



Roads

2021-2024 Business Plan
& 2021 Budget

Foreword

Our Vision for the Future

Mississauga will inspire the world as a dynamic and beautiful global city for creativity and innovation, with vibrant, safe and connected communities; where we celebrate the rich diversity of our cultures, historic villages, Lake Ontario and the Credit River Valley. A place where people choose to be.

Mississauga City Council approved Our Future Mississauga; a Strategic Plan to achieve this vision over a 40-year timeframe. The City engaged over 100,000 people to develop this Vision Statement. To achieve this vision the City has identified five Strategic Pillars for Change: **move**, **belong**, **connect**, **prosper**, and **green**. Each year the City proposes various initiatives that are aligned with the Strategic Pillars and are intended to bring us closer to fulfilling our vision for the future. The City delivers over 300 services which are consolidated into 16 Service Areas (including the Stormwater Program) that are outlined in this Plan. The 2021-2024 Business Plan and 2021 Budget document details how and where the City plans to allocate resources to deliver programs and services.

The City is committed to providing programs and services cost effectively. In this Plan we have outlined measures that will help assess the quality, efficiency and customer satisfaction that our services achieve. The results help inform decisions on resource allocations and direct program offerings, and improve service delivery to ensure our vision is efficiently realized.

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Executive Summary of Roads

Mission: To plan, develop, construct and maintain a multi-modal transportation system which efficiently and safely moves people and goods, respects the environment, supports the development of Mississauga as a 21st century city and serves the municipality’s social, economic and physical needs.

Services we provide:

- Planning, design, construction, operation and maintenance of roadways, bridges, cycling network, sidewalks, noise walls and related infrastructure
- Management of the City’s traffic signals, streetlighting, municipal parking, and fleet of vehicles (with the exception of transit and fire vehicles)

With a continued focus on urban mobility, asset management, service delivery, and our people and culture, the Roads Service Area is poised to continue to provide responsible road-related infrastructure services.

Interesting facts about this service:

- Our transportation infrastructure is the largest asset owned and operated by the City of Mississauga with a replacement value of \$5 billion and is made up of bridges, culverts, roads, noise walls, the active transportation network, public parking lots, and the streetlight and traffic signal systems
- The City has 5,682 lane kilometres of road network
- The City’s cycling network includes approximately 594 kilometres of multi-use trails, park paths, bicycle lanes and signed bike routes
- The cycling network laid out in the 2018 Cycling Master Plan update will result in 897 kilometres of infrastructure to be built over 27 years

Highlights of the Business Plan include:

- Progressing toward Vision Zero by making capital and operating investments to implement the Transportation Master Plan (TMP) and its Action Plan
- Continuing Transit Project Assessment Processes (TPAPs) and Environmental Assessments (EAs) for key transit projects – Dundas Bus Rapid Transit (BRT), Lakeshore Higher Order Transit (HOT) and the Downtown Mississauga Terminal and Transitway Connection (DMTTC)
- Capital investments in major roads such as the Goreway Grade Separation and Active Transportation facilities
- Maintaining service levels by making operating investments, and improving customer service through Lean initiatives
- Developing a robust, comprehensive and integrated asset management plan for all road-related infrastructure including addressing the ongoing pressures on our Roadway Rehabilitation Program
- Ongoing work on the Yard Master Plan to determine the long-term yard replacement/upgrade strategy
- Continuing investment in the streetlighting program

Net Investment (\$000s)	2021	2022	2023	2024
Operating	66,766	67,803	68,612	67,851
Capital	85,039	82,312	80,026	77,355
Full Time Equivalents	475.9	493.9	505.4	510.4

