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## General Committee

### Date

2018/04/18

### 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
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 (Chair)

### Contact

Stephanie Smith, Legislative Coordinator, Legislative Services  
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### Find it Online

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

## GENERAL COMMITTEE INDEX - APRIL 18, 2018

1. **CALL TO ORDER**
2. **APPROVAL OF AGENDA**
3. **DECLARATION OF CONFLICT OF INTEREST**
4. **PRESENTATIONS** - Nil
5. **DEPUTATIONS**
- 5.1. Christine Zimmer, Senior Manager, Water and Climate Change, Credit Valley Conservation with respect to updates on the integrated Cooksville Watershed Study and Municipal Risk and Return on Investment Tool.
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. Short-Term Accommodation – Regulatory Framework
- 8.2. Transportation Demand Management Strategy and Implementation Plan  
(Please be advised that Appendix 2 TDM Strategy and Implementation Plan and Appendix 3 TDM Strategy and Implementation Plan Appendices was not included in the printed agenda and is available in the online version of the agenda at [mississauga.ca](http://mississauga.ca))
- 8.3. Proposed Parental Leave Supplement Policy
- 8.4. 2017 Treasurer's Annual Report on Investment
- 8.5. Collection of Outstanding Provincial Offences Fines - Adding Unpaid Fines to Other Municipalities Property Tax Rolls
- 8.6. Financial Report as at December 31, 2017

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9. **ADVISORY COMMITTEE REPORTS**

9.1. Heritage Advisory Committee Report 4 - 2018 April 10, 2018

9.2. Mississauga Cycling Advisory Committee Report 4 - 2018 April 10, 2018

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

11. **COUNCILLORS' ENQUIRIES**

12. **OTHER BUSINESS/ANNOUNCEMENTS**

13. **EDUCATION SESSION**

13.1. Susan Tanabe, Manager, Transportation Planning and Mark VanderSluis, Project Leader, Transportation Planning with respect to Lakeshore Connecting Communities

\*This will take place in open session in the Council Chamber.

14. **CLOSED SESSION**

(Pursuant to Subsection 239 (2) of the Municipal Act, 2001)

14.1. Security of the property of the municipality or local board: Single Source Acquisition: Cooksville Creek – Trail Paving & Excess Material Removal (Ward 4)

15. **ADJOURNMENT**

# City of Mississauga

## Corporate Report



Date: 2018/04/03

To: Chair and Members of General Committee

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

Originator's files:

Meeting date:  
2018/04/18

## Subject

**Short-Term Accommodation – Regulatory Framework**

## Recommendation

1. That a by-law be enacted to license short-term accommodation companies and create a registration process for short-term accommodation operators, including implementing an administrative penalty system as outlined in the report from the Commissioner of Transportation and Works dated April 3, 2018 and entitled "Short-Term Accommodation – Regulatory Framework".
2. That the enforcement action plan, as outlined in the report from the Commissioner of Transportation and Works dated April 3, 2018 and entitled "Short-Term Accommodation – Regulatory Framework" be approved.
3. That Enforcement staff enforce the recommended by-law in a manner set out in the enforcement action plan, outlined in the report from the Commissioner of Transportation and Works dated April 3, 2018 and entitled "Short-Term Accommodation – Regulatory Framework".
4. That an annual registration fee of \$50 for operators, annual licensing fee of \$500 for companies and a short-term accommodation booking fee of \$1/night effective July 4, 2018 be established.
5. That the 2018 complement for Enforcement be increased by two permanent Full-Time Equivalents (FTE), as outlined in the Request for Full-Time Employees (Appendix 1) and funded by the above-mentioned revenues with a start date of June 1, 2018.
6. That a new cost centre be created, and that a gross 2018 operating budget of \$113,500 be established and funded by the short-term accommodation revenues with no net impact to the 2018 budget.

## Report Highlights

- There are an estimated 800 short-term accommodations (STA's) currently operating in Mississauga.
- Staff recommend enacting the Short-Term Accommodation By-law to regulate STA



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operators and companies.

- Staff recommend enacting a STA company licence and operator registration.
- The enforcement approach will balance public safety, while still supporting the sharing market economy.
- The by-law fees will reflect cost recovery for anticipated enforcement and administrative costs.
- Force and effect date is recommended for July 4, 2018 for the enactment of the by-law.

## Background

There have been two other reports brought forward to Council regarding STA's:

- Municipal Accommodation Tax (MAT) report dated January 31, 2018 proposing a 4% tax on STA operators commencing April 1, 2018.
- Zoning Report titled "Proposed Amendments to the Zoning By-law to Regulate Short-term Accommodations" dated November 10, 2017. Council approved the report, and accompanying summary of the Zoning By-law Amendments at its December 13, 2017 Council meeting.

In addition, Enforcement staff provided General Committee with an information report regarding the regulation of STA's titled "Regulating AirBNB (Short-Term Accommodations) Overview" on June 29, 2016. The report included an overview of this emerging industry, an environmental scan to determine by-law standards regarding STA's in various jurisdictions and possible zoning changes to facilitate a licensing regime for STA's.

## Present Status

### Current Regulations

Motels and hotels are regulated within the City of Mississauga zoning provisions under "Overnight Accommodation" and is a permitted use. These locations are defined as a "building, structure or part thereof, used for the purpose of providing temporary accommodation that contains at least 20 bedrooms". Further, these locations are regulated under provincial legislation that ensures worker and public safety. These locations are required to adhere to the *Hotel Registration of Guests Act*, *Innkeepers Act*, *Ontario Building Code Act*, Fire regulations, *Accessibility for Ontarians with Disabilities Act*, *Taxation Act* and the *Workplace Safety Act*. Residential based STA's do not fall under these regulations.

Ontario municipalities have been looking to the province to become more broadly involved in regulating STA's. To date, the provinces have only addressed taxation issues. Municipalities impacted by the rise in STA's within their jurisdictions, would benefit from provincial intervention to ensure compliance with fire and building provisions.

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Individual condominium boards have the discretion to amend and/or introduce new restrictions detailing the permitted uses of units under their direct authority. Condominium boards may exercise their authority by prohibiting condominium owners from using their unit for STA's.

The *Residential Tenancies Act* restricts tenants from subletting/renting the unit for a monetary amount that is higher than the allowable rental ceiling. Further, a well authored lease agreement can prohibit commercial use of a residential rental unit and could be grounds for legal action on the part of the landlord.

Currently, the Zoning By-law does not prohibit the use of residential properties as STA's. Further, there is no municipal licensing requirement for locations operating as STA's.

### **STA's in Mississauga**

The total number of STA's currently operating in Mississauga is estimated to be 800. However, this number continually fluctuates, as new host locations are added, deleted and/or moved to other platform providers.

The STA Platform Chart (Appendix 2) provides a detailed overview of the current STA availability within the city.

The largest stakeholder is Airbnb, with an estimated 90% of the STA market share in the City of Mississauga. Airbnb Mississauga listings currently stand at 700. The popularity of this alternative accommodation option has increased dramatically, with total Mississauga rentals doubling in the last two (2) years. Airbnb has reported that total nightly rentals have increased from 46,500 in 2016 to 83,800 in 2017.

Individual Mississauga STA rental history varies considerably from location to location. Below is the Mississauga STA statistical breakdown for 2017 provided by Airbnb:

- 30 or fewer nights: 31%
- 31-60 nights: 14%
- 61-90 nights: 11%
- 91-120 nights: 10%
- 121-180 nights: 19%
- +180 nights: 15%

The majority of Mississauga STA locations are based in condominiums and secondary unit/basement apartments. Further, the majority of STA listings are concentrated within the small geographical area of the downtown core.

### **Zoning Amendments**

A proposed zoning amendment is being brought forward to define STA's and will restrict STA's within a principal residence. The following are proposed Zoning By-law amendments:

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**Principal Residence** – means the dwelling unit where a person lives for the majority of a calendar year.

**Short-Term Accommodation** – means part of a dwelling unit that is the principal residence of the owner or leaseholder that is rented for temporary overnight accommodation for 30 continuous days or less.

Should the amendment be approved, persons who live a majority of the year at a dwelling unit will be permitted to provide temporary overnight accommodation to guests for a period not to exceed 30 days.

## Comments

### Proposed Licensing and Registration

Staff recommend a licensing requirement for STA companies (i.e. Airbnb) and a registry requirement for STA operators (i.e. principal resident owners). The proposed regulations will allow Enforcement to deliver services that increase consumer protection, public safety and community standards.

An overview of the proposed licensing and registration model is as follows:

### Company Licensing

A Short Term-Accommodation Company will be defined as (subject to review by Legal Services):

*“Any person or corporation in the business of facilitating or brokering requests via a web-based platform for short-term rentals not owned/operated by the short-term rental company and who receives reimbursement/compensation/payment/other financial benefit as a result of an individual completing a rental transaction of those short-term rentals; or who collects, or holds information on the number of nights that bookings of those short-term rentals are completed.”*

A Short Term-Accommodation Company will be required to:

- Prohibit operators from advertising listings that do not have a valid Mississauga issued registration number.
- Pay the proposed annual licensing fee of \$500.
- Pay \$1 fee for each Mississauga STA night booked.
- Provide the City with short-term rental activity information - including name/municipal registry number/civic address/number of nights each STA is rented within the intervals prescribed within the proposed by-law.
- Municipal data sharing requirements will be stipulated within the by-law.

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- Remove an operator from their company website within 24 hours of notification by the City that an operator on their platform is not registered and/or the registry has been revoked.

### **Operator Registration**

A Short Term-Accommodation Operator will be defined as (subject to review by Legal Services):

*“Any person/owner/tenant who operates a STA for a fee within their principal residence.”*

A Short Term-Accommodation Operator will be required to:

- Provide basic information, including contact name/information and address/contact information to Compliance and Licensing for contact person available 24 hrs/day, 7 days/week.
- Owners must update City registry information with any changes within 10 days.
- Provide declaration that the address is their principal residence.
- Provide declaration that tenant/condo owner's rental agreement or condominium by-law do not prohibit STA's.
- Provide approved government issued identification at time of application.
- Operators must post their City issued registration number in all advertisements for their STA.
- Keep records of all STA rental activity and provide to the City upon request.
- Provide guest emergency contact information to guests/Provide contact information for person available 24 hrs each day.
- Pay the proposed annual registration fee of \$50.

### **Licensing and Registration – Supporting Community Standards**

The proposed model will provide the following benefits:

Minimal Impact to Operator – Ultimately, the goal of the regulatory intervention is to ensure public protection, while maintaining operator independence. The proposed regulatory framework places minimal burden (financial time constraints) on operators in an effort to ensure staff can fulfill its mandate to protect the public and ensure community support for this emerging business, by minimizing nuisances commonly associated with STA's.

Promote Compliance – In knowing the STA's that participate in this business, Compliance and Licensing can more effectively educate companies, and patrons about risks, contingency plans, etc. This is viewed as a collaborative approach that benefits the industry, the municipality and the community.

Enables a Graduated Enforcement Approach – In an effort to be fair and transparent, graduated enforcement allows for aggravating and mitigating factors. This process is consistent with current enforcement practices for established licensing categories.

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Reduces the Burden on other City Enforcement/Inspection Agencies/Departments – Under the registry model for operators, Compliance and Licensing would be exclusively responsible for maintaining the registry. The company licensing requirements would not require the typical inspections (Fire, Public Health, Property Standards) found in other licensing regimes.

### **Enforcement Action Plan**

Staff have developed a robust enforcement plan that will include education, monitoring, investigation and non-compliance action. Below is an overview of each component:

#### Education

Voluntary compliance through education is the most desirable outcome. Consultation and support of the short-term rental industry is crucial for the by-law's success, as is a comprehensive public and operator education campaign. Staff have established collaborative working groups with interested STA companies and are working closely with Communications to ensure a successful educational campaign is developed.

#### Monitoring

Dedicated staff will monitor online activity to ensure that licensed STA companies are only advertising registered Mississauga STA locations. Staff will cross-reference the data provided by the licensed companies with their online findings and report any discrepancies to enforcement officers who will then investigate.

#### Investigation

Enforcement officers will commence an investigation within 48 hours of notification from staff and/or a community complaint. Officers will complete a site inspection at each residence; speak to the applicable owner/operator for possible evidence collection and ensure voluntary compliance is obtained. Should efforts to obtain voluntary compliance through education fail, Officers will utilize an escalated enforcement approach, including monetary penalties and possible registry revocation. To further enhance response times to STA nuisance complaints, staff have been in discussions with the Peel Regional Police Service to establish a protocol for an overlapping and coordinated enforcement approach regarding STA properties.

One investigative challenge that staff will face will be confirming the existence of an STA. Municipalities cannot enter dwellings without the permission of the homeowner, unless a warrant has been issued by the Court. This is the same challenge that staff face with respect to the enforcement of the Second Unit Registry. Other challenges include identifying corporations and individuals based on online content.

#### Non-Compliance

Where non-compliance has been verified through an investigation, staff will generally provide the company or operator with a 30 day grace period to make formal application to have the STA location registered or company licensed. Charges for non-compliance would be issued, but only in scenarios in which all avenues of voluntary compliance have been exhausted. Below is an

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overview of enforcement scenarios and the appropriate non-compliance approach.

- **Unregistered Operator** – Officer will check database and review STA company website(s). Officer to complete a site visit to confirm same property. Officer will attempt to speak to owner. Should an issue be substantiated, a Notice of Contravention (NOC) with timelines to comply will be issued. The defendant will have two options - cease operation or register with the City. A formal written notification to STA company to remove operator from platform and the Officer will proceed with monetary penalties. (APS/Ticket).
- **Registered Operator** – nuisance control – Officer will check database and contact STA company for history on the property in question. Officer will contact complainant for more information regarding nuisance issues and then contact owner to discuss allegations. Officer will contact Peel Police for nuisance history. Officer will issue NOC and proceed with monetary penalties (APS/ticket) should compliance not be met. Registration revocation is possible and Officer would contact company platform to have operator removed from website.
- **Unlicensed Company** – Officer would provide written notification (NOC) and provide timelines for compliance. Consult Legal – monetary penalties (APS/charge).
- **Licensed Company** – Officer would provide written notification (NOC) and provide timelines for compliance. Consult Legal – monetary penalties (APS/charge) and licence revocation could be considered.

When an operator registration has been revoked, staff will contact the STA company platforms to provide formal notice that the operator must be removed from the company site within 24 hours of receipt of the City's written notice.

The City may apply for set fines once a by-law has been approved by Council. The fine amounts will be consistent with other licensing categories.

### **Data Management**

A formalized data sharing agreement section will be included in the by-law. This requirement will ensure secure, consistent and approved STA operator/rental night information is accessible for municipal auditing purposes. The proposed by-law will require all STA companies to adhere to the data sharing provisions for consistency and transparency. No information collected and transferred to Compliance and Licensing will be shared with any internal or external stakeholder. Secure data sharing licensing requirements between the City and STA companies will stipulate required content and timelines for data sharing.

### **Force and Effect Date**

The by-law enactment date is at the discretion of Council and staff recommend July 4, 2018.

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### **Community Consultation**

Community consultations have been conducted by the Planning Department and was previously reported to the Planning and Development Committee. Consultation results identified the following community concerns as the basis for the introduction of proposed STA municipal registry framework:

- STA can pose nuisance issues (parking, noise, garbage concerns);
- Concerns for reduced rental housing stock and affordability; and
- Preserving community character.

Previous community consultation suggests significant support for permitting STA's with a regulatory framework in place.

Industry stakeholder meetings were also conducted by Enforcement. Airbnb and other STA companies were consulted, and discussions pertaining to specific requirements of the proposed by-law were generally supported. STA companies requested flexibility in any municipally imposed regulations. Companies also requested licensing fees reflect the STA market share within the City of Mississauga to ensure compliance with licensing requirements was not cost prohibitive.

### **Financial Impact**

The proposed fees support administrative and enforcement activities, and places the responsibility of such costs on the industry and not the general tax base. The expected 2018 municipal costs for enforcement and administration is \$113,500 inclusive of salaries, benefits, municipal communication functions and associated costs, and IT programming costs.

The costs associated with the new program will be absorbed, on a cost recovery basis, with the proposed fees. Companies will be required to pay an annual licensing fee of \$500 and pay a \$1 per night for every STA booking in the City of Mississauga from the company platform. Operators will be required to pay an annual, nominal, \$50 registration fee.

Based on the estimated 800 operators with an annual registration fee of \$50, the total registration revenue will be \$40,000. The proposed annual fee of \$500 is assumed for the two companies Airbnb and Expedia, for a total of \$1,000. In addition, based on 2016-2017 trends, the projected nightly rentals for 2018 are expected to be \$72,500. The anticipated cost recovery revenue is as follows:

2018 Revenue Projections		2018 Expenses	
800 Operators	\$40,000	Administration (Pay Grade C)	\$45,000
Company Licence	\$ 1,000	Enforcement (Pay Grade E)	\$58,500
STA Booking Fee	\$72,500	I.T. Costs	\$10,000
<b>Total</b>	<b>\$113,500</b>	<b>Total</b>	<b>\$113,500</b>

2019 Revenue Projections			
<b>800 Operators</b>	\$40,000	\$40,000	\$40,000
<b>Company Licence</b>	\$1,000	\$1,000	\$1,000
<b>Booking Growth</b>	<b>0% Growth</b>	<b>50% Growth</b>	<b>100% Growth</b>
<b>STABooking Fee</b>	\$145,000	\$217,500	\$290,000
<b>Total</b>	<b>\$186,000</b>	<b>\$258,500</b>	<b>\$331,000</b>

2019 Expenses	
Administration (Pay Grade C)	\$66,069
Enforcement (Pay Grade E)	\$99,798
<b>Total</b>	<b>\$165,867</b>

Furthermore, as previously mentioned, a new cost centre will be set up in order to track this activity.

## Conclusion

The proposed company licensing and operator registry provisions are designed, and intended, to support existing by-laws to deter and control nuisance behaviour. Operator registration data collection will ensure each person registers only one civic address. Further, operator registration



requirements ensure hosts can be easily identified by the municipality and held accountable for any negative activities that take place in their STA rental property. The City will have the ability to revoke a registration, should the operator violate any law or has operated the STA in a manner that is creating a health and safety concern.

## Attachments

Appendix 1: Request for Full-Time Employees

Appendix 2: STA Platform Chart

Appendix 3: Canadian Jurisdictional Scan of STA Licensing



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

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

**Request for Full-Time Employees**

**2018**

<b>Job Title</b>	<b>Grade</b>	<b>FTE</b>	<b>2018 Total Salary and Fringe Benefit Budget</b>
Administrative Assistant	C	1.0	\$35,677
Enforcement Officer	E	1.0	\$46,223
<b>Total</b>		<b>2.0</b>	<b>\$81,900</b>

**2019**

<b>Job Title</b>	<b>Grade</b>	<b>FTE</b>	<b>2019 Total Salary and Fringe Benefit Budget</b>
Administrative Assistant	C	1.0	\$66,069
Enforcement Officer	E	1.0	\$99,798
<b>Total</b>		<b>2.0</b>	<b>\$165,867</b>

## **STA Platform Chart**

Staff collected the following information on STA companies that support Mississauga STA operators. Staff received specific Mississauga statistics from Airbnb (all platforms had been sent correspondence with only Airbnb providing data at the time of this report) and available open source data research.

<b>Company</b>	<b>Estimated Number of Listings</b>	<b>Average Length of Stay</b>	<b>Company Geography</b>	<b>Has CLE Made Contact?</b>
Airbnb	700	5.5 nights	International	Yes
Booking.com	139		International - based in Amsterdam	Yes
Kijiji (eBay)	47		Canadian	No
Expedia/HomeAway/VRBO	Expedia 97/HomeAway 277/VRBO-cannot confirm #		International	Yes
Craigslist	853 (Toronto and Peel numbers together)			No
FlipKey	115			Yes
TripAdvisor	114			
Premier Suites	6			Yes
BB Canada	2			
Sabbatical Homes	3	Most are monthly but weekly is available	International	Yes
Maplewood Suites	1	Min. stay 28 days		
City Gate Suites	9	Min. stay 30 days		
Platinum Suites	5	Min. 4 night stay		Yes
HomeToGo	4540 (GTA wide)		International	Yes
HouseTrip (TripAdvisor Rentals)	115			No
Wimdu	41			

## Canadian Jurisdictional Scan of STA Licensing

The following chart was developed by the City of Toronto and has been updated by staff to reflect the most current Canadian municipal jurisdictional regulatory scan.

Jurisdiction	Operator Licence or Registration	Operator Fees	Company Licence	Principal Res. Only	Limit on the number of nights rented	Safety Provisions	Nuisance Provisions
<b>Toronto (comes into force June 2018)</b>	✓ Operator registry	✓ Registration fee: \$50	✓ Licence application: \$5,000, plus \$1 per night booked	✓ Permits short-term rentals in secondary suites	✓ Entire dwelling rentals limited to 180 nights per year	✓ Emergency information (911, fire escape route) to guests  Comply with all laws, including Ontario Fire Code	✓ Emergency contact that is reachable while operator is away
<b>Oakville (Proposed)</b>	✓ Business and Operator Licence	\$237 proposed	\$44,500 proposed	Principal residence		ESA/HVAC/Minimum insurance/criminal record check	PS, Noise, Parking, BCA
<b>Province of Quebec</b>	✓ Classification Certificate	✓ \$247.78 + \$5.22 per unit annually	X	X	X	X	X
<b>Vancouver (April 2018)</b>	✓ Business Licence	✓ \$49	X	✓ Prohibits short-term rentals in vacant secondary suites	X	✓ Fire and property standards/ building reqs.	✓ Landlord and strata permission required.
<b>Town of Blue Mountain</b>	✓ Business Licence – Initial and Renewal (2 year timeframe)	Initial Application: \$2500 – chalet \$1500 – condo +\$75 Fire/+\$75 PS Inspection fees  Renewal: \$1000 Chalet \$500 Condo	X	✓	✓ 30 consecutive days or less	Fire/Property Standards/ESA certificate	✓
<b>Niagara on the Lake</b>	✓ Business Licence	\$112 per licensed bedroom annual fee	X	✓	✓ 28 consecutive days or less	✓ By-law Services/Fire/Building Code Services	✓ Noise/Public Nuisance/Parking

Please note, other Ontario cities including, but not limited to, Burlington, Markham, Newmarket and Ottawa are reviewing current practices and exploring the possibility of introducing STA by-law provisions within their respective municipalities.



# City of Mississauga

## Corporate Report



Date: 2018/04/04

To: Chair and Members of General Committee

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

Originator's files:

Meeting date:  
2018/04/18

## Subject

**Transportation Demand Management Strategy and Implementation Plan**

## Recommendations

1. That the recommendations and action items contained in the Transportation Demand Management Strategy and Implementation Plan, attached as Appendix 2 to the Corporate Report dated April 3, 2018 from the Commissioner of Transportation and Works, be approved.
2. That Mayor Crombie, on behalf of City Council, send a letter to the Minister of Municipal Affairs to request amendments be made to *the Ontario Planning and Development Act, 1994*, to give municipalities more authority to request Transportation Demand Management measures through the development approvals process.

## Report Highlights

- In October 2016, the Transportation Projects Office engaged WSP to develop a Transportation Demand Management (TDM) Strategy and Implementation Plan ("the Plan").
- The goal of the Plan is to reduce single-occupant vehicle trips, particularly during peak times, and to make sustainable modes of transportation more viable options for Mississauga residents and employees.
- The Plan will be used to guide staff and the development community on the implementation of TDM strategies, through the development approvals process.
- The Plan identifies short, medium and long term opportunities for the City to lead TDM programming and initiatives, to encourage sustainable travel habits through both hard and soft measures.
- The Plan identifies that a letter be sent to the Ministry of Municipal Affairs from Mayor Crombie, on behalf of City Council, to amend the Planning Act to give municipalities more authority to request TDM measures through the development approvals process.
- The Plan identifies updated bike parking rates for developments and proposes their incorporation into the City's Zoning By-Law.

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- The Plan recommends the development of a TDM Working Group comprised of staff from various City business units, to coordinate efforts and further integrate TDM into existing and future initiatives.
- The Plan has established budget considerations for its recommended program items.
- As part of the 2019-2022 Business Planning and 2019 Budget process, a \$15,000 operating request for promotional materials will be made to support short-term TDM initiatives.

## Background

In October 2016, a consulting team from WSP was engaged to develop a Transportation Demand Management (TDM) Strategy and Implementation Plan (herein referred to as “the Plan”), with staff from the Transportation Projects Office as well as an extensive project team, representing many divisions and business units within the City.

Presently, the City’s TDM Coordinator is responsible for the review of development applications as they relate to TDM, and the coordination of the City’s other TDM initiatives. While a number of high-level policy documents, including the Provincial Policy Statement and the Growth Plan, recognize the importance and potential influence of TDM measures, the City struggles to require them through the development approvals process, due to a lack of authority through the Planning Act.

At the start of the project, the primary focus was the development approval process and the City’s ability to formally require TDM through that process. Simultaneously, the Plan aimed to identify opportunities for further engagement and education of Mississauga travellers, to help guide their transportation choices.

The study timing was ideal to align with the major goals and trends in ***Parking Matters: Mississauga’s Parking Master Plan***, the ***Mississauga Moves*** project, and the update of the City’s ***Cycling Master Plan***. These master plans all have a focus on increasing the use of, and improving infrastructure for sustainable transportation options.

## Comments

The Plan is intended to provide guidance on sustainable transportation initiatives for staff and also provide guidance through the development approvals process.

The City is growing at a rapid pace and development is becoming more densely populated. Demographic trends show that the number of apartment/condo and townhouse units in the city is growing rapidly, but single-detached growth has slowed. Research into transportation habits tells a different story. The majority of residents choose to move around our city by car even for short trips under 5 and 10 kilometres. This increases congestion and the strain on the City’s

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existing infrastructure. Short trips provide for the greatest opportunities for walking, cycling and taking transit; which can be encouraged with the implementation of TDM strategies.

Typical TDM strategies are numerous and defined by two broad categories:

- **Hard Measures** – which include physical infrastructure designed to make sustainable transportation a more viable option, such as bicycle parking, showers and change facilities, and pedestrian connections; and
- **Soft Measures** – which include programs and behavioural changes, such as outreach and educational campaigns, community-based social marketing, offering incentives and tele-working.

Through an extensive policy and best practices review, staff confirmed that higher levels of government and comparable municipalities to Mississauga recognize and encourage TDM strategies in the development of sustainable communities. The Growth Plan (2017), the Provincial Policy Statement (2014), the Region of Peel Official Plan (2016) and the Peel Sustainable Transportation Strategy (2018), all highlight TDM as a means to reduce single - occupant vehicle trips. However, this review also identified that the *Planning Act* does not currently provide municipalities with the authority to request TDM measures through the development approvals process. As a result, it is being recommended that the City of Mississauga make a formal request to the Ministry of Municipal Affairs to have the *Planning Act* amended to provide municipalities with greater authority to require TDM measures.

The Plan identifies current practices, highlights gaps and opportunities, and provides recommendations categorized in five themes, as discussed below: Coordinate, Promote, Enhance, Monitor and Evaluate and Advocate.

#### Coordinate

Action items identified in the theme of **coordinate** intend to foster collaboration among staff whose responsibilities relate to transportation. A key example is the development of a TDM Working Group.

#### Promote

At its core, TDM is about **promotion** and providing relevant information to make sustainable transportation an easy choice for residents and employees. The Plan recommends the development of a TDM webpage to provide ready access to transportation information.

#### Enhance

The Plan identifies opportunities for **enhancement** to partnerships and policies, to require TDM strategies. For example, the incorporation of bicycle parking requirements for new developments into the Zoning By-law is recommended by the Plan.



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### Monitor and Evaluate

To advance TDM in Mississauga and truly understand its impacts, the results of the action items need to be **monitored and evaluated**. There is little information currently available on the effectiveness of TDM on transportation behaviours; therefore it is important to assess the effectiveness of campaigns and initiatives.

### Advocate

The Plan has identified opportunities to **advocate** higher levels of government to improve municipal authority as it relates to TDM. The Plan recommends lobbying the Provincial government to update the Planning Act to give municipalities the authority to request TDM measures through the development process.

The TDM Action Plan provides a detailed listing of the recommendations by theme and can be found in Appendix 1 of this report. The Plan's recommendations are structured into short, medium and long term priorities, along with their associated financial implications. Some recommendations in the Plan are tasks that can be completed with existing staff resources, with little or no additional financial implications. Other items will require the allocation of funds that have been estimated in Table 13 on page 60 of the Plan, and can be found in Appendix 2 of this report.

Although the Plan does not set a timeframe for its update, staff recommends that it be updated at minimum every five years. With transportation-related technology changing at such a rapid pace, people's options and choices will change just as quickly. The Plan will need to remain up-to-date on transportation technology and trends, to be relevant to the public and their needs.

## **Strategic Plan**

TDM in Mississauga influences all five pillars of the Mississauga Strategic Plan. The strategies and action items of the Plan will clearly influence the way that Mississauga residents and employees **Move** around our City. As the City continues to intensify, having residents making sustainable travel choices is imperative. People will be able to explore their neighbourhoods on **Connected** trails, sidewalks and transit routes. This can also lead to a sense of **Belonging** in one's community when they explore it as a pedestrian or on a bike and have the ability to feel more attached to their neighbourhood, which is often lacking in automobile trips.

Reducing the number of single-occupant vehicles on City roads will reduce the production of greenhouse gas emissions and improve our abilities to be a **Green** city. TDM Strategies can also help the City to **Prosper**, by attracting innovative businesses who seek a creative pool of employees, who are continually changing the ways they want to work and access their places of employment.

## Financial Impact

As part of the 2019-2022 Business Planning and 2019 Budget process, a \$15,000 operating request for promotional materials will be made to support short-term TDM initiatives.

## Conclusion

The TDM Strategy and Implementation Plan provides a framework and recommended areas of focus for the City of Mississauga to support and promote TDM strategies and tactics. The recommendations of the Strategy guide next steps for strengthening policies and developing new programming, to support TDM in Mississauga. By following the steps outlined, staff can continue to influence the way the City is built and the decision-making of travellers.

## Attachments

Appendix 1: TDM Action Plan

Appendix 2: TDM Strategy and Implementation Plan

Appendix 3: TDM Strategy and Implementation Plan Appendices



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

Prepared by: Erica Warsh, Transportation Demand Management Coordinator

	Short-Term	Medium-Term	Long-Term
<b>Coordinate</b>	<p>Establish a TDM Working Group to, among other things, help integrate TDM and transit as well as TDM and major construction projects.</p> <p>Develop a formalized process for incorporating TDM soft and hard measures/TDM supportive infrastructure in the existing development applications process as part of a TDM Plan under existing legislation (Planning Act and City by-laws).</p>	<p>Update the formalized process for incorporating TDM soft and hard measures/TDM supportive infrastructure once legislation is in place giving City's the power to create enforceable undertakings (Planning Act and City by-laws).</p>	<p>Work to transition TDM programs to be fully self-funded by the community.</p>
<b>Promote</b>	<p>Establish a web-page on the City of Mississauga's website that provides a central location for information about all existing TDM programs in Mississauga.</p>	<p>Promote new active transportation facilities as they are being constructed and as they are opened.</p>	
<b>Enhance</b>	<p>Review partnership opportunities and assess City's ability to provide targeted outreach support to enhance TDM programs.</p> <p>Review and improve the City's current workplace programs for City staff through Smart Commute.</p> <p>Develop a program of internal incentives.</p> <p>Simplify the program so that staff understand its intent, services and benefits.</p> <p>Host lunch-and-learn sessions at workplaces across Mississauga.</p> <p>Create a TDM incentive program for the Hurontario LRT construction period. Relying solely on a communications plan will not likely be sufficient to encourage a shift to sustainable modes.</p> <p>Add bicycle parking requirements to the City's Zoning By-law, and develop a program to install bicycle racks throughout the City.</p>	<p>Create a comprehensive TDM outreach and education program.</p> <p>Work with property managers, condominium boards, community associations and others to encourage sustainable travel in neighbourhoods.</p> <p>Update the City's Traffic Impact Study guidelines to require the consideration of TDM measures and TDM-supportive infrastructure and design elements in development applications.</p> <p>Enhance Official Plan policies related to TDM, and ensure that the TDM section of the upcoming TMP is reflective of the TDM Plan and Implementation Strategy.</p>	<p>Update the TDM Strategy and Implementation Plan to ensure that it remains current and reflects changes in technology, land use, transportation infrastructure and services, and social concerns about climate change and public health.</p>
<b>Monitor and Evaluate</b>		<p>Evaluate "quick win" projects and programs to determine effectiveness, decide the need for continuation, and make improvements.</p> <p>Set up a formal review process for the delivery of existing TDM programs that the City is involved in to:</p> <ul style="list-style-type: none"> <li>a. Ensure the strategic positioning of the City in the delivery of TDM programs.</li> <li>b. Review new strategic partnership opportunities for the City to increase uptake of TDM programs for residents and persons traveling to and from Mississauga.</li> <li>c. Periodically evaluate City-funded programs against key performance indicators based on monitoring activities in the monitoring program.</li> </ul>	<p>Evaluate changes in context for TDM service delivery and determine how to incorporate them into the strategy as they occur.</p> <p>Update the outreach and education program to be consistent with changes in the delivery of City communications, and to be consistent with new technologies and programs.</p>
<b>Advocate</b>	<p>Work with the Province for amendments to the Planning Act that would allow municipalities to create enforceable undertakings that would require developers to:</p> <ul style="list-style-type: none"> <li>a. Provide a number of TDM hard measures in accordance with a new TDM policy that would require a certain TDM standard to be met as part of as part of the urban development process for a defined period of time.</li> <li>b. Provide, support and oversee the implementation and monitoring of TDM soft measures beyond the opening day of developments for a defined time period.</li> </ul>		



# TDM Strategy and Implementation Plan



MISSISSAUGA

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# 1 Introduction

**The City of Mississauga is growing at a rapid pace and this means a greater demand for mobility options with more people moving around.**

There are physical limits to how much the City can increase the capacity of its road network. The impact of continued growth in motor vehicle trips, particularly single occupancy vehicles, is undesirable as it is both costly to maintain facilities and causes environmental harm. To move people and goods more efficiently, it is clear the City needs to enable and encourage more sustainable modes of transportation.

This Transportation Demand Management (TDM) Plan builds on related work already completed by the City, and by other levels of government including the Region of Peel and the Province of Ontario.

This plan emphasizes the importance of TDM for an urbanizing city, and recommends actions for decreasing automobile use by increasing the attractiveness of sustainable modes including walking, cycling, carpooling and transit.

Table 1: A Decade of Growth

	2006	2016
<b>Area</b>	292 km <sup>2</sup>	292 km <sup>2</sup>
<b>Population</b>	500,000	722,000
<b>Jobs</b>	400,000	428,000
<b>MiWay Routes</b>	50	54
<b>Dedicated Transitway</b>	0 km	18 km
<b>GO Rail Stations</b>	6	6
<b>Bike Routes</b>	400 km	474 km

# What is TDM?

**TDM is a set of strategies that results in more efficient use of the transportation system.**

Effective TDM results in more efficient use of the transportation system by influencing travel behaviour by mode, time of day, frequency, trip length, regulation, route, or cost.

The 2006 Places to Grow Growth Act identifies some examples of individual TDM measures that can be found in Table 2. The Draft Regional Transportation Plan (Metrolinx 2017) identifies that TDM program delivery is not solely a municipal responsibility, but rather that it *'can be advanced by encouraging private sector leadership, participation and investment with mandated participation by large employers, institutions and other venues that generate a significant number of trips'*. In other words, partnerships are considered a key success factor for TDM.

Figure 1: TDM Plan Example

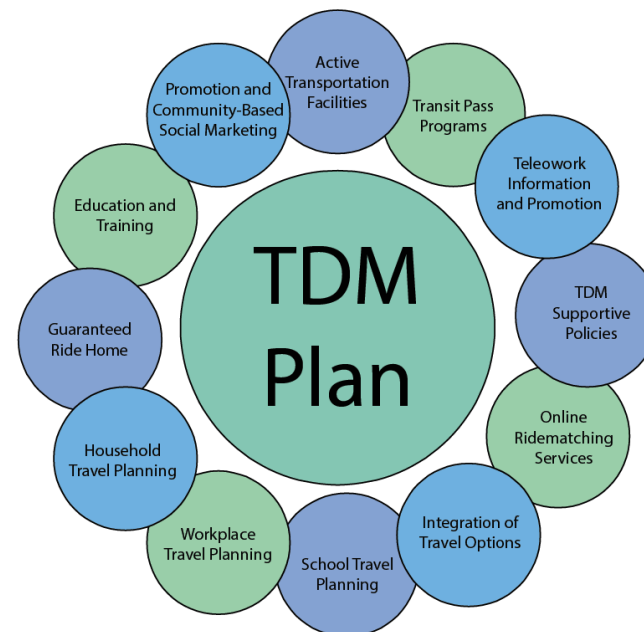


Table 2: TDM Strategies

Examples of TDM Strategies	
Carpooling	Telecommuting
Parking Management	High Occupancy Vehicle (HOV) Lanes
Site Design and On-Site Facilities that Support Transit and Walking	Park-and-Ride Facilities
Bicycle Facilities and Programs	Incentives for Ride-Sharing, Using Transit, Walking and Cycling
Pricing (Road Tolls or Transit Discounts)	Initiatives to Discourage "Drive-Alone" Trips by Residents, Employees, Visitors, and Students
Flexible Working Hours	





# TDM Definitions

**TDM is designed to influence travel behaviour and this involves a range of factors and decisions. The following definitions are used in this report to help the reader understand the full range of TDM activities.**

Table 3: TDM Definitions

TDM Definitions		
TERM	DEFINITION	EXAMPLE(S)
<b>TDM Measures</b>	The individual human-based activities and physical infrastructure that help to shift travel behaviour from predominately single occupant vehicle travel to more sustainable modes. These can be classified a number of ways. One useful distinction is to differentiate between hard measures and soft measures.	Carpooling Walking and Cycling
<b>Hard Measures</b>	Refer to physical infrastructure provision as TDM supportive infrastructure	The Mississauga Transitway, bike parking, pedestrian connections and carpool parking spaces.
<b>Soft Measures</b>	These refer to activities that engage and educate people on their travel options and incentivize travel behaviour change.	Walking School Bus
<b>TDM Programs</b>	According to the Institute of Transportation Engineers (2016) 'TDM plans or programs focus on enhancing traveler mobility'. Traditionally, TDM programs have focused on employer-based strategies. The goals for TDM programs at development sites are much more targeted on desired mobility outcomes. Such outcomes are often defined in the zoning by-laws that require developers to provide mitigation strategies and TDM supportive infrastructure for expected development-related trip generation.	Company-based ridesharing, vanpools, telework programs, SmartCommute
<b>TDM Tools</b>	Defined as supporting one off or fixed term actions that complement and enable TDM measures. They can be standalone activities that are not necessarily time-specific or dependent on the implementation of other TDM measures.	Information campaigns Competitions Data collection and analysis
<b>'Push' and 'Pull' Techniques</b>	It is common to distinguish between 'push' and 'pull' techniques in TDM to help distinguish between voluntary behaviour change and change driven by economic factors. Pull measures are designed to increase the attractiveness of alternatives to single occupant vehicle use and pull people towards sustainable modes, while push techniques typically involve an economic incentive that often involves adjustments to the input costs to transportation and the final price that users pay when they make travel decisions. For example, when non-sustainable forms of travel begin to reflect their true societal costs such as the cost of congestion, pollution and health costs, this often pushes people to more sustainable modes and consequently leads to modal shift.	Pull techniques: Increases in source levels for transit Discounts for transit alternatives to single occupancy vehicle travel  Push techniques: Gas taxes Expanding road space for transit at the expense of private vehicles Parking fees and charges Increase in parking fees

# TDM Benefits

**Successful TDM strategies lead to a reduction in the number of single occupant vehicle (SOV) trips on City roads. There are a number of benefits to the City and residents when TDM strategies are effective.**



## Transportation

The most obvious benefit from a successful TDM strategy implementation is increased levels of mobility through the City. Fewer cars on the roadways leads to less congestion and a more inviting environment for walking and cycling.

The reduction in automobile trips also benefits the life cycle of the City's transportation infrastructure. Motorized vehicles, including cars, put significant strain on our roadway network and reducing their impacts can help to increase the length of time between road resurfacing or reconstructions.



## Environmental

Reducing SOV trips and encouraging the use of other modes of transportation will reduce the amount of greenhouse gas emissions (GHG) produced in Mississauga. The reduction of GHGs also leads to cleaner air and better community health. Less car travel means lower fuel consumption by Mississauga residents, businesses and employees. Encouraging the use of active transportation or public transit can significantly reduce environmental impacts in the city such as urban heat island effect, excess storm-water runoff, idling in congested traffic, and levels of particulate matter. Air pollutants for example have been shown to be a leading cause of respiratory disease in the community.





## Economic

Mississauga is always looking to attract more businesses to the City and retain existing investors. Those investors are finding that the current and future generation of workers do not necessarily want to drive their cars to work every day. By ensuring that there is a connected network of bus routes, active transportation facilities and teleworking program support, Mississauga businesses can attract the best and brightest of the workforce while maintaining their location in the City.

Economic benefits are also likely on an individual level. Across Canada, transportation typically accounts for 20% of household spending on goods and services. TDM can help families reduce or eliminate their car usage and related costs. For example, an individual who is permitted to work from home occasionally could save money on gas, parking and vehicle maintenance costs.



## Social

Driving alone in a car is the least social way to move around. There is little opportunity for social interaction when driving. Walking, cycling and taking public transit increases social connections and allows residents to feel a sense ownership for their community. TDM can also promote efficient and healthy site design that reduces surface parking and helps to facilitate better opportunities for land use intensification as well as greater use of transit, walking, and cycling.

TDM also helps to improve overall community health and physical activity levels by decreasing the volume of cars on roadways. Connected walking, cycling and transit networks also increase the range of travel options for a variety of demographics within our community and increases equitable access to transportation particularly for those who do not work or cannot afford to own a private vehicle but still have mobility needs.

# TDM in Other Cities

**There are many communities across Canada, North America and worldwide that have looked to TDM strategies to alleviate congestion issues.**

Through this study, the practices of a number of comparable municipalities were reviewed to formulate a number of best practices for TDM.

As mentioned above, TDM strategies can be separated into two key categories: hard and soft measures. A brief overview from the best practices research for each category is provided below. Through this detailed review a number of common approaches were discovered (additional best practices can be found in Appendix A).

Amsterdam, The Netherlands





## Hard Measures

When it comes to new development, getting TDM strategies integrated into development agreements and plans can be a challenge. To combat this, a number of cities have started to rely on TDM checklists to help guide developers in the integration of TDM into their new developments. Checklists provide guidance and suggest a suite of options for developers to select from when submitting a new application. Some Ontario municipalities that have developed checklists include the City of Hamilton, the Region of Waterloo, the Region of Peel and the Town of Ajax.

Figure 2: Example of a Bus Shelter or “Hard” TDM Measure



## Soft Measures

A key element of TDM is helping individuals fully understand their travel options. People often do not realize what opportunities there are for them to complete their daily travel needs. Other communities have worked with employers to offer programming directly through the workplace. Examples reviewed come from York Region, Region of Peel, the City of Hamilton, and City of Ottawa.

Individualized marketing projects can take many forms but at their core they intend to help people understand the different ways they can move around through trip planning and offering incentives. The example from York Region is explained below and others are detailed in Appendix B.

York Region is currently working on a TDM program called MyTrip. This program helps residents make informed decisions to improve their commute, reduce stress and save participants time and money. Six communities within York Region are working with travel ambassadors to determine how the program could help them and their travel. Incentives, such as pre-loaded Presto transit fare cards have been offered.

# Why TDM Now?

**The City of Mississauga continues to transform from a sprawling suburb to a more urbanized community.**

Future growth opportunities for a road network to support suburban built form are very limited. There are few prospective roads to construct or widen to support the future growth in population that will lead to more trips being accommodated, particularly during peak hours.

The City is at a crossroads where population and employment growth will continue to intensify communities but new trips will need to be accommodated through alternative modes.

To this point, significant work has been and continues to be done to create connected networks of infrastructure. The City has numerous plans that address cycling, sidewalks, and transit networks but more work can be done to incentivize these modes and lead to behaviour change related to mode choices.

Intensifying development provides the greatest opportunity for TDM and now is the time to capitalize on the current development climate to call on residents, employees, businesses, developers, staff and councilors to assist with this shift.

Figure 3: Wider Sidewalks in Port Credit Promote Greater Levels of Physical Activity



# Development of The Plan

**This TDM Plan was a project by the City of Mississauga and prepared by WSP Canada Group Limited.**

TDM relates to the work of a number of City departments and therefore a project team was brought together to help provide direction for the development of the plan. The project was led by the City's Transportation Projects Group as a part of the Transportation and Infrastructure Planning Division.

City Divisions represented on the project team are identified below in Table 4.

Table 4: TDM Project Team

TDM Project Team	
Transportation Projects	Development and Design
Active Transportation	Development Engineering
Policy Planning	Legal Services
MiWay (Municipal Transit)	Municipal Parking
Economic Development	Transportation Planning

Figure 4: A New Condo Development in Mississauga



# Organization of the Plan

The table below provides an overview of the plan and how it is organized. Following the main document are several appendices with supporting information.

Table 5: Overview of Report Chapters

Report Chapters	
<b>Chapter 1</b>	Provides an overview of Transportation Demand Management (TDM) and why it is important for Mississauga to include in its transportation planning. TDM terms and benefits have been defined within the chapter. The chapter also provides an overview of TDM in other municipalities.
<b>Chapter 2</b>	A profile of Mississauga has been developed in Chapter 2. Included are general information about the community such as demographics, languages spoke, employment and income, household size and dwelling type. Key transportation statistics within Mississauga have also been incorporated into this chapter. When combined with a policy framework review that was undertaken for this project, the community overview reveals insights into demographic trends which will be important to delivering TDM programs in the future. This Chapter also includes a summary of the Policy review conducted.
<b>Chapter 3</b>	Discusses the TDM framework for the project. The framework includes the objectives of the plan, the legal framework within which it was developed, and the measures and tools to be used as part of the plan.
<b>Chapter 4</b>	A discussion about the required strategies for moving forward is presented in this chapter. Included within this chapter are: the integration of TDM into the development approval process, programs and infrastructure that should be considered within new developments, impact of TDM on mitigating traffic concerns during the construction of large infrastructure projects and partnership opportunities that the City should pursue to increase the use of sustainable travel options.
<b>Chapter 5</b>	The Action Plan for TDM in Mississauga. TDM strategies are discussed and defined, building upon Chapter 4. The Action Plan establishes a plan for implementing TDM measures; including the key steps in the implementation process. Recommendations for outreach, marketing, and education are also provided with a link to an appendix outlining more detailed plan for promoting TDM programs.
<b>Chapter 6</b>	Discusses conclusions and recommendations of the program, including short, medium and long term actions and goals for the City to undertake.



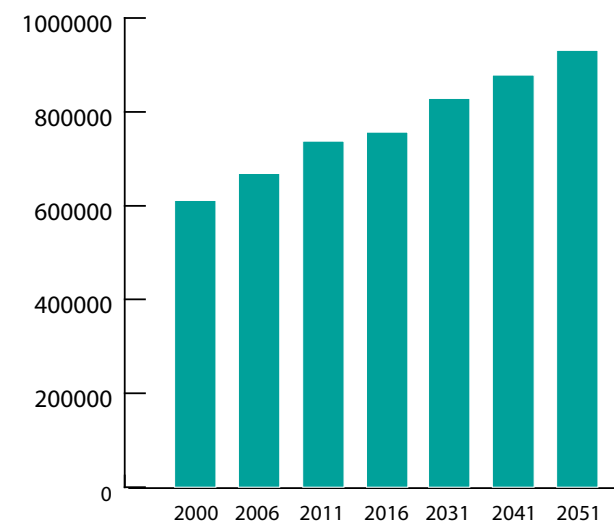




## 2 Transportation Trends Today

The City of Mississauga is one of the fastest growing municipalities in the Greater Golden Horseshoe Area, with a population that has increased by 1.5% annually since 2000. Its population is expected to grow from about 766,000 in 2017 to 930,000 in 2041, which will drive the demand for mobility and put great pressure on the city's road network unless TDM measures are put in place.

Figure 5: Historical Population and Future Projections for Mississauga

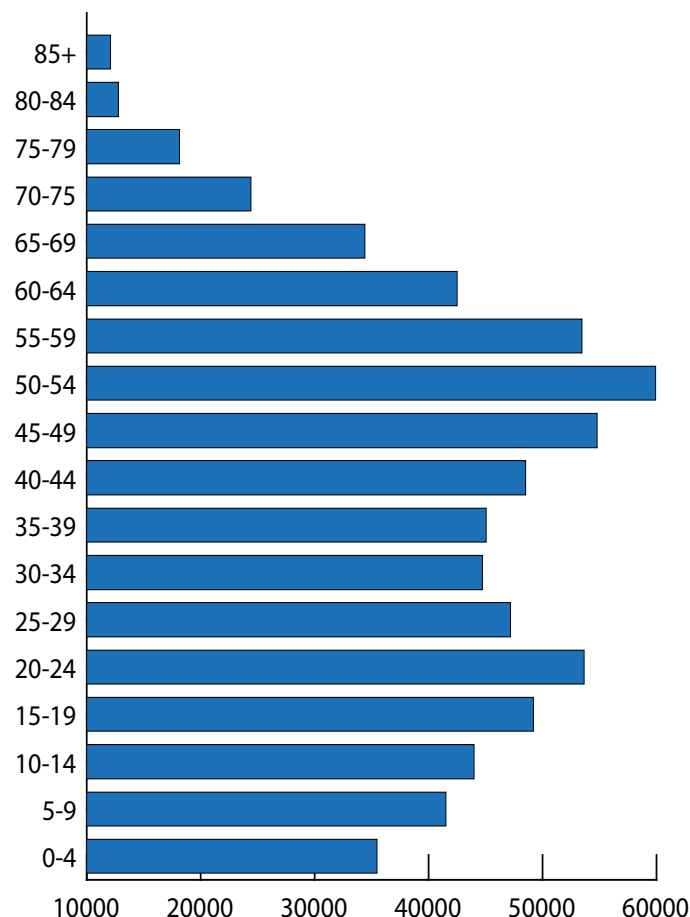


**Mississauga's population is predominately working-age and family-oriented.**

Breaking down Mississauga's population by age presents an interesting picture of the future. Today's largest single age cohort is between the ages of 50 and 54, indicating that there will be many people retiring in the next decade or two. This will lead to changes in both housing choices and travel habits.

Despite the aging population, Mississauga is still a family-oriented community, and about 69% of the City's population is of working age (between 15 and 64, according to Statistics Canada). This means that TDM measures that target commuting and other home-based trips can have a large impact. The significant millennial population, which is internet-savvy and highly connected, is also likely to respond to TDM marketing campaigns that use social media platforms.

Figure 6: Age Characteristics of Mississauga (2016)



Source: City of Mississauga - Population, Demographics & Housing Survey (2016)



**Mississauga is diverse.**

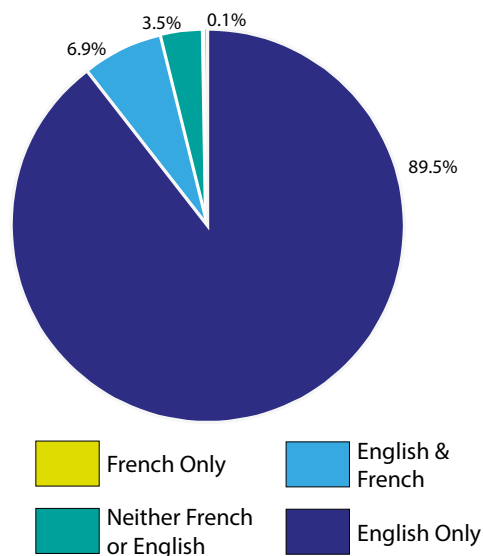
Mississauga is growing as a result of its proximity to Toronto and is a multicultural community. This is reflected in its diversity of languages and activities. A majority of residents speak either English or French, however many of Mississauga's residents have a mother tongue that is not one of Canada's official languages.

More than half of residents whose first language is not French or English indicate that their mother tongue is a Chinese language, Urdu, Polish, Punjabi or Arabic. Mississauga has a large Asian population from a wide array of countries, and there is a trend of increasing

immigration from Asia with most newcomers coming from India, Pakistan, Philippines and China. Polish, Spanish and Portuguese are the most prevalent European languages other than English and French.

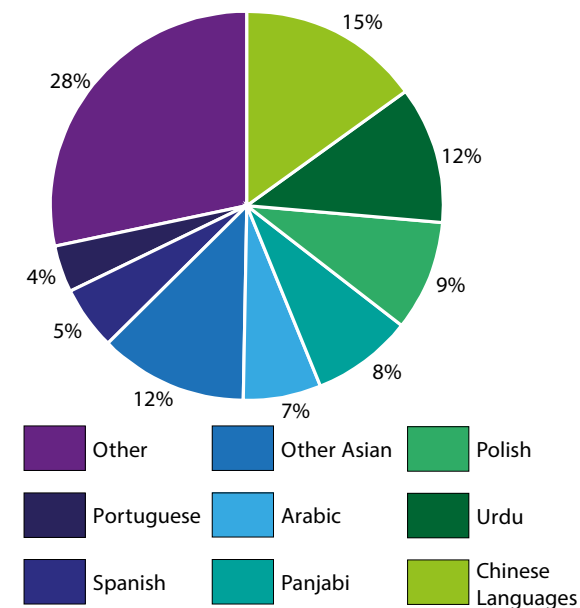
In developing and delivering its TDM program, Mississauga must take this ethnic and linguistic diversity into account. This includes helping new residents understand the full breadth of mobility options available to them and in many cases tailoring and delivering useful information on transportation options and programs to residents with special linguistic needs.

Figure 7: Proficiency of First Languages



Source: City of Mississauga - Population, Demographics & Housing Survey (2016)

Figure 8: Major Mother Tongues Other than English or French



# Travel Behaviour

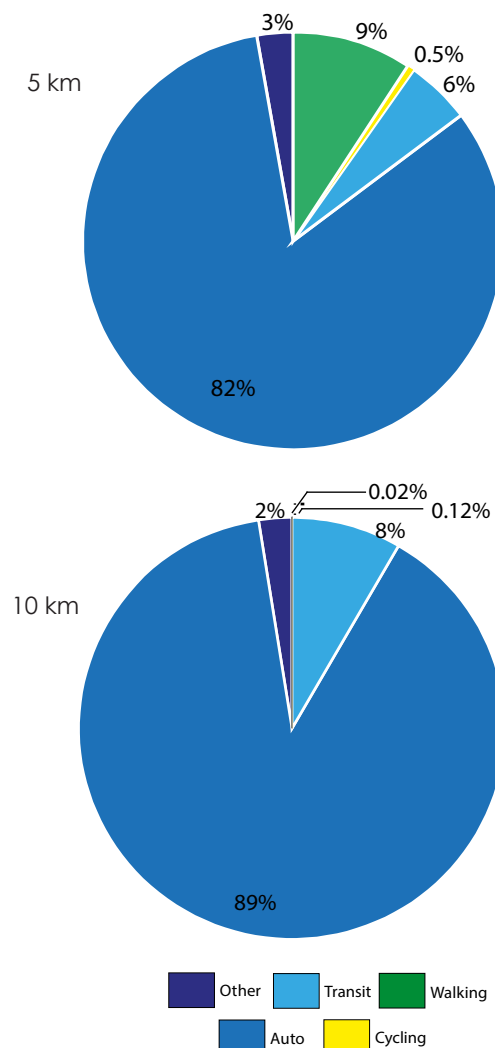
## The opportunity to create more sustainable travel patterns for both short and longer distance trips.

The 2011 Transportation Tomorrow Survey records travel behaviour across the GTHA, including Mississauga. The travel data can be analyzed and broken down by time of day, origin, destination, mode of transportation and other criteria to give a snapshot of typical travel behaviour within Mississauga.

Analysis of data from 2011 reveals that the private automobile remains a dominant mode of transportation for all trips, even those less than 1km or 2km in length. Shorter distance trips represent low hanging fruit for TDM and potential to reduce car trips.

There are also some notable travel characteristics that provide a healthy evidence base for an increase in sustainable travel. In 2011, walking represented a quarter of all trips undertaken within Mississauga under 1km. The vast majority of transit trips (>85%) are split almost equally between those trips that are 2-5km and 5-10km in length. The data shows that continued development of TDM tools, measures and programs to increase the percentage of both short and longer distance trips within Mississauga by sustainable modes is substantial.

Figure 9: Mode Share per travel type for 5 km, and 10 km



Source: Transportation Tomorrow Household Travel Survey (2011)



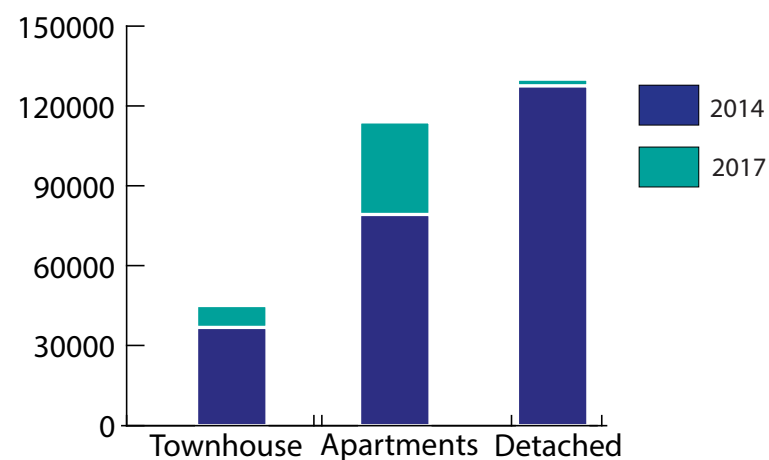
# Land Use & Housing

**Mississauga expects that most future increases to housing inventory will be driven by the trends towards apartments and condominiums.**

Over the past decade, Mississauga has experienced consolidation of land to facilitate urban expansion. From 2011 to 2017, 327 hectares of vacant, farmland and public lands have been reallocated for open space and commercial/office/mixed-use developments. Over that period, the amount of land used for residential development increased by 39 hectares (0.4%) while the City's population grew by 2.6%. This indicates that dwelling types are shifting towards higher-density forms of housing such as condominiums and townhouses.

Mississauga expects that most future increases to housing inventory will be driven by the trends towards apartments and condominiums. The number of detached and semi-detached housing types is only expected to grow by 2,338 units by 2041, meaning that future residential areas are likely to be denser than today's older neighbourhoods. This denser residential form is well-suited to the delivery of residential TDM programs as it can often provide the 'critical mass' needed for these programs to succeed.

Figure 10: Housing Units in Mississauga by Type



Source: City of Mississauga - Population, Demographics & Housing Survey (2016)

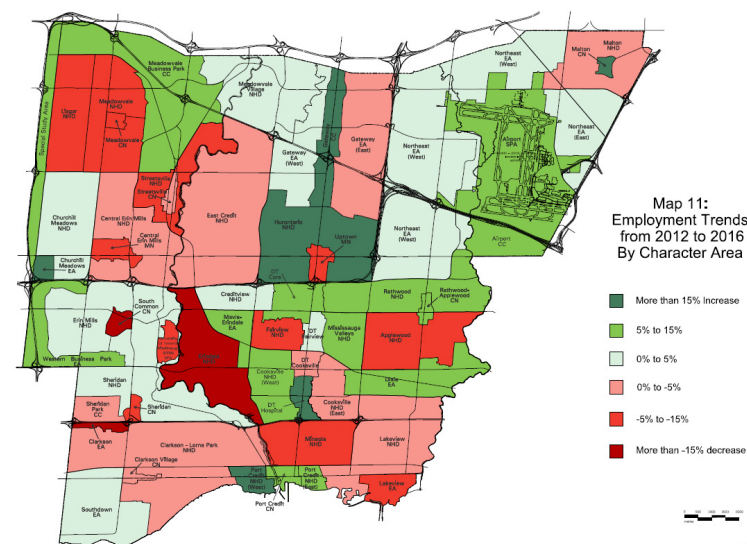
# Employment

Employment in Mississauga has grown steadily, with over 10,000 jobs created between 2013 and 2017. During that period the number of businesses also increased. Service-based sectors are driving employment and business growth in Mississauga, while manufacturing and wholesale trade are shrinking.

Job growth is occurring throughout the City, in particular around the downtown area, Pearson Airport, Meadowvale and Western Business Parks and the Port Credit Area. If this new employment is primarily non-shift, service-based jobs then there is an opportunity to implement effective workplace TDM programs.

It is worth noting that over 650 businesses in Mississauga have been identified as employing more than 100 people (source: City of Mississauga – 2017 Employment Profile).

Figure 11: Employment Trends in Mississauga



Source: City of Mississauga - 2017 Employment Profile





# Transportation Trends

At present, Mississauga is a largely car-oriented city. In 2011, 62% of trips originating from Mississauga and 70% of trips to Mississauga were made by drivers of single-occupant vehicles (2011 Transportation Tomorrow Survey), with transit and active transportation playing secondary roles. However, current and planned investments in regional rail, bus rapid transit (BRT) and light rail transit (LRT) are intended to support growing transit ridership.

Most trips to and from Mississauga are the result of commuting and other home-based trips, meaning that TDM programs for commuters and workplaces may be very effective in shifting travel demand from single-occupant vehicles to more sustainable modes. Other trips, which are made for diverse reasons and tend to be irregular in nature, may be harder to address.

Figure 12: Growth in Sustainable Modes for Daily Trips Between 2006 and 2011

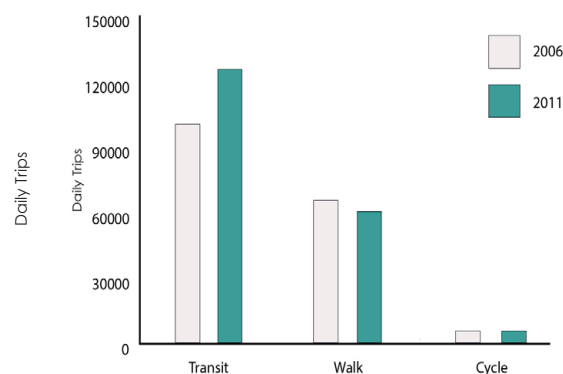
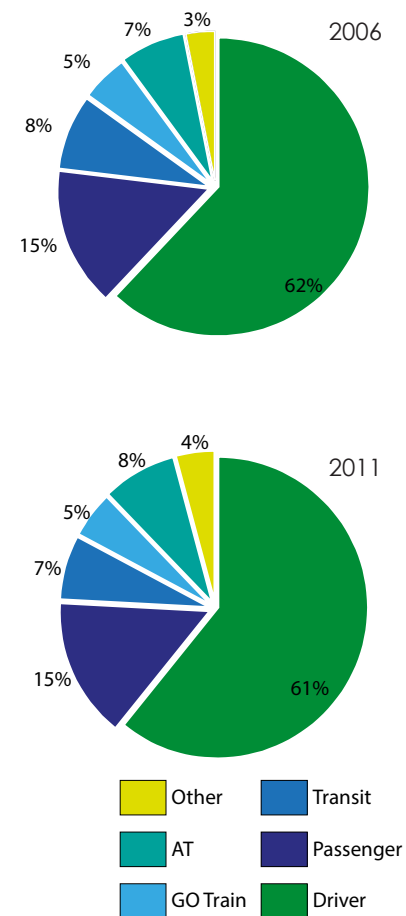


Figure 13: Mode-Split from 2006-2011 in Mississauga



Source: Transportation Tomorrow Household Travel Survey (2011)

**On a typical weekday in Mississauga, 0.3% of all trips are made by bicycle.**

From 2006 to 2011, the share of travel by active transportation (cycling and walking) did not grow significantly. However, since 2011 Ontario has developed a provincial cycling strategy and the City of Mississauga is currently updating the 2010 Cycling Master Plan. TDM measures provide essential support to new active transportation infrastructure.

