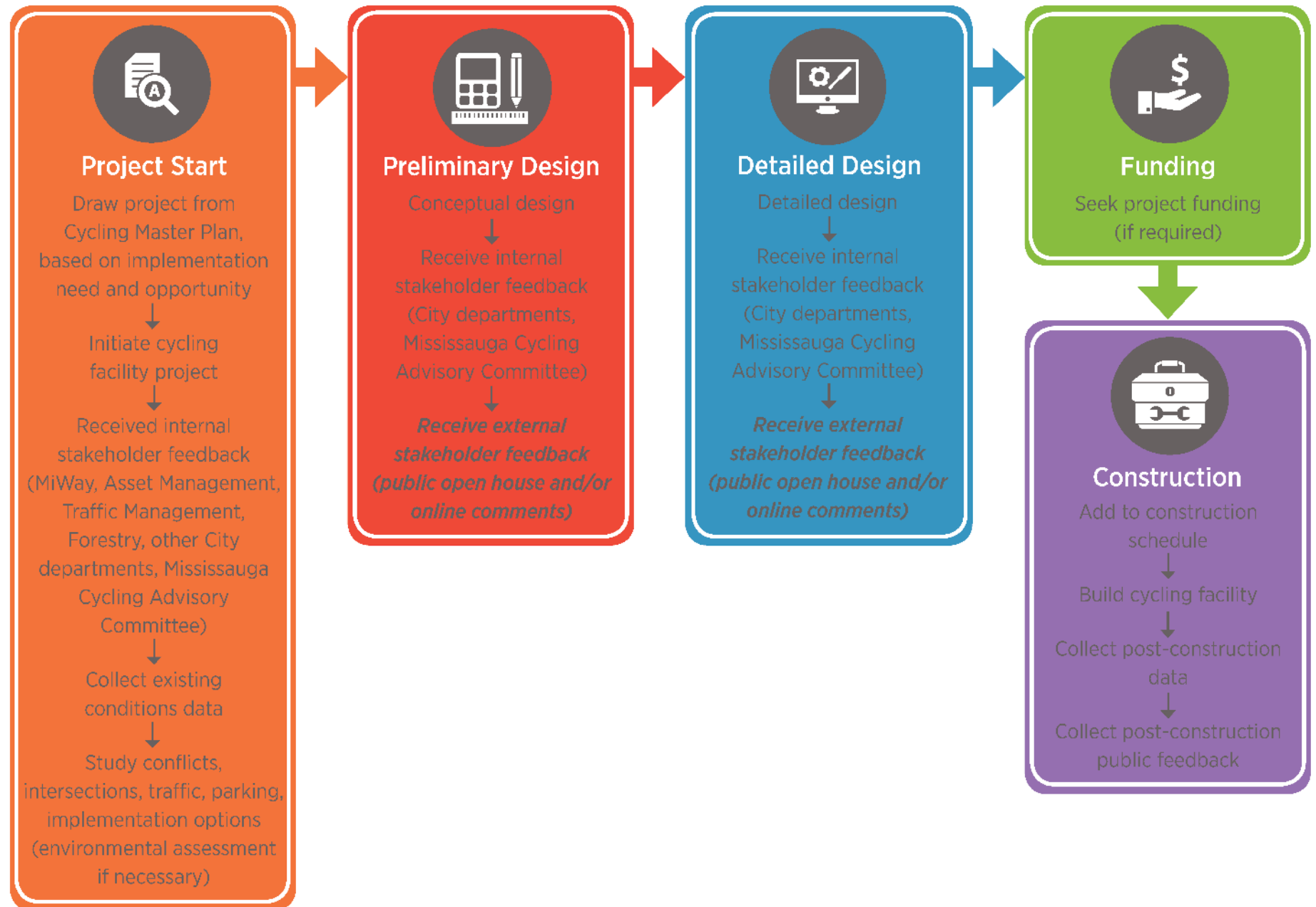
The Cycling Master Plan is a long-term plan that will continue to be implemented over the next several years. It is a Plan that belongs to Mississauga residents and will continue to be guided by the community. As each cycling network project is implemented, community members and other stakeholders will have the opportunity to provide input. For the cycling network to achieve the goals of the Plan it must be complete with no gaps. Completing the cycling network is a key priority to meet Official Plan, Strategic Plan and Climate Strategy goals.

### 10.1 How we can continue to work together

**Figure 29** illustrates how cycling network projects are implemented and where there are opportunities for the public to help shape those projects.



**Figure 29:** Cycling Network Project Implementation Process





## 11 Appendices

The appendices, listed below, are available online as separate documents.

- I. Recommended Cycling Network
- II. Implementation Plan Funding Scenarios
- III. Cycling Network Analysis
- IV. Policy Context
- V. Bicycle Facility Design Best Practices
- VI. Existing Conditions Assessment
- VII. Engagement and Consultation
- VIII. Level of Traffic Stress
- IX. Cycling Promotion and Education Best Practices

# City of Mississauga

## Corporate Report



Date: 2018/05/23

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng, MBA, Commissioner of  
Transportation and Works

Meeting date:  
2018/06/13

## Subject

**Designation of Bicycle Lanes and Multi-Use Trails – Various Locations  
(Wards 1, 3, 4, 5, 8, 9, 10, 11)**

## Recommendation

That a by-law be enacted to make the necessary amendments to Traffic By-Law 555-2000, as amended, including modifications to Schedule 3 (No Parking), Schedule 15 (Lane Designation), Schedule 34 (Bicycle Lanes) and Schedule 35 (Multi-Use Trails), in order to reflect newly constructed bicycle lanes and multi-use trails, as set out in the report titled “Designation of Bicycle Lanes and Multi-Use Trails – Various Locations (Wards 1, 3, 4, 5, 8, 9, 10, 11)” dated May 23, 2018 from the Commissioner of Transportation and Works.

## Background

The Transportation and Works Department has recently constructed bicycle lanes and multi-use trails in several locations across the City. These locations are aligned with the criteria contained within the Cycling Master Plan and Implementation Strategy. For each location, consultation with the respective ward councillor and area residents was completed, where required.

Bicycle lanes designated under Traffic By-law 555-2000, as amended, are a part of the roadway that is designated for bicycle use only.

## Comments

Amendments are required to Schedule 3 (No Parking), Schedule 15 (Lane Designation), Schedule 34 (Bicycle Lanes) and Schedule 35 (Multi-Use Trails) of Traffic By-law 555-2000, as amended, to reflect the bicycle lanes and multi-use trails constructed since 2014 within road rights-of-way. In addition, housekeeping amendments are required to reflect the designation of turn-only lanes on roads with new bicycle lanes.



General Committee	2018/05/23	2
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The following provides a summary of the locations of bicycle lane and multi-use trail projects that were completed since 2014 and require by-law amendments:

### **Bicycle Lanes**

- Argentia Road, between Ninth Line and a point 200 metres west of Tenth Line West (Ward 9)
- Explorer Drive, between Matheson Boulevard East (west leg) and Eglinton Avenue East (Ward 5)
- McLaughlin Road, between Bristol Road West and Eglinton Avenue West (Ward 5)
- Orbitor Drive, between Matheson Boulevard East and Eglinton Avenue East (Ward 5)
- Skymark Avenue, between Satellite Drive and Explorer Drive (Ward 5)
- Spectrum Way, between Matheson Boulevard East and Eglinton Avenue East (Ward 5)
- Tenth Line West, between Argentia Road and Derry Road West (Wards 9, 10)

### **Multi-Use Trails**

- Britannia Road West, between Winston Churchill Boulevard and Erin Mills Parkway (Ward 9)
- Cawthra Road, between Meadows Boulevard and Burnhamthorpe Road East (Wards 3, 4)
- Dixie Road, between Hickory Drive and Primate Road (Wards 1, 3)
- Eastgate Parkway, between Fieldgate Drive and Eglinton Avenue East (Ward 3)
- Eglinton Avenue East, between Eastgate Parkway and the east City limit (Wards 3, 5)
- Erin Mills Parkway at the Transitway Station (Ward 8)
- Thomas Street, between Winston Churchill Boulevard and Erin Mills Parkway, and sections east to Queen Street South (Ward 9, 11)
- Tomken Road, between Derry Road East and Courtneypark Drive East (Ward 5)
- Tomken Road, between Timberlea Boulevard (north leg) and 80 metres north of Eastgate Parkway (Wards 3, 5)
- Winston Churchill Boulevard, between Aquitaine Avenue and Oka Road, and at the Transitway station (Wards 8, 9)

## **Financial Impact**

There are no financial impacts resulting from the amendments.

## **Conclusion**

To ensure consistency and completeness, it is appropriate that Schedule 3 (No Parking), Schedule 15 (Lane Designation), Schedule 34 (Bicycle Lanes) and Schedule 35 (Multi-Use Trails), of Traffic By-law 555-2000, as amended, be amended to designate the bicycle lanes and multi-use trails that have been recently constructed and put into service within the road rights-of-way, as identified in this report.

General Committee

2018/05/23

3

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## Attachments

Appendix 1: Bicycle Lane By-Law Amendments to Traffic By-law 555-2000

Appendix 2: Multi-Use Trail By-Law Amendments to Traffic By-law 555-2000



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Geoff Wright, P. Eng, MBA, Commissioner of Transportation and Works

Prepared by: Fred Sandoval, Active Transportation Coordinator

**Bicycle Lane By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

It is recommended that Schedule 3 of By-law No. 555-2000, as amended, be amended by **DELETING** the following:

**SCHEDULE 3**  
**NO PARKING**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>SIDE</u></b>	<b><u>COLUMN 3</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 4</u></b> <b><u>PROHIBITED TIMES OR DAYS</u></b>
Skymark Avenue	North	Satellite Drive and a point 55 metres easterly thereof	Anytime
Skymark Avenue	North	Explorer Drive and a point 60 metres westerly thereof	Anytime

It is recommended that Schedule 3 of By-law No. 555-2000, as amended, be amended by **ADDING** the following:

**SCHEDULE 3**  
**NO PARKING**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>SIDE</u></b>	<b><u>COLUMN 3</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 4</u></b> <b><u>PROHIBITED TIMES OR DAYS</u></b>
Argentia Road	North	Ninth Line and Tenth Line West	Anytime
Orbitor Drive	West	Matheson Boulevard East and Eglinton Avenue East	Anytime
Orbitor Drive	East	Matheson Boulevard East and a point 110 metres southerly thereof	Anytime
Orbitor Drive	East	100 metres north of Skymark Avenue and Eglinton Avenue East	Anytime
Skymark Avenue	North	Satellite Drive and a point 100 metres easterly thereof	Anytime
Skymark Avenue	North	Explorer Drive and a point 90 metres westerly thereof	Anytime
Tenth Line West	Both	Argentia Road and Derry Road West	Anytime



**Bicycle Lane By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

It is recommended that Schedule 15 of By-law No. 555-2000, as amended, be amended by **DELETING** the following:

**SCHEDULE 15**  
**LANE DESIGNATION**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>LOCATION</u></b>	<b><u>COLUMN 3</u></b> <b><u>LANE</u></b>	<b><u>COLUMN 4</u></b> <b><u>DIRECTION</u></b>	<b><u>COLUMN 5</u></b> <b><u>TIME OR</u></b> <b><u>DAYS</u></b>	<b><u>COLUMN 6</u></b> <b><u>SIGN</u></b> <b><u>NUMBER</u></b>
McLaughlin Road	Eglinton Avenue West and a point 60 metres north of Rathburn Road	Second lane east of west curb	Southbound left turn only	Anytime	Rb-41

It is recommended that Schedule 15 of By-law No. 555-2000, as amended, be amended by **ADDING** the following:

**SCHEDULE 15**  
**LANE DESIGNATION**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>LOCATION</u></b>	<b><u>COLUMN 3</u></b> <b><u>LANE</u></b>	<b><u>COLUMN 4</u></b> <b><u>DIRECTION</u></b>	<b><u>COLUMN 5</u></b> <b><u>TIME OR</u></b> <b><u>DAYS</u></b>	<b><u>COLUMN 6</u></b> <b><u>SIGN</u></b> <b><u>NUMBER</u></b>
Argentia Road	Ninth Line to a point 100 metres east thereof	Second lane south of north curb lane	Westbound right turn only	Anytime	Rb-42
Argentia Road	Ninth Line to a point 100 metres east thereof	Third lane south of north curb	Westbound left turn only	Anytime	Rb-41
Explorer Drive	Matheson Boulevard to a point 40 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Explorer Drive	40 metres north of Matheson Boulevard to Satellite Drive	Centre	Northbound and southbound left turn only	Anytime	Rb-48
Explorer Drive	Satellite Drive to a point 40 metres east thereof	Third lane south of north curb	Westbound left turn only	Anytime	Rb-41
Explorer Drive	40 metres east of Satellite Drive to Orbitor Drive	Centre	Westbound and eastbound left turn only	Anytime	Rb-48
Explorer Drive	Orbitor Drive to a point 40 metres east thereof	Third lane south of north curb	Westbound left turn only	Anytime	Rb-41
Explorer Drive	40 metres east of Orbitor Drive to Shuttle Drive	Centre	Westbound and eastbound left turn only	Anytime	Rb-48
Explorer Drive	Shuttle Drive to a point	Third lane south	Westbound left	Anytime	Rb-41

**Bicycle Lane By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

Explorer Drive	40 metres east thereof 40 metres east of Shuttle Drive to a point 40 metres north of Matheson Boulevard East	of north curb Centre	turn only Westbound and eastbound left turn only	Anytime	Rb-48
Explorer Drive	Matheson Boulevard to a point 40 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Explorer Drive	Matheson Boulevard to a point 40 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Explorer Drive	40 metres south of Matheson Boulevard East to a point 40 metres north of Skymark Avenue	Centre	Northbound and southbound left turn only	Anytime	Rb-48
McLaughlin Road	Bristol Road West to a point 150 metres south thereof	Fourth lane west of east curb	Northbound left turn only	Anytime	Rb-41
McLaughlin Road	Ceremonial Drive to a point 130 metres north thereof	Fourth lane east of west curb	Southbound left turn only	Anytime	Rb-41
McLaughlin Road	Ceremonial Drive to a point 130 metres south thereof	Fourth lane west of east curb	Northbound left turn only	Anytime	Rb-41
McLaughlin Road	Eglinton Avenue West to a point 130 metres north thereof	Fourth lane east of west curb	Southbound left turn only	Anytime	Rb-41
Orbitor Drive	Matheson Boulevard to a point 40 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Orbitor Drive	Skymark Avenue to a point 40 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Orbitor Drive	Skymark Avenue to a point 40 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Orbitor Drive	Eglinton Avenue East to a point 40 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Skymark Avenue	Satellite Drive to a point 40 metres east thereof	Third lane south of north curb	Westbound left turn only	Anytime	Rb-41
Skymark Avenue	Orbitor Drive to a point 40 metres west thereof	Third lane north of south curb	Eastbound left turn only	Anytime	Rb-41

**Bicycle Lane By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

Skymark Avenue	Orbitor Drive to a point 40 metres east thereof	Third lane south of north curb	Westbound left turn only	Anytime	Rb-41
Spectrum Way	Matheson Boulevard to a point 40 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Spectrum Way	Eglinton Avenue East to a point 40 metres north thereof	West curb lane	Southbound right turn only	Anytime	Rb-42
Spectrum Way	Eglinton Avenue East to a point 40 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Tenth Line West	Argentia Road to a point 150 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Tenth Line West	Cactus Gate/Innisdale Road to a point 50 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Tenth Line West	Cactus Gate/Innisdale Road to a point 50 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Tenth Line West	Scotch Pine Gate/Avalon Drive to a point 70 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41
Tenth Line West	Scotch Pine Gate/Avalon Drive to a point 50 metres south thereof	Third lane west of east curb	Northbound left turn only	Anytime	Rb-41
Tenth Line West	50 metres south of Scotch Pine Gate/Avalon Drive to a point 50 metres north of Derry Road West	Centre	Northbound and southbound left turn only	Anytime	Rb-48
Tenth Line West	Derry Road West to a point 50 metres north thereof	Third lane east of west curb	Southbound left turn only	Anytime	Rb-41

**Bicycle Lane By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

It is recommended that Schedule 34 of By-law No. 555-2000, as amended, be amended by **DELETING** the following:

**SCHEDULE 34**  
**BICYCLE LANES**

<b><u>COLUMN 1</u></b> <b><u>ROADWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 3</u></b> <b><u>LANES</u></b>
Skymark Avenue	Satellite Drive and Orbitor Drive	Northerly westbound & Southerly eastbound
Tenth Line West	Battleford Drive/Trelawny Circle & Britannia Road West	Easterly northbound & Westerly southbound
Tenth Line West	Britannia Rd West & Erin Centre Boulevard	Easterly northbound & Westerly southbound
Tenth Line West	Derry Road West and Battleford Drive	Easterly northbound & Westerly southbound

It is recommended that Schedule 34 of By-law No. 555-2000, as amended, be amended by **ADDING** the following:

**SCHEDULE 34**  
**BICYCLE LANES**

<b><u>COLUMN 1</u></b> <b><u>ROADWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 3</u></b> <b><u>LANES</u></b>
Argentia Road	Ninth Line and a point 200 metres west of Tenth Line West	Northerly westbound & Southerly eastbound
Explorer Drive	Matheson Boulevard East (west leg) and Skymark Avenue	Northerly westbound & Southerly eastbound
McLaughlin Road	Bristol Road West to Eglinton Avenue West	Easterly northbound & Westerly southbound
Orbitor Drive	Matheson Boulevard East and Eglinton Avenue East	Easterly northbound & Westerly southbound
Skymark Avenue	Satellite Drive and Explorer Drive	Northerly westbound & Southerly eastbound
Spectrum Way	Matheson Boulevard East and Eglinton Avenue East	Easterly northbound & Westerly southbound
Tenth Line West	Argentia Road and a point 220 metres south thereof	Easterly northbound & Westerly southbound
Tenth Line West	140 metres north of Cactus Gate/Innisdale Road and Erin Centre Boulevard	Easterly northbound & Westerly southbound



**Multi-Use Trail By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

It is recommended that Schedule 35 of By-law No. 555-2000, as amended, be amended by **DELETING** the following:

**SCHEDULE 35**  
**MULTI-USE TRAILS**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 3</u></b> <b><u>DIRECTION</u></b>
Britannia Road West	Ninth Line and Winston Churchill Boulevard	Eastbound & Westbound (north side)
Cawthra Road	Meadows Boulevard and Eastgate Parkway	Northbound & Southbound (west side)
Dixie Road	Eastgate Parkway and Hickory Drive	Northbound & Southbound (west side)
Thomas Street	Tenth Line West and Winston Churchill Boulevard	Eastbound & Westbound (north side)
Tomken Road	Courtneypark Drive East and Britannia Road East	Northbound/Southbound (west side)
Winston Churchill Boulevard	Erin Centre Boulevard and Britannia Road West	Northbound & Southbound (east side)
Winston Churchill Boulevard	Britannia Road West and Oka Road	Northbound & Southbound (east side)
Winston Churchill Boulevard	Unity Gate and Burnhamthorpe Road West	Northbound/Southbound (east side)

It is recommended that Schedule 35 of By-law No. 555-2000, as amended, be amended by **ADDING** the following:

**SCHEDULE 35**  
**MULTI-USE TRAILS**

<b><u>COLUMN 1</u></b> <b><u>HIGHWAY</u></b>	<b><u>COLUMN 2</u></b> <b><u>BETWEEN</u></b>	<b><u>COLUMN 3</u></b> <b><u>DIRECTION</u></b>
Britannia Road West	Ninth Line and Erin Mills Parkway	Eastbound/Westbound (north side)
Cawthra Road	Eastgate Parkway and Burnhamthorpe Road East	Northbound/Southbound (west side)
Dixie Road	Eastgate Parkway and Rathburn Road East	Northbound/Southbound (west side)
Dixie Road	170 metres south of Rathburn Road East and Burnhamthorpe Road East	Northbound/Southbound (west side)
Dixie Road	150 metres south of Burnhamthorpe Road East and Golden Orchard Drive	Northbound/Southbound (west side)

**Multi-Use Trail By-Law Amendments to Traffic By-law 555-2000**

City of Mississauga Corporate Report □ May 23, 2018

Bicycle Lanes and Multi-Use Trails □ Various Locations

Dixie Road	190 metres south of Golden Orchard Drive and 110 metres south of Dundas Street East	Northbound/Southbound (west side)
Dixie Road	60 metres north of Tonolli Road and Primate Road	Northbound/Southbound (west side)
Eastgate Parkway	Fieldgate Drive and Eglinton Avenue East	Northbound/Southbound (east side)
Eglinton Avenue East	Eastgate Parkway and 100 metres west of Tahoe Boulevard	Eastbound/Westbound (south side)
Eglinton Avenue East	Spectrum Way and east City limit	Eastbound/Westbound (north side)
Erin Mills Parkway	Credit Valley Road and Erin Mills Transitway Station entrance	Northbound/Southbound (west side)
Thomas Street	Tenth Line West and Erin Mills Parkway	Eastbound/Westbound (north side)
Thomas Street	Vista Drive and Gafney Drive	Eastbound/Westbound (north side)
Thomas Street	Streetsville GO Station entrance and Emby Drive	Eastbound/Westbound (north side)
Tomken Road	Derry Road East and Britannia Road East	Northbound/Southbound (west side)
Tomken Road	Timberlea Boulevard (north leg) and 80 metres north of Eastgate Parkway	Northbound/Southbound (east side)
Winston Churchill Boulevard	Aquitaine Avenue and Erin Centre Boulevard	Northbound/Southbound (east side)
Winston Churchill Boulevard	Artesian Drive and Winston Churchill Transitway Station entrance	Northbound/Southbound (west side)
Winston Churchill Boulevard	Unity Gate and Burnhamthorpe Road West	Northbound/Southbound (west side)

# City of Mississauga

## Corporate Report



Date: 2018/04/27

To: Chair and Members of General Committee

From: Paul Mitcham, P. Eng, MBA, Commissioner of  
Community Services

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Review of City Services for Business Improvements Areas (BIAs)**

## Recommendation

That the report entitled "Review of City Services for Business Improvement Areas (BIAs) dated April 27, 2018 from the Commissioner of Community Services be received for information.

## Report Highlights

- On June 29, 2016, Council directed staff to undertake a comprehensive service review of BIAs to ensure clarity and a consistent approach to service provision.
- Various city divisions provide some level of service and support for the formation, expansion and ongoing operation of BIAs. While some of these services are legislated in the *Municipal Act*, others have evolved over time as an informal "way of work" between BIAs and individual service areas.
- Consultation with established BIAs and City business units that provide services to BIAs indicated a need for better coordination and clarity of services provided across multiple city services.
- Five priority actions identified in the report are recommended for implementation with existing staff resources within the next 18 months.

## Background

BIAs are legal bodies established by the City in accordance with the *Municipal Act 2001*. A BIA is comprised of property owners and tenants within a defined boundary and is governed by a Board of Management. Business property owners within the boundary determine and collectively pay a levy which is remitted to the city and returned to the BIA to be used to carry out the following general functions (*Ministry of Municipal Affairs and Housing, BIA Handbook, 2010*):

General Committee	2018/04/27	2
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- Oversee the improvement, beautification and maintenance of municipally-owned land, buildings and structures in the area beyond that provided at the expense of the municipality generally; and
- Promote the area as a business or shopping area.

Four BIAs at different levels of maturity and capacity currently operate within the City of Mississauga.

A corporate report entitled “Supporting Mississauga’s Business Improvement Areas” was received General Committee on June 29, 2016 from the Commissioner of Planning & Building which included a summary of best practices from other municipalities along with a recommendation that a more comprehensive service review of BIAs be undertaken to ensure clarity and a consistent approach to service provision (Appendix 1).

Staff from the Community Development Unit (Recreation Division) and Business Improvement (Corporate Performance & Innovation Division) collaborated to develop a comprehensive review. This work included:

- Interviews with City staff from 17 Divisions (29 Business Units) to catalogue all the services provided to BIAs.
- Mapping the process for establishing a BIA and the yearly financial processes for existing BIAs.
- Additional Benchmarking analysis to identify common municipal practices with respect to providing support to BIAs.
- Meeting with the Ontario BIA Association (OBIAA) to understand external resources and support available for the establishment, governance and operation of BIAs.
- Information meeting with BIAs in May 2017 to discuss the results of the comprehensive review and get input on draft recommendations/priority actions.

### **General Findings**

- The *Municipal Act*, outlines the role of the City in the formation or expansion of BIAs. The *BIA Handbook* (2010) developed by the Ministry of Municipal Affairs and Housing, provides a summary overview of procedures for establishing and operating a business improvement area (BIA) in Ontario. This Handbook notes that municipalities have considerable flexibility in the creation and operation of BIAs.
- To date, the City of Mississauga has played a responsive role in the establishment of BIAs. A BIA is initiated based on interest and effort from local business leaders, property owners and others to establish a need and business case. The key process steps to form a new BIA outlined in the *BIA Handbook* (2010) are as follows:



General Committee	2018/04/27	3
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1. Establish the Need-Business Case.
  2. Communicate with all Interested Parties.
  3. Establish a Steering Committee.
  4. Establish Goals and Objectives.
  5. Prepare Preliminary Budget Proposals.
  6. Establish Proposed Boundaries.
  7. Formalize a Request to the Municipality.
  8. Notification of a Proposed BIA Designation.
  9. Pass a Municipal Bylaw.
- The Ontario BIA Association offers resources and supports to communities interested in forming a BIA. Municipalities (staff and council) can act as a resource to access information, data and align with other city plans. Once a formal request is received, legislated services, outlined in the Municipal Act, are provided by the Office of the City Clerk, Finance, Revenue, and Policy Planning and are primarily administrative in nature. Some examples of legislated services include: facilitate of the public notification for the establishment or expansion of a BIA (Office of the City Clerk); coordinate an external financial audit through the City's Auditors (Finance); calculate and collect levies from property owners (Revenue & Material Management) and coordinate the payment of levies back to BIA on an annual basis (Finance). In addition, staff act as a resource to identify and map boundaries (Policy Planning, Geomatics) and to identify property owners (Revenue & Material Management). The cost to the City for establishing or altering the boundaries of a BIA is approximately \$28,000. In addition, the cost for supporting current BIAs with financial processes is estimated at \$9,071 annually.
  - For established BIAs in Mississauga, various city divisions provide some level of service and support for the ongoing operation of BIAs. Most services have evolved over time as an informal "way of work" between BIAs and individual service areas. For example, BIAs work closely with Parks & Forestry and Transportation & Works on initiatives related to beautification and maintenance. In addition, the Community Development Team (Recreation) provides support through the Community Group Registry Program and in the execution of Outdoor Special Events.
  - Resources and support for BIA members (i.e. individual businesses) is available through the Mississauga Business Enterprise Centre, the Mississauga Library System and the City's

General Committee	2018/04/27	4
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Open Data Platform. BIAs are also eligible to receive grants through various city grant programs.

- Staff and BIAs noted that awareness and access of optional services varies between the four established BIAs. It was identified that several requests are received on an ad hoc basis by various staff that could potentially be addressed through other channels. For example, in the past, staff has provided training and facilitation services to some BIAs which could have been provided by the OBIAA.
- BIAs are valued partners in the city. They play an invaluable role as the “voice” of the community on various planning projects. There are also many examples of collaboration and partnerships in the areas of capital improvements, beautification, culture, and tourism.

### **Priorities identified by BIAs**

The following priorities were previously identified by BIAs in focus groups conducted by Policy Planning in December 2015:

- A single point of contact in the City dedicated to supporting local BIAs (i.e. a BIA Coordinator or BIA Liaison).
- Create a web page on the City’s site dedicated to BIAs.
- Establish a standardized level of City service for all BIAs.
- Active promotion and establishment of new BIAs.
- A standardized direct service list for street and landscaping maintenance, public programming, event management.
- Provide financial incentives (i.e. façade improvements).
- Plan and deliver capital projects (i.e. capital cost share programs).
- City staff attendance at BIAs’ Annual General Meeting.
- Coordinate an annual BIA Summit hosted by the City.
- Assist with researching eligible grant opportunities.
- Provide training to new BIA members.
- Develop a tool kit or manual with applicable policies, board governance, and code of conduct.
- Support marketing and promotion efforts.

### **Comments**

Staff and board representatives from all four Mississauga BIAs attended a meeting in May 2017 to discuss the results of the service review. This discussion included a review of the priorities previously identified by BIAs. BIAs and city staff reinforced the desire for better coordination and clarity of services across multiple city services. The outcome of which identified five priority actions to be recommended for implementation:

General Committee	2018/04/27	5
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1. That a primary point of contact for **established** BIAs be formalized within the Community Development (CD) section of the Recreation Division. While support for BIAs will continue to be a shared responsibility across various divisions, the Community Development Team will provide ongoing support to BIAs through the Community Group Registry Program and act as a staff liaison to enhance and support the coordination of communication between various city departments and the BIAs.
2. That an overarching BIA By-law/ Memorandum of Understanding be developed that clarifies the respective roles and responsibilities of the City and the BIAs, ensures alignment with City policies and the requirements for the BIA's own incorporation and/or constitutions.
3. That a project be coordinated with representation from Parks and Forestry, Transportation & Works, Economic Development, and Tourism to develop an inventory of City assets within each BIA and define appropriate service levels with respect to providing support to the BIAs.
4. That the City coordinate and fund a Governance Training and Orientation Session for all BIA board members and staff at the commencement of every term (i.e. every four years).
5. That appropriate processes or City department(s) be determined to respond to requests from groups / organizations regarding the formation of new BIAs within the City of Mississauga.

Implementation of these recommendations will also bring Mississauga in line with best practices in other jurisdictions that were highlighted in the June 2016 Corporate Report from the Commissioner of Planning & Building (Appendix 2).

## Financial Impact

There is no direct financial impact related to this report. It is recommended that a staff person be assigned to provide leadership for the implementation of the priority actions for an 18 month period (approximately Summer 2018 to Fall 2019) and absorbed within the existing staff budgets.

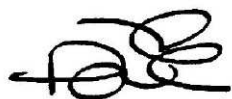
## Conclusion

Mississauga's BIAs play an important role in advancing the City's vision to be a place where people choose to be. They deliver many benefits including beautification and animation of public spaces, increased tourism, community development and a strong local economy. Implementation of the recommendations outlined in this report will clarify the relationship between the City and BIAs and improve coordination, communication and efficiency. The benefits realized through these action items will go beyond City and BIA function, but also impact the greater community and residents of the city.