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

Vision

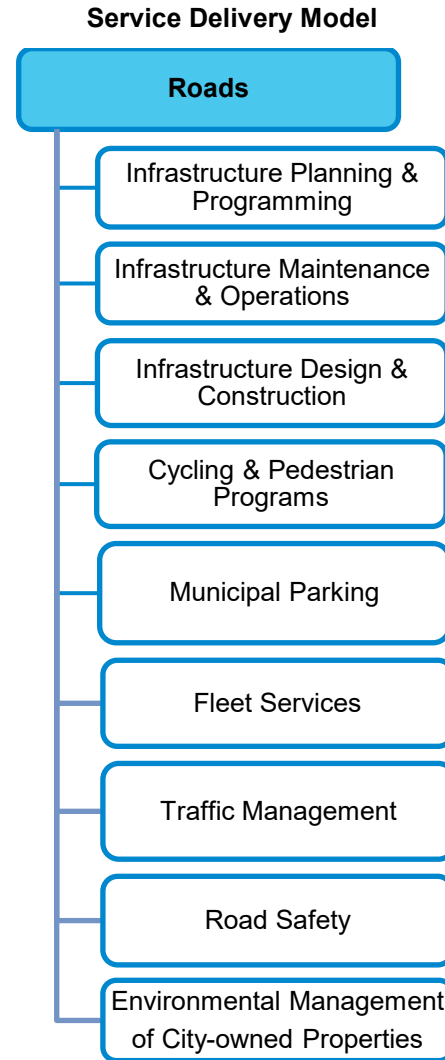
To deliver a world-class transportation network while upholding community standards and enhancing quality of life.

Mission

To plan, develop, construct and maintain a multi-modal transportation system which efficiently and safely moves people and goods, respects the environment, supports the development of Mississauga as a 21st century city and serves the municipality's social, economic and physical needs.

Goals of Service

- **Maintain** our infrastructure in a state of good repair, with focus on a safe and efficient urban mobility system
- **Plan, design, and construct** an adaptable transportation network for all users and modes of transport
- **Deliver** quality and timely departmental services
- **Apply** progressive asset management practices to achieve cost containment and value for money
- **Recognize and develop** employees and create an empowered employee culture to meet current and future challenges



Response to COVID-19

Roads teams have continued working throughout the COVID-19 pandemic to provide services to Mississauga residents and businesses, performing emergency and essential work and supporting the work of other divisions across the City. During the pandemic, Roads teams have managed the increased service demand and urgency in a resilient, innovative and safe manner.

Resilient and Adaptive Solutions

Essential Services teams have kept up with demand by adapting staffing to manage onsite tasks and diverting staff resources where possible to focus on priority work. The various sections have stepped up to maintain satellite work sites at Works yards, implementing rotating shifts to allow response to after-hours service requests and to ensure that critical seasonal and maintenance work is ongoing to keep City infrastructure in good, safe condition. Teams have adapted their workspaces to follow COVID-19 safety guidelines, established new vehicle cleaning protocols and procured required personal protective equipment and cleaning supplies, in addition to delivering regular services and maintaining City vehicles.

Innovative, Creative and Attentive Service

Working offsite, teams have continued to provide services through mobile technology and innovative business solutions. Staff have remotely managed the Advanced Transportation Management System (ATMS) and the municipal parking system; reviewed and commented on all *Planning Act* applications digitally; electronically tendered and awarded all construction contracts; and developed “virtual” public consultation strategies. Moreover, staff have continued to administer contracts both from home and on the road, ensuring important repair work and construction of new infrastructure remains effective, efficient and fiscally responsible.

Safety and Customer Service

Staff health, wellness and safety have remained a top priority in delivering essential services. By adapting existing business processes to allow customers and staff to interact virtually, and as a result safely, the review and approval of various applications continued uninterrupted. This allowed essential construction to continue on City roadways.

Roads staff have supported urgent and essential tasks in massive numbers, often responding overnight or within 48 hours. They helped in executing the City’s temporary park closures, printing and installing hundreds of signs; putting up barriers at parking lots, facilities and parks; and erecting temporary Active Transportation lanes, all while continuing important daily work. Speed management was also advanced by using new treatments such as bollards and quiet streets. Throughout the pandemic, routine operations and maintenance have continued on critical infrastructure such as traffic signals and streetlights.



Installation of temporary Active Transportation Lane on King Street in Cooksville

Service Levels and Trends

The management of infrastructure assets is accomplished through a number of operational activities; the existing service levels for these activities are summarized below.

Infrastructure Programming: Develop an appropriate 10-year Capital Budget in accordance with lifecycle asset management practices and meet budget preparation and construction timelines.

Long-range Planning and Policy Development: Develop and implement appropriate plans and strategies to guide decision-making.

