
General Committee

Date

2019/10/30

Time

9:30 AM

Location

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

Members

Mayor Bonnie Crombie	
Councillor Stephen Dasko	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 Dipika Damerla	Ward 7
Councillor Matt Mahoney	Ward 8
Councillor Pat Saito	Ward 9
Councillor Sue McFadden	Ward 10
Councillor George Carlson	Ward 11 (Chair)

Contact

Allyson D'Ovidio, Legislative Coordinator, Legislative Services
905-615-3200 ext. 8587
Email <mailto:allyson.dovidio@mississauga.ca>

Find it Online

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

GENERAL COMMITTEE INDEX - OCTOBER 30, 2019

1. **CALL TO ORDER**
2. **APPROVAL OF AGENDA**
3. **DECLARATION OF CONFLICT OF INTEREST**
4. **PRESENTATIONS**
 - 4.1. Gary Kent, Commissioner of Corporate Services and Chief Financial Officer to present the 2019 Zone Canada Energy of the Year Award to Daniela Paraschiv (Awarded by Association of Energy Engineers)
5. **DEPUTATIONS**
 - 5.1. Meghan Nicholls, Executive Director, Mississauga Food Bank regarding Mayor Crombie's Thanksgiving Food Drive Results
 - 5.2. Mike Douglas, Executive Director, Mississauga Arts Council regarding the Fundraising Gala: "The British Invasion" and progress.
 - 5.3. Item 8.1 Jeff Jackson, Director, Finance and Treasurer
 - 5.4. Item 8.1 Jodi Robillos, Director, Parks, Forestry and Environment
 - 5.5. Item 8.1 David Wojcik, President and CEO, Mississauga Board of Trade
 - 5.6. Item 8.1 Chris Mackie, Cranberry Cove Port Credit Ratepayers' Association
 - 5.7. Item 8.2 Matthew Sweet, Manager, Active Transportation
 - 5.8. Item 8.1 Alan Skeoch, Resident
 - 5.9. Item 8.1 Don McVie, Chair, Port Credit Community Foundation
 - 5.10. Item 8.1 Jonathon Giggs, Resident
 - 5.11. Item 8.1 Bennet MacNeil, Development Coordinator, Fram & Slokker
 - 5.12. Item 8.1 Heather Doyle, Town of Port Credit Association (TOPCA)

5.13 Item 8.1 Jake Pedler and Beatrice Moreira-Laidlow, Port Credit BIA

5.14 Item 8.1 Stephen Roll, Bristol Marine Ltd.

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. Investing in Canada Infrastructure Program (ICIP) - Community, Culture and Recreation Funding Applications
- 8.2. Micromobility Systems in Mississauga
- 8.3. All-Way Stop – Fengate Drive at Branigan Gate (Ward 11)
- 8.4. No Right Turn on Red - Tucana Court and Kingsbridge Garden Circle (Ward 4)
- 8.5. Lower Driveway Boulevard Parking - Maple Gate Circle (Ward 10)
- 8.6. Lower Driveway Boulevard Parking – Althorpe Circle (Ward 10)
- 8.7. Delegation of Authority Respecting Indemnity and Remediation Agreements
- 8.8. Toronto Global 3-year Funding Agreement Renewal
- 8.9. Audit and Accountability Fund: Expression of Interest Submission
- 8.10. Single Source Recommendation for Winshuttle
- 8.11. Recommendation for Designation of City Standard, Approval for Additional Product and Service Procurement and Approval for Single Source Procurement with Tableau

Software Inc.

- 8.12. Revised Public Complaints Procedure Policy to incorporate the Code of Conduct and Complaints Procedure for Security Staff

9. **ADVISORY COMMITTEE REPORTS**

- 9.1. Mississauga Cycling Advisory Committee Report 10 - 2019 - October 8, 2019

- 9.2. Environmental Action Committee Report 7 - 2019 - October 8, 2019

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

11. **COUNCILLORS' ENQUIRIES**

12. **OTHER BUSINESS/ANNOUNCEMENTS**

13. **CLOSED SESSION**

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

- 13.1. The security of the property of the municipality or local board: License Agreement between The City of Mississauga and Solmar (Edge) Corp. for temporary construction staging area and temporary daycare facility on City-owned lands at Elm Drive West and Kariya Gate, Mississauga (Ward 4)
- 13.2. The security of the property of the municipality or local board: Authorization to enter into an Agreement of Purchase and Sale with Timbercreek 4Q Commercial Value-ADD LP; Timbercreek Four Quadrant GP 2 Inc. as owner of 2380 Loreland Avenue for Parks purposes (Ward 1)
- 13.3. Personal matters about an identifiable individual, including municipal or local board employees: 2020/2023 Culture Grants Peer Assessment Committee and 2020/2023 Community Grant Review Committee
- 13.4. (Pursuant to Subsection 239 (3.1) of the Municipal Act, 2001)
Education Session: Cyber Security Update (Verbal Presentation)
- 13.5. (Pursuant to Subsection 239 (2) of the Municipal Act, 2001)
Advice that is Subject to Solicitor Client privilege, including communications necessary for that purpose: "Legal advice concerning municipal restructuring under the Municipal Act, 2001" (Verbal Briefing)

14. **ADJOURNMENT**

City of Mississauga

Corporate Report



Date: 10/18/2019

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, ICD.D
Commissioner of Corporate Services and Chief
Financial Officer

Originator's files:

Meeting date:
10/30/2019

Subject

Investing in Canada Infrastructure Program (ICIP) - Community, Culture and Recreation Funding Applications

Recommendation

1. That the report dated October 18, 2019 entitled "Investing in Canada Infrastructure Program (ICIP) – Community, Culture and Recreation Funding Applications" from the Commissioner of Corporate Services and Chief Financial Officer be received for information.
2. That staff be directed to prepare and submit applications for the South Common Community Centre and Library and the Public Marina and Waterfront Park as identified in Appendix 2 entitled "ICIP - Community, Culture and Recreation Project List" (Eligible and Recommended category) under the Investing in Canada Infrastructure Program – Community, Culture, and Recreation Funding stream.

Report Highlights

- The Investing in Canada Infrastructure Program is a 10-year cost-shared federal infrastructure program providing \$33B in federal infrastructure funding. This report addresses one of the three ICIP streams the City will be eligible for - Community, Culture & Recreation.
- On September 3, 2019 the Government of Ontario launched the ICIP Community, Culture and Recreation funding stream. Approximately \$407M in federal funding and \$320M in provincial funding will be available over 10 years through the stream. The deadline to submit projects to the competitive, merit-based application process is November 12, 2019.
- Following a deputation provided to Budget Committee on October 2, 2019, staff were directed to report back to General Committee in order to identify additional projects that could be submitted under the Investing in Canada Infrastructure Program – Community,

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Culture and Recreation funding stream.

- Appendix 2 provides a list of Community, Culture and Recreation projects considered for funding under the ICIP program.

Background

Staff provided a report entitled “Investing in Canada Infrastructure Program – Public Transit and Community, Culture and Recreation Funding Applications” to Budget Committee on October 2, 2019 (Appendix 1). Council approved the projects for application under the Investing in Canada Infrastructure Program (ICIP) – Transit stream at that meeting, but requested staff to return to General Committee with an expanded list of potential ICIP-Community, Culture and Recreation (CC&R) eligible projects.

Comments

This report provides an overview of the ICIP-CC&R funding stream, a summary of the criteria applied to identify eligible projects, and a project list for Council’s consideration.

ICIP-Community, Culture and Recreation Funding Stream

The Community, Culture and Recreation funding stream of ICIP will provide approximately \$407M in federal funding and \$320M in provincial funding over 10 years for the Province of Ontario. This stream supports projects that improve access to and/or quality of community, cultural and recreation priority infrastructure projects. A specific amount of funding has not been allocated to cities directly. Funding approval will be granted through a competitive, merit-based application process. The deadline to submit for the first intake is November 12, 2019. A second intake is anticipated in 2021.

Projects must align with the following provincial objectives:

1. Meets community and user needs or service gaps
2. Promotes good asset management planning
3. Represents good value for money
4. Fosters greater accessibility

Two categories of funding are available under this stream: The Multi-Purpose category focuses on the principle of integrated service delivery to address identified service gaps. Projects like new builds, large-scale renovations and expansions of existing facilities would qualify under this category. The individual project cap will generally be \$50M in total project cost, but exceptions may be made in some cases. The Rehabilitation and Renovation category focuses on small-scale projects that would improve the condition of existing facilities. Small-scale improvements, renovations and new builds would be considered under this category. The individual project cap is \$5M in total project cost.

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Eligible asset types under both categories include:

- Recreation facilities (e.g. hockey arenas, multi-purpose recreation centres, playing fields)
- Cultural facilities (e.g. theatres, libraries, museums, cultural centres, civic squares, performing arts centres)
- Community Centres / Hubs (e.g. multi-purpose spaces that bring together a variety of different services, community centres including recreation facilities)
- Education and Health facilities advancing Truth and Reconciliation Commission Calls to Action

Projects approved for funding cannot start before applications are federally approved, and must be substantially completed by March 31, 2027. For those projects with total eligible costs of more than \$10M, a federal climate lens assessment and report on community employment benefits must be completed after federal funding approval.

Criteria Applied When Reviewing Projects

City staff completed a review of the City's Capital Program to determine which projects should be applied for, with a view of ensuring ICIP criteria are met and funding is maximized. Given the competitive application nature of the program and the limited funding available, staff recommend that only a select number of project applications be submitted.

Budget Committee, at its meeting of October 2, 2019, discussed this approach and agreed this approach would make sense. However, staff were asked for three or four more projects for consideration in addition to the two recommended at that time.

The projects were reviewed against the following criteria:

- **Size of project:** Projects exceeding \$30M were considered to be the best fit for this program. The application process for ICIP-CC&R is competitive in nature, and it is uncertain whether the number of approved projects for any one municipality will be limited. A threshold of \$30M has been chosen to ensure small projects do not reduce the likelihood of larger projects being approved for funding.
- **Planned start year:** The City's capital program is carefully planned out each year. Projects approved for funding cannot start before applications are federally approved. Any project with funding approved in 2019 or 2020 are not considered strong candidates, whether or not construction is in fact planned for those years. Guidelines indicate "project costs are eligible only if they are incurred after federal approval." Theoretically, if only the design phase is occurring in 2019 or 2020, the construction phase would be considered eligible. However, there is no guarantee that the federal government would not consider a project approved by Council in 2020 as "started," thus risking approval of projects.

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- **Expected substantial completion date**: Any projects scheduled to be completed in 2027 or later have been excluded, since substantial completion is required by March 2027.
- **Meets ICIP objectives**: All projects under consideration were reviewed to ensure all ICIP-CC&R criteria and objectives are met.
- **Information available to fully complete application**: Any projects moving forward in the application process will require a certain detailed level of planning. Some of the later projects may not have sufficient high-level design to proceed with application (as the application requires detailed information), although no projects were excluded on this basis.
- **Alignment with the City's Long Range Financial Plan (LRFP)**: Only those projects included as committed projects in the 2020-2029 capital program are considered to align with the City's LRFP. The only exception to this is the Public Marina and Waterfront Park, as staff have been directed to actively seek external funding opportunities prior to including this as a committed project. The Public Marina and Waterfront Park has been confirmed by the Province as an eligible asset type under ICIP.

Appendix 2 provides a list of all eligible capital projects, indicating how these projects align with the criteria outlined above. Comments have been included in the table in Appendix 2 to provide further explanation of decisions of eligibility versus ineligibility.

Recommended Projects

The review of projects concluded that the South Common Community Centre & Library and the Public Marina and Waterfront Park are the best candidates for funding application under the ICIP-CC&R stream. The Central Library, Burnhamthorpe Community Centre and Carmen Corbasson Community Centre are also eligible, although there could be some risk of including these projects as design is planned to start prior to project funding approval.

Financial Impact

The following table outlines the capital costs of all potentially eligible projects.

ICIP Community Culture & Recreation Projects Eligible for Application	Total \$Ms
Public Marina and Waterfront Park	71.3
South Common CC & Library	61.6
Central Library	40.8
Burnhamthorpe CC	31.9
Carmen Corbasson CC	33.1
Total ICIP Eligible Projects	238.7

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All but one project considered eligible for application are in the 2020-2029 capital forecast. The higher the value of the approved project, the more favourable the financial impact will be, as the City will benefit from 73.3% of the funding (the federal and provincial shares). For this reason, and the fact that it does not start until 2022, staff recommend the highest-value project be applied for, namely South Common CC & Library. Should the City be successful in receiving funding for this project, \$45.1M would be available for other capital initiatives in the 10-year capital forecast.

The Public Marina and Waterfront Park is the one unfunded project in the 10-year capital program which is recommended for ICIP application. Should the City be successful in receiving full funding for this project, the City would be required to fund its portion (final amount will depend on award). Assuming this portion is debt funded, the net income generated by the Public Marina and Waterfront Park would be used to fund the debt carrying costs in full.

ICIP projects will not be approved prior to Council's approval of the City's 2020 budget. Accordingly, the proposed 2020 budget does not assume any ICIP funding.

Conclusion

The City appreciates the support from the federal and provincial governments as a result of this program. The Investing in Canada Infrastructure Program offers an opportunity for the City to leverage funding in order to advance its capital plan. As we continue to work with our partners in the federal and provincial governments, we are able to strengthen accessible public infrastructure for the future.

Staff recommend proceeding with applications for two projects to eliminate competition between various City of Mississauga projects. The two projects recommended are the South Common Community Centre and Library, as this project would provide the highest financial benefit to the City, and the Public Marina and Waterfront Park, to meet Council's request to seek out partnership funding to proceed with this project.

Upon notification of successful applications, staff will report to Council, identifying any updated project costs and any financing transactions required to fund approved projects.

Attachments

Appendix 1: "Investing in Canada Infrastructure Program – Public Transit and Community, Culture and Recreation Funding Applications"

Appendix 2: ICIP - Community, Culture and Recreation Project List



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Carolyn Paton, Manager, Strategic Financial Initiatives

City of Mississauga

Corporate Report



Date: 9/19/2019

To: Chair and Members of Budget Committee

From: Gary Kent, CPA, CGA, ICD.D
Commissioner of Corporate Services and Chief
Financial Officer

Originator's files:

Meeting date:
10/2/2019

Subject

Investing in Canada Infrastructure Program - Public Transit and Community, Culture and Recreation Funding Applications

Recommendation

1. That the report dated September 19, 2019 entitled "Investing in Canada Infrastructure Program (ICIP) – Public Transit and Community, Culture and Recreation Funding Applications" from the Commissioner of Corporate Services and Chief Financial Officer be received for information.
2. That staff be directed to prepare and submit applications for the projects identified in Appendix 1 entitled "ICIP - Public Transit Project List" under the Investing in Canada Infrastructure Program – Transit stream.
3. That staff be directed to prepare and submit applications for the projects identified in Appendix 2 entitled "ICIP - Community, Culture and Recreation Project List" under the Investing in Canada Infrastructure Program – Community, Culture, and Recreation Funding stream.

Report Highlights

- The Investing in Canada Infrastructure Program is a 10-year cost-shared federal infrastructure program providing \$33B in federal infrastructure funding. This report addresses two of the three ICIP streams the City will be eligible for – Public Transit and Community, Culture & Recreation.
- On July 22, 2019 the Government of Ontario launched the ICIP Public Transit funding stream for inside the GTHA. A maximum federal allocation of \$338,998,744 and a maximum provincial allocation of \$282,470,703 is available to the City through the Public Transit stream. The deadline to submit projects for approval is October 24, 2019. Appendix 1 provides a list of Public Transit projects to be submitted, with total project

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costs of \$847.5M, requiring a City contribution of \$226.3M over the years 2021 to 2027.

- On September 3, 2019 the Government of Ontario launched the ICIP Community, Culture and Recreation funding stream.
- Approximately \$407M in federal funding and \$320M in provincial funding will be available over 10 years through the Community, Culture and Recreation stream. The deadline to submit projects to the competitive, merit-based application process is November 12, 2019. Appendix 2 provides a list of Community, Culture and Recreation projects to be submitted with total project costs of \$132.9M, requiring a City contribution of \$35.5M over the years 2021 to 2025.

Background

Municipalities have been asking the federal and provincial governments for predictable and sustainable funding to help us plan for our infrastructure needs. The Investing in Canada Infrastructure Program (ICIP) is a ten-year federal infrastructure program designed to create long-term economic growth, build inclusive, sustainable and resilient communities and support a low-carbon economy. The City appreciates the support from the federal and provincial governments as a result of this program.

Through ICIP, the federal government is providing \$33B in federal infrastructure funding to cost-share projects under the following four streams:

- Public Transit
- Green Infrastructure
- Community, Culture and Recreation
- Rural and Northern Communities (the City would not be eligible under this stream)

Public Transit

The Public Transit stream will allocate approximately \$8.3 billion in federal funding across municipalities and Metrolinx. The primary focus is for new projects, such as Rolling stock assets (e.g. buses), fixed assets (e.g. stations), transit-exclusive infrastructure and active transportation infrastructure that is directly connected to the public transit system.

Funding allocations to municipalities and Metrolinx were established using a ridership formula. The deadline to submit for the first intake for the City of Mississauga is October 24, 2019. Further intakes are anticipated but have not been announced. Total funding for the City of Mississauga is outlined in the table below:

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<u>New Transit Projects</u>		
Funder	Maximum Funding	Cost-Share Maximum
Federal	\$338,998,744	40%
Provincial	\$282,470,703	33%
Municipal	\$226,080,500	27%
Total	\$847,549,947	100%

Community, Culture and Recreation

The Community, Culture and Recreation funding stream of ICIP will provide approximately \$407M in federal funding and \$320M in provincial funding over 10 years. This stream supports projects that improve access to and/or quality of community, cultural and recreation priority infrastructure projects. Unlike in the transit stream, a specific amount of funding has not been allocated to cities directly. Funding through this stream is a competitive, merit-based application process. The deadline to submit for the first intake is November 12, 2019. A second intake is anticipated in 2021. Projects must align with the following provincial objectives:

1. Meets community and user needs or service gaps
2. Promotes good asset management planning
3. Represents good value for money
4. Fosters greater accessibility

Two categories of funding are available under this stream: The Multi-Purpose category focuses on the principle of integrated service delivery to address identified service gaps. Projects like new builds, large-scale renovations and expansions of existing facilities would qualify under this category. Total project costs will generally be capped at \$50M, but exceptions may be made. The Rehabilitation and Renovation category focuses on small-scale projects that would improve the condition of existing facilities. Small-scale improvements, renovations and new builds would be considered under this category. The individual project cap is \$5M in total project cost.

Eligible asset types under both categories include:

- Recreation facilities (e.g. hockey arenas, multi-purpose recreation centres, playing fields)
- Cultural facilities (e.g. theatres, libraries, museums, cultural centres, civic squares, performing arts centres)
- Community Centres / Hubs (e.g. multi-purpose spaces that bring together a variety of different services, community centres including recreation facilities)
- Education and Health facilities advancing Truth and Reconciliation Commission Calls to Action

Projects approved under both funding streams cannot start before applications are federally approved, and must be substantially completed by March 31, 2027. For those projects with total eligible costs of more than \$10M, a federal climate lens assessment and report on community employment benefits must be completed after federal funding approval.

Comments

City staff has completed a review of the City's Capital Program to determine the best approach to maximize ICIP funding while ensuring that the identified projects meet the eligibility criteria, project cost limitations and substantial completion date requirements under both funding streams.

The transit program was reviewed to determine which committed projects would be eligible for funding, and which not-committed projects could be included, taking into consideration the fact that projects cannot start until after ICIP approval is received, and must be substantially complete before March 2027. Transit along the Lakeshore and Dundas corridors are the next highest priorities that fit within these criteria, and have been included in the list. The \$847.5M potential ICIP-Transit program is broken down as follows:

ICIP-Transit Projects	TOTAL
Bus replacement program	359.7
Presto	10.0
Bus Shelters	3.8
Bus Maintenance / Rehab	44.1
Bus stops / Pads	1.0
Farebox Refurbishment	2.0
Enhanced partitions	0.7
Mini Terminals / Bays	0.7
MiWay Signs	0.7
Revenue Equipment Replacement	0.1
Transit vehicles (non-buses)	0.4
Lakeshore BRT lanes, Deta Rd. to East Ave.	54.6
Dundas BRT - Confederation to Etobicoke	305.7
Express Corridors	49.5
CAD/AVL/HASTUS	9.0
Cycle tracks	4.0
Bus Terminals	1.6
TOTAL:	847.5

The ICIP-Community, Culture and Recreation program has the same constraints (i.e., cannot start until the project is approved, and must be substantially complete by March 2027). The two selected projects are South Common Community Centre & Library, and the Marina. The South Common Community Centre & Library is a committed project that fits within ICIP constraints,

and has been included in Council's latest 10-year capital forecast. The Marina is not committed, but a business case has concluded that a future marina at 1 Port Street East is "an economic, recreational and cultural heritage imperative and of strategic importance to Mississauga" (Appendix 3). The Marina has been included in past federal budget requests, and an October 11, 2017 motion authorized staff to move forward with the Marina Action Plan by pursuing external funding opportunities for the marina feasibility studies and development. The City has been seeking partnership funding for this project, and the Marina has been confirmed by the Province as an eligible asset type under ICIP.

Both projects are of the scale that fits this program. The following table summarizes the two proposed ICIP-Community, Culture and Recreation program projects:

ICIP-Community, Culture & Recreation Projects	TOTAL
Port Credit Marina Development	71.3
South Common CC & Library	61.6
TOTAL	132.9

Appendix 1 provides a detailed list of ICIP-Public Transit stream projects. Appendix 2 provides a list of ICIP-Community, Culture and Recreation stream projects recommended for submission. Appendix 3 provides a copy of the corporate report entitled "Inspiration Port Credit – Business Case for a Future Marina at 1 Port Street East (Ward 1)," including the executive summary of the Mississauga Marina Business Case Study.

Financial Impact

If all ICIP projects are approved as submitted, \$718.2M from our federal and provincial partners is anticipated. The City will be providing \$261.8M for its share. It is not anticipated that ICIP projects will be approved prior to Council's approval of the City's 2020 budget. Accordingly, the proposed 2020 budget does not assume any ICIP funding, but will request Council approval to allow service areas to enter into contract agreements in 2020, a year prior to 2021 budgeted spending, and to include approved projects in the 2021-2030 capital program. The project costs included in this report have been adjusted for inflation.

Conclusion

The Investing in Canada Infrastructure Program offers an opportunity for the City to leverage funding in order to advance its capital plan and, working with our partners in the federal and provincial government, we are able to strengthen accessible public infrastructure for the future.

Based on the information and recommendations provided in this report, staff will complete funding applications for the projects endorsed by Council prior to the submission deadlines for each respective funding stream. Upon notification of successful applications, staff will bring a report forward to Council identifying any updated project costs and any financing transactions required to fund approved projects.

Attachments

Appendix 1: Public Transit Project List

Appendix 2: Community, Culture and Recreation Project List

Appendix 3: Corporate Report entitled “Inspiration Port Credit – Business Case for a Future Marina at 1 Port Street East (Ward 1),” including executive summary of Business Case



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Ashley Lyons, Policy Analyst

**ICIP - PUBLIC TRANSIT STREAM
PROJECT LIST**

8.1

Tax-Cap Eligible ICIP Public Transit Projects

ICIP-Transit Projects	Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	TOTAL
Bus replacement program	Includes funding for hybrid buses		96.6	91.8	48.0	21.6	43.5	38.7	19.5			359.7
Presto	Equipment replacement		10.0	-	-	-	-	-	-			10.0
Bus Shelters	Bus Shelters		0.5	0.5	0.5	0.5	0.5	0.5	0.5			3.8
Major Bus Rehabilitation	Major Bus Rehabilitation		5.8	6.0	6.1	6.2	6.4	6.6	7.0			44.1
Bus stops / Pads	Replacement of bus stops and pads (accessibility plan)		0.1	0.1	0.1	0.1	0.1	0.1	0.1			1.0
Farebox Refurbishment	Farebox Refurbishment		-	2.0	-	-	-	-	-			2.0
Enhanced partitions	Replacement of low concrete barriers between lanes within stations		0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.7
Mini Terminals / Bays	Replacement of mini-terminals, bays and bus loops		0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.7
MiWay Signs	MiWay Signs		0.1	0.4	0.1	0.1	0.1	0.1	0.1			0.7
Revenue Equipment Replacement	Revenue Equipment Replacement		0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.1
Transit support vehicles	Transit support vehicles		-	-	-	0.1	0.1	0.2	-			0.4
Lakeshore BRT lanes, Deta Rd. to East Ave.	Construction of dedicated median bus rapid transit lanes, with median bus stops at key locations			5.0	5.0	15.6	17.8	11.1				54.6
Dundas BRT - Confederation to Etobicoke	Construction of dedicated median bus rapid transit lanes, with median bus stops at key locations. Cycle tracks on each side of the road are included			25.7	25.7	63.3	76.6	114.4				305.7
Express Corridors	Enhanced stop amenities and transit priority measures where feasible		2.6	8.5	5.9	9.2	15.7	7.5				49.5
CAD/AVL/HASTUS	Replacement of hardware on buses and upgrading software		1.0	1.5	3.0	1.5	0.5	1.5				9.0
Cycle tracks	Providing connections to Meadowvale and Lisgar GO Stations		-	1.9	0.1	0.0	1.5	0.4				4.0
Bus Terminals	Terminal shelter upgrades		0.4	0.4		0.4	0.4	-				1.6
TOTAL:			117.4	144.1	94.8	118.7	163.6	181.4	27.4			847.5

Potential ICIP Funding*	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	TOTAL
Federal (40%)	-	46.9	57.6	37.9	47.5	65.4	72.6	11.0	-	-	339.0
Provincial (33.3%)	-	39.1	48.0	31.6	39.5	54.5	60.4	9.1	-	-	282.2
Municipal (26.7%)	-	31.3	38.5	25.3	31.7	43.7	48.4	7.3	-	-	226.3
TOTAL:		117.4	144.1	94.8	118.7	163.6	181.4	27.4			847.5

* funding may differ slightly based on mix of projects

**ICIP - COMMUNITY, CULTURE AND RECREATION STREAM
PROJECT LIST**

8.1

ICIP-Community, Culture & Recreation Projects	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	TOTAL
Port Credit Marina Development	-	9.4	22.8	22.4	16.6	-					71.3
South Common CC & Library	-	-	1.6	2.7	28.7	28.6	-	-	-	-	61.6
TOTAL	-	9.4	24.4	25.1	45.3	28.6	-	-	-	-	132.9

Potential ICIP Funding	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	TOTAL
Federal (40%)	-	3.8	9.8	10.0	18.1	11.4	-	-	-	-	53.1
Provincial (33.3%)	-	3.1	8.1	8.4	15.1	9.5	-	-	-	-	44.2
Municipal (26.7%)	-	2.5	<u>6.5</u>	<u>6.7</u>	<u>12.1</u>	<u>7.6</u>	-	-	-	-	35.5
TOTAL:		9.4	24.4	25.1	45.3	28.6	-	-			132.9

City of Mississauga Corporate Report



<p>Date: January 18, 2016</p> <p>To: Chair and Members of General Committee</p> <p>From: Edward R. Sajecki, Commissioner of Planning and Building</p>	<p>Originator's file: CD.21.POR</p> <hr/> <p>Meeting date: 2016/02/03</p>
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Subject

Inspiration Port Credit - Business Case for a Future Marina at 1 Port Street East (Ward 1)

Recommendation

1. That the report dated January 18, 2016 from the Commissioner of Planning and Building, titled "Inspiration Port Credit – Business Case for a Future Marina at 1 Port Street East", be received for information.
2. That staff report back to General Committee to set out an action plan to protect for a future marina at 1 Port Street East based on the Business Case recommendations, future City Master Plan, and further discussions with Canada Lands Company Limited.

Report Highlights

- Marina consultants, Touristics developed a business case for a future marina at 1 Port Street East based on extensive research and a review of 11 concepts evaluated against a set of criteria.
- The marina concepts require a capital investment of between \$20M to \$50M, depending on the level of redevelopment of the eastern break wall and the marina services provided.
- Touristics believe that although two of the concepts are sustainable, the related financials are not compelling enough to generate full funding through private investment.
- To protect for a future marina on this site, the City may need to be involved as a marina at this location is an economic, recreational and cultural heritage imperative and of strategic importance to Mississauga.

- The most sustainable model is a full service marina with the majority of uses on-site. A marina can work within a mixed use context.
- An action plan needs to be developed to confirm the future role of the City and needs to be based on further discussions with the site's owner, Canada Lands Company Limited (CLC).

Background

The 1 Port Street East marina site is one of the only deep-water basins on the north shore of Lake Ontario. It is a former Canada SteamShip Lines site and was converted to a recreational marina in 1974.

The future need for a marina at 1 Port Street East is supported by the Recreational Boating Study (2015). The study concluded that the number of recreational boaters in Mississauga will continue to grow. In addition, boat sizes are increasing. Together, these trends will generate a need for an additional 770 boat slips by 2035. This site is a job generator for the marine industry with significant and unique economic spinoffs. It functionally supports one of the largest salmon fishing derbies in Canada, provides an important supply of recreational boat slips, and is home to the former Great Lakes freighter, The Ridgetown, as part of the city's cultural heritage landscape.

In order to protect for a future marina at 1 Port Street East, the City and CLC signed a Memorandum of Understanding (MOU) to complete a marina business case in November 2014 (Resolution 0201-2014). CLC will pay for this work. The City is the project lead.

Touristics was hired to lead this work along with Shoreplan (Coastal Engineering) and The Planning Partnership (Land Use Planning). Specifically, the scope of work included developing recommendations for:

- a sustainable model for a future marina including range of services required, land/water lot required;
- land use planning considerations; and
- implementation strategies including funding, and ownership model e.g. private, public or private/public partnership model.

Comments

The Business Case for a Future Marina at 1 Port Street East is completed (See Appendix 1, Executive Summary). It involved extensive information and data collection, stakeholder

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Originators file: CD.21.POR

interviews and online surveys, best practices research, marina concept creation and testing through financial analyses. Based on this information, key criteria were developed to evaluate the viability of various marina concepts. These criteria are:

- total direct expenditures generated on and off-site;
- number of new jobs created on and off-site;
- disruption of on-going operation;
- net profit at the end of year 10;
- capital cost per slip;
- full service marina services;
- views and vistas;
- enhancement of the public waterfront access;
- on-site winter boat storage;
- approvability by external agencies; and
- compatibility with future development.

The fundamental conclusion of the business case is that a future marina at 1 Port Street East is an economic, recreational and cultural heritage imperative and of strategic importance to Port Credit and Mississauga.

The business case defined the most sustainable model as a full service marina with the majority of uses on-site. It also determined that a marina can work within a mixed use context.

Touristics generated 11 marina concepts for this site.

The estimated capital cost for the concepts ranges from \$20M to \$50M (Appendix 2). The difference between the various options is the extent of redevelopment of the eastern break wall and other related marina infrastructure.

Ongoing operational sustainability of a marina is dependent on high occupancy of the slips and owner/operator ability to provide key revenue producing services. These services are:

- large number of seasonal slips that accommodate larger boat sizes;
- high speed fuel pumps
- winter boat storage;
- repair services; and
- chandlery (boat supplies store).

Based on the anticipated capital and operating costs, Touristics recommend two concepts they view as sustainable. Concept A (Appendix 3) does not provide either on-site boat repair or winter storage. Concept B (Appendix 4) includes boat repair and some on-site storage. Both rely on some level of improvement to the eastern beak wall and both require some off-site boat storage.

These concepts are expected to generate a modest net revenue, after debt servicing, within 10 years. Notwithstanding this, the consultants concluded the significant capital investment required for the marina infrastructure and the subsequent rate of return on the investment is unlikely to attract private sector interest.

In order to ensure the continuation of a sustainable marina at this unique deep water harbour, Touristics believe the municipality will need to be involved. Benefits to City involvement include;

- protection of lands/water lot for future marina use;
- oversight to ensure on-going quality and sustainable infrastructure, operations and maintenance;
- control of hazard lands for public safety purposes;
- potential to work with Credit Valley Conservation to create aquatic habitat, migratory bird stopover opportunities and water quality enhancements as part of the marina infrastructure;
- control of the Ridgetown as a cultural heritage resource;
- potential for a “city-building” initiative in recognition of the significance of the waterfront, this site, marina and harbour to the city, region and province;
- access to potential federal and provincial government funding; and
- application of other funding strategies e.g. public/private partnerships.

Public Input

On November 24, 2015 the City hosted a community meeting to share the results of the business case. Comments received spanned the following themes:

- Marina retention – continued support for retention of the marina on the site and to “think big, think legacy...”;
- Marina scope of services - most believed that the “working marina” concept is integral to the marina and site’s future. Some prefer not to have the industrial marina component (repair shop and winter storage) and relocate these uses elsewhere within the city;
- Location of marina facilities within site – most supported using lakefill to expand the eastern breakwall to support marina uses and public access to the water;

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Originators file: CD.21.POR

- Public access to water –continued desire for public access to the water's edge; some concern about the interface with the marina operations;
- Parking – the need for convenient parking for marina users was emphasized;
- Views and vistas – most supported protecting views and vistas within the site and from outside the site to the water;
- Cost for the future marina – some felt that the future development of the site should pay for the new marina facilities and infrastructure, but there was recognition of a need for creative funding opportunities.

Public feedback indicates there is some desire to create a transformative public realm on the waterfront and to make this a landmark site for the city. This involves a full expansion of the eastern breakwater to allow for a variety of features, including an extensive public promenade out to the end of the break wall with viewing platforms. Winter boat storage may also be included. This type of expansion could be phased, subject to investigations into potential funding sources, operational models and approvals.

Next Steps

The ultimate marina layout including dock configurations, breakwall expansion, ownership and operational model will be determined through future discussions with CLC with respect to land and waterlot ownership; determination of City role with the marina and/or lands/waterlot; available funding for marina and harbour infrastructure. City staff will report back to City Council on these matters after completion of the master plan for the site.

Strategic Plan

This project addresses the visionary action of the Prosper pillar to create a model sustainable community on the waterfront.

Financial Impact

There is no financial impact at this time. No monies have been allotted in the City's business plan for additional marina facilities or harbour infrastructure beyond what the City currently owns and operates. Any required funding for implementation will be identified in future business plans.

Conclusion

The Marina Business Case concludes that a future marina at 1 Port Street East is an economic, recreational and cultural heritage imperative and of strategic importance to Port Credit and the city. A marina provides both direct and indirect jobs, fosters tourism, and can add to the vibrancy of the area. Public input is supportive of maintaining a marina at this location.

The business case defined the most sustainable model as a full service marina with the majority of uses on-site. It also determined that a marina can work within a mixed use context.

Of the 11 concepts developed, two are viewed as sustainable but are considered unlikely to be attractive to a private investor. Consequently, it is expected that the City would need to be involved.

The ultimate marina layout, ownership and operational model will be determined through future discussions with CLC with respect to land and waterlot ownership; determination of the City role with the marina and/or lands/waterlot; available funding for marina and harbour infrastructure. City staff will report back to City Council on these matters.

Attachments

Appendix 1: Executive Summary, Mississauga Marina Business Case Study, December 2015

Appendix 2: Range of Marina Concepts

Appendix 3: Marina Concept A

Appendix 4: Marina Concept B



Edward R. Sajecki, Commissioner of Planning and Building

Prepared by: Ruth M. Marland, MCIP, RPP, Strategic Leader



Mississauga Marina Business Case Study



EXECUTIVE SUMMARY

Study Objectives

TOURISTICS, Shoreplan Engineering Limited and the Planning Partnership were retained by the City of Mississauga to undertake a business case study to determine the viability of operating a full service marina at 1 Port Street East within the context of mixed-use development, focusing on but not limited to, the water lot and the eastern portion of the site.

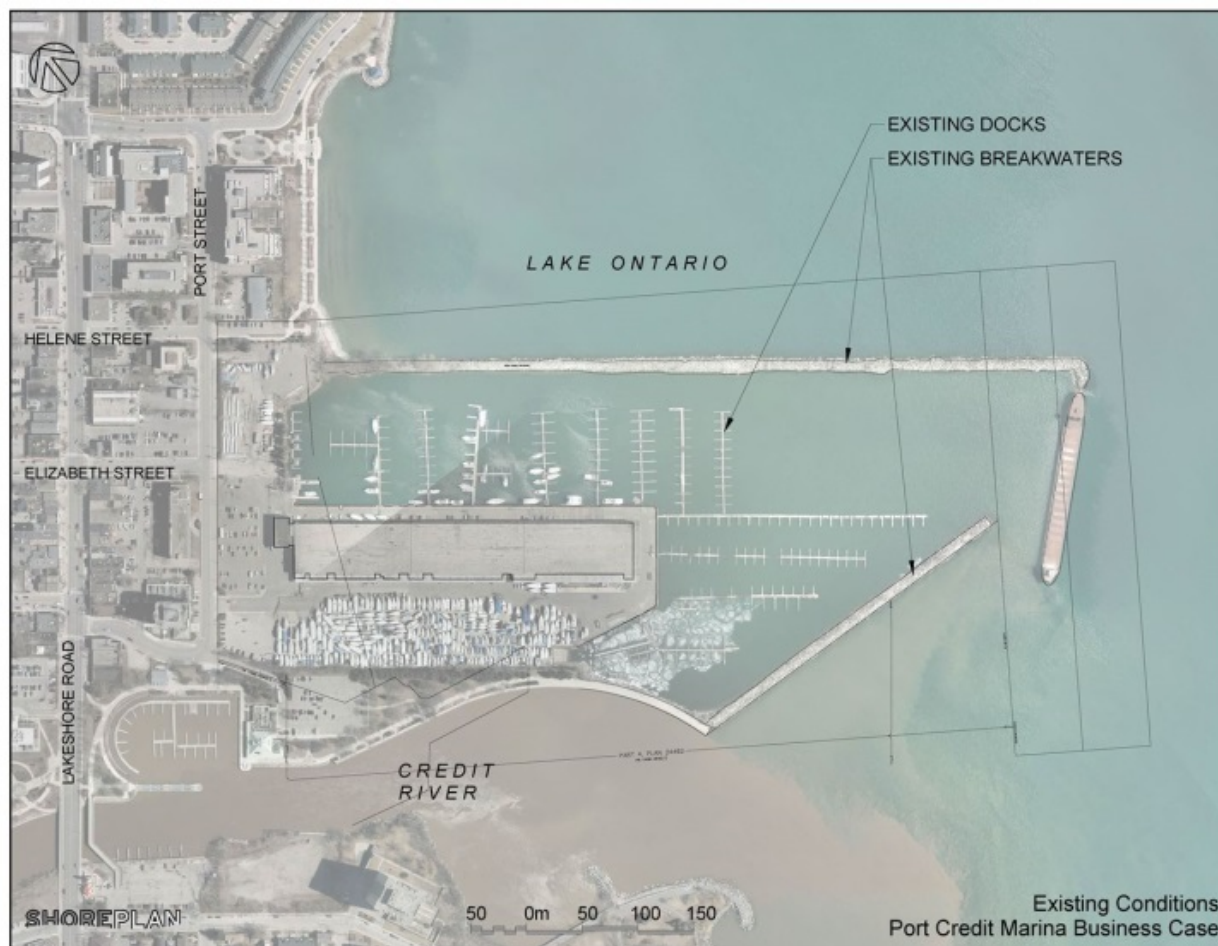
The business case addresses the scope, nature, location, operation and ownership options regarding a future marina on the 1 Port Street East site. The business case study provides input to the master plan, and a future land use policy framework and implementation plan for the re-development and operation of a future marina on the site. More specifically the business case study will identify those components necessary for a sustainable marina including capital investment and on-going operating costs while addressing the following objectives:

- Develop a recommended plan for the development and operation of a future marina on the site;
- Establish a framework for a sustainable marina having considered the social/cultural, environmental and economic factors;
- Identify the appropriate uses/services that consider the existing and/or future related uses that support a sustainable marina, contribute to the site's viability and integrated function as part of a "complete" community (live, work, make and play) in conjunction with the neighbouring Port Credit businesses and services, contribute to the concept of a "Marina Marketplace" destination and provide the opportunity to increase or at least maintain the current level of employment on the site;
- Provide a functional marina layout integrated with public access at and to the waterfront and the future proposed mixed use on the site;
- Establish a marina model and layout that accommodates appropriate public access to the waterfront, having regard for a continuous public Waterfront Trail, public open space and parklands and green connections to the adjacent waterfront park system; and,
- Provide an implementation strategy for the marina development and operations that includes a preferred operational model that will integrate with the long term re-development of the site.

1 Port Street East

The One Port Street East site has a total area of approximately 27.6 hectares (67.3 acres), including a land area of 7.4 hectares (18.2 acres) and a water lot comprising 20.2 hectares (49 acres). The site has a frontage of approximately 295 metres (970 feet) and a depth of approximately 400 metres (1,300 feet) on land. The total depth on land and water, measured from the north property limit at Port Street to the south end of the water lot, is approximately 800 metres or 2,650 feet. Measured on land at the dockside walls the site has a shoreline of approximately 700 metres (2,300 feet). The City of Mississauga owns the Elizabeth Street right-of-way extending through the site along with the land adjoining the site to the immediate west on the eastside of the Credit River which includes J.J. Plaus Park and the Credit Village Marina.

Centre City Capital Limited a private company operates the Port Credit Harbour Marina (PCHM) through a head lease with Canada Land Company the owners of the property. Centre City Capital Limited currently sub-leases space to ten businesses complimentary to marine use including a complete marine repair service, chandlery, canvas works, sign works, and yacht brokers/boats sales.



1 Port Street East Site

Port Credit Harbour Marina is one of the largest privately operated full service marinas on the Greater Toronto Area's (GTA) Lake Ontario shoreline. The depth of water in the marina basin (minimum 18 feet), is one of the deepest on the north shore. The marina caters to seasonal and transient boaters, charter fishing boats, and liveaboards.

Background

Boating Facilities in Mississauga, Northern North America and Northern Europe

As background examples, a number of public, private and public/private marinas within northern North America and Northern Europe were analyzed. Particular attention was paid to marina facilities that were situated on developed urban waterfront (e.g. Kingston, Charlottetown, Boston, and Chicago, in northern North America; and Helsinki, Finland, Gothenburg, Sweden, Oslo, Norway, Aalborg, Denmark, and Kuhlungsborn, Germany in northern Europe). The following table shows a comparison of these facilities. The marinas appear to be designed to service the market needs of the area. They are clearly subject to the same winter conditions experienced on Lake Ontario. Some are dominantly seasonal serving the local market while others are dominantly transient focusing on attracting boating tourists into the area. All provide basic services, including washrooms, showers, fuel and pump out, and restaurants at or near the marina. A number of facilities, but not all, offer full boat services shops, including engine repairs.