On a typical weekday in Mississauga, 0.3% of all trips are made by bicycle. 84% of these trips are 5 km long or less. There are approximately 457 030 automobile trips 5 km or less. Many of these trips could feasibly be taken by other modes.

Figure 14: Purpose of Bicycle Trips in Mississauga

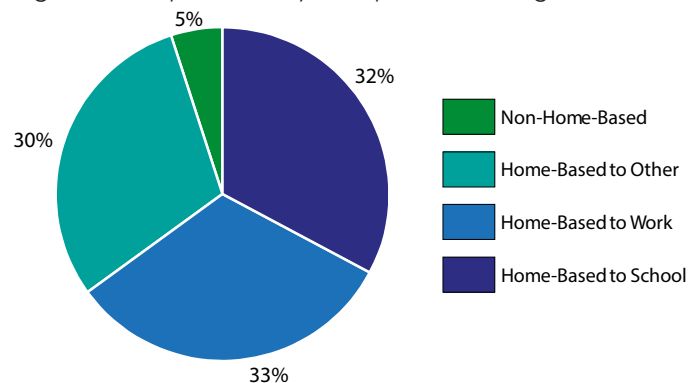
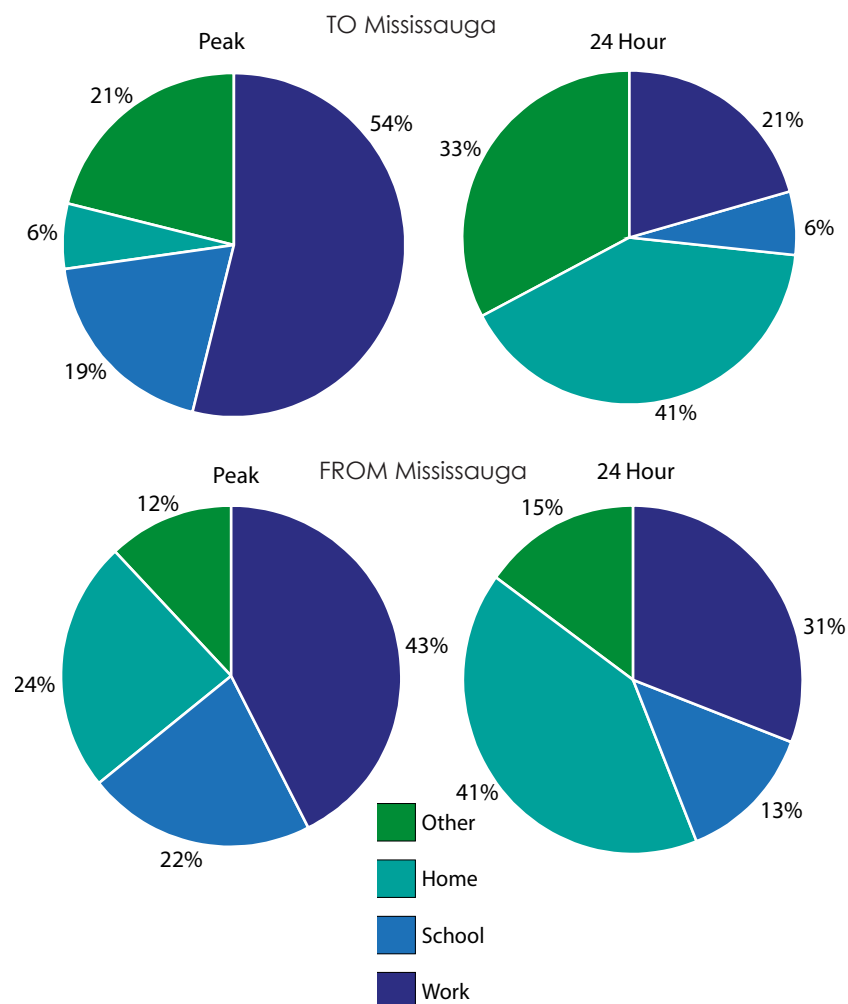


Figure 15: Trip Purpose TO and FROM Mississauga



Source: Transportation Tomorrow Household Travel Survey (2011)





# Policy Framework

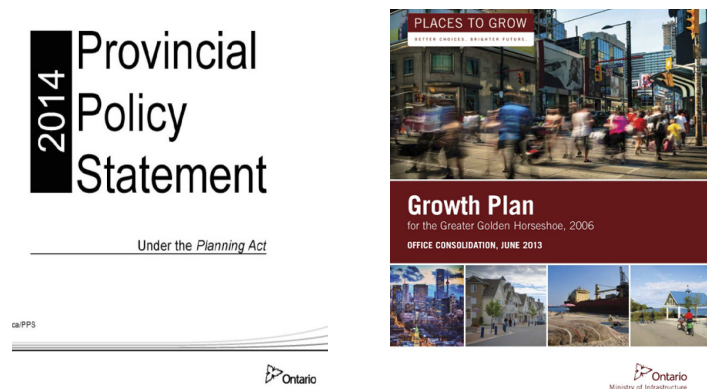
**There are a number of Federal, Provincial, Regional, and City policies that support the actions outlined in this TDM Plan.**

These policies address themes such as:

- Active transportation
- Transit
- Community development
- Sustainability

An overarching goal of these policies is the creation of multi-modal communities by creating more and improved travel choices. More options will create a city that can easily be traveled around no matter the age or ability.

Figure 16: Policy Documents Use in Policy Analysis



## Active Transportation

The Region of Peel's Active Transportation Plan (2012) provides a framework for Mississauga to increase walking and cycling within the City, and to enhance integration with other modes. Creating a supportive environment for pedestrians and cyclists is a priority for the City. The City's Cycling Master Plan (2010) outlines recommendations for the design, construction and operation of the cycling network, in pursuit of goals such as fostering a culture of everyday cycling, integrating an on and off-road network, and applying a "safety first" approach. The City is currently updating the Cycling Master Plan to support future growth in cycling, and the TDM Plan will guide the promotion of cycling for everyday travel.

Figure 17: Cycling is a Priority in Mississauga



## Transit

Metrolinx's 2008 Regional Transportation Plan (The Big Move) discusses the importance of large transit infrastructure projects within Mississauga, and how they will support the evolution of the City's form and function. Mississauga's own transit-related policies including the MiWay Five 2016-2020 Plan concentrate on becoming a transit-oriented city with an emphasis on affordability and accessibility for everyone. Policies continue to be developed to increase the awareness of transit services and expand the network to where people live and work. With an expanded network, the transit system will attract more passengers and increase transit's mode share.

Figure 18: GO Train at a Mississauga station



Figure 19: Aerial View of Port Credit



## Community Development

The City recognizes the importance of community development to achieve the City's transportation goals. As an example, in 2010 the City prepared the Downtown 21 Master Plan, which discusses the need to have compact "complete communities" within Mississauga. This includes the framework for a mixed-use and multi-modal community that will create a more vibrant and healthier downtown. In order to achieve this the City recognizes that it will need to design streets to facilitate sustainable modes such as biking and walking. Other policies also support the development of more walkable communities.

## Sustainability

With growing population and auto use, Mississauga has begun to put a greater emphasis on becoming sustainable, in part by helping residents to change their travel behaviours. As an example, the City's Strategic Plan (2009) aims to minimize resource consumption and reduce emissions that pollute the air and contribute to climate change. Supporting a shift from driving to sustainable modes can play a large role in this plan.

Figure 20: Example of an Electric Plug-in Station







# 3 TDM Framework

**Mississauga has resolved to create a multi-modal city that integrates land use and transportation planning, and accommodates the needs of all road users.**

## TDM Vision

As outlined in its Official Plan, Mississauga aspires to provide seamlessly connected networks and an urban fabric that will enable and motivate sustainable travel by residents. TDM strategies will support this vision, together with policies at the Federal, Provincial, Regional and local levels. Key platforms for TDM delivery will include the development approval process, city-wide programs, and collaborative efforts with key partners.



# TDM Objectives

**These objectives will guide the successful delivery of the TDM Plan and support achievement of any proposed mode share targets in the City's upcoming Transportation Master Plan (TMP).**

## 1. Shift Travel Behaviour

Mississauga will shift travel demand from predominantly single-occupant vehicles to more sustainable modes including walking, cycling, transit, carpooling and carshare/bikeshare. It will also reduce the overall number of trips taken by encouraging telework, trip chaining and trip consolidation.

## 2. Integrate Transportation and Land-Use Planning

Mississauga will continue to integrate transportation and land use planning to ensure the transportation network supports higher density, mixed-use developments. This combination will make sustainable travel options more competitive, and encourage residents to use them more often.

## 3. Use Existing Transportation Infrastructure More Efficiently

By shifting travel demand from driving to sustainable modes, Mississauga's TDM measures will encourage the efficient use of existing infrastructure and manage the need to expand road networks and parking supplies.

## 4. Improve Health, the Environment, and Equality of Life

The City will:

- Improve public health in the community by encouraging physical activity, reducing pollution, and lowering stress from driving;
- Reduce greenhouse gas emissions, stormwater run-off and other pollution from motor vehicles and supporting infrastructure; and
- Boost the quality of life for all residents by improving travel options, creating walkable and compact communities, and enhancing the sense of place.

# Legal Framework

**While there is considerable support for TDM programs in municipal policies, Ontario's overarching legislation does not readily enable municipalities to require TDM measures in new developments.**

Planning practitioners understand the need for, and benefits of measures to promote sustainable travel; however, limits on municipal authority prevent them from using all possible tools at present.

Despite the current legal framework, there is still scope and precedent for private and public land developers to voluntarily incorporate TDM measures into their projects. Municipalities have some limited discretion to offer incentives for this to happen. Furthermore, municipalities and applicants can work together as appropriate to identify and implement suitable TDM programs that manage a development's traffic impacts.

Consequently, it is recommended that the City of Mississauga should take a formal policy stance that it welcomes TDM-supportive infrastructure and design features in all land development. Section 34 of the Planning Act outlines what can be addressed through zoning by-laws, including building location and parking-related infrastructure. As bicycles are

considered vehicles under the Motor Vehicle Act, a municipality can regulate bicycle parking supply in its zoning by-law; accessory features to bicycle parking, such as showers and locker rooms, are possible when both parties agree to incorporate these amenities into the development. The Planning Act also supports the inclusion of affordable housing within residential developments, so supportive features enabling sustainable (and affordable) travel options such as walking, cycling and transit should be included.

Section 37 of the Planning Act may also support TDM-related measures through bonusing provisions that allow density increases in return for measures that benefit the wider community. A promising opportunity is when applications seek densities greater than permitted by zoning; for example the City can work with developers to implement TDM measures.

The City should continue to further refine the potential of its existing powers under the Planning Act to support sustainable travel options through the development approvals process. As well, given the policies within the Places to Grow Act and the Draft Regional Transportation Master Plan, City Council may consider requesting the Province of Ontario to amend the Planning Act to allow municipalities to require the implementation of TDM measures by developers as a way of mitigating impacts of developments on the transportation network and its users.



# TDM Measures

## **TDM measures and tools proposed here are designed by land use.**

A key consideration for the TDM Plan was to take into account prevailing land use and target the deployment of any proposed TDM measures or tools to those areas of the municipality with the greatest chance of success.

An evaluation was conducted to establish the suitability of individual TDM measures and tools for each major land use classification in the Mississauga Official Plan. The full evaluation by geographic area can be found in Appendix E.

At the municipality level, the possible TDM measures and tools were separated into four categories depending on whether they were targeted at times of travel, the workplace, existing or future infrastructure or the role of the City in designing and delivering programs to provide services and drive behavioural change.

These fell into one of the following four categories:

1. Changes to the times that people travel at (the 'temporal' aspect)
2. Workplace measures
3. TDM supportive infrastructure and policy (soft and hard measures)
4. Municipally delivered and other programs

The evaluation also took the following considerations into account:

1. What is the proposed TDM measure?
2. Who is proposed to deliver it?
3. What is the primary intent for introducing the TDM measure or tool?
4. What is the estimated impact on existing services and infrastructure?
5. Will new infrastructure or services be needed

The summary results are illustrated below in Table 6.

# Measures

Table 6: TDM Measures

TDM Measures Evaluated					
	MEASURE	WHO WILL DELIVER	PRIMARY INTENT AND OBJECTIVE	IMPACT ON EXISTING INFRASTRUCTURE/SERVICES	NEW INFRASTRUCTURE OR SERVICES NEEDED
<b>Changes to Travel Times</b>	Change in Work Arrangements	Public and Private Sector Employers	Reduce demand for travel, lessen parking impact on land use and peak transportation network load	Reduce the amount and resulting impact of peak period private car travel on the transportation network, particularly on roads	No, IT resources potentially required to host public data sets on real time travel and parking information
	Carpooling (Ridematching, Guaranteed Ride Home)	SmartCommute Mississauga, Smart Commute Pearson Airport Area, Region of Peel	Lessen peak transportation network load, increase system efficiency (move more people with fewer resources) lower environmental impact through fewer single occupant vehicles and less traffic congestion	More pick up and drop off locations, potential negative impact on transit ridership	Yes, contract of service to provide a Guaranteed Ride Home program on demand
<b>Work-place Measures</b>	Transit Passes	MiWay, City	Mode shift where reasonable alternatives already exist	Increased transit ridership Reduce the impact of peak period private car travel on transportation network, particularly on roads	No, unless additional ridership triggers increase in service levels
	Bicycle Parking	City , Property Owners	Mode shift where reasonable alternatives already exist	Workplace-based bicycle parking assessments required to maximize effectiveness of workplace parking arrangements	Yes, where facilities are provided on public land
	Pricing Parking	Property Owners, City	Mode shift, reduce parking demand	Potential spillover into off-street and on-street public parking where 'free' parking exists	Yes, Additional City or private infrastructure associated with paid parking
	Park and Ride Facilities at Transit Stations	MiWay, GO Transit	Mode shift	Mixed. May lead to decrease in feeder services.	Yes, enforcement of existing facilities, potentially new infrastructure if demand exceeds supply
<b>TDM Supportive Infrastructure and Policy</b>	Accessible connections and amenities	City, Property Owners	Equitable access to sustainable transportation	Increased transit ridership and active transportation activity	Yes, Accessibility for Ontarians with Disabilities (AODA) compliant infrastructure
	On-road Active Transportation Infrastructure	City	Mode shift	Increased active transportation activity	Yes, particularly where significant reallocation of existing road space is required
	Change Parking Demand Through Supply and Restrictions	City	Mode shift	Increased transit ridership, increased vehicle occupancy	Yes, repurposing of existing parking and development standards for more spatially compact forms of parking (i.e. structured and mechanical parking)





Report Chapters					
	MEASURE	WHO WILL DELIVER IT	PRIMARY INTENT AND OBJECTIVE	IMPACT ON EXISTING INFRASTRUCTURE AND SERVICES	NEW INFRASTRUCTURE OR SERVICES NEEDED
<b>TDM Supportive Infrastructure and Policy</b>	Transit Priority Lanes	City	Mode shift	Increased transit ridership, increased vehicle occupancy	Type of priority lanes will determine extend of new infrastructure required
	Bicycle Parking Regulations and Standards	City	Mode shift	Low	Yes, new bicycle parking development standards
	Development Application Requirements and TDM Plan Outline as part of Transportation Impacts Study (TIS)	City	Incentivize and regulate provision of viable travel alternatives leading to mode shift	Low	Yes, new TDM and TIS plan development requirements
<b>Municipality Delivered and other Programs</b>	Community Outreach and Engagement	City in partnership with the Region of Peel, Smart Commute as applicable	Increase information on travel alternatives, mode shift	N/A	Yes, mobility as a service (MaSS) infrastructure, including systems for resource poolings and risk management processes. Maas is the integration of various forms of transport modes into a single mobility service accessible on demand.
	School Travel Planning and Support	Regional School Boards/City/Private Schools	Education of children and youth to promote life long sustainable travel behaviour, reduction in parents and guardians driving children to school	Increased transit ridership, increased vehicle occupancy, increased active transportation	No
	Youth Initiatives	City, Regional School Boards, Private Schools	Education of children and youth to promote life long sustainable travel behaviour, reduction in parents and guardians driving children to school	Increased transit ridership, increased vehicle occupancy, increased active transportation	No
	Land Use Policy	City	Compact urban form supports more sustainable travel behaviour	N/A	No



## 4 Strategies for Moving Forward

**Existing strategic directions allows the City of Mississauga to achieve future mode share target and shift towards a more sustainable transportation system.**

The previous chapters have highlighted that strategic initiatives are required to ensure that TDM measures and related infrastructure are implemented and developed in Mississauga in the future.

This chapter outlines the strategic directions the City of Mississauga should undertake to assist with achieving future mode share targets and shifts to sustainable transportation systems.

# Development Approval Process

**Integrating TDM measures into new development applications is a great opportunity to pursue the integration of more sustainable transportation into broader transportation and land use changes.**

People are most likely to adopt new travel behaviours during significant life events, such as moving to a new location. For this reason, the integration of TDM measures into new developments is a great opportunity for pursuing more sustainable transportation outcomes. It is recommended that the City request TDM plans for all development applications that are submitted to the City for review and develop thresholds that are broadly commensurate with the scale of development being undertaken.

Figure 21: Safe Crosswalks are important to encourage more residents to walk to their destinations



# When to Request a TDM Plan

**The City should guide and collaborate with developers in deciding how best to achieve mode share aspirations for a proposed development.**

The value in asking developers for a TDM plan is determined by a number of factors that will also influence the nature and scale of appropriate TDM measures. The City should guide and collaborate with developers in deciding how best to achieve mode share aspirations for a proposed development and to reduce its unwanted impacts, both through TDM measures and by integrating the development with local and regional transportation networks.

For instance, by drawing upon the City of Mississauga's Official Plan (2017), a complete development application may require a TDM plan to demonstrate the site's connectivity to transit networks and integrate active transportation measures as possible ways of reducing vehicular traffic demand and the associated impacts on traffic and transit operations, local residents and the environment.

As discussed in Chapter 3, mandatory integration of TDM measures in development applications is limited based on Ontario's Planning Act. However, a number of interim measures, such as working with developers to incorporate TDM-related measures into a development to allow increases in density, reduction in parking requirements and incorporating bicycle parking into the parking regulations within the City's Zoning Bylaw, as well as the City's Parking Master Plan (anticipated in 2018) will allow Mississauga to make effective use of its existing powers.

Finally, at this time, the City can require certain TDM measures to be included in Transportation Impact Studies (TIS) to address site-related traffic concerns as identified in the TIS. The City should update the TIS guidelines to include specific triggers for when a TDM Plan should be developed. The thresholds and type of plan are outlined next.



**The City should guide and collaborate with developers in deciding how best to achieve mode share aspirations for a proposed development.**

## TDM Statement

A TDM statement is a short description of TDM measures that should be required when an individual development is found to result in an increase in up to 50 additional trips per day. The types of measures that could be included in the statement are bicycle parking, pathway connections to sidewalks and transit stops, priority carpool parking, and other priority parking locations for carshare and electric vehicles.

## Short TDM Plan

This type of plan will build upon the basic requirements of the TDM Statement. It will be required for developments that are estimated to generate between 50 to 200 additional trips per day. The plan will provide an opportunity for staff and applicants to evaluate the types of measures that could be

incorporated into the development to mitigate the impacts of additional traffic generated due to the development. The plan could include additional measures such as shower and locker rooms facilities, promotion of transit use through the availability of transit information, higher levels of priority parking for carpools, carshare and electric vehicles, ridematching programs and others.

## Full TDM Plan

A full TDM Plan will be required for large mixed use developments that could have a considerable impact on the transportation network and the surrounding the proposed development. It should be at the discretion of the City to require this particular kind of TDM plan. Large developments that include a mix of residential, employment, commercial and personal services typically have considerable scope to reduce the number of trips traveled on a daily basis. All TDM measures that can be found in the tool kit (Appendix E) can be negotiated to be incorporated into the TDM plan to reduce the impact of the potential single occupant trips generated and increase the use of sustainable modes.



# Bike Parking Guidelines

**The bike parking guidelines determine the quantity and nature of bicycle parking spaces for different kinds of residential and employment land uses.**

## Where, When and How

Bike parking design guidelines determine the quantity and nature (e.g. dimensions, location) of bicycle parking spaces (e.g. racks, lockers, rooms) at different kinds of residential and employment land uses. Many large cities in Canada require bicycle parking in their zoning by-laws. However, Mississauga has not yet done so, nor has it developed general guidance for developers. Safe and secure bicycle parking is an important means of enabling and motivating cycling, particularly where it can be designed to help to both help promote cycling as well as reduce rates of bicycle theft.

Bike parking can be separated in two different categories: long-term and short-term. Long-term bike parking includes bicycle racks in secure, enclosed, weather-protected areas with controlled access. Short-term bike parking usually constitutes bike racks in a visible, accessible location that may or may not be weather-protected.

Figure 22: Biking on the sidewalk often occurs where there is no formal bike infrastructure in Mississauga



The typical options available to designers and engineers range from on-street ring-and-post parking to outdoor bike lockers and indoor bike rooms. The City has developed its own Bike Parking Design Guidelines to help guide decision making about bike parking design and placement. The Design Guidelines can be found in Appendix D



# Bike Parking Standards

**Many municipalities have established standards to ensure that a site's users (i.e. employees, residents, visitors) have access to short-term and long-term bike parking.**

## Development Standards

Bike parking standards specify the rate of bicycle parking capacity a development is required to provide, proportional to its size, land use type and location. Bike parking standards encourage sustainable travel behaviour and can help reduce a development's traffic and other environmental impacts. Many municipalities use standards to ensure that a site's users (i.e. employees, residents, visitors) have access to short-term and long-term bike parking. A good example is the City of Toronto's Green Standard, which outlines specific policy zones that require different standards based on the density of the built environment.

Figure 23: Bike Parking in Port Credit





This approach is supported by several relevant policies and plans:

- **Climate Change Action Plan 2016-2020.**

*This is Ontario's most recent plan, coupled with specific legislation, actions and programs to address climate change. It discusses the need for more public bike parking at transit stations.*

- **City of Mississauga's Cycling Master Plan.**

*The 2010 Plan is currently being updated by the City's Active Transportation Office, and will examine the needs and opportunities for improved bicycle parking in the public realm.*

- **Mississauga Living Green Master Plan.**

*The 2012 LGMP provides a framework for the City to meet environmental goals in the Strategic Plan. The LGMP connects our Future Mississauga Strategic Plan through the "Move", "Connect" and "Green" Strategic Pillars for Change working in collaboration with the community, businesses and other levels of government,*

- **Waterfront Parks Strategy.**

*Mississauga City Council approved this strategy in March 2008 as a comprehensive long-term plan for the development of waterfront parks. It aims to reduce vehicle parking, encourages non-auto modes of transportation such as cycling, and supports the provision of bike parking near park*

- **Mississauga Official Plan (2017).**

*The Official Plan calls for Major Transit Areas (i.e. the locations of existing or planned higher-order transit stations) to provide connections to various modes, such as through bicycle parking and commuter pick up/drop-off areas. The Official Plan's parking policies generally call for more a more deliberate approach to parking management, and support bicycle parking and related amenities as part of site development. A current Official Plan policy for instance is to require bike parking at certain corporate centres (refer to policy 15.2.2.1.1).*

- **Metrolinx GO Rail Station Access Plan (2016).**

*This plan discusses the need for more active transportation facilities around stations, and in particular calls for the integration of secure bike parking and bike-share programs with existing information and payment platforms (e.g. PRESTO).*

Required bicycle parking ratios vary by municipality, and within a community they can vary according to geographic area (e.g. urban or suburban). The following table shows bicycle parking ratios for a cross-section of Canadian municipalities.



Table 7: Bike Parking Requirements

**Bicycle Parking Requirements in Select Canadian Cities by use**

LAND USE	OAKVILLE (ZONING BY-LAW 2014-014)	HALIFAX	VAUGHAN METROPOLITAN CENTRE	TORONTO (ZONE 1 ONLY)	VANCOUVER (PARKING BY-LAW 6059)	
					CLASS A (LOCKERS)	CLASS B (RACKS)
<b>Residential Apartment</b>	1 space /dwelling*	0.5 spaces/unit (80% class A; 20% class B)	0.1 per unit or 6 spaces (whatever is greater – short term; .5 per unit with over 10 units – long term)		0.75 to 2.25/ unit varies by type of unit	Generally – Minimum of 6
<b>Retail</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*	1/300m <sup>2</sup> GFA – 20% Class A; 80% Class B	0.15 or 6 (whatever is great- er – short term; 0.1 – long term)	Short term: 3 + 0.3 per 100m <sup>2</sup> of interior floor space; Long term 0.2 per 100m <sup>2</sup> of interior floor space	Min 1/500 m <sup>2</sup> GFA	Min of 6 spaces (min of 1000m <sup>2</sup> )
<b>Business Office</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*	1 / 500m <sup>2</sup> GFA – 50% Class A; 50% Class B	0.1 or 6 – (whatever is great- er – short term; 0.13 long term)	Short term: 3+0.2 per 100 m <sup>2</sup> of interior floor space; 0.2 per 100m <sup>2</sup> of interior floor space Long term: 0.2 for each 100 m <sup>2</sup> of interior floor area used for an office, other than a medical office;	1/500 m <sup>2</sup> GFA	Min of 6 spaces (min of 2000m <sup>2</sup> )
<b>Medical Office</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*	1 / 500m <sup>2</sup> GFA – 50% Class A; 50% Class B	0.1 or 6 – (whatever is greater – short term; 0.1 long term)	Short term: 3 +0.15 per 100 m <sup>2</sup> of interior floor space; Long term: 0.15/ per 100 m <sup>2</sup> of interior floor space	Section 6.1.3 (Uses not Listed) 'The number of bicycle spaces shall be calculated on the basis of a similar use as deter- mined by the Director of Planning.	Section 6.1.3 (Uses not Listed) 'The number of bicycle spaces shall be calculated on the basis of a similar use as determined by the Director of Planning.
<b>Employment</b>	2 + 0.25 per 1000m <sup>2</sup> (NFA)*	1 /1000m <sup>2</sup> GFA. 80% Class A; 20% Class B (Min of 2 Class B to a max of 20)	Commercial Uses: Short term 0.15 spaces per 100m <sup>2</sup> GFA or 6 bicycle spaces which- ever is greater for buildings with GFA >1000m <sup>2</sup> Long term 0.1 spaces per 100m <sup>2</sup> GFA	Same as business office	1/1000 m <sup>2</sup> or 1/17 employ- ees (whatever is greater)	N/A
<b>School, Post- Secondary</b>	Greater of 3 or 2.0 per 100 m <sup>2</sup> (NFA)*	1 space for every 250 m <sup>2</sup> GFA. 20% Class A; 80% Class B		Short term: 3 +0.3 per 100 m <sup>2</sup> of interior floor space; Long-term: 1/100 sq. m. of interior floor space	0.4 for every 10 students	0.6 for every 10 students

\* Section 5.4.1b) states that 'in no circumstance shall the number of minimum bicycle parking spaces required on a lot be greater than 30.'

Based on a review of the existing standards in Table 8 the following table identifies the recommended minimum bicycle parking requirements in Mississauga. The City may wish to consider offering incentives to developers who wish to offer bicycle parking above and beyond this rate in lieu of conventional vehicle parking, particularly where it can be demonstrated in a Short or Full TDM Plan that this is likely to lead to a reduced level of motorized vehicle travel to individual sites and locations.

For the sake of simplicity, cost effectiveness, public health and to foster a culture of cycling, short and long term bicycle parking requirements are recommended to be set at a simple ratio of 1 per 15 students for class A and 1 per 10 students for class B at elementary and secondary schools and 1 per 15 students for post-secondary schools.

Table 8: Recommended Minimum Bike Parking Requirements

Land Use	Bicycle Requirement Class	
	CLASS A (LONG-TERM)	CLASS B (SHORT-TERM)
<b>Residential apartments and multi-unit dwellings</b>	0.8 spaces per unit	Minimum 6 spaces for visitors
<b>Retail</b>	0.5 per 500m <sup>2</sup> (GFA)	1.0 per 500m <sup>2</sup> (GFA)
<b>Business office</b>	0.5 per 500m <sup>2</sup> (GFA)	0.5 per 500m <sup>2</sup> (GFA)
<b>Medical office</b>	0.5 per 500m <sup>2</sup> (GFA)	0.5 per 500m <sup>2</sup>
<b>Employment</b>	0.5 per 500m <sup>2</sup> (GFA)	Minimum 2 spaces
<b>Elementary school, secondary school</b>	1 per 15 students	1 for every 10 students
<b>Post-secondary school</b>	1 per 15 students	1 per 15 students
<b>Institutional</b>	0.5 per 500m <sup>2</sup> (GFA)	0.5 per 500m <sup>2</sup> (GFA)



# Class A & B Bike Parking

The most common forms of long-term or Class A bike parking are bike cages, bike rooms and bike lockers. Cages and rooms are more common in multi-unit residential buildings, employment uses and post-secondary institutions. Bicycle lockers (which can be located outdoors, away from other forms of shelter) have been used successfully at transit stations, post-secondary institutions and other places where individuals can rent them out during the cycling season.

Short-term or Class B bicycle parking is typically for customers or visitors. It should be made of strong metal and secured to the ground, and should enable a bicycle to be secured at two places to avoid being stolen. Two common types of racks are single racks that typically hold up to two bicycles, and multi-unit racks with the ability to accommodate 5-20 bicycles in a row.

Bicycle racks on private developments should also be located in areas that are well lit, within 15 metres of a building entrance, and visible from that entrance. Racks in a road right-of-way should not impede pedestrian, cyclist or vehicular travel.

Figure 24: Examples of Types of Bike Parking



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# End-of-Trip Facilities

End-of-trip facilities for active transportation users (e.g. showers, lockers and change rooms) are required at employment land uses by some municipalities as an adjunct to bicycle parking standards. The number of facilities (e.g. lockers or grooming stations) or their floor area (e.g. of change rooms) is typically linked to the required number of Class A bicycle parking spaces, and may be specified for both male and female users. More information can be found in Appendix D.

Freestanding bike repair stations (i.e. that provide tools to inflate or repair tires, or adjust brakes) are another end-of-trip amenity that can be provided to make regular cycling more convenient and reliable. They can be suggested to developers during discussions about bicycle parking, showers and lockers.

Figure 25: Class A Bike Parking



Table 9: Recommended End-of-Trip Facilities

Required number of Class A Bicycle Spaces	Toilets	Bathroom Sinks	Showers and lockers
0-3	0	0	0
4-29	1	1	1
30-64	2	1	2
65-94	3	2	3
95-129	4	2	4
130-159	5	3	5
160-194	6	3	6
Over 194	6 plus 1 for each additional 30 bicycle spaces	3 plus 1 for each additional 30 bicycles spaces	6 plus 1 for each additional 30 bicycle spaces



# Existing TDM Programs

**TDM programs are an important part to successfully facilitate behaviour change in travel.**

## Existing Programs

The City of Mississauga currently leads TDM programs with a number of partners. These programs have successfully facilitated behaviour change, yet are limited in scope and have not always engaged with larger programs and departments. They engage the public through digital, physical and policy realms, and include mostly 'pull' strategies. 'Pull' strategies consist of 'carrots' that increase the appeal of sustainable travel choices by improving information and service levels. By contrast 'push' strategies (i.e. sticks) shift the costs of travel onto end users to reduce or eliminate hidden subsidies for driving and better reflect the true costs of travel choices for the whole community.

The following highlights those TDM programs that are currently led by the City.



St Lawrence Park, Port Credit

# City Led Programs

## Bike to Work Day & Other Campaigns

City staff are encouraged to participate in a number of campaigns each year including Bike to Work Day, Smart Commute Week, Carpool Week etc. These campaigns reinforce the Smart Commute messaging and encourage staff to participate by offering incentives and prizes.

Other employers in the City are encouraged to promote these events and campaigns to their staff:

- Can-Bike training and safety education for cyclists. Cycling Canada's education program has been designed for cyclists of all skill levels. Can-Bike teaches individuals how to ride safely and effectively in different settings and weather conditions with the end goal of safety and enjoyment for all.
- Mississauga Cycling Handbook. This helps cyclists understand the rules and regulations of cycling in Mississauga is available in several languages. It acts as a user's guide and discusses the parts of a bike, maintenance, road safety, and rules of the road.



## MiWay Outreach

MiWay's Outreach Team participates in various events throughout the city and organizes information sessions for students, older adults and local businesses.

- MiWay also administers a Student Ambassador Program ([www.miway.ca/ambassador](http://www.miway.ca/ambassador)) - a fun, creative and educational program that provides a great opportunity for Mississauga's high school students to educate their school community about the benefits of public transit on the Mississauga website.
- The downtown Mississauga website has a tab specifically for "getting around". The website promotes the use of public transit and provides maps for walking trails and transit, along with a user's guide for places to visit within the core area.





# TDM in Large Infrastructure Projects

**Large infrastructure projects can have a major impact on people's ability to get around.**

During construction of large infrastructure projects, potential disruptions include changes to existing transit services routes and times, closures of bicycle lanes and sidewalks, and changes to vehicle travel lanes. TDM strategies can help minimize disruption during construction, and should be put in place before work begins.

The City and Metrolinx have been proactive in developing a plan for traffic control and communications during construction of the Hurontario Light Rapid Transit (LRT) line, including a TDM strategy to help mitigate construction impacts on travel in the area and along Hurontario. The strategy will inform area residents and employees about the travel options available to them during the construction period. It is anticipated that the plan will encourage a reduction in vehicle trips taken along the corridor, and help the public understand opportunities to shift travel modes, times and routes throughout the project.

For the Hurontario TDM strategy to be successful, a collaborative process involving several City of Mississauga departments, the Region of Peel, Metrolinx and others is critical. It will allow each partner to take well defined and targeted roles, overseen by the City's TDM Coordinator.

The Hurontario LRT TDM plan will be implemented in three phases: pre-construction, construction and post-construction. Each phase includes specific messages, tactics, and delivery agents. While the first two phases will provide short-term benefits, follow-on TDM measures can support long-term changes in travel behaviour arising from the new LRT. For example, when the Hurontario LRT service starts, it is anticipated that the TDM plan will provide additional incentives for residents and commuters to use it, rather than drive.

This is the first TDM strategy in Mississauga for such a large project, and its success will be monitored and fully evaluated to identify lessons learned. The general approach can be modified and used for other projects. Because TDM is context-sensitive, any future adaptations must consider the needs of adjacent communities, the expected duration of construction, available modes of travel, and surrounding land uses.

# TDM Partnership Opportunities

**The City has an opportunity to become more active in the promotion and delivery of TDM programs by increasing its collaboration with the Region of Peel, Metrolinx, school boards and local Smart Commute offices.**

Table 10 includes a preliminary assessment of the extent to which external organizations are involved in the delivery of TDM Programs.

Table 10: External Organization Involvement in TDM

Partner	Current Role in TDM Program Delivery		
	● Major	● Minor	○ None
	Workplace Programs	Household Programs	School Programs
Region of Peel - Planning	●	●	●
Region of Peel - Public Health	●	●	●
Smart Commute Offices	●	●	○
Metrolinx/ GO Transit	●	○	●
Employers/ Property Managers	●	○	○
Schools/ School Boards	●	○	●
Developers/ Property Owners	●	●	○



# Partnerships in Peel

**TDM large infrastructure projects can have a major impact on people's ability to get around.**

A strong partnership with the Region of Peel is important for the City of Mississauga. It enables connections to TDM programs being delivered by the Region and other municipalities in Peel (i.e. Brampton and Caledon), and across the Greater Toronto and Hamilton Area (GTHA). It allows the City to learn from and leverage the knowledge and experience of other governments, and to advise local residents, employees and developers about activities elsewhere in the Region that could benefit them. It also allows the City to provide input on Mississauga-specific challenges and opportunities related to Peel or GTHA-wide initiatives.

Region of Peel is known for its innovative and progressive approach to encouraging residents, workers and visitors to use sustainable modes of travel for commuting and day-to-day movements. With its partners, it has undertaken a number of programs to encourage long-term travel behaviour change which can inspire Mississauga's own efforts. Those programs are reviewed next.



Streetsville GO Station

## A) Existing Employer Individualized Marketing (EIM) Campaign

The EIM campaign represented an innovative, tailored approach to the delivery of workplace TDM programs in Peel. It used community-based social marketing techniques in the workplace to reduce single-occupancy vehicle travel and increase travel by sustainable modes during peak periods. It was the first large-scale program of its kind in Peel and included sites in Mississauga. It helped individual commuters select the right commuting solution for their own needs, whether carpooling, taking transit or using active transportation.

Phase 1 of the program focused on three large employers: a large private consulting firm, the Greater Toronto Airport Authority (Pearson Airport) and the Region of Peel. The firms were members of Smart Commute, with mature TDM programs supporting workplace travel options. Phase 2 included small and mid-size employers, primarily in Brampton and Caledon, and at different stages in the delivery of TDM programs.

Each EIM campaign was delivered in three stages: (a) initial survey and segmentation of participants to identify those who were interested in changing their behaviour; (b) the motivation and information stage, where participants were educated on travel options and given incentives; and (c) the evaluation stage where participants were re-surveyed to quantify new behaviours.

The EIM campaign led to following conclusions:

- High familiarity with TDM programs at worksites reinvigorated existing workplace travel programs.
- Commuter profiles and individual travel plans were harder to implement when provided at large outreach events with the larger employers.
- Providing exciting outreach events with the EIM program provided on-site opportunities for employees to take part in the individualized travel planning and commuter assistance programs.
- EIM was most effective at worksites where TDM programs were in the conception stage (Presentation to ACT Canada Sustainable Mobility Summit, November 2012)

Overall, the program was considered a success and the City should consider working with local Smart Commute offices and the Region to bring EIM to more workplaces in Mississauga.





## b) School Travel Planning

The City can support school-based TDM programs by partnering with working groups and individual schools. The Region of Peel's school travel planning programs help schools shift travel to active and sustainable modes, and to reduce traffic volumes around schools in morning and afternoon peak hours. The City should continue to be involved as initiatives evolve. In particular, as schools are rebuilt or new schools open, the City should work with the Region to require TDM plans as part of any new site plan, as described earlier.

Existing school travel planning programs directly supported by the Region of Peel are described below.

## *Stepping It Up*

To address a long trend of more children being driven to school in cars, Metrolinx developed the "Stepping It Up" pilot project in partnership with the Region of Peel and others. The project worked directly with schools to promote sustainable modes of transportation and raise awareness of the importance of active transportation by children. It demonstrated that many stakeholders, from provincial ministries and school boards to parents and children, have an important role to play. Through the various forms in which it has been continued, it will remain an important component of a larger TDM strategy.



## High School TDM Pilot Program

Select schools in Mississauga have chosen to participate in the High School TDM pilot project, which aims to reduce traffic at Peel high schools, improve safety for students who walk to school, keep students active, and improve air quality. It is “designed for students by students,” and offers education on the importance of active transportation while giving students the chance to learn how planning processes work and have their say in decision-making.

## Peel Safe and Active Routes to School

The Peel Safe and Active Routes to School (PSARTS) is led by Peel’s Transportation Planning and Health departments. It encourages more children to walk to school by promoting safe, walkable school routes. It has had an impact in the region, and the number of students walking to school has increased.

Table 11: Existing School Programs in Peel Region

Other School Programs in Peel Region	
Peel School Travel Planning Project (STP)	This program addresses school traffic related issues and promotes walking and cycling to school through walking with the community to develop school travel plans.
School Bicycling Parking Program	A program to provide safe and secure bike racks at schools.
Bike to School Week	A week dedicated to bike safety and promotion
Peel Children’s Safety Village	A program to educate elementary children on road safety rules to prevent traffic accidents to children aged 1-9. The program offers pedestrian and school safety workshops.





## C) Smart Commute Offices

Smart Commute, a program coordinated by Metrolinx, offers sustainable travel programs through thirteen individual transportation management associations (TMAs) across the GTHA. There are two Smart Commute associations that serve the City of Mississauga: Smart Commute Pearson Airport Area (SCPAA) and Smart Commute Mississauga (SCM). SCPAA focuses on the employees that work at or near the airport, an area that offers limited options for active commuting and thus puts a focus on transit and carpooling. SCM focuses on local businesses within the City of Mississauga, including the City of Mississauga itself. Smart Commute offices create action plans for each member employer, provides educational opportunities, coordinates promotional events, advocates for improved transit services, and recognize employer achievements.

Figure 25: Examples of Smart Commute Promotions





# 5 TDM Action Plan

**Key strategies will provide a framework for implementation and monitoring processes to ensure progress toward a more sustainable city.**

This chapter builds on the key strategies identified in Chapter 4 to provide an implementation and monitoring framework that will ensure progress toward the City's environmental, economic and social goals, including those for transportation and land use. It recommends a number of TDM measures and tools, linking them to the four TDM objectives identified in Chapter 3.

## Definitions

**TDM Measures** - Ongoing initiatives that are intended to do the 'heavy lifting' with regards to long-term travel behaviour change. They will be subject to regular performance evaluation, requiring the collection of meaningful and representative data over time.

**TDM Tools** - Supporting actions to complement and enable TDM measures. They will be standalone activities that are not necessarily time-specific or dependent on the implementation of other TDM Tools.



# Action Plan

As discussed in Chapter 4, successful implementation of the TDM tools and measures requires key partnerships for implementing and monitoring the program. Potential partners include Smart Commute, schools and school boards, community organizations, environmental groups, the Region of Peel, neighbouring local municipalities, employers, developers, property owners, etc. It will be essential to integrate existing TDM programs (e.g. Smart Commute, school travel planning) with new initiatives.

The TDM action plan includes “soft measures” (e.g. education and promotion) to encourage sustainable travel modes, as well as supportive “hard measures”

that include physical infrastructure and services such as bike lanes, sidewalks and transit services. For the plan to succeed, both types of measures are required and should be implemented together.

Three different implementation timelines are addressed: “quick win” actions in the first two years, followed by mid-term actions (years 3 through 5) and long-term actions (years 6 to 10). Financial and staff resourcing needs for each action are addressed.

The chapter concludes with recommendations on monitoring the program’s delivery and impacts, and ultimately measuring its success in shifting travel behaviours over time.

# Key Steps

**The success of this action plan will depend heavily on the creation of strong partnerships for program delivery.**

## Establish Partnerships

As noted above, strong partnerships for program delivery are essential for TDM success. In turn, this will require:

- The identification of partners who are able to support specific programs and activities (see the profile of Arlington County's Commuter Services Bureau where employers partner with ACCS to establish in workplace consultations, information fairs and events and conduct individual travel surveys that collect data to show travel patterns).
- Working with organizations already involved in TDM to improve existing programs.
- Improving social marketing through joint strategies designed to reach a range of audiences.
- Ensuring strong take-up of TDM measures where the ability to drive behaviour change resides with a partner organization.

### Example Model for Partnerships: Arlington County Commuter Services Bureau

The Arlington County Commuter Services (ACCS) Bureau in Arlington, Virginia funds Arlington Transportation Partners (ATP), and administers the following incentives:

- **ATP Champions:** recognition and reward for businesses, residential communities, commercial properties and schools for implementing transportation programs and strategies
- **Employee Transportation Survey:** to establish commuting patterns, modal splits and program recommendations
- **Customized Services:** newsletters, commuter planners, company-specific resources
- **Transportation Events for employees, and tenants:** seminars, brown-bag lunches and workshops to provide information to employees about commuting options and benefit information.
- **Transportation Brochures:** an easy online brochure service about all sustainable travel options



Partnerships are about synergy and leverage—the notion that ‘the whole is greater than the sum of its parts’. Partnerships enable information and support to be provided by colleagues, neighbours and local organizations who know their communities and the people in them. They also permit the efficient distribution of information by using channels that connect to new potential user groups and interested persons.

## Community Partnerships

The City’s TDM leadership will allow other organizations, businesses and community groups to follow in its footsteps. Partnering with community groups is vital for support outside workplaces and within the community.

## TDM Working Group

An effective TDM program cannot be managed and delivered by a single individual or staff group. Success will require active support from other municipal departments and their work programs. For example, collaboration between MiWay staff and the City’s TDM Coordinator could help to improve multimodal “first and last mile” connections to transit hubs and drive increases in transit ridership.

Similarly, construction project managers for major infrastructure projects could work with the TDM Coordinator to mitigate negative traffic impacts and improve travel choices for residents during disruptions. The formation of a working group, which includes representatives of several departments and meets regularly to exchange information and coordinate actions, can help facilitate these partnerships and support a more robust TDM program.

## Recommendations

1. The City should develop a list of willing and participating organizations to support the ongoing implementation of the TDM Plan.
2. The City should develop a TDM Working Group to, among other things, help integrate TDM and transit as well as TDM into major construction projects. (See Promotion of TDM in Appendix F).



## Create Outreach, Marketing, and Education Programs

Social marketing programs are important to the success of TDM measures, and need to be backed up with education about the 'how' and 'why' sustainable transportation needs to become a more widely used measure. Without a substantial program to increase the awareness for the need of more widely used sustainable transportation, the goal of increase mode share will not be reached. The TDM Coordinator should work with the Region of Peel as well to assist with the development of these programs. Details of the programs can be found in Appendix G.

### *Link TDM projects using a strong brand and positive message*

Experience in North American communities shows that branding TDM programs can increase the perceived value of the services and branding is about more than name recognition – through consistent messaging it can establish a defining program characteristic (such as economical, green, healthy or safe) that builds consumer confidence and increases demand.

## Recommendations

3. The City should evaluate the full list of municipally delivered programs outlined in Chapter 3 against the new objectives of the Transportation Master Plan (currently underway) to establish funding and policy priorities for future outreach, marketing and education programs. This will allow for strategic alignment between the City's Official Plan policy priorities, TMP and TDM objectives.





## Develop TDM Requirements for Developments

An important step for the City will be to integrate TDM more fully into the development application and approval process. Mississauga's intensification will continue, and higher density residential and mixed use development in intensification areas is likely to grow more prevalent.

The City will need to work with developers to have TDM programs ready for delivery when new employers, employees, condo owners and tenants move in. Those programs will need to be easy to deliver and enforceable by the City. These could include incentives such as free transit passes for a limited period of time as people adjust to their new environment.

## Recommendations

4. Develop a formalized process for incorporating:
  - a. TDM soft and hard measures/  
TDM supportive infrastructure in the existing development applications process as part of a TDM Plan under existing legislation (Planning Act and City by-laws)
  - b. TDM Statements, Short and Full TDM Plans into the development process
5. Lobby the Province for amendments to the Planning Act that would allow municipalities to create enforceable undertakings that would require developers to:
  - a. Provide a number of TDM hard measures in accordance with a new policy that would require a certain TDM standard to be met as part of the urban development process
  - b. Provide, support and oversee the implementation and monitoring of TDM soft measures beyond the opening day of developments for a defined time period.

## Establish Programs to be Implemented

The phasing of programs is vital to establishment of successful TDM within Mississauga. Programs that already exist in Mississauga are implemented through Smart Commute, which, as previously noted, is an association created to establish smart commuting programs within the Region of Peel. It creates personalized programs to encourage employees, students, and households to use more sustainable mode of transportation.

## Recommendations

6. The City should continue to further develop existing programs and work with the community to develop new initiatives that align with the City's transportation priorities. The Transportation Master Plan (currently underway) should set the stage for identifying program priorities by analyzing existing transportation patterns and the potential for TDM measures and tools to form the basis of new TDM strategies that make better use of existing infrastructure or provide equivalent levels of mobility and accessibility at a lower cost to the community than large scale physical infrastructure.



## The Action Plan

During the early stages of the action plan, it is worth focusing on “quick wins” that demonstrate success, attract partners, and build confidence in TDM among decision-makers and the public.

Table 12: Quick Wins

Quick Wins		
SHORT (YEAR 1-2)	MEDIUM (YEAR 3-5)	LONG (YEAR 6-10)
<ul style="list-style-type: none"> <li>• Develop partnerships internally</li> <li>• Develop partnerships externally</li> <li>• Enhance the current workplace program</li> <li>• Enhance OP policies in coordination with the TMP</li> <li>• Update TIS guidelines to include TDM-supportive infrastructure</li> <li>• Incorporate Bike Parking into the Zoning By-Law</li> <li>• Develop a TDM Web hub for developing an incentive program</li> <li>• Improved use of social media</li> <li>• Create TDM collateral targeting to different community and business groups (web content, brochures, handouts, bookmarks, etc)</li> <li>• Develop TDM recognition program for new and existing developments</li> <li>• Request City Council work with the GTHA to amend the Planning Act to include TDM policies</li> <li>• Promote new AT facilities as they are being implemented</li> <li>• A web resource for TMP initiatives currently underway to demonstrate success to local businesses similar to the Mississauga Moves TMP project website.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate first phase to assess effectiveness and make improvements</li> <li>• Promote new AT facilities as they are being implemented</li> <li>• Create a TDM outreach program based on work undertaken in first phase</li> <li>• Work with associations in the community to encourage long term behaviour changes</li> </ul>	<ul style="list-style-type: none"> <li>• Update TDM strategy and implementation plan to ensure it is up to date with current technology and research</li> <li>• Evaluate changes in TDM delivery and incorporate into strategy</li> <li>• Update outreach and education programs</li> <li>• Promote new AT facilities as they are being implemented</li> </ul>

## Budget

It is recommended that a budget be created of at least \$50,000 for the first phase. This will cover costs for early projects, programs, and other start-up costs. The funds are expected to come from a strategic initiative or from various departments within the City.

### *Link TDM Projects Using a Strong Brand and Positive Message*

Experience in North American communities shows that branding TDM programs can increase the perceived value of the services and products being offered. Note that successful branding is about more than name recognition – through consistent messaging it can establish a defining program characteristic (such as economical, green, healthy or safe) that builds consumer confidence and increase demand.

- Set up a booth at an event or a prominent public space to promote the use of sustainable modes; and host an event that will encourage the use of sustainable modes of travel. It is important to promote the use of sustainable travel modes and develop a strong and identifiable brand.

### *Link Use Special Events to Build Awareness and Enthusiasm*

Special events encourage people to try a new way of getting around, even for just one day. They also validate sustainable travel choices through media coverage, political endorsements and celebrity involvement. Many municipalities conduct or sponsor local versions of the Commuter Challenge, International Car Free Day, International Walk to School Month, Rideshare Week, Bike to Work Week and other events, tailoring national materials to fit their local circumstances.



# Financial Implications

**Although TDM programs involve a financial commitment they are a very cost effective strategy to manage transportation issues.**

It is recommended that a projects budget be created of at least \$50, 000 for the first phase. This will cover costs for early projects, programs, and other start-up costs. The funds are expected to come from a strategic initiative or from various departments within the city.

The delivery of a TDM program can be very cost-effective compared to other transportation programs. The short, medium and long-term financial resource implications of this TDM Plan have been estimated.

Table 13: Cost of Programs

Program	Delivery agent	Duration	Estimated Cost
<b>SHORT (YEAR 1-2)</b>			
City workplace promotion for sustainable travel	TDM Coordinator with Smart Commute	Ongoing	Cost of salary + any funding to Smart Commute
Promotional materials and incentive programs	TDM Coordinator	Ongoing	\$10,000 annually (e.g. for printing)
Community events	TDM Coordinator, community Groups, City departments, etc.	As needed	\$5,000 to \$10,000 annually
<b>MEDIUM (YEAR 3-5)</b>			
TDM-supportive amenities (e.g. bike lockers)	TDM Coordinator community groups, property owners etc	Ongoing	\$2,000 to \$10,000 annually
Commuter Program	TDM Coordinator with community and business groups and consultants	One-year pilot program plus planning and evaluation periods	\$100,000 to \$300,000
<b>LONG (6-10 YEARS)</b>			
Additional Resources	Council/Senior Management	Ongoing	\$75,000 -150,000 annually (e.g. for salary, benefits, office equipment, technology)
Workplace program	Smart Commute Mississauga and Pearson Airport Area	Ongoing	\$60,000 or more annually (e.g. for staffing, outreach)

# Monitoring

**Monitoring the impacts of TDM initiatives is key to their long-term success. However, little has been done to date in Mississauga to monitor TDM measures, making it difficult to know what works and what doesn't.**

## Why Monitor?

The purpose of monitoring is to identify changes in transportation behaviour and progress toward pre-determined targets over time. It is a continuous process that involves both quantitative and qualitative measurements, and requires baseline measurements that provide a starting point for measuring change.

Monitoring the success of past TDM measures supports the implementation of future measures by enabling adjustments when progress toward targets is insufficient. Regular monitoring updates on the TDM plan can also maintain accountability by giving residents information that shows how travel behaviours are being influenced in their neighbourhoods and across the City.

Figure 26: Monitoring Program Elements

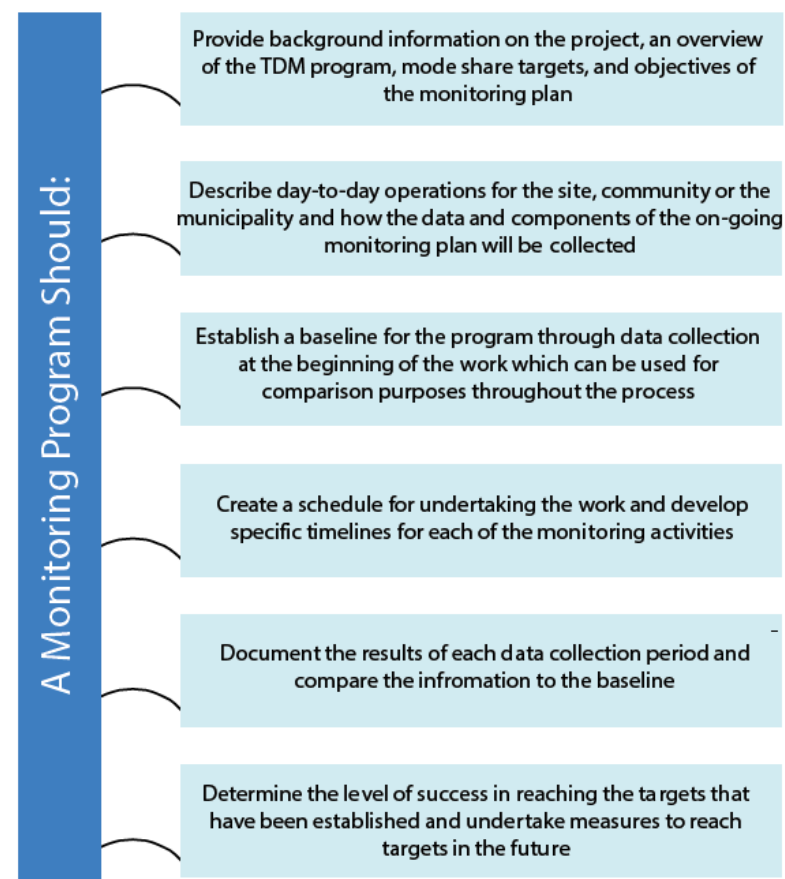




Figure 26 illustrates the key elements of a monitoring program. It is recommended that the City develop a monitoring program with the following in mind (as shown in Figure 27).

A thorough monitoring program would include the following:

- Data to be collected by type and source.
- A timeline for data collection.
- General and/or specific program goals or targets.
- Collection of data as per the timeline established.
- Analysis of data with regards to program goals and targets.
- Planned interventions for programs that do not meet target expectations.

Figure 26: Monitoring Program Components

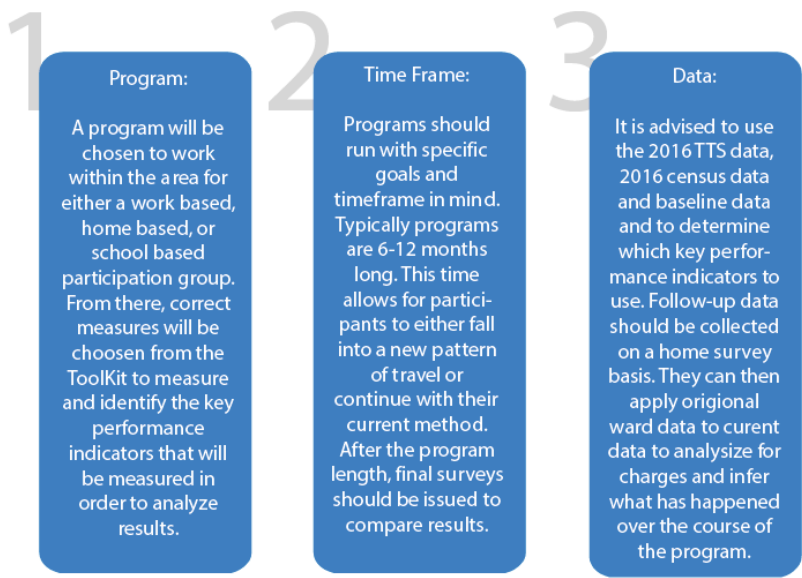
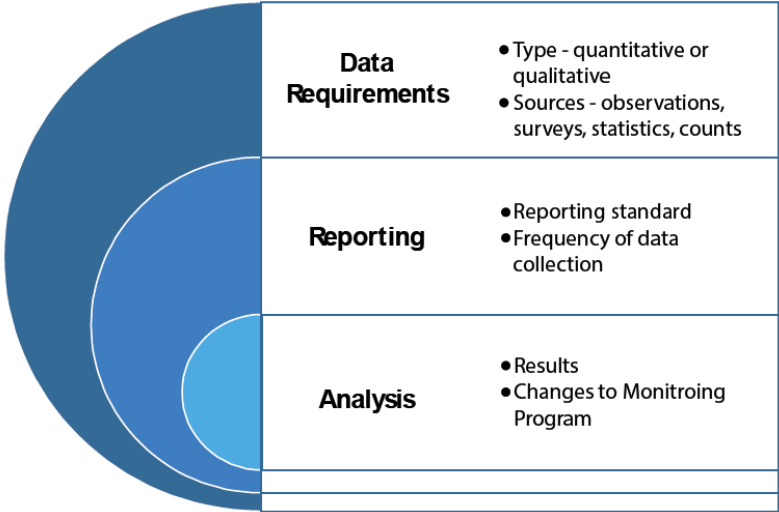


Figure 27: Monitoring Program Concepts



## What to Monitor?

To achieve the above properties of a monitoring program there are several things to consider as shown in Figure 27. These include the data requirements, the methods of reporting and the analysis of the data in comparison to baseline information).

The features of a monitoring plan are best determined according to the nature of the program being monitored, the program's established goals and targets, and the types of available data.

There will be two types of TDM initiatives in Mississauga. First, there are site-specific programs that can be associated with a new development or an existing site with a specific program (such as a school or workplace). Second, there are broad TDM initiatives (e.g. City-wide bicycle rack program, new transit service, individualized marketing program, or website).

A toolkit has been developed with measures for these programs that will identify where problems lie and where more attention is needed to mitigate these areas of concern. Each component of the toolkit is discussed in the following pages and includes the following data:

- Intersection turning movement counts: to be undertaken at key times and peak periods at both times following the parameters of the City of Mississauga
- Vehicle classification and occupancy counts: to be undertaken at key times and peak periods to determine the changes in vehicle use and occupancy

- Parking usage (structured, lots, on-street): turnover rates and parking duration to determine short vs. long term parking utilization
- Use of transit: to be undertaken in partnership with MiWay to determine changes in the number of boardings/alightings and the number of MiWay fares paid with a PRESTO cards purchased in the area
- Use of bicycle parking facilities: mid-morning, mid-day and mid-afternoon counts on pre-determined dates
- Use of car-sharing: monitor the use of car sharing through membership and assigned individuals who can use the car-share program
- Annual report: develop an annual report outlining the monitoring programs and changes over time

The various monitoring activities are outlined in the following table, with details provided in subsequent sections. It is important that at least for the first few years both the Region and City follow the Monitoring Plan Activity Framework as outlined below and undertake counts on a regular basis to determine how successful the TDM programs are at shifting travel behaviour as they are being introduced. These results can then be used to better understand and underline the transportation impact of TDM initiatives to political and other community representatives.



## Possible Monitoring Activities

Table 14: Possible Monitoring Activities

Element	Application			
	WHAT	WHERE	WHEN	WHO
<b>Intersection turning movement counts</b>	All turning movements	Intersections along perimeter and within development	March and October	City of Mississauga and Region of Peel
<b>Vehicle classification and occupancy counts (all modes)</b>	Classification of all modes and occupancy counts for all modes	At intersections	March and October (same week each year)	City of Mississauga and Region of Peel
<b>On-site parking usage</b>	Parking occupancy	Parking garage and surface parking	Monthly – weekday, Saturday and Sunday	Automated Collection received from facility operator and periodic observational counts in lots that are “free”
<b>On-street parking usage</b>	Parking occupancy	On all streets within the site with on-street parking	March and October	City of Mississauga
<b>Transit usage (ridership)</b>	Ridership on identified routes for Weekdays, Saturdays and Sundays Transit passengers boarding and alighting Origin/Destination Survey		Each booking (APC)  Every 5 years (Most recent available is 2015-2016)	MiWay
<b>Transit service supply</b>	Scheduled trips on specified routes	All stops adjacent to the site	Each booking (APC)	MiWay
<b>Use of on-site bicycle racks</b>	Number of cyclists traveling to a specified location	All surface permanent bicycle racks	Three times per year – May, July and September	City of Mississauga & automated bicycle counters
<b>Use of car sharing</b>	Use on site	Reserved spaces at condo towers	Monthly from Car-sharing company	Car-share provider
<b>Overall mode share</b>	Transportation Tomorrow Survey (TTS)	Study area	Every five (5) years	City of Mississauga
<b>Safety data</b>	Collision Data	Specified intersections	Monthly or when available	City of Mississauga
<b>Annual report</b>	Cover all aspects of TDM program	City of Mississauga	Annually	City of Mississauga

# Origin Destination Data

**The Transportation Tomorrow Survey provides data on mode usage and destinations for millions of residents within Southern Ontario.**

Every five years, the Data Management Group at the University of Toronto undertakes the Transportation Tomorrow Survey which provides data on mode usage and destinations of households throughout southern Ontario. Data is available for the 2006 and 2011 surveys.

The Origin Destination Data (O-D) survey data that is available can be used to supplement the transportation monitoring program. Data can be obtained to provide insight, for example, into the use of bicycling and walking to and from the site for daily activities. This data can be analyzed in association with data collected through surveys

with workers and residents, bicycle parking counts and traffic count data. The O-D surveys should also be analyzed to determine the change over time in the use of active modes for commuting and other purposes. This is very valuable and informative data that should be used in conjunction with annual data collection efforts.

As well, census data can be used to determine the how people commute and how far they are commuting. This data is available every five years as well and can be used to support other data collected and to make policy decisions.