Transportation Master Plan: The City's first Transportation Master Plan (TMP) was approved in 2019 and identifies 91 action items that will allow Mississauga to achieve its vision for mobility for 2041. There are 57 action items that are to be initiated in the first five years, six of which have been completed.

Road Safety: The TMP places a great emphasis on road safety and has identified 32 action items that will improve safe conditions for all road users and support Vision Zero, 24 of which are to be initiated in the first five years.

Traffic Control Signals: Repair or replace all traffic control signals within times specified in the Minimum Maintenance Standards.

Pavement Marking Maintenance: Re-apply all white pavement lines on streets twice per year and all yellow pavement lines on streets once per year.

Roadway Sign Maintenance: Replace all stop signs that are broken, damaged, illegible, improperly oriented or missing within three hours of being notified.

Active Transportation: Plan annual sidewalk and cycling network programs in accordance with the Cycling Master Plan and transit accessibility priorities. Develop and implement

transportation demand management initiatives to encourage and foster sustainable transportation.

Winter Maintenance: Clear all major arterial and collector roads, priority sidewalks and bus stops within 12-24 hours, and residential roads within 24-36 hours, depending on accumulation.

Customer Service: Respond to all emergency-related service requests as soon as practical, and investigate all non-emergency service requests within three days and respond within 10 days.

Bridges and Culverts: Inspect all bridges and culverts every two years (by a qualified engineer) and maintain in a safe condition.

Average Road Network Condition: Assess roadway pavement conditions every four to five years in accordance with provincial and industry standards, and maintain in a safe condition.

Traffic Management: Manage traffic operations in accordance with provincial regulations and design standards.

Streetlighting: Maintain and operate the streetlight network in accordance with established service response times. Respond to malfunctioning lamps within the range of 24 hours to 10 business days based on the location and quantity.

Capital Construction: Adhere to all provincial standards and codes for construction and safety.

Municipal Parking: As Mississauga grows through intensification, the Parking Master Plan provides the City with the framework for developing, maintaining, and managing municipal parking infrastructure.

Fleet Services: Ensure that vehicles and equipment are ready when required. Maintain an excellent compliance rating with our Ministry of Transportation fleet inspections and Commercial Vehicle Operator's Registration. Green the fleet.

Trends

Mississauga continues to mature as a city. Aging infrastructure, public demand for increased road safety and the need to balance service levels with affordability pose significant pressures and challenges for this Service Area.

The Roads Service Area, in partnership with Corporate Asset Management, continues to work on the Asset Management Plans for the City's infrastructure to meet the requirements of Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure. The Asset Inventory and Management Program will accelerate the City's current plans to prepare inventories, condition assessments, replacement values, and management plans for all City-owned assets within municipal roads and other rights-of-way. It will also streamline and improve the way the City uses technology to manage and access asset inventory information, improve service delivery processes, and improve decision-making for maintenance and renewal investments.

The City approved a comprehensive Transportation Master Plan (TMP) in 2019 to address all aspects of transportation in Mississauga over the next 25 years, and its implementation is underway. The TMP developed a consolidated vision for the future of mobility in Mississauga and established an overarching policy framework and action plan to guide investment in transportation infrastructure and services. As more people travel to, from, around and through Mississauga without driving their own cars, the City looks for new ways to enhance our existing infrastructure, so that past investments continue to serve present needs well into the future.

“In Mississauga, everyone and everything will have the freedom to move safely, easily, and efficiently to anywhere at any time.”

Road Safety remains a high priority and can be seen in City Council's decision to adopt Vision Zero, a framework that focuses on preventing and ultimately eliminating all pedestrian, cyclist and

motorist fatalities and injuries on city streets. In a Vision Zero city, safety is prioritized over factors that traditionally influence transportation decision-making, such as cost, vehicle speed and delay, and vehicular level of service. The Neighbourhood Area Speed Limit Project, an initiative approved by Council, will lower neighbourhood speed limits city-wide in an effort to reduce vehicle operating speeds and create safer neighbourhood roadways. In order to achieve operating speeds appropriate for lower speed limits, the implementation of a robust Neighbourhood Speed Management Program is necessary.