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## Attachments

Appendix 1: Corporate Report “Supporting Mississauga’s BIAs” to GC dated June 29, 2016



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Paul Mitcham, P. Eng, MBA, Commissioner of Community Services

Prepared by: Jennifer Cowie Bonne, Manager, Community & Neighbourhood Development



# City of Mississauga Corporate Report



Date: 2016/06/13

To: Chair and Members of General Committee

From: Edward R. Sajecki, Commissioner of Planning and Building

Originator's files:  
CD.05-BIA

Meeting date:  
2016/06/29

## Subject

**Supporting Mississauga's Business Improvement Areas (Wards 1, 2, 5 and 11)**

## Recommendation

That the report titled "Supporting Mississauga's Business Improvement Areas," dated June 13, 2016 from the Commissioner of Planning and Building, be received for information.

## Background

### Background

Four (4) local BIA associations currently operate within the city: Clarkson, Malton, Port Credit and Streetsville (Figure 1). A BIA is a legal body established by the City of Mississauga (City) in accordance with the

*Municipal Act, 2001*. A BIA is comprised of business property owners and tenants within a defined boundary, and is governed by a Board of Management. Business property owners within the boundary collectively pay a fee (levy) which is directed towards enhancing the level of services, and providing program and services not otherwise offered by the City. Typical BIA services include street maintenance, beautification, revitalization, special events, development and promotion of the commercial district.

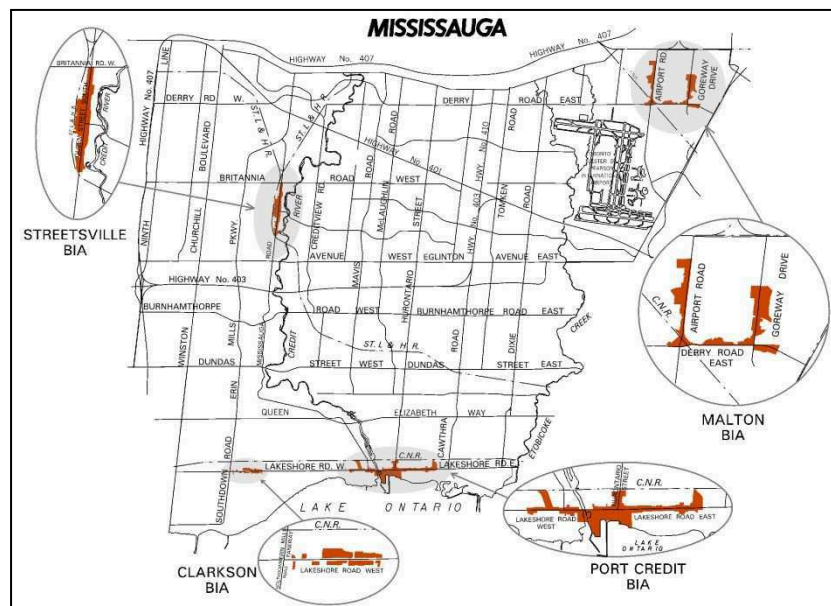


Figure 1: Mississauga's Business Improvement Areas

At a meeting of Council on February 25, 2015, Council requested that staff undertake a benchmarking review of BIAs to understand the services provided by similar municipalities. Staff were also directed to consult each BIA to discuss future needs.

To respond to Council's request, over the last several months the following research and consultations were completed:

- Consultation with other City Departments;
- A review of preferred BIA practices by other municipalities (Appendix 1);
- Four meetings with each BIA Board of Directors to get feedback on issues and ways in which the City can better support BIAs; and,
- One focus group session with representatives from each BIA to understand service priorities and challenges common amongst all BIAs.

## Comments

The City's existing BIAs include some of the most vibrant commercial streets and districts. These areas serve as centres of retail and commerce, social gathering places, and cultural hubs. The importance of such areas is embedded in the Official Plan policy which emphasizes the need for 'complete streets' as an essential element of city building. However, plan policy alone will not create a vibrant street or district; it simply creates an enabling environment for change.

To realize a vision of vibrant complete streets, the City has relied on partnerships with local BIAs. This is common practice among many of the world's largest and most memorable cities. These cities recognize a need to capitalize on greater mobilized resources, empower the community, and increase partnerships to achieve their goals.

The following outlines the results of staff's research and recommends next steps.

### General Research Findings:

- The number of BIAs within Mississauga are fewer than most communities with similar populations;
- Some municipalities' BIAs have full time (FT) staff, while others do not;
- Municipal staff support is typically 1 dedicated FT;
- The experience and capacity of each BIA executive and staff varies; and,
- Some municipal services provided to BIAs are defined in legislation (mainly administrative) yet most are at the discretion of the municipality.

### Best Practice Review Findings

A review of best practices was undertaken to identify the services cities typically provide to BIAs. This included both administrative and governance, operational, and direct and indirect services and programs.

Appendix 1 provides the complete review. The following offers key highlights:

<b>PROVIDED SERVICES</b>	<b>BEST PRACTICE HIGHLIGHTS</b>
Administrative & Governance Services	<ul style="list-style-type: none"> <li>• Dedicated BIA offices within city structure (typically a section within Economic Development, Planning and Development, and/or Community Development);</li> <li>• Dedicated BIA city staff (typically a minimum of 1 FT staff);</li> <li>• Staff assist in administration (i.e. establishing a BIA, expanding boundaries, attending AGM meetings and Board of Directors meetings); and,</li> <li>• Municipalities provide financial governance (i.e. coordinate annual external audit, review interim financial statements and reconciliations, prepare and consolidate annual financial statements, prepare cash advances).</li> </ul>
BIA Operations	<ul style="list-style-type: none"> <li>• Several cities enter service contracts/agreement with BIAs;</li> <li>• Some cities provide additional grants beyond the revenues collected through tax levy;</li> <li>• Assist with business planning and strategic planning;</li> <li>• Provide professional advice and training; and,</li> <li>• Some cities engage BIAs in developing operating and capital projects and business planning process.</li> </ul>
Direct Services	<ul style="list-style-type: none"> <li>• Enhanced police and neighbourhood patrol; and,</li> <li>• Plan special events.</li> </ul>
Indirect Services	<ul style="list-style-type: none"> <li>• Plan and deliver capital projects; and,</li> <li>• Support marketing and promotion efforts.</li> </ul>

### Mississauga BIA Consultations

In the fall of 2015, staff attended the BIAs' Board of Directors meetings to obtain input on current City service provisions and identify areas for improvement. BIA representatives were later brought together in December to participate in a focus group meeting to identify and prioritize future needs. The following provides an overview of their priorities.

<b>SERVICES</b>	<b>LOCAL BIA CITY SERVICE PRIORITIZATION</b>
Administrative &	<ul style="list-style-type: none"> <li>• A single point of contact in the City dedicated to supporting local BIAs</li> </ul>

Governance Services	(i.e. a BIA Coordinator or BIA Liaison); <ul style="list-style-type: none"> <li>• City staff attendance at BIAs' Annual General Meetings;</li> <li>• Active promotion and establishment of new BIAs; and,</li> <li>• Create a web page on the City's site dedicated to BIAs.</li> </ul>
BIA Operations	<ul style="list-style-type: none"> <li>• Establish a standardized level of City service for all BIAs;</li> <li>• Coordinate an annual BIA Summit hosted by the City;</li> <li>• Assist with researching eligible grant opportunities;</li> <li>• Provide training to new BIA members; and,</li> <li>• Develop a tool kit or manual with applicable policies, board governance, and code of conduct.</li> </ul>
Direct Services	<ul style="list-style-type: none"> <li>• A standardized direct service list for street and landscaping maintenance, public programming, event management.</li> </ul>
Indirect Services	<ul style="list-style-type: none"> <li>• Provide Financial Incentives;</li> <li>• Plan and deliver capital projects; and,</li> <li>• Support marketing and promotion efforts.</li> </ul>

Given the importance of Mississauga's BIAs, a review of City services should be initiated for BIAs to ensure clarity and a consistent approach to service provisions.

## Financial Impact

Not applicable.

## Conclusion

A review of municipal best practices provides insight to into the manner by which BIAs are supported. Mississauga's BIAs play an important role in beautifying, vitalizing and enlivening commercial streets, and promoting the commercial district. Based on these findings, a more comprehensive service review for BIAs should be initiated by the City's Business Improvement Section.

## Attachments

Appendix 1: Best Practices of Other Municipalities




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Edward R. Sajecki, Commissioner of Planning and Building

Prepared by: Karin Phuong, Planner



# BEST PRACTICES OF OTHER MUNICIPALITIES

MUNICIPALITY	POP. (2011)	#BIAs/ BRZs <sup>1</sup>	# DEDICATED STAFF	OFFICE/ DIVISION/ SECTION	MUNICIPAL SERVICES <sup>3</sup>			
					Administrative/Gov BIAs/BRZs <sup>2</sup>	BIA Operations BIAs/BRZs <sup>2</sup>	Direct Services BIAs/BRZs <sup>2</sup>	Indirect Services BIAs/BRZs <sup>2</sup>
<b>BURLINGTON</b>	136,976	2 BIAs	1 Special Business Area Coordinator	Planning and Building	<ul style="list-style-type: none"> <li>Special Business Area Coordinator is point of contact</li> <li>Attends AGM meetings</li> <li>BIA boundary expansions</li> </ul>	<ul style="list-style-type: none"> <li>Attends Board meetings (bi-weekly)</li> <li>Research (if mutual interest by the City and the BIA)</li> </ul>	<ul style="list-style-type: none"> <li>Assists in permits, By-laws</li> </ul>	<ul style="list-style-type: none"> <li>Cost-sharing of projects e.g., listed in the Core Commitment document – Downtown BIA contributes monies to city projects</li> </ul>
<b>CALGARY</b>	1,096,833	10 BRZs	No dedicated BIA staff		<ul style="list-style-type: none"> <li>Establish BRZ</li> <li>Levy collected by municipality and forwarded to BRZ board of directors for program funding</li> </ul>			
<b>CAMBRIDGE</b>	126,748	3 BIAs	1 Business Liaison Officer	Economic Development, CAO	<ul style="list-style-type: none"> <li>Attends AGM meetings, presides over voting</li> <li>Provides training of new members</li> </ul>	<ul style="list-style-type: none"> <li>Promotes BIAs</li> <li>BIA Summit (meets annually)</li> <li>BIA Executive Meeting (meets monthly)</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance Program</li> </ul>	<ul style="list-style-type: none"> <li>Financial support through various incentive programs for contaminated sites, heritage properties, employment lands and core area properties and buildings e.g., fee exemption programs, loan and grant programs</li> </ul>
<b>EDMONTON</b>	812,201	13 BRZs	1 Economic Development Officer  1 Program Manager (Incentives)  1 Program Coordinator	Economic Sustainability Dept. (ESD) / Real Estate Housing and ESD Section/ Economic Sustainability Unit	<ul style="list-style-type: none"> <li>BIA boundary expansions</li> <li>Attends AGM meetings</li> <li>Training of new board members by a consultant (and paid by municipality)</li> </ul>	<ul style="list-style-type: none"> <li>Consulting and planning services to the operation of the BRZ</li> <li>Created BRZ Handbook with the associations</li> </ul>	<ul style="list-style-type: none"> <li>Works with small enterprises and businesses</li> </ul>	<ul style="list-style-type: none"> <li>Administers Incentive Programs e.g., façade improvement, development improvement</li> </ul>

<b>HAMILTON</b>	519,949	13 BIAs	1 BIA Coordinator	Urban Renewal Section, Econ. Dev. Division, Planning and Economic Development Dept.	<ul style="list-style-type: none"> <li>• BIA Coordinator is the point of contact</li> <li>• Attends AGM meetings</li> <li>• Governance training session by a consultant (and paid by municipality)</li> <li>• Assist with establishing new BIAs</li> </ul>	<ul style="list-style-type: none"> <li>• BIA Coordinating Committee (meets monthly)</li> </ul>		<ul style="list-style-type: none"> <li>• Administers Financial Incentive Programs (loans and grants e.g., façade improvements, rehabilitation of commercial land, office tenancy assistance, conservation and/or restoration of heritage)</li> <li>• Commercial market analysis work done by consultant (and funded by municipality)</li> </ul>
<b>LONDON</b>	366,151	3 BIAs	No dedicated BIA staff  Support provided by: 3 Planner II 2 Heritage Planners	Urban Regeneration Group, Planning Dept.	<ul style="list-style-type: none"> <li>• Provides support as needed</li> <li>• Attends AGM meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Hosts meetings with BIAs</li> </ul>		<ul style="list-style-type: none"> <li>• Offers financial incentive programs</li> </ul>
<b>MARKHAM</b>	301,709	2 BIAs	1 Senior Business Development Officer  1 Manager of Heritage Planning & Heritage District Development Coordinator	Development Services Commission		<ul style="list-style-type: none"> <li>• Research/report for specific community (that may include the BIA) e.g., vision plan</li> </ul>		
<b>OAKVILLE</b>	182,520	3 BIAs	No dedicated BIA staff		<ul style="list-style-type: none"> <li>• Various departments provides support in answering questions/inquiries from BIAs</li> <li>• Façade Program (Planning Dept.); Promotions Program (Economic Development)</li> </ul>			

					<ul style="list-style-type: none"> <li>• Staff attends BIA meetings to present e.g., Downtown Plan</li> </ul>			
<b>OTTAWA</b>	883,391	18 BIAs	1 Economic Development Officer	Economic Development & Innovation, City Manager's Office	<ul style="list-style-type: none"> <li>• Attends AGM meetings</li> <li>• Provides statistical information</li> <li>• Training provided by member of Ontario BIA Association (and paid by municipality)</li> <li>• Assist in formal designation of BIA, collects levy, annual budget, and programming needs</li> </ul>			<ul style="list-style-type: none"> <li>• Matching funds for research funding programs</li> </ul>
<b>RICHMOND HILL</b>	185,541	1 BIA	No dedicated BIA staff		<ul style="list-style-type: none"> <li>• Provides staff contact person/other BIAs for certain inquiries</li> <li>• Attends AGM (for financial statements)</li> <li>• Staff was more involved in the establishment of the BIA – administered statutory process and facilitated discussion with owners and the Town</li> </ul>	<ul style="list-style-type: none"> <li>• Small Business Enterprise Centre hosts seminar on topics recommended by BIA</li> <li>• Town hired consultant to assist new BIA to develop documents e.g., organizational by-law, procurement policy, meeting procedures, and to facilitate meetings</li> </ul>		<ul style="list-style-type: none"> <li>•</li> </ul>

<b>TORONTO</b>	2,615,060	81 BIAs	1 Manager  5 Advisors  2 Landscape Architects  2 Support Staff	City BIA Office, Economic Development and Culture Division	<ul style="list-style-type: none"> <li>• Attends AGM meetings</li> <li>• Training provided to volunteers appointed to Board of Management</li> <li>• Staff attends inaugural meeting, provides code of conduct, rules, procedural by-law, answer questions</li> <li>• Staff attends meetings for the first year</li> </ul>	<ul style="list-style-type: none"> <li>• Provides resources and tools for BIAs e.g., tips on establishing and maintaining the BIA, sample business plans and budgets, advice on running meetings</li> <li>• Provides on-line presentation/modules on board of management orientation</li> </ul>	<ul style="list-style-type: none"> <li>• Provides pieces of street furniture</li> </ul>	<ul style="list-style-type: none"> <li>• Other sections/divisions provides statistical information, review BIA budgets, 5-year capital planning (this may be billed or half of the cost financed by the City)</li> <li>• Offers programs e.g., capital funding, commercial façade improvement, mural program</li> </ul>
<b>VANCOUVER</b>	603,502	22 BIAs	1 BIA Program Coordinator  ½ Admin. Staff  ½ Planning Analyst	Planning and Development Services	<ul style="list-style-type: none"> <li>• Refers to respective staff to answer inquiries/issues</li> <li>• Ensures Council reports, annual budget reports are completed, renews by-laws</li> </ul>	<ul style="list-style-type: none"> <li>• Promotes new BIAs</li> <li>• City BIA Liaison Committee (meets quarterly)</li> <li>• Provides tool kit (policies, board governance, code of conduct, best practices)</li> </ul>		

<sup>1</sup> BIAs = Business Improvement Areas

BRZs = Business Revitalization Zones

<sup>2</sup> Information collected by contacting staff from various municipalities in 2015 and 2016

<sup>3</sup> Not all municipal responsibilities are listed for each jurisdiction. *Municipal Act, 2001* provides the legislation for Ontario municipalities relating to powers and responsibilities of municipalities and local boards. City of Toronto must adhere to Municipal Code, Chapter 19, Business Improvement Areas.



# City of Mississauga

## Corporate Report



Date: 2018/05/24

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP  
RT.10.Z-26

Meeting date:  
2018/06/13

### Subject

**Lower Driveway Boulevard Parking - Bacchus Crescent (Ward 3)**

### Recommendation

That a by-law be enacted to amend the Traffic By-law 555-2000, as amended, to implement lower driveway boulevard parking between the curb and sidewalk, at any time, on both sides of Bacchus Crescent, as outlined in the report from the Commissioner of Transportation and Works, dated May 24, 2018 and entitled "Lower Driveway Boulevard Parking - Bacchus Crescent (Ward 3)".

### Background

The Transportation and Works Department received a completed petition from an area resident to implement lower driveway boulevard parking on both sides of Bacchus Crescent. Lower Driveway Boulevard parking between the curb and sidewalk is currently prohibited and five-hour parking is permitted on Bacchus Crescent.

### Comments

To determine the level of support for lower driveway boulevard parking between the curb and sidewalk, a parking questionnaire was distributed to the residents of Bacchus Crescent.

66 questionnaires were delivered and 28 (42%) were returned; 25 (89%) supported the implementation of lower driveway boulevard parking and three (11%) were opposed. Since greater than 66% of the total respondents support lower driveway boulevard parking, the Transportation and Works Department recommends implementing lower driveway boulevard parking between the curb and sidewalk, at any time, on both sides of Bacchus Crescent.

The Ward Councillor supports the proposal for lower driveway boulevard parking. The existing five-hour on-street parking will be maintained. A location map is attached as Appendix 1.

## Financial Impact

Costs for the sign installation can be accommodated in the 2018 operating budget.

## Conclusion

Based on the results of the questionnaire, the Transportation and Works Department supports lower driveway boulevard parking between the curb and sidewalk, at any time, on both sides of Bacchus Crescent.

## Attachments

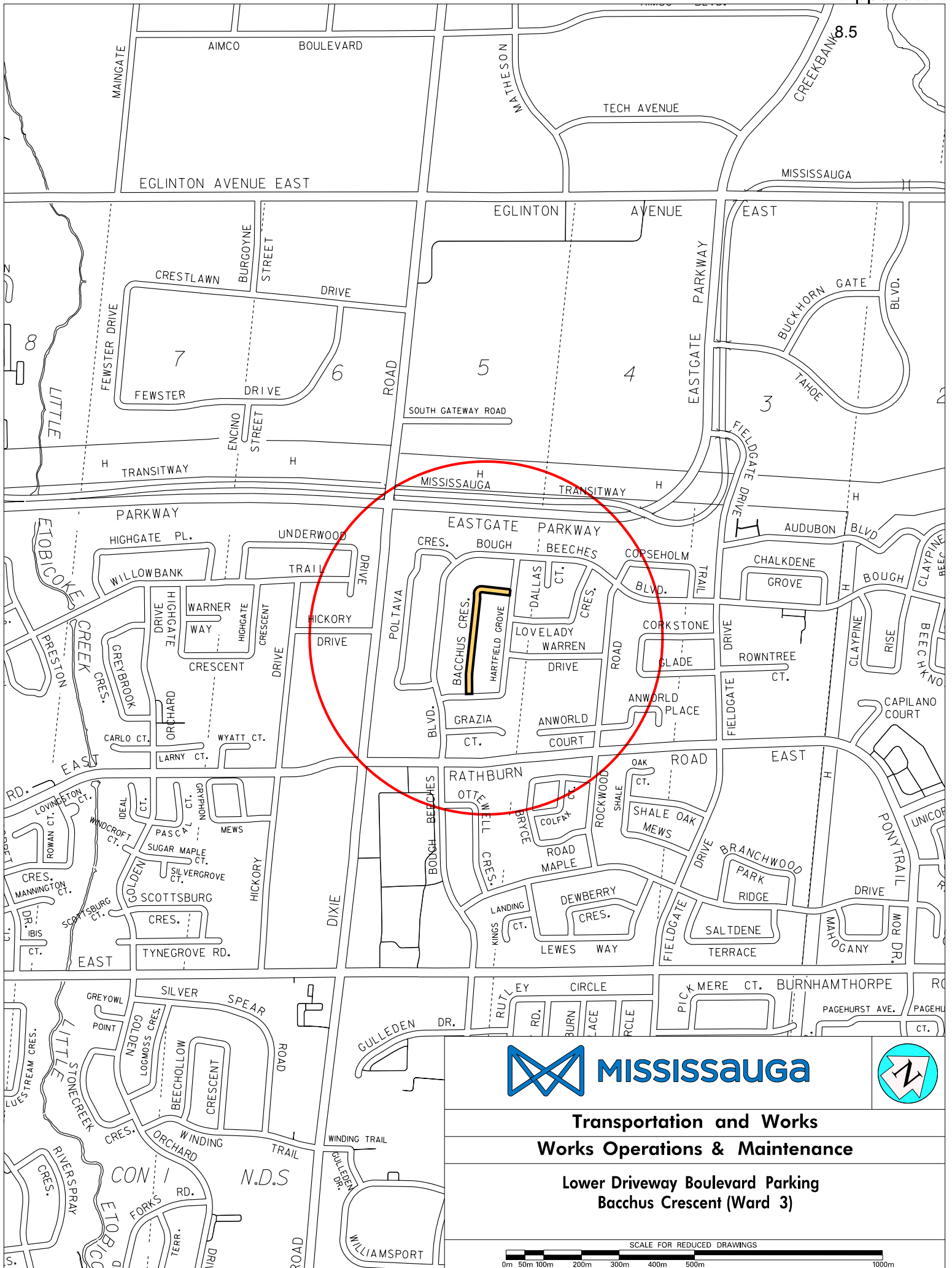
Appendix 1: Location Map - Lower Driveway Boulevard Parking - Bacchus Crescent (Ward 3)



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Khulud Sheeraz, Traffic Operations Technician



**MISSISSAUGA**



**Transportation and Works  
Works Operations & Maintenance**

**Lower Driveway Boulevard Parking  
Bacchus Crescent (Ward 3)**



# City of Mississauga

## Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
RT.10.Z18 RT.10.Z26

Meeting date:  
2018/06/13

## Subject

**Traffic Calming - Sheridan Homelands Neighbourhood and Fieldgate Drive / Bough Beeches Boulevard Neighbourhood (Ward 2 and Ward 3)**

## Recommendation

1. That the use of physical traffic calming measures be approved on Homelands Drive, Perran Drive, Thorn Lodge Drive, Fieldgate Drive between Ponytrail Drive and Bough Beeches Boulevard, and Bough Beeches Boulevard between Fieldgate Drive and Claypine Rise (west intersection) to address ongoing operational issues related to speeding and aggressive driving, as outlined in the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Traffic Calming - Sheridan Homelands Neighbourhood and Fieldgate Drive / Bough Beeches Boulevard Neighbourhood (Ward 2 and Ward 3)".
2. That the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Traffic Calming - Sheridan Homelands Neighbourhood and Fieldgate Drive / Bough Beeches Boulevard Neighbourhood (Ward 2 and Ward 3)", be referred to the Mississauga Traffic Safety Council and the Mississauga Road Safety Committee for information.

## Report Highlights

- As part of the ongoing prioritization of the Traffic Calming Program, the Sheridan Homelands and Fieldgate Drive / Bough Beeches Boulevard neighbourhoods were selected as candidates for implementation of physical traffic calming measures.
- To determine the level of support and to refine the traffic calming plan for the neighbourhoods, a number of public consultations with Road Safety staff, the local Ward Councillors and area residents were held to discuss the preliminary plans for the neighbourhoods.
- The overwhelming majority of written comments revealed that 82% were supportive of the proposed measures within the Sheridan Homelands neighbourhood, while the traffic calming measures within the Fieldgate Drive / Bough Beeches Boulevard neighbourhood



received 86% support.

- No concerns have been raised from emergency services or MiWay regarding the proposed traffic calming measures.
- The estimated cost for the installation of the physical traffic calming measures within the Sheridan Homelands and Fieldgate Drive / Bough Beeches Boulevard neighbourhoods is \$150,000 and can be accommodated within the Traffic Calming Program capital budget.

## Background

Following the Traffic Calming Pilot Program, an annual Traffic Calming Program was approved by City Council in 2016.

Whenever the Road Safety Unit is in receipt of a concern regarding speeding, aggressive driving and/or traffic infiltration on City roadways, the first step undertaken by staff is to identify the area of concern and arrange for the collection of speed and volume data.

When a concern is identified and confirmed, Road Safety staff can utilize a number of passive traffic calming techniques to reduce vehicle operating speeds. These passive traffic calming measures can include the implementation of painted edge/centre lines, use of a speed awareness device and enforcement.

If an ongoing identified concern cannot be resolved through other more passive traffic calming measures, Road Safety staff will evaluate the location against the criteria outlined in the Traffic Calming Policy 10-09-03. A copy of the policy is attached as Appendix 1. If a location does qualify based on the criteria outlined in the policy, it will be prioritized on a list of traffic calming locations.

This report identifies and considers the following locations for physical traffic calming measures:

- Sheridan Homelands neighbourhood including Homelands Drive, Perran Drive and Thorn Lodge Drive (refer to location map in Appendix 2)
- Fieldgate Drive / Bough Beeches Boulevard neighbourhood (refer to location map in Appendix 3)

### **Sheridan Homelands Neighbourhood**

Ongoing concerns regarding speeding and aggressive driving from residents within the Sheridan Homelands neighbourhood have resulted in a number of traffic studies and investigations. In 2016 staff implemented a passive traffic calming technique in the form of white edge lines and a yellow centreline in an effort to reduce speeding and aggressive driving. Following the installation of the pavement markings, staff conducted traffic studies in June 2017

to determine if pavement markings had any effect on the operating speeds and to determine if additional corrective measures are required. Results of these studies are as follows:

Location	Posted Speed (km/h)	May 2016	June 2017
		85th Percentile Speed (km/h)	85th Percentile Speed (km/h)
Thorn Lodge Drive west of Liruma Road	40	55	53
Homelands Drive east of Thorn Lodge Drive	40	59	57
Homelands Drive east of Barcella Crescent	40	56	55
Perran Drive west of Fifth Line West	40	52	55

The results of the after-studies indicated a nominal decrease in speeds; therefore, it was determined that additional corrective measures in the form of a physical traffic calming were required to address the ongoing concerns with speeding and aggressive driving.

#### **Fieldgate Drive / Bough Beeches Boulevard Neighbourhood**

Similarly, staff utilized speed awareness equipment and requested enforcement by Peel Regional Police at a variety of locations on Fieldgate Drive and Bough Beeches Boulevard in an effort to reduce speeding and aggressive driving. While these measures have resulted in operating speeds, which are more acceptable on some sections of Bough Beeches Boulevard and Fieldgate Drive, speeding and aggressive driving continue to exist on sections of both roadways. Results of these studies are as follows:

Location	Posted Speed (km/h)	Various Dates
		85th Percentile Speed (km/h)
Fieldgate Drive north of Rathburn Road East	50	61
Fieldgate Drive north of Burnhamthorpe Road East	50	65
Fieldgate Drive south of Burnhamthorpe Road East	40	51
Bough Beeches Boulevard, east of Fieldgate Drive	40	54

The results indicated a continued speeding concern on Fieldgate Drive between Bough Beeches Boulevard and Ponytrail Drive, and on Bough Beeches Boulevard between Fieldgate

Drive and Claypine Rise (west intersection). Therefore, it was determined that additional corrective measures in the form of a physical traffic calming were required to address the ongoing concerns with speeding and aggressive driving.

## Comments

Once the Sheridan Homelands and Fieldgate Drive / Bough Beeches Boulevard neighbourhoods were identified as candidates for the installation of physical traffic calming measures, Road Safety staff developed preliminary plans for each neighbourhood to address the identified issues. Staff considered the different types of traffic calming devices and overall roadway characteristics to achieve operating speeds, which are consistent with the posted speed limit. These factors include traffic calming type, spacing, layout and impacts the installation of physical traffic calming devices may have on local residents and City services.

### **Sheridan Homelands Neighbourhood**

To determine the level of support and to refine the traffic calming plan for the neighbourhood, a number of public consultations with Road Safety staff, the local Ward Councillor and area residents were held to discuss the preliminary plans for the neighbourhood. Arrangements were made to meet directly with the affected residents in an open house public information centre, where staff presented preliminary plans and provided residents with the opportunity to discuss issues directly with staff and/or leave written comments and feedback.

Local resident feedback was generally positive and indicated that there was a great deal of support for physical traffic calming among local residents. The overwhelming majority of written comments revealed 82% were supportive of the proposed measures within the Sheridan Homelands neighbourhood. These measures include a series of speed cushions on Perran Drive, Thorn Lodge Drive and Homelands Drive. In addition, a raised crossing is proposed on Homelands Drive in front of Homelands Senior Public School.

In consultation with the local Ward Councillor the decision was made to pursue the installation of these physical traffic calming measures on Homelands Drive, Thorn Lodge Drive, and Perran Drive.

### **Fieldgate Drive / Bough Beeches Boulevard Neighbourhood**

To determine the level of support and to refine the traffic calming plan for the neighbourhood, a number of public consultations with Road Safety staff, the local Ward Councillor and area residents were held to discuss the preliminary plans for the neighbourhood. Two open house public information centres were arranged, where staff presented preliminary plans and provided residents with the opportunity to discuss issues directly with staff and/or leave written comments and feedback.

Local resident feedback was generally positive and indicated that there was a great deal of support for physical traffic calming among local residents. The overwhelming majority of written comments revealed 86% were supportive of the proposed measures within the neighbourhood. The traffic calming measures consist of speed cushions on Fieldgate Drive and Bough Beeches Boulevard, as well as raised crossings on Fieldgate Drive and on Bough Beeches Boulevard. A raised intersection, or mini-roundabout, is also proposed for the intersection of Fieldgate Drive and Maple Ridge Drive; however, additional design work is required to determine suitability.

In consultation with the local Ward Councillor the decision was made to pursue the installation of physical traffic calming measures on Fieldgate Drive between Bough Beeches Boulevard and Ponytrail Drive, and on Bough Beeches Boulevard between Fieldgate Drive and Claypine Rise (west intersection).

