
REVISED

General Committee

Date: December 1, 2021
Time: 1:00 PM
Location: Council Chambers, Civic Centre, 2nd Floor
300 City Centre Drive, Mississauga, Ontario, L5B 3C1
And Online Video Conference

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 (CHAIR)
Councillor Matt Mahoney	Ward 8
Councillor Pat Saito	Ward 9
Councillor Sue McFadden	Ward 10
Councillor George Carlson	Ward 11

Participate Virtually, Telephone OR In-Person

Advance registration is required to participate and/or make a comment in the meeting. **To attend the meeting in-person proof of identification and being fully vaccinated against COVID-19 at point of entry to the Council Chamber is required.** Questions for Public Question Period shall be provided to Clerk's staff at least 24 hours in an advance of the meeting. Comments submitted will be considered as public information and entered into public record.

To register, please email dayna.obaseki@mississauga.ca and for Residents without access to the internet via computer, smartphone or tablet, can register by calling Dayna Obaseki at 905-615-3200 ext. 5425 **no later than Monday, November 29, 2021 before 4:00PM.** You will be provided with directions on how to participate from Clerks' staff.

Contact

Dayna Obaseki, Legislative Coordinator, Legislative Services
905-615-3200 ext. 5425 | Email: dayna.obaseki@mississauga.ca

Find it Online

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

Meetings of Council streamed live and archived at Mississauga.ca/videos

1. CALL TO ORDER

2. INDIGENOUS LAND STATEMENT

"We acknowledge the lands which constitute the present-day City of Mississauga as being part of the Treaty and Traditional Territory of the Mississaugas of the Credit First Nation, The Haudenosaunee Confederacy the Huron-Wendat and Wyandotte Nations. We recognize these peoples and their ancestors as peoples who inhabited these lands since time immemorial. The City of Mississauga is home to many global Indigenous Peoples.

As a municipality, the City of Mississauga is actively working towards reconciliation by confronting our past and our present, providing space for Indigenous peoples within their territory, to recognize and uphold their Treaty Rights and to support Indigenous Peoples. We formally recognize the Anishinaabe origins of our name and continue to make Mississauga a safe space for all Indigenous peoples."

3. APPROVAL OF AGENDA

4. DECLARATION OF CONFLICT OF INTEREST

5. MINUTES FROM THE PREVIOUS MEETING

5.1. General Committee Minutes - November 17, 2021

6. PRESENTATIONS - Nil.

7. DEPUTATIONS

7.1. Items 11.2 and 11.3 - Michelle Walmsley, Resident

7.2. Anna Gulbinski, Executive Director, Art Gallery of Mississauga and Raheel Patel, AGM LoveLab Project Lead and Mentor providing an Art Gallery of Mississauga 2021 Update

7.3. Hossein Hosseini, Project Manager, MTO and Mara Bullock, Consultant Project Manager, WSP regarding the Highway 413 Transportation Corridor Route Planning and Preliminary Design Project – Federal Impact Assessment Process

*7.4. Items 11.2 and 11.3 - Louise Peacock, Resident

*7.5. Items 11.2 and 11.3 - Kedar Shukla, Resident

8. PUBLIC QUESTION PERIOD - 15 Minute Limit

Public Comments: Advance registration is required to participate and/or to make comments in the virtual public meeting. **To attend the meeting in-person proof of identification and being fully vaccinated against COVID-19 at point of entry to the Council Chamber is required.** Any member of the public interested in speaking to an item listed on the agenda must register by calling 905-615-3200 ext. 5425 or by emailing dayna.obaseki@mississauga.ca by **Monday, November 29, 2021 before 4:00PM.**

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. Questions may be submitted to the Clerk at least 24 hours prior to the meeting;
2. A person is limited to two (2) questions and must pertain specific item on the current agenda and the speaker will state which item the question is related to;
3. The total speaking time shall be five (5) minutes maximum, per speaker, unless extended by the Mayor or Chair; and
4. Any response not provided at the meeting will be provided in the format of a written response.

9. MATTERS PERTAINING TO COVID-19

10. CONSENT AGENDA

11. MATTERS TO BE CONSIDERED

11.1. Public Tree By-Law Update

11.2. *Private Tree Protection By-Law Update (REVISED)

11.3. Progress Update on Mississauga's Climate Change Action Plan

11.4. Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy

11.5. New Procurement By-law and New Corporate Policy – Contract Amendments and Terminations

11.6. Amendment to Existing Consultant Contract – Procurement No. PRC001263 (Aquafor Beech Limited) to include additional Construction Supervision and Administration Services for the Applewood Creek Erosion Control Project through Lakeview Golf Course (Ward 1)

11.7. 2021 Strike-off of Taxes Deemed Uncollectible

11.8. Financial Report as at September 30, 2021

11.9. 5G Technical Assessment Report

11.10. City Standards for Information Technology (IT) Maintenance and Support Services and Subscription Renewals for 2022-2024

12. ADVISORY COMMITTEE REPORTS

12.1. Governance Committee Report 5-2021 - November 15, 2021

12.2. Public Vehicle Advisory Committee Report 2-2021 - November 16, 2021

12.3. *Traffic Safety Council Report 6-2021 - November 24, 2021 (REVISED)

13. UNFINISHED BUSINESS

- 13.1. Surplus Land Declaration for the purposes of disposal of city-Owned lands located at 46 William Street (Ward 11)
As per Recommendation GC-0592-2021 - at the November 17, 2021 General Committee meeting this item was deferred.
14. **MATTERS PERTAINING TO REGION OF PEEL COUNCIL**
15. **COUNCILLORS' ENQUIRIES**
16. **OTHER BUSINESS/ANNOUNCEMENTS**
17. **CLOSED SESSION**
(Pursuant to Subsection 239(2) of the *Municipal Act, 2001*)
- 17.1. A proposed or pending acquisition or disposition of land by the municipality or local board: Acquisition Agreement approved and executed during City Council Summer Recess (Ward 7)
- 17.2. A proposed or pending acquisition or disposition of land by the municipality or local board: Authorization to Approve and Execute an Agreement of Purchase and Sale to Purchase Vacant Lands for Park Purposes (Ward 10)
18. **ADJOURNMENT**



THE ART GALLERY OF MISSISSAUGA ENGAGE . CREATE . BUILD

BRINGING ART TO THE COMMUNITY & THE COMMUNITY TO ART

VISITORS AT THE GALLERY



- 19,500 VISITORS IN PERSON AND VIRTUAL (2021)
- 106 ARTISTS ENGAGED

12 CULTURALLY DIVERSE EXHIBITIONS

XiaoJing Yan
Qi of Water



Syed Iqbal
Art of a Young
Nation: Bangladesh



The AGM continues to promote cultural awareness through art by creating welcoming and inclusive gathering spaces in the community of Mississauga.

OUR ONGOING COMMITMENT TO INDIGENOUS ART & EDUCATION

Darkness does not belong in the Shadows

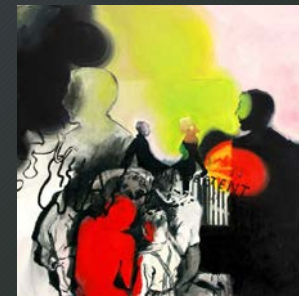


“Working to shed what was taught and invite the new and ever-changing self to heal.” -Paul Shilling (Dazaunggee)



Paul Shilling (Dazaunggee) & Ted Fullerton

AGM INAUGURAL JURIED ART SHOW



AGM hosted its first Juried Art Show inviting artists from all over the province to participate and engage in community based arts.

Through collaboration between artists and community AGM supported socially engaged art practices and further created new connections.

ONGOING EDUCATIONAL PORTFOLIO

- Juried Show, postmortem Talk and tour invited artists to participate in a full exhibition walk through
- Juror Fausta Facciponte facilitated an educational talk outlining to artists what things jurors look for in submissions
- As our educational commitment we continue this process through ongoing mentorship



ART GALLERY OF MISSISSAUGA COMMUNITY BUILDING

Our commitment to FIRST. NEW. NEXT

Community partners Include;

MOYO

Embrave (Interim Place)

Newcomer Centre of Peel

Peel Multicultural Council

The DAM Youth Group

Access 2 Accessibility

Mississauga Writers Group

Community Living Mississauga

Punjabi Community Health Services

Afghan Women's Organization

Dixie Bloor Neighbourhood Centre

INK Movement

COSTI Immigrant Services

Hispanic Canadian Arts

Native Canadian Centre of Toronto

National Film Board

Mississauga Board of Trade

Mississauga Arts Council

Heritage Mississauga

Erin Mills Town Centre

Cawthra Park Secondary

Eagle Crest

Mississaugas of the New Credit First

Nation

Mississauga Civic Child Care Centre

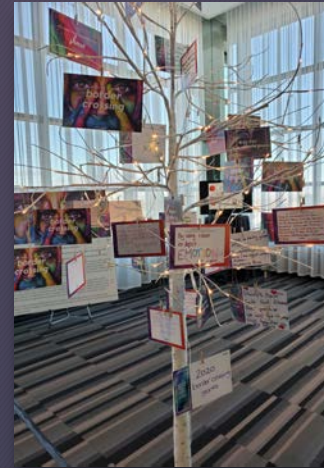
Community Foundation of Mississauga

CACD

Galleries Ontario

Ontario Museums Association

border crossings



"Art helps us to have conversations"

-Zongwe Bineskikwe

Three Year Program engaging the community across the multicultural landscape of Mississauga and beyond through the art of storytelling.

The *border crossings* program will continue in AGM programming in 2022.



border crossings



border crossings - Legacy Project Recap

AGM border cro...	Sharoni Sibony (...	Anto Chan (Ott...	adrienne sweet	Harshika Patel (...
Carol-Ann C Sh...	May Touma (she...	Denise Yearwoo...	tony	Katie (she/her)
Akanksha(She/H...	Mary	Melodie (she/her...	Paula Ayala	Zee (he/him)
Puneet Dhillon	Belynda She/He...	Tahira (she/her)	Jhoanel	Devon Ross

10-Part Learning Course with Community Partners

LOVE LAB

- A queer photo/film tech-residency that is engaging community in an intersectional conversation and training young LGBTQ2S+ emerging artists within the 905 area.
- Emerging artists are learning skills guided by a team of experienced mentors. Mindshare Workspace and technology partner, Panasonic contribute through educational art-making activities and in gallery residencies.
- Exhibition March 2022

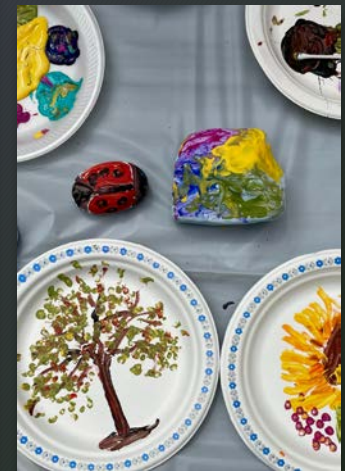


AGM EXPANDS TO SATELLITE LOCATIONS-ERIN MILLS TOWN CENTRE

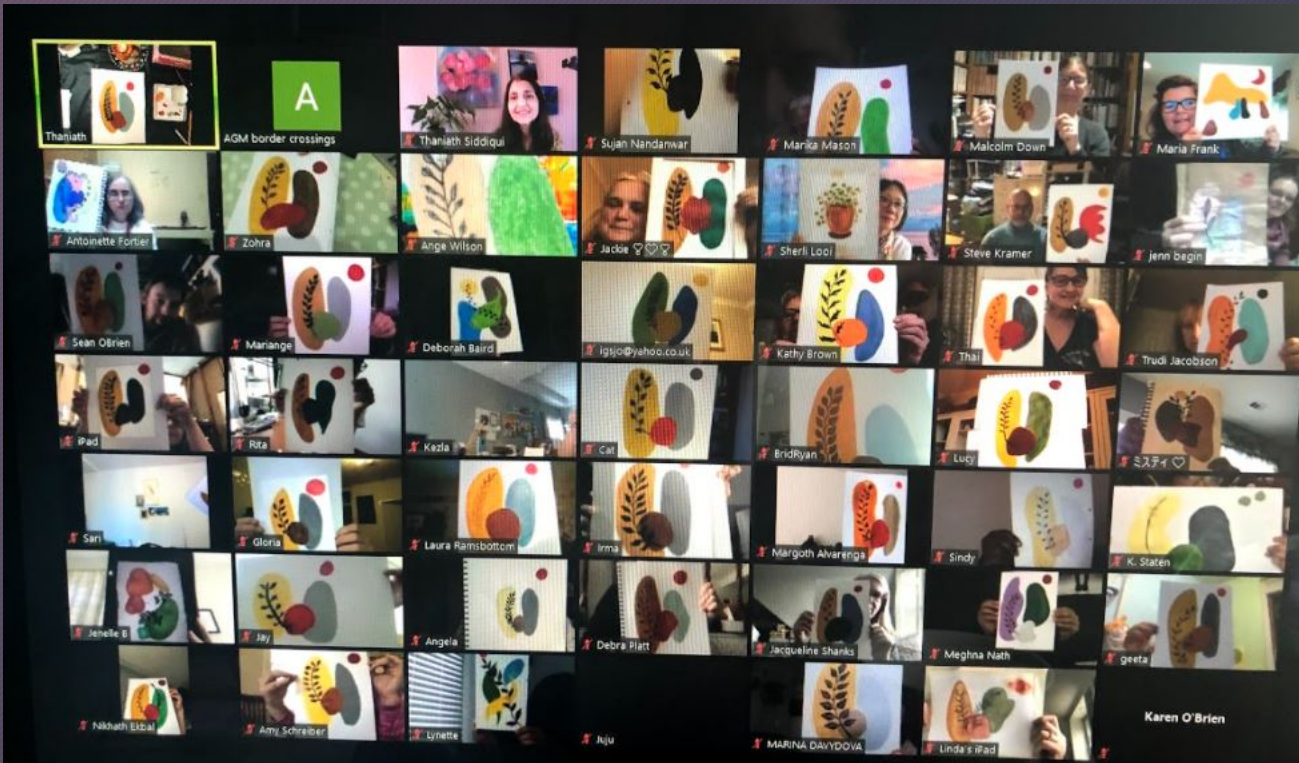
- Creative Art Days in the Centre
- HAZEL: 100 YEARS OF MEMORIES



Breaking Barriers Project: Funded in part by Community Foundation of Mississauga



OUR DIVERSE GLOBAL AUDIENCE FOR ALL AGES



ART GALLERY OF MISSISSAUGA PERMANENT COLLECTION



Claude Breeze "Spikey Road" 1974

The Art Gallery of Mississauga is committed to the preservation and archiving of contemporary art that reflects the excellence and diversity found in the community of Mississauga.

DIVERSITY , EQUITY AND INCLUSION AUDIT

- Art Gallery of Mississauga's commitment to a Diversity, Equity and Inclusion Audit is well underway.
- The audit was undertaken to further embrace inclusion, and remove any precedent-setting or existing diversity, and equity-related gaps at the AGM.
- It was conducted over the summer and the assessment concluded.
- An action plan along with capacity building is being developed with the support of RDR and reports are being generated.

STRENGTHENING CULTURE IN MISSISSAUGA

The AGM has strengthened its community relations by promoting a genuine dialogue and conversation around art experiences.

A Public Advisory Committee of seven community members meets quarterly to provide input, perspectives, advice and knowledge on matters, strategies, creative practice, activities and events at the AGM - to enhance and promote the diversity and inclusion of the AGM

ENGAGE. CREATE. BUILD

- The AGM is committed to enhancing community engagement and continuing with the ability to provide free access and programming, the maintenance of a safe space and support/employment of artists, artist facilitators/educators and guest curators.
- The AGM continues to pioneer new and dynamic ways to curate, collaborate and present meaningful and relevant art experiences and promote cultural awareness, diversity and inclusion through art.
- The AGM continues to pivot in response to social challenges and is working to enhance its portfolio in digital art and expanding our outreach in Mississauga with satellite exhibitions and diversified programming.
- We continue to source spaces in the community for storage as we continue to receive generous donations from local and Canadian artists, in addition to an estate endowment - to ensure its archival integrity for future generations and art scholars.

COMMITMENT

- The continued success of the AGM is dependent on the support of its funders.
- The AGM's relationship with the Ontario Trillium Foundation, Ontario Arts Council and the Canada Council for the Arts remains strong and unconditional.
- The same strong funding commitment needs to be recognized by the City of Mississauga, the 6th largest City in Canada, of its premier gallery.

PLANNING FOR THE FUTURE

- 2021 was a difficult year beginning with the provincial COVID lockdown, reduced hours/laid off staff and a significantly reduced operational budget while maintaining our commitment to free access to the public.
- As of July, the AGM is back to maintaining a full operational portfolio – staffing remains at reduced hours
- Free and accessible arts provided by the Art Gallery of Mississauga increases employment, enforces positive mental health in the community, drives economic development and flourishes tourism in our city, including international relations.
- To maintain and grow our commitment to the community since 1987, the AGM requires significant support from the City of Mississauga
- As representatives in the greater diverse community of artists and citizens of Mississauga, we respectfully ask council for your affirmation and financial commitment.

Thank You

Art Gallery of Mississauga

300 City Centre Drive

Mississauga, ON

L5B 3C1

905-896-5088

www.artgalleryofmississauga.com

Highway 413 Transportation Corridor Route Planning and Preliminary Design Project – Federal Impact Assessment Process

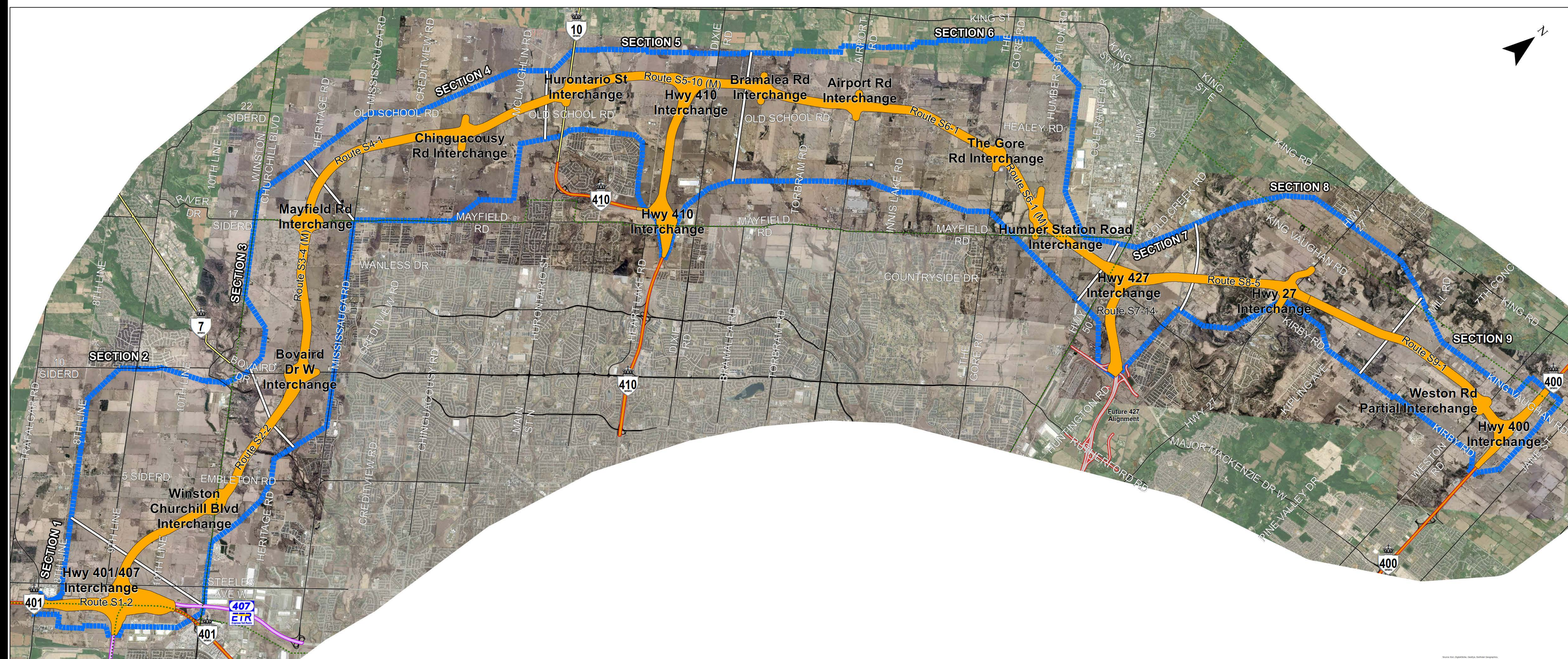
City of Mississauga General Committee

December 1, 2021


- Overview of the Highway 413 Project.
- Federal Impact Assessment (IA) Process.
- Key issues raised by stakeholders and how we are addressing them.
- Technical studies added to meet Federal requirements.
- Next steps.



Preferred Route



 Route Planning Study Area

 Preferred Route and Interchange Locations

The Federal Impact Assessment (IA) Process?

- On May 3, 2021, the Federal Minister of Environment and Climate Change designated the Highway 413 Project under the Federal IA Act.
- It is a planning and decision-making tool used to assess:
 - Positive and negative environmental, economic, health, and social effects of proposed projects.
 - Impacts to Indigenous peoples and communities and their Aboriginal and treaty rights.



SAR and the Federal IA Designation

- The Agency feels the Project may cause adverse direct or incidental effects on the habitat of 3 federally-listed species-at-risk (SAR) on non-federal lands.
 - Species were considered in the route evaluations in accordance with their provincial ESA status:

Species	Provincial ESA Status	Federal SARA Status	Observed In Study Area
Rapids Clubtail	Endangered	Endangered	Yes
Western chorus frog	Not At Risk	Threatened	Yes
Red-headed woodpecker	Special Concern, expected to be uplisted	Endangered	No

Legend: Endangered Species Act (ESA), Species at Risk Act (SARA)

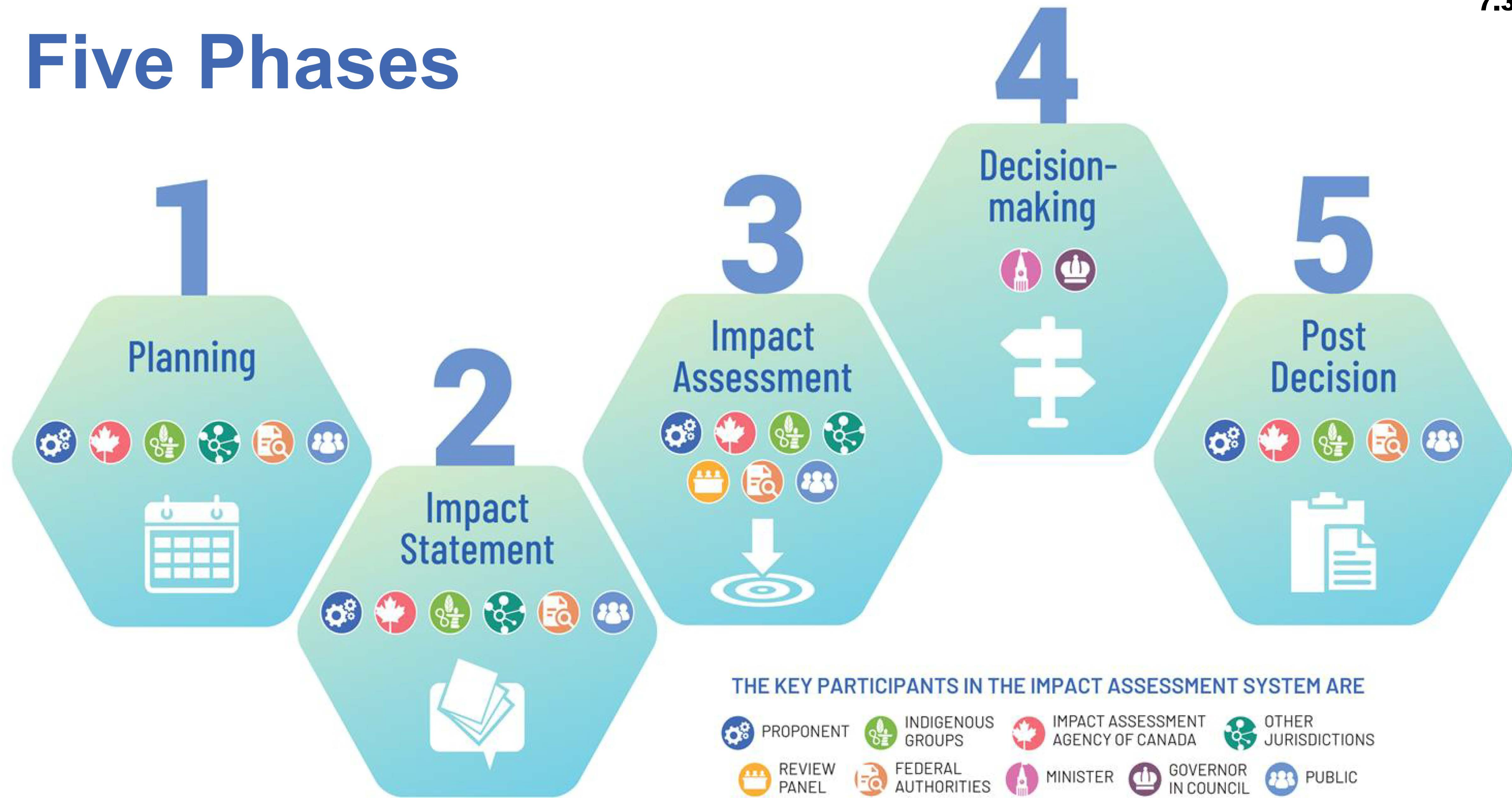
- Additional analysis is required.



gbbr.ca

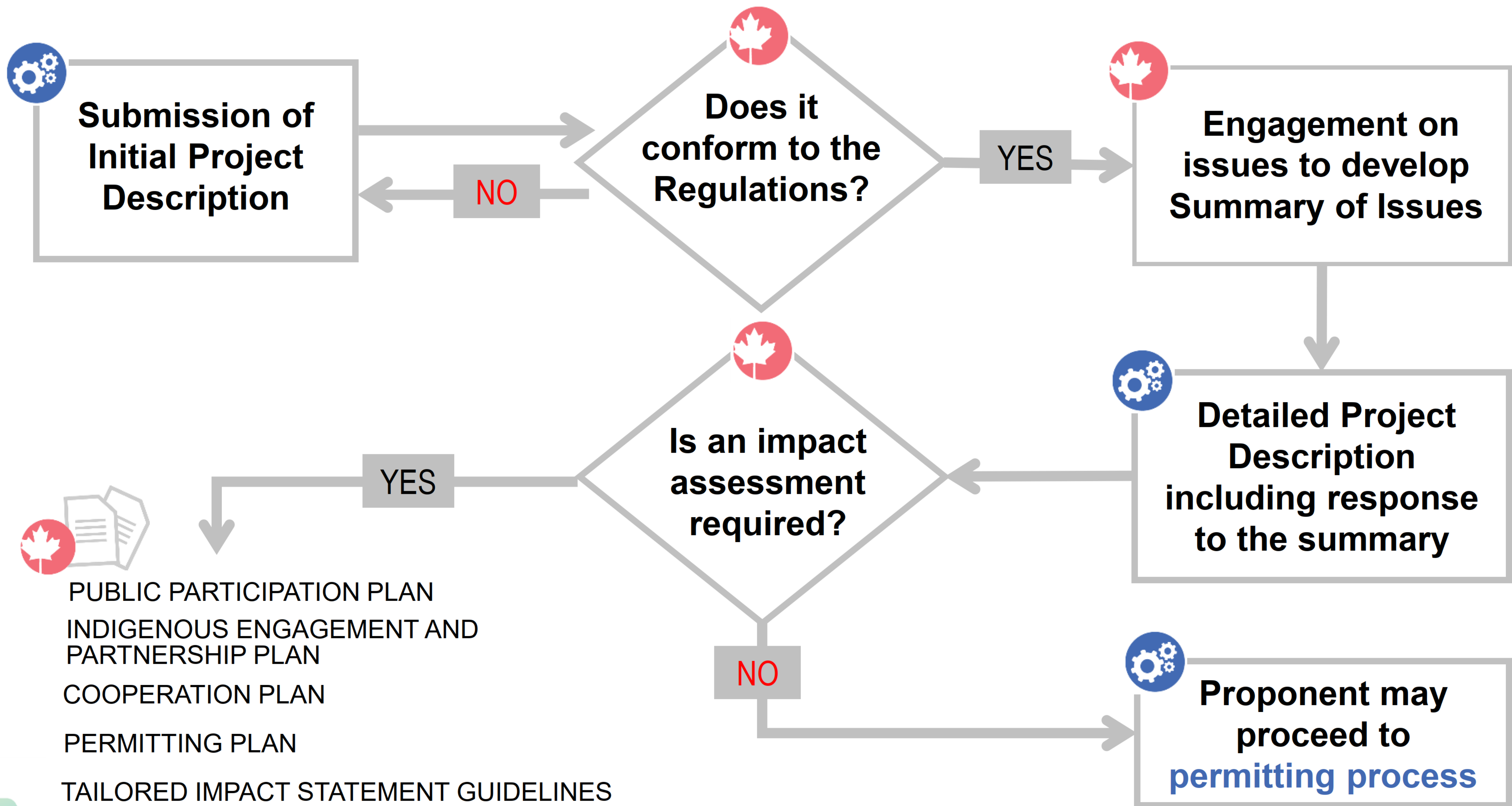
Ontario.ca

Five Phases



IMPACT ASSESSMENT AGENCY OF CANADA

Phase 1: Planning



IMPACT ASSESSMENT AGENCY OF CANADA

Natural Environment



Does not conform to the Greenbelt Plan.

Greenbelt Plan permits new corridors provided it serves the growth and economic development.



Concern about impacts to Greenbelt lands and loss of agricultural lands.

Use design principles from the *Guideline for Planning and Design of the GTA West Corridor Through the Greenbelt* where impacts are unavoidable.

Undertake an Agricultural Impact Assessment.



Potential effects on fish and fish habitat, wildlife and vegetation.

Fieldwork and consultation with agencies to understand how to avoid, mitigate or compensate for impacts.

Mitigation measures will be conditions of receiving permits.



Potential effects on Federally listed Species at Risk.

Meet the legislative requirements of *Endangered Species Act* and *Species At Risk Act*. Obtain permits or approvals during the detailed design stage. Conditions of approval may include mitigation, compensation, monitoring, consultation.



MTO should commit to a voluntary project review (VPR) process with the TRCA and CVC.

MTO will adopt the VPR process as a pilot project with both the Toronto and Region Conservation Authority (TRCA) and Credit Valley Conservation (CVC).



Concern about environmental costs of the project (i.e., ecosystem services).

The evaluation of the short-listed route alternatives included potential impacts to ecosystem services.

Looked at relative representation on the landscape and the cumulative value of services provided by that land cover type.

Socio-Economic Environment



Potential health and socio-economic impacts from the effects on greenspace and aesthetics, municipal infrastructure, and private property.

Community Value Plan will incorporate public input.
Use design principles from the Greenbelt Guideline where impacts are unavoidable.
Meeting with municipal staff to incorporate feedback in preliminary design.
Will meet with impacted landowners.



Potential impacts to human health from changes in air quality, climate change and noise.

Air quality Impact Assessment will analyze GHG emissions related to construction and operation.
Noise impact assessment will be undertaken according to MTO's Environmental Guide for Noise.
A Human Health Impact Scoping Report will inform the need for further study.



Potential impacts to human health from changes in drinking water/wells.

Impacts to groundwater resources and users are being evaluated through completion of hydro-geological studies and contamination and waste management studies.
Approvals for groundwater taking will be verified.



Potential impacts to aesthetics and local recreation.

Community Value Plan will incorporate public input.
Considering connections to conservation authority managed trails and municipal trails at transit stations and where municipal roads cross the corridor.



The project only benefits developers.

Many developers have an interest in the project as they did their long-term planning and purchased land in the vicinity of a planned corridor. Developers have differing opinions and are being treated the same as all of our stakeholders.



Whitebelt lands should be preserved for near-urban farming and horticulture, water recharge, riparian habitat, recreation and development within existing municipal boundaries.

Whitebelt lands are important for future economic expansion and will be the location of future infrastructure (e.g. municipal and provincial transportation, residential, industrial, etc.) regardless of whether Highway 413 is built, subject to applicable permit and approval processes.

Cultural Heritage, Indigenous Communities, Consultation and Process



Potential impacts from loss of built heritage resources and cultural heritage landscapes.

Cultural Heritage Assessment will document existing conditions, and outline next steps for determining any potential effects to physical and cultural heritage.



Cumulative effects on the exercise of Section 35 rights of Indigenous peoples of Canada.

A cumulative effects assessment will document the changes to the environment, health, social and economic conditions as a result of the Project's residual effects from other past, present and reasonably foreseeable activities that overlap the study area.

Potential impacts on Aboriginal, treaty and asserted rights will focus on topics identified by Indigenous communities.



Insufficient Indigenous community engagement.

Develop community-specific consultation and engagement plans with Indigenous communities that express an interest in participating, and provide customized participant support, as needed.



Concern that the province is trying to fast-track the environmental assessment (EA) process.

MECP proposed a regulation to create a more efficient EA resulting in shorter timelines.

MTO would still gather information about environmental conditions, predict and mitigate impacts, consult, and document decision-making.

Provincial and Federal legislation and permitting still apply.



This Project is being conducted with next to no public consultation.

Consultation and engagement inform the decision-making process.

Consultation Plan for the Project provides unique and flexible approaches that can be tailored to the needs of Indigenous communities, government agencies and interested persons. The approach will continue to evolve.

Transportation



Request for a multiuse path beside the corridor.

ENERGY and IESO initiated the Northwest GTA Transmission Corridor Identification Study adjacent to Highway 413 and noted that a multiuse path could be evaluated in their study.



Potential effects to public safety from increased flood risk, and from roadside hazards.

Considering adaptations to infrastructure to account for extreme rain and flooding and increased ice accumulation. A Stormwater Management Plan is being developed with consideration for the TRCA 2015 Crossings Guideline for Valley and Stream Corridors.



The EA demonstrated opportunity rather than need, is not considering the Advisory Panel Report, and needs to consider alternatives to the corridor (e.g. 407ETR).

Stage 1 identified transportation problems; developed and evaluated alternatives (first optimization of the existing network, then transit/rail investments, then expansion to existing highways, only then new road infrastructure).

a. The 2017 Advisory Panel Report did not refute the need for the new transportation corridor; it provided recommendations and additional items to consider while undertaking the Individual EA.

a. 407ETR as an alternative is not realistic if we want to reduce congestion and keep goods moving. By 2031, we would suffer from congestion even if we expand 407, subsidize tolls, build truck priority features.



Highway 413 is not needed if more people will be working from home in the future.

Even if more people work from home long-term, Highway 413 will still benefit goods movement in the province and it will provide a vital alternative to the existing 400-series corridor, allowing people and goods to continue to move in the event of a closure.

Transportation



Cause residential sprawl, more car dependency, and induced demand.

Multimodal transportation options are critical to the development of sustainable communities.

All transportation infrastructure may induce or change demand. People change mode choices, switch routes, adjust live-work locations or make 'new' trips because of a new facility. Most trips in the region are on roads, regardless of whether they are car, truck, bus/transit or cycling.



Additional transportation analysis must be conducted to understand the impacts on the existing and planned road network.

The traffic model is being updated and will identify traffic requirements to 2041 and look at operations on municipal roads on either side of an interchange.

Crossing roads will be interchanges, truncated, be overpasses / underpasses. Municipal staff are being consulted and MTO is including elements of active transportation along crossing roads.



Interest in the kind of materials that will be used to construct the highway.

MTO encourages the use of reclaimed materials within the limits imposed by engineering properties to ensure safety and durability. When new aggregate must be sourced, local sources are considered.



1. The project is not including the Bram West Parkway or Norval Bypass in the Preferred Route.

a. Highway 413 will not prevent the planning and construction of the Norval Bypass or Bram West Parkway. These municipal road systems can be implemented by municipalities in order to provide appropriate east-west connections.

Greenhouse Gas (GHG) Emissions

- An Air Quality Impact Assessment (AQIA) is part of the Provincial EA:
 - The AQIA predicts the cumulative concentration of various contaminants of concern due to the **operation** of the project.
 - Mitigation may be warranted if Provincial or Federal criteria and standards are exceeded.
- To align with the Federal IA Act requirements, the workplan will also include analysis of **construction** related GHG emissions.
- The development of a Human Health Impact Scoping Report will inform the need for further study.



Changes to Social, Economic and Health Conditions of Highway 413 Municipalities

- Social, economic, and health studies are being conducted for the 3 Regions (York, Peel, Halton) and 7 lower tier municipalities (Vaughan, King, Mississauga, Brampton, Caledon, Halton Hills, Milton).
- Anticipated changes are based off other studies that are similar in scope and nature, professional experience. We will be studying:

Potential changes to social infrastructure:

- Community infrastructure (roads, waste, police).
- Housing (demand, cost).
- Land use (green space, agriculture, recreation, tourism).
- Visual aesthetic (visual enjoyment).

Potential changes to economic infrastructure:

- Economic growth.
- Employment opportunities.
- Inflation.
- Travel and tourism.
- Real estate.

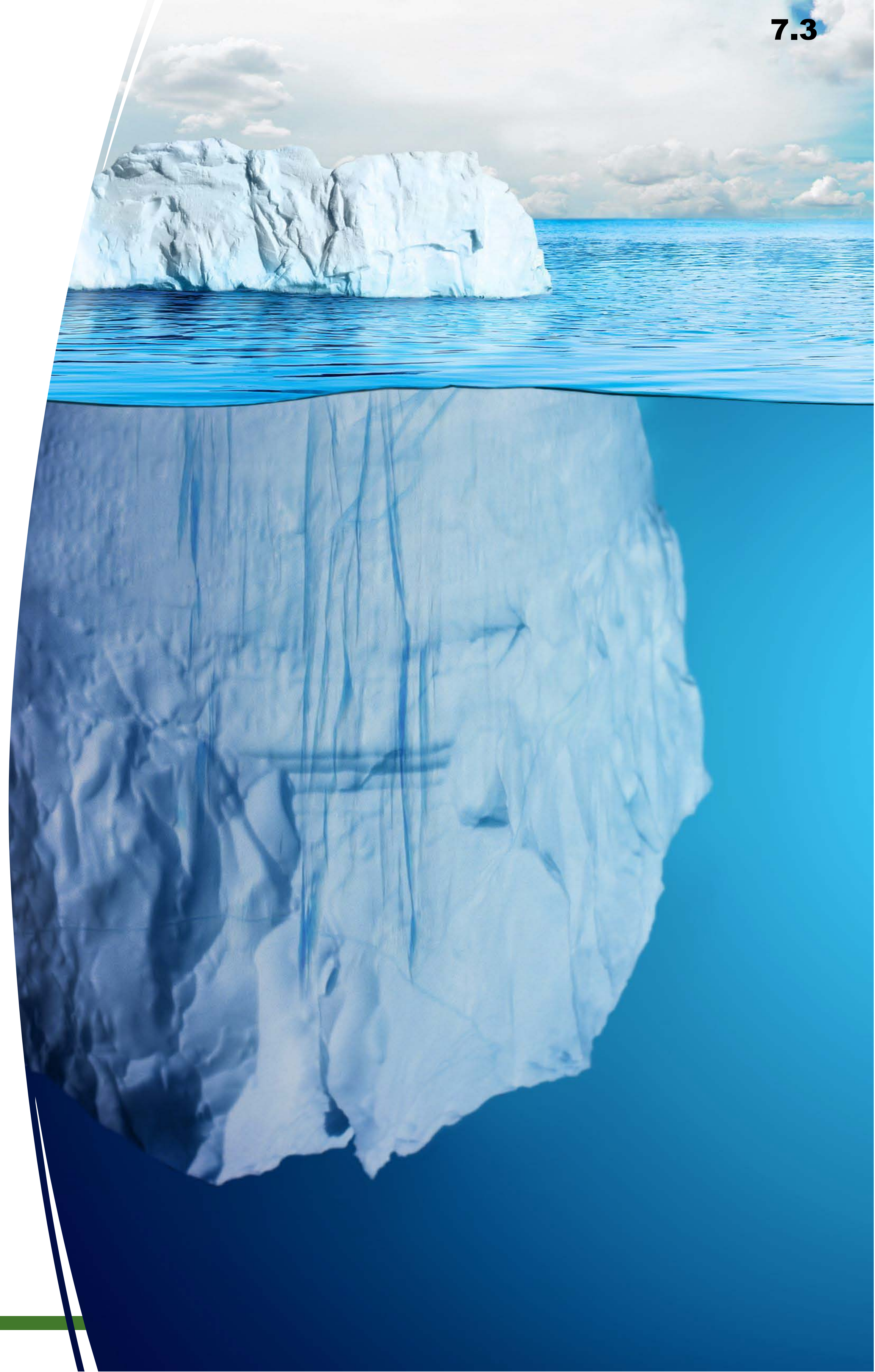
Potential changes to health and public safety:

- Air quality.
- Noise.
- Personal stress.
- Accidents and malfunctions.
- Community safety.

GBA+

- A systematic way to determine how all populations (Indigenous and non-Indigenous) may experience/receive the project.
- Includes all groups who may be vulnerable/at-risk in response to a significant change in their environment.

Cumulative Effects Assessment



Next Steps

<p>Late 2021 – 2022</p>	<p>Public Information Centre anticipated in late 2021.</p> <p>Continue to meet with Indigenous Communities, municipal staff, and other stakeholders.</p> <p>Submit the Initial Project Description to the Impact Assessment Agency of Canada.</p>
<p>2022</p>	<p>Receive IAAC's decision on whether a Federal Impact Assessment is required for the Highway 413 Project.</p>



Date: November 12, 2021	Originator's files:
To: Chair and Members of General Committee	
From: Jodi Robillos, Acting Commissioner of Community Services	Meeting date: December 1, 2021

Subject

Public Tree By-Law Update

Recommendation

1. That a by-law be enacted to repeal the Tree By-Law 91-75 and a new by-law be enacted to regulate the injuring and/or destruction of trees located on public property pursuant to the report entitled "Public Tree By-Law Update" dated November 12, 2021 from the Commissioner of Community Services, taking effect on April 1, 2022.
2. That a by-law be enacted to amend the appropriate fees and charges by-law to set out the fees associated with obtaining a permit to perform work in or around a tree located on public property and the fees for removing and replacing a tree located on public property, if permitted.

Executive Summary

- Tree By-law 91-75 is out of date and is no longer effective for enforcing the City's tree preservation and protection standards located on public property.
- An updated by-law is required to strengthen tree preservation and protection standards, provide greater clarity to the public and enforcement staff, and to require that persons obtain a permit from the City in order to injure a tree located on public property or to work within a tree protection zone of a tree located on public property.
- Engagement webpage, survey, public, internal and utility consultation was held to gather feedback on the Public Tree Protection By-Law

Background

The City of Mississauga enacted the current Public Tree By-Law entitled "The Tree By-Law" in 1975 to "regulate the planting, maintenance and protection of trees and shrubs on public lands.

Here are some of the provisions under the existing by-law:

- No one shall break, injure, uproot or otherwise destroy any tree or part thereof;
- No one shall cut, injure, damage, deface or remove any box casings or supports around any tree;
- No one shall attach any object or thing to a tree located upon a highway or in a public place;
- No one shall plant a tree or shrub on a highway or road without approval
- All trimming or work done to trees along a highway or public place must be approved by the Commissioner

The Commissioner of Community Services brought forward the corporate report to GC-0333-2021 dated May 13, 2021 entitled "Public Tree By-Law Update". General Committee directed staff to conduct community stakeholder engagement on both the Public and Private Tree By-laws, with a final report and by-laws presented to General Committee for approval in fall 2021. Staff proceeded to conduct the Public and Private Tree By-law review and aligned it with the recommendations made in the City's Future Directions Master Plan, Urban Forest Management Plan and Natural Heritage & Urban Forest Strategy.

- Recommendation # 13 of the Future Directions Master Plan (2019) states that the Private and Public Tree By-Laws should be updated every 5 years to ensure they reflect current best practices and urban forestry standards.
- Action # 15 of the Urban Forest Management Plan (2014) supports updating the Public Tree Protection by-law, which provides support to the City's urban forest expansion objectives.
- Objective # 5 of the Natural Heritage & Urban Forest Strategy (2014) supports the protection of the Natural Heritage System and Urban Forest on public lands through enforcement of applicable regulations and education

Present Status

Tree By-law 91-75 is out of date and is no longer effective for enforcing the City's tree preservation and protection standards.

By-law 91-75 provides the City with the authority to issue fines of up to \$1,000 per contravention. Fines in the by-law (1975) are not to exceed \$1,000 exclusive of costs for each offence. The only other fine is for people who ties or fasten any animals to or injures or destroys a tree along a highway or who suffers or permits any animals in his charge to injure or destroy such a tree or cuts down or removes such a tree is subject to a fine no more than \$25. These fines are outdated and no longer appropriate.

Forestry staff have consulted with public, applicable City departments and agencies for comments and input.

Comments

The City's Legal Services team has prepared the updated Public Tree By-Law. The new Public Tree By-law will include updated fines for those who contravene the by-law:

- **Corporations:**
 - 1st conviction to a fine of not more than \$5,000 per tree;
 - Subsequent conviction, to a fine of not more than \$10,000 per tree;
- **Individuals:**
 - 1st conviction to a fine of not more than \$2,500 per tree; and;
 - Subsequent conviction, to a fine of not more than \$5,000 per tree;

The updated Public Tree By-Law will also introduce new permit process including applicable fees for related to works that may impact City-owned trees:

- Public Tree By-Law Permit (one tree) - \$304.00
- Additional Trees on each permit (per tree) - \$110.00

The first fee amount is based on 4.5 hours of staff time at a Non-Union Grade E position (application review, initial inspection, hoarding inspection, final inspection, travel time), plus car allowance for 3 site trips, averaged at 15 kilometres each way. The additional tree fee is based on 2 hours of staff time at the same grade. This fee ensures any trees potentially impacted by activities undertaken pursuant to a Public Tree Permit remain protected and preserved long term while recovering 100% of staff costs.

This permit structure follows industry best practices and the corresponding fees fall in the mid-range of neighbouring municipalities (see Appendix 2). A non-union Grade E position and non-union Grade PE position have been requested for 2022 based on the estimated number of permit applications. The program will be monitored and an additional non-union Grade D position may be brought forward for the 2023 budget cycle.

The updated Public Tree By-Law clearly outlines the Tree Protection and Preservation Standards that will guide the public, development community and internal staff. The updated standards lay out City expectations pertaining to tree protection on all projects that involve trees located on City property (i.e. tree protection fencing, security deposits, and tree replacement requirements).

Updates and improvements to the protection of City trees, include:

- Requiring a permit to injure a tree located on City property. The Commissioner of Community Services will have the ability to issue, revoke or suspend a permit.

- The City may impose conditions on a permit including: a requirement for hoarding, standards and timelines for which the work is performed, having regard for good arboricultural practices.
- The City may impose financial conditions including: requiring a fee to cover the costs for the removal and replacement of a public tree where the City permits the removal of a tree located on City property or a security deposit representing the appraisal value of the tree to be used by the City in the event that a tree is injured or destroyed.
- Prohibiting the interference with hoarding, associated signage or other protective devices associated with a public tree.
- Prohibiting defacing, tacking or otherwise attaching an object or thing to, around or through a public tree without the consent of the city.
- Prohibiting storage of material, equipment or anything that would impede the health of a trees root zone.
- Requiring approval for work within the tree protection zone as identified and approved by City Staff and prohibiting grade changes in the tree protection zone.
- Prohibiting harmful and/or toxic substances on, around or near a tree.
- Prohibiting the removal any woody debris that has fallen or been cut down by the City in a natural area.
- Prohibiting planting of trees on public land without the consent of the City.

Strategic Plan

The proposed Public Tree By-Law aligns with the Green Pillar from the City's Strategic Plan that promotes a green culture, in order to lead a change in behaviours to support a more responsible and sustainable approach to the environment, that will minimize our impact on the environment and contribute to reversing climate change. These strategic goals are supported by 3 aforementioned master plan documents.

Financial Impact

The updated Public Tree By-Law will have a net zero cost to the City. The projected \$119,649 in permit fees will off-set the 1.69 FTEs (Year 1 of BR # 8443) required to administer the program. The program will be monitored and additional FTE requests may be brought forward for the 2023 budget cycle.

There is no immediate financial impact on any City projects. Any future projects will be subject to the annual business and budget planning process.

Conclusion

Tree By-law 91-75 is out of date and is no longer effective for enforcing the City's tree preservation and protection standards. An updated Public Tree By-law will strengthen tree preservation and protection standards, provide greater clarity to the public and enforcement staff, implement a public tree permitting process. It is therefore appropriate to establish the new by-law to protect the over 300,000 trees on City streets and in parks.

Attachments

- Appendix 1: Public Tree Survey Summary
- Appendix 2: Public Tree Permit Fee Benchmarking
- Appendix 3: Projected Public Tree Permit Revenue
- Appendix 4: Public Tree FAQ's
- Appendix 5: Communications Report Tree Protection By-laws



Jodi Robillos, Acting Commissioner of Community Services

Prepared by: Brent Reid, Acting Manager, Forestry

Tree Protection Survey

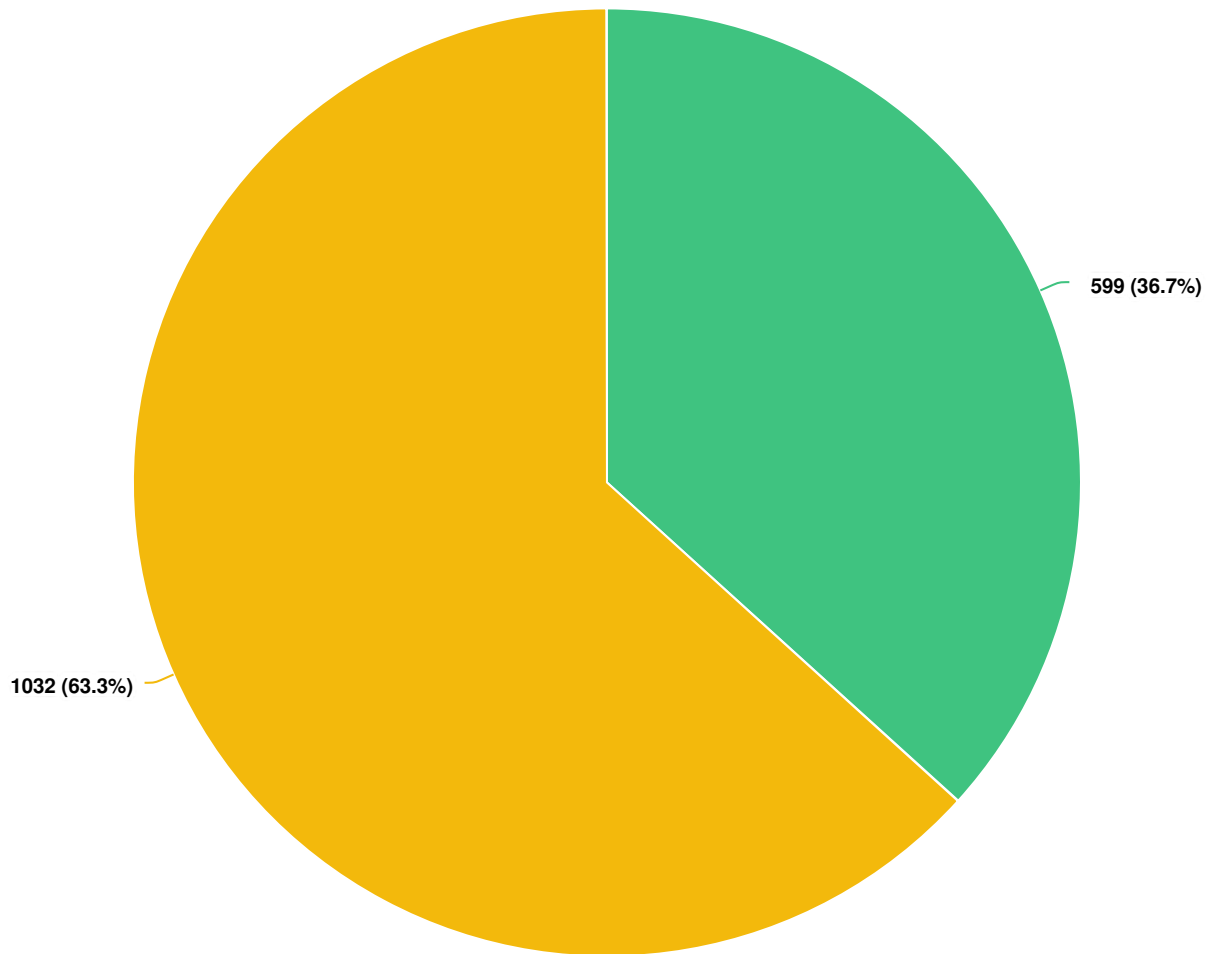
SURVEY RESPONSE REPORT

10 August 2021 - 20 September 2021

PROJECT NAME:

Tree Protection By-laws Review

Q1 Do you believe that the City's current tree protection by-laws are effective?

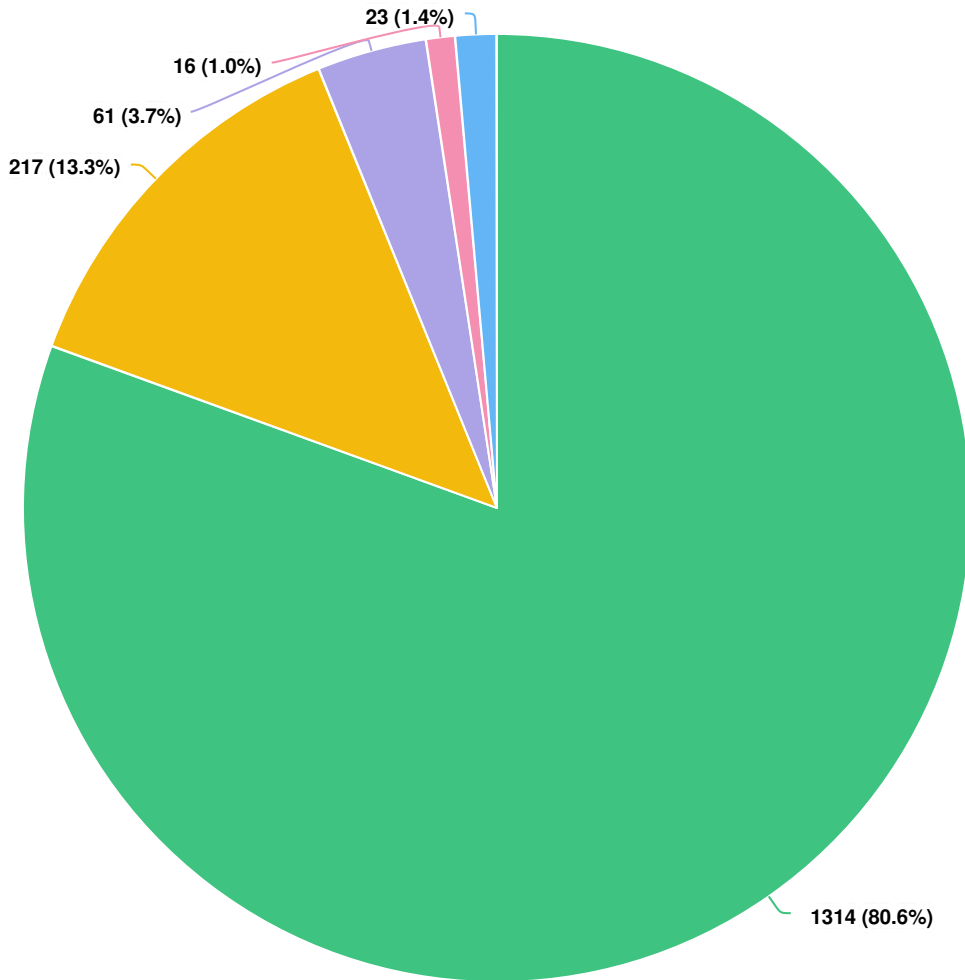


Question options

- Yes
- No

*Mandatory Question (1629 response(s))
Question type: Radio Button Question*

Q2 How important is Mississauga's tree canopy cover and tree preservation to you?

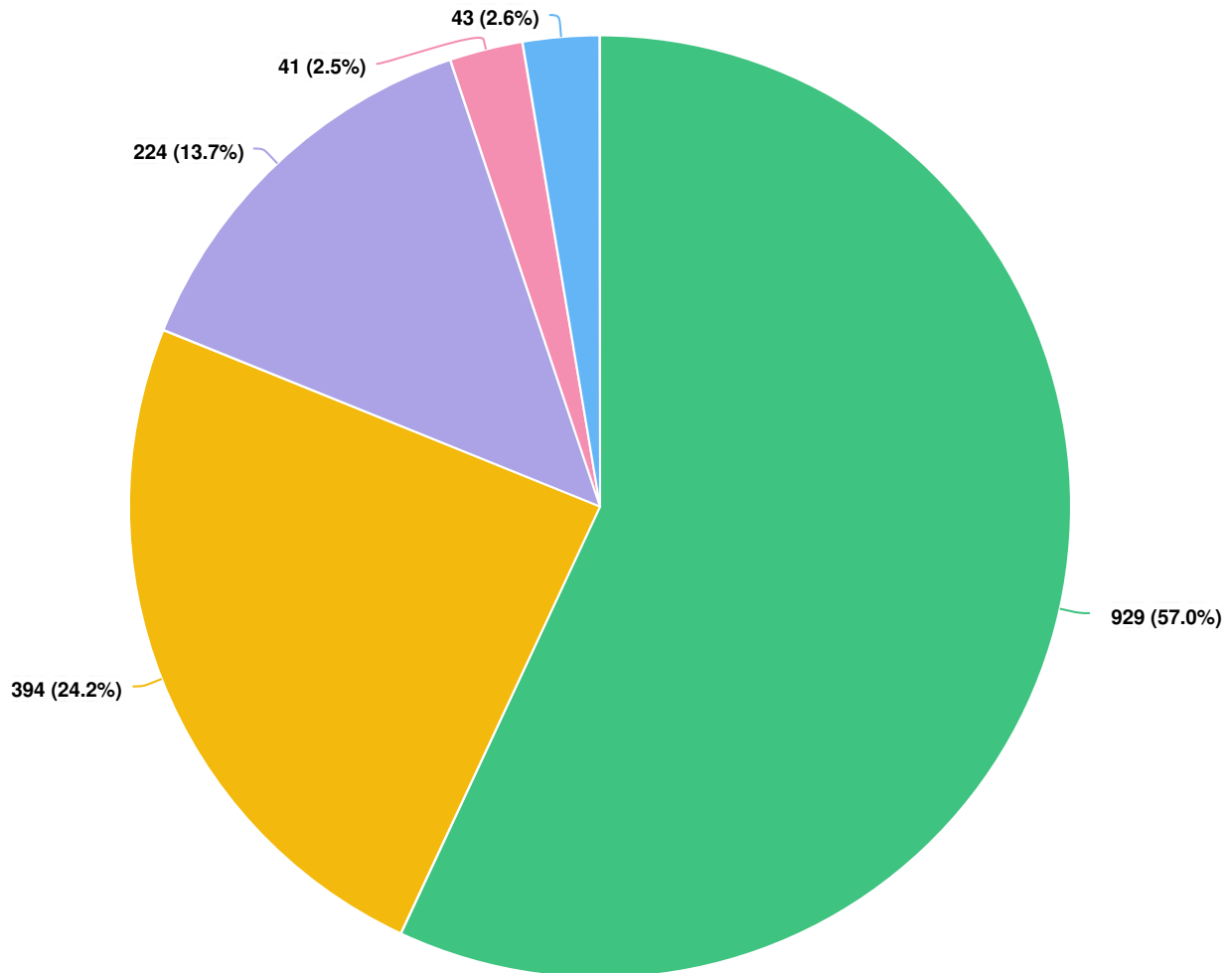


Question options

- Very important
- Somewhat important
- Neither important nor unimportant
- Somewhat unimportant
- Not very important

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q6 Do you agree with a permitting process for public trees to prevent the damage and destruction of City-owned trees?