The Roads Service Area continues to invest in infrastructure enhancements to support Vision Zero, including Automated Speed Enforcement (ASE), Automated School Bus Cameras, and pursuing a future technology in the form of Red Light Cameras. On June 24, 2020, Council approved the implementation of ASE, an important technology tool intended to supplement existing police enforcement in order to reduce vehicle speeds and deliver on the actions in our TMP and advance Vision Zero. The City is taking a thoughtful and planned approach to implementing ASE in Mississauga to ensure it is aligned with new provincial regulations and effective for years to come.

The ongoing development of a proactive Advanced Transportation Management System (ATMS) will allow the City to actively monitor travel conditions, influence the operation of traffic signals, disseminate information and interact with transportation modes and agencies, with an overall view to reducing congestion and its effects on the road network.

A key component of mobility within Mississauga now and in the future is ensuring that appropriate investments are made in higher order transit initiatives. As a result, the City is carrying out Transit Project Assessment Processes (TPAPs) and Environmental Assessments (EAs) for key transit projects – Dundas BRT, Lakeshore HOT Corridor and the Downtown Mississauga Terminal and Transitway Connection (DMTTC). Funding for these projects can be found in the Transit Service Area; however, the projects themselves will be delivered by staff within the Roads Service Area to ensure full integration with all of the City's transit and road network initiatives. The completion of these studies will position the projects well to obtain funding from senior levels of government and to proceed to detailed design and construction.

There is a growing need for the City to provide municipal parking to meet increasing demand and for city-building. To assist with this, the City completed its first Parking Master Plan and Implementation Strategy (PMPIS), which was approved by Council in 2019. The plan outlines how local parking will evolve as the City continues to grow and transform, and provides direction on the purpose and intent of parking policy and operations. Implementation of the PMPIS will improve the state of parking in the City by right-sizing requirements and modernizing parking permits and permissions that will support the City's Strategic Plan.

As a result of increasing public demand for accessible infrastructure, coupled with legislative requirements, Mississauga is becoming a more accessible city. There is pressure on the Roads Service Area to design, operate and maintain accessible road-related infrastructure. Meeting and exceeding these accessibility standards, and providing mobility options for everyone, is an evolving practice for this Service Area.

Overarching themes for the Roads Service Area continue to be public safety, responsible delivery, and maintenance of infrastructure in a state of good repair. Accessibility is also

affecting maintenance, particularly winter maintenance – the Service Area is making bus stops and priority sidewalks more accessible by conducting winter maintenance sooner. In addition, in November 2021 the new winter maintenance contract will be in place which provides for more effective and efficient winter maintenance and enhanced salt management practices.



Snow plowing on priority sidewalk

A modern Fleet Management Information system (FMIS) will be implemented in 2022. 'Faster' is the FMIS that Fleet Services and Fire Services use to manage the lifecycle, from acquisition to disposal, of all Fleet assets. An upgrade to 'Faster WEB' will support the ongoing efforts in both Fleet Services and Fire Services to find efficiencies, lower the total cost of ownership and maximize the value of each asset.

Looking internally, with changing trends in workforce demographics, it is critical for the City to proactively implement talent management and succession planning strategies. There are several initiatives underway to attract, develop and retain staff within the Roads Service Area. These include internship programs, in-house training opportunities, and divisional support resources.

Performance Measures and Results

The City of Mississauga is committed to delivering services economically and efficiently. The City's performance measures are used to help assess how well we are doing at achieving our goals and where we need to improve operations. The results also inform decision-making and strengthen accountability.

Balanced Scorecard

A Balanced Scorecard groups measures in four key areas of an organization's performance: Financial, Customer, Employee, and Business Process. By paying attention to all four areas, an organization can retain balance in its performance and ensure that it is moving toward the attainment of its goals.

Below are descriptions of the measures tracked in the Roads Balanced Scorecard. The Balanced Scorecard table that follows shows trends since 2017 and expected outcomes up to 2024.

Financial Measures

Average road and bridge/culvert maintenance cost per m² of surface area is a measure of the City's ability to manage cost pressures associated with aging infrastructure, while providing consistent services levels.

Average winter maintenance operating cost per lane km is a measure of the City's ability to balance winter maintenance operating costs with defined service levels.

Annual gross parking revenue is a measure that describes the revenue the City realizes from fees charged for parking. Any surplus parking revenues are transferred to the parking reserves and funds from the reserves are used for parking improvements, initiatives and capital projects.