Following the completion of the open house public information centre and the decision to pursue the implementation of physical traffic calming measures within the Sheridan Homelands and Fieldgate Drive / Bough Beeches Boulevard neighbourhoods, staff provided the revised concept plans to all emergency services and MiWay. No concerns have been raised from emergency services or MiWay regarding the proposed traffic calming.

## Financial Impact

The estimated cost for the installation of physical traffic calming measures within the Sheridan Homelands and Fieldgate Drive / Bough Beeches neighbourhoods is \$150,000 and can be accommodated within the 2017 Traffic Calming Program capital budget.

## Conclusion

There is sufficient interest from local area residents, as well as support from the affected Ward Councillor, for the implementation of physical traffic calming measures within the Sheridan Homelands and Fieldgate Drive/Bough Beeches Boulevard neighbourhoods.



## Attachments

Appendix 1: Traffic Calming Policy 10-09-03

Appendix 2: Location Map - Sheridan Homelands Neighbourhood (Ward 2)

Appendix 3: Location Map - Fieldgate Drive and Bough Beeches Boulevard Neighbourhood (Ward 3)



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Magda Kolat C.E.T., Road Safety Technologist

# Corporate Policy and Procedure



Policy No. 10-09-03  
Page 1 of 6  
Effective Date 2016 02 10  
Supersedes

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TAB: ROADS AND TRAFFIC  
SECTION: TRAFFIC OPERATIONS  
SUBJECT: TRAFFIC CALMING

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**POLICY STATEMENT** The City of Mississauga may install physical Traffic Calming devices on roadways throughout the City in accordance with this policy.

**PURPOSE** The goal of Traffic Calming is to improve public safety and the livability of neighbourhoods by enabling the roadway to function as intended. This is done through the implementation of physical Traffic Calming measures which serve to reduce operating speeds, discourage Traffic Infiltration and minimize conflicts between road users.

This policy outlines the criteria and procedures for selecting, reviewing and implementing traffic calming in residential neighbourhoods.

**SCOPE** This policy applies to Traffic Calming devices installed by the City of Mississauga on City roadways that are classified as minor and minor collector roadways.

Roadways classified as major collector and arterial roadways are not covered by this policy.

Traffic calming installations in place at the time of adoption of this policy will be grandfathered.

**DEFINITIONS** For the purposes of this policy:

Traffic Calming “Traffic Calming” means measures such as devices and physical design, including narrowed roads and speed tables, put in place for the intention of slowing down or reducing motor-vehicle traffic and improving road safety for pedestrians and cyclists.

# Corporate Policy and Procedure



Policy No. 10-09-03  
Page 2 of 6  
Effective Date 2016 02 10  
Supersedes

Traffic Calming Capital Program

“Traffic Calming Capital Program” (the Program) means the formal evaluation, consultation and annual selection process for the installation of Traffic Calming on minor and minor collector City roadways.

Traffic Infiltration

“Traffic Infiltration” means the use of a local public roadway by non-local residents as an alternate route.

ADMINISTRATION

This policy is administered by the Traffic Engineering and Operations Section of the Transportation and Works Department.

## APPROVAL OF TRAFFIC CALMING

All requests for Traffic Calming must be submitted, in writing, to Traffic Engineering and Operations, Transportation and Works Department. Traffic Engineering and Operations staff are responsible for assessing whether Traffic Calming measures are warranted under the Traffic Calming Capital Program.

Recommendations for inclusion in the Program must be approved annually at a meeting of Council.

## CRITERIA

Traffic Calming is best suited on minor and minor collector roadways that do not carry large volumes of traffic and may be considered only at locations that meet the following criteria:

Minor Roadway	IF	85th percentile speed exceeds 10 km/h over posted limit	OR	Traffic Infiltration exceeds 30%	AND	> 1000 vehicles per day
Minor Collector Roadway	IF	85th percentile speed exceeds 10 km/h over posted limit	OR	Traffic Infiltration exceeds 40%	AND	> 2000 vehicles per day

When evaluating the need for Traffic Calming at a location that

# Corporate Policy and Procedure



Policy No. 10-09-03  
Page 3 of 6  
Effective Date 2016 02 10  
Supersedes

has met the criteria above, the following considerations will be made prior to proceeding with recommendations to Council under the Program:

- Improvements to the arterial road network - Consider available options to improve operations on the arterial road network (e.g. signal timing adjustments; lane designations; etc.) prior to implementing Traffic Calming measures on minor and minor collector roadways.
- Impacts on adjacent roadways - Consider any potential negative impacts on adjacent roadways.
- Impacts on accessibility – Consider any potential negative impacts or benefits for persons with disabilities
- Access restrictions to the neighbourhood - Consider avoiding diverters, barriers and closures, where possible, as they can restrict access for people who live or work on a particular roadway and can have a significant impact on the delivery of emergency services, public transit and other municipal services.
- Impacts on cyclists and pedestrians - Consider minimizing impacts and improving conditions for other road users such as cyclists and pedestrians.
- Impacts on the delivery of emergency services, public transit and other municipal services (e.g. waste collection; winter maintenance; etc.) - Consider balancing the needs of these services with slowing traffic on minor and minor collector roadways through consultation with affected service stakeholders.
- Public participation and community support - Consider an open, public process to ensure that residents' input and



# Corporate Policy and Procedure



Policy No. 10-09-03  
Page 4 of 6  
Effective Date 2016 02 10  
Supersedes

concerns are heard and appropriate solutions are recommended for implementation.

- City's Master Plans - Consider the City's Master Plans when recommending and implementing Traffic Calming measures to ensure compliance.

Locations being recommended for Traffic Calming will be prioritized based on several factors, including neighbourhood characteristics, safety, traffic conditions, land use and available budget. Traffic Engineering and Operations staff will determine the needs of each location based on the evaluation of these factors and maintain an ongoing list of potential future locations for the Program.

## PROCESS

Upon receipt of a request for Traffic Calming, Traffic Engineering and Operations Section staff will undertake the following steps:

Note: If at any stage of the process there is significant opposition from any relevant stakeholder, or new information becomes available, staff may return to a previous step and attempt to rework or abandon the location for consideration entirely. The applicable ward councillor will be advised if the location is no longer being considered for Traffic Calming.

### Initial Review and Investigation

1. Determine if the location meets the minor or minor collector roadway classification.
2. Review the location to determine if there are any improvements that can be made outside of physical measures that would address the issue.
3. Collect and review traffic volumes and operating speeds and/or Traffic Infiltration data to determine if technical criteria are met.

# Corporate Policy and Procedure



Policy No. 10-09-03  
Page 5 of 6  
Effective Date 2016 02 10  
Supersedes

## Development/Consultation/ Approval

4. If the site qualifies, prioritize it on the list of Traffic Calming locations based on the data results and other factors, such as collision frequency, resident support and available budget.
5. Develop proposed Traffic Calming measures for each site that adhere to the considerations outlined in this policy, while addressing the real issues related to neighbourhood safety.
6. Consult with relevant City, regional, transit and emergency services and request feedback on the proposed Traffic Calming measures for each site.
7. Consult with the applicable ward councillor(s) for endorsement of the proposed Traffic Calming measures.
8. Present the proposed Traffic Calming measures for each site in a public meeting/public information forum with local residents who may be directly impacted and allow for feedback (in person and/or in writing).
9. If there is no significant opposition to a proposed Traffic Calming site plan, arrange for the detailed plan design.
10. Prepare a corporate report outlining the recommended list of locations and Traffic Calming measures for the annual Program for Council's approval.

## Implementation/Monitoring/ Acceptance

11. Once approved, procure the required measures and services for implementation and complete the plan.
12. Monitor and review the impact of the Program on the original issues related to traffic volumes and operating speeds and respond to resident feedback, if applicable.
13. In the case of a Traffic Calming plan utilizing temporary/removable devices, arrange for removal of the devices prior to the winter maintenance season and reinstallation in the spring.

# *Corporate Policy and Procedure*



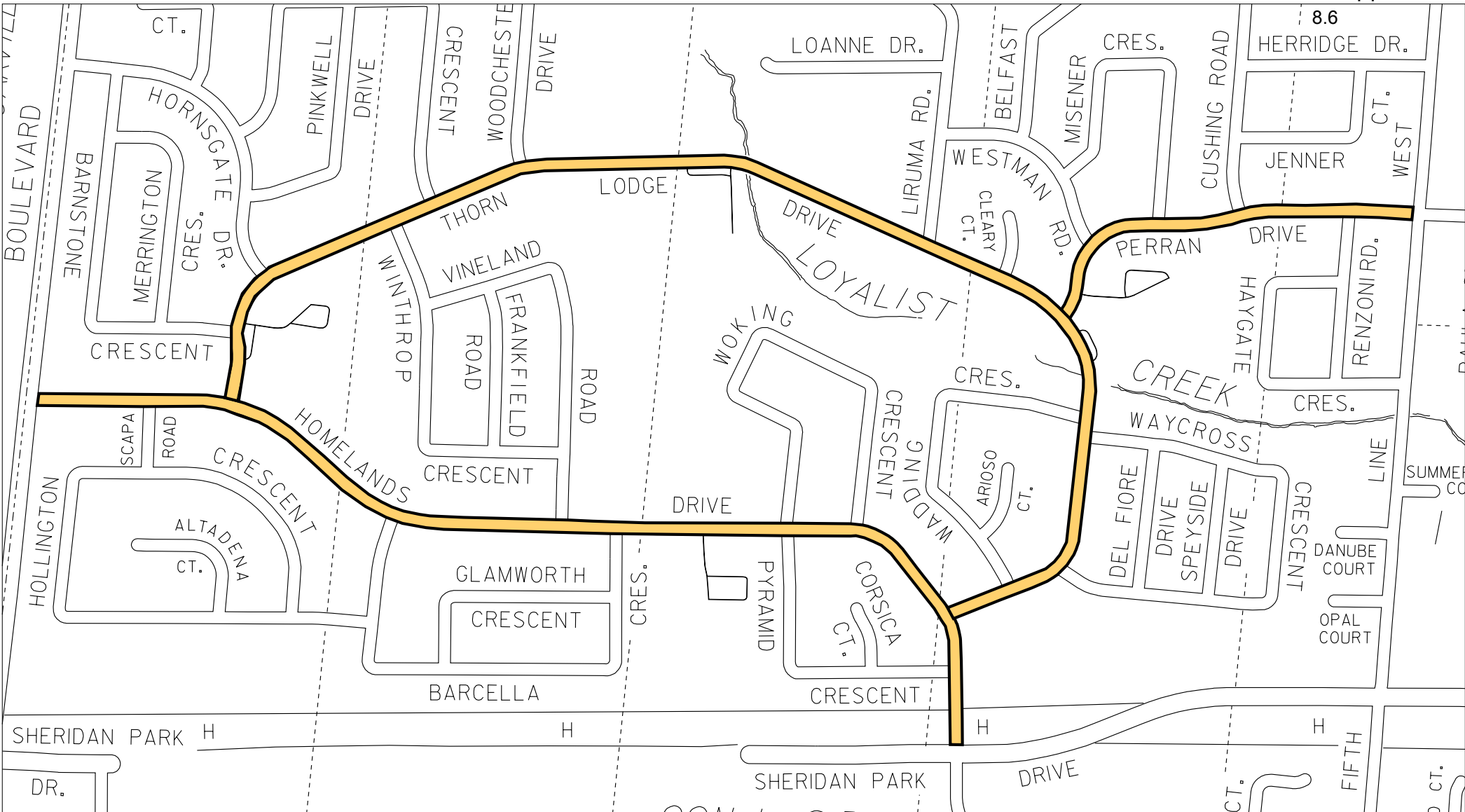
Policy No. 10-09-03  
Page 6 of 6  
Effective Date 2016 02 10  
Supersedes

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REFERENCE: GC-0032-2016 – 2016 02 10

LAST REVIEW DATE:

CONTACT: For more information, contact the Traffic Engineering and Operations Section of the Works Operations and Maintenance Division, Transportation and Works Department.



CON.1 S.D.S



MISSISSAUGA

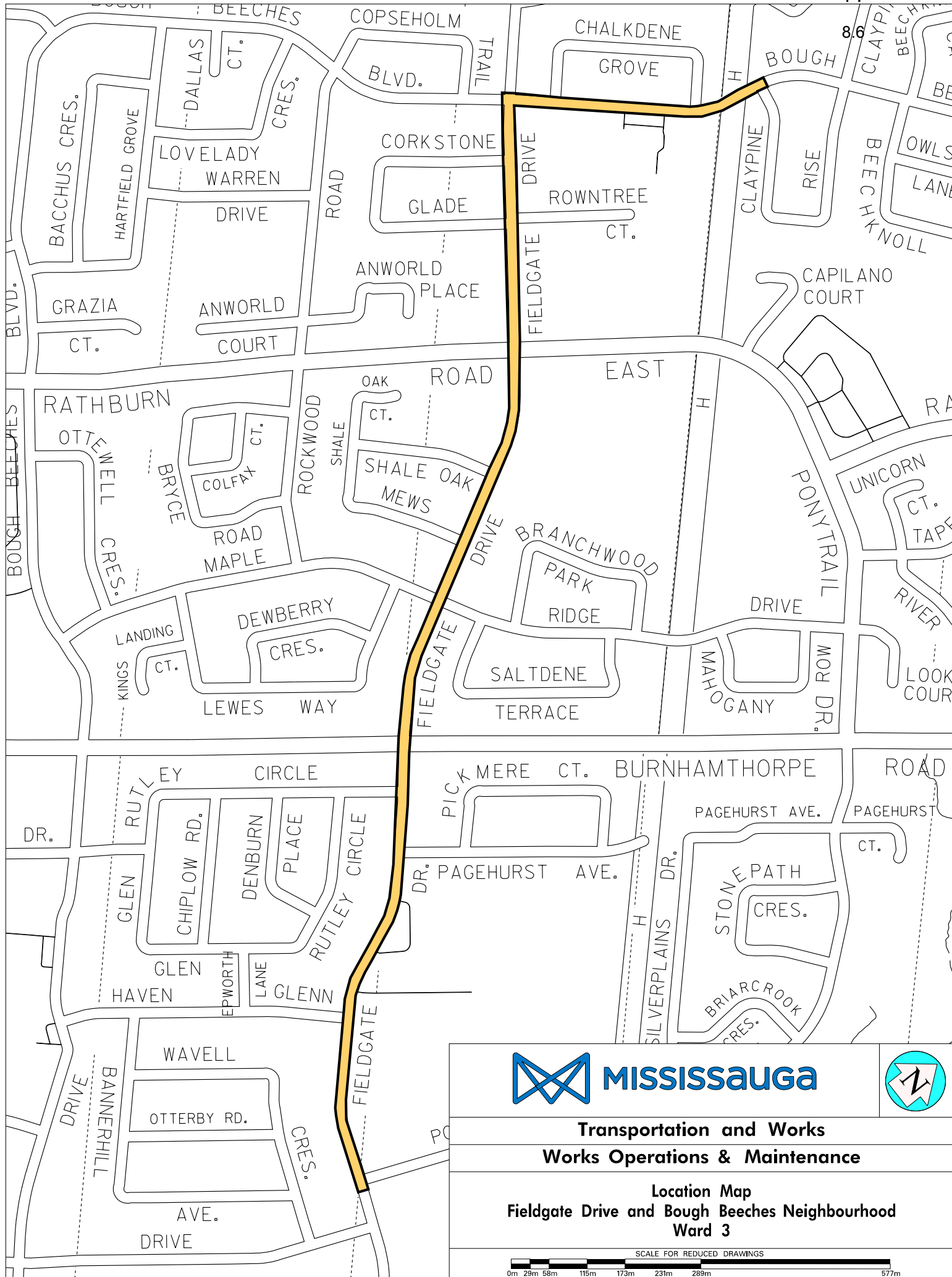


**Transportation and Works**  
**Works Operations & Maintenance**

**Location Map**  
**Sheridan Homelands Neighbourhood**  
**Ward 2**







# City of Mississauga Corporate Report



Date: 2018/05/25

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Burnhamthorpe Road West and Brickstone Mews - 15 Minute Parking (Ward 4)**

## Recommendation

That a by-law be enacted to amend By-law 555-2000, as amended to implement 15-minute parking anytime on the north side of Burnhamthorpe Road West from a point 25 metres (82 feet) east of Brickstone Mews to a point 10 metres (32 feet) easterly thereof, as outlined in the report from the Commissioner of Transportation and Works, dated May 25, 2018, entitled "Burnhamthorpe Road West and Brickstone Mews – 15-Minute Parking (Ward 4)".

## Background

To help ease the transition for new businesses in the City Centre, an interim solution to designate one to two, short-term, 15-minute free parking spaces in each lay-by near or fronting the business was developed. This solution was adopted at the December 9, 2009 Council meeting.

## Comments

A number of businesses such as Pizza Nova have begun operating in the Parkside Village condominiums located on the west side of Confederation Parkway between Burnhamthorpe Road West and Curran Place. Two, short-term, 15-minute free parking spaces will be designated in the lay-by located on the north side of Burnhamthorpe Road West east of Brickstone Mews.

The Ward Councillor supports this change in parking.

## Financial Impact

The costs for additional sign installations can be accommodated in the 2018 Municipal Parking operating budget. It is anticipated that the implementation of free 15-minute parking would result in a minimal loss in revenue at this location.

## Conclusion

The Transportation and Works Department supports implementing 15-minute parking anytime on the north side of Burnhamthorpe Road West from a point 25 metres (82 feet) east of Brickstone Mews to a point 10 metres (32 feet) easterly thereof.

This 15-minute free parking implementation will be reviewed in the summer of 2019 to determine if the 15-minute free parking is still required in the City Centre.

## Attachments

Appendix 1: 15 Minute Free Parking - Burnhamthorpe Road West (Ward 4)



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Tomasz Brzeziak, C.E.T., Parking Coordinator





# City of Mississauga

## Corporate Report



Date: 2018/05/23

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP  
RT.10.Z54

Meeting date:  
2018/06/13

## Subject

**U-Turn Prohibition - Millcreek Drive and Derry Road West (Ward 9)**

## Recommendation

That a by-law be enacted to amend the Traffic By-law 555-2000, as amended, to implement a U-turn prohibition at any time for northbound motorists on Millcreek Drive between Derry Road West and a point 100 metres (328 feet) northerly thereof, as outlined in the report from the Commissioner of Transportation and Works, dated May 23, 2018 and entitled "U-Turn Prohibition - Millcreek Drive and Derry Road West (Ward 9)"

## Background

The Transportation and Works Department is in receipt of a request from an area resident to implement a U-turn prohibition for northbound motorists on Millcreek Drive north of Derry Road West. The resident observed motorists making unsafe U-turns at this location resulting in disruption, delays and potential vehicular conflicts during morning traffic peak periods. A location map is attached as Appendix 1.

## Comments

Staff completed observations on Millcreek Drive north of Derry Road West during peak times to determine if there is a safety concern pertaining to this turning movement. The study revealed that 43 U-turns were executed by northbound motorists turning southbound at this location, and 11 of them were completed in an unsafe manner, impeding oncoming traffic and negatively affecting traffic operation.

The Transportation and Works Department supports the implementation of a U-turn prohibition for northbound motorists on Millcreek Drive north of Derry Road West to improve the overall level of safety at this location.

The Ward Councillor supports the implementation of a U-turn prohibition at this location.

General Committee

2018/05/23

2

Originators files: MG.23.REP

RT.10.Z-54

## Financial Impact

Costs for the sign installations can be accommodated in the 2018 operating budget.

## Conclusion

The Transportation and Works Department supports the implementation of a U-turn prohibition for northbound motorists on Millcreek Drive between Derry Road West and a point 100 metres (328 feet) northerly thereof.

## Attachments

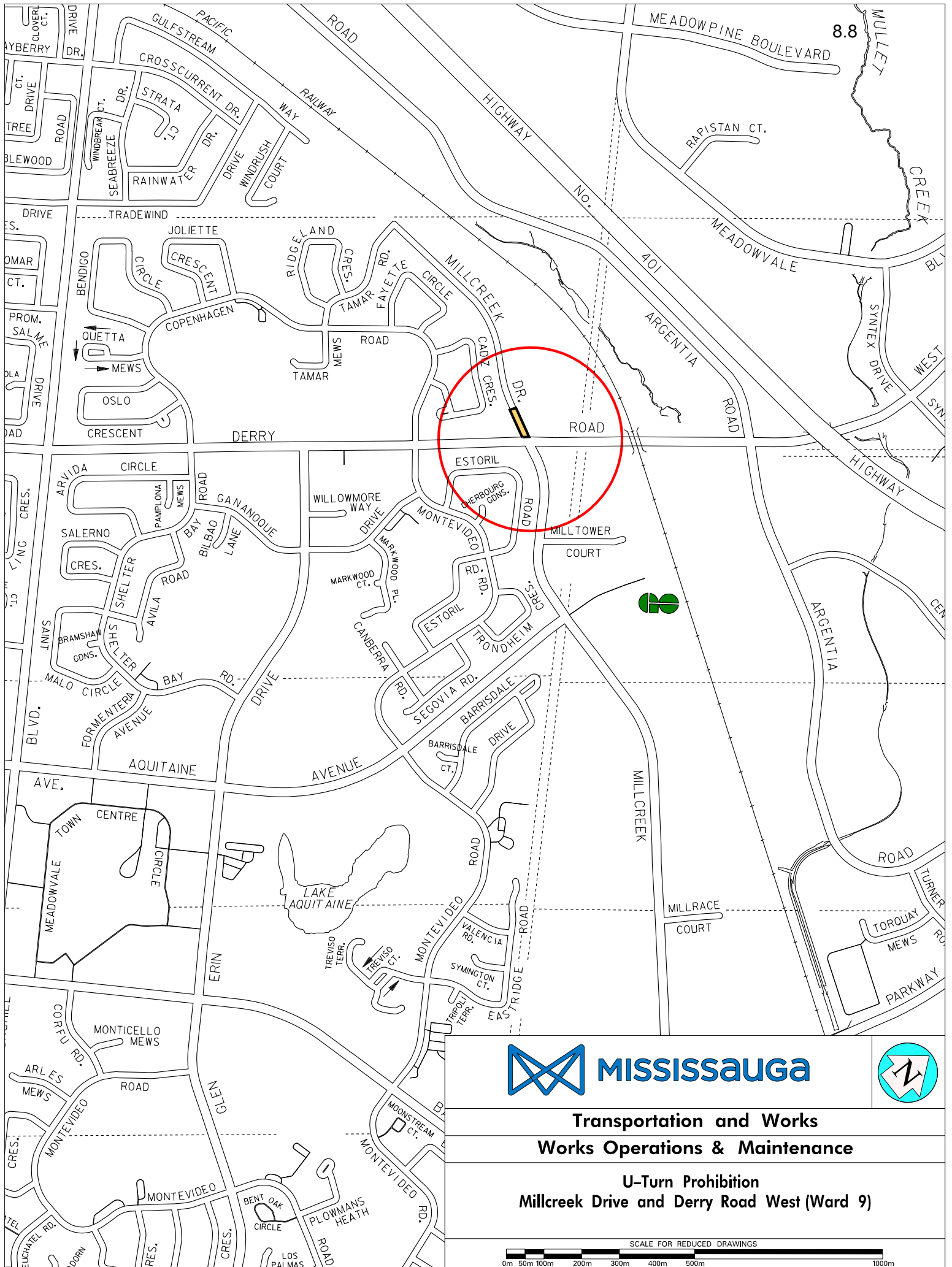
Appendix 1: Location Map - U-Turn Prohibition - Millcreek Drive and Derry Road West (Ward 9)



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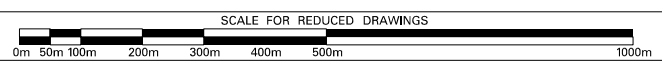
Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Ouliana Drobychevskaia, B.Sc., Traffic Operations Technologist



**Transportation and Works**  
**Works Operations & Maintenance**

**U-Turn Prohibition**  
**Millcreek Drive and Derry Road West (Ward 9)**



# City of Mississauga

## Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP  
RT.10.Z25

Meeting date:  
2018/06/13

### Subject

**Parking Prohibition - Glen Erin Drive (Ward 8)**

### Recommendation

That a by-law be enacted to amend the Traffic By-law 555-2000, as amended, to implement a parking prohibition any time on both sides of Glen Erin Drive between The Collegeway and a point 190 metres (623 feet) northerly thereof, as outlined in the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Parking Prohibition - Glen Erin Drive (Ward 8)".

### Background

The Transportation and Works Department is in receipt of a safety concern from an area resident related to school buses parking on Glen Erin Drive between The Collegeway and the driveway of 3501 Glen Erin Drive. The resident indicated that school buses that are regularly parked within this section of Glen Erin Drive impede the sight visibility on the road.

### Present Status

Glen Erin Drive is a four-lane undivided major collector roadway. Presently parking is prohibited on both sides of Glen Erin Drive between The Collegeway and Burnhamthorpe Road West between 7:00 a.m. and 9:00 a.m., and between 4:00 p.m. and 6:00 p.m., Monday to Friday.

### Comments

An on-site meeting was held with the resident, the Ward Councillor and City staff on May 15, 2018 to review the resident's safety concerns. During this meeting a school bus was observed parking on Glen Erin Drive north of The Collegeway. Parking of school buses (or any large vehicles) within this section of Glen Erin Drive obstructs the visibility of traffic approaching on the roadway for motorists exiting driveways and creates a safety hazard. Adequate sightline visibility may not always be available to safely access the roadway without encroaching in the travelled lane. Additionally, parking of school buses may impede the operation of transit buses approaching the bus stops.



General Committee

2018/05/29

2

Originators files: MG.23.REP

RT.10.Z57

The Transportation and Works Department recommends implementing a parking prohibition anytime on both sides of Glen Erin Drive between The College Way and the driveway of 3501 Glen Erin Drive. The Ward Councillor supports this recommendation. The implementation of this parking prohibition should improve the general level of safety on the roadway. A location map is attached as Appendix 1.

## Financial Impact

Costs for the signs installation can be accommodated in the 2018 current budget.

## Conclusion

The Transportation and Works Department recommends implementing a parking prohibition any time on both sides of Glen Erin Drive between The Collegeway and a point 190 metres (623 feet) northerly thereof.

## Attachments

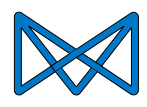
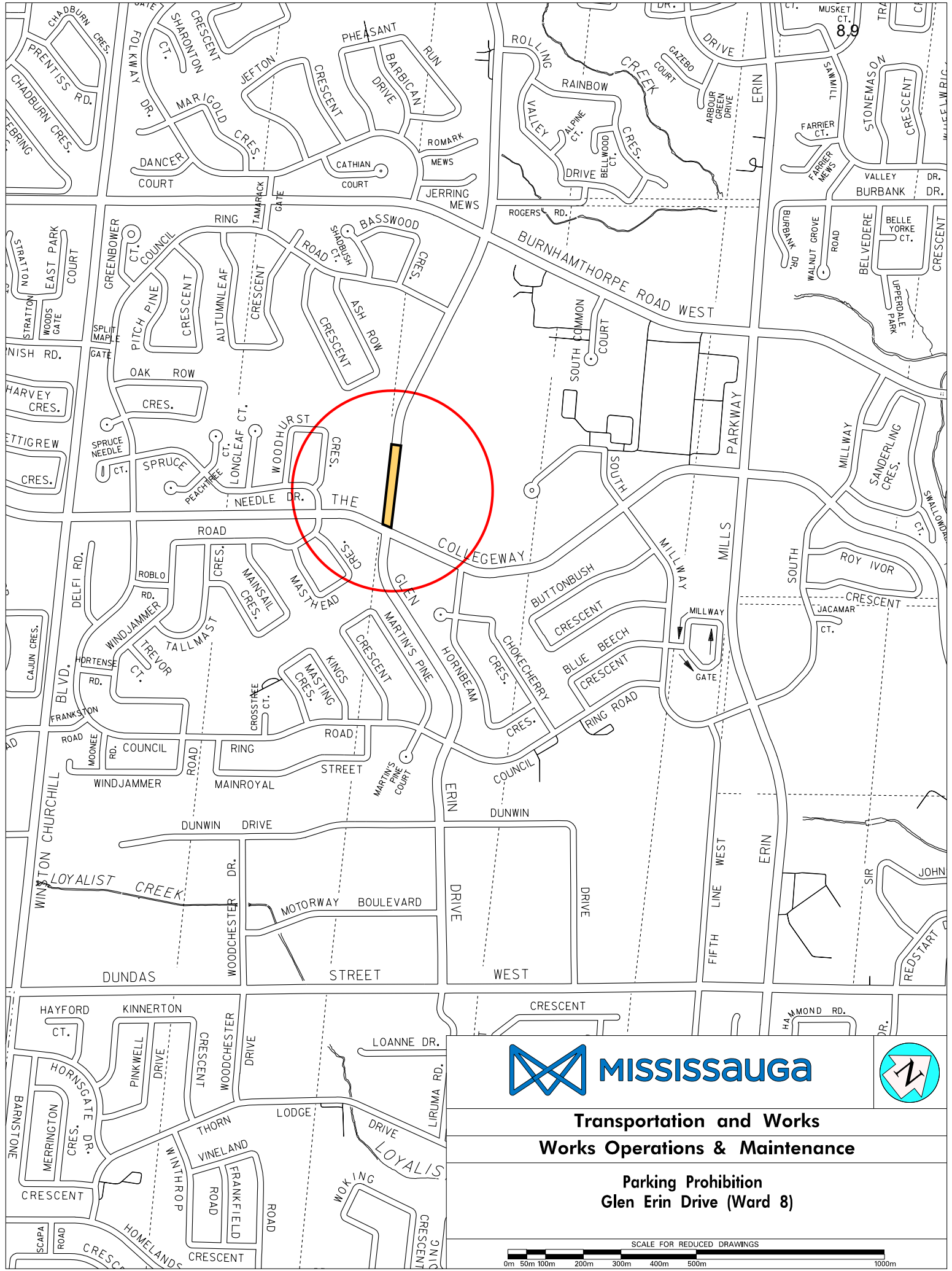
Appendix 1: Location Map - Parking Prohibition - Glen Erin Drive (Ward 8)




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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Ouliana Drobychevskaia, Traffic Operations Technologist

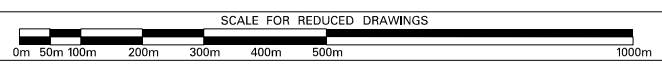


**MISSISSAUGA**



**Transportation and Works  
Works Operations & Maintenance**

**Parking Prohibition  
Glen Erin Drive (Ward 8)**



# City of Mississauga

## Corporate Report



Date: 2018/05/24

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP  
RT.10.Z57

Meeting date:  
2018/06/13

### Subject

**Parking Prohibition - Tenth Line West (Ward 10)**

### Recommendation

That a by-law be enacted to amend the Traffic By-law 555-2000, as amended, to remove 15-hour parking and implement a parking prohibition, any time, on both sides of Tenth Line West between McDowell Drive and Britannia Road West, and on the west side of Tenth Line West between Baron Drive and 25 metres (82 feet) northerly thereof, as outlined in the report from the Commissioner of Transportation and Works, dated May 24, 2018 and entitled "Parking Prohibition - Tenth Line West (Ward 10)".