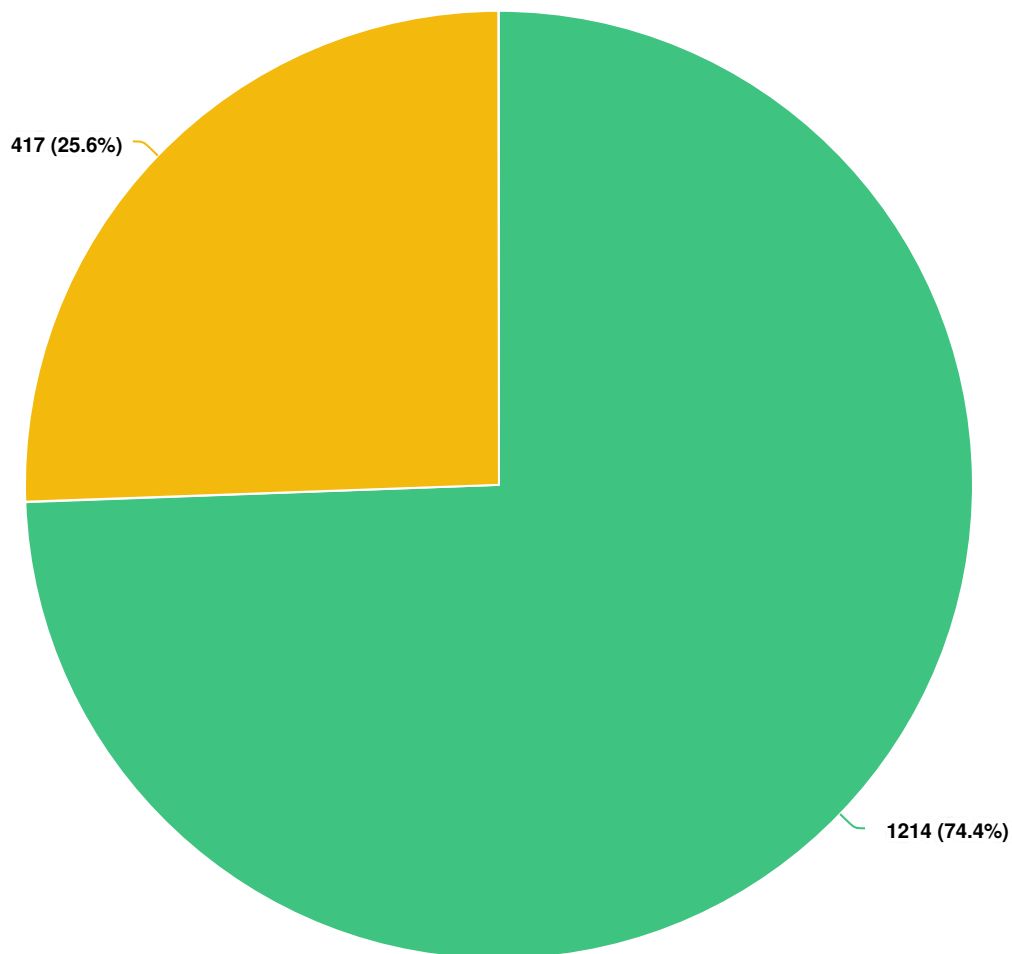


Question options

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Mandatory Question (1629 response(s))
Question type: Radio Button Question

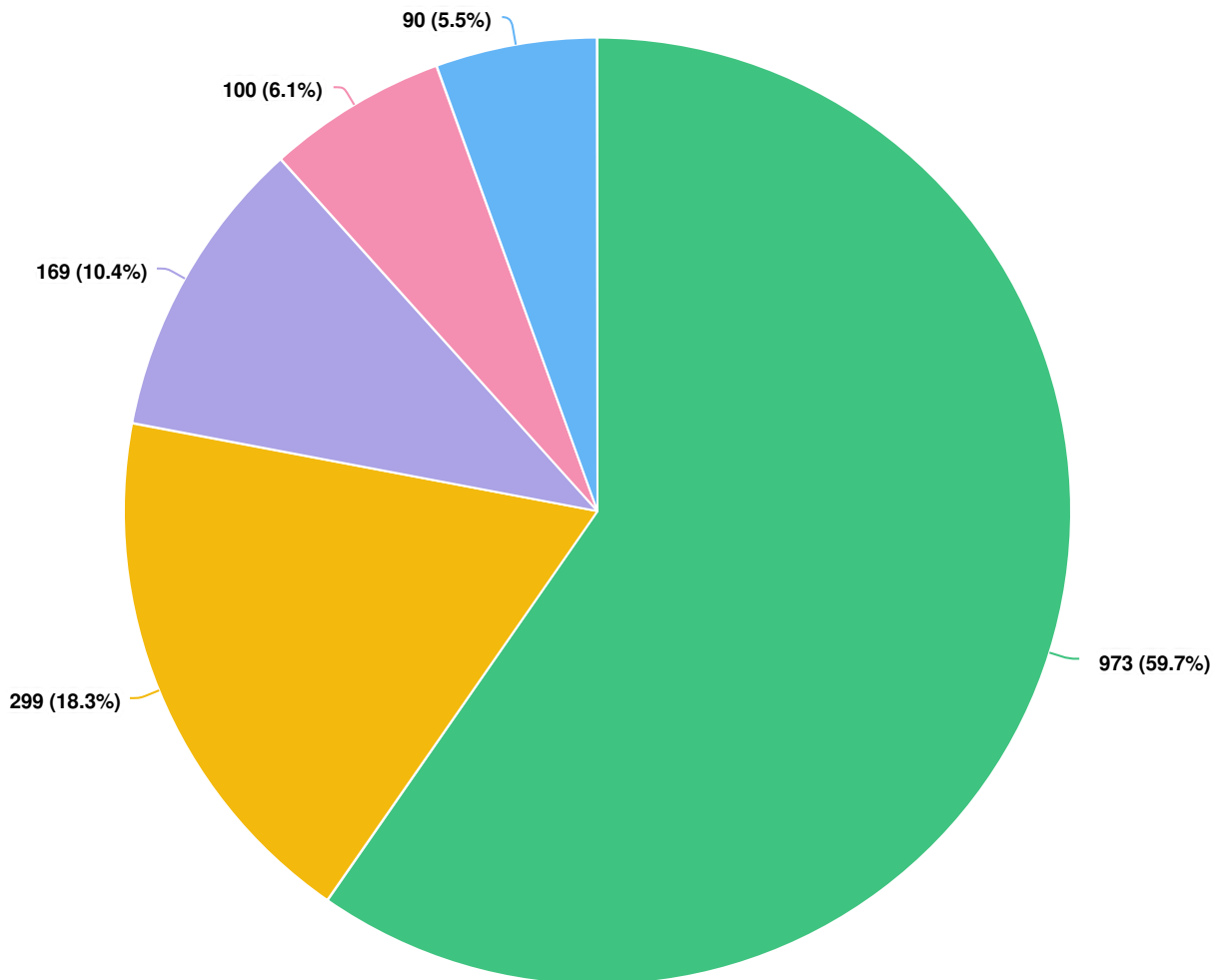
Q7 Currently, the replacement of one tree is needed for every one tree removed (1:1) for trees that have a diameter of 49 cm (19 inches) or less and two trees must replace every one tree removed (2:1) for trees that have a diameter of 50 cm (20 inches) or more. Would you support tree replacement model such as one replacement tree based on a diameter of 15 cm (6 inches)? For example, if you remove a tree with a diameter of 45 cm (18 inches), three replacement trees are required.

**Question options**

Yes No

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q8 To strengthen the Public Tree By-law, do you agree with increasing penalties for those who violate the By-law?

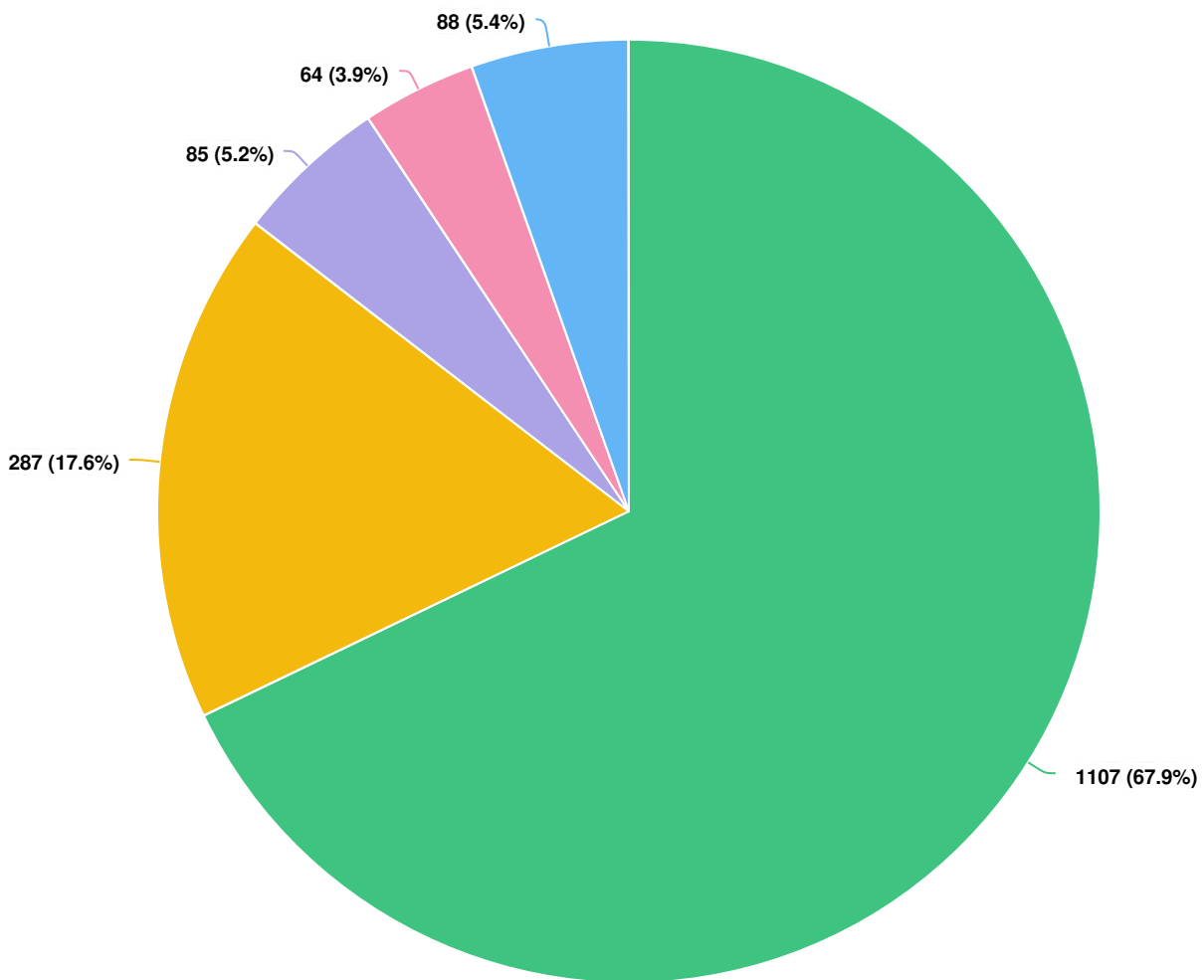


Question options

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q9 | Do you agree with the City implementing a tree protection deposit as an extra tree protection measure relating to construction projects? For example, prior to construction projects, the City receives a deposit from the developer—if no damage occurs, the tree protection deposit is returned.



Question options

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Appendix 2: Public Tree Permit Fee Benchmarking

Region or Municipality	Description of Fees	Fees	Additional Comments
Mississauga	Public Tree Permit Base Fee (First Tree Included)	\$ 304	Proposed application fees to injure or remove Public trees associated with activity that includes but is not limited to building, demolition, excavation, boring, placement of fill or surface treatment, storage of construction material or equipment, storage of soil, construction waste or debris, movement of vehicles or equipment. Fees are applicable to both internal and external groups and recover 100% of staff costs.
	Additional Tree Fee	\$ 110	
Toronto	City Tree, Non-Construction Related application (Per Tree)	\$ 124	Applications to injure or remove trees not associated with construction or related activity. Fees are applicable to both internal and external groups and recover 100% of staff costs. <i>Municipal Code, Chapter 813</i>
	City Tree, Construction Related Application (Per Tree)	\$ 370	Applications to injure or remove trees associated with activity that includes but is not limited to building, demolition, excavation, boring, placement of fill or surface treatment, storage of construction materials or equipment, storage of soil, construction waste or debris, movement of vehicles and equipment. Applications for Official plan amendment, plan of subdivision and condominiums, site plan control, minor variance, consent and building permits. Fees are applicable to both internal and external groups and recover 100% of staff costs. <i>Municipal Code, Chapter 813</i>
Brampton	Varies (Case-By-Case Basis)	\$ -	The Commissioner may issue a Permit to injure a Tree provided the applicant meets all conditions under Part V, section 18 of <i>By-Law 317-2012</i> . City does not recover 100% of costs associated with removal, replacement and staff time if permit is approved.
Oakville	Municipal Tree Protection Permit, Non-Development Related (Per Tree)	\$ 175	Applications for injury/removal not associated with Planning Act Application or Infill Development i.e. driveway reconstruction. No fee recoveries when permits get challenged or require more administrative or investigative work. Internal Departments follow the same procedures but are not charged any permit fees. <i>By-Law 2009-025</i>
	Municipal Tree Protection Permit, Development Related (Per Tree)	\$ 390	Applications for injury/removal associated with Planning Act Application or Infill Development. No fee recoveries when permits get challenged or require more administrative or investigative work. Internal Departments follow the same procedures but are not charged any permit fees. <i>By-Law 2009-025</i>
	Tree Protection Zone Encroachment Permit (Per Property)	\$ 580	Tree Protection Zone Encroachment Permits are typically issued to utility companies relating to excavation works around a tree root system. Fees associated to the permit are reflective of the complex nature of the permits. Internal Departments follow the same procedures but are not charged any permit fees. <i>By-Law 2009-025</i>
Burlington	Public Tree Permit, Development Related (Per Property)	\$ 680	Permit Fee is per property and includes both public and private tree permissions. Applications for injury/removal associated with Planning Act Application or Infill Development. By-Law currently under review.

Appendix 2: Public Tree Permit Fee Benchmarking

Region or Municipality	Description of Fees	Fees	Additional Comments
Burlington	Public Tree Permit, Non-Development Related (Per Property)	\$ 390	Permit Fee is per property and includes both public and private tree permissions. Applications for injury/removal not associated with Planning Act Application or Infill Development i.e. driveway reconstruction. By-Law currently under review.
Hamilton	Minor Permit (Per Property/Project)	\$ 60	Minor Permit Fees include driveway repairs and minor building permits. <i>By-Law 15-125</i>
	Major Permit (Per Property/Project)	\$ 300	Major Permit Fees are applicable to all applications that require a tree management plan. <i>By-Law 15-125</i>
Markham	Varies (Case-By-Case Basis)	\$ -	Permissions required from City's Parks Department prior to the injury or removal of trees on Markham property. No <i>By-Law 2008-96</i>
Vaughan	Varies (Case-By-Case Basis)	\$ -	Permissions required prior to removing or injuring any City trees. <i>By-Law 052-2018</i> .
Guelph	Varies (Case-By-Case Basis)	\$ -	Minimum \$500 or appraised value using trunk formula method – voluntary payment by request from City in lieu of legal action. No Public Tree By-Law or permitting process.
Ottawa	Applications associated with Planning Act Applications	\$ -	Included in Development Application Fees. <i>By-Law 2020-340</i>
	Infill Development (Per Tree)	\$ 500	\$500 per tree, to a maximum of \$2,500. <i>By-Law 2020-340</i>
	Applications for removal not associated with a Planning Act Application or Infill Development (Per Tree)	\$ 150	\$150 per tree to a maximum of \$750. <i>By-Law 2020-340</i>
Vancouver	Varies (Case-By-Case Basis)	\$ -	Permissions required prior to removing or injuring any City trees. No permitting process under Vancouver's Street Tree <i>By-Law 5985-92</i> .

Appendix 4: Projected Public Tree Permit Revenue

Public Tree By-Law Fee Breakdown		
Processing Time Estimates	2022 Rates	\$
Public Tree Permit Base Fee		
Application Review	1 Hour at Non-Union Grade E	\$ 50.73
Initial Inspection	1 Hour at Non-Union Grade E	\$ 50.73
Hoarding Inspection	0.5 Hour at Non-Union Grade E	\$ 25.37
Final Inspection	0.5 Hour at Non-Union Grade E	\$ 25.37
Travel Time (3 Round Trips)	1.5 Hours at Non-Union Grade E	\$ 76.10
Mileage Costs	0.59/KM, 15 KM avg one way, 3 round trips	\$ 53.10
	Admin Recovery	\$ 22.51
Total Fee		\$ 304
Additional Tree Fee		
Application Review	0.5 Hour at Non-Union Grade E	\$ 25.37
Initial Inspection	0.5 Hour at Non-Union Grade E	\$ 25.37
Hoarding Inspection	0.5 Hour at Non-Union Grade E	\$ 25.37
Final Inspection	0.5 Hour at Non-Union Grade E	\$ 25.37
	Admin Recovery	\$ 8.12
Total Fee		\$ 110

Projected Public Tree Permit Revenue				
Permit	Historical Average Number of Permits (2018-2020)	Number of Trees per Permit	Total Annual Processing Time (Hours)	Permit Revenue
Types of Permits				
Road Occupancy Permits	231	3	1964	\$ (120,826)
Base Fee	231	1	1040	\$ (70,201.18)
Additional Trees	231	2	924	\$ (50,624)
Site Plan Applications	150	4	1575	\$ (94,895)
Base Fee	150	1	675	\$ (45,585)
Additional Trees	150	3	900	\$ (49,310)
Total Revenue	362	1293	3539	\$ (215,720)

City Staff Positions Processing Time Estimates 3539 Hours	2022 Request 1.70 FTEs Required <i>(Assumes 1 FTE is equivalent to 2080 hours, 40 hour work week)</i>	Non-Union Grade E Position Public Tree By-Law Inspector 1 FTE
		Non-Union Grade PE Position Forestry Long-Term Temporary Staff 0.69 FTE
Volume of Permits To Be Monitored in 2022	2023 Request 1 FTE May Be Required in 2023	Non-Union Grade D Position Placeholder 1 FTE

Budget Request: 8443

GL Account Type	GL Account *	Distribution	2022	2023	2024	2025
Expenses / Expenses	715516 - Equipment Maintenance & License	2022	\$ -	\$ 1,000	\$ 1,000	\$ 1,000
Expenses / Expenses	705114 - Salaries-Perm-Fringe	April-1-2022	\$ 15,272	\$ 20,121	\$ 20,473	\$ 20,831
Expenses / Expenses	705111 - Salaries-Perm-Regular	April-1-2022	\$ 65,827	\$ 86,727	\$ 88,246	\$ 89,790
Expenses / Expenses	705121 - Temporary-Regular	Jan-01-2022	\$ 32,949	\$ 33,525	\$ 34,108	\$ 34,704
Expenses / Expenses	705221 - Temporary Vacation Pay	Jan-01-2022	\$ 1,318	\$ 1,341	\$ 1,364	\$ 1,388
Expenses / Expenses	705124 - Temporary-Fringe	Jan-01-2022	\$ 4,283	\$ 4,358	\$ 4,434	\$ 4,512
Expenses / Expenses	705111 - Salaries-Perm-Regular	April-1-2023	\$ -	\$ 50,455	\$ 66,474	\$ 67,638
Expenses / Expenses	705114 - Salaries-Perm-Fringe	April-1-2023	\$ -	\$ 11,706	\$ 15,422	\$ 15,692
Expenses / Expenses			\$ 119,649	\$ 209,233	\$ 231,522	\$ 235,555
Revenues / Revenues	535180 - Permits-General	Apr-Nov	\$ (119,649)	\$ (209,233)	\$ (231,522)	\$ (235,555)
	Net of Allocations		\$ 0.00	\$ 0.00	\$ (0.00)	\$ (0.00)

PUBLIC TREE BY-LAW FAQs

1. Can I prune or remove a public tree?

No, if a tree is dead or dying tree you can contact 311. If development/construction related you may apply for a public tree permit.

2. What triggers a public tree permit?

Any activity above or below ground that may injure or destroy a public tree

3. Who will enforce the Public Tree By-law?

Public Tree Officer through tree permit process and complaints received

4. How does this By-law protect Public trees?

Triggers tree permit process, allows for tree securities and ensures tree replacement to recover canopy loss

5. What is the cost to taxpayers?

No cost to the taxpayers. Net zero cost to the City

6. What are the fines associated with the Public Tree By-law?

Individuals – 1st conviction \$2500/tree; subsequent convictions \$5000/tree
Corporations - 1st conviction \$5000/tree; subsequent convictions \$10,000/tree

7. Who does this proposed Public Tree By-law affect?

Utility companies, Developers, Residents, Municipal departments

8. What if the tree is on the both private & public property?

The tree is a boundary tree and is subject to Public tree by-law. Written consent will be required by both property owners in order to remove a boundary tree.

9. Can a resident plant a tree on public property?

The City of Mississauga's Urban Forestry Department is responsible for the species selection, location and installation of street trees on municipal property. Replacement plantings decisions are made based on standards designed to promote representation of a wide variety of trees; including native species, where possible and to discourage monocultures of the same tree species, and to enforce the necessary spacing guidelines between trees and adjacent municipal and private infrastructure, including underground utilities. Trees are selected based on their size at maturity and complete shape and form in order to eliminate or minimize conflicts between their anticipated growth with existing trees, hydro wires, signs, light standards and other structures and infrastructure

10. Can I remove firewood, logs or debris from a city owned woodlot or naturalized area?

No, Logs debris and branches help the natural ecosystem and environment. Decomposing trees slowly add nutrients into the soil over time.

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Name of Project: Tree Protection By-laws Public Engagement	Project/Event Date/Time: August 10 - September 20, 2021		
CAMPAIGN GOAL RESULTS 1,629 Surveys Completed 8,542 Engagements 9,615 Project Webpage Views 1,531,420 Estimated Persons Reached			
Campaign goals/objectives: <ul style="list-style-type: none"> • Measure residents' support for proposed by-law changes by collecting at least 200 survey responses from Mississauga residents between August 10 and September 20, 2021. • Provide background material online (e.g FAQs) on project Engagement HQ webpage to at least 500 unique page viewers to help residents understand what By-law changes are being proposed and how they can provide their feedback through online survey. • Garner at least 75 registrants to attend meeting (with at least 20 actual attendees) at a virtual public meeting to address resident questions, concerns and remind the community to complete the online survey. 			
Target Audience(s): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> External <ul style="list-style-type: none"> • Mississauga residents • Mississauga business owners (with physical property) • Mississauga Education Institutions (School boards, post-secondary schools, elementary schools, high schools) • Tourists/Visitors • Construction/Contractors/Landscapers (public and private property) • Utility companies (Alectra, Enbridge, Union Gas, Bell, Rogers) • Environmental Community Groups • Tree advocates • Developers • Resident Associations • Ratepayers Groups • BIAs • Conservation Authorities (CVC) • Riverwood Conservancy • Rattray Marsh • Environmental Action Committee • Region of Peel (Works) </td> <td style="width: 50%; vertical-align: top;"> Internal <ul style="list-style-type: none"> • Mayor and Council • LT • Parks, Forestry & Environment • Transportation & Works • Planning & Building • Other City employees </td> </tr> </table>		External <ul style="list-style-type: none"> • Mississauga residents • Mississauga business owners (with physical property) • Mississauga Education Institutions (School boards, post-secondary schools, elementary schools, high schools) • Tourists/Visitors • Construction/Contractors/Landscapers (public and private property) • Utility companies (Alectra, Enbridge, Union Gas, Bell, Rogers) • Environmental Community Groups • Tree advocates • Developers • Resident Associations • Ratepayers Groups • BIAs • Conservation Authorities (CVC) • Riverwood Conservancy • Rattray Marsh • Environmental Action Committee • Region of Peel (Works) 	Internal <ul style="list-style-type: none"> • Mayor and Council • LT • Parks, Forestry & Environment • Transportation & Works • Planning & Building • Other City employees
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Project Overview: A public engagement survey was launched to assess the receptiveness to proposed changes to the City's two tree protection by-laws.			

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Marketing Overview & Analysis:

To ensure that a broad spectrum of residents were aware of the survey and other public engagement opportunities, a marketing strategy was developed that included:

- A paid digital presence on [Insauga.com](https://www.insauga.com) through a sponsored article;
- Paid advertising on social media;
- A mailing list sign-up form for residents who wished to remain informed about the City's Urban Agriculture Strategy;
- Use of some of the City's allocated space on the Allvision digital billboards along railway overpasses and local freeways;
- Portable signage was posted at six roadside locations across Mississauga;
- A media advisory issued by Strategic Communications; and
- Project updates on the City's Engagement HQ website and Parks & Recreation and Environment social media channels.

To allow for ample resident feedback, the public engagement campaign was launched on August 10, 2021, and lasted through September 20, 2021, resulting in:

- **1,629 surveys** completed and **42 participants (out of 201 registrants)** attended the September 15 virtual public information session.
- Media advisory circulated to **five online publications** and an audience of **321,749 people**¹.
- Social media posts and promotions reached **131,986 individuals** and received **8,081 engagements**².
- **19 people** subscribed to the project mailing list to be kept informed of project updates.
- The project webpage³ on Engagement HQ which housed the survey received **9,615 page views** in total.
- The sponsored article on Insauga was viewed by **13,224 unique visitors** and reached **83,612 people** via Insauga's social media channels.
- Ads were displayed on Allvision digital billboards along railway overpasses and local freeways a total of **26,340 times** between August 15 and 31, resulting in **971,234 estimated views**. This in-kind advertising based on the City's agreement with Allvision is valued at \$2,685.

¹ News articles appeared in the following online news outlets: InSauga, Toronto Star, Mississauga News, Hamilton Spectator and Weekly Voice. Those outlets owned by Metroland (all except InSauga and Weekly Voice) ran the same article.

² These stats only include social media posts and paid promotions that were conducted on the City's Parks & Recreation social media channels.

³ This includes and page views that may be attributed to engagement tools on the project webpage, e.g. survey, FAQs, etc.



Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

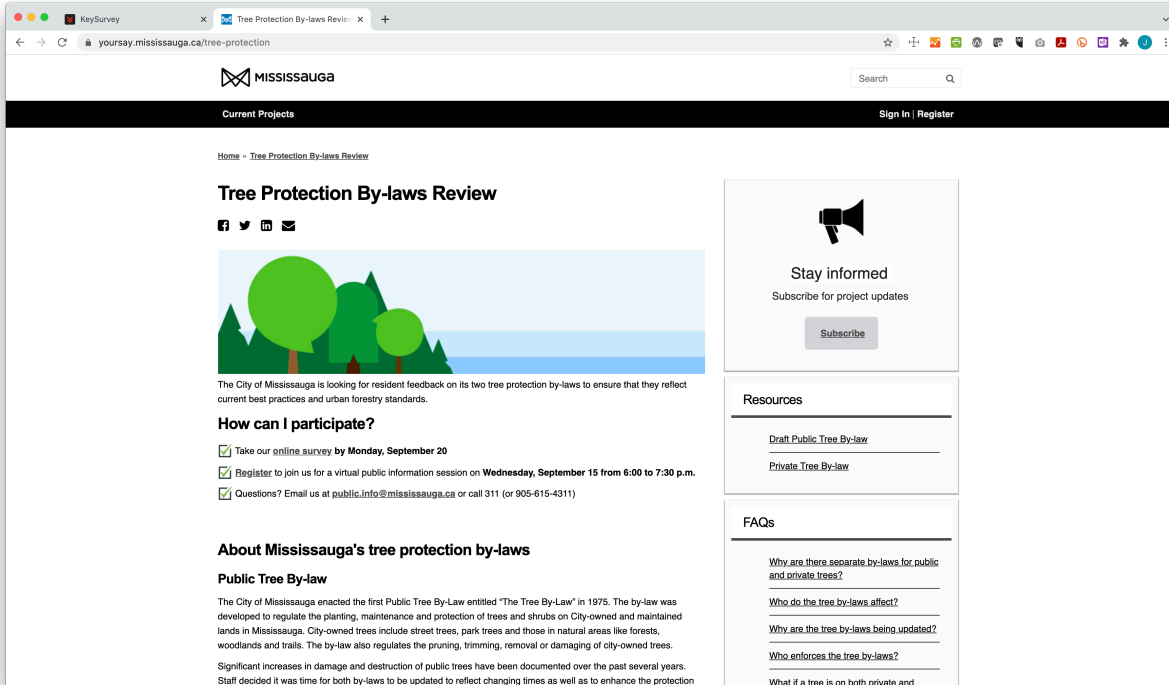
Analysis

- Overall, all of the marketing tactics were successfully deployed and, based on number of surveys completed, it appears that the tactics were successful. Social media promotions were effective as over two in five survey respondents (approx. 42.2%) originated via social media.
- A significant number of respondents reside in the western and southern ends of the city. Going forward, we may need to revisit ways to reach homeowners living in the northeastern end of the city to ensure that there are no gaps in public engagement. A heat map of survey respondents is provided on page 7 of this report for reference.
- Attendance at the September 15 virtual public information session met the goals outlined in the original marketing communications strategy. However, as registration was completed solely in Webex Events, no tracking information is available on how attendees found out about the event. In future, it's recommended to promote public engagement events through Eventbrite, where possible, to allow for increased broadcast and tracking opportunities.

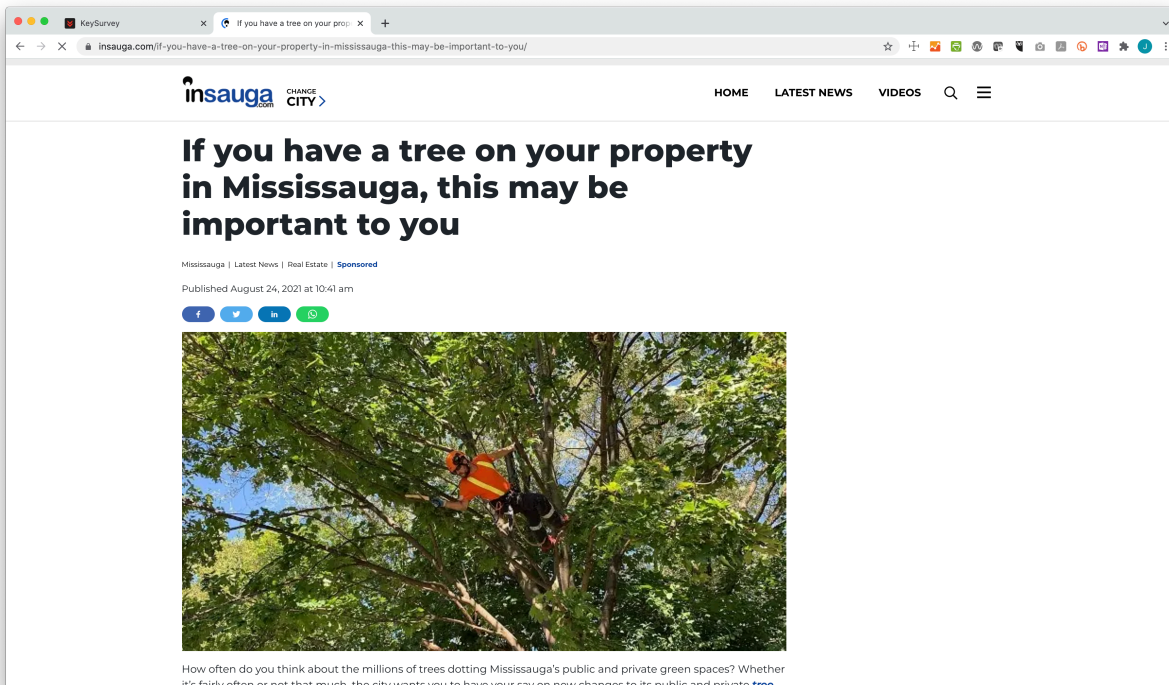
Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

CAMPAIGN EXAMPLES

Project webpage on yoursay.mississauga.ca



Sponsored article on insauga.com




Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement


Portable signage




Social media posts

 @saugaparksrec
Thu 8/12/2021 5:07 pm EDT


Let's talk about trees! We're seeking your input on by-law updates that will help enhance the protection & safety of all trees i...




Impressions	2,145
Potential Reach	20,241
Engagements	40
Engagement Rate (per Impression)	1.9%

 Mississauga Parks & Recreation
Mon 8/16/2021 8:49 pm EDT


Want to learn more about the proposed changes to the City's two tree protection by-laws? Join Mississauga Forestry staff at our...




Impressions	1,088
Reach	1,013
Engagements	33
Engagement Rate (per Impression)	3%

 @saugaparksrec
Mon 8/16/2021 8:49 pm EDT

Want to learn more about the proposed changes to the City's two tree protection by-laws? Join Mississauga Forestry staff at our...

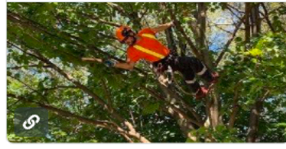


Impressions	1,522
Potential Reach	24,024
Engagements	26
Engagement Rate (per Impression)	1.7%

 Mississauga Parks & Recreation
Tue 8/24/2021 11:38 am EDT

Make sure to take the survey and have your say! 🌳

If you have a tree on your property in ...



Post Link Clicks	155
Impressions	1,740
Reach	1,666
Engagements	209
Engagement Rate (per Impression)	12%

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Metrics Achieved:

Outlet	Reach/Impressions (if reach unavailable)	Engagements	Engagement Rate
Twitter	5,792	89	1.5%
Facebook	4,478	259	5.8%
Instagram	509	9	1.8%
Facebook/Instagram Ads	121,207	7,724	6.4%
Insauga Social Media	83,612	461	0.6%
Insauga Article	13,224		
Project Webpage	9,615		
Allvision Digital Signage	971,234		
Media Advisory	321,749		
	1,531,420	8,542	0.6%

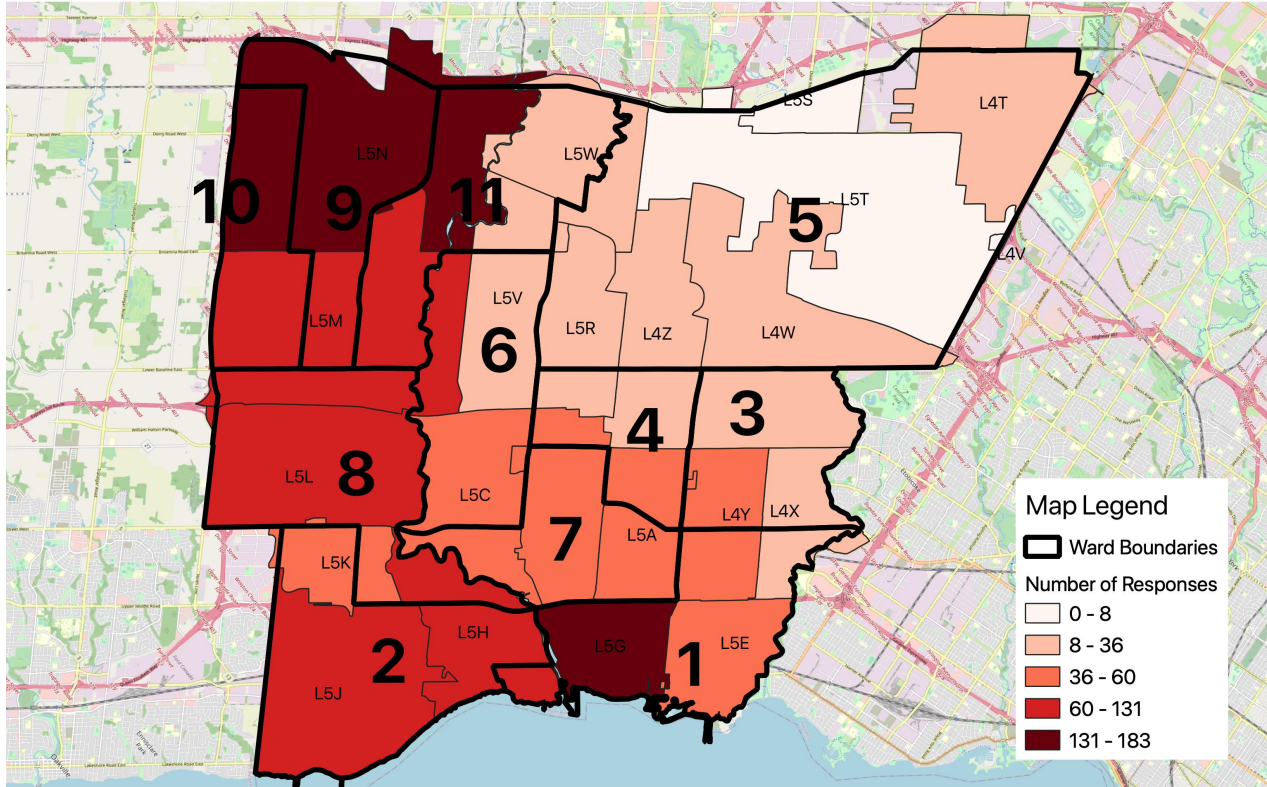
Costs Incurred:

Tactic	Vendor	Cost
Creative Content	Creative Services	\$551
Portable Signage	Curbex	\$849
Paid Social Media	Facebook/Instagram	\$1,300
Sponsored Article	Insauga	\$2,544
		\$5,244

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement



Tree Protection By-laws Engagement
Survey Responses by Postal Code
Last Updated: October 26, 2021



Date: November 12, 2021

To: Chair and Members of General Committee

From: Jodi Robillos, Acting Commissioner of Community Services

Originator's files:

Meeting date:
December 1, 2021

Subject

Private Tree Protection By-Law Update

Recommendation

1. That the Corporate Report entitled "Private Tree Protection By-Law Update" dated November 12, 2021 from the Commissioner of Community Services be received.
2. That a by-law be enacted to repeal and replace the Private Tree Protection By-law 0254-2012, taking effect on April 1, 2022.
3. That a by-law be enacted to amend the applicable Fees and Charges By-law to include the permit fees set out in this Corporate Report entitled Private Tree Protection By-law Update from the Commissioner of Community Services when the Private Tree Protection By-Law takes effect on April 1, 2022.

Executive Summary

- Engagement webpage, survey and public consultation was held to gather feedback on amendments to the Private Tree Protection By-Law 0254-2012.
- Based on the feedback received, staff recommend that a by-law be enacted to repeal and replace the Private Tree Protection By-law 0254-2012 (the "Updated Private Tree By-law").
- The Updated Private Tree By-law, which will take effect on April 1, 2022, will differ from the current by-law as follows:
 - A permit will now be required to injure or destroy any tree with a diameter of 15 cm (6 in) or greater located on private property. Currently, a permit is required in order to remove 3 or more trees with a diameter of 15 centimetres or greater within a calendar year.
 - Interior courtyards will no longer be exempt from the permit requirements in the by-law.

- Regarding security deposits collected by the City, the permit holder will be required to notify the City when they plant any replacement trees. One year from the date of planting, the permit holder shall notify the City to conduct a final inspection to determine whether the security deposit can be released.
- No person shall injure or destroy a replacement tree that has been planted pursuant to this by-law without a permit.
- A permit may be refused for the removal of a healthy tree.
- All other changes to the Updated Private Tree By-law represent housekeeping amendments (e.g. formatting, clarifying or adding definitions etc.).

Background

The City of Mississauga enacted the Tree Permit By-law in 2001 to regulate the removal of trees located on private property. The purpose of the By-law is to ensure the continued sustainability of the City's urban tree canopy while respecting a property owner's right to develop their lands. As a result, when the initial By-law was enacted, a permit was required for the removal of five (5) or more trees measuring 20 cm (8 in) in diameter or greater.

In 2005, the Tree Permit By-law was amended to reduce the diameter of trees to be regulated from 20 cm (8 in) to 15 cm (6 in).

In 2012, the Private Tree Protection By-law was amended to reduce the number of trees requiring a permit from five (5) or more trees to three (3) or more trees.

- Recommendation # 13 of the Future Directions Master Plan (2019) states that the Private and Public Tree By-Laws should be updated every 5 years to ensure they reflect current best practices and urban forestry standards.
- Action # 15 of the Urban Forest Management Plan (2014) supports updating the Public Tree Protection by-law, which provides support to the City's urban forest expansion objectives.
- Objective # 5 of the Natural Heritage & Urban Forest Strategy (2014) supports the protection of the Natural Heritage System and Urban Forest on public lands through enforcement of applicable regulations and education.

Present Status

The current Private Tree Protection By-Law 0254-2012 requires a permit for the injury, destruction or removal of 3 or more trees greater than 15cm (6 in). A tree permit is not required for the removal of two (2) trees greater than 15 cm (6 in) in diameter in a calendar year. A permit is not required for the removal of trees 15 cm or less in diameter. Exemptions include interior courtyards and golf courses.

The current replacement model for healthy trees are replaced at a 1:1 ratio with at diameter 15 cm (6 in) – 49 cm (19 in) and 2:1 ratio with a diameter of 50 cm (20 in) or greater.

Comments

Proposed Changes for the Private Tree By-Law

- The Updated Private Tree By-law will require a permit for the removal of any individual tree 15 cm (6 in) in diameter or greater. A tree measuring 15 cm (6 in) in diameter or greater is typically a well established, semi-mature tree that significantly contributes to the overall health of the urban forest ecosystem. Encouraging the preservation of trees 15 cm (6 in) in diameter or greater is also consistent with surrounding municipalities.
- The Updated Private Tree By-law will no longer exempt tree removals located in Interior Courtyards from the permit process. Trees measuring 15 cm (6) in interior courtyards contributes to the overall tree canopy and health of the urban forest.
- The Updated Private Tree By-law will require the permit holder to notify the City when they plant any replacement trees. One year from the date of planting, the permit holder shall again notify the City to conduct a final inspection to determine whether the security deposit can be released.
- According to the Updated Private Tree By-law, a permit holder shall not injure or destroy a replacement tree that has been planted pursuant to this by-law without a permit.
- The by-law will now clearly state a permit may be refused based on the health of the tree. The addition of the wording provides greater clarity to the public when applying for a tree permit and manages expectations on when permits will be granted.

Golf courses contribute to open spaces within the City. Individual golf courses have specific management plans that include tree canopy retention and tree replacement programs. The current exception to the by-law recognizes that golf courses are good stewards of the environment with a commitment to ongoing tree protection and preservation along with the replacement of dead or hazardous trees.

Tree Replacement Policies

The tree replacement policies associated with the By-law will also be amended to ensure the recovery of healthy removed trees based on their diameter. The proposed changes to the policy requires a replacement tree for every 15 cm (6 in) of diameter of the tree removed. For example when a tree with a 45 cm (18 in) diameter is removed, three (3) replacement trees will be required to be planted by the landowner. Landowners will maintain the ability to financially contribute towards tree replacements through the replacement planting tree fund when re-planting is not feasible on their property.

Fees and Charges

The proposed amendments will include an amendment to the applicable fees and charges by-law to support a new fee structure as follows:

- Private Tree Removal Permit and/or Permission Permit (one tree) - \$304.00
- Additional Trees Permit (per tree) - \$109.86

The first fee amounts are based on recovery of staff time (application review, initial inspection, hoarding inspection, final inspection, travel time) and additional costs. These fees ensure any trees potentially impacted by activities undertaken during a Private Tree Permit remain protected and preserved long term while recovering 100% of staff costs.

Staffing and Number of Permits

This permit structure follows industry best practices and the corresponding fees fall in the mid-range of neighbouring municipalities. We anticipate the number of permits to increase from an average of 89 to 268 per year as a result of the amendment.

As the number of tree permit/permission applications and required resources are estimates, the program's revenue will be monitored and adjusted as required. Staffing resources required will be offset by revenues and any requests for additional FTE's will be brought forward during regular budget cycles.

Strategic Plan

The proposed Updated Private Tree By-law aligns with the Green Pillar from the City's Strategic Plan that promotes a green culture, in order to lead a change in behaviours to support a more responsible and sustainable approach to the environment, that will minimize our impact on the environment and contribute to reversing climate change. These strategic goals are supported by 3 aforementioned master plan documents.

Financial Impact

The Updated Private Tree By-law will not have a financial impact as the existing Private Tree By-law programs achieves a net zero cost to the City. Any future pressures on the program will be offset by additional fees received resulting from the permit structure changes.

Conclusion

The Private Tree Protection By-law is an important tool for tree protection. The proposed by-law amendments to regulate the removal of single trees 15 cm (6 in) or greater in diameter will strengthen the City's ability to enhance the tree canopy cover and protect the urban forest.

Attachments

- Appendix 1: Private Tree Protection Survey
- Appendix 2: Private Tree Permit Fee Benchmarking
- Appendix 3: Private Tree FAQ's
- Appendix 4: Communications Report Tree Protection By-laws



Jodi Robillos, Acting Commissioner of Community Services

Prepared by: Brent Reid, Acting Manager, Forestry

Tree Protection Survey

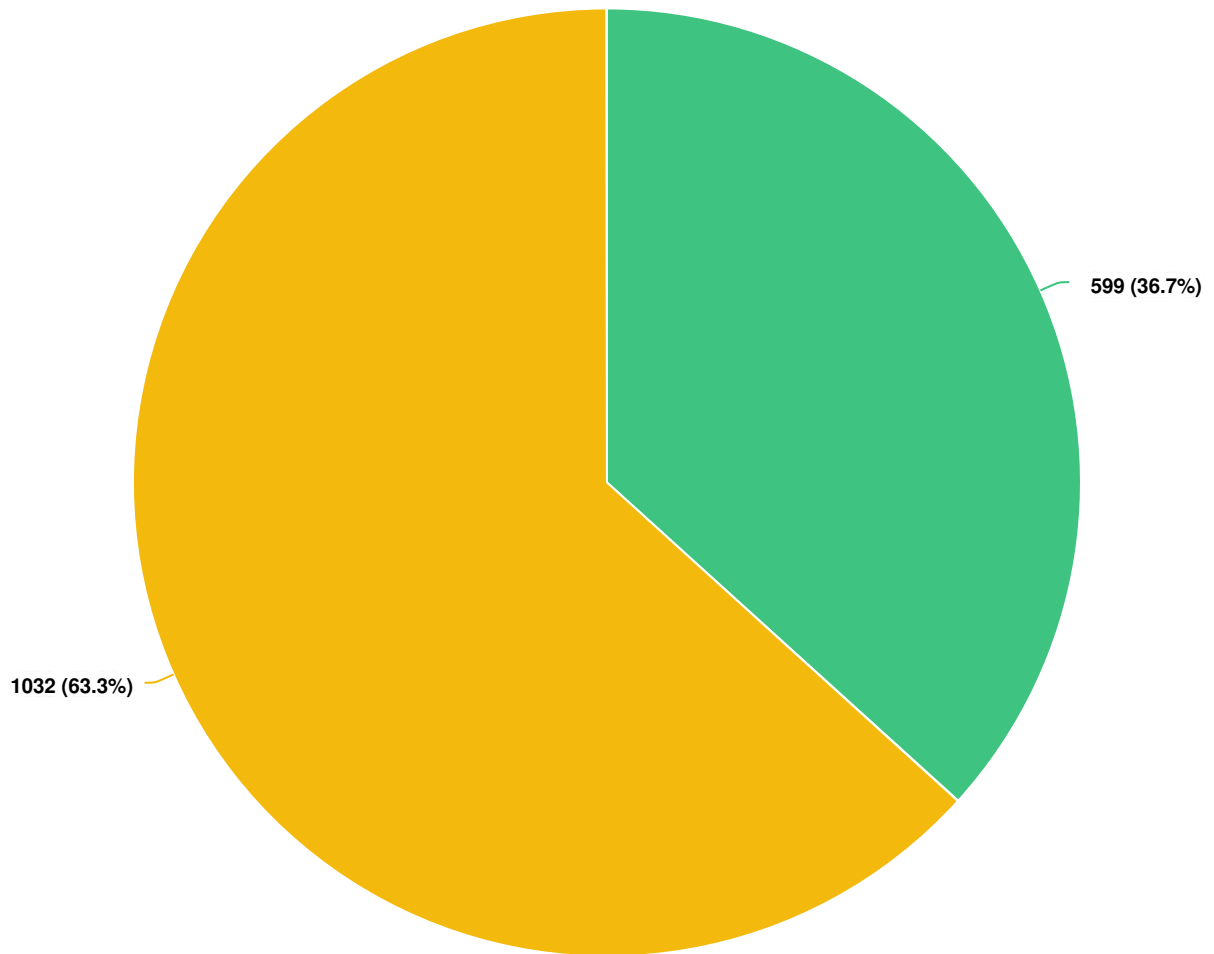
SURVEY RESPONSE REPORT

10 August 2021- 20 September 2021

PROJECT NAME:

Tree Protection By-laws Review

Q1 Do you believe that the City's current tree protection by-laws are effective?

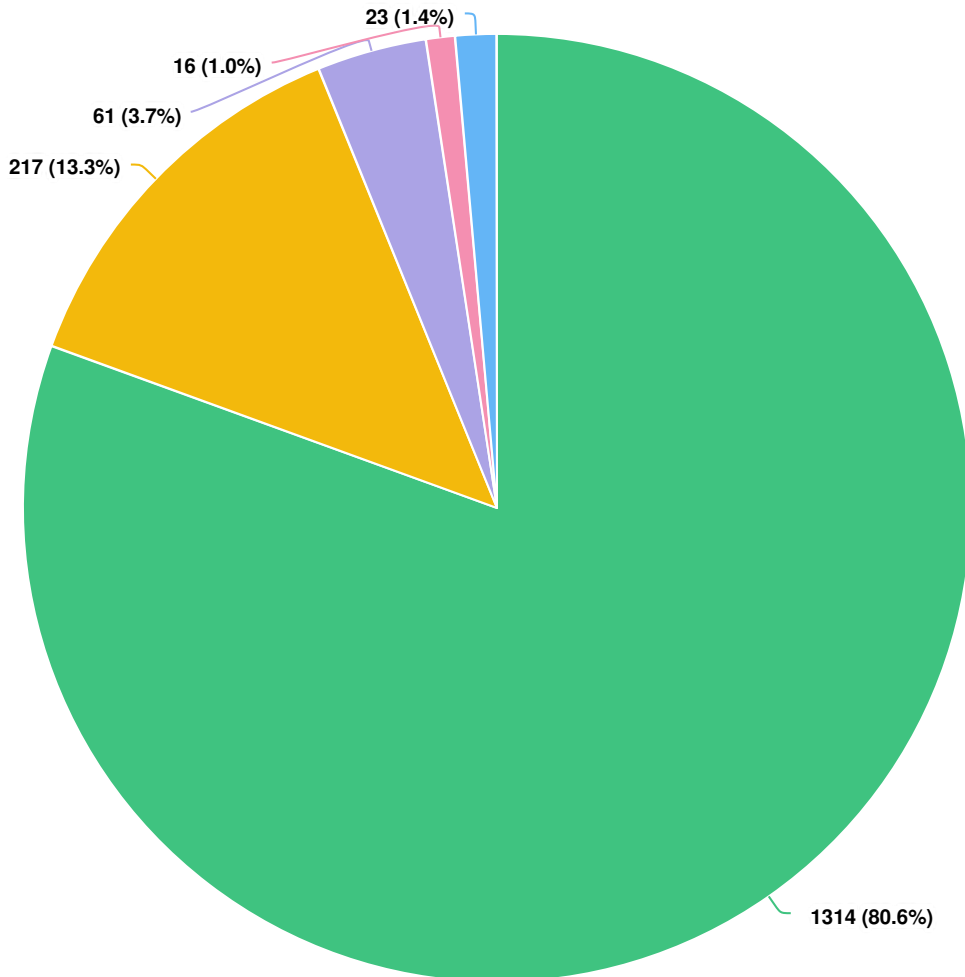


Question options

- Yes
- No

*Mandatory Question (1629 response(s))
Question type: Radio Button Question*

Q2 How important is Mississauga's tree canopy cover and tree preservation to you?

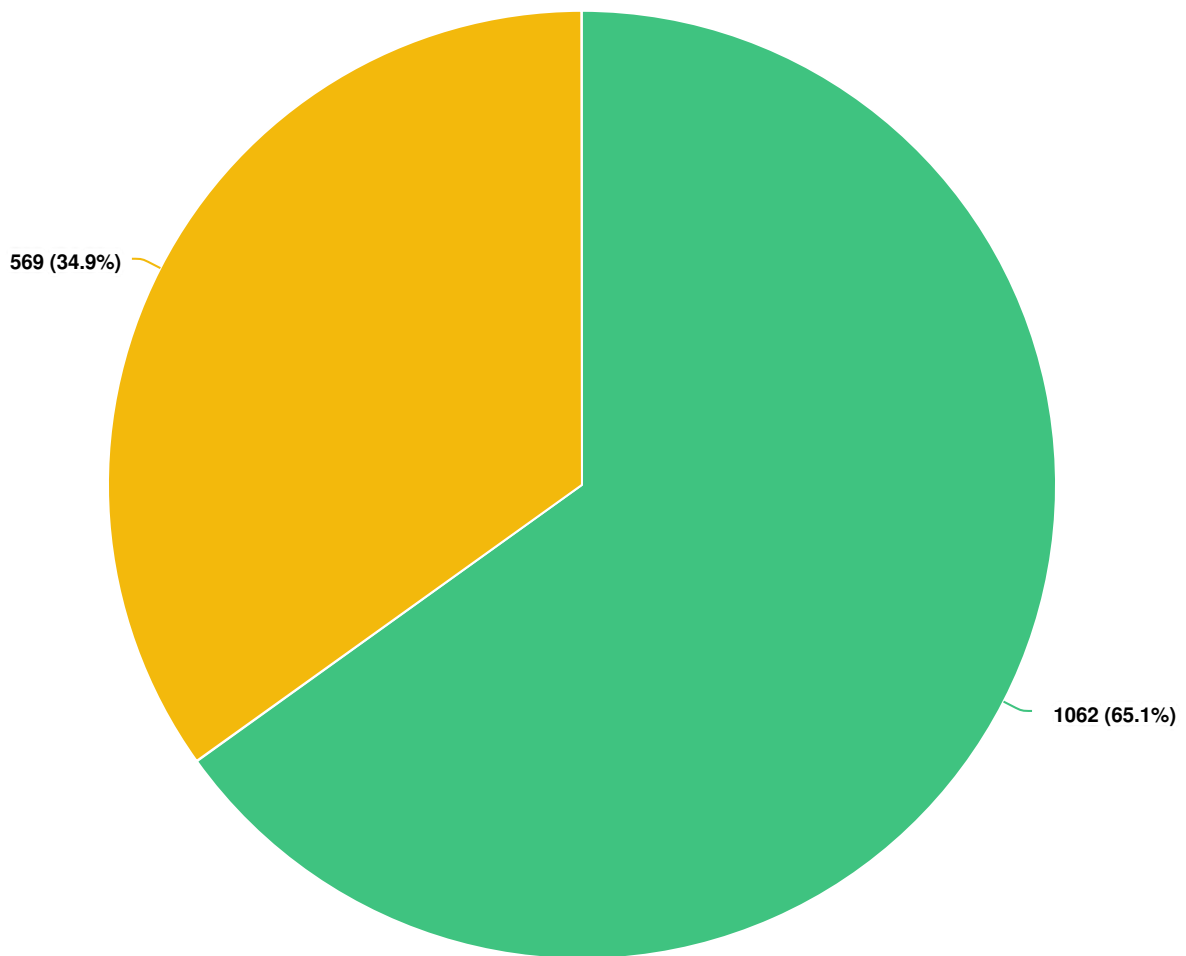


Question options

- Very important
- Somewhat important
- Neither important nor unimportant
- Somewhat unimportant
- Not very important

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q3 The City is looking at options to update the private tree replacement model such as one replacement tree based on a diameter of 15 cm (6 inches). For example, if you remove a tree with a diameter of 45 cm (18 inches), three replacement trees are required.

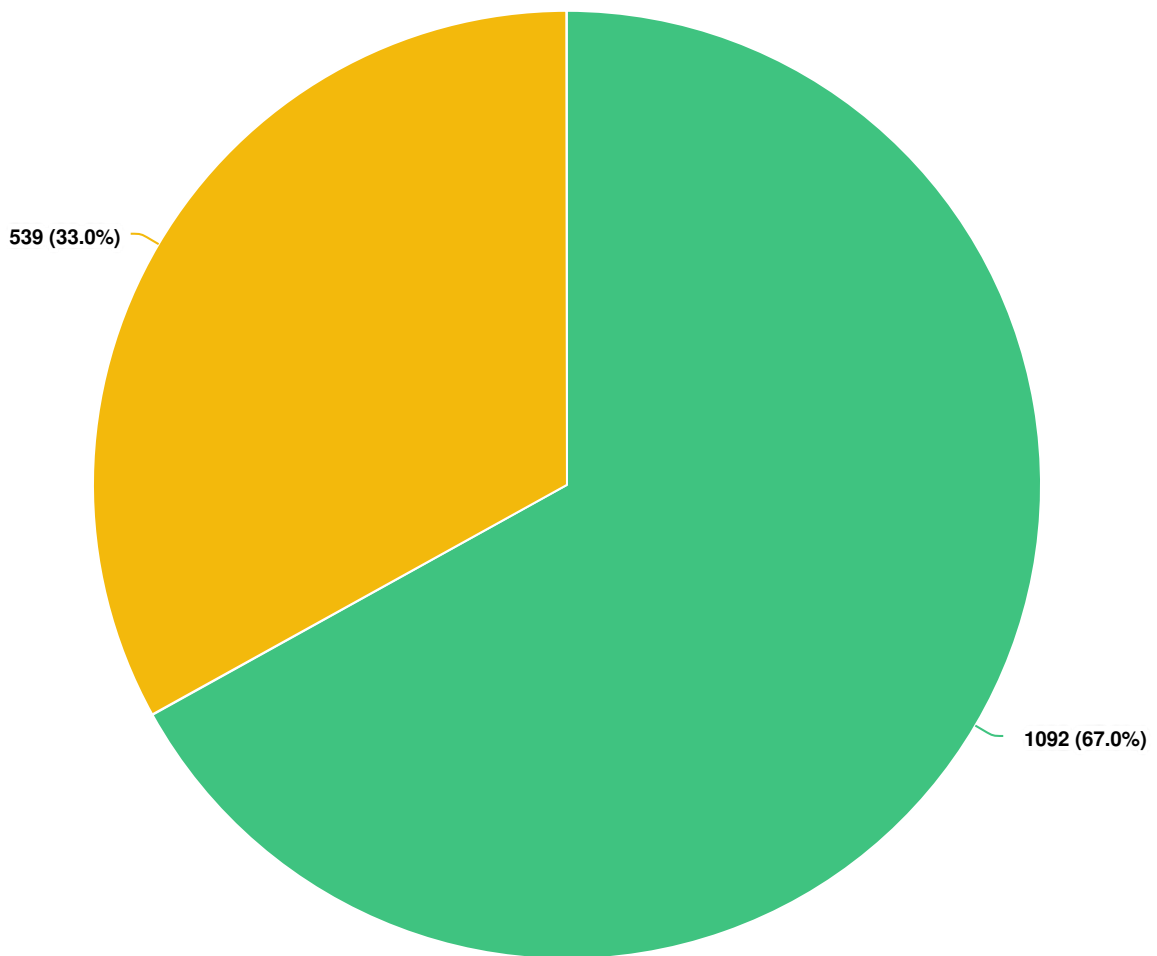


Question options

- Yes
- No

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q4 Currently, the Private Tree By-law requires a permit when removing three (3) or more trees with a diameter of 15 cm (6 inches) or greater per calendar year. Would you support a Private Tree By-law that regulates the removal of one (1) tree per lot, per calendar year at a predetermined size on private property?

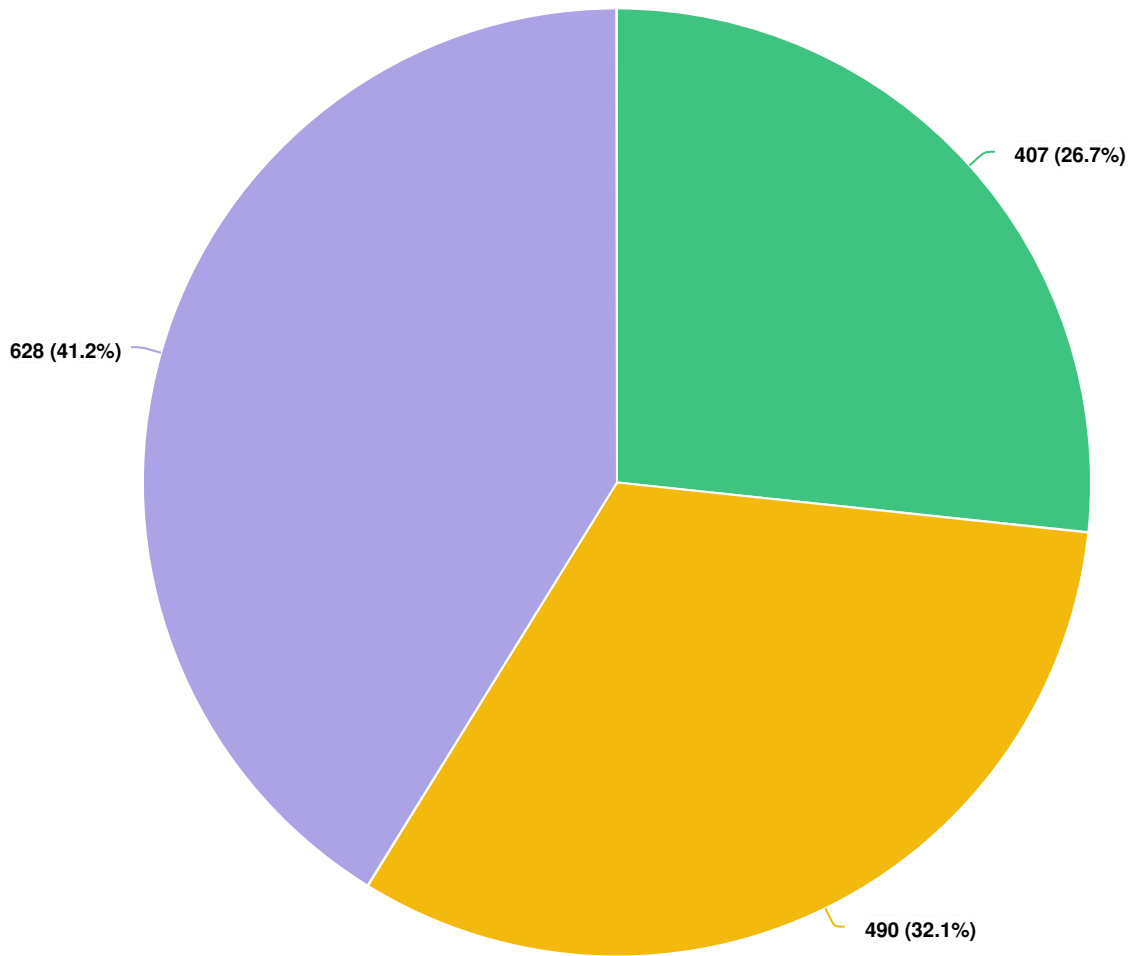


Question options

- Yes
- No

Mandatory Question (1629 response(s))
Question type: Radio Button Question

Q5 Which size would you most support?



Question options

- Diameter of 10 cm (4 inches) or greater
- Diameter of 15 cm (6 inches) or greater
- Diameter of 20 cm (8 inches) or greater

*Optional question (1523 response(s), 108 skipped)
Question type: Radio Button Question*

Appendix 2: Private Tree Permit Fee

Region or Municipality	Description of Fees	Fees	Additional Comments
Mississauga	Private Tree Permit Base Fee(First Tree Included)	\$ 304	Proposed application fees to injure or remove Private trees associated with activity that includes but is not limited to building, demolition, excavation, boring, placement of fill or surface treatment, storage of construction material or equipment, storage of soil, construction waste or debris, movement of vehicles or equipment. Fees are applicable to both internal and external groups and recover 100% of staff costs.
	Additional Tree Fee	\$ 110	
Toronto	Private Tree, Non-ConstructionRelated application (Per Tree)	\$ 124	Applications to injure or remove trees not associated with construction or related activity. Fees are applicable to both internal and external groups and recover 100% of staff costs. <i>Municipal Code, Chapter 813</i>
	Private Tree, Construction RelatedApplication (Per Tree)	\$ 370	Applications to injure or remove trees associated with construction related activities.
Brampton	Varies (Case-By-Case Basis)	\$ -	The Commissioner may issue a Permit to injure a Tree provided the applicant meets all conditions under Part V, section 18 of <i>By-Law 317-2012</i> . Private does not recover 100% of costs associated with removal, replacement and staff time if permit is approved.
Oakville	Private Tree Removal Permit (1st tree, 15-24 cm)	\$ 50	Applications for injury/removal not associated with Planning Act Application or Infill Development i.e. driveway reconstruction. No fee recoveries when permits get challenged or require more administrative or investigative work. Internal Departments follow the same procedures but are not charged any permit fees. <i>By-Law 2009-025</i>
	Private Tree Removal Permit (2nd tree, 15-24 cm)	\$ 350	Applications for injury/removal associated with Planning Act Application or Infill Development. No fee recoveries when permits get challenged or require more administrative or investigative work.
	Private Tree Removal Permit (Development Related, 2nd tree (15-24 cm) or 1st tree more than 24 cm)	\$ 740	If tree removal is a result of a development application: non-refundable fee for second tree (15 to 24 cm DBH) in a 12-month period and any trees that are larger than 24 cm DBH
Burlington	Private Tree Permit, Development Related (Per Property)	\$ 680	Permit Fee is per property and includes both public and private tree permissions. Applications for injury/removal associated with Planning Act Application or Infill Development. By-Law currently under review.