Customer Measures

Citizen satisfaction with road services indicates how satisfied residents are with road safety, streetlighting, snow removal, and

the pedestrian-friendliness and cyclist-friendliness of roads.

Citizen satisfaction with road safety indicates how satisfied residents are with their perceived level of safety while using the roads for various modes of transportation and leisure.

Employee Measures

The Employee Engagement Survey is completed once every three years (2018, 2021 and 2024).

Overall job engagement indicates the extent to which employees feel engaged in decision-making at the City.

Employee satisfaction measures the extent to which employees value, enjoy, and believe in what they do.

Business Process Measures

Percentage of roads in good condition or better measures the City's ability to manage lifecycle asset management programs for roads. Pavement condition surveys are conducted every four to five years, whereby a condition rating based on Ontario Ministry of Transportation standards is applied to every City-owned road in Mississauga. For this measure, there is a minimum service level target of 70 per cent.

Percentage of bridges and culverts in good condition or better is a measure that indicates the City's ability to manage lifecycle asset management programs for bridges and culverts. Mandatory bridge and culvert condition surveys are performed every two years, whereby a condition rating is applied to every City-owned bridge and culvert in Mississauga. For this measure, there is a minimum service level target of 85 per cent.

Percentage of time that winter maintenance response times are met measures the frequency with which the City meets its service level objectives for winter operations.

Balanced Scorecard

Measures for Roads	2017 (Actual)	2018 (Actual)	2019 (Actual)	2020 (Plan)	2021 (Plan)	2022 (Plan)	2023 (Plan)	2024 (Plan)
Financial:								
Average road operating cost per lane km ¹	\$2,155	\$1,922	\$1,866	\$1,959	\$2,057	\$2,160	\$2,268	\$2,382
Average bridge/culvert maintenance cost per m ² of surface area ¹	\$4.38	\$5.50	\$5.49	\$5.77	\$6.05	\$6.36	\$6.67	\$7.01
Average winter maintenance operating cost per lane km ¹	\$3,595	\$3,955	\$4,408	\$4,408	\$4,591	\$4,897	\$4,980	\$5,065
Annual gross parking revenue (\$000s)	\$2,449	\$2,383	\$2,700	\$1,874	\$1,829	\$2,439	\$2,439	\$2,439
Customer:								
Citizen satisfaction with road services ²	70%	N/A	69%	N/A	68%	N/A	67%	N/A
Citizen satisfaction with road safety ²	79%	N/A	73%	N/A	75%	N/A	77%	N/A
Employee:								
Overall job engagement	N/A	70%	N/A	N/A	72%	N/A	N/A	74%
Employee satisfaction	N/A	75%	N/A	N/A	77%	N/A	N/A	79%
Business Process:								
Percentage of roads in good condition or better ¹	62%	62%	51%	49%	45%	43%	41%	39%
Percentage of bridges and culverts in good condition or better ^{1,3}	86%	86%	83%	85%	85%	85%	85%	85%
Percentage of time that winter maintenance response times are met	100%	100%	100%	100%	100%	100%	100%	100%

¹ Municipal Performance Measurement Program (MPMP) definitions are used

² The Mississauga Citizen Satisfaction Survey is completed once every two years (2017, 2019, 2021, and 2023)

³ This measure has been modified in the current Business Plan to include bridges together with culverts

Awards and Achievements

Awards

The City's first Transportation Master Plan was recognized by the Ontario Traffic Council (OTC) with its **2020 Transportation Planning Project of the Year Award**. This plan outlines a vision, six goals and over 90 action items to guide the future of the City's transportation system from today to 2041.

The Institute of Transportation Engineers (ITE) awarded the **2019 ITE Toronto Section Project of the Year** to the Lakeshore Connecting Communities Transportation Master Plan. The plan sets out a long-term vision for transit and corridor improvements along Lakeshore Road from 2020 to 2041 that will support waterfront development.



ITE 2019 Project of the Year Award – Lakeshore Connecting Communities

A cross-departmental team led by the Works Operations and Maintenance Division was the recipient of the City's **2019 Corporate Award** for Innovative Business Solutions for the Public Utilities Co-ordination Committee's new online review and permit application system.