Length of Slips	Northern North America	Mississauga	Port Credit Harbour Marina
Less than 30 feet	29.5%	49.7%	75.8%
30 feet to less than 36 feet	30.4%	20.9	13.4
36 feet to less than 46 feet	29.8%	23.1	10.8
46 feet and over	10.3%	6.3	
Transient slips as a percentage of total slips	6.8%	4.1	0
Fuel Dock	84.2%	25.0%	100%
Launch Ramp	73.7%	75.0%	100%
Marine Supplies (Chandlery)	89.5%	25.0%	100%
Own rather than rent haulout equipment	78.9%	50.0%	100%
Some Repairs	63.2%	25.0%	100%
On-site Food Service	73.7%	75.0%	Restaurant space vacant
Laundry Facilities	78.9%	100%	100%
Percentage of Docks with 30 amp power	47.2%	84.9%	90.6%
Percentage of Docks with 50 amp power	43.8%	10.1%	9.4%
Pump out	94.7%	75.0%	100%
Boat/Motor Sales	36.8%	25.0%	100%
Parking Spaces/Slip	0.56	1.3	1.8
Dryland Summer Storage Space/Slip	70.5 sq. metres	NA	98.6 sq. metres
Percentage of Seasonal Boats Stored on-site in Winter	59.1%	80.2%	79.1%
Percentage of Marinas with Charter Fishing/Tour/Water Taxi Boats	57.9%	25.0%	100%

Development of Alternative Concepts

The City of Mississauga generated three conceptual marina options referred to as “Possibilities” 1, 2 and 3 which formed the basis of the evaluation of a preferred alternative which would lead to a viable and sustainable marina on the 1 Port Street East site.

- Marina “Possibility” 1 – Marina buildings and outdoor boat storage are on east breakwater, slips are attached to east breakwater.
- Marina “Possibility” 2 – Marina buildings are at the northeast corner of the site and the outdoor boat storage is on the east breakwater, slips are attached to east breakwater.
- Marina “Possibility” 3 – Marina buildings are at the northeast corner of the site and outdoor boat storage is provided in-water or at an alternative site, slips are attached to west wharf.

The marina at 1 Port Street East has been a primary focus throughout the Inspiration Port Credit process culminating in the following vision statement for the site:

Build a vibrant waterfront community and destination at this unique site with a “Marina Marketplace” – extend the urban waterfront village fabric linking the marine and cultural histories together at the marina, and draw people to the water’s edge to live, work and play.

Throughout the marina business case study process the focus was on developing alternative concepts which would retain the current marine related jobs on-site and possibly expand upon them; meet the needs of current and future seasonal and transient boaters; and be financially viable while operating within a mixed use context.

On-site Facilities and Services for the Alternative Concepts

Based on a review of the on-site facilities and services provided at other marinas operating within a mixed-use context on Lake Ontario, in Northern North America and Northern Europe and the in-put

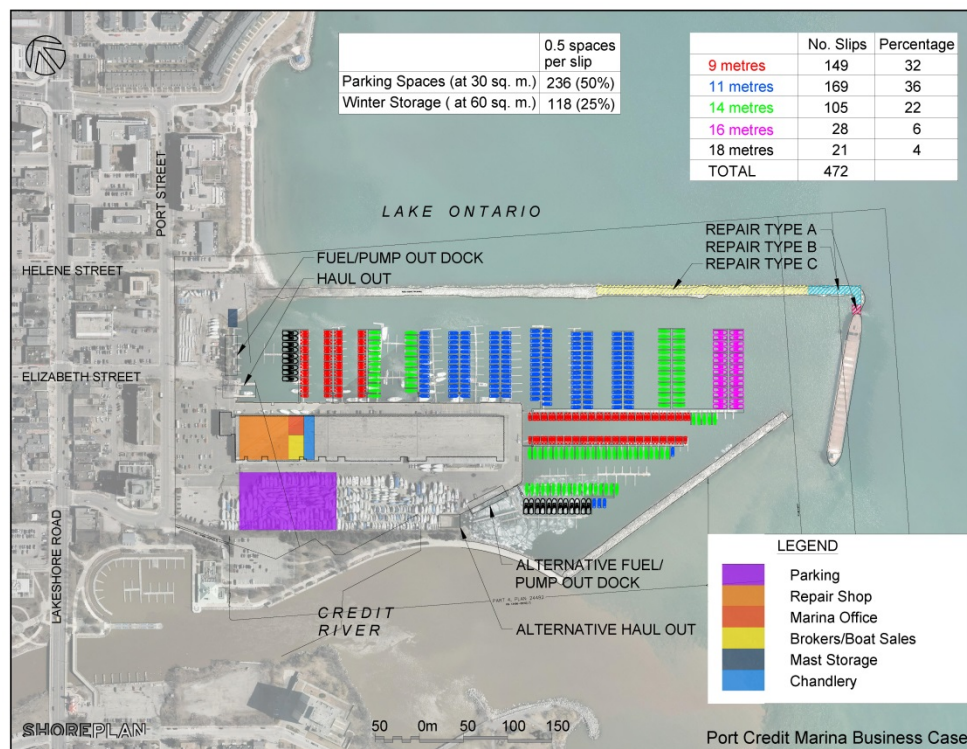
provided through contact with each of the current PCHM tenants, charter fishing boat operators, and boaters and residents through an on-line survey on the City of Mississauga's web-site a number of components and spatial areas were considered in developing the alternative concepts for the 1 Port Street East site.

Alternative Concepts

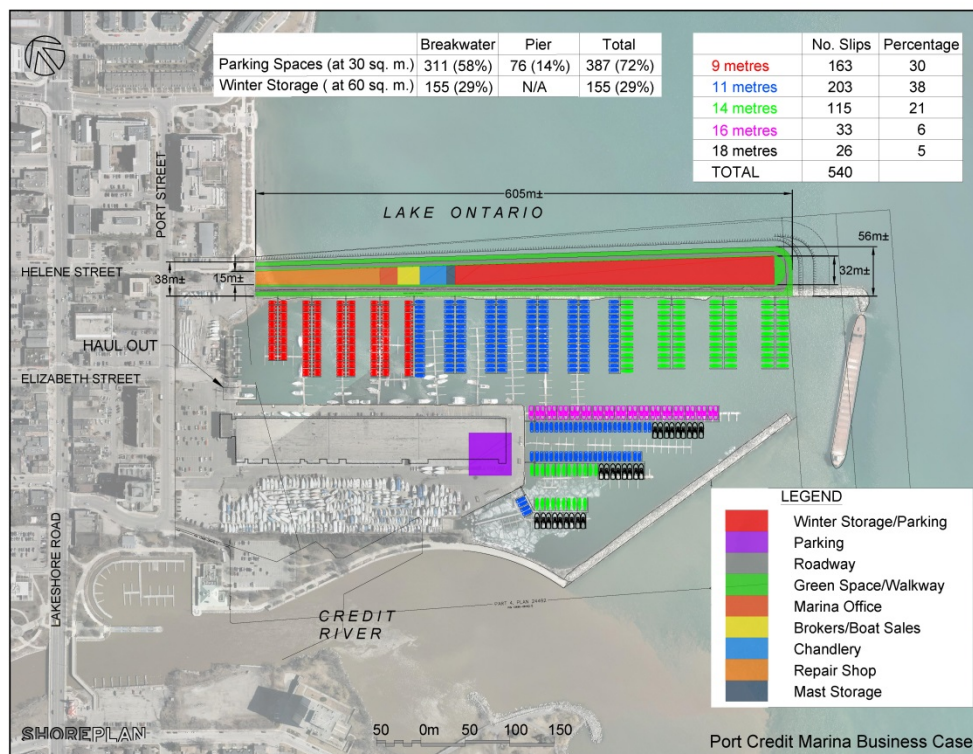
A number of alternative concepts for a marina development within the existing basin have been developed. The concepts started with the three "possibility" options developed by the City of Mississauga.

These options were first modified and refined to create alternative concepts that accommodated both recreational craft and tour boats. After further investigation, cruise ships/tour boats and water taxis were dropped from further consideration and the alternative concepts were further refined to create four initial alternative concepts identified as Alternative Concepts 1 to 4. These initial alternative concepts were reviewed with City staff and subsequently Alternative Concept 1 was refined to create Alternative Concept 1a and new alternative concepts 5 to 8 were developed and assessed. Alternative Concepts 5 and 8 were further refined and are presented as Alternative Concepts 5a and 8a. In total eleven alternative concepts were developed, three exclusively tied to the West Wharf (as in the current operation) and eight involving use of the East Breakwater and a portion of the West Wharf. The following two Figures provide an example of both.

The critical differences between the first set of alternative concepts, 1 to 4 and the second set, 1a and 5 to 8, is the reduction of fill quantity along the east breakwater, the reduction or elimination of the winter storage at this site and the reduction or elimination of repair capabilities at this location.



Potential West Wharf Alternative Concept



Potential East Breakwater Alternative Concept

Seasonal and Transient Boater Demand

Based on the growth in size and number of boats and boaters within the market area of the proposed 1 Port Street East marina, projected use levels were derived for each of the eleven potential alternative concepts.

Each of the eleven alternative concepts includes seasonal and transient slips and a mix of 9, 11, 14, 16 and 18 metre long slips roughly proportional to the mix of boats within the market area expected to use the marina. (i.e. 30%, 9 metres; 40%, 11 metres; 20%, 14 metres; 5% 16 metres; and 5%, 18 metres). The number of slips in each size category varies slightly due to the design consideration required for the marina basin in each concept.

Demand for Seasonal Slips

Demand for seasonal slips will come from existing marina slip holders, trade up from existing marinas as this will be the newest full-service marina in the market area with much sought after 11 to 18 metre slips, Charter Fishing Operators, and latent demand existing because of the short-fall of seasonal slips within the market area of the proposed marina site. A breakdown of the size of slips likely to be occupied at the marina under the eleven alternative concepts is provided for the first 10 years of operation. This breakdown reflects the projected size mix of boats expected within the market area of the proposed marina.

This projection is premised on the fact that the seasonal slips at Credit Village Marina, Lakefront Promenade Marina and Port Credit Yacht Club are 98.4 percent occupied, exceeding maximum practical capacity of 95 percent, and at least 95 percent of the existing seasonal slips holders will wish to keep their boats in the re-developed Port Credit Harbour Marina. Based on industry averages it is assumed that 3 percent of the 1,015 boaters at area marinas will be interested in trading up or changing marinas.

All 15 of the Charter Fishing Operators indicated they would return to the re-developed marina. Latent or unsatisfied demand will account for the remaining source of users at the marina.

Summary of Seasonal Slip Demand

Based on the level of demand in the marketplace it is projected that 153 nine metre slips could be occupied in Year 1, meaning all 11 alternative concepts are projected to fully occupy their 9 metre slips in Year 1. 191 eleven metre slips could be occupied in Year 1, as a result all 11 concepts are also projected to fully occupy their available 11 metre slips in Year 1. The expansion to 200 eleven metre slips in Phase 2 will require three years to reach full occupancy. It is further projected that 95 fourteen metre slips will be fully occupied in Year 1. Alternative Concept 1 with 98, Alternative Concept 2 with 111, and Alternative Concepts 3 and 4 with 108 fourteen metre slips will not be fully occupied in this category until Year 6, Year 8, and Year 8 respectively. The projections with the 16 metre slips indicate that 23 will be occupied in Year 1. It is projected that the 26 sixteen metre slips with Alternative Concept 1 will be fully occupied in Year 2, and the 31 with Alternative Concepts 2, 3 and 4 by Year 4. Demand for 18 metre slips indicates a maximum of 17 will be occupied in Year 1 and 22 in Year 2. The 24 eighteen metre slips with Alternative Concepts 2, 3, and 4, will be at 100 percent occupancy by Year 4, and the 26 in Phase 2 of Alternative Concept 6 by Year 8.

Demand for Transient Slips

The boating season in the Mississauga area is approximately 138 days (beginning in the latter half of May and concluding at the end of September). Historically, holidays and weekends, in particular special event weekends are the most important source of boater demand for transient slips. Within Port Credit Harbour marina's 138 day boating season there are approximately 16 holiday weekend days, 14 normal weekend days, and 92 normal week days (i.e. Monday through Friday). Port Credit currently plays host to at least five weekend events that would be of interest to transient boaters (i.e. Port Credit In-water Boat Shows, Mississauga Waterfront Festival, Port Credit Outdoor Art Show, Port Credit Busker Festival, Southside Shuffle Blues and Jazz Festival) that contribute another 10 weekend days to the boating season. It is possible and desirable to organize three new special event weekends around the new marina and the other marine-oriented activities that may be part of the desired further development of the 1 Port Street East site. All of the current events take place on-site or in Memorial Park, a short walk from the site. The existing and proposed special events would therefore attract additional transient boaters and contribute to the vitality of the local businesses at the same time.

Within the eleven proposed alternative concepts for the development of the Port Credit Harbour marina, it is recommended that Alternative Concepts 3 and 4 have 33 dedicated transient slips, and the other concepts 30 dedicated transient slips. In arriving at the projections for the number of transient boaters attracted to the marina it is assumed that 18 seasonal slips will be available at any one time for transient boater use in Alternative Concepts 1, 1a, 5, 6, 7, 8, 8a and 5a; 20 with Alternative Concept 2, and 22 with Alternative Concepts 3, and 4. This follows the policy among many marinas to allow transient use of seasonal slips when those slips are known to be vacant for a minimum of 24 hours and with the permission of the seasonal lessee.

Potential Operational Approaches

Public Marina Operational Model

In order for this option to work the City would have to either own the land and waterlot or lease the land and waterlot. The City would develop the marina with 100 percent of the cost carried by the City. The City could then operate the marina themselves, or contract the marina out to a private operator (as the case with the recently developed Trent Port Marina in Quinte West). The advantage is that the City receives 100 percent of the profit and has complete control over how the marina is operated. Municipalities can usually borrow money at a better rate than a private developer. Economic spin-off would accrue to the City as the marina staff would be the first point of contact for visitors and they could be encouraged to stay longer and partake in activities away from the marina itself. The major

disadvantages would be that the City would be responsible for financing the development and 100 percent of any losses would be the City's responsibility.

Private Marina Operational Model

A private developer would either own the land and waterlot or lease the the land and waterlot. The private developer would build the marina with 100 percent of the cost carried by the private developer. The advantage of this approach would be that there would be a marina on the City's waterfront with no financing cost to the City and 100 percent of any losses would be the private developer's responsibility. The disadvantage would be that the City would have little control over how the marina was operated and maintained, and the private operator would be more interested in ensuring that visitor expenditures remained within the marina property and not in the downtown area.

Public/Private Marina Operational Model

For this option to work the City would have to either own the land and waterlot (as the case with Toronto Island Marina and Ashbridge's Bay Marina), or lease the land and waterlot and then turn around and arrange a lease with a private operator (as is the case of Port Dalhousie Pier Marina). The City would likely have to bear a portion of the construction cost. The advantage would be that the City would not be responsible for the total capital cost of development, the City would not be responsible for the operating costs and 100 percent of any losses would be the private developer's responsibility. The disadvantage of this approach is that the City would receive a smaller portion of any profit and the private partner could walk away if the losses grew too large. In addition, private operators tend to defer major maintenance tasks to the end of the lease agreement which may mean the City would likely incur some of the maintenance costs. While public/private partnerships or P3's are a possibility, we are unaware of any marina constructed in Ontario with this approach.

Financial Projections

Detailed financial projections of revenues and disbursements are provided for the first ten operating years of the eleven alternative concepts assuming operation as a publically owned and operated marina and a privately owned and operated marina under a series of scenarios which include on-site winter storage only; on and off-site winter storage; no tenants (i.e. repair service, chandlery, boat brokers/boat sales); and reduced repair service space with reduced on-site winter storage.

The difference between the publically operated marina and privately operated marina is reflected in the disbursements, as the revenues will remain the same.

Capital Cost Financing

Public Sector Operator

If the City is to build and operate the marina it is expected that the entire capital cost required for construction of the marina and its land-based amenities will be financed through municipal debentures. Although no federal or provincial infrastructure grants were identified that apply to marinas, it is recommended that the Municipality continue an approach with the federal and provincial governments regarding the possibility of obtaining some form of infrastructure grants.

Since the major facilities in the marina (i.e. marina building(s), docks, and breakwaters) have an expected life that exceeds 25 years it will be possible to obtain municipal debentures with either a 20 or 25 year amortization period to cover the projected total capital cost of constructing the marina. A 25 year amortization period with an interest rate of 3.34 percent per annum has been used for each of the alternative concepts.

Private Sector Operator

A private developer building and operating the marina would be faced with higher financing costs than the City. Although the revenue generated by the operating marina would be the same, a private operator would face higher annual disbursements in the form of higher insurance cost, property taxes, property rent and assuming off-site winter storage was included the cost of leasing the space for the winter months. A 25 year amortization period with an interest rate of 5.5 percent per annum has been used for each of the alternative concepts.

Without another revenue source to off-set the debt service, we do not believe that any of the marina alternative concepts included in this analysis would be attractive to a private developer/operator.

Economic Impacts

While we have considered only those impacts associated with the people using the marina and marina building during the operating period; visitors attracted to the waterfront as a result of “boater activity” can also be an important source of revenue and economic spinoffs.

The re-developed Port Credit harbour Marina will be an income producing asset, with the potential to generate thousands of dollars in annual revenue to the benefit of the City of Mississauga. It will increase public access to the waterfront; enhance the physical appearance of the City’s waterfront; raise real estate property values on the waterfront and in nearby neighbourhoods; act as a catalyst for new commercial and residential development, and in doing so increase the tax base; and create an improved aquatic habitat

The economic impacts calculated for each of the eleven alternative concepts are measured in terms of direct, indirect and induced Gross Domestic Product (GDP) expenditures; labour income; direct, indirect and induced jobs; and federal, provincial and municipal tax revenues.

Economic Impacts from Construction of Marina

Economic impacts were derived for each of the years the re-developed marina will be under construction. The industry sectors impacted the most by the construction of the marina will be construction; finance, insurance, rental & leasing; professional, scientific and technical services; manufacturing; retail; and wholesale trade.

Economic Impacts Due to Operation of Marina

Economic impacts were derived for each of the first ten years of operation of the marina for each of the eleven alternative concepts. The expenditures used to determine the economic impact resulting from the operation of the marina come from four sources.

- Total seasonal boater, transient boater, and non-boater resident and visitor expenditures at the marina;
- Total revenues from tenant operations (i.e. chandlery, repair service, yacht brokers and boat sales, and charter fishing boat operators);
- Total seasonal boater expenditures away from the marina but within the City of Mississauga; and,
- Total transient boater expenditures away from the marina but within the City of Mississauga.

The industry sectors in Mississauga impacted the most by the operation of the marina will be retail trade; culture, entertainment and recreation; food & beverage services; finance, insurance, rental & leasing; fuel and transportation; wholesale trade, and manufacturing.

Implementation Plan

Fill Placement and Other Improvements

Several of the alternative concepts presented include the creation of additional land along the east side of the east breakwater. Lakefill projects would be subject to a number of approvals and specific filling procedures. The filling practices are outlined in the Ontario Fill Quality Guide and the Good Management Practices for Shore-infilling in Ontario (MOE/MNR 2011).

Given the exposed nature of the site and to meet the guidelines set out in the guide, the potential filling operations are expected to consist of creating a berm along the outside of the fill area, protecting that berm with appropriate coastal protection and then filling the interior “cavity” with suitable fill material. The exterior berm would need to be constructed of material meeting the “unconfined fill” standard and the material used to fill the cavity between the new berm and the existing east breakwater could be filled with “unconfined fill”.

Phasing and Implementation

The alternative concepts allow for phased implementation. The existing marina operation can continue while the approval process is in progress, while improvements to the outer part of the marina are taking place, and while lake filling, if it becomes a part of the project, is undertaken. The removal of the existing docks and the installation of the new docks, can be achieved between boating seasons.

Parking Strategy and Planning Policy Framework

The concept of a new marina in the Basin at One Port Street is an excellent opportunity to provide needed marina facilities within the City and to continue the important connection between the historic land and water-based functions of Port Credit. The new marina facility at 1 Port Street East is expected to generate economic opportunities for the City, be highly integrated with both the redevelopment of the Pier, and with the rest of the Port Credit Area and to be considered a significant community benefit for the residents of Mississauga.

The Marina Parking Strategy

Parking for marina facilities is an important consideration at this stage of the planning process. Parking issues in an evolving urban, mixed use area are complex. Given that the marina component of the 1 Port Street East is expected to occur in a much more urban and mixed-use context, in proximity to places to live, places to work, places to shop and major transit facilities, there are enhanced opportunities to consider an alternative approach to parking, including a reduced parking standard, and strategies for ‘shared’ parking within the broader Port Credit Area.

As such, the majority of the required marina parking for 1 Port Street East should be accommodated as part of the recommended ‘shared’ parking strategy promoted in the *Port Credit Parking Strategy - 2014*. The recommended ‘shared’ parking strategy will enable the appropriate accommodation of parking demands related to an evolving, mixed-use, urban district that will be well served by transit. The ‘shared’ parking supply will provide a common pool of parking that can be utilized by different users at different times of the day, the week or the year.

Funding Opportunities to Achieve a Public Marina

The achievement of a new marina facility at 1 Port Street East is a function of establishing the City’s objectives for its evolution and development, and working with the current landowner, who can assist the City in delivering the facility. A new marina may be considered to be part of the public realm, but the City will need to creatively use its legislative authority and negotiating skills to secure the Basin and associated Shore land that are necessary components of the marina development. In this unique circumstance, the marina and its ongoing improvement and maintenance is fundamental to the functional

‘quality of place’, and the associated and resultant ‘quality of life’ within the Port Credit Area. The marina may also provide significant marketing and value-added opportunities for the adjacent development of the wharf.

Planning Policy Framework

The entire Port Credit Area is subject to numerous planning policies in the Official Plan and within the Port Credit Local Area Plan which requires that a master plan be completed for the site.

- In terms of moving forward with the planning for the entire 1 Port Street East Site, it is recommended that the City consider the site comprehensively through the required Master Plan, but that the breakwater, basin and shore lands associated with the proposed marina facility use become a separate, but related designation within the Port Credit Local Area Plan. The new designation will be generally within the framework of the broader Greenlands designation and the Desirable Urban Form policies of the Official Plan, and the specific policies of the Port Credit Local Area Plan. This designation shall provide more specific policy direction that articulates permitted uses, height and built form, potential adverse affects, parking facilities, and funding opportunities, while recognizing the existing policy context.

Overall, the City will ensure to the greatest extent possible that all funds generated through the Planning Act for site plan, parking, parkland dedication and bonusing, and the policy framework of the Development Charges By-law, shall be applied within the 1 Port Street East Site, including, where appropriate, the marina facility and its associated facilities.

Assessment of Alternative Concepts

The eleven alternative concepts were analyzed assuming a publically owned and operated marina and a privately owned and operated marina under a series of scenarios which included on-site winter storage only, on and off-site winter storage, no tenants (i.e. repair service, chandlery, boat brokers/boat sales), and reduced repair service space with reduced on-site winter storage.

The following eleven factors were considered in assessing each of the alternative concepts:

- total direct expenditures generated on and off-site
- number of new jobs created on and off-site
- disruption of on-going operation
- net profit generated by end of Year 10
- capital cost per slip
- full service marina facilities
- views and vistas
- enhancement of public waterfront
- on-site winter boat storage
- approvability by external agencies
- compatibility with planned development

Each of the eleven alternative concepts were assessed on each factor according to a rating of most preferred, intermediate or neutrally preferred, and not preferred. All factors were considered equal when applying them to the alternative concepts.

Based on the assessment of these factors, Alternative Concepts 8 and 8a were most preferred, Alternative Concepts 1a, 5, 6, and 7 were not preferred, and Alternative Concepts 1, 2, 3, 4, and 5a were intermediately preferred.

Preferred Alternative Concepts for Marina at 1 Port Street East Site

	Total Capital Cost	Total Direct Expenditures (Economic Impact)	Number of Jobs	Full Service Marina Facilities	Net Profit at end of Year 10	Capital Cost per Slip	Approvability (External Agencies)	Disruption of On-going Operation	Views and Vistas	Compatibility with Planned Development	Enhancement of Public Waterfront Access	On-Site Winter Boat Storage	Score	Preferred
Concept 1	\$24,743,570	\$158,591,690	153		\$6,571,920	\$37,000						118	7 1 3	
Concept 2	\$49,806,500	\$162,365,860	158		(\$7,009,690)	\$74,000						155	7 1 3	
Concept 3	\$49,769,500	\$164,599,280	160		(\$6,190,360)	\$68,000						155	7 1 3	
Concept 4	\$50,091,200	\$167,730,780	163		(\$3,657,790)	\$68,000						220	6 2 3	
Concept 1a	\$20,280,380	\$116,425,180	115		\$6,463,330	\$31,000						0	5 0 6	
Concept 5	\$22,423,420	\$116,624,010	116		\$5,276,040	\$34,000						0	3 3 5	
Concept 5a	\$24,499,510	\$116,624,010	116		\$4,038,140	\$38,000						0	5 2 4	
Concept 6	\$21,898,300	\$114,122,190	116		\$4,669,670	\$33,000						0	4 2 5	
Concept 7	\$22,323,540	\$117,536,090	117		\$5,730,520	\$33,000						0	5 0 6	
Concept 8	\$31,671,900	\$144,233,420	142		\$5,247,200	\$48,000						100	1 10 0	
Concept 8a	\$33,748,000	\$144,233,420	142		\$4,009,300	\$50,000						100	3 8 0	

	163	Most Preferred
	142	Intermediate Preferred
	115	Not Preferred

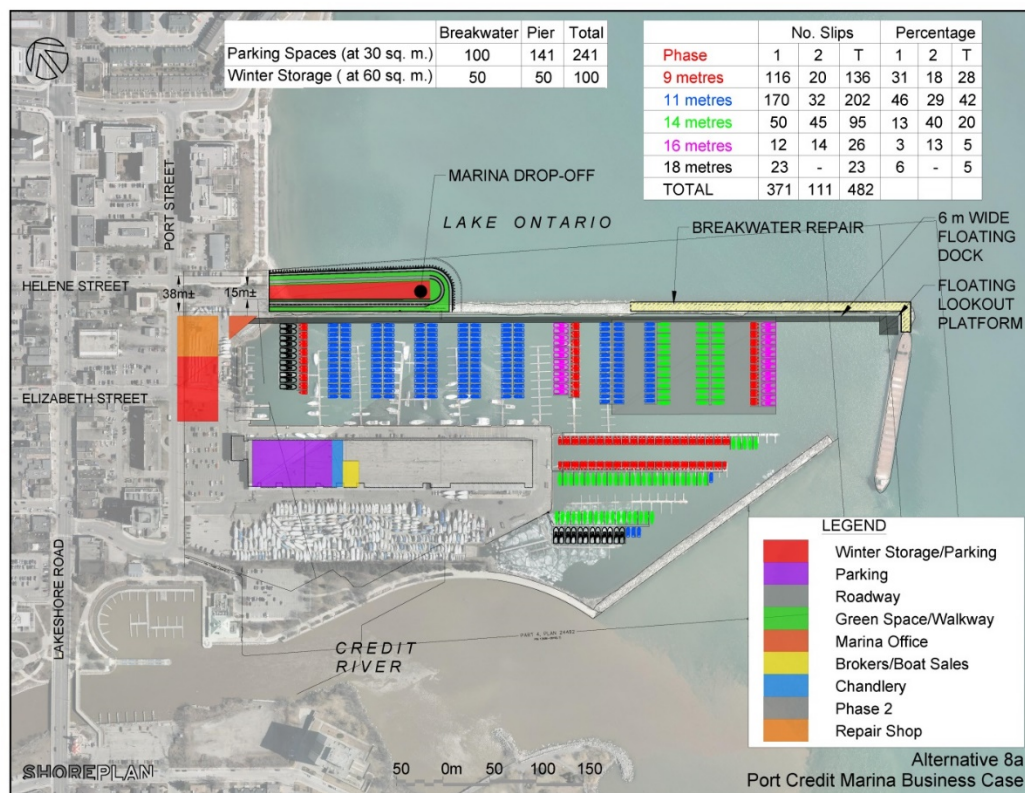
Preferred Alternative Concepts

The fundamental difference between Alternative Concept 8a (rated as preferred) and 5a (rated as intermediate preferred) is the exclusion of the reduced repair service and requisite winter storage area in the latter. One of the important factors in selecting the alternative concepts was the provision of public access along the east breakwater. Alternative Concepts 2, 3, and 4 provide that, but at a much higher overall cost and cost per slip to a point that makes the marina investment less attractive. The height of the expanded east breakwater with Alternative Concepts 2, 3, and 4 creates issues with views and vistas that are not present with Alternative Concept 5a. As a result, Alternative Concept 5a was given a higher preference rating than 2, 3, or 4.

Alternative Concept 8a

In Alternative Concept 8a most of the docks are connected to a wide floating dock that parallels the east breakwater. The rest of the docks are connected to the south side of the pier in a configuration similar to the present marina operations. The proposed floating dock along the marina basin side of the east breakwater is 6 metres wide and public access is provided to it. The floating dock is lengthened beyond the boat slips and a floating lookout platform is provided at the south end near the Ridgetown. The repair shop is reduced to approximately 85 percent of the size of the existing shop.

The parking is provided on the expanded breakwater and the pier to accommodate the two dock locations. Parking on the expanded breakwater is proposed to be used for winter storage. A public walkway and a landscape buffer are provided along the outside of the breakwater. The parking and winter storage are provided on the interior of the breakwater. This minimizes the exposure of the stored boats to the elements in the winter. The parking area is expected to be paved. A drop off area would be incorporated at the south end of the expanded breakwater.



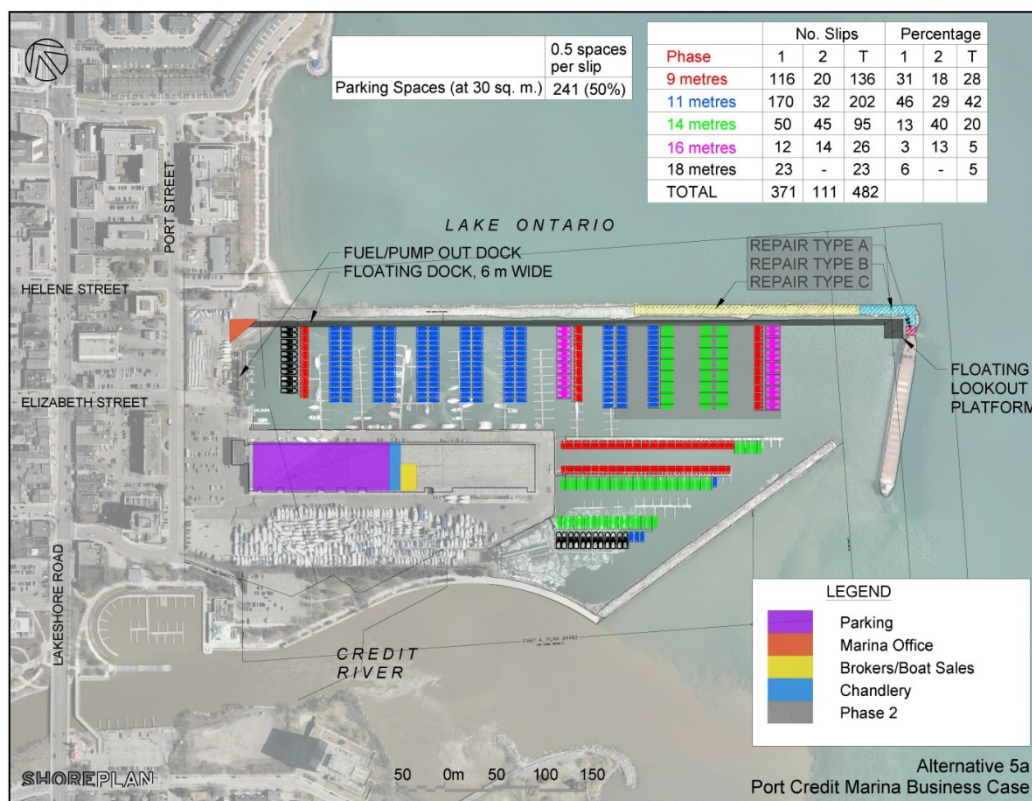
Alternative Concept 8a

The width of the breakwater was selected to completely fill but to stay within the limits of the existing water lot associated with the Canada Lands Company site. The top of the expanded east breakwater is estimated to be approximately 38 metres wide at the shore and approximately 45 metres wide at the south end. The breakwater is expected to be constructed of stone core with exterior protection of rip rap and armour stone. The highest point of the breakwater is expected to be the south end. Applying standard design and construction criteria, the crest of the breakwater is expected to be near elevation 78.0 metres and gradually reduce to match the existing land elevation at the shore. The west side of the breakwater would remain at approximately the same level as the existing breakwater.

The placement of docks within the entire boat basin requires modifications to the outer 300 metres of the east breakwater and connection of the stone breakwater to the hull of the Ridgetown. Therefore, the dock installation is proposed to be completed in two phases. Phase 1 docks would be located in the north half of the basin and would not require any improvements of the east breakwater. Phase 2 docks would be implemented only after the improvements to the south part of the east breakwater are completed. This approach delays the substantial expenditure associated with the breakwater work.

Public access is provided along the shore of the existing pier, along the perimeter of the expanded section of the east breakwater and along the main floating access pier west of the east breakwater. The marina development does not specifically provide aquatic or bird habitat improvements, but such work can be carried out as part of the overall redevelopment. Opportunities specifically exist with the proposed expansion of the east breakwater. The development of this alternative will not impact coastal processes, local or regional. The existing breakwater structures extend further offshore than the proposed expansion of the east breakwater and remain the controlling structures with respect to sediment transport.

The construction cost of this alternative concept is estimated to be \$20,007,990 and \$4,528,930 for Phase 1 and Phase 2 respectively for a total of \$24,536,920. These amounts do not include any contingencies, allowances or taxes. A minimum 30 percent allowance for design and construction allowance is recommended. The cost does not include any improvements to the existing steel sheet pile wall of the pier. Any required improvements are cosmetic rather than structural and are assumed to be included as part of the site residential/mix use development, not the marina development. The total capital cost for Alternative Concept 8a including site approval costs, a 30 percent contingency allowance and the new equipment required for operation is estimated at \$33,478,000.

Alternative Concept 5a**Alternative Concept 5a**

The basin layout, number and configuration of slips for Alternative Concept 5a is the same as Alternative Concept 8a. This alternative concept provides no on site winter storage and no repair facilities.

The construction cost of this alternative concept is estimated to be \$13,432,240 and \$4,528,920 for Phase 1 and Phase 2 respectively for a total of \$17,961,160. These amounts do not include any contingencies, allowances or taxes. A minimum 30 percent allowance for design and construction contingency is recommended. As with Alternative Concept 8a, this cost does not include any improvements to the existing steel sheet pile wall of the pier and any required improvements are cosmetic rather than structural and are assumed to be included as part of the site residential/mix use development, not the marina development. The total capital cost for Alternative Concept 5a including site approval costs, a 30 percent contingency allowance and the new equipment required for operation is estimated at \$24,499,510.

Summary of Conclusions

The information and data collected as part of this study process, interviews with marina owners and operators, tenants and sub-tenants of 1 Port Street East, Charter Fishing/Tour Boat Operators and seasonal boaters and residents of Mississauga provide a clear indication that:

- There is a strong desire for the continued operation of a full service marina on the Port Credit waterfront;
- A business case can be made for the successful operation of a full service marina on the Port Credit waterfront;
- A future marina at 1 Port Street East is an economic, recreational, and cultural, heritage imperative, and of strategic importance to Port Credit and the City;
- Marinas require heavy investment and have high fixed costs;
- Ongoing high occupancy and revenue producing components are crucial to financial success. Key revenue producing components are:
 - Large number of seasonal slips
 - Winter storage on and off-site
 - Fuel dock with high speed pumps
 - Supportive revenue components include repair services and chandlery (boat supplies store)
- The existing marina operation can continue while the approval process is in progress, while improvements to the outer part of the marina basin are taking place, and while lake filling, if it becomes a part of the project, is undertaken. The removal of the existing docks and the installation of new docks can be achieved between boating seasons;
- A phased approach to the re-development of the marina is possible without negatively impacting the marina's viability;
- The marina can be designed to allow public access at and to the waterfront at 1 Port Street East and function within the future proposed mix use on the site as shown in a number of the alternative concepts presented in the business case;
- Without another revenue source to off-set the debt service none of the alternative concepts for the marina would be attractive to a private developer/operator; and,
- To protect the future of a marina on the 1 Port Street East site as a stand-alone operation in the future, it is expected that the municipality would need to be involved through ownership and/or operation

ICIP Community Culture & Recreation Projects

Project Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	Size of Project	Planned Start Year within Program Timeframe	Year of Completion within Program Timeframe	Meets ICIP Objectives	We have Enough Information to Apply	Is it in line with our LRFP?	Comments
Public Marina and Waterfront Park	-	-	9.4	22.5	22.1	17.3	-	-	-	-	71.3	✔	✔	✔	✔	✔	✔	Meets community and user needs by improving access to Mississauga's waterfront for all residents; included in LRFP conditional on partnership funding.
South Common CC & Library	-	-	1.6	2.7	28.7	28.6	-	-	-	-	61.6	✔	✔	✔	✔	✔	✔	Strategically selected for the project's size and scope to maximize funding.
Central Library	1.5	18.0	20.3	1.1	-	-	-	-	-	-	40.8	✔	⚠	✔	✔	✔	✔	This is an active project. There may be some ambiguity as to eligibility of project (started in 2019). Would have to ensure scope of project applied for has not started and no contracts awarded (as per guidelines).
Burnhamthorpe CC	3.5	15.0	13.4	-	-	-	-	-	-	-	31.9	✔	⚠	✔	✔	✔	✔	Project is for pool redevelopment, therapeutic tank, fitness centre and building renovations; this is an active project (started in 2019); would have to ensure scope of project applied for has not started and no contracts awarded (as per guidelines).
Carmen Corbasson CC	1.5	2.5	15.0	14.1	-	-	-	-	-	-	33.1	✔	⚠	✔	✔	✔	✔	Project is for pool redevelopment, therapeutic tank, fitness centre and building renovations; this is an active project (started in 2019); would have to ensure scope of project applied for has not started and no contracts awarded (as per guidelines).
Total Eligible ICIP Projects	6.5	35.5	59.7	40.3	50.8	45.9	-	-	-	-	238.7							

City of Mississauga

Corporate Report



Date: 2019/10/16

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P. Eng,
Acting Commissioner of Transportation and Works

Originator's files:

Meeting date:
2019/10/30

Subject

Micromobility Systems in Mississauga

Recommendations

1. That the report titled Micromobility Systems in Mississauga, dated October 16, 2019 from the Acting Commissioner of Transportation and Works be received; and
2. That staff develop and report back to Council on a regulatory framework to encourage and enable a phased introduction of micromobility systems in the City of Mississauga.

Report Highlights

- Micromobility systems provide users with the ability to use shared devices to travel short distances. There are a variety of devices, governance models and operational models.
- Micromobility systems are a transportation service and it is up to the City to determine the optimal method to deliver such a service to the public.
- Electrification of micromobility fleets presents a significant opportunity for the City of Mississauga.
- Currently e-scooters cannot be operated within the public right-of-way under the Ontario Highway Traffic Act; however, there are ongoing provincial consultations with respect to regulating and legislating e-scooters.

Background

The Cycling Master Plan (2018) recommended exploring the feasibility of bike share systems in Mississauga. Action No. 22 of the Mississauga Transportation Master Plan (2019) also called for the creation of a micromobility policy framework. In addition, a wide range of City, Regional and Provincial plans and policies support micromobility systems, including:

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- Mississauga Official Plan
- Mississauga Transportation Master Plan
- Mississauga TDM Strategy and Implementation Plan
- Mississauga Cycling Master Plan
- Region of Peel: Sustainable Transportation Strategy
- Let's Move Peel: Long Range Transportation Plan
- Region of Peel Official Plan
- Metrolinx 2041 Regional Transportation Plan
- Metrolinx GO Rail Station Access Plan
- Ontario Growth Plan for the Greater Golden Horseshoe

In turn, “Bikes, E-Bikes, and E-Scooters: Expanding Mississauga’s Transportation Options”, a report on micromobility systems in Mississauga, dated August 2019 was completed by staff in response to the actions set out by the aforementioned plans and policies. A copy of the full report is provided in Appendix 1. The following section provides a summary of this report.

Comments

Micromobility systems provide users with the ability to use shared devices to travel short distances. They offer individuals an alternative to travelling by automobile and increase access to multi-modal travel. In addition, they align with established City, Regional and Provincial goals by promoting:

- **Sustainability:** Combating congestion, improving air quality, and reducing emissions;
- **Multi-Modal Transportation:** Providing residents with alternatives to automobile travel;
- **Healthy Communities:** Connecting communities and improving health outcomes;
- **Economic Growth:** Expanding access for residents by providing them with a variety of affordable and reliable transportation options that can get them where they need to be; and
- **Equity:** Increasing access to viable transportation options for all and promoting better social inclusion.

Devices and System Models

The field of micromobility is currently in a state of flux and disruption. While conventional bicycle share systems have existed for several years, recent vehicle (or “device”) innovations like electric-assist bicycles and electric scooters, coupled with private ownership and operation system models, have created new options for municipalities to consider.

Currently, shared use micromobility systems are comprised of bike, e-bike or e-scooter fleets, which are either publically or privately owned. Originally, it was typical for bike share systems to be publically owned and either publicly or privately operated; however, there has been a recent shift towards privately owned and operated models. The governance model selected determines how the system is designed.

Most publically owned systems are privately operated, although some are publically operated. Publically owned systems' fleets consist primarily of bikes, with select municipalities expanding their systems to include e-bikes. Most public systems use a docked model, relying on the use of stations across a set service area. At this point in time there are no examples globally of publically owned e-scooter share systems.

In contrast, privately owned and operated systems have been found to make use of bikes, e-bikes and e-scooters. However, e-bikes and e-scooters are the most commonly used devices under private models. Private operators use either a dockless or hybrid model for their micromobility systems. A dockless model means that the device can be left "free-standing" or "lock-to" when not in use, with larger operators typically using a "free-standing" model.