Appendix 2: Private Tree Permit Fee

Region or Municipality	Description of Fees	Fees	Additional Comments
Burlington	Private Tree Permit, Non-Development Related (Per Property)	\$ 390	Permit Fee is per property and includes both public and private tree permissions. Applications for injury/removal not associated with Planning Act Application or Infill Development i.e. driveway reconstruction. By-Law currently under review.
Vaughan	Residential non construction	\$ 135	Permissions required prior to removing or injuring any Private trees. <i>By-Law 052-2018.</i>
	Construction / infill related	\$ 146	Permissions required prior to removing or injuring any Private trees. <i>By-Law 052-2018.</i>
Ottawa	Applications associated with Planning Act Applications	\$ -	Included in Development Application Fees. <i>By-Law 2020-340</i>
	Infill Development (Per Tree)	\$ 500	\$500 per tree, to a maximum of \$2,500. <i>By-Law 2020-340</i>
	Applications for removal not associated with a Planning Act Application or Infill Development (Per Tree)	\$ 150	\$150 per tree to a maximum of \$750. <i>By-Law 2020-340</i>
Vancouver	Varies (Case-By-Case Basis)	\$ -	Permissions required prior to removing or injuring any Private trees.No permitting process under Vancouver's Street Tree <i>By-Law 5985-92.</i>

PRIVATE TREE BY-LAW FAQs

1. How many trees can I remove without a permit?

Property owners can remove 2 trees of any size in a calendar year

2. When do I need a tree permit?

A tree permit is required for the removal of 3 or more trees greater than 15cm

3. Do I need a permit to prune my private tree?

No tree permit is required pruning private trees in accordance with good arboricultural practices

4. Whom does the private tree by-law affect?

All private property owners in Mississauga

5. How is the by-law enforced?

Through a permit process and complaints managed by City of Mississauga Tree Officers

6. Do I need a tree permit for dead trees?

Yes, a tree permit is required for the removal of 3 or more dead trees with a diameter greater than 15cm; however no permit fee will be applied for dead trees.

7. What are other municipalities doing?

Multiple municipalities have a private tree by-law often requiring a permit for a single tree over a set diameter to be removed. Toronto, Oakville, Burlington and Ottawa to name a few

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Name of Project: Tree Protection By-laws Public Engagement	Project/Event Date/Time: August 10 - September 20, 2021		
CAMPAIGN GOAL RESULTS 1,629 Surveys Completed 8,542 Engagements 9,615 Project Webpage Views 1,531,420 Estimated Persons Reached			
Campaign goals/objectives: <ul style="list-style-type: none"> • Measure residents' support for proposed by-law changes by collecting at least 200 survey responses from Mississauga residents between August 10 and September 20, 2021. • Provide background material online (e.g FAQs) on project Engagement HQ webpage to at least 500 unique page viewers to help residents understand what By-law changes are being proposed and how they can provide their feedback through online survey. • Garner at least 75 registrants to attend meeting (with at least 20 actual attendees) at a virtual public meeting to address resident questions, concerns and remind the community to complete the online survey. 			
Target Audience(s): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> External <ul style="list-style-type: none"> • Mississauga residents • Mississauga business owners (with physical property) • Mississauga Education Institutions (School boards, post-secondary schools, elementary schools, high schools) • Tourists/Visitors • Construction/Contractors/Landscapers (public and private property) • Utility companies (Alectra, Enbridge, Union Gas, Bell, Rogers) • Environmental Community Groups • Tree advocates • Developers • Resident Associations • Ratepayers Groups • BIAs • Conservation Authorities (CVC) • Riverwood Conservancy • Rattray Marsh • Environmental Action Committee • Region of Peel (Works) </td> <td style="width: 50%; vertical-align: top;"> Internal <ul style="list-style-type: none"> • Mayor and Council • LT • Parks, Forestry & Environment • Transportation & Works • Planning & Building • Other City employees </td> </tr> </table>		External <ul style="list-style-type: none"> • Mississauga residents • Mississauga business owners (with physical property) • Mississauga Education Institutions (School boards, post-secondary schools, elementary schools, high schools) • Tourists/Visitors • Construction/Contractors/Landscapers (public and private property) • Utility companies (Alectra, Enbridge, Union Gas, Bell, Rogers) • Environmental Community Groups • Tree advocates • Developers • Resident Associations • Ratepayers Groups • BIAs • Conservation Authorities (CVC) • Riverwood Conservancy • Rattray Marsh • Environmental Action Committee • Region of Peel (Works) 	Internal <ul style="list-style-type: none"> • Mayor and Council • LT • Parks, Forestry & Environment • Transportation & Works • Planning & Building • Other City employees
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Project Overview: A public engagement survey was launched to assess the receptiveness to proposed changes to the City's two tree protection by-laws.			

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Marketing Overview & Analysis:

To ensure that a broad spectrum of residents were aware of the survey and other public engagement opportunities, a marketing strategy was developed that included:

- A paid digital presence on [Insauga.com](https://www.insauga.com) through a sponsored article;
- Paid advertising on social media;
- A mailing list sign-up form for residents who wished to remain informed about the City's Urban Agriculture Strategy;
- Use of some of the City's allocated space on the Allvision digital billboards along railway overpasses and local freeways;
- Portable signage was posted at six roadside locations across Mississauga;
- A media advisory issued by Strategic Communications; and
- Project updates on the City's Engagement HQ website and Parks & Recreation and Environment social media channels.

To allow for ample resident feedback, the public engagement campaign was launched on August 10, 2021, and lasted through September 20, 2021, resulting in:

- **1,629 surveys** completed and **42 participants (out of 201 registrants)** attended the September 15 virtual public information session.
- Media advisory circulated to **five online publications** and an audience of **321,749 people**¹.
- Social media posts and promotions reached **131,986 individuals** and received **8,081 engagements**².
- **19 people** subscribed to the project mailing list to be kept informed of project updates.
- The project webpage³ on Engagement HQ which housed the survey received **9,615 page views** in total.
- The sponsored article on Insauga was viewed by **13,224 unique visitors** and reached **83,612 people** via Insauga's social media channels.
- Ads were displayed on Allvision digital billboards along railway overpasses and local freeways a total of **26,340 times** between August 15 and 31, resulting in **971,234 estimated views**. This in-kind advertising based on the City's agreement with Allvision is valued at \$2,685.

¹ News articles appeared in the following online news outlets: InSauga, Toronto Star, Mississauga News, Hamilton Spectator and Weekly Voice. Those outlets owned by Metroland (all except InSauga and Weekly Voice) ran the same article.

² These stats only include social media posts and paid promotions that were conducted on the City's Parks & Recreation social media channels.

³ This includes and page views that may be attributed to engagement tools on the project webpage, e.g. survey, FAQs, etc.



Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

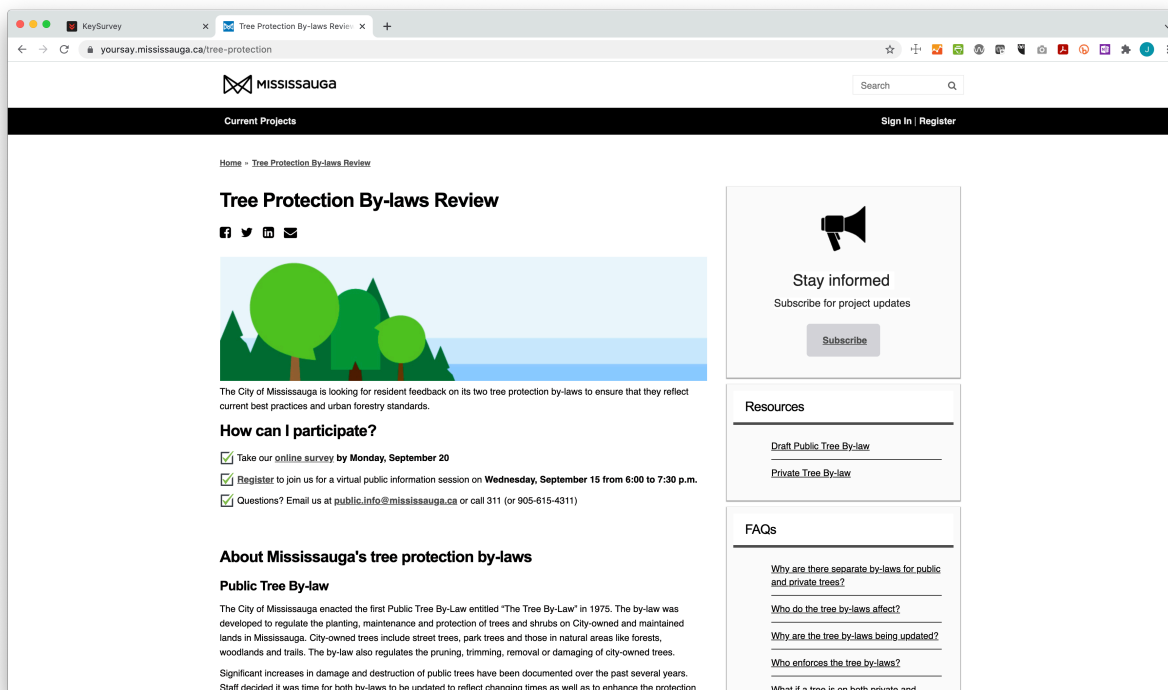
Analysis

- Overall, all of the marketing tactics were successfully deployed and, based on number of surveys completed, it appears that the tactics were successful. Social media promotions were effective as over two in five survey respondents (approx. 42.2%) originated via social media.
- A significant number of respondents reside in the western and southern ends of the city. Going forward, we may need to revisit ways to reach homeowners living in the northeastern end of the city to ensure that there are no gaps in public engagement. A heat map of survey respondents is provided on page 7 of this report for reference.
- Attendance at the September 15 virtual public information session met the goals outlined in the original marketing communications strategy. However, as registration was completed solely in Webex Events, no tracking information is available on how attendees found out about the event. In future, it's recommended to promote public engagement events through Eventbrite, where possible, to allow for increased broadcast and tracking opportunities.

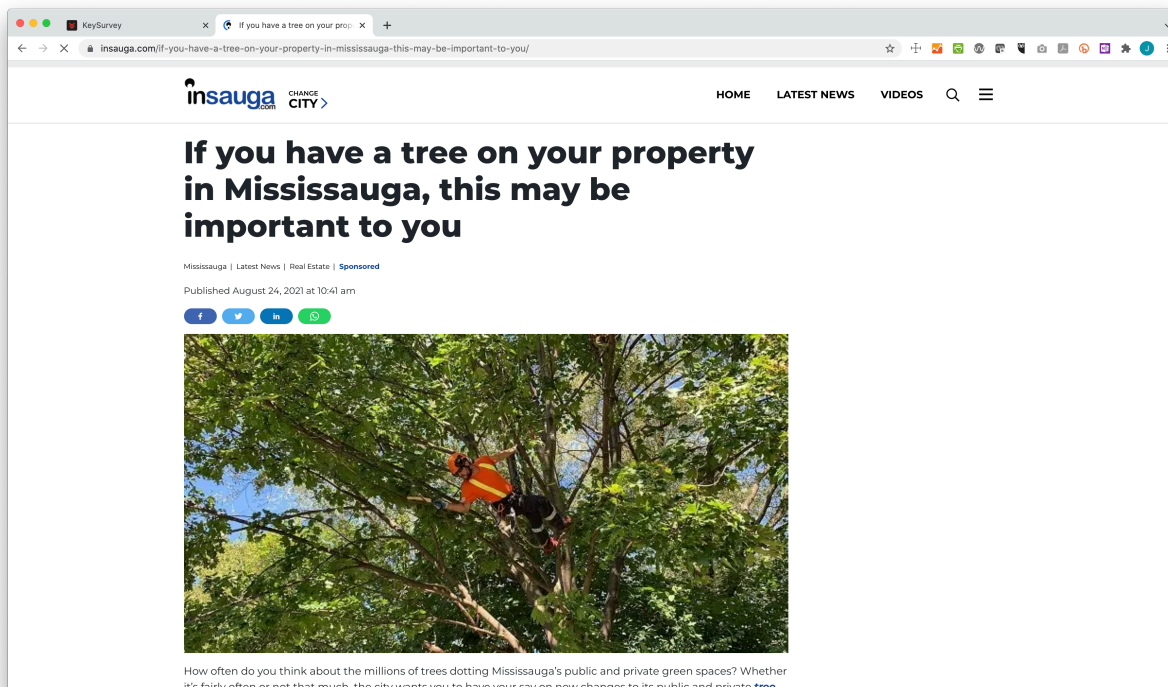
Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

CAMPAIGN EXAMPLES

Project webpage on yoursay.mississauga.ca



Sponsored article on insauga.com



Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Portable signage



Social media posts

Platform	Account	Date	Text	Image	Impressions	Potential Reach	Engagements	Engagement Rate (per Impression)
Twitter	@saugaparksrec	Thu 8/12/2021 5:07 pm EDT	Let's talk about trees! We're seeking your input on by-law updates that will help enhance the protection & safety of all trees i...	have your say Take the survey by September 12	2,145	20,241	40	1.9%
Facebook	Mississauga Parks & Recreation	Mon 8/16/2021 8:49 pm EDT	Want to learn more about the proposed changes to the City's two tree protection by-laws? Join Mississauga Forestry staff at our...	[Tree canopy image]	1,088	1,013	33	3%
Twitter	@saugaparksrec	Mon 8/16/2021 8:49 pm EDT	Want to learn more about the proposed changes to the City's two tree protection by-laws? Join Mississauga Forestry staff at our...	[Tree canopy image]	1,522	24,024	26	1.7%
Facebook	Mississauga Parks & Recreation	Tue 8/24/2021 11:38 am EDT	Make sure to take the survey and have your say!	If you have a tree on your property in ... [Tree canopy image]	155	1,740	209	12%

Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement

Metrics Achieved:

Outlet	Reach/Impressions (if reach unavailable)	Engagements	Engagement Rate
Twitter	5,792	89	1.5%
Facebook	4,478	259	5.8%
Instagram	509	9	1.8%
Facebook/Instagram Ads	121,207	7,724	6.4%
Insauga Social Media	83,612	461	0.6%
Insauga Article	13,224		
Project Webpage	9,615		
Allvision Digital Signage	971,234		
Media Advisory	321,749		
	1,531,420	8,542	0.6%

Costs Incurred:

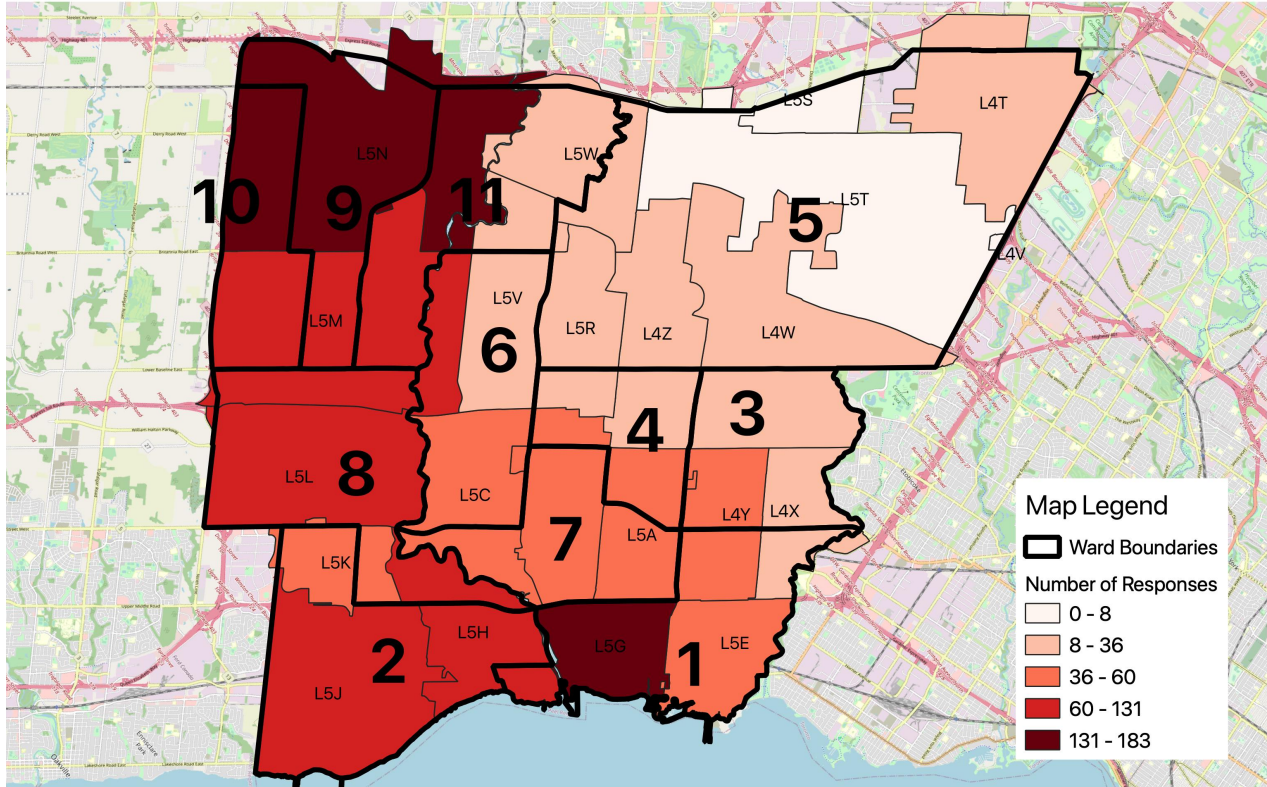
Tactic	Vendor	Cost
Creative Content	Creative Services	\$551
Portable Signage	Curbex	\$849
Paid Social Media	Facebook/Instagram	\$1,300
Sponsored Article	Insauga	\$2,544
		\$5,244



Marketing Wrap-Up Report: Tree Protection By-laws Public Engagement



Tree Protection By-laws Engagement
Survey Responses by Postal Code
Last Updated: October 26, 2021



Date: November 2, 2021	Originator's files:
To: Chair and Members of General Committee	
From: Jodi Robillos, Acting Commissioner of Community Services	Meeting date: December 1, 2021

Subject

Progress Update on Mississauga's Climate Change Action Plan

Recommendation

That the Corporate Report entitled "Progress Update on Mississauga's Climate Change Action Plan," dated November 2, 2021 from the Acting Commissioner of Community Services be received for information.

Executive Summary

- In December 2019, City Council approved the City's first comprehensive Climate Change Action Plan (CCAP). This plan and the 89 supporting actions present the City's roadmap to reduce greenhouse gas (GHG) emissions and adapt to the impacts of climate change over the next 10 years.
- The City has committed to reporting annually on CCAP progress. **Appendix 1** includes the City's first progress report, which focuses on actions implemented in 2020 and 2021.
- The City continues to make progress on climate action: almost 65% of the CCAP actions are underway or ongoing and two actions have been completed.
- Since the CCAP was approved, staff have focused on laying the foundation for future climate action and have advanced on both mitigation and adaptation projects. While progress has been made, City staff recognize that climate change action needs to be accelerated to meet the global goal of limiting global warming to 1.5°C compared to pre-industrial levels.

- Over the next year, City staff will work on refining the pathways to achieve the corporate GHG emission reduction targets, focusing on the corporation's two main sources of GHG emissions: MiWay operations and municipal buildings. At the same time, staff will continue to advance actions to support our community and make our city more resilient to the changing climate.

Background

In December 2019, City Council approved the City's first comprehensive Climate Change Action Plan (CCAP). This plan presents the City's roadmap to reduce GHG emissions and adapt to the impacts of climate change over the next 10 years. The CCAP has two main goals: (1)

Mitigation: reduce GHG emissions 40% by 2030 and 80% by 2050 (compared to 1990 levels); and (2) **Adaptation:** increase resilience and the capacity of the city to withstand and respond to current and future climate events.

The CCAP includes 89 actions, which are divided into five categories (or "Action Pathways"): (1) Buildings & Clean Energy; (2) Resilient & Green Infrastructure; (3) Accelerating Discovery & Innovation; (4) Low Emissions Mobility; and (5) Engagement & Partnerships. Every City department was involved in the development of the CCAP, and every City department is now involved in implementing its actions. This is a truly collaborative effort.

Present Status

The City has committed to reporting annually on CCAP progress. **Appendix 1** includes the first CCAP progress report, which provides an update on implementation progress and focuses on actions implemented in 2020 and 2021.

1. Corporate and Community GHG inventories

The City tracks GHG emissions related to municipal operations and services (referred to as "corporate emissions"), as well as emissions from the city as a whole (referred to as "community emissions").

Figure 1 shows the trends in corporate emissions from 2017 – 2020. In 2019, GHG emissions were approximately 81,000 tonnes CO₂e, an increase of ~20% relative to the 1990 baseline. In 2020, the City's GHGs decreased by about 12,000 tonnes CO₂e compared to 2019 levels (a ~15% decrease). This decrease can be attributed in large part to COVID-19, as there were partial building shutdowns and City services were significantly reduced (e.g., decreased MiWay service and City programs).

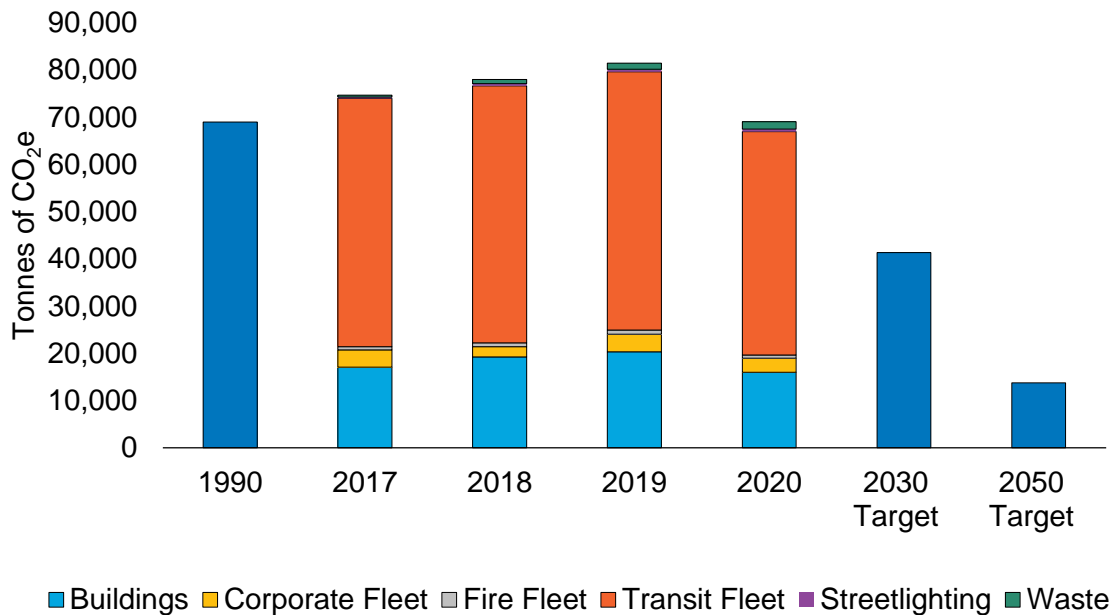


Figure 1: GHG emissions from municipal operations (note that 2020 numbers are preliminary)

Figure 2 shows the trends in community emissions from 2017 – 2020. In 2019, Mississauga’s community emissions exceeded 8 million tonnes CO₂e, an increase of 2% (~160,000 tonnes CO₂e) relative to 1990 levels. In 2020, community emissions decreased approximately 10% relative to 1990. Like corporate emissions, 2020 was considered an anomalous year due to the COVID-19 pandemic.

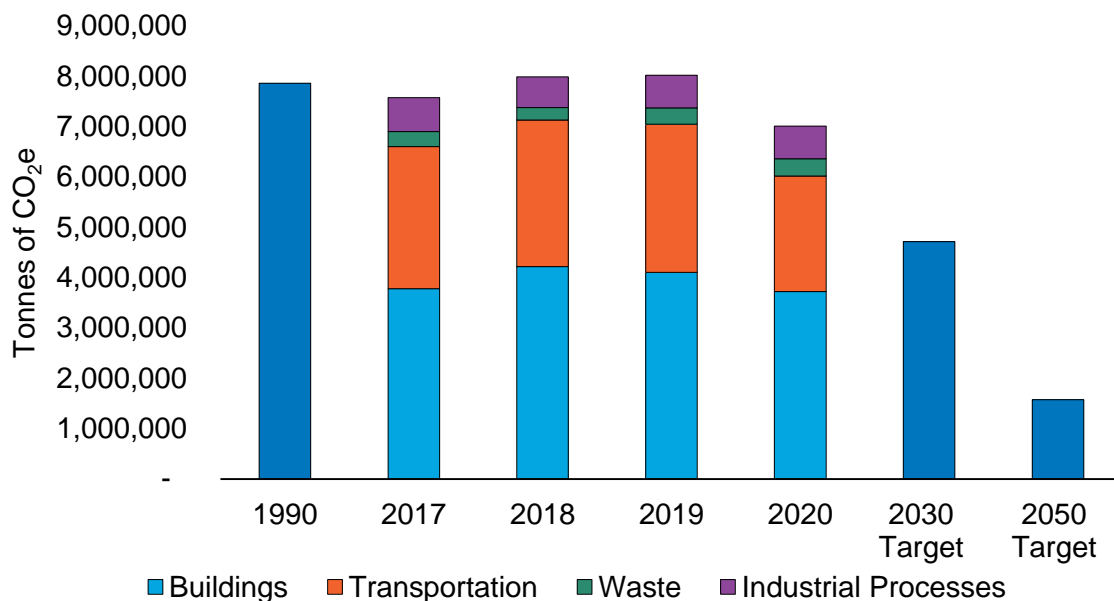


Figure 2: GHG emissions from Mississauga as a whole (note that 2020 numbers are preliminary)

The city must accelerate its efforts to reduce emissions, especially from the buildings and transportation sectors, in order to meet its GHG reduction targets.

2. Status of CCAP Actions





The City has made progress on climate action, with most CCAP actions underway or ongoing and some completed (see **Figure 3** for a snapshot of the current status of the CCAP actions). To date, the focus has been on foundational actions: actions that lay the groundwork for climate action in the city moving forward.

89 Actions Total



Figure 3: Snapshot of CCAP action status

Some of the highlights from the report include:

Action Pathway	Highlights
 Buildings & Clean Energy	<ul style="list-style-type: none"> Implementing the corporate green building standard Conducting a district energy (DE) feasibility study for the Downtown and supporting DE at Lakeview Village
 Resilient & Green Infrastructure	<ul style="list-style-type: none"> Integrating natural assets (e.g., trees, wetlands) into municipal asset management planning Expanding the use of green infrastructure to manage stormwater runoff
 Discovery & Innovation	<ul style="list-style-type: none"> Integrating climate-related information into financial reporting Implementing the dog waste program to help divert dog waste from landfill
 Low Emissions Mobility	<ul style="list-style-type: none"> Working on the electrification of MiWay buses and fleet vehicles Installing electric vehicle chargers in the community

	<p>Engagement & Partnerships</p>	<ul style="list-style-type: none"> • Completing the Climate Change Youth Challenge to engage youth in developing sustainable solutions for Mississauga • Continuing to implement the City’s community gardens program in partnership with Ecosource
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3. Next Steps

While progress has been made on the CCAP, City staff recognize that climate change action needs to accelerate. A recent report from the United Nations’ Intergovernmental Panel on Climate Change (IPCC) is unequivocal that human-induced climate change is affecting weather and climate extremes across the globe, and that the climate is warming faster now than in previous decades. Many of these changes are irreversible for centuries to millennia. The IPCC report is an urgent call to action: significant reductions in GHG emissions are needed to limit further climate change and limit global warming to 1.5°C.

Comments

The City is committed to meeting its CCAP goals to reduce GHG emissions and to increase the city’s resilience to current and future climate events. Over the next year, City staff will work to refine the pathway to achieve the corporate GHG emission reduction targets. Below is an outline of this pathway.

1. Corporate GHG Emissions

The two largest sources of corporate GHG emissions are MiWay transit and municipal buildings, which together constitute about 90% of emissions.¹ The City plans to focus on decreasing emissions from these two sources.

A. Municipal Buildings

Municipal buildings are responsible for approximately 20% of corporate GHG emissions. In 2019, City Council approved a Corporate Green Building Standard, which is a set of performance requirements that apply to new construction and major renovations at City-owned and operated buildings. This Standard does not apply to existing municipal buildings unless they undertake a major renovation. That leaves numerous municipal buildings that will need deep retrofits in order to meet the corporate GHG emission reduction and resilience targets.

Decreasing GHGs in existing buildings typically requires a switch to electric-based heat pumps, on-site renewable energy generation, high-performance building enclosure, and a cleaner grid. Today, the cost for such actions is in the range of about \$25,000 to \$35,000 per tonne of CO₂e reduction.

¹ Based on the City’s preliminary 2020 corporate GHG inventory.

The City's energy management team has completed two studies on municipal buildings: one for the Clarkson Community Centre and another for the Mississauga Valley Community Centre (CCAP Action 4-1). As these studies make clear, site-specific analysis is needed to determine a retrofit strategy. These studies help clarify issues like the impacts of the construction schedule, potential GHG reductions, estimated costs, and estimated savings from the retrofits.

While it is not feasible to analyze every municipal building, City staff recommend studying representative buildings of the eight main types of municipal buildings: (1) office; (2) recreation centre; (3) fire hall; (4) transit station; (5) ice rink; (6) transit repair station; (7) library; and (8) swimming pool. This will enable City staff to map out a path forward for retrofitting the City's existing building stock.

B. MiWay Operations

MiWay operations are the largest source of corporate GHG emissions, contributing roughly 70% to total emissions. In order to reach corporate targets, the MiWay transit fleet will need to transition to a lower emission propulsion technology immediately, and explore options for zero-emission vehicles in the near-term. This could be with either battery-electric or hydrogen fuel cell electric buses, or a combination of the two. While MiWay continues to analyze the different options, it has already concluded that an all battery-electric bus fleet is unlikely to be feasible: current battery-electric buses do not have enough range to complete certain MiWay bus routes. While on route charging provides a way to address this issue, MiWay does not own all of the on-street infrastructure (e.g., stations and terminals). This means that there are limited opportunities for on-route charging.

This makes hydrogen fuel cell electric buses an attractive alternative. MiWay has partnered with the Canadian Urban Transit Research & Innovation Consortium (CUTRIC) to conduct a feasibility study for hydrogen buses. While this study will help MiWay understand the costs, GHG emissions, and operational impacts of using hydrogen buses, it is a desktop exercise. A deployment of a small number of hydrogen buses is needed to determine if it is feasible to use this technology in MiWay's fleet at scale.

To move forward with this pilot, funding is needed. MiWay is working with CUTRIC in order to secure funds for this project: the City, in collaboration with CUTRIC, has submitted a funding proposal to the Infrastructure Canada Zero Emission Transit Fund (ZETF). Since this work is critical to electrifying the MiWay fleet, MiWay will need to find funding for this pilot.

2. Mapping the Pathway Forward

In addition to refining the pathway to achieve corporate GHG emission reduction targets, the City also intends to solidify its plans to increase the resilience and capacity of the city to withstand and respond to climate events, as well as to support residents and businesses decrease their GHG footprint. While a number of actions are already underway, developing clear action pathways will ensure the city is on track to achieve its GHG reduction and resilience targets by 2030.

Financial Impact

There are no financial impacts resulting from the recommendation in this report.

Conclusion

While the City continues to make progress on the CCAP, climate change action needs to accelerate in order for the city to meet its goals and to avoid the most catastrophic impacts of climate change.

Attachments

Appendix 1: Climate Change Action Plan: Progress Report 2021

A handwritten signature in black ink, appearing to read "Jodi Robillos", is written over a horizontal line.

Jodi Robillos, Acting Commissioner of Community Services

Prepared by: Teresa Chan, Climate Change Supervisor



Climate Change Action Plan

Progress Report 2021

December 2021



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Cover Photo Credit: Peter Dulis, We are Resilient Photo Contest submission

Land Acknowledgement

The lands which make up the present-day City of Mississauga are lived on and stewarded by Indigenous Peoples and have been since time immemorial. Their deeply spiritual, cultural, social, and economic connections with the environment make Indigenous Peoples uniquely positioned to provide knowledge and insights on how to address the impacts and root causes of climate change.

We acknowledge the lands that constitute the present-day City of Mississauga as being part of the Treaty Lands and Traditional Territory of the Mississaugas of the Credit First Nation, the Haudenosaunee Confederacy, and the Huron-Wendat First Nation. We recognize these peoples and their ancestors as peoples who inhabited these lands since time immemorial. The City of Mississauga is home to First Nations, Métis, and Inuit peoples.

We recognize and respect the traditions and stewardship of Indigenous peoples. We are committed to continue learning, engaging, and participating in the process of truth and reconciliation.

Mayor's Message



Last year marked the first full year of implementation of the City's Climate Change Action Plan. It was also a year of stress and uncertainty, as each of us confronted the COVID-19 pandemic. The reality is that climate change and COVID-19 present similar challenges. Both are global problems that affect the health, well-being, and livelihood of our communities. And both require quick mobilization of new policies, practices, and innovative solutions, as well as intense collaboration and changing mindsets for new ways of working, funding, and providing critical services to the community.

As we continue to implement the CCAP, it will be important for the City to prioritize actions that address both crises – actions that improve public health, contribute to a sustainable economy, and reduce the impacts of climate change.

The need to act has never been clearer. A recent report from the United Nations' Intergovernmental Panel on Climate Change is unequivocal that human-induced climate change is affecting weather and climate extremes across the globe, and that the climate is warming faster now than in previous decades. Many of these changes are irreversible for centuries to millennia. This report is an urgent call to action: all countries, regions, and cities need to act to make significant reductions in greenhouse gas emissions to limit further climate change.

As Canada's sixth largest city, the City of Mississauga recognizes that it has an important role to play in fighting climate change. I was recently named Chair of the Climate Change Committee for Ontario's Big City Mayors and I am honoured to be working with other big city mayors in Ontario to take bold and collective action. We know that cities are major contributors of greenhouse gas emissions and that cities are experiencing the impacts of climate change first-hand, from extreme heat to flooding to wind storms.

The Climate Change Action Plan is the City's 10-year roadmap for addressing climate change. It sets out the actions the City is taking for its own municipal operations and how it intends to encourage the community to get involved. But the City cannot do this alone. In order to achieve our vision of a low carbon and resilient community, businesses, industry, all levels of governments, and residents must come together to reduce our carbon footprints and continue to advocate for climate action across all sectors. We all have a role to play in climate action.

Bonnie Crombie

Mayor Bonnie Crombie

Introduction

This is the first annual progress report on the City of Mississauga's Climate Change Action Plan (CCAP). Approved in December 2019, the CCAP presents the City's roadmap to reduce greenhouse gas (GHG) emissions and adapt to the impacts of climate change over the next 10 years. This report provides an update on the implementation progress of the CCAP and focuses on actions implemented in 2020 and 2021.

Please read through this report to see what the City has done, what we plan to do, and how you can help.

CCAP Recap

The CCAP outlines the climate actions the City is taking over the next 10 years. The CCAP includes 89 actions, divided into five different categories (or "Action Pathways"). Every City department was involved in the development of the CCAP, and they are now involved in implementing its actions. This truly is a collaborative effort.

The CCAP is guided by the City's vision to be a low carbon and resilient community and has two main goals:

GOAL: MITIGATION

Reduce GHG emissions 80% below 1990 levels by 2050, with a long-term goal of becoming a net zero community.

GOAL: ADAPTATION

Increase resilience and the capacity of the city to withstand and respond to climate events.

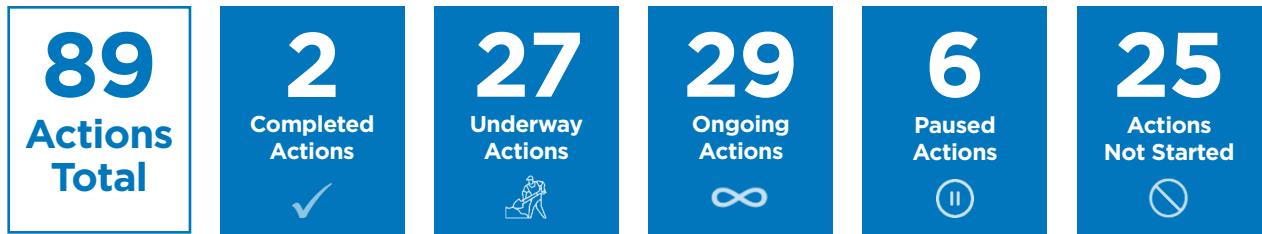
ACTION PATHWAYS

The Plan includes five "Action Pathways":

1. Buildings & Clean Energy
2. Resilient & Green Infrastructure
3. Accelerating Discovery & Innovation
4. Low Emissions Mobility
5. Engagement & Partnerships

This progress report is organized by pathway.





Progress Snapshot

In 2019, the City joined a growing number of Canadian municipalities in declaring a climate emergency, paving the way for the adoption of the CCAP later that year. The next year, we faced another global emergency – the COVID-19 pandemic. The pandemic required the City to adjust its priorities and expectations. It also presented the City with new funding challenges.

Despite these challenges, the City continues to make progress on climate action. Most CCAP actions are underway, and some have been completed. To date, the focus has been on foundational actions: actions that lay the groundwork for climate action in the City moving forward.

The City is committed to rapidly reducing emissions from its own operations, and to supporting the community in taking climate action.



Greenhouse Gas Emissions Update

This section provides an update on Greenhouse Gas (GHG) emissions in Mississauga. This includes emissions from the city as a whole (referred to as “community emissions”), as well as emissions related to municipal operations and services (referred to as “corporate emissions”).

The 2020 corporate and community inventories are preliminary, as some of the information needed to calculate 2020 emissions will not be available until 2022 (e.g., industrial process emissions). The City will update its 2020 inventory once this information is available.

Community Emissions

There are four main sources of community emissions:

1. Buildings
2. Transportation
3. Waste
4. Industrial processes

In 2019, Mississauga’s community emissions exceeded 8,000,000 tonnes CO₂e, an increase of 2% (-160,000 tonnes CO₂e) relative to 1990 levels. In 2020, community emissions decreased approximately 10% relative to 1990 (see Figure 1). As we all know, 2020 was a unique year – the COVID-19 pandemic changed the way we worked, travelled, and used energy, resulting in decreased emissions, particularly in transportation-related emissions. While this decrease is positive, it is important to acknowledge

that, in the years leading up to 2020, emissions were increasing.

There are several reasons for this increase. Most importantly, we are consuming more energy. We have also experienced significant population growth: since 1990, Mississauga’s population has increased by more than 260,000 people. In addition, Ontario’s electricity grid has gotten dirtier

DID YOU KNOW? Ontario’s electricity grid is getting dirtier and emitting more GHGs. This is because the Government of Ontario started burning more natural gas to generate electricity, as nuclear generators go offline to be refurbished and, in some cases, shut down permanently. According to the Ontario Clean Air Alliance, this increased reliance on gas-fired power plants will increase GHG emissions by more than 300% by 2030 and by 500% or more by 2040, reversing more than 40% of the GHG reductions that were achieved by phasing out coal-fired power plants. In response, Mississauga City Council endorsed a motion in March 2021 calling on the province to phase out its gas-fired power plants to reduce GHGs, and commit to replacing gas-fired power plants with clean energy and low carbon solutions. City staff continue to engage with the Independent Electricity System Operator to advocate for a clean electricity grid.

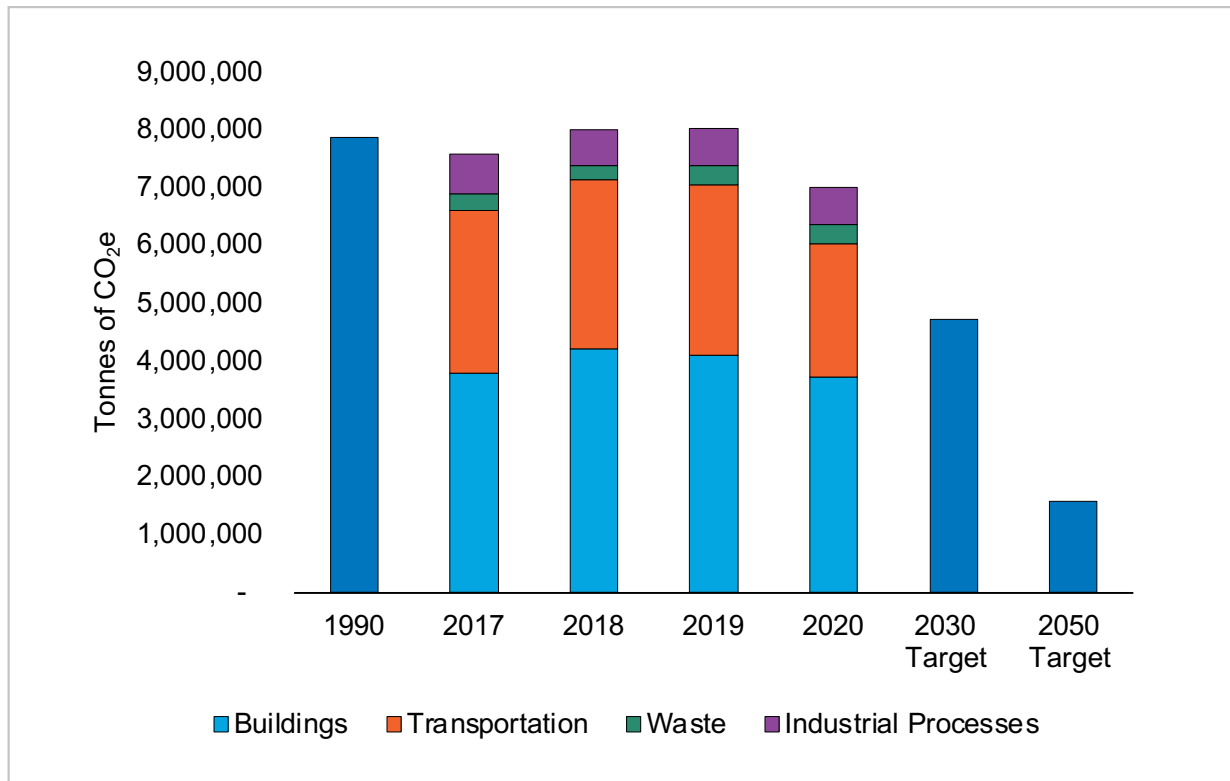


Figure 1: GHG Emissions from the community of Mississauga

over the past few years, meaning that there are more GHG emissions today than there were a few years ago for consuming the same amount of electricity. To meet the plan's targets, we all need to accelerate our actions to reduce emissions, particularly from the building and transportation sectors.

Corporate Emissions

Corporate emissions represent approximately 1% of the total emissions in Mississauga. There are six main sources of corporate emissions:

1. Municipal buildings
2. Corporate fleet
3. Transit fleet
4. Fire fleet
5. Street lighting
6. Waste

Figure 2 outlines the trends in corporate GHG emissions over the past several years.

In 2019, GHG emissions from municipal operations were approximately 81,000 tonnes eCO₂, an increase of approximately 20% relative to the 1990 baseline.

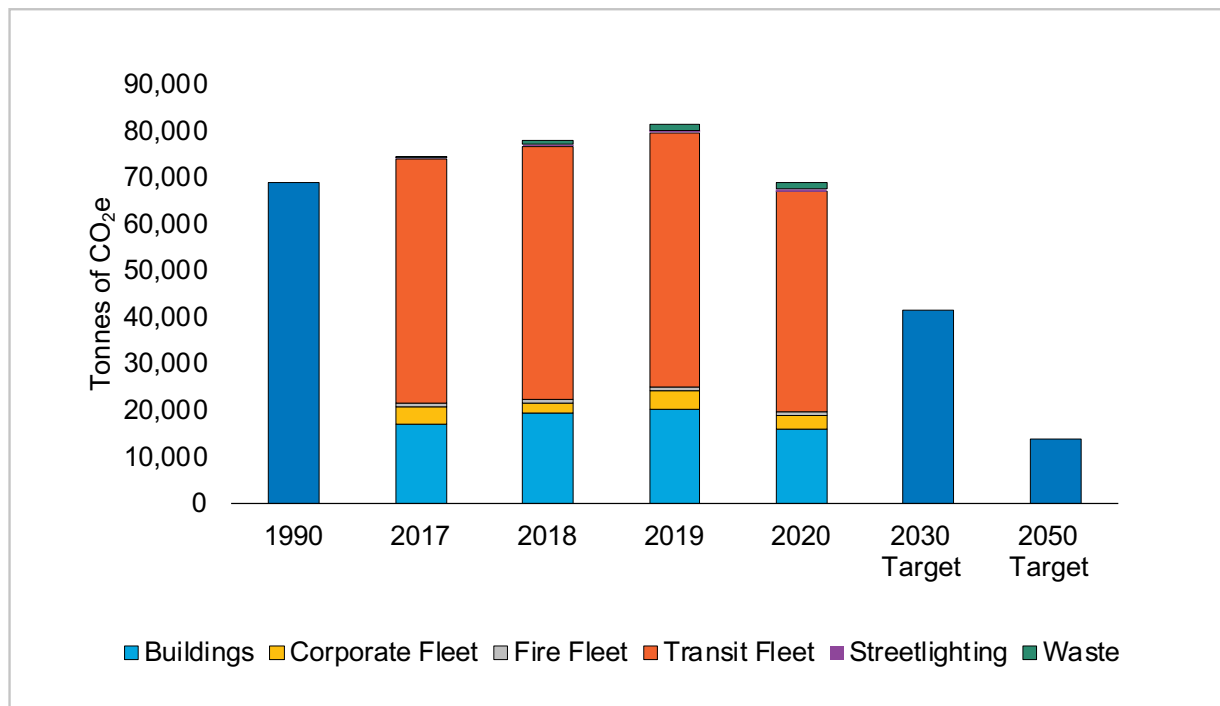


Figure 2: GHG Emissions from Corporate Operations

In 2020, the City's GHGs decreased by approximately 12,000 tonnes compared to 2019 levels. This decrease can be attributed in large part to COVID-19, as there were partial building shutdowns and City services were significantly reduced (e.g., decreased MiWay service and City programs). Despite these exceptional circumstances, total corporate emissions in 2020 were still higher than the 1990 baseline, signalling that efforts to reduce emissions need to increase, especially











from the City's transit operations and municipal buildings, in order to meet the City's GHG reduction targets.

Similar to community emissions, corporate emission increases can be attributed to a number of factors, including increased consumption, a dirtier electricity grid, and significant population growth. Population growth has driven an increased demand for municipal services, such as the expansion of public transportation.

Progress Update

The progress report is organized by Action Pathway. For each pathway, the number of actions that are complete, underway, ongoing, paused, or not started is indicated. A number of specific actions

that have been implemented or are underway are also highlighted. A list of all 89 actions and their status can be found in the Appendix.

Action Pathways		Action Progress	
	Buildings and Clean Energy		Completed - the action has been fully implemented
	Resilient and Green Infrastructure		Underway - implementation has begun
	Accelerating Discovery and Innovation		Ongoing - the action is continuous and has no end date
	Low Emissions Mobility		Paused - implementation had begun, but has now been paused ¹
	Engagement and Partnerships		Not Started - implementation has not begun ²

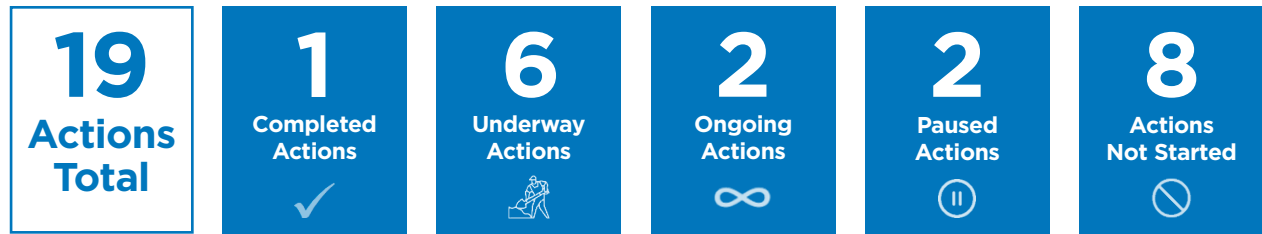


¹ Several of these actions are paused due to COVID-related delays.

² Most of these actions are medium to long-term actions, or actions that cannot be implemented until other actions are completed.



Buildings and Clean Energy



Buildings are the largest source of emissions in the city, comprising approximately 50% of community GHG emissions. Buildings of all types, including residential, commercial, and industrial buildings, require energy for lighting, heating, and cooling, as well as operating equipment and appliances. The amount of energy consumed is influenced by a number of factors, including the number of occupants, size of the building, activities taking place within the building, and the age of the building.

Corporate Actions

Emissions from buildings account for approximately 20% of corporate emissions. In order to achieve its targets, the City will need to continue decreasing emissions and improving energy efficiency in the buildings it owns and operates.

Corporate Green Building Standard

Approved in 2019, the City's Corporate Green Building Standard is a set of performance requirements that apply to new construction and major renovations at City-owned and operated buildings. The intent is to promote environmentally, financially, and socially responsible practices in building design and construction, and to support the City's goal of reducing GHGs produced by its

buildings. The Standard includes three increasing levels of performance: the first level is mandatory. Performance levels will be revised every five years with increasingly stringent requirements.

The City is already applying the first level of the Standard to new buildings and major renovations. For example, in order to meet level one of the Standard, the City is installing triple-glazed windows, high-efficiency lighting (LED), rooftop solar panels, heat pump-style rooftop units, and heat recovery from the adjacent ice plant for the Burnhamthorpe Community Centre renovation and expansion (set to be completed by 2023). The building will be 30% more energy efficient than if it were built according to the Ontario Building Code.

Energy Conservation Strategy

The City has released its latest "5 Year Energy Conservation Plan (2019-2023)," which focuses on improving energy performance and fighting climate change in City-owned facilities. The plan targets a 5% reduction in energy use and GHG emissions per facility over the next five years. Under the previous plan, the City was able to, among other things, decrease energy use intensity by 9.3% and GHGs by 8.1% from 2014 - 2019.

In 2019, the first year of the newest energy conservation plan, there was a 1% increase in energy consumption and a 3% increase



in GHGs. While a number of upgrades resulted in a 1% reduction in electricity consumption (e.g., lighting upgrades), increased rentals and hours – especially in indoor swimming pools – resulted in a 4% increase in natural gas consumption.

Last year saw significant reductions in energy consumption and GHGs in municipal buildings. These data are considered an anomaly as partial building shutdowns due to COVID-19 distorted the data. As building rentals and hours resume, it is expected that energy consumption and GHGs will increase if no additional action is taken. Significant GHG

reduction efforts, such as deep energy retrofits, will be necessary to meet the City's targets.



30% decrease in corporate building emissions in 2019 relative to 1990

Actions in the Community

In the community, buildings are the largest source of GHGs, accounting for more than 50% of total emissions. The City is committed to supporting residential, commercial, and industrial property owners in improving the energy efficiency of existing buildings and ensuring that future properties and developments are designed for a low-carbon and resilient future.

District Energy

District energy (DE) is an efficient system for providing heating and cooling to buildings. Instead of each building having its own boilers and chillers, a central plant produces thermal energy that is distributed to buildings through a network of pipes. As noted in a UN publication on District Energy in Cities, DE “is one of the least-cost and most-efficient solutions for reducing GHG emissions and primary energy demand.”

Given its potential significance to Mississauga in reaching its GHG reduction targets, the City is supporting efforts to advance DE systems in the city. This includes supporting a potential DE system at Lakeview Village, which is expected to use the waste heat from the adjacent GE Booth Wastewater Treatment Plant as its main energy source. The City is also working with a consultant, along with major property owners in the Downtown and others, to determine if it would be feasible to build a low carbon DE system in Mississauga's Downtown, which is projected to grow significantly in the coming years.

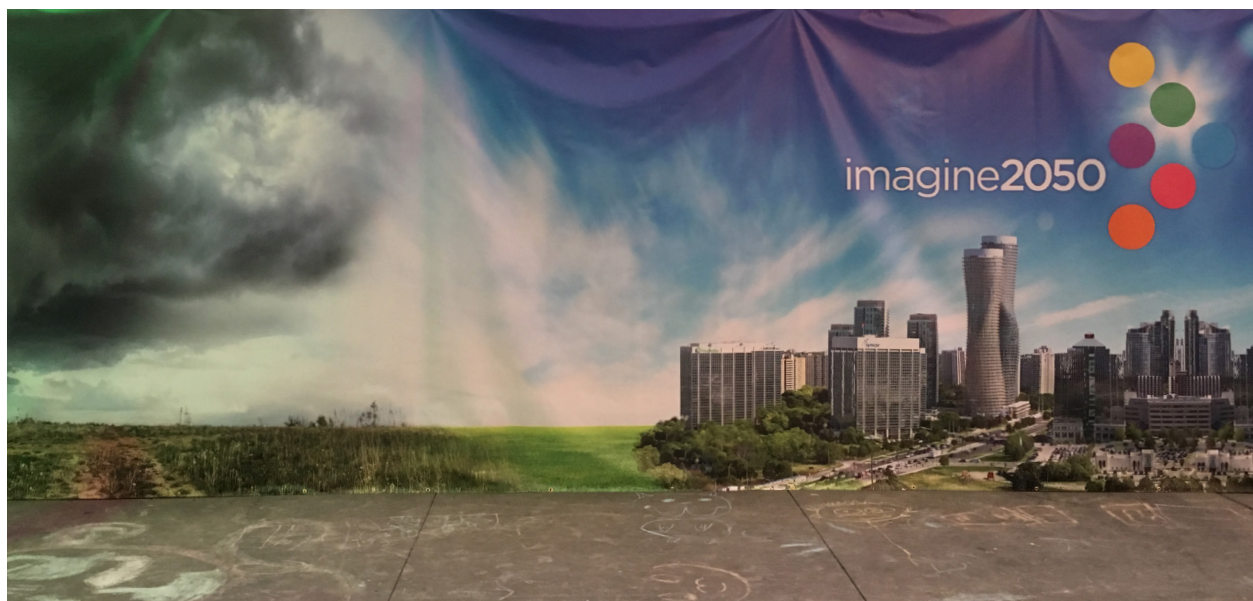
Home Retrofits Design Study

The City is working with the City of Brampton and Town of Caledon to design a home energy retrofits program for single-family homes. The program is intended to improve energy efficiency and

reduce GHG emissions from these homes, with the added benefit of energy savings for residents. The design phase will also focus on how to minimize financial barriers for homeowners.

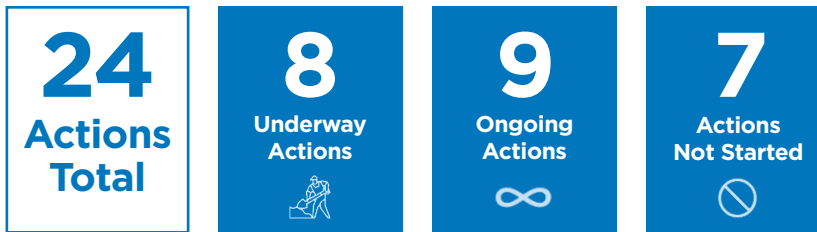
Green Development Standards

The City is working to reduce GHGs and increase the resilience of new buildings. In 2021, the City received funding from the Federation of Canadian Municipalities (FCM) to update its Green Development Standards. This funding will help the City develop standards that ensure new private developments prioritize energy efficiency, reduce GHGs, and increase climate resilience. The update will involve extensive consultations with the building industry, community groups, and members of the general public. Work on the update has begun, with the final standards expected to be completed in early 2023.





Resilient and Green Infrastructure



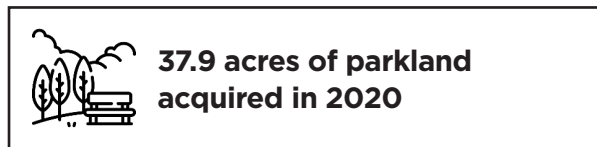
The past two years have shown the importance of adaptation and resilience in the face of unprecedented changes. They have also highlighted the importance and value of natural areas for the well-being of the community. As GHG emissions increase worldwide, we will continue to experience more frequent and prolonged extreme weather events, including higher temperatures and increased precipitation. Continuing to prepare for this ‘new normal’ is important in ensuring the city can effectively respond to and recover from extreme weather events. A key aspect of this preparation is the protection and enhancement of natural systems across the city.

Actions in the Corporation and Community

Greenspace and natural systems provide a host of services to the community, including flood protection, carbon sequestration, and regulating local temperatures. The City remains committed to expanding greenspaces – specifically parkland – throughout Mississauga, especially in areas facing increased population growth.

The City is also committed to reducing risks to its most critical services. By enhancing the resiliency of the built

and natural environment and protecting ecosystem services, Mississauga will be better positioned to cope with the impacts of climate change.



Natural Asset Management

In 2021, the City worked with the Municipal Natural Assets Initiative (MNAI) to develop a preliminary inventory of natural assets in Mississauga, which includes natural resources and ecosystems within the city (e.g., forests, parks, fields). The inventory includes a complete list of natural assets in the community, their geographic boundaries, and information about their condition and risks that they may face now and in the future. This information will help the City incorporate natural assets into its asset management planning, as well as develop a mechanism to value natural areas and the benefits they provide to the city. Ultimately, this process will serve to decrease costs to the city, increase levels of service, enhance the City’s ability to adapt to climate change, and protect and enhance the multitude of other benefits that natural assets bring to the community.

Stormwater Master Plan

In 2020, the City's stormwater team began to develop a Stormwater Master Plan, titled 'Build Beautiful.' The plan will outline actions and recommendations for managing rainwater over the immediate and long-term in Mississauga, and will account for the expected impacts of climate change. With this new plan, the City is charting a visionary course towards protecting businesses and residents and preserving the natural environment by refining its approach to stormwater-related issues, such as flooding and water quality.



14 LIDs installed throughout City road right-of-ways as of summer 2021

Low Impact Development

Low Impact Development (LID) is the strategy of filtering, storing, and returning rainwater and snow melt to the ground. This is done by combining traditional and natural practices to mimic pre-development conditions. In Mississauga, LIDs are increasingly being used in land planning and development decisions. In addition, our parks team continually looks for opportunities to include sustainable LID technology in park development and reconstruction.

LIDs have been installed throughout the city to manage stormwater runoff from roads. For example, in Fall 2020, the City's stormwater team piloted the use of porous asphalt on a residential road – a



novel LID technology that allows water to drain through the asphalt and into a stone bed below. Through this process, the stormwater quality is improved through filtration and some of the stormwater will be absorbed into the soil below, with the remaining filtered runoff sent to the City's storm sewer network. Located in the cul-de-sac of Fowler Court, the pilot site will be monitored to determine its effectiveness and the potential to use the technology throughout the city.

One Million Trees Program

Our forestry and parks teams continue to implement the One Million Trees program, with the goal of planting one million trees by 2032. The program was launched in 2012 to help conserve and enhance the city's open spaces and forested areas, and to expand the urban forest canopy. Since 2019, in collaboration with volunteers, community groups, students, organizations and businesses, more than 150,000 trees have been planted. More than 400,000 trees have been planted since the start of the program.



**>400,000 trees
planted through One
Million Trees program**

Shade Program

Shade in parks is becoming increasingly important as temperatures continue to increase and heatwaves become more frequent and longer. Shade trees and shelters provide park users with protection from the sun and heat, and from other climate events. Our parks team has initiated a Shade Program for new and existing parks. The program identifies criteria, shade options, and funding strategies for different types of shade structures, and will ensure that shade is required for basic park development. Shade structures may include the planting of shade trees or other natural assets, or installing infrastructure solutions such as gazebos.

Urban Agriculture Strategy

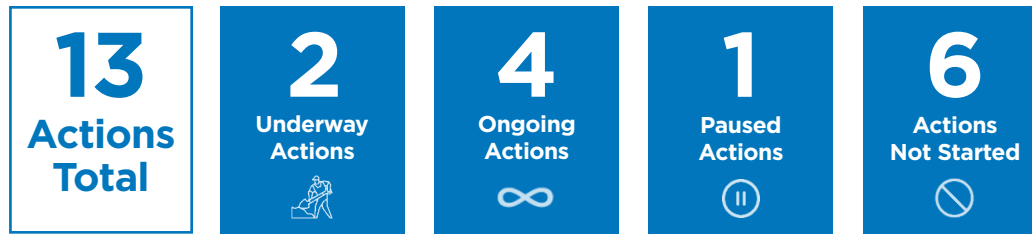
The City's environment team is leading the efforts to develop an urban agriculture strategy that will help identify the City's role in supporting urban-scale food production across Mississauga. Through the strategy, the City will work to encourage healthier lifestyles, empower the community to learn new skills about growing and harvesting produce, and support local businesses with ties to urban agriculture. The strategy intends to expand existing urban agriculture initiatives across the city, and is expected to be completed in early 2022.



**19% Urban Tree Canopy
Cover as of 2014**



Accelerating Discovery and Innovation



Climate change requires innovative interventions and responses. In recent years, cleantech has emerged as a driving force behind many of the world's leading climate change solutions, making strides in significantly improving efficiencies in energy production and resource management, and preventing and reducing degradation to the environment. At the same time, climate change considerations need to be integrated into decision-making frameworks to ensure that these considerations are not missed.

Corporate Actions

The City recognizes the importance of leading by example and piloting new innovations within the corporation as a means to share lessons learned and experiences with residents, businesses, and other Canadian municipalities.

Task Force on Climate-Related Financial Disclosures

The City's finance team has begun to include climate-related financial disclosures in its annual financial

reporting to share climate-related risks and opportunities in a consistent and comparable manner. The City provides climate-related information using the internationally-adopted Task Force on Climate-related Financial Disclosures (TCFD) Recommendation Framework. Annual TCFD-recommended disclosures help generate information that supports decision making, such as how to allocate limited funds in the transition to a low-carbon economy. Mississauga is one of only a handful of Canadian municipalities to include TCFD disclosures in its financial reporting.

Actions in the Community

Partnerships play an important role in advancing progress on climate change. The City continues to explore strategic partnerships with external organizations to pilot new programs and actions that result in real change in the city.



Dog Waste Program

In 2019, the City launched its innovative Dog Waste Pilot Program, in collaboration with Sutera Inc. The program aimed to help divert dog waste from the landfill and convert it into energy. City staff and Sutera Inc. worked together to design a fully in-ground concrete container that holds dog waste below ground where it is cooler and out of direct sunlight. Storing the waste below ground reduces odour and means that the waste can be collected when the container is full. In June 2021, Council approved City staff's recommendation to continue the program and expand it

to select parks in 2023. The program has successfully addressed the disposal of dog waste at participating City parks, while also helping to improve waste diversion and reduce recycling contamination in those parks. Based on waste audits in these parks, the City has seen a decrease in contaminated recycling, from 81% in 2017 to 53% in 2020.



**34.4 metric tonnes
of dog waste collected
since 2019**

Low Emissions Mobility



In Mississauga, the transportation sector - which includes cars, trucks, and buses - produces approximately 30% of the city's total emissions, second only to buildings. The City is committed to reducing emissions from its corporate and transit vehicles, while encouraging the use of low or zero carbon transportation options in the community. As both the corporation and community move toward low emission mobility options, it will be important to ensure that appropriate infrastructure is in place to accommodate these changes.