# Traffic Safety Data

## Region of Peel maintains select safety statistics along Regional Roads.

This data is summarized in annual reports which are available on the website. The most recent report (2015) indicates a decrease in the number of collisions along Regional roads. The Region and the City support and participate in a range of traffic, cycling and pedestrian safety programs and initiatives. These include pedestrian safety videos, construction safety zone information and infrastructure improvements.

Peel Regional Police have a traffic management strategy to make the roads safer and offers considerable information on its website about safety for pedestrians, cyclists and motorists. They also have statistics available. Children can learn about the rules of the road through cycling, walking and mini battery-operated cars in a scaled-down community equipped with buildings, traffic signals, signs, railway crossings among others.



Elizabeth St South  
and Lakeshore Road East  
Port Credit





# 6

## Conclusions and Recommendations

**Coordinate, promote, enhance, monitor, and evaluate.**

Based on the issues highlighted and reviewed in this plan, it is recommended that the City implement the short, medium and long term actions outlined in the TDM Action Plan. These have been broken down into five key themes: Coordinate, Promote, Enhance, Monitor and Evaluate/Advocate and separated by time period (Short, medium, long term).



Table 15: TDM Action Plan

	Short-Term	Medium-Term	Long-Term
<b>Coordinate</b>	<ul style="list-style-type: none"> <li>Establish a TDM Working Group to, among other things, help integrate TDM and transit as well as TDM and major construction projects.</li> <li>Develop a formalized process for incorporating TDM soft and hard measures/TDM supportive infrastructure in the existing development applications process as part of a TDM Plan under existing legislation (Planning Act and City by-laws).</li> </ul>	<ul style="list-style-type: none"> <li>Update the formalized process for incorporating TDM soft and hard measures/TDM supportive infrastructure once legislation is in place giving City's the power to create enforceable undertakings (Planning Act and City by-laws).</li> </ul>	<ul style="list-style-type: none"> <li>Work to transition TDM programs to be fully self-funded by the community</li> </ul>
<b>Promote</b>	<ul style="list-style-type: none"> <li>Establish a web-page on the City of Mississauga's website that provides a central location for information about all existing TDM programs in Mississauga.</li> </ul>	<ul style="list-style-type: none"> <li>Promote new active transportation facilities as they are being constructed and as they are opened.</li> </ul>	
<b>Enhance</b>	<ul style="list-style-type: none"> <li>Review partnership opportunities and assess City's ability to provide targeted outreach support to enhance TDM programs.</li> <li>Review and improve the City's current workplace programs for City staff through Smart Commute:</li> <li>Develop a program of internal incentives</li> <li>Simplify the program so that staff understand its intent, services and benefits.</li> <li>Host lunch-and-learn sessions at workplaces across Mississauga</li> <li>Create a TDM incentive program for the Hurontario LRT construction period. Relying solely on a communications plan will not likely be sufficient to encourage a shift to sustainable modes.</li> <li>Add bicycle parking requirements to the City's Zoning By-law, and develop a program to install bicycle racks throughout the City.</li> </ul>	<ul style="list-style-type: none"> <li>Create a comprehensive TDM outreach and education program.</li> <li>Work with property managers, condominium boards, community associations and others to encourage sustainable travel in neighbourhoods.</li> <li>Update the City's Traffic Impact Study guidelines to require the consideration of TDM measures and TDM-supportive infrastructure and design elements in development applications.</li> <li>Enhance Official Plan policies related to TDM, and ensure that the TDM section of the upcoming TMP is reflective of the TDM Plan and Implementation Strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Update the TDM Strategy and Implementation Plan to ensure that it remains current and reflects changes in technology, land use, transportation infrastructure and services, and social concerns about climate change and public health.</li> </ul>

Short-Term	Medium-Term	Long-Term
<b>Monitor and Evaluate</b>	<ul style="list-style-type: none"> <li>Evaluate “quick win” projects and programs to determine effectiveness, decide the need for continuation, and make improvements.</li> <li>Set up a formal review process for the delivery of existing TDM programs that the City is involved in to:               <ul style="list-style-type: none"> <li>Ensure the strategic positioning of the City in the delivery of TDM programs:</li> <li>Review new strategic partnership opportunities for the City to increase uptake of TDM programs for residents and persons traveling to and from Mississauga</li> <li>Periodically evaluate City-funded programs against key performance indicators based on monitoring activities in the monitoring program</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Evaluate changes in context for TDM service delivery and determine how to incorporate them into the strategy as they occur.</li> <li>Update the outreach and education program to be consistent with changes in the delivery of City communications, and to be consistent with new technologies and programs.</li> </ul>
<b>Advocate</b>	<ul style="list-style-type: none"> <li>Work with the Province for amendments to the Planning Act that would allow municipalities to create enforceable undertakings that would require developers to:               <ul style="list-style-type: none"> <li>Provide a number of TDM hard measures in accordance with a new TDM policy that would require a certain TDM standard to be met as part of as part of the urban development process for a defined period of time</li> <li>Provide, support and oversee the implementation and monitoring of TDM soft measures beyond the opening day of developments for a defined time period</li> </ul> </li> </ul>	







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# TDM Strategy and Implementation Plan Appendices

AUGUST 2017



MISSISSAUGA



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# TDM Strategy and Implementation Plan

## Appendices

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# Appendix A: Policy Review

AUGUST 2017



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## Planning Policy Review in Relation to Transportation Demand Management

Developing the Transportation Demand Management (TDM) Plan requires an understanding of the policy documents that provide a framework for the plan's content and an analysis of other plans and programs from throughout North America and beyond. Understanding how the background information can affect the City and the implementation of TDM is an important aspect of the plan. This chapter will provide a summary of all the background research undertaken, analyze how it will impact the City, and what should be undertaken to enhance TDM policies and programs within the City.

Transportation Demand Management (TDM) in Mississauga is supported by a wide range of policies at the federal, provincial and regional level. This framework provides the policy direction for the vision, goals and objectives for Mississauga's TDM Plan. In this section, the most relevant policies at each level of government are reviewed and analyzed with regard for their relevance to the TDM plan.

The following outlines the policies that exist in Canada which support sustainable development, land use and transportation planning.

### Federal and Provincial Policies

There are a number of provincial and federal policies that complement the implementation of TDM measures and programs at the local level. The following is a summary of these policies and how they may impact the implementation of the TDM Plan in Mississauga.

#### Federal Sustainable Development Act

##### Policy Description

The Federal Sustainable Development Act (FSDA) requires the Government of Canada to develop a sustainable development strategy, providing a framework through which to conduct sustainable planning and reporting within the federal public service. Its guiding principles focus on clean air and water, natural protection, and shrinking the environmental footprint of government. The strategy aims to produce:

- An integrated view of federal actions and results to achieve environmental sustainability.
- Effective measurement and monitoring of sustainability progress to Canadians.
- Equal footing of environmental with economic and social considerations in federal decision-making.

##### Relevance to Mississauga TDM

While not binding on any other level of government, the FSDA sets a policy precedent at the federal level. It asks provincial and municipal governments to incorporate sustainability into policy development and action plans. The FSDA's guiding principles



for upholding environmental integrity and considering the environmental costs of proposed actions will be strongly considered and reflected within Mississauga's TDM Strategy.

## **Provincial Policy Statement (2014)**

### **Policy Description**

The Provincial Policy Statement (PPS) lays the foundation for the regulation of land use and development within the province of Ontario. It provides policy support for appropriate and context-sensitive urban and rural development, environmental and resource protection, and social equity in planning matters. An overarching vision for Ontario's land use planning system is articulated in the PPS, stating that the "long-term prosperity and social well-being of Ontarians depends on maintaining strong communities, a clean, healthy environment, and a strong economy."

### **Relevance to Mississauga TDM**

The PPS promotes land use patterns that support "a mix of ... transportation choices that increase the use of active transportation and transit before other modes of travel". Specifically, the PPS requires the following:

- Design of "healthy, active" communities that support active transportation and existing, planned, or future transit services (1.1.3.2; 1.5.1), and reduce lengths and numbers of vehicle trips (1.6.7.4).
- Provision of facilities for people and goods that meet projected needs (1.6.7.1).
- Use of transportation-demand management strategies to make efficient use of existing and planned infrastructure (1.6.7.2).
- Connectivity within and among systems and modes (1.6.7.3).
- Integration of transportation and land use considerations at all stages in the planning process (1.6.7.5)
- Long-term corridor planning, and mitigation of their negative impacts (e.g. pollution, noise) (1.6.8).

The PPS provides direction for the development of policies that reflect provincial objectives. In Mississauga, the integration of land use and transportation planning is already part of existing City policy.

## **Ministry of Transportation Cycling Strategy (2013)**

### **Policy Description**

In September 2013, the Ontario Ministry of Transportation (MTO) published #CycleON, Ontario's Cycling Strategy. The strategy acknowledges the importance of developing cycling facilities to help reduce greenhouse gas (GHG) emissions, ease gridlock, benefit the economy, increase tourism, and increase the health and quality of life for all Ontarians. Key elements of the Province's vision include: the development of a safe cycling network that connects the entire province; the continued reduction of collision and injury rates; and the empowerment of everyone from the occasional cyclist to the daily commuter to feel safe when cycling in Ontario. This strategy is intended as a guide to make sure this vision is achieved.

### **Relevance to Mississauga TDM**

The Cycling Strategy outlines a 20-year vision for cycling in the province, with proposed cycling infrastructure, educational components, and legislation. This strategy, in conjunction with other provincial documents, aims to promote and strategically develop sustainable transportation infrastructure province-wide.

The key directions of the policy promote active and healthy communities, improving cycling infrastructure and road safety and promoting cycling awareness. These key strategic directions inform the active transportation actions and measures that will be incorporated into the TDM Strategy.

## **Accessibility for Ontarians with Disabilities Act (2005)**

### **Policy Description**

The Accessibility for Ontarians with Disabilities Act (AODA) was passed on June 13, 2005, and is a provincially legislated policy that calls on the business community, public sector, not-for-profit sector and people with disabilities or their representatives to develop, implement and enforce mandatory standards. This policy is a first of its kind in Canada to apply to both the private and public sectors. These accessibility standards are the rules that local governments, agencies and businesses in Ontario follow to identify, remove and prevent barriers to accessibility.

### **Relevance to Mississauga TDM**

The TDM Plan recommendations will be consistent with the AODA requirements for both TDM-supportive infrastructure and program measures, ensuring full access to all residents.

The “Built Environment” component is relevant towards the planning, design and construction of facilities and infrastructure that support TDM. The “Transportation Standards” section requirement is incorporated through the planning and delivery of transportation services.

Soft TDM measures such as outreach or consultation require actions to meet AODA policies. Due diligence is required to ensure outreach, communication and participation is accessible to all of the public

## **Ministry of Transportation Transit - Supportive Guidelines (2012)**

### **Policy Description**

The Ministry of Transportation’s Transit Supportive Guidelines encourage transit-friendly planning and design throughout the province. More specifically, the Guidelines provide direction on land-use planning, urban design and operational procedures that enhance connectivity to transit based on current best practices. The document is intended to be a guide for planners, developers, and others involved in developing more sustainable and transit-supportive communities in Ontario.

### **Relevance to Mississauga TDM**

These Guidelines provide direction on how to integrate all modes of transportation when designing for transit to create more complete streets. The document provides

guidelines for the improvement of transit facilities including design recommendations. The guidelines complement the TDM Plan's intention to support connection to transit within Mississauga.

## **Growth Plan for the Greater Golden Horseshoe – Places to Grow (2013 Update)**

### **Policy Description**

The Growth Plan promotes dense, mixed-use communities that support public transit, walking and cycling as viable transportation options throughout Ontario's Greater Golden Horseshoe.

The development of mixed-use communities with a traditional downtown built form that serves a range of residential, commercial and business functions are encouraged in the plan. The aim is to better utilize land and infrastructure. This involves reducing transportation demand and enticing more people to choose public or active transportation to reach their destinations.

### **Relevance to Mississauga TDM**

Policies from the Growth Plan relevant to the development can be found throughout Section 2 ("Where and How to Grow").

- 2.2.2: Managing Growth
- 2.2.3: General Intensification
- 2.2.5: Major Transit Station Areas and Intensification Corridors
- 2.2.6: Employment Lands
- 2.2.7: Designated Greenfield Areas
- 3.2.3: Moving People

Policies in these sections provide direction to municipalities for accommodating intensification which include: establishing specific intensification targets, requirements for greenfield density targets; developing mixed-use, transit-supportive, pedestrian-friendly urban environments; and encouraging the development of complete communities. Additionally, there are requirements that municipalities integrate pedestrian and cycling networks into transportation planning.

The Growth Plan also directs future growth to traditional downtown communities where the potential for intensification is highest. Intensification in the urban growth centers of Mississauga will warrant TDM-supportive infrastructure, and complimenting multi-modal transportation that permits access from Mississauga and the broader region.

## **The Big Move: Metrolinx Regional Transportation Plan (2013 Update)**

### **Policy Description**

The Big Move is the third piece in a tripartite provincial approach (along with the Greenbelt Plan and Growth Plan for the Greater Golden Horseshoe) to guide growth and sustainability planning in the Greater Toronto and Hamilton Area (GTHA) and

builds upon the two previously mentioned documents. Together, these initiatives aim to develop more compact and complete communities that make walking, cycling and transit part of everyday life. The goal of the Big Move is to create a long-term strategic plan for an integrated, multi-modal, regional transportation system. It serves as a blueprint for a more sustainable transportation future for the entire region over its 25-year planning horizon.

### **Relevance to Mississauga TDM**

The Big Move calls for comfortable and convenient mobility. This will be accomplished through multi-modal transportation integration that connects all areas of the GTHA. Through the interim transportation strategy, Moving Mississauga, the City incorporated many of the goals and strategic actions outlined in the Big Move, including:

- Enhancement and expansion of active transportation;
- Improving the efficiency of the road and highway network;
- Creating an ambitious TDM program;
- Creating a customer-first transportation system;
- Building communities that are pedestrian, cycling and transit-supportive; and
- Improving goods movement within the GTHA and with adjacent regions.

In particular the strategic action to “Create an Ambitious Transportation Demand Management Program” within The Big Move highlights the role of TDM programs as a major component towards increasing the use of sustainable travel modes and shifting travel behaviour. Mississauga has incorporated some of the goals from the Big Move regarding TDM into City policy and planning. These include:

- Incorporating recommendation into the Official Plan to require a TDM Strategy as part of development proposals;
- Establishing programs for both public and private sector employers to implement and encourage the use of TDM programs; and
- Consideration for working towards updating the Planning Act, which currently does not provide sufficient support to allow Mississauga or other municipalities to fully incorporate TDM programs into the development process and follow through on the monitoring of each plan provided by private sector applicants.

## **Region of Peel Policy**

### **Region of Peel Official Plan (2014)**

#### **Policy Description**

The Regional Official Plan is a long-term plan used to assist the region in managing growth and development and provide each local municipality with the framework within which to develop their own Official Plans.

The plan provides the Regional Council with a long-term regional strategic policy framework for guiding growth and development in Peel. The plan recognizes the

need for effective environmental protection and management measures to ensure environmental sustainability.

### Relevance to Mississauga TDM

The over-arching theme of the Official Plan is sustainability. The aim of the plan is to promote sustainable development resulting in a strong, vibrant and resilient society. TDM will provide Mississauga with the framework to manage current traffic demands, and create a stronger, more flexible city. The following are policies from the Regional Official Plan that are relevant to the development of the Mississauga TDM Plan.

- 5.3 *The Urban System:* These policies will support the use of sustainable travel options within Mississauga.
  - Achieve an urban structure, form and densities which are pedestrian-friendly and transit supportive
  - Plan to use existing services and infrastructure more effectively to encourage compact urban development
  - Develop urban growth centres to incorporate a range of multi-use space and accommodate multi-modal transportation
- 5.5 *Growth Management:* These policies encourage the use of sustainable travel modes.
  - Optimize use of existing land supply in the Region by directing growth within built-up areas to be intensified
  - Achieve diverse and compatible mix of land uses including residential and employment
- 5.9 *Transportation System:* These policies provide direction to the residents to use sustainable travel modes.
  - Consider all modes of travel and promote the efficient movement of people and goods
  - Increase travel choices to meet diverse needs
  - Minimize environment and health impacts of transportation
  - Promote the integration of transportation planning and land use planning
  - Increased use of transit to maximize use of existing and future transportation asset
- 5.9.9 *TDM:* TDM is important within a range of solutions to meet the forecasted travel demand
  - Demand side solutions to improve efficiency of the transportation system and to reduce or modify demand



## Region of Peel Long Range Transportation Plan (2011)

### Policy Description

The Long Range Transportation Plan (LRTP) addresses major transportation challenges and opportunities in the Region of Peel. To address these, the vision for the LRTP is to ensure there is a safe and convenient transportation system for everyone to use.

### Relevance to Mississauga TDM

The LRTP promotes sustainable modes of transportation such as public transit, carpooling, walking and cycling. Changing the mindset of decision makers and users is essential for a sustainable transportation system, and is indicated through the section highlighted below:

#### 3.6 *Transportation Demand Management*

- The goal is to grow and expand TDM initiative and programs to further manage congestion and influence travel behavior among residents.

#### 3.8 *Goods Movement: Manage heavy concentration of industrial businesses reliant on the transportation of goods.*

- Peel acknowledges the importance of intermodal facilities, airports, rail corridors and terminals and encourage the transport of goods using a defined network of roads.

## Region of Peel Sustainable Transportation Strategy (On-Going)

### Policy Description

The Sustainable Transportation Strategy is part of the Long Range Transportation Plan Update. It is an action plan to help build a transportation system that is safe, sustainable, efficient, and healthy for all users

### Relevance to Mississauga TDM

Once the plan is developed and released, it will complement Mississauga's TDM programs by encouraging sustainable modes of transportation throughout the region and provide direction on encouraging behaviour change.

## Region of Peel Active Transportation Plan (2011)

### Policy Description

The Active Transportation (AT) Plan provides a framework for the Region to increase the share of trips by walking and cycling, enhance modal integration, and create a pedestrian and cycling friendly environment. It sets policies towards active transportation improvements and strategies and programs to shift travel behaviour.

### Relevance to Mississauga TDM

The AT Plan includes a regional network for AT and policies to support its implementation. The most relevant policies for the development of the TDM plan are:

- Implement programming incorporating communications and social marketing strategy
- Use long-term behavioural shift programs by using community-based social marketing in neighbourhoods and areas with access to active transportation infrastructure
- Active transportation should be accommodated in corridors with supporting land uses and destinations and integrate with existing and planned transit modes
- Implementation to replace deteriorating infrastructure and to fill gaps and critical links in paths and trails

## **Region of Peel Freight Transport Demand Management (2012)**

### **Policy Description**

Peel Region has a significant amount of industrial and warehouse uses. As a result, a study was commissioned to explore TDM measures to control goods movement within the Region. The study examined strategies that blend demand management and sustainable transportation practices with improvements to goods movement in the Region of Peel.

### **Relevance to Mississauga TDM**

Mississauga's economy includes a large goods movement sector due to the number of warehouses, employers and the presence of the Pearson International Airport.

The TDM plan for freight will help Mississauga to:

- Reduce emissions produced by freight carriers
- Reduce kilometers traveled by freight carriers
- Shifting freight to modes with less environmental and community impact
- Optimize system optimization through Intelligent Transportation Systems and provide assistance to goods movement businesses through partnerships

The application of TDM to freight movement can provide the City with another level of managing travel demand. As stated above, the City has a number of businesses that rely on goods movement via surface routes. Therefore the City should work with the Region of Peel to integrate their policies within the TMP and the TDM Plan to create opportunities to increase the efficiency of goods movement and reduce impact on the environment and the community.

## **Region of Peel TDM Study Report (2004)**

### **Policy Description**

A TDM Study report was commenced in 2004 to support the Long Range Transportation Planning exercise. The TDM report set a vision to create policies and programs to enable a balanced, multi-modal transportation system that promotes choices for travelers and influence demand for limited transportation systems.

### **Relevance to Mississauga TDM**

Relevant strategies for the TDM Plan include:

- Improvement to environment and health of communities
- Choosing land use and community design that have impact on mode choice
- Transportation options that are coordinated with public and private sector to promote safe and sustainable transportation system that provides travellers with a variety of mobility choices

#### Action Plan:

- Coordinate with TMAs and surrounding regions to create a holistic long range TDM program
- Establish monitoring programs for quantitative and qualitative data to assess effectiveness of TDM Measures

## City of Mississauga

### The Mississauga Official Plan (2014)

#### Policy Description

Mississauga's Official Plan establishes goals, objectives and policies to manage changes on social, economic and environmental conditions. It sets the long term land use policy framework for initiatives to develop Mississauga.

#### Relevance to Mississauga TDM

The policies set in place through the Official plan outline goals to intensify urban areas, and to create transportation systems that connect to living and employment areas; reducing reliance on the single occupant vehicle (SOV) trip. The following are relevant to the development of the TDM Plan:

- *Transportation Demand Management*: These policies will provide the framework for using the transportation system more efficiently, reducing congestion and pollution, and utilizing scarce municipal transportation resources more effectively.
- *7.1.3 Complete Communities*: The city will design streets to facilitate alternative modes of transportation such as public transit, cycling, and walking.
- *7.3.1 Community Infrastructure*: There will be consideration for infrastructure to be placed along main corridors and roads, and to be connected through trails and cycling facilities where possible.
- *8.1 Multi-Modal System*: The City will encourage and enable transportation choices as a shift in lifestyle towards active transportation. They will encourage TDM measures such as car-pooling, alternative work arrangements, and shared parking.
- *8.2.2 Roads*: The policy provides for active transportation facilities on major collectors in neighbourhoods and minimize vehicle- active transportation conflicts.
- *8.2.3 Public Transit*: Policies are proposed that increase capacity and attractiveness of transit services through an expanding network that covers from where people live to where people work.

- *8.2.4 Active Transportation:* There will be investment to expand both cycling trails and facilities to accommodate commuters.
- *8.3.3 Cycling:* These policies will focus on enhancing pedestrian safety within the right-of-way and will incorporate new cycling infrastructure into new roads and existing roadways.
- *8.4.7 Parking:* The policies related to parking will implement control on parking in intensification areas and coordinate with TDM programs to link both transit and auto use accordingly.
- *8.5 Transportation Demand Management:* These policies form the basis for the development of a TDM Plan and will encourage active transportation, controlled auto use, expansion of transit network through both physical infrastructure and programs.

The policies within the Official Plan (OP) provide a relatively substantial basis for the development of the TDM Plan, upon which stronger policies and recommendations can be developed which will lead to increased use of sustainable travel options over the long term. The policies within the OP will need to be changed to be in line with the policies within the TMP and the TDM Plan when it is updated in the future. However, it should be noted that changes to the implementation of TDM in the City will require changes to the legislation at the provincial level to allow municipalities to require TDM programs from applicants developing within Mississauga. Until such time, the policies and recommendations that are in the Official Plan will provide the outline for negotiations with the development community and opportunities to educate the public on the benefits of TDM programs and measures.

## City of Mississauga Strategic Plan (2009)

### Policy Description

The Strategic Plan for Mississauga prioritizes the Official Plan's policies for the short term. These policies will be prioritized through both programs and capital investment.

### Relevance to Mississauga TDM

The Mississauga TDM Plan will be consistent with the City's Strategic Plan. The strategic plan sets out the vision, mission and the values of the City of which the following can be applied to development, delivery and monitoring of the TDM Plan. Values that can be applied to the TDM Plan include:

#### *Developing a transit-oriented city*

**Goals:** There is an emphasis on building and expanding the transit system in order to be more environmentally sustainable, to be more convenient to the automobile user, to connect the city through public and active transportation, and to direct growth to specific areas while being affordable and accommodating for an aging population.

#### *Ensuring youth, older adults and new immigrants thrive*

**Goals:** Policies to ensure a range of affordable and accessible transit options and services.

### Completing our Neighbourhoods

**Goals:** Priority on policies that will develop compact walkable communities that will put the pedestrian first, linking urban areas to neighbourhoods. Providing different modes of active transportation that are desirable and to deliver and maintain that infrastructure.

### Cultivating creative and innovative businesses

**Goals:** Use policies to create a strong network that will attract business opportunities to the area.

### Living Green

**Goals:** Emphasis on changing behaviours to support a more sustainable approach to the environment through minimizing impacts on resources, reducing emissions, and reducing contribution to climate change.

The strategic plan includes goals and objectives that highlight the City's desire to create a more sustainable community that supports walking, cycling and transit. It is important to incorporate this overall direction into the TDM Plan.

## **Mississauga Cycling Master Plan (2010 / On-going)**

### **Policy Description**

The City of Mississauga Cycling Master Plan outlines strategic initiatives and guidelines that recommend appropriate standards for the design, construction, and operation of the cycling network to the year 2030. The plan is supported by provincial and regional policies and is intended to be used by the City as a tool to promote healthy communities and active and sustainable modes of transportation.

### **Relevance to Mississauga TDM**

Three strategic goals were created with respect to cycling within Mississauga.

#### **Goal 1:** To foster a culture of everyday cycling

To achieve this goal the plan outlines an increase in the transportation modal split for cycling to 10% of all weekday trips through promoting cycling to schools, increasing awareness of cycling network and facilities, and developing partnerships to implement the education and awareness programs.

#### **Goal 2:** To integrate an on-road and off-road network as part of a multi-modal transportation system

To achieve this goal the plan discusses adding approximately 30 kilometres of bicycle lanes and multi-use trail per year over 20 years by seeking partnership opportunities and prioritizing the connection of network links; and

#### **Goal 3:** To adopt a "Safety First" approach for cycling in this process

To achieve this, the plan discusses continually reducing cycling incident rates by developing an asset management plan for all cycling facilities and an educational plan for motorists and cyclists

**S.11** outlines seven programs in order to promote and support cycling to the public. It includes promoting in schools, raising awareness of trails and facilities, fostering community events and campaigns, and creating bike parking.

Many of the measures presented in the Cycling Plan can be applied to the TDM Plan and support the overall goal of long term and sustained travel behaviour change amongst the residents of Mississauga. The TDM Plan will support the use, implementation and education for and about cycling in the City. The City is also looking at updating its pedestrian policies which will also be supported in the TDM Plan. While the TDM Plan will not develop a network, it will be designed in such a way that the programs, policies, and measures will encourage a greater use of walking as a mode of travel.

## **City of Mississauga Transportation Master Plan (On-going)**

### **Policy Description**

The TMP identifies opportunities in Mississauga's transportation system and identify alternatives to address issues or to grow the transportation network. The plan is the guiding strategy for all decisions made regarding transportation planning.

### **Relevance to Mississauga TDM**

The TMP is in progress and is not currently available to the public. However, it is important to note that there will be consistency between the TDM Plan and the TMP.

## **Moving Mississauga (Interim Transportation Strategy 2011)**

### **Policy Description**

The Moving Mississauga Strategy was developed for the purpose of creating a safe and connected multi-modal transportation system that supports enhancing the environment, the economy, and connectivity within the city. The strategy is based on the policy framework from the City's strategic plan, Official Plan, Cycling Master Plan, Downtown 21 Master Plan, Hurontario Main Street Study, the Regional of Peel Official Plan, and the Places to Grow Act and The Big Move.

### **Relevance to Mississauga TDM**

The goals set in place for the Moving Mississauga Strategy outlines how the system will need to improve to accommodate increasing congestion in the area and a change in demand for transportation infrastructure.

### **Goals:**

- To advance the development of a multi-modal system through network design which includes transit, cycling, and pedestrian facilities that can combat congestion issues through capacity.



- Support land use the Official Plan's land use planning objectives through the integration of design and transportation.
- Advance the transit network giving priority to implementation measures and developing a five year Transit Service Development Plan

This plan provides a framework which will guide the overall development of transportation infrastructure and policies. It supports the shift to more sustainable travel options and integration with an urban structure which is designed to encourage the greater utilization of walking, cycling and transit for utilitarian purposes.

## **City of Mississauga Downtown 21 Master Plan**

### **Policy Description**

The Downtown 21 Master Plan sets out the policies to create a downtown in the City. It provides the framework for a mixed-use, multi-modal community where people will live, work and play. With a centralized downtown area, there will be a number of travel options making it easier to get into and out of the community via cycling and transit. The area will be pedestrian-oriented as well and will include identification of streets that support all modes of travel.

### **Relevance to Mississauga TDM**

The policies developed within Downtown 21 outline the City's goals to revitalize the urban core of Mississauga and build a road pattern and block structure that will create a more livable and compact area. The following policies are relevant to the development of the TDM plan and will support the use of sustainable transportation options:

*2.1 Street Network:* Policies for creating smaller block sizes which will create safe, walkable areas for pedestrians and cyclists while maximizing access to transit.

*3.2 Transit:* Policies that will integrate transit into the street network to create multi-modal street designs that will lead to more walkable areas.

*4.1 Trails and Cycling:* The policies in this section ensure that sidewalks, trails and bike lanes are protected where necessary to allow for safe active transportation in the core area.

*5.2 Main Street District:* These policies have been developed to create a main street district that will connect the residential areas to Square One to create a more pedestrian-friendly area in the shopping centre area

*6.2 Land use:* These policies create distinct districts that prioritize transit and active transportation integration at different levels.

The Downtown 21 Plan outlines a number of goals and objectives for the area which will support the use of sustainable travel options and an urban form that will encourage their use. However, there is little outlining the promotion and long-term support to encourage sustained travel behaviour change and reductions to the use of single occupant vehicle trips. Therefore, when developing the TDM Plan, the tool kit will include TDM programs and measures for the downtown area.

## Summary of Relevance to TDM in Mississauga

As a result of Mississauga's current and future growth, there will be more demand for homes and employment. This growth will increase stress on the City's transportation infrastructure. Policies from the federal to local level provide Mississauga with the tools and resources to assist in the management of sustainable growth and demand for transportation services.

Provincial policies set a large scale regional framework for economic and transportation development. The Provincial Policy Statement sets an emphasis on land use planning to integrate transportation and create healthy and active communities. The Provincial Policy Statement recognizes the need to implement demand management strategies to make efficient use of existing and planned infrastructure. Mississauga's TDM program will be one of the measures towards improving communities and leveraging transportation assets more effectively.

The Province of Ontario has created several policies and guidelines such as the Cycling Strategy, Transit-Supportive Guidelines, Place to Grow and the Big Move. These policies build on the Provincial Policy Statement by providing actionable recommendations. The Cycling Strategy and Transit-Supportive Guidelines are policies pertaining to the land use and facilities that will aid Mississauga in the development of a healthy urban environment. The Greater Golden Horseshoe Growth Plan calls for intensification and development of transit-supportive neighbourhoods. These policies act as a guide to intensify and develop complete neighbourhoods. Finally, The Big Move sets large transportation projects and initiatives to develop accessible multi-modal transportation. These actionable policies will help Mississauga implement TDM, as the provincial government is committed to implement infrastructure and initiatives to improve transportation performance and accessibility.

The Region of Peel, has several policies that can be taken as best practices. Peel was an early adopter of TDM. They provide recommendations to coordinate with TMAs and surrounding regions to offer a cohesive TDM program, and to implement monitoring to understand the effectiveness of TDM. The Region of Peel recognizes the importance of goods movement for the economy and the performance and safety of the transportation system. Goods movement and freight is an important part of Mississauga's economy. Strategies to optimize freight movement and partnerships with businesses can mitigate environmental and health impact of industrial traffic.

TDM strategies should be an essential component of the Transportation and Official Plans of Mississauga. The urban growth goals will require complete communities and infrastructure that is supported by multi-modal transportation. TDM is the vital bridge that links transportation behaviours to the effective use of community amenities and transportation infrastructure. As Mississauga grows and intensifies, the Official Plan and corresponding Cycling and Transportation Plans provide the framework to implement infrastructure and land use to support sustainable transportation. TDM will enable residents to maximize the benefit and reduce the impact of transportation in the City of Mississauga.

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## Appendix B: Best Practices

AUGUST 2017

## Case Studies

The following are a summary of municipalities, regions and other jurisdictions that have introduced TDM programs and evaluated the success of the program. The plans and policies chosen were selected based upon a number of factors.

A number of TDM Programs have been reviewed to examine how goals and objectives were set and their potential application in Mississauga.

- Ajax, Ontario
- Halifax, Nova Scotia
- Newcastle, Australia

## Structure of TDM Programs

### Halifax, NS,

(2011 population – 403,000)

The Halifax *Transportation Demand Management Functional Plan* (2010) “establish[es] an efficient, sustainable transportation network through the development of policy, programs, and services which intend to reduce single occupant vehicles (SOVs) and the negative impacts associated with automobile use.” As a Functional Plan, it is structured in a way that “set[s] out to create specific, action-oriented recommendations and strategies for Halifax Regional Municipality’s specialized needs.”

The Plan consists of 12 recommended strategies ranging from promotion of alternative modes, infrastructure changes to support more energy efficient road based transportation such as HOV lanes, a commuter trip reduction program as well as tax reform, marketing and outreach programs.

### Ajax, ON

(2011 population – 109,600)

The Town of Ajax’s *Transportation Demand Management Plan* (2016) is defined as “a series of community based initiatives designed to encourage residents and people who work in the Town to use sustainable modes of transportation more often”. It is comprised of ‘policies, programs and infrastructure investments required to realize a transportation system that relies less on the automobile.’

The TDM plan consists of:

- Vision and 10 associated Goals
- A ‘TDM Toolkit’ for all desired modes: Transit, Walking, Cycling, Carpooling + Staff Shuttles
- An Action Plan of Short Term (0-3 Year) and Medium Term (3-5 Year) Actions

The TDM Toolkit is intended to encourage Ajax residents to consider using one or all five "tools" for their daily transportation needs. The Action Plan contains recommended measures, a program timeline, and funding sources and opportunities. The majority of actions are concerned with council operating and capital expenditure. A medium term goal is to *"harmonize Development Planning Policy... to be supportive of TDM."*

An Appendix to the plan contains Development Guidelines with a list of potential TDM measures for site development, however these are not legislative requirements at present. Instead, reform is contemplated as part of the Town's Comprehensive Zoning By-law Review and *"Developers are encouraged to discuss these measures with Town Planning Staff to determine what is feasible and appropriate for their site."*

## **Newcastle, Australia**

(2011 population – 308,308)

The Newcastle Transport Strategy (2014) is a plan that outlines a vision for transportation in Australia's seventh largest city. The City is currently embarking on converting heavy rail to light rail in the City centre. The plan is heavily centred on transport modes and themes, covering land use, public transport, walking and cycling, parking, roads and freight and travel demand management (TDM). The sections contain endorsed policy positions as they relate to each theme. To this end, there are four TDM-specific policy commitments and five actions designed to improve TDM in Newcastle. The policy goals for TDM are weighted heavily in favour of modal split goals that revolve around peak periods.

Council-adopted policy commitments:

- Council supports for the State Government target of 20% mode share to public transport for commuter trips to and from the Newcastle city centre in the peak periods by 2016.
- Council supports the New South Wales (NSW) State Government's mode share target to walking of 25% of local and district trips.
- Council supports a mode share target of 5% to cycling for trips less than 10km, and doubling of the mode share to cycling for the journey to work, from 2006 to 2016.
- The use of motorbikes is supported as an alternative to single occupant cars, but not as an alternative to more sustainable modes such as walking, cycling and public transport.

The actions to support these goals include:

- facilitation of more car sharing schemes
- A 'lead by example' travel plan for municipal employees
- Facilitation of car pooling
- Further investigation of park and ride
- Provision of greater household travel information



## Relevance to Mississauga

The plans outlined above demonstrate that TDM Plans differ significantly in their scope and application: the Halifax plan is heavily based around ‘functional’ measures; the Ajax plan is focussed on promotion of more sustainable modes through identified targeted municipal investments; and the Newcastle Plan contains ambitious council-endorsed modal split plans. However, it should be noted that there is little detail or analysis concerning the identifiable measures that have the greatest potential to actually achieve the desired goals.

None of the plans reviewed adopt some of the tougher ‘push strategies’ (end user pricing based) TDM elements seen in European parking management plans or road pricing regimes that can be found in US cities such as the I-35 Express Lanes in Minneapolis or the I-95 Express Lanes in Florida.

To this point, the Urban Land Institute (ULI) argued in a 2014 position paper on the ULI Infrastructure Initiative *When Road Pricing Is Right* that:

1. Potential for tolling and other new transportation revenue mechanisms to influence land use is real, but the magnitude of the impacts is likely to be modest.
2. The most dramatic opportunities are likely to be located in the corridors surrounding tolled roads or highways with the option for congestion free travel
3. The impacts on land use will vary greatly by metropolitan region and will be influenced by the transportation network—including mass transit services—land use patterns, local land use policies, and economic trends.
4. Tolling and other transportation revenue mechanisms have the potential to interact with land use in ways that support growing market preferences for development in compact, mixed-use, walkable nodes, but achieving this objective will require careful coordination with land use policies and other transportation services, include transit service.

## Review of Existing TDM Program Elements

There are three types of TDM programs that were reviewed:

1. Programs that contain significant site based elements
2. Programs that influence travel behaviour
3. Programs that directly target transportation systems efficiencies and performances.

A review of the site based elements of most programs shows that these are typically initiated employer-based or triggered as part of development application processes. The following sections reviews those TDM programs with significant site-based elements.

## TDM programs with significant site based elements

### Contra Costa County, CA, USA

The Contra Costa County TDM Ordinance requires developers to provide a TDM Plan as part of a development application as outlined in the ordinance.

The TDM ordinance has been in place since 2003. According to staff, the ordinance will be updated soon to make it stronger and more robust. Over the next three years, the TDM program will likely change and include a stronger monitoring component. The changes are being driven by the Regional level in the San Francisco Bay area (Metro Planning) to address the issues with of attracting business to suburban areas, lack of transit services and the need to be creative in providing incentives for businesses to come, of which TDM has been seen as a significant incentive to attracting businesses and workers.

The County noted that once a building has been commissioned and the land use has commenced, they have very little control to maintain the standards set out and often lose track of who the building owner is over time. This appears to be in contrast to the initiative as set out in ordinance that requires the owners to pass on the need for a TDM plan to future purchasers.

The Contra Costa County ordinance is one of the first jurisdictions of its kind to attempt to ensure both provision of infrastructure at the time of development as well as an ongoing monitoring component to ensure long term travel behaviour change. It is important to note that the Ordinance provisions that are not currently within the legal constraints of Ontario's Planning Act.

It is therefore recommended that the City continue to explore the feasibility of a TDM By-law and have Council request that the Province consider amending the Planning Act (RSO 1990) to enable municipalities to have the ability to enforce the requirements of development-based TDM plans.

### Cambridge Parking and Transportation Demand Management (PTDM) Ordinance, MA, USA

The City of Cambridge considers its PTDM Ordinance as '*a national model for improving mobility and access, reducing congestion and air pollution, and increasing safety by promoting walking, bicycling, public transit, and other sustainable modes*'.

The ordinance was adopted in 1998 and made permanent in 2006, and includes the following benefits which are championed by the City:

- Cost effectiveness: '*Cost-benefit analyses often show that implementing TDM strategies is less expensive than expanding roads and parking facilities.*'
- Environmental quality and livability: '*TDM strategies reduce the negative impacts from driving including congestion, noise, local air pollutants and greenhouse gas emissions.*'

- Flexibility: *'TDM strategies can be put in place quickly and tailored to particular groups.'*
- Equity: *'Physically or socially disadvantaged people stand to benefit the most from TDM measures that fairly allocate resources to different groups, especially non-drivers.'*
- Economic transparency: *'Many TDM strategies correct market distortions by revealing the true cost of people's travel options.'*
- Sustainable transportation: *'TDM strategies encourage efficient land use, which supports walking, biking, and riding transit.'*

Mandatory participation is triggered when an owner of non-residential property proposes to add parking above the registered number. The types of plans are determined by the following:

A Small Project PTDM Plan would be requested if total parking = 5 to 19 spaces. This plan would require:

- Set of three TDM measures
- Small Project Form

A Large Project PTDM Plan would be requested if total parking = 20 or more spaces. This plan would require:

- Single Occupancy Vehicle mode-share commitment (Generally set at 10% below 1990 Census Data, our environmental baseline for PTDM projects)
- Comprehensive set of transportation demand management (TDM) measures
- Annual monitoring and reporting
- Employee and/or patron survey, including SOV rate
- Biennial counts of car and bike parking occupancy and driveway ins/outs

### **Status of TDM measures**

Each project subject to the Parking and Transportation Demand Management Ordinance is required to commit to a specific, numeric reduction in the percentage of trips made to the site by single-occupant vehicle (SOV). The employee mode split commitment is based on the 1990 Journey to Work data from the U.S. Census Bureau for your Census tract number—a 10% reduction from the 1990 mode split:

### **Results:**

In 2011, approximately two thirds of the monitored projects (twenty-three) met their PTOM mode split commitments. Projects meeting their mode-split commitments all showed SOV driving rates of less than those projected. Compliant mode splits ranged from a low of 0% SOV to a high of 59%.

Almost 80%, of the projects that failed to meet their mode split commitment were located more than 1/4 mile from rapid transit. Almost all of the ratios of employment to parking spaces at the sites, with current employment levels, are not conducive to

meeting the mode split commitments set in the approved PTOM plans. Three of these sites have space that is either unleased or under-occupied due to reductions in staffing or slower than anticipated hiring, leading to an imbalance in the employee-to-parking space ratios.

The City noted that its experience managing and monitoring the program appear to confirm national research **that over-supply of parking** contributes to higher SOV rates. No further results have been made publically available since 2011.

The PTDM is notable for the amount of data it collects and the ability to generate insights on parking and traveler responses to parking management as part of a TDM program. It is notable however that the requirement for organizations to participate in the program and generate travel plans, as required by the City's ordinance, does not consistently lead to mode shift, particularly where workplaces are. There is also an identifiable 'time lag' between assessment and implementation of TDM measures and developments in employment (changes to the labour force and growth and contraction in business activity).

The findings of the program reinforces the idea of introducing TDM measures based on the suitability of prevailing urban typologies and, in particular, taking into account the availability of parking and the municipality's desire to see parking and road space used more efficiently.

## Employer Based Programs

### Cornell University - Ithaca, NY

Cornell University has been providing commuter benefits by offering free public transportation, discounted ride share programs and an emergency ride home program for over 20 years. Benefits are provided with anyone with an appropriate ID.

Over the past 20 years of program operation, one-third of staff use single occupancy vehicle as their primary mode. This number has not changed significantly since the program started.

Cornell estimates that its commuter benefits program has reduced employee-parking requirements by approximately 2,200 parking spaces, and estimates that employees drive about 10 million miles less per year. The university estimates that these programs have saved more than \$40 million in net costs.

### Texas Instruments - Dallas, TX

Texas Instruments (TI) implemented an alternative commuter program in the 1970's. This program evolved into a partnership with the Dallas Area Rapid Transit System to provide passes for employees in the Dallas area. The passes provide unlimited local and express transit services. The transportation benefits are managed by the TI's Commute Solutions team, who plan incentives and educational activities to promote trip reduction.

More than 930 employees used subsidized passes to commute by mass transit in 2011. Another 500+ employees participated in subsidized vanpools. Nearly 400 more carpooled. An average of 600 North Texas employees used the shuttle. The concierge service served 3,100 employees fulfilling 9,200 requests allowing employees to save trips during working hours.

In 2008, the transit program is estimated to have averted 58,000 travel miles per day in the Dallas Area. TI provides a concierge service to handle errands like event ticket pickup and flex-time work schedules that allow for telecommute.

#### **Microsoft Corporation – Transportation Benefits and Connector Program, Redmond WA**

In 2007, the company initiated the connector program, which now has 38 buses transporting over 3,000 riders each day. Microsoft offers free ORCA cards (purchased by Microsoft) which provide employees access to unlimited travel on seven regional transit agencies.

In 2008, 38% of employees used alternative modes of travel to commute to work; 2% bike; and the Connector Program alone has reduced SOV commuter traffic by over 500,000 trips and more than 8 million miles. The program plays a pivotal role in retaining and attracting employees.

#### **Nike – Travel Responsibly, Accept the Challenge (TRAC) – Beaverton, OR**

The company offers prizes and incentives to workers who choose to commute by non-gasoline or diesel-powered vehicles. They have a full-time Coordinator who administers the program.

Nike has reduced the average drive alone rates for their staff from 98% to 84% and in 2007, approximately 594,591 vehicle miles traveled were saved due to the use of sustainable modes.

#### **Georgia Power – Atlanta, GA**

The SmartRide program has been in operation since 1994. The program offers a transportation benefit where employees incur no out-of-pocket expenses. The program incorporates a web-based program to log participation and a guaranteed ride home program. There is a daily shuttle that runs between the office and the downtown facilities.

In 2012, 46% of employees, out of 5,500 total, participate in the Smart Ride program.

Four hundred (400) employees use the vanpool program. SmartRide estimates that the program eliminates 1.3 million single occupancy vehicles per month, of that total, 0.5 million trip reductions are attributed to vanpool.

#### **Humana, Inc. – Louisville, KY**

Humana launched a program aimed at easing parking shortages by partnering with the local Transit Authority. The program allows employees to take transit without

incurring out of pocket costs. Humana pays an upfront premium to the transit agency for employees to ride for free.

In 2012, about 600 out of 9,000 associates within 5 blocks participate in the program. During the first 7 months of program operation, it was estimated that 150,000 trips were taken on public transit opposed to single occupancy drivers

### Relevance to Mississauga

Mississauga is home to many of Canada's largest employers. There is potentially a role for the City to 'broker' or provide assistance in establishing employer based TDM programs to reduce congestion on the road network, particularly during peak periods as well as reduce the amount of land dedicated to parking in employment centres. This could also take the form of employer based periodical transit tickets, purchased from MiWay, often referred to as 'commuter clubs'. The findings of the program reinforces the idea of introducing TDM measures based on the suitability of each measures based on prevailing urban typologies and in particular, taking into account the availability of parking and the municipality's desire to see parking and road space used more efficiently.

## Influencing travel behaviour and decisions

### German Bikeshare systems

(Nuremberg, Ruhr Urban Agglomeration, Stuttgart and Island of Usedom in 2011)

The use of bikeshare in four German cities was evaluated in 2011 to establish before and after trends for their use and applicability in a number of different contexts as well as ascertain the potential of bikeshare to reduce car travel in favour of more sustainable modes. The study did this by collecting data on users and building a profile of their bike share use over time. The results are summarized below.

Use	Nuremberg	Ruhr Urban Agglomeration	Stuttgart	Island of Usedom
Population	518,000	8.5 million	609,219	31,500
Number of bikes	750	655	450	530
Number of stations	63	150	45	60
Start Date	5/2011	6/2010	6/2007	4/2011
Total usage per month	4,228	1,049	6,956	931
Usage per bike per month	5.6	1.6	15.5	1.8
Percentage of hires where start docking station was the same as return docking station	26	46	7	88
Percentage of users that lived with 5km of a docking station	50	65	80	90 (including those with a vacation residence)
Percentage of non-users with periodical transit tickets	30	25	37	Not evaluated



Use	Nuremberg	Ruhr Urban Agglomeration	Stuttgart	Island of Usedom
Percentage of users with periodical transit tickets	57	66	54	Not evaluated
Percentage of mode shift from car travel (both driver and driver+passenger) to bike share for those persons subscribed to the scheme	9	13	4	26
Percentage of bikes that had been redistributed prior to their use at the station from which they were hired	16	19	14	11

Recent research into bike share systems has demonstrated that their application and success is heavily dependent on a number of factors, such as: proximity to bikeshare; availability of bikes at bike docking stations; existing travel patterns; distance travelled; and access to legible bike network. The 2011 show that there is significant potential for bike share in a variety of contexts, however it has also been demonstrated in this and other studies that many bike share users were already predisposed towards transit and that the mode shifts away from vehicles is heavily dependent on travel distances and patterns.

In order to establish the viability for bikeshare for Mississauga, more information and data analysis would be required to establish typical travel distances and patterns, especially for journeys to and from major nodes and Downtown, as bikeshare is generally considered to be best suited for journeys of 5km or less. This kind of information would also be of high relevance for the Mississauga Bike Plan, currently underway.

### Other City-based TDM Programs

The Massachusetts Transit-Oriented Development (TOD) Bond Program in 2006 awarded \$2 million for a mixed-use affordable housing development called Dudley Village on Dudley, East Cottage and Leyland Streets in **Dorchester**. The development will have unbundled parking and just 0.7 parking spaces per unit. (MA Office of Commonwealth Development 2006)

The **City of San Francisco** is considering a proposal to limit parking in some downtown neighborhoods to 0.75 spaces per unit in an effort to force developers to unbundle parking from housing costs. Developers would not be able to simply provide a space included with each unit; in order to build more parking, they would have to obtain a conditional use permit, the conditions of which would stipulate that parking costs must be unbundled from housing costs. (Millard-Ball 2002)

A condo project called "moda" in downtown **Seattle** includes 83 of 251 units that are lower priced and come without parking. The project sold out within a week. (Multifamily Executive 2007)

A new condominium development in **St. Louis** a block from the MetroLink public transit system that offered parking spaces for purchase separate from the units experienced rapid sales and found that 20-25% of buyers opted out of purchasing a parking space. The proximity to transit was instrumental in convincing the lender that the project could succeed without at least one parking space per unit.

**Ottawa** will soon be opening up the LRT services (mid-2018) and to ensure that the development surrounding the stations would encourage the use of the services, TOD guidelines were developed that considered parking in proximity to LRT.

Provisions include:

- Providing only the amount of parking required by the bylaw
- Encouraging shared parking amongst uses with different peak demands (by time of day)
- Locating parking at rear of buildings
- Development of pedestrian corridors through parking areas

Providing preferential priority parking for carpools, carshare and ridesharing vehicles.

## Transportation System Efficiency and Performance and Monitoring

An important component of Transportation Demand Management is performance monitoring and evaluation. TDM can make use of both conventional transportation system measures (such as level of service, congestion delay and traffic speeds) and comprehensive indicators (such as access to goods, services and people as well as mode share, transit service quality, land use density and mix) (Litman 2017). These can be selected and modified as needed to reflect the values, needs and conditions of a particular planning situation.

### Individual Marketing Campaigns, USA

A 2010 Study examined the longer term impacts of individualized, household based individual marketing campaigns in targeted neighbourhoods in Portland, Oregon.

One neighbourhood the decrease of drive alone trips was reported as being significant while walking and cycling increased.

Location	Date	Results
Portland, OR—Hillsdale	2003	9% reduction in drive-alone trips
Portland, OR—Interstate	2004	9% reduction in drive-alone trips
Portland, OR—East	2005	8.6% reduction in drive-alone trips
Portland, OR—Northeast	2006	12.8% reduction in drive-alone trips

Location	Date	Results
Portland, OR—Southeast	2007	9.4% reduction in drive-alone trips
Cleveland, OH	2005	4% reduction in drive-alone trips
Durham, NC	2005	7% reduction in drive-alone trips
Sacramento, CA	2005	2% reduction in drive-alone trips
Bellingham, WA	2004	8% reduction in drive-alone trips

Existing programs in Mississauga are well established. The targeting of neighbourhoods based on known travel patterns (as was the case in Portland) and the collection of additional data, as has been foreshadowed in the Region of Peel's forthcoming TDMSI Plan, has the potential to yield tangible results that can be used to demonstrate the effectiveness of these programs and their continued funding.

### Other Municipal TDM Strategies

Below are other case studies that were reviewed. The table below provides an overview of the areas that should be included in the TDM Plan for Mississauga. As shown, each plan has different attributes which are likely indicative of the approach each municipality has undertaken for the implementation of TDM. What can be taken from this is that when considering the type of TDM Plan that should be developed, it is very specific to the municipality and numerous attributes are considered.

These attributes include:

- The urban form of the municipality;
- The population distribution;
- The transportation options available;
- Support for implementation; and
- Existing policy framework.
- 

While this table does not fully analyze the components of each TDM Plan, it does indicate the emphasis that has been placed on the importance of each component.

The results of the analysis include the following:

- An action plan is necessary for the plan to be fully implemented;
- An emphasis has been placed on delivering programs to schools and workplaces, with little work being included for working with households;
- Policy needs seem to be a minor focus; and
- Marketing and communications are not prioritized.

– Not addressed (no significant focus)    ■ Addressed at a basic level (minor focus)    ■ Addressed thoroughly (major focus)

Document	Policy needs	Vision / Goals / Objectives	Lead by example	Workplaces	Schools	Households	Development Approval	Travel Information / Services	Marketing / Communications	Action Plan: Timing / Staff / Funds	Performance Measurement
City of Calgary TDM Master Plan	–	■	■	■	■	■	–	■	■	■	■
City of Thunder Bay TDM Strategy	–	■	■	■	■	■	–	■	■	■	■
Region of Waterloo TravelWise strategies (2009)	–	–	–	■	–	–	■	–	–	–	–
City of Kitchener TDM Plan (2010)	■	–	■	■	–	■	■	■	■	■	–
City of Brampton TDM Report (2015)	■	–	■	■	–	–	■	■	–	■	■
Region of York TDM Implementation Strategy (2013)	■	–	■	■	■	■	■	■	■	■	–
Region of Durham TDM Study (2007)	–	–	–	■ (**svc delivery analysis)	–	–	–	■	–	■	–
City of Kingston TDM Strategy (2011)	■	■	–	■	–	–	■	–	–	■	■
City of Ottawa TDM Strategy (2012)	–	■	■	■	■	■	■	■	■	■	■

## Summary of Case Study Relevant Issues for TDM in Mississauga

In 2016, the Institute of Transportation Engineers reviewed a range of contemporary definitions and applications of TDM and identified the following prerequisites for a successful TDM program:

1. Adopt a clear definition of TDM that adopts both the promotion of travel and trip choice as key elements
2. Embrace a TDM strategy with clear goals, objectives and performance measures and ensures political

3. Integrate TDM strategy into other City processes and policies, such as development approvals and budgetary considerations
4. Invest resources into communicating TDM goals and objectives to residents and maximize its strategic effectiveness
5. Allocate sufficient resources to monitor implementation and a feedback loop that periodically review performance against adopted goals and objectives

Given the size and population of Mississauga and nature of existing transportation challenges, the long term success of the TDMSI Plan will be heavily dependent on the City's ability to reform its own existing policy and by-law arrangements, lobby the Province for more legislative powers to enact change as well as form strong partnerships with industry and residents to tackle transportation problems that require municipal input if they are to be tackled successfully.

Based on the reviews undertaken and the team's level of understanding of TDM programs, Mississauga can develop a plan that incorporates many of the components of other plans with the necessary policies and implementation tools to be successful in shifting travel behaviours to attain long-term changes in the modal shares towards more sustainable options.

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# Appendix C: New Developments

AUGUST 2017



MISSISSAUGA

# Integrating TDM into Development Approvals in the City of Mississauga

## Introduction

Integrating Transportation Demand Management (TDM) into the development approval process can play an important role in the shaping of the City, the use of sustainable transportation, and the reduction in the overall impact of vehicle trips on travel and quality of life within Mississauga. Therefore it is important to develop an approach as to how TDM can be integrated into the approval process that will ensure long-term travel behaviour change while at the same time exploring what will be needed to fully integrate sustainable travel into planning approvals.

## Key Outcomes

As noted in the Official Plan, the City of Mississauga is transitioning from a suburban community to a more urban one. Integrating transportation and expanding developments will therefore be important to the development of the community:

Creating a multi-modal transportation system that supports transit and active transportation options goes hand-in-hand with creating compact, complete communities... Transportation planning will complement environmental planning, land use planning and urban design. (OP 2015, Ch. 8)

The use of the term TDM is often misleading when reviewing development applications. It often is used to refer to bicycle parking, shower and locker rooms, pathways, on-road bicycle infrastructure, multi-use trails and connections between buildings and transit. These are all considered to be TDM-supportive measures. However, true TDM programs and activities encourage the use of the sustainable infrastructure and end-of-trip facilities through support, educations, promotion and incentives. Policies, vision statements and objectives also are important to supporting the use of TDM programs and activities.

While policies and a vision are important to the overall long-term support for the business case for integrating TDM and TDM-supportive measures into new developments, more will need to be accomplished. This appendix provides direction as to how the City of Mississauga can incorporate TDM into the land use planning and development approvals process through building upon existing Official Plan policies, developing draft conditions for inclusion in development agreements, investigation into changes to zoning bylaws to require TDM programs for new developments and

inclusion of TDM-supportive infrastructure and TDM programs in Transportation Impact Studies (TIS) reports.

## **Key Approaches**

There are two key approaches to developing the framework for incorporating TDM into the development approvals process. Below is a brief outline of the intent of each.

### ***Development design and infrastructure***

This includes how the site is laid out, the infrastructure that is available on site and in close proximity, the mix of uses on site and in close proximity, transit service availability, distance to transit service, bicycle parking, bicycle lanes, pathways, multi-use trails and parking.

### ***Post-occupancy TDM programs***

This will include the types of programs that will be available to tenants, visitors, owners, etc. upon occupancy of the site and who will provide them. While we know these programs are important, it is more difficult to require them as part of the development approvals process.

## **Key levers**

Below is a list of the key tools that municipal staff have to ensure that developments are meeting the goals and objectives of the municipality.

- Planning policy (OP, Local Area Plans)
- Zoning by-law
- Design guidelines
- Transportation impact analyses
- Development agreements

## Guidelines for Integrating TDM into development approvals

No two developments are created equal. Each one can uniquely impact the surrounding community for a number of reasons, including size, mix of uses, proximity to transit and support for active modes of travel.

### Development design and infrastructure

The design of a site to include TDM-supportive infrastructure is an important part of the overall success in promoting the use of sustainable modes for individual developments. Modal shares are often set based on the transportation services and infrastructure currently available and what could be proposed. Modal shares for sustainable travel can be attributed to:

- Assessing need and opportunity (benefits, risks, context, nature, operations)
- Requirements (from zoning, etc. – things that are mandatory)
- Toolbox of measures (definitions, suitability, limitations, etc.)

Item	What (description)	Why (Reasons for inclusion)	How (Implementation)	Limitations (if any)	City Initiatives
Bicycle Racks/ Lockers /Storage Rooms	Parking facilities for bicycles that are secure and located in areas near entrances and convenient locations	This should be included to support the use of cycling and eliminate the issues that many encounter about safe, convenient and secure bicycle parking	These can be required through a number methods including <b>zoning by-laws and site plan</b> through sections 34 and 41 of the Planning Act.	Ensuring that the correct type of parking is selected, that proper installation occurs to ensure access and the appropriate number of spaces.	The City has included bicycle lock-up areas at MiWay stations Pilot programs have been implemented in the past by the City that could be expanded to support on-street bicycle parking in specific areas.
Cycling Facilities	Infrastructure to accommodate the use of cycling	Bicycle paths can be used to encourage the use of cycling for a number of purposes. Connections to the pathways and costing to assist with building will lead to increased use of cycling	Through city policy, Development Charges, AT policies, OP policies and urban design guidelines and /or part of the TIS assessment for TDM and sustainable mobility	At the present time there is no requirement in the zoning bylaw	The city is planning to develop bicycle parking and related end-of-trip facilities.
Parking as Bundled with or without ownership interest in condominium projects	Unbundled parking means that there is not a requirements for parking to be automatically considered as part of the agreement of purchase and sale for condominium units.	This process can reduce the need for excessive parking above the minimum required. Unbundling parking allows for developers to be more responsive to future tenants' needs.	This could be implemented through the condominium development application process. It is possible under s. 9 Condominium Act (which expressly invokes s. 51 Planning Act)	Parking is very much a trigger point for some financiers, nearby communities and others who assume that more is better.	The City is undertaking a comprehensive parking strategy which will provide further guidance on the policies associated with changes in parking numbers.
Pedestrian Connection	Pedestrians connections are infrastructure that accommodates walking, running and use of mobility devices	Pedestrian Connections can be used to encourage walking, running and the use of mobility devices for a number of purposes. Connections to the pathways, sidewalks and transit will support the goals of increasing the use of sustainable modes.	These could be implemented through DCs and other charges and through the use of development agreement conditions		City has requirements for sidewalks and bicycle lanes which will need to be connected to by the developers
Transit Information	Real-time information about transit schedules and connections that can be provided through a number of media and in a number of locations such as lobbies, elevators, common areas, etc.	Providing real-time transit information can encourage the use of transit since information will be up-to-date and users will know when they can go to their stop. It also increases safety, security and convenience.	This could be a requirement within the site plan approval process and/or part of the TIA assessment for TDM and sustainable mobility. However, this is <b>not something that can be supported at this time through the Planning Act</b>	Appropriate technology will need to be selected.	N/A
Transit access	Access to transit can include a number of things such as pathways to transit, wayfinding signage, transit stops and stations	When access to transit is convenient and safe, it has been proven that more people will use it. The ability to access transit services will need to be incorporated in the site plan and connect to facilities provided by the City such as sidewalks, bicycle lanes and other active transportation facilities.	Site plan approval process, OP policies	Coordination between the city facilities and those within private developments should occur to provide integrated and direct access to transit where feasible.	N/A



Amenities	Amenities are anything that will provide sustainable transportation users with places to rest, seek shelter or for convenience. These include benches, transit shelters, trash bins, signage, bike racks, planters, restrooms, etc.	Such amenities whether in an urban area or along a trail will increase use of the facilities where these amenities are located.	Urban design guidelines, site plan requirements, subdivision agreements, official plan and council policies In public spaces, these amenities should be automatically incorporated into the work being carried out by the City.	There should be few limitations for the inclusion of amenities on a site.	
EV Charging Stations	The introduction of electric vehicles has led to a need for electrical charging stations particularly in areas where cars may be parked for longer periods.	The provision of EV charging stations at malls, in residential parking garages and at office buildings will increase the use of these more environmentally friendly vehicles.	Parking bylaws and site plan agreements can be used to encourage the location of the charging stations and the number that should be provided	The inclusion of EV charging stations may be something that is voluntary until a policy is developed to support their introduction	
Bikeshare Stations	Bike share allows for the use of a bike for a specific and short period of time.	Locating bike share stations at specific locations within the community such as major transit hubs, shopping hubs, multi-unit residential developments, employment areas and tourist attractions will encourage the use of cycling over the single occupant vehicle and lead to more active populations	Bike share stations could be supported through DCs, included as conditions of site plan approval and be part of city policy. The City should work with one of the bikeshare providers to develop a program to implement a system of bikeshare facilities within the City.	Bikeshare stations need to be located in areas that will generate use such as in mixed-use areas or areas where there are a number of multi-unit residential buildings	

**Post-occupancy TDM programs**

The provision of sustainable transportation infrastructure (such as bicycle lanes) and site amenities is part of the overall objective to encouraging a shift in travel behaviour away from single occupant vehicles. A plan is needed for the provision of TDM programs that can be delivered to individual sites, neighbourhoods or the city as a whole. As indicated above there is little legislative support for municipalities to require TDM programs as part of the development approvals process. However, as part of the approvals process, including the development of the Traffic Impact Study, the municipality can work with applicants to include TDM programs such as those discussed below to mitigate traffic impacts of the development upon the existing community and work within the existing road configurations, including existing rights-of-way and number of motor vehicle travel lanes. The intent would be to decrease overall traffic congestion, reduce infrastructure costs and create more liveable communities.