Under a free-standing dockless model, users are allowed to park their devices anywhere within the furniture zone of the sidewalk. To minimize clutter, municipalities may choose to implement "no parking" zones and designated parking areas closer to the city centre or areas of high pedestrian traffic. They may also use corrals or havens (painted parking areas) to better organize the parking of micromobility devices. Operators are then required to create a virtual border for select areas using GPS in order to further regulate or restrict the use of micromobility devices within the specified zone by geofencing all designated areas on their service maps.

A "lock-to" model requires users to end their trips by locking the device to street furniture. Municipalities can choose to restrict which types of furniture items the micromobility devices can be locked to, such as public bike racks, or to specific furniture within designated parking areas.

Although less common, some smaller operators use a hybrid model. Hybrid models mix the docked and dockless approaches. They make use of both built infrastructure and designated areas. Users have the ability to pick up and return devices from and to stations and designated areas alike. Typically, a fee is charged for ending a trip at a designated zone in order to incentivize individuals to use stations when possible.

More information on the three device types (bike, e-bike and e-scooter) and the three system models (docked, dockless and hybrid) is provided in Appendix 2 and Appendix 3, respectively.

Device Safety and Standards

Conventional bikes have a longstanding history of usage in Mississauga and in the field of micromobility in general. In contrast, e-bikes and e-scooters have emerged in shared systems much more recently; in 2014 and 2017, respectively. Both bikes and e-bikes must comply with international technical and design standards (ISO 4210). However, there are no comparable international standards specifically for e-scooters. Germany is the only western country with any sort of design standard for e-scooters. It is also important to note that since e-scooters are typically targeted to a younger market, there are ongoing safety concerns that are still in the process of being addressed both by operators and cities.

The safety concerns noted in some jurisdictions with respect to e-scooters includes: poorly regulated or deficient devices, and higher than expected injury rates relative to total rides. The

municipality may be able to mitigate concerns about the devices by stipulating specific standards for private operators, possibly derived from the German standards noted above. Regarding injuries, in the City of Portland e-scooter pilot statewide emergency room visit data indicated that there were many injuries resulting from e-scooter use. Most injuries were a result of falls rather than collisions. During the four month pilot there were 176 scooter related ER visits, which made up 5% of traffic injuries during that same four month period. While there were a large number of injuries relative to total rides, the Multnomah County ER did not see the 5% injury rate as a deterrent to a second pilot (Portland Bureau of Transportation: E-Scooters Findings Report, 2018).

Micromobility in Mississauga

There is significant potential for the uptake of micromobility systems in certain areas in Mississauga. Areas of highest potential are concentrated around the downtown core and surrounding areas, with additional areas of potential across the City. Electrification of micromobility fleets presents a further opportunity for the City, where trip distances (whether real or perceived) are long and present a barrier to entry for active transportation among many residents. Using micromobility systems as a first and last mile solution to major transit services such as GO, BRT and LRT is a common strategy in other cities. Potential future growth areas are evident when considering anticipated population growth, planned cycling infrastructure projects, and other on-going city building projects (e.g. major transit expansion). The development of the Hurontario LRT corridor, major developments along the waterfront, and further intensification of the downtown will generate transportation demand that a micromobility system can help to meet.

While micromobility systems have in recent years been promoted as a no-cost transportation service for cities, it remains to be seen whether systems that lack direct public investment can survive over the long term. Indeed, the “no-cost” option has largely gone away; cities are procuring systems and operators on a contract basis, or setting up permit and fee-for-access frameworks to generate revenue and offset costs of oversight, while private operators advocate for fewer or less costly fee structures citing a lack of financial sustainability. From a planning perspective, systems need to be planned and operated with the interests of the city in mind, leveraging local knowledge and expertise rather than relying on private industry which may have limited local knowledge or planning qualifications.

Legislation

Currently, bikes and e-bikes can be operated within the public right-of-way in Ontario, while e-scooters cannot. There are upcoming legislative changes expected pertaining to micromobility systems. The Federal government has announced its intent to rescind the definition of e-bikes, which is currently included under the Ontario Highway Traffic Act. In turn, there are ongoing Provincial consultations regarding the definition of e-bikes.

The Province of Ontario is also conducting consultations with respect to creating regulations and legislation addressing e-scooters in order to assess the possibility of integrating the use of e-scooters within the public right-of-way. Staff submitted comments to the Province in

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September 2019 regarding a proposed pilot period to allow e-scooters to operate within the public right-of-way (see Appendix 4). It is anticipated that a multi-year pilot period will be announced soon. The City should be prepared to provide further regulation of e-scooters within its municipal boundaries, especially related to vehicle (“device”) standards and the impact of e-scooter use on existing City infrastructure such as sidewalks and trails.

Furthermore, the Parks, Forestry and Environment Division at the City is in the process of updating the Parks by-law, which may have implications regarding the use of e-bikes on off-road multi-use trails.

Mississauga Cycling Advisory Committee Comments:

The Mississauga Cycling Advisory Committee considered the subject of this report at its September 10, 2019 meeting. Members engaged in a discussion with respect to the proposed recommendations and the Committee received the staff deputation on the matter.

Road Safety Committee Comments:

The Road Safety Committee considered the subject of this report at its September 24, 2019 meeting. Members supported the recommendations and suggested the following areas of focus:

- pilot a program in an area of high density;
- safety;
- preference for a docked system over a dockless system;
- consideration for speed limits on devices;
- review statistics on conflicts between e-bikes, e-scooters and vehicles; and
- impacts on multi-use trails.

Financial Impact

There is no financial impact to these recommendations at this point in time.

Conclusion

Micromobility has been and will continue to be an effective first and last mile solution for cities worldwide, and a useful transportation service for the public for a variety of trip purposes. The City should determine the optimal method to deliver such a service to the public by developing a regulatory framework that will guide the introduction of micromobility systems in Mississauga. As a result, this report recommends that staff be directed to develop and report back to Council on a regulatory framework to encourage and enable a phased introduction of micromobility systems in the City of Mississauga.

Attachments

Appendix 1: Bikes, E-Bikes and Scooters: Expanding Mississauga's Transportation Options

Appendix 2: Micromobility Vehicle Types

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Appendix 3: Micromobility System Models

Appendix 4: City of Mississauga Comments to Province of Ontario - Kick Style Electric Scooter (e-scooters) - Proposal #19-MTO026

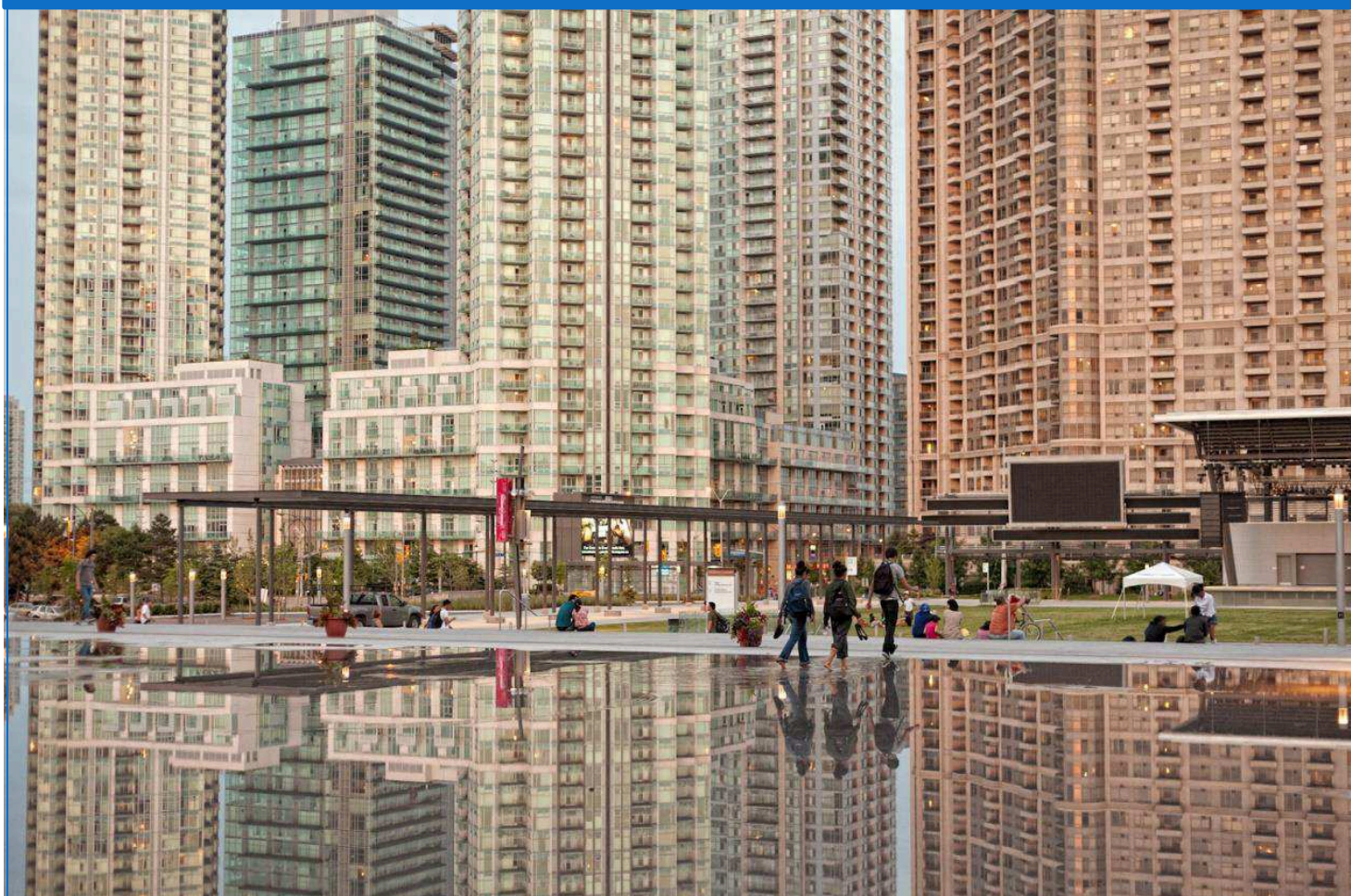


Helen Noehammer, M.A.Sc., P. Eng, Acting Commissioner of Transportation and Works

Prepared by: Matthew Sweet, Manager, Active Transportation

Bikes, E-bikes, and E-Scooters: Expanding Mississauga's Transportation Options

August 2019



Executive Summary

Micromobility Systems, Plans, and Policies

Micromobility systems provide users with the ability to use shared devices to travel short distances. They offer individuals an alternative to travelling by automobile and increase access to multi-modal travel. In addition, they align with established City wide, Regional, and Provincial goals by promoting:

Sustainability	<ul style="list-style-type: none"> • Combating congestion, declining air quality, and reducing emissions
Multi-Modal Transportation	<ul style="list-style-type: none"> • Providing users with alternatives to vehicular travel
Healthy Communities	<ul style="list-style-type: none"> • Connecting communities and improving health outcomes
Economic Growth	<ul style="list-style-type: none"> • Expanding access for users by providing them with a variety of affordable and reliable transportation options that can get them where they need to be
Equity	<ul style="list-style-type: none"> • Increasing access to viable transportation options for all and promoting better social inclusion

Chapter 2 of this report details how plans and policies align with the use of micromobility systems.

Devices and System Models

Currently the field of micromobility is comprised of bike, e-bike, and e-scooter share systems. Systems are either publically or privately owned. Originally bike share systems were publically owned and privately operated; however, there has been a recent shift towards privately owned and operated models. The governance model selected determines how the system is designed.

Publically owned systems can be either publically owned and privately operated or publically owned and operated. Most public systems are publically owned and privately operated. Public systems' fleets consist mostly of bikes, with select cities expanding their systems to include some e-bikes. At this point in time there are no publically owned e-scooter share systems. It is important to note that all public systems use a docked model; relying on the use of stations across a set service area.

In contrast, privately owned and operated systems make use of bikes, e-bikes, and e-scooters. However, e-bikes and e-scooters are the most commonly used devices under private models. Private operators use either a

Appendix 1

dockless or hybrid model for their micromobility systems. A dockless model means that the device can be left **“free-standing”** or **“lock-to”** when not in use, with larger operators typically using a “free-standing” model.

Under a **free-standing** dockless model users are allowed to park their devices anywhere within the **furniture zone** of the sidewalk. In order to minimize clutter Cities may choose to implement “no parking” zones and designated parking areas closer to the city center or areas of high pedestrian traffic. Cities may also make use of corrals or havens (painted parking areas) in order to further coordinate parking. Operators are then required to **geofence** all designated areas on their service maps.

On the other hand, if a **“lock-to”** model is selected then users are required to end their trips by locking devices to street furnishing. Cities may choose to further restrict what devices can be locked to. When using a **“lock-to”** model Cities often restrict parking within public bike racks or designated bike share system parking areas, rather than allowing users to lock devices to all street furnishings.

Although it is less common, some smaller private operators use a hybrid model. Hybrid models mix both the docked and dockless approaches. They make use of both built infrastructure and designated areas. Users have the ability to pick up and return devices from and to stations and designated areas alike. Typically a fee is charged for ending a trip at a designated zone in order to incentive individuals to use stations when possible.

Chapters 4, 5, and 6 provide additional information regarding micromobility devices, systems models, and governance models respectively.

System Requirements

Setting up a successful system, regardless of the model selected, requires clear guidelines. All operators must be licensed by the City. Operators are required to provide a series of plans outlining everything from operation to maintenance. Additionally, fleet size, the service areas, and compliance goals must all be negotiated. Cities must outline metrics and indicators by which they intend to measure the success of each system. Operators and Cities alike must agree on how they will ensure that users are aware of and will comply with all applicable laws and regulations.

Operation agreements should also stipulate how to best ensure that the system established is equitable. Factors like low-income discounts and alternative payment options are especially important for making the system accessible all residents. It is also vital that clear data sharing guidelines are created to outline Cities’ right of use and ensure that users’ personal

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information is protected. Chapter 7 of this report further explores the relevant specifications needed to address the aforementioned factors.

Micromobility in Mississauga

There is significant potential for the use of micromobility systems across various character areas in Mississauga. Areas of highest potential are concentrated around the downtown core and surrounding areas, with additional areas of potential across the City. There is also an opportunity for using micromobility systems as a first and last mile solution for access to GO stations. Potential future growth areas are evident when considering anticipated population growth, planned cycling infrastructure projects, and other on-going city building projects (e.g. major transit expansion). Chapter 9 of this report provides more details on specific areas of potential.

Legislation

Currently, bikes and e-bikes can be operated within the public right of way in Mississauga, while e-scooters cannot. There are many expected upcoming legislative changes pertaining to micromobility systems. The federal government has announced its intent to rescind the definition of e-bikes included under the Ontario Highway Traffic Act. In turn, there are ongoing provincial consultations regarding defining e-bikes.

The province of Ontario is also in the process of conducting consultations with respect to creating regulations and legislation addressing e-scooters in order to assess the possibility of allowing e-scooters to operate within the public right of way. As well as that, the Parks and Forestry Division at the City is in the process of updating the Parks by-law, which will then have implications regarding the use of e-bikes on multi-use trails. Chapter 9 of this report provides further details regarding the current status of all relevant legislation.

Recommendations

In order to best address City goals and expand access to all residents, it is recommended that the City of Mississauga:

1. Support the introduction of a micromobility system in Mississauga
2. Encourage and enable an independently owned and operated micromobility system to be introduced in Mississauga through the creation of a regulatory framework
3. Accept a phased introduction of micromobility systems in Mississauga
4. Favour a bicycle or e-bike share systems over e-scooter systems at this time

Chapter 10 of this report outlines the rationale for all recommendations listed.

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Introduction

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Micromobility systems are a shared mode of transportation used for short distances. These systems are seen as ‘micro’ since devices are typically less than 500 Kg in weight (What is micromobility, how do we define it, and why is it disruptive, 2018). Bikes, e-bikes, scooters, e-scooters, skateboard and hoverboards are all examples of micromobility devices. Common micromobility systems in use in cities today are **bike, e-bike, and e-scooter share systems**.

It is important to note that the field of micromobility has experienced a rapid surge in both scale and scope. Micromobility systems have seen massive growth on a global scale in the last 5 years, fueled by rapid innovation in both devices and system models. The first bike share system was launched in 1995 in Copenhagen (The Global Bike-Share Boom, 2015). Originally bike share systems were coin operated. Since then, technology has rapidly evolved and operators have shifted to the use of radio-frequency identification (RFID) cards, and, most recently, smartphone-based access.

In recent years, the quest for smarter technology has led to the development and popularization of electric vehicles. E-bikes are increasingly popular and private operators’ fleets of shared bikes tend to be largely or wholly consisting of e-bikes. Trends also indicate that micromobility systems that are privately owned tend to utilize dockless systems whereas publically owned systems tend to utilize docking systems. Most recently, starting in 2017, private operators have expanded their services to include e-scooter share systems due to reduced capital costs and an arguably broader reach.

Together bike, e-bike, and e-scooter share systems comprise the current field of micromobility. These shared systems have been presented as a complement to cities’ transportation systems, expanding transportation options for residents. Micromobility systems present an opportunity to promote modal shifts in transportation. By authorizing the use of micromobility systems within their jurisdictions Cities can promote more sustainable modes of transportations that benefit both residents and the environment.

Plans & Policies Supporting Micromobility

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A number of city, regional, and provincial plans and policies support the implementation of micromobility systems.

Policies consulted include:

- Mississauga Official Plan
- Mississauga Transportation Master Plan
- Mississauga TDM Strategy and Implementation Plan
- Mississauga Cycling Master Plan
- Region of Peel: Sustainable Transportation Strategy
- Let's Move Peel: Long Range Transportation Plan
- Region of Peel Official Plan
- Metrolinx 2041 Regional Transportation Plan
- Metrolinx GO Rail Station Access Plan
- Ontario Growth Plan for the Greater Golden Horseshoe

Micromobility systems align with these policies' focus on **sustainability**, **multi-modal transportation**, **healthy communities**, and **economic growth**.

All policies and plans outline the need for a shift in travel behaviour and promote active transportation. It is especially important to note that the *Cycling Master Plan (2018)* directly recommends exploring the feasibility of bike share systems in Mississauga and that Action 22 under the *Mississauga Transportation Master Plan (2019)* calls for the creation of a micromobility policy framework.

Sustainability

The transportation sector produces 25% of Canada's total greenhouse gas emissions (Region of Peel: Official Plan, 2018). Single-occupant vehicle trips are a cause of congestion, declining air quality, and a contributor to climate change. In contrast, active transportation combats heat island effect, pollution, congestion, and excess storm water. In recent years all levels of government have stressed the need for transitioning towards more sustainable modes of transportation. Reducing emissions, improving air quality, and encouraging environmentally appropriate modes of trip-making are common goals outlined across city, regional, and provincial plans and policies. Micromobility systems can promote climate resiliency and leverage innovation to help the City of Mississauga achieve its sustainability goals.

Multi-modal Transportation

By 2041, Mississauga's population is forecasted to grow by 22% to 878,000 by 2041 (Mississauga Transportation Master Plan). Currently, 85% of

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weekday trips in Mississauga are made by car (Mississauga Transportation Master Plan). This means more congestion, more pollution, and decreasing health outcomes. Yet, increasing capacity alone has not been found to be a sufficient solution for addressing projected growth in travel demand. In turn, promoting multi-modal transportation and providing more options for travel have been overarching goals across city, regional, and provincial policies.

The *2041 Regional Transportation Plan* and the *Cycling Master Plan* both outline the need for increasing the number of cycling trips in Mississauga. Accounting for projected growth in ridership, Metrolinx also set out to reduce their “drive and park riders” from 62% in 2015 to 36-38% by 2031 (GO Rail Station Access Plan, 2016). Metrolinx hopes to do so by promoting sustainable modes as most station parking lots are at, or near, capacity. As well as that,

Overall, a modal shift away from vehicular travel and the introduction of alternative travel options is needed in order to accommodate for future growth. The *Region of Peel Long Range Transportation Plan* and the *Mississauga Transportation Master Plan* both set out a target of 50% sustainable mode share for travel by 2041. Promoting multi-modal transportation will also ensure that the transportation system is more resilient to extreme weather conditions in the future.

Healthy Communities

Healthy communities are well connected communities with improved air quality and a wide range of transportation options for residents in order to meet their diverse needs. Active transportation modes like walking and cycling increase social connections. In contrast, an overreliance on vehicular travel presents a risk of isolation and negative mental and health impacts for those who do not or cannot drive. An overreliance on vehicular travel also promotes physical inactivity and negative health outcomes. In 2014, physical inactivity and obesity cost the GTHA \$1.4 billion in direct medical costs (Region of Peel: Long Range Transportation Plan, 2019).

Micromobility systems present an opportunity to improve health outcomes for communities. Micromobility systems can help individuals stay physically active, improving users’ mental and physical health. Micromobility systems can also help improve social connectivity by working to address the “first and last mile” problem, a key issue acknowledged across city, regional, and provincial plans and policies.

Economic Growth

Transportation systems provide access to employment and opportunities. Having a resilient, reliable, affordable, and accessible transportation system increases economic competitiveness and productivity. Current use patterns in Mississauga point towards reduced access for residents due to increasing travel times (Mississauga Transportation Master Plan, 2019). In addition, expected population and employment growth in the upcoming years is expected to burden the already congested road network. The *Region of Peel Sustainable Transportation Strategy (2018)* suggests that the region's morning peak trips can see an increase by as much as 53% within the next 20 years. In turn, increased congestion will lead to:

- more delays
- diminished productivity
- wasted energy
- environmental degradation
- diminished standard of living

By 2031 congestions costs to commuters in the GTHA are expected to rise to \$7.8 billion (Region of Peel: Long Range Transportation Plan, 2019).

Alternative travel options would help reduce congestion and ensure that Mississauga's transportation system is more resilient and accessible. Micromobility systems can help alleviate the stress on congested road networks and promote economic growth in the city.

Equity

Increasing access to viable transportation options for all and promoting better social inclusion helps ensure that communities are equitable. 8.2% of households in Mississauga do not own a car (Mississauga Transportation Master Plan, 2019). The youth and the elderly are especially reliant on caregivers for transportation. While older adults maintain a driver's licence into their senior years, many are unable to drive due a variety of factors ranging from weather to traffic conditions (Mississauga Transportation Master Plan, 2019). This makes it harder to older adults to "age in place", living comfortably and independently where they wish (Mississauga transportation Master Plan, 2019).

Not having access to transportation option puts more youth, older adults, and individuals residing in areas with limited transportation options at risk of isolation and loneliness. Micromobility systems can help provide mobility options for individuals who are unable to drive an automobile due to personal

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or economic barriers, ensuring that individuals stay connected with their social networks. By increasing mobility options and promoting social inclusion more individuals can feel like they belong within their respective communities.

Key Markets of Potential Users

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Micromobility systems can benefit a wide range of users. 37% of all trips originating in Mississauga are 5 kms or less, and yet, only 1.44% of those trips are currently cycled (Transportation Tomorrow Survey, 2016). There is a distinct opportunity to expand the modal share for cycling and/or scooter use. Micromobility systems can help promote a modal shift towards more sustainable transportation. There are certain segments of the population that are particularly well positioned to shift their travel choices, if enabled to do so.

Youth

Mississauga's population is forecasted to grow by 22% by 2041, reaching 878,000 (Mississauga's Transportation Master Plan, 2019). By 2041, the youth population is forecasted to increase by 14% (Mississauga's Transportation Master Plan, 2019). A growing population indicates a larger potential market for micromobility systems. Micromobility systems can especially serve youth by reducing reliance on parents or guardians for transportation needs. Micromobility systems can also expand young adults' transportation options, allowing them to think beyond vehicle ownership.

In Mississauga 30% of students over the age of 11 travel to school by car but there is a high potential for cycling to school (Mississauga Transportation Master Plan, 2019). The cycling mode share for youth (11-19 years old) is the highest across all age groups, at 2.18% (Transportation Tomorrow Survey, 2016). In addition, recent data indicates an increase in the percentage of students (aged 11-17) cycling to and from school in Peel, reversing a previously declining trend (Smart Commute: School Travel in Peel Region, 2018). This indicates that there is likely to be higher uptake for micromobility systems by youth due to their propensity for active transportation.

Commuters

7.4% of transit riders live within 5 kms from a transit stop and 66% of GO transit riders live within 5 kms from a GO station (Cycling Behaviour and Potential GTHA, 2016), presenting an opportunity for micromobility systems to help bridge first and last mile connections. As of 2016 85% of GO station parking lots are at or near capacity, leading to increasing levels of illegal parking and customer complaints (Metrolinx GO Rail Station Access Plan, 2016). Commuting time is also increasing due to congestion. 1 in 3 trips in both peak periods and throughout the day in Mississauga are taken by commuters getting to and from work (Mississauga Transportation Master Plan, 2019).

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Micromobility systems could help alleviate some of the stress off of the street network and provide alternative ways for commuters to get to their destinations. Data from Census Canada shows that the share of Mississauga residents cycling to work as their main mode of travel doubled from 2011 to 2016, increasing from 0.3% to 0.6%. This indicates there is an increase in uptake in alternative transportation modes, highlighting potential for the uptake of micromobility systems. It is also important to note that commuters can serve as a regular user base for micromobility systems due to more consistent demand.

Cyclists

Cyclists are good candidates for micromobility systems due to their willingness to use active transportation modes. The ownership and maintenance of a bike is costly, and thus, shared micromobility services offer an attractive alternative for cyclists. Rather than worry about bike theft, cyclists can use bike share systems:

- for one way trips
- during inclement weather
- for transit connections
- on occasion
- as a spare bike

A 2016 survey by Toronto Bike Share showed that 79.6% of bike share Toronto users already owned a personal bike; indicating that cyclists are likely to use shared micromobility systems despite bike ownership. In addition to bike share systems, cyclists may wish to use e-scooter share systems to supplement their personal bike usage.

Newcomers

Newcomers are a promising user group for micromobility systems as they are in the process of forming new travel routes and habits. Newcomers must familiarize themselves with the entirety of the transportation system; micromobility systems can be established as part of their preferred travel options if established as a viable and easily accessible transportation option. In addition, micromobility systems may be an attractive choice for newcomers if they are deemed cost effective relative to other modes of transportation. Getting a Canadian driver's license, a vehicle, and insurance is a costly and time consuming process. In contrast, micromobility systems can offer newcomers transportation options that meet their immediate needs.

Low-Income Individuals

Micromobility systems can expand transportation options for low-income individuals and help reduce reliance on cars as the preferred travel mode. Most operators, private or public, are required by Cities to offer reduced plans for low-income individuals. If micromobility systems are sufficiently cost effective then they could serve a significant resource for low-income individuals by helping individuals stay connected, improving access to transportation and opportunities, and promoting independence and self-sufficiency.

Tourists

Micromobility systems provide tourists with a way to see the city while getting around. They provide individuals who may not wish to adjust to the transit system during a short term stay with alternative travel options. As Mississauga grows and attracts more tourism, tourists may become an especially significant user group.

Micromobility Devices

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Three devices most commonly used in today's "shared" systems are bike share, e-bike share, and e-scooter share. Bikes, e-bikes, and e-scooters offer many benefits to users. Factors like safety, convenience, topography, and trip purpose influence user preferences and should help shape decisions regarding the types of devices offered.

Bikes

Considerations for the City

The Ontario Highway Traffic Act (HTA) defines a bicycle as a vehicle that can be operated on the road, in dedicated bicycle lanes, and on multi-use trails. All bicycles must also have:

- A bell or a horn
- A white front light and a red rear light or reflector when riding half an hour before sunset or half an hour after sunrise
- White reflective tape on the front forks and red reflective tape on the rear forks

Considerations for Users

Bikes provide individuals with a healthier and more sustainable way to get around. As bikes are human powered, users experience improved health outcomes. Relative to walking, bikes cover a larger distance in a shorter period of time. Users can arrive to their destinations faster and avoid congestion when biking. However, new users may find it challenging to bike long distances and may experience some difficulty on hilly terrain. Bikes are a great way to get around for shorter distances, and for leisure.

E-bikes

Considerations for the City

Under the HTA e-bikes are defined as "power-assisted bicycles" in accordance to subsection 2 (1) of the Motor Vehicle Safety Regulations made under the Motor Vehicle Safety Act. E-bikes must be capable of being propelled on level ground solely using muscular power to operate the pedal. This means that e-bikes may not be throttle operated. Like conventional bicycles, e-bikes can be operated on roadways, in bicycle lanes, and on some multi-use trails. All requirements applying to bikes also apply to e-bikes. In addition e-bikes must have:

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- Steering handlebars
- Working pedal that can propel the bicycle
- An electric motor not exceeding 500 watts
- A maximum speed of 32 km an hour
- A maximum weight of 120 kg
- A label from the manufacturer that states that the e-bike is in compliance with the aforementioned federal definition

In addition to the definition of e-bikes established under the HTA, the City of Mississauga's Traffic By-Law 555-000 further restricts the definition of e-bikes. Under the Traffic By-Law e-bikes must:

- Be fitted with pedals which are operable at all times to propel the bicycle
- Have a weight maximum of no more than 55 kg
- Have no hand or foot operated clutch or gearbox driven by the motor and transferring power to the drive wheel
- Have an attached motor driven by electricity or piston displacement of no more than 50 cubic cm
- Not be able to attain a speed greater than 50 km per hour on level ground within a distance of 1.6 km from a standing start

It is important to note that the current definition of e-bikes provided under the HTA will be rescinded by the federal government and that there are ongoing consultation regarding redefining e-bikes.

Considerations for Users

Like bikes, e-bikes offer improved health outcomes for users and reduced travel times. Since e-bikes are motor assisted, individuals can travel longer distances faster and easier. E-bikes are an especially appealing option for:

- Beginners
- Commuters
- Office workers
- Individuals with limited physical abilities

Operating e-bikes requires exerting less energy which means that commuters may not need access to shower and changeroom facilities to freshen up following their ride, a frequent issue raised as a reason not to cycle for transportation purposes. E-bikes also make it easier to transport items along the way since the motor assistance helps offset the weight of the items carried, making it a good travel option for shopping or grocery trips. E-bikes are also a more accessible option for many as they require less physical energy to power.

E-scooters

Considerations for the City

There are no existing legislated definitions of e-scooters to date as they are not included within the scope of the HTA. Under current legislation, e-scooters cannot be operated within the public right of way as they violate provincial equipment safety standards for motor vehicles. However, there are ongoing provincial consultations in regards to regulating and legislating e-scooters in Ontario.

Considerations for Users

Kick back e-scooters are the newest devices to emerge in the field of shared micromobility services. E-scooter share systems first emerged in 2017, offering users more convenience. Like e-bikes, e-scooters can cover longer distances faster. E-scooters also require no physical energy to power. E-scooters are operated using a throttle which is powered by a motor. Users must balance and steer the device, but no human assistance is required to power the device. E-scooters are a good choice for professionals since individuals can wear business attire while operating them. Users do not need to plan their attire ahead and are less likely to require access to shower and changeroom facilities following their rides.

Overall, all three devices offer a convenient choices for users. There is possible overlap between potential users across all three devices but e-scooters are likely to capture a larger share of younger users (PBOT: 2018 E-Scooter Findings Report, 2018). However, both bikes and e-bikes offer greater health benefits to users, relative to e-scooters.

Micromobility System Models

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Micromobility systems are comprised of four main parts: the fleet, the stations, the user system, and the maintenance program. Micromobility system models determine where devices are parked and whether the system relies on the use of stations or other built infrastructure. There are three different micromobility models within the field of micromobility; a docked model, a dockless model, and a hybrid model.

Docked

Docked models make use of stations for parking micromobility devices. Docked models regulate use of public right of ways, by dedicating built infrastructure for micromobility devices. This model is typically publically owned as most private operators strictly pursue dockless micromobility systems.

Two main station types exist for docked micromobility models: **modular and/or permanent stations**. Modular stations are constructed onto a base, which can then be bolted onto concrete or asphalt. This type of station features some level of flexibility as it can be relocated if the original location is not ideal. However, this station type cannot be connected to the grid, and so it cannot support e-bikes or e-scooters. Although solar panels can be used to power modular stations, it is unclear if that would be sufficient to power electric devices. On the other hand, permanent stations are fixed in place and cannot be relocated. These types of stations require excavation and can be connected to the grid. Permanent stations are more likely to support electric devices.

There are many benefits to docked models of either type, they:

- Reduce rates of improper parking in the public right of way
- Promote familiarity with the system
- Enable regular users to build consistent travel routes

However, there are also some drawbacks:

1. Cost and scalability
2. Access and reach
3. Time

Cost and Scalability

Docked model require significant upfront capital costs, each station can cost on average between \$40,000-50,000 (The Bike Share Planning Guide, 2013). Stations also require ongoing maintenance which further adds to overall

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costs. The initial high cost of stations then limits the ability to scale up docked systems.

It is also difficult to gauge demand when determining station size and location. Anticipated demand for a specific station might not materialize and other locations may show more demand than initially expected, further adding to expected costs. Risk can be reduced by securing funding to cover the initial cost of stations, in order to offset future costs to Cities. In turn, this may allow Cities to scale up systems depending on demand through the reduction of initial costs.

Access and Reach

Another concern for Cities is reduced access in docked models. Since stations locations are set then the geographical reach of the service is limited to the service area and, in turn, users are restricted by the assigned service area. Stations being overcapacity may reduce access for users. If stations are overcapacity and remain to be so for a prolonged period of time then inconvenienced users may choose to forgo the services. While most operators offer a grace period for users to go to another station to park if the station at their desired endpoint is full, it is inconvenient for users to ride further out in order to park. Since users cannot start or end their trips at their actual origin or end points then docked models may not adequately address the first and last mile issues.

It is also essential to consider the relationship between equity and efficiency when using docked models. Stations need to be located in area with or in close proximity to areas with sufficient density in order to ensure that there is adequate uptake. Yet, concentrating stations in dense areas may underserve low-income neighbourhoods. Low-income neighbourhoods may be better served by docked stations if a strategy is developed to specifically address the issue.

Time

Docked stations typically take longer to set up, relative to other models, due to procurement and building the physical infrastructure. Excavation and building the necessary infrastructure is a time-consuming process. The process for tendering and contracting is also a lengthy process that further adds to the projected timeline.

Dockless

Dockless models do not use stations for parking micromobility devices; rather, they rely on regulating public right of ways through making use of specified zones. There are two main types of dockless models: **lock-to** and **free floating** models. **Lock-to** models rely on users parking devices by locking them to street furniture. In contrast, **free floating** models require users to park devices within a specified zone. In **free floating** models the device's wheel locks in order to park. Dockless models are typically privately owned and operated. Industry trends indicate that the **free floating** dockless model is what is currently preferred by operators. The vast majority of operators do not provide **lock-to** capabilities for their devices.

Dockless models provide many benefits, they:

- Are provided at no upfront costs to the City since they are privately operated
- Are adaptive since there is no built infrastructure required
- Cover a much larger service area
- Better target first and last mile connections
- Provide an opportunity to increase access to underserved populations

Dockless model can help Cities find innovative solutions to barriers surrounding built form. Yet, there are three major drawbacks relating to dockless models:

1. Bike litter
2. Vandalism
3. Access

Bike Litter

Bike litter is a key concern for Cities assessing the viability of dockless models. Improperly parked bikes pose a risk for pedestrians, and especially to individuals with disabilities. However, it is possible to mitigate some of this risk through thorough and detailed regulatory frameworks. User education and proper enforcement can help ensure that there are fewer violations of right of ways and that the public space serves all user groups.

Typically dockless devices are parked anywhere within the **furniture zones** of the sidewalk in order to ensure that there is clear access to sidewalks. Devices cannot block access to businesses, bus stops, or private property. Under a dockless model devices cannot be parked on private property unless external agreements are negotiated between operators and the relevant

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parties. Operators and Cities may choose to have no parking zones in areas with expected high pedestrian traffic. Also, operators may **geofence** select areas where parking is permitted in order to encourage users to park in designated zones. Doing so can help prevent overcrowding areas with high pedestrian traffic. Operators would need to include all the aforementioned information on real time service maps and incentivize users to act in accordance to the established regulations and/or fine users who violate the established regulations.

In busier locations corrals or havens (painted boxes indicating that micromobility devices can be parked there) can be implemented. These additions are not permanent infrastructure and are much less costly, but provide Cities with a way to regulate devices in busier areas where there is an increased risk of parking violations. In addition, many operators have required that users end their trip by submitting a photo to verify their parking. If devices are improperly parked then users may be fined, or they may choose to return and re-park their devices in return for having the fine waved. If users do not comply then operators are responsible for relocating devices within an appropriate time frame. Operators must also rebalance their fleet in order to ensure that the distribution of devices does not overburden any area.

Vandalism

Dockless models are more subject to vandalism and theft, relative to docked models, since they are not attached to any built infrastructure. The devices used in dockless models are not seen as having a “home” and devices are easier to remove since they are not locked into stations. High levels of vandalism or theft may lead to operators increasing price for services to offset lost revenue or to operators considering pulling out from cities. However, regular monitoring and enforcement may help mitigate this. Cities and operators can also collaborate to help ensure a smooth transition during rollout in order to minimize the risk of vandalism. In addition, cementing the idea of micromobility as a public service for all may help residents feel a sense of ownership over systems. In turn, this would further deter vandals.

Access

Dockless models typically employ the use of smart technology for micromobility systems. In recent years micromobility systems have shifted towards in app access on smartphones in order to simplify the user experience. However, not all users have access to smartphones and/or internet in order to benefit from this shift. This may especially mean reduced access for low-income individuals. In addition, since most systems currently employ the use of real time maps for service areas and availability then it may be harder for those without smartphones to check for updates. In addition,

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most dockless systems rely exclusively on credit card access in order to pay for the service. This condition limits access to individuals who may not have access to a credit card. Access to a credit card is positively correlated with income, and thus, low-income individuals are most likely to not have access to a credit card.

Operators have long been aware of the issue of access in terms of both credit cards and technology, and have come up with alternative access methods in order to better serve a wider range of people. Some examples of alternative access methods include: payment at select locations in exchange for an access code and the text-to-unlock option, which allows users to use any phone to access services. Operators have also provided reduced payment options in order to provide better access to low-income individuals. Continued efforts at bridging these gaps by both municipalities and operators will help improve overall access for all users.

Hybrid

Hybrid micromobility models are a mix of docked and dockless models. Hybrid models regulate the public right of way through the use of both physical infrastructure and designated zones. In hybrid models users would have the option to pick-up and return devices from stations and designated hubs. Users could pick up a device from a station and return it to a station; pick up a device from a station and return it to a specified hub; pick up a device from a hub and return it to a station; or pick up a device from a hub and return it to a hub. Currently, hybrid models most often employ the use of **lock-to** requirements within their specified hubs. However, devices can be **free-standing** within hubs so long as the specified area is **geofenced**.

When using hybrid models generally users are either asked to pay a fee in order to park at a hub or users are incentivized to park at stations by having their fees reduced. The additional fees added for allowing users to park at hubs may create a two-tiered system by income. Users who could afford to pay additional fees would attain a greater level of access by default as they could pay to park closer to their destinations. Using incentives (especially non-monetary incentives) may help offset the potential for an inequitable system.

It should also be noted that obtaining data for hybrid system may be more difficult due to the variety of access options being used within the model. While smart technology on devices can help provide some trip data, it would be hard to obtain complete data, especially when users are using the hubs. For example, start and end locations may be diffused when users end or start their trips at a designated hub. Surveys can help supplement data obtained

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through the use of smart technology in order to provide more complete data under this model.

Governance Models

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The governance model selected for a micromobility system determines who owns the system. It also indicates who is responsible and accountable for each segment of the system- this is especially relevant for governance models which require cooperation between the public and private sector. Three plausible models can be considered when establishing a system; a publically owned and privately operated system, a publically owned and operated system, and a privately owned and operated system.

The three main components comprising micromobility systems are: the hardware, the software, and operations. The hardware includes micromobility devices, stations and/or other parking infrastructure. Software encompasses websites, apps, and payment systems. The operations component includes customer support, maintenance, repairs, and rebalancing.

In addition to the components comprising the system, there are four main sources of costs that should be assessed when determining which governance model best aligns with the City's priorities. The costs that can be incurred are divided into: capital costs, operation costs, infrastructure costs, and maintenance costs.

- **Capital costs** refer to: direct and upfront costs for procuring devices and stations, as well as the cost for the installation of the system
- **Operation costs** refers to: costs associated with running the system, running customer service, and oversight
- **Infrastructure costs** refers to: building of cycling infrastructure and necessary streetscape improvements
- **Maintenance costs** refers to: maintaining all hardware, software, and infrastructure

Typically infrastructure costs apply to docked models. However, minimal infrastructure costs may be needed for dockless models if considering the use of havens or corrals.

Publically Owned

Publically owned systems provide Cities with greater control, but are subject to a greater degree of risk. Two main types of publically owned systems are possible; a publically owned and operated model, and a publically owned and privately operated model. Under a publically owned and operated model the City would be responsible for all costs and components associated with the selected system. Figures 1 and 2 illustrate the breakdown for components and costs for a publically owned and operated model.

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Figure 1: Components of a Publically Owned and Operated Model				
	Hardware	Software	Operations	Owner
What is included?	<ul style="list-style-type: none"> • Devices <u>If applicable:</u> <ul style="list-style-type: none"> • Stations • Carrols • Designated zones 	<u>Front end:</u> <ul style="list-style-type: none"> • Payment System • Website • App <u>Back end:</u> <ul style="list-style-type: none"> • Device monitoring • Billing • Customer data 	<ul style="list-style-type: none"> • Customer Support • Maintenance • Repairs • Rebalancing • Marketing • Outreach • Sponsorship 	
Who is responsible?	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City

Figure 2: Costs for a Publically Owned and Operated Model				
	Capital Costs	Operations Costs	Infrastructure Costs	Maintenance Costs
What is included?	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Installation 	<ul style="list-style-type: none"> • Running the system • Customer Service • Repairs • Oversight 	<ul style="list-style-type: none"> • Streetscape improvements • Building cycling infrastructure 	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Cycling infrastructure
Who is responsible?	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • City

In contrast to a publically owned and operated model, a publically owned and privately operated model allows the City to delegate the management of day to day operations and other logistics to a private operator, while still retaining a high degree of control over the overall system. In this case, any revenue generated is shared by both the City and the operator. Figures 3 and 4 outline the division of responsibility for costs and components. Under this model it should be noted that many of the costs are shared between the City and the operator; however, the City is responsible for a larger share of the costs. For

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example, the City must pay for upfront capital costs by contracting the service from a private operator.