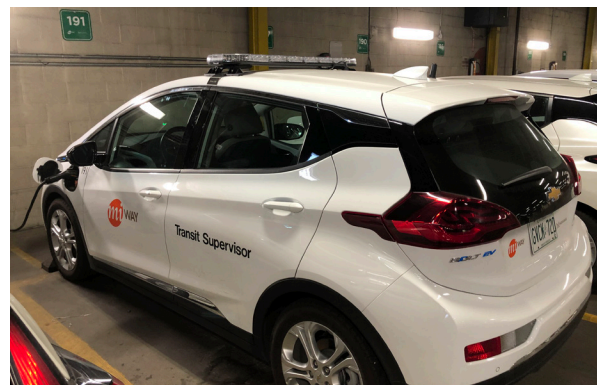
Corporate Actions

The largest source of corporate GHG emissions is the City's transit operations, which account for approximately 70% of total emissions. In order to achieve its targets, the City will need to significantly decrease emissions from transit operations.

Electrification of MiWay Buses and Fleet

The City has committed to purchase only second-generation hybrid buses as of 2020 and, from 2028 onwards, will only purchase zero emission buses. MiWay has already purchased 41 second-generation hybrid buses to add to its fleet, representing 8% of its bus fleet. MiWay is also working to replace its light duty change-off vehicles with electric ones. It currently

has 10 electric cars and will purchase approximately 44 more in the next four years. By 2025, 83% of all non-revenue transit vehicles will be zero-emission.



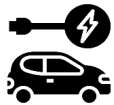
In order to accommodate the increased electrification of the City's transit and fleet vehicles, the City is working to increase the number of electric vehicle (EV) chargers in its facilities. Currently, the City has installed 10 EV chargers at MiWay's Central Parkway, and 59 more are planned for installation between 2021 and 2023 at the City's Central Parkway, Mavis, and Malton yards.



59 corporate EV charger installations planned

Hydrogen Fuel Cell Electric Bus Pilot

In 2021, the City started Phase 1 of a pilot project for hydrogen fuel cell electric buses. Working with the Canadian Urban Transit Research & Innovation Consortium (CUTRIC), Phase 1 is a feasibility study, which includes an analysis of costs, GHG emissions, and impacts on MiWay's operations. MiWay is also working with CUTRIC to secure funding for piloting 10 hydrogen buses in its transit fleet.



54 Electric and Hybrid-Electric Fleet vehicles as of fall 2021

Green Fleet and Equipment Policy

In 2020, the City approved a Green Fleet and Equipment Policy, which prioritizes the purchase of electric fleet and equipment. The policy lays the foundation for management and staff to purchase low or zero-emission vehicles and equipment, and to improve the fuel efficiency and use of existing fleet and equipment. It also identifies roles and responsibilities of staff in the electrification of the City's fleet and equipment, and in aligning the purchase of infrastructure required for the electric fleet or equipment.

Electric Lawn Equipment

Lawn equipment, such as lawn mowers and leaf blowers, produce a significant amount of GHGs. According to the U.S.



Environmental Protection Agency, in one hour of operation, a new gas-powered lawn mower produces the same emissions as 11 new cars.

In 2020, the City's Park Operations team debuted its first all-electric grass cutting equipment. This is part of a pilot project to begin transitioning small equipment used by the parks team from gas/diesel to battery-powered units.

Actions in the Community

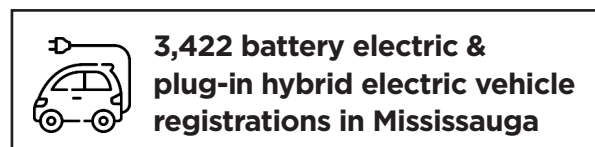
The City remains committed to supporting residents who choose low or zero-emission mobility options, including active transportation.



14.5 kilometers of new bicycle lanes in 2020

Active Transportation

The City continues to improve active transportation infrastructure. This includes the construction of new sidewalks through the annual Sidewalk Infill program, expanding cycling infrastructure through the City's cycling program, and taking a 'Complete Street' approach in development and reconstruction to ensure future roads are designed for all users. Active transportation is also supported through the implementation of key planning documents, such as the City's 2021 Pedestrian Master Plan and the 2018 Cycling Master Plan Update. Some highlights for 2020 include the construction of 3.7 kilometers of sidewalks city-wide through the Infill program, 14.5 km of new cycling infrastructure, and the construction of new multi-use trails on Mavis Road and Derry Road West.



Community EV Charging Stations

In addition to installing EV chargers for municipal operations, the City is also supporting the construction of public EV chargers. With funding support from Natural Resources Canada, 12 EV chargers have been commissioned for Sheridan College's Hazel McCallion Campus and in the Streetsville neighborhood.

The City is also planning to install 10 EV charging stations at the Central Library parking garage in partnership with Alectra Utilities and their Alectra Drive - Smart EV

Charging for Workplaces project. The goal of the project is to evaluate the impact of EV charging on the hydro grid and a building's hydro consumption, as well as stimulate the adoption of EVs at the project's program sites. By participating in the project, the purchase and installation of the EV chargers are free to the City.



Regional Zero Emission Vehicle Strategy

The City is working with the City of Brampton, Town of Caledon, Region of Peel, and the local conservation authorities to develop a regional Zero Emission Vehicle Strategy. The strategy will support the implementation of municipal actions to drive adoption of zero-emission vehicles in the Region of Peel. The strategy is currently under development, with the final version expected in 2022.



Engagement and Partnerships



Outreach and education are a critical part of implementing the CCAP. Everyone who lives, works, and plays in Mississauga has a role to play in climate action. It is important that community members have a clear understanding of the challenges and opportunities arising from climate change, and understand what they can do to reduce emissions and adapt to climate change.

The COVID-19 pandemic has changed how we interact and connect with one another. Many in-person events went virtual, while others were cancelled. Similarly, many of the City's plans for climate change outreach and education were impacted. Despite these setbacks, the City was still able to successfully conduct outreach events and continue the conversation on climate change action and awareness.

Actions in the Community

Climate Change Youth Challenge

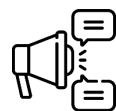
In 2020, the City launched its first-ever Climate Change Youth Challenge: Mission to Earth, a virtual educational program for secondary and post-secondary

students. The six-month program engaged and challenged youth to develop sustainable solutions for Mississauga, such as transitioning to efficient energy systems, building innovative green spaces, or reducing single-use plastics.



150+ youth engaged in climate youth challenge

The program concluded with a virtual summit event that brought together youth, community members, local government leaders, and industry experts to celebrate and inspire youth to continue taking action on climate change. The program engaged over 150 students, with 22 teams participating from both Peel School Boards, the University of Toronto Mississauga, and community youth groups.



Four climate change campaigns launched since 2019



Images from #SaugaClimateReads campaign

Sauga Climate Reads

In an effort to promote climate literacy and capture a wide audience, the City's Environment team collaborated with the Library team to launch Sauga Climate Reads, a 12-month campaign that featured a book recommendation from either a City Councillor or City staff member on climate change from Mississauga's Library catalogue. The book recommendations appealed to children, teens, and adults. The full collection can be found on Mississauga's OverDrive portal.

Community Gardens Program

The City's Community Gardens Program is a partnership between Ecosource and the Parks, Forestry, and Environment Division. The program connects residents in Mississauga neighbourhoods with gardening spaces that encourage active and healthy living, and help green the city.

Community gardens play a vital role in building sustainable local food systems, creating resilient community spaces, and providing access to fresh, healthy and nutritious food. These gardens have been especially important during the COVID-19 pandemic by providing safe spaces for community members to connect and improve collective health and well-being.



10 public community gardens in Mississauga parks

As part of the City's multi-year funding agreement with Ecosource, each year Ecosource installs one garden on parkland and two smaller gardens on private lands. As of 2021, there are 10 public community gardens in Mississauga parks.

Looking Ahead



Photo Credit: Farhaan Iqbal Hussain, We are Resilient Photo Contest submission

While the City has laid a solid foundation for climate change work moving forward, there is a need to move quicker. The City is committed to being a climate leader to meet its targets in the CCAP. To this end, the City is focused on two main actions: decreasing GHGs from the MiWay bus fleet and decreasing GHGs from, and improving the resilience of, municipal buildings.

The City will also work within the community to help residents and businesses decrease their GHG footprint and adapt to the impacts of climate change. Since buildings are the largest source of emissions in Mississauga, the

City will focus in particular on decreasing GHGs from this sector. This includes advancing a regional home energy retrofits program and working with multi-unit residential building owners to decrease their buildings' GHGs.

As highlighted throughout this report, reaching the targets of the CCAP will require a coordinated effort. This includes support from other levels of government. The City will work to lead and inspire the community to take climate change action so that Mississauga continues to be a place where neighbourhoods, businesses, institutions, and residents thrive.

Appendix

The table below provides an overview of the 89 actions in the City's Climate Change Action Plan, including their action ID, action description, and implementation status.

Buildings and Clean Energy

Action		Status
1-1	Support and encourage developer-led efforts to include low carbon energy systems in new development	Ongoing
1-2	Conduct a district energy feasibility study in the downtown for community and municipal buildings to advance low carbon energy systems in Mississauga	Underway
1-3	Conduct a study to identify mechanisms to enhance community energy planning through the Official Plan or other planning tools (i.e. Development Master Plan) particularly in growth areas and areas for major redevelopment	Not Started
2-1	Include policy direction in the City's Official Plan to support the Climate Change Action Plan	Underway
2-2	Incorporate a climate impact lens in to streetscape design in the Downtown Public Realm Strategy and, once complete, consider applicability city-wide	Underway
2-3	Revise the development application requirements and update the complete application criteria in the Official Plan to align with the updated Green Development Standards	Not Started
3-1	Update the Green Development Standard to include energy and resilience considerations within building, site features, and boulevard design	Underway
3-2	Identify opportunities to introduce new legal and/or policy tools, including by-laws, to require implementation of climate resilience measures (e.g., green roof by-law) in new buildings	Not Started

Appendix

Action		Status
4-1	Conduct a GHG Reduction and Solar Feasibility Study for Corporate Buildings	Complete
4-2	Explore models to finance investment in renewable capacity to meet City facility needs	Not Started
4-3	Identify and advance opportunities for renewable energy generation and storage at City-owned facilities to supply the needs of existing and future City-owned facilities and buildings	Paused
5-1	Build all new municipally-owned buildings to be more energy efficient and near net-zero	Ongoing
5-2	Retrofit municipally-owned buildings to reduce natural gas and electricity consumption	Paused
5-3	Develop municipal resilient design guidelines to complement existing Energy Design Guidelines to apply to retrofits and lifecycle replacements of municipal buildings	Not Started
6-1	Support new Sustainable Neighbourhood Retrofit Action Plans or other neighbourhood level action planning that focuses on retrofitting multi-unit residential buildings to be more energy efficient and resilient	Underway
6-2	Develop energy and resilience retrofit programs for homeowners and landlords to promote opportunities, existing programs, incentives, and technologies that improve resilience, drive energy efficiency, and reduce greenhouse gas emissions	Underway
6-3	Develop targeted programming based on energy maps and community greenhouse gas emissions inventories and continue to update data sets on regular cycles (e.g., annually/every five years)	Not Started

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Action	Status
6-4 Encourage the use of low carbon heating and cooling technologies (e.g., heat pumps) for space and water heating and cooling	Not Started
6-5 Promote building envelope upgrades (e.g. wall insulation, energy efficient windows) in residential, commercial, and industrial buildings	Not Started

Resilient and Green Infrastructure

Action	Status
7-1 Create a targeted municipal green infrastructure program, which includes developing a Geographic Information System (GIS) based inventory, and monitoring assets with a particular focus on the impact of climate change over time	Underway
7-2 Develop an Asset Management Plan for all municipally-owned and/or managed natural assets	Underway
7-3 Develop a mechanism to value green infrastructure assets and the benefits of these assets to the community	Underway
8-1 Explore options to enhance resilience in City-owned spaces and parks (e.g., walking pathways in parks) as opportunities arise on a site-by-site basis	Underway
8-2 Develop and continuously update City design and maintenance standards for trees, shrubs, and perennials in urban locations to include considerations of advanced technology, species selection, and climate impacts (e.g., drought) in line with Recommendation 12 from the City's Parks and Forestry Master Plan	Ongoing

Appendix

Action		Status
8-3	Create design guidelines to consider alternative adaptive materials (e.g., more resilient to heat, freeze/thaw, wind) in the engineering and design of public spaces	Underway
9-1	Continue to create response plans for climate-related risks (e.g., heat) to ensure suitable warning systems and response procedures are in place during extreme weather events	Ongoing
9-2	Update and expand climate-related risk and vulnerability assessments for the community and the Corporation, with a specific focus on vulnerable populations, and develop targeted adaptation plans	Not Started
9-3	Conduct a climate vulnerability assessment of all existing municipal assets as part of the development of asset management plans	Not Started
9-4	Develop an urban agriculture and food security strategy	Underway
9-5	Work with regional partners to enhance existing programs and services to address health impacts from climate change, increase awareness and responsiveness, and identify effective interventions and partnerships	Not Started
10-1	Increase the urban tree canopy and the diversity of tree species being planted on public and private lands	Ongoing
10-2	Finalize and implement invasive species monitoring and control within the context of climate change, as per the Invasive Species Management Plan (2019)	Ongoing
10-3	Review existing watering programs based on changing climate conditions and consider alternative sources of water, including potential rain capture or irrigation systems	Underway

Appendix

Action		Status
10-4	Create a community tree monitoring program to involve residents in the upkeep and maintenance of trees in their neighbourhoods	Not Started
10-5	Continue to diversify vegetation community types, including meadow, wetlands, and forests, in public spaces	Ongoing
11-1	Work with partners to monitor and model air quality	Ongoing
11-2	Update Idling Control By Law and corporate policy (09-00-02 - Unnecessary Vehicle Idling) and explore enhanced enforcement models for personal, municipal, and freight vehicles	Not Started
11-3	Work with other levels of government within the goods movement sector to explore pilot projects in Mississauga that improve local air quality	Not Started
11-4	Update the Corporate Smog and Air Health Advisory Response Plan	Not Started
12-1	Assess the condition of the existing stormwater system as part of the Stormwater Asset Management Plan	Ongoing
12-2	Develop a comprehensive long-term stormwater management strategy to reduce surface runoff and enhance flood resilience	Underway
12-3	Explore the use of green infrastructure to manage stormwater on publicly and privately owned properties (e.g., permeable paving, blue roofs)	Ongoing
12-4	Develop neighbourhood-based flood mitigation plans (for urban overland and sanitary flooding) to identify opportunities to decrease flood risk	Ongoing

Appendix

Accelerating Discovery and Innovation

Action		Status
13-1	Develop a clean energy and innovation network to support cleantech sector growth, facilitate business-to-business connections, and identify top priorities for the sector and the City	Not Started
13-2	Explore partnership opportunities to deploy clean energy technology solutions in Mississauga	Not Started
13-3	Develop innovation challenges to provide opportunities for the public to co-problem solve local issues or problems (e.g., localized flooding), test out new ideas, and connect with the City	Paused
13-4	Explore innovative pilot projects and opportunities to enhance resilience and reduce greenhouse gas emissions (e.g., heat pump retrofits)	Ongoing
13-5	Work with industry and businesses to support initiatives to decrease emissions and enhance resilience	Ongoing
14-1	Develop a lifecycle cost analysis framework to apply to all lifecycle replacements, equipment, and new buildings	Not Started
14-2	Apply a climate lens to Corporate business continuity plans for critical infrastructure sectors to ensure climate impacts are considered	Not Started
14-3	Develop a climate change decision-making framework or policy to guide municipal decision making	Not Started
15-1	Work with partners to provide input to industry on emerging low carbon technologies for specific applications to deliver City services	Not Started

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Action		Status
15-2	Research changes and innovation in the transportation and energy sectors to identify low-carbon opportunities for the Corporate fleet	Ongoing
16-1	Develop a Corporate waste reduction strategy	Underway
16-2	Develop and maintain industry and community partnerships to provide consistency, control operational costs, and improve waste diversion rates	Underway
16-3	Explore opportunities to implement the circular economy to reduce waste	Ongoing

Low Emissions Mobility

Action		Status
17-1	Use improved analytical platforms (e.g., telematics) to monitor driver behaviour and develop a driver training program to reduce fuel consumption and Corporate idling	Underway
17-2	Develop a green fleet policy to (1) prioritize electrification opportunities for all City fleets and equipment; and (2) continue to identify opportunities for proper vehicle allocation, route optimization, and right-sizing fleet	Complete
17-3	Electrify the light duty transit vehicles and Corporate fleet and equipment and expand use of renewable fuels	Underway
17-4	Assess charging infrastructure options for future electrification of transit (e.g., depot vs. on-route charging)	Underway
17-5	Replace the transit bus fleet with low or zero emission vehicles	Ongoing

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Action		Status
17-6	Pursue innovative low or zero emissions pilot and partnership opportunities (e.g., hydrogen or electric bus pilots)	Ongoing
17-7	Assess infrastructure readiness for electric vehicle charging infrastructure in Corporate and municipal parking facilities to accommodate the electrification of the Corporate and transit fleets	Ongoing
18-1	Encourage and enable micro-mobility systems and establish a policy framework for shared micro-mobility systems (e.g., bike share) in Mississauga	Underway
18-2	Include climate change considerations (e.g., extreme weather, tree canopy) in the development of the Complete Streets Design Guidelines as per Action 1 of the City's Transportation Master Plan	Underway
18-3	Develop a zero emissions vehicle strategy to accelerate the adoption of zero emissions vehicles	Underway
18-4	Prioritize active transportation improvements in roadway development and redevelopment	Ongoing
18-5	Install electric vehicle charging infrastructure at City-owned properties (e.g. city hall) for use by employees and the general public	Underway
18-6	Work with industry partners and other levels of government to promote innovative technologies and pursue alternative fuels initiatives in the goods movement sector	Not Started
18-7	Develop transportation demand management requirements for new developments in line with Recommendation #4 in the City's Transportation Demand Management Strategy and Implementation Plan	Underway

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Action	Status
18-8 Identify and address gaps and inconsistencies in the pedestrian network, consistent with Action 14 of the City's Transportation Master Plan	Underway
18-9 Expand the City's bicycle parking supply, including short-term and long-term facilities on commercial, residential, and City-owned properties, consistent with Action 1.4 in the Cycling Master Plan Update (2018)	Ongoing

Engagement and Partnerships

Action	Status
19-1 Work with partners to support industry and all levels of government in promoting and developing low carbon and resilient standards, policies, and programs	Ongoing
19-2 Pursue opportunities to collaborate with community groups and organizations to accelerate climate action	Ongoing
19-3 Develop an education program on climate and emergency preparedness	Ongoing
19-4 Assess the public's familiarity with and views on climate change and develop a behaviour change strategy to inform current and future engagement work	Paused
19-5 Develop climate hubs to establish a centre for climate-related training programs, information, tools, and networks	Paused
19-6 Create targeted programming based on energy usage in residential, commercial, and industrial buildings to promote energy efficiency retrofits	Underway
19-7 Work with partners to advocate to the provincial and federal governments for funding to improve low-carbon transit	Ongoing

Appendix

Action		Status
20-1	Showcase new and existing climate actions throughout the city through signage, promotional materials, case studies, awards, etc.	Ongoing
20-2	Promote and engage community groups, businesses, and municipal staff in workplace transportation demand management (TDM) programs across Mississauga	Paused
20-3	Develop targeted outreach and engagement opportunities for youth in Mississauga	Ongoing
20-4	Develop and deliver training to 311 staff to connect residents and businesses with new and existing programs to promote and support rebates, incentives, products, and services	Not Started
20-5	Work with partners to deploy programs to drive climate action in the business sector	Ongoing
20-6	Conduct community action campaigns to promote individual action on climate change	Ongoing
21-1	Develop a climate-themed event as part of the Smart City Centre for Civic Curiosity	Not Started
21-2	Develop tools and technologies (e.g., surveys, apps) to support and drive behaviour changes in the community	Ongoing
21-3	Develop a community climate leaders program to encourage, support, and empower key target audiences (e.g., youth, businesses) in Mississauga to take action	Not Started
21-4	Explore opportunities to provide information about financial and non-financial incentives for home energy and resilience retrofits (e.g., energy efficiency upgrades, renewable installations)	Underway

City of Mississauga
Corporate Report



<p>Date: November 15, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works</p>	<p>Meeting date: December 1, 2021</p>

Subject

Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy

Recommendation

That the Corporate policy and procedure attached as Appendix 1 to the report from the Commissioner of Transportation and Works, dated November 15, 2021 and entitled "Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy", be approved.

Executive Summary

- Telematics/Global Positioning System (GPS) devices are installed in over 850 City owned, leased or contracted on-road vehicles and off-road equipment.
- These devices report to an enterprise software solution that is capable of tracking, storing and reporting the locations, movements and actions of the City's fleet in real-time.
- The City of Mississauga has been using this type of technology for more than 10 years and does not have a Corporate policy to govern the installation and operation of devices; or, the collection, custody, control, access and retention of information gathered from the system.
- The implementation of a Corporate policy will provide consistent direction on access to, and use of, the information gathered. It may also help to address potential implications for employment relations/labour relations and manage privacy risks as the program grows.
- Vehicles and equipment operated by Mississauga Fire and Emergency Services, and MiWay, are excluded from this policy.

Background

The City's Corporate fleet Telematics (TMX) system includes devices physically installed in vehicles and equipment that collect GPS data (including location, position and heading) and TMX data (including speed, RPM and kilometers travelled) and transmits that data over the wireless communications network to an enterprise software solution, where it is processed and can be viewed in a web-based portal.

TMX was first introduced to the City over 10 years ago to determine, which roads had been serviced during winter operations and to provide a method for members of Council, residents and staff to see the progress of work through a mobile application. Since then, many other Divisions have added TMX to their equipment to meet a variety of business needs.

In 2014, as more Fleet vehicles and equipment installed TMX devices, divisions were responsible for creating their own standard operating procedures specific to their use of the system. The City does not currently have a Corporate policy in place that governs the overall collection, access or use of the TMX system and related data.

Present Status

Today, there are approximately 525 City-owned vehicles and pieces of equipment, and 325 contractor-owned vehicles and pieces of equipment that are equipped with TMX devices across 18 service areas. These include:

- Animal Services
- Survey and Inspections
- Maintenance Standards and Permits
- Facilities and Property Management
- Library and Material Handling
- Municipal Parking
- Security Operations and MiWay Transit Security (4)
- Recreation
- Culture
- Works Operations
- Signs and Pavement Markings
- Operations Program Coordination
- Traffic Management
- Courier
- Fleet Services
- Parks Operations
- Forestry Operations
- Parking Enforcement

It is expected that as the TMX Program grows, the entire Corporate fleet (1,500 vehicles and pieces of equipment) will eventually be equipped with TMX devices.

Comments

An overarching policy will provide a framework for the City's TMX Program and ensure that there is a consistent understanding of what the TMX system is, who has access to it and how the information that is collected can be used. Division-specific standard operating procedures, if required, will focus on operationalizing the principles of the policy according to unique business needs.

The policy includes details of accountability for all parties involved in the TMX Program and ensures a mutual understanding of responsibility. These parties include:

- Divisional Directors
- Fleet Services
- Managers/Supervisors
- Employees with Access to the TMX/GPS Systems
- Vehicle and Equipment Operators

Privacy and Data Collection

The policy provides clear guidance on the type of information that may be collected for vehicles and equipment, as well as the use and disclosure of such data. It also limits who will have access to the data and addresses unauthorized access, use and/or disclosure of information.

In the event that data access is required by an entity not already authorized, a request must be completed and submitted to the applicable director, who may consult with Legal Services. If data is provided, the following information will be logged for audit purposes:

- The date and time at which the data was requested and provided;
- The identification of the party who requested the System data;
- The director approving the provision of System data;
- The reason for sharing System data;
- The extent of the data that was shared; and,
- Provisions for the return of the data and/or its destruction.

Benchmarking

TMX policies are growing in popularity across many sectors. Staff researched and reviewed TMX policies from the following private and public sector organizations during the policy development process:

- Bell Canada;
- City of Vancouver; and,
- Toronto District School Board

The review found that as TMX expanded to cover a variety of operations, there was a growing need to provide guidance, consistency and clarity across the organization. This resulted in policies being developed, implemented, and monitored for effectiveness.

Exclusions to the Policy

Mississauga Fire and Emergency Services, and MiWay, both use stand-alone TMX solutions that are unrelated to the Corporate fleet system and gather data for different purposes. After considering these differences, and in consultation with these groups, it was agreed that they should be excluded from the Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy.

Strategic Plan

The Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy is aligned with the Green Strategic Pillar. In particular, to *“lead and promote the utilization of technologies and tactics to conserve energy and water, reduce emissions and waste, improve our air quality, and protect our natural environment”*.

The drive for carbon neutral transportation for City operations depends on a strong TMX Program guided by a consistent policy framework so that the data can inform positive, incremental change in the City’s fleet. Specifically, to track vehicle performance, efficiently manage fleet assets and reduce greenhouse gas emissions.

Engagement and Collaboration

Staff collaborated with Labour Relations, Records Management, and the Access and Privacy Officer in completing the draft policy. In addition, a draft policy was circulated for review to teams that have vehicles and/or pieces of equipment with a TMX device, or where the division had expressed interest in the TMX system.

Financial Impact

There is no financial impacts resulting from the recommendations in this report for the proposed implementation of the Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy.

Conclusion

The implementation of this policy will improve data security and provide a consistent framework for the Corporate fleet’s TMX Program. The policy will ensure proper governance of the program, establish clear levels of accountability and address the use and disclosure of information. This policy can inform division-specific standard operating procedures while ensuring that risk is managed across divisions.

Attachments

Appendix 1: Use of Telematics/Global Positioning Systems in Fleet Vehicles/Equipment Policy



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

Prepared by: Jessica Ruddell, Manager, Fleet Services, Works Operations and Maintenance

City of Mississauga

Corporate Policy & Procedure



Policy Title: Appendix 1 - 2021 10 21 - clean copy - draft GPS in Vehicles Policy.docx

Policy Number: [Policy No.]

Draft Only – Clean Copy – October 21, 2021

Section:	Corporate Administration	Subsection:	Technology
Effective Date:	[Effective Date]	Last Review Date:	[Last Review]
Approved by: Click here to enter text.		Owner Division/Contact: For additional information on Telematics/ GPS equipment contact the applicable divisional director. For more information related to the Municipal Freedom of Information and Protection of Privacy Act, contact the Legislative Services, Corporate Services Department.	

Policy Statement

Telematics/Global Positioning System (GPS) devices are installed in specific City of Mississauga (the “City”) owned, leased or contracted on-road vehicles and critical off-road equipment, as determined by the City.

Purpose

The use of Telematics/GPS devices is an effective means of ensuring the optimal efficiency and safety of City employees and members of the public. The need to ensure optimal efficiency and safety must be complemented by responsible and efficient management of the data generated by these devices and systems. The purpose of this policy is to establish procedures which are intended to achieve this balance.

Specifically, this policy addresses requirements and responsibilities with respect to:

- The installation and operation of Telematics/GPS devices in designated Fleet Vehicles and Fleet Equipment, including the collection of information by the Telematics/GPS System
- The use of the information obtained through Telematics/GPS devices and the Telematics/GPS System, and
- Custody, control, access to and retention of information obtained through the use of Telematics/GPS devices and the Telematics/GPS System

Policy Number: [Last Review]	Effective Date: Click here to enter text.
Policy Title: Appendix 1 - 2021 10 21 - clean copy - draft GPS in Vehicles Policy.docx	Last Review Date:

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Scope

This policy applies to all City-owned, leased or contracted on-road vehicles and off-road vehicles and equipment equipped with Telematics/GPS devices and to all union, and non-union employees and contractors. City-owned Vehicles with Telematics/GPS devices installed are identified with a decal.

Excluded from Scope

Vehicles and/or equipment operated by Mississauga Fire and Emergency Services and MiWay are excluded from this policy.

Related Policies

[Data Handling](#) - All City of Mississauga Data will be handled, classified and security-controlled in accordance with the criteria defined in this policy.

[Open Data Program](#) - The City of Mississauga is committed to the principles of open and transparent government. Telematics/GPS data, in a form satisfactory to the Open Data Program Policy, may be published as Open Data.

[Access and Acceptable Use of Information Technology Resources](#) - The City provides access to various types of Information Technology Resources for business purposes and expects that all Information Technology Resources will be used appropriately and in accordance with this policy.

Legislative Authority

Section 11(1) of the *Municipal Act*, 2001 provides the City with the authority to collect Telematics/GPS data. This policy also reflects the provisions of the *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA), as amended. Refer to Corporate Policy and Procedure – Freedom of Information and Protection of Privacy for general information regarding this Act.

Definitions

For the purposes of this policy:

“City” means the Corporation of the City of Mississauga.

“Fleet Vehicles” or “Vehicles” means all City-owned or operated on-road licensed light, medium and heavy-duty vehicles, including contractor vehicles, and includes but is not limited to cars, trucks and trailers.

“Fleet Equipment” or “Equipment” means all City-owned or operated units, including contractor equipment, and includes but is not limited to non-licensed off-road equipment, riding lawn mowers, tractors, backhoes/loaders, Auxiliary Power Units and other auxiliary equipment (e.g. tractor attachments).

Policy Number: [Last Review]	Effective Date: Click here to enter text.
Policy Title: Appendix 1 - 2021 10 21 - clean copy - draft GPS in Vehicles Policy.docx	Last Review Date:

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"Record" means recorded information/data in any format or medium that documents the City's business activities, rights, obligations or responsibilities or recorded information that was created, received, distributed or maintained by the City's staff in compliance with a legal obligation.

"Service Level Agreement" ("SLA") means the contract that sets out the terms of service delivery for the provision of services between the client department and the service provider.

"Telematics/GPS Devices" means the devices physically installed in Vehicles and Equipment that collect GPS data (including location, position, heading) and telematics data (including speed, RPM, fuel consumption) and transmits that data over the wireless communications network to servers, where it is processed and can be viewed in a web-based portal.

"Telematics/GPS System" or "System" means the satellite based technology of sending, receiving and storing information using telecommunication devices in Vehicles and Equipment. The GPS component provides Vehicle and Equipment location, date and time information. Telematics/GPS Devices also connect to, and gather data from, the onboard computing systems within vehicles.

"Transitory Records", in accordance with the Records Retention By-law, as amended, means records of temporary usefulness that are not integral to an administrative or operational record series, and are only required for a limited period of time to complete a routine action or prepare an ongoing record.

"Vehicle and Equipment Operator" means all City employees and contractors who operate Fleet Vehicles and/or Fleet Equipment.

Objectives

The objectives of implementing the use of Telematics/GPS Systems are to:

- Optimize technology to analyze Vehicle performance and Vehicle conditions to achieve productivity improvements (e.g. planning, productivity analysis for route optimization/route planning and route completion; number of Vehicles required)
- Protect and manage the City's assets
 - reduce asset depreciation rates by using Telematics/GPS to schedule regular Vehicle maintenance
 - achieve better fuel efficiency
 - locate and retrieve Vehicles and Equipment (e.g. in case of theft)
- Analyze Vehicle and Equipment Operator performance for the purpose of improving safety, asset protection, workforce management and productivity
- Ensure that vehicles are operated within safety parameters and in compliance with all traffic regulations

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- Enhance Vehicle and Equipment Operator safety (e.g. activation of emergency protocol/ location identification if “failure to respond”)
- Reduce unnecessary idling to align with the City’s environmental stewardship and assist in reducing greenhouse gas (GHG) emissions
- Ensure service level targets are being met
- Enhance the ability to communicate service levels to the public (e.g. via web based mobile applications)
- Respond to public concerns regarding service levels and/or to validate a complaint regarding Vehicle and Equipment Operator conduct
- Provide additional data related to the use of materials, and
- Respond to insurance claims made against the City

Accountability

Divisional Directors

All applicable divisional directors are accountable for:

- Ensuring all applicable managers/supervisors are aware of this policy and any related protocols, as well as any subsequent revisions, and
- Ensuring compliance with this policy

Fleet Services

Fleet Services is accountable for:

- Determining which Vehicles and/or Equipment Telematics/GPS devices will be installed in, in consultation with the applicable manager/supervisor
- Providing the Telematics/GPS hardware, including the initial deployment and/or removal of the standard Telematics package, based on the applicable fleet’s operation
- Ensuring access to the System is only granted to the managers/supervisors defined by the applicable SLA or who have a legitimate need to access the System
- Approving, managing and removing access to the Telematics/GPS System for applicable staff, as requested by managers/supervisors
- Ensuring that all System Equipment and Devices are securely stored in a controlled access area
- Ensuring that Telematics/GPS Devices are operational and that issues are reported to the applicable manager/supervisor; and
- Ensuring the collected data is available and accessible to the departments/divisions, in accordance with and in compliance with this policy

Note: All Telematics/GPS equipment installed in contracted vehicles remains the property of the City.

Policy Number: [Last Review]

Effective Date: [Click here to enter text.](#)

Policy Title: Appendix 1 - 2021 10 21 - clean copy -
draft GPS in Vehicles Policy.docx

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Managers/Supervisors

Managers/supervisors are responsible for:

- Ensuring applicable staff are trained on this policy and any related protocols or procedures, as well as any subsequent revisions, with respect to their specific job function
- Ensuring employees acknowledge completion of training and for maintaining training records
- Ensuring all employees comply with this policy and follow any related protocols or procedures, including responsibilities with respect to protection of privacy and confidentiality
- Advising Vehicle and Equipment Operators in advance of the installation of Telematics/GPS Devices in Vehicles or Equipment assigned to or used by them
- Periodically reviewing System data to ensure safe operation of Vehicles and Equipment, in accordance with the *Highway Traffic Act*, and to ensure safeguarding of City assets
- Advising Fleet Services of any issues related to the System and/or Devices
- Not accessing, using or disclosing the System for personal reasons and/or interfering with the Telematics/GPS Device and its operation
- Maintaining custody, control and security of all Transitory Records from creation through to final disposition, and
- Approving, managing and removing access to the Telematics/GPS System for applicable staff, as required

Employees with Access to Telematics/GPS Systems

Employees with access to Telematics/GPS Systems are responsible for:

- Reviewing this policy and/or attending training related to this policy, as required
- Complying with this policy in performing their duties and functions related to the operation of the System
- Not accessing, using or disclosing the System for personal reasons and/or interfering with the Telematics/GPS Device and its operation
- Never sharing their login credentials
- Protecting the privacy of individuals with respect to personal information under MFIPPA, and
- Immediately informing their manager/supervisor of any unauthorized access, use and/or disclosure of Telematics/GPS System data

Vehicle and Equipment Operators

Vehicle and Equipment Operators are responsible for:

- Reviewing this policy and/or attending training related to this policy, as required
- Complying with this policy in performing their duties and functions related to the operation of Vehicles and Equipment, and
- Adhering to all procedures related to the operation of Vehicles and/or Equipment (e.g. log in and out; schedules; Vehicle and Equipment handling, including not interfering with the Telematics/GPS Device and its operation)

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Data Collected

The City will collect the following Vehicle and Equipment data:

- Vehicle information from on-board computers and sensors, including the Vehicle identification number
- Date, time and geographic location in real time
- Engine status, including ignition on/off events, stop and start times and idling time, and
- The operating behaviour of Vehicle and Equipment Operators, including but not limited to: non-business use, inefficient routing, speeding, harsh braking, acceleration and cornering

Additional data may be collected for Vehicles and Equipment, including but not limited to:

- PTO (power take off) engagement
- Plow position (up or down)
- Air and road temperature
- Material spreader controller data (spread rates, such as salt/liquids)
- Driver identification, pre-trip inspection reports and Hours of Service logs, and
- User logs

Note: The data from Telematics/GPS Systems is stored by a third party provider; however, is wholly owned by the City.

Use and Disclosure of Data Collected

The data collected through Telematics/GPS System and Devices will be used only:

- To meet the Objectives outlined in this policy
- To provide law enforcement agencies with evidence related to an incident under investigation
- To respond to a request for information under MFIPPA
- To aid in the investigation of an insurance claim filed against the City
- To investigate an incident or allegation of Vehicle and Equipment Operator misconduct, and
- As required by law

Note: The public will have the ability to download an application to their mobile device to access Winter Operations updates. The data will not display Vehicle and Equipment Operator information.

Access to Telematics/GPS Data

Access Restrictions

Access to Telematics/GPS System data is limited to:

- Authorized managers/supervisors
- Individuals responsible for the operation or administration of the System, including the Fleet Business Improvement Specialist

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- Employees identified by client groups who manage the System, analyze the data, track information for the Commercial Vehicle Operator's Registration (CVOR) system, conduct investigations and generate reports
- Individuals who have a need to access the information for one of the purposes listed in the "Use and Disclosure of Information Collected" section of this policy, and
- Individuals whose request for access under MFIPPA has been granted

Authorized staff will be able to access data through automated email/SMS alerts, weekly summary reports and by logging into their customized dashboard using their City login credentials.

Data Access Procedures – Requests from Other Sources

System data will only be provided, at the City's discretion, to those demonstrating a legitimate need to review the data. An access request for System data must be completed and submitted to the applicable director. In making a determination to provide access, the director may consult with Legal Services.

When access to the Telematics/GPS System data is provided, the following information will be logged for audit purposes:

- The date and time at which the data was requested and provided
- The identification of the party who requested the System data
- The director approving the provision of System data
- The reason for sharing System data
- The extent of the data that was shared, and
- Provisions for the return of the data and/or its destruction

Data and Records Management

Retention of Telematics/GPS Data

The data collected through the Telematics/GPS System will be retained in accordance with Corporate Policy and Procedure – Corporate Records Management Program and for the period specified in the City of Mississauga's Records Retention By-law 0097-2017, as amended, unless special circumstances warrant retention for a longer period of time (e.g. where a Vehicle has been involved in an accident and there are claims against the City).

Unauthorized Access, Use and/or Disclosure

Any unauthorized access, use and/or disclosure of Telematics/GPS System data is cause for disciplinary action, up to and including termination of employment.

If a privacy breach occurs, the manager/supervisor will inform the System Administrator and the Access and Privacy Officer and together they will take all necessary actions to stop and contain the breach, as well as to investigate and remediate the situation.

Policy Number: **[Last Review]**

Effective Date: **Click here to enter text.**

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Revision History

Reference	Description
Enter previous review - e.g. GC-1234-2015	Click here to enter text.

DRAFT

City of Mississauga
Corporate Report



<p>Date: November 15, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer</p>	<p>Meeting date: December 1, 2021</p>

Subject

New Procurement By-law and New Corporate Policy – Contract Amendments and Terminations

Recommendation

1. That the report dated November 15, 2021 titled “New Procurement By-Law and New Corporate Policy – Contract Amendments and Terminations” from the Commissioner of Corporate Services and Chief Financial Officer be received.
2. That the New Procurement By-law governing the City’s procurement of goods and services be enacted, effective March 1, 2022.
3. That the existing Purchasing By-Law # 374-2006, as amended, be repealed effective March 1, 2022.
4. That the draft Corporate Policy – Contracts Amendments and Terminations be approved.

Executive Summary

- Materiel Management, Legal Services and Internal Audit have developed a new Procurement By-law in consultation with the Extended Leadership Team. The new By-law is general with procedural details removed to policy where possible.
- A new, separate Corporate Policy - Contract Amendments and Terminations (Section 18 of the current By-law) addresses procedures, role clarity and accountabilities in detail.
- The Leadership Team endorsed the new By-law and Policy on November 4, 2021.
- Staff recommend increasing the Low Value Acquisition (LVA) limit from \$10,000 to \$25,000. Most LVA is low risk. Specific training and resources will be available for higher risk LVA, including labour services and construction. LVA is regularly monitored for compliance and strategic procurement opportunities. The thresholds for Medium Value Acquisition (MVA = up to \$100,000) and High Value Acquisition (HVA = more than \$100,000) are unchanged. HVA aligns with the Canadian Free Trade Agreement (CFTA) and the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union.

- Contract management is an important role; the new By-law defines the role and responsibilities.
- New Section 5 - Ethical Conduct by Bidders and Suppliers addresses collusion, influence and conflicts for bidders and suppliers.
- Section 6 – Conflicts of Interest (internal) was strengthened in response to recent internal audits.
- Section 9 – Authorities, Responsibilities and Duties directs readers to Schedule “D”, a new schedule that consolidates all of the general roles and responsibilities in procurement processes in one place.
- Section 10 – Planning for Procurement includes engaging Council in advance of procurement if significant changes are made, where relevant.
- Schedule “B” Award Approval and Contract Execution Authority was revised to allow Departmental Directors to approve competitive procurements up to \$500,000. Currently Department Heads approve all competitive procurements at more than \$100,000. This change aligns with Schedule “C” Legal Review Requirements, which considers procurements over \$500,000 to be higher risk.
- Changing the section name from Materiel Management to Procurement Services and changing the title of Purchasing Agent to Chief Procurement Officer are in keeping with modern terminology.
- On Council approval, the new By-law and Policy will become effective on March 1, 2022 and rolled out to staff through WebEx training and presentations.
- Council occasionally raises the subject of local preference. In Ontario, the *Discriminatory Business Practices Act* does not allow preference based on the location of persons or businesses. The trade agreements (CETA and CFTA) further limit the ability to give local preferences in procurement.
- For publicly advertised High Value Acquisitions, staff have no ability to specify local or Canadian made products. Staff obtain quotations for MVA goods and services locally where possible.
- An update to the Sustainable Procurement Policy in 2022 will include approaches for MVA and LVA for local procurement where possible and address social procurement matters such as supplier diversity and inclusion.
- A Summary of the proposed new Procurement By-law is Appendix 3 to this report.

Background

The City’s Procurement By-law aligns with procurement law and best practices for public procurement and is the official rules for the City’s procurement of goods and services. Several relevant policies support the By-law. Together, these documents are important to ensure good governance, best value and compliance with legislation and trade agreements.

The current By-law was implemented in 2006 with updates as required. Materiel Management, Legal Services and Internal Audit reviewed the By-law with the objectives of updating and modernizing it, using plain language, point form and avoiding duplication of information. Emphasis was on keeping the By-law general, with procedural details removed to separate policies, where possible. The proposed new Procurement By-law is Appendix 1 to this report.

Section 18 of the current By-law, “Amendments, Interim Extensions, Renewals & Terminations” required substantially more procedural details and was removed to a separate policy. The Policy also provides role clarity and strengthens accountability. A draft of the new Corporate Policy – Contract Amendments and Terminations is Appendix 2 to this report.

Comments

Highlights of the new By-law include:

By-law Spend Thresholds

Staff recommend increasing the Low Value Acquisition (LVA) limit from \$10,000 to \$25,000. This increase will give staff greater autonomy to make basic purchases. Most LVA is low risk. Specific training and resources will be available for higher risk LVA, including labour services and construction. LVA is regularly monitored for compliance and strategic procurement opportunities.

The thresholds for Medium Value Acquisition (MVA = up to \$100,000) and High Value Acquisition (HVA = more than \$100,000) are unchanged. HVA aligns with the trade agreements.

New Definitions:

“**Contract Manager**” means a City employee to whom the Departmental Director has delegated Procurement process responsibility and/or Contract management responsibility.

This role was previously undefined. This definition, plus other references to responsibilities in the By-law clarifies the differences between the contract manager and buyer roles and allocates accountability for the contract manager role.

“**Fixed Term**” means the specific term applied to a Contract for regularly required Goods and/or Services, such as maintenance services, office supplies and other commonly used Goods.

Currently these types of contracts provide for multiple extension years beyond the initial term. Most contracts are extended year by year to the maximum, indicating that the estimated possible term was appropriate. In the extension years, best value becomes difficult to verify. Applying an appropriate fixed term to the types of contracts described provides for full disclosure to bidders, administrative efficiency, and improves procurement planning and workload balancing.

New Section**Section 5 - Ethical Conduct by Bidders and Suppliers**

This section addresses collusion, influence and conflicts for bidders and suppliers.

In addition, Section 6 – Conflicts of Interest (internal) was strengthened in response to recent internal audits.

New Schedule**Schedule “D” Authorities, Responsibilities and Duties of Staff**

The schedule describes the authorities and general responsibilities and duties for staff having a role in Procurement processes. Additional and/or more detailed responsibilities may also be included in related corporate policies and procedures.

Amended Schedule**Schedule “A” Single Source and Emergency Procurement**Revised

- The term “single source” only (not sole source) to define non-competitive procurements
- Criterion (iv)...Bids not economical to the City... has been replaced with the following language from the trade agreements:

For additional Goods and/or Services from the original Supplier that were not included in the original Procurement if the change of Supplier for such additional Goods and/or Services cannot be made for:

- Economic or technical reasons such as requirements of interchangeability or interoperability with existing equipment, software, services or installations procured under the initial Procurement; and
- Would cause significant inconvenience or substantial duplication of costs for the City.

Deleted

The following criterion does not align with the trade agreements and has been deleted.

- (xvi) Funding and project completion timelines imposed by senior government programs do not allow adequate time for a competitive bid process.

In these situations, contractors and consultants would be pre-qualified or roster suppliers would be used. Council approval for single sourcing will be obtained should it not be possible to pre-qualify or use roster suppliers.

Changes to Terms and Processes in Bid Requests

Planning for Procurement (Section 10) includes the following: (g) At the Department Head’s discretion and prior to procurement, report to Council significant changes affecting existing services levels and/or service delivery approaches for High Value Acquisitions.

Terminology Changes

Changing the section name from Materiel Management to Procurement Services and changing the title of Purchasing Agent to Chief Procurement Officer are in keeping with modern terminology.

Trade Agreements

The Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union (EU) and the Canadian Free Trade Agreement (CFTA) both came into effect in September 2017. CETA is the first international trade agreement in which municipal procurement is covered. The objectives of the government procurement obligations within these trade agreements are to ensure fairness and increase competition.

CETA and CFTA generally prohibit any form of discrimination in favour of local or national suppliers and strictly prohibit any consideration of local benefits in contracting decisions. Very limited exemptions are identified in the trade agreements which permit single source procurements.

The City posts notices of competitive procurements in accordance with the trade agreements thresholds and the City embraces the principles of open, fair competition. In the event of a contravention – such as where a municipality makes a single source procurement not identified as an exemption in the trade agreements – the risks include challenge by other suppliers as well as reputational damage to the municipality.

Since CETA came into effect, no European bidders have requested bidding documents or submitted bids to the City.

Local Preference

In addition to the prohibition against local preference in CETA and CFTA, the Ontario *Discriminatory Business Practices Act* prohibits discrimination based on geographical location of persons employed in or engaging in business. Subsection 9(1) provides that: “A person who incurs loss or damage as a result of an act that is a contravention of this Act has the right to compensation for the loss or damage and to punitive or exemplary damages from the person who committed the contravention.”

In publicly advertised High Value Acquisition processes, staff have no ability to specify local or Canadian made products. Staff obtain quotations for MVA goods and services locally where possible, the details of which should reside in the Sustainable Procurement Policy. An update to the Sustainable Procurement Policy in 2022 will include approaches for MVA and LVA local procurement where possible and address social procurement matters such as supplier diversity. A Summary of the proposed new Procurement By-law is Appendix 3 to this report.

Financial Impact

There are no financial impacts resulting from the Recommendations in this report.

Conclusion

Material Management, Legal Services and Internal Audit collaborated to develop a new Procurement By-law. The new By-law is general with procedural details removed to policy where possible. A new, separate Corporate Policy - Contract Amendments and Terminations (Section 18 of the current By-law) addresses procedures, role clarity and accountabilities in detail. An update to the Sustainable Procurement Policy in 2022 will include approaches for MVA and LVA for local procurement where possible and address social procurement matters such as supplier diversity and inclusion.

A Summary of the proposed new Procurement By-law is Appendix 3 to this report.

The Leadership Team at their meeting of November 4, 2021 endorsed the new Procurement By-law and new Policy.

Attachments

Appendix 1: Draft new Procurement By-law

Appendix 2: Draft new Corporate Policy – Contract Amendments and Terminations

Appendix 3: Summary of Proposed New Procurement By-law



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Erica Edwards, Manager, Material Management – External Services

**THE CORPORATION OF THE CITY OF MISSISSAUGA
PROCUREMENT BY-LAW XX**

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**THE CORPORATION OF THE CITY OF MISSISSAUGA
PURCHASING BY-LAW NUMBER _____**

WHEREAS the *Municipal Act 2001*, S.O. 2001, c. 25, Part VI, Section 271 stipulates that municipalities and local boards shall adopt policies with respect to their procurement of goods and services;

AND WHEREAS The Corporation of the City of Mississauga has hereby undertaken a comprehensive review of its procurement processes to identify accountability, transparency, and efficiency improvements;

AND WHEREAS the Council of The Corporation of the City of Mississauga deems it desirable to repeal, in its entirety, By-law 374-06, as amended, and pass a new by-law with respect to the procurement of goods and services;

NOW THEREFORE the Council of The Corporation of the City of Mississauga ENACTS as follows:

SECTION 1 - DEFINITIONS

In this By-law, the following terms shall have the meanings indicated:

- (1) **“Applicable Law”** means any applicable federal, provincial or municipal law, statutes, by-laws, regulations, rules, lawful orders or lawful directives applicable in Ontario.
- (2) **“Award”** means the selection of the Bidder and the Bidder’s Goods and/or Services, as accepted by the City.
- (3) **“Best Value”** means the optimal balance of evaluated factors and cost to achieve the City’s objectives for the Procurement.
- (4) **“Bid”** means a proposal, offer or submission from a Bidder received in response to a Bid Request.
- (5) **“Bid Request”** means a solicitation from the City to potential Bidders to submit a Bid.
- (6) **“Bidder”** means any legal entity submitting a Bid.
- (7) **“Buyer”** means a Staff in Procurement Services with the title of Procurement Supervisor or Procurement Specialist who is assigned responsibility for a particular Procurement and who has delegated authority to approve Awards and execute Contracts in accordance with Schedule “B” attached hereto.
- (8) **“By-law” or “Procurement By-law”** means the City’s By-law X, as amended, which pertains to the Procurement of Goods and Services.
- (9) **“Chief Procurement Officer”** means a Staff with the title of Director of Corporate Business Services whose responsibility it is to supervise and carry out the Procurement function on behalf of the City. In the absence of the Director of Corporate Business Services, the responsibility shall be carried out by the Commissioner of Corporate Services and Chief Financial Officer.
- (10) **“City”** means The Corporation of the City of Mississauga.
- (11) **“City Manager”** means a Staff with the title of City Manager and any person to whom the authority of the City Manager is subsequently delegated by Council and includes any person who has been authorized, in writing, to temporarily act as City Manager during absence or vacancy in that office.
- (12) **“City-wide Contracts”** means contracts for Goods and/or Services that are used by several or all City departments and for which Procurement Services conducts the procurement processes and manages the contracts.
- (13) **“City Standard”** means specific HVA Goods established competitively or as approved by Council that best fill a long-term Departmental or City-wide requirement.

- (14) **“Contract”** means an agreement between the City and a Supplier for the supply of Goods and/or Services.
- (15) **“Contract Manager”** means a City employee to whom the Departmental Director has delegated Procurement process responsibility and/or Contract management responsibility.
- (16) **“Co-operative Procurement”** means a Procurement process conducted jointly by the City and one or more Public Bodies.
- (17) **“Council”** means the elected members of council of the City, comprised of the Mayor and ward councillors or their designates.
- (18) **“Department” or “Departmental”** means an organizational unit of the City headed by a Department Head.
- (19) **“Department Head”** means the City Manager and any of the Commissioners appointed by Council with administrative responsibility for a Department and includes any person who has been authorized, in writing, to temporarily act during absence or vacancy in that office.
- (20) **“Departmental Director”** means a Divisional director in a Department and includes any person who has been authorized, in writing, to temporarily act during absence or vacancy in that office.
- (21) **“Departmental Manager”** means a sectional manager in a Department who has been delegated with cost centre approval up to \$50,000 by the Department Head and includes any person who has been authorized, in writing, to temporarily act during absence or vacancy in that office.
- (22) **“Division” or “Divisional”** means a division within a Department.
- (23) **“Emergency”** means a situation where it has been determined that a threat to public health, or life, or property or the environment exists such that the immediate Procurement of Goods and/or Services is essential to prevent serious delays, or damage to persons or property, or to restore or maintain essential City services.
- (24) **“Fixed Term”** means the specific term applied to a Contract for regularly required Goods and/or Services, such as maintenance services, office supplies and other commonly used Goods.
- (25) **“Goods”** means tangible and intangible goods of all kinds, including but not limited to supplies, materials, equipment, structures and fixtures to be delivered, installed and/ or constructed, and licences and subscriptions.
- (26) **“High Value Acquisition” (HVA)** means a Procurement of Goods and/or Services having a value of more than \$100,000, and that is not a Medium Value Acquisition as approved by the Chief Procurement Officer or Council in accordance with Schedule “B”.
- (27) **“Legal Services Division”** means the City’s Legal Services Division.
- (28) **“Low Value Acquisition” (LVA)** means a Procurement of Goods and/or Services having a value of \$25,000 or less and does not include Information Technology applications, software and software subscriptions which require Information Technology approval.
- (29) **“Manager”** means a Staff in Procurement Services with the title of Manager and includes any person who has been authorized, in writing, to temporarily act during absence or vacancy in that office.
- (30) **“Medium Value Acquisition” (MVA)** means a Procurement of Goods and/or Services that has a value of \$100,000 or less and that is not a Low Value Acquisition or that has a value of more than \$100,000 but is otherwise approved by the Chief Procurement Officer or Council in accordance with Schedule “B”.
- (31) **“Original Contract”** means the Contract issued following an Award, including contingency if contingency was approved on the original PAR Form, and does not include any amendments or interim extensions, or renewals made to the Contract.

- (32) **“Procurement”** means the acquisition of Goods and/or Services by purchase, lease, rental or exchange transaction.
- (33) **“Procurement Authorization Request Form” (PAR Form)** means an internal electronic form that is available through Procurement Services. A PAR Form is required to obtain authority to Award, amend or terminate a Contract.
- (34) **“Procurement Request Form” (PRF)** means an internal electronic requisition form used by Departments to initiate a Procurement process.
- (35) **“Procurement Services”** means an organizational unit of the Corporate Services Department responsible for the Procurement of Goods and Services for the City.
- (36) **“Public Body”** means the municipalities, academic, schools and hospitals sector and any local board, commission, non-profit corporation or government entity and shall include any corporation of which the City is a shareholder or any one of them alone or in any combination of them acting together.
- (37) **“Request for Expression of Interest” (RFEI)** means a request used to determine market interest to provide Goods and/or Services that the City is contemplating purchasing and may result in the determination of a short list of Bidders to respond to a Bid Request.
- (38) **“Request for Information” (RFI)** means a request used as a general market research tool to determine the availability of Goods and/or Services that will meet business or operational requirements and Procurement strategies and/or to estimate costs for the purpose of developing a Bid Request.
- (39) **“Request for Prequalification” (RFPO)** means a request with specific qualification criteria used to identify and pre-select qualified Bidders and/or Goods for participation in multiple step HVA Procurement processes.
- (40) **“Request for Proposal” (RFP)** means a request used to obtain a Bid or Bids for Goods and or Services in cases where the City states the performance requirements and/or business objectives but Bidders recommend the optimal approach for consideration and evaluation by the City. Awards resulting from RFP processes are made to the highest scoring Bidder(s).
- (41) **“Request for Quotation” (RFQ)** means a request used to obtain a Bid or Bids in cases where the City has determined the quantity and quality of the Goods and/or Services for Low or Medium Value Acquisitions or Single Source Procurements of any value.
- (42) **“Request for Tender” (RFT)** means a request used for High Value Acquisitions to obtain irrevocable Bids in cases where the City has specified the quantity and quality of the Goods and/or Services. Awards resulting from RFT processes are to the lowest priced, compliant Bidder(s).
- (43) **“Services”** means services of all kinds, including labour, construction, maintenance and professional and consulting services.
- (44) **“Single Source”** means Procurement permitted under the specific circumstances set out in Schedule “A”.
- (45) **“Staff”** means an employee of the City or their designate, to whom Council has delegated authority to approve Awards and/or execute Contracts and Contract amendments on behalf of the City, in accordance with this By-law.
- (46) **“Supplier”** means a legal entity with whom the City has entered into a Contract.
- (47) **“Unforeseen Site Condition”** means a pre-existing condition of the site (in which construction or maintenance work is to take place or is taking place in accordance with a Contract) that was not anticipated despite reasonable efforts in planning for the Procurement and that would require additional work to be conducted on the site.

SECTION 2 - MONETARY REFERENCES

- (1) All references to dollar amounts in this By-law are to be in Canadian or US dollars and do not include applicable taxes.

- (2) For the purpose of Bid evaluation, where Bids are submitted in more than one currency, all Bids will be converted to the same currency and at the rate of exchange to convert the currency posted by the Bank of Canada on the day of Bid closing.
- (3) For the purposes of obtaining authority to Award a Contract to be paid in US dollars, the Award amount will be stated in Canadian dollars estimated at the rate of exchange or average of rates of exchange posted by the Bank of Canada at the time of Award.

SECTION 3 - APPLICABILITY

- (1) The provisions of this By-law shall apply to the Procurement of all Goods and/or Services undertaken by or on behalf of Departments, excluding:
 - (a) Real estate;
 - (b) Consulting or professional services that are delivered in a manner which constitutes an employer/employee relationship, in accordance with City policies and procedures;
 - (c) Purchases related to reimbursable expenses incurred by employees or Council in accordance with City policies and procedures;
 - (d) Professional and other services limited to:
 - (i) legal services and other professional services required for the provision of legal services, including the defence of insurance claims, as required by the City Solicitor or designate;
 - (ii) arbitrators;
 - (iii) realty appraisers;
 - (iv) court reporters and interpreters;
 - (v) honoraria;
 - (vi) committee fees;
 - (vii) performers for public events hosted and/or produced and/or sponsored by the City at its public event venues;
 - (viii) Procurement, installation, inventory, maintenance, de-accessioning and disposal of City acquired art, including interactive, artistic and/or place making installations;
 - (ix) Procurement of objects and items for the Museums of Mississauga collections;
 - (x) lodging and associated meals and services from hotels or similar providers of accommodations for members of the public who are participating in City hosted and/or sponsored sporting and/or tourism events, such as the Ontario Summer Games, as required under the terms and conditions of the agreement between the City and the event owner; and
 - (xi) services provided by representatives from Indigenous communities to attend on City project sites for observation purposes during invasive site testing or construction.
 - (e) General City expenses limited to:
 - (i) postal charges;
 - (ii) any payments made by the City under statutory authority (for example licences);
 - (iii) insurance premiums, and related program expenses, for insurance procured through the City's insurance broker;
 - (iv) legal and insurance settlements.
- (2) No Contract shall be entered into, no debt shall be incurred and no money shall be paid

for Goods and/or Services except in accordance with the provisions of this By-law.

- (3) City Procurement shall be conducted in accordance with this By-law and City policies.
- (4) Delegation of responsibility under this By-law shall only occur as specifically provided.

SECTION 4 - ETHICS IN PROCUREMENT

- (1) The Chief Procurement Officer and Procurement Services Staff shall comply with the codes of purchasing ethics established by the National Institute of Governmental Purchasing, Inc. and Supply Chain Canada for all Procurement activities and processes.

SECTION 5 - ETHICAL CONDUCT OF BIDDERS AND SUPPLIERS

- (1) Bidders shall certify that they prepared and submitted their Bids independently without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person making a Bid for the same work and that the Bid is in all respects fair and without collusion, bid-rigging, price-fixing, bribery, fraud or other similar behaviours or practices prohibited under the Criminal Code, the Competition Act or other Applicable Law.
- (2) Bidders shall not misrepresent their qualifications and experience, or the qualifications and experience of their sub-contractors, where applicable, in relation to any Bid Request.
- (3) Bidders shall not misrepresent the quality, performance or technical attributes of their products or the products of the sub-contractors, where applicable, in relation to any Bid Request.
- (4) Bidders must declare and fully disclose with their Bid any actual or potential conflicts of interest or unfair advantage related to the preparation of their Bid or where the Bidder foresees an actual or potential conflict of interest in the performance of the Contract, should they be awarded the Contract.
- (5) Suppliers awarded a Contract must declare and fully disclose to the Contract Manager any actual or potential conflicts of interest or unfair advantage related to the performance of the Contract or where the Supplier foresees an actual or potential conflict of interest in the performance of the Contract.
- (6) Bidder and Suppliers shall disclose to the Chief Procurement Officer any affiliations or other relationships with other suppliers that might be seen to compromise the principle of fair competition, including any proposed or existing subcontracting relationships.
- (7) No Bidder or Supplier shall offer anything of any value, tangible or intangible including but not limited to rebates, gifts, meals, money or special privileges of any kind to City employees, or otherwise attempt to influence or interfere with the duties of City employees in relation to a Procurement process or management of a Contract.
- (8) No Bidder or Supplier shall offer anything of any value, tangible or intangible including but not limited to rebates, gifts, meals, money or special privileges of any kind to Council, or otherwise attempt to influence or interfere with a Procurement process or Contract.
- (9) Bidders and Suppliers shall at all times comply with City policies for ethical conduct, including the Supplier Code of Conduct and the Respectful Workplace Policy.
- (10) Bidders and Suppliers shall at all times maintain confidentiality of any confidential City information disclosed during a Procurement process or in the performance of any Contract.
- (11) Any Bidder or Supplier found to be in breach of this Section 5 is subject to disqualification from bidding and/or termination of any Contracts they may have with the City, in accordance with Section 25.

SECTION 6 - CONFLICTS OF INTEREST

- (1) Council shall comply with the *Municipal Conflict of Interest Act*.
- (2) Employees of the City shall comply with City policies on conflict of interest.

- (3) At no time during a Procurement process, beginning with the planning stage, through to the Award and Contract stage, shall any City employees accept, directly or indirectly, from any Bidder or Supplier to which any Contract is, or might be awarded, anything of any value, tangible or intangible including but not limited to rebates, gifts, meals, money or special privileges.
- (4) No preference will be given to Suppliers who provide unsolicited goods or samples to the City or who demonstrate the operation of such goods or samples.
- (5) City employees must immediately declare to their manager any real or perceived conflicts of interest they may have arising from interacting with, managing, supervising or overseeing the work of family members and/or former employees of the City and/or anyone with whom they have a close personal relationship or have a personal interest with who are working for Suppliers in any capacity.
- (6) City employees must immediately declare to their manager any financial interests they may have with any Bidder or Supplier.
- (7) City employees in the role of Contract Manager must be and be seen to be impartial in their treatment of all Bidders and Suppliers, and in managing Contracts and approving payments.

SECTION 7 - PROCUREMENT PRINCIPLES

- (1) The City's Procurement principles are:
 - (a) Procurement processes shall be efficient, effective, objective, and accountable;
 - (b) Transparency and fairness shall be ensured, and competitive value maximized, through full and open procurement processes;
 - (c) The Procurement of Goods and Services shall be conducted in an unbiased way not influenced by personal preferences, prejudices or interpretations;
 - (d) Efforts shall be made to achieve the Best Value for the City;
 - (e) Procurement processes and approvals of Awards shall not be conducted by the same employee and, at all times the Departmental Director shall ensure segregation of Procurement process and Award functions;
 - (f) The City's Sustainable Procurement Policy shall be considered for Procurement of Goods and/or Services;
 - (g) The total cost of ownership, including maintenance, ongoing support, repair, staff training, operation, disposal, and other related costs shall be considered, not only the lowest purchase price; and
 - (h) The Procurement of Goods and Services shall be conducted in a manner which will promote, and incorporate whenever possible, the requirements of the *Accessibility for Ontarians with Disabilities Act, 2005*.