### Background

The Transportation and Works Department received concerns from area residents regarding the visibility obstruction created by vehicles utilizing on-street parking on Tenth Line West between Thomas Street and Britannia Road West. The residents indicated that vehicles that are regularly parked along this section of Tenth Line West impede the sightline visibility on the road.

Tenth Line West between Thomas Street and Britannia Road West is a two-lane major collector roadway with bicycle lanes and on-street parking provided on both sides of the road. In accordance with the current parking regulations, a combination of statutory five-hour parking, 15-hour parking and parking prohibitions are in place on Tenth Line West. A location map is attached as Appendix 1.

## Comments

Staff completed a comprehensive review of Tenth Line West between Thomas Street and Britannia Road West with respect to sightline visibility. An investigation revealed that sightlines are not ideal at most intersections along this section of Tenth Line West due to the dense roadway network and short spacing between intersections. When on-street parking is utilized, it obstructs the visibility of vehicular traffic and cyclists approaching on the roadway for motorists entering the roadway from the various intersecting roadways, creating a safety hazard. Adequate sightline visibility is not always available to safely access or cross Tenth Line West without encroaching into the travelled lane.

Therefore, the Transportation and Works Department recommends that parking be prohibited any time on both sides of Tenth Line West between McDowell Drive and Britannia Road West. Staff also recommend implementing a parking prohibition on the west side of Tenth Line West between Baron Drive and 25 metres (82 feet) northerly thereof.

The implementation of the proposed parking prohibitions should improve the general level of safety on the roadway. The proposed parking regulation changes will include the relocation of bicycle lanes along the curb, where possible, and the introduction of a centre left-turn lane to aid traffic flow and turning movements.

The affected Ward Councillor held a community meeting with area residents and supports the recommendations for parking regulation changes on Tenth Line West.

## Financial Impact

Costs for the sign installations and adjustment of pavement markings can be accommodated in the 2018 Current Budget.

## Conclusion

The Transportation and Works Department recommends implementing a parking prohibition, any time, on both sides of Tenth Line West between McDowell Drive and Britannia Road West, and on the west side of Tenth Line West between Baron Drive and 25 metres (82 feet) northerly thereof.

General Committee

2018/05/24

3

Originators files: MG.23.REP

RT.10.Z57

## Attachments

Appendix 1: Location Map - Parking Prohibition - Tenth Line West (Ward 10)

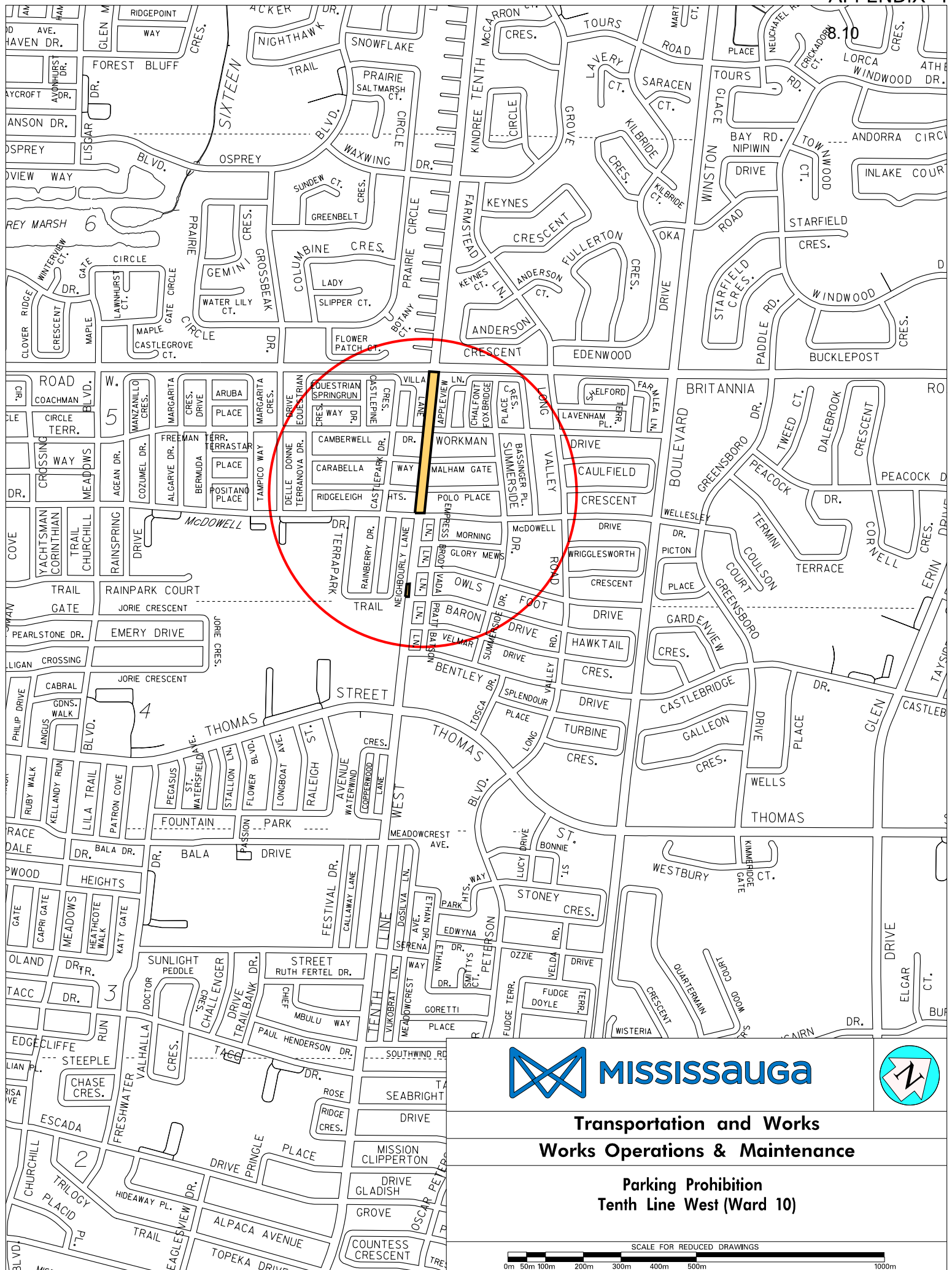


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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Ouliana Drobychevskaia, Traffic Operations Technologist





**MISSISSAUGA**



**Transportation and Works  
Works Operations & Maintenance**

**Parking Prohibition  
Tenth Line West (Ward 10)**



# City of Mississauga

## Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
RT.10.Z.VAR

Meeting date:  
2018/06/13

## Subject

**Pedestrian Crossover Pilot Project (Wards 2, 3, 6, 10, 11)**

## Recommendation

1. That the implementation of the Pedestrian Crossover Pilot Project be approved on Doug Leavens Boulevard, Whitehorn Avenue, Winding Trail, Westbridge Way and Homelands Drive, as outlined in the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Pedestrian Crossover Pilot Project (Wards 2, 3, 6, 10, 11)".
2. That the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Pedestrian Crossover Pilot Project (Wards 2, 3, 6, 10, 11)", be referred to the Mississauga Traffic Safety Council and the Mississauga Road Safety Committee for information.

## Report Highlights

- Effective January 1, 2016, the Ministry of Transportation Ontario (MTO) issued a new regulation (O. Reg. 402/15) under the *Highway Traffic Act* which established a new traffic control device called the Level 2 Pedestrian Crossover.
- As part of the 2018 Business Planning and Budget process, Council approved funding for the Pedestrian Crossover Pilot Project to evaluate this new traffic control device.
- Under this pilot project, Transportation and Works staff intend to implement pedestrian crossovers at five different locations throughout the City.
- In an effort to raise awareness of the new traffic control device in areas where they are proposed, staff are developing a communications plan.
- The estimated cost of \$152,000 for the proposed five pedestrian crossover installations can be accommodated within the Pedestrian Crossover Pilot Project and Traffic Calming Program budgets.

## Background

Effective January 1, 2016, the MTO issued a new regulation (O. Reg. 402/15) under the *Highway Traffic Act*, which established a new traffic control device called the Level 2 Pedestrian Crossover. This new traffic control device consists of new roadside signs and pavement markings and serves to enhance the mobility of pedestrians at mid-block locations and at intersections including right-turn channels and roundabouts.

A pedestrian crossover is any portion of a roadway distinctly indicated for pedestrian crossing by signs on the roadway and lines or other markings on the surface of the roadway as prescribed by the regulations and the *Highway Traffic Act*. The presence of a pedestrian in the crosswalk requires the driver of a vehicle approaching the crossover to stop before entering the crossover.

Prior to the update to the *Highway Traffic Act* and subsequent release of Ontario Traffic Manual Book 15, there was only the Type A Pedestrian Crossover which is rarely used within the province with the exception of the City of Toronto. The Type A Pedestrian Crossover has not been used in Mississauga since the 1990's when the MTO modified the traffic signal warrant methodology to allow for mid-block or intersection pedestrian signals. Following that change in warrant methodology, all existing pedestrian crossovers in Mississauga were converted to pedestrian activated traffic signals.

The Level 2 Pedestrian Crossover is a more cost effective solution and provides the right-of-way to pedestrians through the use of 'Stop for Pedestrians' signs, 'Pedestrian Crossing Ahead' warning signs and pavement markings reinforcing the requirement for vehicles to stop and provide the right of way to pedestrians. Additional measures such as rectangular rapid flashing beacons and overhead signs may also be required depending on the width of the roadway and volumes of vehicular traffic. The pedestrian crossover sign and pavement markings legally provide the pedestrian with the right-of-way when crossing a road and establish the requirement for vehicles to stop. Although some versions of the new pedestrian crossover have rectangular rapid flashing beacons and overhead signs, the signs and pavement markings themselves govern the right-of-way while the beacons serve only to draw attention to the sign at busier locations.

The new pedestrian crossovers are a defined set of roadside signs and pavement markings, which combine for a passive treatment to provide pedestrians the right-of-way when crossing the roadway.

There are four types of pedestrian crossovers included in Ontario Traffic Manual Book 15 which can be used at mid-block and intersection locations including right-turn channels and roundabouts (refer to Appendix 1):

**Level 1 Type A Pedestrian Crossover:** The original type pedestrian crossover that is defined by the prescribed use of regulatory side mounted and overhead illuminated signs, flashing amber beacons, and pavement markings.

**Level 2 Type B Pedestrian Crossover:** Distinctly defined by the prescribed use of side mounted and overhead mounted regulatory signs, rectangular rapid flashing beacons and pavement markings.

**Level 2 Type C Pedestrian Crossover:** Distinctly defined by the prescribed use of side mounted and overhead mounted regulatory signs and pavement markings.

**Level 2 Type D Pedestrian Crossover:** Distinctly defined by the prescribed use of side mounted regulatory signs and pavement markings;

As part of the 2018 Business Planning and Budget process, Council approved funding for the Pedestrian Crossover Pilot Project to evaluate this new traffic control device. Under this pilot program, Transportation and Works staff intend to implement pedestrian crossovers at five different locations throughout the City.

## Comments

In order to select potential pedestrian crossover locations, staff reviewed more than 20 locations where additional pedestrian crossing assistance was requested by the public. The review of these locations included the level of pedestrian and vehicle traffic, the posted speed limit, the surrounding traffic control and the sight line visibility at the proposed crossing location.

Based on the review of the installation warrants, five locations were selected for inclusion in the pedestrian crossover pilot. The recommended new pedestrian crossover locations are listed below and identified in the location maps provided in the attached appendices:

### 1. Doug Leavens Boulevard - Ward 10 (refer to Appendix 2)

Doug Leavens Boulevard is a minor collector roadway with one lane in each direction and a posted speed limit of 50 km/h. The recorded pedestrian volume at this location is 170 based on an eight-hour count while the average daily traffic is 3,290 vehicles. The proposed pedestrian crossover is located at a natural pedestrian crossing point on Doug Leavens Boulevard, which connects directly to Lisgar Meadow Brook Greenbelt and connects to a variety of parks and schools within walking distance.

The recorded vehicle volumes and crossing distance of approximately 14 meters (46 feet) warrants the installation of a Level 2 Type B Pedestrian Crossover. This type of crossover includes pavement markings, roadside signs, overhead signs and rectangular rapid flashing beacons.

## **2. Whitehorn Avenue - Ward 6 (refer to Appendix 3)**

Whitehorn Avenue is a minor collector roadway with one lane in each direction and a posted speed limit of 50 km/h. The recorded pedestrian volume at this location is 193 based on an eight-hour count while the average daily traffic is 2,650 vehicles. The pedestrian crossover treatment is proposed on the north leg of the Whitehorn Avenue and Sidmouth Street intersection and directly connects to Garcia Park on the west side of the intersection.

The recorded vehicle volumes and crossing distance of approximately 10 meters (33 feet) warrants the installation of a Level Type C Pedestrian Crossover. This type of crossover includes pavement markings, roadside signs and rectangular rapid flashing beacons.

## **3. Winding Trail - Ward 3 (refer to Appendix 4)**

Winding Trail is a minor collector roadway with one lane in each direction and a posted speed limit of 50 km/h. The recorded pedestrian volume at this location is 265 based on an eight-hour count while the average daily traffic is 1,030 vehicles. The proposed pedestrian crossover connects directly to Kennedy Park and is within the vicinity of Burnhamthorpe Public School. In addition, Traffic Safety Council recommended Winding Trail at the park pathway be reviewed for the implementation of a pedestrian crossover as a result of a site inspection completed on February 15, 2018.

The recorded vehicle volumes and crossing distance of approximately nine meters (30 feet) warrants the installation of a Level 2 Type D Pedestrian Crossover. This type of crossover includes pavement markings and roadside signs.

## **4. Westbridge Way - Ward 11 (refer to Appendix 5)**

Westbridge Way is a minor collector roadway with one lane in each direction and a posted speed limit of 50 km/h. The recorded pedestrian volume at this location is 58 based on an eight-hour count while the average daily traffic is 1,170 vehicles. The proposed pedestrian crossover directly connects to a trail leading to Levi's Creek Greenbelt. Traffic Safety Council recommended Westbridge Way at the pathway to Levi's Creek Greenbelt be reviewed for the implementation of a pedestrian crossover as a result of a site inspection completed on February 22, 2018. A raised crossing was installed at this location in 2017 as part of the Traffic Calming Program.



The recorded vehicle volumes and crossing distance of approximately nine meters (30 feet) warrants the installation of a Level 2 Type D Pedestrian Crossover. This type of crossover includes pavement markings and roadside signs.

#### **5. Homelands Drive - Ward 2 (refer to Appendix 6)**

Homelands Drive is a minor collector with one lane in each direction within a school zone with a posted speed limit of 40 km/h. The recorded pedestrian volume at this location is 44 based on an eight-hour count while the average daily traffic is 1,030 vehicles. The proposed pedestrian crossover is located at a natural crossing point between Homelands Senior Public School and Thorn Lodge Park. Traffic Safety Council recommended Homelands Drive in the vicinity of Thorn Lodge Park and Homelands Senior Public School be review for the implementation of a pedestrian crossover as a result of a site inspection completed on June 6, 2017. A raised crossing is proposed at this location as part of the 2018 Traffic Calming Program.

The recorded vehicle volumes and crossing distance of approximately nine meters (30 feet) warrants the installation of a Level 2 Type D Pedestrian Crossover. This type of crossover includes pavement markings and roadside signs.

In an effort to raise awareness of the new traffic control device in areas where they are proposed, Transportation and Works staff have partnered with Corporate Communications staff to develop a communications plan. Information regarding pedestrian crossovers will be provided through available sources of communication such as the Mississauga official website, media sources, social media and the creation of a brochure.

The affected Ward Councillors have been advised of the proposed pedestrian crossover locations within their wards.

### **Financial Impact**

The estimated cost for the installation of the proposed five pedestrian crossover locations is \$152,000 and can be accommodated within the Pedestrian Crossover Pilot Project and Traffic Calming Program capital budgets.

### **Conclusion**

The introduction of new legislation provides the City with an additional traffic control device to provide safer roadway crossing conditions for pedestrians. These new crossing treatments will allow pedestrians to cross with the right-of-way under a greater number of conditions and will provide the City with a more cost-effective solution to ensure pedestrian safety.

## Attachments

Appendix 1: Pedestrian Crossover Types

Appendix 2: Location Map - Doug Leavens Boulevard (Ward 10)

Appendix 3: Location Map - Whitehorn Avenue (Ward 6)

Appendix 4: Location Map - Winding Trail (Ward 3)

Appendix 5: Location Map - Westbridge Way (Ward 11)

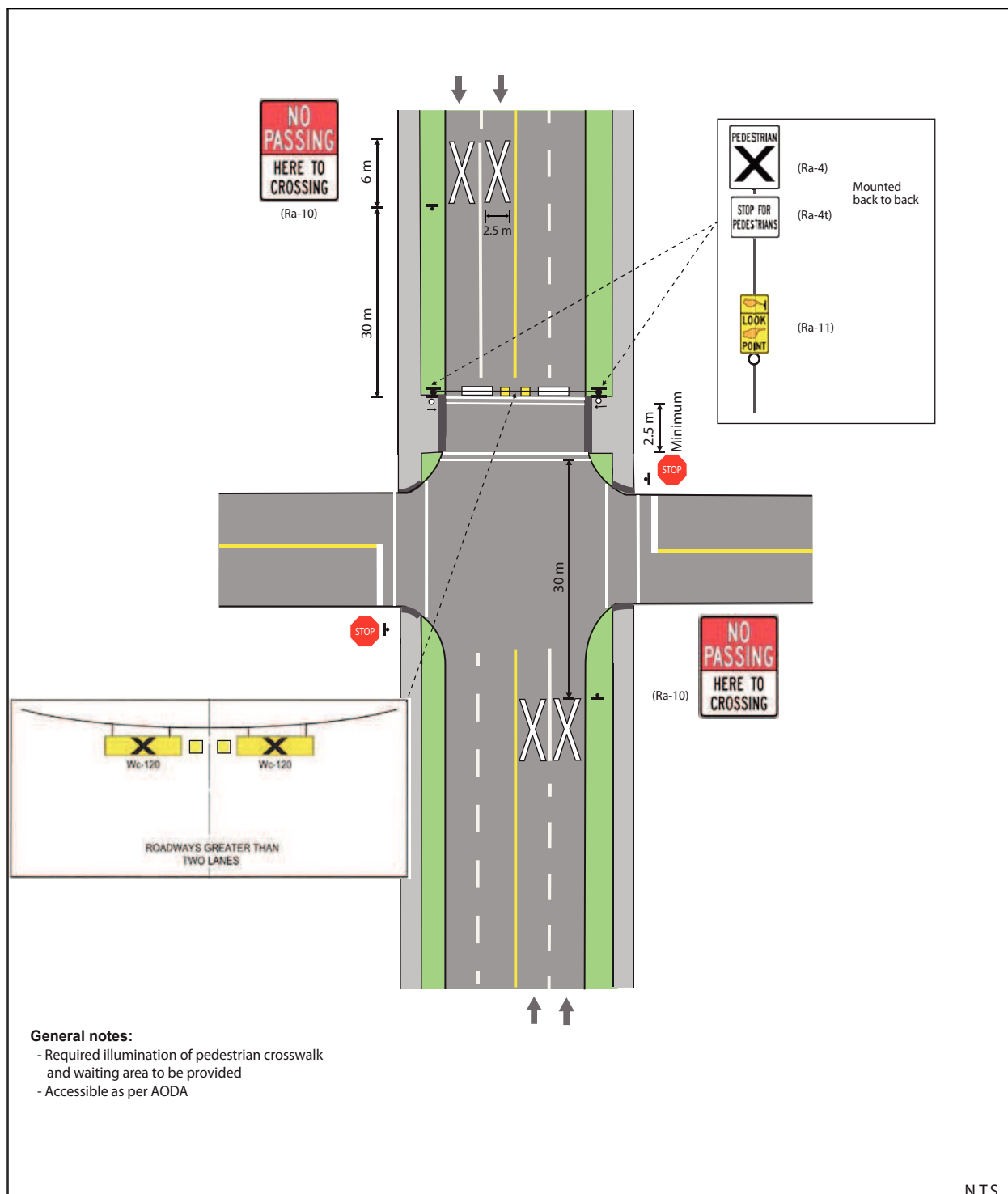
Appendix 6: Location Map - Homelands Drive (Ward 2)



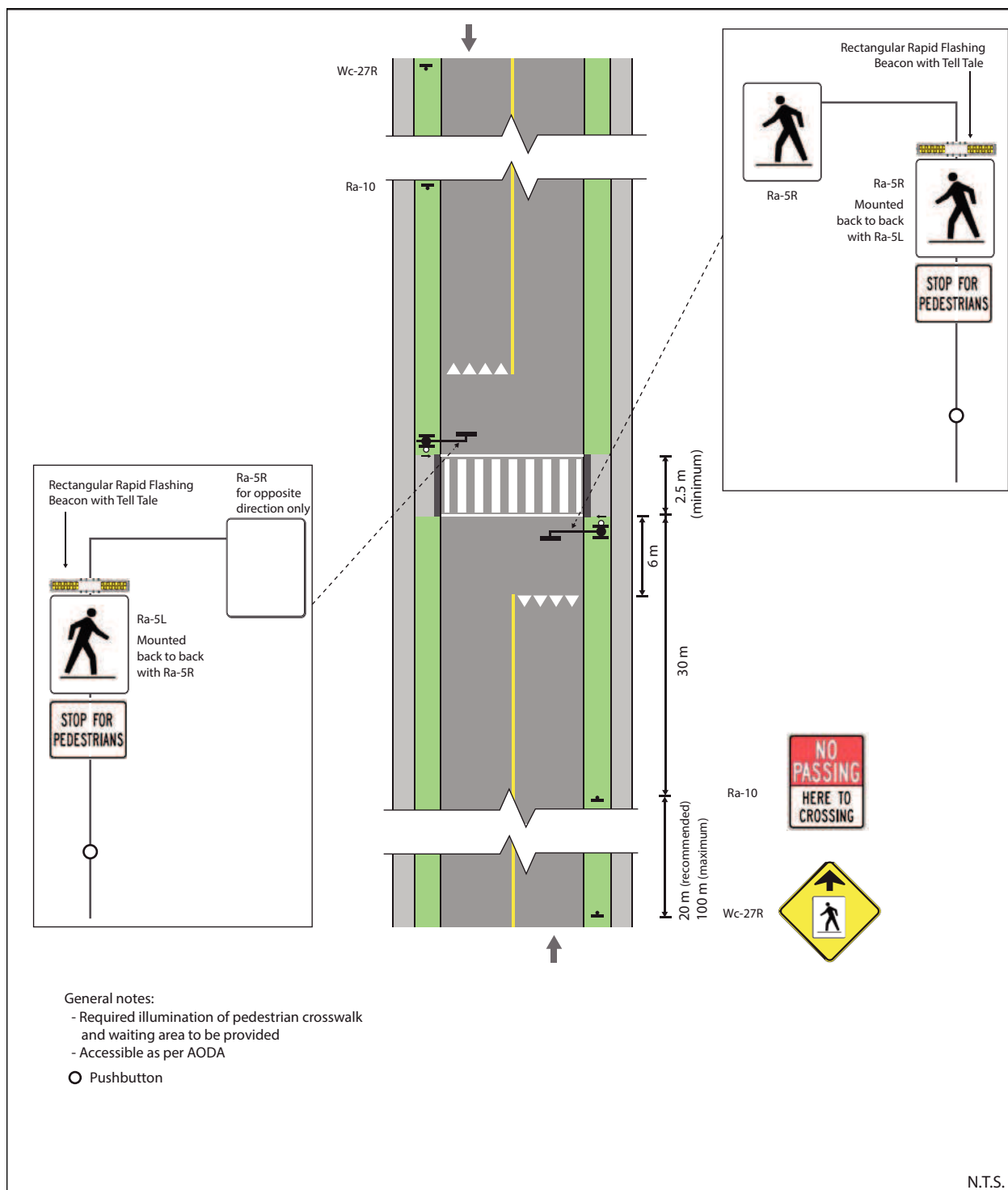
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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

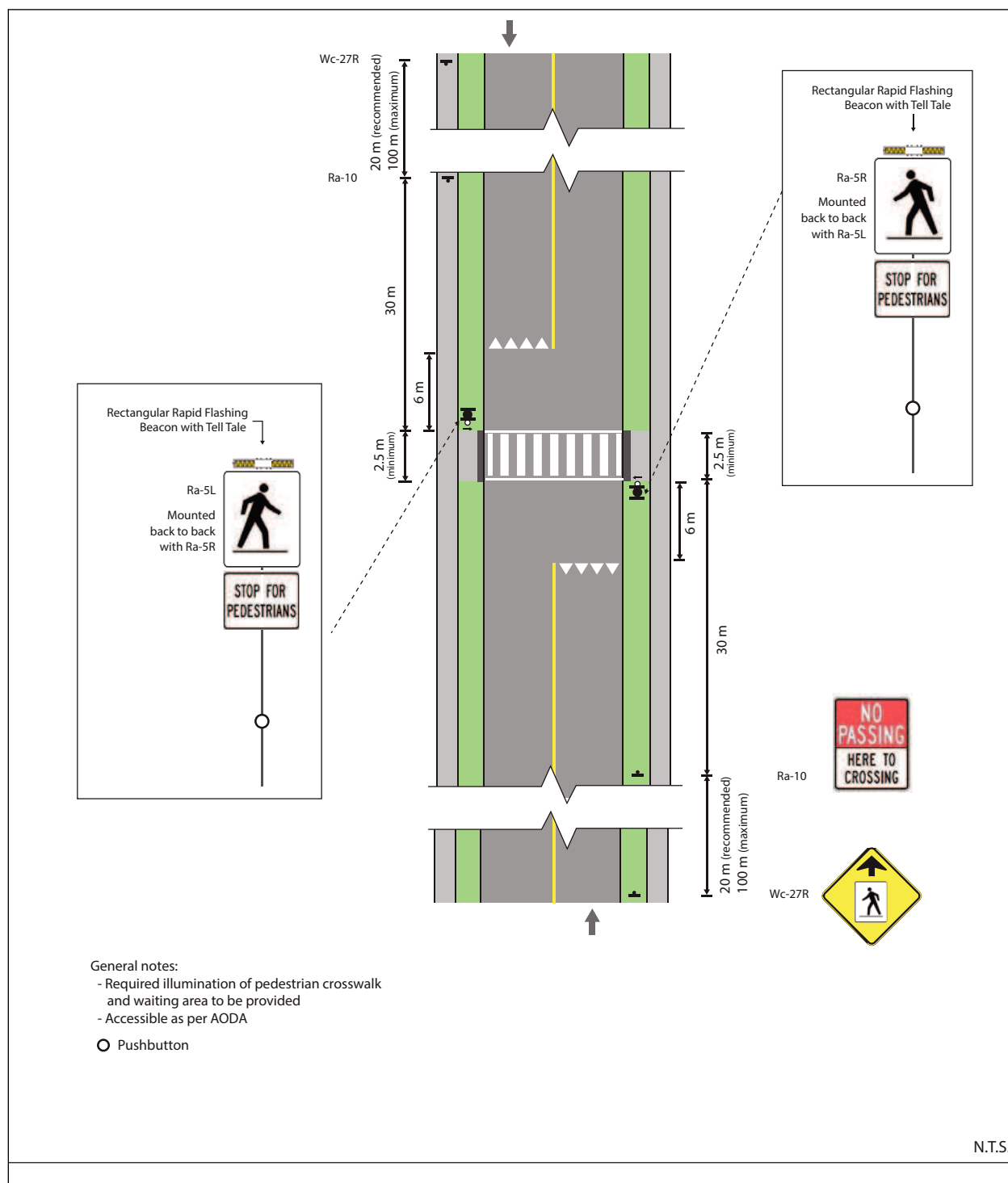
Prepared by: Colin Patterson C.E.T., Road Safety Supervisor