Figure 3: Components of a Publicly Owned and Privately Operated Model

	Hardware	Software	Operations	Owner
What is included?	<ul style="list-style-type: none"> • Devices <u>If applicable:</u> <ul style="list-style-type: none"> • Stations • Carrels • Designated zones 	<u>Front end:</u> <ul style="list-style-type: none"> • Payment System • Website • App <u>Back end:</u> <ul style="list-style-type: none"> • Device monitoring • Billing • Customer data 	<ul style="list-style-type: none"> • Customer Support • Maintenance • Repairs • Rebalancing • Marketing • Outreach • Sponsorship 	
Who is responsible?	<ul style="list-style-type: none"> • Private Operator 	<ul style="list-style-type: none"> • Private Operator 	<ul style="list-style-type: none"> • Private Operator • City (Oversight) 	<ul style="list-style-type: none"> • City

Figure 4: Costs for a Publicly Owned and Privately Operated Model

	Capital Costs	Operations Costs	Infrastructure Costs	Maintenance Costs
What is included?	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Installation 	<ul style="list-style-type: none"> • Running the system • Customer Service • Repairs • Oversight 	<ul style="list-style-type: none"> • Streetscape improvements • Building cycling infrastructure 	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Cycling infrastructure
Who is responsible?	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • Private Operator • City (Oversight) 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • Private Operator • City

Under a publicly owned and privately operated model the City can either choose one operator to be responsible for all operations, or, contracts can be assigned and separated by the operations, the software, and the hardware. More often one operator is selected to handle all three components.

Financing the System

Under any publically owned governance system, the City is responsible for capital and infrastructure costs at minimum. Publically owned systems are typically not profit generating. Cities implementing public micromobility systems aim to break even, in an attempt to offset operating costs.

Station costs are estimated at between \$40,000- 50,000 USD each (The Bike Share Planning Guide, 2013). Devices can run up to \$3000 USD each (The Bike Share Planning Guide, 2013). In addition, pricing options differ depending on whether software is developed, bought, or licensed. Oversight, operation, and maintenance costs differ depending on system size. However, smaller systems tend to run a higher operational cost. This is because operation costs are fixed and smaller systems offer less potential rides in order to offset that cost.

In publically owned systems user fees, membership fees, grants, advertisement and sponsorship are the main sources of external funding used to finance the system. User fees and membership fees are generated through use following system launch. Grants can be secured from private organizations or non-profits. Additionally, Provincial and Federal funding may be explored. Sponsorship can also be undertaken in order to finance the system. Sponsors would contribute to funding the system in exchange for branding and/or naming rights. Sponsors may also advertise through the system when permitted. The City may also ask Council for further funding or consider using revenue from city parking or taxation revenue in order to secure internal funding.

Typically publically owned systems rely on a range of funding options, as no one source can sufficiently fund the system. In addition, even if a system is sufficiently funded during the initial launch period replacement costs for depreciated assets down the line may mean that the system would not be profitable. This may mean that a publically owned system may need be subsidized by the City regardless of the funding secured. In this case, the system may follow a funding model similar to that of public transit. Doing so would allow the expansion of transportation options for residents while retaining control over the system.

Privately Owned

Privately owned and operated systems provide Cities with micromobility services at no upfront cost in exchange for the use of public rights of way. Under this model the operator enters into an agreement with the City through a memorandum of understanding (MoU) or a permit. Typically a pilot project is

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run first in order to test out the public's response to the service and then an agreement is negotiated.

Cities may choose to enter into an agreement with as many operators as needed. Rather than negotiating separate agreements with each individual operator, a framework is established which operators are then required to comply with in order to be granted permission to operate within the City.

In a privately owned model operators would handle everything from hardware to operations, although some City oversight would be required. Operators would also be collecting all revenue generated by the system. While the City would not attain any profit from the system, it would increase the overall public utility by providing individuals with more transportation options. Figure 5 and 6 below outlines the division of responsibilities for components and costs between operators and Cities.

Figure 5: Components of a Privately Owned and Operated Model				
	Hardware	Software	Operations	Owner
What is included?	<ul style="list-style-type: none"> • Devices <u>If applicable:</u> <ul style="list-style-type: none"> • Carrols • Designated zones 	<u>Front end:</u> <ul style="list-style-type: none"> • Payment System • Website • App <u>Back end:</u> <ul style="list-style-type: none"> • Device monitoring • Billing • Customer data 	<ul style="list-style-type: none"> • Customer Support • Maintenance • Repairs • Rebalancing • Marketing • Outreach 	
Who is responsible?	<ul style="list-style-type: none"> • Private Operator 	<ul style="list-style-type: none"> • Private Operator 	<ul style="list-style-type: none"> • Private Operator • City (Oversight) 	<ul style="list-style-type: none"> • Private Operator

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Figure 6: Costs for a Privately Owned and Operated Model

	Capital Costs	Operations Costs	Infrastructure Costs	Maintenance Costs
What is included?	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Installation 	<ul style="list-style-type: none"> • Running the system • Customer Service • Repairs • Oversight 	<ul style="list-style-type: none"> • Streetscape improvements • Building cycling infrastructure 	<ul style="list-style-type: none"> • Devices • Stations (if applicable) • Cycling infrastructure
Who is responsible?	<ul style="list-style-type: none"> • Private Operator 	<ul style="list-style-type: none"> • Private Operator • City (Oversight and Verification) 	<ul style="list-style-type: none"> • City 	<ul style="list-style-type: none"> • Private Operator • City

Under a privately owned and operated model the operator is responsible for all direct costs. However, the City may be responsible for the cost of corrals, havens, or other space management methods. The City is also responsible for oversight and verifications costs. The costs to the City are ongoing and do vary depending on how well a City can enforce the established frameworks. While there are additional costs required for oversight and enforcement of the system on a regular basis, factors like improper parking may result in additional costs to the City through additional time spent responding to complaints, and removing improperly parked devices. However, creating clear and specific guidelines regulating private models would help largely mitigate this risk. In addition, Cities can recuperate most costs through charging operators a variety of fees and fines.

Cities can make up any costs incurred through charging:

- An annual permit fee
- Permit review fees
- Administrative fees
- Performance bonds
- Non-compliance fees
- In-lieu fees
- Device disposal fees
- Fees per devices/per trip

Cities can choose whether fees charged are static or dynamic for devices. If operators are charged a set amount per device deployed then fees are static. In contrast, if devices fees are dynamic then operators are charged a smaller

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fee per trip per device. Cities can choose the preferred charging model based on expected revenue and other fees charged.

By recovering all expected costs, Cities can maintain the system without requiring additional funding. The revenue generated from operator fees can also be used to cover the cost of City staff needed to review permits, oversee operations, verify operator reported data, and engage with and respond to the community. By doing so Cities can leverage private investment while ensuring that the public good is upheld.

Setting up a Successful System

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A successful micromobility system should be safe, reliable, affordable, and accessible to users. The chosen system should align with citywide goals but also be adaptable to future change. A successful system requires adequate buy-in and active oversight by the City. In order to ensure that these two conditions are met then factors like safety and operations, user education, metrics and indicators, data sharing, and equity measures must be carefully considered. These five factors help outline the kind of guidelines Cities should pursue in order to set their systems up for success.

Safety and Operations

Regardless of the system model pursued municipalities should clearly outline what measures must be undertaken for the purposes of safety. For the purposes of this section “operator” shall be defined as the party responsible for operating the system. The term operator shall apply to both publically owned and privately owned models, regardless of whether the operator is a public or private operator.

When considering safety and operations, Cities should ask operators to provide plans detailing their protocols across each respective area under consideration. At minimum operators should provide:

- An operations plan (including their service area and in-app interface)
- A maintenance plan
- A staffing plan
- A parking and fleet management plan
- A rider education plan
- A data collection and integrity plan
- An extreme weather plan
- An overview of expertise and qualifications

Additionally, Cities should think beyond the bare minimum requirements and consider some of the following;

- **An equity plan**
- **An emergency unlock plan:** a plan which allows all devices to be unlocked for free in the case that there is an emergency and the Mayor declares the need for an “emergency unlock” to help people get around
- **An adaptive cycling plan**
- **A recharging plan** (if devices are electric)
- **A community outreach plan**
- **An economic opportunity plan** (if not included in hiring plan): a plan which details how the operator will help create jobs for target

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groups; such as: low-income individuals, people of colour, immigrants, refugees, veterans, individuals with disabilities, women, and formerly incarcerated individuals within the City

Cities should also consider action plans for any reoccurring special events in advance. If a privately owned system is selected then the City should consider mandating that operators hold at least one community event. In addition, if private operator(s) are responsible for the system then Cities must make use of an indemnification clause, holding the City harmless for any damage, in the regulatory framework selected. Cities should also ensure that operator(s) have sufficient insurance covering accidents, theft, and vandalism. If the City is the operator then insurance would become an operating cost. Insurance should also cover both permanent and contract subcontractors responsible for maintenance and other operational logistics.

Equipment Standards

Cities should ensure that device specifications are in line with the latest industry standards, and in line with provincial and federal specifications. Bicycles should be in line with the current ISO 4210 standards. Prior to deployment the City should review and approve of all types and forms of devices, ensuring that the equipment and appearance is in line with the required specifications. The City should also test all aspects of the system prior to the launch, from the apps and payment to the actual devices. If private operator(s) are chosen then the operator(s) should make a few accounts available for City testing.

Fleet Size and Caps

When determining fleet size Cities should consider whether they want to adopt a dynamic or static fleet size. When considering static fleets, typically minimum or maximum targets are set depending on how many operators are chosen to deploy. However, setting dynamic fleet sizes tied to the performance of operators may incentivize better service. Often operators are assigned a maximum fleet size that is set to incrementally increase so long as performance and compliance targets are met. This approach may help Cities ease micromobility devices into communities while users acclimate and learn to use the system.

Cities may also want to consider setting device caps in the downtown core or in higher density areas. This may mean that operators may not deploy more than the specified percentage of their fleet in the outlined areas, and that operators must rebalance their fleet to maintain the device cap. It is also important to clearly outline expectations regarding maintaining fleet size caps

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if operator(s) decide to expand to the surrounding jurisdictions. In the case that the chosen operator(s) deploy devices in the surrounding Cities then the operators are solely responsible for ensuring that the amount of permitted devices does not exceed the established cap and that all other intra-jurisdiction considerations are addressed.

Rebalancing and Relocation

Micromobility devices must be regularly rebalanced, for both docked and dockless models, in order to ensure that users have sufficient access to the system. Rebalancing also helps maintain order in right of ways when considering dockless models. Typically operators must rebalance their fleet regularly throughout peak usage times. While peak times differ across systems, 7 am to 9 pm is a good benchmark to follow. Devices must also be rebalanced overnight in order to ensure that the system is ready for use the following day. If private operator(s) are selected then the City must be given direct contact to the staff responsible for rebalancing.

Devices may also need to be relocated if they are improperly parked or defective. In the case that a device is improperly parked typically a two hour time frame is given for removal during peak times. Additional time may be given for relocation if devices are reported outside of peak times. In the case that a device is broken or defective timeframes for removal are set at the discretion of the City. If devices are not relocated within the established time frame set out then fines incur. In a privately owned model, the City would be paid for relocation of devices if the operator(s) fail to respond in the established time frame. The City of Seattle's micromobility program sets relocation fees at 115% the hourly rate for City staff. Also, operators should assume full responsibility for retrieving and/or relocation of hard to reach and submerged devices.

Compliance Goals

In order to ensure that the operator(s) are adhering to safety standards Cities should set compliance goals outlining expectations for operators. Compliance goals would outline an agreed upon threshold (typically set as a percentage of the fleet) which should not be exceeded for each established goal. Some areas which may require compliance goals are:

- The % of devices that can present obstruction hazards to pedestrians and individuals with disabilities
- The % of devices that can be incorrectly parked (including obstruction hazards)
- The % of devices that can be deemed unsafe to operate

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Typically 0% of devices are allowed to be completely blocking access for individuals with disabilities. These goals are evaluated based on random audits and through data verification.

Local Operations

To ensure the success of the program, if a private operator is selected then the City should require operator(s) to maintain an operations center in the city. Local hiring would be preferred in order to ensure that staff have working knowledge of the City, and thus, can better assist users. In addition, Cities should consider having operators provide support in the most commonly used non-official languages spoken. The City should also be provided the numbers and emails to the operator's local general manager, policy development personnel, fleet operations manager, data collecting and reporting personnel, and programming and equity personnel. A 24 hour contact person should also be provided to the City in the case that it is not encompassed in the above personnel.

The City should also clearly outline that it reserves the right to terminate ongoing agreements and that the operators must withdraw in the case that any major violations are discovered. Furthermore, the City should require that operators clear any changes in their terms and/or service standards with the City. If a private operator wished to cease operations in the City then the City must be notified in advance and an agreement regarding time to withdrawal should be negotiated. The City may also consider adding penalties for early cessation of service.

User education

User education is a key component of a successful micromobility system. Users must be adequately familiar with the system in order to ensure that there is sufficient uptake of the service. Users must also be fully aware of municipal, provincial, and federal rules and regulations in order to safely operate the devices. Regardless of the micromobility model chosen, Cities should be actively involved in ensuring that users are sufficiently educated. If a publically owned and operated model is selected then municipalities are typically fully responsible for user education. If a private operator is selected then the City is responsible for enforcing the necessary guidelines.

All operator(s) must:

- Inform customers of how to properly park devices within the service area
- Inform users of the need to comply with municipal, provincial, and federal rules and regulations

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- Ensure that users are of the appropriate age to operate devices
- Inform users of helmet laws
- Ensure that users are aware that they must yield to pedestrians when applicable
- Inform users of how to inspect device for damage prior to riding
- Inform users of how to submit a safety or maintenance report
- Create and maintain a company website and/or social media platform which clearly stipulates all other terms of service, privacy policies, and rental fees and costs

Operators must also ensure that their contact number is clearly and visibly displayed on each device. Operators should have a toll-free number which connects individuals to a live person and allows for them to leave a message. Operators should also have dedicated personnel for addressing inquiries and/or complaints through email and text message. All forms of communication should be monitored 24 hours a day, 7 days a week.

Measures and Indicators

Assessing the success of the system requires defining clear metrics and indicators by which the system can be evaluated before operations begin. Clearly defining what constitutes success ensures that the evaluation process is reliable and valid; rather than diffusing findings. In turn, this provides the City with a concrete way to assess what improvements are needed and where. The City can select a wide variety of measures that align with system uptake and City goals. It is essential that the indicators selected are realistic and measurable. The City must possess the capacity to test and validate findings in order to actually measure success. Figure 7 outlines common measures and indicators that may be used to measure success.

Figure 7: Measures and Indicators for Measuring Success in Micromobility Systems

Measure	Indicator(s)
Climate	<ul style="list-style-type: none"> • Greenhouse gases
Health	<ul style="list-style-type: none"> • Air quality • Physical activity
Economy	<ul style="list-style-type: none"> • Congestion • Local economic activity

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Measure	Indicator(s)
Safety	<ul style="list-style-type: none"> Road injuries and crashes per million User compliance with rules and regulations
Access	<ul style="list-style-type: none"> Average device density per square km of service area Device location to jobs, transit etc
Ridership	<ul style="list-style-type: none"> Trip purpose Trip length Mode share Total trips Average trip per device Average daily trips per 100,000 residents
Parking Compliance	<ul style="list-style-type: none"> Percent of devices improperly parked Percent of devices blocking access
Maintenance	<ul style="list-style-type: none"> Percent of devices in good working order Percent of devices with safety hazards Instances of website/app down time Percent of critical stations full or empty (if using stations)
Equity	<ul style="list-style-type: none"> Percent of trips starting in underserved communities Percent of devices distributed in underserved communities daily Percent of users using alternative access services (text-to, low-income passes, cash payment etc)

The above measures and indicators can tell Cities about the social benefit of micromobility systems, how much the system is used, where devices are used, who is using devices, and how are people using devices. These findings can then help inform future improvements to the service and provide Cities with the necessary data to validate how the system is faring.

Data

Data Sharing

The use of shared data from micromobility systems can create a feedback loop, promoting investment in cycling infrastructure and informing funding

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decisions in the long run. In turn, improved cycling infrastructure is likely to increase the uptake for micromobility systems. Data gathered can also inform other infrastructure development or planning at the City. Additionally, in order to evaluate the measures and indicators set out and to plan future system improvements Cities need access to operator data.

There are two main sources of data which Cities can draw from: device data, and mandatory user surveys. User surveys are typically a non-contested source of data gathering. Cities typically require all private operators to administer, at minimum, one annual survey in order to gather demographics and ridership data. This survey would then inform the City's progress in meeting its outlined goals, and potential opportunities. The user survey outlines information like the user's age, gender, and ethnicity; the user's typical mode split; why users use micromobility systems; the types of trips taken with the services; and the users' opinion of the service.

In contrast, device data better reflects actual use, outlining:

- The total number of users
- The identification number, location, device type, and fuel level of all devices
- Trips records indicating the start and end times, dates, and locations of trips
- The distance and duration of trips
- The status of devices, being: available, unavailable, reserved or removed with further detail given to lost or irretrievable devices
- A log of improperly parked devices outlines the time report was received, the type of obstruction presented, and the time the issue was addressed
- The vendor's mean and median response time to reports received to both obstruction and non-obstruction hazards
- Reports regarding all maintenance complaints outlining the nature of the issues and when they were resolved, along with a brief description of any significant maintenance issues like product recall, intentional destruction, and equipment failures resulting in injury
- A log of all incidents, crashes and accidents to be reported within 24 hours of notice

Data provided to the City should be anonymized and aggregated so that individuals are not identifiable. In addition, the City may choose to accept summaries of the above measures if operator compliance is good. The City should also determine how often data should be reported. Typically, monthly updates are standard; however, injuries and maintenance issues may require more regular updates.

Data Format

When asking for data the City should consider what data format should be required. The City should decide whether real-time data, static reports, or a combination of both is needed in order to adequately evaluate operator's data. Typically if the City requires more than one type of shared data format then this results in the need for more capacity to analyze the data.

The three most common types of data formats used are: Application Programming Interface (API), General Bikeshare Feed Specification (GBSF), and Comma-Separated Value (CSV). API and GBSF provide real time data. In contrast, CSV is good for historical data. GBSF is an open data standard for publically available information. As such, API is the typically the most commonly used shared data format. However, analyzing real-time data require significantly more capacity relative to historical data. Nonetheless, historical data alone does not provide an accurate overview of operators' data. In turn, the City may consider using API for shared real time data, and ask that operators provide summaries in CSV to further assess historical data.

The City should also consider if they should require that operators clean and debug data prior to sharing. Cleaning and debugging raw data requires further capacity. Some measures that can be required to help clean data are asking for:

- The removal of staff servicing
- The removal of test trips
- The removal of trips below one minute in length
- Ensuring that all trip lengths are capped at 24 hours

Data sharing conditions should be further assessed relative to available City capacity.

Rights of Use

Prior to obtaining shared data, the City should clearly outline what are the appropriate rights of use. Operators often cite the risk of propriety information being accessed by their competitors, and the City's ability to store and protect user data as a means of limiting City access or use. However, data-sharing should be a non-negotiable condition. The City can agree to restrictions on data use and disclosure in order to ensure that the operator(s)' data is not accessed by the competition. However, these restrictions should not interfere with the City's use of data. In addition, the City should be wary of restrictions that may interfere with public record laws. Cities should consider how Freedom of Information (FOI) or public data requests may legally require them

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to provide shared data, and plan for such instances within their regulatory frameworks. The City may also choose to notify operators prior to sharing data in the case that a FOI or public data request is made.

Broad language should be used when declaring how the City plans to use shared data in order to avoid restricting future use. Specifying the exact current City uses for data does not provide room for Cities to make use of data for other uses that may emerge in the future. Some broad examples of City use for shared data include:

- Planning
- Program management
- Public engagement
- Right-of-way management
- Service coordination
- Any other municipal purpose

The City should maintain the right to combine and analyze provider data in conjunction with data from other providers or sources. The City should also clearly indicate that it reserves the right to release any data, maps, or reports produced using shared data.

The City should be explicit in stating that data should also be shared with governmental entities, with the exception of law enforcement agencies. Law enforcement agencies should not have direct access to shared data due to concerns for civil liberties and user protection. As well as that, the City should consider reserving the right to share data with third parties for the purpose of data analysis if external parties are consulted. In the case that data is used to inform new reports or research then the City should consider a clause for the indemnification of intellectual property infringement or reserving ownership over any joint intellectual property developed. In the case that an operator ceases their operations, the City should maintain the right to data use for at least three years following.

User protection

Both Cities and operators have an obligation to protect user data. Due to the sensitive nature of shared data, the City should create an internal plan addressing data breaches. In addition, operator(s) should also have a data breach plan in place. The City should require that operator(s) provide a summary report outlining the date, location, and the type of data accessed for all data breaches on the operator(s) end.

The City may also consider developing a public transparency strategy and publishing a public statement about City use of mobility data. This statement would address: what data is collected, what data is used for, who data is

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shared with, how long data is stored for, and measures for data protection undertaken. In order to minimize the risk of reidentification the City should remove data indicating the unique vehicle IDs and by reduce precision of location and time data when publishing findings. Additionally, it is not recommended that individual trip records be released.

To minimize risk for users, operators must comply by all relevant municipal, provincial, and federal data security and privacy laws. Operators must also comply with the Payment Card Industry Data Standards (PCI DSS) in order to protect users' credit data. Operators must also provide users with the ability to explicitly assent to each segment of the privacy policy, terms of service, and user agreements. Users must also be given the ability to decline sharing any data that it is not required to access the service. The ability to decline should be clearly and explicitly stated.

Users should not be required to provide access to their contacts or files in order to proceed with access to the service. Location services should also be solely used for locating nearby devices and should not be used for providing trip data. All trips data should be provided solely from the GPS units on devices. In addition, in the case operator(s) require that users submit a photo of parking devices to end their trip then camera and photo should be accessed by operators only when the app is running. Operators must provide users with clear and explicit notifications regarding what data will be accessed and for what purpose. The notifications provided to users should be active in nature, requiring that users accept to continue, and should not be embedded with the terms of service. A clear and explicit opt-out option should be provided to users. Cities must also ensure that users' data is private and not shared with third party sources. In the case that operators are storing and processing data outside of Canada, then measures should be undertaken to minimize risks of data breach and to ensure that access to data for anything beyond service needs should be strongly prohibited.

Equity Standards

Successful micromobility systems should have a large reach, promoting access for all potential users. Embedding equity standards in planning for micromobility systems ensures that the system is designed with all users in mind. Micromobility systems tend to favour high density neighbourhoods due to potential uptake, yet this bias underserves low density neighbourhoods. In turn, the City must ensure that equity and community engagement is prioritized in order to offset any system biases.

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The majority of private operators have a written equity policy. Ensuring that all operators, private or public, create and abide by a written and documented equity policy helps place equity considerations at the forefront. Typically two main measures are used to promote equity in micromobility systems:

- Mandating a fleet distribution requirement
- Offering flexible and reduced payment options

The City should mandate that operators ensure that a set percentage of their fleet is deployed in low density, low income, or targeted neighbourhoods. The City may use income based measures, unemployment rates, or other measures to specify what constitutes areas of interest. Operators can be incentivized to pursue these targeted areas if the City offers dynamic caps which can be adjusted based on compliance. Fleet size increases may be offered for operators who prove that they have met the established targets.

In addition to ensuring that devices are within reach for low-income individuals, the City should ensure that the services are affordable and accessible. Operators are typically required to offer at least one alternative measure of payment that does not require the use of credit cards or smartphones. Additionally, operators should have a low-income plan for qualified users. Low-income measures used on a municipal, provincial, or federal level may be used to verify eligibility. Operators should also ensure that their monthly subscription rates do not exceed 20% of the yearly paid subscription fee in order to ensure that short term access to services is still accessible to low-income users.

Operators should offer their services in commonly used non-official languages in the City, when possible. Additionally, all websites and apps should be made accessible for all users. In the case that operators are required to set up a local operations center, local hiring should be encouraged. Operators should also be made to host at minimum one community event for the purpose of education and outreach. By placing communities at the forefront of the discussion and ensuring that all members are heard then members can help visualize the service as part of their neighbourhoods. In turn, when more people feel that the system is “their own” then it is more likely that reach is truly expanded and access increased.

General Critical Considerations

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While micromobility systems provide users with a multitude of benefits, there are some critical considerations that should be accounted for when planning. Careful evaluation of critical considerations ensures that the system is set up for success. Three general considerations that should be evaluated prior to the implementation of a micromobility system are: seasonality, current trends, and usage by youth.

Seasonality

The City should consider whether the chosen system will run all year long or if the system would close for the entire duration of winter. Typically, e-scooter share systems cannot run during the winter. However, operators are continuing to explore potential solutions. In contrast, both electric and non-electric bike share systems may operate during the winter. Some systems, like VeloGO Ottawa, close for the duration of winter and reopen again in spring. Yet, most private operators choose to operate all year long; although the service area might differ in winter. For example, in Calgary Lime continued operating their bike share system through winter. In this case, the winter service area was restricted to the city center. Despite the weather, Lime Calgary saw uptake during the winter. While uptake in the winter was less, relative to the summer term, there was still ongoing demand.

Continuing operations throughout winter is possible and likely. However, extra precautions need to be undertaken in order to ensure that users' safety is maximized. Regardless of the type of operator selected, the City must ensure that snow is removed in a timely manner and that roads are salted.

Inadequately shoveled roads restrict bike lanes and reduce overall lane size, making sharing the roads more dangerous. This may make sidewalk riding more common for users if sidewalks are better maintained. This would pose a risk to pedestrians and should be avoided as much as possible. Additionally, snow may cover up potholes or other hazardous road conditions. The City must adequately address any potential risks and work to minimize road hazards for all users.

Operators are responsible for clearing snow off devices and stations or havens, if used, within an adequate timeframe. Typically operators are expected to do so within 24 hours following the end of snowfall. Operators should also actively monitor weather conditions; halting service and removing devices accordingly. A local team should be responsible for monitoring and evaluating weather conditions.

If a docked model is selected then designing sheltered stations may help manage some of the risk to devices. In the case that e-devices are used then operators must ensure that batteries are not negatively affected by cold

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weather. Regular maintenance checks should be conducted and device status should be updated regularly to reflect actual conditions.

Operators are encouraged to leverage innovative technology to help improve service during the winter months. Water proofing devices and improving tire technology can help mitigate many of the weather related risks.

Current Trends: Devices and Number of Operators

Currently, e-bikes and e-scooters are the preferred devices chosen by private operators, making up the vast majority of their fleets. If the City desires a bike share system, then public models should be considered. It may be possible to combine a publically owned bike share system alongside a privately owned electric micromobility system; however, the City would need to assume the appropriate costs for both systems.

When considering private operator(s), the City must also consider how many operators are to be selected. Any number of operators may be permitted to provide their services. Decisions regarding the size of the market may be determined based on how the City determines fleet size requirements. In the case that a maximum fleet cap is considered then the City can divide devices amongst the accepted operators. Conversely, the fleet size may be determined based on the number of operators.

As well as that, recent trends indicate that larger operators have been buying out smaller operators to maximize their market share. This may have implications for permit holders. For example, Bird was denied an e-scooter share permit in San Francisco. Bird then bought out Scoot, a smaller e-scooter operator which was granted a permit in San Francisco. In turn, Bird could legally operate in San Francisco through Scoot, despite the initial refusal. The amalgamation of operators reduces overall competition and increases market proliferation. The City should consider how to best mitigate this risk by developing a clause addressing subsidiaries.

Youth

The minimum age requirement set by operators limits youth's ability to make use of shared micromobility systems. Private operators typically set their minimum age requirements at 18 years of age for electric devices and 16

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years of age for conventional bikes. In turn, many youth choose to illegally use micromobility systems, ignoring minimum age requirements and risking fines (Electric Scooters Sent Nearly 250 Riders to L.A. Emergency Rooms Last Year. Is That a Lot?, 2019; PBOT 2018: E-Scooter Findings Report, 2018 ; The Secret Life of Teen Scooter Outlaws, 2018).

However, legislative changes may incentivize operators to lower their age limit. Doing so would help ensure that the safety of youth is accounted for when planning for micromobility systems. Some public operators have already lowered their minimum age requirement. For example, Mobi, a bike share operator in the City of Vancouver has lowered its minimum age from 16 to 12 years old on the condition that users fit the minimum height requirement and are capable of safely riding an adult-sized bike. This indicates potential for integrating more youth in micromobility systems.

Critical Considerations for Mississauga

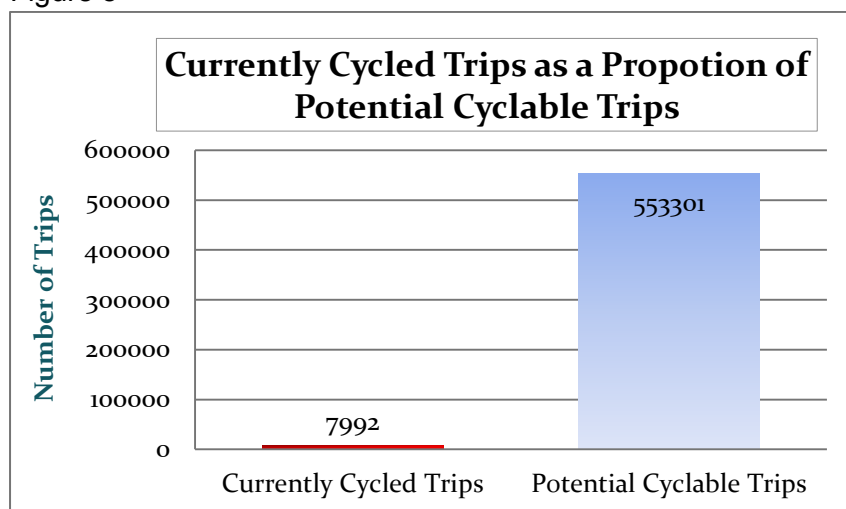
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Micromobility systems can help better connect residents of Mississauga. According to the Mississauga Transportation Plan, 8.2% of households in Mississauga do not own a car. Youth are especially dependent on their guardians for transportation. Research presented in the Cycling Master Plan indicates that 61% of participants surveyed are interested in cycling but concerned about safety. Mississauga's Transportation Master Plan also indicates that information obtained from the public and stakeholders shows that residents want additional mobility options and are willing to use them if they are of high quality.

Context and Potential

There is a lot of potential for the uptake of micromobility systems in Mississauga. This potential is furthered by projected population growth. According to the data obtained from the Transportation Tomorrow Survey (TTS) 2016, there are 553,301 potentially cyclable trips of which only 7,992 trips (1.4%) are cycled. Figure 8 and 9 below illustrate the proportion of cyclable trips relative to potentially cyclable trips and the proportion of potentially cyclable trips relative to total trips, respectively.

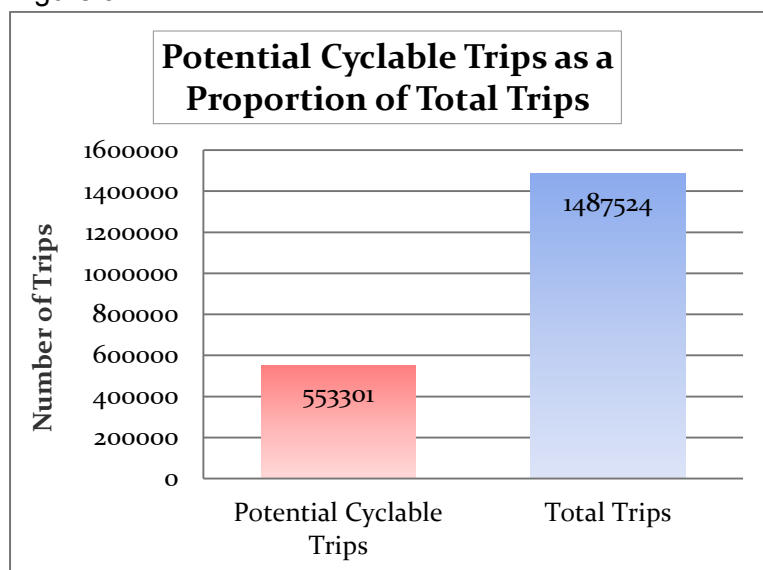
Figure 8



Source: Transportation Tomorrow Survey 2016

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Figure 9



Source: Transportation Tomorrow Survey 2016

In the figures above potentially cyclable trips are defined as trips of 5 km or less. In contrast, currently cycled trips and total trips include all cycling trips originating in Mississauga regardless of distance. It is important to note that scooter use is not explicitly accounted for by the TTS data. However, “cyclable trips” can encompass e-scooter trips as well due to 5 km or less being an accepted parameter across micromobility systems. While currently cycled trips are low, a high potential is apparent. Low rates for cycling trips may be explained by safety concerns, lack of infrastructure, or low ownership rates.

By offering more easily accessible alternatives that remove worries about bike theft and maintenance, the number of trips made by bike, or scooter, can increase. In addition, increased uptake increases safety due to the fact that there is “safety in numbers” (Cycling Behaviour and Potential in the Greater Toronto and Hamilton Area, 2016). This means that vehicles are less likely to collide with larger groups of micromobility users (Cycling Behaviour and Potential in the Greater Toronto and Hamilton Area, 2016). As well as that, a large number of cycling projects are scheduled over the next ten years. These improvements in cycling infrastructure are likely to positively affect uptake of micromobility systems.

Potential by Character Areas

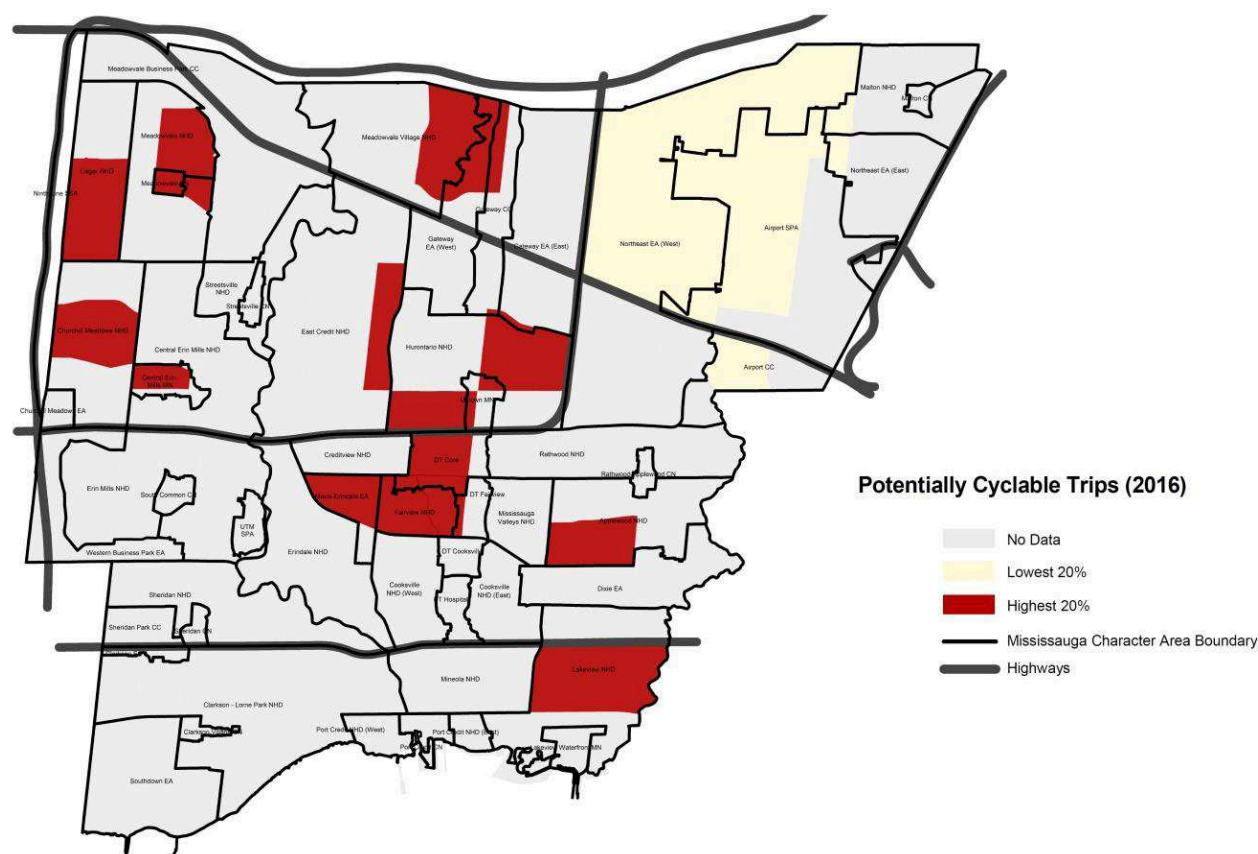
The Cycling Master Plan and previous studies outline potential for bike share system in the downtown core, Port Credit and areas that would support the Hurontario LRT. Data obtained from the TTS 2016 provides more information regarding character areas which demonstrate potential for micromobility

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systems. Figure 10 below outlines areas with the highest and lowest 20% of possible trips under 5 km. Character areas indicating the highest potential include parts of the Downtown, Fairview, Mavis-Erindale, Uptown, Hurontario, Applewood, East Credit, Central Erin Mills, Churchill Meadows, Lakeview, Lisgar, and Meadowville.

The areas identified using the TTS data show a more extensive area of pure potential for cycling than previously considered under the Cycling Master Plan and other studies conducted. It is important to note that when considering potential solely within the borders of Mississauga, Malton is identified as an area of lower potential. This is due to the fact that the Airport area surrounding Malton is largely an employment area, with most workers commuting in from elsewhere beyond a 5 km radius. However, Malton can present high potential if considered as a part of a regional or multi-jurisdiction system.

Figure 10



Source: Transportation Tomorrow Survey 2016

In addition to the TTS data, the City of Mississauga 2019 Culture Master Plan also outlines key cultural districts to keep in mind. Cultural districts are areas with significant population growth along transit corridors where increased cultural and city services are proposed. Cultural districts provide a good

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indicator of areas of future potential for micromobility services. Figure 11 below outlines proposed cultural districts. The areas currently proposed as cultural districts are: Clarkson, Lakeview, Port Credit, Cooksville, City Centre, Streetsville, and Malton. The areas outlined in the 2019 Culture Master Plan can be used to gauge where community activity and associated trips are projected to grow in the future.

Figure 11:



Source: City of Mississauga 2019 Culture Master Plan

Potential by GO Station Access

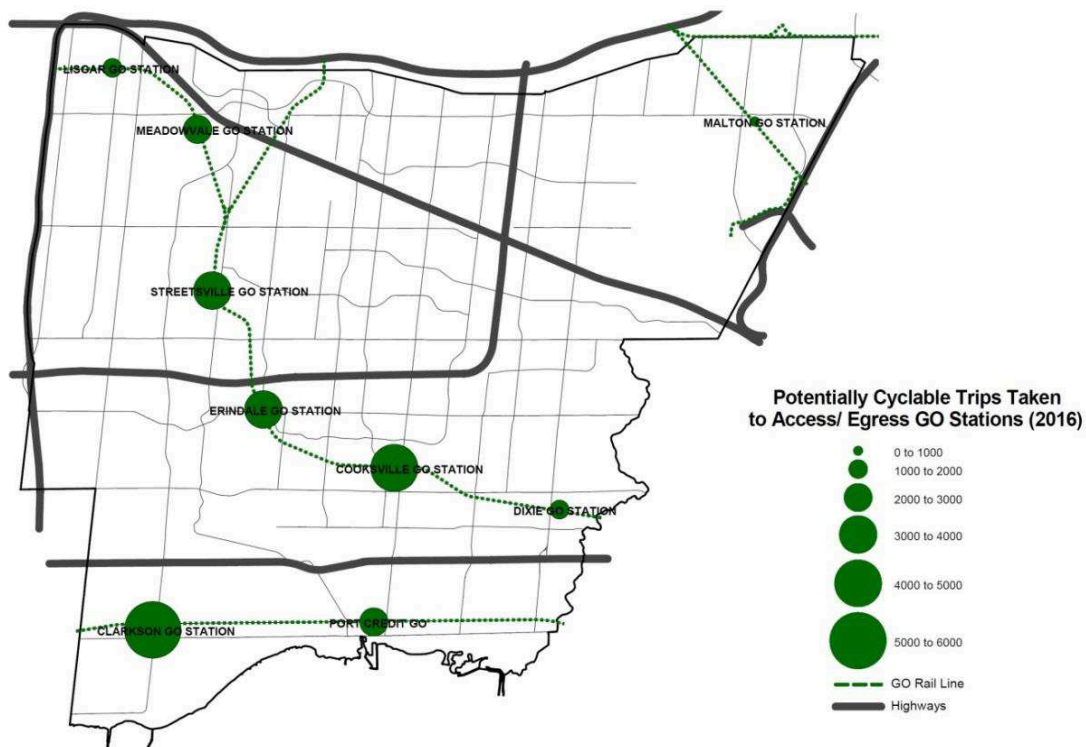
38% of trips in Mississauga are commuting trips, to and from work (Mississauga Transportation Master Plan). Currently, a large majority of workers in Mississauga drive to work. There is an opportunity to achieve significant modal shift by offering alternative options for commuters. There is a large potential for micromobility systems to serve as a first and last mile solution for commuter using GO stations.