SECTION 8 - FUNDING

- (1) No Contract for Goods and/or Services shall be entered into unless:
 - (a) Funding for the Procurement has been authorized by Council in the requisitioning Department's operating or capital budget; or
 - (b) Special funding for the Procurement has been approved by Council; or
 - (c) The Contract is made conditional upon funding approval by Council.
- (2) Where Procurements are contingent upon funding from external parties, the funding arrangement shall be verified, in writing, prior to any Award. Finance shall be consulted in accordance with Schedule "D"

SECTION 9 - AUTHORITIES, RESPONSIBILITIES AND DUTIES

- (1) The authorities of the Chief Procurement Officer and general responsibilities and duties for staff having a role in Procurement processes are set out in Schedule “D” to this By-law.

SECTION 10 - PLANNING FOR PROCUREMENT

- (1) The requisitioning Department should, prior to initiating any Procurement process for Goods and/or Services:
 - (a) Ensure that the Goods and/or Services are legitimately required for City purposes;
 - (b) Consider short and long-term requirements with respect to quantities and supply duration, or total project cost considering the life span of the program or project;
 - (c) Consider the cost of ongoing maintenance, support, and licensing, etc.;
 - (d) Confirm availability of funding;
 - (e) Allow sufficient time to complete the Procurement process, in accordance with process timelines posted by Procurement Services; and
 - (f) Prepare detailed specifications, statements of work and quantity requirements with the underlying premise of encouraging full, open and fair competition;
 - (g) At the Department Head’s discretion and prior to Procurement, report to Council significant changes affecting existing service levels and/or service delivery approaches for High Value Acquisitions.
- (2) Where similar Goods and/or Services are required in connection with one project, all of those Goods and/or Services, including all contemplated phases of the project, shall be included in determining the estimated value of the Procurement.
- (3) Procurements shall not be divided to avoid the requirements of this By-law.
- (4) Legal advice from the Legal Services Division shall be sought for Procurements that are of the type as described in Schedule “C”.

SECTION 11 - PROCUREMENT FROM INTERNAL SOURCES

- (1) Goods and Services which are available internally from the City’s print shop, Tech Hub or stores, if applicable, shall not be obtained from other suppliers unless there is a compelling requirement for an alternate source Procurement.
- (2) Goods and Services which are available from existing City-Wide Contracts, such as office supplies, courier services, etc. shall not be obtained from other suppliers unless there is a compelling requirement for an alternate source Procurement.

SECTION 12 - COMPETITIVE PROCUREMENT ABOVE \$25,000

- (1) **Medium Value Acquisitions (more than \$25,000 and up to and including \$100,000):**
 - (a) A Procurement Request Form must be submitted by the Contract Manager;
 - (b) The Contract Manager is responsible for determining the requirements and specifications or statement of work on behalf of their Department;
 - (c) The Contract Manager may conduct Medium Value Acquisitions using the forms and instructions provided by the Buyer, and with assistance by the Buyer if required;
 - (d) A written Bid Request (Request for Quotation) should be issued unless otherwise approved by Procurement Services;
 - (e) A minimum of three compliant Bids should be obtained;

- (f) Following Bid evaluation and/or review and determination of the recommended Bidder(s), approval to Award the Contract(s) is required in accordance with Section 14.

(2) High Value Acquisitions (more than \$100,000):

- (a) A Procurement Request Form must be submitted by the Contract Manager;
- (b) All competitive High Value Acquisitions must be Publicly Advertised on the Internet. The methods for requesting Bids include, but are not limited to:
 - (i) Request for Expression of Interest;
 - (ii) Request for Information;
 - (iii) Request for Prequalification;
 - (iv) Request for Proposal;
 - (v) Request for Tender;
 - (vi) A multi-step process which may involve a combination of the above.
- (c) The Buyer is responsible for determining the Procurement method and conducting and managing the Procurement process for all High Value Acquisitions including the evaluation process and the maintenance of Bids, Bidder information and Bid results;
- (d) The Contract Manager is responsible for determining the requirements and preparing detailed specifications or statements of work and quantity requirements on behalf of their Department;
- (e) The Manager or Buyer is responsible for reviewing the specifications or statements of work and quantity requirements, developing an appropriate Bid Request and evaluation method and criteria ensuring that the principles outlined in Section 6 are followed;
- (f) Following Bid review and/or evaluation and determination of the recommended Bidder(s), approval to Award the Contract(s) is required in accordance with Section 14.

SECTION 13 - SINGLE SOURCE AND EMERGENCY PROCUREMENT

(1) Single Source Procurement

- (a) A Procurement Request Form must be completed by the Contract Manager;
- (b) A Single Source Procurement may be conducted only if it meets the specific criteria set out in Schedule "A";
- (c) The Contract Manager must prepare a justification and shall obtain approval from the Manager or Senior Buyer that the proposed Procurement meets the Schedule "A" criteria;
- (d) The Chief Procurement Officer shall have the final right of determination as to whether the relevant Schedule "A" criteria are met;
- (e) Written proposals should be obtained from Single Source Suppliers, in response to a City issued request, where applicable. If it is not applicable to obtain a written proposal, justification is required;
- (f) This section applies to Medium Value Acquisitions and High Value Acquisitions only. Low Value Acquisitions are not required to meet the Schedule "A" criteria;
- (g) Approval to Award a Contract is required in accordance with Section 14.

(2) Emergency Procurement

- (a) In an Emergency, the Procurement of Goods and/or Services may be authorized

without a competitive process. The Contract Manager shall, if possible, contact the Manager or Buyer for direction on an appropriate Procurement process and possible sources of supply;

- (b) As promptly as possible, the Contract Manager shall prepare a Procurement Request Form to initiate the Award and Contract execution requirements;
- (c) Approval of an Emergency Procurement shall be in accordance with Schedule "B". Contract execution, also in accordance with Schedule "B", may occur after the Procurement has taken place.

SECTION 14 - AUTHORITY TO APPROVE AWARDS

- (1) Award approval shall be executed on a Procurement Authorization Form and in accordance with Schedule "B" and the following:
 - (a) Departmental approval of an Award shall provide confirmation that:
 - (i) Funds are available;
 - (ii) The available funds are for the purpose of the subject Procurement;
 - (iii) The Goods and/or Services are legitimately required for City purposes;
 - (iv) The specifications or scope of work and requirements meet the Department's objectives for the Procurement;
 - (v) The recommended Award(s) is/are fully compliant with the specifications or statement of work and requirements as stated in the Bid Request;
 - (vi) The operational terms and conditions are satisfactory; and
 - (vii) The recommended Supplier(s) is/are satisfactory.
 - (b) Procurement Services approval of the Award shall provide confirmation that:
 - (i) Departmental and/or Council approval of the Award, as applicable under Schedule "B", has been obtained;
 - (ii) There are no unresolved Bid protests;
 - (iii) The Procurement process was conducted in accordance with this By-law;
 - (iv) The recommended Award is for the Best Value Bid or the lowest priced compliant Bid from among the Bids received;
 - (v) The recommended Award is consistent with the Award methodology stated in the Bid Request;
 - (vi) An upset limit or total expenditure has been identified; and
 - (vii) In the case of Single Source Awards, verification that the Award is justified and appropriate in accordance with the criteria set out in Schedule "A".
 - (c) Council approval of an Award is required in the event of one or more of the conditions listed below:
 - (i) Funds are not available;
 - (ii) The Bid is not the Best Value Bid from among the Bids received;
 - (iii) There are unresolved Bidder protests;
 - (iv) The Award is for a Special Relationship as described in Section 23;

- (v) The Contract term, including any renewals exceeds ten (10) years, except where an interim extension has been approved in accordance with policy;
 - (vi) The recommended Award is not provided for in this By-law but there are compelling reasons for making the Award;
 - (vii) At the discretion of the Chief Procurement Officer.
- (d) Where Council approval for an Award is required, the Department Head shall report to Council. The Chief Procurement Officer may specify the form and shall require the inclusion of appropriate Procurement content, including the recommendation(s), in any report.
- (e) Despite paragraph (1)(c), Council approval of the Award is not required and approval shall be by the Chief Procurement Officer if the Award is:
- (i) In the specific instance stipulated in Section (1) (j) of Schedule “A”; or
 - (ii) For construction services provided by utilities, railway companies, or adjacent property owners required by the City as a result of City road or building construction.
- (2) Upon approval to Award as required in this Section 14, Contract execution may take place in accordance with Section 15.

SECTION 15 - AUTHORITY TO EXECUTE CONTRACTS

- (1) Except in the case of an Emergency, no Goods and/or Services shall be ordered, requested, delivered or performed until after a Contract is executed in accordance with this By-law.
- (2) Contracts shall be executed in accordance with Schedule “B” and the following:
- (a) The Award has been approved in accordance with Schedule “B”;
 - (b) Satisfactory terms and conditions have been agreed to by the City and the Supplier;
 - (c) A Fixed Term has been applied to the Contract, where applicable;
 - (d) The pricing information has been identified;
 - (e) The basis for approving work or deliveries and releasing payment has been established;
 - (f) The form and content of the Contract, if required in accordance with Schedule “C” shall be drafted in concert with the Legal Services Division;
 - (g) The Contract shall clearly specify any and all consideration to be paid to the Supplier and a total Contract value for the project or upset limit for the Fixed Term; and
 - (h) The total value of any Contract shall not in any event exceed the total amount approved in accordance with this By-law.

SECTION 16 - CANCELLING AND REISSUING BID REQUESTS

- (1) Bid Requests may be cancelled and re-issued in accordance with applicable City policy and procedures.

SECTION 17 - BIDDER ENQUIRIES, COMPLAINTS AND PROTESTS

- (1) All Bidder enquiries and/or complaints and/or protests, whether addressed to Council, a Department Head or any other City staff shall be referred to Procurement Services and handled in accordance with the applicable City policies and procedures.

SECTION 18 - POINT OF CONTACT

- (1) Point of Contact refers to the Staff responsible for managing communications to and from Bidders, City employees and Council during a Procurement process.

- (2) For Medium Value Acquisitions, unless otherwise specified by the Buyer, the Contract Manager is the Point of Contact and shall respond to all communications, including issuing addenda as required, from the date a Bid Request is issued until an Award is announced. Bidder complaints or protests shall be forwarded to the Buyer.
- (3) For High Value Acquisitions, the Manager or the Buyer is the official Point of Contact and shall respond to all communications, working in consultation with the Contract Manager, and issuing addenda as required.
- (4) Any Bidder found to be in breach of this section is subject to disqualification from participating in the current Bid Request.

SECTION 19 - RECEIPT AND OPENING OF BIDS

- (1) Bids received in response to High Value Acquisition processes are received and opened in accordance with applicable City policy and procedures.

SECTION 20 - AMENDMENTS, INTERIM EXTENSIONS, RENEWALS & TERMINATIONS

- (1) Contracts may be amended, extended on an interim basis, renewed or terminated in accordance with applicable City policy and procedures.

SECTION 21 - UNSOLICITED PROPOSALS

- (1) If it is determined that there is a legitimate need for the Goods and/or Services offered by way of an unsolicited proposal, then a Procurement process shall be conducted in accordance with this By-law.

SECTION 22 - CO-OPERATIVE PROCUREMENT

- (1) The City may participate with a Public Body in Co-operative Procurement initiatives where it is in the best interest of the City to do so and where:
 - (a) Combining the volume of Goods and/or Services to be purchased by the City and a Public Body would result in a better value or lower cost, and
 - (b) The Procurement process and Contract are in substantial compliance with the provisions of this By-law;
 - (c) Where the City is initiating the Procurement, the Procurement process will be conducted in accordance with this By-law;
 - (d) The Legal Services Division shall be consulted to determine the appropriate agreements required to conduct such initiatives with other Public Bodies.
- (2) The Public Body initiating the Procurement may determine the Award. If the Award is not in the best interests of the City, the Manager may decline acceptance of the Award subject to any agreements with the participating Public Body/Bodies.

SECTION 23 - SPECIAL RELATIONSHIPS

- (1) In cases where the Procurement of Goods and/or Services is involved, the City may enter into agreements with the private sector for special purposes, including but not limited to joint ventures, co-marketing, public benefit planning, public private partnerships, shared-use, sponsorships, corporate and individual donations and advertising, subject to Council approval.
- (2) The Manager may conduct a Procurement process in accordance with this By-law. All requirements of this By-law must be met, except that the Award must be approved by Council.

SECTION 24 - SUPPLIER DISPUTES AND SUPPLIER PERFORMANCE

- (1) The Contract Manager shall be responsible for responding to Supplier issues and resolving Supplier disputes.

- (2) The Manager or the Buyer shall in consultation with the Legal Services Division and appropriate Departmental staff resolve Supplier disputes not otherwise resolved by the Contract Manager.
- (3) The Contract Manager and Buyer shall maintain records of poor Supplier performance on all Contracts which shall be used to ensure Contract compliance, to supplement a prequalification process review or to justify rejecting a Bid or disqualifying a Bidder.

SECTION 25 - DISQUALIFICATION OF BIDDERS

- (1) The Chief Procurement Officer may disqualify a Bidder from eligibility to submit Bids where there is documented evidence of poor performance or non-performance under a Contract, or there is documented evidence that the Bidder either violated a provision of this By-law or a Bid Request or submitted an improper Bid or has brought a frivolous and vexatious lawsuit against the City as determined by the Chief Procurement Officer. The disqualification period will be for up to five years from written notification to the Bidder.
- (2) The Chief Procurement Officer may disqualify a Bidder from the Bid Request process for which the Bidder is found to be in violation of Section 18 (Point of Contact).
- (3) Disqualified Bidders will be notified of their ineligibility and shall have the right to protest in accordance with applicable City policies and procedures.

SECTION 26 - DISPOSITION OF SURPLUS GOODS

- (1) Surplus Goods are to be disposed of in accordance with applicable City policy and procedures.

SECTION 27 - INFORMATION REPORTS

- (1) The Chief Procurement Officer shall provide information reports, on a monthly basis, to the Mayor and members of Council for all High Value Acquisition Contracts awarded or amended in the previous month. The information reports shall include the name of the Supplier(s) and the Contract amount or the amended Contract amount.
- (2) The Manager shall post information reports, on a monthly basis, on the City's external website for all High Value Acquisition Contracts awarded in the previous month, including the name of the Supplier(s) and the Contract amount.

SECTION 28 - RECORDS

- (1) The Manager shall be responsible for the care, custody and control of records for all Medium Value Acquisition and High Value Acquisition Procurement processes and Contracts.

SECTION 29 - REVIEW COMMITTEES

- (1) The Chief Procurement Officer, in consultation with Department Heads and the City Manager, shall undertake a comprehensive review of this By-law at least once every five years.

SECTION 30 - SEVERING

- (1) Should any provisions, clauses, sections, phrases or parts of this By-law, or the application thereof, be held by a court or tribunal of competent jurisdiction to be invalid, the remainder of this By-law, or the application of such provisions, clauses, sections, phrases or parts of this By-law shall not be affected.

SECTION 31 - INTERPRETATION

- (1) A reference to the singular number shall be deemed to refer to the plural, and vice versa, as the context may require.

SECTION 32 - GENERAL

- (1) This By-law comes into force on March 1, 2022.

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- (2) By-law 374-2006, as amended is repealed as of the date this By-law comes into force.
- (3) This By-law shall apply to active Procurement processes and Contracts issued pursuant to By-law 374-2006.
- (4) The short title of this By-law is the “Procurement By-Law”.

ENACTED AND PASSED this X day of, 2021.

SCHEDULE "A"**CRITERIA FOR SINGLE SOURCE AND EMERGENCY PROCUREMENT**

- (1) Pursuant to Section 13 Single Source and Emergency Procurement (Medium Value Acquisitions and High Value Acquisitions), Procurements may be conducted using a Single Source Supplier only if one or more of the conditions listed below apply, the Chief Procurement Officer or Manager having the right of final determination, and a process is undertaken to obtain the Best Value under the circumstances:
- (a) The Goods and/or Services are only available from one Supplier due to a statutory or market based monopoly;
 - (b) There is a scarcity of supply in the market;
 - (c) The Goods and/or Services are unique to one particular supplier and no reasonable alternative or substitute exists due to exclusive rights such as patent, copyright or licence;
 - (d) No Bids were submitted;
 - (e) No acceptable Bids were submitted;
 - (f) The Goods and/or Services are required as a result of an Emergency which would not reasonably permit the solicitation of competitive Bids;
 - (g) There is a need to limit the distribution of confidential or security related information;
 - (h) For additional Goods and/or Services from the original Supplier that were not included in the original Procurement, if the change of Supplier for such additional Goods and/or Services cannot be made for:
 - (i) Economic or technical reasons such as requirements of interchangeability or interoperability with existing equipment, software, services or installations procured under the initial Procurement; and
 - (ii) Would cause significant inconvenience or substantial duplication of costs for the City.
 - (i) The Goods and/or Services are purchased under circumstances which are exceptionally advantageous to the City, that arise in the short term such as in the case of a bankruptcy, liquidation or receivership but not for routine purchases from regular suppliers;
 - (j) It is advantageous to the City to acquire the Goods and/or Services from a supplier pursuant to the competitive Procurement process conducted by another Public Body;
 - (k) It is advantageous to the City to acquire the Goods and/or Services directly from another Public Body;
 - (l) The Goods and/or Services are a particular brand that is intended solely for resale and/or use by the public and no other brand is desirable and the brand is not available from any other source;
 - (m) A need exists for compatibility with, or for the maintenance and support of, a City Standard;
 - (n) A need exists to avoid violating warranties and guarantees where support or Service is required for a City Standard;
 - (o) Instructors, coaches, trainers and other specialized services for recreation programs for which Bids cannot readily be called.

SCHEDULE “B”**AWARD APPROVAL AND CONTRACT EXECUTION AUTHORITY**

(Unless otherwise specified in the By-law)

This Schedule “B” is to be read in conjunction with the By-law and Policy # 00-00-00 Contract Amendments.

Contract Value¹	Procurement Method	Departmental Approval	Award Process Approval	Contract Execution
Low Value Up to \$25,000	P-Card or Concur	Supervisor with Cost Centre authority	As per Departmental approval	In accordance with City policies and procedures
Low Value IT Applications, software and subscriptions Up to \$25,000	P-Card or Concur	Supervisor with Cost Centre authority	Departmental IT Manager	Departmental IT Manager
Medium Value More than \$25,000 up to \$50,000	Competitive	Departmental Manager	Procurement Supervisor	Procurement Specialist
	Single Source	Departmental Director	Manager	Procurement Supervisor
Medium Value More than \$50,000 up to \$100,000 ²	Competitive	Departmental Director	Manager	Procurement Supervisor
	Single Source	Department Head	Manager	Procurement Supervisor
High Value More than \$100,000 ³	Competitive	Departmental Director up to \$500,000 Department Head if over \$500,000	Manager up to \$500,000 Chief Procurement Officer ⁴ if over \$500,000	Manager up to \$500,000 Chief Procurement Officer ⁴ if over \$500,000
	Single Source	Council upon recommendation of Department Head	Chief Procurement Officer ⁴	
	Emergencies ⁵	City Manager	Chief Procurement Officer ⁴	
	City –Wide Contracts	Commissioner, Corporate Services and Chief Financial Officer	Chief Procurement Officer ⁴	

¹ The approval required is for the total Contract value, including any amendment(s) to the Original Contract, not just the value of the amendment(s).

² If despite best efforts to estimate the cost of the Medium Value Acquisition, the Lowest compliant Bid or Best Value Bid exceeds \$100,000, an Award without Council approval may be made only if the Manager is satisfied that all relevant considerations were taken into account such that:

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- (a) The planning process and the cost estimation made prior to conducting a Medium Value Acquisition process were appropriate; and
 - (b) The Procurement process was conducted properly; and
 - (c) The total amount of the Best Value Bid is \$120,000 or less, exclusive of taxes.
- ³ Legal Services must review and approve Original Contracts with a value of \$500,000 or more and may prepare amending agreements, if required.
- ⁴ The role of the Chief Procurement Officer can only be delegated to the Commissioner, Corporate Services and Chief Financial Officer.
- ⁵ Award approval and Contract execution related to Emergencies may occur after Procurement has taken place.

SCHEDULE "C"**LEGAL REVIEW REQUIREMENTS**

The following types of Procurements shall be conducted with legal advice provided by the Legal Services Division and the Contracts (including any amendments, if required) executed for these types of Procurements shall be prepared in concert with the Legal Services Division:

- (1) Any Procurement with a value of \$500,000.00 or more;
- (2) Co-operative Procurements;
- (3) Procurements for a Contract with a term of more than 5 years;
- (4) Procurements in relation to money handling and financial services;
- (5) High Value Procurements involving technology;
- (6) Special relationship arrangements under section 23 of the By-law;
- (7) Procurements where personal information will be collected, accessed or maintained by the City, or by a Supplier on behalf of the City;
- (8) Any other Procurements at the discretion of the Manager or designate, or the Departmental Director or designate;
- (9) Procurements involving Goods/Services acquired by Public Bodies through their own competitive process;
- (10) For work requested and paid for by property owners adjacent to construction or maintenance periods performed by Suppliers under Contract with the City.

SCHEDULE “D”**AUTHORITIES, RESPONSIBILITIES AND DUTIES OF STAFF**

The following chart describes the authorities and general responsibilities and duties for staff having a role in Procurement processes. Additional and/or more detailed responsibilities may also be included in related corporate policies and procedures.

<p>Chief Procurement Officer</p>
<p>The Chief Procurement Officer, or designate, shall have the authority and be responsible for:</p> <ol style="list-style-type: none"> 1. Developing, implementing and maintaining all Procurement policies, procedures and practices; 2. Overseeing and coordinating Procurement processes for Medium Value Acquisitions and High Value Acquisitions; 3. Providing training for responsible Departmental staff and Procurement Services staff; 4. Ensuring that responsible Departmental staff, Bidders, and Suppliers are aware of the ethical standards relating to purchasing and that adherence to those standards is maintained; 5. Establishing and overseeing corporate-wide Contracts; 6. Determining, in accordance with all related policies and procedures, the appropriate method for the Procurement of Goods and/or Services, including the form of any Contract, in consultation with the Legal Services Division, the circumstances and method for the pre-selection of Goods, and the pre-qualification of Bidders; 7. Providing professional Procurement advice and guidance, including strategic advice, fairness monitoring and advice on Supplier performance and contract implementation issues to Departments; 8. Reporting to Council as required, pursuant to the provisions of this By-law; 9. Monitoring Departmental compliance with this By-law; 10. Conducting periodic monitoring of Low Value Acquisitions for compliance with relevant City policies and procedures, and advising Departmental Directors of any issues; 11. Managing bidding issues and bid disputes and protests in accordance with applicable City policy and procedures; 12. The care, custody and control of records for all Medium Value Acquisition and High Value Acquisition Procurement processes and Contracts; 13. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 14. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedures; and 15. Authorizing Contract terminations in accordance with applicable City policy and procedures. 16. Executing Contract Awards and Contract amendments in accordance with Section 15 and Schedule “B”.
<p>City Manager</p>
<p>The City Manager shall have:</p>

<ol style="list-style-type: none"> 1. The responsibilities of a Department Head, described below, for Procurements for the City Manager’s Department; 2. Authority to approve Contract amendments due to Unforeseen Site Conditions; and 3. Authority to approve Contract Awards for Emergency Procurements in accordance with Schedule “B”.
<p>Department Heads</p>
<p>Each Department Head is responsible for:</p> <ol style="list-style-type: none"> 1. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 2. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedures; 3. Authorizing Contract Awards for Emergency Procurements in accordance with Schedule “B”; 4. Authorizing Contract terminations in accordance with applicable City policy and procedures; and 5. Preparing and presenting reports to Council as required in Section 14 or at the direction of the Chief Procurement Officer.
<p>Departmental Directors</p>
<p>Each Departmental Director is responsible for:</p> <ol style="list-style-type: none"> 1. Directing and overseeing all Departmental Procurement processes and preparing all planning documentation stipulated by the Manager for all competitive Procurements over \$50,000 and all High Value and Single Source Procurements whether planned or on an Emergency basis; 2. Allowing sufficient time to complete the Procurement process, in accordance with process timelines posted by Procurement Services; 3. Delegating appropriate authority to employees within their Department; 4. Delegating specific authority to Contract Managers for Procurement process responsibility and/or contract management responsibility; 5. Except for an Emergency, ensuring that no Goods or Services are ordered, requested, delivered or performed until after a Contract is executed in accordance with this By-law; 6. Ensuring that the Procurement process and approval functions for Low Value Acquisitions and Medium Value Acquisitions are carried out by separate Departmental staff; 7. Overseeing the management of all Contracts led by or coordinated by their Department; 8. Advising Procurement Services of any issues with respect to Procurement processes; 9. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 10. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedures; and 11. Ensuring staff compliance with this By-law and all related policies.

<p>Departmental Managers</p>
<p>Each Departmental Manager is responsible for:</p> <ol style="list-style-type: none"> 1. Preparing all planning documentation stipulated by the Manager for Procurements with a value of \$25,000 and up to \$50,000; 2. Delegating appropriate authority to employees within their section; 3. Except for an Emergency, ensuring that no Goods or Services are ordered, requested, delivered or performed until after a Contract is executed in accordance with this By-law; 4. Ensuring that the Procurement process and approval functions are carried out by separate Departmental staff; 5. Advising Procurement Services of any issues with respect to Procurement processes; 6. Conducting Low Value Acquisitions, with the assistance of a Buyer, as needed; 7. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 8. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedures; and 9. Ensuring staff compliance with this By-law and all related policies.
<p>Manager, Procurement Services</p>
<p>Each Manager in Procurement Services is responsible for:</p> <ol style="list-style-type: none"> 1. Carrying out responsibilities as delegated by the Chief Procurement Officer; 2. Ensuring that Procurement processes are carried out in accordance with this By-law and related policies and procedures; 3. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 4. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedure; and 5. Executing Contract Awards and Contract amendments in accordance with Section 15 and Schedule “B”. 6. Posting Contract Award information reports on a quarterly basis to the City’s external website.
<p>Buyers</p>
<p>Each Buyer is responsible for:</p> <ol style="list-style-type: none"> 1. Conducting all Procurement processes in accordance with this By-law and applicable City policies and procedures; 2. Providing professional Procurement advice to Contract Managers; 3. Conducting a review of all High Value Acquisition Bids for compliance from a Procurement perspective; 4. Managing communications with Bidders for High Value Acquisitions and for Medium

<p>Value Acquisitions as required;</p> <ol style="list-style-type: none"> 5. Providing advice and support to Contract Managers on Contract issues and Supplier performance management; 6. Authorizing Contract Awards in accordance with Section 14 and Schedule “B”; 7. Authorizing Contract amendments, renewals and interim extensions in accordance with Schedule “B” and applicable City policy and procedures; and 8. Executing Contract Awards and Contract amendments in accordance with Section 15 and Schedule “B”.
<p>Contract Managers</p>
<p>Each Contract Manager is responsible for:</p> <ol style="list-style-type: none"> 1. Ensuring that they are acting in compliance with this By-law and applicable City policies and procedures; 2. Developing Bid Request requirements including specifications, statements of work, quantities and evaluation criteria; 3. Verifying that the Goods and/or Services meet the requirements of the Department; 4. Conducting a detailed review of all Bids received and confirming that the recommended Award(s) is/are fully compliant with the specifications or statement of work and requirements as stated in the Bid Request; 5. Except for an Emergency, ensuring that no Goods and/or Services are ordered, requested, delivered or performed until after a Contract is executed in accordance with this By-law; 6. Managing Supplier performance and consulting with Buyer as needed; 7. Ensuring certificate(s) of insurance, WSIB and other applicable documents are current at all times; and 8. Approving payments in accordance with the Contract.
<p>Legal Services</p>
<p>Legal Services is responsible for:</p> <ol style="list-style-type: none"> 1. Developing contract terms and conditions; 2. Providing legal advice for Procurements described in Schedule “C”; 3. Providing legal advice to the Chief Procurement Officer in the event of bidding issues and Bid protests; 4. Providing legal advice in the event of non-performance by a Supplier; 5. Advising on Contract terminations; and 6. Signing off on internal Contract termination recommendations.
<p>Finance</p>
<p>Finance is responsible for:</p> <ol style="list-style-type: none"> 1. Confirming the availability of funding, or plan for obtaining funding, for procurement planning purposes;

2. Reviewing and signing off on PAR Forms verifying the budget amount and account number for the recommended Award(s); and
3. Reviewing and signing off on PAR Forms verifying the budget amount and account number for Contract amendments.

City of Mississauga

Corporate Policy & Procedure

**Policy Title: Contract Amendments and Termination****Policy Number: [Policy No.]****Draft Only – Clean Copy - October 25, 2021**

Section:	Corporate Administration	Subsection:	Acquisition/Disposal of Goods And Services
Effective Date:	[Effective Date]	Last Review Date:	[Last Review]
Approved by: Click here to enter text.		Owner Division/Contact: Procurement Services, Corporate Business Services Division, Corporate Services Department	

Policy Statement

Contracts issued to Suppliers for the provision of Goods and/or Services may be amended or terminated, if required, only in accordance with this policy.

Purpose

This policy outlines:

- The conditions under which a Contract may be amended or terminated, and
- The specific authority delegated to Staff by Council to approve and execute Contract amendments

Scope

This policy applies to amendment or termination of High Value and Medium Value Contracts implemented and approved in accordance with the Procurement By-law XX, as amended.

Contracts are managed in accordance with Corporate Policy and Procedure - [Vendor Performance Management and Disqualification](#).

Background

Contracts for the provision of Goods and/or Services are issued to Suppliers pursuant to procurement processes that are conducted and approved in accordance with the Procurement By-law and other relevant policies.

The approval to Award a Contract is obtained using a Procurement Authorization Request Form (PAR Form). The original PAR Form must, where applicable, clearly specify the Contract duration and all monies expected or estimated to be paid to the Supplier as a result of the Award. The

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total amount approved on the original PAR Form (including contingency, if applicable) will be the Original Contract value for calculating future increases.

If the Contract later requires amendment or termination, this policy will apply.

Definitions

For the purposes of this policy:

“Award” means the selection of the Bidder and the Bidder’s Goods and/or Services, as accepted by the City.

“Best Value” means the optimal balance of evaluated factors and cost to achieve the City’s objectives for the Procurement.

“Bid” means a proposal, offer or submission from a Bidder received in response to a Bid Request.

“Bid Request” means a solicitation from the City to potential Bidders to submit a Bid.

“Bidder” means any legal entity submitting a Bid.

“Buyer” means a Staff in Procurement Services who is assigned responsibility for a particular Procurement and who has delegated authority to approve Awards and execute Contracts in accordance with Schedule “B” of the Procurement By-law.

“Chief Procurement Officer” or “CPO” means the Director of Corporate Business Services, Corporate Services Department or, in their absence, the Commissioner of Corporate Services & Chief Financial Officer.

“City Manager” means the City employee with the title of City Manager and to whom the authority of the City Manager is delegated by Council and includes any person who has been authorized, in writing, to temporarily act as City Manager during absence or vacancy in that office.

“City Standard” means specific HVA Goods established competitively or approved by Council that best fill a long term City-wide or departmental requirement.

“Contingency” means an allowance to be included, where applicable, in the Award approval (PAR Form) to provide for possible future events or conditions that cannot be determined with certainty in advance.

“Contract” means an agreement between the City and a Supplier for the supply of Goods and/or Services issued to a Supplier following Award.

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“Contract Amendment” means any change to an Original Contract.

“Contract Manager” means a City employee to whom a divisional director has delegated procurement process responsibility and/or Contract management responsibility.

“Fixed Term” means the specific term applied to a Contract for regularly required Goods and/or Services, such as maintenance services, office supplies and other commonly used Goods.

“Goods” means tangible and intangible goods of all kinds, including but not limited to supplies, materials, equipment, structures and fixtures to be delivered, installed and/or constructed, and licences.

“HVA” (High Value Acquisition) means a procurement of Goods and/or Services having a value of more than \$100,000, exclusive of taxes, and that is not a Medium Value Acquisition.

“Legal Services” means the Legal Services Division of the City Manager’s Department.

“LVA” (Low Value Acquisition) means a procurement of Goods and/or Services having a value of \$25,000 or less, exclusive of taxes.

“Manager” means a City employee in Procurement Services, Corporate Business Services Division, Corporate Services Department with “Manager” in their title or their designate, in writing.

“MVA” (Medium Value Acquisition) means a procurement of Goods and/or Services having a value of more than \$25,000 and up to \$100,000, exclusive of taxes.

“Original Contract” means the Contract issued to a Supplier following Award, including Contingency if a Contingency was approved on the original PAR Form, and does not include any amendments, interim extensions and renewals.

“Procurement Authorization Request Form” (PAR Form) means an electronic form that is available in the Procurement Centre. A PAR Form is required to obtain authority to Award, increase the value or modify the terms and/or conditions of a Contract, to extend the term of a Fixed Term Contract or to terminate a Contract.

“Procurement By-law” (the “By-law”) means the City’s Procurement By-law XX, as amended.

“Procurement Centre” means the City’s workflow management system for HVA and MVA procurements.

“Public Body” means the municipalities, academic, schools and hospitals sector and any local board, commission, non-profit corporation or government entity and shall include any corporation

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of which the City is a shareholder or any one of them alone or in any combination of them acting together.

“Request for Change Form” (RFC Form) means an electronic form that is available in the Procurement Centre. An RFC Form must be prepared by the Contract Manager to initiate an amendment to increase the value or modify the terms and/or conditions of a Contract; to extend the term of a Fixed Term Contract; or to terminate a Contract.

“Services” means services of all kinds, including labour, construction, maintenance and professional and consulting services.

“Staff” means a City employee, or their designate, to whom Council has delegated authority to approve Awards and/or execute Contracts and Contract Amendments on behalf of the City, in accordance with this policy and Schedule “B” of the Procurement By-law.

“Supplier” means a legal entity with whom the City has entered into a Contract.

“Unforeseen Site Condition” means a pre-existing condition of the site (in which construction or maintenance work is to take place or is taking place in accordance with a Contract) that requires additional work to be conducted that was not anticipated, despite reasonable efforts in planning for the Procurement.

Roles and Responsibilities

Divisional Directors

Divisional directors requiring the procurement of Goods and/or Services are responsible for:

- Ensuring all applicable managers/supervisors are aware of this policy and of any subsequent revisions
- Ensuring compliance with this policy
- Assigning responsibility for managing Contracts and Supplier performance to a Contract Manager
- Ensuring that Contract Managers are logging, tracking and obtaining supervisor approval for changes to Contracts that affect specifications, the scope of work, deliverables and requirements but that do not necessarily affect the Contract value, and
- Authorizing PAR Forms to amend or terminate Contracts in accordance with this policy and Schedule “B” of the By-law

Chief Procurement Officer

The Chief Procurement Officer is responsible for:

- Authorizing PAR Forms for Contract Amendments, renewals and interim extensions, in accordance with this policy and the By-law
- Executing Contract Amendments in accordance with this policy and the By-law, and

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- Jointly authorizing Contract terminations, in accordance with this policy and Corporate Policy and Procedure - [Vendor Performance Management and Disqualification](#)

Managers/Supervisors

Managers/supervisors with staff who are Contract Managers are responsible for:

- Ensuring Contract Managers are trained on this policy, and
- Ensuring Contract Managers comply with this policy

Manager, Procurement Services

The Manager, Procurement Services, is responsible for:

- Providing guidelines, training, advice and support to staff and Buyers as appropriate
- Authorizing PAR Forms to amend Contracts and executing Contract amendments in accordance with this policy and the By-law
- Advising Buyers and Contract Managers in managing Supplier performance and documenting performance issues, in accordance with Corporate Policy and Procedure - [Vendor Performance Management and Disqualification](#), and
- Reviewing reports to Council, where applicable, for approval by the CPO

Contract Managers

Contract Managers are responsible for:

- Completing the required training offered by Procurement Services
- Ensuring they understand and comply with this policy
- Ensuring Supplier performance is being managed and performance issues documented in accordance with Corporate Policy and Procedure - [Vendor Performance Management and Disqualification](#)
- Approving payments to Suppliers in accordance with the Contract
- Monitoring Contract spending to ensure the approved Contract value is sufficient
- Monitoring fluctuations in currency exchange rates for US\$ Contracts to ensure the approved Contract value is sufficient
- Promptly contacting the Buyer if the approved Contract value is or will be insufficient
- Monitoring expiry dates of Fixed Term Contracts and planning for new procurement processes
- Ensuring that Supplier requests for Contract Amendments are justified and not in conflict with the Contract
- Preparing RFC Forms when a Contract Amendment is required and attaching supporting documentation
- Obtaining departmental approval in accordance with Schedule "B" for all Contract Amendments that increase the Contract value
- Obtaining supervisor approval for Contract Amendments that do not increase the Contract value
- Preparing reports to Council where required
- Uploading copies of all correspondence with Suppliers to the Procurement Centre, and

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- Seeking Procurement Services and Legal Services advice in the event of Supplier non-performance and/or if Contract termination is being recommended

Buyers

Buyers are responsible for:

- Ensuring they understand and comply with this policy
- Providing Contract Managers with six months written notice of expiring Contracts (e.g. Contract expiry is July 30, notice is provided by January 30)
- Reviewing RFC Forms and supporting documentation and ensuring that requested amendments are compliant with this policy
- Preparing PAR Forms for approval in accordance with, and including accurate references to, this policy
- Preparing Contract Amendments and obtaining approval in accordance with Schedule “B” of the By-law
- Ensuring that Supplier submittals required under the Contract are current at the time of Contract Amendment execution
- Ensuring that the executed Contract Amendment, Supplier submittals and all supporting documentation are maintained electronically in the procurement file
- Working with the Contract Manager to ensure Supplier performance is being managed and performance issues are being documented in accordance with Corporate Policy and Procedure - [Vendor Performance Management and Disqualification](#)
- Providing guidance and support to Contract Managers to facilitate Contract and Supplier performance management, and
- Seeking Legal Services advice in the event of Supplier non-performance and/or if Contract termination is being recommended

Legal Services

Legal Services is responsible for:

- Assessing legal risk and providing legal advice and support to Contract Managers and/or Buyers in the event of Supplier non-performance and/or Contract termination
- Signing off on internal Contract termination recommendations
- Interpreting the legal terms and conditions of Contract documents, and
- Drafting amending agreements, as required

Finance

- The departmental Financial Analyst is responsible for reviewing PAR Forms and verifying availability of funds, the budget amount and account number for Contract Amendments

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Contract Amendments to Increase the Contract Dollar Value

General

This policy is not applicable to LVA, however, increases to LVA that cause the original purchase to exceed \$25,000, exclusive of taxes, must be treated as MVA.

A Contract Amendment to an HVA or MVA Contract must be authorized on a PAR Form before the Contract is amended.

MVA and HVA Contracts may be amended in accordance with this policy if the amendment, interim extension or renewal meets the conditions of this policy and:

- Is not contrary to the By-law
- Funding is available within existing approved budgets, and
- Additional Goods and/or Services are within the scope of the Original Contract

MVA Contracts

- MVA Contracts (competitive or single source) must not exceed \$120,000 (\$100,000 MVA threshold plus a maximum increase of 20%, if required post Award).
- MVA Contracts exceeding \$120,000 require Council approval
- The term of an MVA Contract may be extended only if additional time is necessary to complete requirements in progress at the time of the Contract's expiry and to make final payments, and
- Interim extensions do not apply to MVA Contracts

HVA Contracts

- The dollar value of HVA Contracts may be amended in accordance with the conditions described in the tables below
- Refer to Schedule "B" of the Procurement By-law for the specific authority delegated to Staff by Council to approve and execute Contract Amendments, and
- The approval level for a Contract Amendment must be for the new total Contract value, including the Original Contract value and all previous Contract Amendments

A. If the total value of one or more increases to the Original Contract value is:	Then authority is by: (Ref. Schedule "B")
1. Within 20% of the Original Contract value	Staff
2. More than 20% of the Original Contract value and up to and including \$100,000	Staff
3. More than 20% of the Original Contract value and more than \$100,000	Council

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<p>4. Approved previously by Council under item 3 above but an increase is required to make the final payment</p>	<p>CPO - up to and including \$100,000 Council - more than \$100,000</p>
<p>B. Notwithstanding items 3 above, Council authority is not required, regardless of dollar or percentage increase, when a Contract Amendment is:</p>	
<p>1. Required to increase the value and/or renew the term of a Contract for which the procurement was intended to create a relationship with a Supplier to provide Goods and/or Services over multiple years, only if:</p> <ul style="list-style-type: none"> (a) the Contract is for Goods and/or Services for a technology software, system or solution; or (b) the Contract is for a City Standard; and <ul style="list-style-type: none"> (i) the Bid Request and Contract provide for renewing the term and/or increasing the value; and (ii) funding for the increase has been approved in annual capital budgets by Council; or (iii) additional quantity is required due to increases in staffing levels and/or number and/or size of City facilities or lands: and (iv) the basis for determining price was established in the Contract or continues to represent Best Value 	<p>Staff</p>
<p>2. Required to increase the value of a Fixed Term Contract, only if:</p> <ul style="list-style-type: none"> (a) additional quantity is required due to increases in staffing levels and/or number and/or size of City facilities or lands,; and (b) price is unchanged, or the basis for determining price was established in the Original Contract, or continues to represent Best Value 	<p>Staff</p>
<p>3. Required to increase the value and/or extend the Contract term for Goods and/or Services related to extreme weather, or other acute condition, such as a pandemic, only if:</p> <ul style="list-style-type: none"> (a) the Contract Amendment is required due to operations or maintenance requirements; and (b) the conditions at any time during the term of the Contract are/were worse than expected; and (c) price is unchanged, or the basis for determining price was established in the Original Contract 	<p>Staff</p>

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<p>4. For an interim extension, which shall apply, if:</p> <ul style="list-style-type: none"> (a) additional time is required to fulfill all obligations in progress at the time of the Contract's expiry and to make final payments; or (b) additional time and/or an increase to value is required to develop and complete a procurement process; and/or (c) it would be advantageous to wait before proceeding with a Bid Request, and/or (d) market conditions are significantly disrupted due to circumstances beyond the City's control; <p>And:</p> <ul style="list-style-type: none"> (i) the CPO and Manager are jointly of the opinion that an interim extension is justified, and (ii) the term of the interim extension does not exceed one year (i.e. interim extensions exceeding one year require Council approval) 	CPO
<p>5. For a Contract Amendment for which the CPO had specific authority to approve and execute the Original Contract, only in the cases of:</p> <ul style="list-style-type: none"> (a) it is advantageous to the City to acquire the Goods and/or Services directly from another Public Body (b) for construction services provided by utilities, railway companies or adjacent property owners required by the City as a result of City construction 	CPO
<p>6. Due to Unforeseen Site Conditions</p>	City Manager
<p>7. Required to increase a Contract for construction if the City has been ordered to pay an adjudicated amount pursuant to the <i>Construction Act</i></p>	Staff
<p>8. For work requested and paid for by a Public Body/Bodies with whom the City has entered into a co-operative procurement and the City holds the Contract with the Supplier on behalf of itself and the Public Body/Bodies</p>	Staff
<p>9. For work requested and paid for by property owners adjacent to construction or maintenance projects performed by Suppliers under Contract with the City</p>	Staff

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Contract Amendments with No Increase to Contract Dollar Value

Departmental approval by the Contract Manager's supervisor is required for amendments to specifications or scopes of work and/or Contract terms that may result in discounts, credits or offsets but do not increase the approved Contract value.

The details of these types of changes to a Contract must be tracked and readily available for review and verification by Procurement Services, Internal Audit, Legal Services and others, as may be required. Template forms for this purpose are available in the Procurement Centre for use by Contract Managers. Divisions with their own contract management forms and procedures, such as those responsible for construction, are to use their departmental forms and procedures.

The objectives for tracking zero dollar value increases are to ensure that:

- Contract Amendments do not undermine or substantially change the Original Contract
- Contract Amendments are not material to the Original Contract
- The City has a record of all amendments, demonstrating what it actually bought, and
- Secondary sign-off is obtained to ensure segregation of duties between the Contract management and approval functions

Zero dollar Contract Amendments that significantly change a term or condition of a Contract, such as payment terms or supplier name, or that significantly change the specifications or requirements, must be authorized on a PAR Form and approved in accordance with Schedule "B".

Contract Terminations

Contracts may be terminated for reason of:

- (a) Non-performance of the Supplier
- (b) Default of a Contract term by the Supplier
- (c) The Goods and/or Services are no longer required
- (d) The Contract funds are spent and/or additional funds are not approved, or
- (e) Other circumstances which may arise where the contractual provisions allow the City to terminate the Contract

The Contract Manager shall consult with Procurement Services and Legal Services to receive direction. Contracts may only be terminated upon the joint approval (via PAR Form) of the applicable department head, the Chief Procurement Officer and the City Solicitor or their respective designate, or as otherwise authorized by Council.

Revision History

Reference	Description

Appendix 3

Summary of Proposed New Procurement By-law

Background:

Material Management, Legal Services and Internal Audit reviewed the Purchasing By-law No. 374-2006, as amended. The objectives of the review were to update and modernize the By-law, using plain language, point form and avoiding duplication. Emphasis was on keeping the By-law fairly general and flexible with procedural details removed to separate policies, where possible. The result is effectively a new By-law.

Spend Thresholds:

Staff recommend that the LVA limit be increased from \$10,000 to \$25,000. This increase will give staff greater autonomy to make basic purchases. A review of purchases between \$10,000 and \$25,000 indicated that risk at this level remains low. LVA spending is monitored regularly for compliance and opportunities for strategic procurement. This will require an update to the City's Payment Requests Policy and Pcard Policy which cover non-purchase order payments.

The thresholds for Medium Value Acquisitions (MVA = \$25,001 to \$100,000) and High Value Acquisitions (HVA = more than \$100,000) are unchanged. HVA aligns with the Canadian Free Trade Agreement (CFTA) and the Comprehensive Economic and Trade Agreement (CETA):

The table below summarizes the hi-lights of the new By-law:

Section No.	and Subject	Comments
1	Definitions	<p><u>Changed definitions:</u></p> <ul style="list-style-type: none"> • Purchasing By-law now Procurement By-law • Purchasing Agent now Chief Procurement Officer • Commitment now Contract • Acquisition now Procurement • Vendor now Supplier • Material Management now Procurement Services • LVA now requires IT manager approval for applications, software and subscriptions • The acronyms for LVA, MVA and HVA were not changed (even though we are recommending using procurement as the consistent term over acquisition) as they are ingrained in the City's vocabulary.

		<p><u>New definitions:</u></p> <p>“City-wide Contracts” means contracts for Goods and/or Services that are used by most or all City departments for which Procurement Services conducts the procurement processes and manages the contracts.</p> <p>“Contract Manager” means a City employee to whom the Departmental Director has delegated Procurement process responsibility and/or Contract management responsibility.</p> <p>This was undefined previously. This definition, plus other references to responsibilities in the By-law are to clarify the differences between the CM and buyer and allocate accountability for the CM role.</p> <p>“Fixed Term” means the specific term applied to a Contract for regularly required Goods and/or Services, such as maintenance services, office supplies and other commonly used Goods.</p> <p>Applying an appropriate fixed term to the types of contracts described is recommended for the following reasons:</p> <ul style="list-style-type: none"> • These contracts often provide for renewal, i.e. a firm initial term of three years, subject to renewal for 2-3 additional one year terms. The contracts are almost always extended to the maximum, indicating that a term of 5 or 6 years in the first place would have been appropriate • Administratively efficient rather than processing paperwork for re-approval and issuing change orders each year • We don’t know that extension year pricing is good, and the market may have changed with new suppliers and products • Bidders bid on the sure thing – i.e. three years - extension years are a bonus to them and we may be overpaying • Incumbent suppliers know that the contract will likely be extended. They can risk bidding lower and recoup later; new bidders don’t have the same info – not really fair • Re-bidding is easier and more reliable than benchmarking • Interim extension will still be available if needed
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		<ul style="list-style-type: none"> If a case can be made for extending and not re-bidding, Council approval is required <p>This would apply to contracts issued under the new by-law and not affect contracts currently in place with renewal clauses.</p> <p>Other new definitions related to the Procurement Centre:</p> <ul style="list-style-type: none"> Procurement Request Form (PRF) Procurement Authorization Form (PAR)
2	Monetary References	<p>Updated:</p> <p>All references to dollar amounts in this By-law are to be in Canadian or US dollars and do not include applicable taxes.</p>
3	Applicability	<p>Three new items were added as exclusions:</p> <ul style="list-style-type: none"> performers for public events hosted and/or produced and/or sponsored by the City at its public event venues; (removed from Schedule "A") lodging and associated meals and services from hotels or similar providers of accommodations for members of the public who are participating in City hosted and/or sponsored sporting and/or tourism events, such as the Ontario Summer Games, as required under the terms and conditions of the agreement between the City and the event owner; services provided by representatives from Indigenous communities to attend on City project sites for observation purposes during invasive site testing or construction; <p>The following exclusion was revised, for clarity:</p> <ul style="list-style-type: none"> Procurement, installation, inventory maintenance, de-accessioning and disposal of City acquired art, including interactive, artistic and/or place making installations.
5	Ethical Conduct of Bidder and Suppliers	<p>New section to address collusion, influence, conflicts of interest etc. for Bidders and suppliers.</p>
6	Conflicts of Interest	<p>Three new items were added:</p>

		<ul style="list-style-type: none"> • Employees of the City shall comply with City policies on conflict of interest • City employees must immediately declare to their manager any real or perceived conflicts of interest they may have arising from interacting with, managing, supervising or overseeing the work of family members and/or former employees of the City and/or anyone with whom they have a close personal relationship working for Suppliers in any capacity. • City employees in the role of Contract Manager must be and be seen to be impartial in their treatment of all Bidders and Suppliers, and in managing Contracts and approving payments
9	Authorities, Responsibilities and Duties	<p>New section:</p> <p>(1) The authorities of the Chief Procurement Officer and general responsibilities and duties for staff having a role in Procurement processes are set out in Schedule “D” to this By-law.</p> <p>Streamlined to keep related information in one place for easy reference and to avoid duplication.</p>
10	Planning for Procurement	<p>Added:</p> <p>(g) at the Department Head’s discretion and prior to Procurement, report to Council significant changes affecting existing service levels and/or service delivery approaches for High Value Acquisitions.</p>
14	Authority to Approve Awards	New section. Discusses approval requirements in one section and in point form by department, Procurement Services and Council.
15	Authority to Execute Contracts	New section. Discusses contract execution requirements in one section.
16	Cancelling and Re-issuing Bid Requests	Replaced by new policy # 03-06-11 “Bidding Procedures for Publicly Advertised HVA”. Refers reader to policy.
19	Receipt and Opening of Bids	Replaced by new policy # 03-06-11 “Bidding Procedures for Publicly Advertised HVA”. Refers reader to policy.
20	Amendments, Interim Extensions, Renewals and Terminations	Formerly section 18. To be replaced by new policy. Refers reader to policy which is more prescriptive in addressing amendments.

23	Disqualification of Bidders	<p>Revised:</p> <ul style="list-style-type: none"> • The disqualification period will be for up to five years from written notification to the Bidder. <p>The disqualification period was increased from two years to up to five years, depending on the gravity of the reason for disqualification.</p>
26	Disposition of Surplus Assets	<p>Replaced by new policy # 03-06-10 "Disposal of Surplus City Assets". Refers reader to policy.</p>
	Schedule "A" Single Source and Emergency Procurement	<p>Revised:</p> <ul style="list-style-type: none"> • Single source only – term "sole" source is no longer used <p>(vii) changed: It is advantageous to the City to acquire the Goods and/or Services from a supplier pursuant to the <u>competitive</u> Procurement process conducted by another Public Body;</p> <p>(iii) The confidential nature of the requirement is such that that it would not be in the public interest to solicit competitive bids, replaced with:</p> <p>There is a need to limit the distribution of confidential or security related information.</p> <p>(iv)...Bids not economical to the City... replaced with:</p> <ul style="list-style-type: none"> • For additional Goods and/or Services from the original Supplier that were not included in the original Procurement if the change of Supplier for such additional Goods and/or Services cannot be made for: <ul style="list-style-type: none"> – Economic or technical reasons such as requirements of interchangeability or interoperability with existing equipment, software, services or installations procured under the initial Procurement; and – Would cause significant inconvenience or substantial duplication of costs for the City. <p>Aligns with trade agreements.</p> <p>Deleted:</p> <p>(v) Construction, renovation, repairs....to a building lease by the City may only be done by the lessor of the building in accordance with the lease agreement.</p>

		<p>This is not required as it is covered in individual leases; we don't retain the service.</p> <p>(xvi) Funding and project completion timelines imposed by senior government programs do not allow adequate time for a competitive bid process.</p> <p>This does not align with the trade agreements. In these situations, we would pre-qualify contractors and consultants or use roster suppliers, or obtain Council approval for single sourcing.</p>
	<p>Schedule "B"</p>	<p>Revised to provide for Departmental Directors to approve competitive procurements up to \$500,000.</p> <p>Currently Department Heads approve all competitive procurements at more than \$100,000. This change aligns with Schedule "C" Legal Review Requirements, which considers procurements over \$500,000 to be higher risk.</p>
	<p>Schedule "D" Authorities, Responsibilities and Duties of Staff</p>	<p>New schedule.</p> <p>The schedule describes the authorities and general responsibilities and duties for staff having a role in Procurement processes. Additional and/or more detailed responsibilities may also be included in related corporate policies and procedures.</p>

City of Mississauga
Corporate Report



<p>Date: November 15, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works</p>	<p>Meeting date: December 1, 2021</p>

Subject

Amendment to Existing Consultant Contract – Procurement No. PRC001263 (Aquafor Beech Limited) to include additional Construction Supervision and Administration Services for the Applewood Creek Erosion Control Project through Lakeview Golf Course (Ward 1)

Recommendation

That the Purchasing Agent be authorized to increase the existing contract (Procurement No. PRC001263) with Aquafor Beech Ltd. by an estimated additional amount of \$157,309, funded from PN 18-135, to an estimated revised total contract value of \$461,391 (excluding taxes) to allow for the extension of specialized construction supervision and administration services over the full duration of construction for the Applewood Creek Erosion Control - Lakeview Golf Course project.

Executive Summary

- The Applewood Creek Erosion Control - Lakeview Golf Course project was awarded to Aquafor Beech Ltd. (ABL) in 2019 to undertake an Environmental Assessment (EA) study, detailed design, and provide construction supervision services for the recommended creek works.
- Detailed design of the erosion control works has been completed and includes a re-alignment and widening of Applewood Creek through the Lakeview Golf Course which requires modifications to several greens, fairways, cart paths, bridges and the irrigation system.
- Staff recommends that the existing contract with ABL be amended to undertake additional specialty construction supervision and administration services throughout the duration of construction of the project, scheduled for fall of 2021 through summer of 2022.
- In accordance with the Purchasing By-Law 374-06, Section 18(2)(d)(i), the requested funding increase to undertake additional specialty construction supervision and administration services is greater than \$100,000 and 20 percent of the original contract value, therefore Council approval is required in order to authorize the Purchasing Agent to proceed with this increase.

Background

Applewood Creek flows through the City-owned Lakeview Golf Course between the Dixie Outlet Mall and the CN Railway in the southeast corner of the City (refer to Appendix 1). Currently, the creek is channelized and its banks are lined with stone-filled gabion baskets that were installed 30 to 40 years ago over the entire 1.3 km (0.8 mile) length through the golf course.

The gabion baskets are approaching the end of their life-span, with many sections beginning to fall into the creek, posing a significant risk to the safety of golf course users and the environment. The City identified this reach of Applewood Creek as a high priority site in need of rehabilitation.

In 2019, the Applewood Creek Erosion Control - Lakeview Golf Course project was awarded to Aquafor Beech Limited (ABL) to undertake an Environmental Assessment (EA) study and detailed design for the creek restoration works. The assignment also included an allowance for up to four months of construction supervision and administration services during the construction of the creek works.

Comments

Following the recommendations of the EA study, detailed design of the erosion control works was undertaken in 2020-2021 and construction is now underway. The planned work includes removal of the failing gabion basket banks and restoration of the creek using a wider natural channel configuration which follows a more gentle winding alignment through the golf course. Benefits of this project include:

- Repair of existing erosion damages;
- Increased flood conveyance capacity;
- Water quality improvements;
- Long-term fish and wildlife habitat improvements; and
- Improved golf course aesthetics and playability.

The recommended widening and re-alignment of the creek also requires some minor modifications to the Lakeview Golf Course itself, including:

- Minor reconfiguration of fairways, tees and greens on several holes immediately adjacent to the creek;
- Re-alignment of the cart path adjacent to the creek;
- Replacement of five bridge crossings over the creek; and
- Alterations to the golf course irrigation system, including removal of an existing pond.

The above golf course modifications were included in the overall project design based on consultation with Community Services' recreation and golf course staff.

Given that the Lakeview Golf Course is a designated heritage property, a report was presented to the City's Heritage Advisory Committee at its meeting of May 11, 2021. This report concluded that the proposed changes to the golf course would not alter the original course design and would either maintain or improve the heritage characteristics of the course. The Heritage Advisory Committee reviewed the report and approved the request to alter the property at 1190 Dixie Road. Heritage Property Permit HPA 21-11 was issued in May 17, 2021.

During the procurement of consulting services and based on staff experience with similar erosion control projects, it was anticipated that construction of the creek works would take place over roughly four months between November and March while the golf course was closed. However, due to the extent of additional works required, including alterations to the golf course itself to accommodate the wider re-aligned creek, the construction duration and the types of specialty inspection services required will be more extensive than originally planned.

The majority of the creek-related construction work is still expected to take place over the winter. However, the alterations to the golf course will take place in the subsequent growing season once the ground thaws (around April to mid-July). As a result, construction is now expected to extend over a period of approximately nine months from late November 2021 to mid-July, 2022.

Given the above, it is recommended that the existing contract with ABL be amended to increase it for an additional five months of construction supervision and administration services, including additional services from the consultant team's golf course landscape architect and irrigation specialists. In doing so, the City will benefit from the ABL team's above-noted specialized knowledge of the site-specific environmental constraints, City and agency requirements, design nuances, and continuity of knowledge on this project. Based on ABL's fees estimate, an increase to the existing contract in the estimated amount of \$157,309 is required (refer to Appendix B).

The contract increase recommendation will require Council approval in accordance with Purchasing By-law 374-06, (Section 18(2)(d)(i) for contract increases exceeding \$100,000 and 20 percent of the original contract value.

Strategic Plan

The implementation of this project falls within the *Connected* Strategic Pillar under its strategic goal to *Build and Maintain Infrastructure*, and within the *Green* Strategic Pillar under its strategic goal to *Lead and Encourage Environmentally Responsible Approaches*.

Financial Impact

Table 1 below outlines the status of the existing and proposed revised contract amounts with ABL. PN 18-135 Applewood Creek Erosion Control - Lakeview Golf Course has sufficient funds available to accommodate the recommended increase.

Table 1	
Contract Items	Applewood Creek Erosion Control - Lakeview Golf Course (PRC 001263)
Original Contract Value	\$209,955
Approved Change Orders – Heritage Impact Assessment, Archaeologic Investigation, Soils Testing, Hydrant Testing, Reptile Rescue, Golf Course Design Consultation	\$94,127
<i>Proposed Fees for Additional Specialized Construction Supervision & Administration Services</i>	<i>\$157,309</i>
Total New Contract Value (excluding taxes)	\$461,391

Conclusion

An estimated increase of \$157,309 (excluding taxes) to the existing contract with ABL for construction supervision and administration services over the full duration of construction for the Applewood Creek Erosion Control - Lakeview Golf Course project represents good value as ABL and its golf course design sub-consultant team have worked closely with Community Services' recreation and golf course staff on the design changes that will be implemented to Lakeview Golf Course as part of the erosion control works on Applewood Creek. There is sufficient funding under PN 18-135 Applewood Creek Erosion Control - Lakeview Golf Course to accommodate the recommended increase.

Attachments

Appendix 1: Location Map for Applewood Creek Erosion Control Project through Lakeview Golf Course

Appendix 2: Aquafor Beech Limited Change Order Request for Construction Administration and Inspection



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

Prepared by: Greg Frew, P.Eng, Stormwater Drainage Engineer

APPENDIX 1:

Location Map of Applewood Creek Erosion Control Project Through Lakeview Golf Course





APPENDIX 2

September 13th, 2021

Attn: Mr. Greg Frew, P.Eng.

Project Manager, Environmental Services
Transportation and Works Department

City of Mississauga

T: 905.615.3200 ext. 3362

E: greg.frew@mississauga.ca

Re: Change Order Request for Construction Administration and Inspection – Applewood Creek Erosion Control at Lakeview Golf Course, PO 4500494836

Dear Greg,

The detailed design, including creek restoration and golf course improvement for the Applewood Creek Erosion Control at Lakeview Golf Course is near completion, and we are looking forward to a successful tendering and implementation program.

At the outset of the project, it was assumed that construction of the creek work would take place over roughly four (4) months between November to March while the golf course was closed. However, due to the extent of the work, including alterations to the golf course itself to accommodate the re-aligned creek, it is understood that the construction duration and the types of specialty inspection services required will be considerably more extensive than originally planned. The creek construction and related golf course restoration work is now expected to extend over (9) nine months from October 12th, 2021 to July 15th, 2022, and will also require technical expertise from the golf course landscape architect and irrigation consultants.

The specific tasks included in this Change Order for your consideration include the following:

TASK 1 - CONSTRUCTION ADMINISTRATION AND INSPECTION

Aquafor will honor the approved rates for construction supervision and administration of the project, covering an extended duration of construction into 2021 - 2022.

Through the EA process, natural restoration of the entire length of Applewood within the study area was selected as the preferred alternative which has been reviewed and agreed by key City stakeholders, Lakeview Golf Course administration team, and the larger public. In addition, the proposed works also include extensive golf course and irrigation system renovation works which also are limited by season and temperature. The total construction budget is estimated to be in the range of ~\$7M.

We understand that the base scope construction administration budget as per the original RFP/Proposal allowed for a 90-day (720 hours) timeframe. However, due to the large scale and complexity of the proposed works, the construction duration is now anticipated to be 190 working days.

For the purpose of this Change Order request, it will include construction services during the remaining 100 days of the total 190-day duration, for which 40 days of full day (8 hours/day) inspection and 60 days of half-day (4 hours/day) inspection are anticipated. The total additional hours of construction inspection are 560 hours. The costs for the additional services have been calculated as per the approved hourly rates within the original proposal

Head Office:

2600 Skymark Ave, Building 6, Suite 202, L4W 5B2
Tel: 905-6290099 Fax: 905-629-0089

Branch Office:

920 Princess Street, Kingston, Ontario, K7L 1H1
Tel: 613-542-1312 • Fax: 613-542-6292

September 13^h, 2021

TASK 2 – GOLF COURSE ARCHITECT & IRRIGATION SUPPORT DURING CONSTRUCTION

In addition to Aquafor's full time supervision and administration service, technical support and expertise from Schollen and GT Irrigation are required throughout construction when the golf course renovation and irrigation system repair works are being undertaken.