Pedestrian Crossover Level 1 Type A

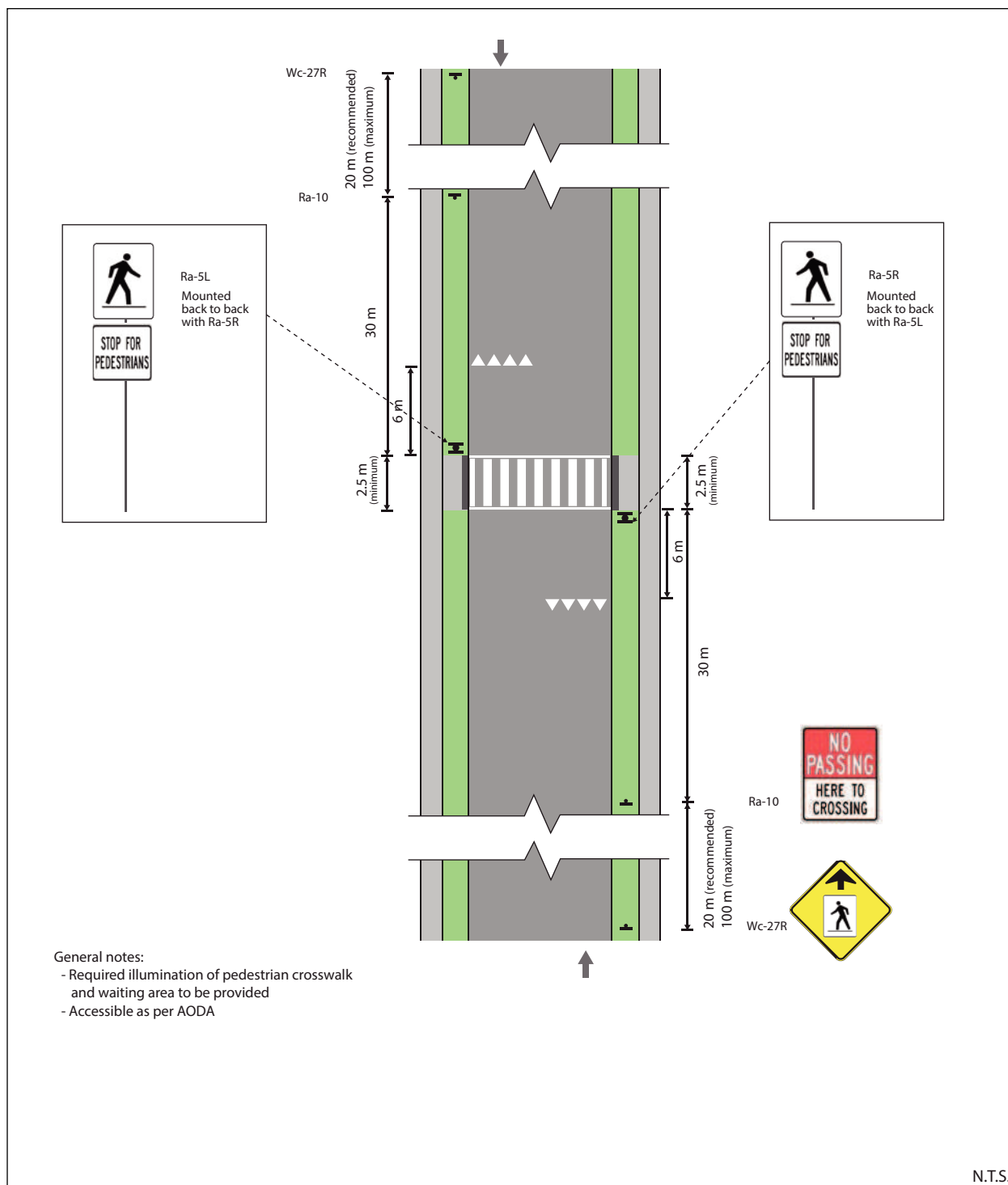


**Pedestrian Crossover Level 2 Type B**

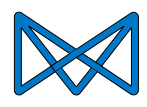
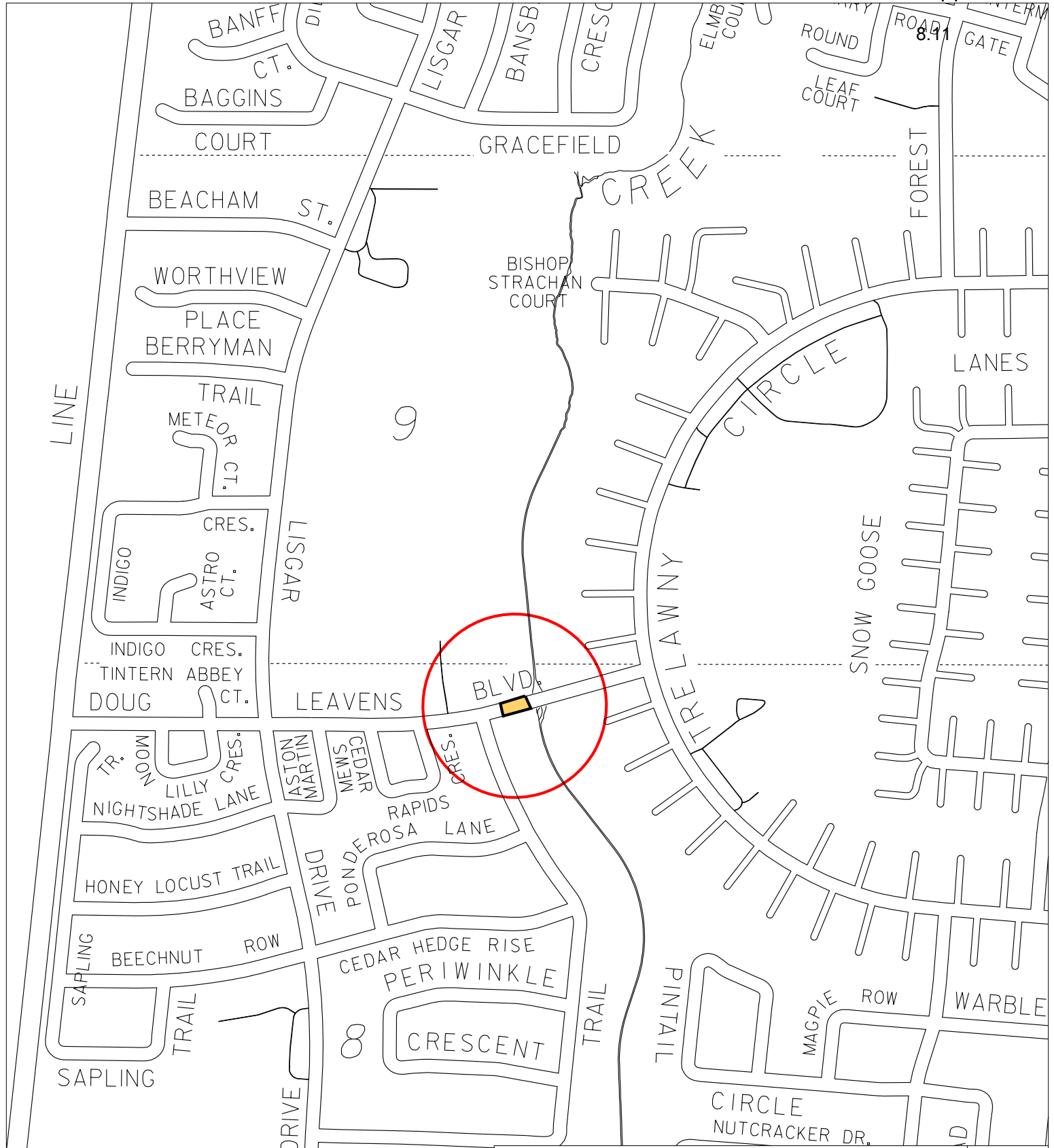


**Pedestrian Crossover Level 2 Type C**

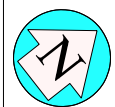




**Pedestrian Crossover Level 2 Type D**



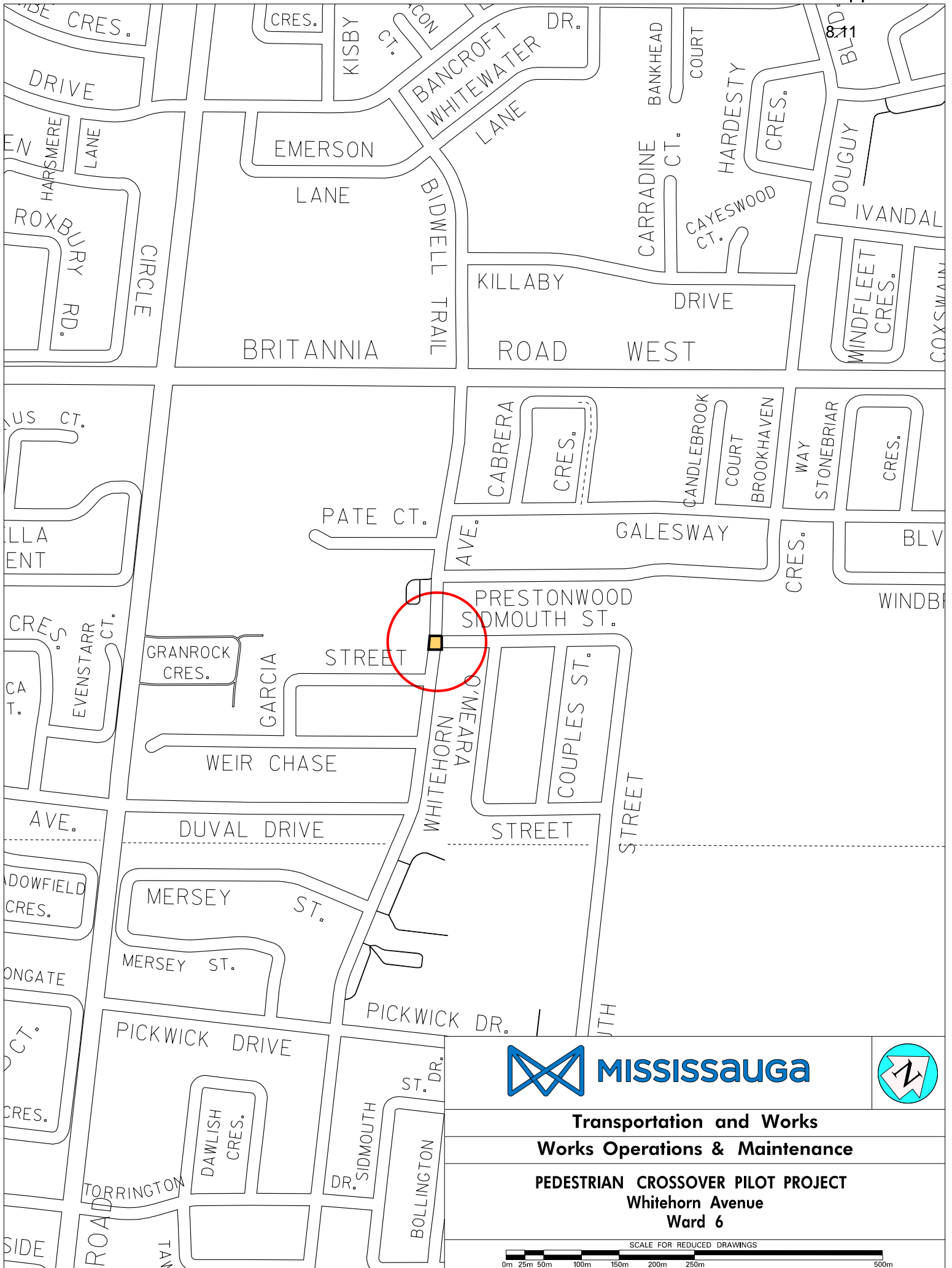
**MISSISSAUGA**



**Transportation and Works  
Works Operations & Maintenance**

**PEDESTRIAN CROSSOVER PILOT PROJECT  
Doug Leavens Blvd  
Ward 10**





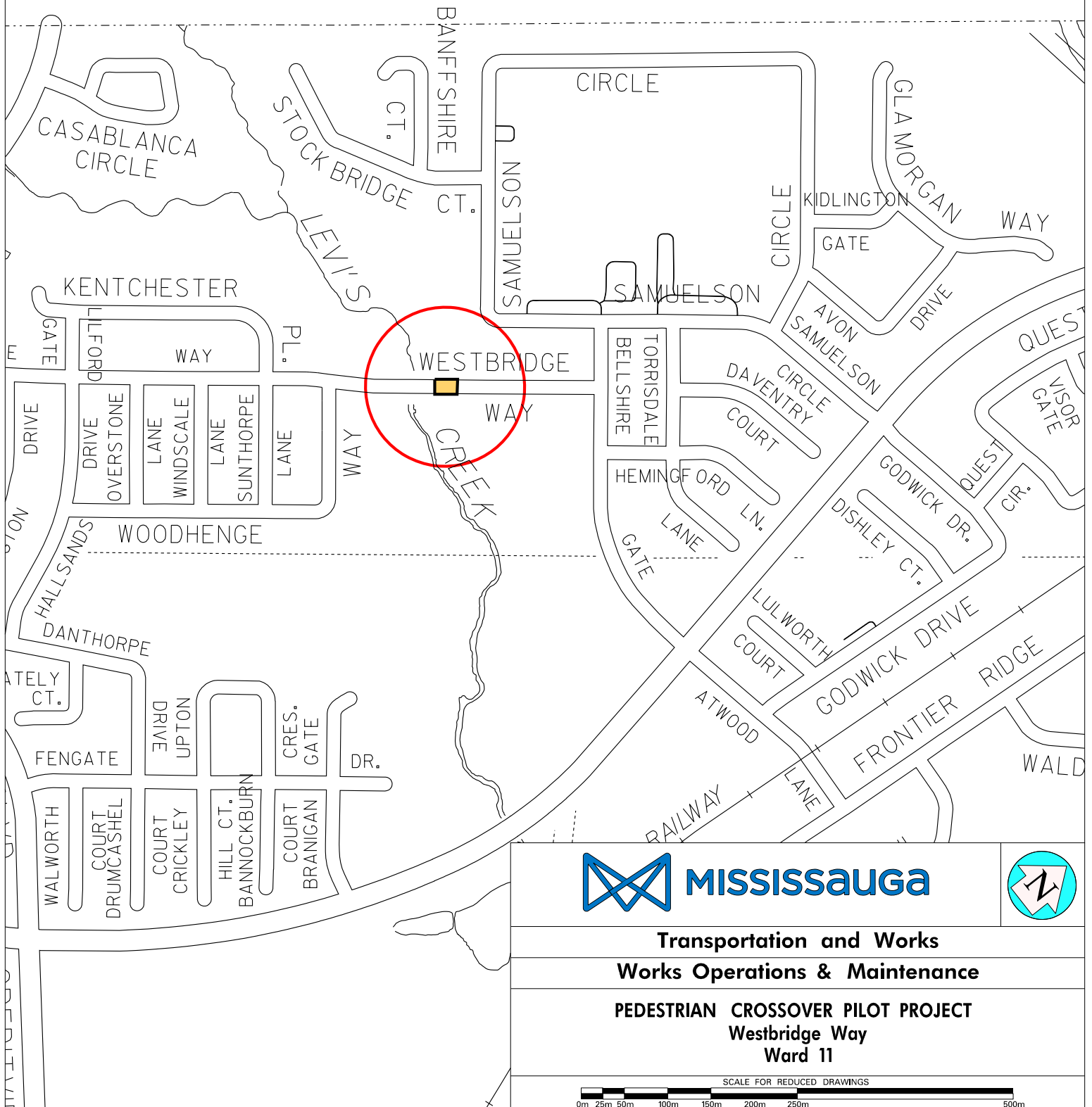
**Transportation and Works**  
**Works Operations & Maintenance**

**PEDESTRIAN CROSSOVER PILOT PROJECT**  
**Whitehorn Avenue**  
**Ward 6**

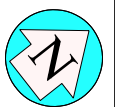
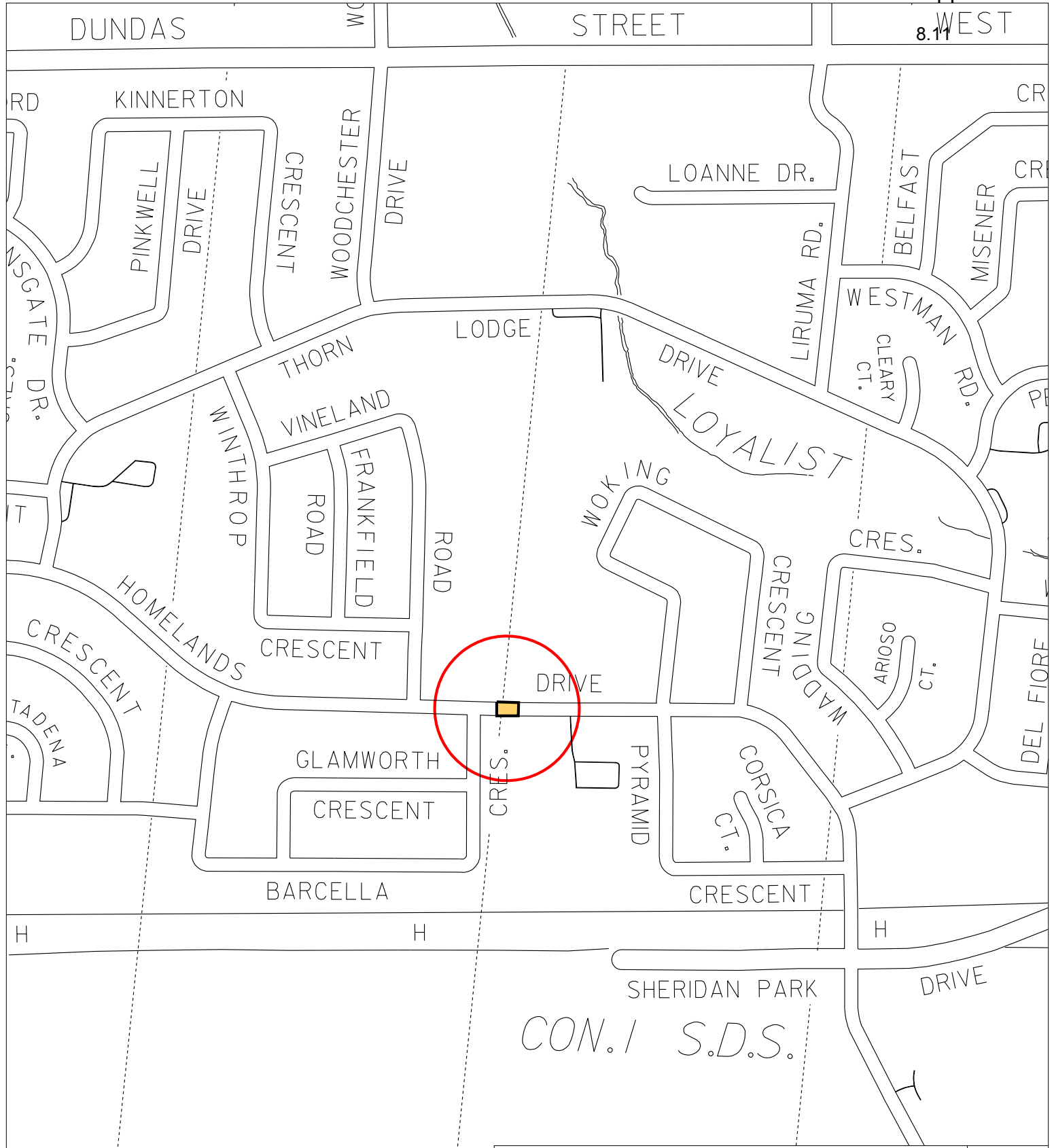




CON.3 W.H.S.

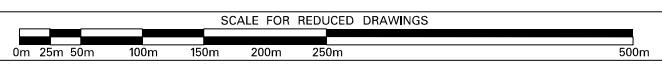






**Transportation and Works**  
**Works Operations & Maintenance**

**PEDESTRIAN CROSSOVER PILOT PROJECT**  
**Homelands Drive**  
**Ward 2**



# City of Mississauga

# Corporate Report



Date: 2018/05/25

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Courtneypark Drive East at Highway 410 Bridge Widening and Interchange Improvements (Ward 5)**

## Recommendation

That a by-law be enacted to authorize the Commissioner of Transportation and Works and the City Clerk to enter into an agreement with the Ontario Ministry of Transportation ("MTO") and the Region of Peel ("Region") for the design and construction of the Courtneypark Drive East at Highway 410 bridge widening and interchange improvements, in a form satisfactory to Legal Services.

## Background

In 2010, the MTO completed a Class Environmental Assessment (EA) study and preliminary design for Highway 410 improvements from south of Highway 401 (in Mississauga) northerly to Queen Street (in Brampton). This study identified potential improvements to address capacity and operational needs for this section of the Highway 410 corridor. Amongst the many items associated with the expansion works for Highway 410, the construction of a full interchange at Courtneypark Drive East was also identified. Currently, a partial interchange exists which provides an off-ramp (exit) from northbound Highway 410 to Courtneypark Drive East and an on-ramp (entrance) to southbound Highway 410 from Courtneypark Drive East.

In 2015, the City completed a Class EA study for Courtneypark Drive East from Kennedy Road to Dixie Road. The study was undertaken to investigate the need to accommodate the existing traffic volumes and the anticipated growth in the study area through year 2031 to:

- facilitate safe and efficient east-west travel in northeast Mississauga;
- enable efficient movement of goods and improve access both within Mississauga and the Region of Peel; and
- provide safe routes for users of various modes of active transportation.

The recommended plan for Courtneypark Drive East includes the following elements:

- widening of Courtneypark Drive East to six travel lanes between Kennedy Road and Dixie Road;
- construction of a full interchange at Highway 410, including a new loop on-ramp from Courtneypark Drive East to northbound Highway 410 and a new direct off-ramp from southbound Highway 410 to Courtneypark Drive East;
- widening of the existing Highway 410 bridge by approximately 13 metres (42.7 feet) in order to accommodate six through lanes on Courtneypark Drive East and two dedicated deceleration lanes for the loop on-ramps;
- north and south transit queue-jump lanes at the Dixie Road intersection;
- new traffic signals at the west Highway 410 ramp terminal intersections; and
- implementation of a 3.5 metre (11.5 feet) wide multi-use trail on the south side of the roadway and a 1.5 metre (4.9 feet) wide sidewalk on the north side.

There is an opportunity for the City, with support from the Region, to implement the recommended bridge widening and interchange improvements in coordination with the MTO on its Highway 410 improvements project and to share costs. A full interchange and widening of the bridge structure at Courtneypark Drive will improve traffic flow for Regional and City roadways, support goods movement and access to key employment lands and the Toronto Pearson International Airport, and accommodate the completion of a sidewalk and multi-use trail. A map illustrating the location of the site is provided in Appendix 1.

## Comments

Staff from the City and the Region have requested, and the MTO has agreed, that the Courtneypark Drive East bridge structure over Highway 410 be widened to accommodate six travel lanes, two dedicated deceleration lanes for Highway 410, a multi-use trail and a sidewalk, as part of the MTO Highway 410 rehabilitation project, at the shared expense and cost of the City and the Region. Further, the City, the Region and the MTO have agreed in principle that the cost for the Courtneypark Drive East and Highway 410 interchange ramp works will be shared. The City and the Region will be responsible for the actual constructions costs, while the MTO will be responsible for all design, construction administration, property acquisition and other administrative costs. Details of the agreement in principle are provided in Appendix 2.

In order for the MTO to undertake the detailed design and construction of the improvements identified by the City for the bridge widening and interchange improvements, the City is required to enter into an agreement with the MTO and the Region. Construction of the MTO project is anticipated to commence in 2019. The exact timing of the interchange improvements and bridge widening is not known at this time and will be determined at a later date.

## Strategic Plan

The proposed Courtneypark Drive East at Highway 410 bridge widening and interchange improvements project aligns with the Strategic Pillars of **Move, Connect and Green**.

## Financial Impact

The City's share of the cost for the Courtneypark Drive East at Highway 410 bridge widening and interchange improvement works is expected to be approximately \$11.4 million. The capital budget for the project will be identified as part of the 2019 Budget process for the Roads Service Area and subject to Council approval.

## Conclusion

This Corporate Report is seeking authority to enter into an agreement with the MTO and the Region to incorporate City infrastructure objectives into the MTO's Courtneypark Drive and Highway 410 Interchange project. The Region has agreed in principle to share in the cost of these works, as mutual transportation related benefits will be realized, and will therefore seek to enter into this agreement as well.

This agreement with the MTO and the Region will allow the City to take advantage of an opportunity to deliver on important study recommendations for its roadway and active transportation networks and will represent good value for the City.

## Attachments

Appendix 1: Site Location Map

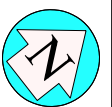
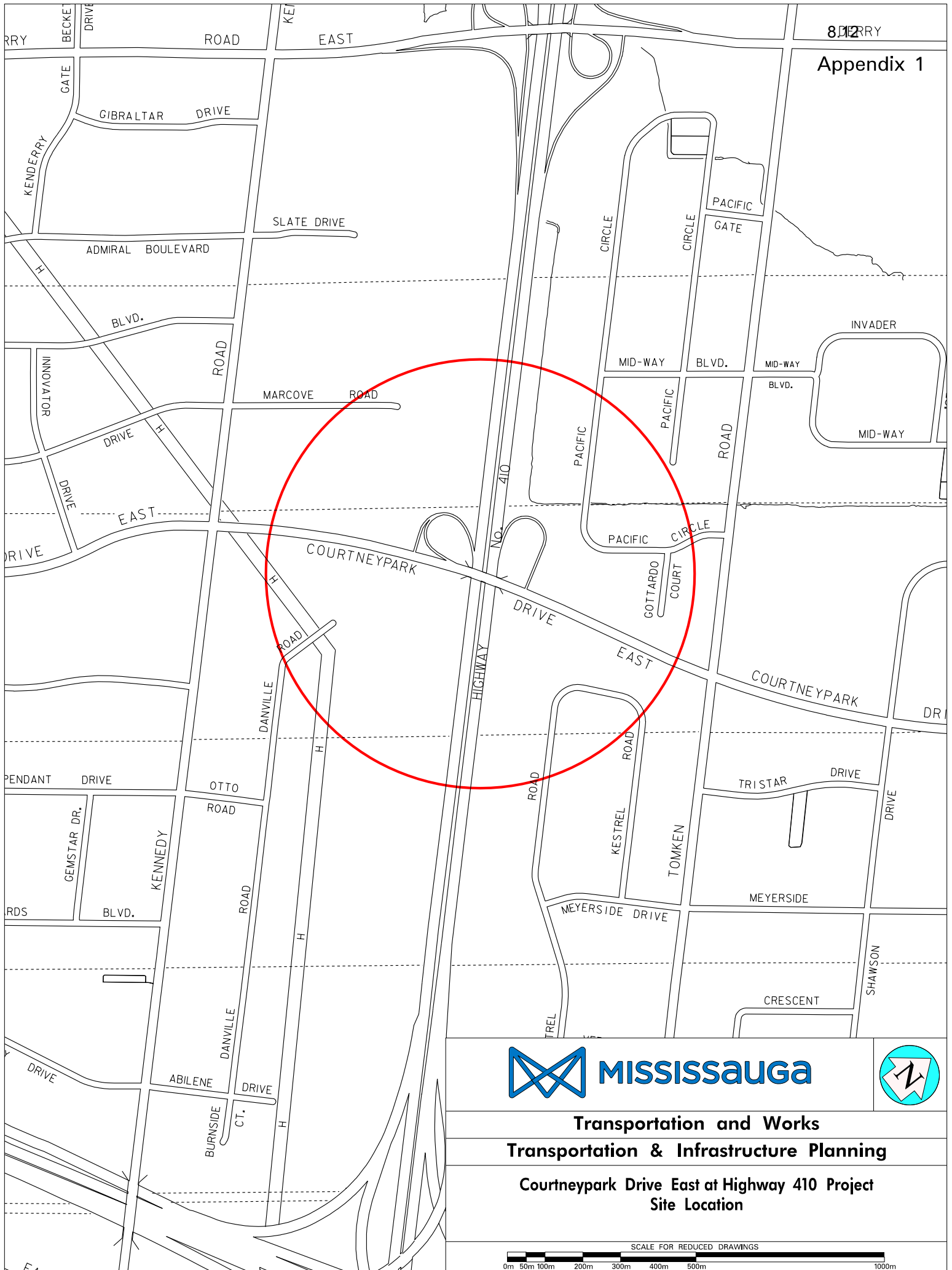
Appendix 2: Letter of Agreement



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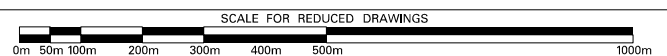
Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Jeremy Blair, P. Eng., Manager, Transportation Infrastructure Management



**Transportation and Works**  
**Transportation & Infrastructure Planning**

**Courtneypark Drive East at Highway 410 Project**  
**Site Location**





**Ministry of Transportation**

Regional Director's Office  
Central Region  
159 Sir William Hearst Avenue  
2<sup>nd</sup> Floor  
Toronto ON M3M 0B7  
Tel: 416 235-5400  
Fax: 416 235-5266

**Ministère des Transports**

Bureau du directeur régional  
Région du Centre  
159, avenue Sir William Hearst  
2<sup>e</sup> étage  
Toronto ON M3M 0B7  
Tél. : 416 235-5400  
Télééc. : 416 235-5266



January 3, 2018

Gary Kocialek  
Director, Transportation Division  
Region of Peel  
10 Peel Centre Drive, Suite A and B  
Brampton, ON  
L6T 4B9

Helen Noehammer  
Director, Transportation and Infrastructure Planning Division  
City of Mississauga  
300 City Centre Drive  
Mississauga, ON  
L5B 3C1

Dear Mr. Kocialek and Ms. Noehammer:

The Region of Peel (Region), the City of Mississauga (City) and Ministry of Transportation (Ministry) have agreed to work cooperatively to design and construct the north oriented ramps at Courtneypark Drive and Highway 410 (Ramps) as shown in the ministry's 2010 Highway 410 Improvements from South of Highway 401 Northerly to Queen Street Preliminary Design Report. In addition, the Region and the City have also requested the Ministry to design and construct, at the Region and City's sole cost and expense, the widening of the Courtneypark Drive and Highway 410 structure (Structure) in accordance with the City's 2015 Courtneypark Drive Class Environmental Assessment and Preliminary Design Report on December 21, 2017. It was further agreed that the Ramps and Structure work would be completed as part of the ministry's currently planned Highway 410 rehabilitation project, currently anticipated to start construction in 2019. The purpose of this letter is to confirm the terms upon which the Ministry, Region and City will enter into legal agreement(s) for the arrangements to design and construct the Ramps and Structure works.

Page 2

G. Kocialek

H. Noehammer

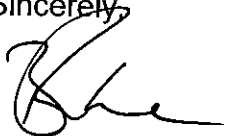
The Region, City and Ministry agree that the cost for the Ramps works will be shared. The Region and City will be responsible for the actual construction costs, with funding being made available in 2019 and 2020, and the Ministry will be responsible for all design, construction administration, property acquisition and other administrative costs. Furthermore, for the widening of the Structure, the City and the Region will be responsible for the actual design, construction and contract administration costs and all other associated costs such as administration fee, utility relocations, property and harmonized sales tax.

In order to keep the ministry's schedule for the rehabilitation work and given the current negotiations, the ministry will proceed with design for the work based Ministry/Region/City's agreement in principle as described in this letter.

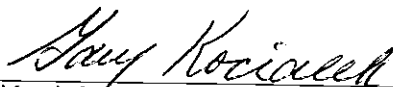
If you are in agreement of the above arrangement, please confirm your acceptance by signing all three copies and return one copy to the ministry before the end of January.

The ministry looks forward to working with the Region and City to successfully conclude the agreements and deliver the Courteneypark interchange improvement project.

Sincerely,

 B.W. Case for

Teepu Khawja, B.Sc., M.B.A.  
Regional Director



Gary Kocialek  
Director, Transportation Division  
Region of Peel

January 18, 2018  
Dated:



Helen Noehammer  
Director, Transportation & Infrastructure Planning Division  
City of Mississauga

January 24, 2018  
Dated:

# City of Mississauga Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP

Meeting date:  
2018/06/13

## Subject

**Single Source Award to Alectra Power Services Inc. for the Supply and Installation of LED Underpass Street Lighting**

## Recommendation

That the Purchasing Agent be authorized to execute a contract with Alectra Power Services Inc. on a single source basis for the supply and installation of LED underpass street lighting at an estimated contract upset limit of \$450,000 (excluding taxes), as outlined in the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Single Source Award to Alectra Power Services Inc. for the Supply and Installation of LED Underpass Street Lighting".