Figure 12 below shows potential trips under 5km from and to GO stations by volume. Clarkson and Cooksville GO stations illustrate the highest potential, with 5000-6000 and 4000-5000 trips, respectively. Erindale and Streetsville GO stations also demonstrate moderate potential for first and last mile access

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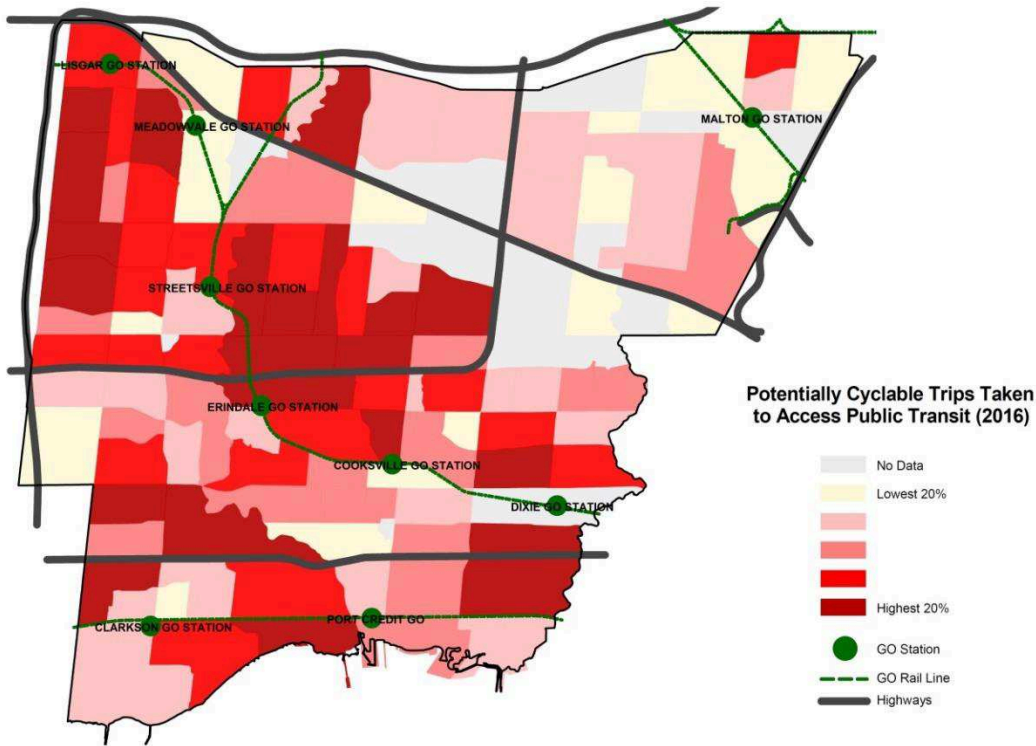
by micromobility systems. These findings highlight the underestimated potential for micromobility systems to serve Clarkson and the surrounding areas in initial assessments.

Figure 12:



In addition, further analysis was conducted to gauge which areas show the highest 20% and lowest 20% of potential for cycling trips to access to GO Station. Figure 13 below illustrates the findings. Areas closest to GO stations show the highest potential for cycling, or multi-modal access. Notably, the areas surrounding Clarkson and Port Credit GO stations show increased potential, which was not initially picked up through the character area analysis.

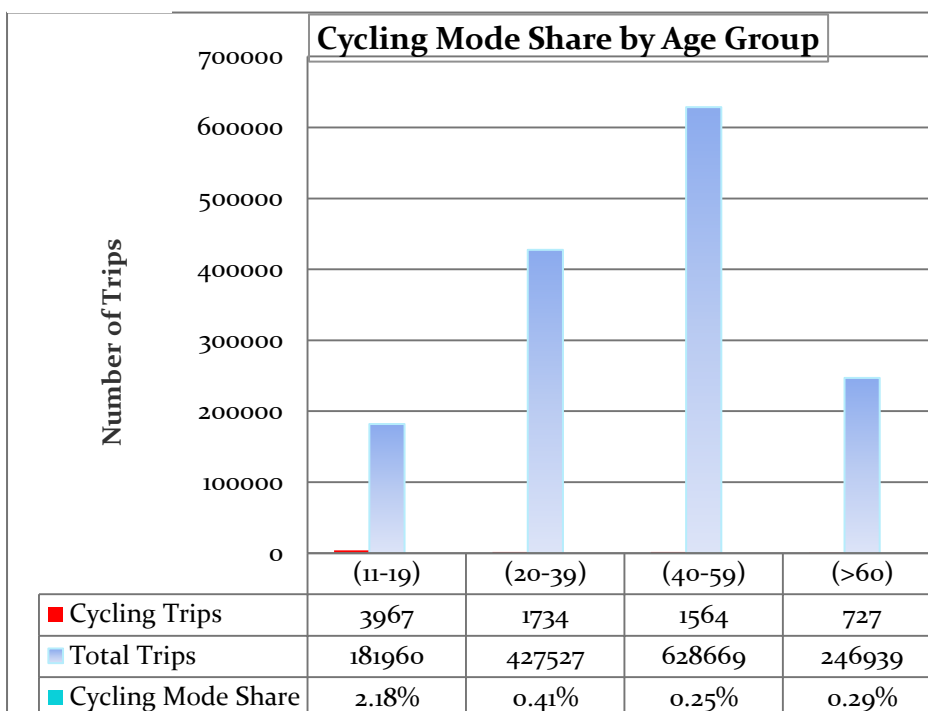
Figure 13:



Potential by Age Groups

Deconstructing trips by age groups helps show emerging patterns. It is observed that the cycling mode share is low across all age groups, relative to total trips. The cycling mode share also declines with each ascending age group. Figure 14 below illustrates the number of cycling trips relative to total trips by age group. For the purpose of this section, cyclable trips will include both potential for bike and scooter share systems alike.

Figure 14:



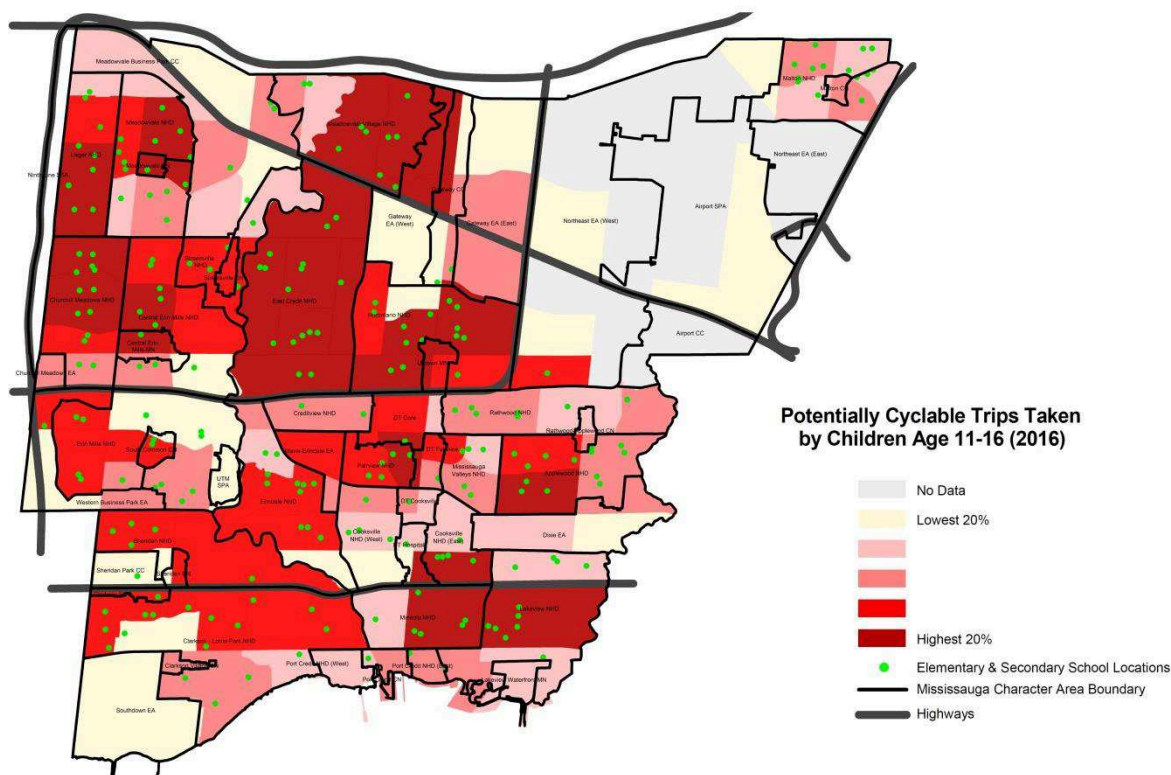
Source: Transportation Tomorrow Survey 2016

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While all groups show a low cycling mode share, this may be explained in part by barriers to cycling rather than unwillingness to use micromobility systems. For example, parents perceiving biking as unsafe may substitute towards driving their children leading to a lower cycling mode share for youth aged 11-19. However, a low mode share, relative to total trips, means that there is a large potential for increasing the cycling mode share by promoting a modal shift.

It is important to note that youth, aged 11 -19, demonstrate the most propensity for cycling. The cycling mode share amongst youth is more than double all other age groups combined. Youth show a very high potential for the use of micromobility systems, especially to and from school. Figure 15 below shows the areas with the highest and lowest potential for cycling trips by youth aged 11-16.

Figure 15



Areas surrounding elementary and secondary schools demonstrate a high potential for cycling trips, as illustrated in figure 15 above. These findings indicate potential for the usage of micromobility systems across the majority of the City of Mississauga. Youth may serve as a significant user group. By promoting micromobility systems youth will have access to more transportation options, attain more independence, and build healthier habits earlier on. Establishing micromobility systems as a reliable transportation

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option may also help shift youth away from car ownership in the future, helping promote greener alternative and reducing congestion.

Bosch E-Bike Pop-up

During June 2019, the City of Mississauga offered City staff the opportunity to try Bosch e-bikes as part of the Tactical Urbanism Pilot on Living Arts Drive. A total of 40 participants tried out the e-bikes over a two week period.

After the completion of the Tactical Urbanism Pilot a follow up survey was sent out to participants to receive feedback on the e-bike pop-up. A total of 22 participants responded to the survey. Respondents varied in age from 18 to 61 years of age; however, 54.6% of respondents were between the ages of 41-60.

When asked how they would use e-bikes if they had access to them, the majority of respondents indicated that they would use e-bikes for commuting and running errands. Notably, half of respondents aged 41-50 and 51-60 indicated that they would use e-bikes for fitness. Also, two thirds of respondents aged 51-60 indicated that they would use e-bikes for adventure/long distance cycling.

When asked if e-bikes should be offered as part of a bike share program by the City a large majority of respondents agreed (86.3%). However, 90.9% of respondents felt that lack of good cycling infrastructure presents a challenge to e-bike use in Mississauga.

Overall, the feedback provided was positive; indicating that e-bikes are a beneficial addition to transportation options in Mississauga. Data gathered suggests that while there are common usages for e-bikes across age groups, more patterns emerge when considering usage by age. These findings indicate the potential for e-bikes to capture a larger market with various trip purposes. However, findings should be generalized with caution since participation was limited to City staff and the sample size of those surveyed is small. Nonetheless, this survey indicates the desire and potential for e-bike share systems in Mississauga.

Current Legislation

The status of current legislation must be considered when assessing the City's roles and responsibilities when planning and implementing micromobility systems. Federal, provincial, and municipal legislation outline considerations and restrictions that must be accounted for. Legislation covers everything from where devices can operate to users' responsibility when operating devices.

Bikes

Bikes are the most clearly regulated and undisputed of the devices considered. Bikes can be operated on roads, trails, and in bicycle lanes, with the exception of the Mississauga Transit Way. Adult cyclists are not legally permitted to ride on the sidewalk. Additionally, users under 18 years of age are required to wear a helmet when operating a bike. The helmet law for youth is harder to enforce, as perception of age is subjective. When considering bike share systems, a helmet uptake strategy specifically targeting youth may prove beneficial. Bike share operators typically do not provide helmets available for use along with devices due to sanitation concerns. However, some private operators do distribute helmets prior to launching in order to promote helmet use across all age groups. Overall, the responsibility for following helmet laws lies with users.

E-Bikes

Federal and Provincial Definitions:

Currently, the Ontario Highway Traffic Act uses the federal definition for what constitutes an e-bike. E-bikes are defined as devices:

- Capable of muscular propulsion
- Which may have throttle or pedal assist features
- Weigh no more than 120 kg and have a maximum speed of 32 km/h
- Have a maximum engine power used not exceeding 500 watts.
- Have a permitted wheel diameter of 350 mm

As is the case with conventional bikes, e-bikes would not need to be licensed and registered. Also, all users of all ages would be required to wear a helmet when operating e-bikes. It is important to note that enforcing helmet laws may be difficult as e-bikes and bikes typically look alike. In the case that operator(s) selected are using an all e-bike fleet then it may be possible to identify e-bikes, and thus, better enforce helmet laws.

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It should also be noted that while the above definition is the one currently in use, the federal government has stated their intent to rescind the above definition and leave regulation up to the relevant provincial authorities. In turn, the Province of Ontario is in the processes of conducting consultations to determine how to redefine and regulate e-bikes. Consultation drafts, as of July 26th 2019, are mostly in line with the current federal definition for e-bikes. However some clauses were altered to:

- limit e-bikes to power assist features only and excluding devices with throttle propulsion
- Reduce the weight maximum to 55 kg
- increase the permitted wheel diameter to 500 mm

Currently, all operators and passengers using e-bikes must be at least 16 years of age. While the initial stakeholder consultation report sent on July 26th 2019 notes that other jurisdictions have a lower age limit, no current changes to the age limit are proposed. It is important to note that to date most private operators do not permit riders under the age of 18 to operate any e-devices. However, studies conducted have determined that ‘underage’ riders have been able to bypass age requirement and still do use the systems.

Please note that the above provincial changes regarding e-bikes are preliminary and confidential in nature.

Municipal Definitions:

Currently, the City of Mississauga Traffic By-Law 555-00 sets out a definition for “motor-assisted bicycles” or e-bikes. According to the by-law e-bikes:

- Must have fitted and operable pedals which can propel the bike
- Must have a weight maximum of 55 kg
- Must not be throttle assisted
- Must not exceed a speed maximum of 50 km/h on level ground within a distance of 1.6 km from a standing start

This definition may further restrict e-bike usage in the City, but it is subject to relevant provincial laws. The City may set put forth further restrictions beyond the ones provincially outlined within its borders; however, the City may not propose any clauses which allow more leeway than that set out in any of the conditions outlined by the province. However, too much variation in legislation between provincial and municipal rulings may be confusing for users. In the future, by-law 555-000 may need to be updated or a new by-law specifically addressing e-bikes may be considered to better reflect changes in legislation and technology.

Rules and Regulations

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Under the criminal code, e-bikes are classified as a “motor vehicle”. In turn, all users must be sober when operating e-bikes. Also, an individual with a suspended license may not legally operate an e-bike. E-bikes are permitted on all roadways and lanes where conventional bikes are allowed. However, currently only e-bikes weighing 40 kg or less are allowed on trails. It is important to note that the Parks and Forestry Division is in the process of updating their parks by-laws and expect to better outline guidelines regarding operating e-bikes on trails.

E-Scooters

Currently, Ontario’s Highway Traffic Act does not allow scooters to operate on roadways. Additionally, the use of e-scooters is prohibited on sidewalks, making the use of e-scooters on public property illegal. The City of Waterloo was able to run an e-scooter pilot with Lime by operating solely on private pathways. However, this provides a very limited geographical reach.

In light of the growing use of e-scooters, the Province of Ontario is in the processes of conducting consultations with respect to creating regulations and legislation addressing e-scooters. Consultation drafts, as of July 26th 2019, show that the Province is hoping to leverage its’ legislative authority under section 228 of the Highway Traffic Act in order to conduct an e-scooter pilot to test and evaluate the integration of e-scooters on public roadways.

E-bikes were permitted on public roadways following a 3 year pilot. In turn, the proposed e-scooter pilot may result in the e-scooters also being permitted within the public right of way. The proposed guidelines for the operation of e-scooters, as of July 26th 2019 mandate that:

- E-scooter operators must be 16 years of age at minimum
- All users must wear a helmet when using e-scooters
- No passengers are allowed on e-scooters
- Operators must have both hands on the steering wheel when scooter is in operation unless signalling

To date no maximum speed limit has been proposed for e-scooter use.

Please note that the provincial specifications regarding e-scooters above are preliminary and confidential in nature.

Recommendations

Recommendations

It is recommended that the City of Mississauga should support the introduction of a micromobility system in Mississauga.

Micromobility systems can help provide convenient and easily accessible transportation options for a wide range of users. They can also help reduce emissions, combat congestion, connect communities, and improve health outcomes for users; aligning with City, Regional, and Provincial goals. Micromobility systems are a net benefit for the City when proactively planned and appropriately managed.

It is recommended the City encourage and enable a micromobility system to be introduced in Mississauga through the creation of a regulatory framework.

By creating a regulatory framework the City can establish rules and requirements detailing what micromobility systems would look like for Mississauga. Establishing a regulatory framework also allows the City to shape micromobility systems in Mississauga prior to the creation of a system. The regulatory framework can help outline the City's expectations and requirements for independent operators.

It is recommended that the City accept a phased introduction of micromobility systems in Mississauga.

A micromobility pilot can help the City assess the viability of micromobility systems in Mississauga. A pilot program would allow the City to gauge demand and to work to solve any enforcement challenges that may arise prior to the introduction of a more permanent system. If a docked or hybrid micromobility model is introduced, it is likely to focus service in areas of high ridership potential (i.e. the downtown core, Cooksville, Streetsville, areas surrounding GO stations etc). Currently, serving Malton may be challenge if micromobility services are restricted to the City of Mississauga; however, coordination with other micromobility initiatives in Brampton or across the Region may allow Malton to be better served. Additionally, a pilot period ranging from a few months to a year may be considered under a dockless model in order determine how to best regulate and enforce the system.

It is recommended that the City favour bicycle or e-bike share systems over e-scooter systems at this time.

Conventional bicycles and e-bikes are clearly defined under the Ontario Highway Traffic Act and are subject to international safety standards (ISO 4210). E-scooters are the newest micromobility devices to emerge in shared systems, starting in 2017. The industry is still undergoing rapid changes in regards to e-scooter models in order to address ongoing issues and improve safety. Additionally, e-scooters are not defined under the Ontario Highway Traffic Act and there are no legislated international safety standards for e-scooters. Currently there are ongoing provincial consultations in regards to regulating and legislating e-scooters but at this time they cannot be operated within the public right of way.

Next Steps

- 1. Create a regulatory framework for shared micromobility systems in Mississauga**
- 2. Update Traffic By-Law 555-000 to reflect changes in legislation and technology based on the direction of Provincial legislation**
 - Redefine e-bikes in order to comply with Provincial changes
 - Potentially integrate e-scooters within the traffic by-law depending on Provincial ruling

Glossary

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Adaptive Bikes: Bikes that can be used by individuals of various abilities, including individuals with disabilities. Adaptive bikes can include tandem bike, hand-cycles, tricycles, recumbent tricycles etc.

Free-standing models: A dockless micromobility where users can park devices anywhere without needing to lock them to infrastructure. This model is typically further restricted so users can only leave devices “free-standing” within the furniture zone of the sidewalk or designated zones.

Furniture Zone: The segment of the sidewalk between the curb and the through zone where street furniture and amenities, like benches and lighting, are located.

Geofence: Creating a virtual border for a select area using GPS in order to further regulate or restrict the use of micromobility devices within the specified zone.

Lock-to models: A dockless micromobility where users have to lock devices to street furnishing or bike racks in order to park their devices.

Appendix A: Setting up a Dockless System in Mississauga

Setting up a Dockless System in Mississauga

In order to promote sustainable transportation options at the City of Mississauga and further promote access to all residents it is recommended that the City implement a 1 year micromobility pilot upon completion of a regulatory framework for micromobility systems. **A private dockless model with one or more operators is recommended** as it can be implemented at no upfront capital costs to the City. A permitting framework should be established in order to better outline expectations from operators and to users. Under a private model additional operational or enforcement costs can be recovered through permitting and program fees.

It is important to note that since a private model is recommended then it is likely that **e-bikes will be the selected devices for the pilot**. However, in the case that operator(s) offer conventional bikes and e-bikes then it is possible to launch a pilot with both devices for assessment.

Service Area and Designated Zones

In regards to the service area, it is recommended that the entirety of the City, with the exception of Malton and the surrounding airport area, be selected. The fleet size can be developed by the City in coordination with the selected operator(s). Devices may then be parked while **free standing** with the exception of the downtown core and areas of high pedestrian traffic wherein designated zones should be assigned for **free-standing** devices to be deposited. Additionally, the City may wish to implement no parking zones in denser locations through the use of **geofencing**. In this case, it is important to remember to add a minimum of an additional block to the restricted area in order to ensure that the **geofencing** technology fully encompasses the restricted area.

If selected non-municipally owned locations are desired as drop off zones, such as GO stations, then it is operator(s)' responsibility to enter into the necessary agreements with the relevant parties in order to guarantee cooperation. The City may wish to assign designated zones for dropping off devices in close proximity to GO stations if deemed necessary.

By selecting a private model the City can test uptake, demand, safety, and the impact of micromobility devices on right of ways without a long term commitment. The use of a dockless model is in line with current industry conditions. Using a dockless model will help expand reach and promote more equitable access. Enforcing clear guidelines and making use of havens or

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corrals will ensure that the public right of way remains unobstructed, mitigating the risk for bike litter.

Operation Season

Findings indicate that operating on all year basis is feasible. Bike share system in cities like Calgary and Vancouver continue operating throughout winter. The City of Mississauga may consider a reduced service area for the winter with potential for expanding the area depending on public feedback and data gathered from the initial pilot. The proposed winter service area could be located within the downtown core and potentially some of the surrounding areas. When selecting the winter service area it is of utmost importance that relevant snow maintenance plans are considered.

Evaluation Process

Following the completion of the pilot an evaluation of the system should be undertaken using pre-established metrics and indicators. Chapter 7, setting up a successful system, outlines some common measures and indicators used to assess the success of a micromobility system. It is vital that these measures and indicators be clearly defined prior to the start of the pilot in order to adequately measure impact. The evaluation process can then inform the City of how to proceed with regulating micromobility systems following the pilot. Specifically, data obtained can inform changes to the service area, designated deployment zones for rebalancing, and no parking zones. Additionally, the City may wish to not proceed with the implementation of micromobility systems if unforeseeable obstacles become apparent during the pilot.

In the case that the City continues with implementing micromobility systems following the pilot then a yearly evaluation should be conducted in order to ensure that the system remains viable. Regular evaluation will improve service and help the system adapt to changes in the industry through up to date regulations.

Current State of Readiness

The City can immediately begin planning for the implementation of a dockless private e-bike/bike share system if required. However, it is recommended that an awareness campaign precede any pilot in order to increase awareness and potential uptake. Since no current micromobility system has been launched in the City of Mississauga then a transitional time period may prove beneficial and help increase enthusiasm for the system. Additionally, it is recommended that the system rollout occurs in spring, summer, or fall-

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avoiding inclement weather during the launch. Doing so will help familiarize users with the system in safer conditions.

It is also important to note that there are many cycling infrastructure projects scheduled in the upcoming year. Increases in cycling infrastructure are likely to further improve system uptake. Additionally, the City may wish to implement the proposed e-bike/bike share system in conjunction with cycling projects if timelines match up.

E-Scooters

It should be noted that at this time the City of Mississauga cannot implement an e-scooter share system as e-scooters are not permitted within the public right of way. If e-scooters are permitted in public rights of way and their safety is established following changes in provincial legislative then the City may consider the use of e-scooters within its borders. However, the use of e-scooters is also not currently recommended due to ongoing safety concerns.

To date, there are a growing number of unresolved lawsuits concerning e-scooters from both users and pedestrians impacted alike. While there have been many improvements in e-scooter models to address safety concerns, it is still an ongoing process. Larger jurisdictions with a long standing history of regulating micromobility systems are still in the process of developing best approaches for e-scooter systems. In turn, it is recommended that the City of Mississauga wait until the safety of e-scooters is established. The feasibility of e-scooter in the City should be reassessed at a later date.

Appendix B: Setting up a Docked System in Mississauga

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If a privately owned and operated model is not desirable then the City may consider a publically owned and privately operated docked model which uses conventional bikes. This approach provides the City with more control over the system and is unlikely to interfere with right of ways. However, this option comes at a significant cost to the City and higher risk relative to the recommended option. Under this model the City will need to secure a combination of grants and sponsorship in order to fund the system. As well as that, implementation time for this approach will be lengthier due to time needed for the procurement process and to build the necessary infrastructure. As such, if this option is considered then implementation cannot occur in the immediate term.

Service Area

If a docked model is considered then it is suggested that the initial service area focus on the downtown core, Cooksville, Port Credit, Clarkson, and areas that would support the Hurontario LRT as they show the most potential. There is also potential for expanding the service area to include more character areas as the system expands. Typically it is suggested that stations be placed every 300-500 meters in order to ensure that the service area is adequately covered by the system.

Operation Season

Operating all year is feasible but not recommended when considering a publically owned docked model since the service area cannot be restricted due to the reliance on built infrastructure. Maintaining the full service area during winter may present more risk as the City is liable for damages. In addition, operating during winter may result in significant maintenance fees. In turn, it is recommended to consider pursuing operating all year at a later stage.

Potential Funding

A mix of grants, sponsorships, and other revenue is needed in order finance publically owned docked models. Some potential sources for funding available that should be noted when considering this option are:

- “The Capital Grant” from the Ontario Trillium Foundation’s Grow Grants
- “The Capital Project: Transportation Networks and Commuting Options” from the Federation of Canadian Municipalities’ Green Fund

Appendix C: Future Considerations

Appendix 1

Following the implementation of a micromobility system the City may wish to pursue some opportunities after the initial roll out. As a next step the City may wish to consider the implementation of a research and development partnership, the use of **adaptive bikes**, and the integration of single payment system across micromobility systems and public transit.

R&D Partnership

In order to analyze shared data the City must increase capacity; in turn, the City may wish to explore the possibility of a research and development partnership with universities. Pursuing a R&D partnership also allows for sensitive data to be housed and stored outside of City servers, leading to better protection of users' privacy. The Seattle Department of Transportation entered a partnership with the University of Washington as part of the University of Washington's Transportation Data Collaborative (TDC). The TDC would ingest and process operators' data, helping the City of Seattle aggregate data. A similar partnership may be explored for the benefit of the City of Mississauga. By engaging in an R&D partnership the City can direct more capacity towards active enforcement and other sources of oversight.

Adaptive Bike share

As a next step, following implementation, the City may wish to consider the integration of **adaptive bikes** in their fleet. Adding **adaptive bikes** expands the reach of the system to more individuals who may not have been previously able to use the system. **Adaptive bikes** can be used by individuals who self-identify as disabled but may also be useful for seniors and others with invisible disabilities, such as individuals with joint pain. Individuals can be offered handcycles, side by side tandems, tricycles, or recumbent tricycles in order to allow them to bike on their own. While users with mobility devices would not be able to ride the bikes for transportation since their devices cannot be brought along, they are able to use the bikes for leisure.

Typically **adaptive bikes** cannot be adopted as part of docked system since they do not work well with the static hardware needed to lock in docks. Additionally, due to the wide range of ways by which bikes can be made adaptive depending on the user's ability, it would be insufficient to have one or two bikes per station even if it was made possible. In a publically owned docked system the City may wish to form a partnership with existing providers. The City would commit a specified amount of funding to providers in exchange for them providing their **adaptive bikes** for use. Under this type

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of approach users would be able to reserve and rent bikes in advance either at a subsidized cost or for free.

The partnership approach can also be used when considering a privately owned dockless model. The City of Seattle undertook this approach by using \$50,000 generated from permitting fees for the use of an **adaptive bike** partnership. However, the City may also wish to incentivize private operators to include more **adaptive bikes** when possible. The City could offer fleet size bonuses to operators who provide adaptive options. For example, each operator can be granted an increase of 2 additional devices for each **adaptive bike** offered at a maximum of 1,000 devices.

Finally, the City should consult with individuals with disabilities and relevant groups representing individuals with disabilities to see what options best suit their needs. By doing so other potential opportunities may be identified. Additionally, hearing and including users of all abilities is vital in order to ensure that the system truly represents all users.

Integrating Payment Systems

Integrating payment for micromobility systems might help solidify the system and increase uptake. Since Presto is widely used, offering the option to link payment for micromobility devices with Presto might make accessing the system easier. Additionally, having the ability to pay for both public transit and micromobility services within the same system makes it easier for infrequent users of micromobility services to be able to access their accounts at any point in time.

Integrating payment systems is typically easier when considering public systems; however, it is still possible under a private model so long as negotiations with the relevant parties are conducted. In the case that integration cannot be directly phased in then it is possible to start by offering a discount to Presto users. Bike Share Toronto offered 30% to members using Presto cards in order to incentivize membership. Doing so can provide users with more incentives to commit to the system as it grows.

Appendix D – Case Study: Seattle

Case Study: Dockless E-bikes, Seattle

Prior to implementing a dockless bike share program the City of Seattle operated a docked bike share system from 2014 to 2017. Despite the fact that the City of Seattle is a bike friendly jurisdiction the docked system implemented, Pronto! Cycle Share, did not achieve adequate uptake in order to recover system costs. In addition, federal funding promised to the system fell through, further compromising the system. In turn, the City of Seattle shifted to the use of a privately owned dockless bike share system.

In 2017 the City of Seattle created a pre-emptive regulatory framework for dockless bike share. Seattle's regulatory framework serves as a benchmark for other Cities looking at implementing a permitting structure for dockless micromobility systems.

Application Requirements

Permit requirements for the City of Seattle mandated that at minimum all applications should have:

- A data collection and integrity plan
- A parking and fleet management plan
- An equity plan
- A rider education plan
- A plan for encouraging compliance with helmet laws
- Demonstrated experience and expertise
- Adequate insurance information
- Images and descriptions of bikes and mobile applications
- Reference to the size of fleet at launch and any expected expansions (during the pilot)
- Reference to the service area at launch and any planned expansions (during the pilot)

In addition, operators may also provide an adaptive cycling plan and emergency unlock plan. While these two plans are optional, providing them may give operators an advantage against competitors when applying for permits.

Fees

When considering cost recovery in 2017 the City of Seattle charged the following fees:

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- Permit fee: \$146
- Fee per bike: \$15
- Bike removal or relocation fee: Staff's hour rate + 15%
- Performance bond: \$80 a bike, capped at \$10,000
- Staff review and inspections: \$209 per hour

Applicants are required to pay a deposit of \$1672 for permit review fees, as it was expected that each permit would take an average of 8 hours of review time from staff. Additional time not used would then be refunded back to applicants. The specified performance bond listed would be subject to increases in the case that the fleet size increases. As well as that, the Seattle Department of Transportation (SDOT) explicitly outlined that all additions not previously outlined in the permit submitted would be subject to an additional permit and the associated fees.

However, for the 2018- 2019 permit year the City of Seattle increased cost to operators and added additional fees, as outlined the fee schedules below.

AF4.1 Fee Schedule. SDOT may charge vendors up to the following fees:

Fee Type	Fee Amount	
Permit Issuance and Renewal	\$224 for issuance or \$170 for renewal as specified in the Street Use Permit Fee Schedule or as subsequently amended	
Permit Review	\$260 per hour of review as specified in the Street Use Permit Fee Schedule or as subsequently amended	
Administrative Fee per year	If four vendors are granted permits during the initial permit application period:	\$250,000 per vendor
	If three or fewer vendors are granted permits during the initial permit application period:	\$50 per permitted bicycle or other device, prorated by month
	If additional vendors are granted permits after the initial permit application period:	<ul style="list-style-type: none"> • \$250,000 per vendor, prorated by month, if the vendor deploys 5,000 or more bicycles or other devices • \$50 per permitted device, prorated by month, if the vendor deploys fewer than 5,000 bicycles or other devices

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Expense	Amount	Per Device (if 5,000 devices)
Program Administration	\$600,000	\$30
Program staff (1.5 full-time equivalent positions)	\$370,000	\$18.50
Data analysis, repository, and portal	\$50,000	\$2.50
Adaptive cycle share partnership (leverage community partnerships to increase adaptive cycling access)	\$50,000	\$2.50
Equity-based outreach and engagement	\$50,000	\$2.50
Compliance auditing	\$50,000	\$2.50
Ongoing evaluation (survey and other work to evaluate program)	\$30,000	\$1.50
Designated Device Parking (1,500 spaces)	\$400,000	\$20
TOTAL	\$1,000,000	\$50

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Permit Conditions

The City of Seattle clearly stipulated within their permit that operators may not deploy within the City without a permit in order to ensure that operators must abide by the stipulated conditions prior to the implementation of a micromobility system. Each approved permit would last for a period of up to one year, after which operators must reapply.

When considering risk to the City, SDOT clearly outlines that all permittees must sign and record an indemnification agreement indemnifying and holding harmless the City. Additionally, SDOT notes that any costs incurred as a result of addressing permit violations, or for the maintenance of public property as a result of damage incurred during as a result of micromobility services must be reimbursed to the department within 30 days of receiving written notice from the City. As well as that, SDOT reserves the right to terminate permits issued at any point in time, and operators must withdraw within 30 days of notice.

Fleet Size

When outlining conditions of operation, SDOT sets forth a dynamic fleet size while maximum use of both minimum and maximum fleet sizes. SDOT stipulated that operators using only e-bikes would not have a minimum fleet size. However all operators would be subject to fleet maximums. During the first month operators may deploy 500 devices, which then increase to 1000 devices for the second month, and 2000 devices for the third month so long as other permit requirements are being met. Beyond the third month operators may expand beyond 2000 devices as appropriate. However, all operators may not have systems with service areas exceeding 340 bikes per square mile.

Once operators' fleet size exceeds 2000 devices then operators are required to include priority neighbourhoods in 20% or more of their service area. In this case SDOT defined priority neighbourhoods as areas with:

- People living 200% under the federal poverty line
- A high unemployment rate
- A high concentration of individuals over 25 years without a college degree

Including priority neighbourhoods helps make the system more equitable and expand reach. SDOT also required that operators deploying more than 2,500 bikes serve the whole city right away.

When considering how "fleet size" is defined it is important to note that SDOT realized that there is a discrepancy between the City's and operators' parameters when considering fleet size. Operators were only reporting

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available bikes as the actual fleet size, whereas the City was counting all bikes ever deployed, including lost bikes, bikes in storage, and bikes in repair. In turn, SDOT has specified that from hereon in fleet size should refer to “all bikes on the street regardless of their availability for rent, but not bikes removed from the street or not in Seattle” (Seattle: 2017 Free-floating Bike Share Pilot Evaluation Report, 2018).

It is also important to note that following the pilot period and subsequent evaluation SDOT adjusted permit conditions to require operators to make at least 10% of their devices available across three equity focus areas which had access below average during the pilot.

Local Operations

The City of Seattle mandated that operators must have at least one operation center in the City. Employees hired by operators must be paid the minimum wage in Seattle. Employees are also subject to all applicable federal, local, and state safety requirements.

In order to ensure that operators are provided services tailored to Seattle’s needs, operators are required to work with SDOT for the purposes of outreach, education, and equity programming. Operators are required to provide at minimum one method that riders without access to smartphones, bank accounts, and credit cards can access the service through. Additionally, if 50% or more of an operator’s deployed fleet consists of electric devices then a reduced fare program is required.

Operators must also disclose all rates, fees, surcharged, penalties, and any other costs that maybe incurred to users beforehand. SDOT also required that operators work towards providing service in multiple non-official languages. By 2019 operators must provide services in 8 languages in order to further improve access.

Communication

The City of Seattle required operators to have a range of methods by which users can notify the operator of safety or maintenance issues through:

- A toll-free number which must connect to a live person and allow users to leave a message
- A contact number that is capable to receiving and responding to text messages
- An email address

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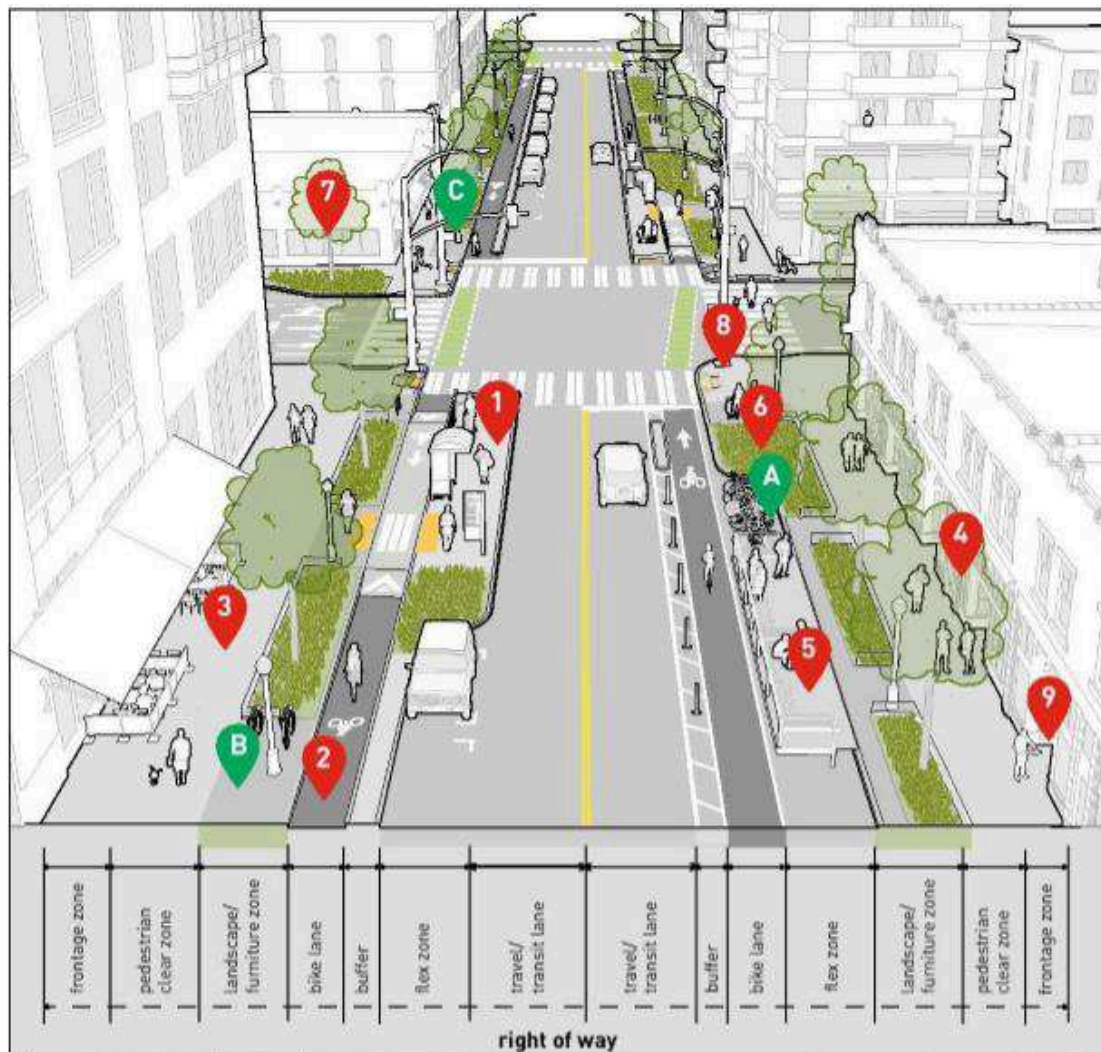
In the case that operators receive reports by other communication methods listed above then a callback or written acknowledgement of the report must be provided. Additionally, operators were required to provide City staff with:

- An official address for formal notices
- Email addresses for formal notices
- Contact numbers and emails for the:
 - General Manager
 - Policy development personnel
 - Local fleet operations manager
 - Data collection and reporting personnel
 - Programming and equity personnel
 - 24 hour contact in the case that it differs from those listed above

Parking

The City of Seattle permitted the parking of devices within the furniture zone or in designated racks or corrals. The figure detailing parking “do’s and don’ts within the right of way” on the following page further demonstrates where parking is and is not permitted by SDOT.

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**DON'T**

1. Park at transit stops, loading zones, or disabled parking zones.
2. Park in travel lanes.
3. Park in the pedestrian clear zone. Leave at least 6 feet for pedestrians to pass.
4. Park in the frontage zone or against buildings. People with low vision use this area to navigate.
5. Block access to street features like parklets, parking pay stations, benches, and building entrances.
6. Park on grass, vegetation, or other soft surfaces.
7. Lock devices to trees, railings, or anywhere that will block access.
8. Park on corners, curb ramps, or crosswalks.
9. Block building entrances.

DO

- A. Park in designated bike share parking areas and public bike corrals.
- B. Lock devices to bike racks* where they do not block pedestrian access.
- C. Park on hard surfaces in the landscape/furniture zone, near the curb.

*As a temporary measure, please do not lock devices to fixed objects, including bike racks, until March 15, 2019.

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The City of Seattle requires operators to provide a number for bike relocation requests clearly displayed on every bike. On weekdays, with the exception of holidays, operators are given 2 hours to relocate bikes identified as being obstruction hazards if reported within 6 am to 11:59pm and 4 hours to relocate bike reported as obstruction hazards between 12 am to 5:59 pm.

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Otherwise operators are given 24 hours for relocating improperly parked bikes that are improperly parked but not identified as being obstruction hazards.

In the case that any **free standing** bike is parked in the same location for more than 7 consecutive days without being deployed then the City reserves the right to remove and store the bike at the expense of the operator. In the future the City of Seattle also hopes to make a centralized parking reporting system in order to better enforce parking violations.

Metrics and Indicators

The City of Seattle set 9 metrics to evaluate their system by:

- **Ridership** (measured as total trips)
- **Geographic Coverage** (measured by the amount of the city covered)
- **Equity** (measured by assessing coverage, usage, low-barrier options, and outreach)
- **Safety** (measured as the number of collisions per 1 million trips)
- **Parking Compliance** (measured as the percentage of bikes incorrectly parked and the percentage of bikes blocking access)
- **Disabled Access** (measured through reported parking issues and bike availability)
- **Maintenance** (measured as the percentage of bikes in good working condition and the percentage of bikes with safety hazards)
- **Public Opinion** (measured by assessing favourability and issues)
- **Cost** (measured by assessing total public subsidy)

Compliance

SDOT set out a series of compliance targets for operators to follow, with clear threshold after which noncompliant operators will be penalized. Targets are tested through regularly scheduled audits across 9 different areas. For example-

Regarding parking:

- No more than 3% of audit sample may be identified as obstruction hazard or else operators face a reduction in fleet size to a maximum of 1000 devices
- No more than 30% of audit sample non-compliant with other parking requirements or else operators face a reduction in fleet size to a maximum of 500 devices

Regarding maintenance:

- No more than 10% of audit sample can be unsafe to operate or else operators face a reduction in fleet size to a maximum of 500 devices

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- 70% of audit sample must be in good working condition and available for rental or else operators face a reduction in fleet size to a maximum of 500 devices

Regarding operators' response time:

- Operators must respond to reports within specified time frame at least 75% time (excluding reports by vendors and its' agents) or else operators face a reduction in fleet size to a maximum of 500 devices
- Operators must respond to 99% reports within 48 hours (excluding reports by vendors and its' agents) or else operators face a reduction in fleet size to a maximum of 500 devices

Additionally, the City may revoke operators' permits if operators consistently fail to meet the established compliance targets. Five account logins must be made available for City oversight in order to ensure that City staff are able to test services when required. Currently, the City of Seattle is responsible for the auditing process; however, they are working towards obtaining assistance from third-parties for auditing purposes.