Their technical support will include:

- Bidders meeting and bid evaluation as required
- Review of shop drawings and submittals
- Construction inspection regarding golf course and landscaping features
- Attendance at construction meetings

For the purpose of this Change Order request, we are planning on attendance of weekly meeting by the golf course architect team – Mr. Cam Tyers, as well as additional support from Mark Schollen and Gary Taylor. They will also be onsite throughout the planned construction at all key milestones, ensuring the golf course features are implemented as per plans.

PROPOSED COSTING

Summarized in the table below is the professional fees and disbursement for all tasks noted above. The upset limit of this Change Order request is \$157,305.00, excluding HST.

CONSULTANT NAME:		Aquafor Beech Limited		Aquafor Beech Limited		Schollen & Company Inc		Schollen & Company Inc		GT Irrigation		TOTAL		
ASSIGNED STAFF - PERSON NAME:		Rob Amos		Inspector / Support		Mark Schollen		Cam Tyres		Gary Taylor		"Formula Calculation"		
No.	PROJECT TASKS	"#HRS"	"#HRS" x "HRS"	"#HRS"	"#HRS" x "HRS"	"#HRS"	"#HRS" x "HRS"	"#HRS"	"#HRS" x "HRS"	"#HRS"	"#HRS" x "HRS"			
		(#) of HOURS	FEES (\$)	(#) of HOURS	FEES (\$)	(#) of HOURS	FEES (\$)	(#) of HOURS	FEES (\$)	(#) of HOURS	FEES (\$)	(#) of HOURS	FEES (\$)	Disbursements (\$)
1	CONSTRUCTION ADMINISTRATION AND INSPECTION (additional 100 days, 560 hours)	150	\$ 19,500.00	560	\$ 44,800.00		0		0		0	710	\$ 64,300.00	\$ 3,215.00
2	GOLF COURSE ARCHITECT & IRRIGATION SUPPORT DURING CONSTRUCTION		0		0	78	\$ 19,578.00	360	\$ 59,940.00	30	\$ 6,000.00	468	\$ 85,518.00	\$ 4,275.90
Total for this phase		150	\$ 19,500.00	560	\$ 44,800.00	78	\$ 19,578.00	360	\$ 59,940.00	30	\$ 6,000.00	1178	\$ 149,818.00	\$ 7,490.90
Hourly Rate ("HR\$")		\$	130.00	\$	80.00	\$	251.00	\$	166.50	\$	200.00			
TOTAL FEES (\$)		\$149,818.00												
TOTAL Number of HOURS		1,178.00												
DISBURSEMENTS charges (\$)		\$ 7,490.90												
TOTAL COST OF THIS PHASE (excluding HST)		\$157,308.90												

Should you require any additional information or clarification regarding this request for budget amendment, please do not hesitate to contact the undersigned at 416.705.2367.

Sincerely,

AQUAFOR BEECH LIMITED

Robert Amos, MAsc. P.Eng.

Aquafor Beech Ltd.

✉ Amos.R@Aquaforbeech.com

City of Mississauga
Corporate Report



<p>Date: November 2, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer</p>	<p>Meeting date: December 1, 2021</p>

Subject

2021 Strike-off of Taxes Deemed Uncollectible

Recommendation

That unpaid taxes, charges, fees, penalties and interest totalling \$46,941.03 as outlined in the corporate report from the Commissioner of Corporate Services and Chief Financial Officer dated November 2, 2021 entitled "Strike-Off of Taxes Deemed Uncollectible" be written-off as uncollectible and removed from the tax roll.

Executive Summary

- Section 354 of the *Municipal Act, 2001* allows municipalities to remove unpaid taxes from the tax roll if the Council of the local municipality approves the recommendation of the treasurer to write off the taxes as uncollectible.
- \$46,941.03 of uncollectible property taxes, charges, fees, penalty and interest on three properties is being recommended for write-off.
- All collection efforts in accordance with Corporate Policy 04-02-03, Collection of Outstanding Property Taxes, have been exhausted.

Background

Section 354(2) (a) of the *Municipal Act, 2001* allows for the removal of unpaid taxes from the tax roll if the Council of the local municipality, on the recommendation of the Treasurer, writes off the taxes as uncollectible.

Comments

Staff have determined that taxes billed on three properties are uncollectible and the balance of taxes, fees and late payment charges should be written-off. All collection efforts in accordance with Corporate Policy 04-02-03, Collection of Outstanding Property Taxes, have been exhausted. Collection activities included assignment to the Bailiff.

Details of the properties including the reason and amounts being recommended for write-off are provided below.

Roll No.	Ward	Address	Tax Year(s)	Amount
05-05-0-113-07400	5	7198 Airport Rd	2008	\$3,353.79

The tax roll was deleted in January 2009 following the condominium being registered and tax rolls being created for all new units. The arrears are from 2006-2007 supplementary taxes billed in 2008.

Roll No.	Ward	Address	Tax Year(s)	Amount
05-05-0-113-60134	5	0 Airport Rd	2013-2019	\$41,683.33

This was a leased space at the Airport, leased by a foreign owned airline. The airline discontinued business with Canada in 2018.

Roll No.	Ward	Address	Tax Year(s)	Amount
05-15-0-070-12701	9	5591 Ninth Line	2004	\$1,903.91

The tax roll was deleted in January 2006. The arrears are from a 2004 assessment appeal that was completed in September 2007 resulting in additional taxes owing.

Engagement and Consultation

Collection activities include assignment to the Bailiff. For accounts at the airport, staff also consult with GTAA representatives in an effort to collect any outstanding tax balances.

Financial Impact

The tax write-off when approved will be charged back as follows:

City	\$ 9,533.42
Region	\$13,485.98
Education	<u>\$24,221.63</u>
Total	<u>\$46,941.03</u>

Conclusion

Taxes totalling \$46,941.03 have been deemed uncollectible and should be removed from the tax roll pursuant to section 354(2) (a) of the *Municipal Act, 2001*.



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Christine Leduc, Supervisor, Collections

City of Mississauga
Corporate Report



<p>Date: November 2, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer</p>	<p>Meeting date: December 1, 2021</p>

Subject

Financial Report as at September 30, 2021

Recommendation

1. That the report entitled "Financial Report as at September 30, 2021" dated November 2, 2021, from the Commissioner of Corporate Services and Chief Financial Officer, including appendices, be approved.
2. That up to \$396,000 of the Operating Budget Reserve Requests be approved for transfer to the Fiscal Stability Reserve (#30125) as listed in Appendix 2.
3. That any 2021 year-end Stormwater operating program surplus be transferred to the Stormwater Pipe Reserve Fund (#35993).
4. That the Treasurer be authorized to fund the capital projects as identified in Appendix 3-1, Ward Specific Projects from the Federal Gas Tax Reserve Fund (#35182).
5. That \$1,000,000 in funding for Project TWOE00158 (PN#21195) LED City Wide Traffic Signal Lens Replacement be changed from Tax Debt (#37778) to Capital Reserve Fund (#33121).
6. That the necessary by-laws be enacted.

Executive Summary

Operating Summary, excluding Stormwater

As of September 30, 2021, the City is forecasting an operating shortfall of \$58.5 million or 6.1 per cent of the gross operating budget. Funding from the Safe Restart and COVID-19 Recovery Funding for Municipalities funding programs is anticipated to be sufficient to offset this shortfall, resulting in a forecast zero variance for 2021.

Stormwater Financial Summary

Operating Summary

As of September 30, 2021, the Stormwater operating program is forecasting a year-end favourable variance in the amount of \$1.2 million due to lower exemption/credit applications including declines in subsidy applications for the sump pump program. Any surplus at year-end will be transferred to the Stormwater Pipe Reserve Fund.

Further details are provided in Appendix 1-2, Revenue Charge and Operating Details for Stormwater.

Background

In accordance with the Budget Control By-law, the Finance Division provides Council with a review of the City's financial position a minimum of two times a year. This report covers information related to Operating Program variances including Ward-Specific projects established since 2019.

Comments

This report summarizes:

- Part 1 – Operating Forecast
- Part 1.2 – Stormwater Financial Summary
- Part 2 – Operating Budget Reserve
- Part 3 – Municipal Accommodation Tax
- Part 4 – Ward-Specific Projects
- Part 5 – Housekeeping

Engagement and Consultation

Finance acknowledges the contribution of all Service Areas for providing detailed operating variance explanations, and Legal Services for By-law review and enactments.

Financial Impact

PART 1: OPERATING RESULTS AS AT SEPTEMBER 30, 2021

City of Mississauga remains focused on its Recovery Plan and continues to work towards reducing the impact of the fourth wave this fall. Recent stabilization of COVID cases in the Region including current announcements by Ontario Premier Ford will see a gradual approach to lifting the remaining restrictions which will help guide us safely through the winter and hopefully out of this pandemic. This encouraging news will help with impacts on City services and avoid

further shutdowns. The City has maintained sound business practices while continuing to look at streamlining opportunities and prioritizing resources where they are needed.

Based on actual results as at September 30, 2021, staff forecast the City will end the year with an anticipated shortfall of \$58.5 million or 6.1 per cent of the gross budget. Thanks to the Federal and Provincial support in the form of Safe Restart and COVID-19 Recovery Funding for Municipalities, which is expected to offset this anticipated shortfall. Table 1 summarizes the forecasted Year-End operating budget variances by Service Area, and identifies how these are anticipated to be managed using Safe Restart funding. The major areas of variance from the budget are highlighted below, with further details provided in Appendix 1-1 Operating Details by Service Area.

Table 1. City of Mississauga Operating Budget - Year-End Position (\$Ms)

Service Area (\$ Millions)	Net Budget	Year End position Before Safe Restart Funding	\$ Surplus/ (Deficit) - Before Safe Restart Funding	Safe Restart Funding	\$ Surplus/ (Deficit) - After Safe Restart Funding
MiWay	84.8	125.7	(41.0)	41.0	0.0
Recreation	29.9	38.4	(8.5)	0.0	(8.5)
Regulatory Services	0.8	7.4	(6.6)	0.0	(6.6)
Legislative Services	(1.8)	2.2	(4.0)	0.0	(4.0)
Parks Forestry & Environment	38.5	40.3	(1.8)	0.0	(1.8)
Culture	6.1	7.8	(1.7)	0.0	(1.7)
Business Services	32.9	34.6	(1.7)	0.0	(1.7)
Information Technology	31.7	32.4	(0.6)	0.0	(0.6)
City Manager's Office	12.7	13.0	(0.3)	0.0	(0.3)
Fire & Emergency Services	121.3	121.4	(0.1)	0.0	(0.1)
Mayor & Council	5.0	5.0	0.0	0.0	0.0
Financial Transactions	58.8	58.5	0.3	17.5	17.8
Land Development Services	11.9	10.7	1.2	0.0	1.2
Mississauga Library	29.7	27.8	1.8	0.0	1.8
Facilities & Property Management	25.9	23.9	2.0	0.0	2.0
Roads	66.8	64.4	2.5	0.0	2.5
City	555.1	613.6	(58.5)	58.5	(0.0)

Note: Numbers may not add due to rounding.

Year-End Operating Result Highlights by Service:

MiWay

- MiWay service is forecasting a year-end net deficit of \$41.0 million.
 - An unfavourable forecast of approx. \$40.5 million is mainly due to lower ridership as a direct result of COVID-19 operating impacts. This forecast assumes that by December 31st MiWay would regain approximately 53% of transit revenue.

- Offset by a net unfavourable forecast of \$0.5 million attributed to \$3.7 million in forecasted labour savings related to vacancies offset by \$4.2 million in higher non-labour expenses mainly due to higher-than-budgeted fuel costs.

Recreation

- Recreation service is forecasting a year-end net deficit of \$8.5 million:
 - Unfavourable revenue forecast of \$38.2 million is a direct result of facility closures and observation of social-distancing protocols and public health restrictions due to COVID-19.
 - Offset by a favourable labour forecast of \$19.8 million mostly in temporary labour driven by savings due to minimal program offerings, unfilled positions.
 - Further offset by favourable non-labour forecast of \$9.8 million due to lower-than-expected utilities costs, contractor costs, and materials/supplies costs resulting from facility closures as a result of COVID-19 impacts on operations.

Regulatory Services

- Regulatory Services is forecasting a year-end net deficit of \$6.6 million:
 - Unfavourable revenue forecast of \$7.5 million is mainly driven by decreases in parking revenues, Transportation Network Company (TNC) licensing fees and business/mobile licensing fees. This was a direct result of business closures and maintenance of public health safety regulations due to COVID-19.
 - Offset by a combined favourable forecast of \$0.9 million in expenses. The savings in labour of \$0.4 million and \$0.5 million in non-labour are directly related to COVID-19 impacts to operations.

Legislative Services

- Legislative Services is forecasting a year-end net deficit of \$4 million:
 - Unfavourable revenue forecast of \$4.9 million is mainly due to the limited trials and closure of the Courthouse resulting from COVID-19 Provincial shutdowns.
 - Offset by a combined favourable forecast of \$1.0 million in expenses. The savings of \$0.7 million in labour and \$0.3 million in non-labour are a direct result of the COVID-19 impacts on judiciary services.

Parks Forestry & Environment

- Parks Forestry & Environment is forecasting a year-end net deficit of \$1.8 million:
 - Unfavourable revenue forecast of \$0.6 million primarily as a result of reduced revenues from utilization of sports field amenities and parks permits due to COVID-19 restrictions and impacts on operations.

- Unfavourable non-labour forecast of \$1.7 million primarily driven by additional occupancy and vehicle requirements for social distancing, PPE, additional comfort stations and cleaning requirements as a result of COVID-19 impacts on operations.
- Offset by a favourable labour forecast of \$0.5 million due to retirements, vacant positions and delays in hiring as a result of COVID-19 impacts on operations.

Culture

- Culture is forecasting a year-end net deficit of \$1.7 million:
 - Unfavourable revenue forecast of \$7.6 million are a direct result of programs and events being cancelled or modified due to COVID-19 impacts.
 - Offset by a combined favourable forecast of \$5.8 million in expenses. The savings of \$4.0 million in non-labour expenses are due to the reduction in cleaning services, logistics and security due to the cancellation/modification of events related to COVID-19 impacts on operations. The remaining \$1.8 million savings are primarily driven by temporary labour and full-time vacancies.

Roads

- Roads is forecasting a year-end net surplus of \$2.5 million
 - Favourable net revenue forecast of \$2.4 million is mainly due to favourable recoveries of \$1.8 million in sidewalk, streetlighting and winter maintenance, \$1.2 million in engineering subdivision revenues, \$0.6 million in leaf collection and \$0.7 million in other services partially offset by unfavourable revenues of \$1.9 million due to impact of COVID-19 that resulted in paid parking experiencing low utilization during the closure of businesses and delay in launch of the Automated Speed Enforcement (ASE) program.
 - Offset by a favourable combined non-labour forecast of \$0.8 million due to delay in launch of the ASE program and utility savings.
 - Further offset by a net unfavourable labour forecast of \$0.4 million mainly due to labour recovery shortfalls of \$2.4 million offset by \$2 million in savings for various vacant positions and layoffs due to the operating impacts of COVID-19

Land Development Services

- Land Development Services is forecasting a year-end net surplus of \$1.2 million:
 - Favourable revenue forecast of \$7 million is mainly due to an increase in volume of applications for building permit, development and rezoning fees driven by a strong housing market. In accordance with the City's reserve policy, these revenue surpluses will be recommended for transfer to the Reserves at year end to offset any future revenue shortfalls. As such, the surplus of \$7 million will not contribute to the overall City bottom line.

- A combined unfavourable forecast of \$5.8 million is a result of transfer of building permit revenue to the Building Permit Revenue Stabilization Reserve, labour vacancies and higher-than-expected labour recoveries.

Other Service Areas

- All remaining services are forecasting a year-end net surplus of \$1.4 million.
 - The net favourable forecast is primarily a result of savings from vacant full-time positions and delays in seasonal hiring due to COVID-19 impacts on operations. Also the City was able to reduce its discretionary spending on utilities and supplies as operations were scaled back.

Year-End Analysis from a COVID Perspective

As a result of the COVID pandemic, the use of City services continues to fluctuate. Staff continue to model best-case, worst-case and anticipated scenarios when analyzing possible deficits. The 2021 projected year-end deficit of \$58.5 million reflects the anticipated scenario. The deficit is primarily due to reduced revenues, particularly in the MiWay, Recreation and Regulatory Services service areas. City staff have continued measures to mitigate the financial impact of COVID-19 where possible, including continued hiring delays, temporary staff layoffs where facilities have been closed, and aggressively managing costs.

Table 2 provides a summary of the City's projected financial position, and identifies the best-case, worst-case and anticipated scenarios. The information in this table is summarized in three categories: the direct impact of COVID-19, such as the loss of revenues due to closing of recreation facilities and reduced use of transit; the mitigating actions taken by City staff to reduce the impacts of COVID-19; and, business-as-usual surpluses and deficits that further affect the City's bottom line. Funding from the Safe Restart and COVID-19 Recovery Funding for Municipalities funding programs is sufficient to offset the projected shortfall in each scenario.

Table 2. Variance by Driver (\$000s)

Driver (\$000s)	Best Case	Anticipated	Worse Case
DIRECT COVID IMPACT			
MiWay - revenue shortfall, non-salary savings	(36,307.1)	(41,020.7)	(45,873.8)
Recreation - revenue loss	(36,756.3)	(38,156.3)	(39,556.3)
Culture - revenue loss	(3,370.2)	(3,875.0)	(4,379.7)
Administration Penalty (APS) Fees	(3,735.0)	(4,150.0)	(4,565.0)
POA-related revenues	(4,620.0)	(4,860.0)	(5,100.0)
LAC revenues	(3,878.1)	(3,693.5)	(3,508.8)
PPE, Cleaning, Social Distancing costs	(1,325.2)	(1,350.2)	(1,650.2)
MAT - loss of revenues	(463.1)	(1,463.1)	(2,463.1)
Enforcement - licensing revenue shortfalls	(1,163.7)	(1,293.0)	(1,422.3)
Parks - reduced parks & marina rental	(1,039.6)	(1,045.3)	(1,050.4)
Reduced parking revenues / bylaw fines	(1,187.2)	(1,319.1)	(1,451.0)
TNC licensing fees	(1,080.0)	(1,200.0)	(1,320.0)
Library - revenues	(648.5)	(648.5)	(648.5)
Other various impacts	(642.5)	(659.2)	(837.7)
Licensing fee refunds	(270.0)	(300.0)	(360.0)
DIRECT COVID IMPACT	(96,486.5)	(105,033.7)	(114,186.8)
MITIGATING ACTIONS TAKEN BY CITY			
Temporary staffing savings	18,034.6	17,891.1	17,653.0
Utility savings (closed facilities)	3,569.1	3,453.5	3,417.8
Recreation - reduced operations	5,030.5	5,200.5	5,370.5
MAT - reduced contribution to RF	463.1	1,463.1	2,463.1
LAC expenses	2,515.3	2,525.3	2,535.3
Other non-salary expenditure impacts (COVID)	1,784.6	1,597.0	1,349.9
Culture - reduced operations	2,218.3	1,883.2	1,548.2
Permanent staffing savings	2,177.6	1,350.3	(2,477.0)
Discretionary savings to help mitigate costs	469.6	465.5	459.4
	36,262.8	35,829.6	32,320.2
BUSINESS AS USUAL VARIANCES			
Base gapping (BAU)	7,655.4	7,655.4	7,655.4
Building permit / Planning application revenues	7,350.0	7,000.0	6,650.0
Insurance costs	(140.0)	(140.0)	(140.0)
Minor salary variances	(848.3)	(748.3)	(548.3)
Reserve entries (offsetting actuals)	(4,342.8)	(4,067.5)	(3,792.3)
Various expenditure / revenue impacts	(370.7)	958.0	(5,577.1)
	9,303.6	10,657.5	4,247.6
NET SURPLUS / (DEFICIT)	(50,920.1)	(58,546.6)	(77,619.0)

PART 1.2: STORMWATER FINANCIAL SUMMARY**Stormwater Operating and Revenue Charge Summary**

As of September 30, 2021, the Stormwater operating program will have a favourable variance in the amount of \$1.2 million due to lower exemption/credit applications including declines in subsidy applications for the sump pump program. Any surplus at year-end will be transferred to the Stormwater Pipe Reserve Fund.

Further details are provided in Appendix 1-2, Revenue Charge and Operating Details for Stormwater.

PART 2: OPERATING BUDGET RESERVE REQUEST

The accounting principles used by the City require that expenditures for goods and services be recorded when received. At year-end, there are some legally binding obligations for goods and services ordered prior to year-end and that are not received. Appendix 2 of this report details Operating Budget Reserve Requests totalling \$396,000. This amount will be added to the next year's budget.

PART 3: MUNICIPAL ACCOMMODATION TAX

City of Mississauga introduced the Municipal Accommodation Tax (MAT) tax effective April 2018. This tax is collected by accommodation providers (facilities) offering short-term accommodation. The total revenue budget for MAT is \$9.8 million for 2021.

In February 2020, a By-law was established to create Tourism Mississauga. 50% of the total net MAT revenue would be remitted to Tourism Mississauga.

As of September 30, 2021, the revenue collected is \$3.3 million. The year-end projection for MAT revenue is around \$3.5 million or 36% of total budget. Hoteliers have been impacted by the COVID-19 pandemic, monthly MAT revenue collection is increasing but remains below pre-pandemic levels.

PART 4: WARD-SPECIFIC SPECIAL PROJECTS

On May 22nd, 2019 a motion was passed by Council to establish capital projects up to a total amount of \$2 million per ward, to be used at the discretion of each local Councillor. These funds need to be utilized within council term. As part of this report we are requesting approval for the projects listed in Appendix 3-1. A status update of approved projects by Ward is presented in Appendix 3-2. A status update of all projects requested to date is provided in appendix 3-3.

PART 5: HOUSEKEEPING ITEMS: The LED City Wide Traffic Signal Lens Replacement project (PN #21195), with a gross and net budget of \$1.5 million, is currently funded by debt and tax-capital. In order to align with the amended 2021 Capital Debentures issuance schedule, \$1 million previously funded by debt should now be funded through the Tax-Capital Reserve Fund.

Conclusion

The COVID-19 pandemic continues to significantly impact City operations in 2021 with a forecasted year-end operating deficit of \$58.5 million. The deficit is primarily due to reduced revenues, particularly in the MiWay, Recreation and Regulatory Services service areas. City staff continue to take measures to mitigate the financial impact of COVID-19 where possible.

The projected budget deficit is anticipated to be offset by already announced Provincial and Federal funding through the Safe Restart Agreement and through 2021 COVID-19 Recovery Funding for Municipalities.

As a municipality we anticipate revenues will slowly return to normal; however, we are limited in the ways we can adjust our costs to remain in line with revenues. Many of our services are essential and must continue to be delivered. These projections will be updated as Provincial guidelines continue to respond to pandemic conditions.

Attachments

Appendix 1-1: Operating Forecast Details by Service Area

Appendix 1-2: Revenue Charge and Operating Details for Stormwater

Appendix 2: 2021 Operating Budget Reserve Requests

Appendix 3-1: Requests for Establishment of New Ward-Specific Projects

Appendix 3-2: Approved Ward-Specific Projects

Appendix 3-3: Total Ward-Specific Projects by Councillor



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Luigi Vernace, CPA, CGA, Supervisor Budgets

Operating Forecast Details by Service Area
Fire & Emergency Services

Appendix 1-1

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(6.8)	(6.5)	(0.3)	(4.3%)	Unfavourable revenue variance expected due to COVID-19 related decrease in call volume, specifically in false alarm, elevator, and motor vehicle accident calls.
Other Operating Expenses	14.1	14.3	(0.2)	(1.2%)	\$0.4M favourability in operating expenses due to COVID-19 related savings staff development, transportation costs and materials and supplies, offset by (\$0.6M) equipment related expenses including hand sanitizer, cleaning supplies, and PPE.
Labour and Benefits	113.0	112.7	0.3	0.2%	Favourable labour variance expected due to existing vacancies in operations and fire prevention. Operations vacancies are due to retirements and long term absences. Fire prevention vacancies are related to new positions that have not yet been filled.
Total Net Cost before Administrative and Support Costs	120.3	120.5	(0.2)	(0.2%)	
Administrative and Support Costs	1.0	0.9	0.1	8.9%	
Total Net Cost	121.3	121.4	(0.1)	(0.1%)	

Roads

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(18.1)	(20.5)	2.4	13.3%	\$2.4M Favourable revenue variances are as a result of \$1.2M due to higher than budgeted Engineering Subdivision revenues and unexpected License agreement, \$1.0M due to higher than budgeted winter maintenance recoveries, \$0.6M in sidewalk maintenance recoveries, \$0.6M in leaf collection, \$0.2M in Streetlight recoveries and \$0.7M other various favourable revenues throughout the Road Services. The above favourable revenues are partially offset by \$1.3M unfavorable variance due to the overall reduction of in the use of paid parking during the closure of businesses and the declaration of emergency by the City and the Province of Ontario due to the COVID-19 pandemic. \$0.6M unfavourable due to delay on Automated Speed Enforcement (ASE) program.
Other Operating Expenses	50.0	49.3	0.8	1.5%	Favourable variance in Operating Expenses are mostly driven by late start of ASE project, utility savings and other small variances through the Road Services.
Labour and Benefits	34.7	35.1	(0.4)	(1.1%)	\$1.9M unfavourable labour recovery from various capital projects and \$0.5M unfavourable labour recovery due to delay of ASE are partially offset by \$1.7M favourable variance due to reduction in part time labour for Crossing Guards layoffs as well as other various holds and vacant positions due to COVID-19
Total Net Cost before Administrative and Support Costs	66.6	63.8	2.8	4.2%	
Administrative and Support Costs	0.2	0.6	(0.3)	(139.2%)	Unfavorable variance due to additional custodial expenses due to COVID-19
Total Net Cost	66.8	64.4	2.5	3.7%	

Operating Forecast Details by Service Area
MiWay

Appendix 1-1

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(93.4)	(52.9)	(40.5)	(43.4%)	Unfavourable variance due to COVID -19 impact. Assuming 53.3% Revenue at year end.
Transfers from Reserve	(18.5)	(18.5)	0.0	0.0%	On budget.
Other Operating Expenses	45.6	49.4	(3.8)	(8.3%)	Unfavourable variance is mostly due to higher fuel costs due to higher than budget per litre costs offset by savings due to lower consumption.
Labour and Benefits	149.7	146.0	3.7	2.5%	Gapping due to various vacant positions and absences.
Total Net Cost before Administrative and Support Costs	83.5	124.1	(40.6)	(48.6%)	
Administrative and Support Costs	1.3	1.6	(0.4)	(30.7%)	F&PM higher custodial cleaning costs due to Covid.
Total Net Cost	84.8	125.7	(41.0)	(48.3%)	

Parks Forestry & Environment

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(5.3)	(4.6)	(0.6)	(12.2%)	Unfavourable variance due to COVID-19 restrictions and delays in Spring and Summer of 2021. Loss of revenues primarily for sports field amenities and park permits.
Other Operating Expenses	15.3	16.9	(1.7)	(10.9%)	Unfavourable variance primarily due to additional occupancy and vehicle requirements for social distancing, PPE and additional cleanings due to COVID-19.
Labour and Benefits	28.2	27.7	0.5	1.7%	Favourable labour variance due to retirements and vacancies in full-time positions being backfilled by temporary staff, as well as delays in hiring due to COVID-19.
Total Net Cost before Administrative and Support Costs	38.2	40.0	(1.8)	(4.8%)	
Administrative and Support Costs	0.3	0.3	0.0	0.0%	On budget
Total Net Cost	38.5	40.3	(1.8)	(4.7%)	

Operating Forecast Details by Service Area

Appendix 1-1

Mississauga Library

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(2.1)	(1.5)	(0.6)	(30.8%)	Anticipated revenue variance unfavourable due to closure resulting in less revenue collected from fines, photocopy charges and other user fees.
Other Operating Expenses	8.2	7.5	0.8	9.4%	Overall surplus, mainly driven by utilities, materials and supplies, as a result of COVID-19 closure of facilities.
Labour and Benefits	23.0	21.3	1.7	7.5%	Favourable variance is primarily related to full time vacancies.
Total Net Cost before Administrative and Support Costs	29.1	27.3	1.8	6.3%	
Administrative and Support Costs	0.5	0.5	(0.0)	(0.0%)	On budget
Total Net Cost	29.7	27.8	1.8	6.2%	

Business Services

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(2.8)	(2.4)	(0.4)	(15.9%)	\$0.4M deficit in Revenue and Material Management (MM) as a result of Interest cancelation on outstanding invoices due to legal settlement and expected revenue shortfall for Provincial Offences Act (POA) Administration fee when compared to budget.
Other Operating Expenses	4.1	3.7	0.4	8.9%	\$0.4M favourable variance is due to committed savings in Seminars, Conferences and Materials and Supplies in an effort to offset the expected City wide deficit as a result of Covid-19.
Labour and Benefits	31.6	33.2	(1.6)	(5.0%)	Labour is expected to exceed budget by year end. Unfavourable labour in Human Resources and 311 Contact Centre primarily due to various business pressures, partially offset by favourable forecast in Revenue and Materials Management due to gapping.
Total Net Cost before Administrative and Support Costs	32.9	34.6	(1.7)	(5.1%)	
Administrative and Support Costs	0.1	0.1	0.0	0.0%	On budget
Total Net Cost	32.9	34.6	(1.7)	(5.1%)	

Operating Forecast Details by Service Area

Appendix 1-1

Facilities & Property Management

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.7)	(0.6)	(0.1)	(15.0%)	Unfavourable variance due to lost room rental revenue at City Hall and Central Library impacted by Covid along with rent relief for tenants of City-owned properties (also Covid-related).
Other Operating Expenses	10.4	10.1	0.3	2.9%	(\$500k) unfavourable variance due to increased maintenance demands for mold abatements and various structural repairs (\$250k) unfavourable variance due to increased building supplies costs as a result of supply chain issues resulting in reduced supply of product \$600k favourable variance due to increased savings for utilities due to Covid. \$200k favourable variance due to reduction in preventative maintenance activity \$200k favourable variance due to various favourable variances including staff development and transportation costs.
Labour and Benefits	18.0	16.2	1.8	10.0%	\$1.8M favourable variance due to vacancies in various positions because of market conditions along with hiring freeze due to Covid.
Total Net Cost before Administrative and Support Costs	27.7	25.7	2.0	7.2%	
Administrative and Support Costs	(1.8)	(1.8)	0.0	0.0%	On budget
Total Net Cost	25.9	23.9	2.0	7.7%	

Recreation

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(56.9)	(18.8)	(38.2)	(67.0%)	Unfavourable variance mainly because of COVID-19 impact. Minimal program offerings due to facility closures and public health restrictions
Other Operating Expenses	27.7	17.8	9.8	35.6%	Surplus anticipated due to COVID-19 and lower revenues. Main drivers of savings in utilities, materials and supplies, and contractor costs
Labour and Benefits	59.5	39.7	19.8	33.3%	Favourable variance primarily driven by COVID-19 related savings in temp labour of \$17M ; Remaining surplus is primarily related to vacancies, maternity leaves, and salary differential for replacement hires
Total Net Cost before Administrative and Support Costs	30.2	38.7	(8.5)	(28.1%)	
Administrative and Support Costs	(0.3)	(0.3)	0.0	0.0%	On budget
Total Net Cost	29.9	38.4	(8.5)	(28.4%)	

Operating Forecast Details by Service Area

Appendix 1-1

Information Technology

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(1.6)	(1.2)	(0.4)	(25.8%)	Unfavourable variance of (\$0.4M) due to three municipalities delaying 2021 implementation of TXM tax system. Revenue shortfall is partially offset by a reduction in TXM "transfers to reserve funds" in Other Operating Expenses.
Other Operating Expenses	10.2	9.9	0.3	2.7%	Favourable variance of \$0.3M driven by lower transfer to reserves as a result of TXM tax system implementation postponement \$0.3M and reduced discretionary spending in other operating due to COVID-19 \$0.2M, partially offset by higher spend in Equipment Maintenance due to DocuSign license fee \$0.3M.
Labour and Benefits	24.6	25.1	(0.5)	(2.0%)	Unfavourable variance of (\$0.5M) in Labour Capital Chargebacks, due to a hold on labour chargebacks on PN 19509, eCity Hosting and Online Services Hosting and Services. As IT transitions to a larger pool of staff to recover from, initiatives are being undertaken to reduce this variance to \$0 by end of year.
Total Net Cost before Administrative and Support Costs	33.3	33.9	(0.6)	(1.9%)	
Administrative and Support Costs	(1.5)	(1.5)	0.0	0.0%	On Budget.
Total Net Cost	31.7	32.4	(0.6)	(2.0%)	

City Manager's Office

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.9)	(0.9)	(0.0)	(3.0%)	On Budget
Other Operating Expenses	2.2	3.0	(0.9)	(40.9%)	Unfavourable forecast mainly due to over expenditures for Contractor and Professional Services in Legal Services.
Labour and Benefits	11.5	10.9	0.6	5.2%	Favourable forecast due to vacancies in the Legal Services Department.
Total Net Cost before Administrative and Support Costs	12.7	13.0	(0.3)	(2.4%)	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
Total Net Cost	12.7	13.0	(0.3)	(2.4%)	

Land Development Services

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(15.5)	(22.5)	7.0	45.3%	Favourable variance mainly due to increased volume and higher value for Building Permits Application and Development applications.
Other Operating Expenses	3.4	10.1	(6.6)	(193.4%)	Unfavourable variance is mostly driven by a forecasted transfer to the Building Permit Revenue Stabilization Reserve (subject to approval and in accordance with City policy) partially offset by other operating savings due to COVID-19 impacts.
Labour and Benefits	23.9	23.1	0.8	3.3%	Favorable Variance due to higher than expected vacancies and capital chargebacks.

Operating Forecast Details by Service Area

Appendix 1-1

Total Net Cost before Administrative and Support Costs	11.9	10.7	1.2	9.8%	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
Total Net Cost	11.9	10.7	1.2	9.8%	

Operating Forecast Details by Service Area

Appendix 1-1

Culture

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(14.0)	(6.4)	(7.6)	(54.2%)	Unfavourable variance of \$7.6M primarily due to cancelled or modified events and programs.
Other Operating Expenses	10.9	6.8	4.0	37.2%	Favourable variance of \$4.0M is primarily due to cancelled and modified events in Paramount Fine Food Centre and Living Art Centre, less cleaning/security/logistics required.
Labour and Benefits	9.1	7.3	1.8	19.7%	\$1.8M favourable variance primarily driven by COVID related savings in temp labour of \$1.5M ; Remaining surplus is primarily related to full time vacancies and salary differential for replacement hires.
Total Net Cost before Administrative and Support Costs	6.0	7.7	(1.7)	(29.1%)	
Administrative and Support Costs	0.1	0.1	0.0	39.1%	On budget
Total Net Cost	6.1	7.8	(1.7)	(27.8%)	

Mayor & Council

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(0.2)	(0.2)	0.0	0.0%	On Budget
Other Operating Expenses	0.9	0.9	0.0	0.0%	On Budget
Labour and Benefits	4.4	4.4	0.0	0.0%	On Budget
Total Net Cost before Administrative and Support Costs	5.0	5.0	0.0	0.0%	On Budget
Administrative and Support Costs	0.0	0.0	0.0	0.0%	On Budget
Total Net Cost	5.0	5.0	0.0	0.0%	

Regulatory Services

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(18.7)	(11.2)	(7.5)	(40.2%)	Unfavourable variance as a result of decreased parking revenue/APS revenues of \$4.2M, \$0.9M Business & Bingo Licensing, \$1.2 million TNC, \$0.7M Mobile Licensing mainly due to COVID-19 and \$0.5M due to various other revenue shortfalls.
Other Operating Expenses	2.8	2.2	0.6	21.4%	Favourable variances due to savings in discretionary expenses
Labour and Benefits	16.5	16.1	0.4	2.7%	Gapping due to various hold and vacant positions
Total Net Cost before Administrative and Support Costs	0.6	7.1	(6.5)	(1001.6%)	
Administrative and Support Costs	0.2	0.3	(0.1)	(48.3%)	Unfavorable variance due to additional custodial expenses due to COVID-19
Total Net Cost	0.8	7.4	(6.6)	(796.0%)	

Operating Forecast Details by Service Area

Appendix 1-1

Legislative Services

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(12.6)	(7.7)	(4.9)	(39.0%)	Unfavourable variance due to limited trials and closure resulting from COVID-19
Other Operating Expenses	2.0	1.8	0.3	12.8%	Favourable variance mainly due to COVID related savings due to limited trials and lower demand for judiciary services
Labour and Benefits	8.8	8.1	0.7	7.9%	Favourable variance due to vacancies, and new positions coming available that are not being hired until 2022
Total Net Cost before Administrative and Support Costs	(1.8)	2.2	(4.0)	(221.8%)	
Administrative and Support Costs	0.0	0.0	0.0	0.0%	
Total Net Cost	(1.8)	2.2	(3.97)	(221.8%)	

Financial Transactions

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Revenues	(143.1)	(144.9)	1.8	1.2%	(\$5.9M) Transfer from reserve fund for debt expenses required because of timing differences (offset by debt expense below) (\$3.4M) Loss of MAT revenue due to COVID (offset by transfer to reserve fund below) \$1M PILT & \$7.5M TAX revenue increase \$0.6M One-time accounting adjustments for LAC and OMERS
Other Operating Expenses	193.3	195.0	(1.7)	(0.9%)	\$5.9M Debt expense due to timing differences (offset by transfer from reserve fund above) \$3.4M Less contribution to MAT Reserve fund due to COVID (offset by less revenue above) (\$0.1M) Insurance claim expense overspent (\$9M) Tax assessment appeals settlements
Labour and Benefits	8.6	8.4	0.2	2.3%	\$0.2M Surplus in Retiree Benefits mainly driven by Non-Union Retirements being less than anticipated.
Total Net Cost before Administrative and Support Costs	58.8	58.5	0.3	0.4%	
Administrative and Support Costs	0.0		0.0	0.0%	
Total Net Cost	58.8	58.5	0.3	0.4%	
City Grand Total Net Cost	555.1	613.6	(58.5)	(10.5%)	

Note: Numbers may not add due to rounding.

Revenue Charge and Operating Details for Stormwater

Appendix 1-2

Item (\$ Millions)	2021 Budget	2021 Year-End Forecast	Year-End Variance		Comments and Action Plan
			\$ Surplus/ (Deficit)	% of Budget	
Stormwater Revenue	(43.7)	(43.8)	0.1	0.2%	\$0.1M favorable variance due to billing adjustments and changes in the number of billing units offset by an increase in the amount of recoveries.
Stormwater Exemptions and Credits and Other Fees	1.4	1.3	0.1	8.2%	\$0.1M favourable variance due to lower exemption/credit application volume.
Other Operating Expenses and Contribution to Reserves	37.4	36.4	1.0	2.7%	\$0.9M favourable variance due to decline in subsidy applications for the sump pump grant program. \$0.1M favourable variance due to less operational and miscellaneous spending
Labour and Benefits	4.9	4.9	0.1	1.2%	\$0.1M favourable variance is a result of gapping of vacant position and recovery of labour costs.
Total Net Cost	0.0	(1.2)	1.2	0.0%	

2021 OPERATING BUDGET RESERVE REQUEST

Appendix 2

Service	Standard or Special Contract Reference	Supplier Name	Description of Goods / Services Ordered	Account Number	Amount (\$)
Audit Services	4500522504	Grant Thornton LLP	Audit Team Services	715516-21161	\$25,000
Audit Services	4600018345	Baiame Consulting	Audit Team Services	715516-21161	\$30,000
Audit Services	4600018331	RSM Canada	Audit Team Services	715516-21161	\$30,000
Audit Services	4600018330	MNP LLP	Audit Team Services	715516-21161	\$30,000
Roads	4600017872	614128 ONTARIO LTD. O/A TRISAN CONSTRUCTION	Catch basin cleaning - \$111k carried forward from the 2020 OBR which was not able to be utilized in 2021. Due to space constraints at the yards, CB cleaning program ended early to ensure that the CB materials could be removed from the Mavis Yard in time for leaf season. This \$111k is earmarked to maintain the 3 year CB cleaning cycle .	715636-24168	\$111,000
Economic Development Office	In Progress	IT Vendors	AV and IT equipment for Innovation Hub	715405-21229	\$100,000
Economic Development Office	In Progress	TBD	IT Professional Services	715601-21232	\$30,000
Economic Development Office	In Progress	TBD	IT Professional Services	715601-21224	\$40,000
Total					\$396,000

Requests for Establishment of New Ward-Specific Projects

Appendix 3-1

Ward	Project Number	Project Name	Approved Net Cost (\$000)	Funding Source
Ward 3	A21360	Beechwwod Park Improvements	\$121.0	35182 Gas Tax-Federal GasTax-City Allocation
Ward 6	A21359	Credit Pointe Village Park improvement (P-285)	\$319.0	35182 Gas Tax-Federal GasTax-City Allocation
Ward 6	B21359	Father Angelos Saad Park improvement (P-347)	\$115.0	35182 Gas Tax-Federal GasTax-City Allocation
Ward 8	A21358	Woodhurst Heights Park	\$57.3	35182 Gas Tax-Federal GasTax-City Allocation
Ward11	A17178	Paving - Streetsville	\$5.3	35182 Gas Tax-Federal GasTax-City Allocation
TOTAL			\$617.5	

Approved Ward Specific Projects

Appendix 3-2

Ward	SAP Project Number	Project Name	Approved Net Cost (\$000)
Ward 1	A16491	Small Arms Building Parking Lot construction	\$250.0
Ward 2	A20187	Pedestrian Crossover at Indian Road MUT crossing and the Truscott Road crossing	\$160.0
Ward 3	A19183	Noise Wall - Rathburn Road E Behind (1543 - 1591) Bryce Road	\$429.3
Ward 3	B19183	Noise Wall - Rathburn Road E Behind (1662 - 1608) Anworld Court & Behind (1508 - 1528) Grazia Court	\$310.3
Ward 3	A19427	Burnhamthorpe CC Renovation & Addition	\$700.0
Ward 5	B19351	AVRO Arrow	\$500.0
Ward 5	C19312	Creative Ship Playground	\$250.0
Ward 5	C18351	Malton Sign	\$275.0
Ward 5	B19351	AVRO Arrow	\$500.0
Ward 6	B19351	AVRO Arrow	\$100.0
Ward 8	A20358	Shade Structures	\$330.0
Ward 8	B20358	Fitness Stations	\$330.0
Ward 9	20499	Meadowvale Theatre Lighting	\$60.0
Ward 10	A19352	Spray Pad - Lisgar Green Park (P-310)	\$544.0
Ward 10	B19352	Spray Pad - Jim Murray Community Park (P-477)	\$544.0
Ward 10	C19352	Washroom - Tobias Mason Park (P-385)	\$425.0
Ward 10	A19200	Speed Humps , Ward 10	\$50.0
Ward 10	A19189	Raised Pedestrian Crossover – at Osprey Boulevard, connecting Lisgar Meadowbrook Trail	\$60.0
Ward 10	B19189	Raised Pedestrian Crossover– at Churchill Meadows Boulevard, connecting pathway just north of Lacman Trail	\$60.0
Ward 10	E19352	Parking Lot - Forest Park (P-372)	\$92.0
Ward 10	D19352	Parking Lot - Cordingley (P-364)	\$96.0
Ward 10	A20199	Traffic Calming on Osprey Boulevard between Waxwing Drive and Prairie Circle	\$15.0
Ward 11	19145	Public Parking/Fence	\$247.5
Ward 11	B19351	AVRO Arrow	\$100.0
Ward 11	19182	Banner Poles- Streetsville	\$15.0
Ward 11	A19353	Shelters/Shelter Benches	\$23.0
Ward 11	B19353	Entrance Garden/Sign	\$160.0
Ward 11	19785	Meadowvale Village Bell/Belfry	\$110.0

Approved Ward Specific Projects

Appendix 3-2

Ward	SAP Project Number	Project Name	Approved Net Cost (\$000)
Ward 11	C19353	Comprehensive signage and way finding program for Streetsville Memorial	\$5.0
Ward 11	E19353	Streetsville Pollinator Garden Stairs	\$28.0
Ward 11	F19353	Additional Lighting - Old Ridge Park (P_391)	\$50.0
Ward 1	A20361	Water Bottle Filling Stations - Westacres Park (Pool Building)	\$30.0
Ward 5	20489	Bicycle Rack Ward 5	\$50.0
Ward 9	A20359	Multi-purpose Basketball/Pickleball - West Credit SS	\$100.0
Ward 9	20343	Park Bench/Solar Bench Program	\$168.0
Ward 9	20344	Water Bottle Filling Stations	\$60.0
Ward 9	20345	Erin Meadows Library redevelopment	\$500.0
Ward 9	A20214	Erin Mills Town Centre Bus Shelter	\$46.0
Ward 9	B20214	Meadowvale Town Centre Bus Shelter	\$46.0
Ward 9	B20359	Playground Swing Addition Promenade Meadows Park	\$16.0
Ward 11	20429	VJCC Rubber Floor Replacement	\$100.0
Ward 11	A20353	Water Line Extension - Meadow Green	\$10.1
Ward 11	C20199	Traffic calming concept for Falconer Drive	\$60.0
Ward 11	D20199	Traffic Calming Concept Plan - Second Line West north of Old Derry Road	\$70.0
Ward 11	E20199	Second Line W sidewalk and intersection works	\$120.0
Ward 5	A19425	Malton Community Hub (Ward 5)	\$400.0
Ward 7	20346	Cooksville Sign Project	\$400.0
Ward 7	20347	Cooksville Community Garden	\$290.0
Ward 3	N20321	Hawkins Glen Playground Equipment	\$60.0
Ward 1	A21349	2 Disc Golf Course Recreational Facilities	\$60.0
Ward 3	F20199	Traffic Calming on Flagship Drive	\$40.0
Ward 11	G20199	Traffic Calming on Sombrero Way	\$55.0
Ward 11	B20353	Shade Structure installation in P-359 Gooderham Park	\$55.2
Ward 2	A21352	Sport Court Fencing Acoustic Barrier	\$136.0
Ward 7	A21357	P-138 Avongate Park	\$10.0
Ward 7	B21357	P-157 Carriage Way	\$72.5
Ward 7	C21357	P-022 Floradale Park	\$92.0
Ward 7	D21357	P-028 Camilla Park	\$85.0

Approved Ward Specific Projects

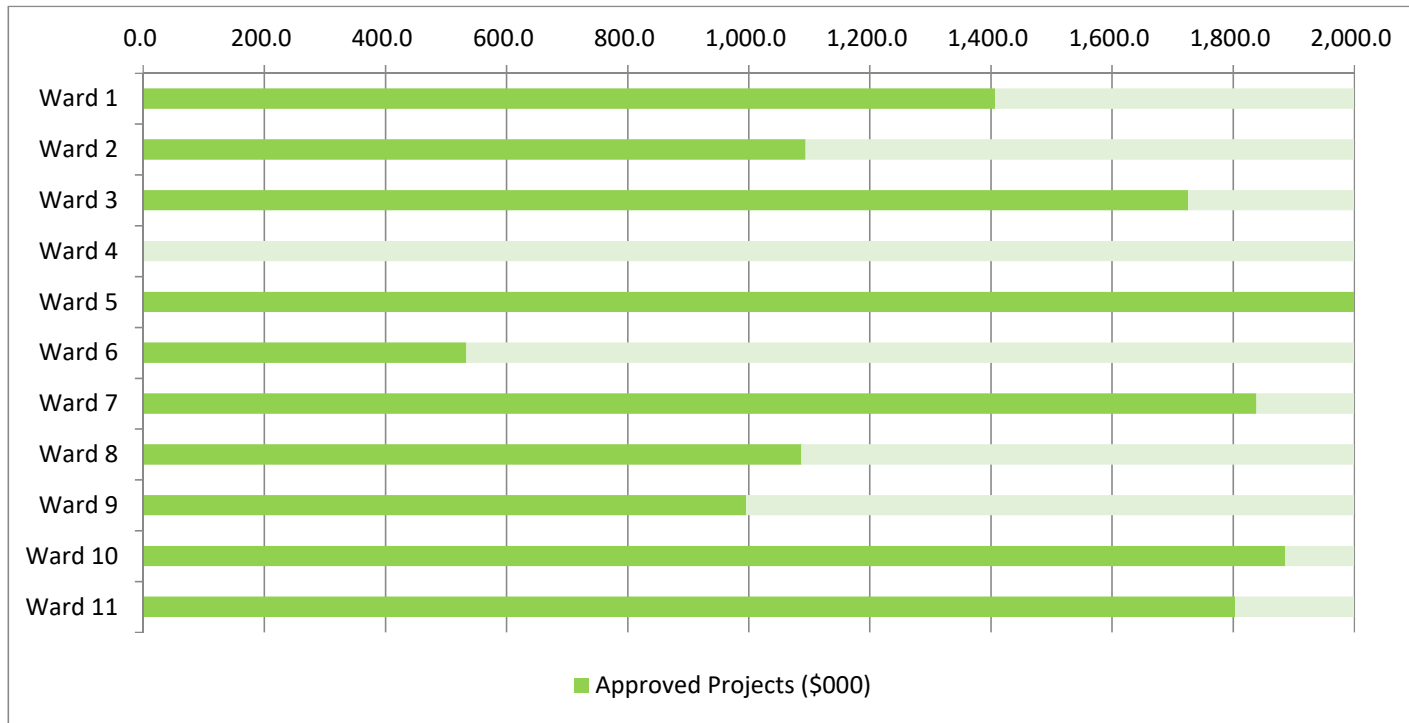
Appendix 3-2

Ward	SAP Project Number	Project Name	Approved Net Cost (\$000)
Ward 7	E21357	P-080 Gordon Lummis Park	\$60.0
Ward 7	F21357	P-103 Red Oaks Park	\$340.0
Ward 7	G21357	P-133 Iroquois Flats	\$42.0
Ward 7	H21357	P-293 Cooksville Common	\$20.0
Ward 7	I21357	P-416 Brickyard Park	\$337.0
Ward 7	J21357	P-290 Dr. Martin L. Dobkin Comm Park	\$90.0
Ward 8	21427	Infrastructure Upgrades to Woodhurst Outdoor Rink	\$310.0
Ward 8	B21199	Speed Bumps on Council Ring Road	\$60.0
Ward 11	C21199	Speed Bumps on Novo Star Drive	\$30.0
Ward 11	D21199	Speed Bumps on Gooderham Estate	\$40.0
Ward 11	A21182	Banner Poles-Main St Bridge	\$80.0
Ward 3	A21199	Speed Bumps on Golden Orchard Drive	\$65.0
Ward 1	B21349	Various Chess Tables and Concrete Pads	\$90.0
Ward 1	C21349	Shawnmarr Park (P-159)	\$291.0
Ward 1	D21349	Outdoor Fitness Cluster - Port Credit SS	\$132.0
Ward 1	E21349	Dellwood Park (P-005)	\$197.0
Ward 1	F21349	Kenollie Park (P-197)	\$20.0
Ward 2	B21352	Clarkson Park - Clarkson Lacrosse Box (P-073)	\$385.0
Ward 2	C21352	Meadow Wood Park (P-006)	\$320.0
Ward 2	D21352	Nine Creeks Trail - Sheridan Creek (P-171)	\$10.0
Ward 2	E21352	Thornlodge Park (P-051)	\$83.0
Ward 5	A21355	Paul Coffey Playground Lighting	\$25.0
Ward 11	A21354	Second Line West Fitness Trail	\$200.0
Ward 11	A17178	Paving - Streetsville	\$13.0
Ward 1	A21198	Traffic Signals-Lakeshore Rd West/Front St	\$180.0
Ward 1	B21198	Traffic Signals - Aquitaine/Montevideo	\$115.0
Ward 1	G21349	Fred Halliday Memorial Park Adult Fitness	\$42.0
Ward 11	B21354	Novo Star Park Playground Improvements	\$26.0
Ward 11	C21740	Streetsville Kinsmen Hall Rehabilitation	\$200.0
Total Approved Projects			\$13,753.9

Total Ward-Specific Projects by Councillor

Appendix 3-3

Councillor	Ward	Funding allocation (\$000)	Approved Projects (\$000)	Unallocated Balance (\$000)
Stephen Dasko	Ward 1	2,000.0	1,407.0	593.0
Karen Ras	Ward 2	2,000.0	1,094.0	906.0
Chris Fonseca	Ward 3	2,000.0	1,725.6	274.4
John Kovac	Ward 4	2,000.0	0.0	2,000.0
Carolyn Parrish	Ward 5	2,000.0	2,000.0	0.0
Ron Starr	Ward 6	2,000.0	534.0	1,466.0
Dipika Damerla	Ward 7	2,000.0	1,838.5	161.5
Matt Mahoney	Ward 8	2,000.0	1,087.3	912.8
Pat Saito	Ward 9	2,000.0	996.0	1,004.0
Sue McFadden	Ward 10	2,000.0	1,886.0	114.0
George Carlson	Ward 11	2,000.0	1,803.1	196.9
	Total	22,000.0	14,371.4	7,628.6



Date: November 12, 2021	Originator's files:
To: Chair and Members of General Committee	
From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer	Meeting date: December 1, 2021

Subject

5G Technical Assessment Report

Recommendation

That the report from the Commissioner of Corporate Services and Chief Financial Officer dated November 12, 2021, entitled "5G Technical Assessment Report" be received.

Executive Summary

- City of Mississauga staff have been actively assessing the implications of 5G through the engagement of key internal and external stakeholders, including benchmarking across Canada and globally.
- The scope of the assessment includes planning and operational changes required to facilitate 5G on the supporting infrastructure within the City right-of-way and on City owned lands.
- New processes are in place, related fees in the Fees and Charges By-law have been established and existing light poles have been redesigned and approved by ESA that will accommodate 5G and other pole attachments. The City will implement a new online permitting process that will enable telecommunication providers to select a pole and initiate the permit process.
- Master Agreements with the telecommunications providers have been drafted and will come forward to Council early in 2022 for approval, which will simplify and enable the implementation of 5G.
- The health related concerns of 5G have been researched and reported out by Public Health Canada and locally here by the Region of Peel Health who have provided comment throughout this assessment process.
- To help explain 5G and how it will be implemented and used, an interactive 5G Story Map has been created along with the 5G FAQ's previously published on the Smart City website. FAQ's were also provided to 311 and Mayor and Council offices.

Background

City of Mississauga staff have been actively assessing the implications of 5G. To ensure cross discipline expertise, a Project Steering Committee consisting of key stakeholders from several operational areas in each department was established. There are specific synergies with Street Lights pole infrastructure for small cell attachment as well as Advanced Traffic Management given the emphasis on IoT and future considerations of Autonomous Vehicles.

The term 5G can be defined as the “fifth generation technology standard for cellular networks”, and with it brings ultrafast and reliable communications. In municipalities, this will enable, through the provision of high-speed broadband, a variety of services including safer roads, waste collection, green power grids and much more. Connectivity has become essential for the cultural, social, and economic development of a municipality and it is predicted that by 2024 more than 1.5 billion devices will be connected to 5G.

The global deployment of 5G is taking place with varying degrees of implementation, ranging from full-scale builds to pilot projects that demonstrate capabilities and economic benefits. The introduction and proliferation of Small Cell equipment deployed within the street right-of-way on hydro poles and streetlights has impacts on the public realm. One solution that the City of Mississauga has explored to address Small Cell clutter is the redesign of street light poles into “Smart Poles” that incorporate the required features needed for 5G small cell deployment.

Innovation, Science and Economic Development Canada (ISED) manages the governance and licensing of cellular spectrum. The results from the Spectrum auction, which ended July 23rd, 2021, illustrate the heavy investments made by each Carrier. Bell, Rogers and Xplornet acquired the 5G spectrum rights in the Toronto area.

To make best use of different types of spectrum, 5G deployment will include a mix of traditional cell towers and antennas on rooftops carrying signals over long distances as well as 5G Small Cells at lower heights supporting huge bandwidth use over shorter distances.

Comments

The deployment of Small Cells in Mississauga will concentrate in high foot traffic areas, such as Business Improvement Areas (BIA), Mississauga’s downtown core and urban areas. Subdivisions and areas without above ground power poles are not likely to be selected. Carriers will not rely exclusively on City-owned infrastructure, as they have a healthy mix of telco-owned assets, private assets, and utility agreements that they would leverage.

Third Party entities such as, Telecommunication Service Providers and other municipal partners may request permission, and access to City of Mississauga Streetlight poles to co-locate third party equipment. These devices can range from Road Weather stations, Traffic Sensors, Telecommunications Cellular Radios, Wi-Fi Access points, Environmental sensors, as well as other Internet of Things (IoT) devices.

Third Party entities are responsible for submitting detailed information regarding their proposed Cellular Small Cell equipment. The City of Mississauga and Alectra Utilities must approve all pole attachments and installations must follow existing City of Mississauga PUCC/Road Occupancy processes. Fees and charges for Pole Attachment Permits have recently been added and approved in the Fees and Charges By-law.

Staff from various departments have been engaged and are working towards a Master Agreement for Pole Attachments with Telecommunication Service Providers and it is expected that these will come to Council for approval early in 2022.

The City of Mississauga has been working closely with Street Lighting Pole vendors to make modifications to the design of standard street light poles to enable the electrical and loading needs of small cell attachments and to meet Electrical Safety Authority (ESA) compliance. This, in effect, will become a Smart Pole and a new standard for future development and the incremental implementation of 5G. The telecommunications provider will bare the cost of the pole with provisions for this in the Fees and Charges By-law. The fees associated with 5G small cell attachments primarily offset the cost of installation and ongoing maintenance and administration. The City will implement a new online permitting process that will enable telecommunication providers to select a pole and initiate the permit process.

Canada's approach to radio frequency (RF) exposure safety is among the most stringent in the world. The Government of Canada continuously monitors the research and scientific literature on the health effects of RF exposure to ensure that Canadian limits are consistent with the current scientific consensus to prevent potential adverse health effects. The Region of Peel Health Department submitted a report to Regional Council regarding 5G and have identified that 5G, when implemented to the specifications identified and regulated by ISED, meets Health Canada's requirements and aligns with a standard known as Safety Code 6. The City of Mississauga will adhere to the same high level of standards by closely following Public Health Canada, CSA and Industry standards.

On August 6, 2021, following the conclusion of the 3500MHz spectrum auction, the federal government proposed exclusion and protection zones around airport runways. Exclusion zones do not permit any 5G base stations (small cells) to be in the area. Protection zones are locations around the airport where 5G services face restrictions. These restrictions are being introduced because there are concerns about possible radio frequency interference between 5G spectrum and altimeters (aviation navigation tools used in automated landing).

The City of Mississauga currently owns the largest Public Sector Network (PSN) in Canada. It boasts 985 connected sites and 47,000 km of fiber, nearly enough to cover the circumference of the Earth. The coming generation of connected technologies requires the high speed, high connectivity and low latency characteristics that 5G can provide. Some of these will be met with Mississauga's existing infrastructure (PSN, PBSN, fiber); however, there will be areas where the

fast broadband provided by 5G small cells will be required in order to achieve these benefits. There is potential to provide connectivity for 5G to telecommunication providers through the PSN leasing of its dark fiber.

Strategic Plan

The Smart City Master Plan, endorsed by Council July 2019, included several strategic initiatives including an assessment of the 5G technology standard for cellular networks, for the City of Mississauga.

Engagement and Consultation

Meetings and consultation has taken place throughout the 5G assessment process including members of the public, internal stakeholders, Realty, Corporate Sponsorship, other municipalities and levels of government, telecommunication providers, Post-Secondary institutions, land developers, governmental organizations, Region of Peel Health, utility providers, technology vendors and Industry. Information has been provided on the Smart City website and FAQ's had previously been distributed to the Mayor and Councillor's offices and 311.

Financial Impact

The implementation of 5G has introduced new fees for Pole Attachment permits in the Fees and Charges By-law. The following fees are now in effect:

- \$2,000 one-time permit fee, per attachment
- \$250 ongoing annual maintenance fee, per attachment
- One-time direct cost (cost of a new smart pole) and administrative fee, per pole

It is anticipated that the permitting process will ramp up slowly in 2022. Staff will report back in the first quarter of 2022 on potential revenue and resource requirements to address the 5G permitting process and ongoing maintenance and administration.

Conclusion

The deployment of 5G technologies promises to provide high-speed wireless connectivity, create economic opportunity and be the data transport for the Smart City movement globally.

The research and collaboration with all key stakeholders internally and externally has positioned the City of Mississauga well for the implementation of 5G. New processes are in place, related fees in the Fees and Charges By-law have been established and new standard smart poles have been designed and approved by ESA that will accommodate 5G and other pole attachments as a City Standard in locations across the City.

Master Agreements with the telecommunications providers have been drafted and will come forward to Council in the New Year for approval, which will simplify and enable the implementation of 5G. The potential for a 5G pilot may be considered under the right conditions similar to what has been seen across Canada and would be opportunity driven where good alignment can be demonstrated.

The health related concerns of 5G have been researched and reported out by Public Health Canada and locally here by the Region of Peel Health who have provided comment throughout this assessment process.

Public information in the form of FAQ's and factsheets were provided to 311 and Council early on in the assessment process and with the 5G Story map and additional resources available online, there is a good set of resources for the public to access to gain a better understanding of what 5G is.

Attachments

Appendix 1: 5G Technical Assessment Report



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Yeliz Ali, Strategic Advisor Digital Transformation, Information Technology



5G Technical Assessment Report November 2021



Connectivity has become essential for the cultural, social, and economic development of a municipality.



Sections

1 - Getting Started

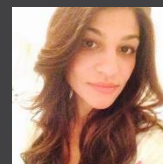
2 - Background

3 - Current State

4 - Future State

A - Terms

About the author:



*Yeliz Ali, Strategic Advisor Digital Transformation
Information Technology Division, City of Mississauga*



Section 1 – Getting Started.

Executive Summary

The Smart City Master Plan, endorsed by Council July 2019, contained several strategic initiatives including an assessment of the 5G technology standard for cellular networks, for the City of Mississauga.

City of Mississauga staff have been actively assessing the implications of 5G through the engagement of key internal and external stakeholders, including benchmarking across Canada and globally. The Scope of the assessment ranges from City planning to the approvals and operational impacts of the supporting infrastructure for 5G within the City right-of-way and on City owned lands. A Steering Committee for the 5G assessment was established with strong technology, operational and legal expertise along with consultation with the Region of Peel Health department on 5G health related topics and Alectra Utilities regarding power related matters. There are specific synergies with City of Mississauga street lighting infrastructure for 5G small cell attachments as well as City owned properties. 5G is being positioned by industry as the high speed Internet of Things (IoT) network that will create connectivity required for digital advancements for residents, businesses and government. Connectivity for services such as Advanced Traffic Management, sensor based technologies and future considerations of Autonomous Vehicles are examples of use cases for the high speed connectivity promised by 5G. The built environment will also be a significant factor, which will require governance and processes in place to ensure that 5G small cell infrastructure is planned and managed for effective deployment and meeting federally regulated standards for installation and operation.