## Background

The LED Street Lighting Conversion Project, including the deployment of a Street Lighting Monitoring System, is substantially complete with the conversion of over 48,000 street lights.

The conversion of underpass street lighting to LED was not initially included in the LED Street Lighting Conversion Project because LED technology for underpass street lighting was not readily available at the time of tender. In addition, the conversion poses unique complexities with regards to installation, controls, wiring and mounting.

Currently, advancements in technology have made energy efficient LED underpass street lighting available to the market. To deal with installation complexities, Alectra Power Services Inc. (Alectra), who is the City's street lighting operations and maintenance service provider, is well suited to provide installation and electrical services involved with the LED underpass street lighting. As a result, the conversion to LED underpass street lighting is being undertaken at this time.

The purpose of this report is to establish a single source contract with Alectra for the supply and installation of LED underpass street lighting.

## Comments

Between the City of Mississauga and the Region of Peel, there are approximately 395 underpass street lights within Mississauga's boundary. Through a Street Lighting Operations and Maintenance Service Agreement between the City of Mississauga and the Region of Peel, Mississauga is responsible to operate and maintain the Region's street lighting, including approximately 135 Regional underpass street lights. As part of the agreement, the City is responsible to carry out the LED street lighting conversion program on behalf of the Region with the Region responsible for its capital cost share.

The strategy to single source the supply and installation of LED underpass street lighting to Alectra will place the onus on Alectra to arrange the acquisition of materials and to manage the installation complexities involving the following items:

- Disconnection and reconnection of electric power to the underpass street lighting.
- Removal of existing control systems for the underpass street lighting and installation of fused disconnects to allow other contractors to work safely.
- Compatibility of mounting and wiring of the new LED underpass street lighting to the existing footprint.

Alectra is the only contractor that has ever maintained the underpass lights and is familiar with the intricacies of the street lighting infrastructure, including the electrical wiring systems. As a result, it would be advantageous to leverage the expertise of Alectra and provide a cost-effective approach to this project and ensure the work is carried out efficiently.

Alectra will be required to submit pricing for this project, which will be scrutinised and negotiated by the City before it is deemed appropriate for contract award.

The proposed single source contract is in accordance with the Purchasing By-law, Schedule A, Section 1 (b) (xi) which states "*A need exists for compatibility with, or for the maintenance and support of a City Standard and there are no reasonable alternatives, substitutes, or accommodations*".

Materiel Management staff support the recommendations contained herein from a procurement perspective.

## Financial Impact

Funding for the supply and installation of LED underpass street lighting in the amount of \$450,000 is allocated and available from the LED Street Lighting Conversion Capital Project. The breakdown of the estimated cost for this project is provided in Appendix 1.

An application for an energy rebate through the SaveOnEnergy program has been submitted for this project, and if approved, will result in an approximate rebate of \$11,000.

The Region of Peel owns approximately 35% of the underpass lights within the City and will accordingly share in the contract costs less the applicable rebate amount.

## Conclusion

To deal with installation complexities, Alectra Power Services Inc., who is the City's street lighting operations and maintenance service provider, is well suited to supply and install the LED underpass street lighting. Therefore, it is recommended to single source the award to Alectra Power Services Inc. for supply and installation of LED underpass street lighting at an estimated contract upset limit of \$450,000 (excluding taxes).

## Attachments

Appendix 1: Statement of Work - Single Source Award to Alectra Power Services Inc. for the Supply and Installation of LED Underpass Street Lighting



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Eric Menezes, C.E.T., Street Lighting Supervisor



### Statement of Work

#### Single Source Award to Alectra Power Services Inc. for the Supply and Installation of LED Underpass Street Lighting

The scope of work for this project is to supply and install the most cost effective and energy efficient underpass luminaires with adaptive controls.

Alectra is the only contractor that has ever maintained the underpass lights and is familiar with the intricacies of the street lighting infrastructure, including the electrical wiring systems as it pertains to the underpass lighting. As a result, it would be advantageous to leverage the expertise of Alectra and provide a cost effective approach to this project and ensure the work is carried out efficiently.

Alectra will be required to submit pricing for this project, which will be scrutinised and negotiated by the City before it is deemed appropriate for contract award.

The following table provides an estimated quantity and cost for the supply and installation of the LED underpass street lighting:

Item	Description	Quantity	2018 Unit Price *	Amount
1	Luminaire	400	\$500	\$200,000
2	Adaptive Controls	400	\$150	\$60,000
3	Misc. cost for mounting hardware	Lump Sum	\$80,000	\$80,000
4	Installation Services	400	\$150	\$60,000
5	Contingency	Lump Sum	\$50,000	\$50,000
<b>TOTAL CONTRACT UPSET LIMIT</b>				<b>\$450,000</b>

\* Estimated Prices

# City of Mississauga Corporate Report



Date: 2018/05/28

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Follow-up on the Storage of Region of Peel Waste and Recycling Collection Containers**

## Recommendation

That the report from the Commissioner of Transportation and Works, dated May 28, 2018, and entitled "Follow-up on the Storage of Region of Peel Waste and Recycling Collection Containers", be received for information.

## Background

On January 4, 2016 the Region of Peel commenced its new bi-weekly waste container collection program.

On April 13, 2016 amendments were made to the Property Standards By-law requiring the storage of waste containers to the rear yard, side yard, garage or carport, but not the front yard. A provision was added to allow Property Standards Officers the discretion to allow for alternative storage locations, including the front yard where other locations were not practical.

Enforcement staff were directed to report back with a review of the new regulations from an implementation and enforcement perspective.

## Comments

### Complaints and Enforcement

Since the introduction of the Waste Container Program in January 2016, Enforcement staff have received a total of 934 complaints:

<b>Waste Container Complaints</b>
-----------------------------------

<b>Year</b>	<b># of Complaints</b>
2016	225
2017	533
2018 (YTD)	176
<b>TOTAL</b>	<b>934</b>

The majority of the complaints were for residents storing the waste containers in the front yard. Other complaints were for unsecured containers stored in the side yard and not removed from the curb after waste collection days.

In 2017 a total of 265 Notice of Contraventions and 34 Property Standards Orders were issued for improper storage of waste containers. Enforcement staff have not escalated enforcement further and no charges, or court action has been taken to date.

### **Townhouse Challenges**

Enforcement staff have noted that most townhouse units do not have the space to store waste containers in the side yard, rear yard, or garage due to the row style design of the units. This creates difficulties to comply with the provisions of the Property Standards By-law with respect to proper storage. Often, there are no other options other than to store the waste containers in the front yard. This is permitted only when there is no practical alternative available.

Enforcement staff have also noted the issue with the placement of the waste containers within garages. The space within a garage is deemed a required parking space, and is required to be unobstructed, pursuant to zoning regulations. In these cases, storing waste containers inside the garage is prohibited, leaving the front yard as the only practical space to accommodate waste container storage.

The Region of Peel commenced townhouse conversion in December 2016. To date, the Region has converted 44% of all townhouses to regional waste containers. Enforcement staff have not seen any significant increases in waste containers complaints since the townhouse conversion.

### **Jurisdictional Scan**

Enforcement staff benchmarked the Property Standards By-laws from the municipalities of Brampton, Caledon, Guelph, Hamilton, Milton, Oakville, Toronto, and Vaughan (Appendix 1). Mississauga's regulations for waste container storage are consistent with those jurisdictions. Currently, the City of Brampton, Town of Caledon, City of Guelph, and the City of Toronto provide similar waste containers to their residents. The City of Brampton has comparable

property standards regulations and faces similar challenges to Mississauga with regards to waste container storage. Other jurisdictions cover a full range of waste container storage options.

### **Assessment**

It is assessed that Property Standards By-law 654-98, as amended, is effective in ensuring that waste containers are stored in appropriate locations given the storage constraints associated with certain property types such as townhomes. For situations where waste containers cannot be practically stored in the rear yard, side yard, garage or carport, the provisions that are in place allows Property Standards Officers to use their professional discretion to permit alternative storage locations, including the front yard if necessary.

There are no recommended changes to Property Standards By-law 654-98, as amended, or the current enforcement practices.

### **Financial Impact**

There is no financial impact associated with this report.

### **Conclusion**

Property Standards By-law 654-98, as amended, is effective in ensuring that waste containers are stored in appropriate locations given the storage constraints associated with certain property types such as townhomes.

### **Attachments**

Appendix 1: Jurisdictional Scan of Waste Container/Cart By-laws




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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Craig Calder, Manager, Compliance and Licensing Enforcement

### Jurisdictional Scan of Waste Container/Cart By-laws

Municipality	City/Region Provided Waste Carts	Storage of Waste Collection Carts/Containers/Restricted?	Restrictions
Brampton	Yes	Yes	By-law permits front yard storage adjacent to a building if: <ul style="list-style-type: none"> <li>The property does not have a side yard width of 1.0 metre or more</li> <li>The property does not have rear yard access wider than the width of the receptacle</li> <li>The property does not have an accessory building, carport, or garage.</li> </ul>
Caledon	Yes	No	Refuse containers shall be operable, accessible at reasonable times and maintained in a state of good repair and kept in a clean and sanitary condition free from accumulation of garbage, odours, insects and other pests.
Guelph	Yes	Yes	City issued carts may be stored in any exterior location on the property except carts stored in the front yard of a property must be located adjacent to a building, an accessory building or a fence.
Hamilton	No	Yes	By-law provides that all waste containers must be kept in a rear yard located against a building, structure, fence or retaining wall and arranged in an orderly manner.



Municipality	City/Region Provided Waste Carts	Storage of Waste Collection Carts/Containers/Restricted?	Restrictions
Milton	No	Yes	<p>By-law permits storage of receptacles in the rear yard or in a side yard except in that portion of a side or rear yard that is adjacent to the front elevation of an abutting property.</p> <p>If the property does not have a side yard, by-law does permit storage in a carport, covered porch, exterior balcony, or front yard adjacent to a building or dwelling.</p>
Mississauga	Yes	Yes	<p>All Waste Containers when not placed out for collection shall be located in the rear yard, side yard, garage or carport, where space can accommodate it, but shall not be located in a front yard.</p> <p>A Property Standards Officer may accept alternative measures when storage in approved locations is not practical.</p>
Oakville	No	Yes	<p>Where refuse or recyclable material is stored for disposal outside of the enclosed walls of a building, the refuse or recyclable material shall be blocked from view.</p>
Toronto	Yes	Yes	<p>Where garbage and refuse is to be stored or placed for disposal outside the enclosing walls of a building, the storage place or place for disposal shall be screened.</p>
Vaughan	No	Yes	<p>By-law prohibits storage of waste containers in a location that is visible to the public, in the front yard or on a balcony.</p> <p>Required to be kept or stored in the rear yard or within an</p>

			<p>enclosure.</p> <p>Provides that waste containers be screened from a public highway, street, walkway, park or residential property so as not to be visible from such locations.</p>
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# City of Mississauga

## Corporate Report



Date: 2018/05/23

To: Chair and Members of General Committee

From: Paul Mitcham, P. Eng, MBA, Commissioner of  
Community Services

Originator's files:

Meeting date:  
2018/06/13

### Subject

**City Standard Designation and Single Source Contract Award to IPL Inc. for Outdoor Waste and Recycling Containers for City Parks File No. PRC000307**

### Recommendation

1. That the outdoor waste and recycling container manufactured by IPL Inc. be approved as a "City Standard" for use within City parks as outlined in the Corporate Report dated May 23, 2018 from the Commissioner of Community Services.
2. That IPL Inc. be approved as a single source vendor for the supply and delivery of the City standard waste and recycling containers for which they are the exclusive manufacturers and distributors.
3. That the Purchasing Agent be authorized to execute the appropriate forms of commitment to IPL Inc. for the supply and delivery of waste and recycling containers in the estimated amount of \$498,000.00 over a 10-year contract term from 2018 through to 2028.

### Report Highlights

- Park Operations requires a custom waste container for effective waste management in City parks which is available through the Region of Peel's supplier, IPL Inc.
- The Region of Peel (ROP) has implemented a comprehensive residential waste management program, providing waste and recycling containers to all residential properties in Peel Region. IPL Inc. is the exclusive supplier following a competitive bidding process.
- The IPL Inc. outdoor waste and recycling container, modified to meet Parks Operations requirements, is recommended as a 'City Standard' for use in City parks.
- Establishing IPL Inc. as the single source supplier for the waste and recycling container manufactured and distributed by them is recommended.
- This Single Source award is based on the Purchasing By-Law, Schedule A, 1(b) (vii): It is advantageous to the City to acquire the Goods and/or Services from supplier pursuant to

the procurement process conducted by another Public Body and (iv): the solicitation of competitive Bids would not be economical to the City.

## Background

Throughout the year, Park Operations completes scheduled garbage and recyclable waste pick up within all of the City's 489 parks. Over the last several years, Park Operations have identified a number of opportunities to improve park waste management, including:

- A Lean review that established a dedicated City-wide Parks waste/recycling team;
- A partnership with the ROP to dispose of waste at no cost to the City;
- A pilot dog waste container.

The work completed to date identified a need for Park Operations to re-evaluate waste containers within City parks to support the following key objectives:

- Easily communicates recyclable and non-recyclable waste to park users;
- Easy to use by park users;
- Supports the City's Corporate Waste Diversion Plan;
- Improves the ability for staff to service the container;
- Is aesthetically pleasing and overall increases the aesthetic appeal of City parks;
- Containers are cost-effective for the life of the product;
- Prevents wildlife, rain and snow from entering the container;
- Requires limited maintenance.

## Present Status

Within the City's 489 parks, Park Operations currently places sets of 45 gallon metal drum containers during peak (April-October) and non-peak (November-March) operating seasons. Each set is comprised of one drum for waste (black) and one drum for recycling (blue).

During the peak season containers are located along trails and adjacent to amenities such as spray pads, playgrounds, picnic areas, leash-free areas and sports fields. During non-peak seasons when most park amenities are closed, containers are removed from permitted sports fields, spray pads, picnic areas etc. with containers remaining along trails, leash-free areas and key public usage sites within parks.

Staff service each set of containers on a scheduled basis (peak and non-peak) removing and replacing the individual waste and recycling bags that line each container. Waste removal is based on the expected park usage and support for sports tournaments or other community events.

The existing metal drums are not aesthetically pleasing. They require significant annual maintenance, stain concrete surfaces and as they are uncovered, allow easy access to wildlife and fill with rain and snow.

General Committee	2018/06/13	3
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The existing containers do not allow for waste management signage to be attached and displayed. The lack of signage results in significant contamination of recyclable materials due to dog waste, resulting in collected recyclables material being disposed of as landfill waste. Contaminated recyclable material does not contribute to diverting waste from landfills.

To achieve operational efficiency and reduce recyclable material ending up in landfill, Park Operations identified the need to replace the existing metal drum.

The ROP implemented a comprehensive residential waste management program, providing distinct waste and recycling containers to all residential properties within Peel Region. IPL Inc. is the exclusive supplier to the ROP since 2014, providing containers that have proven to be good quality and durable.

The City is looking to benefit from the contract between IPL Inc. and the ROP for components of the waste container in view of the large volume of units supplied and the favourable terms and conditions, which include a ten year warranty.

The proposed standard outdoor waste and recycling container will also bring consistency with residents' waste handling practices at their home and within City Parks.

## Comments

In 2014, the Region of Peel awarded a \$46 million contract for the manufacturing, distribution and maintenance of residential curbside waste containers to IPL Inc. following a competitive bidding process.

Recognizing the opportunity to cost effectively introduce an improved container for City parks, Park Operations reviewed the option to leverage the supply relationship and pricing between IPL Inc. and the ROP to develop a modified version of the ROP residential container to be used in City parks.

The modified containers include an internal divider to separate waste and recycling as well as a specially designed split lid. The internal divider improves the cost-effectiveness of the program by eliminating the need for two containers. The split lid design allows for the installation of signage that directs users as to where they should deposit their waste or recycling as well as preventing wildlife, rain and snow from entering the container.

The rationale to approach IPL Inc. to design and fabricate the additional custom components and not pursue a separate competitive process for the complete unit is supported by the fact that the most competitive price for the base container and parts had already been secured by ROP and the design, development and production of the custom components (modified lid and divider) would be most economical and successful only if executed by the same vendor.

The components require assembly and all need to fit and work together. IPL Inc. will deliver, assemble and warranty the containers and parts for 10 years. Two suppliers would cause



logistical problems and limit warranties. Seeking one supplier for the complete modified container would negate the price benefit achieved through the ROP volume for the base container. The City's relatively small quantity for complete custom containers is unlikely to result in better pricing than the pricing negotiated with IPL. Prices for waste and recycling containers were compared with existing mass market standard waste containers of similar capacity and all were priced significantly higher and were not customized to the City's requirements.

It should be noted that IPL did not charge the City for the cost of the new mould to develop the modified components for a pilot program.

Park Operations conducted an initial pilot using a version of these containers at City sites during the Pan-Am games, and on Mississauga Celebration Square. Additional parks across the City were also piloted using the modified container with positive results.

Recognizing the benefits from the initial pilot using the modified container, Park Operations is requesting authority to establish the IPL Inc. outdoor waste and recycling container as a City Standard and to designate IPL Inc. as a single source vendor.

This City Standard would apply to the initial deployment of 2,500 containers in 2018 with an anticipated replacement of 50 units per year, as required and feasible, for up to 10 years.

Materiel Management has obtained a proposal from IPL Inc. which includes the ROP pricing for the base container and pricing for the custom components. Staff consider that purchasing the complete modified container from IPL represents best value to the City.

Council approval is required to designate the IPL Inc. outdoor waste and recycling container as a "City Standard" and for the single source contract award.

This Single Source award is based on the Purchasing By-Law, Schedule A, 1(b) (vii): It is advantageous to the City to acquire the Goods and/or Services from supplier pursuant to the procurement process conducted by another Public Body and (iv): the solicitation of competitive Bids would not be economical to the City.

## Strategic Plan

The Green Pillar for Change includes the following Strategic Goal:

Lead and Encourage Environmentally Responsible Approaches – to lead and promote the utilization of technologies and tactics to conserve energy and water, reduce emissions and waste, improve our air quality and protect our natural environment.

## Financial Impact

Estimated costs of \$498,000 to purchase the containers along with the Scope of work and services to be provided by IPL Inc. are included in Appendix 1.

Approved funding in the amount of \$559,000 for waste container replacement is available, in PNs 14323,15332,16330,17327.

## Conclusion

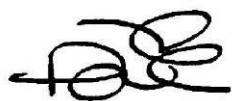
Park Operations requires a custom container for effective waste management in City parks. The recommended custom container uses the same base container supplied in large volume to the Region of Peel for its residential waste management program.

The Region of Peel has secured competitive pricing for the base container and has a long-term contract with IPL Inc. The City is able to purchase the base container at the same unit price as the ROP. The custom components are most cost-effectively supplied by IPL Inc.

The customized container was used successfully for the Pan-Am games and on Mississauga Celebration Square. Staff recommend that the outdoor waste and recycling container manufactured by IPL Inc. be designated as a "City Standard" for use in City parks and that IPL Inc. be designated as the single source supplier of the City Standard container, in accordance with Purchasing By-Law, Schedule A, 1(b) (vii): It is advantageous to the City to acquire the Goods and/or Services from a supplier pursuant to the procurement process conducted by another Public Body and (iv): the solicitation of competitive Bids would not be economical to the City.

## Attachments

Appendix 1: Scope of Work and Services for IPL Inc.



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Paul Mitcham, P. Eng, MBA, Commissioner of Community Services

Prepared by: Gavin Longmuir, Manager Parks Operations

## Appendix 1: Scope of Work and Services for IPL Inc.

<b>Component &amp; Charges</b>	<b>Unit Price</b>	<b>Comments</b>
Container:	\$49.80	(\$61.80 pricing for ROP cart unit minus \$12.00 cost of ROP lid)
Divider:	\$30.00	Custom for COM unit
Lid:	\$55.00	Custom for COM unit split design
Artwork:	\$13.00	Custom for COM
Freight:	\$3.80	for initial order, \$4,20 for additional orders
Unloading & Assembly:	\$14.00	for initial order, \$16.00 for additional orders
Total Unit Cost	\$165.60	Taxes extra
2500 Units to be purchased in 2018	\$414,000.00	
500 Units to be purchased in 2019-2028 (Average 50 per year)	\$84,000.00	
<b>Total Estimated Contract Value:</b>	<b>\$498,000.00</b>	

# City of Mississauga

## Corporate Report



Date: 2018/05/23

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Authorization to Enter into an Agreement with Metrolinx for the Redevelopment of the Meadowvale GO Station and Station Operations West Facility**

## Recommendation

That a by-law be enacted to authorize the Commissioner of Transportation and Works and the City Clerk to enter into a Memorandum of Understanding (MOU) with Metrolinx for the redevelopment of the Meadowvale GO Station and new Station Operations West facility, in a form satisfactory to Legal Services.

## Background

The redevelopment of the Meadowvale GO Station and Station Operations West Facility is a part of the Metrolinx's Regional Express Rail (RER) program. The RER program, announced in 2014 by the Province of Ontario, will transform the Greater Toronto and Hamilton Area over the next decade - by introducing new and additional service daily (including weekends), in both directions, on five of the seven GO rail corridors. For the Milton GO Rail Corridor, upon which the Meadowvale GO Station is located, RER improvements will consist of improved peak-period, peak-direction service on weekdays to every 15 minutes or better through the addition of both trains and trips.

## Comments

The redevelopment of the Meadowvale GO Station will include a new station building, and rehabilitation of the north and south parking lots. Changes to the south parking lot will include reconfiguration of the parking layout and passenger pick-up and drop-off (PPUDO), a new bus loop, platform and shelters, 48 covered bike parking spaces and 16 secured bike parking spaces. Changes to the north parking lot will include reconfiguration of the existing parking layout and existing PPUDO, as well as 16 covered bike parking spaces.

A new Multi-Use Trail (MUT) from the Millcreek Drive and Aquitaine Avenue intersection to the new station building will be built, as well as necessary improvements to the intersection of Millcreek Drive and the easterly access to the south parking lot, to facilitate the installation of

General Committee	2018/05/23	2
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traffic signals. Improvements are also planned for the intersection of Argentia Road and Century Avenue, where there is access to the north parking lot, to facilitate the installation of traffic signals.

Improvements to the Metrolinx-owned property at 2390 Argentia Road will include retrofit and renovation of the existing office and warehouse to provide a new Station Operations West facility.

The purpose of the MOU is to establish an arrangement between Metrolinx and the City of Mississauga; outlining their respective roles, responsibilities, governance and accountability mechanisms in connection with the project.

## Strategic Plan

The establishment of the MOU facilitates the redevelopment of the Meadowvale GO Station that advances the Strategic Plan's Move and Connect pillars with the provision of improved transportation infrastructure.

## Financial Impact

The MOU will identify that Metrolinx is responsible for all the capital costs of the Meadowvale GO Station redevelopment.

## Conclusion

Metrolinx is proceeding with the design and construction of the Meadowvale GO Station redevelopment. Metrolinx and the City of Mississauga have agreed on several elements of the design and plans for operations. By establishing an MOU between the City and Metrolinx, both parties can be confident that this project will meet their goals and objectives.




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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Mel Kayama, Transportation Planning Analyst



# City of Mississauga

## Corporate Report



Date: 2018/05/25

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP

Meeting date:  
2018/06/13

### Subject

**Land Exchange with the Region of Peel for Property Related to Second Line West (Ward 11)**

### Recommendation

1. That a by-law be enacted authorizing the Commissioner of Transportation and Works and the City Clerk to accept and execute all documents related thereto, in a form acceptable to the City Solicitor, between the Regional Municipality of Peel and The Corporation of the City of Mississauga, for the transfer of lands legally described as follows:
  - a. Part of Lot 12, Concession 3, West of Hurontario Street, City of Mississauga and designated as Part 9 on Plan 43R-18372 (the "Region lands") containing an area of 1088.3 square metres (11,714 square feet) more or less;
  - b. Part of Original Road Allowance between Concessions 2 and 3, West of Hurontario Street, City of Mississauga and designated as Part 1 on Plan 43R-38015 (the "City lands") containing an area of 1368 square metres (14,725 square feet) more or less.
2. That the City Solicitor be authorized to take the necessary steps to register the transfers on title against the lands in the appropriate land registry office.
3. That upon completion of the transfer of the Region lands, a by-law be enacted authorizing the establishment of the Region lands as public highway.
4. That following the enactment of the road establishing by-law, staff be authorized to register the by-law on title against the subject lands in the appropriate land registry office.

## Background

In 1992, the Region of Peel acquired land for the purposes of constructing a new alignment of Derry Road West which created a by-pass around Meadowvale Village. The new Derry Road West alignment intersected with Second Line West just east of the West Credit River at the Meadowvale West Conservation Park.

The Region lands are identified as Part 9, on Plan 43R-18372 and consist of 1088.3 square metres (11,714 square feet) more or less, and were acquired for the construction of the new road and bridge overpass. These lands are situated where the travelled portion of Second Line West terminates at Derry Road, encompassing the turning circle as shown on Appendix 1. The lands were dedicated as public highway by the Region through By-Law 33-94 and are part of the Regional Road System.

As Second Line West is a City road; and, as these lands are no longer required for the Regional Road System; staff from Transportation and Works is in agreement with accepting the lands for incorporation into Second Line West for inclusion within the City's public road system.

The original road allowance for Second Line West terminates within the travelled portion of Derry Road West as it was re-aligned. The portion of the original road allowance within Derry Road West is legally described as Part of Original Road Allowance between Concessions 2 and 3, West of Hurontario Street, City of Mississauga and designated as Part 1 on Plan 43R-38015 (the "City lands") containing an area of 1368 square metres (14,725 square feet) more or less, and is shown on Appendix 1.

As Derry Road West is owned and maintained by the Region of Peel and as this portion of the City-owned road allowance falls within the travelled portion of Derry Road West, staff from Transportation and Works staff recommends that the City lands be declared surplus and be transferred to the Region of Peel for inclusion into the Regional Road system.

## Comments

The City is currently maintaining that portion of Second Line West owned by the Region. Transfer of the Region lands to the City will formalize the City's maintenance responsibilities associated with the Second Line West.

The Region is currently maintaining that portion of Derry Road West owned by the City. Transfer of the City lands to the Region will divest the City of any responsibility associated with this portion of Second Line West lying within Derry Road West.

General Committee	2018/05/25	3
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Transportation and Works staff has received confirmation from the Region of Peel that the City lands will be incorporated into the Region's road system. As such, there is no need to grant any utilities an easement as the lands will be part of a public highway, namely Derry Road West.

## Financial Impact

There is no financial impact to the City. The transfer of land will be for a nominal amount.

## Conclusion

It is appropriate and recommended for the City to accept the transfer of the Region lands having an area of approximately 1088.3 square metres (11,714 square feet) more or less for establishment into the City road system known as Second Line West, in Ward 11.

It is appropriate for the City to transfer the City lands to the Region having an area of approximately 1368 square metres (14,725 square feet) more or less for establishment into the Regional road system known as Derry Road West, in Ward 11.

## Attachments

Appendix 1: Property Sketch of Region & City Lands

Appendix 2: Copy of Plan 43R-18372

Appendix 3: Copy of Plan 43R-38015




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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Al Jeraj, O.L.S., City Surveyor

# APPENDIX I

8.17

SKETCH SHOWING  
PROPERTY OF REGION AND  
CITY LANDS  
CITY OF MISSISSAUGA-WARD 11  
REGIONAL MUNICIPALITY OF PEEL  
MAY 16, 2018



NOTE: THIS SKETCH IS FOR THE USE BY THE CITY OF MISSISSAUGA, TRANSPORTATION AND WORKS DEPARTMENT AND IS NOT INTENDED FOR USE BY ANY OTHER PARTIES UNLESS EXPRESSED WRITTEN CONSENT IS OBTAINED.



MISSISSAUGA

TRANSPORTATION & WORKS DEPT.  
ENGINEERING & CONSTRUCTION  
GEOMATICS SECTION  
201 CITY CENTRE DR., STE 700  
MISSISSAUGA, ONTARIO  
L5B 2T4  
PHONE 905-615-3200, EXT. 5815

Plotted 05/16/2018 File:



PLAN OF SURVEY OF  
PART OF LOT 12, CONCESSION 3  
WEST OF HURONTARIO STREET  
CITY OF MISSISSAUGA  
REGIONAL MUNICIPALITY OF PEEL  
(FORMERLY TOWNSHIP OF TORONTO, COUNTY OF PEEL)

SCALE 1 : 1000  
20m 0 20 40 60 80m

BENNETT & NORGROVE LIMITED  
ONTARIO LAND SURVEYORS  
1990

SCHEDULE FOR THE REGISTRY DIVISION OF PEEL (No. 43)					
PART	LOT	CON.	INSTRUMENT	AREA (m <sup>2</sup> )	OWNER
1	PART OF LOT 12	3 W.H.S.	3356 18VS	3031.8	CREDIT VALLEY CONSERVATION AUTHORITY
2				1754.4	
3				2382.0	CANADIAN PACIFIC RAILWAY COMPANY
4				1220.0	
5			5249	29186 ±	CREDIT VALLEY CONSERVATION AUTHORITY
6			335618 VS	863.0	
7			159765	6800 ±	
8				1833 ±	
9				1088.3	
10				3874 ±	

PART 2 - SUBJECT TO EASEMENT AS SET OUT IN INST No 43628 Q.C.