When working with developers, the City can assist with creation of a plan that is appropriate for the size and type of development. Smaller developments may only require TDM-supportive infrastructure which can be determined in consultation between City staff and the applicant while other applications that could have a greater impact on traffic levels and the surrounding community may require detailed plans that will lead to long-term behaviour change and reduce the traffic impacts of development. Given the legislative limitations for the provision of TDM programs, the City will need to be the proponent for the development of programs and work with the developers to deliver them at worksites, retail developments, tourist destinations and within residential areas. The current lack of legislative support should not deter the City from developing a framework for inclusion of TDM programs within the development approvals process. Below is a list of the types of programs that can be encouraged by the City and provide the information necessary to encourage developers to create their own programs. However, it is important that the following be incorporated into the discussions and be considered as no two developments are exactly the same:

- Assessing need and opportunity (benefits, risks, context, nature, operations)
- Toolbox of measures (definitions, suitability, limitations, etc.)
- Implementation considerations (agreements, enforcement, monitoring, etc.)
- Types of programs based on development type and size.

The table below outlines a list of possible TDM programs that can be included in discussions with developers during the development approvals process.

Item	What (description)	Why (Reasons for inclusion)	How (Implementation)	Limitations (if any)
Bicycle safety training	Training programs that can be offered to children, youth and adults to teach them how to ride a bicycle provide education on the rules of the road or increase confidence.	To help residents and workers improve their cycling skills or be introduced to cycling	Partnerships with others such as City Parks and Recreation, Smart Commute	This would likely need to be City run
Contests and incentives	Anything that acts as an inducement or makes an activity fun would fall within the contests and incentives category to lead to behaviour change	People like to win things or get free stuff. Through contests and giveaways, awareness (and changes in travel behaviour) of sustainable transportation can be achieved	As part of the TDM Plan to encourage the use of more sustainable modes of travel. However, it may not be possible to require a TDM plan to be developed, so the work will need to be carried out by both the City and the developer or property manager to encourage the introduction of contests.	Not possible to monitor and many businesses may not be interested in these types of activities
Discounts and reward points for shoppers using sustainable modes	Any type of incentive that would encourage the use of sustainable modes by shoppers	Since it can often be more difficult to encourage the use of sustainable modes to shopping centres, particularly big box format stores, offering incentives such as discounts and reward points have been known to encourage shoppers to use sustainable modes	Through customer support programs that the developer and tenants want to develop to meet TDM modal share targets Businesses will need to be shown that these types of programs do have benefit to the bottom line	This would also be difficult to administer and would likely need the City to reach out to businesses and spearhead this program  Will also be difficult to track and many businesses may not be interested in these types of activities
Discounted parking for carpools	In locations where there is a charge for parking, a registered carpool will be able to receive a discounted pass	Rewards for increasing car occupancy such as discounted parking rates from the regular rates can increase use of carpools, decrease parking requirements, The program would provide incentive for workers to carpool and it can also reduce the amount of overall parking required to be built.	This would only be implemented by those employers who provide parking at a cost to employees.	Only applies to parking areas where a fee is charged to workers
Discounted rates for carshare programs	When a carshare program is available and parking provided on site, those working and living in these areas should be able to have a discount on the annual fee of the program for at least the first year.	There is a growing trend towards less car ownership and more sharing of cars and other items. To accommodate this growing trend and the demographics that are most inclined to use car share, providing discounted rates can attract tenants, residents, workplaces to a site. As well, this could be an incentive for employees to not drive to work as there would be an option for work day travel.	Work with carshare providers to increase the number of cars in the City and have workplaces commit to corporate use. The City could provide information to businesses as incentive to encourage the use of carshare for workday travel.	Only applies to locations where there is a carshare service. At the present time there is no ability on the part of the City to require workplaces to commit to carshare memberships. This is most successful in denser, mixed use neighbourhoods
Education programs / information centres and Transportation Fairs	Disseminating information to workers, residents and visitors can take on many forms. These include pamphlets, brochures and handbooks that can provide educational opportunities on safety, new infrastructure and general “how-to-do-it information”; training programs (such as CAN Bike); transportation fairs where numerous groups and transportation providers can guide,	Providing information to all members of the public whether they are workers, residents, visitors will assist in the overall increase in the modal shares for sustainable travel modes.	Support from the City, Smart commute, developers, retailers and the selection of transportation champions will be needed to make this work and coordinate transportation service providers	There is no legislative requirements for this nor is there any ability by the City to enforce.

Item	What (description)	Why (Reasons for inclusion)	How (Implementation)	Limitations (if any)
	educate and support the use of sustainable transportation			
Technology – social media; apps, websites	Any on-line activity that can be used to support and educate and can include any new types of technology as they become available	The use of technology is everywhere and through smart phone apps, social media and websites can be used to provide information and therefore encourage the use of sustainable travel options	There are plenty of opportunities to deliver such technology, including through company and retail websites and apps. However there is no ability to require them and they will need to be developed by those outside of the TDM world (though App developers).	The City will need to coordinate and there is no mandate for the City of require this from developers.
Onsite TDM Coordinator and Travel Ambassadors	The TDM Coordinator and travel ambassadors will be the people who will deliver the programs, provide support, work with residents, workers and visitors and carry out a number of activities to support the use of sustainable travel options	Having a TDM Coordinator and Travel Ambassadors provides ownership for the program. If these responsibilities fall to a specific person to maintain then they are more likely to succeed	Though development approval process to ensure that the TDM program is implemented. This is well suited for larger sites.	There is no legislative requirements for this nor is there any ability by the City to enforce
Residential Individual Travel Planning	Individual travel planning programs are designed to work directly with individuals to provide information on travel options, encourage the use of sustainable options, provide incentives, learn about reasons for choice, etc. This version of the program is directed toward households and encouraging travel based on the location of the household (an origin-based program)	It has been shown that providing direct contact and individualized plans to residents can increase the use of sustainable options. This is because information is provided that residents may not have had previously.	This would be implemented through community ambassadors who would act on behalf of the developer (or the City) through programs such as the pilot in York Region (MyTrip).	Desire and need to participate among residents. Typically 5 to 10% participate. As well, there is no legislative support for such programs at this time within the City. It should be a recommendation of the TDM Plan.
Ridematching services for carpools	This is a program that provides opportunities to match drivers and passengers to increase vehicle occupancy. These services are designed to match people who live and work near each other	To make finding a carpool partner easier	Online tools and resources	Establishing large enough pool of participants that people can find someone with a similar trip to them. It is better to have this type of program delivered by large corporations but more appropriate for municipal or regional governments.
School-based programs and travel planning services	School travel is an important contributor to traffic volumes due to more children being driven to school. School based programs encourage the use of sustainable modes and discourage parents from driving children to the front door of the school	Change in mindset of the younger generation Reduce traffic throughout the City but specifically around schools	Working with partners who are already running and facilitating these programs (Peel Region, Traffic Safety Council, School Boards)	More school and municipal based so it will be difficult to require developers to deliver
Transit buddies	There are many people who have not had the opportunity to use transit services and may not be sure of how the services work. To assist people with learning how to navigate the transit service, people who are regular transit users (buddies) can be introduced and paired with new users as a means to encourage the use of transit and introduce it to new users	People who have not used transit or are in a new community are often not comfortable with the transit system. The use of transit buddies will help to increase confidence and therefore ridership levels while reducing reliance upon the single occupant vehicle trip.	This can be implemented through work-based programs and connections with colleagues, through residential community associations and other community groups. Online options are also available but there are risks involved. As well, the program could be introduced by MiWay to encourage an increase in transit ridership.	Risk/liability associated with matching strangers

Item	What (description)	Why (Reasons for inclusion)	How (Implementation)	Limitations (if any)
Transit Pass programs/ Pre-loaded Presto Cards	Transit pass programs involve the delivery of reduced-rate passes that may encourage increased use of transit by workers and residents. In particular the issuance of Presto cards to new residents in multi-unit buildings	Encourage people to use transit and create a change in travel behaviour leading to new commuting habits	This can be done through community-based programs in residential areas (multi-unit buildings) and through employers who may provide incentives to their workers. Bonus zoning, if a nexus can be established between the proposed community benefit and the nature of the development, based on reasonable planning grounds (through -s. 37 Planning Act). The City would have to develop a Bonus Zoning Corporate Policy as well. It could also be funded through DCs as has been undertaken in York Region.	Presto system makes it challenging to offer discounts beyond the standard rates -s. 19.8 Mississauga Official Plan
Walking and Cycling buddies	There are many people who may be looking for a partner or support to use active modes of transportation to travel for work, shopping, school. These people may also be unsure of cycling on the road or walking along on a trail. To assist people with learning how to navigate on-road cycling or to increase their confidence, people who are regular cyclists or pedestrians (buddies) can be introduced and paired with new users as a means to encourage the use of active modes and introduce it to new users	People who have not cycled in a number of years or are in a new community are often not comfortable with cycling. The use of cycling buddies will help to increase confidence and therefore cycling levels while reducing reliance upon the single occupant vehicle trip. Walking groups can also be created for the same reasons. It can also increase use of active modes since there will be safety in numbers.	This can be implemented through work-based programs and connections with colleagues, through residential community associations and other community groups. Online options are also available but there are risks involved. It can also be a program that Smart Commute Mississauga and Pearson Airport Area can provide.	Risk/liability of matching strangers and liability for those “teaching” others
Workplace Individual Travel Planning	Individual travel planning programs are designed to work directly with individuals to provide information on travel options, encourage the use of sustainable options, provide incentives, learn about reasons for choice, etc. This version of the program is delivered at workplaces to encourage workers to commute via more sustainable modes to their employment location (destination based program)	Easy to work with people at their destination	Using the Smart Commute program if this becomes part of the work carried out by the two Smart Commute TMAs in Mississauga. Otherwise it should be a program offered by the City in partnership with the Region of Peel	There needs to be interest from the workplaces.

The table above outlines a number of initiatives that are known to have success in reducing single occupant vehicle travel. However, the current legislative environment within the Province of Ontario limits the ability of municipalities to request and monitor TDM programs. This is particularly important as we need to be able to determine if they are being undertaken and if modal share targets are being met. In short, we need to know what works and what does not have an impact on travel options.

## Recommendations

The following are recommended directions for successfully incorporating TDM-supportive infrastructure and TDM measures into new developments.

### Stakeholder engagement and education

To be successful with any program, stakeholders and the public need to be engaged and provided with information, education and incentives to undertake changes in travel behaviour. The development of a strong engagement and education program within the City's TDM Plan will help to increase stakeholder and public awareness. This should be extended to developers and workplaces.

### Planning policy

Currently, there is nothing in the Planning Act to support the implementation and monitoring of TDM programs. Unlike some American jurisdictions, Ontario legislation is directed at the use of land, not the development of programs to support the infrastructure and services for sustainable transportation options.

The City has incorporated TDM policies into the Official Plan. The policies can be strengthened to provide the framework to include TDM programs within the site development process.

### Zoning By-law

The Zoning By-law currently does not have much to support the development of TDM programs. However, the inclusion of bicycle parking and end-of-trip facilities in the future will improve the uptake in TDM programs. Other parking-related TDM supportive regulations will also increase the effectiveness of TDM programs.

### Design guidelines

The City has built form standards for a number of communities throughout the city. For example, the Downtown Core Built Form Standards includes the fostering of compact, mixed use areas that are pedestrian and transit oriented and high standards for the public realm. These should be used to further support the use of sustainable modes of travel and be expanded beyond the current neighbourhoods. Streetscaping guidelines should also be created that support the use of sustainable modes and the development and implementation of TDM programs.

### Transportation impact studies

Inclusion of TDM-related infrastructure requirements needs to be incorporated into the guidelines. As well, a tool kit of TDM program options should also be included in the guidelines to assist developers in understanding how TDM can influence individual's travel behaviours and impact upon the overall traffic congestion in a community.

### Development agreements

Development agreements such as site plan agreements and plans of subdivision / condominium can provide the City with the ability to have TDM programs as part of the conditions of approval. As indicated in Table 3, a



**request from City Council** to the province to **give municipalities** the ability to **request and monitor TDM programs** is needed.

### Monitoring and enforcement

The development of a monitoring and enforcement program will be something that will come with changes to the Planning Act and the abilities of municipalities to undertake monitoring and enforcement of TDM programs. It is needed to ensure that the programs meet the targets established within transportation impact studies.

### Funding

Funding opportunities will be created through changes to development charges, provincial policy and federal funding programs.

Below is a table outlining potential ideas on how the above could be executed by the City and limitations to implementation.

Item	Probable	Possible	Maybe - Long-term (Provincial changes)
TDM By-law (similar to US ordinances)			Will require request to change Planning Act as there currently is no provision for such a program
TDM Site Plan conditions similar to the site plan for the Nortel site in Nepean (early 2000s)	.		Requesting TDM programs and activities can be possible but follow up will be difficult. Conditions could include requiring TDM supportive infrastructure (such as bike racks, locker and storage rooms and shower facilities); require membership in local Smart Commute associations; information on the sustainable transportation options; incentives such as transit passes, etc



Item	Probable	Possible	Maybe – Long-term (Provincial changes)
Site design guidelines for connectivity between buildings and sustainable travel options such as bicycle facilities, transit stops/stations	While this is generally part of the site approvals process, it should be incorporated into city policy that requires integration between site design and transportation to reduce reliance upon the private vehicle		
Transportation Impact Studies	Requirements to develop TDM Plans as part of an overall TIS exist in a number of municipalities. Recommendations for incorporating TDM Plans into the TIS process should be incorporated into the TDM Plan and TMP with the type and scale of the plans based on the size and type of development for which an application has been made and to assist in the mitigation of the traffic impacts of new developments	Follow through on the implementation and monitoring of the traffic impacts will need to be part of this – need to determine best way to proceed – this is currently a grey area	
Development Charges		Add to DC By-law – however, since the Act is silent on this will need to discuss with Legal. As well, there is provision for studies – a funded pilot program might possibly be considered a study (planning study)	
Other funding opportunities for TDM programs –		We need to look into this further – will required approval by	

Item	Probable	Possible	Maybe - Long-term (Provincial changes)
such as parking fees being used to fund TDM programs		Council but will paid on-street parking need to include public consultation, depending on location.	

As part of the evaluation of the policy and the overall TDM Plan, the development of implementation, evaluation and monitoring guidelines will evolve. However, for there to be “teeth” to any policy, changes to the Planning Act will need to take place which is beyond the scope of this project and will require requests from City Council to the Province of Ontario.

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## Appendix D: Bike Parking

AUGUST 2017



MISSISSAUGA

## **Bike Parking Related Policy:**

### **The Climate Change Action Plan 2016-2020**

The Climate Change Action Plan 2016-2020 is the Provincial Government's most recent plan of specific legislation actions and programs designed to address climate change at a provincial level. It discusses the need for more publically accessible bike parking at transit stations to support a multi-modal system that includes cycling and walking.

### **The City of Mississauga's Cycling Master Plan**

The City of Mississauga's Cycling Master Plan supports vibrant, safe and connected communities. The vision for the plan was to have Mississauga be a place where people cycle for recreational, fitness and as a means of transportation, which contributes to the overall quality of health and life in the City. The 2010 Plan is currently in the process of being updated internally by the City's Active Transportation Office. This plan will look at the needs and opportunities for bicycle parking improvements in the public realm.

### **Waterfront Parks Strategy**

Mississauga City Council approved a Waterfront Parks Strategy (WPS) in March 2008 that includes a comprehensive long term plan for the future development of the City's waterfront parks. It aims to reduce vehicle parking and encourage the use other modes such as transit, walking and cycling. It supports the implementation of bike parking near park facilities and activities.

### **Mississauga Official Plan**

Mississauga's OP defines Major Transit Areas as the area where an existing or planned higher order transit station is located. They will be developed in order to provide connections to various modes of transportations including components such as bicycle parking and commuter pick up/drop-off areas.

OP Parking Policies are generally characterized by an intention to move towards facilitating high quality urban outcomes by implementing more deliberate parking management. It supports bicycle parking and destination amenity consideration as part of site development and requires bike parking in corporate areas.

### **Metrolinx Go Rail Station Access Plan**

The Metrolinx Go Rail Station access Plan discusses the need for more active transportation facilities around stations, in particular ensure that secure bike parking and bike-share programs are integrated with existing information and payment platforms (e.g. PRESTO).



## Design Guidelines

### City of Toronto Design Guidelines for Bicycle Parking Facilities

The guidelines discuss the importance of sustainable growth and development of a healthy and vibrant community. Focusing on bike facilities within Toronto the document covers different types of facilities different land uses and time periods. Bicycle parking both on private property and within the ROW is discussed and how it can be implemented from policies through to construction.

Bicycle parking can be separated in two different categories, long-term and short-term. Long-term parking includes bicycle racks in enclosed, secure areas with controlled access. Short term parking is generally classified as visitor parking and includes bike racks in an easily accessible locations that are available to the public and likely do not protect bicycles from vandalism.

In the same manner as vehicle parking, bike parking needs to be accessible, safe and secure, and convenient to use. These three aspects ensure that the parking will allow everyone to use the facilities and give maximum security to bicycles stored there. The more important factor to consider is the location of parking, whether indoor or outdoor. In order to be accessible, bike parking should be close to building entrances, accessible from ground level and have no obstacles like stairs. In order to create safe, secure facilities, racks should be firmly secured to the ground and monitored by security personnel. Short-term bike parking should be located in a public areas to increase informal security and provide easier access to users. To ensure bike parking is convenient to use, racks and storage should be located in a central area, easy to use, and close to bike routes.

There are many different design aspects for the City to consider when creating bike parking.

- **Material and shape:** Should be durable and be able to withstand weather conditions.
- **Security:** It is suggested to create racks that allow for two points of contact for extra security. Covered bike shelters can add an extra layer of protection for bikes, allowing a space where they are protected from weather and accidental damage.
- **Efficiency:** Racks should be designed to be efficient and allow for a maximum amount of bikes to be parked there.
- **Accessible:** Along with being in an accessible area without steps or steep slopes racks should also be detectable for the visually impaired.

The design considerations of long-term bike parking facilities differ from short term facilities. These facilities must be designed to hold bikes for multiple hours or overnight, and therefore need more security. For these purposes the most effective long-term bike parking facilities are bike lockers, cages, bike rooms, or indoor bike



parking garages. Indoor options for long-term bicycle parking provide better security and can keep bikes in better condition for longer periods of time.

The best options for long term bike parking infrastructure are bike lockers, bike cages, or bike rooms. These can provide a high level of security to bicyclists and protect bikes from weather and accidental damage if located underground or in vehicle parking garages. Limiting access to these areas to only those who use it increases the likelihood that bikes are safe and secure for the entirety that they are parked.

### **City of Vancouver Bicycle Parking Design**

Engineering Services of the City of Vancouver has created supplemental guidelines and parking laws for bicycle parking within the city. Specifying the amount, location, and design for bicycle parking, the guidelines include specifications for enclosures, racks, security, and clothing lockers. The guidelines lay out specifics that buildings must incorporate to meet the Bicycle Room Requirement.

The guidelines outline that there are four acceptable forms of providing long-term, bike storage, of which are described below.

1. Bicycle room
2. Individual garage
3. Bicycle compound
4. Bicycle lockers

### **Bicycle Room Guidelines:**

- It is suggested that motion activated light and tamper proof hinges be used for maximum security within bike storage areas. This can decrease the opportunity for bikes to be stolen and increase the opportunity for bystanders to notice if they are.
- It is suggested for Bike storage areas to be located above ground level for convenient access or at the lowest the first level of a parking garage unless there is an elevator that can provide the bicycle parking direct access to the outside.
- It is required that bicycle racks be either CSA approved or by similar agency with respect to city streets. They must be secure and have theft-resistant anchoring preferably recessed bolt heads or grouted-in anchoring. Bicycles should be supported above their centre of gravity to avoid being knocked over.

## Bike Parking Infrastructure by Land-use

### Multi-unit residential buildings

Multi-unit residential buildings require both short and long-term bicycle parking. Short-term parking should be easily accessible to the public in the area while long-term should be easily accessible to residents. Single family homes are less likely to require bicycle parking due to having yards, but townhomes and other multi-unit buildings will require long-term parking access. The easier it is to access secure parking the more likely it will be used in residential areas as a convenient mode of transportation.

### High-density residential land uses

Bicycle parking for high-density residential land uses is best offered as a commonly owned feature maintained by the development. Accessible through underground parking, high standards for management and maintenance can be maintained for the residents. As well, short term parking should be supplied outside for visitors to the condo and surrounding areas.

### Commercial, Industrial, & Institutional Uses

In comparison to residential land uses, commercial developments require a higher percentage of short term bicycle parking for customers and clients. These areas also require secure, long-term parking for employees and shower and change facilities within the development to encourage commuting by bike. Covered, outdoor parking close to building entrances can offer both long and short term parking while protecting bicycles from weather. Creating more bicycle parking will be able to accommodate for scarce surface parking and traffic congestion within these areas.

### Uses with High Bike Parking Demand

Destination locations will have a higher parking demand than residential and commercial uses. These are often community centres or other local areas frequented by those who cannot drive. Schools, hospitals, places of assembly such as community centre or sports centres, and places of worship often have higher demand for bike parking. Ideally, these locations should be designed with bike parking accommodating a target percentage for the desired mode share.

## Case Study

### Vancouver

Vancouver has increased their bicycle ridership in the past years and thus has had to increase bike parking in the downtown and throughout the residential areas. The city uses traditional bike racks, and U-shaped bike racks to provide short term parking for one or two bikes per location, and bike corrals for areas of higher short-term parking demand. To provide long-term parking the city supports TransLink in supplying rental bike lockers and stacked bike parkades at transit stations.

Halifax is currently work on a pilot parking program that is providing bike corals in the downtown core of the city.

## Bicycle Parking Standards

Bicycle parking standards vary across Canada and from residential to urban areas. The bicycle parking standards that are shown in the table below provide a cross-section of those that are available as well as ones that apply to entire municipalities or specific areas. The following is a summary of bicycle parking requirements for select municipalities in the GTHA, Halifax and Vancouver.

### Bicycle Parking Requirements – Select Uses

Land Use	Oakville (Zoning By-law 2014-014)	Halifax	Vaughan – Metropolitan Centre	Toronto (Zone 1 only)	Vancouver (Parking by-law 6059)	
					Class A (lockers)	Class B (racks)
<b>Residential - apartment</b>	1 space /dwelling*	0.5 spaces/unit (80% class A; 20% class B)	0.1 per unit or 6 spaces (whatever is greater – short term; .5 per unit with over 10 units – long term)	A minimum of 1.0 bicycle parking spaces for each dwelling unit, allocated as 0.9 "long-term" bicycle parking space per dwelling unit and 0.1 "short-term" bicycle parking space per dwelling unit	0.75 to 2.25/ unit varies by type of unit	Generally – minimum of 6
<b>Retail</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*	1/300 m <sup>2</sup> GFA – 20% Class A; 80% Class B	0.15 per 100m <sup>2</sup> or 6 (whatever is greater) – short term; 0.1 – long term	Short term: 3 + 0.3 per 100 m <sup>2</sup> of interior floor space; Long term 0.2 per 100 m <sup>2</sup> of interior floor space	Min 1/500 m <sup>2</sup> GFA	Min of 6 spaces (min of 1000m <sup>2</sup> )
<b>Business office</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*	1/ 500 m <sup>2</sup> GFA – 50% Class A; 50% Class B	0.1 per 100m <sup>2</sup> or 6 – whatever is greater – short term; 0.13 long term	Short term: 3+0.2 per 100 m <sup>2</sup> of interior floor space; 0.2 per 100m <sup>2</sup> of interior floor space Long term: 0.2 for each 100 m <sup>2</sup> of interior floor area used for an office, other than a medical office;	1/500 m <sup>2</sup> GFA	Min of 6 spaces (min of 2000m <sup>2</sup> )

<b>Medical office</b>	Greater of 2 or 1/1000m <sup>2</sup> (NFA)*		0.1 per 100m <sup>2</sup> or 6 – whatever is greater – short term; 0.1 per 100m <sup>2</sup> long term. 1 male and 1 female shower facility required for every 30 long term bicycle parking spaces required	Short term: 3 +0.15 per 100 m <sup>2</sup> of interior floor space; Long term: 0.15/ per 100 m <sup>2</sup> of interior floor space	Section 6.1.3 (Uses not Listed 'The number of bicycle spaces shall be calculated on the basis of a similar use as determined by the Director of Planning.'	Section 6.1.3 (Uses not Listed 'The number of bicycle spaces shall be calculated on the basis of a similar use as determined by the Director of Planning.'
<b>Employment uses</b>	2 + 0.25 per 1000m <sup>2</sup> (NFA)*	1 /1000 m <sup>2</sup> GFA. 80% Class A; 20% Class B (Min of 2 Class B to a max of 20)	Commercial Uses: Short term 0.15 spaces per 100m <sup>2</sup> GFA or 6 bicycle spaces whichever is greater for buildings with GFA >1000m <sup>2</sup> Long term 0.1 spaces per 100m <sup>2</sup> GFA	Same as business office	1/1000m <sup>2</sup> or 1/17 employees (whatever is greater)	N/A
<b>School, post-secondary</b>	Greater of 3 or 2.0 per 100 m <sup>2</sup> (NFA)*	1 space for every 250 m <sup>2</sup> GFA. 20% Class A; 80% Class B	Institutional uses: Short-term: 0.4 per 100m <sup>2</sup> for buildings with GFA of >1000m <sup>2</sup> Long term: 0.05 for buildings with GFA of >2000m <sup>2</sup>	Short term: 3 +0.3 per 100 m <sup>2</sup> of interior floor space; Long-term: 1/100 m <sup>2</sup> of interior floor space	0.4 for every 10 students	0.6 for every 10 students

\* Section 5.4.1b) states that *'in no circumstance shall the number of minimum bicycle parking spaces required on a lot be greater than 30.'*

End of trip facilities, such as showers and locker/change rooms are sometimes included with bicycle parking standards as they can be linked to the number of spaces provided or is based on the gross or net floor area applied to the number of bicycle parking spaces required.

Bicycle parking requirements in Mississauga were recommended in the previous Mississauga Cycling Master Plan (2010). Mandating bicycle parking and provision of end of trip facilities are considered significant prerequisites for cycling to work as a TDM measure. Consequently, they have been included in this Plan.

For the sake of simplicity, cost effectiveness, public health and to foster a culture of cycling, short and long term bicycle parking requirements are recommended to be set at a simple ratio of 1 per 15 students for class A and 1 per 10 students for class B at elementary and secondary schools and 1 per 15 students for post-secondary schools.

## End-of-trip Facilities

There are two strong examples of end of trip facilities that support the provision of bicycle parking: Toronto and Vancouver. The rates for facilities are listed below. In some cases the number of showers and change/locker rooms applies separately to male and female facilities.

### City of Vancouver By-Law 7481

Minimum Number for Each Set of:			
Required Number of Class A Bicycle Spaces	Toilets	Sinks	Showers
0-3	0	0	0
4-29	1	1	1
30-64	2	1	2
65-94	3	2	3
130-159	5	3	5
160-194	6	6	6
Over 194	6 plus 1 for each additional 30 bicycle spaces or part thereof	3 plus 1 for each additional 30 bicycle spaces or part thereof	6 plus 1 for each additional 30 bicycle spaces or part thereof

### City of Toronto By-law 569-2013

Minimum Number for Each Set of:	
Required Number of Class A Bicycle Spaces	Shower Facilities
0-5	0
5-60	1
61-120	2
121-180	3
Over 181	4

# Appendix E: Tool Kit

AUGUST 2017



## Tool Kit

The creation of a plan to administer TDM initiatives can be a complicated endeavour due to the number of measures, two distinct types of measures and interconnectivity between the initiatives, the delivery method and potential partners. The lead organization for each measure can change depending upon the target audience and whether the initiative is a 'hard' (TDM-supportive infrastructure) or 'soft' (programs and measures to support behaviour change) programs. Therefore creating a toolkit that outlines the initiative and explains what it is and how it will be delivered is an important start. The tool kit requires knowing where it will be delivered, why it is needed, and the benefits each measure will bring.

The measures for the tool kit are outlined below, with each one under a specific heading. The intent is to delineate the different types of programs that are available and indicate how they can be integrated to meet the needs of a specific audience or service provider. The implementation of the measures in the body of the TDM Implementation and Action Plan.

### Column Headings

Heading	What it Means
"What is it?"	This heading defines the tool and what it does.
"How will it be delivered – how implemented by key providers?"	This heading discusses who the tool will be implemented within the city, whether it needs government approval, if new policies will be involved or if the individual workplace will be responsible
"Who will deliver it?"	This heading discusses who will implement the tool, whether it be a level of government or a private company
"Priority areas for implementation"	This headings discusses which areas within the city the tool will be Prioritized for implementation as per the major land use designations in the OP, whether it be in residential, commercial, or in major node areas
"Why is it needed?"	This heading discusses what problems can be addressed with the tool and how it can be used as a solution
"Benefits/intent"	This heading discusses the benefits of having the tool implemented within the city and how the community will be improved, as well as what the actual intent of the tool is

Changes to Travel Times – (when and where people work)

The table below outlines three TDM measures (these are soft measures) that support changes in when people work. Flexible work hours, condensed work weeks and telework all lead to less strain on the transportation system and increased satisfaction with a work-life balance. As shown below the three measures can be used throughout Mississauga to reduce peak period travel, parking supply and increase productivity and employee recruitment and retention. The level to which these are applied will vary by employer and employee and could be different depending upon time of year as well.

TDM Measure	What is it?	How will it be delivered – how implemented by key providers	Who will deliver	Where will it be delivered (priority areas)	Why is it needed	Benefits /Intent
Flexible Work Hours	Providing workers with the ability to shift the start and end times to fit their daily schedules and to be able to travel during non-peak travel times	Through policies established by human resources departments and support from others who have undertaken successful flexible work hour programs. Networking will help to increase support for the use of program which spread out the workday.	Public and Private Sector Employers	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	Peak loads on public roadways, transit vehicles and transportation networks frequently exceed existing capacity. Flexible Work Hours helps to spread peak congestion. When implemented well, they can reduce or defer the need for additional investment in capacity.	<b>Primary Intent:</b> Reduce demand for travel, lessen parking impact on land use and peak transportation network load <b>Benefits</b> include supporting employee needs and lifestyles which can lead to increased retention and recruitment.
Telework	Telework allows employees to work remotely whether from home or a satellite location closer to their place of residence through improvements to technology.	Through policies established by human resources departments and support from others who have undertaken successful telework programs and have seen the benefits. A pilot could be undertaken in a workplace to determine if it is appropriate for the business.	Public and Private Sector Employers	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	Peak loads on public roadways, transit vehicles and transportation networks frequently exceed existing capacity. Telework is a technological solution that avoids the need to travel altogether by allowing staff to work from home.	<b>Primary Intent:</b> Reduce demand for travel, lessen parking impact on land use and peak transportation network load <b>Benefits</b> include supporting employee needs and lifestyles which can lead to increased retention and recruitment.
Compressed Work Week	This can take on two forms. One is extending work hours to reduce the number of days that an employee works. The employee still works the same amount of time but over 4 days. The other option is allowing employees to work 80 or 90 percent of a full work	Through policies established by human resources departments and support from others who have undertaken successful compressed work week programs. Networking will help to increase support for the use of program which	Public and Private Sector Employers	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	Peak loads on public roadways, transit vehicles and transportation networks frequently exceed existing capacity. Compressed work weeks have the complementary effect of reducing peak loads as well as avoiding need to travel on non-work days.	<b>Primary Intent:</b> Reduce demand for travel, lessen parking impact on land use and peak transportation network load <b>Benefits</b> include supporting employee needs and lifestyles which can lead to increased retention and recruitment.

	week, enabling them to have a day off every week or other week.	spread out the workday and reduces travel.				
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Workplace Measures

These programs have been in place for a number of years and began as vanpool and carpool programs when there were fuel shortages (as far back as World War 2) and governments and employers were concerned about how people would travel to and from work. The workplace programs have evolved and include a considerable number of options, including the three discussed above in section 5.2. Delivering workplace programs in the GTHA has been undertaken by thirteen Smart Commute associations (also known as Transportation Management Associations) through Metrolinx and provide a number of programs ranging from ridematching services, events, a guaranteed ride home program and direct services delivered to member workplaces by Smart Commute staff. In Mississauga, there are two associations, Smart Commute Mississauga and Smart Commute Pearson Airport Area.

Workplaces can also provide other incentives to shift travel behaviours which are complementary to those delivered by Smart Commute. These include parking supply and costing, location for priority parking, discounted transit passes, end of trip facilities such as bicycle parking, showers and change rooms. Through the education and support from Smart Commute and the provision of infrastructure to support the use of sustainable travel options, changes in commuting patterns and mode choice can occur.

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
Ridematching	This program allows commuters to find carpool partners which will allow them to share the cost and burden of driving to and from work. This program is usually available on-line which allows for greater opportunity to match people who live and work near each other. Other options include matching people with “buddies” to help them navigate the transit system, provide assistance with cycling routes and pedestrian connections.	This is primarily an online tool that allows a participant to create a profile to find suitable matches. It can be promoted through workplaces, websites and other means by employers, Smart Commute and the City.	Public and Private Sector Employers through Smart Commute and local TMAs - Mississauga and Pearson Airport Area	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	Vehicle occupancy is generally measured as being around <1.1 persons per vehicle. This is considered a waste of valuable road space. Ridematching can increase network efficiency, reduce environmental impact and household vehicle ownership	<b>Primary Intent:</b> lessen peak transportation network load, environmental impact <b>Benefits:</b> reduce number of requires parking spaces which can reduce costs to employers, reduce travel stress, As well, reduce costs associated with commuting.
Guaranteed Ride Home	This is an insurance policy that provides commuters who use sustainable modes of travel to have a way home in the case of an emergency, which includes unscheduled overtime, family emergencies.	This program will be delivered as part of an overall workplace commuter program such as those provided by Smart commute Mississauga and Pearson Airport Area. Information and sign-up forms will be delivered to those interested and used	Public and Private Sector Employers through Smart Commute and local TMAs - Mississauga and Pearson Airport Area	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	A major barrier to transit, active modes and ridesharing is due to people being unsure if they can get home in the case of an emergency (either their own or that of their driver). GRH is an 'insurance policy' that allows people to reduce	<b>Primary Intent:</b> lessen peak transportation network load, environmental impact <b>Benefits:</b> increasing use of sustainable modes; elimination of needing car in case of emergency; increase safety for those

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
		as a means to get more people using sustainable modes more often			automobile dependence without worrying about any unforeseen circumstances	working late (when unplanned)
Transit Passes	When referring to transit passes within a TDM program, it involves the reduced cost to the commuter to obtain a pass, usually on a yearly basis, to encourage more people to commute by transit	The delivery of transit passes has in some places been required as a condition of approval for a development. This may not be possible in the near future, therefore through a collaborative approach they can be delivery by the employer with assistance from Smart commute and MiWay.	MiWay, Transportation and Infrastructure Planning Department They can also be provided by employers who wish to subsidize passes for workers	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> <li>• Corporate Center</li> <li>• Employment Areas</li> </ul>	The economic cost of driving is not reflected in the costs that drivers face. Driving often includes many hidden subsidies. Transit passes allow people to weigh up costs of travel and lower barriers to using transit. Furthermore, the sunk cost of periodical tickets means holders are inclined to take more trips by transit than for single use tickets.	<b>Primary intent:</b> mode shift where reasonable alternatives already exist <b>Benefits:</b> increased transit use and ridership, reduce costs associated with commuting.
Fleet Motor Vehicles and Bicycles	These are pooled motorized and non-motorized vehicles that are available to workers for workday travel. They can be owned by the workplace or contracted out to a third party such as a local carshare company or bike share provider	The availability of fleet vehicles should be determined based on the number of people traveling for work purposes during the day. It can then be tried out as a pilot through the creation of a booking system (if more than one building location, key ones can be chosen), travel logs and key distribution. The workplace will make a determination as to the type of program there will be as it may be easier to have a third party deliver the program	Property Managers, Tenants, City Development Department; car and bike share companies, businesses	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Corporate Center</li> <li>• Employment Areas</li> </ul>	Vehicle fleets are typically underutilised. Parking lots commonly host cars for long periods. Incentivising fleet use is an easy way to cover incidental trips and reduce parking demand.	<b>Primary intent:</b> increase fleet utilisation and reduce SOV trips <b>Benefits:</b> Reductions in the number of SOV trips which people take because they need to use their cars for workday travel. Reduce travel costs and stress.
Bicycle Parking	Parking facilities that are available for bicycle commuters and visitors. Parking can be supplied on a short-term basis (usually bicycle racks) or a long-term basis for employees	When required through the zoning bylaw it will be provided by the developer and located according to the requirements of the bylaw.	Planning (for zoning and development approvals) and Transportation Planning	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> <li>• Neighbourhoods</li> <li>• Corporate Center</li> <li>• Employment Areas</li> </ul>	Bicycle parking is a space saving, cost-efficient and environmentally friendly alternative to car parking.	<b>Primary intent:</b> mode shift where reasonable alternatives already exist <b>Benefits:</b> Provide safe and secure parking for commuter, visitors and residents so that cycling

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
	(such as bicycle lockers, storage rooms, etc.)					can be used as a viable mode of travel for an assortment of trips
Showers and Change Rooms	Shower and change rooms are end of trip facilities that support the use of active modes of travel by workers	As required by zoning bylaw	Property Owners	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	TDM supportive infrastructure that supports more mode shift to cycling at relatively low cost.	<b>Primary intent:</b> mode shift where reasonable alternatives already exist <b>Benefits:</b> Increases use by ensuring that commuters who use active modes are able to change and clean up before work
Pricing Parking	Pricing the use of parking, particularly at workplaces at rates that are higher than transit monthly passes	Parking policy that is developed by service providers to set rates for parking in off-street lots and structures	Property Owners, Private parking providers, City Finance Department, City Works, Operations and Maintenance	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Center</li><li>• Employment Areas</li></ul>	Parking is typically highly subsidised, leading to overuse and oversupply. This affects urban efficiency/limits density, land values and environmental impacts. Pricing parking helps to reflect the true economic and financial costs of providing parking and creates more rational travel choices.	<b>Primary intent:</b> mode shift, reduce parking demand Pricing can shift people to use more sustainable modes, particularly when pricing is coupled with incentives to use other modes <b>Benefits:</b> reduced costs to builders and employers for parking
Priority Parking	Parking that is made available near entrances for sustainable modes such as carpools, bicycles, electric vehicles and carshare company vehicles	This can be requested through the site plan process and incorporated into the zoning bylaw and parking policy.	Property Owners, Private parking providers, City Finance Department, City Works, Operations and Maintenance	<ul style="list-style-type: none"><li>• Community Nodes</li></ul>	Carpool: Helps to increase spatial efficiency of parking facilities (can have more people parked per m2) and reduce demand for parking EV: Helps to reduce environmental impact or motor vehicle use (not necessarily a TDM measure however)	<b>Primary intent:</b> will depend on whether its environmentally driven or about vehicle occupancy <b>Benefits:</b> encourages the use of sustainable modes by encouraging and profiling the use of carpools, EVs and carshare

TDM-Supportive Infrastructure and Policy

As has been stated, TDM measures cannot be successful in isolation. Not only are complementary measures initiated together, so too are the infrastructure and policies that are needed to achieve modal share targets, increase the health of a community, reduce congestion and improve overall quality of life. In fact the integration of supportive polices and infrastructure with TDM programs is one of the most important activates of TDM implementation. For example, if an employer supports their staff in using transit to commute to and from work, the corresponding services and infrastructure are needed at both the origin and the destination. If an employee is unable to access transit services at



either end of their trip, then providing a subsidized pass will not increase the use of transit. The same is true for other services such as carpooling. Providing incentives to carpool work best when there is a complementary ridematching program available to employees. .

It is important that the partnerships between agencies, employers and other groups develop and grow so that the integration of the various services, infrastructure and programs all come together so that more people can and want to use sustainable travel options more frequently.

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
Park and Ride Facilities at Transit Stations	Providing parking options for commuters to access transit services for the journey to work	As part of the MiWay and GO transit service plans as expansion to the system occurs	MiWay, Go Transit	<ul style="list-style-type: none"><li>Corporate Centres</li></ul>	Intended as a feeder to transit to encourage multi-modal travel. Research has shown it is consistently popular but requires a high capital cost per additional rider generated. The provision of parking near transit facilities, also has impacts on TOD land use and potential ridership.	Primary intent: mode shift
Carpool priority parking at transit stations	Locating parking for registered carpool programs immediately next to entrances to stations to encourage the use of carpools by more commuters	As part of the MiWay and GO transit service plans as expansion to the system occurs	MiWay/ GO Transit at GO Stations and Park and Ride Facilities		Helps to increase spatial efficiency of parking facilities (can have more people parked per m2) and reduce demand for parking	<b>Primary intent:</b> mode shift and it reduces the number of parking spaces, helps alleviate congestion during peak times in a and around stations due to higher vehicle occupancy levels
Pedestrian connections and amenities	Any connection or amenity that encourages the use of sustainable modes. These are usually associated with active modes and transit use to encourage people to use these modes more often. These include direct connections to building from transit stops, benches, reducing barriers.	Policies created by the City that request direct, convenient and accessible connections between building and a number of destinations including transit. These will be part of the site plan	City of Mississauga, Developers	<ul style="list-style-type: none"><li>Downtown</li><li>Major Nodes</li><li>Community Nodes</li><li>Neighbourhoods</li><li>Corporate Centres</li><li>Employment Areas</li><li>Special Purpose Areas</li></ul>	Making facilities such as sidewalks, pathways and walkways accessible to all members of the community increases independence, health, social & employment opportunities, and community safety and so on. As well, this will ensure that AODA compliance is met.	<b>Primary intent:</b> mode shift  <b>Benefits:</b> Having direct and well-thought out connections to destinations, to transit, and other areas will increase the use of sustainable modes.
On-road active transportation infrastructure	These are facilities within the road right-of-way and provided by a municipal government and include sidewalks, bicycle lanes, multi-use trails, crosswalks and crossrides, etc.	The City will provide the locations and types of facilities to be developed to serve the needs of the public.	City Transportation and Infrastructure Planning Department	<ul style="list-style-type: none"><li>Downtown</li><li>Major Nodes</li><li>Community Nodes</li><li>Corporate Centres</li><li>Employment Areas</li></ul>	Considered a prerequisite for creating safe alternatives to driving especially when considering from the perspective of cyclist user groups ('experienced and	<b>Primary intent:</b> mode shift <b>Benefits:</b> Having direct and well-thought out connections to destinations, to transit, and other areas will increase the use of sustainable



TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
					confident', 'interested but concerned')	modes. The provision of cycling facilities in particular will increase safety and comfort leading to more users of these facilities.
Parking supply changes	Changing parking supply is a policy provided by local governments to utilize land more efficiently by allowing shared parking for uses that have different peak periods. Also includes the reduction in parking for TDM measures	The changes in how parking is provided will be part of the review of parking in the City and will be incorporated into city policy and bylaws where appropriate	City Planning Department	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li><li>• Special Purpose Areas</li></ul>	Reduce amount of land needed for parking and mitigate traffic from developments. Allowing more on-street parking can enhance safety for pedestrians but may be a negative for cyclists, depending upon the road cross section.	<b>Primary intent:</b> reduce parking supply and increase mode shift to sustainable options <b>Benefits:</b> Reduce cost of parking provision
Parking restrictions (on-street)	For this project, parking restrictions will focus more on time versus not allowing parking (except where there are bicycle lanes) to discourage commuters parking on-street and encourage turnover	Where on-street parking exists, enforcement and policy updated by the City will be required to ensure that turnover occurs.	City Transportation Department, City Works, Operations and Maintenance	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li><li>• Special Purpose Areas</li></ul>	This can increase turnover, allow for fairer rationing of space and less opportunity for parking 'winners and losers'	<b>Primary intent:</b> reduce number of commuters using on street parking <b>Benefits:</b> increase the amount of short term parking which will benefit businesses and make easier for customers, patients and guests to access the destinations that are going to
Transit priority lanes	These are lanes that are dedicated only to transit vehicles and will help to improve travel times and service	The planning and construction of transit priority lanes will be carried out by the City and be part of an overall plan to improve transit service	City Transportation and Infrastructure Planning Department	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li><li>• Special Purpose Areas</li></ul>	Provide faster service for customers through dedicated transit lanes and signals	<b>Primary intent:</b> to increase travel times and make transit use more competitive with the other modes <b>Benefits:</b> increased ridership and customer satisfaction
Bicycle parking regulations and standards	Provides the types of bicycle parking, the number of spaces for bicycles, dimensions of spaces, and location on a site	The update to the parking policy will include bicycle parking regulations and standards that will be incorporated by the City into the zoning bylaw	City Planning Department	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li></ul>	Same as On-road Active transportation infrastructure (see above)	<b>Primary intent:</b> modal shift from SOV trips to cycling <b>Benefits:</b> improved health, reduction in amount of motor vehicle parking

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
Development approvals and TDM	This is the integration of TDM measures and supportive infrastructure and policies into the overall development approvals process to ensure that there is support for TDM and sustainable travel options from the planning stages of a development	The integration of TDM into the development approvals process will take place through negotiations with the developers to provide them with the benefits of using TDM to reduce traffic congestion, reduce costs, increase corporations roles as community supporters, attract potential tenants, workers and customers.	City Planning Department; Transportation and Infrastructure Planning	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Neighbourhoods</li><li>• Corporate Centres</li><li>• Employment Areas</li><li>• Special Purpose Areas</li></ul>	Development applications are a unique opportunity to influence land use outcomes. Provision of TDM supportive infrastructure helps create alternative travel patterns and generate mode shift towards more sustainable modes. When integrated with TDM programs this can be an effective way to shift travel behaviours over the long term.	<b>Primary intent:</b> incentivise and regulate provision of viable travel alternatives leading to mode shift <b>Benefits:</b> Encourage the use of sustainable modes, create a culture of the use of sustainable modes, reduce development costs, particularly with regards to parking

Municipally-Delivered Programs

Municipal governments should take a lead role in the delivery of TDM programs. In many cases, the programs are best delivered by municipalities. In Ontario, there is no legislative support for developers to provide any type of TDM program and if they do, municipalities have little ability to follow up and monitor the effectiveness of the program. Therefore, in order to understand how programs impact travel behaviour and if the behaviour continues for the long-term, the City of Mississauga should undertake some programs, and where appropriate find partners to assist in the delivery and follow-up. Some programs are also most effective when they are included in the implementation of a new transit service, the opening of an active transportation facility or the introduction of a carshare service. Programs that promote these initiatives are often not provided by private sector employers or property owners, leaving it to the public sector.

The measures identified below are best provided by the City. For example, the use of community-based social marketing and individualized travel planning requires that there be services and infrastructure available for people to change their travel behaviours. When a travel planning program is introduced, the appropriate modes needs to be promoted. For example, a community that lacks or has limited transit service should be encouraged to use a ridematching system as an alternative to travelling by single occupant vehicles. A second example of a municipal-led program is the promotion of a new bicycle lane, that when it is built, should be promoted to local residents and provided with any and all information available about the new facility.

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
Community-based social marketing and Travel Planning Programs	Programs where individuals are provided with information and other incentives / motivators to change their behaviours and use more sustainable travel options that will fit into their lifestyles and meet their daily needs.	These programs will be provided by the City and other partners directly to residents in particular through individualised campaigns that provide direct information, support and encouragement to use sustainable modes. These programs can be delivered door-to-door, at neighbourhood events where people can talk to someone directly or via electronic modes and platforms.	City of Mississauga in partnership with the Region of Peel	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li></ul>	Engagement and education about sustainable transportation options at the household level can lead to a higher probability of long term success.	<b>Primary intent:</b> increase individualized information of travel alternatives to change travel mode <b>Benefits:</b> provides options to households and individuals for daily travel and supports lifestyles and individual needs.

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
Transportation Options Fairs	An event set up to bring together transportation service and program providers in one place for residents, workers and others to learn about various modes and to increase the use of sustainable travel options	Transportation fairs are typically provided at workplaces to provide employees with all the options available to them and the ability to talk to service and program providers one-on-one.	City of Mississauga in partnership with Smart Commute where possible	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> <li>• Corporate Centres</li> <li>• Employment Areas</li> </ul>	When a number of transportation options are located in one area, increased awareness of travel options can be provided to a large group of people directly and allow them to ask questions to gain a greater understanding of sustainable travel options. Providing such education opportunities can encourage people to use sustainable modes and reduce information barriers to TDM	<b>Primary intent:</b> increase information of travel alternatives, mode shift <b>Benefits:</b> provides information in one place which saves time and money for providers and allows individuals to see options
Community Events	Any event that is held for the community as a whole where it is possible to meet up with a number of residents in a setting where the service and program providers “go to the people”	Staff from the City can set up a booth or kiosk to provide information about sustainable travel modes and TDM programs at events held within the community so that staff is going out to the public in places where they are already gathering.	City Marketing and Economic Development Dept; delivery by TDM Coordinator	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> <li>• Neighbourhoods</li> </ul>	Community events bring TDM to the people and create awareness of travel options, educate people and reduce information barriers to TDM	<b>Primary intent:</b> increase information of travel alternatives, mode shift <b>Benefits:</b> provides information in one place which saves time and money for providers and allows individuals to see options
Community App for transportation support	A smart phone or tablet application that will provide information about one mode, several modes, real time information in a format that is used by the community	The apps can be made available through developers who are asked to develop apps for the use of sustainable travel such as transit schedules, carpooling, and others.	City Marketing Department / App developer to work with City IT Dept.	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> </ul>	Apps create easily accessible 'in your pocket' information on travel options. Option to combine with live information such as parking availability	<b>Primary intent:</b> Uses a medium that many have access to but will not take away from other options <b>Benefits:</b> can provide information in a platform that is easily accessible
Education programs	Bicycle Rodeos; CAN Bike; Bike Rack Demonstrations; Technology;	Education about active and sustainable modes can be delivered through a number of means such as printed materials (activity books, brochures), hands-on activities such as training courses and bicycle rodeos, online	TDM Coordinator / Transportation and Infrastructure Planning; partnerships with community groups and other levels of government	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• Major Nodes</li> <li>• Community Nodes</li> <li>• Neighbourhoods</li> <li>• Corporate Centres</li> <li>• Employment Areas</li> </ul>	Similar to other information programs, these create awareness of travel options, educate people and reduce information barriers to TDM	<b>Primary intent:</b> increase information of travel alternatives, mode shift <b>Benefits:</b> Education and training can increase confidence and access to sustainable modes and result in overall increases in usage

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered	Why is it needed	Benefits / Intent
		through interactive websites.				
Promotional and Awareness Programs Related to Tools and Sustainable Transportation Infrastructure	Programs that provide that are developed to encourage the use of sustainable modes and provide support and on-going activities	Programs and materials can be provided through a number of means including many that have been identified such as transportation fairs, online services (ridematching for example)	City website and through direct contact developed by TDM Coordinator and Corporate Communications; partnerships with other groups	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Community Nodes</li><li>• Neighbourhoods</li><li>• Corporate Centres</li><li>• Employment Areas</li></ul>	Similar to other information programs, these create awareness of travel options, educate people and reduce information barriers to TDM	<b>Primary intent:</b> increase information and awareness of travel alternatives, mode shift
Land-use Policy	It is important to have policies that are complementary to TDM measures to ensure that they will be incorporated into the development of communities and the overall goals and objectives of the City.	Amendments and updates to planning policy documents and master plans to reflect the integration of land use and sustainable transportation planning	Planning Department	<ul style="list-style-type: none"><li>• Downtown</li><li>• Major Nodes</li><li>• Corporate Centres</li><li>• Employment Areas</li></ul>	The model that has been used for several decades can no longer be supported and with Mississauga reaching build out, it is necessary to look at other built environment planning options to make the use of land more efficient and to ensure that our transportation systems are sustainable and effective. Therefore in order to support the use of sustainable modes, changes are needed that no longer cater only to the automobile.	<b>Primary intent:</b> to have policies that integrate transportation and land use planning and support the use of sustainable options through built form, mix of uses and densities. <b>Benefits:</b> communities that are not reliant upon the car and are more focused on people and mobility. Innovative policies can place Mississauga in a leadership role.

Other Measures

There are a number of measures that fall outside of the categories listed above. School-based programs are provided by a number of agencies of which the City would normally have a supporting role. The City would provide assistance with the development of the school travel plans and develop safety initiatives. The support of the city in the delivery of school-based travel planning programs will help reduce the overall number of trips by motor vehicle and increase the number of sustainable and active trips to and from school. The use of sustainable modes can lead to a number of benefits including improving the health of children and the community through increased physical activity and reduction in air pollutants; reducing traffic around schools and increase safety so that more children can use active modes.

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered (priority areas)	Why is it needed	Benefits /Intent
School travel Planning and support	This is a program that has been developed by Green Communities Canada with assistance from Metrolinx to deliver in the GTHA. It provides tools, programs and promotional activities to encourage the use of more sustainable modes of travel by children, caregivers and families when traveling to school to reduce congestion around schools and encourage children to be more active	The school travel plan are implemented on a school by school basis using the format established through Metrolinx and Green Communities Canada. The support for the plans is provided by other groups such as school boards, city staff and regional staff. A working committee in the GTHA is working on improving school travel planning across the GTHA	School Boards, City and Regional TDM Coordinators; Metrolinx	<ul style="list-style-type: none"> <li>Neighbourhoods</li> </ul>	Schools have peak trip generation (AM and PM peak). Engagement at school level helps to reduce demand for car trips and allows safe alternatives such as the walking school bus to be developed. The effectiveness of this TDM measure is predicated on an effective coordination mechanism	<b>Primary intent:</b> shift travel modes for students to more sustainable and active modes and increase safety around schools <b>Benefits:</b> less pollution, increased physical activity, increased levels of safety
School safety programs	Any program that will increase the safe travel to and from school and at schools which includes education of students and parents, teacher training, activities, contests	These programs can be delivered by a number of partners and through various means. For example, CAA has developed a number of safety programs one of which is for students to be involved in traveling safely to school. Other programs can be developed to support these through schools, boards, the City and the Region	School Boards, City and Regional TDM Coordinators, Traffic Operations, NGOs	<ul style="list-style-type: none"> <li>Neighbourhoods</li> </ul>	Early education helps instill better travel behaviours from a young age.	<b>Primary intent:</b> shift travel modes for students to more sustainable and active modes and increase safety around schools <b>Benefits:</b> increased physical activity, increased levels of safety and fewer vehicles
Bicycle rack donation programs	This program is designed to provide bicycle racks at schools that are up-to-date and located in areas that are convenient for children to use and removed from motorized vehicle traffic areas. The ideas of donating bicycle racks is to encourage the use of cycling and off-set the costs for individual schools	Donating bicycle racks should be carried out in circumstances where schools or other community facilities are in need of a rack or a new one. It could be done through an application to the City to supply the rack. Criteria would be developed to determine how a school or facility would qualify	School Board and City / Regional Transportation Planning	<ul style="list-style-type: none"> <li>Downtown</li> <li>Major Nodes</li> <li>Community Nodes</li> <li>Neighbourhoods</li> </ul>	For sites that may not have the means to provide bicycle parking, racks can be donated to encourage the use of cycling for travel (not be delivered to private businesses)	<b>Primary intent:</b> shift travel modes for students to more sustainable and active modes <b>Benefits:</b> Safe and secure bicycle parking and increased physical activity

TDM Measure	What is it?	How will it be delivered	Who will deliver	Where will it be delivered (priority areas)	Why is it needed	Benefits /Intent
Transit, cycling and walking buddy programs	This program enables those who may not have used transit or feel uncomfortable riding or walking to specific destinations with assistance from those who have been using one of these modes for longer periods of time. They are designed to boost confidence which will lead to increased use of these modes.	It would be best if the buddy programs were delivered through community groups where people know each other for safety and security reasons. They can also be delivered through workplaces, schools and other such venues.	MiWay, Transportation and Infrastructure Planning, Smart Commute, Region of Peel	<ul style="list-style-type: none"><li>Neighbourhoods</li></ul>	This type of program when delivered by community groups or the City can provide people who may not feel comfortable taking transit, walking or cycling by themselves to gain the confidence needed to use these modes	<b>Primary intent:</b> shift modes <b>Benefits:</b> increase confidence and use of these modes by those who want to try but are not sure



## Recommendations and Conclusions

The following TDM ‘push’-measures have not been reviewed in detail, but should be reserved for future implementation.

Variable work hours and locations can be combined with other measures to further increase sustainable mobility use. Using measures in combination will be more efficient than using them alone. For example a carpooling program will be more successful if a company provides flexible hours, guaranteed rides home, and priority parking for carpools along with their rideshare program. In this manor most forms of travel have multiple tools that can provide incentives to use it. To achieve the maximum effect with these programs they should be used conjunction with others.

Changes to travel times (when and where people work), workplace measures, TDM supportive infrastructure or policy, municipally delivered programs, and other initiatives have been shown here to have significant demand management potential.

Futur	Tolls and Congestion/Area Pricing
	Variable Parking Rates
	Fuel Tax Surcharges
	Parking Facility Taxes
	Road Tax (Europe)

# Appendix F: Current Programs

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MISSISSAUGA

## Introduction

This chapter will outline the current programs and activities that are available to residents, workers and visitors to Mississauga. Highlights of activities such as the City's involvement with Smart Commute, awards for sustainable travel initiatives, workplace programs and others will be presented in this section. This overview of current programming is the basis upon which future TDM work can be undertaken through expansion and the development of new initiatives.

## Current TDM Programs and Activities in Mississauga

There are a number of programs that exist within the City of Mississauga which fall under the umbrella of TDM programs, as they are designed to encourage a shift in travel behaviour to more sustainable modes of travel. These programs range from awards that recognize the City's promotion of sustainable travel to infrastructure that can make using sustainable modes simpler to how travel can be managed during large construction projects.

### Newsworthy Events in Sustainable Transportation for Mississauga

The City has received a number of awards for its promotion of workplace travel and MiWay. Highlighting achievements such as these can help encourage the use of the services and programs. Summaries of some of the more recent acknowledgements are available below:

#### *Mississauga received Smart Commute Gold Workplace Designation for 2016 from Metrolinx*

The City of Mississauga was awarded the Smart Commute Workplace Designation for 2016. The designation is awarded to companies who demonstrate innovation, focus on measuring success, achieving positive outcomes, and achieving an overall lower mode share of single-occupancy drivers.

The workplace designation awards efforts of new implementation strategies and the continued encouragement to commuters at the workplace. The Smart Commute Workplace program recognizes efforts in providing commuter options for employees.

#### *MiWay Marketing Team Wins National Award for Discover Your Station Campaign*

MiWay's Discover Your Station campaign received a national award from the Canadian Urban Transit Association in 2015 for the outreach event aimed to introduce the community to new stations and the newly constructed Transitway. The program attracted 4000 people to the open house which included free bus tours to new stations and educated the community about the transitway. In the first week of service the transitway routes increased from 5% to 19% in passenger ridership.

The director of Transit Mississauga stated "I am proud of our MiWay marketing team for the work they did to promote the first phase of the Mississauga Transitway and for

continuing to move forward our City's goal to develop a transit-oriented City", after recognizing MiWay for this achievement.

### ***City of Mississauga Recognized as One of Canada's Greenest Employers***

The City of Mississauga was selected as one of Canada's Greenest Employers for 2014 by the editors of Canada's Top 100 Employers. The country wide competition recognizes employers that lead the nation in creating a culture of environmental awareness in their organizations. Janice Baker, the City manager and CAO stated, "The best way to promote a green culture is to demonstrate it through our actions. It's ingrained in the way we think, operate, and conduct business". It is the first time that Mississauga has been awarded this particular recognition.

### ***Excellence in Planning Award***

The City of Mississauga along with the regional municipalities of York, Halton, Durham and Peel and the cities of Toronto and Hamilton, received special recognition awards from the Ontario Professional Planners Institute (OPPI) for the Smart Commute initiative in 2008. The Excellence in Planning Award recognizes innovation, creativity, professionalism, problem-solving and communications. The Healthy Communities Award was created to recognize excellence in creating healthy communities. Smart Commute exemplifies the importance of active transportation in the growth of healthy communities.

Mississauga is Canada's sixth largest city with a population of more than 700,000. With well-established infrastructure and state-of-the-art facilities, the City is considered to be an employer of choice, delivering quality municipal programs and services to its citizens. Mississauga is a dynamic, diverse and progressive municipality, known for its economic strength and for being Canada's safest city.

Smart Commute is a partnership between Metrolinx and the cities and regions of the GTHA to combat traffic congestion, improve air quality and reduce greenhouse gas emissions. Smart Commute Mississauga works with employers in the City to improve commuter options including carpooling, transit, cycling, walking and telecommuting.

## **TDM-related Programs in Mississauga**

A number of TDM-related programs and materials are available in Mississauga that can increase the use of sustainable travel options. These programs are outlined below:

### ***Can-Bike Training and Safety Education for Cyclists***

Can-Bike is Cycling Canada's education program that has been designed for cyclists of all skill-levels. Can-Bike teaches individuals how to ride safely and effectively in different settings and weather conditions with the end goal of safety and enjoyment for all.

### ***Mississauga Cycling Handbook (available in several languages)***

Mississauga's Cycling handbook is a guide to the rules and regulations of cycling in Mississauga. It also acts as a user's guide and

discusses the parts of a bike, maintenance, road safety, rules of the road and how to bike in Mississauga.

#### ***MiWay Outreach***

MiWay has had many outreach programs (over 150 annually) to involve the community in its transit future. The outreach team organizes MiWay info sessions to educate and review proposed service changes to MiWay with the goal to increase ridership. They also provide updates on current and past projects.

#### ***Downtown Mississauga Website***

The downtown Mississauga Website has a tab specifically for “getting around”. The website promotes the use of public transit and provides maps for walking trails and transit, along with a user’s guide for places to visit within the core area.

#### ***Carshare Pilot Program (2012)***

A carshare pilot program was launched in 2012 in the City and was provided to municipal employees and the general public through AutoShare (now Enterprise). As a result of positive support from the general public during the pilot, it was recommended to continue and expand to provide travel options to those who need to drive but choose to not own a car.

### **TDM For Large Infrastructure Projects**

Large-scale infrastructure projects can have a major impact on the ability of people to travel throughout the affected communities. There can be impacts upon all modes of travel, including changes to transit services, closure of bicycle lanes and sidewalks and reduction in vehicle travel lanes which can impact businesses and emergency services. Maintaining the same level of service during the construction period is not possible and therefore strategies need to be in place prior to the commencement of the construction work. The City of Mississauga has developed a strategy that will help to mitigate the impacts of the construction of a major transportation project and that can be adapted to be used during other large-scale infrastructure projects.

The construction of the Hurontario LRT project will have a considerable impact on the commuters, residents and visitors to the City. The five year project will result in increased traffic congestion which has the potential to cause major disruptions to surrounding communities. The TDM strategy will mitigate the impacts of the LRT construction and provide residents and workers with information and support to change their travel behaviour during this time and increase the use of sustainable transportation options well beyond the end of construction.

The purpose of the strategy is to incorporate TDM measures and programs into the LRT project from the initial stages through the Traffic Management and Communications Plans. The primary focus of the strategy will be to provide information and assistance to residents and employees about their travel options to help alleviate the impacts of the construction, while at the same increasing vehicle

occupancy and reducing the overall number of trips, particularly during peak travel times.

While the development of such a strategy can be seen as a benefit for the short term, long term changes in travel behaviour should also be included as a goal of the plan. For example, when the LRT service starts, it is anticipated that the TDM plan will provide incentive for residents and commuters to use it rather than drive.