Data

When considering shared data the City of Seattle reserved the right to use data for the purposes of managing streets and refining the program. By selecting broad rights of use, the City of Seattle is able to use shared data as needed without excessive restrictions.

The City of Seattle required operators to permit the usage of third-party researchers for evaluation. Doing so allowed SDOT to partner with the University of Washington as part of the University of Washington's Transportation Data Collaborative (TDC). This partnership allowed the City to aggregate data and support data reporting. Since shared data was housed at TDC then users' personal information was better protected. Capacity was also increased as TDC staff was able to support City staff in managing shared data.

The City of Seattle requested real time data from operators, submitted in an API format. SDOT required that operators share:

- Fleet data
- Deployment-device data
- Trip data
- Parking reporting data
- Maintenance data
- Incidence log
- Rider data

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Data shared includes:

- **Total individual users** in the previous month and in the previous three months
- Logs **regarding improperly parked devices**: detailing the time the report was received, the nature of the hazard, and time the report was addressed
- **A summary of all maintenance complaints** : including the nature of the maintenance issues and when they were resolved
- **A log of all incidents**: including crashes and other incidents not related to improper parking
- **Maintenance activities**: including but not limited to the bicycle identification number, the types of maintenance performed, and collision was reported

SDOT required that all trip and maintenance data be reported weekly. In contrast, deployment-device data is to be updated not less than once every hour. In the case that operator compliance is good then SDOT permits that they submit a summary of reports and logs; however, any collisions or injuries must be reported regularly regardless of compliance.

In addition to shared data generated, SDOT also requires that all operators administer a user survey to all users. Surveys are administered to gather additional demographic and ridership data. Surveys typically cover questions regarding users' age and gender, trip purpose and satisfaction with services.

Appendix E – Case Study: Portland

Case Study: Dockless E-Scooters, Portland

The Portland Bureau of Transportation (PBOT) ran an e-scooter pilot from July 23rd to November 20th 2018. The e-scooters proved popular among young, low-income, people of colour in Portland (PBOT: 2018 E-Scooter Findings Report, 2018). Additionally, e-scooters' reach expanded beyond that of bike share. The devices managed to replace vehicular modes of travel effectively according to initial findings from the pilot (PBOT: 2018 E-Scooter Findings Report, 2018). The pilot showed that e-scooters pose a lot of potential and challenges alike.

Overall, the permitting structure for e-scooters in Portland was in line with the regulatory frameworks introduced in other jurisdictions, like Seattle. Permitting micromobility systems tends to follow similar requirements across jurisdictions with some room for adjustments based on each jurisdiction's respective needs. This section outlines some additional requirements raised in Portland that differ from other jurisdictions.

Application Requirements

In addition to the established application requirements (as set out in the Seattle case study) PBOT required that applicants include an economic opportunity plan detailing how operators plan to:

- Create jobs for people living in low income and traditionally underserved areas (including people of colour, low-income individuals, immigrants and refugees, veterans, people with disabilities, women, and formerly incarcerated people)
- Contribute to enhancing the economic and civic vitality of the City

In addition, PBOT introduced some additional clauses to the commonly used application requirements. In regards to demonstrated expertise, operators were also required to list all legal and regulatory enforcement actions initiated against the company. In regards to maintenance and operations plans, operators were required to specify:

- The frequency and extent of the maintenance and cleaning of scooters
- The type of labour conducting the work (e.g. employees, staffing services, contract labour, etc.)
- The average lifespan of the scooter
- Scooter disposal practices

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Fees

The City of Portland made use of a dynamic fee structure for their pilot. They charged:

- Per trip fee: \$0.25
- Annual permit fee: \$5,000

Using a dynamic free structure allowed the City of Portland to recover oversight costs efficiently due to increased demand. In the first quarter PBOT generated \$120,000 as a result of high uptake.

Fleet size and Operations

PBOT capped the fleet size within the City of Portland at 2,043 devices, offering each operator a total of 683 devices. The City of Portland required the use of helmets and barred riding on sidewalks within its' jurisdiction. Additionally, PBOT worked with operators to further education and engagement efforts. PBOT did this by:

- Tabling at 8 community events which offered test rides and information on e-scooter laws, safety, and low-income programs
- Hosting an event dedicated to e-scooter safety
- Distributing handbills and educational flyers
- Placing warning signs alerting users that they are not permitted to ride on select trails

Data

In addition to the commonly used data sharing requirements across jurisdictions, PBOT required that in the cases of data breaches operators must provide a summary report which details the data, location, and type of data accessed. Operators are also required to provide a complaint history report which details:

- The total number and the nature of complaints filed by users, non-users, and the City
- The average time taken to resolve complaints (by type)

While most jurisdictions rely on shared data and the annual survey to assess service, PBOT also conducted a citywide poll, focus groups, community and stakeholder input, and launched an online complaint form in order to better assess the impact of e-scooters on Portland.

Findings from the Pilot

While e-scooters captured a large share of potential users, it presented a “significant management challenge for Portland Parks and Recreation Staff” (PBOT: 2018 E-Scooter Findings Report, 2018). There were many complaints of sidewalk riding, helmet use, improper parking, and unsafe riding on the streets. However, it is important to note that parking violations improved over time (PBOT: 2018 E-Scooter Findings Report, 2018).

Statewide emergency department visit data indicated that there were many injuries resulting from e-scooter use. Most injuries were a result of falls rather than collisions. During the four month pilot there were 176 scooter related ER visits, which made up 5% of traffic injuries during that same 4 months (PBOT: E-Scooters Findings Report, 2018). While there were a large number of injuries, relative to total rides, the Multnomah County ER did not see the 5% injury rate as a deterrent to a second pilot. In fact PBOT expressed their desire to conduct a second pilot period in order to collect more data and test innovative solution. Currently, e-scooters are deployed in the City of Portland under a permit system for a one year operation period.

Appendix F – Case Study: Calgary

Case Study: Dockless E-Bikes and E-Scooters, Calgary

Dockless E-Bikes

In 2018 the City of Calgary launched a two year dockless freestanding bike share pilot. The City of Calgary put forth six anticipated benefits as the rationale for the bike share pilot, being:

1. Reducing congestion and the number of private vehicles on roadways
2. Facilitating transit trips by helping users make first and last mile connections
3. Saving time on short trips
4. Reducing the cost of transportation
5. Reducing the amount of greenhouse gases in the air
6. Improving users physical health

In 2012 Council issued a decision that bike share systems should be owned and operated by a third party. Following Council's decision, the City of Calgary worked towards the launch of a bike share system within their jurisdiction. The figure below provides a timeline of key dates for bike share systems in Calgary.



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Appendix 1

After creating a bike share framework, Lime was selected by the City of Calgary as the provided for their bike share pilot. Lime deployed a fleet solely consisting of e-bikes in Calgary. The City of Calgary required that all users operating e-bikes use helmets in accordance to local laws. The City of Calgary also set forth four measures to evaluate the pilot by:

1. Safety
2. Reliability
3. Availability
4. Public Acceptance

Permit Conditions

In addition to the commonly used permit conditions, the City of Calgary required that applicant waive rights to sue or claim for compensation from the City. In addition, the City must be compensated for any loss arising as a result of the pilot. The City also mandated that operators cannot have third party advertisement or sponsorship on the bikes, unless City approval is obtained.

Fleet Size

For the second phase of the pilot program the City of Calgary enforced both a minimum and maximum fleet size. The minimum fleet size was set at 250 e-bikes and the maximum fleet size was set at 1500 e-bikes. However, the City reserved the right to adjust the fleet size during the pilot period. The City also stated that they are willing to make exceptions to the fleet size set in the case that operator(s) are to use fat tire winter bicycles, cargo bikes, adaptable or recumbent bikes. Currently, Lime has 375 e-bikes deployed in Calgary.

Fees

The City of Calgary required that operator(s) pay:

- Application fee: \$600
- Reapplication fee: \$300
- Per bike fee: \$15
- Bicycle parking improvement fee (per bike): \$10
- Security deposit (per bike): \$25 – to a maximum of \$15,000

All fees paid out by operators are non-refundable with the exception of the security deposit. The security deposit is used to cover City costs for the removal or relocation of devices. Following the end of the pilot program, funds remaining in the security deposit are refunded to the operators.

Parking

In addition to the commonly accepted standards for parking and operating dockless micromobility devices, the City of Calgary specified that if operators make use of “**lock-to**” bikes then bikes can only be locked to City bike racks or designated bike areas. Permit holders can suggest location for designated zones for parking but the final say is ultimately up to the City. Additionally, the City can put a cap on the number of bikes allowed per designated area. Operators are also expected to mark temporary changes in operation and parking due to expected parades or public gatherings on their app and website within 7 days notice provided by the City.

Seasonality

Lime has chosen to continue operation in Calgary all year long. However, during winter the service area is limited to the city center. To ensure safe operation during winter, the City of Calgary required that permit holders clear snow off bikes and surrounding areas within 24 hours of snowfall ending. The City allows operators to move bikes to another cleared area within the specified service area so long as parking conditions are met. Additionally, the City reserved the right to revise winter and main operating dates based on weather conditions.

Data

The City of Calgary required that operators share historic data with the City in .pdf, .xls, or .csv format. In regards to conditions regarding shared data for the purposes of rights of use and user protection, the City of Calgary followed current commonly used requirements (like Seattle). In addition to commonly used standards, the City of Calgary required that operators not share users' data with third parties without express consent from users. Also, the City required that operators provide a clear written justification to users as to how and why their data will be used. Operators were prohibited from hiding the aforementioned justification within their longer terms of service agreements.

Preliminary Findings from the Pilot

Thus far, the e-bike pilot in Calgary has been well received, surpassing initial expectations (Lime Calgary Ridership Pedals Past Expectations in Bike Share Pilot, 2019). During the first phase of the pilot resources had to be reallocated due to demand surpassing initial expectations for select areas (Lime Calgary Ridership Pedals Past Expectations in Bike Share Pilot, 2019). Additionally, initial findings indicate that residents in several areas outside of the winter coverage zone wanted to be included within the winter service area as well (Lime Calgary Ridership Pedals Past Expectations in Bike Share Pilot, 2019).

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More complete findings are expected following the end of the second phase of the pilot program in the fall of 2020.

Dockless E-Scooters

The City of Calgary launched an e-scooter pilot in July 2019 that is due to end October 31st 2020. The permitting framework created for e-scooter share systems very closely resembles that of the bike share system permitting framework employed. However, the City has introduced some additional requirements in order to manage ongoing concerns regarding e-scooter use.

It is important to note that the City of Calgary declared that it may adjust permit requirements and conditions for e-scooters at any time based on feedback from Citizens of Calgary, safety concerns, changing needs and priorities, and advancements in technology. By maintaining the right to changing permit conditions, the City of Calgary can work to mitigate safety risks and solve any unexpected issues that arise.

Fleet Size

The City of Calgary made use of both a minimum and maximum fleet size. The minimum fleet size required per operator is 250 e-scooters while the maximum fleet size an operator can deploy is 1000 e-scooters. Operators selected are required to deploy the minimum fleet size of 250 e-scooters within four weeks of the launch date. Operators who wish to increase their fleet size must apply for an increase subject to approval. Additionally, the City may at any time adjust the fleet size of operators during the pilot in order to ensure the success of the pilot.

Fees

The City of Calgary required that operator(s) pay:

- Application fee: \$600
- Reapplication fee: \$300
- Street use fee (per e-scooter): \$50
- E-Scooter education and encouragement fee (per e-scooter): \$10
- Security deposit (per e-scooter): \$25 – to a maximum of \$15,000
- Costs to relocate or remove e-scooters: 115% of staff's hourly rate

The City of Calgary notes that operators hoping to increase their fleet size are required to reapply and pay the associated reapplication fee. Also, operators

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are to pay the additional fees for street use, e-scooter education and encouragement, and security deposit fees if fleet size increases are approved.

It is important to note that the City of Calgary charges the same fees for application, reapplication, and security deposit fees for both e-bike and e-scooter share programs. Other fees charged vary between both permitting structures.

Permit Conditions

In addition to the commonly used permit conditions regarding permit requirements, the City of Calgary requires that operators remove their entire fleet from all City streets, parks, and pathway within 14 days of notice if an operator's permit is revoked. Additionally the City outlines that in the case of an emergency or immediate threat to public safety, the City may take any action deemed necessary to remove the emergency or threat. As well as that, the City maintains its right to not guarantee or refuse the issuance of a permit if the applicant has previously commenced shared e-scooter services without obtaining prior approval.

Operations

In addition to the commonly used operation requirements requested of operators, the City of Calgary required that operators submit a plan regarding the location and storage of electric scooters during non-operational hours, and a recharging plan. The City of Calgary also required that operators ensure that the maximum assisted speed of e-scooters on flat level ground must be 20 km per hour or less. Operators were also required to ensure that users are educated about the fact that e-scooters are allowed on C-Train vehicles only during off-peak hours and that they may not be ridden in any C-Train vehicles or platforms.

The City of Calgary required that operators cease operation during the winter season. The City defined the winter season as November 1st 2019 through March 15, 2020. Additionally, e-scooters are only permitted for use on the City's sidewalks, bike lanes, and other pathways. The City prohibits the use of e-scooters on or in the roadway areas, except for use in exclusive bike lanes and crosswalks.

Outreach and Education

The City of Calgary required that operators meet specific outreach and education standards in order to better integrate the service. Operators were required to:

- Participate or attend public meetings and events

Appendix 1

- Participate or attend community-led events or gathering
- Meet with Business Improvement Areas (BIA's), community associations, business owners, and other groups within the service area selected
- Host community events with the service area

Parking

Operators were required to adhere to all commonly accepted standards and conditions for parking e-scooter. In addition, the City of Calgary allowed for e-scooter parking on the street in residential areas wherever a vehicle may be legally parked. In cases where residential parking permit would be required for on street parking for vehicles then e-scooter can only be parked in the parking zone within 5 metres of an intersection. The City of Calgary prohibited street parking for e-scooters in park plus payment zones (unless there are designated parking areas specifically for e-scooters). The figure below outlines where e-scooter may be and may not be parked and operated.



PROPERTY OF THE CITY OF CALGARY, PLEASE DO NOT DISTRIBUTE.

Data

The City of Calgary required that operators share historic data with the City. All data must be made accessible to the City at any time during the permit and for at least 6 months following the end of the pilot. In regards to rights of use and user protection the City of Calgary maintains the same commonly used

Appendix 1

conditions across jurisdiction. However, the City of Calgary also requires that operators agree to making their policies, procedures, and practices regarding data security available to the City upon request. In addition, the City reserved the right to hire a third party to perform a security audit at any time.

Importantly, the City of Calgary prohibits operators from claiming any legal right in their terms of use, privacy policy, or elsewhere to institute retroactive changes to their privacy policy. Instead, users must be provided the opportunity to explicitly agree to any changes prior to the implementation of the new policy.

Insurance

In addition to the commonly requested insurance requirements, the City of Calgary requires that operators' insurance policies cover cyber security risks, such as: data breaches, unauthorized access and/or use, ID theft, privacy violations, degradations, and downtime.

Appendix G – Costing: Docked Systems

Costing: Docked Bike Share Systems

Considering the costs associated with each system model helps determine the feasibility of all proposed options. Docked model require significant upfront capital costs, each station can cost on average between \$40,000-50,000 USD (The Bike Share Planning Guide, 2013). Additionally, micromobility devices can range from \$1000- \$3500 USD each (The Bike Share Planning Guide, 2013).

When considering the appropriate number of stations and devices for Mississauga a total of 73 stations, with 10 bikes per station, was selected for the purpose of this analysis. The total number of stations was determined based on the number of MiWay terminals (41), LRT stops (19), and community centers in the City (13). At 73 stations and 730 bikes the proposed system is moderate in size.

Low estimates for the cost of a system this size, at \$40,000 USD a station and \$1,000 USD a device, would come to a total of \$4,857,620 CAD. High estimates for the cost of a system this size, at \$50,000 USD a station and \$3,500 USD a device, would come to a total of \$8,257,955. It is important to note that the aforementioned costs only refer to capital costs, excluding any additional operational, infrastructure, and/or maintenance costs required.

In contrast, a 40- foot and 60-foot Miway bus cost \$400,000 and \$700,000, respectively (MiWay buses up for sale later this year as RFP for new buses opens, 2013). Using the low estimate, at \$4,857,620 CAD, the system would cost the same as 12.1 40-foot MiWay buses or 6.9 60-foot MiWay buses.

Cost of Micromobility Systems Relative to MiWay Buses

Capital Costs for Micromobility Systems		Cost of MiWay Buses	
Low estimate	\$4, 857,620	40 foot bus	\$400,000
High estimate	\$8,257,955	60 foot bus	\$700,000

Appendix H – Jurisdictions Reviewed


Jurisdictions Reviewed


A total of 36 jurisdictions were reviewed for the purpose of this report. 24 of the selected jurisdictions are located within North American, 12 of which are in Canada. The list below outlines jurisdictions that were assessed:

- Hamilton, Canada
- Montreal, Canada
- Toronto, Canada
- Ottawa, Canada
- Vancouver, Canada
- Calgary, Canada
- Edmonton, Canada (systems at the planning stage)
- Kelowna, Canada
- Victoria, Canada
- Kingston, Canada
- Waterloo, Canada
- Windsor, Canada
- New York, USA
- Boston, USA
- Portland, USA
- Seattle, USA
- San Francisco, USA
- El Cerrito, USA
- Los Angeles (Santa Monica), USA
- Chicago, USA
- Philadelphia, USA
- Nevada, USA
- Virginia, USA
- Boulder, USA
- Mexico City, Mexico
- Sydney, Australia
- London, UK
- Paris, France
- Berlin, Germany
- Amsterdam, Netherlands
- Madrid, Spain
- Barcelona, Spain
- Shanghai, China
- Beijing, China
- Hangzhou, China

Appendix 1

- Guangzhou, China


Vehicle Type	Considerations for Users	Considerations for the City
<p data-bbox="191 238 443 266">Conventional Bicycle</p> 	<p data-bbox="806 238 1346 656">Bikes provide individuals with a healthier and more sustainable way to get around. As bikes are human powered, users experience improved health outcomes. Relative to walking, bikes cover a larger distance in a shorter period of time. Users can arrive to their destinations faster and avoid congestion when biking. However, new users may find it challenging to bike long distances and may experience some difficulty on steep or long slopes. Bikes are a great way to get around for shorter distances, and for leisure.</p>	<p data-bbox="1373 238 1913 407">The Ontario Highway Traffic Act (HTA) defines a bicycle as a vehicle that can be operated on the road, in dedicated bicycle lanes, and on multi-use trails. All bicycles must also have:</p> <ul data-bbox="1423 415 1913 699" style="list-style-type: none"> • A bell or a horn; • A white front light and a red rear light or reflector when riding half an hour before sunset or half an hour after sunrise; and • White reflective tape on the front forks and red reflective tape on the rear forks.

Vehicle Type	Considerations for Users	Considerations for the City
<p data-bbox="191 237 520 264">Electric Pedal-Assist Bicycle</p> 	<p data-bbox="810 237 1333 443">Like bikes, e-bikes offer improved health outcomes for users and reduced travel times. Since e-bikes are motor assisted, individuals can travel longer distances faster and easier. E-bikes are an especially appealing option for:</p> <ul data-bbox="856 451 1283 618" style="list-style-type: none"> • Beginners • Commuters • Office workers • Individuals with limited physical abilities <p data-bbox="810 626 1333 1084">Operating e-bikes requires exerting less energy which means that commuters may not need access to shower and changeroom facilities to freshen up following their ride, a frequent issue raised as a reason not to cycle for transportation purposes. E-bikes also make it easier to transport items along the way since the motor assistance helps offset the weight of the items carried, making it a good travel option for shopping or grocery trips. E-bikes are also a more accessible option for many as they require less physical energy to power.</p>	<p data-bbox="1377 237 1904 727">Under the HTA, e-bikes are defined as “power-assisted bicycles” in accordance to Subsection 2 (1) of the Motor Vehicle Safety Regulations made under the Motor Vehicle Safety Act. E-bikes must be capable of being propelled on level ground solely using muscular power to operate the pedals. This means that e-bikes may not be solely throttle operated. Like conventional bicycles, e-bikes can be operated on roadways, in bicycle lanes, and on boulevard multi-use trails. All requirements applying to bikes also apply to e-bikes. In addition e-bikes must have:</p> <ul data-bbox="1423 735 1904 1162" style="list-style-type: none"> • Steering handlebars; • Working pedals that can propel the bicycle; • An electric motor not exceeding 500 watts; • A maximum speed of 32 km per hour; • A maximum weight of 120 kg; and • A label from the manufacturer stating that the e-bike is in compliance with the aforementioned federal definition. <p data-bbox="1377 1170 1904 1344">In addition to the definition of e-bikes established under the HTA, the City of Mississauga’s Traffic By-Law 555-000 further restricts the definition of e-bikes. Under the Traffic By-Law, e-bikes must:</p> <ul data-bbox="1423 1352 1877 1412" style="list-style-type: none"> • Be fitted with pedals which are operable at all times to propel the

bicycle;

- Have a weight maximum of no more than 55 kg;
- Have no hand or foot operated clutch or gearbox driven by the motor and transferring power to the drive wheel;
- Have an attached motor driven by electricity or piston displacement of no more than 50 cubic cm; and
- Not be able to attain a speed greater than 50 km per hour on level ground within a distance of 1.6 km from a standing start.

It is important to note that the current definition of e-bikes provided under the HTA will be rescinded by the federal government and that there are ongoing consultation regarding redefining e-bikes.

Vehicle Type	Considerations for Users	Considerations for the City
<div>Kick-Style Electric Scooter</div> <div></div>	<p>Kick-back e-scooters are the newest devices to emerge in the field of shared micromobility services. E-scooter share systems first emerged in 2017, offering users more convenience. Like e-bikes, e-scooters can cover longer distances faster. E-scooters also require no physical energy to power. E-scooters are operated using a throttle which is powered by a motor. Users must balance and steer the device, but no human assistance is required to power the device. E-scooters are a good choice for professionals since individuals can wear business attire while operating them. Users do not need to plan their attire ahead and are less likely to require access to shower and change room facilities following their rides.</p>	<p>There are no existing legislated definitions of e-scooters to date as they are not included within the scope of the HTA. Under current legislation, e-scooters cannot be operated within the public right-of-way as they violate provincial equipment safety standards for motor vehicles. However, there are ongoing Provincial consultations in regards to regulating and legislating e-scooters in Ontario.</p>

Appendix 3 – Micromobility System Models

System Model	Definition	Benefits	Drawbacks
Docked Model	<p>Docked models make use of stations for parking micromobility devices. Docked models help regulate use of public rights-of-way by dedicating built infrastructure for micromobility devices. This model is typically publically owned as most private operators strictly pursue dockless micromobility systems.</p> <p>Two main station types exist for docked micromobility models: modular and/or permanent stations. Modular stations are constructed onto a base, which can then be bolted onto concrete or asphalt. This type of station features some level of flexibility as it can be relocated if the original location is not ideal. However, this station type cannot be connected to the electricity grid, and so it cannot support e-bikes or e-scooters. Although solar panels can be used to power modular stations, it is unclear if that would be sufficient to power electric devices. On the other hand, permanent stations are fixed in place and cannot be relocated. These types of stations require excavation and can be connected to the grid. Permanent stations are more likely to support electric devices.</p>	<ul style="list-style-type: none"> • Reduce rates of improper parking in the public right-of-way; • Promote familiarity with the system; and • Enable regular users to build consistent travel routes. 	<p><i>Cost and Scalability:</i> Docked models require significant upfront capital costs, with each station costing between \$40,000 and \$50,000 on average (The Bike Share Planning Guide, 2013). Stations also require ongoing maintenance which further adds to overall costs. The initial high cost of stations then limits the ability to scale up docked systems.</p> <p><i>Access and Reach:</i> Another drawback with docked models is reduced access. With station locations being fixed, the geographical reach of their service is limited to a certain area which, in turn, restricts users to the assigned service area. Stations being overcapacity may also reduce access for users. If stations are overcapacity and remain to be so for a prolonged period of time then inconvenienced users may choose to forgo the services. While most operators offer a grace period for users to go to another station to park if the station at their desired endpoint is full, it is inconvenient for users to ride further out in order to park. Since users cannot start or end their trips at their actual origin or end points then docked models may not adequately address the first and last mile issues.</p>

			<p>It is also essential to consider the relationship between equity and efficiency when using docked models. Stations need to be located in areas with or in close proximity to areas with sufficient density in order to ensure that there is adequate uptake. Yet, concentrating stations in dense areas may underserve low-income neighbourhoods. Low-income neighbourhoods may be better served by docked stations if a strategy is developed to specifically address the issue.</p> <p><i>Time:</i></p> <p>Docked stations typically take longer to set up, relative to other models, due to the timelines associated with procurement and construction. Excavation and building the necessary infrastructure is a time-consuming process. The process for tendering and contracting can also be a lengthy process that further adds to the projected timeline.</p>
Dockless Model	<p>Dockless models do not use stations for parking micromobility devices; rather, they rely on regulating public rights-of-way through making use of specified zones. There are two main types of dockless models: lock-to and free floating models. Lock-to models rely on</p>	<ul style="list-style-type: none"> • May be provided at no upfront costs to the City since they are privately operated; • Are adaptive since there is no built infrastructure required; • Can cover a much larger service area; 	<p><i>Bike Litter:</i></p> <p>Bike litter is a key concern for municipalities assessing the viability of dockless models. Improperly parked bikes pose a risk for pedestrians, and especially to individuals with disabilities. However, it is possible to</p>

users parking devices by locking them to street furniture. In contrast, free floating models require users to park devices within a specified zone. In free floating models the device's wheel locks in order to park. Dockless models are typically privately owned and operated. Industry trends indicate that the free floating dockless model is what is currently preferred by private operators. The vast majority of operators do not provide lock-to capabilities for their devices.

- May be better able to target first and last mile connections; and
- Provide an opportunity to increase access to underserved populations.

mitigate some of this risk through thorough and detailed regulatory frameworks. User education and proper enforcement can help ensure that there are no violations within the right-of-way and that the public space serves all user groups.

Vandalism:

Dockless models are more subject to vandalism and theft, relative to docked models, since they are not attached to any built infrastructure. The devices used in dockless models are not seen as having a “home” and devices are easier to remove since they are not locked into stations. High levels of vandalism or theft may lead to operators increasing price for services to offset lost revenue or to operators considering pulling out their operation from the municipality. However, regular monitoring and enforcement may help mitigate this.

Access:

Dockless models typically employ the use of smart technology for micromobility systems. In recent years micromobility systems have shifted towards an app access on smartphones in order to simplify the user experience. However, not all users have access to smartphones and/or internet in order

			<p>to benefit from this shift. This may especially mean reduced access for low-income individuals. In addition, since most systems currently employ the use of real time maps for service areas and availability then it may be harder for those without smartphones to check for updates. In addition, most dockless systems rely exclusively on credit card access in order to pay for the service. This condition limits access to individuals who may not have access to a credit card. Access to a credit card is positively correlated with income, and thus, low-income individuals are most likely to not have access to a credit card.</p>
Hybrid Model	<p>Hybrid micromobility models are a mix of docked and dockless models. Hybrid models regulate the public right-of-way through the use of both physical infrastructure and designated zones. In hybrid models users would have the option to pick-up and return devices from stations and designated hubs. Currently, hybrid models most often employ the use of lock-to requirements within their specified hubs. However, devices can be free-standing within hubs so long as the specified area is geo-fenced.</p>	<ul style="list-style-type: none"> • Increased access relative to docked models • More control over public right of ways relative to dockless models 	<p>Access: When using hybrid models, generally users are either asked to pay a fee in order to park at a hub or users are incentivized to park at stations by having their fees reduced. The additional fees added for allowing users to park at hubs may create a two-tiered system by income. Users who could afford to pay additional fees would attain a greater level of access by default as they could pay to park closer to their destinations. Using incentives (especially non-monetary incentives) may help offset the potential for an inequitable system.</p>

Data:

Obtaining data for hybrid system may be more difficult due to the variety of access options being used within the model. While smart technology on devices can help provide some trip data, it would be hard to obtain complete data, especially when users are using the hubs. For example, start and end locations may be diffused when users end or start their trips at a designated hub. Surveys can help supplement data obtained through the use of smart technology in order to provide more complete data under this model.



City of Mississauga
 Transportation and Works Department
 300 City Centre Drive
 MISSISSAUGA ON L5B 3C1
 mississauga.ca

Ministry of Transportation
 Road Safety Policy Office
 Safety Policy and Education Branch
 87 Sir William Hearst Avenue
 Building "A", Room 212
 Toronto, Ontario
 M3M 0B4

September 12, 2019

Re: Kick Style Electric Scooter (e-scooters) - Proposal #19-MTO026

Greetings,

Thank you for the opportunity to provide comments on behalf of the City of Mississauga on the Ministry of Transportation's proposed e-scooter pilot framework.

The City's recently adopted Transportation Master Plan includes an action item specifically related to the issue of e-scooters, namely Action 22 which calls for the creation of a "micromobility policy framework". The City has a keen interest in the issue of "micromobility", shared modes of transportation used for short distances using vehicles weighing less than 500 kilograms. This field is experiencing a rapid surge in both scale and scope, and technology is rapidly evolving. The most recent innovation in this field, starting in 2017, is the introduction of e-scooter share systems. Any steps to permit e-scooters to operate within the public right-of-way must be mindful that e-scooters are a very recent innovation and develop frameworks accordingly, which are flexible enough to allow the Province and municipalities to respond to changes in technology, in order to be agile and adaptive.

City staff's comments follow, first with some general comments, and then specific comments on the subsections in the Proposed Framework section of the MTO's background document:

General Comments

The municipality must be given the authority to further regulate the use of e-scooters on municipal roads, and the ability to tailor local bylaws accordingly. These customizations would relate to considerations for seasonality, maintenance standards, instituting modified regulations in areas of significance (ie downtowns, BIAs, parks), and others. For example, in New York State, local cities or towns are able to "further regulate the time, place and manner of the operation of electric scooters, and may limit prohibit the use thereof in specified areas, or prohibit entirely the use of electric scooters".

The Province should indemnify local municipalities during the pilot phase, unless there is an opt-out mechanism or other tools to absolve the municipality of liability.

Pilot Duration

The pilot duration should be reduced from 5 years to a maximum of 2 years. Technology and innovation in this field is happening too fast for a pilot phase of 5 years to be able to properly evaluate. There should also be the ability for the Province to cancel or modify the pilot program early in case of safety or other concerns. Municipalities should also have the ability to opt out of the pilot program early or entirely in case of safety or other concerns.

Operator / Rider / Vehicle Requirements

Specific language needs to be developed about where e-scooters will be permitted to operate. It is important to note that individual municipalities have the authority to restrict or permit bicycle use on sidewalks and other areas of significance. Municipalities should have the same authority over e-scooters during the pilot phase. The City would have significant concerns if e-scooters were permitted on the sidewalk, related to maintenance standards implications, particularly winter maintenance, and safety issues created by the speed differential between scooters and pedestrians.

Age restrictions have proven difficult to enforce and are frequently violated in other jurisdictions (Electric Scooters Sent Nearly 250 Riders to L.A. Emergency Rooms Last Year. Is That a Lot?, 2019; PBOT 2018: E-Scooter Findings Report, 2018 ; The Secret Life of Teen Scooter Outlaws, 2018). With this in mind, it may be preferable to allow for younger users in order to account for their safety when planning permanent regulations.

All users should be required to wear a helmet. While the proposal to have only users under 18 wear helmets is consistent with the existing regulations for bicycles, e-scooters have a very challenging safety record in many jurisdictions in the short time since their introduction, and the MTO should acknowledge that and react accordingly by requiring all users to wear a helmet. For example, the e-scooter pilot in Portland, Oregon found that there were many injuries resulting from e-scooter use; based on statewide emergency department visit data, there were 176 scooter related ER visits during a four month period, representing 5% of traffic injuries in that period, mostly the result of falls rather than collisions (PBOT: E-Scooters Findings Report, 2018).

The maximum speed of e-scooters should be between 20-25 km/h. This matches the direction in other jurisdictions. For example, in Montreal the maximum speed is 20 km/h and is reduced to 8 km/h in the City Centre; in Calgary, the maximum assisted speed on flat ground is also 20 km/h.

Data Collection

The MTO should work with municipalities to develop specific metrics for reporting in order to guarantee a meaningful and success pilot phase. Examples of possible metrics could include those shown in Appendix 1 – Measures and Indicators for Measuring Success in Micromobility Systems, attached at the bottom of this letter.

Critically, MTO's collision reporting framework / template must be updated to include e-scooters; Police agencies must be engaged to collect the data and given the tools and training to collect the data accurately. The importance of the pilot period and accurate evaluation needs to be communicated.

Rights of use for the data should be clearly spelled out during the pilot phase. If there are more evaluation factors than simply safety (such as rider demographic data, trip purpose etc), the ownership of that data should remain with the municipalities, with transparency demonstrated to e-scooter users over the uses of the data and the intention / requirement to share with the Province.

If you have any questions about the above, please do not hesitate to contact me.

Sincerely,

Matthew Sweet
Manager, Active Transportation, City of Mississauga

Appendix 1 - Measures and Indicators for Measuring Success in Micromobility Systems

Measure	Indicator(s)
Climate	<ul style="list-style-type: none"> • Greenhouse gases
Health	<ul style="list-style-type: none"> • Air quality • Physical activity
Economy	<ul style="list-style-type: none"> • Congestion • Local economic activity
Safety	<ul style="list-style-type: none"> • Road injuries and crashes per million • User compliance with rules and regulations
Access	<ul style="list-style-type: none"> • Average device density per square km of service area • Device location to jobs, transit etc
Ridership	<ul style="list-style-type: none"> • Trip purpose • Trip length • Mode share • Total trips • Average trip per device • Average daily trips per 100,000 residents
Parking Compliance	<ul style="list-style-type: none"> • Percent of devices improperly parked • Percent of devices blocking access
Maintenance	<ul style="list-style-type: none"> • Percent of devices in good working order • Percent of devices with safety hazards • Instances of website/app down time • Percent of critical stations full or empty (if using stations)
Equity	<ul style="list-style-type: none"> • Percent of trips starting in underserved communities • Percent of devices distributed in underserved communities daily • Percent of users using alternative access services (text-to, low-income passes, cash payment etc)

City of Mississauga

Corporate Report



Date: 2019/10/04

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P. Eng.,
Acting Commissioner of Transportation and Works

Originator's files:
MG.23.REP RT.10.Z-53w

Meeting date:
2019/10/30

Subject

All-Way Stop – Fengate Drive at Branigan Gate (Ward 11)

Recommendation

That an all-way stop control not be implemented at the intersection of Fengate Drive at Branigan Gate, as outlined in the report from the Acting Commissioner of Transportation and Works, dated October 4, 2019 and entitled "All-way Stop – Fengate Drive at Branigan Gate (Ward 11)".

Background

The Transportation and Works Department has been requested by the Ward Councillor to submit a report to General Committee regarding the implementation of an all-way stop at the intersection of Fengate Drive at Branigan Gate.

Currently, the intersection of Fengate Drive at Branigan Gate operates as a four-leg intersection with a one-way stop control for eastbound motorists on Fengate Drive, and a private driveway opposite Fengate Drive. A location map is attached as Appendix 1.

Comments

A manual turning movement count was completed on May 2, 2019 to determine the need for an all-way stop control based on traffic volumes. The results are as follows:

Fengate Drive at Branigan Gate

	Warrant Value
Warrant 1: Volume for All Approaches	72%
Warrant 2: Minor Street Volume	88%

In order for an all-way stop control to be warranted based on traffic volumes, both Warrants 1 and 2 must equal 100%.

Originator's files:

MG.23.REP RT.10.Z-53w

A review of the collision history at this intersection did not reveal any reported collisions within the past three years. For an all-way stop control to be warranted based on collision frequency, at least five collisions must occur in a 12-month period, provided the collisions are of the type considered correctable by the use of an all-way stop (i.e. turning movement, angle collisions).

Staff completed a 24-hour speed review on April 30, 2019 to determine vehicle operating speeds on Branigan Gate between Derry Road and Fengate Drive. The results of our data analysis revealed that motorists are travelling at speeds which are appropriate for a 50 km/h speed limit zone. The average speed on Branigan Gate was recorded to be 39 km/h while the 85th percentile speed was recorded to be 42 km/h.

Additionally, Traffic Operations staff conducted an on-site field investigation at the intersection of Branigan Gate and Fengate Drive which revealed adequate sightlines for motorists travelling in all four directions.

An all-way stop is not warranted based on the volume or collision history, nor recommended to address operational concerns related to operating speeds or sight lines.

Financial Impact

In the event that an all-way stop is required, the costs for the sign installation can be accommodated in the 2019 Operating Budget.

Conclusion

Based on staff's comprehensive review of the intersection, the Transportation and Works Department recommends against the installation of an all-way stop at the intersection of Fengate Drive at Branigan Gate.

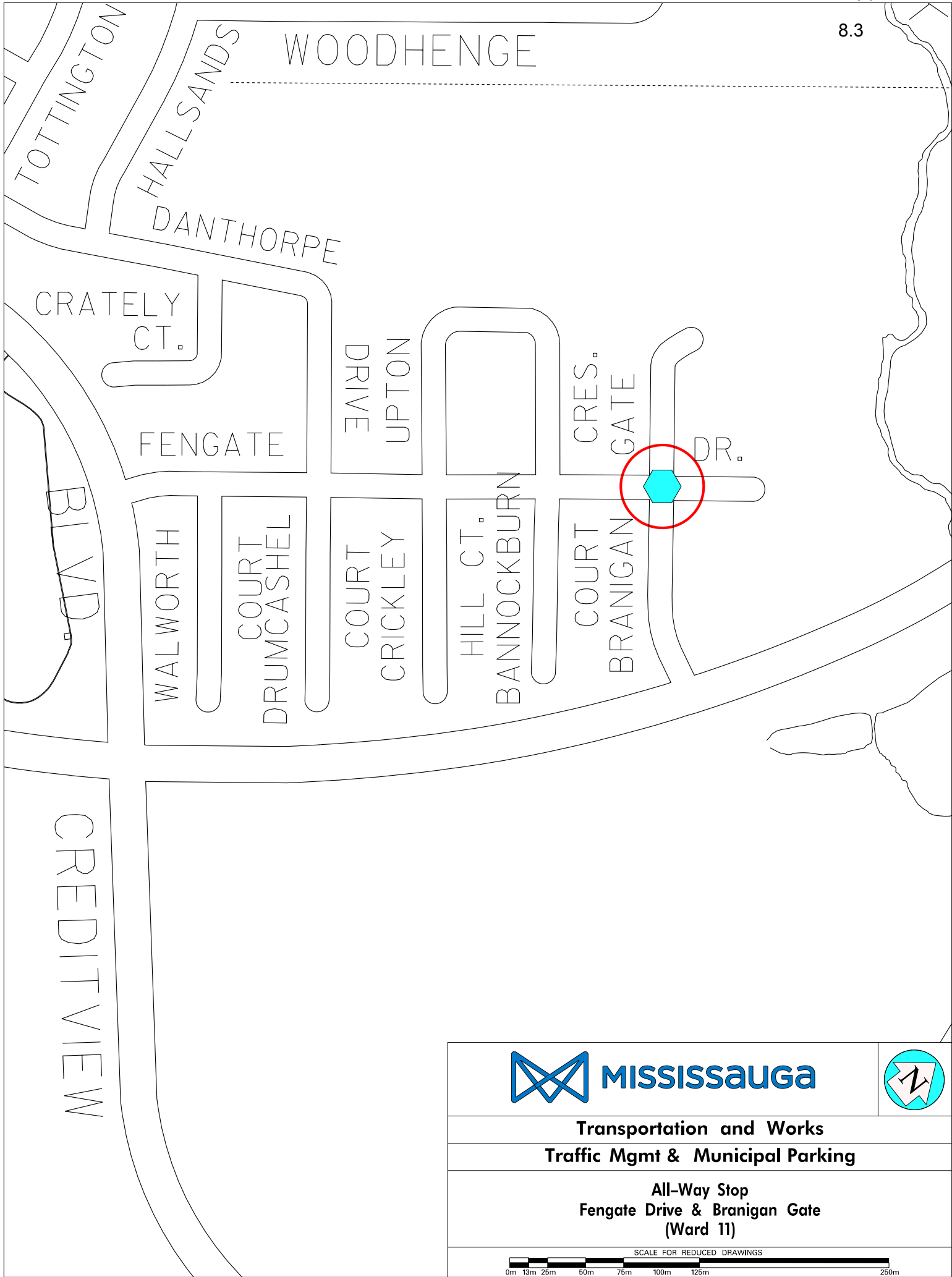
Attachments

Appendix 1: Location Map - All-Way Stop – Fengate Drive at Branigan Gate (Ward 11)



Helen Noehammer, M.A.Sc., P.Eng., Acting Commissioner of Transportation and Works

Prepared by: Milan Pavlovic, Traffic Operations Technician



Transportation and Works
Traffic Mgmt & Municipal Parking

All-Way Stop
Fengate Drive & Branigan Gate
(Ward 11)



City of Mississauga

Corporate Report



Date: 2019/9/20

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P. Eng.,
Acting Commissioner of Transportation and Works

Originator's files:
MG.23.REP RT.10.Z-29

Meeting date:
2019/10/30

Subject

No Right Turn on Red - Tucana Court and Kingsbridge Garden Circle (Ward 4)

Recommendation

That a by-law be enacted to amend By-law 555-2000, as amended, to remove the No Right Turn on Red; 7:00 a.m. to 9:00 a.m. Monday to Friday prohibition for eastbound traffic on Tucana Court at Kingsbridge Garden Circle, as outlined in the report from the Acting Commissioner of Transportation and Works, dated September 20, 2019 and entitled "No Right Turn on Red - Tucana Court and Kingsbridge Garden Circle (Ward 4)".

Background

Councillor Kovac has requested that Transportation and Works Department staff submit a report regarding the removal of the existing No Right Turn on Red; 7:00 a.m. to 9:00 a.m. Monday to Friday prohibition for eastbound traffic on Tucana Court at Kingsbridge Garden Circle.