All four works yards received the Award for Continuing Excellence in Storage in 2019 from the Salt Institute in recognition of superior environmental management of the salt storage facilities.

Achievements

Since the approval of the Transportation Master Plan in May 2019, six short-term actions have been completed and 51 actions are underway.



Transportation Master Plan Implementation

A one-side on-street Parking Pilot Project has been implemented in Ward 10, in partnership with the Enforcement Division, to assist in snow removal operations. This has resulted in improved response times and a reduction in instances of local roadways being left incompletely cleared due to snow clearing equipment being unable to pass.

The City's commitment to Vision Zero, a strategy identified in the TMP to eliminate all traffic fatalities and injuries, has been advanced with the installation of physical traffic calming (speed humps) on 13 roadways. As of September 2020, passive traffic calming measures have been installed at 307 locations (64 pavement marking applications, 243 speed awareness device deployments). The Neighbourhood Area Speed Limit Project has been implemented in the first 12 neighbourhoods.



Traffic calming on Redstone Road

The construction of the Second Line West Active Transportation Bridge over Highway 401 has been completed. It opened to pedestrians and cyclists in the summer of 2020.



Second Line West Active Transportation Bridge over Highway 401

Greening our fleet:

- The replacement of ice resurfacers in the City's recreation facilities with fully electric units is being continued. There will

be six Battery Electric Ice Resurfacers serving City ice rinks by the end of 2020

- Two fully electric salt storage stackers have been added at Works yards, and are ready for winter maintenance of City roads and sidewalks
- The City's first all-electric grass maintenance crew was created, featuring battery electric zero-turn mowers, trimmers, blowers, and push mowers

The construction of the Torbram Road grade separations at the Metrolinx and CN rail crossings near Rena Road was substantially completed in August 2020. The \$100 million, five-year project provides safe pedestrian and vehicle traffic movement across both busy rail crossings by eliminating the level crossing.



Completion of Torbram Road grade separation

The Road Occupancy Permit By-law has been redesigned to clearly define permit requirements, ensure protection of City infrastructure and improve administration and enforcement.

Emergency and Unplanned Projects

The Roads Service Area continues its involvement in leading the response to significant weather events including high water levels along Lake Ontario and monitoring and responding to Flood Alerts.

The 2021-2024 Business Plan Outlook

Planning for the Future

Urban Mobility

The City landscape is changing. Future transit and infrastructure demands require planning, development and implementation of our forward-thinking Master Plans (the Transportation, Cycling and Pedestrian Master Plans) to position ourselves as a progressive Service Area and municipality. As part of this, Roads will be looking to deliver on the short-term action plan items coming out of the TMP over the next few years.

Regional transit planning, with a focus on multi-modal transportation, is a key element of our Master Plans. The City will be initiating or continuing TPAPs and EAs for the Dundas BRT, the Lakeshore HOT Corridor and the DMTTC in 2021. These transit projects will build on the extensive public stakeholder engagement that was conducted as part of the Dundas Connects Master Plan and Lakeshore Connecting Communities Transportation Master Plan. Funding for these projects can be found in the Transit Service Area’s Business Plan and Budget.



Changing Lanes graphic

The City has initiated the *Changing Lanes* Project, which will update, develop and implement new tools to ensure our streets are safe and more convenient for all users. The scope of the project includes development of a new road classification system and “Complete Streets” guidelines, as well as prioritizing street improvement projects and updating the City’s road design standards.

With the implementation of the Hurontario Light Rail Transit (HuLRT) Project, there will be additional long-term operations and maintenance costs associated with the enhanced streetscape and “Complete Street” requirements of the project that will have to be accommodated within future operating budgets. Additional operations and maintenance costs will arise from wider sidewalks, boulevard cycling facilities, decorative paving treatments, and enhanced crosswalk paving treatments; street furniture including benches, bike racks, and waste receptacles; and bollards, retaining walls and noise walls. Additional snow removal will also be required within the boulevard areas to address the cycling facilities, wider sidewalks and general lack of snow storage opportunities with the enhanced streetscape elements.