For any TDM strategy to be successful it cannot operate in isolation and therefore should be a collaborative process involving a number of departments within the City of Mississauga, the Region of Peel, Metrolinx, and others. This will allow for each partner to take specified roles which are overseen by the City's TDM Coordinator.

The plan will be implemented in three phases from pre-construction through to post-construction. Each phase includes specific messages, tactics and how and who it will be implemented. As this is the first TDM Plan in Mississauga for such a large scale project, the success of using TDM measures will be monitored and a full evaluation of the successes and lessons learned will need to be undertaken.

It is important to note that this initial strategy can be modified and used for other projects throughout Mississauga. As TDM is context-sensitive, any strategy will need to take into account the surrounding communities, length of construction, available modes of travel and land uses.

## **TDM Programs in Region of Peel**

Peel Region is known for its innovative and progressive approach to encouraging its residents, workers and visitors to consider using more sustainable modes of travel for their commuting and day-to-day activities. As a result, there are a number of programs that have been undertaken by the Region to encourage long-term travel behaviour change. These programs can provide Mississauga with inspiration for partnerships with the Region and other organizations to increase the delivery of TDM programs and reduce reliance upon single occupant vehicle trips for residents, workers and visitors. A review of the programs undertaken by the Region and their partners can be found below.

### **Employer Individualized Marketing Campaign**

The Employer Individualized Marketing (EIM) Campaign was developed to provide a more tailored approach to the delivery of workplace TDM programs in Peel Region and to increase the number of trips taken by sustainable modes during peak travel periods.

The employer individualized marketing program is the first large-scale program of its kind in Peel and included sites in Mississauga. Utilizing community-based social marketing techniques to change travel behaviour at the workplace, the program's goal was to reduce single-occupancy vehicle travel within the Region of Peel. Whether



car-pooling, taking transit or using active transportation, the program's aim was to find the right solution for each individual commuter.

The program initially focused on three large employers for the first phase: Hatch (a consulting firm), the Greater Toronto Airport Authority (Pearson Airport) and the Region of Peel. The firms were members of Smart Commute, with mature TDM programs supporting workplace travel options. The second phase included small/mid-size employers which were focused primarily within Brampton and Caledon. Each workplace selected was at a different stage in the delivery of TDM programs, which provided greater insight into the effectiveness of an EIM program.

The following conclusions were made based on the program results:

- High familiarity with TDM programs at worksites reinvigorated existing workplace travel programs;
- Commuter profiles and individual travel plans were harder to implement when provided at large outreach events with the larger employers;
- Providing exciting outreach events with the EIM program provided on-site opportunities for employees to take part in the individualized travel planning and commuter assistance programs; and
- EIM was seen to be most effective at worksites where the TDM programs were in the conception stage of implementation (presentation to ACT Canada Sustainable Mobility Summit, November 2012)

The program first assessed an individual's willingness to participate, by segmenting the population into those who are likely to change their behaviour and those who are not (unwilling). There are three stages of the program: (a) the initial survey and participant segmentation; (b) the motivation and information stage, where participants are educated on other options of transportation and given incentives to use these; and (c) the final stage of evaluation where participants are given the original survey to see who their results have changed.

Overall, the program had success and the City should consider working with Smart Commute Mississauga and Pearson Airport Area and the Region to bring EIM to more workplaces.

## School Travel Planning

There currently are several school travel planning programs available throughout Ontario. However, there are a few which are more relevant to the City as they are directly supported by the Region of Peel, though changes may occur in the future. Three programs have been selected and are described below.

### Stepping It Up

The past 25 years has seen an increasing trend of driving children to school instead of walking, which has led to growing congestion and safety concerns around schools. To address this issue, Metrolinx developed a **pilot project** "Stepping It Up" in partnership

with the Region of Peel and others. Stepping It Up was developed to promote sustainable modes of transportation to school while discussing the importance of active transportation for children through working directly with schools.

The pilot brought to the forefront the need to encourage sustainable travel to and from schools. At the broader level, Metrolinx consultations demonstrated that everyone has an important part to play from provincial ministries and school board to parents and children. The program has continued in various forms with the goal to increase active and sustainable student travel. This type of program is an important component of a larger TDM strategy.

### High School Transportation Demand Management (TDM) Pilot Program

The purpose of the High School TDM pilot is to lower the number of vehicles to and from Peel high schools to provide safer streets for students who walk to school, keep students active, and improve air quality. There are four schools across Mississauga that have chosen to participate in the pilot. The program offers education on the importance of active transportation but also gives students the opportunity to provide opinions and comments on the planning process, learn about government processes and have their say in a decision-making process. This results in a more successful program as it is designed for students by students.

### Peel Safe and Active Routes to School

The Peel Safe and Active Routes to School is led by Transportation Planning and Health Department (PSARTS) and works to encourage more children to walk to school. The program promotes safe, walkable school routes which has had an impact in the region as the number of students walking to school has increased. Walking will keep children healthier and more active while reducing harm to the environment.

Current School Programs	
<b>Peel School Travel Planning Project (STP)</b>	This program addresses school traffic related issues and promotes walking and cycling to school through walking with the community to develop school travel plans.
<b>School Bicycling Parking Program</b>	A program to provide safe and secure bike racks at schools
<b>Bike to School Week</b>	A week dedicated to bike safety and promotion
<b>Peel Children's Safety Village</b>	A program to educate elementary children on road safety rules to prevent traffic accidents to children aged 1-9. The program offers pedestrian and school safety workshops
<b>Up Coming Events</b>	Mississauga Community Ride PWEYA Amazing Green Race Bike to Work Day Bike to School Week

School travel planning continues to be an important program to the Region and beyond. The City should continue to be involved in this process as changes take place and the delivery of the initiatives evolve.

## **Smart Commute – Pearson Airport Area and Mississauga**

Smart Commute is a program of Metrolinx which offers sustainable travel planning and programs through thirteen individual transportation management associations (TMA) across the Greater Toronto and Hamilton area. There are two Smart Commute associations that serve the City of Mississauga – Smart Commute Pearson Airport Area (SCPPA) and Smart Commute Mississauga (SCM).

Smart Commute Pearson Airport focuses on the employees that work either at or near the airport. Due to the location of the airport there are less active transportation options for commuting, which puts a focus on transit and car-pooling. Smart Commute Mississauga focuses on local businesses within the City of Mississauga, including City of Mississauga staff.

Smart Commute focuses on decreasing the commuters' carbon footprint by encouraging a range of modes of transportation other than single-occupancy vehicles. By creating an action plan for a company Smart Commute provides workshops, seminars etc. and advocates for improved transit services for employees. Different events held may be carpool week, bike to work day, active switch workplace challenges, smart commute week, and smart commute awards.

## **Development Process**

The application of TDM measures through the development approvals process has not yet been implemented in Mississauga, however Peel Region has developed a plan which outlines its approach to including TDM in the development process. For Mississauga, integrating TDM with land use planning policies and regulations along with a collaborative approach to working with developers, will lead to TDM being a routine component of how planning and development occur in the City.

## **Conclusions**

Overall, there is a relatively strong foundation for the development of a strong and implementable TDM Plan in Mississauga. The City has been involved in a number of projects at the Regional and Provincial levels which has given them the opportunity to participate in the development and delivery of programs primarily focused on workplaces and schools. This plan will allow the City to expand their focus to include visitors and residential communities. The remainder of the strategy will focus on the programs, delivery options, timelines and monitoring of TDM in the City.





## Appendix G: Partnerships & Programs

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## Opportunities for Implementing TDM in Mississauga

The City of Mississauga has ambition which is indicated in the policies outlined in Moving Mississauga, the City's interim transportation plan. The principles listed in the Moving Mississauga plan provide the outline for the opportunities discussed in this section.

To date, there has been limited implementation of TDM measures. The City has been a partner with Smart Commute since its inception and has recently looked at how to incorporate TDM into major infrastructure projects, but little else is available. Therefore the following will provide an outline of the areas that programs have been initiated and then will follow up with the opportunities for the City on how they can move forward.

The chapter provides a review of the workplace, household and school programs that are currently available and how further opportunities can be leveraged.

## The Role of City Staff and Partners in TDM Delivery

The following table summarizes the current roles of various City groups and external organizations in delivering TDM programs in Mississauga. As it shows, the City has been involved in some programs, but the overall implementation of TDM program delivery has been limited, with major roles in the delivery of some programs left to external organizations such as the Region of Peel, Smart Commute and school boards.

Stakeholder	Current Role in TDM Delivery		
	● Major	• Minor	— None/negligible
	Workplace programs	Household programs	School programs
<b>City of Mississauga</b>			
Transportation and Infrastructure Planning	•	•	•
Active Transportation	•	•	•
Development and Design	•	—	—
Traffic Operations	—	—	•
Traffic Safety Council	—	—	•
MiWay	•	•	•
<b>External organizations</b>			
Region of Peel - Planning	•	•	●
Region of Peel - Public Health	•	•	•
Local Smart Commutes	●	•	—
Metrolinx/GO Transit	•	—	•
Employers/Property Managers	●	—	—
Schools/School Boards	—	—	●

There is potential for the City to take a leadership role in some of the programs and a more active role in others. The City has been proactive in developing a plan for traffic control and communications during the construction of the Hurontario Light Rapid Transit (LRT) line and has included a TDM strategy to assist in the mitigation of the impacts that the construction will have on travel in the area and along Hurontario.

The strategy sets out a program to incorporate TDM measures into the LRT project through informing residents and employees about the options available to them during the construction period. It is anticipated that the plan will help to alleviate the impacts of the construction through encouraging the reduction in the number of trips taken along the corridor and ensure that consistent communications about the project and the opportunities to shift travel modes, times and routes are provided to the public throughout the project. This is a prime opportunity for the City to take on a leadership role and provide assistance to the public and aim to shift travel choices for the duration of the construction and beyond.

City staff also have the opportunity to increase their level of collaboration with the Region of Peel, Metrolinx, school boards and the local Smart Commute associations and become more active in the promotion and delivery of programs that will benefit the core user groups these partners represent and work with. The City can provide support to the further development of school programs through collaboration with working groups and individual schools. This will allow for schools to receive support on how to shift school travel to active and sustainable modes and reduce the traffic volumes around schools during the morning and afternoon peak school traffic times.

Another area where the City could be a leader is the delivery of TDM programs to households through the use of community-based social marketing individual travel planning programs. The Region of Peel could be partners with the City to deliver a comprehensive pilot program similar to the MyTrip program in York Region to new and existing communities in Mississauga. For example, an individualized travel planning program could be developed and implemented to coincide with the opening of the Hurontario LRT.

## **Workplace Programs**

### **Smart Commute**

Smart Commute organizations are the lead actors in engaging employers in Mississauga and supporting their development of TDM programs. Those organizations are guided, in large part, by Metrolinx and their related service agreements with Smart Commute. With this in mind, the City of Mississauga is a secondary player in workplace TDM programs, and lacks the resources to conduct intensive employer outreach—its efforts are likely best-placed in helping the Smart Commute organizations to do their job more effectively.

For these reasons, the key questions to identify future opportunities are:



- *Scale of workplace programs* – How can Mississauga help Smart Commute organizations attract more member employers, and larger member employers (i.e. to increase the number of commuters impacted)?
- *Effectiveness of workplace programs* – How can Mississauga expand the range and quality of services provided by Smart Commute organizations to their members (i.e. to make those services more effective)?
- *Mississauga as a leader* – How can Mississauga use the role to become a leader in the delivery of workplace programs (i.e. to use their workplace program as an example for other employers)?

### Scale of workplace programs

City staff, senior managers and Councillors could promote Smart Commute membership as a key part of doing business in Mississauga, and as an effective part of corporate endeavours related to sustainability, social responsibility, health and safety, employee attraction and retention, and productivity and competitiveness. Possible internal organizational partners include the Economic Development Office, Planning and Building, Environment Division, and MiWay. Their representatives should be “Smart Commute ambassadors” familiar with Smart Commute services, and be able to raise awareness of and interest in Smart Commute when speaking with local employers.

### Effectiveness of workplace programs

Many key Smart Commute services (e.g. online trip planning, ridematching, Emergency Ride Home, surveys) are centrally planned and delivered, leaving little opportunity for Mississauga to support improvements. However, there are other opportunities to boost the impact of Smart Commute services in Mississauga:

- *Transit* – MiWay could increase its presence at Smart Commute events, customize informational materials to promote transit use at specific workplaces, and consider ways to provide financial incentives for commuters wishing to try MiWay services. MiWay has created programs such as Discover your Station, where free rides were given to customers to new stations and through new routes to show users where they can now go to.
- *Active transportation* – The City could increase its presence at workplace events to promote walking and cycling, and could provide guidance or financial assistance for employers seeking to improve end-of-trip facilities (e.g. bicycle parking).
- *Carpooling* – The City could provide priority carpool signs for employers to install at workplace parking facilities, many employers have already implemented this at their place of work.
- *Telework* – City staff could monitor the Region of Peel’s pending telework development project, and support the dissemination and use of any tools the result.

## Mississauga as a Leader

Leading the delivery of a workplace program can position the City in a mentorship role for which they can not only show the programs that they offer outside of the Smart Commute program but also indicate their success taking part in Smart Commute. This can provide the city with legitimacy when working with the staff at both Smart Commute associations to encourage more employers to take part in the work place programs.

It is recommended that City staff discuss these or other opportunities with Smart Commute representatives, to investigate their actual need and likely benefits.

## Employer Individualized Marketing Campaigns

In 2010 and 2011, the Region of Peel undertook a pilot test of employer individualized marketing (EIM) campaigns in Mississauga, Brampton and Caledon. Phase 1 involved three large employers (Greater Toronto Authority, Hatch and Region of Peel; each had more than 1,000 workers and mature TDM programs), while Phase 2 involved three small/medium employers (Mars, Nestle and Caledon). The project involved survey, segmentation, motivation, information and evaluation stages.

The project found that EIM was an effective program in shifting individual travel behaviours away from SOV commuting, but that its impacts were greater at small/medium workplaces and at workplaces in the earlier stages of TDM program development. The project leaders recommended that EIM could be used by Smart Commutes as a fee-for-service program (most effectively in the early stages of engagement with an employer), and that EIM could also be used in areas or at workplaces where Smart Commute services are not available (i.e. as a stand-alone campaign, or as part of an employer's internally-led TDM initiative).

Smart Commute organizations remain the appropriate service agencies to deliver EIM in Mississauga, to the extent they are willing and able to play that role. Therefore, future opportunities for the City of Mississauga (through a partnership with Peel) could include:

- At Smart Commute member employers, supporting the delivery of EIM campaigns by Smart Commutes by providing financial support (i.e. subsidy of the fee charged by Smart Commute for the service).
- At non-member employers, partnering directly with workplaces to plan and deliver EIM projects (with or without financial support).

## Household Programs

### Individualized Marketing for Households

The goal of individualized marketing (IM) for households is to help residents understand and try new ways of getting around. York Region's recent MyTrip program targeted residents of newly built (greenfield) neighbourhoods. In Mississauga, the absence of greenfield developments means that a similar program would have to focus on large infill/redevelopment projects and/or existing neighbourhoods. A

number of North American household TDM programs have concentrated on existing neighbourhoods close to new transit or active transportation infrastructure, to build awareness of those improved travel options and to encourage residents to give them a try; using IM techniques around infrastructure such as the Hurontario LRT (scheduled to open in 2022) would be a good opportunity to test their effectiveness and build capacity and include in the TDM strategy that has already been developed. Another opportunity would be to test IM tools in large condominium or rental developments in transit-friendly areas (e.g. downtown).

## **Incentives**

Incentives for the household program are used in the same manor as the Employee Program. Incentives are used to encourage those participating to fill out the original survey, and are used throughout the program to encourage participants to attend events and activities. The original kit bag is considered an incentive to get the participant involved in the program. They often hold maps of trails, transit routes and stations, places to bikes and the best places for maintenance. Other incentives can that can be used throughout the program are:

- Gift cards
- Pedometers
- Program branded items
- Reusable bags
- “Weekly” draw

It is important to ensure that the incentives to complete the last survey are still significant enough to actually get the participant to complete it. Often a participant will complete original survey and complete program, but may not fill in the ending survey, which results in skewed data.

## **Outreach**

Community outreach is very important in marketing of the program along with encouraging and those who have already joined to continue participating. Outreach programs can include promoting new or improved trails or recreational destinations, transit oriented programs such as MiWays’s Discover your station, which introduced passengers to new stations after construction.

Outreach in the community can also be school oriented. This may include having outreach programs at schools to educate and encourage students to use more sustainable modes of transportation. This can encourage parents to allow their children to walk or bike to school. Education children on road safety and providing them with the right information can not only decrease trips near schools, but these children are more likely to keep these habits after graduating.

Simple outreach programs such as Bike to Work Day and Bike to School day can encourage those who have the ability to but usually choose not to, try out the mode for the day. These programs can introduce new users to others who have been using alternative modes of transportation and can show how easy and efficient biking is as a mode of transportation.

Outreach programs are vital to the success of a TDM delivery as they are what encourage the behavioral change within neighborhoods. Without a change in behaviour, when provided with the knowledge and infrastructure it is likely that people will still choose to use single-occupancy vehicles over more sustainable modes of transportation.

## School Programs

Programs designed to promote active transportation for school travel are led by the Region of Peel (see <http://www.walkandrollpeel.ca/projects/schools.htm>). They include:

- Peel School Travel Planning (STP) Project, led by Peel Public Health
- School Bicycle Parking Program
- Bike to School Week
- Peel Children's Safety Village
- Peel Safe and Active Routes to School (SARTS) Committee, on which the City of Mississauga is represented

Various tools and resources are also available to schools, including handbooks, videos and toolkits.

Due to the established nature of school programs, the key questions to identify future opportunities for the City of Mississauga are:

- *Scale of school programs*—How can Mississauga help increase the number of schools implementing TDM programs, in order to increase the number of students and families impacted?
- *Effectiveness of school programs*—How can Mississauga help expand the range and quality of tools and services provided to schools, to make them more effective?

### Scale of school programs

The SARTS Committee plays a large part in the regional coordination of school scale programs, however the City still plays a role in encouraging the use of TDM in schools. The City organizes crossing guards for safer road crossings near schools and implements the school safety patroller program, where Foot Patrollers prevent students from stepping on to the road when unsafe and educating them on road safety. The City also supports National Walk to School Day as an important part to encouraging more children to choose to walk to school instead of being driven.

### Effectiveness of school programs

Opportunities for the City of Mississauga to boost the impact of school TDM services could include:

- *Crossing guards* — The City's Crossing Guard Program provides about 200 guards at 150 locations in Mississauga, serving children from kindergarten through Grade 5 at both public and Catholic schools. Decisions about where

guards are provided are made by the City's Traffic Safety Council, based on established warrants. The City could boost the resources available to this program, in order to expand the number of guarded crossings and encourage children to walk to school.

- *Bike safety and training* – The city could increase bike awareness programs in elementary schools. This includes teaching the rules of the road to children, how to safely cross the road as well as general biking skills and how to take care of their bike.
- *Other traffic safety* – The City's Traffic Safety Council is also the venue for discussions related to traffic operations around schools (e.g. enforcement, creation of Kiss & Ride zones) as well as promotional campaigns and events.
- *Transit* – At secondary schools, MiWay could provide free or discounted rates to students. This would allow them to travel to school by themselves and reduce the amount of parents driving their children to school. It could also get older students used to using the transit system and transition them easier into it once they graduate.

## TDM and New Development

### Background

Integrating transportation demand management into new developments is vital to changing the habits of those who live there. People are most likely to establish new behaviors during significant life events such as moving to a new location. Thus, this is one of the greatest opportunities a city has to implement new measures.

It is important to develop an approach that integrates TDM into the approval process of new developments. This can ensure that long-term travel behavior change is being addressed while exploring the use of tools needed to fully integrate more sustainable travel options into development applications.

The City of Mississauga is transitioning into an urban built community from a suburban one, which in turn demands that more types of transportation be available within the city. A multi-modal transportation system that will allow for new communities to grow into the mixed-use, walkable community we see in the future will only be achievable with the implementation of more TDM measures.

Requesting TDM measures in development applications can often lead to misconceptions as the same TDM infrastructure will work in some places but not in others. Many cities use the method of a TDM checklist when approving buildings however, it is suggested that Mississauga look into other methods of enforcing these measures. Infrastructure can only be a part of what is considered effective for TDM. Programs and activities that encourage the use of sustainable transportation is just as important to the success of the program as the physical infrastructure. Education, promotion, and incentives are often just as important to increasing the use of TDM measures as having infrastructure available.

Currently, there are existing policies in place for development at all levels of government, however, the current legislation does not give municipalities the power

to incorporate TDM into the development process. There is a need to expand existing legislation to cover that of the development approval process for TDM policies. Therefore until such time as the legislation changes, the City will need to rely upon negotiations with the development community to incorporate TDM programs into new developments.

### **TDM Measures**

There are many TDM measures that can be incorporated into the development approvals process. TDM measures can loosely be categorized into two sets of strategies, hard measures (TDM-supportive infrastructure) and soft measures (programs and activities). TDM-supportive infrastructure includes the physical elements of a site that are necessary for sustainable modes of transportation such as end-of route facilities, distance to transit services and multi-use trails and parking to be used.

TDM programs and activities are those which address the behavioral change that is required to implement successful TDM. These measures are usually available to tenants, visitors and employees of the property. There is often an issue with who is responsible for these programs as they occur post-occupancy, and have to be continually monitored after initial construction to determine if implementation is continuing, unlike physical TDM measures. TDM programs are vital to the success of TDM implementation for new developments but they are difficult to require (due to lack of legislative support) and enforce. Soft measures ensure that people understand what programs and infrastructure are available to them and how they can get support and information. This can in turn be used to utilize travel behavioural change.

There are some tools available for municipal staff to request some missing TDM-related infrastructure in new developments. Planning policy, zoning by-laws, subdivision and condominium agreements, design guidelines, site plan agreements, monitoring and enforcing, and funding can provide the opportunity to negotiate the inclusion of TDM measures in developments throughout the City.

To assist in the integration of TDM measures within new developments, the City has developed a set of guidelines to assist both staff and development applicants with navigating the process through negotiations and understanding of the positive impacts TDM can have on these projects.

### **Innovative Programs and Technology**

Technology and innovation are impacting every aspect of our lives, including how we find information about travel options. The City of Mississauga needs to be proactive in the delivery of TDM programs which are innovative and technologically relevant. This section outlines some opportunities for the City to consider in the delivery of their TDM programs and desire to encourage long-term travel behaviour change.



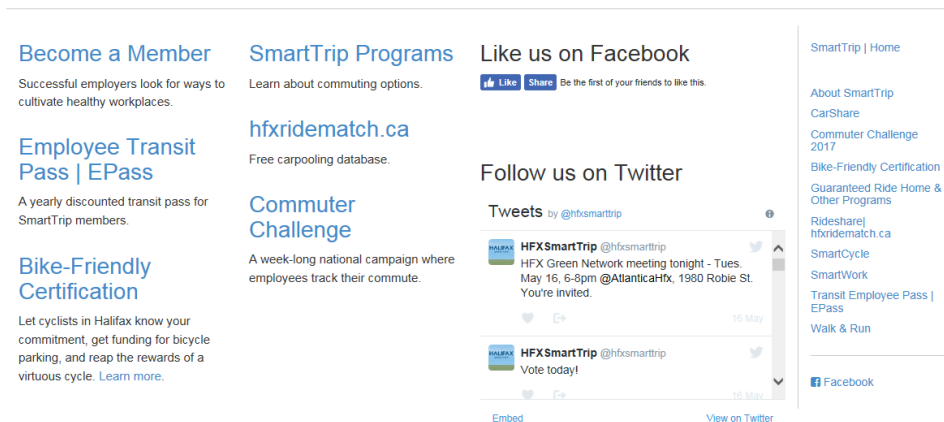
## Interactive website

The City should create an interactive website with a brand to ensure that the public, businesses and commuters can find information on sustainable travel services, programs and supporting infrastructure through a one-stop portal. This is an opportunity that will enable up-to-date information to be made available to the public on such things as the TDM program for the Hurontario LRT construction, where to register for cycling education programs, how to use a PRESTO card and so on. The portal can also link to other programs and services (such as MiWay and Smart Commute). Halifax Regional Municipality has branded their TDM program as SmartTrip and developed a one-stop portal for information on sustainable transportation options. Below is a snapshot of part of the main webpage showing the links and information available.

To be inclusive and incorporate the needs of workers, residents and school-aged children, the site needs to include information for all. It should be inviting, have links to social media and be updated on a regular basis so not get stale. Most municipal sites that promote sustainable transportation are static while the ones that promote employee engagement programs are dynamic, colourful and have a distinct identity. For the City of Mississauga to have a successful TDM program, a TDM website should contain relevant information in a dynamic and attractive setting.

### SmartTrip Program

The SmartTrip program provides Halifax commuters with viable and sustainable transportation options; from walking, to cycling, to carpooling and public transit.



## Mobility as a Service (MaaS)

Mobility as a Service is the idea of moving mobility away from personally owned modes of transportation and moving towards mobility solutions as a service. It is a similar concept to that of Netflix, where paying a flat rate will give you access to all movies on the site. Paying a subscription to a Mobility app will allow you to travel from one area to another using any type of transportation available. The hope is that providing transportation as a service will take away the need to own a personal

vehicle, or at least lower the use as it is more convenient and economically efficient to use a service instead.

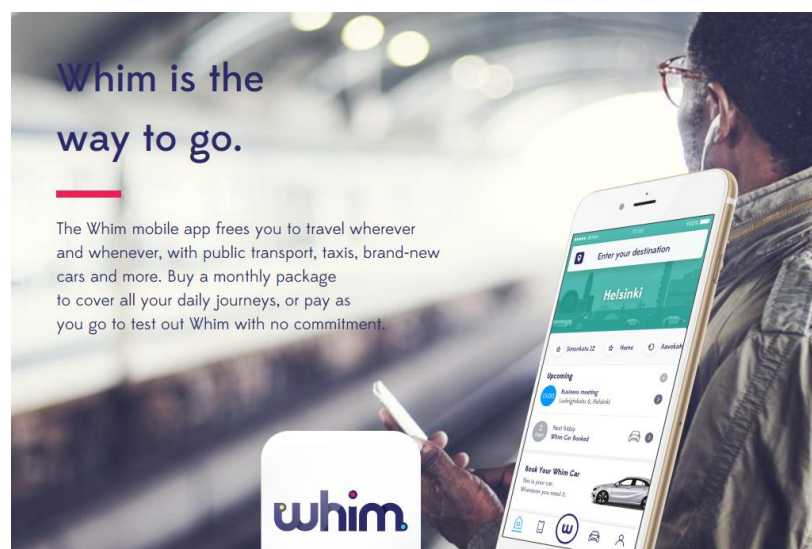
Mobility as a service is becoming more common as less people are using personal vehicles. There are many different technologies that can provide mobility service, the most popular of them being mobile apps. These can provide service in the means of direction your travel, such as Transit Now (TTC) or Uber, which charges for a ride in another's personal vehicle. The invention of mobility as a service has revolutionized the transportation market, allowing more companies to take advantage of the new economy.

While individual apps are continuing to emerge into today's travel trends, there are some that have been able to combine multiple modes of transportation into the same application. TravelWise, Hamilton's travel app (launched in December 2013) is able to combine all methods of transportation into one easy mobile app. TravelWise covers walking, cycling, carpool, transit, car share, bike share, and taxis trips. The ability for the City to have developed the app instead of allowing a third party to own it allows for the City to have a larger part in TDM through technology. When third parties are involved there are often looking for the highest profit. While the city owns and promotes TravelWise, the goal for the technology is to create easier, more efficient travel within the City, instead of creating a profit in a growing market.



Another area that has taken advantage of the increase area of technology in transportation is Southern Finland. The City of Helsinki developed the mobile app, Whim, and launched it in 2015. The app includes all modes of transportation within the city and with a monthly subscription you can use them all at the same cost. Walking, biking, transit, taxis, and carpools are all available through the

app which can be purchased through zone and period of time (bi-monthly) or through flex leasing where you pay per use. The goal of Whim is to have a city without personally owned cars by 2025. This is an aggressive approach to reducing the use of single-occupant vehicles but with the increased availability of technology applications like these may become the norm in our society.



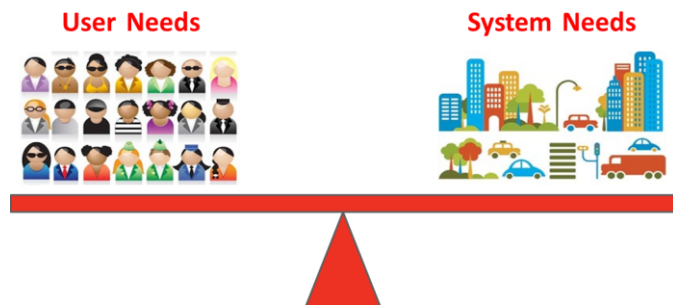
Mississauga could look towards developing a one-stop app to provide its residents with the ability to choose their mode of travel either by providing information or moving toward being a provider of all mobility options through one app. This would need to be considered as part of a medium to long term product as the TDM program will need to be in place before an app could be created.

## Mobility Management

Mobility Management is the harnessing of technology and partnerships to create innovative, user-friendly products and services. It is the ability to use these tools to influence user demand and to encourage behaviour change. As transportation issues continue to arise across the globe, our approach to these issues needs to change. A focus on the user, more efficient infrastructure and assets, and the ability to influence behaviours needs to be addressed in order to manage increasing demand.

Mobility management strives to balance the travel needs between the user's needs and the system's needs. It is about balancing and bringing modes together to be able to provide the options that the public are looking for. Encouraging individuals to make economically rational and personally optimal mobility decisions is the focus while helping people select the right mode for their trips. Using service design and personalizing the method for the user a more optimal approach can be created.

Mobility Management is important to demand management as there needs to be less focus on how to accommodate more vehicles physically and more focus on how to change the behaviour of drivers. The focus needs to change to what the user needs and how to achieve that. To do this, the where when and why users drive needs to be considered.



There is a need to work directly with individuals to understand their needs and tailor solutions that will work in each situation. To encourage multi-modal trips, it is important to understand potential barriers to using different types of transportation. Promotional programs can then be created to address specific barriers such as a lack of knowledge of different modes or trails in the area. Other programs could provide incentives for an individual or household to use sustainable modes of transportation. By focusing on the user a balance can be found between the individual and the system, thus creating a more functional system overall.

As technology increase there are more options available to travelers. The hyper-connectivity of cities can allow users to choose other modes of transportation as they see fit, whether it be using apps to see how full parking is and choosing transit instead or using GPS to choose alternative routes to avoid traffic, there is plenty of opportunity for a well-managed system.

Adapting the product delivery model to transportation has a number of benefits. Successful products have been tested, re-invented and monitored for success. It is not assumed that the product will meet all needs, but it does need to meet the needs of the target market. Therefore the manufacturer's need to understand what people want, why they use a product and what needs to be done differently. The same should be true of the delivery of transportation services. Using a service design approach to deliver TDM programs will increase the understanding of the users' needs and enable for improved services and programs which will lead to an increase in the use of sustainable travel modes. As in the product delivery model, pilot programs or focus group sessions are needed to determine if a program will work and changes made to it if there are concerns and shortcoming. Understanding the user and their needs will go a long way to improving the outcomes of transportation initiatives, especially those provided by TDM practitioners.

Using techniques such as:

- Creating personas to help determine travel needs,
- Engaging people in journey mapping to understand what their journey is like and how they would change it;
- Discussing with commuters why they use their current travel mode, and
- "Walking in someone's shoes" as a mystery travel consumer.



## Peel Region Transportation Demand Management Social Marketing Program

The Region of Peel is initiating a program in 2017 to deliver a TDM Social Marketing pilot project within one or more selected communities. The intent of the program will be to establish a Mobility Management Tool (MMT) to track trips and mode of travel. This will be complemented by a targeted Social Marketing program that incentivizes and enables behavioural change. Together, these two elements will provide an innovative TDM program which will evolve from a pilot project to a permanent component that will make a quantifiable and demonstrable contribution to the objectives of the existing TDM Plan.

The City of Mississauga should monitor the delivery and evaluation of this program over the next 22 months and if successful, consider including it within the repertoire of programs available to residents, workers and others.

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# Appendix H: Action Plan

AUGUST 2017



## Action Plan

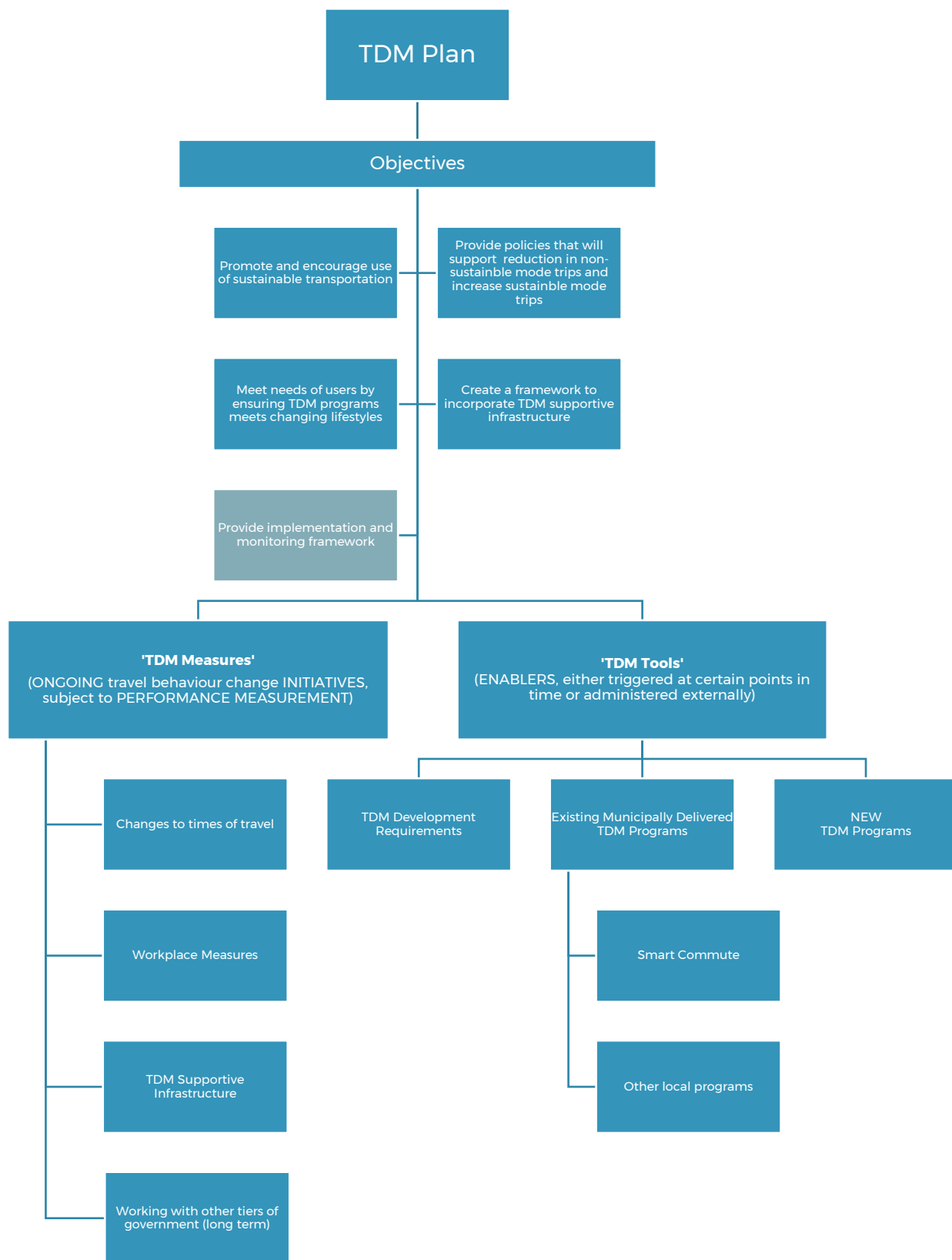
This Action Plan is designed to fulfill one of the key goals of the TDM Plan: ‘**an implementation and monitoring framework to ensure that changes in travel choice are occurring**’. It fulfills this goal by outlining the steps required to implement the TDM Plan over its life and linking the four objectives of the plan to each of the TDM tools and measures that are recommended for implementation.

A key consideration for the Action Plan is the formation of TDM partnerships that assists with implementation and monitoring. This idea is based on successful examples currently in existence across North America. As number of TDM measures involve third parties (employers, school boards, other tiers of government), there will be a need for the City of Mississauga to forge form strong partnerships across all sectors of the community to ensure the plan’s long-term success.

In essence, this Action Plan has four components:

1. **When** each of the TDM measures will be implemented (*phasing*)
2. **Who** the relevant stakeholders are (*partnerships*)
3. **What** the likely necessary resources required to give effect to the measures will be (*financial and budgetary considerations*).
4. **How** resources will be evaluated (*performance measurement*)

The following sections outline how these components form part of the Action Plan. The relationship between each of the components and the TDM Plan is illustrated on the next page.



## Definitions

**TDM measures** are ongoing initiatives that will be subject to regular performance evaluation. Performance evaluation will require the collection of meaningful and representative data to assess their performance over time. They are intended to do the 'heavy lifting' as far as driving long term travel behaviour change is concerned.

**TDM tools** are supporting actions that are designed to complement and enable the TDM measures identified in the TDM Framework. Tools are designed as standalone activities that are not necessarily time-specific or dependent on the implementation of other TDM measures.

In contrast to the TDM measures that have been designed to target specific travel behaviour change outcomes, TDM tools are instead intended to promote and encourage the overall goals of the plan. TDM tools will be important catalysts for travel behaviour change over time by providing information and resources to assist with travel choices and long-term modal shift, rather than day to day determinants of travel choices.

It will be up to the City to decide whether these tools should be implemented either on a once-off or a reoccurring basis. This Action Plan includes specific recommendations on how to develop a plan to determine their effectiveness separate to the TDM measures.

Currently the City's main promotional vehicle for TDM is SmartCommute, which is in turn administered by SustainMobility. SustainMobility is charged with planning and executing the programs for which it has been given responsibility. There are also a number of other complementary programs that are run and carried out by a range of different organisations, including the TMAs.

This Action Plan has also been designed to assist with the integration of existing TDM programs with the new TDM initiatives proposed here. Currently the City experiences some difficulties in monitoring, benchmarking and enforcing existing TDM programs. The Action Plan is designed to address this by establishing a clear program to assist with tracking and measuring actual travel behaviour change results over time so that the City can evaluate performance and give the community confidence that the TDM Plan is delivering real and tangible results for the community.

## Phasing of the tools

The Action Plan includes the phasing of both the measures and tools over a period of seven years (2018-2025).

	<b>Pre-implementation 2017/2018</b>	<b>Short Term/Program Initiation 2018-19</b>	<b>Medium Term 2019-24</b>	<b>Long Term 2025+</b>
TDM Tools	<ul style="list-style-type: none"> <li>► Scope TDM Coordinator future role</li> <li>► Develop a detailed budget request for all TDM initiatives (estimate the ask)</li> <li>► Establish relationships with SmartCommute /TMA and employers</li> </ul>	<ul style="list-style-type: none"> <li>► Develop outreach and marketing materials</li> <li>► Establish monitoring measures</li> <li>► Pilot certain low hanging programs</li> <li>► TDM development approvals kit</li> </ul>	<ul style="list-style-type: none"> <li>► Lobby province and region for Municipal Act reform</li> <li>► Codify TDM development approvals in City by-laws</li> </ul>	
TDM Measures	<ul style="list-style-type: none"> <li>► Establish ongoing employer-based TDM Workplace Initiative with monitoring program</li> </ul>	<ul style="list-style-type: none"> <li>► Ridematching</li> <li>► Flexible Work Hours</li> <li>► Telework</li> <li>► Compressed Work Weeks</li> <li>► Emergency Ride Home</li> <li>► Bicycle Parking requirements and design standards*</li> <li>► Pricing Parking</li> </ul>	<ul style="list-style-type: none"> <li>► Transit Pass Subsidies</li> <li>► Fleet Motor Vehicles</li> <li>► Showers and Change Rooms</li> <li>► Priority Parking, including carpool priority</li> <li>► Pedestrian Connections and Amenities</li> <li>► On-road active transportation infrastructure</li> <li>► Parking Supply Changes</li> <li>► Parking Restrictions</li> </ul>	<ul style="list-style-type: none"> <li>► Road pricing reform</li> <li>► Park and Ride at Transit Stations</li> </ul>

## Market Segmentation and Stakeholder Analysis and Partnership Development

As noted in the Introduction, the successful implementation of a number of TDM initiative outlined in the introduction is heavily reliant on the idea of strong and well-functioning partnerships. These include a variety of partnerships such as:

1. TDM market segmentation and stakeholder analysis
2. working with organisations already involved in TDM to improve existing programs (development and formalisation of partnerships)
3. improving social marketing to drive behaviour change at a community level by jointly targeting marketing strategies that are designed to reach a range of audiences; and
4. ensuring strong take up of those TDM measures where the ability to drive behaviour change resides with a third party organisation

Fundamentally, the partnerships approach is based on the notion that *'the sum of the whole is greater than its parts'*.

### Workplace TDM Programs for employer based initiatives

The Arlington County Commuter Services Bureau (ACCS) (Arlington, VA) funds Arlington Transportation Partners (ATP), which provides *'transit benefit assistance to employers [...] tax-free transit, help throughout the implementation process, including program creation as well as policies and open enrollment for employees.'*

ATP administered incentives include:

1. **ATP Champions:** recognition and reward for businesses, residential communities, commercial properties and schools for implementing transportation programs and strategies
2. **Employee Transportation Survey** to establish commuting patterns, modal splits and program recommendations
3. **Customised Services:** newsletters, commuter planners, company-specific resources
4. **Transportation Events for employees, employees and tenants:** seminars, brown-bag lunches and workshops to provide information to employees about commuting options and benefit information.
5. **Transportation Brochures:** an easy online brochure service about all sustainable travel options

The fiscal year 2018 budget for ATP was \$2.05 million USD. ACCS total funding was \$11.5 million. Funding sources for ACCS includes federal and state short-term grant funding as well as local matches, contributions from Arlington County General Fund, contributions from developers through TDM for Site Plan Development Program, office space reimbursements and fare media sales commissions.

Source: ACCS Transportation Demand Management Plan Fiscal Years 2018-2023

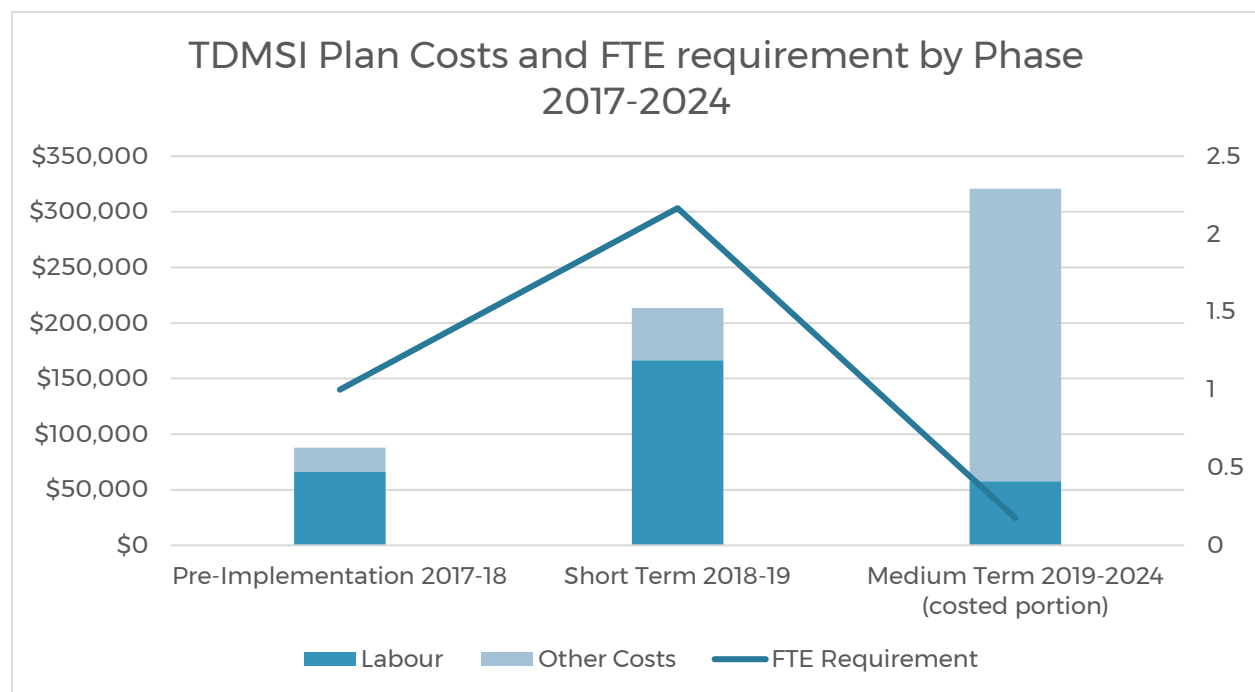
## Resourcing: Financial and budgetary implications

The short, medium and long term financial and budgetary implications of the TDM Plan have been estimated. These have been split into following categories:

- Project Phases
  - Pre-implementation
  - Short term (2018-19)
  - Medium Term (2019-2024), for the portion of the plan that can be costed
- TDM initiatives
  - TDM Tools (enablers)
  - TDM Measures (Subject to Performance Evaluation)
- Costs
  - Labour
  - non-labour costs

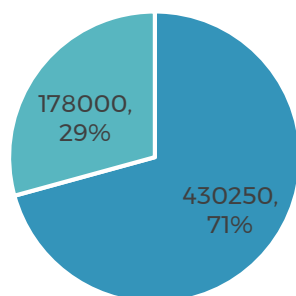
Cost estimates are based on a FTE cost of \$66,000 (gross labour cost to City, not including benefits), split into FTE time in months.

The costing has been prepared on a July-June year basis.





### TDM Plan Initiatives: Costs by Measure and Phase



■ Measure ■ Tool (Enabler)

### Pre-implementation costs (2017-18)

Task	Type of TDM Initiative	Cost Inputs	FTE Time in months	Labour (\$)	Other costs (\$)	Total (\$)	NOTES
<b>Scope TDM Coordinator future role and resourcing requirements</b>	Tool (Enabler)	FTE 1 month	1	5,500		5,500	
<b>Develop a detailed budget request for all TDM initiatives (estimate the ask)</b>	Tool (Enabler)	FTE 2 month	2	11,000		11,000	
<b>Establish relationships with SmartCommute /TMA and employers</b>	Tool (Enabler)	FTE 2 month	3	16,500	2,000	18,500	
<b>Establish employer-based TDM Workplace Initiative with monitoring program</b>	Tool (Enabler)	FTE 4 months	6	33,000	20,000	53,000	Includes survey design and monitoring program setup costs
		<b>Sub-total</b>	<b>12</b>	<b>66,000</b>	<b>22,000</b>	<b>88,000</b>	
<b>FTE Equivalent Position over 12 months</b>			1.0				

## Short term costs (2018-19)

Task	Type of TDM Initiative	Cost Inputs	FTE Time in months	Labour (\$)	Other costs (\$)	Total (\$)	NOTES
<b>Develop outreach and marketing materials</b>	Tool (Enabler)	Marketing materials		-	8,000	8,000	Social marketing and print materials
<b>Establish monitoring measures</b>		FTE 3 months, accompanying surveys and database	3	10,000	4,000	14,000	
<b>Pilot certain low hanging programs</b>	Tool (Enabler)	FTE 4 months, monitoring costs	4	22,000	4,000	26,000	Run pilots in first half of 2018 to establish teething issues and iron out technical problems
<b>TDM development approvals kit</b>	Measure	FTE 3 months, materials	3	16,500	4,000	20,500	
<b>Ridematching</b>	Measure	Assume bulk of costs carried by Region of Peel		-	2,000	2,000	
<b>Flexible Work Hours</b>	Measure	FTE 3 months, materials	3	16,500	2,000	18,500	
<b>Telework</b>	Measure	FTE 2 months, evaluation	2	11,000	2,000	13,000	
<b>Compressed Work Weeks</b>	Measure	FTE 2 months, evaluation	2	11,000	2,000	13,000	
<b>Emergency Ride Home</b>	Tool (Enabler)	FTE 1 month, methodology for incorporate costing into wider program	1	5,500	2,000	7,500	
<b>Bicycle Parking requirements and design standards*</b>	Measure	FTE 3 months, design guidelines	3	16,500	5,000	21,500	
<b>Pricing Parking</b>	Measure	Assume recommendations from Parking Strategy, Administrative Costs for any changes,	1	5,500		5,500	

Task	Type of TDM Initiative	Cost Inputs	FTE Time in months	Labour (\$)	Other costs (\$)	Total (\$)	NOTES
		assume revenue positive					
<b>Parking restrictions</b>	Measure	Assume implementation of recommendations from Parking Strategy, Administrative Costs for any changes and posting of any new restrictions	1	5,500	10,000	15,500	
<b>Lobby province and region for Municipal Act reform</b>	Tool (Enabler)	Lobbying fund		30,000		30,000	
<b>Codify TDM development approvals in City by-laws</b>	Tool (Enabler)	FTE 3 months	3	16,500	2,000	18,500	
		Sub-total	26	166,500	47,000	213,500	
<b>FTE Equivalent Position over 12 months</b>			2.17				

### Medium term costs, costed portion (2019-24)

Task	Type of TDM Initiative	Cost Inputs	FTE Time in months	Labour (\$)	Other costs (\$)	Total (\$)
<b>Transit Pass Subsidies</b>	Measure	\$10 for 4000 Presto cards, FTE 0.5 months liaison with Metrolinx	0.5	2,750	40,000	42,750
<b>Fleet Motor Vehicles</b>	Measure	Fleet management software licence (4 years) and integration, FTE 1 month	1	5,500	20,000	25,500
<b>Showers and Change Rooms</b>	Measure	10 City buildings @ \$20,000 each, change development code	6	33,000	200,000	233,000
<b>Priority Parking, including carpool priority</b>	Measure	Identification of City-managed locations, work with private organisations to establish private trials	3	16,500	3,000	19,500
		Sub-total	10.5	57,750	263,000	320,750
		FTE Equivalent Position over 5 years	0.18			

## Monitoring and Evaluation of TDM Measures

### Definition and Purpose

Monitoring of TDM measures is one of the biggest challenges in implementing TDM policies. Monitoring is the overall process of tracking and enforcing the progress TDM programs within a given area, and ensuring that participating organisations and other partners are following through with their commitments. The purpose of monitoring is to readily identify any changes in transportation behaviour and measure progress against set targets over time. Monitoring is therefore a continuous process that requires dedicated resources.

A prerequisite for monitoring is the examination of *ex-post* (historical) travel behaviour. From this point an assessment of performance can be made. Well-resourced programs will go one step further to make careful assessments of *ex-ante* (likely future) performance and take corrective action to adjust TDM programs should performance not be in line with expectations.

### Data Collection

Data collection is an essential part of the monitoring process. Data is collected for **Indicators**, which can show a numeric value as to how the program is performing. Data collected may be traffic counts, active transportation (walking and cycling)

counts, parking occupancy on and off street, and transit usage. Original data can be compared to that of a previous time period to show how the program has changed behaviours and managed traffic and other transportation activity in an area over time. An increase in transit usage can often be attributed to an increase in routes and busses running more frequently. A decrease in parking can often be attributed to improvements in alternative modes or change in the parking supply (cost, availability).

Monitoring can help to mitigate anticipated transportation issues in a TDM plan. Data that can be used to show improvements or failures adaptive management plans can be created to develop new policies that may work better in the area. The applicant can propose additional TDM actions that are more likely to achieve the expected results. These can be implemented if mode share results are not meeting targets. The expectation with the development of an in depth monitoring plan is that there will be a level of transparency in while the program is followed through. Yearly updates can show residents the improvement in their neighbourhoods and help back other TDM policies.

## **Components**

To properly establish a monitoring program there are several steps to consider:

- Human Resources
- Data requirements
- Reporting standards and frequency

Employing a TDM coordinator up to six months in advance is a vital step to allow for the development to properly implement TDM before residents move in. The planning of transportation services, such as an area for information and education, whether this be a community info center or online website is vital to allow those in new developments or part of community programs access to information needed. The implementation of TDM infrastructure is also part of this step.

The TDM coordinator should be in charge of monitoring the construction of infrastructure for the site such as bike parking, and changing rooms to ensure that the facilities are ready for residents when the program is set to start. Other steps in creating a monitoring plan are: create timeline for data collection, implementation and goals, create corrective measures for parking management, and consider future physical interventions for the program if targets are not met on time.

## **Key Performance Indicators**

In the TDM context, Key Performance Indicators (KPIs) are defined as quantifiable 'snapshots' of known transportation behaviours and outcomes over time. As its name suggests, performance measurement is a key focus in KPIs and is intended to illustrate 'at a glance' how well the TDM measures are performing against the strategic goals and objectives of the program.

KPIs allow for ready comparisons of data before, during and after programs are implemented. A strong performance framework is vital to the success of a well-functioning evaluation and monitoring program. This allows the City to form a balanced assessment as to whether the TDM program is functioning as intended or if corrective actions need to be made to either to the intended target or to the way performance is being measured. Well calibrated KPIs and targets usually require less revisions than poorly planned KPIs.

A thorough understanding of how TDM is impacting behaviour and how existing programs are performing has been difficult to measure up until now in the absence of well-defined indicators. Both local and external transportation resource pressures and other factors are to likely mean that quantification will become increasingly important: not only give a clearer indication of the sustainability of the existing transportation system, but also to assist with gaining government approvals and access to funding from other non-municipal sources for future investments.

The performance management framework for the Mississauga TDM plan consists of eight steps as follows:

<b>Framework</b>	<b>Application to Mississauga</b>
<b>Define goals of program</b>	Encourage use of sustainable modes Provide support encouragement, education, information necessary to achieve sustained behavioural change Reduce reliance on single occupant vehicle trips
<b>Identify likely target groups</b>	Stakeholder analysis and Market Segmentation targeting: Trips by mode Trips by purpose (work, non-work, other) Trips by location (distance) Trips by time of day Trips by age (specifically for school aged population)
<b>Identify relevant and applicable TDM initiatives (tools and measures)</b>	Refer TDM Framework in TDM Plan for relevant initiatives
<b>Define KPIs</b>	See KPI table below
<b>Determine baseline</b>	
<b>Implement monitoring process</b>	
<b>Collect data</b>	
<b>Evaluate program</b>	



The following tables represent KPIs that have been developed to be consistent with the performance management framework:

Key Performance Indicator	TDM Plan Goals					Target land uses			
	Measurement Frequency	Measurement mechanism	Encourage use of sustainable modes	Provide support, encouragement, education, information	Reduce reliance on single occupant vehicle trips	Downtown	Major Nodes and Community Nodes	Corporate Centres and Employment Areas	Neighbourhoods
Increase modal share of peak hour sustainable modes and driver passenger trips to Intensification Areas by 10% by 2026 based on 2011 levels	Biannual	TTS Data Employer surveys	✓		✓	✓	✓		
Reduce number of peak hour auto driver trips ending in Mississauga by 5% by 2026 based on 2011 levels	Biannual	TTS Data Employer surveys	✓		✓	✓	✓	✓	✓
Increase supply of bicycle parking at designated locations*	Annual	City data tracking	✓	✓	✓	✓	✓	✓	
Ensure participation of 100 employers to take part in employer- based TDM initiatives and with incentives based on percentage of participating workforce by 2019	Biannual	Employer based program administered by the City	✓	✓	✓	✓	✓	✓	
Increase participation in school-based travel planning and support programs**	Annual	Regional School Board and Schools monitoring	✓	✓			✓		✓

\* Target supply to be determined in Bicycle Master Plan

\*\* Performance Benchmark to be determined in consultation with Regional School Board

## Recommendations

The following Action Plan recommendations will assist in the implementation and long-term success for the TDM program. A table is provided at the end which indicates policy recommendations that should be included in future updates to the Official Plan and the Transportation and Transit Master Plans.

1. The City of Mississauga shall hire a staff member whose role will be to lead the TDM program for the City of Mississauga and work with Smart Commute Mississauga and Pearson, and other stakeholders.
2. The City of Mississauga shall work with the Region of Peel TDM staff to provide assistance in the development of engagement techniques, develop partnerships and coordinate TDM programs and policies.
3. The City of Mississauga shall continue to work with Smart Commute Mississauga Pearson to promote TDM internally and be a partner in the development of other TDM programs such as marketing for ridematching services and the emergency ride home program.
4. The City shall, as part of the development process, ensure that information is provided to communities where sustainable transportation services and infrastructure are being implemented.
5. The City should partner with Smart Commute Mississauga to undertake residential travel planning programs and develop a funding source.
6. Work with post-secondary institutions to develop campus-based TDM programs.
7. Develop a partnership with Peel Public Health to further explore the health development index and further integrate transportation and public health policies and programs.
8. A more detailed ACTION Plan will need to be developed to ensure that there is sufficient support and funding for the duration of the TDM Strategy. The key component to the ACTION plan will be the hiring of a TDM Coordinator and situating the position within the Transportation Planning team. Champions from senior staff will also be needed to provide continuity of support and be a voice for the program.
9. That TDM policies related to the development and implementation of TDM be incorporated into the Transportation Master Plan, the Official Plan and all Secondary Plans. The policies should include developing a comprehensive TDM Plan and TDM Action Plan; creating TDM-based development guidelines for development applications including site plans and checklists and guidelines for traffic impact assessment reports.
10. The City shall revise parking requirements that support TDM programs. This will require a detailed parking requirements study to be developed.
11. As this program matures, Mississauga should further expand both parking management and TDM programs that target workplace and residential parking demand. Both will need to be adaptable to new initiatives and population and employment growth



# City of Mississauga

## Corporate Report



Date: 2018/02/07

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:  
2018/04/18

## Subject

### Proposed Parental Leave Supplement Policy

## Recommendation

That the draft Corporate Policy titled "Parental Leave Benefit Supplement", attached as Appendix 1 to the Corporate Report dated February 7, 2018 from the Commissioner of Corporate Services and Chief Financial Officer titled "Proposed Parental Leave Benefit Supplement Policy", be approved.

## Report Highlights

- Recently a number of changes have been made regarding pregnancy (maternity) leave, parental leave and Employment Insurance (EI) in Ontario.
- Parents can now choose to receive EI parental benefits over an extended period of 18 months at a lower benefit rate of 33 percent of weekly insurable earnings. EI parental benefits will continue to be available at the existing benefit rate of 55 percent of weekly insurable earnings for 35 weeks over a period of 12 months. As a result, the City's Pregnancy Leave/Parental Leave policy has been updated to comply with these changes.
- The City does not have a formal parental leave supplement ('top-up') program.
- Human Resources recommends developing a new Parental Leave Supplement policy for non-union employees that provides payments to eligible non-union employees, in addition to parental benefits provided by EI, to bring the employee's income before deductions to 55% of their regular employment earnings for the (12 month) 35 or 37 weeks parental leave option or 33% of their regular employment earning for the (18 month) 61 or 63 weeks parental leave option.

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- This new Parental Leave Supplement Benefit Policy applies only to non-union employees.
- Additional costs are expected to be contained within our existing budgets.
- Members of Council are included under the eligibility section of both the Maternity and Parental Leave Supplement policies.
- Human Resources is aware of and currently assessing the impact of the changes to parental and paternity leaves announced as part of the 2018 Federal Budget.

## Background

Under the Employment Standards Act, pregnant employees have the right to take pregnancy (maternity) leave up to 17 weeks of unpaid time off.

A new parent also has the right to take parental leave, which is unpaid time off when a baby or child is born or first comes into their care. Birth mothers who take pregnancy (maternity) leave are entitled up to 35 weeks of parental leave. Birth mothers who do not take pregnancy (maternity) leave and all other new parents are entitled to take up to 37 weeks parental leave.

The City has two policies that currently address pregnancy (maternity) and parental leaves; namely the Maternity Supplement Benefit policy and Pregnancy (Maternity)/Parental Leave policy.

The City's Maternity Benefit Supplement policy was implemented in 2008 and provides payments to eligible employees in addition to pregnancy (maternity) benefits provided by Employment Insurance (EI) to bring the employee's income before deductions to:

- 95% of her regular employment earnings for the first six weeks of pregnancy (maternity) leave.
- 55% of her regular employment earnings for weeks 7-17 of the pregnancy (maternity) leave for employees who earn more than the maximum yearly insurable earnings used by EI.

This policy will be amended to align with recent changes made to EI waiting periods and to include eligibility to Members of Council. Essentially, the realignment of the Maternity Leave Supplement policy involves moving week 2 of the supplement to week 17. Please refer to Appendix 2 for more detailed information.

The City's Pregnancy (Maternity)/Parental Leave policy provides employees with high level legislative information related to both leaves, in addition to the impact of these leaves on employee's benefits and vacation. This policy is attached as Appendix 3 for information.

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The City does not currently offer any formal supplement (top-up) for the parental leave portion.

## Comments

Recently a number of changes have been made regarding pregnancy (maternity) leave, parental leave and EI in Ontario.

Changes announced with to the 2017 Federal Budget on March 22, 2017 were as follows:

- Parents would be allowed to choose to receive EI parental benefits over an extended period of up to 18 months at a lower benefit rate of 33 percent of weekly insurable earnings. EI parental benefits will continue to be available at the existing benefit rate of 55 percent of weekly insurable earnings for 35 weeks over a period of 12 months.
- Women would be allowed to claim EI maternity benefits up to 12 weeks before their due date, which would be expanded from the current standard of 8 weeks.

Human Resources have updated the City's Maternity Supplement Benefit and the Pregnancy Leave/Parental leave policies to reflect these approved changes.

Lastly, Human Resources is aware of and is currently assessing the impact of the changes to parental and paternity leaves announced as part of the 2018 Federal Budget.

### ***Parental Leave Supplement (Top-Up)***

With regards to a Parental leave supplement ('top-up'), the City benchmarked our municipal comparators, with the following results:

- 9 municipalities provide both Pregnancy (maternity) and Parental Leave supplemental top-up benefits
- The majority of the top up supplement range from 75% to 93% of the employee's regular salary with the duration of the top up ranging between 10-15 weeks
- 4 municipalities require the employee to pay back the supplemental benefits if they voluntarily resign within one year following receipt of the benefits

### ***Recommendation***

Human Resources recommends developing a new Parental Leave Supplement policy for non-union employees and Members of Council that provides payments to those eligible, in addition to parental benefits provided by EI, to bring their income before deductions to 55% of their regular employment earnings for the (12 month) 35 or 37 weeks parental leave option or 33% of their regular employment earning for the (18 month) 61 or 63 weeks parental leave option. The



policy will include a repayment clause if the employee leaves the Corporation within a year of their return from their parental leave

The introduction of this program will align the City amongst our comparators. Please refer to Appendix 1 for the proposed Parental Leave Supplement policy.

If approved, the effective date will be the earliest possible date in 2018. Time will be required to identify the technical requirements to automate the 'top-up' portion of the parental leave in SAP HCM.

## Financial Impact

Currently, the maternity leave supplement benefit is not budgeted as it is difficult to predict how many employees will be on leave in any particular year.

The estimated costs for the supplement options in this policy are up to \$500,000 depending on assumptions. However, as with the maternity supplement the amounts are dependent on employee uptake and would be absorbed within existing budgets.