Comments

Turning restrictions are indiscriminate and generally have significant impacts on the local residents accessing their property and the surrounding road network. Additionally, consistent police resources are required in order for restrictions to be effective and, making compliance an issue. A review of the sightlines at the intersection of Tucana Court and Kingsbridge Garden Circle revealed that the sightlines for northbound right turning vehicles on Tucana Court turning eastbound onto Kingsbridge Garden Circle are sufficient to allow for a safe and controlled turning movement. A review of the three-year collision history at this location did not reveal any collisions related to vehicles turning onto Kingsbridge Garden Circle from Tucana Court.

For these reasons, staff supports the request of the Councillor's office to remove the restriction. A location map is attached as Appendix 1.

General Committee	2019/09/20	2
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Financial Impact

Costs for the sign removal can be accommodated in the 2019 operating budget.

Conclusion

The Transportation and Works Department supports the removal of the existing No Right Turn on Red; 7:00 a.m. to 9:00 a.m. Monday to Friday prohibition for eastbound traffic on Tucana Court at Kingsbridge Garden Circle.

Attachments

Appendix 1: Location Map: No Right Turn on Red – Tucana Court and Kingsbridge Garden



Helen Noehammer, M.A.Sc., P.Eng., Acting Commissioner of Transportation and Works

Prepared by: Denna Tallia, C.E.T., Traffic Technologist



City of Mississauga

Corporate Report



Date: 2019/10/03

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P. Eng.,
Acting Commissioner of Transportation and Works

Originator's files:
MG.23.REP, RT.10.Z-56

Meeting date:
2019/10/30

Subject

Lower Driveway Boulevard Parking - Maple Gate Circle (Ward 10)

Recommendation

That a by-law be enacted to amend the Traffic By-law 555-00, as amended, to implement lower driveway boulevard parking between the curb and sidewalk, at any time on Maple Gate Circle, where sidewalks exist as outlined in the report from the Acting Commissioner of Transportation and Works, dated October 3, 2019, entitled "Lower Driveway Boulevard Parking – Maple Gate Circle (Ward 10)".

Background

The Transportation and Works Department received a request through the Ward Councillor's office with respect to the feasibility of implementing lower driveway boulevard parking on Maple Gate Circle. Lower Driveway Boulevard parking between the curb and sidewalk is currently prohibited on Maple Gate Circle.

Comments

To determine the level of support for lower driveway boulevard parking between the curb and sidewalk, a parking questionnaire was distributed to the residents of Maple Gate Circle. A location map is attached as Appendix 1.

66 questionnaires were delivered and 32 (48%) were returned; 22 (69%) supported the implementation of lower driveway boulevard parking and 10 (31%) were opposed. Since greater than 66% of the total respondents support lower driveway boulevard parking, the Transportation and Works Department recommends implementing lower driveway boulevard parking between the curb and sidewalk, at any time, on Maple Gate Circle, where sidewalks exist.

The Ward Councillor supports the proposal for lower driveway boulevard parking. The existing on-street parking regulations will be maintained.

General Committee	2019/10/03	2
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Financial Impact

Costs for the sign installation can be accommodated in the 2019 Operating Budget.

Conclusion

Based on the results of the questionnaire, the Transportation and Works Department supports lower driveway boulevard parking between the curb and sidewalk, on Maple Gate Circle, where sidewalks exist.

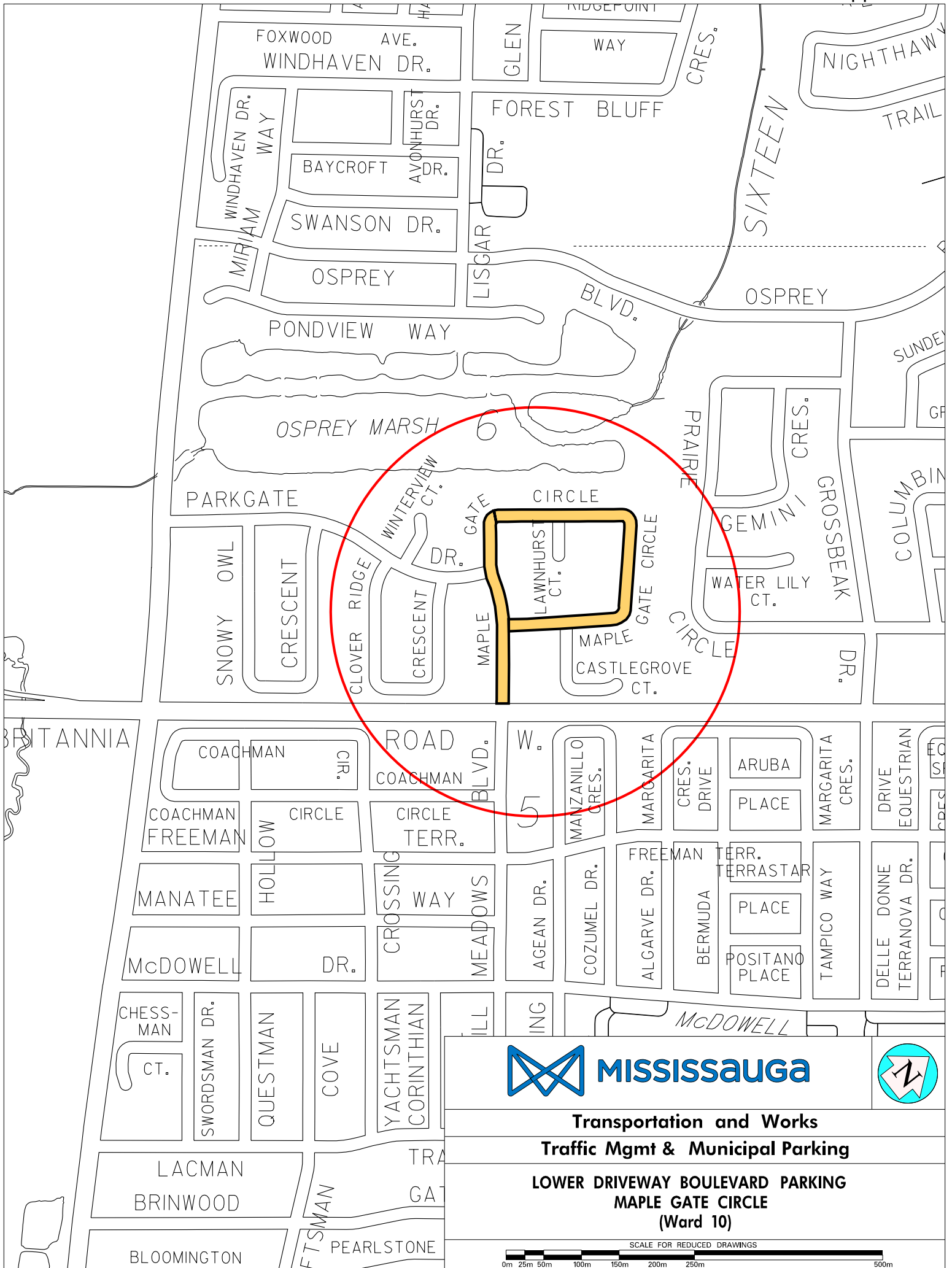
Attachments

Appendix 1: Location Map – Lower Driveway Boulevard Parking – Maple Gate Circle



Helen Noehammer, M.A.Sc., P. Eng., Acting Commissioner of Transportation and Works

Prepared by: Wasan Yonan, C.E.T., Traffic Technician



MISSISSAUGA



Transportation and Works
Traffic Mgmt & Municipal Parking
LOWER DRIVEWAY BOULEVARD PARKING
MAPLE GATE CIRCLE
(Ward 10)

SCALE FOR REDUCED DRAWINGS
0m 25m 50m 100m 150m 200m 250m 500m

City of Mississauga Corporate Report



Date: 2019/10/03

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P. Eng.,
Acting Commissioner of Transportation and Works

Originator's files:
MG.23.REP RT.10.Z-55

Meeting date:
2019/10/30

Subject

Lower Driveway Boulevard Parking – Althorpe Circle (Ward 10)

Recommendation

That a by-law be enacted to amend the Traffic By-law 555-00, as amended, to implement lower driveway boulevard parking between the curb and sidewalk, at any time on Althorpe Circle, where sidewalks exist as outlined in the report from the Acting Commissioner of Transportation and Works, dated October 3, 2019, entitled "Lower Driveway Boulevard Parking – Althorpe Circle (Ward 10)".

Background

The Transportation and Works Department received a request through the Ward Councillor's office with respect to the feasibility of implementing lower driveway boulevard parking on Althorpe Circle. Lower Driveway Boulevard parking between the curb and sidewalk is currently prohibited on Althorpe Circle

Comments

To determine the level of support for lower driveway boulevard parking between the curb and sidewalk, a parking questionnaire was distributed to the residents of Althorpe Circle. A location map is attached as Appendix 1.

51 questionnaires were delivered and 14 (27%) were returned; 11(79%) supported the implementation of lower driveway boulevard parking and 3 (21%) were opposed. Since greater than 66% of the total respondents support lower driveway boulevard parking, the Transportation and Works Department recommends implementing lower driveway boulevard parking between the curb and sidewalk, at any time, on Althorpe Circle, where sidewalks exist.

The Ward Councillor supports the proposal for lower driveway boulevard parking. The existing on-street parking regulations will be maintained.

Financial Impact

Costs for the sign installation can be accommodated in the 2019 Operating Budget.

Conclusion

Based on the results of the questionnaire, the Transportation and Works Department supports lower driveway boulevard parking between the curb and sidewalk, on Althorpe Circle, where sidewalks exist.

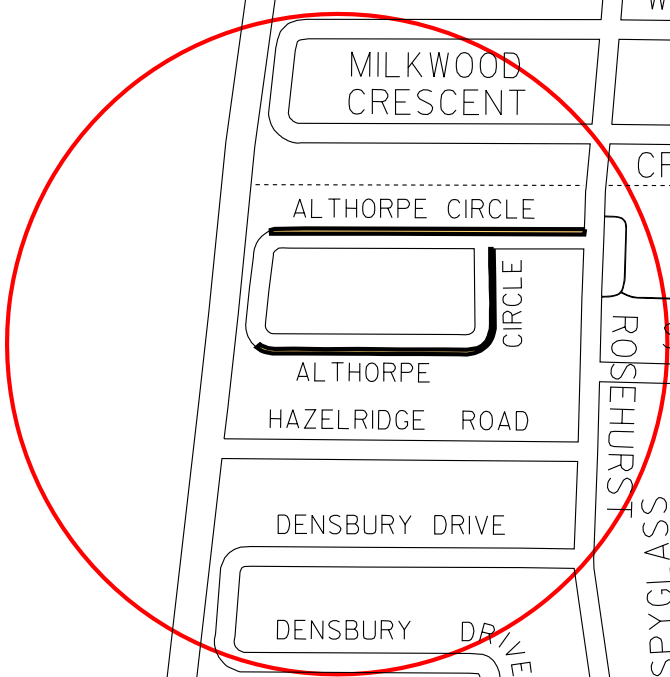
Attachments

Appendix 1: Location Map - Lower Driveway Boulevard Parking – Althorpe Circle



Helen Noehammer, M.A.Sc., P. Eng., Acting Commissioner of Transportation and Works

Prepared by: Wasan Yonan, C.E.T., Traffic Technician



Traffic Mgmt & Municipal Parking

LOWER DRIVEWAY BOULEVARD PARKING
ALTHORPE CIRCLE
(Ward 10)



City of Mississauga

Corporate Report



Date: 2019/10/10

To: Chair and Members of General Committee

From: Helen Noehammer, M.A.Sc., P.Eng,
Acting Commissioner of Transportation and Works

Originator's files:

Meeting date:
2019/10/30

Subject

Delegation of Authority Respecting Indemnity and Remediation Agreements

Recommendations

1. That the Commissioner of Transportation and Works or his/her designate and the City Clerk be delegated the authority to enter into, and execute and affix the corporate seal to, Indemnity and Remediation Agreements and other related and/or ancillary agreements with property owners to permit environmental investigations and remedial works on City properties in a form satisfactory to the City Solicitor.
2. That the necessary by-law be enacted.

Background

Section 23.1(1) of the Municipal Act, 2001 as amended, provides municipalities with the authority to delegate certain powers and duties that otherwise must be exercised by City Council. In many jurisdictions, it is common practice to delegate authority for such matters to staff in an effort to improve organizational efficiency and response time.

Comments

When contamination is identified on City-owned lands as a result of contaminant migration from a neighbouring property, the City will often seek to hold the contaminant source property owner wholly responsible to undertake further investigative and remedial activities on these lands at their cost, and to protect the interest of the City through an Indemnity and Remediation Agreement. This agreement serves to: (i) provide a contractual indemnity in favour of the City and also serve to protect the City against any claims brought by third parties without the necessity of commencing litigation; (ii) request the owner of the contaminant source property to conduct further investigatory activities in order to comply with regulatory requirements and to provide additional information to the City; and (iii) grant permission to access, investigate, monitor and remediate on City-owned lands.

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Currently, the Commissioner of Transportation and Works, in consultation with Legal Services, would bring reports to Council seeking authority to enter into Indemnity and Remediation Agreements with owners of contaminant source properties on a case-by-case basis. In an effort to improve organizational efficiency and responsiveness, approval is being sought from Council to authorize the Commissioner of Transportation and Works or his/her designate and the City Clerk to enter into, and execute and affix the corporate seal to Indemnity and Remediation Agreements and other related ancillary agreements with the form of agreement approved by the City Solicitor. However, it should be noted that even if delegated authority is granted to the Commissioner of Transportation and Works or his/her designate, reports of a sensitive or contentious nature will continue to be brought forth to Council on a case-by-case basis for consideration.

Financial Impact

There will be no financial impact to the City for entering into Indemnity and Remediation Agreements. If these agreements are not entered into, the City may incur costs associated with pursuing environmental investigations to delineate and remediate contamination within City-owned lands as well as costs associated with claims which may be brought against the City relating to the contamination.

Conclusion

A by-law delegating the authority to the Commissioner of Transportation and Works or his/her designate and the City Clerk to enter into, and execute and affix the corporate seal to Indemnity and Remediation Agreements will improve efficiency and responsiveness by reducing the number corporate reports that Transportation and Works would bring before Council.



Helen Noehammer, M.A.Sc, P.Eng, Acting Commissioner of Transportation and Works

Prepared by: Imshun Je, Manager, Environmental Site Management & Compliance

City of Mississauga

Corporate Report



Date: 10/10/2019

To: Chair and Members of General Committee

From: Janice Baker, City Manager & CAO

Originator's files:

Meeting date:
10/30/2019

Subject

Toronto Global 3-year Funding Agreement Renewal

Recommendation

That a by-law be enacted to authorize the Mayor and City Clerk to execute an agreement with Toronto Global, and other participating municipalities, to provide funding of approximately \$227,598 annually over a three year term, in a form satisfactory to the City Solicitor and content satisfactory to the Director of Economic Development.

Report Highlights

- The City of Mississauga has funded Toronto Global to the amount of approximately \$227,598 annually for three years to market the Toronto Region (encompassing the municipalities of Toronto, Mississauga, Brampton and the regions of Halton, Durham and York) , and attract new Foreign Direct Investment (FDI) to the GTA. The previous funding agreement expired on March 31, 2019. (the "First Agreement")
- The First Agreement allowed Mississauga to see achievements including the elevation of the 'Toronto Region' brand internationally through the Amazon HQ2 bid process, media opportunities for the City of Mississauga, and the meeting of a long-standing need for consolidated regional research and data
- To date, Toronto Global has facilitated 60 new investments, creating 3,498 jobs over three years. Toronto Global outcomes are improving
- 85% of investments to date have landed in the City of Toronto
- Mississauga has received the second most investment after Toronto. Mississauga has received nine investments and created 877 local jobs
- City staff would like to see changes made to the funding agreement including: increased transparency between Toronto Global and the EDO funding partners, greater equitable distribution of investments across the GTA and steps taken by Toronto Global to evolve it's name to reflect a regional mandate

General Committee	2019/10/10	2
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Background

On July 6, 2016, Council enacted Resolution 0143-2016 to authorize the Director of Economic Development and the City Solicitor to negotiate a funding agreement with Toronto Global and other participating municipalities.

In December of 2016, the City of Mississauga executed a funding agreement with Toronto Global to the amount of \$227,598 annually over three years. The mandate of Toronto Global as set out in the Funding Agreement is that of a Corporation responsible for marketing the Toronto Region, lead generation and lead servicing for the purpose of attracting foreign investors to choose the Toronto Region for new, investment.

The municipalities of Brampton, Toronto and the Regions of Durham, Halton and York were also parties to the First Agreement. The Federal and Provincial governments also provided funding. Collectively all levels of government committed close to \$21M over three years to improve FDI results in the GTA.

Table 1 outlines the funding allocations identified in the previous agreement.

Table 1
Toronto Global Annual Funding by Stakeholder

Municipality/Stakeholder	Annual Core Funding
Government of Canada	\$2,500,000*
Government of Ontario	\$2,500,000
City of Toronto	\$890,412
York Region	\$329,389
City of Mississauga	\$227,598
Durham Region	\$206,397
City of Brampton	\$167,135
Halton Region	\$160,038
Total Annual Funding	\$6,980,967

* Does not include CanExport Community Initiatives (CECI) funding.

According to this funding agreement, the municipalities receive a seat on the Mayors and Chairs Strategy Council as well as representation on the Economic Development Office Management Council. These two bodies provide strategic direction and advice to Toronto Global Board of Directors and Toronto Global staff respectively. In addition the Mayors and Chairs Strategy Council approves Toronto Global's annual business plan.

Present Status

As of this report, Toronto Global facilitated 60 new investments in the Toronto Region, creating 3,498 jobs over the last three years. Last year, Toronto Global exceeded its FDI targets. Toronto has benefited the most with 85% of Toronto Global's FDI landing there.

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Toronto Global Mississauga Investment Results

Since Toronto's Global's start, Mississauga has received the second most investments after Toronto, with nine investments and created 877 new local jobs.

Toronto Global has gradually worked with Mississauga's EDO staff to support Toronto Global in the servicing of their investment leads, over the past three years. Some of the services EDO provides include sector expertise, local intelligence, research and data, company information and a variety of other municipal supports to help convince companies to invest in Mississauga. Mississauga's EDO investment servicing staff were actively involved in the two Toronto Global opportunities that closed in the 2018/2019 fiscal year and are actively working to support several additional investments.

Raising GTA Profile

Toronto Global is well positioned to meet a long-standing need for regional research, consolidated regional data and the promotion of the Greater Toronto Area to the global market. Toronto Global's Marketing and Communications team has been responsible for generating awareness of, and elevating the profile of the Greater Toronto Area. For example, as part of the Amazon HQ2 bid process, this team launched an award-winning social media campaign "UXTO" targeted to 110,000 Amazon employees in North America.

The Research and Insights team at Toronto Global focus on generating a regional value proposition and related regional data that has not previously existed. Initiatives such as the Neptis Geoweb, provides consolidated regional data in a visual mapping tool. This focus on regional data allowed Toronto Global to share a unified GTA message in a shared bid for Amazon's next headquarters. The Toronto Region's bid book was downloaded more than 20,000 times.

By developing a clear regional value proposition that benchmarked the GTA against other North American centres, the Toronto Area Amazon bid was short-listed to the Top 20 making the GTA the only Canadian location on the short-list. This elevated the GTA's international profile further and earned the Region a place among the most competitive locations in North American for investment. The Amazon bid process offered Toronto Global and regional Mayors and Chairs a number of media opportunities to speak about the Region and their municipalities as an ideal place for international investment.

Comments

As mentioned above in this report, there are noteworthy Toronto Global successes and achievements related to the elevation of the 'Toronto Region' brand internationally, consolidated research and data, and new investment in the GTA. There are; however, some operational improvements that staff, and other regional municipal EDOs, would like to see moving forward. Subject to Council's approval of this report to enter into a new funding agreement, Mississauga EDO along with the support of Legal Services will prepare a new funding agreement to be executed by the Mayor and Clerk.

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The new agreement will include provisions addressing the following: (subject to approval by the participating municipalities).

Regional Distribution of Investments

Toronto Global shall take steps to provide for the equitable regional distribution of investments. The steps taken will be outlined in Toronto Global's annual business plan which is subject to the approval by the Mayors' and Chairs' Strategy Council.

To date, more than 85% of investments secured by Toronto Global have landed in the City of Toronto. It is staff's expectation that there be a more equitable distribution of investments across the Toronto Region.

Future Name Change

Toronto Global to take steps to implement a name change for Toronto Global. The steps will be outlined in a report to the Toronto Global Board by the end of 2019. These steps will also be made available to the Mayors' and Chairs' Strategy Council.

Since the launch of the organization, there has been confusion among clients and local and international partners/stakeholders regarding the regional mandate of Toronto Global that can be attributed to the organization's name. A name that better reflects the region would still allow the corporation to capitalize on the more globally recognized "Toronto" brand while dispelling any confusion in the market, and encouraging a culture shift towards more regional terms and mind-sets.

Ability to Terminate

The City may terminate its rights and obligations under this Agreement on or after the completion of an eight (8) month notice period, upon giving notice of its intent to terminate to the other parties on or before April 1 of the same year.

Greater Transparency

Toronto Global shall account to and report to the Mayors' and Chairs' Strategy Council on any matter, issue or concern within thirty (30) Business Days of receiving a request from the Mayors' and Chairs' Strategy Council. Toronto Global shall also provide at least 30 days notice to the Mayors and Chairs Strategy Council of all public meetings of the Board of Directors. Toronto Global shall report on key performance indicators to Economic Development Management Council annually. These will include the number of investments, jobs created and industry sector by municipality.

City Staff are satisfied the above terms will be addressed in the new agreement that should lead to improved outcomes for Mississauga. Council can be assured that they will have the ability to terminate the agreement upon giving eight (8) months notice. All other GTA municipal partners have agreed to renew their funding. In collaboration with the Mayor and our municipal partners, Mississauga will diligently hold Toronto Global accountable to their commitments as outlined in the agreement and business plan.

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Strategic Plan

Toronto Global continues to support and activate the Mississauga Economic Development Master Plan and aligns with the Mississauga Strategic Plan, particularly as it relates to the Prosper Pillar. More specifically, the work of Toronto Global assists Mississauga in being recognized as an international destination and works to attract innovative businesses and create new employment.

Financial Impact

The funding contribution of the City of Mississauga to the operations of Toronto Global under the funding agreement will be approximately \$227,598 (2019/20), \$232,150 (2020/21) and \$236,793 (2021/22) over the three-year term and will be included in the City's annual budget.

Conclusion

The City of Mississauga has funded Toronto Global to the amount of \$227,598 annually for three years to market the Toronto Region, and attract new FDI to the GTA. The existing funding agreement expired on March 31, 2019.

Mississauga has benefitted from significant achievements during this first funding term including the elevation of the Region' internationally through the Amazon HQ2 bid process and meeting a long-standing need for consolidated regional research and data.

Toronto Global has facilitated 60 new investments and helped create approximately 3,498 jobs, over three years. Toronto Global outcomes are improving. More than 85% of investments to date have landed in Toronto. Mississauga received the second most investment after Toronto, with nine new investments and created 877 local jobs.

Significant opportunity for improvement exists related to transparency between Toronto Global and the EDO funding partners. Staff request equitable distribution of FDI across the GTA and an organizational name change to reflect the regional mandate.



Janice Baker, FCPA, FCA, City Manager and Chief Administrative Officer

Prepared by: Bonnie Brown, Director, Economic Development

City of Mississauga

Corporate Report



Date: 10/11/2019

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, ICD.D
Commissioner of Corporate Services and Chief
Financial Officer

Originator's files:

Meeting date:
10/30/2019

Subject

Audit and Accountability Fund: Expression of Interest Submission

Recommendation

1. That the "Audit and Accountability Fund: Expression of Interest Submission" report dated October 11, 2019, from the Commissioner of Corporate Services and Chief Financial Officer, be received.
2. That the Commissioner of Corporate Services and the City Clerk be authorized to enter into a Transfer Payment Agreement with Her Majesty the Queen in right of Ontario as represented by the Minister of Municipal Affairs and Housing for the funding approval.
3. That Council approve a budget adjustment for \$100,000 under professional services to procure the services of a third-party consultant; this initiative is approved and fully funded by the province.

Background

The Province's Audit and Accountability Fund was established for large municipalities to become more efficient and modernize service delivery while protecting front line jobs.

The criteria for a one time review project were:

1. Review municipal service delivery expenditures to find efficiencies. The review project could take a number of forms including:
 - a. A line by line review of the municipality's entire budget
 - b. A review of service delivery and modernization opportunities
 - c. A review of administrative processes to reduce costs
2. The project must be performed by an independent third-party reviewer that provides specific and actionable recommendations for cost savings and improved efficiencies.

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3. The project must be completed by November 30, 2019 (extended to January 31, 2020) and posted on the municipality's website.

Funding of up to \$250,000 was available for a project.

Comments

The Ministry of Municipal Affairs and Housing has approved funding of up to \$100,000 from its Audit and Accountability Fund for the development of a data utilization and analysis program. The City has engaged E&Y (Ernst and Young) through an invitational bid process to develop a roadmap to guide the Finance Division on how to take advantage of the latest trends in data analytics, business intelligence and data consolidation in order to drive insights that support the City's financial management practices and identify areas for cost saving. E&Y will also pilot recommendations of the roadmap by examining an area(s) of expenditure of the City's choosing to demonstrate the potential for savings. The full statement of work is attached as appendix 1. The contract with E&Y is for \$69,500.

Financial Impact

There is no financial impact to the total budget, as the funding required for this initiative will be provided by the province through the Audit and Accountability Fund. The professional services budget increase of \$100,000 will be fully recovered from the Province of Ontario.

Conclusion

The data analytics roadmap will assist in identifying the steps required to improve data utilization and consolidation in the Finance division. This initiative will further strengthen Finance division's ability to review trends and gain valuable data insights which can lead to further budget efficiencies.

General Committee

2019/10/11

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Attachments

Appendix 1: Statement of Work



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Faraz Agha, MBA, CPA, CMA, Manager, Business Services and Process Solutions

STATEMENT OF WORK

1.0 Project Description and Background

The City of Mississauga (the City) has a number of financial systems containing data. Currently, this data is extracted for financial analysis or to prepare financial statements. This can be done through built in reports within various software systems or through exporting data into Excel and manipulating it manually as required. The City has limited programs in place to identify trends or to use the data in any other way than through ad hoc queries or through pre-existing monitoring routines.

2.0 Project Scope

For successful completion of the project, the following requirements must be met:

- Identify current trends in financial analysis, data aggregation and the use of artificial intelligence for data analysis and review;
- Identification of various sources of financial and non-financial information contained within the City's financial systems and identify where additional data is needed (gaps and limitations);
- Evaluation of data aggregation, analysis tools and processes that currently exist within the City's Finance Division and identify what steps should be taken to ensure data integrity with any future data;
- Determine how the existing financial data can be effectively used to identify trends, opportunities and concerns using software currently owned by the City;
- Review the strengths and weaknesses of using the City's existing software versus the purchase of new software and make recommendations on software to be considered including an estimate of cost and timing (licensing and implementation);
- Develop recommendations for how the City can leverage a financial analysis program for use in other service areas; and
- Pilot recommendations of the roadmap by looking at an area(s) of expenditure of the City's choosing to demonstrate the potential for savings. Consultants will be required to show how much savings could have been realized should their recommended processes be implemented.
- Explore and recommend how this financial analysis program can be adapted for use in other City service areas;
- A draft report for the City's review and comments; and
- A final public facing report covering the above mentioned deliverables

3.0 Project Goal and Objectives

The goal of this project is to:

Create a roadmap (Data Analytics Strategy) for the development of a Data Utilization and Analysis Program. This roadmap will guide the Finance Division on how to take advantage of the latest trends in data analytics, business intelligence and data consolidation in order to drive insights that support the City's financial management practices.

City of Mississauga

Corporate Report



Date: 2019/10/15

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, ICD.D, Commissioner of
Corporate Services and Chief Financial Officer

Originator's file:

Meeting date:
2019/10/30

Subject

Single Source Recommendation for Winshuttle, File # PRC001831

Recommendation

1. That Council approve the single source purchase for products, professional services, maintenance and support to June 21, 2024, as detailed in the Single Source Recommendation for Winshuttle, File # PRC001831, dated October 15, 2019, by the Commissioner of Corporate Services and Chief Financial Officer, (the "Purchase").
2. That the Purchasing Agent or designate is authorized to execute all contracts and related ancillary documents with respect to the Purchase between the City and Winshuttle in the estimated amount of \$305,000, in accordance with the City's Purchasing By-law 374-06, as amended.
3. That Council approve Winshuttle as a City Standard until June 21, 2024, in accordance with the City's Purchasing By-law 374-06, as amended.

Background

In 2009, the City procured Winshuttle solutions to effectively and efficiently upload transaction information into SAP, the City's Enterprise Resource Planning (ERP) system. Winshuttle solutions ensure security compliance, improve data accuracy and reduce data issues. The solutions are easy for business users to learn and use. Employees have used the solutions for testing as well as data correction and mass-user creation (e.g. SAP mass-user creation for Employee Self-Serve, Success Factors and Concur rollouts, etc.).

Comments

Since the original purchase of licenses, the City has saved significant time and effort and avoided significant cost and delay to operations and projects. The solutions have significantly

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increased data accuracy and reduced data issues. These efficiencies for both operational and project tasks would otherwise require manual input and processing. For example:

- In April 2019 Winshuttle automation saved over 700 hours of effort or the equivalent of over \$15,000 of labour.
- The Accounts Receivable Collections project used Winshuttle to create 2,857 customer master data records and 88,400 financial documents in SAP, a significant efficiency for the project.

The agreement with Winshuttle for maintenance and support services expired on June 21, 2019; however, as noted above, the City wishes to continue using the Winshuttle solutions. In order for the City to acquire further maintenance and support services and any updated versions of the software as part of the licensing agreement, the City must pay for maintenance and support services from the time the previous agreement expired to the end of a new agreement (namely, from June 22, 2019 through to June 21, 2024). This requirement is a common industry practice when maintenance and support services have lapsed for a period of time and a customer then wishes to re-acquire such services at a later date.

Winshuttle continues to be a City Standard for uploading information into SAP and was most recently declared a standard in Council, as part of GC-0435-2018. There is also a need to remain compatible with SAP, the City Standard for ERP.

A recent market survey of alternatives revealed only 1 suitable equivalent solution. This alternative is more expensive for current licenses and the additional planned licenses. Reasonable alternatives, substitutes or accommodations are not available.

Purchasing By-law Authorization

The recommendation in this report is made in accordance with Schedule A of the Purchasing By-law #374-06, items 1(b) (xi), wherein it states that a single source procurement method may be applied when, *“a need exists for compatibility with, or for the maintenance and support of a City Standard and there are no reasonable alternatives, substitutes, or accommodations”*.

This Corporate Report also seeks to authorize the Purchasing Agent to execute the contract and all related ancillary documents with Winshuttle on a single source basis for products, professional services and maintenance and support including additional licenses for future growth for the estimated amount of \$305,000.

Financial Impact

Subject to budget process and approval, additional Winshuttle licenses and related maintenance may be purchased for the contract term, in US exchange rate. The overall total operating and capital financial impact for the contract term ending June 21, 2024 is \$305,000 with purchasing authority until June 21, 2024. For further detail on costs, assumptions and financial impact please see Appendix 1 Statement of Work.

Conclusion

The City of Mississauga has been using Winshuttle since 2009 to provide an efficient and effective method to upload transactions into SAP, a “City Standard” for ERP. Transactions such as journal entries for receivables or HR reporting relationship changes for large-scale reorganizations are performed, saving significant time and effort. Winshuttle solutions have also increased accuracy, security compliance and transparency by leveraging SAP transaction authorizations.

This report proposes to authorize the Purchasing Agent to negotiate and execute a contract with Winshuttle, on a single source basis, for products, professional services and maintenance, licensing and support, subject to City Solicitor satisfaction and annual budget approval. This includes maintenance and support for licenses and estimated growth for the contract term. This report also proposes to establish Winshuttle as a “City Standard” with contract commitments to June 21, 2024.

Attachments

Appendix 1: Statement of Work



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Darren Headrick, Manager IT SAP

Statement of Work

Year	Maintenance & Licensing (Operating)	New Licenses & 1st Year Maintenance (Capital)	Total
*1	\$18,600	\$31,500	\$50,100
2	\$23,900	\$31,500	\$55,300
3	\$29,100	\$31,500	\$60,500
4	\$34,400	\$31,500	\$65,800
5	\$39,600	\$31,500	\$71,000
Total	\$145,400	\$157,100	\$302,500

Notes:

- *Year 1 costs include paying for June 22, 2019 to June 21, 2020 maintenance after single source approval
- Year 5 maintenance ends June 21, 2024
- US to CAD exchange rate of 1.40 over the contract term
- Growth licenses added each year over the contract term
- New licenses and first-year of maintenance paid out of capital
- Existing and post first-year maintenance paid out of operating
- Total in Corporate Report has been rounded to nearest \$5,000 i.e. \$305,000

City of Mississauga

Corporate Report



Date: 9/23/2019

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, ICD.D, Commissioner of
Corporate Services and Chief Financial Officer

Meeting date:
10/30/2019

Subject

Recommendation for Designation of City Standard, Approval for Additional Product and Service Procurement and Approval for Single Source Procurement with Tableau Software Inc. File No: PRC000344

Recommendation

1. That notwithstanding the requirements of section 18(2) (c) of the Purchasing By-law 374-06, as amended, that Council authorize the Purchasing Agent to issue the necessary amendments to increase the value of the existing contract between the City and Tableau Software Inc. for software licenses, professional services, maintenance and support and training for the purpose of accommodating the increase of use in licences as a result of the increase in operational demand as outlined in the Corporate Report dated September 23, 2019 from the Commissioner of Corporate Services and Chief Financial Officer entitled "Recommendation for Designation of City Standard, Approval for Additional Product and Service Procurement and Approval for Single Source Procurement with Tableau Software Inc. File No: PRC000344".
2. That Council approve the single source purchase for software licences, maintenance and support, professional services, and training for a period of five years with the option to extend for an additional five years.
3. That the Purchasing Agent be authorized to execute all contracts and related ancillary documents with respect to the Purchase between the City and Tableau Software Inc., in accordance with the City's Purchasing By-law 374-06, as amended.
4. That Council approve Tableau Software Inc. as a "City Standard" for a period of ten years in accordance with the City's Purchasing By-law 374-06, as amended.

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Background

In 2013, the City of Mississauga's MiWay Division entered into a 3 year contract with Tableau to purchase 5 Desktop licenses and 10 Server-Web Client licenses. Since then, the existing contract has been extended by an additional 4 years, and has increased by 23 licenses to accommodate the expanded use of additional Departments throughout the corporation; including Community Services, Corporate Services and the City Manager's Office.

Tableau has been used as a key data visualization tool by the MiWay Division to develop and build the Transit Key Performance Indicators (KPIs), BI Analytical tools, Dashboards, Reports and to inform other business analysis. As a result, Tableau has been tightly integrated into many internal solutions and is a critical part of business and decision-making processes for the Transit management team.

The current contract expires on July 25, 2020.

Comments

Additional Tableau licenses are required for the MiWay division to meet their needs for data visualization software to develop analytical tools, dashboards and reports that inform critical business decisions. A new contract will define the management and support of all Transit Tableau licenses, including future growth for the next ten years and distinguish existing licence holders in Community Services, Corporate Services and the City Manager's Office.

Current MiWay Licenses are assigned and used by developers and data analysts to create reports and to complete data analysis. Many reports and data sets have been created, but have limited viewership due to lack of licenses. There is heavy reliance on printing the reports, emailing pdf reports, emailing back and forth requesting access and reassigning the licenses on an adhoc basis. This means many times that the report is seen, well beyond the need or the incident.

MiWay has a huge mobile workforce, due to the fact that supervisors and managers are constantly in the field. They need access to data right where they are, to make job related decisions.

Last year, all the field supervisors and managers were equipped with fully functional laptops which has significantly improved the access to information applications, while being mobile. This has improved their productivity.

Although productivity is better, they still cannot access reports such as; On time performance, Attendance, Route Analysis and so on. Current Licenses are barely enough to meet the needs of the office staff. License restriction is seriously impacting the productivity of the employee as they have to request printouts or pdf attachments from the office staff, some of which can take more than 24 hours to receive.

General Committee	2019/09/23	3
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Over the summer, the MiWay Business System staff engaged software vendors to better understand the different licensing schemes available and conducted need-analysis workshops with internal staff. It was determined that the current 16 license count is inadequate and there was a need for approximately 127 different types of licenses, to adequately support operational and work needs.

License Type	View Only	Explorer	Creator
Quantity	100	15	12

Training and professional services have been requested to ensure adequate training for staff is provided, regular system health checks and assistance with complex, customized reporting is in place.

Transit users will remain on the Tableau reporting system for the entire duration of this contract. Other City staff will migrate to the new enterprise solution that will be procured as a result of a study to be conducted.

City staff will conduct a study and form an enterprise strategy for a Business Intelligence and Self-Serve Analytics software. Funding for an enterprise solution will be achieved through the Business Planning process in 2020 for funding in 2021, to procure an enterprise Business Intelligence solution through a competitive procurement process. City staff is confident that Tableau can meet the current business needs for the enterprise within the remaining contract.

Purchasing By-law Authorization

The recommendations in this report are made notwithstanding the requirements of section 18(2) (c) of the Purchasing By-law 374-06, as amended, and are made in accordance with Schedule A of the Purchasing By-law #374-06, Item 1 (a) (iii) which states that the single source procurement method may be applied in cases where, *“the Goods and/or Services are only available from one supplier by reason of the existence of exclusive rights such as patent, copyright or license;”*

Information Technology, Material Management and Legal Services staff will collaborate to establish the detailed requirements, negotiate the final arrangements and prepare the requisite forms, including the contract agreements.

Financial Impact

There is minimal cost impact as a result of extending the current licensing contract with Tableau Software Inc. An additional \$9,000 USD is required for the additional licenses for 2019. These additional licenses can be funded through the existing 2019 operating budget.

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Going forward, the impact of extending the existing contract has been accommodated in the 2020-2023 Business Plan and Budget. These software licenses, professional services maintenance and support and training are budgeted both in the operating and capital budget.

Please refer to Appendix 1 for the cost breakdown.

Conclusion

It is recommended that Council approve the acquisition of additional licenses and services for the existing contract and authorize the Purchasing Agent to issue the necessary amendments to the contract for such acquisition; approve the single source purchase of licenses and services, and authorize the Purchasing Agent to execute a new contract for a term of 5 years with an option to extend the term for another 5 years, and approve Tableau Software Inc. as a “City Standard” for a period of 10 years.

Attachments

Appendix 1: Summary of Statement of Work



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Dan Pitu, Project Manager, Regulatory and Transit, CPS/Project Portfolio & Dev T&W

Summary of Statement of Work

The following represents the key deliverables from the vendor.

Current Contract

Business Units: Transit, Community Services, Corp. Service and City Manager's Office - Years 2019 - 2020

Tableau Maintenance & Support		Total License
Current Licenses	Year: 2019 - 2020	\$ 11,200.00
New Licenses - Transit	Year: 2019 - 2020 2019 = \$9000, 2020 = \$21,000	\$ 30,000.00
Training & Professional Services	Year: 2019 - 2020	\$ 30,000.00
TOTAL	Year 2019 - 2020	\$ 71,200.00

The total value of the current contract will increase by \$60,000.00 for a total of \$71,200.00

Extended Contract (5 years – 2020-2025)

Business Unit: Community Services, Corporate Services and City Manager's Office - Years 2020 - 2022

Business Unit: Transit - Years 2020 - 2025

Tableau Maintenance & Support		Total License
Current Licenses	Year: 2020 - 2021	\$ 10,000.00
Ongoing M&S for Transit Licenses	Year: 2020 - 2021	\$ 40,000.00
Current Licenses	Year: 2021 - 2022	\$ 15,000.00
Ongoing M&S for Transit Licenses	Year: 2021 - 2022	\$ 45,000.00
Ongoing M&S for Transit Licenses	Year: 2022 - 2023	\$ 50,000.00
Ongoing M&S for Transit Licenses	Year: 2023 - 2024	\$ 55,000.00
Ongoing M&S for Transit Licenses	Year: 2024 - 2025	\$ 60,000.00
TOTAL	5 years 2020 - 2025	\$275,000.00

Business Unit: Transit - Years 2020 - 2025

Tableau Professional Services and Training		Total
Professional Services and Training	Year: 2020 - 2021	\$ 30,000.00
Professional Services and Training	Year: 2021 - 2022	\$ 28,000.00
Professional Services and Training	Year: 2022 - 2023	\$ 28,000.00
Professional Services and Training	Year: 2023 - 2024	\$ 26,000.00
Professional Services and Training	Year: 2024 - 2025	\$ 26,000.00
TOTAL	5 years 2020 - 2025	\$138,000.00

The total value of the next 5 years (licenses, professional services and training) is \$413,000.00

- Note: All prices are \$USD

City of Mississauga

Corporate Report



Date: 10/3/2019

To: Chair and Members of General Committee

From: Gary Kent, CPA, CGA, ICD.D, Commissioner of
Corporate Services and Chief Financial Officer

Originator's files:

Meeting date:
10/30/2019

Subject

Revised Public Complaints Procedure Policy to incorporate the Code of Conduct and Complaints Procedure for Security Staff

Recommendation

1. That the revised Corporate Policy and Procedure - Public Complaints Procedure 01-03-09, attached as Appendix 1 to the report from the Commissioner of Corporate Services and Chief Financial Officer, dated October 3, 2019, that incorporates Security Services staff be adopted by Council.
2. That Corporate Policy and Procedure - Code of Conduct and Complaints Procedure for Security Staff 01-03-08, attached as Appendix 2 to the report from the Commissioner of Corporate Services and Chief Financial Officer, dated October 3, 2019, be rescinded.

Report Highlights

- The City of Mississauga has two Corporate Policies which outline a process for investigating formal complaints from the public regarding the conduct of staff.
- With minimal formal complaints of Security staff it is recommended that Council rescind the policy related only to Security staff and that the specific code of conduct for Security staff be incorporated into the Public Complaints Procedure policy.
- That the City creates one policy for Public Complaints.

Background

The corporate policy Code of Conduct and Complaints Procedure for Security Staff 01-03-08 was adopted by Council in March, 2008. Given the nature of Security's interaction with the public and the potential for complaints the intent of that new policy was to ensure that Security

maintained a high standard of behaviour and that a fair and transparent process exist in the event that a complaint was made. A separate policy for all other staff, Public Complaints Procedure, was adopted by Council in December, 2008.