METRIC  
DISTANCES SHOWN ON  
THIS PLAN ARE IN  
METRES AND CAN BE  
CONVERTED TO FEET  
BY DIVIDING BY 0.3048

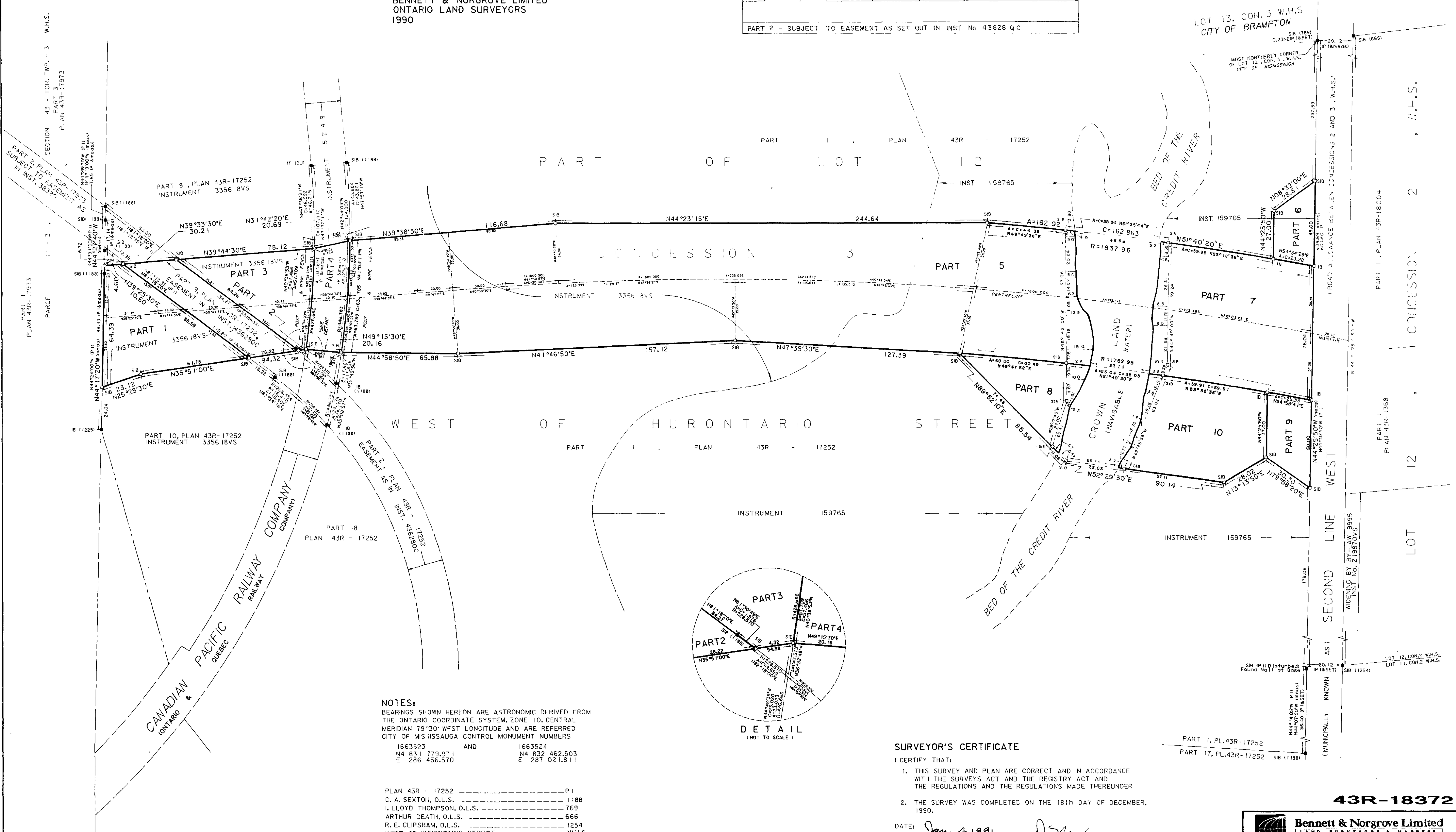
I REQUIRE THIS PLAN TO BE  
DEPOSITED UNDER THE  
REGISTRY ACT.  
DATE: Feb 4, 1991

PLAN 43R-18372  
RECEIVED AND DEPOSITED  
DATE: Feb 4, 1991

D. J. Norgrove  
D. J. NORGROVE  
ONTARIO LAND SURVEYOR

M. Markin  
M. MARKIN  
LAND REGISTRAR FOR THE  
REGISTRY DIVISION OF PEEL  
(NO. 43)

CAUTION: THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN  
THE MEANING OF THE PLANNING ACT.



NOTES:  
BEARINGS SHOWN HEREON ARE ASTRONOMIC DERIVED FROM  
THE ONTARIO COORDINATE SYSTEM, ZONE 10, CENTRAL  
MERIDIAN 79°30' WEST LONGITUDE AND ARE REFERRED  
CITY OF MISSISSAUGA CONTROL MONUMENT NUMBERS

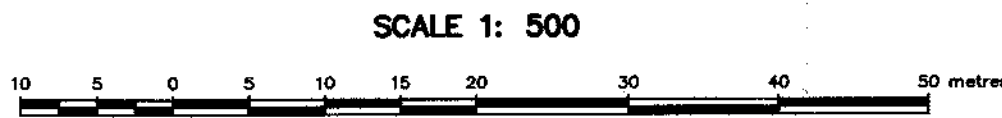
1663523	AND	1663524
N4 831 779.971		N4 832 462.503
E 286 456.570		E 287 021.811

PLAN 43R - 17252 ----- P1  
C. A. SEXTON, O.L.S. ----- 1188  
I. LLOYD THOMPSON, O.L.S. ----- 769  
ARTHUR DEATH, O.L.S. ----- 666  
R. E. CLIPSHAM, O.L.S. ----- 1254  
WEST OF HURONTARIO STREET ----- W.H.S.

SURVEYOR'S CERTIFICATE  
I CERTIFY THAT:  
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE  
WITH THE SURVEYS ACT AND THE REGISTRY ACT AND  
THE REGULATIONS AND THE REGULATIONS MADE THEREUNDER  
2. THE SURVEY WAS COMPLETED ON THE 18th DAY OF DECEMBER,  
1990.  
DATE: Jan. 4, 1991  
D. J. Norgrove  
D. J. NORGROVE  
ONTARIO LAND SURVEYOR



PLAN OF SURVEY OF  
PART OF THE ORIGINAL ROAD ALLOWANCE  
BETWEEN CONCESSIONS 2 AND 3  
WEST OF HURONTARIO STREET  
(GEOGRAPHIC TOWNSHIP OF TORONTO, COUNTY OF PEEL)  
CITY OF MISSISSAUGA  
REGIONAL MUNICIPALITY OF PEEL



David B. Searles Surveying Ltd.  
ONTARIO LAND SURVEYORS

METRIC  
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN  
METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

I require this plan to be deposited  
under the Land Titles Act

Date JANUARY 31, 2018

Received and deposited  
Date FEB. 1, 2018

*Alister Sankey*  
ALISTER SANKEY  
ONTARIO LAND SURVEYOR

*J. MODDISON*  
J. MODDISON  
REPRESENTATIVE FOR THE LAND REGISTRAR  
FOR THE LAND TITLES DIVISION OF  
PEEL (No. 43)

SCHEDULE				
PART	CON	PIN	OWNER	AREA
1	ROAD ALLOWANCE BETWEEN CONCESSIONS 2 AND 3 WEST OF HURONTARIO STREET	PART OF PIN 14084-5498(LT)	THE CORPORATION OF THE CITY OF MISSISSAUGA	1368 S.q.m.

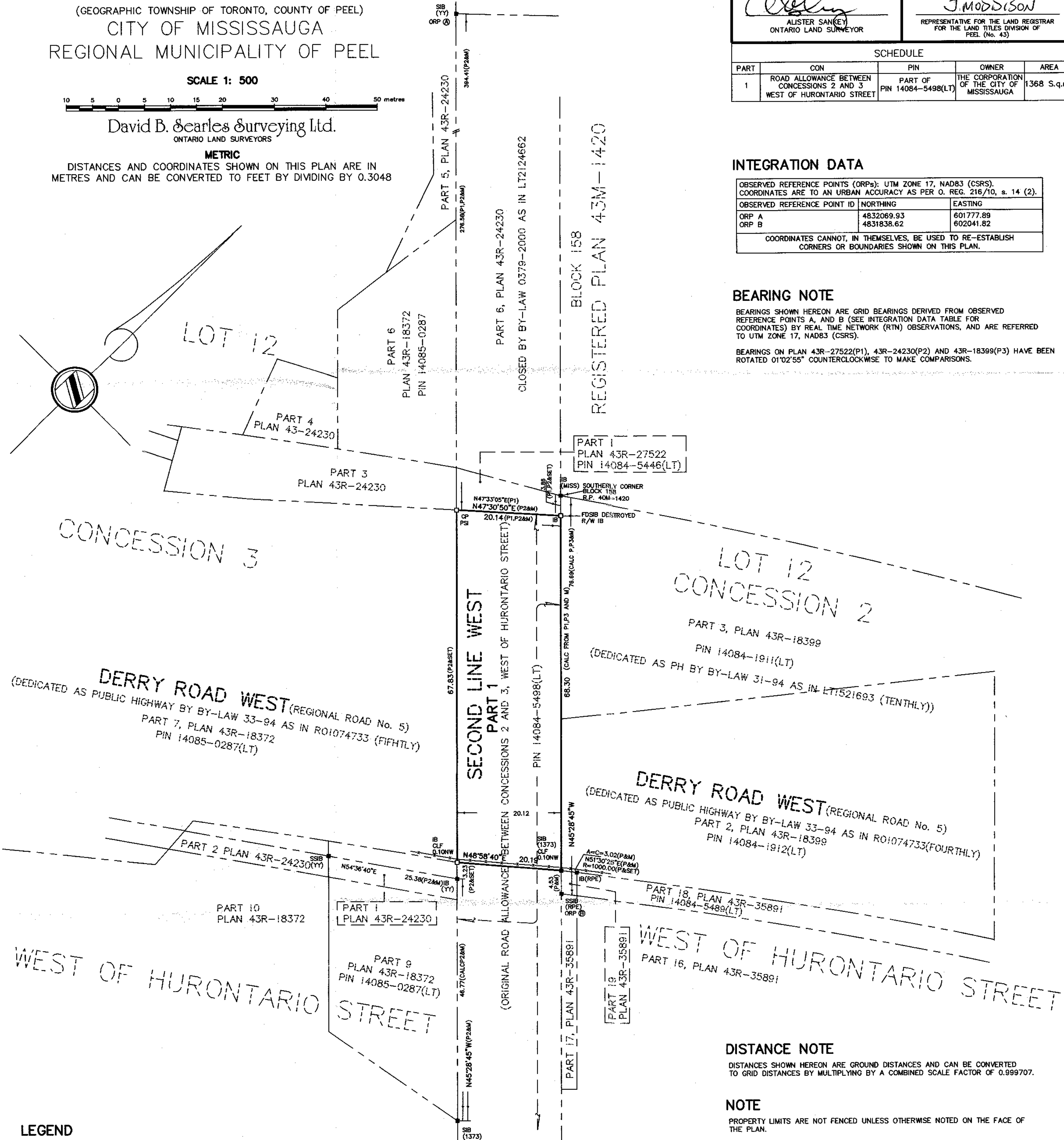
INTEGRATION DATA

OBSERVED REFERENCE POINTS (ORPs): UTM ZONE 17, NAD83 (CSRS). COORDINATES ARE TO AN URBAN ACCURACY AS PER O. REG. 216/10, s. 14 (2).		
OBSERVED REFERENCE POINT ID	NORTHING	EASTING
ORP A	4832069.93	601777.89
ORP B	4831838.62	602041.82
COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.		

BEARING NOTE

BEARINGS SHOWN HEREON ARE GRID BEARINGS DERIVED FROM OBSERVED  
REFERENCE POINTS A, AND B (SEE INTEGRATION DATA TABLE FOR  
COORDINATES) BY REAL TIME NETWORK (RTN) OBSERVATIONS, AND ARE REFERRED  
TO UTM ZONE 17, NAD83 (CSRS).

BEARINGS ON PLAN 43R-27522(P1), 43R-24230(P2) AND 43R-18399(P3) HAVE BEEN  
ROTATED 01°02'55" COUNTERCLOCKWISE TO MAKE COMPARISONS.



DISTANCE NOTE

DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED  
TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999707.

NOTE

PROPERTY LIMITS ARE NOT FENCED UNLESS OTHERWISE NOTED ON THE FACE OF  
THE PLAN.

SURVEYOR'S CERTIFICATE

- I CERTIFY THAT:
- THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT,  
THE SURVEYORS ACT, AND THE LAND TITLES ACT AND THE REGULATIONS MADE  
UNDER THEM.
  - THE SURVEY WAS COMPLETED ON THE 15 TH DAY OF MAY 2017.

JANUARY 31, 2018 *Alister Sankey*  
DATE ALISTER SANKEY  
ONTARIO LAND SURVEYOR

David B. Searles Surveying Ltd. ONTARIO LAND SURVEYORS 4255 Sherwoodtowne Blvd., Suite 206, Mississauga, Ontario L4Z 1Y5 Tel: (905) 273-6840 Fax: (905) 896-4410 Email: info@dbsearles.ca		Calculator BJ/AV	Draftsperson KP
Calculation File 55-1-17CAL.DWG	Drawing File 55-1-17.DWG	Editor BJ	Plan Index No. G 17
File No. 55-1-17			

LEGEND

- DENOTES MONUMENT FOUND
- DENOTES MONUMENT SET
- IB DENOTES IRON BAR
- SIB DENOTES STANDARD IRON BAR
- SSIB DENOTES SHORT STANDARD IRON BAR
- CP DENOTES CONCRETE PIN
- OU DENOTES ORIGIN UNKNOWN
- YY DENOTES YOUNG & YOUNG SURVEYING LTD O.L.S.
- RPE DENOTES RADY PENTEK & EDWARD SURVEYING LTD O.L.S.
- 1373 DENOTES D.J. NORGROVE O.L.S.
- MISS DENOTES CITY OF MISSISSAUGA
- P DENOTES PLAN 43R-35891
- P1 DENOTES PLAN 43R-27522
- P2 DENOTES PLAN 43R-24230
- P3 DENOTES PLAN 43R-18399
- PSI DENOTES POINT SET BY INTERSECTION
- OLF DENOTES CHAIN LINK FENCE

# City of Mississauga

## Corporate Report



Date: 2018/05/29

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
MG.23.REP  
RT.10.ZGEN

Meeting date:  
2018/06/13

## Subject

**Noise Control By-law Amendments for Construction Exemptions**

## Recommendation

That a by-law be enacted to amend the Noise Control By-law 360-79, as amended, to implement changes as outlined in the report from the Commissioner of Transportation and Works, dated May 29, 2018 and entitled "Noise Control By-law Amendment for Construction Exemptions".

## Background

A review of the existing Noise Control By-law, as amended, and its application by Transportation and Works staff with respect to exemptions granted for the purposes of extending construction hours for works occurring on City-owned roadways revealed minor discrepancies between the By-law and current procedures involving public notices, wait times and fee collection.

Current procedures expedite exemptions for the purposes of construction on City-owned roadways by proceeding with the exemption approval without observing a waiting period for area residents to provide feedback to the exemption notice. Notices are distributed to residents within a 500 metre (1,640 feet) radius of the work, as per the By-law and following consultation with the affected Ward Councillor(s), approval is granted for the exemption provided there are no objections. It should be noted that in the event of relevant concerns identified by a notified resident, the Commissioner of Transportation and Works reserves the right to rescind the granted exemption.

Transportation and Works staff regularly recommend exemptions to the Noise Control By-law for the purposes of expediting construction work on capital projects. Providing contractors with the flexibility of extending working hours, at the discretion of the Commissioner of Transportation and Works, is vital in managing unforeseen circumstances during construction that would otherwise delay projects and extend completion dates.

Additionally, given that fees are collected by staff as it relates to Road Occupancy Permits in order to cover administration costs, no further fees are necessary for the application of Noise Control By-law exemptions for construction.

## Comments

Through consultation with Legal Services, in addition to a few housekeeping amendments including updating the By-law so that it reflects current authority in the *Municipal Act, 2001*, the Noise Control By-law will be amended to allow for a more expedited approval process for exemptions when dealing with construction on City-owned roadways. The following changes to the Noise Control By-law are proposed in order to maintain reasonable approval times, to ensure proper consultation is maintained and to remove any requirement for additional fees:

**Amendment to the public notice requirement:** The process for exemptions in Section 7 of the By-law currently requires applicants to provide specific proof of publication of a notice of intention to apply for an exemption to the By-law or to distribute a prescribed flyer to all residents within a 500 metre (1,640 feet) radius. For exemptions related to construction on City-owned roadways, applicants will be required to provide written public notice following approval of the exemption and at least two weeks prior to the commencement of construction to all residences within a 500 metre (1,640 feet) radius of the construction.

**Fees:** For exemptions related to construction on City-owned roadways, the application fee set out in Subparagraph 7 (2) (g) of the By-law will not be required.

**Time limit:** The six-month time limit for exemptions set out in Subparagraph 7 (5) (a) of the By-law will not be applicable.

It is important to note that these changes will only apply to exemptions relating to construction on City-owned roadways. For all other exemptions to Section 3 and 4 of the By-law, the ordinary process under Section 7 will continue to apply.

## Financial Impact

Not Applicable.

## Conclusion

These amendments to the Noise Control By-law will allow Transportation and Works staff to continue to deliver timely service to contractors requesting an extension of working hours to complete construction projects and bring the By-law in line with current practice. Further, it provides flexibility allowing for the convenience and discretion of the Commissioner of Transportation and Works to extend Noise Control By-law construction exemptions past the current six-month limit without requiring full Council approval.



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Maxwell Gill, C.E.T., Supervisor of Traffic Operations

# City of Mississauga

## Corporate Report



Date: 2018/05/30

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Certificate of Recognition (COR) Health & Safety Certification Program**

## Recommendation

1. That the report of the Commissioner of Corporate Services and Chief Financial Officer dated May 30, 2018 entitled "Certificate of Recognition (COR) Health & Safety Certification Program" be received.
2. That, to demonstrate its commitment to health and safety, the City requires its construction contractors to be COR certified as a condition of contract award in accordance with the contract value and phased implementation schedule commencing in September 2018.

## Report Highlights

- The City's Sustainable Procurement Policy demonstrates the City's commitment to continuously improve the social and environmental impacts of its procurement of Goods and Services. Workplace health and safety is a factor in the social considerations identified in the policy.
- The Certificate of Recognition (COR), granted exclusively in Ontario by the Infrastructure Health and Safety Association (IHSA), is an accredited certification program. COR is a comprehensive health and safety audit tool for the construction industry.
- COR is being required for contractors by other municipalities and organizations that perform construction projects similar to City projects as a due diligence tool to mitigate construction health and safety risks.
- This report recommends that the City require COR for its construction contractors to demonstrate its commitment to health and safety. There is no cost to the City.



General Committee	2018/05/30	2
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- Requiring COR as a condition of contract award for construction would be embedded in bidding documents in accordance with a phased implementation schedule.
- Internal COR certification, such that the City would become COR certified, is presented by the IHSA as demonstrating leadership by example. Staff do not recommend internal COR certification at this time.

## Background

The City's Sustainable Procurement Policy came into effect on January 1, 2018. The policy demonstrates the City's commitment to continuously improve the social and environmental impacts of its procurement of Goods and Services. The social aspects of sustainable procurement include buying goods and services from suppliers with good health and safety workplace practices.

City contracts currently require compliance with the *Occupational Health and Safety Act* (OHSA) and the City's Supplier Code of Conduct. The contractor must comply with and ensure that its employees, subcontractors and agents comply with any Acts, regulations, and local laws. All contractors are required to sign a declaration acknowledging their health and safety responsibilities. This approach is sufficient for many contracts for services; however, for construction projects awareness of health and safety risks is increasing.

The Certificate of Recognition program (COR) is seen as a due diligence tool to mitigate construction health and safety risks.

COR is a comprehensive health and safety audit tool. It is an accredited certification program with certification granted exclusively in Ontario by the Infrastructure Health and Safety Association (IHSA). Contractors must demonstrate their standards of health and safety management systems through a structured audit process. It will take a contracting organization approximately 12-18 months to achieve certification which is valid for three years. In years 2-3 the contractor must perform annual maintenance audits to maintain certification status.

The three-year cost of achieving and maintaining COR certification is approximately \$6,400 to \$9,000 and is the sole responsibility of the contractor. The internal cost to the contractor to become audit ready depends on the level of effort needed to develop and implement the required policies, practices and training materials. The COR audit elements, certification cycle and estimated contractor costs are shown in Appendix 1.

COR was initially developed for heavy infrastructure construction but has expanded to include building and landscape construction. According to the IHSA website, approximately 241 Ontario contractors are currently COR certified and approximately 1,236 are registered. These numbers have increased significantly since January 2017 when they were posted at 175 contractors

General Committee	2018/05/30	3
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certified and 900 contractors registered. Many of the contractors in each category are regular contractors to the City.

Sub-contractors working for general contractors will not be expected to hold COR certification but they will be expected to adhere to the certified general contractor's Health and Safety Program. This is consistent with OHSA requirements which are not changed by COR.

The unique feature and benefit of COR certification is the third party verification for compliance against an exacting standard that complies with the OHSA. Contractors having other health and safety management systems in place, such as ISO 45001 or BS OHSAS 18001, can apply for COR equivalency through the IHSA.

COR certification is currently required by the City of Toronto, York Region, Infrastructure Ontario, Metrolinx, Hydro One Brampton, the Toronto Transit Commission and the Town of Milton. The City of Brampton received approval from their Council to require COR certification for contractors commencing in 2019 with a phased-in implementation over three years.

Within the past year, the IHSA has engaged with the following municipalities regarding COR participation for construction services. As we understand, each municipality is discussing internally their options and possible implementation.

- Region of Peel
- Region of Durham
- Region of Waterloo
- City of Waterloo
- City of Kitchener
- City of Cambridge
- City of Hamilton

This report recommends that the City adopt the Certificate of Recognition (COR) as a requirement for its construction contractors to demonstrate its commitment to health and safety and the provision of safe working environments for contractors, our staff and residents.

Staff from Facilities and Property Management, Human Resources, Works and Operations Maintenance, Engineering and Construction, Parks Development and Legal Services have contributed to this report and support the recommendations contained herein.

## Comments

Construction is inherently risky. Occupational health and safety programs are intended to reduce workplace accidents and the burden they impose on society through healthcare costs and on individuals exposed to risks. COR does not guarantee that there will be no accidents. Lack of COR certification does not necessarily mean that a contractor is unsafe. COR promotes construction sites that are as safe as possible. In the event of a tragedy, there is reputational risk; it will be a "City of Mississauga" project regardless of the contractor.

General Committee	2018/05/30	4
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COR certified firms have been shown to have lower injury incidents and accidents. Research has shown that in British Columbia, between 2002-2012, certified contractors had an average of a 12% lower short-term disability, long-term disability and fatality injury rate and a 17% lower serious injury rate.

COR will ensure consistency among contractors' health and safety programs and help to eliminate deficient contractors from underbidding others who value and promote safety and have demonstrated investment in health and safety programs.

There is no cost to the City related to requiring construction contractors to be COR certified. Many regular City contractors for large projects are currently COR certified and many others are registered in the program. The City is receiving the benefits of COR already and should formally adopt the program. Increasing adoption and support for the COR program locally will improve return for contractors and help to drive acceptance.

The City has four business units responsible for construction services. A summary of the construction services and contract values for 2017 is shown on Appendix 2. COR is not applicable to maintenance and services contracts.

For the purpose of the COR Program, the term construction will have the same meaning as "Improvement" as defined in the *Construction Act*:

"Improvement" means, in respect of any land:

(a) any alteration, addition or capital repair to the land. A capital repair to land is any repair intended to extend the normal economic life of the land or of any building, structure or works on the land, or to improve the value or productivity of the land, building, structure or works, but does not include maintenance work performed in order to prevent the normal deterioration of the land, building, structure or works or to maintain the land, building, structure or works in a normal, functional state.

(b) any construction, erection or installation on the land, including the installation of industrial, mechanical, electrical or other equipment on the land or on any building, structure or works on the land that is essential to the normal or intended use of the land, building, structure or works, or

(c) the complete or partial demolition or removal of any building, structure or works on the land.

### Implementation of COR

The recommended roll-out strategy is to phase-in COR over several years. A phased approach is consistent with other public agencies' implementation of COR.

General Committee	2018/05/30	5
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The recommended phases are as follows:

Phase	Contract Award Value (\$)	Timeline
1	City Issues an Official Announcement to the Construction Industry	September 2018
2	>\$25 million	September 2019
3	\$10 million to \$25 million	September 2020
4	<\$10 million to \$5 million	To be approved
5	<\$5 million	To be approved

A key element of the phase-in strategy is ensuring market readiness:

- Phase 1 will demonstrate the City's commitment to the program and give contractors one years' notice to start preparing for future requirements.
- Phase 2 will only apply to very high value contracts. The City has very few contracts in the >\$25 million range (seven in the past 10 years) and many contractors in this range are already in the COR program.
- By phase 3 it is expected that COR will have advanced and be well entrenched as a requirement by public agencies for high value contracts. This will be confirmed prior to rolling out phase 3. Many contractors in this value range are already in the COR program.
- Prior to rolling out phases 4 and 5 a review of market readiness will be required to assess the degree to which contractors are capable of meeting the requirements while providing sufficient competition to ensure best value to the City. Staff will report to Council in the spring of 2021 with an update and recommended implementation plan for phasing in COR for lower value contracts, taking into account the status of COR uptake by smaller contractors and experience of other public agencies.

Requiring COR certification as a condition of contract award will be embedded in bidding documents in accordance with the implementation schedule, market readiness reviews and Council approval for later phases. The implementation schedule will be publicly posted and regularly communicated to contractors.

The City will retain the authority to consider alternate equivalent certified health and safety programs provided that they meet the requirements of the COR certification. This is necessary for projects that fall under the Canada Free Trade Agreement (CFTA) and the Comprehensive Economic Trade Agreement (CETA) and in the event of emergencies.

General Committee	2018/05/30	6
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### Internal COR Certification

Internal COR certification, such that the City would become COR certified, is presented by the IHSA as demonstrating leadership by example. No Ontario municipalities are COR certified at this time. Several municipalities in British Columbia and Alberta are COR certified.

The City of Brampton is considering internal COR certification for its entire Department of Public Works and Engineering (including Capital Works, Special Projects, Development Engineering, Road Operations and Fleet, and Parks Operations) and is assessing the full scope of the initiative.

The City's Health and Safety Management System (HSMS) is described in Policy No. 01-07-05. The HSMS is based on the Canadian Standards Association (CSA) Z-1000-06 Occupational Health and Safety Management System Standard. The City has a good safety record; no significant issues have been raised to prompt a major change to current practices. Furthermore, the contractor safety management process provides a consistent direction for managing contractor safety, and helps protect City employees, and contractor personnel from workplace injury and occupational illness and from losses associated with incidents related to the contracted work.

The CSA standard Z-1000 applies to all City business units while an internal COR program would apply only to business units that oversee construction services, such as Facilities and Property Management, Works Operations and Maintenance, Engineering and Construction, and Parks Development. There would be significant overlap in managing two health and safety management systems at the same time at the City.

COR is a tool for the construction industry at this time and not for the services the City provides. The City has strong health and safety policies in place relevant to its staff and the services it provides. Staff will continue to monitor if COR certification internally is a feasible future step.

## **Financial Impact**

There is no cost to the City related to requiring construction contractors to be COR certified.

## **Conclusion**

The Certificate of Recognition (COR) granted by the Infrastructure Health and Safety Association (IHSA) is an accredited certification program in Ontario. COR is a comprehensive health and safety audit tool designed for the construction industry. To become certified contractors must demonstrate that they meet the requirements of the *Occupational Health and Safety Act* with formal processes, practices and training in place.



COR certification for contractors is being implemented by other municipalities and organizations that undertake construction similar to City projects as a due diligence tool to mitigate construction health and safety risks.

Requiring construction contractors to be COR certified aligns with the social factors cited for consideration in the City's Sustainable Procurement Policy and demonstrates the City's commitment to health and safety.

Staff recommend that the City requires COR certification for contractors performing construction for the City. Requiring COR certification as a condition of contract award will be embedded in bidding documents in accordance with the implementation schedule. The implementation schedule will be publicly posted and regularly communicated to vendors.

Internal COR certification, such that the City would become COR certified, is presented by the IHSA as demonstrating leadership by example. COR is a tool for the construction industry at this time and not for the services the City provides. The City has strong health and safety policies in place relevant to its staff and the services it provides. Staff will continue to monitor if COR certification internally is a feasible future step.

## Attachments

Appendix 1: COR Audit Elements, COR Cycle and Estimated Contractor Costs

Appendix 2: City Construction Services and Values



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Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Erica Edwards, Manager, Materiel Management, External Services

## ELEMENTS OF THE COR AUDIT TOOL

There are 19 elements in the Audit Tool. Thirteen are common to all of the provinces that participate in COR. The last six supplemental elements are specific to Ontario.

- Policy Statement
- Hazard Analysis
- Safe Work Practices
- Safe Job Procedures
- Company Rules
- Personal Protective Equipment
- Preventive Maintenance
- Training & Communication
- Workplace Inspections
- Investigations & Reporting
- Emergency Preparedness
- Statistics & Records
- Legislation
- Occupational Health
- First Aid
- Health & Safety Representative/Joint Health and Safety Committee
- Workplace Violence & Harassment
- Return to Work
- Management Review

## THE COR CYCLE

Once a workplace achieves COR it is valid for three years from the date of certification, provided the employer performs internal maintenance audits in the second and third years and complies with the terms and conditions of the COR program. A **Letter of Good Standing** verifies that the training elements and auditing standards are maintained each year.

**Year 1:** A third-party auditor validates that the workplace meets the COR standard.

**Year 2:** The workplace completes and submits a COR self-audit to validate that they continue to meet the standard.

**Year 3:** Same as year two.

**Year 4:** Re-certification process commences

## ESTIMATED COST OF COR CERTIFICATION

Activity	Description	Cost	Cost*
Mandatory Training	COR Essentials  Attended by Senior Manager and Permanent Full Time Employee of the Contractor Assigned as Internal Auditor Cost is \$85.00/person	\$170 for 2 people	\$650/group
Mandatory Training	Basic Auditing Principles  Attended by Permanent Full Time Employee of the Contractor Assigned as Internal Auditor	\$0	\$0
Mandatory Training	COR Internal Auditor  Attended by: Permanent Full Time Employee of the Contractor Assigned as Internal Auditor	\$169/person	\$1,210/group
Mandatory Training	Introduction to Hazard and Risk Management  Attended by: Permanent Full Time Employee of the Contractor Assigned as Internal Auditor	\$169/person	\$1,210/group
Review of Internal Audit	This is a "desk" audit conducted by an IHSA auditor to determine readiness for certification	\$350	\$350
On-site Auditing Services	This is a detailed on-site audit to demonstrate policies, training etc. in action. 3-4 days is typical at a cost of \$1,210.00 per day	\$4,840 est.	\$4,840 est.
COR Certification Achieved	A third-party auditor validates that the workplace meets the COR standard. Certificate is valid for one year from date of certification	N/A	N/A
<b>Sub Total</b>		<b>\$5,698</b>	<b>\$8,260</b>
Year 2 Maintenance	The workplace completes and submits a COR self-audit to validate that they continue to meet the standard. The audit is reviewed by the IHSA. A letter of Good Standing is issued	\$350	\$350
Year 3 Maintenance	Same as year 2	\$350	\$350
<b>Total Cost for 3 Year Cycle</b>		<b>\$6,398</b>	<b>\$8,960</b>

Note: The internal cost to the contractor to become audit ready depends on the level of effort needed to develop and implement the required policies, practices and training materials.