## Conclusion

The introduction of the recommended non-union Parental Supplement benefit will align the City amongst our comparators. The introduction of a parental supplement benefit will assist in attracting and retaining talent.

## Attachments

Appendix 1: Parental Leave Benefit Supplement Policy

Appendix 2: Maternity Benefit Supplement Policy

Appendix 3: Pregnancy Leave Parental Leave Policy



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Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Antonietta Di Salvo, Acting Senior Manager, Total Rewards

# Corporate Policy & Procedure

## Appendix 1

**Policy Title: Parental Leave Benefit Supplement**

**Policy Number: [Policy No.]**

**Draft Only – February 5, 2018**

Section:	<b>Human Resources</b>	Subsection:	<b>Benefits</b>
Effective Date:	<b>[Effective Date]</b>	Last Review Date:	<b>[Last Review]</b>
Approved by: <b>Click here to enter text.</b>		Owner Division/Contact: <b>Human Resources – Total Rewards</b>	

### Policy Statement

City of Mississauga non-union employees and Members of Council may continue to receive a portion of their regular income from the City, above Canada Employment Insurance Benefits, while on a parental leave.

### Purpose

This policy identifies eligibility requirements and outlines the supplemental benefit available while on a parental leave.

### Scope

#### Eligibility

All Employees, defined below, with a minimum of three months service with the City are eligible for this supplemental benefit, providing the Employee also qualifies for Employment Insurance (EI).

Part-time, temporary and contract employees are not eligible to receive a parental benefit supplement.

Union employees are not covered by this policy and should refer to their particular collective agreement.

### Definitions

For the purposes of this policy:

“Birth Mother” means a biological mother, including a surrogate mother.

Policy Number: [Policy No.]	Effective Date: [Effective Date]	
Policy Title: Parental Leave Benefit Supplement	Last Review Date: [Last Review]	2 of 4

“Employee” means all permanent full-time, salaried and hourly, non-union staff and Members of Council.

A "Parent" includes:

- A Birth Mother
- An adoptive parent (whether or not the adoption has been legally finalized), or
- A person who is in a relationship of some permanence with a parent of the child and who plans on treating the child as their own. This includes same-sex couples.

## Employment Insurance

The Canada *Employment Insurance Act* provides for the payment of parental benefits for a maximum of 35 weeks or 61 weeks to Birth Mothers who took pregnancy leave. Birth Mothers who did not take pregnancy leave and all other new Parents are entitled to up to 37 weeks or 63 weeks parental leave. The two Parents can share these 37 or 63 weeks of benefits, inclusive of a two week waiting period.

To receive parental benefits each Parent who applies for benefits must have worked for 600 hours in the last 52 weeks. Both Parents can apply for EI parental benefits but have to share the total number of weeks (e.g. the Birth Mother takes 15 weeks and the other Parent takes 20 weeks). The basic parental benefit rate paid by EI is 55% of average weekly insured earnings, up to a maximum amount for a 35 week parental leave or 33% of average weekly insured earnings, up to a maximum amount for a 61 week parental leave. The maximum yearly insurable earnings are outlined in the Canadian Employment Insurance Benefits, which change from time to time. Employees should contact a Service Canada Centre for information on their entitlement to EI benefits.

To receive parental benefits, a statement must be signed declaring the newborn's date of birth or, when there is an adoption, the child's date of placement for the purposes of the adoption and the name and address of the adoption authority. In cases where the child is not legally adopted, parental benefits could be payable from the date the adoptive parent attests that the placement is a permanent one and that it is the applicant's intent to adopt the child placed with them at the earliest opportunity.

For additional information on your entitlement during parental leave refer to Corporate Policy - Human Resources - Leave of Absence - Pregnancy Leave/Parental Leave.

The Parental Leave Benefit Supplement paid by the City is not considered income for the purposes of calculating your EI entitlement and will not be deducted from your EI Parental Leave Benefits.

Policy Number: [Policy No.]

Effective Date: [Effective Date]

Policy Title: Parental Leave Benefit Supplement

Last Review Date: [Last Review]

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## Parental Leave Benefit Supplement

The Parental Leave Benefit Supplement provided by the City of Mississauga provides payments to eligible Employees, in addition to parental benefits provided by EI, to bring the Employee's income before deductions to 55% of their regular employment earnings for the 35 or 37 weeks parental leave option or 33% of their regular employment earning for the 61 or 63 weeks parental leave option. The Parental Leave Benefit Supplement is not pensionable, as described in the OMERS section of this policy.

## Additional Income

As per EI legislation, Employees cannot further supplement their parental leave benefit with paid vacation days or overtime pay while collecting EI Benefits on parental leave.

## Statutory Holidays

The weekly Parental Leave Benefit Supplement will not be affected by statutory holidays that fall within the benefit period.

## Benefit Coverage

The City will continue to pay all City-paid group benefit premiums, unless the employee elects in writing not to remain covered.

Any Employee paid group benefit premiums must be paid by the Employee if the Employee wishes to remain covered. Employees who elect to remain covered will continue to have any Employee paid group benefit premiums deducted from their Parental Leave Benefit Supplement. If the Employee's Parental Leave Benefit Supplement is not sufficient to cover the premiums, the balance of the premiums for full benefit coverage must be paid monthly by post-dated cheques, dated the first day of each month for the complete leave period.

## OMERS

Parental Leave Benefit Supplements are not subject to OMERS contributions and service accumulation. The Employee receives the option of purchasing their broken service, as per OMERS regulations, upon completion of the parental leave. Contact the Payroll Section, Financial and Treasury Services Division, Corporate Services Department for additional information.

## Repayment

Employees who resign from the City within a year of their return from a parental leave will be required to repay the Parental Leave Benefit Supplement.

Policy Number: [Policy No.]	Effective Date: [Effective Date]	
Policy Title: Parental Leave Benefit Supplement	Last Review Date: [Last Review]	4 of 4

Revision History

Reference	Description

# Corporate Policy & Procedure



## Appendix 2

**Policy Title: Maternity Benefit Supplement**

**Policy Number: 01-05-03**

**Draft Only - February 5, 2018**

Section:	<b>Human Resources</b>	Subsection:	<b>Benefits</b>
Effective Date:	<b>April 1, 2008</b>	Last Review Date:	<b>May 2013</b>
Approved by: <b>Council</b>		Owner Division/Contact: <b>Human Resources Business partner Manager</b>	

### Policy Statement

City of Mississauga employees and Members of Council may continue to receive a portion of their regular income from the City, above Canada Employment Insurance Benefits, while on a pregnancy leave.

### Purpose

This policy identifies eligibility requirements and outlines the supplemental maternity benefit available while on a pregnancy leave.

### Scope

#### Eligibility

All Employees, defined below, with a minimum of three months service with the City are eligible for this benefit providing the Employee also qualifies for Employment Insurance (EI).

Part-time, temporary and contract employees are not eligible to receive a maternity benefit supplement.

Union employees are not covered by this policy and should refer to their particular collective agreement.

### Definitions

For the purposes of this policy:

“Birth Mother” means a biological mother, including a surrogate mother.



Policy Number: 01-05-03

Effective Date: April 1, 2008

Policy Title: Maternity Benefit Supplement

Last Review Date: May 2013

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“Employee” means all permanent full-time, salaried and hourly, non-union staff and Members of Council.

## Employment Insurance

The Canada *Employment Insurance Act* provides for the payment of maternity benefits to the Birth Mother for a maximum of 15 weeks. To receive maternity benefits the Birth Mother is required to have worked for 600 hours in the last 52 weeks or since their last claim. EI requires that Birth Mothers prove their pregnancy by signing a statement declaring the expected due or actual date of birth.

The Birth Mother may start collecting maternity benefits either up to 12 weeks before the expected due date or at the week she gives birth. Maternity benefits may be collected within 17 weeks of the actual or expected week of birth, whichever is later. The date the Birth Mother's claim is filed is very important in order to receive the maximum entitlement to maternity benefits. For additional information on your entitlement during pregnancy leave please reference the Corporate Policy - Human Resources - Leave of Absence - Pregnancy Leave/Parental Leave.

The basic benefit rate paid by EI is 55% of average insured earnings up to a yearly maximum insurable amount. The maximum yearly insurable earnings is established by the Federal Government and changes from time to time. Employees should contact a Service Canada Centre for information on their entitlement to EI benefits. To receive maternity benefits an EI application must be submitted on-line or in person to a Service Canada Centre.

The Maternity Benefit Supplement paid by the City is not considered income for the purposes of calculating EI entitlement and is not to be deducted from EI Maternity Benefits. The Maternity Benefit Supplement is not pensionable, as described in the OMERS section of this policy.

## Maternity Benefit Supplement

The Maternity Benefit Supplement provided by the City of Mississauga provides payments to eligible Birth Mothers in addition to Maternity Benefits provided by EI to bring the Birth Mother's income before deductions to 95% of her regular employment earnings for weeks 1 through 5 and week 17 of pregnancy leave.

Birth Mothers with regular employment earnings more than the maximum yearly insurable earnings used by EI will continue to receive the Maternity Benefit Supplement to bring their income before deductions to 55% of regular employment earnings for weeks 6 to 16 of their pregnancy leave.

Policy Number: 01-05-03

Effective Date: April 1, 2008

Policy Title: Maternity Benefit Supplement

Last Review Date: May 2013

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## Entitlement

### Week 1

The City will pay the Birth Mother 95% of her regular employment earnings before deductions for the first week of her pregnancy leave, otherwise known as the EI one week unpaid waiting period.

### Weeks 2 to 5

For weeks 2 to 5 of the pregnancy leave, the City pays the Birth Mother the difference between 95% of her regular weekly earnings before deductions and 55% of the maximum insurable earnings as defined by EI.

### Weeks 6 to 16

For weeks 6 to 16 of the pregnancy leave, the City pays the difference between 55% of the Birth Mother's regular weekly earnings before deductions and 55% of the maximum weekly insurable earnings.

### Week 17

The City will pay the Employee 95% of her regular employment earnings before deductions for week 17 of her pregnancy leave.

Employees with regular weekly earnings equal to or less than the maximum insurable earnings paid by EI will not receive a Maternity Benefit Supplement for weeks 6 to 16.

## Additional Income

As per EI legislation, Employees cannot further supplement their Maternity Benefit with paid vacation days or overtime pay while collecting EI Maternity Benefits on pregnancy leave.

## Statutory Holidays

The weekly Maternity Benefit Supplement will not be affected by statutory holidays that fall within the benefit period.

## Benefit Coverage

The City will continue to pay all City-paid group benefit premiums, unless the Birth Mother elects in writing not to remain covered.

Any Employee paid group benefit premiums must be paid by the Birth Mother if she wishes to remain covered. Birth Mothers who elect to remain covered will continue to have any Employee paid group benefit premiums deducted from their Maternity Benefit Supplement. If the Maternity Benefit Supplement is not sufficient to cover the premiums, the balance of the premiums for full benefit coverage must be paid monthly by post-dated cheques, dated the first day of each month for the complete leave period.

Policy Number: 01-05-03

Effective Date: April 1, 2008

Policy Title: Maternity Benefit Supplement

Last Review Date: May 2013

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## OMERS

Maternity Benefit Supplements are not subject to OMERS contributions and service accumulation. There is the option of purchasing broken service, as per OMERS regulations, upon completion of the Pregnancy/ Parental Leave. Contact Corporate Financial Services Division, Payroll Section, Corporate Services Department for information.

## Revision History

Reference	Description
GC-0187-2008 – 2008 03 26	
August 08, 2013	Scheduled review – Minor revisions to Benefit Coverage and OMERS sections for clarity.
December, 2017	Scheduled review. Policy updated to reflect changes to legislation effective Jan. 1, 2017

## Appendix 3

**Policy Title: Pregnancy Leave / Parental Leave**

**Policy Number: 01-06-05**

**Clean Copy – January 2, 2018**

Section:	<b>Human Resources</b>	Subsection:	<b>Leave of Absence</b>
Effective Date:	<b>February 27, 2002</b>	Last Review Date:	<b>November 2013</b>
Approved by: <b>Council</b>	Owner Division/Contact: <b>Human Resources</b>		

### Policy Statement

Employees are entitled to pregnancy leave and/or parental leave in accordance with the provisions of Ontario's *Employment Standards Act, 2000* (ESA) and Canada's *Employment Insurance Act* (the Act).

### Purpose

The purpose of this policy is to identify the requirements and entitlement for pregnancy and parental leaves.

### Scope

#### Employees

This policy provides employees with information regarding the requirements of employees and employers with respect to leaves taken under the ESA. Employees should contact a Service Canada Centre for information on their entitlement to Employment Insurance benefits while on leave.

#### Members of Council

In accordance with the ESA, Members of Council are eligible for pregnancy and parental leave. However, the specific provisions of this policy, such as providing notification to supervisors and requesting a leave of absence) are intended for employees only.

### Eligibility

All non-union employees are covered by this policy.

Union employees should refer to the terms of their particular collective agreement.

Policy Number: 01-06-05

Effective Date: February 27, 2002

Policy Title: Pregnancy Leave / Parental Leave

Last Review Date: November 2013

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A fixed-term contract employee whose contract term expires during the pregnancy or parental leave period may not be guaranteed employment at the end of the leave. Contract employees should refer to the terms of their particular contract.

## Legislative Requirements

The ESA provides for unpaid pregnancy and parental leaves to employees and Members of Council who meet statutory qualifications. The leave entitlements under provincial legislation are separate and distinct from Canada Employment Insurance Benefits to which employees and Members of Council may be eligible while on pregnancy or parental leave. In the event of amendments to either the ESA or the Act which result in a conflict with this policy, the provisions of the legislation will be applied.

## Definitions

For the purposes of this policy:

“Birth Mother” means a biological mother, including a surrogate mother.

A “parent” includes a person with whom a child is placed for adoption and/or a person who is in a relationship of some permanence with a parent of a child and who intends to treat the child as his or her own. This includes same-sex couples.

## Pregnancy Leave

### Entitlement

The Birth Mother is entitled to an unpaid pregnancy leave of up to 17 weeks, if she was employed by the City for at least 13 weeks preceding the estimated date of delivery.

### When Leave May Begin

The pregnancy leave may begin no earlier than 17 weeks before the estimated date of delivery. The leave may begin no later than the earlier of the estimated date of delivery or the date on which the Birth Mother gives birth. If the leave has not already begun, it must begin on the actual date of delivery.

### Notice Required

A Leave of Absence Request Form 271 must be completed and submitted to the supervisor at least two weeks before the commencement of the leave. A certificate from a legally qualified medical practitioner, attesting to the pregnancy and stating the estimated date of delivery, is required to establish benefit entitlement. The Birth Mother is responsible for obtaining the certificate and submitting it to her supervisor at least two weeks before the commencement of the leave.

Policy Number: 01-06-05

Effective Date: February 27, 2002

Policy Title: Pregnancy Leave / Parental Leave

Last Review Date: November 2013

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**Changing Notice to Begin Leave**

The leave may commence on an earlier date if the employee gives at least two weeks written notice before the earlier date. The leave may commence on a later date if the employee gives at least two weeks written notice before the original date. The supervisor may waive the notice requirements to begin the leave on a later date.

**Special Circumstances**

The employee may be unable to provide two weeks' notice due to complications caused by the pregnancy or due to a miscarriage, birth or still birth that happens earlier than the expected delivery date.

In these cases, written notice must be provided within two weeks of stopping work, stating the date the pregnancy leave began or is to begin. In addition, the employee must submit a medical certificate stating that she is unable to perform her duties due to complications caused by the pregnancy and stating the expected delivery date or stating the date of birth, still birth or miscarriage and the date she was expected to give birth.

The normal duties of a position may be modified to accommodate an employee who is unable to perform her normal duties due to health reasons related to the pregnancy. If it is impossible to accommodate the employee, she may be entitled to disability income benefits. Employee Health Services, Human Resources Division, must be consulted before taking action. Refer to Corporate Policy and Procedure – Income Protection Program for additional information on disability income benefits.

**Health Information**

Health information received to support a request for pregnancy leave is retained by the supervisor, with the Leave of Absence Request.

Health information required to support a disability income claim or request for short-term or long-term accommodation is retained by Employee Health Services, in accordance with the Income Protection Program policy.

**Normal End of Leave**

The pregnancy leave of an employee who is entitled to take parental leave ends 17 weeks after the leave began.

If the employee is not entitled to take parental leave, the pregnancy leave ends on the later of the day that is 17 weeks after the pregnancy leave began or the day that is twelve weeks after the birth, still birth or miscarriage.



Policy Number: 01-06-05

Effective Date: February 27, 2002

Policy Title: Pregnancy Leave / Parental Leave

Last Review Date: November 2013

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**Notice Required to Change End of Leave**

An employee wishing to end the pregnancy leave on an earlier date is required to give the supervisor four weeks written notice.

An employee who has given notice to end the leave on a date earlier than the normal end of the leave may change the return by providing at least four weeks written notice before the earlier date. The end of the leave may be changed to a later date, which may not exceed the normal end of the leave, if the employee gives at least four weeks written notice before the end date specified in the original notice.

The supervisor may waive the notice requirements to end the leave on an earlier date.

**Resignation of Employment**

An employee who decides to resign from her employment before returning from a pregnancy leave must provide four weeks written notice

**Parental Leave****Entitlement**

An employee who is the parent of a child and who has been employed by the City for at least 13 weeks is entitled to an unpaid parental leave following the birth of the child or the coming of the child into the employee's custody, care and control for the first time. If the employee also took a pregnancy leave, the parental leave may be up to 35 or 61 weeks in duration. If the employee did not take a pregnancy leave, the parental leave may be up to 37 or 63 weeks in duration.

**When Leave May Begin**

Parental leave must begin within 52 weeks of the birth or of the date the child comes into custody, care or control of a parent for the first time.

Parental leave begins immediately following a pregnancy leave, unless the child has not yet come into the custody, care or control of a parent for the first time.

**Notice Required**

A Leave of Absence Request Form 271 must be completed and submitted to the supervisor at least two weeks before the commencement of the leave, whether or not the parental leave immediately follows a pregnancy leave. Employees must select either a 35 week or 61 week parental leave option at the commencement of their leave.

**Changing Notice to Begin Leave**

The leave may start on an earlier date, if the employee gives at least two weeks written notice before the earlier date. The leave may start on a later date, if the employee gives at least two weeks written notice before the original date.

Policy Number: 01-06-05

Effective Date: February 27, 2002

Policy Title: Pregnancy Leave / Parental Leave

Last Review Date: November 2013

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**Special Circumstances**

If the employee stops working because the child comes into the custody, care and control of a parent for the first time sooner than expected, written notice must be given within two weeks of the day the employee stopped working. The leave begins on the day the employee stops working.

**Normal End of Leave**

Parental leave ends 35 or 61 weeks after it began if the employee also took a pregnancy leave and 37 or 63 weeks after it began if the employee did not take a pregnancy leave.

**Notice Required to Change End of Leave**

An employee wishing to return to work before the normal end of a parental leave is required to give the supervisor four weeks written notice before the earlier return date. An employee who has given notice to end the leave on a date earlier than the normal end of the leave may change the return by providing at least four weeks written notice before the earlier date. The end of the leave may be changed to a later date, which may not exceed the normal end of the leave, if the employee gives at least four weeks written notice before the end date specified in the original notice.

The supervisor may waive the notice requirements to end the leave on an earlier date.

**Resignation of Employment**

An employee who decides to resign from their employment before returning from a parental leave must provide four weeks written notice.

**Employment Status on Return to Work**

An employee returning to work when the leave ends is entitled to resume work in his/her former position or, if the position no longer exists, in a position involving equal responsibilities and pay. The employee is entitled to a rate of pay equivalent to that which the employee would have earned if the leave had not occurred.

**Failure to Return to Work**

An employee who fails to return to work on the agreed upon date is not guaranteed employment unless the employee's supervisor has agreed to guarantee the position.

**Benefit Coverage**

The City will pay all City-paid benefit premiums, unless the employee elects in writing not to remain covered.

Policy Number: 01-06-05

Effective Date: February 27, 2002

Policy Title: Pregnancy Leave / Parental Leave

Last Review Date: November 2013

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Any employee paid group benefit premiums must be paid by the employee if the employee wishes to remain covered. Employees who elect to remain covered will provide the City with monthly post-dated cheques.

## OMERS Coverage

The employee receives the option of purchasing his/her broken service as per OMERS regulations upon completion of the Pregnancy/Parental Leave. Contact Financial and Treasury Services, Payroll Section, Corporate Services Department for information.

## Vacation Credits

Vacation credits continue to accrue during a pregnancy leave or parental leave. Employees are reminded that all credits earned in one calendar year (i.e. from January 1 to December 31) must be used by December 31 of the following year, unless otherwise approved by the department head. On December 31 of each year any vacation credits in excess of those earned in the current calendar year will be forfeited by the employee, unless the department head has approved a carry-over, in writing. Refer to Corporate Policy and Procedure - Vacation for more information.

## Revision History

Reference	Description
AF – 1987 02 10 – effective 1988 01 01	
GC-240-92 – 1992 09 30	
1996 10 16	Revised – Housekeeping
GC-0737-2000 2000 11 29	
GC-0136-2002 - 2002 02 27	
March 26, 2008	Housekeeping - Amendment to reference the Maternity Benefit Supplement Policy 01-05-03
November 27, 2013	Scheduled review – Minor admin changes for clarity

# City of Mississauga

## Corporate Report



Date: 2018/03/19

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:  
2018/04/18

## Subject

**2017 Treasurer's Annual Report on Investment**

## Recommendation

That in compliance with Provincial legislation governing municipal investment practices, the "2017 Treasurer's Annual Report on Investment" dated March 19<sup>th</sup>, 2018 from the Commissioner of Corporate Services and Chief Financial Officer be received for information.

## Report Highlights

- The City Funds investment portfolio earned net income of \$36.5 million, generating a net yield of 3.51%.
- Revenue allocated to the Operating Fund was \$14.4 million, while Reserve Funds received \$22.1 million.

## Background

Regulation 438/97, amended to 373/11, of the Municipal Act, 2001, requires a municipality to adopt a statement of investment policies and goals, and requires a Treasurer's report be submitted to Council annually. This Report is tabled in compliance with the Regulation.

As permitted by legislation, the City maintains an operating fund, a number of reserves and reserve funds, and trust funds for various purposes. These funds are invested in accordance with the Municipal Act and Ontario Regulations, the Funeral, Burial and Cremation Services Act, the Trustee Act and the City's Corporate Policy and Procedures on Investment.

The four major priorities of the City's Investment Policy are:

1. Legality of investments – conforming to legislative constraints;
2. Preservation of principal – avoiding the loss of monies which may result from the default of a debt issuer in the payment of principal or interest;
3. Maintenance of liquidity – the ease by which an investment can be sold and cash received; and
4. Competitive rate of return – maximizing the return on investments while conforming to other objectives.

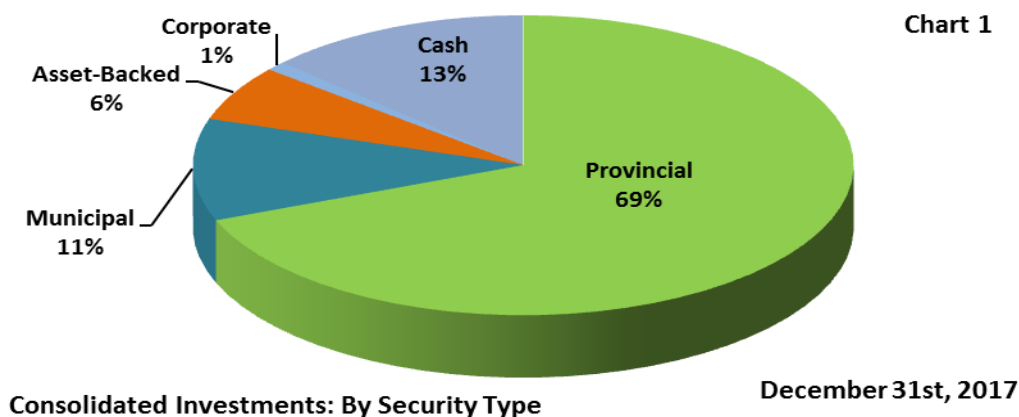
This Report outlines the implementation of these priorities and includes a summary of investment results and analysis. The City's investment practices and procedures are subject to ongoing review by the City's Internal Auditor and the Corporation's external auditors, KPMG.

## Comments

In 2017, the City earned \$36.8 million in gross investment income (net income: \$36.5 million) on average cash and portfolio investment balances of \$1.039 billion. This generated a gross investment yield of 3.54% (net investment yield: 3.51%). Details are below:

	Average Balance (Book Value)	Income (Gross \$)	Yield (Gross %)	Yield (Net %)
2017	1,039,075,946	36,796,722	3.54%	3.51%
2016	1,008,682,243	34,381,140	3.41%	3.38%
2015	995,018,110	32,175,824	3.23%	3.21%

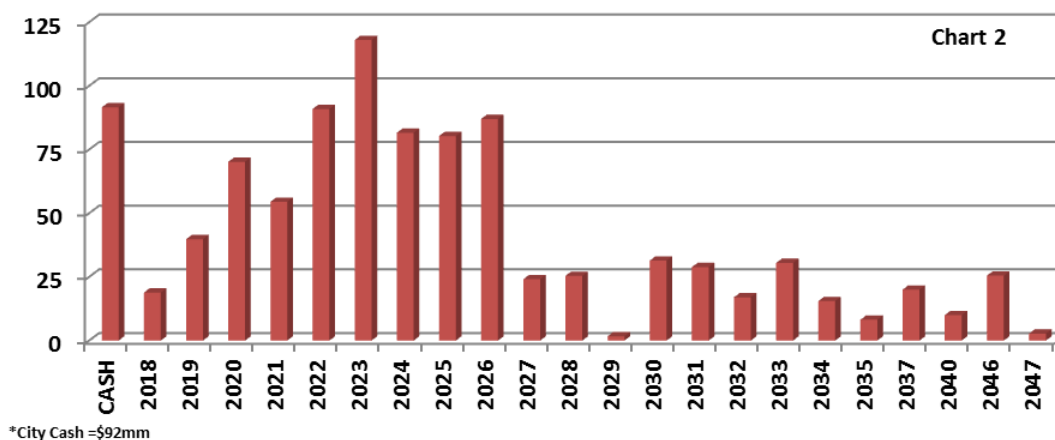
As at December 31, 2017, the City's Investment Portfolios<sup>1</sup> held \$1.03 billion in cash and securities (at par value<sup>2</sup>) distributed across various security types, as outlined in Chart 1:



<sup>1</sup> Marketable securities and cash for City Funds Portfolio and DCA Portfolio.

<sup>2</sup> Par Value is used, for Policy comparison purposes, to demonstrate various investment holdings across security types. Portfolio holdings, and their respective limits, can be found in Appendix 1. The Par Value represents what the portfolio is worth on a dollar basis, if each security and the cash were held to final maturity dates. The Book Value of the Consolidated Investment Portfolio (excluding cash), as at Dec 31st, 2017, is \$872.4 million.

While Province of Ontario marketable securities (bonds) represent the largest position in the portfolio, the portfolio maturity schedule was shortened throughout the year. As interest rates were both forecast to rise, and were actually rising throughout 2017, shorter duration coupon-bearing bonds were favoured over longer duration bonds, as well as zero-coupon bonds. The City Funds investment maturity schedule, as at December 31st, 2017, is in Chart 2.



### Financial Markets: 2017 Year in Review

In future years, 2017 may be viewed as the moment in time when all interest rates in Canada meaningfully started to rise, for the first time since the Great Recession of 2008. Whether one looks at short term policy driven rates as measured by the Bank of Canada's (BOC) "overnight lending rate", or non-policy driven longer term rates (as measured by the Government of Canada (GOC) 10-Year Bond rate), the entire Canadian interest rate complex rose in 2017.

The turning point, ostensibly during Q2/2017, was driven by the BOC's recognition that Canadian economic activity had completely adjusted to both the economic shock from the collapse in global oil prices, post-2015, as well as the Alberta Wildfires in Q2/2016. The Bank's tone changed noticeably in its publications throughout the beginning of 2017, as it recognized that stronger economic growth was occurring, and that this above average growth was a precursor to higher inflation.

A change in interest rate policy appeared to be coming sooner, rather than later, when it wrote in April of 2017, the following:

"Economic growth in Canada in recent quarters has been stronger than expected, in the January Report...", and "In the oil and gas sector, a resumption of growth in investment spending is under way in the wake of significant adjustments to past declines in commodity prices."

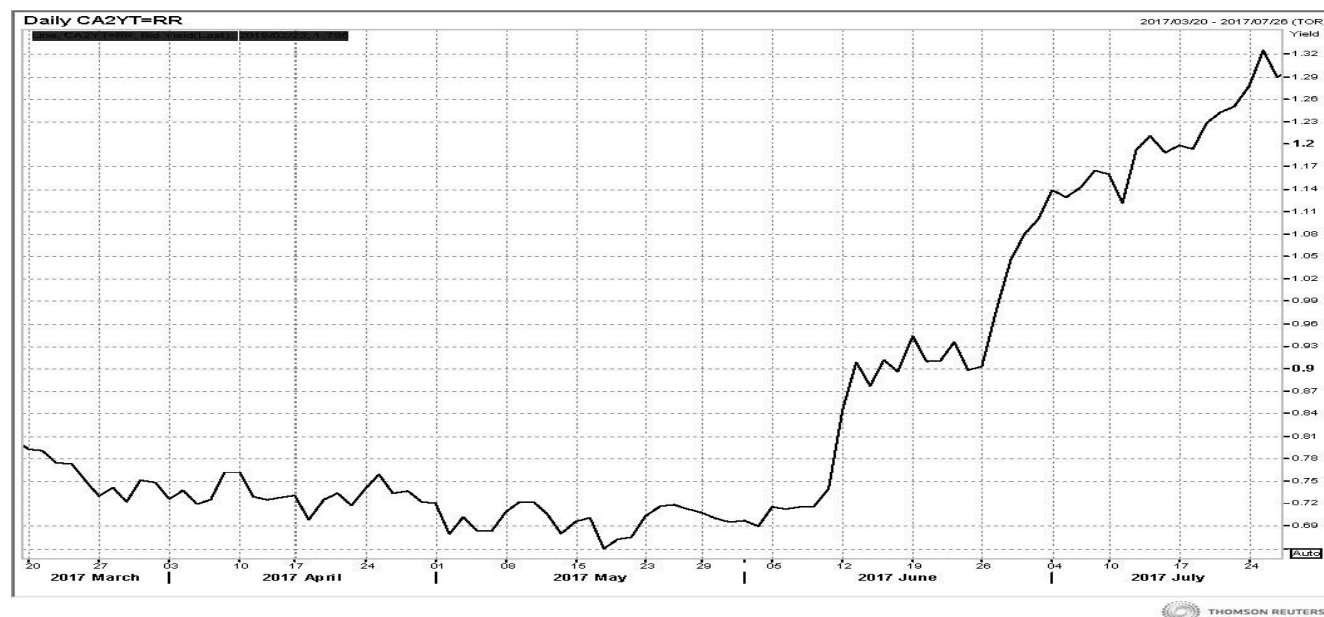
Coupled with the BOC's published view that the "neutral Policy interest rate" for the economy to maintain a 2% inflation rate was between 2.5% and 3.5%, maintaining their overnight lending rate at 0.50% was becoming increasingly unrealistic.

On June 12th 2017, the market woke up to the reality that the Bank of Canada was actively signalling a coming change in monetary policy through a speech given by the Deputy Governor of the Bank, on that day:

"...as we move past the adjustment to lower oil prices, we are seeing the economy pick up...we got the national accounts data from Statistics Canada for the first quarter (of 2017) of this year. It was pretty impressive..." and, "An important aspect of our inflation assessment is that the economic drag from lower oil prices is now largely behind us." And, finally, "Governing Council will be assessing whether all of the considerable monetary policy stimulus presently in place is still required..."

To the average observer, these comments seem fairly innocuous. To the bond market, they were dynamite. Within 24 hours of this speech, the 2 year GOC interest rate had spiked almost 20 basis points (see Graph 1) and, by the beginning of July, that rate had spiked another 20 bps for a total move of 40 bps, over 4 weeks. On July 12th, 2017 the Bank of Canada embarked on a tightening cycle for the first time in 7 years (2010), raising its target for its overnight lending rate by 25 basis points, to 0.75%. The beginning of the end of exceedingly low interest rates in Canada had begun.

**Graph 1: Government of Canada 2 Year Bond Interest Rate**





While the Bank of Canada had begun to remove excess monetary stimulus emanating from its low policy rates, its stated mandate is not to do so based on strong economic growth but, rather, to do so based on above target inflation rates. At the time of the policy shift, CPI inflation in Canada was still running below the 2% BOC target. The Bank addressed this situation, in its June 12th publication, by pointing out the following:

“...we must consider not only current economic conditions but also how they will evolve. If you saw a stop light ahead, you would begin letting up on the gas to slow down smoothly. You do not want to have to slam on the brakes at the last second. Monetary policy must also anticipate the road ahead...”

This notion, of getting ahead of building inflationary pressures before they translate into headline inflation, appears to be valid based on the most recent CPI inflation data (Jan/2018). Even though the BOC has raised policy rates by 25 basis points three times so far, in this tightening cycle (July/17, Sept/17, Jan/18), January's CPI Report shows building inflationary pressures.

While overall headline inflation posted a year-over-year change of 1.7%, the most recent monthly run rate for inflation is in the 2% to 2.5% range. Importantly, the CPI “Services” inflation rate (vs “Goods”) came in at 2.2% y/y, in January. Given that Oil and Gasoline (not to mention Food) prices appear to be sticking around at higher levels, it is possible Canada may see headline inflation by Q2/18 actually running consistently above 2% for the first time in 4 years (2014).

Currently, the BOC's overnight lending rate appears to be on a path toward 1.75% (currently at 1.25%). The GOC 10 year bond rate, which directly affects all borrowing rates in the country for that term to maturity, appears to have stabilized for now in the 2.25% to 2.50% range.

Nevertheless, it is conceivable that by this time next year both interest rates will be another 50 basis points higher, perhaps with the 10 year bumping up towards 3%, depending on the path of inflation and economic growth. Moreover, Canada may yet still get side-swiped by even higher interest rates, transmitted through US fiscal and monetary policy, as well as a detrimental NAFTA outcome. The upcoming year may be a challenging one for Canadian financial markets.

### **Investment Income Analysis**

During 2017, the City Funds Portfolio<sup>3</sup> generated net investment income of \$36.5 million on average monthly balances of \$1.03 billion. This translated into a gross investment yield of 3.54%. Income type was comprised of \$27 million in net interest, while \$9.5 million was attributed to realised capital gains. Interest rates have continued to rise throughout the beginning of 2018, and private economic forecasts see rates continuing to rise into 2019. The

<sup>3</sup> This excludes the DCA Portfolio. The DCA Portfolio earned \$1,059,488 on average monthly cash & investment balances of \$40.1 million, yielding 2.64%.

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Government of Canada 10-year benchmark rate has been hovering in the 2.25% to 2.50% range for several months, with the expectation that it could reach as high as 2.75% by year-end. Depending on the spread between Ontario and Canada, the Ontario 10 year bond rate (an ongoing portfolio investment) could approach 3.50% by year-end.

The City Funds' Portfolio net return of 3.51% outperformed a composite passive index<sup>4</sup>, which returned 1.80%, by 1.71 percentage points. This outperformance provided incremental revenue to the City of \$17.8 million (using average monthly balances; actual net investment income of \$36.5 million at a 3.51% yield vs. the passive index return of \$18.7 million at 1.80%).

### **Investment Management**

The Investment Unit, which is a section of Treasury, is responsible for monitoring day-to-day operating cash balances, cash flow forecasting and monitoring, investment portfolio management, the coordination of the annual credit rating review and the timing and management of cash proceeds from both temporary borrowing and long term debenture issuance.

The Investment unit continues to demonstrate value to the City with costs of approximately 2.8 basis points (0.028%), which is well under fees charged by an externally managed public fund. As an example, management fees for the ONE Fund are 19 basis points (0.19%) for the money market fund, and 40 basis points (0.40%) for the bond fund (both of which are significantly higher than the 0.028% incurred by the City).

Using a 40 basis point Bond Fund cost benchmark, calculated against monthly balances for the City Funds Portfolio (excluding the cash component), the difference between the City's in-house investment management costs and the ONE Fund's fees represents a net saving to the City of \$3 million for 2017. These cost savings were supplemented by a return that is superior to that realized by the ONE Bond Fund (2017: -0.15%) vs. the City Funds net return of 3.51%.

### **Ontario Regulation 438/97 – New Regulation in Effect**

At the November 8th, 2017 Council meeting, Council received a Corporate Report from the Commissioner of Corporate Services and CFO outlining the City's position on proposed amendments to Ontario regulation 438/97, which governs municipal investments, or acquiring the "Prudent Investor" status.

Under Prudent Investor status, the proposed amendments had contained an onerous approach to governance, which both City staff and other large municipalities (excluding the City of Toronto) had rejected. The Report had identified that the "one-size-fits-all" approach to

<sup>4</sup> The passive index return is calculated using the "average yield" for a constructed portfolio that is comparable to the City's existing Investment Policy. It is constructed using the following indices, their monthly yields (averaged for the year), and their respective (passive index weight): 91-Day GOCT-Bill yield: 0.69% (14%); DEX Index of Canadian Government Bond: 2.03% (43%); DEX Index of High Grade (AAA/AA) Corporate Bonds: 1.93% (43%).

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governance would not be operationally efficient, or cost-effective, for the majority of Ontario municipalities, including the City.

The City's Corporate Report recommendation focussed on governance flexibility under any Prudent Investor self-regulation regime. Governance flexibility is critical given the wide variation in both the size of investable funds across municipalities, as well as the desired style of investment operation. Subsequently, the Report and a letter from the Mayor were submitted to the Ministry of Municipal Affairs for consideration, in advance of the Final release of the updated regulation.

The Ministry has released the new regulation governing eligible investments with an effective date of March 1st 2018. Investment staff have determined that it would be beneficial for the City to update the Corporate Policy on Investment to reflect additional eligible investments, available under the new regulation. Investment is estimating that portfolio returns, under a reworked Corporate Policy on Investment, could increase the base return on investments by up to 10 basis points per year, on the overall portfolio.

The Ministry has also offered a pathway for a municipality to opt out of the Ministry-prescribed investment eligibility rules, and to become a Prudent Investor. However, the Ministry has also imposed significant pre-conditions and restrictions for a municipality to operate its investment program as a Prudent Investor.

Given the indeterminate operational costs and investment returns, at this point, staff are recommending a "wait and see" approach for this "irrevocable" option, to examine the evolution of this option over the course of the next year. In the meantime, the investment team will bring forward a Corporate Report to update the Corporate Policy on Investment, and to provide any further interim developments on the topic of Prudent Investor status.

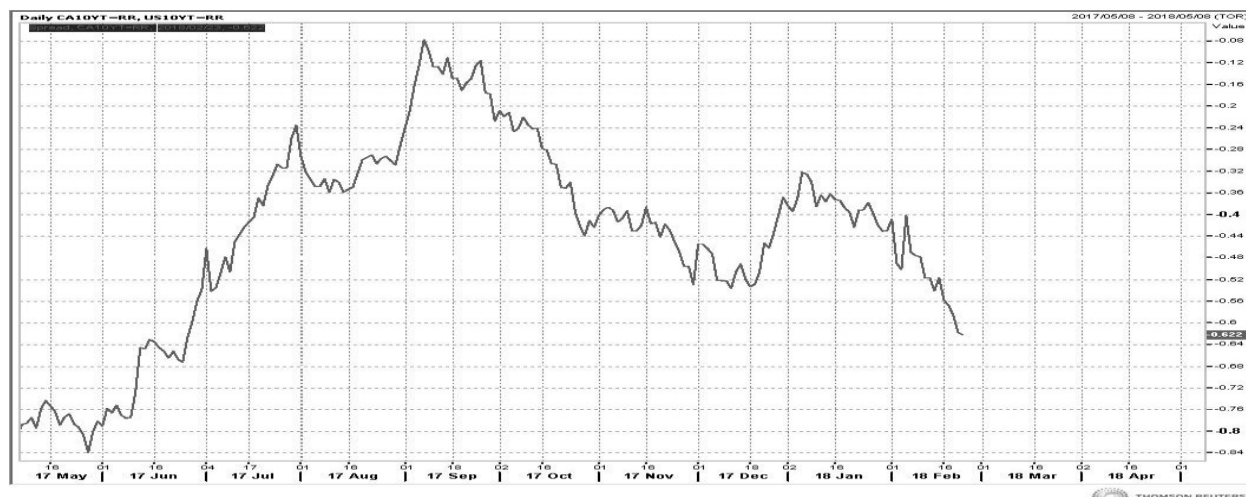
### **Investment Outlook for 2018**

Notwithstanding US interest rates are driving global interest rates higher through competition for investment capital, Canadian interest rates are also rising based on local dynamics in the Canadian economy. Forecasts for 2018 interest rates have become more aggressive with the expectation that the US Federal Reserve Bank will push its overnight funding rate ("Federal Funds Rate") toward 2.25% by year-end. This would represent another 0.75% of rate tightening by year-end.

While the Bank of Canada is not expected to match the US Federal Reserve's aggressive course for its Policy rate, the BOC's overnight funding rate is expected to settle in somewhere just below 2% by year-end. This implies another 0.25% to 0.75% of rate hikes by year-end. The good news is that, even though US 10-year bond rates are pressuring global interest rates higher, the Canadian bond market is not matching the US bond market, with higher rates in a

lockstep manner. For example, as US rates have risen fairly sharply Sept/17, the Canadian 10-year bond rate has become more negative compared to the US rate during that time (Graph 2).

**Graph 2: GOC 10 Year Bond Rate minus USD 10 Year Bond Rate**



Whereas the US 10 Year bond rate was only 15 basis points higher than its Canadian counterpart in Sept/17 (US: 2.25% Can: 2.10%), that negative differential now favours Canada by over 60 basis points (US: 2.90%, Can: 2.30%). While we could see US 10 year bond rates in the 3.50% range by late 2018 / early 2019, it is conceivable that the Canada 10 year bond rate will settle in between 2.50% and 2.75% by then.

For the City Funds Portfolio, the key driver to investment earnings during 2018 will be interest income, and not realized capital gains. As interest rates rise, opportunities for realizing capital gains on increasing bond prices decrease. Even though rates will be rising, this increase will not be enough to compensate for the reduction in potential, or realized, capital gains.

As the Investment portfolio is rolled into a higher interest rate environment, the “run-rate” for interest income will continue to rise. Offsetting the positive impact of rising interest rates over the medium term could be the reduction of investable longer term funds. Any persistent declines in balances of longer term reserves or reserve funds will mitigate the income-positive effect of rising interest rates. Overall investment income over the medium term is expected to remain between \$28mm to \$33mm.

## Financial Impact

The City earned \$36.5 million in net investment income during 2017, of which \$14.4 million was allocated to the Operating Budget, and \$22.1 million was allocated to Reserve Funds.

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## Conclusion

In compliance with Provincial Regulation 438/97, amended to 373/11, all investment transactions during 2017 were made in accordance with the existing Investment Policy.

As at December 31, 2017, the City held \$1.01 billion (book value basis) in various securities, and cash. The City Funds Portfolio earned (net) \$36.5 million translating into a net investment yield of 3.51%. Investment proceeds were distributed between the Operating Budget (\$14.4 million) and Reserve Funds (\$22.1 million).

For 2018 and beyond, Investment is assuming an increasing interest rate environment with annual investment income to be in the \$28 million to \$33 million range.

## Attachments

Appendix 1: Total Investment Portfolio by Investment Type



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Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Mark Waugh, Manager, Treasury

CITY OF MISSISSAUGA				TOTAL INVESTMENT PORTFOLIO: BY INVESTMENT TYPE			DATE: 31-Dec-17		Appendix 1	
ISSUER/GUARANTOR OF SECURITIES	INVESTMENT POLICY LIMIT		CURRENT SECURITIES ( % )	CONSOLIDATED AMOUNTS			CITY FUNDS		DCA RESERVE FUNDS	
	UPPER LIMIT ( % )	( \$000 )		PAR VALUE (\$000)	BOOK (\$000)	CASH & SECURITIES ( % )	PAR VALUE (\$000)	BOOK (\$000)	PAR VALUE (\$000)	BOOK (\$000)
<u>SCHEDULE I</u>										
	70%	624,446	0.00	-	-	-	-	-	-	-
<u>SCHEDULE II</u>										
SCHEDULE III (each)	5%	44,603								
NON-SCHEDULE I INSTITUTIONS	40%	356,826		-	-	-	-	-	-	-
TOTAL FINANCIAL INSTITUTIONS	70%	624,446		-	-	-	-	-	-	-
PROV OF ONTARIO	NONE		43.78	390,550	349,798	38.10	390,550	349,798		
<u>OTHER PROVINCES</u>										
ALBERTA	20%	178,413	3.92	35,000	34,288	3.41	35,000	34,288		
BRITISH COLUMBIA	20%	178,413	5.04	45,000	46,490	4.39	45,000	46,490		
MANITOBA	20%	178,413	3.61	32,200	34,047	3.14	25,200	26,115	7,000	7,931
NEW BRUNSWICK	20%	178,413	12.23	109,079	110,900	10.64	109,079	110,900		
NEWFOUNDLAND	20%	178,413	11.03	98,400	110,631	9.60	98,400	110,631		
TOTAL OTHER PROVINCES	NONE		35.84	319,679	336,356	31.18	312,679	328,425	7,000	7,931
TOTAL CANADA & PROV GOVTS	30% min	267,620	79.62	710,229	686,154	69.28	703,229	678,223	7,000	7,931
<u>MUNICIPALITIES</u>										
PEEL REGION	10%	89,207	1.66	14,810	14,852	1.44	14,810	14,852		
HALTON REGION	10%	89,207	0.39	3,500	3,497	0.34	3,500	3,497		
TORONTO	10%	89,207	2.04	18,195	18,162	1.77	18,195	18,162		
OTTAWA	10%	89,207	0.76	6,750	6,738	0.66	6,750	6,738		
LONDON	10%	89,207	0.21	1,865	1,865	0.18	1,865	1,865		
WATERLOO	10%	89,207	0.89	7,934	7,922	0.77	7,934	7,922		
YORK	10%	89,207	2.47	22,000	23,425	2.15	22,000	23,425		
SASKATOON	5%	44,603	0.41	3,682	3,678	0.36	3,682	3,678		
WINNIPEG	5%	44,603	0.53	4,700	4,935	0.46	1,700	1,941	3,000	2,994
B.C. MUNICIPAL FINANCE	5%	44,603	3.86	34,400	36,254	3.36	34,400	36,254		
TOTAL MUNICIPALITIES	20%	178,413	13.21	117,836	121,327	11.49	114,836	118,333	3,000	2,994
<u>ASSET-BACKED SECURITIES</u>										
MASTER CREDIT CARD TRUST	5%	44,603	1.12	10,000	10,092	0.98	10,000	10,092		
GLACIER TRUST	5%	44,603	2.13	19,000	19,325	1.85	19,000	19,325		
HOLLIS TRUST	5%	44,603	3.36	30,000	30,474	2.93	30,000	30,474		
TOTAL ASSET-BACKED	20%	178,413	6.61	59,000	59,892	5.76	59,000	59,892	-	-
TOYOTA CREDIT	5%	44,603	0.56	5,000	4,994	0.49	5,000	4,994		
TOTAL INVESTMENTS			100.00	892,065	872,367	87.02	882,065	861,441	10,000	10,926
CASH BALANCE				133,075	133,075	12.98	91,567	91,567	41,508	41,508
TOTAL PORTFOLIO				1,025,140	1,005,442	100.00	973,632	953,008	51,508	52,434

# City of Mississauga

## Corporate Report



Date: 2018/03/27

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:  
2018/04/18

### Subject

**Collection of Outstanding Provincial Offences Fines - Adding Unpaid Fines to Other Municipalities' Property Tax Rolls**

### Recommendation

That the report of the Commissioner of Corporate Services and Chief Financial Officer dated March 27, 2018 entitled "Collection of Outstanding Provincial Offences Fines - Adding Unpaid Fines to Other Municipalities' Property Tax Rolls" be received for information.

### Report Highlights

- Legislation provides municipalities with the ability to add defaulted *Provincial Offences Act* (POA) fines to the tax roll of any municipality for collection purposes.
- Approximately 60% of defaulted POA fines relate to persons and companies owning property outside the City of Mississauga.
- The City participated in an inter-municipal POA collection pilot project from 2014-2015 for the addition of fine amounts owing in one municipality to the tax roll in another municipality where a POA offender owns property.
- Collections through the project have resulted in approximately \$61,300 in fines being collected for Mississauga from other municipalities and approximately \$100,700 in fines have been collected by Mississauga for the other municipalities.
- On February 21, 2018, Council approved Policy 04-07-03, *Provincial Offences Act* (POA) Collection of Defaulted Fines and through By-law 0040-2018 delegated authority for the Director, Revenue and Materiel Management to enter into inter-municipal agreements for the collection of POA fines through the property tax roll.
- It is beneficial for the City to continue with the inter-municipal program of adding defaulted POA fines to the tax roll with the municipalities who participated in the pilot project and to



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enter into new reciprocal agreements with other municipalities for the collection of POA fines.

## Background

Since 1999, the City of Mississauga has been responsible for the collection of defaulted POA fines. Tickets issued under the *Provincial Offences Act* provide the offender with three options: plea of guilty with payment, early resolution with a prosecutor or trial with notice of intention to appear in court. Upon conviction, the offender is required to pay the set fine, including costs and the applicable victim fine surcharge by the due date. If the offender does not pay by the due date, the fine is considered in default. Monthly, the City receives a listing of newly defaulted fines from the Ministry of the Attorney General and issues a final notice for payment; if payment is not received the City initiates collection activities.

Approximately 60% of the defaulted fines as at December 31, 2017 related to persons and companies with an address outside Mississauga.

In June 2013, the City signed an inter-municipal agreement, as part of The Ontario Municipal Tax and Revenue Association's (OMTRA) pilot project, to improve the collection of unpaid POA fines through the addition of fine amounts owing in one municipality to the tax roll in another municipality where the POA offender owns property. Municipalities participating in the pilot project, in addition to Mississauga, were the cities of Toronto, Ottawa, Belleville, Kawartha Lakes and the County of Hastings.

## Comments

In 2009, section 441.1 of the *Municipal Act* was added to provide municipalities with the ability to add any part of defaulted POA fines to the tax roll for collection purposes. Once added to the tax account, POA fines, like other amounts added to the tax roll (e.g. water arrears, clean up charges, etc.), attract interest at 1.25% per month as long as they remain unpaid. Adding unpaid fines to an account to be collected as taxes is an effective collection tool. Fees and interest charges can quickly cause the original fine amount to escalate which acts as a strong incentive for offenders to make payment and the legislated tax payment application rules ensure payment of old fines prior to more recent taxes. From 2012 to 2017, 571 fines for Mississauga taxpayers totalling approximately \$486,100 were identified and added to the tax roll and to date approximately \$367,500 or 76% has been collected.

### Inter-Municipal POA Collection Pilot Project

In June 2013, the City signed an inter-municipal agreement with the cities of Toronto, Ottawa, Belleville, Kawartha Lakes and the County of Hastings for the collection of defaulted POA fines. The agreement established the terms, procedures and responsibilities of the parties, incorporating input from each of the respective property tax, collections and legal departments including Mississauga's Revenue and Materiel Management and Legal Services divisions.

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The agreement establishes the framework for reciprocal arrangements to:

- Identify outstanding POA defaulted fine amounts within the originating municipality;
- Confirm that a POA fine amount is owed by a resident or company within a participating municipality and that the property is owned by the POA offender responsible for paying the fine;
- Add the POA fine amount to the tax roll in the municipality in which the offender owns a property and to collect such amounts;
- Add the municipality's own fees for adding charges to the tax account for collection purposes as well as late payment charges and any other applicable fees in accordance with the municipality's existing by-laws and processes, and to collect same (fees are at the discretion of the municipality and may vary among them); and
- Remit the POA fine amounts once collected to the municipality that requested the amount to be added to the tax roll. The collecting municipality retains any penalty, interest or fees charged to the taxpayer to offset collection costs.

As of December 31, 2015, the City had added 20 fines totalling approximately \$100,700, from other municipalities to Mississauga's tax roll. This resulted in a total recovery of \$100,700 for the other municipalities. City of Mississauga fines totalling approximately \$68,000 relating to 16 fines have been added to the tax rolls of other municipalities resulting in a recovery of approximately \$61,300 to date. The majority of the fine requests and recovery relates to the City of Toronto. Due to their close proximity to the City of Mississauga, as compared to the other municipalities in the pilot, this was not surprising. It is anticipated that agreements with other municipalities in the Greater Toronto Area would provide even greater success. The Cities of Burlington and Brampton, specifically, have expressed an interest in entering into an agreement for the reciprocal collection of outstanding POA fines through this process.

A breakdown of the requests and recoveries by municipality can be found in Appendix 1: Inter-Municipal Tax Rolling Requests and Recoveries.

## Options

The City can choose to continue with the inter-municipal POA collection program with the municipalities from the initial project only, expand the program to include inter-municipal agreements with other municipalities or discontinue with this process. As it has been shown to be beneficial for the ability to collect fines through adding fines to the tax rolls in other municipalities and reciprocally, it would be in the City's best interest to continue with the project and to enter into new agreements with other municipalities.

## Financial Impact

The addition of fines from other municipalities resulted in additional revenue of \$900 from the Addition to Tax Roll Fee and \$1,500 from late payment charges. Mississauga fines added to the tax roll in the other municipalities have resulted in additional POA revenue of approximately \$61,300. The matching of the POA offender to the owner of a property is an automated process.

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As a result, no additional staffing costs were incurred for the pilot project, and there are no additional costs anticipated to expand the agreement to other municipalities.

## Conclusion

Provincial legislation which allows defaulted POA fines to be added to the tax roll for collection purposes provides an effective tool for collection of unpaid fines. From 2012-2017, \$486,100 in outstanding Mississauga POA fines were added to Mississauga tax accounts and 76% has been successfully collected to date. In addition, Mississauga fines totalling approximately \$68,000 have been added to the tax rolls of other municipalities resulting in a recovery of approximately \$61,300 to date.

Inter-municipal agreements for placement of POA fines with other municipalities represents a low risk and low cost collection method, while providing substantial benefits to the City in terms of improved collections, as these outstanding fine amounts may have otherwise remained uncollectible.

Staff supports the City's continued participation in the inter-municipal tax rolling initiative with the cities of Toronto, Ottawa, Belleville, Kawartha Lakes and the County of Hastings. Staff will look to expand the program and include other municipalities in the vicinity for the reciprocal collection of outstanding POA fines through this process.

## Attachments

Appendix 1: Inter-Municipal Tax Rolling Requests and Recoveries



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Gary Kent, CPA, CGA  
Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Louise Cooke, Manager, Revenue & Taxation

## Appendix 1

**2014-2015 Inter-Municipal Tax Rolling Requests and Recoveries**

<b>MISSISSAUGA POA FINES ADDED TO TAX ROLL OF OTHER MUNICIPALITIES</b>					
	Tax Rolling Municipality				
	Hastings	Kawartha	Ottawa	Toronto	Total
Added to the Tax Roll	\$ -	\$ -	\$ -	\$ 67,979	\$ 67,979
Recovered Amount	\$ -	\$ -	\$ -	\$ 61,256	\$ 61,256

<b>POA FINES ADDED TO MISSISSAUGA TAX ROLL</b>					
	Requesting Municipality				
	Hastings	Kawartha	Ottawa	Toronto	Total
Added to the Tax Roll	\$ -	\$ 403	\$ -	\$ 100,292	\$ 100,696
Recovered Amount	\$ -	\$ 403	\$ -	\$ 100,292	\$ 100,696



City of Mississauga  
**Corporate Report**



Date: 2018/04/02

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:  
2018/04/18

## Subject

**Financial Report as at December 31, 2017**

## Recommendation

1. That the "Financial Report as at December 31, 2017" report dated April 2, 2018, from the Commissioner of Corporate Services and Chief Financial Officer, including appendices 1 to 5, be approved.
2. That the Treasurer be authorized to fund and close the capital projects as identified in this report including appendices.
3. That \$6,403,928.08 of the year-end operating surplus be transferred to the Capital Reserve Fund (#33121).
4. That \$3,000,000.00 of the year-end operating surplus be transferred to the Insurance Reserve Fund (#34161).
5. That the year-end Stormwater operating program surplus of \$1,312,885 be transferred to Stormwater Pipe Reserve Fund (#35993).
6. That the balance of the year-end Stormwater surplus of \$1,312,885 be transferred to Stormwater Capital Reserve Fund (#35992).
7. That 37 part time FTEs (full time equivalent) be added to Recreation for the operation of Hershey Centre as per the January 24<sup>th</sup>, 2018 Council Report titled "Management of the Hershey Centre", with net zero budget impact.
8. That the necessary by-laws be enacted to remove the expiry dates associated with various fees and charges in By-law 0152-2017 and By-law 0157-2017.
9. That the necessary by-laws be enacted.

## Report Highlights

- Operating Summary, excluding Stormwater

As of December 31, 2017, the City had a year-end surplus of \$9.4 million based on the actual operating results.

Staff recommends that the \$9.4 million surplus be allocated as follows:

- \$6.4 million to the Capital Reserve Fund;
- \$3.0 million to the Insurance Reserve Fund;

- Capital Summary, excluding Stormwater

Recommended adjustments to the capital program result in a revised net capital program funding of \$1,006.0 million allocated to 775 projects:

- 108 projects are recommended for closure;
- \$7.3 million is being returned to Reserve Funds; and
- \$221.5 million is still to be incurred at the end of 2017, compared to \$247.9 million at the end of 2016.

- Stormwater Financial Summary

As of December 31, 2017, the City's Stormwater operating program had a year-end surplus of \$2.6 million based on the actual operating results.

Staff recommends that the \$2.6 million surplus be allocated as follows:

- \$1.3 million to the Pipe Reserve Fund;
- \$1.3 million to the Stormwater Capital Reserve Fund.

- Recommended adjustments to the Stormwater capital program will result in a revised net budget of \$81.9 million for the active 71 projects. 8 projects are recommended for closure. \$4.0 million is being returned to Reserve Funds.

## Background

In accordance with the Budget Control and Reserves and Reserve Fund By-laws, the Finance Division provides Council with a review of the City's financial position a minimum of two times a year. This report covers information related to the Operating Program, and the status of Capital Work-in-Progress and Reserves and Reserve Fund transfers. A separate report on the status of Reserves and Reserve Funds will be submitted to General Committee.



## Comments

This report summarizes:

Part 1 – Operating Results as at December 31, 2017

Part 2 – Capital Status

Part 3 – Stormwater Financial Summary

Part 4 – Infrastructure Funding Programs Projects

Part 5 – Reserves and Reserve Fund Transfers

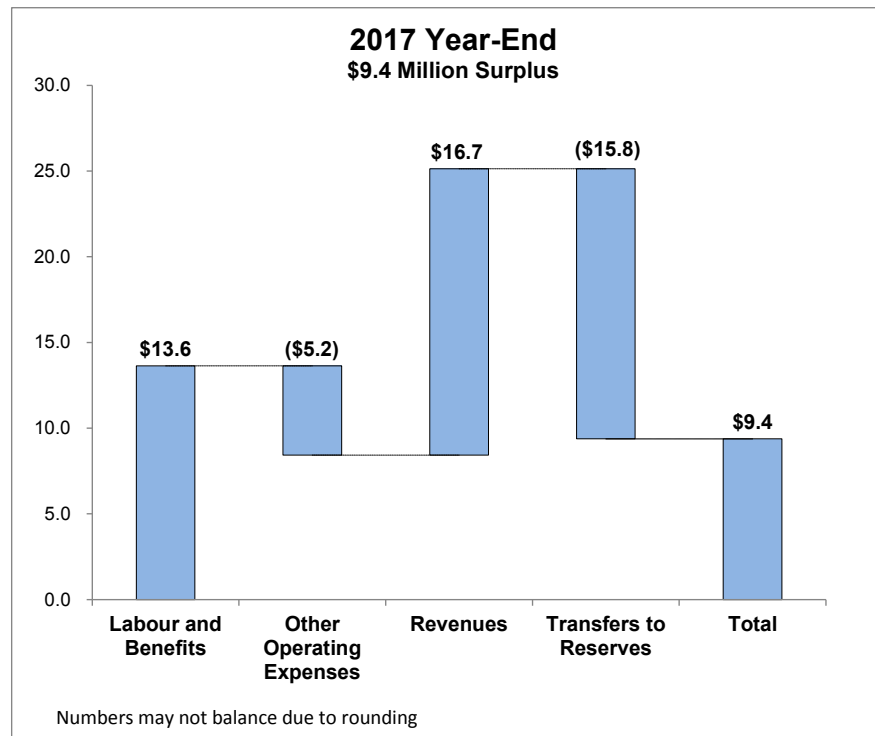
Part 6 – Uncollectible Write-offs

### PART 1: OPERATING RESULTS AS AT DECEMBER 31, 2017

The City ended the 2017 year with an operating surplus of \$9.4 million or 1.2% of the gross operating budget. The following chart is the operating summary by service area, excluding Stormwater (see Part 3).

Service Area (\$ Millions)	Net Budget	Year End Forecast	Year End Variance
			\$ Surplus/ (Deficit)
Fire & Emergency Services	105.2	99.5	5.7
Roads	66.8	62.9	3.9
MiWay	71.7	66.3	5.4
Parks & Forestry	32.6	31.2	1.4
Mississauga Library	26.8	25.6	1.2
Business Services	29.4	28.8	0.6
Facilities & Property Management	21.2	20.0	1.2
Recreation	25.2	23.5	1.7
Information Technology	23.3	23.8	(0.5)
City Manager's Office	12.7	13.6	(0.9)
Land Development Services	8.7	3.6	5.1
Culture	7.9	7.6	0.3
Mayor & Council	4.8	4.7	0.0
Regulatory Services	1.0	(0.9)	1.9
Legislative Services	(2.9)	(5.4)	2.5
Environment	1.4	1.4	0.1
Financial Transactions	26.5	46.8	(20.3)
<b>City</b>	<b>462.5</b>	<b>453.1</b>	<b>9.4</b>

Note: Numbers may not add due to rounding.



**Year-End Operating Result Highlights** - The major areas of variance from the budget are highlighted in the chart below with further details provided in Appendix 1-1, Operating Details by Service Area.