Comments

The number of formal complaints from the public regarding Security Services is low. The number of formal complaints filed with the Office of the City Clerk is outlined below:

Year	Corporate Security	All Other Staff	Referred to other agencies	Total Complaints
2008	3	N/A		3
2009	3	5	2	10
2010	0	2		2
2011	1	2		3
2012	1	5		6
2013	0	10	1	11
2014	1	4		5
2015	0	7		7
2016	1	9		10
2017	0	12		12
2018	0	7		7

The two public complaint policies contain very similar language in most areas, with the exception of the additional “Code of Conduct” section contained in the Code of Conduct and Complaints Procedure for Security Staff policy. To ensure transparency in the City’s expectations of Security staff the Code of Conduct has been incorporated into the revised Public Complaints Procedure policy. Appendix 1 outlines (in track changes) the language that has been moved from the Security policy to the Public Complaints Procedure policy, with a rationale for the changes.

Formal complaints for both policies are submitted through the Clerk’s Office, therefore there is no change of process for the public. The only difference is that the current form that is specific to Security staff complaints would be removed from the external website.

The Director of Facilities and Property Maintenance and the Manager, Security Services, have been consulted and are in agreement with combining the Code of Conduct and Complaints Procedure for Security Staff policy with the Public Complaints Procedure policy.

Financial Impact

There are no financial impacts resulting from the Recommendations in this report.

Conclusion

Combining the two public complaint policies ensures a consistent process for both the public and staff. There is no change to the City's expectation that all staff conduct themselves in a way that mirrors the City's values of Trust, Quality and Excellence.

Attachments

Appendix 1: 2019 07 15 - clean copy - Public Complaints Procedure - 01-03-09

Appendix 2: 2019 07 15 - Comparison and rationale - Public Complaints Procedure

Appendix 3: Current policy - Code of Conduct and Complaint Procedure for Security Staff - 01-03-08



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Antonietta Di Salvo, Acting Director, Human Resources

City of Mississauga

Corporate Policy & Procedure

**Policy Title: Public Complaints Procedure****Policy Number: 01-03-09****Draft Only – Clean Copy - July 15, 2019**

Section:	Human Resources	Subsection:	Employee Conduct
Effective Date:	October 20, 2009	Last Review Date:	March 2014
Approved by: Council	Owner Division/Contact: Human Resources or the Applicable Immediate Manager		

Policy Statement

Employees, citizen members of committees and volunteers acting on behalf of the City of Mississauga are expected to conduct themselves and perform their duties in a responsible and professional manner. Any complaints from members of the public regarding the conduct of City employees or representatives will be addressed according to this policy.

Purpose

The purpose of this policy is to outline the City's Informal Complaints resolution process and to establish a record keeping procedure for Formal Complaints from members of the public regarding the conduct of City employees, citizen members of committees and volunteers. Volunteers, while not employees of the Corporation, are also expected to conduct themselves in accordance with established City standards.

The City will endeavour, first and foremost, to resolve complaints regarding Employee conduct informally. In those situations where a member of the public is not satisfied with an informal resolution they may follow the Formal Complaint process.

The City's expectations regarding the general behaviour of employees are outlined in various City of Mississauga by-laws, agreements, policies and procedures and rules and regulations, including but not limited to, Corporate Policy and Procedure - Human Resources - Standard of Behaviour; Conflict of Interest; Fraud and Theft; Respectful Workplace; and Workplace Violence.

Scope

All union and non-union full time, part time, temporary and contract employees, citizen members of committees and volunteers acting on behalf of the City of Mississauga are covered by this policy.

Policy Number: 01-03-09

Effective Date: October 20, 2009

Policy Title: Public Complaints Procedure

Last Review Date: March 2014

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All employees and members of the general public, visitors to City facilities and individuals conducting business with, or performing work on behalf of, the City of Mississauga are required to adhere to the Respectful Workplace Statement of Commitment, which is posted at City facilities.

Investigation of complaints regarding unionized employees will be conducted in accordance with applicable collective agreement provisions.

Exceptions

This policy does not address:

- Situations that are of concern to the complainant but which are outside of the control of the employee, such as service levels, resource allocations or departmental policies
- Internal employee complaints, problems or concerns refer to Human Resources - Employee Conduct - Employee Complaints Review Protocol
- Allegations of violations of Canada's Criminal Code. These should be reported to and dealt with by the police

Definitions

For the purposes of this policy:

"Complaint" means an allegation made by a member of the public regarding misconduct on the part of a City Employee. The complaint can be either Formal or Informal.

"Designated City Official" (Designate) means the City employee assigned the responsibility of addressing and responding to a Formal Complaint.

"Employee" means all employees, citizen members of committee and volunteers acting on behalf of the City of Mississauga.

"Formal Complaint" means a complaint that has not been successfully resolved through the Informal Resolution Process as outlined in this policy. The complainant has chosen to formalize the complaint by completing a City of Mississauga Public Complaint Form.

"Frivolous or Vexatious" means the complaint is initiated with malicious intent or is part of a pattern of conduct by the complainant that amounts to an abuse of the Formal Complaints process.

"Informal Complaint" means a complaint that has been received by the City, either by telephone, e-mail, postal mail or in person, which has not been submitted on a Public Complaint Form.

"Investigator" means the person(s) responsible for examining the circumstances of a complaint.

Policy Number: 01-03-09

Effective Date: October 20, 2009

Policy Title: Public Complaints Procedure

Last Review Date: March 2014

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“Manager” includes a Manager or any employee acting in a supervisory capacity and authorized to handle complaints from the public.

“Misconduct” means a breach of the City’s expectations of acceptable employee conduct as outlined in various City of Mississauga by-laws, agreements, policies and procedures and rules and regulations, including but not limited to, Corporate Policy and Procedure - Human Resources - Standard of Behaviour; Conflict of Interest; Fraud and Theft; Respectful Workplace; and Workplace Violence.

“Security Staff” means any person employed by Corporate Security, on either a full-time or part-time, contractual, permanent or temporary, union or non-union basis, including Transit Enforcement Officers.

Code of Conduct for Security Staff

Based on the nature of the work performed, City of Mississauga Security Staff are expected to adhere to the following:

- a) Act with honesty and integrity
- b) Respect and use all property and equipment in accordance with the conditions of his or her employment
- c) Comply with all federal, provincial and municipal laws and regulations
- d) Treat all persons equally, without discrimination based on a person’s race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability
- e) Refrain from using profane, abusive or insulting language or actions that are otherwise uncivil to any member of the public
- f) Refrain from exercising unnecessary force
- g) Refrain from behaviour that is either prohibited or not authorized by law
- h) Respect the privacy of others by treating all information received while working as Security Staff as confidential, except where disclosure is required as part of such work or by law, and
- i) Co-operate with police where it is required by law

Furthermore, the City expects that no Security Staff will:

- a) Be unfit for duty, while working, through consumption of alcohol or drugs
- b) Conspire with another person or aid or abet another person in a breach of this code of conduct
- c) Wilfully or negligently make a false statement or complaint against another person, or
- d) Misrepresent to any person the type, class or conditions of his or her employment (this does not apply to an individual who is concealing his or her identity as security staff in order to carry out his or her duties)

Policy Number: 01-03-09

Effective Date: October 20, 2009

Policy Title: Public Complaints Procedure

Last Review Date: March 2014

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Complaint Procedure

The City of Mississauga will receive complaints from the public related to a perceived breach of any of the City's by-laws, agreements, policies and procedures and rules and regulations related to Employee conduct.

In order to protect the privacy of individuals with respect to personal information all complaints are to be handled in accordance with the *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA). Refer to Corporate Policy and Procedure - Records Management - Freedom of Information and Protection of Privacy for more information on MFIPPA.

City forms and/or documents referred to in this policy are available in alternative formats upon request.

Informal Complaints

While an individual may wish to immediately file a formal, written complaint with the City, issues raised by members of the public regarding the conduct of City Employees, whether received in person or by telephone, should be resolved by a Manager at the point of contact, if possible, prior to a Formal Complaint being made.

Existing Processes

Departments within the City that experience a high degree of employee/customer interaction, such as Parking Enforcement and Transit, have established complaint and informal resolution processes in place. These informal resolution processes may continue to the point that a customer wishes to pursue a formal, written complaint. Where no informal complaints process exists, the informal process in this policy will apply. All formal complaints regarding employee conduct must be submitted on the Formal Complaint Form 2467.

Onsite Complaints

Issues raised by members of the public regarding Employee conduct should be resolved at the point of contact if possible. A member of the public may approach an on duty Manager with a complaint about a City Employee. The complainant may be directed to the Employee's direct Manager if they are onsite. If no Manager is available, the Employee receiving the complaint will take basic contact information and advise the complainant that a Manager will contact them within three business days. If a Manager is available they should attempt to defuse the situation and come to an informal resolution. Informal resolution of an onsite complaint may involve simply bringing the complainant and the subject Employee together to hear each other's concerns.

If the complainant wishes to escalate their concern to the Employee's direct Manager or the next level of management, but does not want to launch a Formal Complaint, the Manager who is involved in the initial discussion will forward the complainant's name, contact information, a brief

Policy Number: 01-03-09

Effective Date: October 20, 2009

Policy Title: Public Complaints Procedure

Last Review Date: March 2014

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description of the incident and a request for a call back to the appropriate individual. The complainant will be advised that they will be contacted within three business days.

Complaints Received in Person

Should a complainant wish to file a complaint in person at the Office of the City Clerk, they will be offered the option of having a Manager call them within three business days to discuss their concern. If the complainant agrees, the Clerk or designated staff will obtain their name and contact information and immediately forward this information to the appropriate individual. If the complainant advises that they wish to lodge a Formal Complaint they will be advised of the procedure.

Complaints Received by Mail and E-mail

Written and e-mail complaints received by the City will be considered to be informal if they are not on a Formal Complaint form. If an informal complaint is sent to a general City postal or e-mail address or has been misdirected, the recipient will forward the complaint to the appropriate Manager or Director. Managers who receive a complaint letter or e-mail regarding the conduct of an Employee who reports to them should attempt to resolve the complaint following the Informal Complaint resolution process. If the complaint cannot be resolved informally, the complainant will be advised of the Formal Complaint process. Formal Complaints received in the mail room must be forwarded to the Office of the City Clerk.

Complaints Received by Telephone

Managers receiving complaints by telephone will conduct an informal discussion with the complainant with the intention of resolving the issue. Other City staff who receive telephone complaints will attempt to put the caller in contact with the appropriate Manager. If the Manager is not available, the employee will obtain the complainant's contact information, provide the Manager's name and advise the complainant that they will receive a call back within three business days.

Complaints Received in the Call Centre

Complaints about City Employees received in the Call Centre will be forwarded to that person's Manager. This will be done electronically to those Business Units where it is technically feasible. The Call Centre representative will obtain the following information only:

- The complainant's name and contact information
- The name of other managers the complainant has dealt with, if applicable, and
- Sufficient information (date, time, location of the incident) to direct the complaint to the appropriate manager

The complainant will be advised that they will receive a call back from the Manager within three business days. If the complainant advises that they wish to lodge a Formal Complaint, the Call Centre representative will advise them of the Formal Complaint procedure.

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The Role of the Manager

The Manager receiving a complaint will gather and review any preliminary information available and attempt to resolve the issue informally through separate discussions with the complainant and the Employee involved. The Manager may choose to involve Human Resources at this point if they require their assistance and/or guidance, however are required to involve their departmental Human Resources representative prior to taking any disciplinary action against City staff.

Managers must ensure that all staff involved in the resolution of the complaint are aware of their responsibility to keep the issue confidential and respect the privacy rights of all parties involved.

The details of Informal Complaints should be noted as soon as possible and may include such information as when and where the alleged Employee Misconduct occurred, who was involved and the names of any witnesses. These notes may be required if a Formal Complaint is eventually filed.

Records of Informal Complaints

Complaints that are informally resolved to the complainant's satisfaction will not be tracked. However, any records pertaining to the resolution of Informal Complaints, including but not limited to Manager's notes, e-mails and letters, are to be maintained within each department in accordance with the City Records Retention By-Law 537-96. Any disciplinary action resulting from an Informal Complaint will be maintained in accordance with established Human Resources procedures and Corporate Policy - Corporate Administration, Records Management and Employee Records.

Unresolved Complaints

If the issue cannot be resolved informally or the complainant requests an investigation into the alleged Misconduct, a Formal Complaint Form must be submitted.

Formal Complaints

Formal Complaints against City Employees must be submitted to the Office of the City Clerk via postal mail, e-mail or in person using the Public Complaints Form 2467. The form can be found on the City of Mississauga's web site or is available at the Office of the City Clerk.

The Clerk or designated staff, is solely responsible for:

- Receiving and date stamping the complaint
- Ensuring it is completed and signed
- Creating and maintaining a record of all formal complaints received for statistical purposes, and
- Indicating who the complaint was forwarded to

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This information may be used to verify or demonstrate the number of Formal Complaints received by the City and to monitor complaint resolution progress. The Office of the City Clerk will provide a summary to City Council on an annual basis.

Once the Formal Complaint is logged, a confidential copy of the complaint will be forwarded via inter-office mail to the City Manager and the applicable Commissioner, with the original going to the appropriate Designate according to the Investigation of Complaints section of this policy.

Details of Complaint

The complaint should provide details of the grounds of the complaint, factual information of when and where the incident occurred, and a description of what happened. All complaints must be signed by the complainant. In the case of a complaint made on behalf of a person under 18 years of age, a parent or legal guardian may sign; in the case of a person with a disability, their Support Person may sign on their behalf in their presence.

Complaints Not Considered

Anonymous complaints will not be considered.

Complaints should be made as soon as possible following the incident. Complaints filed 90 days or more after the incident will only be investigated if the Director of the department to which the Employee reports determines that circumstances exist to reasonably justify the extension.

Investigation of Complaint

All Formal Complaint forms with the details of the complaint and any attachments will be forwarded to the appropriate Designated City Official (the Designate) as follows:

- Complaints regarding a Citizen Member of Committee to the City Manager
- Complaints regarding City Employees, including Managers and Supervisors, to the Director of the person's Division
- Complaints regarding a Director to the applicable Commissioner
- Complaints against Commissioners to the City Manager, and
- City Manager complaints are referred to the Mayor

The Designate or their appointed delegate will assume responsibility for the complaint at this point.

The Designate will review the complaint with the Employee's Manager. The Designate, in consultation with Human Resources, will then assign an Investigator suitable to the circumstances of each complaint.

The investigation will be made in the context of existing City of Mississauga policies and procedures, accepted practices and relevant legislation in place at the time of the incident.

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If the Investigator deems the complaint to be Frivolous or Vexatious it will not be pursued. The Designate, in consultation with Human Resources, will advise the complainant, in writing, of the Investigator's decision and the reasons for it and copy the City Manager and the applicable Commissioner.

Upon completion of the investigation, the Investigator will present a confidential written report which will include the allegations and the Investigator's findings. This report will be discussed with the Designate who, in consultation with Human Resources, will take any necessary action, which may include disciplinary action and/or the imposition of an assessment period. (Refer to Corporate Policy and Procedure – Standard of Behaviour for more information on disciplinary action and assessment periods.)

The Designate or their delegate, in consultation with Human Resources, will provide both the complainant and those alleged in the complaint with a written response which either:

- Revealed a contravention of the City's policies regarding conduct and appropriate corrective action will be taken, or
- Revealed that no contravention took place and the matter is closed

Details of any disciplinary action taken will not be released to the complainant. A confidential copy of the decision will be forwarded to the City Manager. The original will be sealed and maintained in accordance with current practices.

The Designate will also advise the Clerk's office as soon as possible that the complaint process is complete and the date the file was closed. This information will be added to the existing record.

Deadline for Complaint Resolution

Every effort will be made to investigate and respond to complaints within 30 days of receipt of the Formal Complaint by the City Clerk.

If the investigation into the complaint is not complete within 30 days, the Designate will advise the complainant or their guardian, in writing, of the status of the investigation and the expected time frame for a response.

In cases where the complaint cannot be resolved within 30 days, the Designate will endeavour to have the complaint resolved no later than 60 days following receipt of the complaint.

Withdrawal of a Formal Complaint

A complainant may withdraw a Formal Complaint by writing to the City Clerk's office. The Designate may continue the investigation if they believe further investigation is warranted.

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Formal Complaints that are withdrawn will be included in data collection with the status of “withdrawn” clearly indicated.

Revision History

Reference	Description
GC-0880-2008 – 2008 12 10	
October 20, 2009	Administrative revision – Commissioner copied on Formal Complaints
March 14, 2014	Housekeeping – Added Workplace Violence policy and updated titles

Comparison of Current and Proposed Policy – Public Complaints Procedure

2019 07 15
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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
<p>POLICY STATEMENT Employees, citizen members of committees and volunteers acting on behalf of the City of Mississauga are expected to conduct themselves and perform their duties in a responsible and professional manner. Any complaints from members of the public regarding the conduct of City employees or representatives will be addressed according to this policy.</p>	<p>POLICY STATEMENT No change.</p>	
<p>PURPOSE The purpose of this policy is to outline the City’s Informal Complaints resolution process and to establish a record keeping procedure for Formal Complaints from members of the public regarding the conduct of City employees, citizen members of committees and volunteers. Volunteers, while not employees of the Corporation, are also expected to conduct themselves in accordance with established City standards.</p> <p>The City will endeavour, first and foremost, to resolve complaints regarding Employee conduct informally. In those situations where a member of the public is not satisfied with an informal resolution they may follow the Formal Complaint process.</p>	<p>PURPOSE No change.</p>	

Comparison of Current and Proposed Policy – Public Complaints Procedure

2019 07 15
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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
<p>The City's expectations regarding the general behaviour of employees are outlined in various City of Mississauga by-laws, agreements, policies and procedures and rules and regulations, including but not limited to, Corporate Policy and Procedure, Human Resources, Standard of Behaviour; Conflict of Interest; Fraud and Theft; Respectful Workplace; and Workplace Violence.</p>		
<p>SCOPE All union and non-union full time, part time, temporary and contract employees, citizen members of committees and volunteers acting on behalf of the City of Mississauga are covered by this policy.</p> <p>All employees and members of the general public, visitors to City facilities and individuals conducting business with, or performing work on behalf of, the City of Mississauga are required to adhere to the Respectful Workplace Statement of Commitment, which is posted at City facilities.</p> <p>Investigation of complaints regarding unionized employees will be conducted in accordance with applicable collective agreement provisions.</p>	<p>SCOPE No change.</p>	

Comparison of Current and Proposed Policy – Public Complaints Procedure

2019 07 15
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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
Exceptions This policy does not address: <ul style="list-style-type: none"> Situations that are of concern to the complainant but which are outside of the control of the employee, such as service levels, resource allocations or departmental policies Internal employee complaints, problems or concerns refer to Corporate Policy and Procedure - Human Resources - Employee Conduct - Employee Complaints Review Procedure Complaints from the public regarding the conduct of Security Staff refer to Corporate Policy and Procedure - Human Resources - Code of Conduct and Complaints Procedure for Security Staff Allegations of violations of Canada’s Criminal Code. These should be reported to and dealt with by the police 	Exceptions This policy does not address: <ul style="list-style-type: none"> No change. No change. No change. 	Removed the bullet referencing the Code of Conduct and Complaints Procedure for Security Staff policy, as the policy will be rescinded.
DEFINITIONS For the purposes of this policy:	DEFINITIONS For the purposes of this policy:	
“Complaint” means an allegation made by a member of the public regarding misconduct on the part of a City Employee. The complaint can be	No change.	

Comparison of Current and Proposed Policy – Public Complaints Procedure

2019 07 15
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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
either Formal or Informal.		
“Designated City Official” (Designate) means the City employee assigned the responsibility of addressing and responding to a Formal Complaint.	No change.	
“Employee” means all employees, citizen members of committee and volunteers acting on behalf of the City of Mississauga.	No change.	
“Formal Complaint” means a complaint that has not been successfully resolved through the Informal Resolution Process as outlined in this policy. The complainant has chosen to formalize the complaint by completing a City of Mississauga Public Complaint Form.	No change.	
“Frivolous or Vexatious” means the complaint is initiated with malicious intent or is part of a pattern of conduct by the complainant that amounts to an abuse of the Formal Complaints process.	No change.	
“Informal Complaint” means a complaint that has been received by the City, either by telephone, e-mail, postal mail or in person, which has not been submitted on a Public Complaint Form.	No change.	

Comparison of Current and Proposed Policy – Public Complaints Procedure

2019 07 15
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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
“Investigator” means the person(s) responsible for examining the circumstances of a complaint.		
“Manager” includes a Manager or any employee acting in a supervisory capacity and authorized to handle complaints from the public.	No change.	.
“Misconduct” means a breach of the City's expectations of acceptable employee conduct as outlined in various City of Mississauga by-laws, agreements, policies and procedures and rules and regulations, including but not limited to, Corporate Policy and Procedure, Human Resources, Standard of Behaviour; Conflict of Interest; Fraud and Theft; Respectful Workplace; and Workplace Violence.	No change.	
	“Security Staff” means any person employed by Corporate Security, on either a full-time or part-time, contractual, permanent or temporary, union or non-union basis, including Transit Enforcement Officers.	Definition added for inclusion of Security Services in the Public Complaints Procedure policy.
	CODE OF CONDUCT FOR SECURITY STAFF Based on the nature of the work performed, City of Mississauga Security Staff are expected to adhere to the following: a) Act with honesty and integrity	Given the nature of Security staff's visibility in the community and interaction with the public a distinct Code of Conduct for Security staff was created and has been

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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
	<ul style="list-style-type: none"> b) Respect and use all property and equipment in accordance with the conditions of his or her employment c) Comply with all federal, provincial and municipal laws and regulations d) Treat all persons equally, without discrimination based on a person’s race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability e) Refrain from using profane, abusive or insulting language or actions that are otherwise uncivil to any member of the public f) Refrain from exercising unnecessary force g) Refrain from behaviour that is either prohibited or not authorized by law h) Respect the privacy of others by treating all information received while working as Security Staff as confidential, except where disclosure is required as part of such work or by law, and i) Co-operate with police where it is required by law <p>Furthermore, the City expects that no Security Staff will:</p>	<p>incorporated verbatim from the Code of Conduct and Complaint Procedure for Security Staff policy.</p>

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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
	<ul style="list-style-type: none"> a) Be unfit for duty, while working, through consumption of alcohol or drugs b) Conspire with another person or aid or abet another person in a breach of this code of conduct c) Wilfully or negligently make a false statement or complaint against another person, or d) Misrepresent to any person the type, class or conditions of his or her employment (this does not apply to an individual who is concealing his or her identity as security staff in order to carry out his or her duties) 	
<p>COMPLAINT PROCEDURE</p> <p>The City of Mississauga will receive complaints from the public related to a perceived breach of any of the City's by-laws, agreements, policies and procedures and rules and regulations related to Employee conduct.</p> <p>In order to protect the privacy of individuals with respect to personal information all complaints are to be handled in accordance with the <i>Municipal Freedom of Information and Protection of Privacy Act</i> (MFIPPA). Refer to Corporate Policy and Procedure - Records Management - Freedom of</p>	<p>COMPLAINT PROCEDURE</p> <p>No change.</p>	

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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
Information and Protection of Privacy for more information on MFIPPA. City forms and/or documents referred to in this policy are available in alternative formats upon request.		
INFORMAL COMPLAINTS While an individual may wish to immediately file a formal, written complaint with the City, issues raised by members of the public regarding the conduct of City Employees, whether received in person or by telephone, should be resolved by a Manager at the point of contact, if possible, prior to a Formal Complaint being made.	INFORMAL COMPLAINTS No change.	
Existing Processes Departments within the City that experience a high degree of employee/customer interaction, such as Parking Enforcement and Transit, have established complaint and informal resolution processes in place. These informal resolution processes may continue to the point that a customer wishes to pursue a formal, written complaint. Where no informal complaints process exists, the informal process in this policy will apply. All formal complaints regarding employee conduct must be submitted on the Formal	Existing Processes No change.	

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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
Complaint Form 2467.		
<p>Onsite Complaints</p> <p>A member of the public may approach an on duty Manager with a complaint about a City Employee. The complainant may be directed to the Employee’s direct Manager if they are onsite. If no Manager is available, the Employee receiving the complaint will take basic contact information and advise the complainant that a Manager will contact them within three business days. If a Manager is available they should attempt to defuse the situation and come to an informal resolution. Informal resolution of an onsite complaint may involve simply bringing the complainant and the subject Employee together to hear each other’s concerns.</p> <p>If the complainant wishes to escalate their concern to the Employee’s direct Manager or the next level of management, but does not want to launch a Formal Complaint, the Manager who is involved in the initial discussion will forward the</p>	<p>Onsite Complaints</p> <p>Issues raised by members of the public regarding Employee conduct should be resolved at the point of contact if possible.</p> <p>No change.</p> <p>No change.</p>	<p>The opening statement, which appears in the Code of Conduct and Complaint Procedure for Security Staff policy, provides good direction to staff so has been included here.</p>

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<i>Current Policy – What Exists Today in Public Complaints Procedure policy.</i>	<i>Proposed Policy – If the information in a specific section is unchanged, or has required minimal revision to terminology only, “No change” will appear.</i>	<i>Rationale – Why changes (deletions and/or additions) to the revised policy were made.</i>
complainant's name, contact information, a brief description of the incident and a request for a call back to the appropriate individual. The complainant will be advised that they will be contacted within three business days.		
Complaints Received in Person Should a complainant wish to file a complaint in person at the Office of the City Clerk, they will be offered the option of having a Manager call them within three business days to discuss their concern. If the complainant agrees, the Clerk or designated staff will obtain their name and contact information and immediately forward this information to the appropriate individual. If the complainant advises that they wish to lodge a Formal Complaint they will be advised of the procedure.	Complaints Received in Person No change.	
Complaints Received by Mail and E-mail Written and e-mail complaints received by the City will be considered to be informal if they are not on a Formal Complaint form. If an informal complaint is sent to a general City postal or e-mail address or has been misdirected, the recipient will forward the complaint to the appropriate Manager or Director. Managers who receive a complaint letter	Complaints Received by Mail and E-mail No change.	

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or e-mail regarding the conduct of an Employee who reports to them should attempt to resolve the complaint following the Informal Complaint resolution process. If the complaint cannot be resolved informally, the complainant will be advised of the Formal Complaint process. Formal Complaints received in the mail room must be forwarded to the Office of the City Clerk.		
Complaints Received by Telephone Managers receiving complaints by telephone will conduct an informal discussion with the complainant with the intention of resolving the issue. Other City staff who receive telephone complaints will attempt to put the caller in contact with the appropriate Manager. If the Manager is not available, the employee will obtain the complainant's contact information, provide the Manager's name and advise the complainant that they will receive a call back within three business days.	Complaints Received by Telephone No change.	
Complaints Received in the Call Centre Complaints about City Employees received in the Call Centre will be forwarded to that person's Manager. This will be done electronically to those Business Units where it is technically feasible. The	Complaints Received in the Call Centre No change.	

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<p>Call Centre representative will obtain the following information only:</p> <ul style="list-style-type: none"> • The complainant’s name and contact information • The name of other managers the complainant has dealt with, if applicable, and • Sufficient information (date, time, location of the incident) to direct the complaint to the appropriate manager <p>The complainant will be advised that they will receive a call back from the Manager within three business days. If the complainant advises that they wish to lodge a Formal Complaint, the Call Centre representative will advise them of the Formal Complaint procedure.</p>		
<p>The Role of the Manager</p> <p>The Manager receiving a complaint will gather and review any preliminary information available and attempt to resolve the issue informally through separate discussions with the complainant and the Employee involved. The Manager may choose to involve Human Resources at this point if they require their assistance and/or guidance, however are required to involve their departmental Human Resources representative prior to taking any</p>	<p>The Role of the Manager</p> <p>No change.</p>	

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<p>disciplinary action against City staff.</p> <p>Managers must ensure that all staff involved in the resolution of the complaint are aware of their responsibility to keep the issue confidential and respect the privacy rights of all parties involved.</p> <p>The details of Informal Complaints should be noted as soon as possible and may include such information as when and where the alleged Employee misconduct occurred, who was involved and the names of any witnesses. These notes may be required if a Formal Complaint is eventually filed.</p>		
<p>Records of Informal Complaints</p> <p>Complaints that are informally resolved to the complainant's satisfaction will not be tracked. However, any records pertaining to the resolution of Informal Complaints, including but not limited to Manager's notes, e-mails and letters, are to be maintained within each department in accordance with the City Records Retention By-Law 537-96. Any disciplinary action resulting from an Informal Complaint will be maintained in accordance with established Human Resources procedures and Corporate Policy - Corporate Administration,</p>	<p>Records of Informal Complaints</p> <p>No change.</p>	

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Records Management and Employee Records.		
Unresolved Complaints If the issue cannot be resolved informally or the complainant requests an investigation into the alleged misconduct, a Formal Complaint Form must be submitted.	Unresolved Complaints No change.	
FORMAL COMPLAINTS Formal Complaints against City Employees must be submitted to the Office of the City Clerk via postal mail, e-mail or in person using the Public Complaints Form 2467. The form can be found on the City of Mississauga's web site or is available at the Office of the City Clerk. The Clerk or designated staff, is solely responsible for: <ul style="list-style-type: none"> • Receiving and date stamping the complaint • Ensuring it is completed and signed • Creating and maintaining a record of all formal complaints received for statistical purposes, and • Indicating who the complaint was forwarded to This information may be used to verify or demonstrate the number of Formal Complaints	FORMAL COMPLAINTS No change.	

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<p>received by the City and to monitor complaint resolution progress. The Office of the City Clerk will provide a summary to City Council on an annual basis.</p> <p>Once the Formal Complaint is logged, a confidential copy of the complaint will be forwarded via inter-office mail to the City Manager and the applicable Commissioner, with the original going to the appropriate Designate according to the Investigation of Complaints section of this policy.</p>		
<p>Details of Complaint</p> <p>The complaint should provide details of the grounds of the complaint, factual information of when and where the incident occurred, and a description of what happened. All complaints must be signed by the complainant. In the case of a complaint made on behalf of a person under 18 years of age, a parent or legal guardian may sign; in the case of a person with a disability, their Support Person may sign on their behalf in their presence.</p>	<p>Details of Complaint</p> <p>No change.</p>	
<p>Complaints Not Considered</p> <p>Anonymous complaints will not be considered.</p>	<p>Complaints Not Considered</p> <p>No change.</p>	

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Complaints should be made as soon as possible following the incident. Complaints filed 90 days or more after the incident will only be investigated if the Director of the department to which the Employee reports determines that circumstances exist to reasonably justify the extension.		
Investigation of Complaint All Formal Complaint forms with the details of the complaint and any attachments will be forwarded to the appropriate Designated City Official (the Designate) as follows: <ul style="list-style-type: none"> • Complaints regarding a Citizen Member of Committee to the City Manager • Complaints regarding City Employees, including Managers and Supervisors, to the Director of the person’s Division • Complaints regarding a Director to the applicable Commissioner • Complaints against Commissioners to the City Manager, and • City Manager complaints are referred to the Mayor 	Investigation of Complaint No change.	
The Designate or their appointed delegate will assume responsibility for the complaint at this	No change.	

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<p>point.</p> <p>The Designate will review the complaint with the Employee’s Manager. The Designate, in consultation with Human Resources, will then assign an Investigator suitable to the circumstances of each complaint.</p> <p>The investigation will be made in the context of existing City of Mississauga policies and procedures, accepted practices and relevant legislation in place at the time of the incident.</p> <p>If the Investigator deems the complaint to be Frivolous or Vexatious it will not be pursued. The Designate, in consultation with Human Resources, will advise the complainant, in writing, of the Investigator’s decision and the reasons for it and copy the City Manager and the applicable Commissioner.</p>		<p>With respect to “accepted practices”, the Code of Conduct and Complaint Procedure for Security Staff policy goes on to say: <i>“The investigator will interview the complainant and the Security Staff, as well as any other witnesses to determine whether any of the City’s policies regarding employee conduct have been breached.”</i> This can be taken to be “accepted practice” so Security’s process does not need to change.</p>
<p>Upon completion of the investigation, the Investigator will present a confidential written report which will include the allegations and the Investigator’s findings. This report will be discussed with the Designate who, in consultation with Human Resources, will take any necessary</p>	<p>No change.</p>	<p>The Code of Conduct and Complaint Procedure for Security Staff policy says <i>“The investigator will provide a written report on the findings and recommendations and forward this to the Manager, Director and Commissioner.”</i></p>

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action, which may include disciplinary action and/or the imposition of an assessment period. (Refer to Corporate Policy and Procedure – Standard of Behaviour for more information on disciplinary action and assessment periods.)		Security Services is comfortable with following the Public Complaint policy process.
<p>The Designate or their delegate, in consultation with Human Resources, will provide both the complainant and those alleged in the complaint with a written response which either:</p> <ul style="list-style-type: none"> • Revealed a contravention of the City’s policies regarding conduct and appropriate corrective action will be taken, or • Revealed that no contravention took place and the matter is closed <p>Details of any disciplinary action taken will not be released to the complainant. A confidential copy of the decision will be forwarded to the City Manager. The original will be sealed and maintained in accordance with current practices.</p> <p>The Designate will also advise the Clerk’s office as soon as possible that the complaint process is complete and the date the file was closed. This information will be added to the existing record.</p>	No change.	

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<p>Deadline for Complaint Resolution Every effort will be made to investigate and respond to complaints within 30 days of receipt of the Formal Complaint by the City Clerk.</p> <p>If the investigation into the complaint is not complete within 30 days, the Designate will advise the complainant or their guardian, in writing, of the status of the investigation and the expected time frame for a response.</p> <p>In cases where the complaint cannot be resolved within 30 days, the Designate will endeavour to have the complaint resolved no later than 60 days following receipt of the complaint.</p>	<p>Deadline for Complaint Resolution No change.</p>	
<p>Withdrawal of a Formal Complaint A complainant may withdraw a Formal Complaint by writing to the City Clerk’s office. The Designate may continue the investigation if they believe further investigation is warranted.</p> <p>Formal Complaints that are withdrawn will be included in data collection with the status of “withdrawn” clearly indicated.</p>	<p>Withdrawal of a Formal Complaint No change.</p>	

City of Mississauga

Corporate Policy & Procedure



Policy Title: Code of Conduct and Complaint Procedure for Security Staff

Policy Number: 01-03-08

Section:	Human Resources	Subsection:	Employee Conduct
Effective Date:	March 26, 2008	Last Review Date:	July, 2018
Approved by: Council		Owner Division/Contact: Manager, Security, Facilities and Property Management Corporate Services Department	

Policy Statement

All Security Staff are required to adhere to the Code of Conduct outlined in this policy and any complaints from the public regarding the conduct of Security Staff will be addressed according to this policy.

Purpose

The purpose of this policy is to establish both a Code of Conduct and a complaints resolution procedure for complaints by the public regarding the conduct of Security Staff.

Scope

The City of Mississauga's Corporate Policy and Procedure – Standard of Behaviour outlines the City's expectations of all staff in conducting their duties. It permits individual departments or divisions to establish additional or more specific guidelines, based on the nature of the work performed. This policy is to be regarded as supplementary to Corporate Policy and Procedure – Standard of Behaviour.

All Security Staff are required to adhere to the Code of Conduct and to other City of Mississauga policies and procedures regarding employee conduct including, but not limited to:

- Standard of Behaviour
- Conflict of Interest
- Respectful Workplace
- Fraud and Theft
- Workplace Violence

Definitions

For the purposes of this policy:

“Security Staff” means any person employed by Security Services, on either a full-time or part-

Policy Number: 01-03-08

Effective Date: March 26, 2008

Policy Title: Code of Conduct and Complaint
Procedure for Security Staff

Last Review Date: July, 2018

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time, contractual, permanent or temporary, union or non-union basis, including Transit Enforcement Officers.

Code of Conduct

The City of Mississauga expects Security Staff to:

- a) Act with honesty and integrity
- b) Respect and use all property and equipment in accordance with the conditions of his or her employment
- c) Comply with all federal, provincial and municipal laws and regulations
- d) Treat all persons equally, without discrimination based on a person's race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability
- e) Refrain from using profane, abusive or insulting language or actions that are otherwise uncivil to any member of the public
- f) Refrain from exercising unnecessary force
- g) Refrain from behaviour that is either prohibited or not authorized by law
- h) Respect the privacy of others by treating all information received while working as Security Staff as confidential, except where disclosure is required as part of such work or by law, and
- i) Co-operate with police where it is required by law

Furthermore, the City expects that no Security Staff will:

- a) Be unfit for duty, while working, through consumption of alcohol or drugs
- b) Conspire with another person or aid or abet another person in a breach of this code of conduct
- c) Wilfully or negligently make a false statement or complaint against another person, or
- d) Misrepresent to any person the type, class or conditions of his or her employment (this does not apply to an individual who is concealing his or her identity as security staff in order to carry out his or her duties)

Appropriate action, which may include disciplinary action up to and including termination of employment or the imposition of an assessment period, will be taken to address unacceptable behaviour.

Complaint Procedure

The City of Mississauga will receive complaints from the public related to a breach of the Code of Conduct or to any of the City's policies and procedures related to employee conduct by Security Staff.

Issues raised by members of the public regarding Security Staff conduct should be resolved at the point of contact if possible; if not, the complainant has the option to discuss the issue with

Policy Number: 01-03-08

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the Manager of Security Services (the Manager) before a formal written complaint is made. In situations where the complainant requests an investigation into the situation and/or disciplinary action to be taken, a written formal complaint must be submitted using the City of Mississauga - Security Staff – Complaint Form 2456.

Complaints in Writing

Written complaints against Security Staff must be submitted to the Office of the City Clerk via mail or in person. The Clerk or designated staff are responsible for receiving the complaint, creating and maintaining a record of the date of receipt for the complaint and monitoring the number of complaints received.

Details of Complaint

The complaint should provide details of when and where the incident occurred, who was involved and provide a description of what happened. All complaints must be signed by the complainant or, in the case of a complaint made on behalf of a person under 18 years of age, by the person's parent or legal guardian.

Complaints Not Considered

Complaints should be made as soon as possible following the incident. Complaints filed 90 days or more after the incident may not be accepted, unless agreed to by the Director of Facilities and Property Management (the Director).

Investigation of Complaint

All complaint forms with the details of the complaint will be forwarded to the Commissioner of Corporate Services & Chief Financial Officer (the Commissioner) and the Director.

The Director will review the complaint with the Manager. If the complaint is deemed to be frivolous or vexatious it will not be pursued and the Director will advise the complainant of their decision. Otherwise, the Director, in consultation with Human Resources, will assign an investigator suitable to the circumstances of each complaint.

The investigation will be made in the context of existing City of Mississauga policies and procedures, accepted practices and relevant legislation in place at the time of the incident. The investigator will interview the complainant and the Security Staff, as well as any other witnesses to determine whether any of the City's policies regarding employee conduct have been breached.

The investigator will provide a written report on the findings and recommendations and forward this to the Manager, Director and Commissioner. The Manager and the Director, in consultation with Human Resources, will then take any necessary action, which may include disciplinary action and/or the imposition of an assessment period.

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The Director or designate, will advise the complainant, or, in the case of a minor, his or her guardian, in writing, that the investigation into the complaint either revealed a contravention of the City's policies regarding conduct and appropriate corrective action has been taken, or revealed that no contravention took place and the matter is closed. Details of any disciplinary action taken will not be released to the complainant.

The Director will also advise the Clerk's office that the complaint process is complete and the date the file was closed.

Deadline for Complaint Resolution

Every effort will be made to investigate and respond to complaints within 30 days of receipt of the written complaint by the City Clerk.

If the complaint is not resolved within 30 days the Director will advise the complainant, or, in the case of a minor, his or her guardian, in writing, of the status of the investigation and the expected time frame for a response.

In cases where the complaint cannot be resolved within 30 days, the Director will endeavour to have the complaint resolved no later than 60 days following receipt of the complaint.

Revision History

Reference	Description
AC-0005-2008 – 2008 03 26	
June 23, 2014	Admin – added Workplace Violence policy, updated position titles
July 18, 2018	Scheduled review – minor housekeeping only.
October 17, 2018	Housekeeping to remove reference to Standard of Behaviour policy for information on disciplinary action.

REPORT 10 – 2019

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Mississauga Cycling Advisory Committee presents its tenth report for 2019 and recommends:

MCAC-0069-2019

That the deputation by Sue Ann Laking, Strategic Leader, Downtown Public Realm Strategy regarding an update on the Tactical Urbanism Pilot be received.

(MCAC-0069-2019)

MCAC-0070-2019

That the memorandum dated October 3, 2019 entitled Active Transportation Work Plan 2019/2020 be received.

(MCAC-0070-2019)

MCAC-0071-2019

That the Mississauga Cycling Advisory Committee Roles and Responsible as presented by Sacha Smith, Manager, Legislative Services be received.

(MCAC-0071-2019)

MCAC-0072-2019

That the memorandum dated October 4, 2019 entitled Cycling Program 2019 October Update be received.

(MCAC-0072-2019)

MCAC-0073-2019

That Ray Marentette be the recipient of the 2018 Phil Green Recognition Award.

(MCAC-0073-2019)

MCAC-0074-2019

That Network and Technical Subcommittee continue working on the Bike Parking Program as presented.

(MCAC-0074-2019)

REPORT 7 - 2019

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Environmental Action Committee presents its seventh report for 2019 and recommends:

EAC-0033-2019

That the deputation and associated presentation by Diane Gibson, Waste Diversion Assistant, Parks, Forestry and Environment with respect to Adopt-a-Park and Litter Prevention be received for information.

(EAC-0033-2019)

EAC-0034-2019

That the deputation and associated presentation by Diane Gibson, Waste Diversion Assistant, Parks, Forestry and Environment with respect to Waste Reduction Week be received for information.

(EAC-0034-2019)

EAC-0035-2019

That the deputation and associated presentation by Jamie Ferguson, Manager, Park Services with respect to Seabin Litter Collection Container be received for information.

(EAC-0035-2019)

EAC-0036-2019

1. That the verbal update regarding the Group Representative EAC Vacancy be received.
2. That the existing members of the Environmental Action Committee have selected Alice Casselman, Association for Canadian Educational Resources, Non-Voting Member to fill the Group Representative EAC Vacancy and to become a Voting Member.

(EAC-0036-2019)

EAC-0037-2019

That the Environmental Action Committee Work Plan be approved as discussed at the October 8, 2019 Environmental Action Committee meeting.

(EAC-0037-2019)

EAC-0038-2019

That the Climate Change Action Plan Consultation Opportunities be received for information.

(EAC-0038-2019)