This report identifies the required information to make informed decisions for 5G deployment including processes, fees and governance through master agreements enabling the City to take an active role and influence how 5G is implemented in the City of Mississauga.

The term 5G can be defined as the “fifth generation technology standard for cellular networks”, and with it brings ultrafast and reliable communications. In municipalities, this will provide a variety of services including safer roads, waste collection, green power grids and much more. Connectivity has become essential for the cultural, social, and economic development of a municipality and it is predicted that by 2024 more than 1.5 billion devices will be connected to 5G. The City of Mississauga is uniquely positioned with the Public Sector Network and Wireless Network to be less reliant on 5G for services although existing Cellular connected devices may transition to 5G as a course of the broader cellular upgrades to 5G.

Canada’s approach to radio frequency (RF) exposure safety is among the most stringent in the world. The Government of Canada continuously monitors the research and scientific literature on the health effects of RF exposure to ensure that Canadian limits are consistent with the current scientific consensus to prevent potential adverse health effects. The Region of Peel Health Department submitted a [report](#) (item 7.1-1) to Regional Council regarding 5G and have identified that 5G, when implemented to the specifications identified and regulated by ISED, meets Health Canada’s requirements and aligns with a standard known as Safety Code 6.

Innovation, Science and Economic Development Canada (ISED) manages the governance and licensing of cellular spectrum. The results from the Spectrum auction, which ended July 23rd, 2021, illustrate the heavy investments made by each Carrier. Bell, Rogers, and Xplornet made bids for, and were the successful incumbents in the Toronto area.

On August 6, 2021, the federal government proposed exclusion and protection zones around airport runways. Exclusion zones do not permit any 5G base stations (small cells) to be in the area. Protection zones are locations around the airport where 5G services face restrictions. These restrictions are being introduced because there are concerns about possible interference between 5G spectrum and altimeters (aviation navigation tools used in automated landing).

[Diagram 3 contains a Map of Exclusion and Protection Zones](#)

To make best use of different types of spectrum, 5G deployment will include a mix of traditional cell towers and antennas on rooftops carrying signals over long distances, plus Small Cells at lower heights supporting huge bandwidth use over shorter distances.

The deployment of Small Cells in Mississauga will concentrate in densely populated areas, such as Business Improvement Areas (BIA), Mississauga's downtown core and urban areas. Subdivisions and areas without above ground power poles are not likely to be selected. Carriers will not rely exclusively on city-owned infrastructure, as they have a healthy mix of telco-owned assets, private assets, and utility agreements that they can utilize.

Third Party entities such as, Telecommunication Service Providers and other municipal partners (Region of Peel, City of Brampton, Ministry of Transportation, and educational institutions) may request permission, and access to City of Mississauga Streetlight poles to co-locate third party equipment. These devices can range from Road Weather stations, Traffic Sensors, Telecommunications Cellular Radios, Wi-Fi Access points, Environmental sensors, as well as other IoT devices. Third Party entities are responsible for submitting detailed information regarding their proposed Cellular Small Cell equipment. The City of Mississauga and Alectra Utilities must approve all Pole attachments and installations must follow existing City of Mississauga PUCC/Road Occupancy processes.

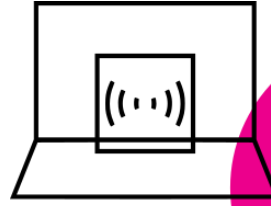
Fees and charges for Pole Attachment Permits that have been approved into By-law are listed in [Table 8](#). An increase in requests for access to City infrastructure is anticipated. This will result in a significant rise in the number of permits that must be evaluated and processed. It is anticipated that resources will be required to handle the increase in work volume. It is expected that revenues generated from Pole Attachment permitting will fully offset the cost of additional resources. Master Agreements with telecommunication providers for Pole Attachments have been drafted and are expected to be in place early in 2022.

The introduction and proliferation of Small Cell equipment deployed within the street right-of-way on hydro poles and streetlights has impacts on the public realm. One solution that the City of Mississauga has explored to address Small Cell clutter is the integration of Smart Poles into street right-of-ways. Smart Poles are multi-functional poles with fully integrated lighting systems. They can increase urban efficiency while reducing energy costs. The City of Mississauga has been working closely with Street Lighting Pole vendors to create an Electrical Safety Authority (ESA) compliant Smart Poles based on existing poles being used in the city with new features to support 5G being added to the design. These Smart Poles will be a first in Canada and will become the City standard moving forward. Working collaboratively with Street Lighting, Works Operations, Planning and Engineering has ensured that these redesigned Smart Poles will be used moving forward for new development and as small cell technology is deployed. The replacement of the pole is recovered from the telecommunications provider and is included in the 2022 Fee's and Charges By-law with provisions for full cost recovery.

The City of Mississauga currently owns the largest Public Sector Network (PSN) in Canada. It boasts 985 connected sites and 47,000 km of fiber (nearly enough to cover the circumference of the Earth). The coming generation of connected technologies requires the high speed, high connectivity and low latency characteristics that 5G can provide. Some of these will be met with Mississauga's existing infrastructure (PSN, PBSN, fiber); however, there will be areas where small cells will be required in order to achieve these benefits. There also exists a potential revenue stream for the City of Mississauga through the leasing of its dark fiber.

There are 5G pilots underway in Canada to test various use cases, the technology and the capabilities. Rogers and the University of British Columbia have embarked on a pilot rendering UBC Canada's first 5G smart campus. A 5G Pilot in partnership with Post-Secondary Institutions is the typical approach observed in neighbouring municipalities and across Canada. Additional pilots of varying scale are underway in the following municipalities: Brampton, London, Toronto, Hamilton, Kitchener, Waterloo, Ottawa, Montreal, Kelowna, and the Region of Peel. The City of Mississauga decided to pause the implementation of a 5G pilot project in light of COVID-19. However, the merits of a pilot for the City would be considered moving forward.

To help explain 5G and how it will be implemented and used, an interactive [5G Story Map](#) has been created that simplifies the technical concepts contained within this report.



Visit the
interactive 5G
Story Map to
learn the basics
of 5G!

Introduction

Connectivity has become essential for the cultural, social, and economic development of a municipality. COVID-19 has only magnified and increased pressures for Telecommunication providers. As more companies move to encouraging telework, the demand on cellular networks continues to increase and the current LTE (4G) networks are struggling to meet the required speed, latency and bandwidth capacity that telework requires. Dramatic network outages are occurring more frequently and have come under increased scrutiny, making the demand for 5G that much more urgent and competitive. Additionally, in many smaller and rural parts of municipalities, broadband and wireless services remain challenging to access.

The next generation of innovation is upon us as Telecommunications carriers, the federal government and the CRTC are gearing up for the deployment of the first components of the fifth generation of wireless technology (or “5G”) - a necessity if Canada is to remain competitive on the world stage. **Table 1** (5G Terminology) is provided to assist in reading and understanding some of the technical terms and acronyms.

“Beyond the technology itself, 5G could add 250,000 permanent new jobs, and \$40 billion in annual GDP to the Canadian Economy by 2026 (Accenture 2018)”

Table 1 – 5G Terminology

Term	Definition
5G	Fifth generation technology standard for cellular networks.
Bandwidth	Measures the <i>amount</i> of information that can be sent over an internet connection in a given amount of time. Usually measured in megabits per second (mbps).
Speed	How <i>fast</i> information is received or downloaded.
Access Point (AP)	A piece of hardware that allows other Wi-Fi devices to connect to a wired network. The AP usually connects to a router (via a wired network), but it can also be an integral component of the router itself. APs support the connection of multiple wireless devices through their one wired connection.
Broadband	The name given to any fast, permanent internet connection. Dial-up internet is slow because it uses a single band. Broadband uses many bands. A separate band for uploading, downloading and voice. Making it a fast, permanent internet connection.
Cell Towers	An elevated structure with the antenna, transmitters and receivers located at the top. The primary function of a cell tower is to ensure proper elevation to antennas that receive and transmit radio-frequency signals from cell phones and other devices.
Millimeter Waves	Wavelengths that are so small they are measured in millimeters. Millimeter waves can carry huge amounts of data but they do not travel very far.

Internet of Things (IoT)	Physical objects (“things”) that are embedded with sensors, software, and other technologies. This enables them to connect and exchange data with other devices and systems over the internet.
Latency	A fancy word for the lag that is experienced while waiting for something to load. The amount of time it takes information to travel from one connected device to another connected device.
Safety Code 6	Created by Health Canada for the purpose of establishing safety limits for human exposure to radiofrequency (RF) electromagnetic energy in the frequency range from 3 kHz to 300 GHz
Small Cells	Low-powered radio equipment and antennas. They are about the size of a pizza box, and used to transmit data to and from a wireless device. They enable millimeter wave frequencies, which means that they transmit data over short distances (10 meters to a few kilometers).

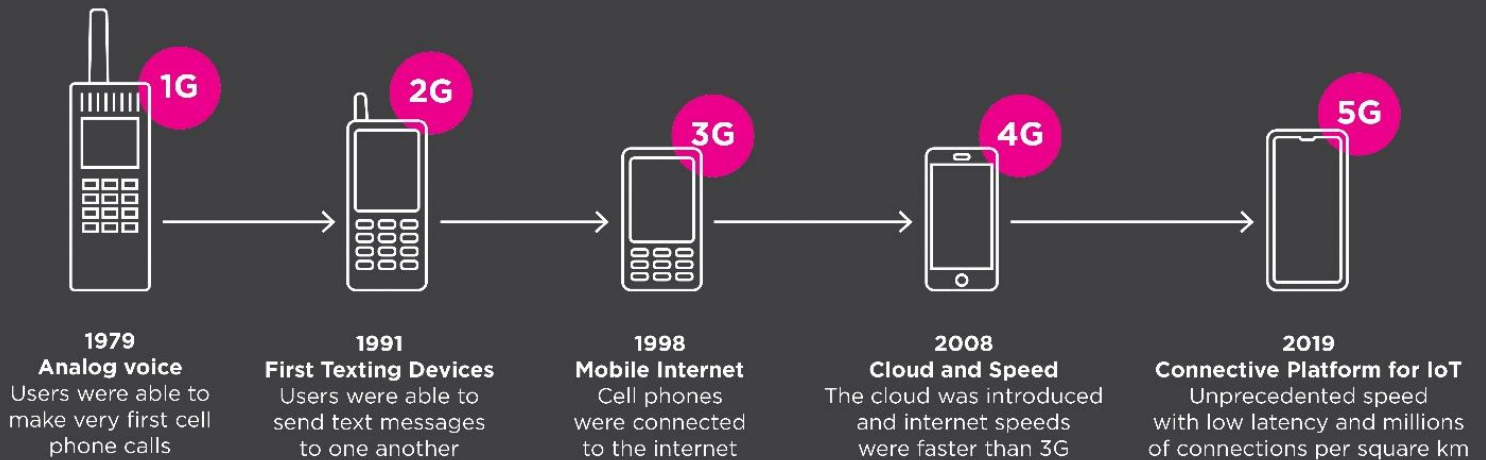
See Section A for more terminology.



Section 2 – Background.

The G in 5G

Just over 40 years have passed since wireless cellular technology was introduced to the world and a lot has changed since then.



The G in 5G stands for generation. 5G is the **fifth** generation technology standard for cellular networks. Each generation has been marked by their data transmission speeds and the uses they enable. At its core, 5G is an **enabler**, unlocking capabilities with three dramatic improvements:

1. Greater speed
2. Lower latency
3. More connected devices at once

1. Greater Speed

20x to 1000x faster than 4G (that's like downloading an HD movie in seconds).

2. Lower Latency

Latency is a fancy word for lag. It represents the amount of time it takes for information to travel from one connected device to another (like a smartphone connected to the internet). The lower the latency, the faster that data moves. **Table 2** refers to the reductions in latency across generations.

3. More Devices at Once

5G will provide the ability to connect up to one million devices per km² vs. the current capacity of 4,000 devices per km² with 4G LTE.

Connectivity refers to the number of devices that can connect to a network at the same time. This is essential as more smart devices enter the market and use Canadian telecommunications networks. In highly populated urban areas where there are many residents and businesses, small cells will address growing capacity issues by allowing more users to connect.

Table 2 – Latency Comparison

Characteristic	4G/LTE	4G+	5G
Speed	150 Mb/second	800 Mb/second	2,400 Mb/second
Average time to download a HD movie	240 seconds	40 seconds	13 seconds
Latency (time between the send and response)	50 milliseconds	25 milliseconds	1 millisecond

The Science Behind 5G

How are these improvements achieved? Before we can answer this question, we need to define a couple of words: Electromagnetic Radiation and Radio Waves.

Electromagnetic Radiation (EMR) is a form of energy that is around us. For example, the visible light that comes from a lamp in your house or the radio waves that come from your cell phone.

Radio Waves are a type of Electromagnetic Energy. Radio waves are important because they are used to carry cellular signals. 5G devices will communicate with base stations by transmitting and receiving radio waves.

5G networks will use millimeter-waves; wavelengths are so small they are measured in millimeters. Millimeter waves can carry huge amounts of data but they do not travel very far – this means that many small cells placed close to each other are needed.

Small cells are about the size of small pizza boxes and are attached onto hydro or light poles. A 2018 Accenture analysis predicted there will be up to 273,000 small cells installed across Canada by 2026.

“Millimeter waves can carry huge amounts of data but they don’t travel very far.”

This will result in a significant increase in pole attachment and other infrastructure attachment applications for municipalities to review and process.



Traditional Cell Tower



5G Small Cell

Smart Poles

While Small Cells may solve spectrum limitations, they introduce other considerations for Municipalities – impacts to the Public Realm. The introduction and proliferation of Small Cell equipment deployed within the street right-of-way, on hydro poles and streetlights is a big departure from large Cell Tower and rooftop implementations.

One solution that the City of Mississauga is exploring to address Small Cell clutter is the integration of Smart Poles. Smart Poles are multi-functional poles with fully integrated lighting systems. They can increase urban efficiency while reducing energy costs and align with existing LED systems. They contribute to solving many urban problems due to their ability to incorporate software controls, electronics and sensors that can receive and transmit data all in a single aesthetically pleasing pole.

The City of Mississauga has been working closely with Street Lighting Pole vendors to create an Electrical Safety Authority (ESA) compliant Smart Pole based on existing standard poles with new design features added to meet the requirements of 5G small cell attachments. This Smart Pole will be a first in Canada and will become the City standard moving forward. According to the ESA, “This is the most advanced smart pole design we have seen.” See **Diagram 1**.

In Canada, “Smart Pole+” systems have yet to be adopted, but they are in use in other countries around the globe. Although the Smart Pole has the ability to integrate software controls, electronics, and sensors that can receive and transmit data, the Smart Pole+ has these features already built in. See **Diagram 2**.

“This is the most advanced smart pole design we have seen.” – Electrical Safety Authority (ESA)

Table 3 compares different types of street lighting poles and their presence within the City of Mississauga.

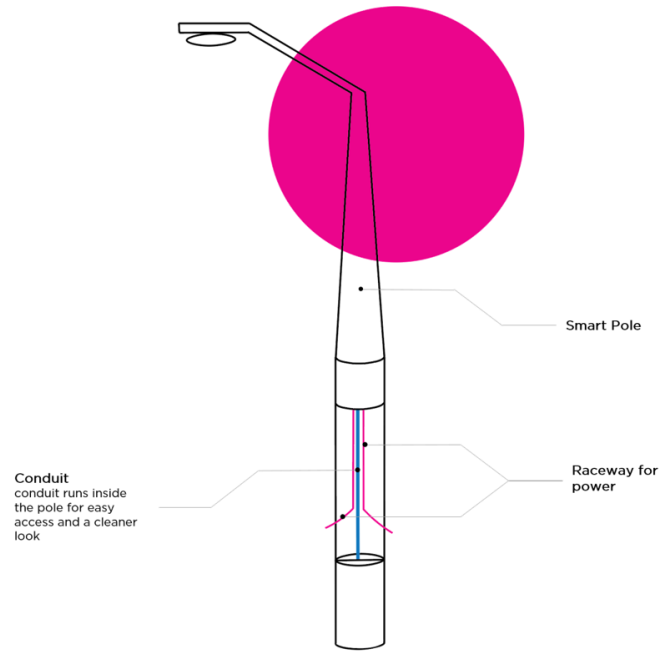


Diagram 1 – New City Standard Smart Pole

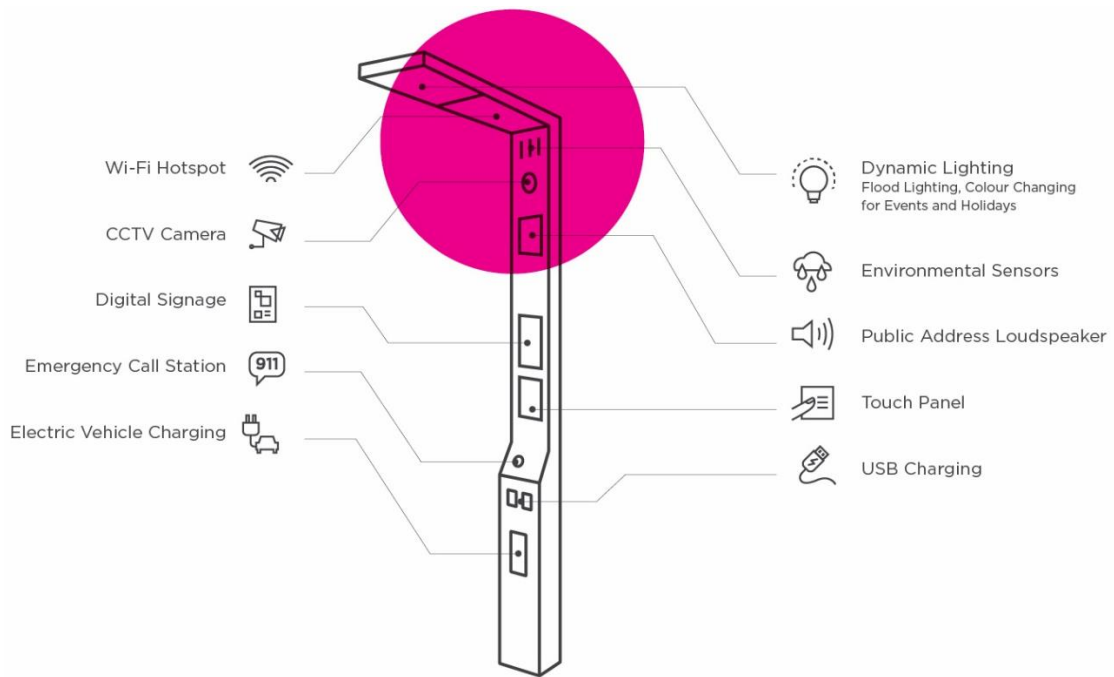


Diagram 2 – Evolution towards Smart Pole+

Table 3 – Evolution of Smart Poles

Attribute	Regular Pole	Trafalgar Pole	Smart Pole	Smart Pole+
Diameter	32.5"	32.5"	32.5"	Varies
Function	Provides Lighting Only	Provides Lighting Plus	Provides Lighting Plus	Provides Lighting Plus
Description	Sole function is to provide lighting	Decorative pole with a large base at the bottom to house Wireless Service Providers' (WSP) residential communications cabling (fiber). Pole was designed to eliminate the need for street lawn furniture (big green electrical boxes)	Raceways for separating power and fiber are located inside the pole. Hidden from external view. Conduit runs inside the pole, for easy access and cleaner look. Accommodates integration of technologies (ex. small cell, sensor, IoT devices, wireless) on the pole	Multi-Functional poles with fully integrated IoT capabilities
Access	N/A	Access covers are present on the pole. They easy access to their cables during maintenance. Unfortunately, during maintenance, these covers often get damaged or broken. In some cases, access covers are completely missing after work has been completed.	Extra handhold and blank off plate for a pole attachment (e.g. small cell)	Variable. Some have access covers; others incorporate electronics into base of the pole.
Raceways	Raceways on the interior of the pole do not exist	Raceways on the interior of the pole do not exist	Separate raceways for power and fiber allowing for Telco and City differentiation	Software controls, electronics and sensors are incorporated into the pole
Compliance	ESA compliant CSA compliant	ESA compliant CSA compliant	ESA compliant CSA compliant	ESA is Ontario only. Smart Poles are not in use in Canada
Use in Mississauga	Standard Pole in Mississauga	Used in key locations within Mississauga	Will become the new City standard. Deployment plans are in progress	Plans for procurement or deployment are currently not under consideration

Radio Frequency

The 5G spectrum falls under Federal Government jurisdiction through the Innovation, Science and Economic Development (ISED) and Canadian Radio-

television and Telecommunications Commission (CRTC) and is regulated for its use by ISED across Canada. As part of the Permitting process, the City of

Mississauga ensures that pole attachments such as 5G Small Cells meet Industry specifications for installation.

Frequencies are radio waves that are used to carry cellular signals. Current networks use low and medium band spectrum. Low-band radio waves can travel long distances and penetrate buildings, but they cannot carry as much data as the higher frequencies. High-

band radio waves carry huge amounts of data, but cannot travel far or penetrate buildings. Small cells will be used for high-band waves. Trials of 3.5 GHz spectrum showed that its range is about 400 meters outdoors.

Low-band 5G:	600 MHz – 700 MHz
Mid-band 5G:	2.5 GHz – 3.7 GHz
High-band 5G:	25 GHz – 39 GHz

5G Rollout by Tech Companies

To make best use of different types of spectrum, networks will include a mix of traditional cell towers and antennas on rooftops carrying signals over long distances, plus a web of small cells at lower heights supporting huge bandwidth use over shorter distances. These will be rolled out by Telecommunication providers in phases over a period of many years, with phase one currently underway.

The next 2 years– these will be a mix of traditional cell towers (600 MHz) and small cells (3.5 GHz) in high traffic areas. The deployment of Small Cells will be concentrated in high traffic areas such as downtown, Business Improvement Areas and other high foot traffic mixed used locations.

Providers – Antennas - Towers

The Federal Government has jurisdiction over Telecommunication Companies. The [Telecommunications Act](#) outlines that Municipalities cannot legislate to control the activities of telecommunications carriers and circumvent the CRTC’s jurisdiction, even indirectly.

Telecommunications towers are proposed by private telecommunications providers and are exclusively regulated by Federal legislation under the [Radiocommunication Act](#) and administered by Innovation, Science and Economic Development (ISED) Canada. Therefore, Provincial legislation such as the Planning Act, including zoning by-laws,

does not apply to these antenna/tower systems. ISED Canada, while requiring proponents to follow the City of Mississauga's Telecommunication Antenna/Tower Siting Protocol, makes the final decision on whether or not an antenna/tower system can be constructed. The City of Mississauga can only provide comments to ISED Canada and does not have the authority to stop the construction of an antenna/tower system.

The City of Mississauga has a protocol for public notification; however, section 4.1 of this protocol exempts antennas mounted on structures such as lampposts, therefore the City is required to be notified of these proposals. Read the [City of Mississauga's Telecommunications Tower Siting protocol](#).

Federal siting rules require telecoms to consult with municipalities, where civic officials may have legitimate concerns over safely setting up equipment in city right-of-ways; however, the Federal government has the final decision. We recognize that with small cell technology there is an opportunity to work collaboratively with key stakeholders to find a balanced solution. Read the ISED information regarding telecommunications towers report - [CPC-2-0-03 — Radiocommunication and Broadcasting Antenna Systems](#).

5G and Health

"Reputable health agencies worldwide have concluded that, based on available evidence, there is no scientific evidence to indicate that RF-EMFs cause negative health outcomes."
 – Region of Peel – Public Health

5G Radiofrequency and Health - 5G is new for everyone, however, the frequency spectrum that it resides on is part of the existing spectrum that is monitored and regulated by Health Canada and in particular [Safety Code 6](#). All telecommunications towers, equipment and systems must comply with Health Canada's Safety Code 6, which regulates radio frequency (RF) exposure. The Safety Code 6 limits for human exposure to RF fields are designed to provide protection for all age groups, including children, on a continuous (24 hours a day/seven days a week) basis.

Canada's limits are consistent with the science-based standards used in other countries. Health Canada continues to monitor and analyze scientific research on this issue and should new scientific evidence arise demonstrating that exposure to radiofrequency fields poses a health risk to Canadians, Health Canada will take the appropriate action to safeguard the health of Canadians.

Large safety margins have been incorporated into these limits to provide a significant level of protection

for the public and personnel working near radio frequency sources. ISED's regulatory framework, including market surveillance and compliance audits, provides safeguards to protect Canadians against overexposure from wireless devices and antenna installations.

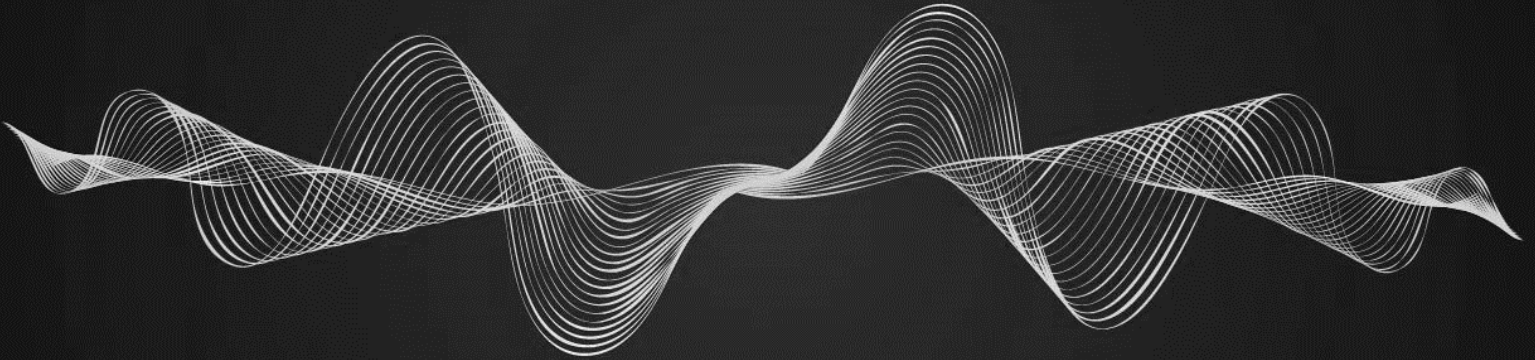
To this effect, ISED requires that all wireless equipment sold in Canada, including consumer devices such as cell phones, tablets and Wi-Fi routers comply with Safety Code 6. Carriers are obligated to comply with these regulations. Similar to current wireless devices and installations, 5G devices will need to meet RF exposure requirements before they can be sold in Canada. Antenna systems operators using 5G technology will continue to have the same RF exposure compliance obligations. Furthermore, compliance with RF exposure requirements will continue to be an ongoing obligation. In cases where residents express concern about this technology and health risks, carriers and Health Canada should be equipped to address the issue.

Canada's approach to RF exposure safety is among the most stringent in the world. The Government of Canada continuously monitors the research and scientific literature on the health effects of RF exposure to ensure that Canadian limits are consistent with the current scientific consensus to prevent potential adverse health effects.

The Region of Peel Health Department submitted a [report](#) (item 7.1-1) to Regional Council regarding 5G and have identified that 5G, when implemented to the specifications identified and regulated by ISED, meets Health Canada's requirements and aligns with a standard known as Safety Code 6.

The City of Mississauga will adhere to the same high level of standards by closely following Public Health Canada, CSA and Industry standards.

Cellular Spectrum Auction



Innovation, Science and Economic Development Canada (ISED) manages the governance and licensing of cellular spectrum. It is expected that the broader implementation of 5G across Canada will activate in 2022.

A consultation on 3800MHz spectrum was set to begin in August 2021 to advance on that portion of the 5G spectrum. Both 3500MHz and 3800MHz are considered key due to their ability to transport data at 5G speeds over a reasonable distance.

In light of COVID-19, the Canadian Government delayed the spectrum auction for 3500 MHz from June 5, 2020 to June 15, 2021. Bidding ended on July 23, 2021 with Bell, Rogers and Xplornet successfully winning licenses in the Toronto area (amongst other locations). Amidst its proposed acquisition by Rogers, Shaw Communications did not participate in the 3500MHz spectrum auction.

In March 2021, Rogers Communications signed a deal to buy Shaw Communications in a transaction valued at \$26 billion. As part of the transaction, the companies said that Rogers would invest \$2.5 billion in 5G networks over the next five years across Western Canada. Rogers also promised not to raise Freedom Mobile prices for at least three years after the deal closed.

The transaction is now awaiting approvals from Canadian Regulators - the Competition Bureau, the Canadian Radio-television and Telecommunications Commission (CRTC), and ISED - but it is expected to close in the first half of 2022.

If Shaw had applied to take part in the auction, ISED Canada would have had to rule on whether the company would be allowed to participate in the auction.

Broadband

Telecommunications towers and associated technology like fiber to the home are proposed by private telecommunications providers and are exclusively regulated by Federal legislation under the Radiocommunication Act and administered by ISED Canada.

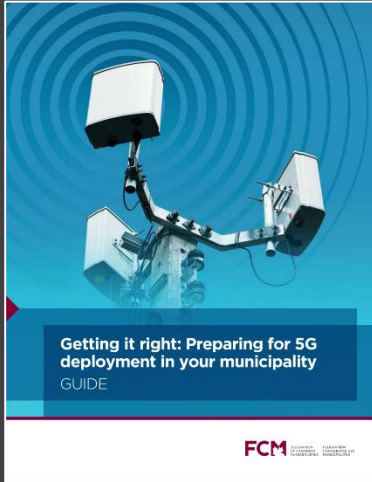
The City helps facilitate the permitting process for Telecommunication companies such as Bell, Rogers, and Telus to support their infrastructure upgrade plans and augmentation to their consumer networks. The companies' internal business processes and competitive strategies drive city locations selected for infrastructure upgrades.

As part of the City recovery plans (Economy, Financial, Corporate, Community) the City will be looking at opportunities for small business, entrepreneurs and industry in general to recover including access to any

grants or funding from Provincial or Federal programs and are actively advocating for business and supports for recovery. The Provincial Government has been making funding announcements on broadband but primarily for rural and underserved areas. The City will continue to monitor for any funding opportunities in an urban setting.

Bell is actively building out fiber to the home and Rogers is active on implementing 5G starting in 2021 and scaling up in 2022 moving forward although some exploration and implementation of the 600 MHz has already started. Due to COVID-19, a massive shift to work from home has taken place. Bell and Rogers have paused expansion efforts and instead have been upgrading and adapting their existing wired infrastructure to accommodate the significant demand. COVID-19 has placed greater need on network infrastructure to support the home network.

FCM 5G Position



“Connectivity has become essential for any community’s economic, cultural and social development. Even though important challenges remain in terms of access to basic broadband and wireless services in many smaller and rural municipalities—challenges which FCM continues to address in its work—the next wave of innovation is upon us.

Telecommunications carriers, the federal government and the CRTC are gearing up for the deployment of the first components of the fifth generation of wireless technology (or “5G”)—a necessity if Canada is to remain competitive on the world stage.”
 Bill Karsten, President FCM

The Federation of Canadian Municipalities (FCM) has issued a guide [“Getting it right: Preparing for 5G deployment in your municipality.”](#) Implementation advice is provided to municipalities for when 5G is launched across Canada. Additionally, the guide offers a comprehensive overview of 5G, and how FCM has been involved in the regulation commenting process.

The City of Mississauga is aligned with FCM’s approach and has been active in assessing and working towards the incorporation of these practices within the organization. Below are some guidelines set out by FCM.

At the Forefront

It has been identified from Canadian municipalities at the forefront of this work and from experience elsewhere, that there are certain steps municipalities can take right away in order to protect municipal interests while making the deployment of 5G networks on their territory as smooth as possible.

Internal Engagement

Depending on your municipality’s size and its approach and experience in processing applications from carriers for traditional Rights-of-Way (ROW) work, your internal structures and/or resources may or may not be adequate to deal with 5G issues comprehensively.

Coming together internally to figure out the basic “who does what,” including designating a 5G function within your structure, is often a necessary and worthwhile first step, even before the carriers come knocking.

Engaging Carriers

Being able to anticipate and plan for the arrival of 5G with the carriers is certainly the preferred approach. This might be an optimistic objective as deployment is largely market-driven, with carriers going first where they can make the most money. This can make it challenging to obtain detailed plans in advance. Carriers want to protect their competitive advantages and may be reluctant to share too much information. Furthermore, experience has shown that plans can change suddenly as carriers review their commercial priorities. Nonetheless, engaging carriers as early as possible remains a preferred approach and has proven to work well in Mississauga.

Obtaining information on planned service areas, deployment timelines, preferred support structures, the types of small cells that will likely be used, the requirements for power and cable connections, etc., will allow municipalities to assess what measures are required to ensure that the framework is in place to manage the arrival of 5G technology. A healthy dialogue is often the most efficient way of resolving issues related to infrastructure and implementation.

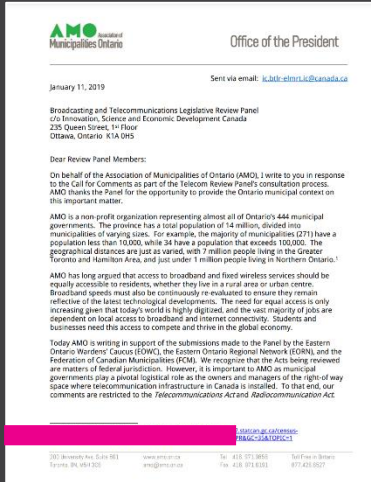
Provider Relationships

By and large, municipalities at the forefront of 5G deployment in Canada have reported good success with most carriers in jointly developing the parameters for a successful 5G introduction on their territory.

Pilots and Soft Launches

In the Canadian municipalities where 5G deployment has progressed the most, municipal officials and carriers have tended to work together in order to proceed incrementally and learn and develop best practices collectively. This has been achieved through limited pilot projects (installing a few small cells in different environments to identify practical issues that need to be resolved) or through soft launches of comprehensive business processes. In these cases, a permitting process and basic legal framework are put in place, a number of installations take place, and the lessons learned from this initial phase are used to inform the final versions of the permit process and master agreement between the carriers and the municipality.

AMO 5G Position



“Today AMO is writing in support of the submissions made to the Panel by the Eastern Ontario Wardens’ Caucus (EOWC), the Eastern Ontario Regional Network (EORN), and the Federation of Canadian Municipalities (FCM). We recognize that the Acts being reviewed are matters of federal jurisdiction. However, it is important to AMO as municipal governments play a pivotal logistical role as the owners and managers of the right-of-way space where telecommunication infrastructure in Canada is installed. To that end, our comments are restricted to the Telecommunications Act and Radio communication Act.”
Jamie McGarvey, AMO President

The Association of Municipalities of Ontario (AMO) President, Jamie McGarvey, wrote to the Broadcasting and Telecommunications Legislative Review Panel in January of 2019 with AMO’s position on 5G. In the [letter](#) dated January 11, 2019, AMO identifies key issues including the municipality’s role in managing the right-of-way and advocates for universal and affordable access.

Municipal governments are essential partners in achieving national connectivity objectives, and are committed to facilitating the timely, orderly, and cost-effective deployment of communications infrastructure.

The role of municipal governments in managing public space for the benefit of all users is a task

that no other entity can perform – operationally or legally.

This role is central to achieving the federal government’s objectives, particularly as the national deployment of 5G and small cell technologies is set to begin.

That is why AMO agrees that achieving national connectivity objectives must build on and enhance the long-standing partnership with municipalities. These partnerships are critical if the country wants to provide universal access and affordability to all Canadians, as AMO is concerned these issues will only be exacerbated in our province if system-wide solutions are not developed before the next wave of technology is implemented.

CWTA on 5G

The Canadian Wireless Telecommunications Association (CWTA) represents companies that provide wireless services and products. They represent industry before all levels of government and various regulatory agencies, with the goal of ensuring continued growth of the wireless sector in Canada.

In 2019, Canada's telecommunications industry contributed \$74.5 billion in GDP to Canada's economy, and supported 638,000 jobs. A 2018 Accenture analysis estimated that Canadian wireless carriers will spend \$26-billion on 5G network infrastructure, while adding 250,000 permanent new jobs, and \$40 billion in annual GDP to the Canadian Economy by 2026. Read the [Letter to Canadian City Officials](#).

5G can provide more than economic benefits. In December of 2020, the Government of Canada introduced "A Healthy Environment and a Healthy Economy" climate plan, building on the 2016 Pan-Canadian Framework on Clean Growth and Climate Change (Canada's first-ever national climate plan). The new plan is in place to have a net-zero emissions future by 2050. While Canada has made progress toward achieving its climate action goals, 5G is crucial in delivering on reduction commitments that remain a challenge.

A new [CWTA report](#) developed by Accenture highlights the role that 5G plays in getting Canada to net-zero emissions.

With the consumption of mobile data surging, the energy efficiency that could be achieved becomes a real focal point. 5G cell sites use only 8-15% of the energy that our existing 4G sites use. In addition, the power consumption by a millimetre wave could be as low as 2% of what is consumed by a 4G macro site. Accenture estimates that these radios, coupled with the implementation of 5G enabled, extended reality, and wireless technologies will result in a reduction of 48 to 54 metric tonnes of carbon dioxide emission in Canada by 2025. That is the equivalent of taking 10.5

"Investing in 5G is key to reducing Canada's carbon footprint."

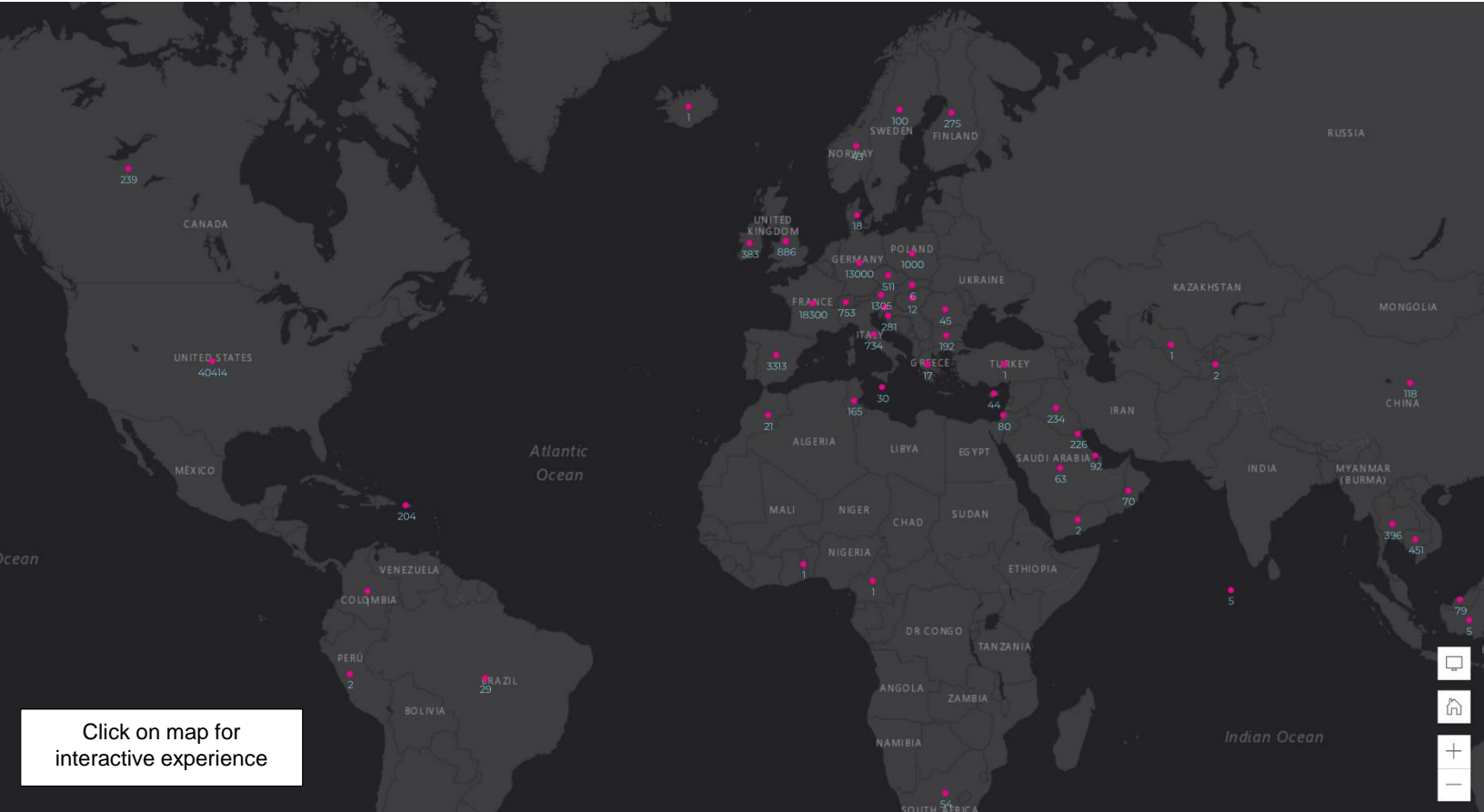
million vehicles off the road for a full year.

Robert Ghiz (President & CEO, CWTA) and Tejas Rao (Managing Director, Global 5G Offering Lead, Network Services, Accenture) emphasize that in order to realize this potential, policy makers have a role. It is essential that siting approval processes are streamlined, access to municipal infrastructure is timely, and the release of radio spectrum in a timely manner occurs.



Section 3 – Current State.

5G Global Footprint



When looking at the 5G global landscape, 62 countries had 5G networks as of August 2021 and many more have had 5G mobile technology deployed in part. A more detailed analysis reveals that this network is made up of 84,696 deployments and 179 Operators.

Regarding its adoption, Telecommunication providers have been steadfast in the competition towards 5G. Investments in the technology are being made in almost every country in South and South-East Asia as well as South America. South Korea was the first country to deploy the first 5G network and it is anticipated that they will stay in the lead; by 2025, 60% of mobile subscriptions are expected to be for 5G networks. It is expected that 5G will reach 1 billion users in 3.5 years; this is in contrast to **4 years** it took for **4G** and **12 years** for **3G** to reach the same **1 billion-user mark**.

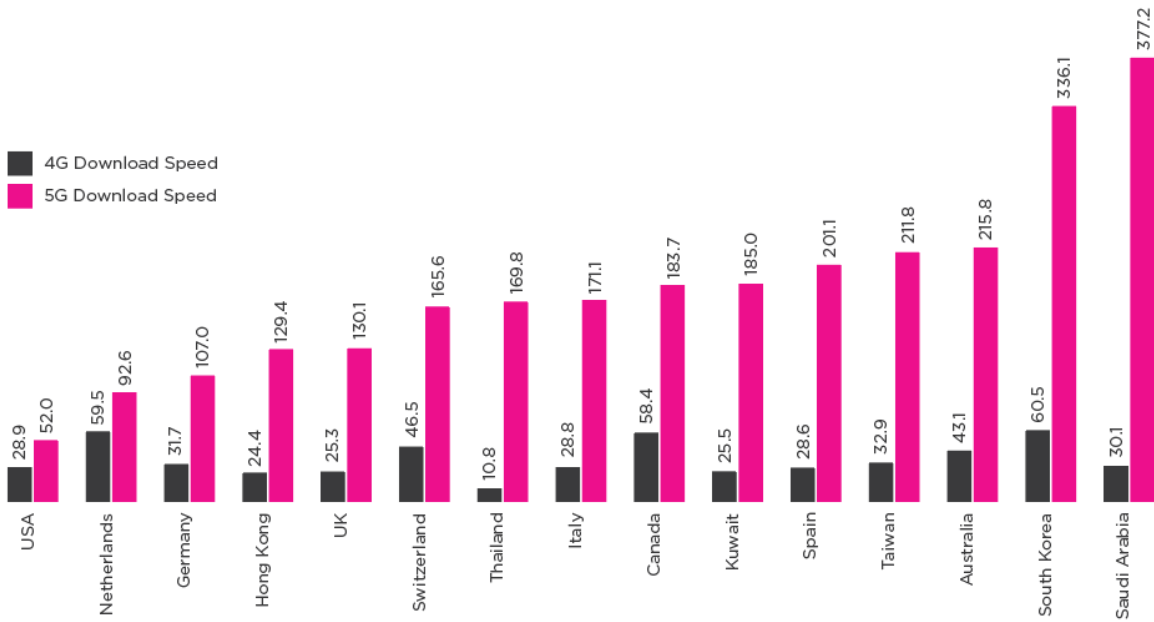
Opensignal's analysis demonstrates that across the globe 5G download speeds are dramatically faster than 4G, with Thailand and Saudi Arabia being the frontrunners (*Opensignal analysis – Benchmarking the Global 5G User Experience – October, published on 13, Oct © 2020*).

Canada has been a global leader in fast, reliable telecommunications; **Chart 1** below illustrates that in regards to 4G speeds Canada is amongst the top. 5G speeds depicted in the chart point to a deployment that is not fully established, so we will see greater speeds emerging – especially now that the spectrum auction has concluded

and higher band 5G wavelengths are being deployed. These speeds are achieved whilst adhering to Canada’s strict safety regulations and standards.

As was the case with 4G, the safety of the public will be the top consideration and Telecommunication providers will deploy in accordance with the same standards that were in place for previous generations of cellular equipment and infrastructure.

Chart 1 - Download Speeds around the Globe

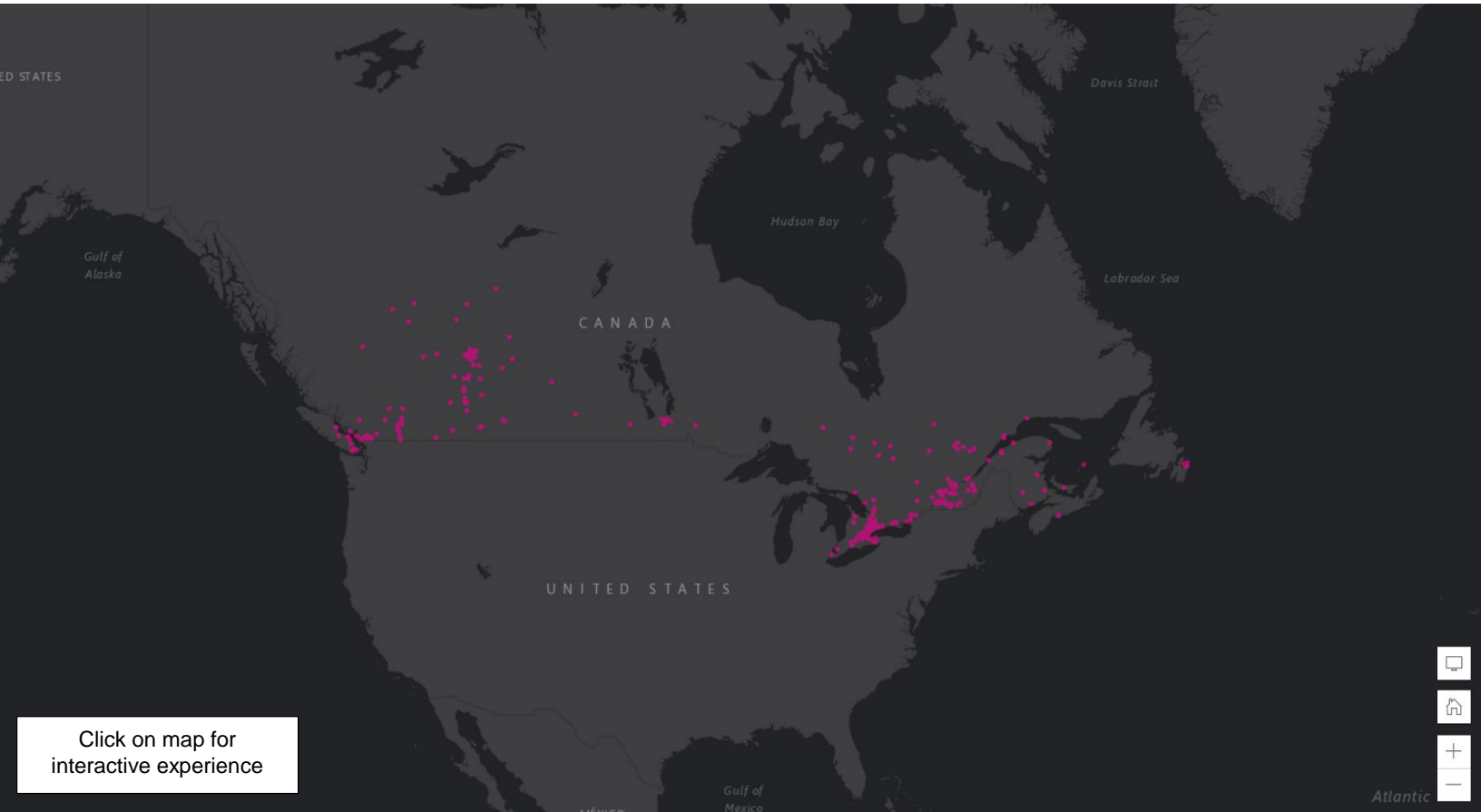


Data collection period: July 1, 2020 – September 28, 2020 - © Opensignal Limited

Table 4 – 5G Global Footprint

Year	Device
2020	<ul style="list-style-type: none"> 200 million 5G devices will be shipped in 2020
2021	<ul style="list-style-type: none"> 450 million more 5G devices will be shipped in 2021 10 million always-connected PC will be shipped
2022	<ul style="list-style-type: none"> 1.4 billion 5G smartphones will be shipped by 2022

5G Canadian Footprint



Carriers + Networks

There are currently four 5G service providers in Canada: Rogers Wireless, Bell Mobility, Telus Mobility and Videotron. Rogers went live with its first 5G network in downtown Vancouver, Toronto, Ottawa and Montreal in early 2020. Bell and Telus activated their 5G service the following June in Vancouver, Edmonton, Calgary, Toronto and Montreal. Videotron announced its 5G service in late 2020, but coverage is limited to Montreal for now. It will expand over the next year throughout the province, but it is unclear if customers will be able to use 5G on nationwide partner networks.

Table 5 – When is 5G Coming to Canada?

Carrier	Network	Possible Launch
Bell Mobility	Bell	Available
Rogers Wireless	Rogers	Available
Telus Mobility	Telus	Available
Fido	Rogers	2021
Koodo Mobile	Telus	2021
Virgin Mobile	Bell	2021
Freedom Mobile	Freedom	2021?
Shaw Mobile	Freedom	2021?
SaskTel	SaskTel	2021+
Videotron	Videotron	Available

The results from the Spectrum auction, which ended July 23rd, 2021, illustrate the heavy investments made by each Carrier. Bell, Rogers, and Xplornet made bids for, and were the successful incumbents in the Toronto area (amongst other locations).

ISED set the opening bid for all available spectrum at around \$590 million. Final auction revenues came to \$8.91 billion due to competitive bidding. **Table 6** represents the 3500MHz spectrum auction results for Canada.

Table 6 – 5G Spectrum Auction

Telecommunications Provider	Licenses Purchased	Amount	Total Population Covered
Rogers	325	\$3.32 billion	34,955,719
Bell	271	\$2.05 billion	34,269,028
Telus	142	\$1.91 billion	24,918,405
Vidéotron	294	\$830 million	29,968,515
Cogeco	38	\$295 million	10,295,549
Xplornet	263	\$243 million	16,585,157
SaskTel	68	\$145 million	1,094,704
Valley Fiber	6	\$4.8 million	174,449
TBay Tel	4	\$1.1 million	29,918,405

Canadian 5G Pilots

There are 5G pilots underway in Canada to test various use cases, the technology and the capabilities. Rogers and the University of British Columbia have embarked on a pilot rendering UBC Canada’s first 5G smart campus. A 5G Pilot in partnership with Post-Secondary Institutions is the typical approach observed in neighbouring municipalities and across Canada. Additional pilots of varying scale are underway in the following municipalities: Brampton, London, Toronto, Hamilton, Kitchener, Waterloo, Ottawa, Montreal, Kelowna, and the Region of Peel. In light of COVID-19, the decision to pause on the implementation of a 5G pilot project for the City of Mississauga was made.

The merits of a 5G pilot for the City will be considered under the right conditions and subject to the appropriate approvals.

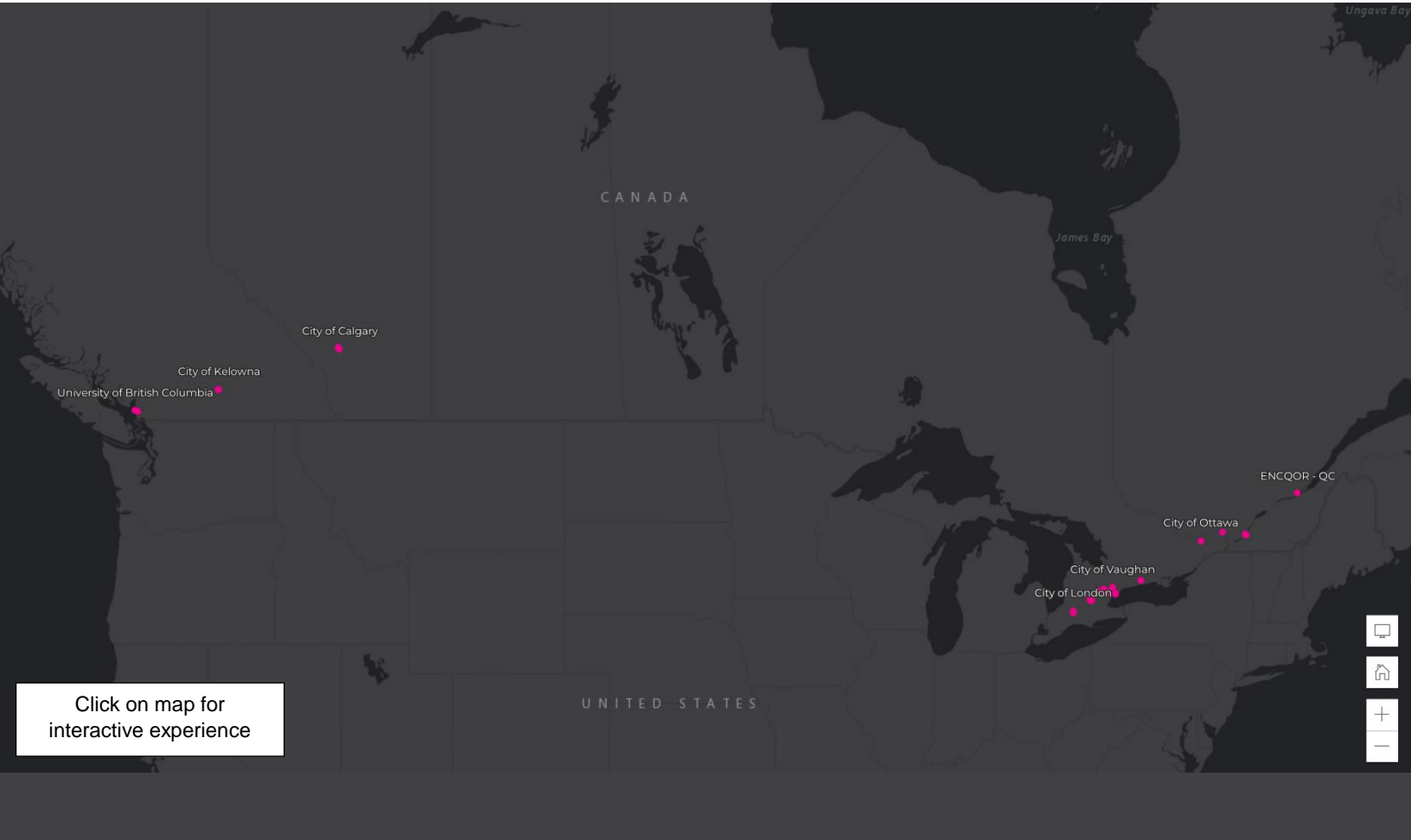


Table 7 – 5G Pilots in Canada

Location	Initiative and Description
Toronto	<p>Roger’s Centre – 5G Test Lab Rogers Centre stadium is being used to test frequencies and network optimization. The 5G test lab will assess how networks can manage thousands of connected devices and high peak data usage. The stadium’s dense concrete structure provides the opportunity to test in an environment that is challenging for 5G.</p> <p>Ryerson University – 5G Research Rogers 5G has also been deployed for research purposes with Ryerson University in Toronto, Ontario</p>
British Columbia	<p>University of British Columbia. First 5G smart campus in Canada and a hub for related research UBC became the first campus in Canada to be fully outfitted with 5G wireless technology. The pilot was part of a multi-million dollar partnership with Rogers Communications. The campus includes 5G towers and a data centre used by researchers to test 5G applications in a real-world setting. Examples of research projects: earthquake and tsunami detection technology, digital mining technology and 5G Mobility as a Service (MaaS).</p>
Vancouver	<p>5G Living Lab Telus is testing 5G technology in Vancouver in partnership with Huawei. Focussing on: designing, testing and deploying new technologies, leading towards the development of 5G based telecommunications networks.</p>
London	<p>5G Small Cells and related infrastructure 5G equipment has been installed on 31 municipal lamp posts and traffic signals across 3 pilot areas throughout the city (North London, University campus, downtown London)</p> <p>Bell + Western University Western University partnered with Bell Canada to create an advanced 5G research centre effectively turning the campus into a “living lab.” Bell will be installing 5G network equipment and infrastructure throughout the campus, investing \$2.7 million into the project. The partnership will study 5G applications, including virtual and augmented reality use, smart vehicle and smart city applications, autonomous vehicles, industrial Internet of Things applications, multi-access edge computing, battery and small cell research, machine learning and artificial intelligence.</p>
Brampton	<p>Algoma University – 5G Smart Campus 5G will be used within Robotics and Technology classes at Algoma University.</p> <p>5G Small Cells 5G Small Cells (Sub-6) will be used for the pilot; this network will be upgraded after next spectrum auction.</p> <p>5G Assessment & Technology Study Brampton city staff are working on a 5G Opportunities report to Council. Staff are actively seeking opportunities to collaborate with stakeholders and share relevant data. In addition to this, they have increased their budget to incorporate a 5G technology study. Brampton council passed a motion directing city staff to report back on making 5G technology available across Brampton.</p>

	<p>Garden Square City staff are in the procurement stage of a lighting project for Garden Square that would see new poles and fixtures installed as part of a one for one replacement of the existing lighting assets in the square. The poles are customizable with options ranging from speaker heads, event lighting, CCTV, and Wi-Fi /5G capabilities.</p>
Region of Peel	<p>Body-worn Cameras Peel police are testing Axon body cameras.</p> <p>5G Phones 5G phone speeds are being tested.</p>
Kitchener + Region of Peel	<p>Smart Transportation 5G is being utilized to test mobility as a service and smart transportation capabilities.</p>
Kitchener	<p>Small Cell and 5G Small Cells and related 5G technology is being tested. The pilot is similar to the city of London.</p>
Waterloo	<p>5G Innovation Lab Three-year partnership between Rogers Communications and Communitex was established to open a 5G innovation lab that will advance made-in-Canada 5G technology and commercialize 5G use cases. The lab is located in Waterloo.</p> <p>University of Waterloo Smart Campus University of Waterloo's smart campus is part of a plan by Rogers to advance 5G research in the Toronto-Waterloo tech corridor. The Smart Campus will be a live test bed for advanced research into the design and operation of the network, and the infrastructure necessary to develop and test technologies that 5G will enable.</p>
Kelowna	<p>Pedestrian and Cycle Safety In March of 2020, several UBC students were part of a "virtual hackathon," designed to explore how technology could help the city find ways to improve how people move around downtown, and to improve pedestrian and cyclist safety. Two light sensors, powered by the Rogers 5G network will be installed at two downtown intersections next week, one at Bernard and Water Street, the other at Bernard and Pandosy Street. The pilot will allow the city to collect detailed information about the way cyclists, pedestrians and vehicles move and behave in urban environments, which historically has been difficult to collect and share in real time.</p>
UBC + Waterloo + Kelowna	<p>Pedestrian and Resident Safety Rogers 5G has also been deployed for research purposes with University of Waterloo, UBC and pilot project in Kelowna. Areas of research include LiDAR based systems towards Vision Zero goals. Emergency Dispatch in Waterloo has also leveraged this data for piloting purposes.</p>
Montreal	<p>5G Living Lab Preparations for a "living lab" to test 5G technology in Montreal started in summer 2020. In the fall, the city and private sector partners installed about 200 antennas in the downtown core. The goals are to ensure that 5G is deployed as quickly and efficiently as possible, and to investigate whether there is any truth to claims of adverse health effects from 5G. The pilot project, partly subsidized by</p>

	<p>the Quebec Union of Municipalities, will allow high-tech start-ups and other companies to test applications.</p>
Ottawa	<p>Outdoor 5G Test Site at City Hall The Communications Research Centre (CRC) has built an outdoor 5G test site at City Hall. The CRC is part of ISED. CRC in collaboration with the City of Ottawa have built a 5G site, testing out 5G core capabilities – how 5G devices should communicate with 4G networks, research into overcoming technical challenges posed by 5G.</p>
Calgary	<p>Platform to Combat Homelessness The City of Calgary is looking at 5G to combat and prevent homelessness. Utilizing Open Data and AI to detect patterns revealed by data can indicate individuals who are at risk of becoming homeless. This data will be utilized to prevent the issue before its onset.</p>
Vaughan	<p>5G Small Cell Pilot and Master License Agreement The execution of a Master License Agreement between Bell Mobility and the City to permit the placement, maintenance, repair and replacement of micro-cell telecommunication equipment on city streetlight poles in the Block 55 development area. The micro-cell technology has been installed on thirty-one city streetlights in the residential community in Block 55 – Kleinburg Summit as a pilot project. The Master License Agreement has been drafted based on the existing agreement related to the joint-use (Trafalgar) streetlight pole.</p>
ENCQOR 5G Locations - Ontario (Ottawa, Toronto, Kitchener-Waterloo) and Quebec (Montreal and Quebec City)	<p>Canada's first pre-commercial 5G wireless testbed for open innovation Companies and organizations are carrying out or planning tests at the Montréal and Québec innovation sites to prepare for receiving 5G technology and to measure its benefits for their products and services. There have been 5 hub locations launched: Ontario (Ottawa, Toronto, Kitchener-Waterloo) and Quebec (Montreal and Quebec City). These facilities offer high connectivity, high capacity, and low latency, a perfect testbed for vendors to test and measure the benefits of their products and services.</p> <p>ENCQOR 5G brings together, industry, government, researchers and academia in both Quebec and Ontario to collaborate on the commercialization of disruptive products, processes, and services, providing a first-to-market advantage for new 5G innovations. ENCQOR 5G includes five digital technology leaders (Ericsson, Ciena Canada Inc., Thales Canada Inc., IBM Canada, and CGI) as well as provincial coordinators INNOVATION ENCQOR, Prompt and CEFRIO in Quebec and Ontario Centres of Excellence (OCE) in Ontario.</p> <p>The five-year ENCQOR 5G project is made possible in part by funding from the Canadian government and the provincial governments of Quebec and Ontario and is expected to create 4,000 jobs including 1,800 specialized 5G jobs.</p>
Hamilton	<p>5G/LTE/AV Pilot - Multimodal and Integrated Mobility Hamilton’s Innovation Factory is testing traffic sensors at the Centre for Integrated Transportation and Mobility (CITM) to support autonomous vehicle startups. Tests involve equipping street furniture with 5G transmitters designed for traffic optimization, parking detection, environmental monitoring and other public safety functions. Locations of these tests will start at the McMaster Innovation Park and then expand to Hamilton Mountain. Hardware for these tests will be supplied by GE and Nokia.</p>

5G Mississauga Footprint

Telecommunication carriers are actively deploying the 5G network within the City of Mississauga.