Labour and Benefits	Surplus/(Deficit) \$ Millions
Labour gapping	13.6
<b>Total Surplus / (Deficit)</b>	<b>13.6</b>

Other Operating Expenses	Surplus/(Deficit) \$ Millions
Winter Maintenance	2.9
Affordable Transportation pilot program	1.0
Other changes	0.9
Information Technology maintenance/subscriptions	(0.6)
Fire vehicle maintenance and supplies	(0.6)
Allowance for uncollectible taxes	(0.7)
Legal Services professional services	(1.5)
Tax cancellation decisions based on Assessment Review Board	(6.6)
<b>Total Surplus / (Deficit)</b>	<b>(5.2)</b>

Revenue	Surplus/(Deficit) \$ Millions
Development application fees, building permits increase volume & value	4.4
Supplementary tax revenue	2.7
MiWay farebox revenue	2.2
POA and other fees	1.7
Various rebates and recoveries and grants	1.6
Recreation programs, rental and food sales	0.8
Payment in Lieu of Taxes	0.8
Parking Revenues/APS	0.6
Increase in Fire billable incidents, facility rental fees, insurance proceeds	0.3
Other changes	1.6
<b>Total Surplus / (Deficit)</b>	<b>16.7</b>

Transfers To Reserves	Surplus/(Deficit) \$ Millions
Capital Reserve Fund - Replenishing in-year draws	(6.7)
Special Holding Reserve Fund	(2.9)
Building Permit Stabilization Reserve	(2.6)
Employee Benefits Reserve Fund	(2.0)
Other Operating Reserves (Replenishing for Aerial Spray draw)	(1.6)
<b>Total Surplus / (Deficit)</b>	<b>(15.8)</b>
<b>Grand Total</b>	<b>9.4</b>

Note: Numbers may not add due to rounding.

As part of the 2018 budget process, staff tracked variances and have made appropriate adjustments to the 2018 Business Plan and Budget. Sustainable revenue increases have been identified and included in the 2018 Approved Budget, such as:

- \$1.25 million of Payment in Lieu of Taxes,
- \$0.8 million of Administrative Penalties System (APS) fees,
- \$0.5 million of Provincial Offences Act (POA) revenue, and
- \$0.5 million of Recreation program fees and room rental revenue.

In addition, any sustainable expenditure adjustments are also included in the 2018 Approved Budget, such as:

- \$0.9 million reduction of MiWay Affordable Transportation Pilot program expenses,
- \$1.2 million increase of IT system maintenance and licensing fees, and
- \$0.4 million increase of Fire and Emergency Services equipment and technologies costs.

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## Reconciliation with 2017 Consolidated Financial Statements

Budget data presented in this report reflect values based on the cash basis of accounting. The City's financial statements are prepared in accordance with the Municipal Act and based on the reporting standards set by the Chartered Professional Accountants (CPA) Canada Public Sector Accounting Board. Adjustments to budgeted values are required to provide comparative values based on the full accrual basis of accounting. **Appendix 4** reconciles the approved budget with the budget figures as presented in the consolidated financial statements.

## Housekeeping

As approved in the January 24<sup>th</sup>, 2018 Council Report titled "Management of the Hershey Centre", the City will assume the responsibility for the management and operation of the Hershey Centre. In addition to 22 permanent full time complements approved by the Council, 37 part time FTEs (full time equivalent) are required as well for the operation of the Hershey Centre. The FTEs are effective from July 1, 2018, and have net zero budget impact, as the funding is included in the program budget.

On September 27, 2017, Council approved Budget Committee Reports titled "Recreation Program Fees and Rental Rate" and "Parks and Forestry Fees and Charges". Recreation Rental Rates Fees and Charges By-law (Bylaw 0152-2017) and Parks and Forestry Fees and Charges By-law (Bylaw 0157-2017) were enacted as per Council approval. These two bylaws established fees and charges with various expiry dates ranging from December 31, 2018 to August 31, 2019. However, due to the 2018 election process, the 2019 Fees and Charges Corporate Reports are scheduled to receive approval from the newly elected Council in 2019. The updated fees and charges will only take effect after the Council approval.

Staff recommends amending Bylaw 0152-2017 and Bylaw 0157-2017 by removing the expiry dates associated with the corresponding fees and charges identified in these two bylaws.

## PART 2: CAPITAL STATUS

As required under the City's Budget Control Policy, staff is required to report to Council at least twice a year on the Capital works-in-progress review. Included as part of this review is the on-going monitoring, evaluation and identification of projects that can be closed and any funds that can be returned to reserves, or conversely projects requiring additional funding.

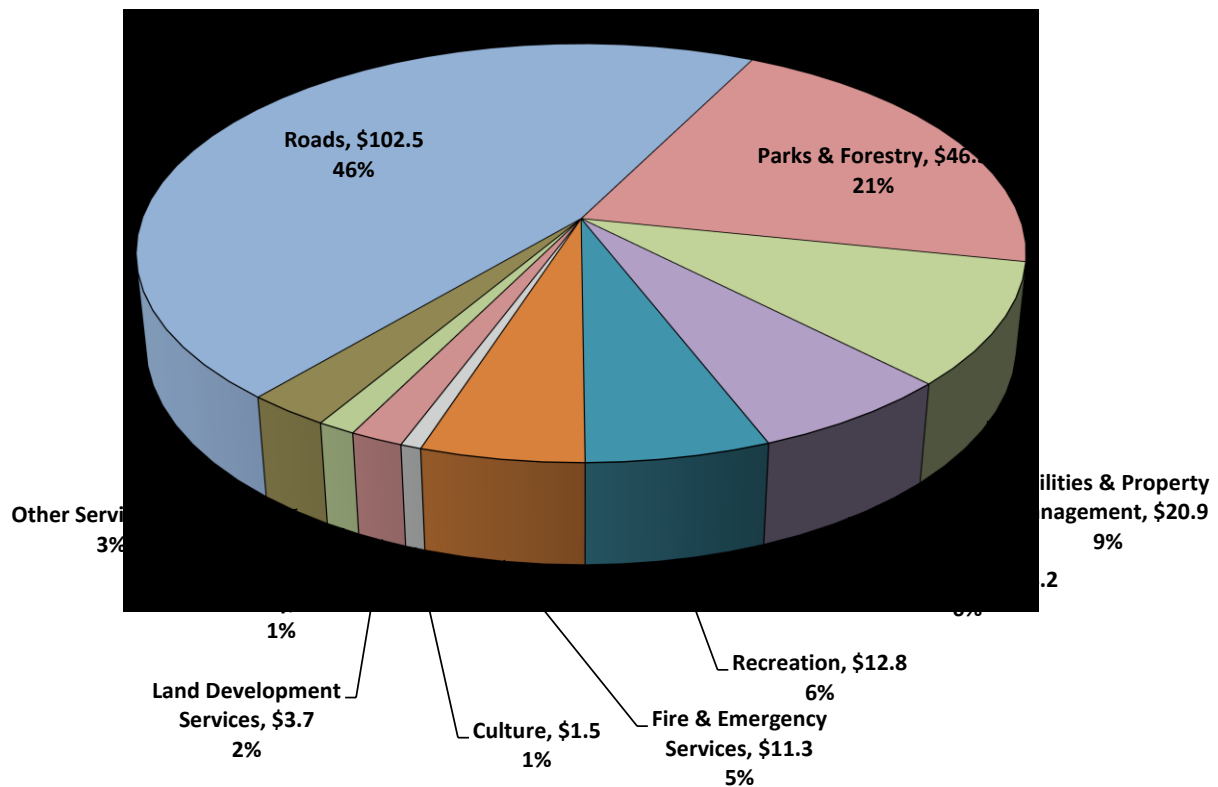
The City has an approved capital program with a total net budget of \$1,013.3 million. Staff recommends returning approximately \$7.2 million to various reserves and reserve funds, from various projects. This results in a revised net capital budget totalling \$1,006.0 million. Approved projects in 2018 budget process are not included.

As of December 31, 2017, of the \$1,006.0 million total,

- \$784.5 million or 78% has been spent; and
- \$221.5 million is still to be incurred at the end of 2017; compared to \$247.9 million at the end of 2016.

The following chart shows the distribution of the City's capital expenditures still to be incurred by service. See Appendix 2-1 for more details.

**Total Capital Work- in-Progress**  
**Net Future Expenditures to be Incurred by Service Area**  
**\$221.5 Million**



Others Include: City Manager's Office, Regulatory Services, Business Services, Legislative Services, Mississauga Library, and Environment

City staff continues to evaluate older projects and return unspent funds to reduce the amount of capital funds that are needed to be borrowed for future projects. The \$221.5 million of unspent funds earns interest revenue that is used to support both the capital and operating programs including contributions to the Reserves and Reserve Funds.

Of the \$221.5 million still to be incurred, over 28% is accounted for by the following projects:

- \$16.2 million Churchill Meadows Community Centre and North West Park
- \$10.8 million Torbram Grade Separation
- \$10.1 million Permanent Snow Storage Sites
- \$9.1 million Roadway Rehabilitation
- \$8.6 million Transit 2010 – Information Systems
- \$7.4 million Creditview Road Bridge over Credit River

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The year-end review has \$7.3 million being returned as a result of all budget adjustments, transfers and project closures. The majority of the funds are being returned to the Capital Tax Reserve Funds, Cash-in-Lieu of Parkland Dedication Reserve Fund, and Development Charges Reserve Funds.

The following are highlights for significant funding adjustment requests, or for significant accomplishments of complete projects:

### **Roads**

- Ninth Line Widening - Derry Road to North Limit - Phase 1 (PN14-107) is returning funding in the amount of \$1.5 million as the tender came in favourable and construction was within budget. Reconstruction and resurfacing are complete and under warranty.

### **Parks & Forestry**

- The Clarkson Park sport field upgrade project (PN 16-339) is a joint venture, between the City of Mississauga and the Peel District School Board with both parties agreeing to a share the design and construction costs 50/50%. The project requires additional funding in the amount of \$0.35 million due to tendered bids being higher than anticipated, due to delay in issuing the tender/contract, site electrical service requirements/LED lighting, and unanticipated earthworks pertaining to existing shale conditions.

### **Recreation**

- The Meadowvale Community Centre & Library Project (PN 09-430) opened in September 2016. The project is returning \$2.0 million surplus funds as the building has been open for more than one year and all contractual warranty items have been addressed through the General Contractor. Staff is recommending utilizing remaining \$0.8 million funds to address building program requirements related to sun shades and other equipment purchases necessary for building operations. Additionally, staff will be using remaining funds to address site issues related to parking control and basketball court and lighting modifications to address site safety.

### **Facilities & Property Management**

- The Parking Lot Renewals Project (PN15-713) is closing and returning funding in the amount of \$0.4 million. The project was completed under-budget due to better pricing options. The project involved lifecycle renewal of parking lots at the following sites: Frank McKechnie Community Centre, Fire Station 102, Fire Station 115, and Lakefront Promenade. Total area of parking lot renewal completed is approximately 26,000 square metres. The project included repaving, new concrete aprons, and pads for garbage enclosures.
- The Parking Lot Renewals Project (PN17-713) is closing and returning funding in the amount of \$0.4 million. The project was completed under-budget due to a reduction in the project scope and better pricing options. The project involved lifecycle renewal of parking lots at the following sites: Fire Station 108, Fire Station 114, Fire Station 118, and Fire

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Station 121. Total area of parking lot renewals completed is approximately 5,200 square metres. The project included repaving and new concrete aprons.

- Structural Repairs – Various Locations Project (PN15-742) is closing and returning funding in the amount of \$0.5 million, as a result of savings achieved by bundling projects and better pricing options. The project involved much needed lifecycle structural and building repairs to six sites. The project scope included: foundation repairs at the Port Credit Library; siding replacement and re-painting at Bradley Museum; foundation waterproofing at Cawthra Elliott Estate House; structural repairs at the Don Rowing Club; stucco and ceiling repair at Adamson Estate and refinishing exterior stairs at Mississauga Valley Community Centre.

### **Information Technology**

- The CLASS Upgrade Project (PN15-507) is not being closed, but is returning funding in the amount of \$0.4 million because a suitable replacement system was not available. Consequently, the current CLASS system will be extended to 2020 providing additional time for a market response to this industry gap. Staff will re-budget for the CLASS replacement project in 2019 and 2020.

Going forward, the remaining \$100,000 in capital funding will be used to upgrade and enhance the mobile web interface Active Mississauga, which is within the CLASS project scope.

## **PART 3: STORMWATER FINANCIAL SUMMARY**

### **Stormwater Operating and Revenue Charge Summary**

As at December 31, 2017, the City's Stormwater operating program resulted in a year-end surplus of \$2.6 million, with \$1.9 million fewer technical exemptions and credits issued and \$0.7 million with both operating and revenue surpluses.

Further details are provided in Appendix 1-2, Revenue Charge and Operating Details for Stormwater.

### **Stormwater Capital Summary**

The approved Stormwater capital program has a total net budget of \$85.9 million, including legacy stormwater projects originally part of the Roads service area. Staff recommends closing 8 projects and returning approximately \$4.0 million to the appropriate reserve funds.

Recommended adjustments to the Stormwater capital program will result in a revised net budget of \$81.9 million for the active 71 projects. Approved projects in 2018 budget process are not included.

The following are highlights of major projects:

- Hurontario-Main Light Rail Transit Storm Sewer Condition Assessment (PN16-135) is being closed and returning funding the amount of \$1.5 million earmarked for undertaking camera



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inspection of storm sewer infrastructure through the HuLRT corridor. This work was subsequently coordinated with Metrolinx who paid in full for the work and did not request any cost recovery. The City reviewed the completed work product in order to make recommendations for "Additional Municipal Infrastructure" requirements for the HuLRT project.

## Capital Appendices

The following appendices detail project updates, changes, and funding adjustments for all capital projects, including Stormwater:

- Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed - 116 projects with an approved net budget of \$83.1 million, including 8 Stormwater projects with approved net budget of \$4.3 million, are to be closed. \$7.6 million or 9.2% of the approved net budget amount being returned to the reserves and reserve funds.
- Appendix 2-3: Open Projects Requiring Funding Adjustments – Overall 45 projects with an approved net budget of \$100.0 million, returning a net of \$3.6 million to the reserves and reserve funds. Among them, 9 Stormwater projects are returning \$0.9 million.
- Appendix 2-4: Project Adjustments with No Net Capital Impact lists 4 projects that are being adjusted with no net financial impact.

## PART 4: INFRASTRUCTURE FUNDING PROGRAMS PROJECTS

The capital program includes funding for four senior government grant funding programs.

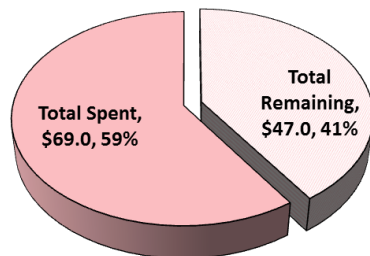
### C150 Phases 1 & 2

The majority of final claims for all C150 Phase 1 and 2 projects were made by March 31, 2018. Claims represent approximately 97% of the total project budgets. Approximately 3% of expenses are ineligible as defined under the contribution agreement. The City has until June 30, 2018 to submit any remaining invoices.

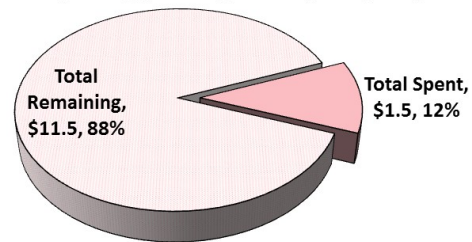
### PTIF & CWWF

The Public Transit Infrastructure Fund (PTIF) and the Clean Water and Wastewater Fund (CWWF) programs were introduced at General Committee on October 5, 2016. Formal approvals under these two programs were received on May 4, 2017 and May 23, 2017 respectively. On January 4, 2018 the Federal Government announced that both PTIF and CWWF programs will be extended to March 31, 2020. The following graphs illustrate funding spent to date. The majority of PTIF expenditures to date have been for the acquisition of buses. CWWF projects have been planned but spending has not been significant to date. Significant spending on these projects will begin with the 2018 construction season.

PTIF Spending (total Eligible Budget of \$116M)



CWWF Spending (total Eligible Budget of \$13M)



Of the \$69 million spent under PTIF program, no recoveries have been received to date.

Future expenditures for these programs will be reported on in future WIP reports.

All infrastructure funding program projects are listed in Appendix 3-1 to Appendix 3-4.

### Housekeeping

A few minor housekeeping items are required in order to align certain capital projects and funding requirements based on updates in project totals as approved by the PTIF and CWWF grant programs. It is recommended that a By-law be enacted to transfer funds between various Reserve Funds and capital projects as identified in Appendix 5.

### PART 5: RESERVES AND RESERVE FUND TRANSFERS

The \$9.4 million operating surplus, which equates to 1.2% of the gross operating budget, is recommended to be transferred to reserves and reserve funds in accordance to the Reserves and Reserve Fund policy.

Transfers to Reserves & Reserve Funds	\$Million	Rationale
Capital Reserve Fund	\$6.4	To provide for future capital infrastructure
Insurance Reserve Fund	\$3.0	To provide for future insurance obligations
<b>Total Year End Surplus Transfers</b>	<b>\$9.4</b>	

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In addition, staff recommends that the \$2.6 million Stormwater operating surplus, which equates to 7.9% of the gross operating budget, be transferred to reserves in accordance to the Reserve and Reserve Fund policy.

Transfers to Reserves & Reserve Funds	\$Million	Rationale
Pipe Reserve Fund	\$1.3	To provide for future stormwater infrastructure
Stormwater Reserve Fund	\$1.3	To provide for future stormwater infrastructure
<b>Total Year End Surplus Transfers</b>	<b>\$2.6</b>	

## PART 6: UNCOLLECTIBLE WRITE-OFFS

Accounts Receivable Invoicing and Collection Policy 04-07-02 gives the Commissioner, Corporate Services and Chief Financial Officer the authority to write off uncollectible invoices under \$25,000 and requires the amount of invoices written off to be reported to Council annually. In 2017, a total of 6,147 invoices were issued totalling \$39.6 million. Write-offs completed in 2017 for prior years' uncollectible invoices totalled \$193,930.29. Invoices are only written off after all avenues for collection have been exhausted including adding invoices to the tax roll for collection where authorized under legislation and/or by-laws, assigning to collection agencies and/or taking legal action.

## Conclusion

In summary, the City's 2017 year-end financial position resulted in an operating surplus of \$9.4 million. The capital programs are progressing as planned.

## Attachments

Appendix 1-1 Operating Details by Service Area  
Appendix 1-2 Revenue Charge and Operating Details for Stormwater  
Appendix 2-1 Summary of Capital Works-in-Progress by Service Area  
Appendix 2-2 Projects Completed, Delayed or Cancelled and to Be Closed  
Appendix 2-3 Open Projects Requiring Funding Adjustments  
Appendix 2-4 Project Adjustments with No Net Capital Impact  
Appendix 3-1 Canada 150 Intake 1 Projects Update  
Appendix 3-2 Canada 150 Intake 2 Projects Update  
Appendix 3-3 Clean Water Wastewater Fund (CWWF) Projects Update  
Appendix 3-4 Public Transit Infrastructure Fund (PTIF) Projects Update  
Appendix 4 Reconciliation with 2017 Consolidated Financial Statements  
Appendix 5 Funding Adjustments for PTIF/CWWF Projects



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Gary Kent, CPA, CGA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Ann Wong, Sr Manager, Business Planning and Reporting

## Operating Details by Service Area

## Appendix 1-1

## Fire &amp; Emergency Services

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(1.8)	(2.1)	0.3	15.4%	Favourable variance of \$0.3M primarily due to an increased number of billable incidents, fees charged to Public Services Health and Safety for work completed by MFES staff, insurance proceeds received, and increased facility rental fees from the Garry W. Morden Centre.
Other Operating Expenses	4.0	4.6	(0.6)	(14.8%)	Unfavourable variance of (\$0.6M) primarily due to front line vehicle maintenance costs, materials and equipment costs associated with station wear and an increase in fire station building repairs due to aging infrastructure.
Labour and Benefits	102.0	96.0	6.0	5.9%	Favourable year end variance due to labour gapping.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>104.2</b>	<b>98.5</b>	<b>5.7</b>	<b>5.4%</b>	
Administrative and Support Costs	1.0	1.0	0.0	1.6%	
<b>Total Net Cost</b>	<b>105.2</b>	<b>99.5</b>	<b>5.7</b>	<b>5.4%</b>	

## Roads

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(12.0)	(15.8)	3.8	31.7%	Favourable variance is a result of better than expected Site Plan application fees of \$0.4M, Parking revenues exceeded budget by \$0.5M, and greater than expected fees from Engineering Drawing Review of \$0.3M. In addition, a surplus of \$2.2M in recoveries was realized to offset expenses for work provided to both internal and external parties.
Other Operating Expenses	45.2	45.9	(0.7)	(1.5%)	Deficit is attributed to the higher than expected traffic signal maintenance activities related to the maintenance of Regional traffic signals and to the Advanced Transportation Management System (ATMS) field work of (\$1.4M), which has been recovered from internal and external parties. Deficit in Sidewalk Maintenance of (\$0.8M) due to higher repair demand; greater than expected transfer to Reserve of (\$0.5M) as a result of higher Parking Revenues and (\$0.6M) deficit in various other expenses mitigated by recoveries. Offsetting these variances are better than expected Winter Maintenance costs of \$2.9M due a milder than expected Winter.
Labour and Benefits	33.4	32.6	0.8	2.5%	Favourable variance is a result of gapping due to various vacant positions and recovery of labour for various capital projects.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>66.7</b>	<b>62.7</b>	<b>3.9</b>	<b>5.9%</b>	
Administrative and Support Costs	0.2	0.2	0.0	0.0%	On Budget
<b>Total Net Cost</b>	<b>66.8</b>	<b>62.9</b>	<b>3.9</b>	<b>5.9%</b>	

## Operating Details by Service Area

### MiWay

Appendix 1-1

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(88.9)	(89.5)	0.6	0.7%	Net favourable variance as a result of favourable variances in farebox revenues \$2.2M and LRT recoveries \$0.2M offset by unfavourable recoveries related to lesser service requirements for the Hanlan Water project from the Region (\$1.8M).
Transfers from Reserve	(16.8)	(16.8)	(0.0)	(0.1%)	On Budget
Other Operating Expenses	40.7	38.5	2.1	5.3%	Net favourable variance as a result of favourable variances in the Affordable Transportation Pilot 1.0M, contractor costs \$0.6M, and less service requirements for the Hanlan Water project from the Region \$0.5M.
Labour and Benefits	135.5	132.9	2.6	1.9%	Net favourable variance as a result of gapping in transit labour due to LTD and staff turnover \$1.3M and variances related to lesser service requirements for the Hanlan Water project from the Region \$1.3M.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>70.5</b>	<b>65.1</b>	<b>5.4</b>	<b>7.6%</b>	
Administrative and Support Costs	1.2	1.2	0.0	0.0%	On Budget
<b>Total Net Cost</b>	<b>71.7</b>	<b>66.3</b>	<b>5.4</b>	<b>7.5%</b>	

### Parks & Forestry

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(4.3)	(5.2)	0.9	21.4%	Favourable variance of \$0.9M due to external recoveries from additional work requests for City trees, one time grants and transfers from Green Gifts donations and Forestry Fundraising accounts. An increased number of site plan applications as well as increased cemetery sales contributed for the increased revenue. This is slightly offset by an unfavourable variance in berthage and fuel sales due to marina closure in the spring from higher water levels.
Other Operating Expenses	12.4	12.4	0.0	0.1%	On Budget
Labour and Benefits	24.7	24.2	0.4	1.8%	Favourable year end variance due to labour gapping.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>32.9</b>	<b>31.5</b>	<b>1.4</b>	<b>4.1%</b>	
Administrative and Support Costs	(0.2)	(0.3)	0.1	26.9%	
<b>Total Net Cost</b>	<b>32.6</b>	<b>31.2</b>	<b>1.4</b>	<b>4.4%</b>	

## Operating Details by Service Area

## Appendix 1-1

## Mississauga Library

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(1.9)	(2.1)	0.2	10.2%	Favourable variance of \$0.2M due to the Provincial Technology and Employment and Social Development Canada Grants.
Other Operating Expenses	6.2	6.2	0.1	1.1%	Favourable variance of \$0.1M primarily due to underspend in building repairs as a result of better use of capital repair account.
Labour and Benefits	22.1	21.2	1.0	4.4%	Favourable labour variance of \$1M due to labour gapping in salaries which is partially offset by overspending in temp labour to backfill for essential full time direct public service staff vacancies.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>26.4</b>	<b>25.2</b>	<b>1.2</b>	<b>4.7%</b>	
Administrative and Support Costs	0.4	0.4	(0.0)	(1.9%)	
<b>Total Net Cost</b>	<b>26.8</b>	<b>25.6</b>	<b>1.2</b>	<b>4.6%</b>	

## Business Services

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(2.8)	(2.8)	0.0	1.7%	On Budget
Other Operating Expenses	3.9	3.3	0.6	14.4%	\$0.6M surplus is driven by underspending professional services
Labour and Benefits	28.3	28.2	0.0	0.1%	On Budget
<b>Total Net Cost before Administrative and Support Costs</b>	<b>29.4</b>	<b>28.8</b>	<b>0.6</b>	<b>2.2%</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>29.4</b>	<b>28.8</b>	<b>0.6</b>	<b>2.2%</b>	

## Facilities &amp; Property Management

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.5)	(0.9)	0.5	99.0%	
Other Operating Expenses	8.5	8.7	(0.2)	(2.6%)	Additional expenditures offset by increased revenues, being the result of one time energy rebates. \$0.3M surplus was a result of cleaning contracts and preventative maintenance.
Labour and Benefits	14.7	13.7	1.0	6.7%	\$1.0M surplus is primarily driven by vacancies and higher capital chargebacks
<b>Total Net Cost before Administrative and Support Costs</b>	<b>22.7</b>	<b>21.5</b>	<b>1.2</b>	<b>5.4%</b>	
Administrative and Support Costs	(1.5)	(1.5)	0.0	0.0%	
<b>Total Net Cost</b>	<b>21.2</b>	<b>20.0</b>	<b>1.2</b>	<b>5.7%</b>	



## Operating Details by Service Area

## Appendix 1-1

## Recreation

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(48.1)	(49.6)	1.5	3.1%	Favourable variances due to higher program, membership and meeting room revenue \$0.4M, Hershey event and rental revenue of \$1.0M, food sales revenue of \$0.3M at the Harding Waterfront Estate.
Other Operating Expenses	25.4	26.1	(0.7)	(2.8%)	Major variances include; Food Services 3rd party costs at Harding Waterfront Estate of (\$0.2M) and Hershey Centre costs (\$0.6M). These unfavourable expenses are offset by favourable revenues.
Labour and Benefits	47.9	46.9	1.0	2.1%	Favourable variance due to Vacancies, Maternity Leaves and salary differential for replacement hires.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>25.2</b>	<b>23.4</b>	<b>1.8</b>	<b>7.1%</b>	
Administrative and Support Costs	0.0	0.1	(0.1)	(2993.0%)	
<b>Total Net Cost</b>	<b>25.2</b>	<b>23.5</b>	<b>1.7</b>	<b>6.8%</b>	

## Information Technology

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.6)	(0.7)	0.1	21.5%	Additional revenue from TXM support recovery and Fire CAD recovery (from Brampton and Caledon) have resulted in this surplus.
Other Operating Expenses	6.5	7.0	(0.6)	(8.7%)	(\$0.6M) unfavourable variance is contributed by higher than expected maintenance/licensing costs and professional services
Labour and Benefits	18.8	18.8	(0.1)	(0.3%)	Minor over expenditure of \$57K.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>24.6</b>	<b>25.1</b>	<b>(0.5)</b>	<b>(2.0%)</b>	
Administrative and Support Costs	(1.3)	(1.3)	0.0	0.0%	
<b>Total Net Cost</b>	<b>23.3</b>	<b>23.8</b>	<b>(0.5)</b>	<b>(2.1%)</b>	

## City Manager's Office

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.9)	(1.1)	0.2	21.4%	
Other Operating Expenses	3.4	4.9	(1.5)	(45.0%)	Unfavourable variance primarily attributed to the Legal Services Division's over expenditure in professional services due to significant litigation matters
Labour and Benefits	10.2	9.7	0.4	4.2%	Labour gapping
<b>Total Net Cost before Administrative and Support Costs</b>	<b>12.7</b>	<b>13.6</b>	<b>(0.9)</b>	<b>(7.2%)</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>12.7</b>	<b>13.6</b>	<b>(0.9)</b>	<b>(7.2%)</b>	

## Operating Details by Service Area

## Appendix 1-1

## Land Development Services

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(13.0)	(17.1)	4.0	30.9%	Favourable variance mainly due to an increase of volume of the Building permits and value of building permit applications (larger projects); and increase in high value development applications in 2017. 2017 was an anomaly. The market conditions did not adjust as expected.
Other Operating Expenses	1.8	1.3	0.5	27.5%	Favourable variance is mainly due to the Professional Services budget not being fully spent as some work have been deferred. In addition, training for the new Building Code has been on hold due to changing Provincial timelines.
Labour and Benefits	19.9	19.4	0.6	2.8%	Labour gapping savings
<b>Total Net Cost before Administrative and Support Costs</b>	<b>8.7</b>	<b>3.6</b>	<b>5.1</b>	<b>58.4%</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>8.7</b>	<b>3.6</b>	<b>5.1</b>	<b>58.4%</b>	

## Culture

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(2.0)	(2.4)	0.4	20.1%	Culture favourable year end variance of \$0.3M is due to a one-time grant and sponsorships for Canada 150 programming, filming revenues and increased number of rental events at MCS.
Other Operating Expenses	4.6	4.8	(0.2)	(4.5%)	Unfavourable variance of (\$0.1M) is due to film location revenue transfers for facility rentals and road occupancy permits; program related costs for Canada 150 and museums programming (grant and sponsorship funded).
Labour and Benefits	5.2	5.1	0.1	1.5%	A favourable year-end variance of \$0.1M is due to full time vacancies & maternity leaves which is partially offset by temp labour backfilling of full time positions.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>7.8</b>	<b>7.6</b>	<b>0.3</b>	<b>3.5%</b>	
Administrative and Support Costs	0.0	0.0	(0.0)	(9.0%)	
<b>Total Net Cost</b>	<b>7.9</b>	<b>7.6</b>	<b>0.3</b>	<b>3.4%</b>	

## Operating Details by Service Area

Appendix 1-1

### Mayor & Council

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.2)	(0.2)	0.0	0.0%	On Budget
Other Operating Expenses	0.9	0.8	0.1	6.6%	
Labour and Benefits	4.1	4.1	(0.0)	(0.2%)	On Budget
<b>Total Net Cost before Administrative and Support Costs</b>	<b>4.8</b>	<b>4.7</b>	<b>0.0</b>	<b>1.0%</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>4.8</b>	<b>4.7</b>	<b>0.0</b>	<b>1.0%</b>	

### Regulatory Services

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(14.5)	(15.1)	0.6	4.4%	Net favourable variance mainly from increased APS/Parking revenues.
Other Operating Expenses	2.0	1.9	0.1	3.6%	Favourable variances in various accounts.
Labour and Benefits	13.4	12.2	1.2	8.9%	Favourable variance as a result of vacant positions mainly in Animal Services and Compliance & Licensing Enforcement.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>0.9</b>	<b>(1.0)</b>	<b>1.9</b>	<b>210.6%</b>	
Administrative and Support Costs	0.1	0.1	0.0	0.0%	On Budget
<b>Total Net Cost</b>	<b>1.0</b>	<b>(0.9)</b>	<b>1.9</b>	<b>185.0%</b>	

### Legislative Services

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(11.4)	(13.1)	1.7	15.3%	Surplus is driven by significant increase in POA receipts in Q4 (Onetime payment of \$0.6M received in November). Budget in 2018 adjusted by \$0.5M and will be reviewed again for 2019
Other Operating Expenses	1.6	1.3	0.3	16.7%	\$0.3M surplus is primarily related to POA items and print shop.
Labour and Benefits	6.9	6.4	0.5	7.1%	Surpluses in labour are primarily due to vacancies.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>(2.9)</b>	<b>(5.4)</b>	<b>2.5</b>	<b>85.5%</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>(2.9)</b>	<b>(5.4)</b>	<b>2.5</b>	<b>85.5%</b>	

## Operating Details by Service Area Environment

## Appendix 1-1

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	0.0	(0.0)	0.0	0.0%	On Budget
Other Operating Expenses	0.5	0.4	0.0	6.8%	On Budget
Labour and Benefits	1.0	0.9	0.0	2.7%	On Budget
<b>Total Net Cost before Administrative and Support Costs</b>	<b>1.4</b>	<b>1.4</b>	<b>0.1</b>	<b>4.4%</b>	
Administrative and Support Costs	0.0	0.0	(0.0)	(6.2%)	
<b>Total Net Cost</b>	<b>1.4</b>	<b>1.4</b>	<b>0.1</b>	<b>4.4%</b>	

## Financial Transactions

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(80.1)	(84.8)	4.7	5.8%	\$2.7M surplus of supplementary taxes, penalties and interest revenue related to economic climate. \$0.8M increase in payment-in-lieu of taxes revenue due to increase in GTAA passenger counts and reassessments. (\$2.2M) less of transfer from insurance reserves required (offsets insurance expenses below). \$0.5M additional transfer from WSIB reserves (offsets WSIB expenses below) and \$0.2M additional transfer from reserves for sick leave (offsets sick leave costs below). \$0.3M surplus various rebates and recoveries. \$2.5M revenue from sale of assets (offset by transfer to reserve below).
Other Operating Expenses	100.1	123.8	(23.6)	(23.6%)	(\$6.6M) unfavourable variance of tax cancellations due to timing of the decisions rendered by Assessment Review Board. (\$0.3M) additional Stormwater charges for unallocated City properties. \$0.4M savings because of fewer vacancy rebates. (\$0.7M) increase in allowance for uncollectible taxes. \$2.2M insurance savings (offsets transfer from reserves above). (\$2.5M) transfer to reserve offset by sale of assets above. (\$13.2M) transfers to reserves approved through Q3 Financial Report to replenish reserve balances. (\$2.6M) transfer to Building Permit Fee Stabilization Reserve to follow Reserve Policies. (\$0.2M) miscellaneous costs.
Labour and Benefits	6.5	7.8	(1.3)	(20.5%)	(\$0.6M) unfavourable variance for severance costs. (\$0.5M) WSIB costs and (\$0.2M) sick leave costs offset by transfers from reserves.
<b>Total Net Cost before Administrative and Support Costs</b>	<b>26.5</b>	<b>46.8</b>	<b>(20.3)</b>	<b>(76.5%)</b>	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
<b>Total Net Cost</b>	<b>26.5</b>	<b>46.8</b>	<b>(20.3)</b>	<b>(76.5%)</b>	
<b>City Grand Total Net Cost</b>	<b>462.5</b>	<b>453.1</b>	<b>9.4</b>	<b>2.0%</b>	

Note: Numbers may not add due to rounding.

## Revenue Charge and Operating Details for Stormwater

## Appendix 1-2

Item (\$ Millions)	2017 Budget	2017 Year-End	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Stormwater Revenue	(41.5)	(41.8)	0.2	(0.6%)	\$0.2M surplus due to the timing of billings of Region of Peel.
Stormwater Exemptions and Credits and Other Fees	3.1	1.1	2.0	65.1%	Favourable technical exemptions and credits due to lower exemption/credit application volume.
Other Operating Expenses and Contribution to Reserves	34.2	33.4	0.8	2.5%	Favourable variance of \$0.6M due to lower operating cost allocations from various departments. In addition, favourable variance of \$0.1M in Storm Billing administrative costs and \$0.1M in contractors costs.
Labour and Benefits	4.2	4.7	(0.5)	(11.9%)	Unfavourable variance of (\$0.4M) due to increase labour costs from works operations and (\$0.1M) in labour cost allocations from various departments.
<b>Total Net Cost</b>	<b>0.0</b>	<b>(2.6)</b>	<b>2.6</b>	<b>0.0%</b>	

## Summary of Capital Works-In-Progress by Service Area As of Dec 31, 2017

Appendix 2-1

Service Area	# of Active Projects/ Programs	Revised Net City Cost (\$000)	Approved Net City Cost (\$000)	(Surplus) / Additional Funds Required (\$000)	Net Expenditures to Dec 31/2017 (\$000)	Net Expenditures as a % of Revised Net City Cost	Balance of Net Expenditure to be Incurred (\$000)
<b>Summary of All Projects/Programs</b>							
Fire & Emergency Services	25	\$21,516	\$21,718	-\$202	\$10,265	48%	\$11,250
Roads	167	\$369,701	\$371,529	-\$1,828	\$267,203	72%	\$102,498
MiWay	65	\$330,519	\$330,504	\$15	\$327,874	99%	\$2,645
Parks & Forestry	220	\$116,027	\$116,224	-\$198	\$69,725	60%	\$46,302
Mississauga Library	13	\$4,691	\$4,773	-\$81	\$2,651	57%	\$2,040
Business Services	15	\$2,148	\$2,156	-\$8	\$1,018	47%	\$1,130
Facilities & Property Management	104	\$50,151	\$52,797	-\$2,646	\$29,277	58%	\$20,874
Recreation	29	\$59,718	\$61,750	-\$2,032	\$46,960	79%	\$12,758
Information Technology	81	\$35,703	\$36,201	-\$498	\$21,489	60%	\$14,214
Land Development Services	21	\$7,900	\$7,900	\$0	\$4,203	53%	\$3,696
Culture	22	\$5,280	\$5,118	\$161	\$3,829	73%	\$1,451
Regulatory Services	3	\$249	\$249	\$0	-\$192	-77%	\$442
Legislative Services	8	\$2,012	\$2,012	\$0	\$52	3%	\$1,960
City Manager's Office	1	\$105	\$105	\$0	\$37	36%	\$68
Environment	1	\$250	\$250	\$0	\$106	42%	\$144
Stormwater*	71	\$81,934	\$85,926	-\$3,992	\$46,738	57%	\$35,196
<b>TOTAL</b>	<b>846</b>	<b>\$1,087,904</b>	<b>\$1,099,213</b>	<b>-\$11,309</b>	<b>\$831,237</b>	<b>76%</b>	<b>\$256,668</b>
<b>Summary of 2017 Projects/Programs</b>							
Fire & Emergency Services	11	\$4,772	\$4,758	\$14	\$2,397	50%	\$2,375
Roads	52	\$59,339	\$59,254	\$84	\$23,383	39%	\$35,956
MiWay	30	\$42,148	\$42,148	\$0	\$63,189	150%	-\$21,041
Parks & Forestry	83	\$31,653	\$31,816	-\$162	\$18,118	57%	\$13,536
Mississauga Library	4	\$635	\$635	\$0	\$172	27%	\$463
Business Services	4	\$575	\$575	\$0	\$0	0%	\$575
Facilities & Property Management	48	\$17,207	\$17,990	-\$783	\$5,863	34%	\$11,344
Recreation	10	\$2,991	\$2,989	\$2	\$2,010	67%	\$980
Information Technology	32	\$11,340	\$11,397	-\$58	\$6,404	56%	\$4,935
Land Development Services	10	\$1,380	\$1,380	\$0	-\$96	-7%	\$1,476
Culture	6	\$1,854	\$1,856	-\$2	\$760	41%	\$1,094
Regulatory Services	3	\$249	\$249	\$0	-\$192	-77%	\$442
Legislative Services	4	\$321	\$321	\$0	\$48	15%	\$273
City Manager's Office	0	\$0	\$0	\$0	\$0	0%	\$0
Environment	1	\$250	\$250	\$0	\$106	42%	\$144
Stormwater*	24	\$9,953	\$10,223	-\$270	\$2,518	25%	\$7,435
<b>TOTAL - 2017</b>	<b>322</b>	<b>\$184,667</b>	<b>\$185,842</b>	<b>-\$1,175</b>	<b>\$124,680</b>	<b>68%</b>	<b>\$59,988</b>

## Summary of Capital Works-In-Progress by Service Area As of Dec 31, 2017

Appendix 2-1

Service Area	# of Active Projects/ Programs	Revised Net City Cost (\$000)	Approved Net City Cost (\$000)	(Surplus) / Additional Funds Required (\$000)	Net Expenditures to Dec 31/2017 (\$000)	Net Expenditures as a % of Revised Net City Cost	Balance of Net Expenditure to be Incurred (\$000)
<b>Summary of 2016 Projects/Programs</b>							
Fire & Emergency Services	7	\$3,281	\$3,281	\$0	\$804	25%	\$2,477
Roads	28	\$40,664	\$40,995	-\$331	\$27,630	68%	\$13,034
MiWay	16	\$16,706	\$16,690	\$16	\$17,226	103%	-\$521
Parks & Forestry	48	\$13,304	\$13,116	\$188	\$6,872	52%	\$6,432
Mississauga Library	4	\$1,717	\$1,717	\$0	\$314	18%	\$1,402
Business Services	4	\$457	\$459	-\$2	\$236	52%	\$221
Facilities & Property Management	32	\$18,931	\$19,220	-\$289	\$11,520	61%	\$7,411
Recreation	11	\$9,613	\$9,613	\$0	\$3,945	41%	\$5,667
Information Technology	15	\$4,339	\$4,079	\$260	\$1,706	39%	\$2,633
Land Development Services	3	\$400	\$400	\$0	-\$92	-23%	\$492
Culture	7	\$2,597	\$2,357	\$240	\$2,381	92%	\$217
Regulatory Services	0	\$0	\$0	\$0	\$0	0%	\$0
Legislative Services	2	\$53	\$53	\$0	\$0	0%	\$53
City Manager's Office	1	\$105	\$105	\$0	\$37	36%	\$68
Stormwater*	10	\$3,780	\$5,055	-\$1,275	\$204	5%	\$3,576
<b>TOTAL - 2016</b>	<b>188</b>	<b>\$115,948</b>	<b>\$117,140</b>	<b>-\$1,192</b>	<b>\$72,785</b>	<b>63%</b>	<b>\$43,163</b>
<b>Summary of 2015 Projects/Programs</b>							
Fire & Emergency Services	1	\$143	\$150	-\$7	\$143	100%	\$0
Roads	29	\$31,541	\$31,599	-\$57	\$20,359	65%	\$11,182
MiWay	6	\$7,000	\$7,002	-\$1	\$501	7%	\$6,500
Parks & Forestry	35	\$19,427	\$19,643	-\$217	\$7,727	40%	\$11,700
Mississauga Library	3	\$426	\$426	\$0	\$278	65%	\$148
Business Services	3	\$274	\$280	-\$6	\$169	62%	\$105
Facilities & Property Management	19	\$8,225	\$9,577	-\$1,352	\$7,399	90%	\$826
Recreation	5	\$8,060	\$8,063	-\$4	\$2,875	36%	\$5,184
Information Technology	20	\$11,102	\$11,536	-\$434	\$5,528	50%	\$5,574
Land Development Services	2	\$950	\$950	\$0	\$351	37%	\$599
Culture	4	\$284	\$300	-\$16	\$244	86%	\$41
Regulatory Services	0	\$0	\$0	\$0	\$0	0%	\$0
Legislative Services	2	\$1,638	\$1,638	\$0	\$4	0%	\$1,634
Stormwater*	12	\$21,501	\$21,991	-\$490	\$15,285	59%	\$6,216
<b>TOTAL - 2015</b>	<b>141</b>	<b>\$110,571</b>	<b>\$113,154</b>	<b>-\$2,583</b>	<b>\$60,863</b>	<b>55%</b>	<b>\$49,708</b>



## Summary of Capital Works-In-Progress by Service Area As of Dec 31, 2017

Appendix 2-1

Service Area	# of Active Projects/ Programs	Revised Net City Cost (\$000)	Approved Net City Cost (\$000)	(Surplus) / Additional Funds Required (\$000)	Net Expenditures to Dec 31/2017 (\$000)	Net Expenditures as a % of Revised Net City Cost	Balance of Net Expenditure to be Incurred (\$000)
<b>Summary of 2014 Projects/Programs</b>							
Fire & Emergency Services	2	\$945	\$945	\$0	\$229	24%	\$716
Roads	17	\$40,989	\$42,541	-\$1,552	\$36,554	89%	\$4,435
MiWay	2	\$2,425	\$2,425	\$0	\$1,321	54%	\$1,104
Parks & Forestry	16	\$14,787	\$14,713	\$74	\$10,846	73%	\$3,940
Mississauga Library	0	\$0	\$0	\$0	\$0	0%	\$0
Business Services	0	\$0	\$0	\$0	\$0	0%	\$0
Facilities & Property Management	4	\$3,668	\$3,890	-\$222	\$2,827	77%	\$841
Recreation	0	\$0	\$0	\$0	\$0	0%	\$0
Information Technology	9	\$4,350	\$4,551	-\$201	\$3,465	80%	\$885
Land Development Services	2	\$3,420	\$3,420	\$0	\$2,743	80%	\$677
Culture	2	\$265	\$265	\$0	\$200	75%	\$65
Regulatory Services	0	\$0	\$0	\$0	\$0	0%	\$0
Legislative Services	0	\$0	\$0	\$0	\$0	0%	\$0
Stormwater*	8	\$34,105	\$34,429	-\$324	\$20,569	34%	\$13,535
<b>TOTAL - 2014</b>	<b>62</b>	<b>\$104,953</b>	<b>\$107,179</b>	<b>-\$2,226</b>	<b>\$78,754</b>	<b>75%</b>	<b>\$26,199</b>
<b>Summary of 2013 Projects/Programs</b>							
Fire & Emergency Services	0	\$0	\$0	\$0	\$0	0%	\$0
Roads	15	\$34,442	\$34,522	-\$80	\$31,339	91%	\$3,103
MiWay	2	\$1,270	\$1,270	\$0	\$664	52%	\$606
Parks & Forestry	19	\$10,684	\$10,812	-\$128	\$7,025	66%	\$3,659
Mississauga Library	0	\$0	\$0	\$0	\$0	0%	\$0
Business Services	4	\$842	\$842	\$0	\$613	73%	\$229
Facilities & Property Management	0	\$0	\$0	\$0	\$0	0%	\$0
Recreation	2	\$3,995	\$4,025	-\$30	\$3,915	98%	\$81
Information Technology	3	\$4,063	\$4,082	-\$19	\$3,876	95%	\$187
Land Development Services	2	\$625	\$625	\$0	\$387	62%	\$238
Culture	2	\$54	\$65	-\$11	\$48	90%	\$5
Regulatory Services	0	\$0	\$0	\$0	\$0	0%	\$0
Legislative Services	0	\$0	\$0	\$0	\$0	0%	\$0
Stormwater*	2	\$990	\$990	\$0	\$84	79%	\$906
<b>TOTAL - 2013</b>	<b>51</b>	<b>\$56,965</b>	<b>\$57,234</b>	<b>-\$268</b>	<b>\$47,952</b>	<b>84%</b>	<b>\$9,014</b>

Summary of Capital Works-In-Progress by Service Area As of Dec 31, 2017

Appendix 2-1

Service Area	# of Active Projects/ Programs	Revised Net City Cost (\$000)	Approved Net City Cost (\$000)	(Surplus) / Additional Funds Required (\$000)	Net Expenditures to Dec 31/2017 (\$000)	Net Expenditures as a % of Revised Net City Cost	Balance of Net Expenditure to be Incurred (\$000)
<b>Summary of 2012 and prior Projects/Programs</b>							
Fire & Emergency Services	4	\$12,375	\$12,584	-\$209	\$6,692	54%	\$5,683
Roads	26	\$162,726	\$162,617	\$108	\$127,937	79%	\$34,789
MiWay	9	\$260,969	\$260,969	\$0	\$244,973	94%	\$15,996
Parks & Forestry	19	\$26,172	\$26,124	\$48	\$19,137	73%	\$7,035
Mississauga Library	2	\$1,914	\$1,995	-\$81	\$1,888	99%	\$27
Business Services	0	\$0	\$0	\$0	\$0	0%	\$0
Facilities & Property Management	1	\$2,120	\$2,120	\$0	\$1,669	79%	\$451
Recreation	1	\$35,060	\$37,060	-\$2,000	\$34,215	98%	\$845
Information Technology	2	\$509	\$556	-\$47	\$509	100%	\$0
Land Development Services	2	\$1,125	\$1,125	\$0	\$911	81%	\$214
Culture	1	\$225	\$275	-\$50	\$196	87%	\$29
Regulatory Services	0	\$0	\$0	\$0	\$0	0%	\$0
Legislative Services	0	\$0	\$0	\$0	\$0	0%	\$0
Stormwater*	15	\$11,606	\$13,239	-\$1,633	\$8,078	54%	\$3,528
<b>TOTAL - 2012 and Prior Years</b>	<b>82</b>	<b>\$514,800</b>	<b>\$518,665</b>	<b>-\$3,865</b>	<b>\$446,203</b>	<b>87%</b>	<b>\$68,597</b>

\* Includes legacy stormwater projects originally part of the Roads service area

## Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Business Services</b>						
15600	Employee Survey-2015	Project completed and to be closed.	93.9	100.0	(6.1)	305125 Reserve for General Contingency
16603	Sustainable Procurement Project	Project completed and to be closed.	83.1	85.0	(2.0)	33121 Tax -Capital Reserve Fund
<b>Total - Business Services</b>			<b>176.9</b>	<b>185.0</b>	<b>(8.1)</b>	
<b>Culture</b>						
13490	Cultural Facilities Plan	Project completed, to be closed and remaining funds returned.	38.7	50.0	(11.3)	305195 Reserve for the Arts
15491	Meadowvale Theatre Feasibility plans	Project completed, to be closed and remaining funds returned.	84.3	100.0	(15.7)	305195 Reserve for the Arts
17493	MCS-Video Equipment - Digital Screens	Project completed, to be closed and remaining funds returned.	63.9	65.0	(1.1)	33121 Tax -Capital Reserve Fund
17494	MCS-Audio Equipment - Monitor Console	Project completed, to be closed and remaining funds returned.	59.5	60.0	(0.5)	33121 Tax -Capital Reserve Fund
<b>Total - Culture</b>			<b>246.4</b>	<b>275.0</b>	<b>(28.6)</b>	
<b>Facilities &amp; Property Management</b>						
14702	Parking Lot LED Lighting - Various Locations Cash Flowed	Savings of \$180K due to better pricing received from competitive bidding.	304.1	484.1	(180.0)	33121 Capital Reserve Fund
14720	Roof Replacement-Civic Centre - Cash Flowed	Project completed, to be closed and remaining funds returned.	1,853.3	1,895.3	(42.0)	33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
15702	Key Tracking Software	Project completed, to be closed and remaining funds returned.	157.0	163.2	(6.2)	33121 Tax -Capital Reserve Fund
15706	Water Remediation -Central Transit Terminal - Water Supply Line	Project completed, to be closed and remaining funds returned.	77.4	161.3	(83.9)	33121 Tax -Capital Reserve Fund / 35183 Gas Tax -Federal Gas Tax-Regional Allocation
15711	Civic Centre - Parking Garage Water Remediation	Project completed, to be closed and remaining funds returned.	308.3	330.8	(22.5)	33121 Capital Reserve Fund
15713	Parking Lot Renewals	Savings of \$382K due to better pricing received from competitive bidding.	1,362.3	1,744.8	(382.5)	33121 Tax -Capital Reserve Fund
15717	2015 Security - Various Locations	Project completed, to be closed and remaining funds returned.	372.8	396.5	(23.7)	33121 Capital Reserve Fund
15722	Cooling Unit Replacement - Civic Centre Computer Room	Project completed, to be closed and remaining funds returned.	497.6	505.1	(7.5)	33121 Capital Reserve Fund
15729	Meadowvale Four Rinks- Arena Refrigeration	Project completed, to be closed and remaining funds returned.	666.4	749.4	(83.0)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
15731	Mechanical Replacements - Various Locations	Project completed, to be closed and remaining funds returned.	349.1	484.9	(135.8)	33121 Tax -Capital Reserve Fund
15732	Mechanical Replacements - Roof Top Units - Various	Project completed, to be closed and remaining funds returned.	369.0	383.5	(14.5)	33121 Tax -Capital Reserve Fund / 35183 Gas Tax -Federal Gas Tax-Regional Allocation
15735	Tomken Twin Arena-Cooling Tower, Chiller and Condenser	Project completed, to be closed and remaining funds returned.	378.8	438.2	(59.4)	33121 Capital Reserve Fund
15736	Living Arts Centre - Elevator Lifecycle Repairs	Project completed, to be closed and remaining funds returned.	293.8	318.0	(24.2)	33121 Capital Reserve Fund
15741	Mechanical Replacements - TSSA Requirements	Project completed, to be closed and remaining funds returned.	306.5	344.0	(37.5)	33121 Capital Reserve Fund

## Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed

## Appendix 2-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
15742	Structural - Various Locations	Project completed, to be closed and remaining funds returned due to Savings from reduced scope and competitive bidding.	629.2	1,100.1	(470.9)	33121 Capital Reserve Fund
16708	2016 Furniture	Project completed, to be closed and remaining funds returned.	363.8	371.0	(7.2)	33121 Tax -Capital Reserve Fund
16714	Parking Lots - various North Locations	Savings of \$75K due to better pricing received from competitive bidding.	499.3	574.0	(74.7)	33121 Tax -Capital Reserve Fund
16720	2016 New Hires	Project completed and to be closed.	213.0	213.0	(0.0)	33121 Tax -Capital Reserve Fund
16721	Malton Arena Exterior Envelope and Lot Renewal	Project completed, to be closed and remaining funds returned.	410.7	519.0	(108.3)	33121 Tax -Capital Reserve Fund
16724	Roof Replacement- Various	Project completed. To be closed, after final invoices have been paid.	683.4	765.6	(82.2)	33121 Tax -Capital Reserve Fund / 35183 Gas Tax -Federal Gas Tax-Regional Allocation
16775	2016 Various Emergency Repairs	Project completed, to be closed and remaining funds returned.	1,138.7	1,155.0	(16.3)	33121 Tax -Capital Reserve Fund
17713	Parking Lot - Fire - Various Sites	Project completed, to be closed and remaining funds returned-Savings from bundling projects	271.5	585.0	(313.5)	33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
17716	Interior Finishes - Various	Savings of \$48K due to better pricing received from competitive bidding.	137.6	186.0	(48.4)	35182 Gas Tax -Federal Gas Tax-City Allocation
17721	Roof access railing-Mississauga Central Library	Savings of \$113K due to better pricing received from competitive bidding.	37.2	150.0	(112.8)	35182 Gas Tax -Federal Gas Tax-City Allocation
17725	Trench Drains - Trip hazard-Edward J. Dowling Transit Facility	Project completed, to be closed and remaining funds returned.	14.9	21.0	(6.1)	35182 Gas Tax -Federal Gas Tax-City Allocation
17726	Working platform -Erin Mills Twin Arena	Project completed and to be closed.	10.5	21.0	(10.5)	35182 Gas Tax -Federal Gas Tax-City Allocation
17735	Elec Replacement - Transit (Various)	Savings of \$45K from reduced scope due to site conditions.	15.7	61.0	(45.3)	33121 Tax -Capital Reserve Fund / 35183 Gas Tax -Federal Gas Tax-Regional Allocation
17737	Interior Finishes - Various	Project completed and to be closed.	41.9	47.0	(5.1)	35182 Gas Tax -Federal Gas Tax-City Allocation
17743	Furniture New-Furniture Relocations	Project completed, to be closed and remaining funds returned.	89.4	90.0	(0.6)	33121 Tax -Capital Reserve Fund
17745	Parking Lots - South	FS parking lot renewal - managed as bundle - contract to be done through T&W contractor	57.2	104.0	(46.8)	33121 Tax -Capital Reserve Fund
17746	Parking Lots -R.K. McMillan Park	Savings of \$94K due to better pricing received from competitive bidding.	65.1	159.0	(93.9)	37778 Tax -Debt-Other
17747	Parking Lots -Streetsville Kinsmen Hall	Savings of \$48K due to better pricing received from competitive bidding.	63.0	111.0	(48.0)	37778 Tax -Debt-Other
17754	Lifecycle Inspections-Harris Farm Main House- comprehensive investigation	Project completed, to be closed and remaining funds returned.	46.8	120.0	(73.2)	33121 Tax -Capital Reserve Fund
17755	Lifecycle Inspections-Hershey Sportszone-Community Rinks - consulting only	Project completed, to be closed and remaining funds returned.	9.1	10.0	(0.9)	33121 Tax -Capital Reserve Fund

**Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed**

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17756	Lifecycle Inspections-Mississauga Valley CC Library Pool & Arena - consulting only	Project completed, to be closed and remaining funds returned.	10.7	20.0	(9.3)	33121 Tax -Capital Reserve Fund
<b>Total - Facilities &amp; Property Management</b>			<b>12,104.9</b>	<b>14,781.8</b>	<b>(2,676.9)</b>	
<b>Fire &amp; Emergency Services</b>						
12256	Replacement of fire vehicles	Project completed and to be closed.	1,398.8	1,398.8	0.0	33121 Tax -Capital Reserve Fund
12268	Design and Construction of Station 119	Project completed, to be closed and remaining funds returned.	4,555.8	4,765.0	(209.2)	33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
15253	SCBA Compressor Replacement	Project completed, to be closed and remaining funds returned.	143.0	150.0	(7.0)	33121 Capital Reserve Fund
17258	Personal Protective Equipment Replacement	Project completed, to be closed and additional funds requested.	75.3	61.0	14.3	33121 Tax -Capital Reserve Fund
<b>Total - Fire &amp; Emergency Services</b>			<b>6,172.9</b>	<b>6,374.8</b>	<b>(201.9)</b>	
<b>Information Technology</b>						
12543	SAP - Enterprise Reporting - 2012 sn 393	Project completed, to be closed and remaining funds returned.	209.6	256.0	(46.4)	33121 Tax -Capital Reserve Fund
12548	SAP Financial modules - 2012	Project completed, to be closed and remaining funds returned.	299.4	300.0	(0.6)	33121 Tax -Capital Reserve Fund
13544	VCOM Mobile Radio Replacement - 2013	Project completed, to be closed and remaining funds returned.	3,206.3	3,225.0	(18.7)	33121 Tax -Capital Reserve Fund
14509	IT e3 City Wide Minor Projects - 2014	Project completed, to be closed and remaining funds returned.	145.4	150.0	(4.6)	33121 Tax -Capital Reserve Fund
15244	Animal Services 311	Project deferred to 2019 due to lack of resources. To close PN and ask Animal Services to re-request project funds when ready.	0.0	150.0	(150.0)	33121 Tax -Capital Reserve Fund
15525	eCity and MiWay Mobile Site Upgrades	Project completed, to be closed and remaining funds returned.	920.4	925.0	(4.6)	33121 Tax -Capital Reserve Fund
15533	Network Infrastructure Voice Systems	Project completed, to be closed and remaining funds returned.	153.0	160.0	(7.0)	33121 Tax -Capital Reserve Fund
17510	Special IT Equip - Includes Public	Project completed, to be closed and remaining funds returned.	204.2	220.0	(15.8)	33121 Tax -Capital Reserve Fund
17531	PC Replacement Lifecycle	Project completed, to be closed and remaining funds returned.	1,494.7	1,500.0	(5.3)	33121 Tax -Capital Reserve Fund
17600	Free Online Tax Receipt	Project completed and to be closed. No funding required as work completed using in-house resources.	0.0	45.0	(45.0)	33121 Tax -Capital Reserve Fund
<b>Total - Information Technology</b>			<b>6,633.1</b>	<b>6,931.0</b>	<b>(297.9)</b>	
<b>Mississauga Library</b>						
11274	Self-serve technology	Project completed, to be closed and remaining funds returned.	1,864.8	1,946.0	(81.2)	33121 Tax -Capital Reserve Fund
<b>Total - Mississauga Library</b>			<b>1,864.8</b>	<b>1,946.0</b>	<b>(81.2)</b>	
<b>MiWay</b>						
15210	Transit Cap Equip Acquist-Maint Section	Project completed, to be closed and remaining funds returned.	143.9	145.0	(1.1)	35182 Gas Tax -Federal Gas Tax-City Allocation
15225	Transit Stops/Pads (Access. Plan)-Replace	Project completed and to be closed.	195.2	195.2	(0.0)	35183 Gas Tax -Federal Gas Tax-Regional Allocation
15227	Transit Mini Term/Bays/Bus Loops-Replace	Project completed and to be closed.	101.3	101.3	0.0	35182 Gas Tax -Federal Gas Tax-City Allocation

**Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed**

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Appendix 2-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
15234	Transit Facility Repairs (Minor)	Project completed and to be closed.	60.1	60.1	0.0	35182 Gas Tax -Federal Gas Tax-City Allocation
16206	Transit Change-Off Vehicle Acq - Replace	Project completed, to be closed and remaining funds returned.	112.0	140.0	(28.0)	35180 Gas Tax -Federal Public Transit Reserve Fund
16225	Transit Bus Stops/Pad Accessible-Replace	Project completed, to be closed and additional funds requested.	167.8	154.1	13.7	35183 Gas Tax -Federal Gas Tax-Regional Allocation
16227	Transit Mini Term/Bay/Bus Loop-Replace	Project completed, to be closed and additional funds requested.	132.6	100.1	32.6	35182 Gas Tax -Federal Gas Tax-City Allocation
16234	Transit Facility Repairs (Minor)	Project completed and to be closed.	61.7	61.7	(0.0)	35182 Gas Tax -Federal Gas Tax-City Allocation
16236	Transit Revenue Equipment - Replacement	Project completed, to be closed and remaining funds returned.	17.7	20.0	(2.3)	35182 Gas Tax -Federal Gas Tax-City Allocation
<b>Total - MiWay</b>			<b>992.3</b>	<b>977.4</b>	<b>14.9</b>	
<b>Parks &amp; Forestry</b>						
8322	Bicycle/Pedestrian - class 1 &	Project completed, to be closed and remaining funds returned.	3,916.3	3,920.0	(3.7)	31315 DCA -Recreation Reserve Fund
9307	P_471 Basic Development Phase	Community Common completed, to be closed and remaining funds returned.	933.1	945.0	(11.9)	31315 DCA -Recreation Reserve Fund
10441	Arboretum/Memorial Forest Study	Project completed, to be closed and additional funds requested.	100.7	75.0	25.7	33121 Tax -Capital Reserve Fund
11309	Dr Martin Dobkin washrooms-con	Project completed, to be closed and remaining funds returned.	864.8	922.0	(57.2)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
11313	Lisgar Fields washrooms - construction	Project completed, to be closed and remaining funds returned.	889.0	938.0	(49.0)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
12331	Streetsville Main Street Square	Project completed, to be closed and additional funds requested.	3,484.9	3,482.0	2.9	33121 Tax -Capital Reserve Fund / 35574 Tax -2009 Special Capital Projects Reserve Fund
13319	Ninth Line Sports Park Parking Lot	Region of Halton widening Ninth line encroaching on parking lot. Redesign of parking are required. Close PN, return remaining funding and rebudget.	114.0	247.2	(133.2)	33121 Tax -Capital Reserve Fund
13334	Trails-Sawmill Valley Tr-E Mil	Project completed, to be closed and remaining funds returned.	244.6	268.4	(23.8)	33121 Tax -Capital Reserve Fund
13372	Turf & Infield Repairs - Sport Fields	Kingsbrigde Common project completed, to be closed and remaining funds returned.	8.9	42.4	(33.5)	33121 Tax -Capital Reserve Fund
13381	Erindale Dam Wall Structural E	Project completed and to be closed.	96.5	96.5	0.0	33121 Tax -Capital Reserve Fund
13382	New Columbaria - Various Cemeteries	Project completed, to be closed and remaining funds returned.	79.5	80.0	(0.5)	33121 Tax -Capital Reserve Fund
14423	Park Growth Related Equipment	Project completed and to be closed.	180.0	180.0	0.0	31340 DCA- Public Works Buildings & Fleet Reserve Fund / 33121 Tax -Capital Reserve Fund
15329	Shoreling consulting services for LOISS	Project completed, to be closed and remaining funds returned.	66.5	76.0	(9.5)	305125 Reserve for General Contingency

## Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
15334	Growth Related Equipment - Parks	Project completed, to be closed and additional funds requested.	205.1	205.0	0.1	31340 DCA- Public Works Buildings & Fleet Reserve Fund / 33121 Tax - Capital Reserve Fund
15336	Surveying Removal of Encroachments Var	Project completed, to be closed and remaining funds returned. Increased compliance for encroachments has reduced additional required work to enforce bylaw. Future capital requests for encroachment management will be revised accordingly.	19.2	77.0	(57.8)	33121 Tax -Capital Reserve Fund
15344	Ice Storm Tree Replacement	Project completed, to be closed and remaining funds returned.	897.8	900.0	(2.2)	33121 Tax -Capital Reserve Fund
16325	Unlit Sports Field Maintenance - Bocce Court renovations - Rayfield (P_154)	Project completed, to be closed and additional funds requested.	22.9	22.6	0.4	33121 Tax -Capital Reserve Fund
16400	Encroachment Management & Rehabilitation-Surveying and Removal of Encroachments Various Locations	Project completed, to be closed and remaining funds returned. Increased compliance for encroachments has reduced additional required work to enforce bylaw. Future capital requests for encroachment management will be revised accordingly.	0.0	77.0	(77.0)	33121 Tax -Capital Reserve Fund
16402	Street Tree Plantings - Road Reconstruction - Various Locations	Project completed, to be closed and remaining funds returned.	41.0	42.8	(1.8)	35215 Developer Contributions -Tree Planting Reserve Fund
16403	Street Tree Plantings - New Subdivisions - Various Locations	Project completed, to be closed and additional funds requested.	658.9	649.4	9.5	35215 Developer Contributions -Tree Planting Reserve Fund
16404	Street Tree Plantings - Tree Replacements - Various Locations	Project completed, to be closed and additional funds requested.	601.1	600.0	1.1	33121 Tax -Capital Reserve Fund
17390	Land Acquisition Downtown Growth Area, Cooksville Creek (F542)	Project completed, to be closed and remaining funds returned.	1,001.1	1,002.3	(1.2)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
17391	Land Acquisition Cooksville Creek	Project completed, to be closed and remaining funds returned.	1,797.4	1,797.8	(0.4)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
17405	Street Tree Plantings - Tree Replacements - Various Locations	Project completed, to be closed and additional funds requested.	619.1	600.0	19.1	33121 Tax -Capital Reserve Fund
<b>Total - Parks &amp; Forestry</b>			<b>16,842.6</b>	<b>17,246.3</b>	<b>(403.7)</b>	
<b>Recreation</b>						
13432	Don McLean Westacres Pool Redevelopment	Project completed, to be closed and remaining funds returned.	3,840.4	3,870.0	(29.6)	33121 Tax -Capital Reserve Fund
15443	Lakeview Golf Course Bridge Restoration	Project completed, to be closed and remaining funds returned.	91.2	95.0	(3.8)	33121 Tax -Capital Reserve Fund
17443	Hershey Event Pad	Project completed, to be closed and additional funds requested.	459.6	457.9	1.7	305195 Reserve for the Arts / 33121 Tax -Capital Reserve Fund
<b>Total - Recreation</b>			<b>4,391.3</b>	<b>4,422.9</b>	<b>(31.7)</b>	
<b>Roads</b>						
8158	Lakeshore Rd E Bridge over Eto	Project completed, to be closed and remaining funds returned.	2,437.5	2,446.0	(8.5)	33121 Tax -Capital Reserve Fund
9102	B'thorpe Rd Arista Way to Dixie Road	Project completed, to be closed and remaining funds returned.	11,508.0	12,049.3	(541.3)	33121 Capital Reserve Fund



**Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed**

8.6

**Appendix 2-2**

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
11152	Bridge/Culvert Structure Appraisal&Impr	Project completed, to be closed and remaining funds returned.	174.5	200.0	(25.5)	33121 Tax -Capital Reserve Fund
11167	Cycling Program	Project completed, to be closed and remaining funds returned.	3,724.5	3,770.0	(45.5)	31335 DCA -City Wide Engineering Reserve Fund
12200	P&D Parking Meters-City Ctre/Lakeshore	Project completed, to be closed and remaining funds returned.	248.0	250.0	(2.0)	33121 Tax -Capital Reserve Fund / 35351 CIL Cash In Lieu Of Parking-Port Credit Reserve Fund
13102	DCAStudy (Major Roads)	Project completed, to be closed and remaining funds returned.	164.7	200.0	(35.3)	31335 DCA -City Wide Engineering Reserve Fund
13200	Pay&Display Park'g meters-City	Project completed, to be closed and remaining funds returned.	115.1	160.0	(44.9)	35351 CIL Cash In Lieu Of Parking-Port Credit Reserve Fund / 35360 CIL City Centre Off Street Parking Reserve Fund
14101	Intersection Capital Program	Project completed, to be closed and remaining funds returned.	492.2	495.0	(2.8)	31335 DCA -City Wide Engineering Reserve Fund
14197	Property Acquisition	Project completed, to be closed and additional funds requested.	1,534.7	1,532.8	1.9	31335 DCA -City Wide Engineering Reserve Fund
15165	Sidewalks	Project completed, to be closed and remaining funds returned.	942.7	1,000.0	(57.3)	31335 DCA -City Wide Engineering Reserve Fund
16165	Sidewalks	Project completed, to be closed and remaining funds returned.	389.9	450.0	(60.1)	31335 DCA -City Wide Engineering Reserve Fund / 35207 Developer Contributions -Sidewalks Reserve Fund
16166	Topographical Updating	Project completed, to be closed and remaining funds returned.	21.8	25.0	(3.2)	33121 Tax -Capital Reserve Fund
16176	Multi-Use Trail Rehabilitation	Projects not proceeding and funds to be returned. Future recommendations will depend on the Cycling Master Plan.	0.0	250.0	(250.0)	33121 Tax -Capital Reserve Fund / 35182 Gas Tax -Federal Gas Tax-City Allocation
16195	Streetlighting	Project completed, to be closed and remaining funds returned.	1,507.4	1,600.0	(92.6)	33121 Tax -Capital Reserve Fund
17179	Streetlighting	Project completed, to be closed and remaining funds returned.	697.4	700.0	(2.6)	37778 Tax -Debt-Other
17195	Streetlighting	Project completed, to be closed and additional funds requested.	831.0	600.0	231.0	37778 Tax -Debt-Other
<b>Total - Roads</b>			<b>24,789.5</b>	<b>25,728.1</b>	<b>(938.6)</b>	

## Appendix 2-2: Projects Completed, Delayed or Cancelled and To Be Closed

## Appendix 2-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Stormwater</b>						
7132	Mississauga Storm Water Qualit	Project completed, to be closed and remaining funds returned.	376.1	500.0	(123.9)	31350 DCA -Stormwater Management Reserve Fund
11140	Cooksville Creek Erosion Ctr-Rathburn	Project completed, to be closed and remaining funds returned.	160.1	240.0	(79.9)	31350 DCA -Stormwater Management Reserve Fund / 33121 Tax -Capital Reserve Fund
11141	Cooksville Creek Pre-Engineering	Project not moving forward due to inability in acquiring easements.	11.1	500.0	(488.9)	33121 Tax -Capital Reserve Fund
11142	Cooksville Creek-Burnhamthorpe	Project completed, to be closed and remaining funds returned.	102.5	190.0	(87.5)	31350 DCA -Stormwater Management Reserve Fund / 33121 Tax -Capital Reserve Fund
12146	Stormwater Quality Control Installation	Project is being closed as will be reconsidered in the 2019 capital budget cycle.	16.2	200.0	(183.8)	33121 Tax -Capital Reserve Fund
14140	SWM Pond Dredging and Rehabilitation - Pond 2601A (Eastgate Business Park)	Project completed, to be closed and remaining funds returned.	546.3	870.3	(324.0)	33121 Tax -Capital Reserve Fund / 35183 Gas Tax -Federal Gas Tax-Regional Allocation
16135	HMLRT Storm Sewer Condition Assessment	Metrolinx completed the work at their expense	10.2	1,500.0	(1,489.8)	35992 Stormwater - Capital Reserve Fund
17130	Storm Sewer Oversizing-Various Locations	Remaining funds to be returned.	0.0	270.0	(270.0)	31350 DCA -Stormwater Management Reserve Fund
<b>Total - Stormwater</b>			<b>1,222.5</b>	<b>4,270.3</b>	<b>(3,047.8)</b>	
<b>TOTAL</b>			<b>75,437.2</b>	<b>83,138.6</b>	<b>(7,701.4)</b>	

## Appendix 2-3: Open Projects Requiring Funding Adjustments

8.6 Appendix 2-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Culture</b>						
11492	Interactive culture website	Funding still required for: Emergency on-call support, security updates, and general updates in 2017 & 2018. This support is necessary until the Culture website fully migrates to eCity. Surplus funds of \$50k are identified and are being returned.	225.0	275.0	(50.0)	305195 Reserve for the Arts
16491	Small Arms Building Renovation	Looking at a Substantial Performance date of Q1 2018. Additional funding of \$240K requested for December 2017 WIP. This is for the existing skylights that will need to be replaced due to unforeseen existing conditions before public opening in June 2018.	2,122.4	1,882.4	240.0	37778 Tax -Debt-Other
<b>Total - Culture</b>			<b>2,347.4</b>	<b>2,157.4</b>	<b>190.0</b>	
<b>Facilities &amp; Property Management</b>						
17738	Mech Replacement- Dehumidification	Additional funding requested corresponding to Class A estimate	127.0	96.0	31.0	33121 Tax -Capital Reserve Fund
<b>Total - Facilities &amp; Property Management</b>			<b>127.0</b>	<b>96.0</b>	<b>31.0</b>	
<b>Information Technology</b>						
14505	AudioVisual Equipment Replacement-2014	Project completed, to be closed and additional funds requested.	109.6	100.0	9.6	33121 Tax -Capital Reserve Fund
14525	Network Access Switches Repl2014-15	Project completed, to be closed and additional funds requested.	1,605.9	1,600.0	5.9	33121 Tax -Capital Reserve Fund
14562	Upgrade of Central Cashiers System	Vendor completing the interface file between the cashier system and SAP. Project to be completed in Q2 2018 and will only cost \$100K. To return extra funds and close next WIP.	113.7	326.0	(212.3)	33121 Tax -Capital Reserve Fund
14571	Field Computing and Enhanced Automation	Project completed, to be closed and additional funds requested.	82.0	82.0	0.0	33121 Tax -Capital Reserve Fund
15500	TXM - Software Improvement Program	Funding for labour (business analyst, application developers) and professional services (DesTech) for the software improvement program.	1,485.4	1,360.4	125.0	33121 Tax -Capital Reserve Fund
15507	Class Upgrade-2016	This project is returning \$397,083 as a suitable replacement system was not available resulting in an extension of the CLASS contract to 2020 providing additional time for a market response to this industry gap. Going forward, the remaining \$100,000 in capital funding will be used to upgrade and enhance the mobile web interface Active Mississauga. Staff will re-budget for the CLASS replacement project in 2019 and 2020.	601.4	998.5	(397.1)	33121 Tax -Capital Reserve Fund
16518	Professional Services/Technology for Continuous Improvement and Innovation	Project completed, to be closed and additional funds requested.	200.0	100.0	100.0	33121 Tax -Capital Reserve Fund
16520	Corporate Services Application Improvements	Funding required to upgrade in-house developed applications and upgrade commercial off-the-shelf applications. Additional \$160 K requested for the EDO solution (professional services and implementation) and for Communication's digital intake project.	280.0	120.0	160.0	33121 Tax -Capital Reserve Fund
17505	VoIP Systems & Phones	Project completed, to be closed and additional funds requested.	518.4	510.0	8.4	33121 Tax -Capital Reserve Fund
17546	TXM-Newmarket Recovery	A single PN recording all Newmarket transactions – auditable and transparent. Funded \$10K from 590104 - Rebates And Recoveries	0.0	0.0	0.0	
<b>Total - Information Technology</b>			<b>4,996.5</b>	<b>5,196.9</b>	<b>(200.4)</b>	

## Appendix 2-3: Open Projects Requiring Funding Adjustments

8.6 Appendix 2-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Parks &amp; Forestry</b>						
11302	Parkway Belt Dev (P302) Construction	Project near completion. Requesting funds of \$102,975 paid to Ontario Infrastructure and Lands Corporation for a maintenance area easement be returned to 11302 from CIL. Construction to be completed May 2018. PN to be closed at December 2018 WIPs.	5,277.7	5,184.9	92.7	31315 DCA -Recreation Reserve Fund / 32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund / 33121 Tax -Capital Reserve Fund
11325	Pinchin - barn foundation restoration	Pinchin Barn tender closed with all bids received over budget. \$48K requested to complete restoration works. Construction to be complete July 2018. PN to be closed at December 2018 WIPs.	203.0	155.0	48.0	31315 DCA -Recreation Reserve Fund / 33121 Tax -Capital Reserve Fund
13324	Park Landscape Improvements	Construction substantially complete. Requesting additional funds of \$22K including: additional sports turf soil amendments and meter to measure tennis court light utilization. PN to be closed at May 2018 WIPs.	886.0	864.0	22.0	33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
13327	Park P_508 Development - Construction	Substantial completion August 30, 2017. \$40.5K requested for extended construction schedule and contractor deficiencies. PN to be closed at December 2018 WIPs.	1,560.1	1,519.6	40.5	31315 DCA -Recreation Reserve Fund / 33121 Tax -Capital Reserve Fund
14301	Community Parkland-Acquisition of F_410	Project completed. Awaiting final invoices from Park Operations and T&W. \$15,000 can be retained in the account; the rest can be returned.	7,880.0	8,030.0	(150.0)	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
14306	Sawmill Valley Trail -Bird Property Link	Project tendered. An additional \$140k is requested for additional studies and clean-up of former waste disposal site. Construction to be substantially completed July 2018. PN to be closed at December 2018 WIPs.	423.0	283.0	140.0	31315 DCA -Recreation Reserve Fund / 33121 Tax -Capital Reserve Fund
14310	Inclusive Playground - Rivergrove Park	Contract awarded. \$84K is requested to resolve drainage issues through site. Construction to be complete June 2018.	492.8	408.8	84.0	31315 DCA -Recreation Reserve Fund / 33121 Tax -Capital Reserve Fund
15330	Lakefront Promenade Doc assessment	Project completed. To be closed, after final invoices have been paid.	31.6	30.0	1.6	305125 Reserve for General Contingency
15333	Trail Reconstruction various	Project completed and to be closed.	302.3	387.4	(85.1)	33121 Tax -Capital Reserve Fund
15339	Lit Sports Field Maintenance	Construction Completed. Maintenance to be completed annually. Under 4 year Warranty to be complete October 2021. Return \$50k.	846.1	909.8	(63.7)	33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
16306	Trail Reconstruction -Allison's Park (P_230)	One site complete. Remaining sites to be complete August 2018.	13.8	48.0	(34.2)	33121 Tax -Capital Reserve Fund
16313	Lit Sports Field Maintenance - Artificial Turf Replacement (2)-Hershey Sports Zone (South)	Construction Completed. Maintenance to be completed annually under 4 year Warranty program to expire November 2021. Return \$200k.	1,217.3	1,417.3	(200.0)	37778 Tax -Debt-Other / 33121 Tax -Capital Reserve Fund
16329	Park Maintenance - Splash Pad Concrete Repairs - Mississauga Valley (P_096)	Detailed design underway. \$142K additional funds requested for increased scope of work based on Consultant recommendations to replace plumbing and electrical infrastructure. Construction to be complete June 2018.	279.2	137.2	142.0	33121 Tax -Capital Reserve Fund

## Appendix 2-3: Open Projects Requiring Funding Adjustments

8.6 Appendix 2-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
16339	Design & Constr Artificial Turf Football Field and Track - Clarkson Park (P-073)	Project underway. Requesting additional funds of \$348K. For higher prices related to site electrical service requirements, LED Lighting, earthworks and due to existing shale conditions. Construction to be completed September 2018.	1,548.0	1,200.0	348.0	31315 DCA -Recreation Reserve Fund / 33121 Tax -Capital Reserve Fund
17308	Riverwood Visitor Centre - Feasibility Study and Preliminary Design	Project underway. Expected completion third quarter of 2018. Additional funds of \$20k are required to complete a facility fit costing and programming for the proposed Visitor Centre.	95.0	75.0	20.0	305125 Reserve for General Contingency / 31315 DCA - Recreation Reserve Fund
17317	Lit Sports Field Maintenance - Artificial Turf Replacement (2) - Not Yet Named (P_360) (Sports Compl	Construction Complete. Maintenance to be completed annually under 4 year Warranty program to expire October 2021. Return \$200k.	661.2	861.2	(200.0)	37778 Tax -Debt-Other
<b>Total - Parks &amp; Forestry</b>			<b>21,717.0</b>	<b>21,511.1</b>	<b>205.9</b>	
<b>Recreation</b>						
9430	Meadowvale CC & Library Renovation	Outstanding project work includes; lighting controls modifications, exterior lighting near basketball court, HVAC floor grille replacement in library and contingency for additional landscape items and green roof. Estimated completion is December 2018.	35,060.0	37,060.0	(2,000.0)	31315 DCA -Recreation Reserve Fund / 31325 DCA -Library Reserve Fund / 32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund / 33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
<b>Total - Recreation</b>			<b>35,060.0</b>	<b>37,060.0</b>	<b>(2,000.0)</b>	
<b>Roads</b>						
8159	Creditview Rd Bridge over Credit River	Installation of sheet piling to address de-watering concerns to complete pier construction prior to in-stream work timetable in order to avoid any delays to complete the project on time.	9,684.7	8,934.7	750.0	31335 DCA -City Wide Engineering Reserve Fund / 33121 Tax -Capital Reserve Fund / 37778 Tax -Debt-Other
11122	Preliminary Engineering Studies	The Transportation Demand Management Plan is complete. Pending invoice to be paid in Q1 2018.	64.1	83.0	(18.9)	31335 DCA -City Wide Engineering Reserve Fund
14107	9th Line Wide-Derry Rd to N Limit-Ph 1	Project complete; Return \$1.5M and keep \$250K for deficiency repairs.	3,457.4	5,009.0	(1,551.6)	31335 DCA -City Wide Engineering Reserve Fund / 33121 Tax -Capital Reserve Fund / 35182 Gas Tax - Federal Gas Tax-City Allocation / 37778 Tax -Debt-Other
16107	QEW/Credit River Active Trans Assessment	Additional funding being requested for design changes to the East West Active Transportation Crossing.	620.0	545.0	75.0	31335 DCA -City Wide Engineering Reserve Fund
17191	Multi-Use Trail Rehab	Projects deferred to be funded in future budget requests; select MUT improvements at various City locations to be completed in 2018.	56.0	200.0	(144.0)	35182 Gas Tax -Federal Gas Tax-City Allocation
<b>Total - Roads</b>			<b>13,882.2</b>	<b>14,771.7</b>	<b>(889.5)</b>	

## Appendix 2-3: Open Projects Requiring Funding Adjustments

8.6 Appendix 2-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Stormwater</b>						
10147	Cooksville Creek Erosion Contr	Project is substantially complete. Return \$47K and retain \$50K for deficiency repairs.	133.2	180.0	(46.8)	31350 DCA -Stormwater Management Reserve Fund / 33121 Tax -Capital Reserve Fund
12129	SW Financing Study, Phase 2, Stages 3 & 4	Several outstanding project items remain active and are scheduled for completion, with costs related to IT resources to support completion of several Infor work items, as well as a support staff resource. IT work items may continue into 2018	2,517.6	3,190.0	(672.4)	33121 Tax -Capital Reserve Fund / 35992 Stormwater - Capital Reserve Fund
12141	Ninth Line Corridor Scoped Subwatershed	Study in-progress. Estimated completion year end 2018. Minor increase requested to cover final agency comments	394.0	344.0	50.0	31335 DCA -City Wide Engineering Reserve Fund / 31350 DCA - Stormwater Management Reserve Fund
15131	Cooksville Creek Erosion Control	Additional funding required for consultant as Request For Proposal (RFP) came in higher than budget.	160.0	100.0	60.0	31350 DCA -Stormwater Management Reserve Fund / 33121 Tax -Capital Reserve Fund
15132	Dtwn Strm Sewer Trunk Repair Hwy10 Ckvil	Project complete; Under Warranty; Return \$500K and retain \$783K for deficiency repairs and other expenses.	13,700.0	14,200.0	(500.0)	33121 Tax -Capital Reserve Fund / 35182 Gas Tax -Federal Gas Tax-City Allocation / 35183 Gas Tax - Federal Gas Tax-Regional Allocation / 37778 Tax -Debt-Other
15135	Cksvl Crk Erosion Ctrl-Willa Rd to Orano	Project is substantially complete. Return \$100K and retain \$237K for deficiency repairs.	570.0	670.0	(100.0)	31350 DCA -Stormwater Management Reserve Fund / 37778 Tax -Debt-Other
15136	Cksvl Crk Erosion Ctrl-Hwy 403 to Hwy10	Additional funding required for consultant as Request For Proposal (RFP) came in higher than budget.	120.0	70.0	50.0	31350 DCA -Stormwater Management Reserve Fund / 33121 Tax -Capital Reserve Fund
16143	Low Impact Development for Road Projects	Alpha Mills construction near completion. Proudfoot and Fowler construction anticipated in 2018. Additional funds requested due to higher construction estimates.	450.0	250.0	200.0	35992 Stormwater - Capital Reserve Fund
16147	Residential Stormwater Outreach and Education Program	Additional funds requested to assist on marketing and promotion materials spends in support of the Stormwater Outreach and Education Program	55.0	40.0	15.0	35992 Stormwater - Capital Reserve Fund
<b>Total - Stormwater</b>			<b>18,099.7</b>	<b>19,044.0</b>	<b>(944.3)</b>	
<b>TOTAL</b>			<b>96,229.8</b>	<b>99,837.0</b>	<b>(3,607.2)</b>	

## Project Adjustments with No Net Capital Impact

8.6 Appendix 2-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost (\$000)	Approved Net Cost (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Roads</b>						
8171	Traffic Signal Equipment Enhancements	ATMS Project is ongoing. Approximately 455 signalized intersections have been converted to IP communications. Forecast completion by year-end 2019. Transfer \$1M (Gross) to PN. 08173 (ATMS Project).	2,762.0	3,762.0	(1,000.0)	31335 DCA -City Wide Engineering Reserve Fund / 33121 Tax -Capital Reserve Fund / 35201 Developer Contributions -Capital and Maintenance Reserve Fund
8173	Traffic System & ITS	ATMS Project is ongoing. Approximately 455 signalized intersections have been transitioned. Forecast completion by year-end 2019. Transfer \$1M (Gross) from PN. 08171 (ATMS Project).	6,400.0	5,400.0	1,000.0	31335 DCA -City Wide Engineering Reserve Fund / 33121 Tax -Capital Reserve Fund / 35201 Developer Contributions -Capital and Maintenance Reserve Fund
<b>Total - Roads</b>			<b>9,162.0</b>	<b>9,162.0</b>	<b>(0.0)</b>	
<b>MiWay</b>						
17728	Roof Replacement- City Hall	Budget Adjustment required due to changes in actual debenture issuances (Increase \$280K from 37100 and Decrease \$280K from 37778)	3,280.0	3,280.0	0.0	37778 Tax -Debt-Other / 37100 Tax -Debt Management Reserve Fund
<b>Total - MiWay</b>			<b>3,280.0</b>	<b>3,280.0</b>	<b>0.0</b>	
<b>TOTAL</b>			<b>12,442.0</b>	<b>12,442.0</b>	<b>(0.0)</b>	



## Canada 150 Intake 1 Projects Update

## Appendix 3-1

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
Culture						
16491	Small Arms Building Renovation	Looking at a Substantial Performance date of Q1 2018. Additional funding of \$240K requested for December 2017 WIP. This is for the existing skylights that will need to be replaced due to unforeseen existing conditions before public opening in June 2018.	\$2,122	\$1,882	\$240	37778 Tax -Debt-Other
			\$1,442	\$1,442	\$0	590134 - Recovery-External Party
Culture Total			\$3,564	\$3,324	\$240	
Facilities & Property Management						
16736	Chappell House - Structural & Mechanical Replacement and Repairs	Project completed. To be closed, after final invoices have been paid.	\$362	\$362	\$0	33121 Tax -Capital Reserve Fund
			\$316	\$316	\$0	590133 - Recovery From Federal
Facilities & Property Management Total			\$679	\$679	\$0	

## Canada 150 Intake 1 Projects Update

## Appendix 3-1

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
Parks & Forestry						
15308	Riverwood Park Development- Chappell House	Construction complete. CIP reporting and final recoveries underway. PN to be closed at December 2018 WIPs.	\$579	\$579	\$0	32121 CIL Cash In Lieu Of Parkland Dedication Reserve Fund
			\$429	\$429	\$0	590133 - Recovery From Federal
16322	Play Equipment (New) - City - East Location - Inclusive Playground - Jaycee Park (P_148)	CIP 150 Intake 1 project complete and under 1 year warranty to expire June 2018. PN to be closed at May 2018 WIPs.	\$272	\$272	\$0	31315 DCA -Recreation Reserve Fund
			\$30	\$30	\$0	33121 Tax -Capital Reserve Fund
			\$266	\$266	\$0	590133 - Recovery From Federal
16336	Park Maintenance - Lake Aquitaine Park (P_102)	Cip 150 Intake 1 Project completed. Under 1 year warranty to expire May 2018. PN to be Closed at May 2018 WIPs.	\$330	\$330	\$0	33121 Tax -Capital Reserve Fund
			\$237	\$237	\$0	590133 - Recovery From Federal
16346	Playground Redevelopment - Replace play equipment and landscape improve- Johnny Bower Park	CIP 150 Intake 1 Project complete. Awaiting recovery from FedDev. PN to be closed December 2018.	\$672	\$672	\$0	33121 Tax -Capital Reserve Fund
			\$584	\$584	\$0	590133 - Recovery From Federal
16347	Trail Reconstruction and Drainage Repairs - Birch Glen (P_099)	CIP 150 Intake 1 Project complete. Awaiting recovery from FedDev. PN to be closed December 2018.	\$348	\$348	\$0	33121 Tax -Capital Reserve Fund
			\$303	\$303	\$0	590133 - Recovery From Federal
Parks & Forestry Total			\$4,051	\$4,051	\$0	
C150-1 Approved Total			\$8,294	\$8,054	\$240	

## Canada 150 Intake 2 Projects Update

## Appendix 3-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Parks &amp; Forestry</b>						
17319	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete. Construction to be complete March 2018. Awaiting recovery from FedDev. PN to be closed December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17320	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recovery from FedDev. PN to be closed December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17321	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recovery from FedDev. PN to be closed December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17323	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recovery from FedDev. PN to be closed December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17325	Major Redevelopment - Phase 2 Master	CIP 150 Intake 2 Project. Construction Complete and under a 2 year warranty expiring September 2019. Awaiting recovery from FedDev. PN to be closed December 2018.	\$248	\$248	\$0	31315 DCA -Recreation Reserve Fund
			\$28	\$28	\$0	33121 Tax -Capital Reserve Fund
			\$150	\$150	\$0	590134 - Recovery-External Party
			\$225	\$225	\$0	590133 - Recovery From Federal

## Canada 150 Intake 2 Projects Update

## Appendix 3-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17326	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recovery from FedDev. PN to be closed December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17328	Playground Redevelopment - Replace play equipment and landscape improve	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17333	Trail Reconstruction various locations	CIP150 Intake 2 - Project Complete. Substantially complete December 2017. Awaiting recovery from FedDev. PN to be closed December 2018.	\$24	\$24	\$0	33121 Tax -Capital Reserve Fund
			\$225	\$225	\$0	590133 - Recovery From Federal
17337	Trail Reconstruction various locations	CIP150 Intake 2 - Project Complete. Substantially complete December 2017. Awaiting recovery from FedDev. PN to be closed December 2018.	\$36	\$36	\$0	33121 Tax -Capital Reserve Fund
			\$31	\$31	\$0	590133 - Recovery From Federal
17338	Trail Reconstruction Erin Woods (P_315)	CIP150 Intake 2 - Project Complete. Substantially complete December 2017. Awaiting recovery from FedDev. PN to be closed December 2018.	\$25	\$25	\$0	33121 Tax -Capital Reserve Fund
			\$22	\$22	\$0	590133 - Recovery From Federal
17354	Playground Redevelopment- Burnhamdale Prk	CIP 150 Intake 2 project under construction. To be completed Spring 2018. Recently awarded Fedev funding for this location. Awaiting recoveries.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17355	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17356	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal

## Canada 150 Intake 2 Projects Update

## Appendix 3-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17357	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17358	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17359	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17362	Playground Redevelopment	CIP 150 Intake 2 Project. Construction complete and under a 1 year warranty expiring December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17363	Playground Redevelopment	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17364	Playground Redevelopment - Westacres Park	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17365	Playground Redevelopment - Glen Eden Prk	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$79	\$79	\$0	590133 - Recovery From Federal
17366	Trail Reconstruction -Marco Muzzo Park	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$54	\$54	\$0	33121 Tax -Capital Reserve Fund
			\$47	\$47	\$0	590133 - Recovery From Federal

## Canada 150 Intake 2 Projects Update

## Appendix 3-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17367	Trail Reconstruction - O'Harra Park	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$19	\$19	\$0	33121 Tax -Capital Reserve Fund
			\$16	\$16	\$0	590133 - Recovery From Federal
17368	Playground Redevelopment	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$145	\$145	\$0	33121 Tax -Capital Reserve Fund
			\$127	\$127	\$0	590133 - Recovery From Federal
17369	Retaining wall rehabilitation - Jon Clipperton	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$170	\$170	\$0	33121 Tax -Capital Reserve Fund
			\$150	\$150	\$0	590133 - Recovery From Federal
17370	Playground Redevelopment - Middlebury Pr	CIP 150 Intake 2 Project substantially complete and under 1 year warranty to expire December 2018. Awaiting recoveries from Fedev.	\$43	\$43	\$0	33121 Tax -Capital Reserve Fund
			\$38	\$38	\$0	590133 - Recovery From Federal
Parks & Forestry Total			\$4,508	\$4,508	\$0	
Recreation						
16428	Renovations and rehabilitation projects	Substantial project completion is scheduled for March 31, 2018 in order to receive CIP 150 funding.	\$460	\$460	\$0	33121 Tax -Capital Reserve Fund
			\$200	\$200	\$0	590133 - Recovery From Federal
Recreation Total			\$660	\$660	\$0	

## Canada 150 Intake 2 Projects Update

## Appendix 3-2

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
Roads						
17137	Traffic Signal Equipment Enhancement	Project to commence after Regional intersection improvements are completed. Forecast completion by end of March 2018.	\$7	\$7	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$7	\$7	\$0	33121 Tax -Capital Reserve Fund
			\$14	\$14	\$0	590133 - Recovery From Federal
17138	Multi-Use Trail Rehabilitation	Project is complete; recovery is being processed through Canada150 grant / FedDev. Payment expected by June 2018.	\$337	\$337	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$300	\$300	\$0	590133 - Recovery From Federal
Roads Total			\$665	\$665	\$0	
C150-2 Approved Total			\$5,833	\$5,833	\$0	



## Clean Water Wastewater Fund (CWWF) Projects Update

## Appendix 3-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
<b>Stormwater</b>						
17004	Cooksville Ck Erosion Ctrl- QEW-Elaine	Study in progress and targeted to be completed by Q2 2018.	\$2	\$2	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$53	\$53	\$0	35992 Stormwater - Capital Reserve Fund
			\$110	\$110	\$0	590133 - Recovery From Federal
			\$55	\$55	\$0	590132 - Recovery From Province
17008	Cooksville Ck Erosion Ctrl-S of Rathburn	Study in progress and targeted to be completed by Q2 2018	\$1	\$1	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$35	\$35	\$0	35992 Stormwater - Capital Reserve Fund
			\$72	\$72	\$0	590133 - Recovery From Federal
			\$36	\$36	\$0	590132 - Recovery From Province
17010	Cooksville Ck Erosion Ctrl- Miss Valley	Design is onngoing; Construction to start in Summer 2018.	\$13	\$13	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$357	\$357	\$0	35992 Stormwater - Capital Reserve Fund
			\$739	\$739	\$0	590133 - Recovery From Federal
			\$369	\$369	\$0	590132 - Recovery From Province
17012	SWM Pond Rehab – Various Locations	Construction near completion.	\$431	\$431	\$0	35992 Stormwater - Capital Reserve Fund
			\$862	\$862	\$0	590133 - Recovery From Federal
			\$431	\$431	\$0	590132 - Recovery From Province

## Clean Water Wastewater Fund (CWWF) Projects Update

## Appendix 3-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17014	Levi Creek watercourse realignment	Study in progress and targeted to be completed by Q2 2018.	\$0	\$0	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$11	\$11	\$0	35992 Stormwater - Capital Reserve Fund
			\$22	\$22	\$0	590133 - Recovery From Federal
			\$11	\$11	\$0	590132 - Recovery From Province
17015	Mary Fix Ck Erosion Ctrl- S of Dundas	Study in progress and targeted to be completed by Q2 2018	\$1	\$1	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$21	\$21	\$0	35992 Stormwater - Capital Reserve Fund
			\$44	\$44	\$0	590133 - Recovery From Federal
			\$22	\$22	\$0	590132 - Recovery From Province
17019	Cooksville Ck Flood SWMF #2103 (P-096)	CWWF funding extended however project on-track for completion at March 31, 2018	\$4	\$4	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$114	\$114	\$0	35992 Stormwater - Capital Reserve Fund
			\$236	\$236	\$0	590133 - Recovery From Federal
			\$118	\$118	\$0	590132 - Recovery From Province
17020	Cooksville Ck Flood SWMF #3604 (P-309)	Project on-track for completion at Q1 2018	\$5	\$5	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$136	\$136	\$0	35992 Stormwater - Capital Reserve Fund
			\$280	\$280	\$0	590133 - Recovery From Federal
			\$140	\$140	\$0	590132 - Recovery From Province

## Clean Water Wastewater Fund (CWWF) Projects Update

## Appendix 3-3

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17131	Cooksville Ck Flood SWMF #3603	Under construction; Completion is end of 2018.	\$1,890	\$1,890	\$0	31350 DCA -Stormwater Management Reserve Fund
			\$1,613	\$1,613	\$0	35992 Stormwater - Capital Reserve Fund
			\$3,206	\$3,206	\$0	590133 - Recovery From Federal
			\$1,603	\$1,603	\$0	590132 - Recovery From Province
17146	Lisgar Improvements- STM Sewer Lining	Trench dewatering system is currently being designed for construction later this year. FDC pumping station design on going.	\$500	\$500	\$0	33121 Tax -Capital Reserve Fund
			\$2	\$2	\$0	35992 Stormwater - Capital Reserve Fund
			\$1,005	\$1,005	\$0	590133 - Recovery From Federal
			\$502	\$502	\$0	590132 - Recovery From Province
Stormwater Total			\$15,051	\$15,051	\$0	
CWWF-1 Total			\$15,051	\$15,051	\$0	

Total Budget for eligible cost is \$13M

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
Facilities & Property Management						
17795	Interior Finishes - Various	Project is underway. Target completion December 2018.	\$89	\$89	\$0	33121 Tax -Capital Reserve Fund
			\$89	\$89	\$0	590133 - Recovery From Federal
17796	Exterior Door Replacement -Edward J. Dowling Transit Facility (Bldg ABCD)	Project completed. To be closed, after final invoices have been paid.	\$19	\$19	\$0	33121 Tax -Capital Reserve Fund
			\$19	\$19	\$0	590133 - Recovery From Federal
17797	City Centre Transit Terminal -Lifecycle Mechanical & Electrical upgrades	Project is underway. Target completion December 2018.	\$1,246	\$1,246	\$0	33121 Tax -Capital Reserve Fund
			\$1,246	\$1,246	\$0	590133 - Recovery From Federal
17798	Central Parkway - Lifecycle Mechanical & Electrical upgrades	Project is underway. Target completion December 2018.	\$1,686	\$1,686	\$0	33121 Tax -Capital Reserve Fund
			\$1,686	\$1,686	\$0	590133 - Recovery From Federal
17799	Malton Satellite - Lifecycle Mechanical & Electrical upgrades	Project construction underway. Target completion March 2019.	\$420	\$420	\$0	33121 Tax -Capital Reserve Fund
			\$420	\$420	\$0	590133 - Recovery From Federal
Facilities & Property Management Total			\$6,920	\$6,920	\$0	

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
Information Technology						
17500	Switches and Routers	As fibre re-arranged and clusters redefined, equipment (switches, routers, UPS, optical media conversion) will be purchased and installed. Project to be completed by 2018 Q2.	\$226	\$226	\$0	33121 Tax -Capital Reserve Fund
			\$226	\$226	\$0	590133 - Recovery From Federal
17504	Wireless Infrastructure	Funds used for PTIF ATMS initiatives and has been completed. Project to close after PTIF funding awarded.	\$341	\$341	\$0	33121 Tax -Capital Reserve Fund
			\$151	\$151	\$0	590133 - Recovery From Federal
17524	Network Fibre	Funds for Ron's fibre including labour backfill. Fibre construction includes IoT outdoor nodes, cluster builds, and added diversity.	\$809	\$809	\$0	33121 Tax -Capital Reserve Fund
			\$572	\$572	\$0	590133 - Recovery From Federal
17544	VCOM Radio Network Replacement	Project is underway. Contract is being negotiated and should be signed by March.	\$582	\$582	\$0	33121 Tax -Capital Reserve Fund
			\$582	\$582	\$0	590133 - Recovery From Federal
Information Technology Total			\$3,487	\$3,487	\$0	

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
MiWay						
16201	Transit Bus Acquisitions - Growth	PN 16201, 16202, 16239, 17228 and 17229 are part of the entire bus purchase plan. Of the 106 buses purchased, 84 buses have arrived. Ten 60 foot buses will arrive in spring 2018 and the remaining 12 40 foot buses will arrive by end of 2018.	\$1,490	\$1,490	\$0	31330 DCA -Transit Reserve Fund
			-\$131	-\$131	\$0	33121 Tax -Capital Reserve Fund
			\$262	\$262	\$0	35183 Gas Tax -Federal Gas Tax-Regional Allocation
			\$131	\$131	\$0	590133 - Recovery From Federal
16216	Transit Bus Seat Modification-Warranty	Project going to tender and to be awarded in first quarter. Project to be complete by end of 2020.	-\$747	-\$747	\$0	33121 Tax -Capital Reserve Fund
			\$1,500	\$1,500	\$0	35182 Gas Tax -Federal Gas Tax-City Allocation
			\$753	\$753	\$0	590133 - Recovery From Federal
16238	Transit Capital Bus Maint-Engine Rehab PTIF	Project complete. Final billings to arrive by spring of 2018. Project will then be closed.	\$1,888	\$1,888	\$0	33121 Tax -Capital Reserve Fund
			\$1,888	\$1,888	\$0	590133 - Recovery From Federal
16239	Acquisition of up to 10 new transit buses to increase Service Hours	Procurement process has begun. Buses are expected to be delivered by year end 2017.	\$2,923	\$2,923	\$0	33121 Tax -Capital Reserve Fund
			\$2,923	\$2,923	\$0	590133 - Recovery From Federal
17203	Transit Cap. Bus Mtce-Major Rehab/Repl	Project to be complete by spring 2018.	\$3,611	\$3,611	\$0	33121 Tax -Capital Reserve Fund
			\$3,611	\$3,611	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17205	Transit Change-Off Vehicle Acquisitions	Project going to tender in January and to be complete by Fall 2018.	\$131	\$131	\$0	31330 DCA -Transit Reserve Fund
			\$15	\$15	\$0	33121 Tax -Capital Reserve Fund
			\$145	\$145	\$0	590133 - Recovery From Federal
17212	Transit Security Vehicles&Equip - Repl	Project to be complete by end of 2018.	\$20	\$20	\$0	33121 Tax -Capital Reserve Fund
			\$20	\$20	\$0	590133 - Recovery From Federal
17215	Transit MiWay Signs	Project is ongoing and expected to be completed by end of 2018.	\$50	\$50	\$0	33121 Tax -Capital Reserve Fund
			\$50	\$50	\$0	590133 - Recovery From Federal
17219	Transit Change Off Vehicles	Replacement of change vehicles to be completed by March 2018.	\$40	\$40	\$0	33121 Tax -Capital Reserve Fund
			\$40	\$40	\$0	590133 - Recovery From Federal
17221	Transit Other Veh Acquisitions-Repl	Maintenance vehicle to be delivered by fall of 2018.	\$13	\$13	\$0	33121 Tax -Capital Reserve Fund
			\$13	\$13	\$0	590133 - Recovery From Federal
17222	Transit Route Supervisor Veh Acqu-Repl	Route Supervisor vehicle to be delivered by fall of 2018.	\$18	\$18	\$0	33121 Tax -Capital Reserve Fund
			\$18	\$18	\$0	590133 - Recovery From Federal



## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17224	Transit Bus Stops/Pads (Growth)	Project is ongoing and expected to be completed by spring 2019 (PTIF).	\$122	\$122	\$0	31330 DCA -Transit Reserve Fund
			\$15	\$15	\$0	33121 Tax -Capital Reserve Fund
			\$137	\$137	\$0	590133 - Recovery From Federal
17225	Transit Bus Stops/Pads (Replacement)	Project is ongoing and expected to be completed by spring 2019 (PTIF).	\$141	\$141	\$0	33121 Tax -Capital Reserve Fund
			\$141	\$141	\$0	590133 - Recovery From Federal
17227	Transit Mini Terminals/Bays/Bus Loops	Project is ongoing and expected to be completed by spring 2019 (PTIF).	\$100	\$100	\$0	33121 Tax -Capital Reserve Fund
			\$100	\$100	\$0	590133 - Recovery From Federal
17228	Transit Bus Acquisitions 40FT - PTIF	Procurement process has begun. Buses are expected to be delivered by year end 2017.	\$1,985	\$1,985	\$0	31330 DCA -Transit Reserve Fund
			\$12,791	\$12,791	\$0	33121 Tax -Capital Reserve Fund
			\$14,776	\$14,776	\$0	590133 - Recovery From Federal
17229	Transit Bus Acquisitions 60FT – PTIF	Procurement process has begun. Buses are expected to be delivered by year end 2017.	\$0	\$0	\$0	31330 DCA -Transit Reserve Fund
			\$13,855	\$13,855	\$0	33121 Tax -Capital Reserve Fund
			\$13,855	\$13,855	\$0	590133 - Recovery From Federal
17234	Transit Facility Repairs (Minor)	Project is ongoing and expected to be completed by spring 2019 (PTIF).	\$70	\$70	\$0	33121 Tax -Capital Reserve Fund
			\$70	\$70	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17237	Transit Other Vehicles(Vans/Cars/Trucks)	The service truck to be delivered by end of 2018.	\$43	\$43	\$0	33121 Tax -Capital Reserve Fund
			\$43	\$43	\$0	590133 - Recovery From Federal
17238	Transit Mtce Mgmt System Replacement	Project is now in execution phase. Project to be complete by spring 2019.	\$753	\$753	\$0	33121 Tax -Capital Reserve Fund
			\$753	\$753	\$0	590133 - Recovery From Federal
17240	Transit Perf Metrics Module (Hastus)	Procurement process is now complete. Project to be complete by fall 2018.	\$201	\$201	\$0	33121 Tax -Capital Reserve Fund
			\$201	\$201	\$0	590133 - Recovery From Federal
17242	Transit New Facilities-Washrooms-Cardiff	Consultant has been obtained. PTIF project completion is extended to March 31,2019. Project is currently in Design Development stage. Project is to be completed by March 31, 2019.	\$502	\$502	\$0	33121 Tax -Capital Reserve Fund
			\$502	\$502	\$0	590133 - Recovery From Federal
17244	Transit Anchor Terminals Study	Project charter has been prepared and working with Materiel Management to retain consultant.	\$251	\$251	\$0	33121 Tax -Capital Reserve Fund
			\$251	\$251	\$0	590133 - Recovery From Federal
17245	Transit Bus Landing Pads	Due to the remaining project budget, the contract has been extended to the end of 2018. An additional 90 intersections have been added to the list to be completed by Serve, as well as an additional 30 bus landing pads (PTIF).	\$502	\$502	\$0	33121 Tax -Capital Reserve Fund
			\$502	\$502	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17246	Transit Terminal Pavement Treatment	Project is complete. Billing to be processed from Works and Maintenance.	\$100	\$100	\$0	33121 Tax -Capital Reserve Fund
			\$100	\$100	\$0	590133 - Recovery From Federal
17247	Transit Hastus Module	Business Intelligence module to be deployed summer 2018. Yard manager will be complete end of 2018.	\$286	\$286	\$0	33121 Tax -Capital Reserve Fund
			\$286	\$286	\$0	590133 - Recovery From Federal
17248	Additional bus shelters	Project is ongoing and expected to be completed by March 2018 (PTIF).	\$6	\$6	\$0	33121 Tax -Capital Reserve Fund
			\$1,250	\$1,250	\$0	37778 Tax -Debt-Other
			\$1,256	\$1,256	\$0	590133 - Recovery From Federal
17249	Bus Communication Gateway Replacement	Project to be complete by spring 2018.	\$1,507	\$1,507	\$0	33121 Tax -Capital Reserve Fund
			\$1,507	\$1,507	\$0	590133 - Recovery From Federal
MiWay Total			\$89,637	\$89,637	\$0	
Parks & Forestry						
17334	Trail Reconstruction various locations	CIP150 Intake 2 - Project Complete. Substantially complete December 2017. Awaiting recovery from FedDev. PN to be closed December 2018.	\$111	\$111	\$0	33121 Tax -Capital Reserve Fund
			\$97	\$97	\$0	590133 - Recovery From Federal
17335	Trail Reconstruction various locations	CIP150 Intake 2 - Project Complete. Substantially complete December 2017. Awaiting recovery from FedDev. PN to be closed December 2018.	\$63	\$63	\$0	33121 Tax -Capital Reserve Fund
			\$56	\$56	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17343	Trail Reconstruction - Max Ward Park (P_267)	PTIF Project Substantially Complete. Site restoration and trail amenities outstanding. Construction to be complete July 2018.	\$109	\$109	\$0	33121 Tax -Capital Reserve Fund
			\$96	\$96	\$0	590133 - Recovery From Federal
17346	Trail Reconstruction -Crawford Green Park (P_299)	PTIF project underway. Construction to be complete December 2018. Site restoration and trail amenities outstanding to be complete July 2018.	\$48	\$48	\$0	33121 Tax -Capital Reserve Fund
			\$42	\$42	\$0	590133 - Recovery From Federal
17360	Etobicoke Creek Trail Reconstruction	PTIF project substantially complete. Additional minor paving works, site restoration and trail amenities outstanding. To be complete December 2018.	\$985	\$985	\$0	33121 Tax -Capital Reserve Fund
			\$452	\$452	\$0	37778 Tax -Debt-Other
			\$1,135	\$1,135	\$0	590133 - Recovery From Federal
17361	Waterfront Trail Improvements and trail reconstruction	One site complete, second site scheduled for completion December 2018.	\$329	\$329	\$0	33121 Tax -Capital Reserve Fund
			\$246	\$246	\$0	590133 - Recovery From Federal
17377	Trail Reconstruction - South Common Park	PTIF project substantially complete. Site restoration and trail amenities outstanding. To be complete December 2018.	\$147	\$147	\$0	33121 Tax -Capital Reserve Fund
			\$129	\$129	\$0	590133 - Recovery From Federal
17378	Trail Reconstruction various locations	PTIF project substantially complete. Site restoration and trail amenities outstanding. To be complete December 2018.	\$174	\$174	\$0	33121 Tax -Capital Reserve Fund
			\$152	\$152	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17379	Trail Reconstruction various locations	PTIF project substantially complete. Site restoration and trail amenities outstanding. To be complete December 2018.	\$71	\$71	\$0	33121 Tax -Capital Reserve Fund
			\$62	\$62	\$0	590133 - Recovery From Federal
17380	Trail Reconstruction -Huron Heights (P_273)	PTIF Project Scheduled Completion December 2018 including site restoration and amenities.	\$133	\$133	\$0	33121 Tax -Capital Reserve Fund
			\$117	\$117	\$0	590133 - Recovery From Federal
Parks & Forestry Total			\$4,753	\$4,753	\$0	
Roads						
14176	Multi-Use Trails along Hanlan Routes	MUTs along Hanlan Routes work to be completed by June 2018.	\$2,284	\$2,284	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$329	\$329	\$0	590133 - Recovery From Federal
15102	Transportation Master Plan Study	Majority of Project Budget committed to contract with Steer Davies Gleave; contract underway and progressing as expected. Targeting report to New Council in early 2019.	\$433	\$433	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$133	\$133	\$0	590133 - Recovery From Federal
15104	Lakeshore Road Movement Study	The Lakeshore Rd Movement Plan is expected to be completed by February 2019.	\$1,443	\$1,443	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$133	\$133	\$0	590133 - Recovery From Federal
17168	At Grade Railway Crossing-Safety Asmnt	Project is ongoing. Forecast completion by mid-2018.	\$53	\$53	\$0	33121 Tax -Capital Reserve Fund
			\$53	\$53	\$0	590133 - Recovery From Federal
17170	Field Equip Repl - Traffic Controllers	2017 Program is ongoing. Recovery component from PTIF. Forecast completion by year-end 2018.	\$101	\$101	\$0	33121 Tax -Capital Reserve Fund
			\$101	\$101	\$0	590133 - Recovery From Federal

## Public Transit Infrastructure Fund (PTIF) Project Update

## Appendix 3-4

PROJECT NUMBER	PROJECT NAME	STATUS	Revised Net Cost Including Ineligible (\$000)	Approved Net Cost Including Ineligible (\$000)	Additional / (Surplus) Approval Required (\$000)	Funding Source
17171	Traffic Signal Equipment Enhancements	2017 Program is ongoing. Recovery component from PTIF. Forecast completion by year-end 2018.	\$80	\$80	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$80	\$80	\$0	590133 - Recovery From Federal
17173	Traffic System and ITS	2017 Program is ongoing. Recovery component from PTIF. Forecast completion by year-end 2018.	\$40	\$40	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$40	\$40	\$0	590133 - Recovery From Federal
17182	Pedestrian & Cyclist Access -Transitway	Currently ongoing; To be tendered in early 2018 (PTIF).	\$1,314	\$1,314	\$0	31335 DCA -City Wide Engineering Reserve Fund
			\$2,783	\$2,783	\$0	33121 Tax -Capital Reserve Fund
			\$3,757	\$3,757	\$0	590133 - Recovery From Federal
17183	Airport Corp Ctr Pedestrian Sidewalk	Project completed; Under warranty; Same contract as 17165 (PTIF).	\$319	\$319	\$0	33121 Tax -Capital Reserve Fund
			\$319	\$319	\$0	590133 - Recovery From Federal
17186	Cycling Master Plan	Project in progress and expected to be completed June 2018	\$53	\$53	\$0	33121 Tax -Capital Reserve Fund
			\$53	\$53	\$0	590133 - Recovery From Federal
17187	Sidewalks-Accessible Pedestrian Crossing	Due to the remaining project budget, the contract has been extended to the end of 2018. An additional 90 intersections have been added to the list to be completed by Serve, as well as an additional 30 bus landing pads (PTIF).	\$2,124	\$2,124	\$0	33121 Tax -Capital Reserve Fund
			\$2,124	\$2,124	\$0	590133 - Recovery From Federal
Roads Total			\$18,147	\$18,147	\$0	
PTIF-1 Total			\$122,943	\$122,943	\$0	

Total Budget for eligible cost is \$116M

## Reconciliation with 2017 Consolidated Financial Statements

## Appendix 4

The table below adjusts the basis of accounting for the 2017 Operating and Capital budget to reflect generally accepted accounting principles, and reconciles the approved budget with the budget figures as presented in the consolidated financial statements.

	TAX BASE (\$000'S)	STORMWATER (\$000'S)	CONSOLIDATED (\$000'S)
<b>2017 Net Operating Budget</b>	<b>462,501</b>	<b>0</b>	<b>462,501</b>
REVENUE			
<b>2017 Operating Budget</b>	<b>299,624</b>	<b>41,546</b>	<b>341,170</b>
<b>Other Operating Revenues (exemptions/credits)</b>		<b>(3,130)</b>	<b>(3,130)</b>
<b>Adjustments:</b>			
Property Tax Revenue	462,501		462,501
Contributions from reserves and reserve funds	(30,674)		(30,674)
BIAs	1,820		1,820
BIAs Contribution from reserve funds	(54)		(54)
City budgeted levy for BIAs	(1,322)		(1,322)
Enersource dividend	(10,100)		(10,100)
<b>Adjusted Operating Budget</b>	<b>721,796</b>	<b>38,416</b>	<b>760,212</b>
<b>2017 Capital Budget</b>	<b>202,572</b>	<b>31,992</b>	<b>234,564</b>
Adjustments for transfers from reserve funds	(141,474)	(22,901)	(164,375)
Adjustments for debt proceeds	(39,198)		(39,198)
<b>Adjusted Capital Budget</b>	<b>21,900</b>	<b>9,091</b>	<b>30,991</b>
Reserve funds interest	12,278	1,199	13,477
<b>Total Revenue</b>	<b>755,974</b>	<b>48,706</b>	<b>804,680</b>
EXPENSES			
<b>2017 Operating Budget</b>	<b>762,125</b>	<b>38,416</b>	<b>800,541</b>
<b>Adjustments:</b>			
Transfers to own	(62,945)	(28,553)	(91,498)
Amortization	124,725	10,411	135,136
BIA Transfer to own	(26)		(26)
BIA budgeted expenses	1,820		1,820
BIA budget on City's books	(1,322)		(1,322)
Debt principal repayments	(17,566)	(879)	(18,444)
<b>Adjusted Operating Budget</b>	<b>806,812</b>	<b>19,396</b>	<b>826,208</b>
<b>2017 Capital Budget</b>	<b>202,572</b>	<b>31,992</b>	<b>234,564</b>
<b>Adjustments:</b> Eliminate capital expense budget	(202,572)	(31,992)	(234,564)
<b>Adjusted Capital Budget</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Expenses</b>	<b>806,812</b>	<b>19,396</b>	<b>826,208</b>
<b>Annual Surplus/ (Deficit)</b>	<b>(50,838)</b>	<b>29,310</b>	<b>(21,528)</b>



## Funding Adjustments for PTIF &amp; CWWF Projects

## Appendix 5

Grant Program	SAP Project Number	Project Name	Adjustment Amount	Funding Source
CWWF	17014	Levi Creek watercourse realignment	\$25	35992 Stormwater Capital Reserve Fund
CWWF	17014	Levi Creek watercourse realignment	\$(87)	31350 DCA Stormwater Management Reserve Fund
CWWF	17015	Mary Fix Ck Erosion Ctrl- S of Dundas	\$(56)	35992 Stormwater Capital Reserve Fund
CWWF	17015	Mary Fix Ck Erosion Ctrl- S of Dundas	\$(7)	31350 DCA Stormwater Management Reserve Fund
PTIF	14176	Multi-Use Trails along Hanlan Routes	\$184	31335 DCA City Wide Engineering Reserve Fund
PTIF	15102	Transportation Master Plan Study	\$(62)	31335 DCA City Wide Engineering Reserve Fund
PTIF	15104	Lakeshore Road Movement Study	\$(62)	31335 DCA City Wide Engineering Reserve Fund
PTIF	17168	At Grade Railway Crossing-Safety Asmnt	\$175	33121 Tax Capital Reserve Fund
PTIF	17170	Field Equip Repl - Traffic Controllers	\$32	33121 Tax Capital Reserve Fund
PTIF	17171	Traffic Signal Equipment Enhancements	\$(237)	31335 DCA City Wide Engineering Reserve Fund
PTIF	17173	Traffic System and ITS	\$131	31335 DCA City Wide Engineering Reserve Fund
PTIF	17182	Pedestrian & Cyclist Access -Transitway	\$(112)	33121 Tax Capital Reserve Fund
PTIF	17182	Pedestrian & Cyclist Access -Transitway	\$310	31335 DCA City Wide Engineering Reserve Fund
PTIF	17183	Airport Corp Ctr Pedestrian Sidewalk	\$(951)	33121 Tax Capital Reserve Fund
PTIF	17186	Cycling Master Plan	\$175	33121 Tax Capital Reserve Fund
PTIF	17187	Sidewalks-Accessible Pedestrian Crossing	\$(265)	33121 Tax Capital Reserve Fund
PTIF	17234	Transit Facility Repairs (Minor)	\$0	33121 Tax Capital Reserve Fund
PTIF	17360	Etobicoke Creek Trail Reconstruction	\$(0)	33121 Tax Capital Reserve Fund
PTIF	17361	Waterfront Trail Improvements and trail reconstruction	\$673	33121 Tax Capital Reserve Fund
PTIF	17377	Trail Reconstruction - South Common Park	\$0	33121 Tax Capital Reserve Fund
PTIF	17378	Trail Reconstruction various locations	\$(0)	33121 Tax Capital Reserve Fund
PTIF	17379	Trail Reconstruction various locations	\$0	33121 Tax Capital Reserve Fund
PTIF	17795	Interior Finishes - Various	\$500	33121 Tax Capital Reserve Fund
<b>Total</b>			<b>\$365</b>	

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## **REPORT 4 - 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Heritage Advisory Committee presents its fourth report for 2018 and recommends:

HAC-0037-2018

That the request to install temporary artworks on the chimney and the roof of a Heritage Designated Property located at 1352 Lakeshore Road East, as per the Corporate Report from the Commissioner of Community Services, dated March 23<sup>rd</sup>, 2018, be approved.  
(HAC-0037-2018)

HAC-0038-2018

That the proposed alteration of 1234 Old River Road, which is designated under Part IV of the Ontario Heritage Act, be approved, as per the Corporate Report dated March 9<sup>th</sup>, 2018, entitled "Request to Alter a Heritage Designated Property: 1234 Old River Road (Ward 1)", from the Commissioner of Community Services.  
(HAC-0038-2018)

HAC-0039-2018

That the property at 78 Park Street East, which is listed on the City's Heritage Register, is not worthy of heritage designation, and consequently, that the owner's request to demolish proceed through the applicable process, as per the Corporate Report entitled "Request to Demolish a Heritage Listed Property: 78 Park Street East (Ward 1)", dated March 13<sup>th</sup>, 2018 from the Commissioner of Community Services.  
(HAC-0039-2018)

HAC-0040-2018

That the property at 7228 Ninth Line, which is listed on the City's Heritage Register, is not worthy of heritage designation, and consequently, that the owner's request to demolish proceed through the applicable process, as per the Corporate Report entitled "Request to Demolish a Heritage Listed Property: 7228 Ninth Line (Ward 10)", dated March 7<sup>th</sup>, 2018 from the Commissioner of Community Services.  
(HAC-0040-2018)

HAC-0041-2018

That the property at 560 Shenandoah Drive, which is listed on the City's Heritage Register, is not worthy of heritage designation, and consequently, that the owner's request to demolish proceed through the applicable process.  
(HAC-0041-2018)

HAC-0042-2018

That the property at 6685 Century Avenue, which is listed on the City's Heritage Register, is not worthy of heritage designation, and consequently, that the owner's request to demolish proceed through the applicable process, as per the Corporate Report dated March 6<sup>th</sup>, 2018 entitled

“Request to Demolish a Heritage Listed Property: 6685 Century Avenue (Ward 9), from the Commissioner of Community Services.  
(HAC-0042-2018)

HAC-0043-2018

That the Memorandum dated March 7, 2018 from Paul Damaso, Director, Culture Division, with respect to the alterations to a property adjacent to the Meadowvale Village Heritage Conservation District located at 6985 Second Line West (Ward 11), be referred to the Meadowvale Village Heritage Conservation District Advisory Sub-Committee.  
(HAC-0043-2018)

HAC-0044-2018

That the Memorandum dated March 14, 2018 from Paul Damaso, Director, Culture Division, with respect to alternations to a property designated under the Ontario Heritage Act located at 5576 Hurontario Street (Ward 5) be received for information.  
(HAC-0044-2018)

HAC-0045-218

That the Memorandum dated March 7, 2018 from Paul Damaso, Director, Culture Division, with respect to alternations to a property designated under the Ontario Heritage Act located at 185 Derry Road West (Ward 11) be received for information.  
(HAC-0045-218)

HAC-0046-2018

That the Memorandum dated March 15, 2018 from Paul Damaso, Director, Culture Division, with respect to new construction on a Listed Property located at 2351 Mississauga Road be received for information.  
(HAC-0046-2018)

HAC-0047-2018

That the Memorandum dated March 26, 2018 from Paul Damaso, Director, Culture Division, with respect to a Minor Variance Application for the property located at 34 John Street South (Ward 1) be received for information.  
(HAC-0047-2018)

HAC-0048-2018

That the Memorandum dated March 29, 2018 from Paul Damaso, Director, Culture Division, with respect to a Minor Variance Application for the property located at 29 Port Street West (Ward 1) be received for information.  
(HAC-0048-2018)

HAC-0049-2018

That the Memorandum dated March 20, 2018 from Mumtaz Alikhan, Legislative Coordinator with respect to details of the 2018 Ontario Heritage Conference being held from June 7 to 9, 2018 in Sault Saint, be received.  
(HAC-0049-2018)

HAC-0050-2018

That the Letter of Authority dated March 26, 2018 from Denis Blais, Director, Central Production and Verification Services Branch, Ministry of Government and Consumer Services with respect to the waiving of normal tariff fees at Land Registry Offices for Municipal Heritage Committee Members and their assistants, be received for information.

(HAC-0050-2018)

HAC-0051-2018

That the Notice of Design and Construction Report Submission dated March 21, 2018 with respect to the Queen Elizabeth Way (QEW) Improvements from West of Etobicoke Creek to the East Mall (Contract 1), Ontario Ministry of Transportation and Class Environmental Assessment Study – G.W.P.2432-13-00, be received for information.

(HAC-0051-2018)

## **REPORT 4 - 2018**

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Mississauga Cycling Advisory Committee presents its forth report for 2018 and recommends:

MCAC-0013-2018

That the deputation by Peter Markiewicz, casual cyclist with respect to novice rider's gear shifting education be received.

(MCAC-0013-2018)

MCAC-0014-2018

That SustainMobility organize the onsite management of the 2018 Community Rides and that the service fee of up to \$10,000.00 be allocated from the 2018 Committee of Council budget.

(MCAC-0014-2018)

MCAC-0015-2018

That the Mississauga Cycling Advisory Committee (MCAC) enter into an agreement with CCN for the 2018 Community Ride registration system and that a fee of up to \$1,500.00 be allocated from the 2018 Committee of Council budget.

(MCAC-0015-2018)

MCAC-0016-2018

That the following first three 2018 Community Rides be approved and that the remaining 2018 Community Ride schedule be circulated to Members of Council for their information:

- Saturday May 5, 2018 – Greater Toronto Airports Authority (GTAA) Airport Ride
- Saturday May 12, 2018 – Castlegreen Park (Tree planting)
- Saturday June 2, 2018 – Jim Tovey Memorial Ride (Waterfront Trail)

(MCAC-0016-2018)

MCAC-0017-2018

That the email dated April 4, 2018 entitled QEW Improvement Project from east of Cawthra Road to The East Mall from Leonard Verwey, Citizen Member be received for information.

(MCAC-0017-2018)