These are prices published on the IHSA web-site and are member prices. All WSIB Schedule 1 employers, which include construction, are automatically IHSA members.

\*Group training prices are for approximately 10 people, on-site.

City Construction Services and Values

(New Contracts Awarded in 2017)

Value of Contracts	Transportation & Works Capital Works	Transportation & Works Works and Operations Maintenance	Corporate Services Facilities & Property Management	Community Services Park Development
	No. of Contracts	No. of Contracts	No. of Contracts	No. of Contracts
> \$25 million	0	0	0	0
\$10 million to \$25 million	2	0	0	0
< \$10 million	15	5	55	22
Highest value contract	\$13,500,000	\$5,500,000	\$5,000,000	\$4,400,000
Total all construction	\$53,824,000	\$10,035,315	\$30,654,866	\$22,626,510
Types of Construction Services	<ul style="list-style-type: none"> <li>• Road Resurfacing Program</li> <li>• Stormwater Management Facilities</li> <li>• Intersection and Road Improvements</li> <li>• Bridge Rehabilitation</li> <li>• Culvert Replacements</li> </ul>	<ul style="list-style-type: none"> <li>• City Repair (Roadway and Maintenance Work)</li> <li>• Sidewalk Repair</li> <li>• Minor Rehab. Of Bridges and Culverts</li> </ul>	<ul style="list-style-type: none"> <li>• CCTT Renovations</li> <li>• Construction of Washroom Buildings</li> <li>• Roofing and Roof Replacements</li> <li>• Building Improvements and Upgrades</li> </ul>	<ul style="list-style-type: none"> <li>• Multi-use trails</li> <li>• Trail Reconstruction and Paving Improvements</li> <li>• Artificial Turf Installations and replacement</li> <li>• Construction of Playgrounds</li> <li>• Construction of Parks</li> </ul>

Note: 2017 activity only. Construction Services and Contracts in the \$10 million to \$25 million range are expected to increase in future years.

# City of Mississauga

## Corporate Report



Date: 2018/05/28

To: Chair and Members of General Committee

From: Andrew Whittemore, M.U.R.P., Commissioner of Planning and Building

Originator's files:  
CD.15.GRO

Meeting date:  
2018/06/13

### Subject

**Mississauga population and employment forecasts for the 2019 Development Charges By-law Review and infrastructure and service planning**

### Recommendation

That the population and employment forecasts endorsed by Council Resolution PDC-0068-2013 be used for the 2019 Development Charges By-law Review and infrastructure and service planning.

### Background

Corporate Finance is currently undertaking a Development Charges By-law Background Study Review and as part of that process needs to consider population and employment growth in Mississauga.

Hemson Consulting Ltd. was retained in 2012 to update Mississauga's growth forecasts. On November 20, 2013, Mississauga Council adopted Resolution PDC-0068-2013 endorsing population and employment forecasts (Table 1) to be used in the 2014 Development Charges By-law Review. Additionally, these were used for infrastructure and service planning (eg. Future Directions) and as input into Region of Peel's growth management exercise. These forecasts considered growth in many areas of the city including, but not limited to, Ninth Line lands, strategic waterfront sites, the Hurontario Corridor and the Downtown.

Table 1		
Mississauga Growth Forecasts (2013)		
	2031	2041
Population	829,000	878,000
Employment	527,000	552,000

Since 2013, Mississauga has been working with Region of Peel on a growth allocation exercise however to date no conclusion has been reached. In absence of Regional direction on growth allocation, Mississauga's population and employment forecasts, 2013 (Table 1) are the most reasonable interim figures to proceed with in the 2019 Development Charges By-law Background Review Study.

## Comments

Amendment 2 to the Growth Plan took effect June 17<sup>th</sup>, 2013 and assigned a population and 1,970,000 and employment of 970,000 to Peel Region for 2041. Regional and area municipal staff have been working on growth management matters including the allocation of the Amendment 2 growth forecasts. Regional and area municipal staff developed an allocation that was approved by Mississauga and Caledon councils in 2014. However, the allocation was not approved by Brampton Council.

Subsequently, in 2016 an inter-Municipal Regional Growth Management Workgroup was established to allocated growth assigned to Peel. In October 2017, Peel 2041 growth allocation and growth management Regional Official Plan Amendment was brought forward to Regional Council to request to proceed with consultation on the draft amendment. To date, new growth allocations have not been approved and the original 2006 Growth Plan growth forecasts allocation remain in official plan documents.

It is anticipated that through the Region of Peel growth management exercise, Mississauga's population and employment forecasts will be increased above the current figures in Mississauga Official Plan, and those endorsed by City Council in 2013. However, without an approved distribution of population and employment growth by Region of Peel and the Province, it would be premature to assume the amount of growth assigned to Mississauga. As such, it is recommended that the 2013 City Council endorsed forecasts which were updated to reflect Amendment 2 continue to be used for 2019 Development Charges By-law Review, and infrastructure and service planning. It should be noted that Mississauga's ten year growth forecast is not anticipated to significantly change through the Regional growth management exercise which is the more significant period in Mississauga's development charges by-law background study review.

## Financial Impact

To be determined through the 2019 Development Charges By-law Review

## Conclusion

In absence of a conclusion to the Region of Peel's growth management exercise, it is recommended that Mississauga City Council continue to use the 2013 endorsed population and employment forecast for the 2019 Development Charges By-law Review and infrastructure and service planning.





# City of Mississauga Corporate Report



Date: 2018/05/15

To: Chair and Members of General Committee

From: Paul Mitcham, P. Eng, MBA, Commissioner of  
Community Services

Originator's files:

Meeting date:  
2018/06/13

## Subject

**Sole Source Contract Award to Unique Management Services, Inc. for Library Materials Recovery Service**

## Recommendation

That the Purchasing Agent be authorized to execute the appropriate forms of contract with Unique Management Services, Inc. on a sole source basis, for the recovery of library materials and fine collections for the term of July 1, 2018 to October 31, 2021, with an option to extend the contract to June 30, 2023 in the estimated upset limit of \$285,000 as outlined in the Corporate Report dated May 15, 2018 from the Commissioner of Community Services.

## Background

The Mississauga Library system endeavours to recover materials and collect outstanding fines. At its meeting of July 3, 2013, Council approved sole source contract award to Unique Management Services, Inc. ('UMS') for the term July 1, 2013 to June 30, 2018. Ref.: GC-0446-2013.

Unique Management's Services are undertaken through a software interface with the Library's Integrated Library System (ILS) provided by SirsiDynix. This system contains the database used to manage customer records and the catalogue. The ILS has a built-in Debt Collect module which enables debt and materials recovery to occur on a regular, timely and automated basis through an authorized third party recovery service. Unique Management Services, Inc. continues to be the only third party recovery service authorized by SirsiDynix. Accordingly, they are a sole source.

The Library uses two automated programs to ensure that materials and outstanding library fees are collected.

- 1) Customers with a \$40.00 balance or higher

The Library assigns accounts to UMS that have an outstanding balance of \$40.00 or more. UMS charges a collection fee of \$12.80 for each delinquent account, which is added to the overdue amount before the collection.

## 2) Customers with balances between \$20.00 and \$39.99

The library also participates in a small balance program with UMS, where customers who owe between \$20.00 and \$39.99 in outstanding fines are sent to collections, but a reduced fee of \$5.00 per account is added to the overdue amount before the collection.

## Present Status

UMS continues to effectively recover materials and collect fines on behalf of the Library, providing the following services:.

### Collection Process & Timelines

- After 60 days past due a customer's account is submitted to UMS and a past due fee is added to the account
  - For account balances of \$40 or more the past due fee will be \$12.80
  - For account balances between \$20 and \$39.99 the past due fee will be \$5.00
- At this time, the customer receives Letter #1 (on Library letterhead) reminding them about their account and encouraging them to respond within 21 days of the date of the letter, allowing them plenty of time to return their items or pay the outstanding fines.
- After 21 days, and a balance owing remains, the customer receives Letter #2 (on UMS letterhead) encouraging the customer to contact the library to clear their account and/or return materials.
- After 35 days, and a balance owing remains, UMS places a courtesy phone call to customer, encouraging them to clear their account.
- After 65 days, UMS sends a Final Notice to the customer, stating that they may be credit reported if their account is not cleared with the Library.
- After 78 days, UMS places a courtesy phone call to customer, indicating they are scheduled to be credit reported.
- After 120 days, the customer is credit reported.

Interest is not charged as part of the collection program. The library pays 22.5% of fees recovered to UMS. The program has been very successful, resulting in a 4:1 return for fees remitted to the service. For the large balance program there has been a recovery of \$140,000 at a cost of \$40,000 from 2013 – 2017, while the small balance program has recovered \$50,000 with fees of \$14,000 for the same period. It is therefore beneficial to the City to continue with this program.

## Comments

The UMS contract is tied to the City's contract with SirsiDynix for the ILS. The SirisDynix ILS agreement ends on October 31, 2021 and may be extended to June 30, 2023. It is recommended that the contract with Unique Management Services, Inc. be for the term July 1, 2018 to October 31, 2021, with an option to extend the contract to June 30, 2023 to coordinate with the SirsiDynix contract term.

Appendix 1 outlines the scope of services to be provided by UMS.

The Purchasing By-law No. 374-2006 provides for a sole source contract awards, ref. Schedule 'A', Section 1, (a) The Goods and Services are only available from one supplier by reason of :  
(iv) the complete item, service, or system is unique to one vendor and no alternative or substitute exists within Canada.

## Financial Impact

The cost of services to recover outstanding library materials is as follows.

\$839,072 – Estimated Recoveries for years 2018 – 2023

\$284,571 - Estimated Total UMS Fees 2018-2023

\$544,501 - Estimated Net Recover 2018 – 2023


## Conclusion

The Library requires collection agency services for the recovery of library materials and collection of outstanding fines. Unique Management Services, Inc. is a sole source due to their exclusive access to the Library's SirsiDynix Integrated Library System and is recommended for contract award.

The recommended award is provided for in the Purchasing By-law No. 374-2006 ref. Schedule 'A', Section 1, (a) The Goods and Services are only available from one supplier by reason of :  
(iv) the complete item, service, or system is unique to one vendor and no alternative or substitute exists within Canada.

## Attachments

Appendix: Scope of Services




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Paul Mitcham, P. Eng, MBA, Commissioner of Community Services

Prepared by: Jennifer Stirling, Manager, Library Digital Services & Collections

## Appendix 1

### Scope of Services

- Automatic assignment by SirsiDynix ILS software □ Debt Collect Module (licensed to the City of Mississauga and the Library) of accounts on a regular basis, as determine by the library official, having balances between \$20.00 and \$39.99 or over \$40.00 (CDN)
- Collection methodology performed by Unique Management Services Inc., in accordance with the *Collection Agencies Act, R.S.O 1990, c. C.14* and pertinent regulations for a period of no more than 120 days from the date of assignment.
- In the event of partial recoveries, Unique Management Services Inc. shall pursue the account until it is paid in full or waived by the Library.
- Fee of \$12.80 CDN per account (for accounts \$40.00 or over) or \$5.00 CDN for accounts from \$20 to \$39.99 invoiced by Unique Management Services Inc.to the Library official in the month after assignment, or a percentage fee of 22.5% of a recovery which includes outstanding fines, value of materials (as determined by the Library's SirsiDynix System and amounts waived by the Library).
- Reconciliation of accounts, quarterly, in order to ensure budget neutrality.
- Remittances with respect to overdue accounts are made by Library customers directly to the Mississauga Library System.
- Annual review by the Library to determine the necessity of collection services and to evaluate Unique Management Services Inc.'s performance

# City of Mississauga

## Corporate Report



Date: 2018/05/22

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng, MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
2018/06/13

### Subject

**Sole Source Recommendation with Remix Software, Inc. for Planning Software, Contract Negotiation and Award**

### Recommendation

1. That the report from the Commissioner of Transportation and Works dated May 22, 2018 and entitled Sole Source Recommendation for Remix Software, Inc. be received.
2. That the Purchasing Agent be authorized to execute the contract and all related ancillary documents with Remix Software, Inc. on a sole source basis for the annual software subscription and professional services subject to City Solicitor approval, for two (2) year contract term with an option to extend for up to three (3) additional one year renewals, at estimated amount of \$750,000.
3. That the Purchasing Agent, be authorized to negotiate and issue contract amendments with Remix Software, Inc. to extend for up to three (3) additional one year renewals and increase the value of the contract, where necessary, to accommodate growth and future expansion including adoption of new technology to meet business requirements, where such amount is approved in the budget and business plan process.

### Background

Due to the growing complexity of planning transit routes and services, staff at MiWay identified a need for a technical solution to the current manual route planning and analysis. The MiWay 5 service plan identifies ongoing route and service improvements throughout Mississauga. Coupled with the service changes, transit planners need to adjust transit services as a result of the construction impacts faced on City roads over the next few years. These major construction projects will have significant impacts to transit service including Hurontario LRT, Burnhamthorpe Water Project and several bridge and road rehabilitation projects.

Staff have reviewed and tested Remix, which is an online cloud-based software as a service (SaaS) transit planning platform that allows users to develop complex transit route and schedule scenarios and quickly and simply communicate their ideas visually. Using Remix, transit planners can use the interactive map to test various routing scenarios and simultaneously compare the estimated cost, ridership and demographic impact of a proposed change. Designs can be shared amongst the team, feedback can be discussed and routes can be modified simply through hyperlinks. Corporate IT performed necessary assessments and has confirmed Remix is in compliance with the City's IT requirements for SaaS offerings.

The current staff practice involves some manual planning as well as utilizing multiple software platforms to design, analyze, and present service changes to stakeholders. The primary benefit of Remix is that it allows all work to be completed using one software platform. The high quality visual design of Remix subsequently allows for presentation material to be extracted directly from the work platform. Additionally, through Remix, planners are able to change service and see the impact to multiple demographic variables in real time, saving hours of manual analysis for multiple iterations of routing designs.

## Comments

Remix is currently the only web-based transit planning software platform that provides the following features and benefits:

- Use of open data or General Transit Feed Specification (GTFS) to build transit network and develop models.
- Allows a user to design and modify a transit route, while simultaneously observing demographic analysis and cost analysis in real time.
- Integrated planning tool to prevent errors from using multiple, non-proprietary software tools.
- Provides real-time comparative analysis to examine existing and proposed routes to understand change impact.
- Provides an isochrone map that shows a rider how far they can travel on transit within 30/60/90 minutes both before and after the service change. Can also produce maps that show the potential number of riders within a 5/10/15minute walk of the route changes under consideration.
- Allows for exports from Remix routes and stops into many formats enabling analysis, sharing and presentation.



Remix software can deliver innovation in how staff collaborate and communicate using a hyperlink of the route change proposals to easily share different ideas both internally and externally. Planners can share the proposals with non-Remix users, such as decision makers like Councillors, interactively during meetings, public workshops or stakeholder engagements.

Other Canadian transit agencies in Edmonton, Vancouver, Windsor, Burlington and Hamilton have purchased Remix to make improvements to route and service planning. In addition, TTC is also in the procurement process with Remix for a sole source contract. In light of the deployment of Remix by many of our neighbouring municipalities, regional collaboration for MiWay will be more convenient and efficient through the acquisition and deployment of this SaaS offering.

## **Purchasing By-law Authorization**

The recommendation in this report is made in accordance with Schedule A of the Purchasing By-law #374-06, items 1(a)(iv) which states that a sole source procurement method may be applied when, “the complete item, service, or system is unique to one vendor and no alternative or substitute exists within Canada”, where the acquisition and deployment of this SaaS offering will allow more convenient and efficient regional collaboration for MiWay and GTA neighbouring municipalities.

Information Technology, Legal Services and Materiel Management staff are collaborating to establish the detailed requirements, negotiate the final arrangements and prepare the requisite forms, including the necessary contractual documentation.

## **Financial Impact**

Capital funding is approved in PN 18247 for the period 2018 through to 2022 to cover the cost of Remix licence for annual subscription of \$104,000 USD per year based on 2 year term commitment and one time setup fee of \$10,000 USD including onboarding & training for all staff, creation of user accounts and processing of GTFS and any custom data. In total estimated amount of \$300,000 is required and funding is approved in the 2018 budget and business plan process.

## **Conclusion**

As MiWay continues to adjust to changing ridership and service demands, Remix will be a necessary tool to deliver features that improve the planning process by providing efficiencies and improved analysis for staff. In the next five years, major construction projects with significant impacts to transit service such as the Hurontario LRT, Burnhamthorpe Water Project, and ongoing bridge and road rehabilitation projects will require immediate solutions to changing road conditions. It will further support larger scale transit planning projects such as MiWay 5 which is due for renewal in 2019.

This report recommends authorizing the Purchasing Agent to execute a contract satisfactory to Legal Services, with Remix Software Inc. based on a sole source vendor for a 2 year contract

General Committee	2018/05/22	4
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term and with option to renew for up to 3 additional one year terms, based upon the combination of satisfactory performance and the City's ongoing requirements for the unique features and functionalities of the Remix software.

## Attachments

Appendix: Remix Software Pricing.docx



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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: Ji-Yeon Lee, P. Eng, Service Development Manager

### **Remix Software, Inc. – Pricing Summary**

The following outlines the pricing for planning software subscription services with Remix Software, Inc. to be negotiated and finalized by staff from Materiel Management, Legal Services and Information Technology.

Funding is approved in the 2018 budget (PN18247) and business plan process.

### **Software Licencing and Subscription**

Remix Software, Inc. licences are referred to as “subscriptions”.

Effective Date	July 1st, 2018
Commitment Term	2 years
Remix License	<b>\$104,000 USD per year, based on a total fixed route fleet of 470</b> <ul style="list-style-type: none"> <li>• Remix licenses for an unlimited number of users within organization.</li> <li>• Software as a Service (SaaS): fully hosted, cloud-based web platform.</li> <li>• Dedicated Customer Success staff.</li> <li>• Enterprise Support: response to requests in 1 business day.</li> </ul>
One-Time Setup	<b>\$10,000 USD</b> <ul style="list-style-type: none"> <li>• Provide onboarding and training for all staff.</li> <li>• Create user accounts.</li> <li>• Process latest GTFS and any custom data.</li> </ul>

Total cost of 2 year term including setup cost is \$218,000 USD, which is \$283,400 CAD using currency exchange rate of 1.3 (\$1.00 USD - \$1.30 CAD).

# City of Mississauga

## Corporate Report



Date: 2018/05/22

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Originator's files:

Meeting date:  
2018/06/13

### Subject

**Sole Source Recommendation with Apple Inc. and Apple affiliates, "Apple" for Apple Products and Services, Contract negotiation and Award**  
**File Ref: PRC000178**

### Recommendation

1. That the report of the Commissioner of Corporate Services and Chief Financial Officer dated May 22, 2018 and entitled Sole Source Recommendation with Apple Inc. and Apple affiliates, "Apple" for Apple Products and Support Services, Contract negotiation and Award be received.
2. That Apple be designated as a City Standard and sole source for the supply of Apple products and services for the term of ten (10) years, June 30, 2018 - June 29, 2028.
3. That the Purchasing Agent be authorized to execute the necessary contracts directly with Apple Inc. to specify Apple products and services with its resellers for the term of ten (10) years, June 30, 2018 - June 29, 2028 at the estimated amount of \$2.4 million excluding taxes.
4. That the Purchasing Agent be authorized to negotiate and issue contract amendments with Apple and increase the value of the contract, where necessary to accommodate growth and future expansion including adoption of new technology to meet business requirements and where such amount(s) are approved in the budget.

### Report Highlights

- Apple mobile devices are available throughout the corporation and enable mobile workers to work efficiently leveraging Apple designed applications and enabling them to access corporate data in the field.
- Apple computers are also used for content creation, graphic design and video reproduction in various areas within the corporation.
- There are number of applications being used by the City that are only supported on

Apple's mobile operating system also known as iOS.

- The current Apple footprint within the City consists of approximately 100 Apple Mac computers, 400 iPad tablets and 1300 iPhones.
- Apple mobile devices combine software, hardware and services to provide a consistent and reliable user experience.
- Apple operating systems such as macOS and iOS are proprietary and can only be used and licensed on Apple hardware.
- The current estimated spend for the term of June 30, 2018 – June 29, 2028 is \$2.4 million from capital and all future purchases of Apple products and services will be subject to budget approval.

## Background

Apple products including computers, notebooks, tablets, phones and accessories have been previously purchased and are used throughout the City. Apple mobile devices are available throughout the corporation and enable mobile workers to work efficiently leveraging Apple designed applications and enabling them to access corporate data in the field. Apple computers are also used for content creation, graphic design and video reproduction in various areas within the corporation. The City's Information Technology (IT) Division of the Corporate Services Department oversees the lifecycle replacement program and support of all Apple products for all City Departments.

## Comments

The City uses Apple Macintosh (Mac) computers throughout the corporation for content creation, graphic design, marketing and video production in areas such as Creative Services, MiWay Transit Marketing and Audio Visual Services. Apple iPads are also being used by mobile workers in Planning & Building using Plans Anywhere and in Transportation and Works for enforcement officers to conduct field inspections to enforce the City's bylaws.

There are number of applications being used by the City that are only supported on Apple's mobile operating system also known as iOS. Apple iOS applications have been developed to take advantage of the iPad's feature rich controls of the tablet hardware such as the built-in GPS, cameras, and easy-to-use touch user interface. The Transportation Network Company (TNC) Inspection and Avolve Plans Anywhere are examples of applications that are specifically developed for Apple iOS allowing mobile staff to work remotely and conduct inspections in the field.

The current Apple footprint within the City consists of approximately 100 Apple Mac computers, 400 iPad tablets and 1,300 iPhones. Apple products (Mac computers, iPads and etc.) are purchased directly from Apple Inc. online or at the Apple Store and through the City's existing contracts with CompuCom Canada Co., Rogers Communications Canada Inc. and Bell Mobility Inc. utilizing Ontario's Vendor of Records accordingly, VOR OSS-00466131 for Desktop

General Committee	2018/05/22	3
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Management Services and Products (DMSP-03), and VOR OSS-00415819 for Paging and Mobile Devices and Services where the full cost of iPhones are subsidized over the cellular account's contract term.

Apple mobile devices combine software, hardware and services to provide a consistent and reliable user experience. The iOS mobile operating system provides advanced security features such as device encryption, application security and device and privacy controls. The City leverages its existing mobile device management (MDM) infrastructure to manage Apple devices to secure corporate resources and data.

Apple operating systems such as macOS and iOS are proprietary and can only be used and licensed on Apple hardware.

#### Purchasing By-law Authorization

The recommendation in this report is being made in accordance with Schedule A of the Purchasing By-law #374-06 items 1(a) which states that the Goods and/or Services are only available from one supplier by reason of; (iii) "the existence of exclusive rights such as patent, copyright or license"; and (iv) "the complete item, service, or system is unique to one vendor and no alternative or substitute exists within Canada."

Information Technology, Material Management and Legal Services staff will collaborate to establish the detailed requirements, negotiate the final arrangements and prepare the requisite forms including the contract agreements.

## **Financial Impact**

Information Technology establishes Capital requests on an annual basis, based on business requests, good state of repair and maintenance and support. The current estimated spend for the term of June 30, 2018 – June 29, 2028 is \$2.4 million from capital and all future purchases of Apple products and services will be subject to budget approval.

## **Conclusion**

This report recommends that Apple be designated as a City Standard for the supply of Apple products and services for the term of ten (10) years, June 30, 2018 - June 29, 2028 while further strategic decisions are made for the benefit of the City. This report also recommends that the Purchasing Agent be authorized to execute the necessary contracts directly with Apple Inc. or specify Apple products and services with its resellers at the estimated amount of \$2.4 million excluding taxes.



General Committee

2018/05/22

4

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**Attachments**

Appendix 1: Apple Inc. – Statement of Work



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Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Jeff Rowsell, Manager Service Management

**Apple Inc. - Statement of Work**

The following list of products and services from Apple Inc. is to be purchased directly or be specified in the competitive procurement process through value added resellers:

1. Apple products and services
  - Products: (i.e. Apple Macintosh computers, iPads and etc.)
  - Services: (i.e. AppleCare, iCloud and etc.)
  - Peripherals: (i.e. Cables, chargers, cases and etc.)
2. Maintenance and support
3. Professional services: (i.e. Training, Device Enrollment Program (DEP), Volume Purchase Program (VPP) and etc.)

# City of Mississauga

## Corporate Report



Date: 2018/05/24

To: Chair and Members of General Committee

From: Geoff Wright, P. Eng., MBA, Commissioner of  
Transportation and Works

Originator's files:  
M-1759

Meeting date:  
2018/06/13

### Subject

**Servicing Agreement Assumption – Subdivision Servicing Agreement, City File M-1759 – 678604 Ontario Inc. (Ward 11)(Z-52)**

### Recommendation

That the City of Mississauga assume the municipal works as constructed by the developer under the terms of the Servicing Agreement for Registered Plan 43M-1759 Ward 11), 678604 Ontario Inc. (lands located north of Derrydale Drive, east of McLaughlin Road, west of Fletcher's Creek and south of Panhellenic Drive, in Z-52, known as De Zen Subdivision), and that the Letter of Credit in the amount of \$1,012,968.07 be returned to the developer, and further that a by-law be enacted to assume the road allowances within the Registered Plan as Public Highway and part of the municipal system of the City of Mississauga.

### Background

The developer identified on the attached Table of Assumption (Appendix 1) has complied with all the requirements of the identified Subdivision Servicing Agreement.

### Comments

The Transportation and Works Department supports the assumption of the Subdivision Servicing Agreement for City File M-1759.

### Financial Impact

With the assumption of the De Zen Subdivision (M-1759), the City will now be required to provide maintenance to 1225 meters (4,019 feet) of roadway and 1363 meters (4,472 feet) of storm sewers.

### Conclusion

It is in order for the City to assume the municipal works within the site identified on the attached Table of Assumption (Appendix 1).

General Committee

2018/05/24

2

Originators files: M-1759

**Attachments**

Appendix 1: Table of Assumption

Appendix 2: Approximate location of City File M-1759



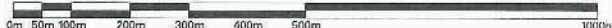
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Geoff Wright, P. Eng., MBA, Commissioner of Transportation and Works

Prepared by: John King, Supervisor of Development Construction

## APPENDIX 1

TABLE OF ASSUMPTIONS				
PLAN/FILE REFERENCE #	LOCATION	DEVELOPER'S ADDRESS	SERVICING AGREEMENT DATE	SECURITIES TO BE RELEASED
M-1759	North of Derrydale Drive, East of McLaughlin Road, West of Fletcher's Creek and South of Panhellenic Drive, in Z-52.	678604 Ontario Inc. 4890 Tomken Road, Units 1-4 Mississauga, ON L4W 1J8  Attn: Mr. Sandro De Zen, Manager	September 12, 2007	\$1,012,968.07





**REPORT 2 - 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Arts, Culture & Heritage Ad Hoc Committee presents its second report for 2018 and recommends:

1. That the Draft Culture Master Plan be received for information.
2. That the Arts, Culture & Heritage Ad Hoc Committee is in full support of the Draft Culture Master Plan as presented at the May 29, 2018 meeting.

**REPORT 5 – 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Road Safety Committee presents its fifth report for 2018 and recommends:

RSC-0024-2018

That the verbal update on May 29, 2018 from Tony Power, Citizen Member, with respect to the Road Safety Promotional Subcommittee meeting on May 10, 2018, be received for information.  
(RSC-0024-2018)

RSC-0025-2018

That the draft meeting minutes from the Road Safety Promotional Subcommittee meeting, dated May 10, 2018, be received for information.  
(RSC-0025-2018)

RSC-0026-2018

That the Peel Regional Police Road Watch statistics for the month of April, dated May 3, 2018, be received for information.  
(RSC-0026-2018)

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## **REPORT 2 – 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Governance Committee presents its second report for 2018 and recommends:

GOV-0007-2018

That the Governance Subcommittee meeting minutes dated March, 19, 2018, be approved.  
(GOV-0007-2018)

GOV-0008-2018

That the review of the Council Code of Conduct be deferred until the 2018-2022 term of Council.  
(GOV-0008-2018)

GOV-0009-2018

That the Council and Staff Relations policy attached to the report of the City Solicitor dated May 29, 2018 entitled “Council and Staff Relationship Policy – Bill 68 Requirement” be approved as amended.  
(GOV-0009-2018)

GOV-0010-2018

That staff be directed to organize orientation and strategic direction setting sessions for the Members of Council for the 2018-2022 term, as outlined in the report entitled, ‘New Council Orientation and Strategic Direction Setting’ dated March 15<sup>th</sup>, 2018, from the City Manager and Chief Administrative Officer.  
(GOV-0010-2018)

GOV-0011-2018

That the report dated March 29, 2018 from the Commissioner of Corporate Services and Chief Financial Officer, entitled “Traffic Safety Council Review”, be received.  
(GOV-0011-2018)

GOV-0012-2018

1. That the request from the Accessibility Advisory Committee with respect to Electronic Participation for Advisory Committee Meetings, dated June 6, 2018, be received.
2. That Legal Services staff be directed to draft a set of proposed criteria for amendments to the Council Procedure By-law #139-13 and report back to the Governance Committee.

(GOV-0012-2018)

GOV-0013-2018

That the Status of the Governance Committee Work Plan items, dated June 6, 2018, be received.  
(GOV-0013-2018)

**REPORT 6 - 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Heritage Advisory Committee presents its sixth for 2018 and recommends:

HAC-0060-2018

That the City approve the rebuilding, i.e. replication, of two of the chimneys at the heritage designated property at 223 Queen Street South, as per the Corporate Report dated May 10, 2018, from the Commissioner of Community Services.

(HAC-0060-2018)

HAC-0061-2018

That the Memorandum dated May 1, 2018 from Paul Damaso, Director of Culture Division, entitled *Rezoning of 1141 Clarkson Road North (Ward 2)*, a Heritage Listed Property, be received for information.

(HAC-0061-2018)

HAC-0062-2018

That the Memorandum dated May 1, 2018 from Paul Damaso, Director of Culture Division, entitled *New Construction on Listed Property at 2208 Doulton Drive (Ward 8)*, be received for information.

(HAC-0062-2018)