To make best use of different types of spectrum, deployment will include a mix of traditional cell towers and antennas on rooftops carrying signals over long distances, plus a web of Small Cells at lower heights supporting huge bandwidth use over shorter distances.

The deployment of Small Cells will concentrate in densely populated areas, such as Business Improvement Areas (BIA), Mississauga's downtown core and urban areas. Subdivisions and areas without above ground power poles are unlikely to be selected.

“Telecommunication carriers are actively deploying the 5G network within the City of Mississauga.”

Carriers will not rely exclusively on city-owned infrastructure, as they have a healthy mix of telco-owned assets, private assets, and utility agreements that they would leverage.

Toronto Pearson International Airport

The federal government has proposed exclusion and protection zones around airport runways. Exclusion zones do not permit any 5G base stations (small cells) to be in the area. Protection zones are locations around the airport where 5G services face restrictions.

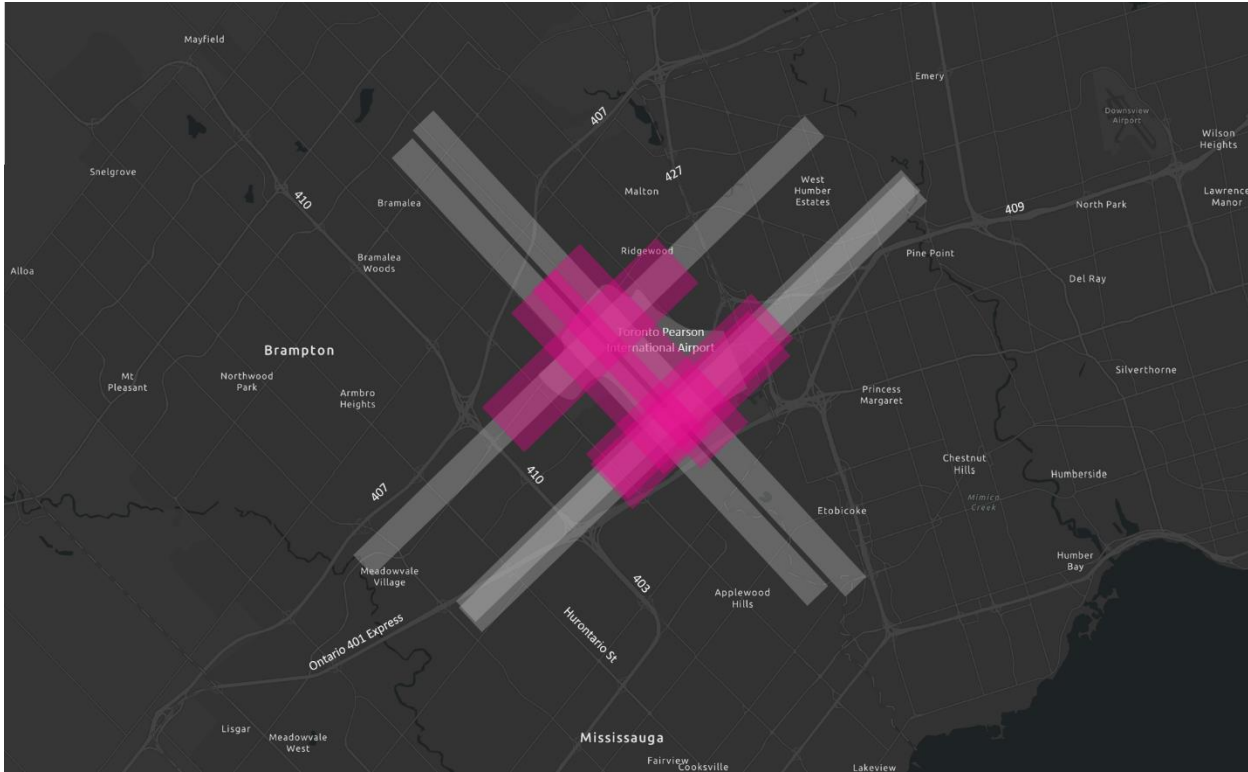
See **Diagram 3** for a map of the exclusion and protection zones for Toronto Pearson International Airport.

These restrictions are being introduced because there are concerns about possible interference between 5G 3500MHz spectrum and altimeters (aviation navigation tools used in automated landing); Radio altimeters operate in the 4,200MHz to 4,400MHz frequency band.

In comparison, Canada is proposing a buffer between 550 MHz and 700 MHz, whereas regulators in the United States have determined a guard of 220 MHz, Australia of 200 MHz and Japan of 100 MHz.

The Department of Innovation, Science and Economic Development (ISED) was set to hold a consultation on Oct 15, 2021 before applying the restrictions. The original date of Aug 6 was pushed back to allow more time for Carriers to file their comments with ISED.

Diagram 3 – Exclusion & Protection Zones around Pearson [[back to top](#)]



Map source: Government of Canada. An Interactive version of the map is available [here](#).

Public Engagement

The [Smart City website](#) has been updated and includes information related to 5G. The website is a location where the public can learn about the Smart City Master Plan, projects that the City is undertaking, and enables public consultation and input. 5G is one of the projects identified in the Smart City Master Plan.

5G Public engagement events were suspended due to COVID-19, but remain an integral component not only to 5G but to the overall Smart City program. Citizen engagement is engrained in our Smart City Master Plan. The Centre for Civic Curiosity was introduced in the Smart City Master Plan, and will serve as a space for public engagement and input. Due to COVID-19, the physical space and related activities were suspended, but plans for launch are still underway.

Public Sector Network

The City of Mississauga currently owns the largest Public Sector Network (PSN) in Canada. It boasts 985 connected sites and 47,000 km of fiber (nearly enough to cover the circumference of the Earth).

The City of Mississauga has been a leader in public service by building its own fibre infrastructure for over 25 years. Through a partnership with Peel, Brampton and Caledon, Mississauga established the Public Sector Network and it is the largest publicly owned and operated fibre network in Canada. It also provides dark fibre services within Peel to other agencies at very favourable costs. This has been a foundational aspect for becoming a Smart City and an important asset for the Smart City Master Plan. The City has been able to enable voice and data communications across a large campus of buildings and infrastructure supporting first responder and city services without leased line costs. In addition, the city has the largest outdoor free public Wi-Fi network in Canada; Wi-Fi is also located indoors in all facilities serving in excess of 8 million hours of free public Wi-Fi on average each year.

The coming generation of connected technologies requires the high speed, high connectivity and low latency characteristics that 5G can provide. Some of these will be met with Mississauga's existing infrastructure (PSN, PSBN, fiber); however, there will be areas where small cells will be required in order to achieve these benefits. There also exists a potential revenue stream for the City of Mississauga through the leasing of its dark fiber. The opportunities that 5G holds will begin to reveal throughout the coming years as more is learned about the technology and its capabilities.

Public Sector Broadband Network (PSBN)

Through the VCOM group, the Region of Peel is currently building out a 700 MHz Public Safety dedicated LTE cellular network in partnership with Peel Police and Halton Police. Public Safety Broadband Network (PSBN) was established and the 700 MHz spectrum was assigned for public safety as a key recommendation because of 911. This will ensure dedicated and uninterrupted cellular service for first responders and critical infrastructure communications. The broader roll out of PSBN across Canada is currently being reviewed with a decision from ISED expected which will see the implementation and operations of PSBN across the country. This is expected to be a hybrid model with Commercial Carriers and PSBN operators expanding cellular infrastructure across Canada and providing opportunity to provide consumer and business broadband in areas underserved across Canada. This will be staged over many years but the objective is to collaborate and optimize cellular and wired infrastructure across Canada. In February 2020, the City had the opportunity as a member of the PSBN Innovation Alliance, along with Police and Fire Chiefs from the GTA, to make submissions to the CRTC on broadband focussing on PSBN and advocating for a hybrid model across Canada.

Agreements and Permits

Carriers looking to install cell towers have to get approval from the Federal Department of Innovation, Science and Economic Development. This is a departure from the process required for small cell deployment; if carriers wish to attach small cells to public infrastructure or lay wire underground, they must get permission from the local municipality.

There have been disputes between cities and carriers over the locations of cell towers or the need to trench roads to install fibre. Although, the CRTC has the ability to resolve disputes over transmission lines, the process can be lengthy. It is common for negotiations with municipal governments to last two years or longer. The growing concern from carriers is that if governments delay access to infrastructure, Canada could fall behind other countries in the race towards 5G.

PUCC

For broadband/cable, trenching and installations Telco's need approvals from a variety of agencies. The PUCC system streamlines this process by allowing each Telco to apply online and all members to receive a notification to an item that requires their attention. Approvals are recorded in a centralized system that all appropriate parties have access to. The steps in the application are automated and advance through each phase according to the process guidelines. Auditing controls are in place and ensure that every step and document is captured and stored.

Agreements

Throughout the City, there are agreements that exist – but none of them directly specified/included 5G Small Cell technology. To ensure there was no overlap with the new 5G processes underway, revisions were made to the existing agreements to include 5G considerations.

City Agreements Include - Municipal Access Agreement, Pole Attachment Agreement, Telecommunication Antenna/Tower Siting Protocol, Leases/Tower Agreements, and Signal Enhancing Devices.



Section 4 – Future State.

Public Realm

Streets define the image of a city and promote walkability. Streets, like well-designed architecture, aspire to achieve good aesthetics and practical goals. As the City of Mississauga shifts away from auto dependence towards public transit, walking and cycling, it is important to place a greater emphasis on the pedestrian portion of the boulevard.

As a result of the move towards a more urban environment along corridors and intensification areas in the City, the amended boulevard treatment becomes relevant. An "Amended Boulevard Treatment" currently exists for the Downtown Core. With the increase of urban development and a focus on creating an attractive and predictable streetscape throughout the City, boulevard treatment will be expanded to locations such as Intensification Areas, Corridors and Community Nodes, and for sites that propose buildings that are located close to the street to create an urban feel.

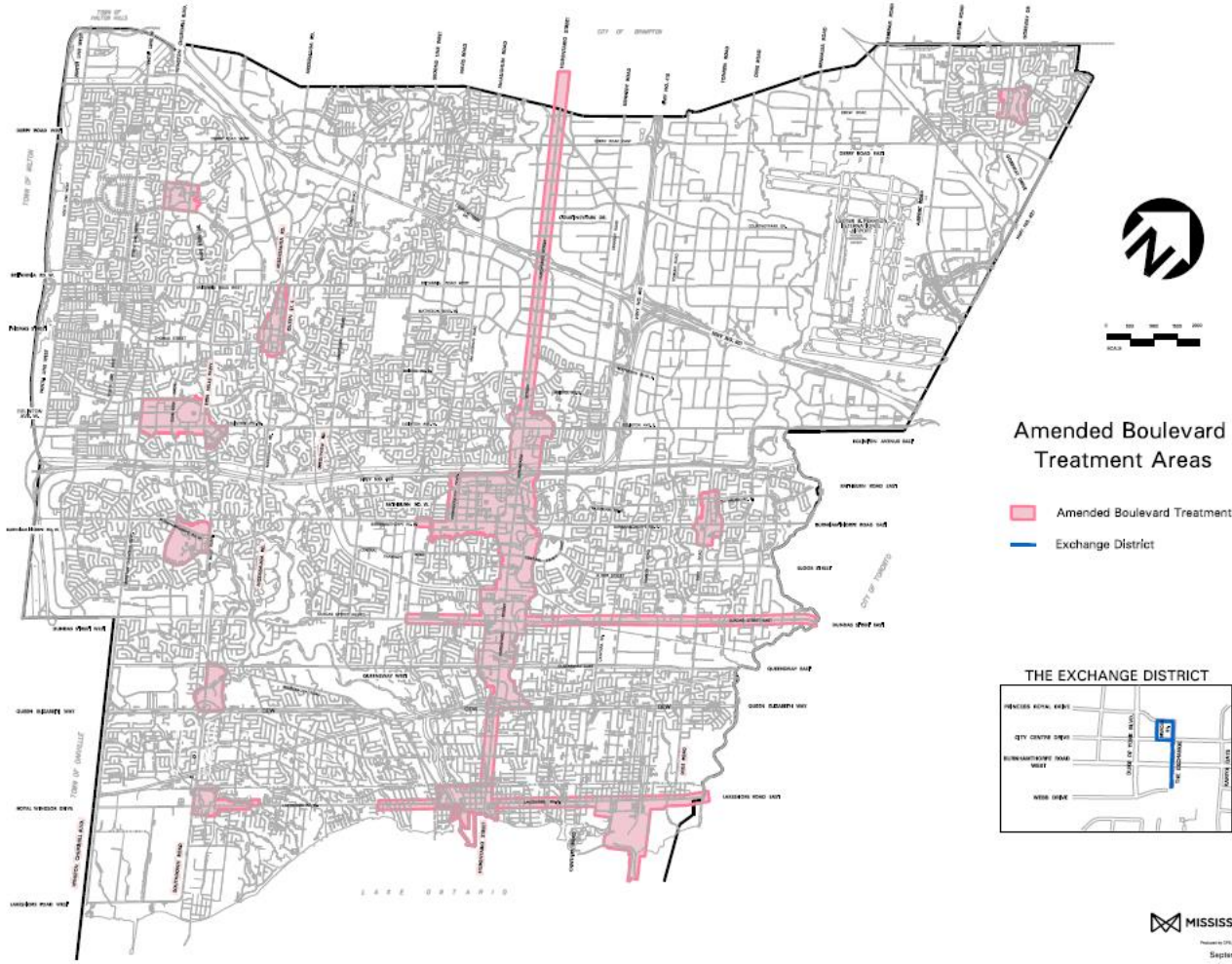
The City's intensification nodes and corridors, as described in [Mississauga Official Plan](#) (MOP), require that the public realm, or boulevards espouse a high quality design treatment to create a strong sense of place that is attractive, comfortable and creates civic pride. In the intensification nodes and corridors, the City holds the public realm to the highest design standards.

Section 9.2.1.36 of MOP states, "Streetscape improvements including trees, pedestrian scale lighting, special paving and street furniture in sidewalks, boulevards, open spaces and walkways, will be coordinated and well designed."

As per the 2016 06 27 Report to Planning and Development Committee, development applications

"Streetscape improvements including trees, pedestrian scale lighting, special paving and street furniture in sidewalks, boulevards, open spaces and walkways, will be coordinated and well designed."

are required to provide an upgraded boulevard treatment, or an "Amended Boulevard Treatment" in the intensification nodes and corridors. The Amended Boulevard Treatment generally provides a wide sidewalk for pedestrian use, a corridor for the planting of trees and it is within this corridor that the vertical elements such as streetlights are provided. Co-ordinated streetscape furnishings are also provided in this corridor. Where Smart Poles are introduced in place of streetlights into boulevards along intensification corridors or in intensification nodes, they must complement the existing components in the boulevards. Further, the installation of a Smart Pole into an existing Amended Boulevard Treatment must be undertaken in a manner that does not disturb or destroy existing trees or eliminate the opportunity for future street trees.



Small Cell Requirements

Pole Attachment Permits

The City of Mississauga owns the Streetlight poles and Streetlight luminaires within the City of Mississauga. Telecommunication Service Providers own their Cellular Towers and they lease attachments on privately owned buildings/structures/property. To provide improved cellular coverage for areas of high density, Service Providers are requesting access and permission to mount Antennas (also known as Small Cell Radios) on City owned Streetlight Poles.

Third Party entities such as, Telecommunication Service Providers and other municipal partners (Region of Peel, City of Brampton, Ministry of Transportation, and educational institutions) may request permission, and access to City of Mississauga Streetlight poles to co-locate third party equipment. These devices can range from Road Weather stations, Traffic Sensors, Telecommunications Cellular Radios, Wi-Fi Access points, Environmental sensors, as well as other IoT (Internet of Things) devices.

The Carriers are responsible for submitting detailed information regarding their proposed Cellular Small Cell equipment. The City of Mississauga considers many variables when reviewing and allowing potential device installations on Streetlight Poles, such as safety regulations, aesthetics, RF interference, streetlight pole loading, and electrical power provisioning and installation. The City of Mississauga and Alectra Utilities must approve all Pole attachments and installations must follow existing City of Mississauga PUCC/Road Occupancy processes.

The City of Mississauga is putting in place an online solution that will handle the intake of all Pole Attachment Permit requests and manage the process end-to-end. Pole reservations will be processed on a first-come, first-served, basis.

“The City of Mississauga is putting in place an online solution that will handle the intake of all Pole Attachment Permit requests and manage the process end-to-end.”

Fees and Charges

Table 8 represents the Fees and Charges approved into By-law for Pole Attachment Permitting.

Table 8 – Fees and Charges [[back to top](#)]

Fee	Description	Unit	Frequency	Allocation
\$2,000	Permit Fee	Per Attachment	One time	City of Mississauga
\$250	Maintenance Fee	Per Attachment	Annually	City of Mississauga
Direct Cost + Admin Fee	New Pole Cost + Admin Fee	Per Pole	One Time	City of Mississauga Alectra Power Services

Revenue and Resource Impacts

An increase in requests for access to City infrastructure is anticipated. It is anticipated that resources will be required to handle the increase in work volume. It is expected that revenues generated from Pole Attachment permitting will fully offset the cost of additional resources. The revenues generated from Pole Attachment

permitting will provide the funding for these resources with one-time revenues for installation and ongoing annual fees for ongoing inspections and maintenance.

Master Agreements

Staff from various departments have been engaged and are working towards a Master Agreement for Pole Attachments. Master Agreements with telecommunication providers for Pole Attachments have been drafted and are expected to be in place early in 2022, which will enable the implementation of 5G and ensure provisions are in place for the ongoing operation of 5G small cell technology on City owned infrastructure.

Wooden Poles

No Cellular Telecommunications Carrier Small Cell attachments will be permitted on City of Mississauga Wooden Streetlight Poles.

Spacing of Small Cells

Third Party Pole attachments will be limited to attachments on every other pole in a linear pole line. This will ensure equity of access to telecommunication providers for the installation of small cell technology as well as limiting the attachment to just one per pole.

Future Pilot

The population of Mississauga is becoming increasingly digital. As a result, the demands on telecommunications infrastructure are rapidly

“A 5G Technology Pilot project would demonstrate how the provision of services could be enabled by high-speed broadband.”

increasing. Future linked technologies, driverless vehicles, IoT-enabled devices, virtual and augmented reality will increase bandwidth, connectivity, and latency demands on networks dramatically.

The increased demand for digitization and connectivity among our residents and businesses mandates the implementation of telecommunications equipment that can meet these demands.

A 5G Technology Pilot project would demonstrate how the provision of services could be enabled by high-speed broadband.

Staff will assess any opportunities, should they arise, and ensure that the required processes, communication and agreements are completed.

Beyond 5G



Data moving close to the speed of thought. Cyberspace being able to support human thought and action in real-time. Mesh networks instead of cellular networks. This is the anticipated world of 6G. While the focus remains largely on 5G, some countries are already in the early research phase of 6G.

Table 9 – Beyond 5G

Timeframe	Initiative Description
2018	Finnish 6G Flagship Program centered at the University of Oulu in Finland. An eight-year research program defining the 6G Vision for 2030. The program will consist of four research areas: wireless connectivity, device and circuit technologies, distributed intelligent computing, and sustainable human services and applications.
2020	China has already put a 6G experimental satellite into orbit. The satellite weighs 70kg and is being used to test data transmission over long distances using Terahertz spectrum.

China plans to roll out 6G by 2029 and the CNIPA (China National Intellectual Property Administration) claims to have 35% of the ~38,000 patents related to 6G.

2021	<p>EU (European Commission) began research on 6G. Focus will be on developing the vision for 6G systems and the technology that will enable human, physical and digital worlds to be connected; applications that will connect humans not only to machines but also to the digital world. These connections can be used for preventative healthcare or a network that understands our intentions. The research project includes a consortium of industry and academic stakeholders; Nokia and Ericsson are key members of the consortium.</p> <p>United States and Japan have teamed up to invest in 6G technology. U.S. President Joe Biden and Japanese Prime Minister Yoshihide Suga have agreed to jointly invest \$4.5 billion for the development of 6G. United States has agreed to contribute \$2.5B and Japan has agreed to \$2B. The investment will be put towards research, development, testing, and deployment of secure networks and advanced information and communications technology. The intention is to create an alternative to a China-led communications network by looking at Open-RAN. Open-RAN is an open-source platform where network operators can mix and match hardware from different vendors, without having to own entire systems of antennas and base stations. Another goal is to elevate Japan's share of patents to 10%. This will require U.S sanctions on China to be revisited. China is a major market for Japanese equipment makers.</p> <p>Japan is also investing independently of the U.S. \$482M is being put towards helping 6G become more widespread in the next few years. Funding is also being allocated to a research facility to develop wireless projects. Goal is to highlight standout technologies by 2025. United States also announced its partnership with South Korea for 6G research.</p> <p>Mobile companies AT&T, Verizon, and T-Mobile are leading an industry initiative with Alliance for Telecommunications Industry Solutions (ATIS) called the Next G Alliance to help organize and further 6G research throughout North America.</p> <p>In May of 2021, the Next G Alliance began a technical work program to coordinate a series of new workgroups with the specific goal of developing 6G technology. If the patent numbers are correct, United States comes in second behind China, with around 18% of all 6G patents at this time. Germany announced that they are establishing a 6G research facility in Dresden.</p>
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2026	<p>South Korea is looking to launch a 6G pilot in 2026. South Korea – Samsung working on 6G and predicting 6G deployment to occur in 2028.</p>
2030	<p>Nokia expects 6G systems to launch commercially by 2030.</p>

Speculation into 6G

The world of 5G and its technology is still the primary focus for Mobile Technology companies. There are still many issues with 5G that are being addressed, so while it may seem premature to think about 6G, research has already begun. It is not

unusual in the tech world to do things this way; even though Small Cells are only now commercially available, they actually existed back in 2013.

Researchers and scientists are talking about 6G going beyond the “wired” network, where devices like our smart phones, will act as antennas over a decentralized network (not under the control of a single operator); making device-to-device connection possible. This will replace the cellular networks that we have today with the expansion of mesh networks.

Wearable devices and micro-devices mounted on the human body will support human thought and action that will be processed in real time. 6G will likely operate on Terahertz spectrum; this means that data will move close to the speed of thought (1 terabyte per second). With that kind of speed, 6G will make 5G look like 2G. It has also been estimated that with 6G speed, we will have the ability to download 142 hours of Netflix movies in one second.

The technology is expected to support wireless brain to computer interfaces and brain implants that control computers. To a degree, this already exists today. Neuralink, a neurotechnology company founded in 2016 by Elon Musk and eight others develop implantable brain-machine interfaces

(BMIs). Although human trials are anticipated for 2021, monkeys and pigs have demonstrated early functionality of these devices.

There is also an expected proliferation in the use of smart materials, metamaterials, and metasurfaces, where everyday surfaces and materials will be able to communicate digitally. Beyond digital surfaces, remote holographic surgery, hologram user interfaces, and high fidelity mobile holograms may also emerge.

There is plenty of hypothesizing, however the reality is that, 6G will depend on how high a [frequency](#) is selected and how much infrastructure investment is made. 6G standards (just like its predecessors), will come from the International Telecommunication Union ([ITU](#)). It took more than eight years for these standards to be established for 5G, so the length of time for it to arrive for 6G is not known. However, it is anticipated that early commercial deployment of 6G is expected around 2028-2029 (not full deployment, just early presence of it).



Section A – Terms.

Terms

Term	Definition
5G	Fifth generation technology standard for cellular networks.
Access Point (AP)	Hardware that allows other Wi-Fi devices to connect to a wired network. The AP usually connects to a router (via a wired network), but it can also be a component of the router itself. APs support the connection of multiple wireless devices through their one wired connection.
Artificial Intelligence (AI)	The ability of a computer program or a machine to think and learn. The ability of computer systems to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.
Augmented Reality (AR)	A combination of real and virtual worlds. A technology that superimposes a computer-generated image onto a user's view of the real world.
Autonomous Vehicles	A vehicle that is capable of sensing its environment and moving safely with little or no human input.
Backhaul	A portion of the network. It consists of intermediate links between the core (backbone) network, and the small subnetworks at the edge. Used to transmit a signal from a remote site to another site (usually a central one).
Bandwidth	Measures the <i>amount</i> of information that can be sent over an internet connection in a given amount of time. Usually measured in megabits per second (mbps).
Big Data	A massive volume of both structured and unstructured data that is so large it is difficult to process using traditional database and software techniques.
Broadband	The name given to any fast, permanent internet connection. Dial-up internet is slow because it uses a single band. Broadband uses many bands. A separate band for uploading, downloading and voice. Making it a fast, permanent internet connection.
Cabinet Box	Fully enclosed cabinets that help protect electrical cabling and other equipment from potentially damaging environments, including those that contain dust, rain, ice, and external heat. They also ensure that the equipment in the box is only accessible to authorized personnel.
Cell Towers	An elevated structure with the antenna, transmitters and receivers located at the top. The primary function of a cell tower is to ensure proper elevation to antennas that receive and transmit radio-frequency signals from cell phones and other devices.
Conduit	Duct pipes that are used to house and protect electrical power and telecommunications cables. High-density polyethylene (HDPE) is the preferred material that conduit is made from. It offers unmatched corrosion and chemical resistance, and it is flexible and durable.

Edge Compute	Computing that is done at or near the source of the data. Minimizes the amount of long-distance communication that has to happen between a client and server. This reduces latency and bandwidth usage.
Electromagnetic Spectrum	Term used to describe the entire range of light that exists. It includes both visible and invisible light.
Fiber (aka Dark Fiber)	A type of cable that is used for high-speed data transmission. It contains tiny glass or plastic filaments that carry light beams. Digital data is transmitted through the cable via rapid pulses of light. Because fiber optic cables transmit data via light waves, they can transfer information at the speed of light.
Frequency	A measurement unit is in hertz (Hz). Measures the number of waves that pass by a point in one second.
Handhole	Pull box, access box, underground utility box, junction box, underground enclosure, and splice box are all terms used interchangeably for a Handhole. A shallow access hole large enough for a hand to be inserted for maintenance and repair of fiber, equipment.
Internet of Things (IoT)	Physical objects (“things”) that are embedded with sensors, software, and other technologies. This enables them to connect and exchange data with other devices and systems over the internet.
Joint Use Trench (JUT)	Joint trenching is the practice of burying different <i>dry</i> utilities (hydro, electricity and telecommunications) together in one trench. The pipes and cabling for dry utilities can be run through a single trench. JUTs are typically located within boulevards. Wet utilities (gas, water, storm, and sewer) are <i>not</i> co-located in a JUT. Wet utilities are typically found in roadways and maintain a separation from each other.
Latency	A fancy word for the lag that is experienced while waiting for something to load. The amount of time it takes information to travel from one connected device to another connected device.
Light Detection and Ranging (LiDAR)	A technology that measures the distance between objects by hitting the target with a laser and analyzing the reflected light. This data is then used to generate 3D representations of the target. LiDAR sensors are used by autonomous vehicles to navigate their environments, but they have many additional applications, across various industries and fields.
Living Lab	A living lab, or living laboratory, is a research concept, which may be defined as a user-centered, iterative, open-innovation ecosystem, often operating in a territorial context (e.g. city, agglomeration, region or campus), integrating concurrent research and innovation processes within a public-private-people partnership.
Millimeter Waves	Wavelengths that are so small they are measured in millimeters. Millimeter waves can carry huge amounts of data but they do not travel very far.
Public Sector Network (PSN)	The largest Public Sector Network in North America. It consists of 47,000 km of fiber optic cable. In partnership with the City of Mississauga, Town of Caledon, Region of Peel, and City of Brampton.
Radio Wave	A type of Electromagnetic wave. They are used to transmit long, short, FM wavelength radio waves, and TV, telephone, wireless signals or energies. Most radio waves pass freely through the earth’s atmosphere.

Safety Code 6	Created by Health Canada for the purpose of establishing safety limits for human exposure to radiofrequency (RF) electromagnetic energy in the frequency range from 3 kHz to 300 GHz.
Sensors	A device that detects and responds to some type of input from the physical environment. The specific input could be light, heat, motion, moisture, pressure, or any one of a great number of other environmental phenomena.
Small Cells	Low-powered radio equipment and antennas. They are about the size of a pizza box, and are used to transmit data to and from a wireless device. They enable millimeter wave frequencies, which means that they transmit data over short distances (10 meters to a few kilometers).
Smart City	A Smart City is the effective integration of <u>physical</u> , <u>digital</u> and <u>human</u> systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens.
Virtual Reality (VR)	The computer-generated simulation of a three-dimensional image or environment that can be interacted within a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors.
Vision Zero	A global movement to eliminate all traffic fatalities and severe injuries. Ensuring that all people have safe, healthy, and equitable mobility.
Wavelength	A measurement. Distance from the peak of one wave to the peak of the next.
Wi-Fi (IEEE 802.11x)	Wi-Fi is the name of a wireless networking technology that uses radio waves to provide wireless high-speed internet and network connections.

Date: October 22, 2021	Originator's files:
To: Chair and Members of General Committee	
From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer	Meeting date: December 1, 2021

Subject

City Standards for Information Technology (IT) Maintenance and Support Services and Subscription Renewals for 2022-2024

Recommendation

1. That the IT Systems listed in Appendix 1 of the report dated October 22, 2021, from the Commissioner of Corporate Services and Chief Financial Officer entitled, "City Standards for Information Technology (IT) Maintenance and Support Services and Subscription Renewals for 2022-2024" be approved as City Standards, in accordance with the City's Purchasing By-law 374-06, as amended.
2. That the Purchasing Agent or designate be authorized to execute all contracts and related ancillary documents with respect to the purchase of 2022-2024 annual maintenance and support services and subscription renewals for City Standards.

Executive Summary

- This annual report updates Council and requests Council approval of the City Standards for IT Systems for a three (3) year period: 2022, 2023 and 2024.
- IT City Standards fill a long-term City-wide need and/or requirement and switching over to new systems would either cause major disruptions to City operations, be cost prohibitive, or both.
- The required annual maintenance and support and subscription renewal costs for City Standards for IT Systems are included in the 2022, 2023 and 2024 IT operating budget with any future increases being subject to budget approvals.
- Establishing City Standards for IT Systems is a best practice that enables the continued operations of City services that rely on technology.
- IT continues to streamline the list of IT City Standards.

Background

The Purchasing By-law 374-06, as amended, provides for the establishment of “City Standards”, which are defined as “specific Goods approved by Council that best fill a long-term City-wide need or requirement”.

In previous years, this annual report would update Council of the City Standards for IT Systems and request Council approval for a one-year term. Because City Standards do fill a long-term need and IT strives to improve processes and increase efficiencies, the City is now engaging in longer term renewals for these City Standards. Most vendors are open to a three-year renewal term; therefore, this report is updating Council of the City Standards for IT Systems for a three-year period: 2022, 2023 and 2024 and requests Council approval. Estimates for 2023 and 2024 may be subject to increases and/or changes based on business needs.

The Purchasing By-law requires Council approval for High Value Acquisition (HVA) Single/Sole Source procurements of support and maintenance services and subscription renewals for the City Standards for IT Systems for 2022-2024.

Comments

The Information Technology (“IT”) division follows standard processes for procuring IT hardware, software, maintenance and support, and subscriptions through a balance of competitive procurements, single/sole source procurements and renewals.

Appendix 1 identifies the estimated requirements for City Standards for IT Systems to maintain operations for up to three (3) years subject to change based on business needs. IT has streamlined the list of City Standards and removed approximately 40 items from the previous 2021 list. Streamlining efforts will continue going forward.

A continued use of City Standards for IT Systems is required to ensure business continuity and is a best business practice in the industry. These systems may require renewals on a single/sole source basis in 2022, 2023 and 2024. Switching over to new systems would either cause major disruptions to City operations, be cost prohibitive, or both. Amounts shown are based on historical spend amounts and are included in the IT Division budget.

Purchasing By-law Authorization

The second recommendation in this report is made in accordance with the Purchasing By-law 374-06, Schedule “A”, 1. (b) (xi) 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.

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

Financial Impact

The required annual maintenance and support and subscription renewal costs for City Standards for IT Systems are included in the 2022-2024 IT operating budget and any future increases are subject to budget approvals.

The proposed IT Maintenance Budget for 2022 is \$9.40 million and covers the ongoing and growth related cost of all IT system maintenance and support and subscription renewals including those systems identified in the City Standards for IT Systems (Appendix 1).

Conclusion

Establishing City Standards for IT Systems is a best practice that enables the continued operations of City services that rely on technology. City Standards are established through the procurement process and through the authority of Council in line with the Purchasing By-law and approved IT system maintenance, support and subscription renewal budgets.

This report recommends that the Purchasing Agent or designate be authorized to purchase maintenance, support and subscription renewals for the City Standards for IT Systems for 2022-2024 as identified in Appendix 1.

Attachments

Appendix 1: Refresh of City Standards for IT Systems List



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Sabrina Stan, IT Asset Management Specialist, Contract Management

No	Vendor	IT Systems Description	2022-2024 Estimated Amount*
1	Acuity Brands Technology Services Inc.	Energy Dashboard web hosting fees	\$69,000
2	AMAG	Access control system	\$141,000
3	Autodesk	M&S / subscription renewal for AutoCAD SW (precise 2D and 3D drawings)	\$15,000
4	Bang the Table Canada Limited	EngagementHQ Licence	\$90,000
5	Better Impact	Collects and manages all City External Volunteers	\$12,000
6	Blancco (7755473 CANADA INC.)	Data Erasure Management Solution M&S	\$60,000
7	Boost Solutions	M&S of Lookup Pack SW used to build cascading lookup columns on SharePoint	\$7,500
8	Brightcove	Video hosting service for live streaming and on demand viewing of Events and press conferences and backup live stream for Council and Committees	\$210,000
9	Cansel - Trimble	Subscription and M&S for the TRIMBLE MGIS, Sketchup, SW and RTK, Survey tools used by Works and GIS	\$30,000
10	CentralSquare Canada SW Inc.	Cemetery Management System	\$15,000
11	CIS SecureSuite Membership	Cybersecurity tool suite membership (resources incl. configuration assessment tools, full-format CIS Benchmarks and best practice guidance for over 150 technologies)	\$45,000
12	Compugen	Server HW and VMWare M&S	\$150,000
13	Creative Force Ltd	Award Force Subscription for Public Voting Platform used by P&B for the MUDA (Mississauga Urban Design Awards) Program and operations	\$39,900
14	Easybits AS	Magic Desktop (Library Children's SW)	\$15,000
15	eSolutions Group	Ping Street maintenance-mobile service application for public	\$16,500
16	Faronics	M&S of DeepFreeze for Public Library PCs	\$15,000
17	FME, Safe SW	Spatial Extract Transform and Load SW for GIS	\$12,000
18	Gallagher Benefit Services (Canada) Group	Job Evaluation Tool	\$12,000
19	Geocortex, VertiGIS SW	GIS Map Viewer	\$36,000
20	Global System Solutions	MAC Support	\$25,500
21	Godaddy, Blu, Ssl (Geotrust), Internic, Upaknee, Apple, RealVNC, etc	Domains, SSL, developer/AV subscriptions, etc	\$240,000
22	Grapevine Analytics Inc	360 Assessment Service	\$37,500
23	Herjavec Group	Falcon Sandbox Private Cloud security tool used to analyze malware samples	\$30,000
24	High Criteria Inc.	Court House Digital Recording (Liberty Recording)	\$15,000
25	Hoefler	Gotham Fonts (Typography Web Subscription)	\$15,000
26	Industry Canada	Radio Trunking Licenses	\$150,000
27	Intraprint	Print Mgmt & Doc System	\$24,000
28	ITC	PC Reservation SW (MyPC)	\$19,500
29	Key Stroke Quality Computing Inc.	ACT! SW subscription renewal	\$24,000
30	LinkedIn	LinkedIn Subscription for HR Recruitments	\$375,000
31	Messageware	OWAGuard applications for security SW for Outlook Web App	\$105,000
32	Microfocus	Self-service password application SW	\$75,000
33	Muhimbi SharePoint PDF Converter	M&S of SharePoint PDF Converter SW used to convert InfoPath forms to printable PDF files	\$12,000
34	ONIX Networking Canada Inc.	Google Maps API for internal & external and Google Search Appliance M&S	\$150,000
35	Perspective Geomatics	Summit Evolution M&S (3D Workstation)	\$24,000

36	Quest - TOAD for Oracle	M&S, licensing of the Quest TOAD for Oracle SW used by IT teams including Infor Public Sector, TAX, and MAX for development and support of these applications	\$24,000
37	Region Of Peel	Radio Communications (Vcomm for Region)	\$1,860,000
38	SafeNet	VPN (replaces Cryptocard)	\$60,000
39	Seon	Security Cameras in the Transit Buses	\$300,000
40	Shodan	Shodan - IoT device discovery engine	\$15,000
41	SIMS Inc.	Intrusion alarm monitoring	\$12,000
42	Siteimprove	Siteimprove hosting fees	\$27,000
43	Tenable	Nessus security scanner	\$18,000
44	Teraview	Teraview SW	\$40,500
45	The Mathworks Inc.	Matlab M&S renewal for T&W team	\$12,000
46	Thycotic	M&S for Secret Server enterprise password management SW	\$27,000
47	Traffic Ware - Cubic ITS Inc	Synchronizes traffic lights in ATMS iNET infrastructure	\$22,500
48	Transoft	Autoturn SW is a plugin for Microstation and is used by the roads design group (T&W), Transoft Torus design SW	\$9,000
2022-2024 TOTAL			\$4,739,400

**Subject to change*

No.	Hardware & Equipment Items*	Description	2022-2024 Estimated Amount*
1	Paduit Racks, Patch Panels & Accessories	Network racks, fibre & ethernet patch panels/cassettes, cabling used as interconnects between data centre racks.	\$120,000
2	Raritan Power Distribution Units (PDUs), Sensors & Power Cables	Intelligent networked power distribution units located in each data centre rack supporting two power sources.	\$450,000
3	Raritan KVM Equipment & Accessories	Management of data centre servers and equipment at the console level within the data centre for keyboard, video and mouse support.	\$150,000
4	Smart Optics Fibre Multiplexers & SFPs	Fiber optic multiplexers and related transceiver equipment.	\$600,000
5	APC Uninterrupted Power Supplies (UPS)	Additional uninterrupted power supplies for remote communication rooms.	\$120,000
2022-2024 TOTAL			\$1,440,000

**Subject to change*

** All items listed in 'Hardware & Equipment Items' above will be procured using competitive tender process with market resellers.

REPORT 5 - 2021

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Governance Committee presents its fifth report for 2021 and recommends:

GOV-0021-2021

1. That the Corporate Report from the City Solicitor dated October 6, 2021, entitled "Options for Closed Meeting Investigation Services" be received for information.
2. That the City utilize the Ontario Ombudsman as the Closed Meeting Investigator for the 2022 term and 2022-2026 term of Council; and further that this be reviewed before the end of the 2026 term.

(GOV-0021-2021)

GOV-0022-2021

That the Corporate report dated November 5, 2021 from the Commissioner of Corporate Services and Chief Financial Officer entitled "Proxy Voting at Council – Update", be deferred until hybrid and online Council and Committee meetings are reviewed in March 2022.

(GOV-0022-2021)

GOV-0023-2021

That the following items were approved on the Consent Agenda:

- 10.3 Email dated October 15, 2021 from Robert Swayze, Integrity Commissioner Regarding Changes to the Council Code of Conduct
- 10.4 Status of the Governance Committee Work Plan

(GOV-0023-2021)

GOV-0024-2021

That the email dated October 15, 2021 from Robert Swayze, Integrity Commissioner regarding Changes to the Council Code of Conduct, be received.

(GOV-0024-2021)

GOV-0025-2021

That the status of the Governance Committee Work Plan items, updated for November 15, 2021 Governance Committee meeting, be received.

(GOV-0025-2021)

Please enter the Recommendations here

REPORT 2 - 2021

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Public Vehicle Advisory Committee presents its second report for 2021 and recommends:

PVAC-0006-2021

That the deputation and associated presentation from Michael Foley, Manager, Mobile Licensing Enforcement regarding the Plate Issuance Model and Priority Waiting List, be received.

(PVAC-0006-2021)

PVAC-0007-2021

That the 2018-2022 Public Vehicle Advisory Committee Work Plan, for November 16, 2021, be received.

(PVAC-0007-2021)

PVAC-0008-2021

That the verbal update from Michael Foley, Manager, Mobile Licensing Enforcement regarding Accessible Taxicab Model Year Restriction, be received.

(PVAC-0008-2021)

PVAC-0009-2021

That the email dated October 21, 2021 from Syed Shah, Resident regarding Vehicle Year Extension for Accessible Taxi, be received.

(PVAC-0009-2021)

PVAC-0010-2021

That the email dated October 21, 2021 from Abdul Latif, Resident regarding Request for Accessible Taxicab Model Year Extension, be received.

(PVAC-0010-2021)

PVAC-0011-2021

That the email dated October 21, 2021 from Zafar Mahmood, Resident regarding Accessible Taxi, be received.

(PVAC-0011-2021)

PVAC-0012-2021

That the Public Vehicle Advisory Committee 2022 Meeting Dates, be received.

(PVAC-0012-2021)

REPORT 6 - 2021

To: CHAIR AND MEMBERS OF GENERAL COMMITTEE

The Traffic Safety Council presents its sixth report for 2021 and recommends:

TSC-0045-2021

1. That the warrants have not been met or the placement of a school crossing guard at the intersection of Windy Oaks Drive and Crossfield Bend for the students attending Mineola Public School.
2. That Transportation and Works be requested to paint zebra markings on the west leg of the intersection of Windy Oaks Drive and Crossfield Bend.

(TSC-0045-2021)

(Ward 1)

TSC-0046-2021

1. That the warrants have not been met for the placement of a school crossing guard at the intersection of Duford Drive and Ivandale Drive for the students attending Britannia Public School and St. Gregory Catholic Elementary.
2. That Transportation and Works be requested to review crossing options to accommodate pedestrians crossing Ivandale Drive from Coxswain Crescent to access Duford Drive and the rear entrances to Britannia Public School and St. Gregory Catholic Elementary School.

(TSC-0046-2021)

(Ward 11)

TSC-0047-2021

1. That Parking Enforcement be requested to enforce the no parking/no stopping zones on Freshwater Drive and Deepwood Heights between the peak times of 8:10-8:25 AM and 2:15-2:35 PM.
2. That Peel Regional Police be requested to enforce U-turns and moving infractions while students of Ruth Thompson Middle School are dropped off on Freshwater Drive and Deepwood Heights 8:10-8:25 AM and 2:15-2:35 PM as time and resources permit.
3. That the Principal of Ruth Thompson Middle School be requested to remind students at the PM dismissal to not congregate on the sidewalk and the landing pad on the North leg of the intersection as this causes confusion for the drivers that are not sure if they need to wait for them to cross.
4. That the Principal of Ruth Thompson Middle School be requested to remind parents to use the kiss and ride in the AM to drop off students.
5. That Traffic Safety Council be requested to re-inspect Ruth Thompson Middle School at the intersection of Deepwood Heights and Freshwater Drive once the above recommendations have taken place.

6. That Active Transportation be requested to consider contacting the Principal of Ruth Thompson Middle School to discuss a possible implementation of a school walking routes program.

(TSC-0047-2021)

(Ward 10)

TSC-0048-2021

1. That the warrants have not been met for the placement of a school crossing guard on Lolita Gardens for the students attending Silver Creek Public School.
2. That Traffic Safety Council be requested to re-inspect Silver Creek Pubic School for a potential crossing at 570 Lolita Gardens opposite the park path once the new apartment building has been occupied.

(TSC-0048-2021)

(Ward 4)

TSC-0049-2021

1. That Parking Enforcement be requested to enforce the no parking and no stopping zones in front of Trelawny Public School between the peak times of 8:30 - 8:55 AM and 3:00 - 3:25 PM.
2. That Peel Regional Police be requested to enforce the illegal U turns and speeding issues in front of Trelawny Public School between the peak times of 8:20 - 8:50 AM and 3:10 - 3:40 PM, as time and resources permit.
3. That Transportation and Works be requested to trim the trees on the south side of Trelawny Circle opposite Trelawny Public School that are blocking the view of the signage.
4. That Transportation and Works be requested to review the feasibility of moving the flashing 40 km signs on the north side of Trelawny Circle east of Trelawny Public School closer to the school.
5. That Transportation and Works be requested to review the feasibility of implementing a dedicated left turn lane into Trelawny Public School.
6. That Transportation and Works be requested to review the feasibility of implementing a road diet to reduce the travel lanes on Trelawny Circle in the vicinity of Trelawny Public School and allow for other traffic calming measures to be considered.
7. That Active Transportation be requested to consider contacting the Principal of Trelawny Public School to discuss possible implementation of a school walking routes program.

(TSC-0049-2021)

(Ward 10)

TSC-0050-2021

That the memorandum dated November 16, 2021 from Reanne Kassar, Legislative Coordinator entitled 2022 Traffic Safety Council Meeting dates be received for information.

REVISED

TSC-0051-2021

That the Site Inspection Statistic Report for November 2021 be received for information.

(TSC-0051-2021)

TSC-0052-2021

That the amended Traffic Safety Council Terms of Reference, as outlined in the memorandum dated November 18, 2021 from Megan Piercey, Legislative Coordinator entitled Draft Amendment to the Traffic Safety Council Terms of Reference be approved.
(TSC-0052-2021)

TSC-0053-2021

That the Parking Enforcement in School Zone Report for October 2021 be received for Information.
(TSC-0053-2021)

TSC-0054-2021

That the Transportation and Works Action Items List for October 2021 be received for information.
(TSC-0054-2021)

Date: October 25, 2021	Originator's files: PO.11.WIL
To: Chair and Members of General Committee	
From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer	Meeting date: November 17, 2021

Subject

Surplus Land Declaration for the purposes of disposal of city-Owned lands located at 46 William Street (Ward 11)

Recommendation

1. That City-owned lands located at 46 William Street, south of Britannia Road and east of Queen Street, containing an area of approximately 1,319.92 square metres (14,207.91 square feet), legally described as Lot 78 and Henry Street, according to a plan of the Village of Streetsville being a plan of part of Lot 5, Concession 5, West of Hurontario Street, Township of Toronto, referred to as Plan STR-2, designated as Parts 1, 2, 3, 4, 5 and 6, Plan 43R-20224, under the *Land Titles Act* as PIN #13128-0165 (LT), in the City of Mississauga, Regional Municipality of Peel (Ward 11), be declared surplus to the City's requirements.
2. That Realty Services staff be authorized to proceed to dispose of lands described as part of Lot 78 and Henry Street, Plan STR-2, designated as Part 6, Plan 43R-20224, being comprised of approximately 249.8 square metres (2,688.82 square feet) for the purpose of a proposed sale to adjacent owner of the railway corridor, The Ontario and Quebec Railway Company/The Credit Valley Railway Company, at fair market value.
3. That Realty Services staff be authorized to proceed to dispose of lands described as part of Lot 78 and Henry Street, Plan STR-2, designated as Parts 1, 2, 3, 4 and 5, Plan 43R-20224, being comprised of approximately 1,070.12 square metres (11,518.67 square feet), at fair market value on the open market.
4. That all steps necessary to comply with the requirements of Section 2.(1) of the city Notice by-law 215-08 be taken, including giving notice to the public by posting a notice on the City of Mississauga's website for a two week period, where the expiry of the two week period will be at least one week prior to the execution of an agreement for the sale of subject lands.

Executive Summary

- That the City-owned lands at 46 William Street were utilized as a public works yard until 1990 and are now surplus to the City requirements.
- It is proposed that a portion of 46 William Street identified as Part 6, Plan 43R-20224, being comprised of approximately 249.8 square metres (2,688.82 square feet), be declared surplus for the purpose of sale to the adjacent owner of the railway corridor, The Ontario and Quebec Railway Company/The Credit Valley Railway Company, at fair market value.
- It is proposed that the remainder of 46 William Street identified as Parts 1, 2, 3, 4 and 5, Plan 43R-20224, being comprised of approximately 1,070.12 square metres (11,518.67 square feet), be declared surplus for the purpose of a sale at fair market value on the open market.
- An easement shall be retained for the maintenance of the existing 900 mm municipal storm sewer infrastructure which travels beneath the property.
- An Agreement of Purchase and Sale to convey the subject property will be processed pursuant to Delegated Authority by-law 0148-2018. Should the market value of the property exceed the limits of delegated authority, staff shall report to Council to seek authority to execute an Agreement of Purchase and Sale

Background

The City is the registered owner of 46 William Street. The lands were utilized by Transportation & Works as a public works yard until February 1990.

At its meeting of November 25, 1992, Council authorized that part of the unopened Henry Street located west of William Street, described as part of Lot 78 and part of Lot 79, Plan STR-2, be closed and sold at market value to the adjoining property owners together with the surplus City-owned property at 46 William Street described as part of Lot 78, Plan STR-2. The portion of this property west of William Street, being Parts 3, 4, 5 and 6, Plan 43R-20224 was closed by By-law 0279-1994.

In January 1993, the adjacent owner at 48 William Street, Jean Watt expressed an interest in purchasing the City-owned lands, however, agreement was not reached.

Later in 1997 Joe Ponzio, President of Quickchill Mobile Refrigeration (“Quickchill”) approached the City and requested to lease the lands for storage of refrigeration trailers. The license agreement with Quickchill commenced June 11, 1998 for a term of 5 years. The license agreement has subsequently been renewed and Mr. Ponzio continues to occupy the City-owned lands.

Part 6, Plan 43R-20224, being comprised of approximately 249.8 square metres (2,688.82 square feet) extends into the railway corridor, and shall be offered for purchase by The Ontario and Quebec Railway Company/The Credit Valley Railway Company, at fair market value.

Comments

The lands were initially used as a public works yard and subsequently leased to Quickchill for storage of trailers pursuant to a license agreement commencing in June 1998.

Realty Services has completed its circulation and received confirmation that there are no concerns with the lands being declared surplus to the City’s requirements and sold. The lands shall be sold as is.

Transportation and Works advised that a minimum 8 metre wide municipal easement is to be retained over the existing 900mm municipal storm sewer which travels beneath the property.

The lands have been circulated to external utility companies and no easement protection is required. However, a municipal storm sewer easement shall be retained for the maintenance of the existing infrastructure.

Prior to the sale of the subject lands, public notice will have been given by the posting of a notice of proposed sale on the city of Mississauga’s website for a two week period, where the expiry of the two week period will be at least one week before the execution of the agreement for the sale of the said lands. This notice satisfied the requirement of the City Notice By-law 0215-2008, as amended by by-law 0376-2008.

If agreement is reached with the owner of the railway corridor or if a sale of the remaining lands are successfully negotiated, Agreements of Purchase and Sale to convey the properties will be processed pursuant to Delegated Authority by-law 0148-2018. Should the market value of the properties exceed the limits of delegated authority, staff shall report to Council to seek authority to execute any Agreements of Purchase and Sale.

Financial Impact

There are no financial impacts resulting from the Recommendations in this report. There will, however, be revenue generated to the City by any subsequent sales.

Conclusion

As the City lands identified in this report are not required for municipal purposes, it is reasonable to declare the parcel surplus to the City needs. Easement protection shall be retained in advance of disposition, as required.

Attachments

Appendix 1: Approximate location of the lands to be declared surplus

Appendix 2: Reference Plan 43R-20224 identifying the lands to be declared surplus as Parts 1, 2, 3, 4, 5 and 6



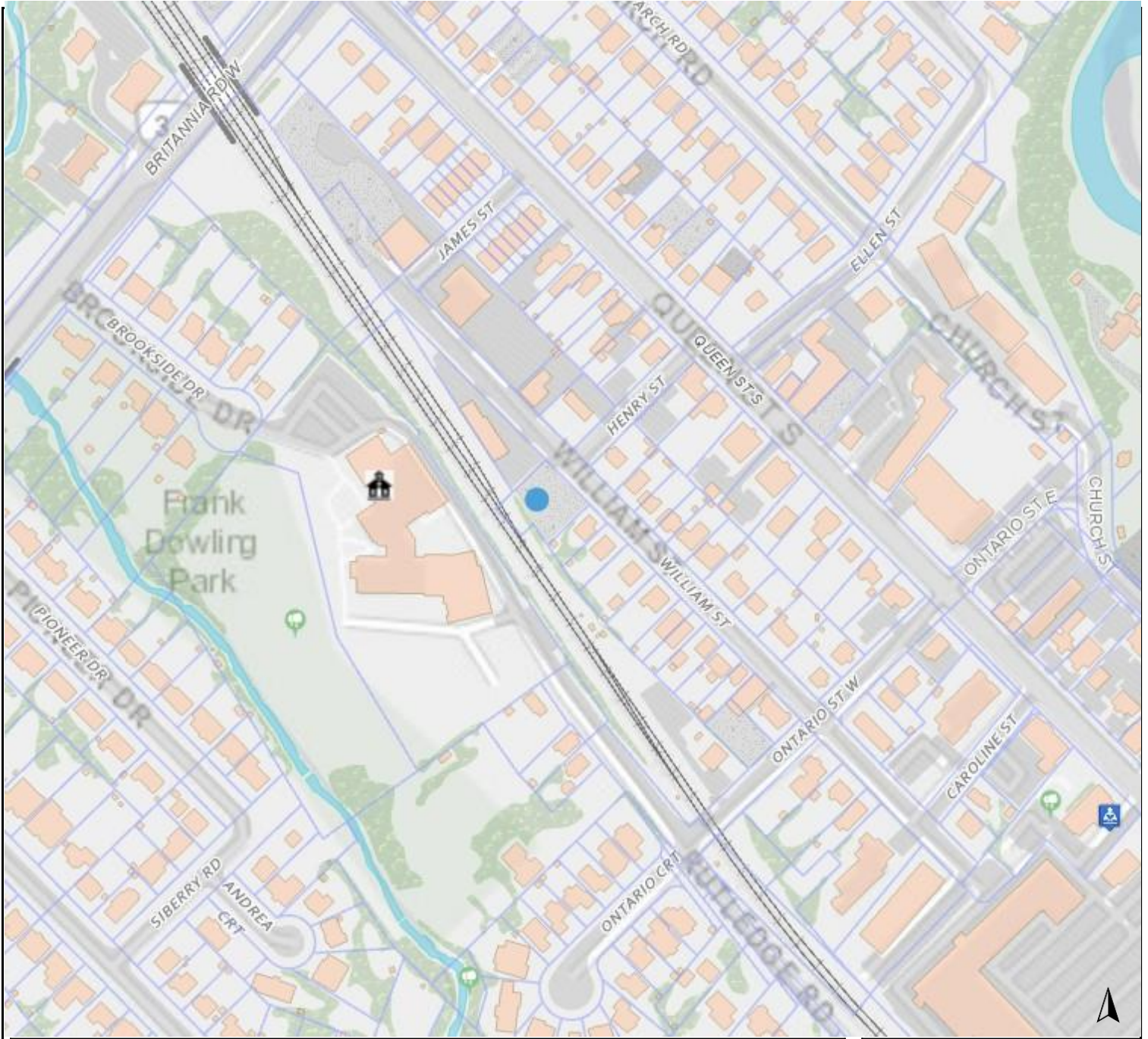
Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Susy Costa, Project Leader, Realty Services, Facilities & Property Management

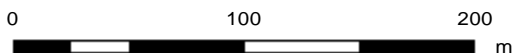


Corporate Services
Corporate Business Services,
Realty Services

Surplus Declaration, 46 William Street (PO.11.WIL)



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THIS IS NOT A PLAN OF SURVEY

Notes

Surplus Declaration, 46 William Street (PO.11.WIL)

S C H E D U L E				
PART	LOT	PLAN	INST. N ^o	AREA
1	78	STR - 2	1916 (STR)	451.8 m ²
2				19 26 m ²
3	HENRY STREET (NOT TRAVELLED)	STR - 2	PLAN STR - 2	310.6 m ²
4				90.26 m ²
5				198.2 m ²
6				249.8 m ²

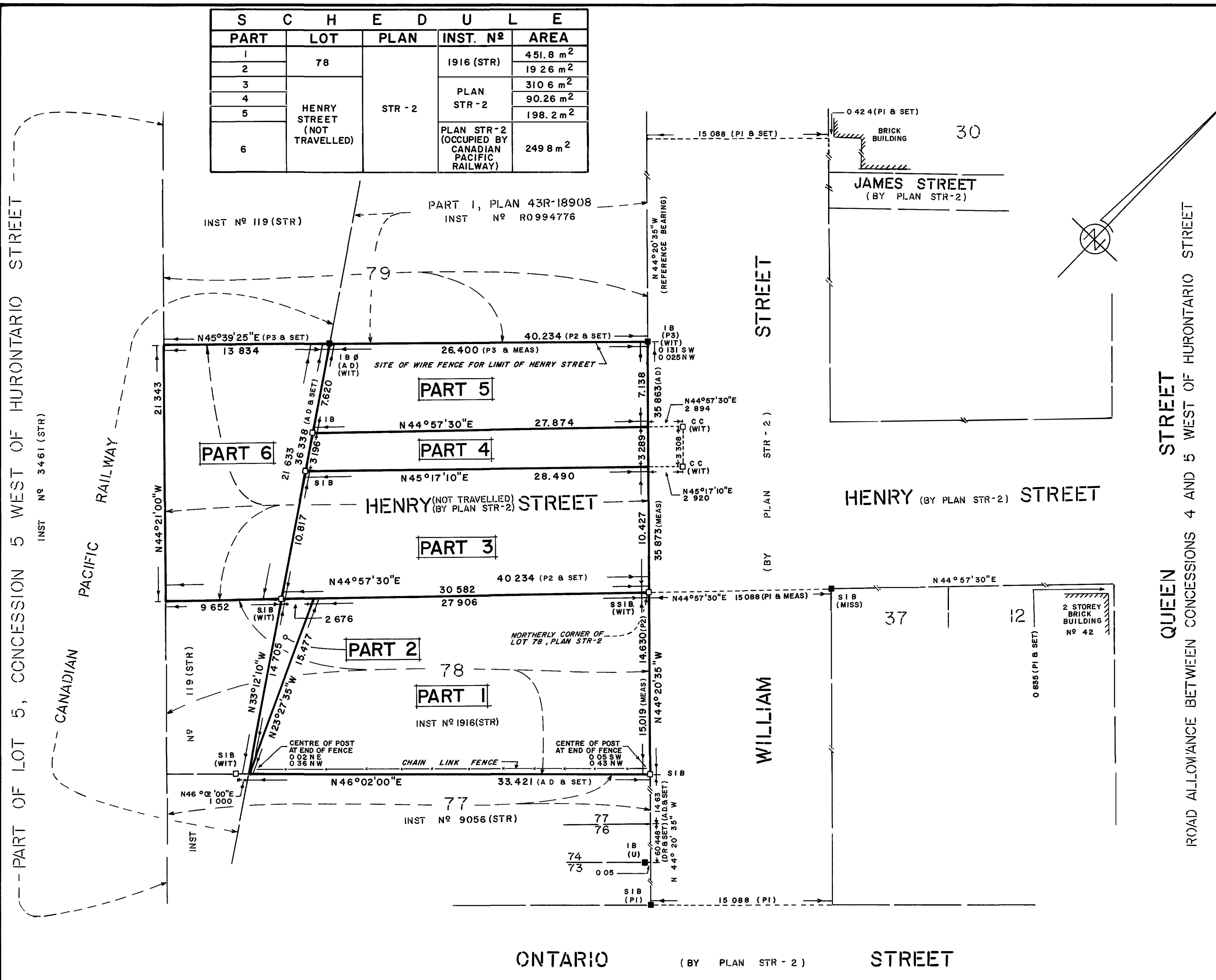
I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE REGISTRY ACT
 DATE DECEMBER 7, 1993

PLAN 43R-20224
 RECEIVED AND DEPOSITED
 DATE January 24, 1994

R. B. Lawryshyn
 R B LAWRYSHYN
 ONTARIO LAND SURVEYOR

S. Darheiser
 AND REGISTRAR FOR THE
 REGISTRY DIVISION OF PEEL (N^o 43)

CAUTION: THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT.
METRIC: DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048



PLAN OF SURVEY OF PART OF
LOT 78 AND HENRY STREET
 ACCORDING TO A PLAN OF THE VILLAGE OF STREETSVILLE
 BEING A PLAN OF
 PART OF LOT 5, CONCESSION 5 WEST OF HURONTARIO STREET
 TOWNSHIP OF TORONTO, COUNTY OF PEEL
 REFERRED TO AS
PLAN STR-2
 FORMERLY IN THE TOWN OF STREETSVILLE
 NOW IN THE
CITY OF MISSISSAUGA
 REGIONAL MUNICIPALITY OF PEEL
 R B LAWRYSHYN, O L S.
 1993
 SCALE = 1:250
 0 1 2 3 4 5 10 15 20 25 30
 M E T R E S

- BEARING REFERENCE AND LEGEND**
- BEARINGS ARE ASTROMOMIC AND ARE REFERRED TO THE SOUTHWESTERLY LIMIT OF WILLIAM STREET AS SHOWN ON PLAN 43R-18908, HAVING A BEARING OF N44°20'35" W.
 - DENOTES SURVEY MONUMENT FOUND
 - ◻ DENOTES SURVEY MONUMENT PLANTED
 - S I B DENOTES STANDARD IRON BAR
 - I B DENOTES IRON BAR
 - S S I B DENOTES SHORT STANDARD IRON BAR
 - C C DENOTES CUT CROSS
 - (MEAS) DENOTES MEASURED
 - (U) DENOTES UNKNOWN ORIGIN
 - (A D) DENOTES A DEATH, O L S
 - (D R) DENOTES D ROBERTS, O L S
 - (M I S S) DENOTES CITY OF MISSISSAUGA
 - (P I) DENOTES PLAN OF SURVEY BY CITY OF MISSISSAUGA DATED SEPT 19, 1986, FILE N^o D-22167
 - (P 2) DENOTES PLAN STR-2
 - (P 3) DENOTES PLAN 43R-18908
 - (W I T) DENOTES WITNESS
 - ∅ DENOTES ROUND

SURVEYOR'S CERTIFICATE

I CERTIFY THAT

- THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER
- THE SURVEY WAS COMPLETED ON THE 30th DAY OF JULY, 1993.

R. B. Lawryshyn
 R B. LAWRYSHYN
 ONTARIO LAND SURVEYOR

DECEMBER 7, 1993

CITY OF MISSISSAUGA
 TRANSPORTATION AND WORKS DEPARTMENT
 3185 MAVIS ROAD
 MISSISSAUGA, ONTARIO
 L5C 1T7 (416) 896-5000

APPENDIX 2