Rendering of the HuLRT Port Credit stop

Phased implementation of the Cycling Master Plan will allow the City to continually improve its multi-modal transportation system and resources available to residents. Implementation strategies and funding for initiatives such as the Transportation Demand Management Strategy and the Tour de Mississauga will encourage the use of more sustainable transportation options including cycling, walking, using transit and carpooling.

Asset Management

In 2017, the Province of Ontario introduced Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure, which came into effect on January 1, 2018. The regulation required all municipalities to prepare and publish the following: a Strategic Asset Management Policy by July 1, 2019; enhanced Asset Management Plans for core infrastructure – which includes roads and bridges – by July 1, 2021; and enhanced Asset Management Plans for all remaining non-core assets by July 1, 2023.

On June 5, 2019, the City's Strategic Asset Management Policy was approved by Council and in 2020, the Roads Service Area, in partnership with the Corporate Asset Management Office, has worked towards completing the Asset Management Plans for the City's roads and bridges.

In 2021, the Roads Service Area will be turning its attention towards developing Asset Management Plans for the non-core assets within the service area. The Business Services Business Plan includes funding to advance asset inventory and management plans for traffic signals, street lights, municipal parking facilities, road signage, sidewalks, multi-use trails, and other infrastructure within the municipal public right-of-way beginning in 2021. Central to this plan is the collection of detailed right-of-way infrastructure information using mobile Laser imaging, Detection And Ranging (LiDAR) technology. This technology scans the various assets within the right-of-way with sufficient detail to identify and locate them, so they may be compiled into inventories. The Business Services Business Plan has also identified funding to enable the Roads Service Area to use the compiled inventories to start to develop management plans for all of its non-core assets. Development of Asset Management Plans for non-core assets will be prioritized, and plans for higher-priority non-core assets will be completed by July 1, 2023. Future iterations of the City's Asset Management Plans will continue to be expanded to capture all Roads-related assets.

Service Delivery

The City has grown substantially over the last 20 years and development continues to intensify. In addition, demand for roads maintenance and higher service levels is increasing, particularly for winter maintenance. In order for the Roads Service Area to meet maintenance and operational service levels in the coming years, a Yards Master Plan is being developed with a view to determining the Roads and the Parks, Forestry & Environment Service Areas' short-, medium- and long-term yard requirements.

Given the more urban and congested environment of the City, the review of development applications and their transportation-related components has become more complex in nature. Investment in an additional Development Construction Technologist is planned for 2021 in order to meet service level standards for the review of development applications and building permits.

People and Culture

The Roads Service Area is actively preparing for the coming changes in our workplace demographics. With 26 per cent of our workforce being eligible to retire in the next five years, effective succession planning and talent management strategies are essential. These strategies will also be integral to fostering a culture of employee innovation and satisfaction going forward.

The Works, Operations and Maintenance (WOM) Division continues to implement its Supervisory Development Program, which ensures that we develop staff to be ready to take on more responsible roles.

Building on the success of the Engineering Internship Program, a Technologist Internship Program was initiated in 2019 and its expansion is proposed in 2024. The program allows us to develop trained and knowledgeable technologists that will be qualified to take on permanent positions that become available due to retirements.

Finding Efficiencies

Lean Program

The City's Lean Program focuses on strengthening the organization's culture of continuous improvement and instills Lean concepts and principles as a way of work in every Service Area. The program focuses on maximizing customer value and minimizing waste along with empowering staff at all levels to problem-solve on a daily basis. Since becoming permanent in 2016, the Lean program has produced such enhancements as improved customer experience, faster processing times, higher quality and lower costs.

Highlights of the many projects and improvements completed include:

- Public Utilities Co-ordinating Committee (PUCC) Process – updated and improved current business processes and technical solutions to reduce turnaround time for PUCC review by 77 per cent, resulting in a projected five year benefit of \$4.7 million in cost gains
- Engineering Submissions: Subdivisions/Lifting of 'H' Applications – reduced the lead time by 64 per cent by consolidating the Planning Application review, Agreement review and Engineering Submission review into one stream, resulting in freed staff capacity of 2,089 hours per year and a cost avoidance of \$117,657
- Signs and Pavement Markings Intake Process – reduced the touch time for the Supervisors to assess service requests by 61 per cent and maximized the functionality of INFOR to improve tracking of work, which resulted in an annual cost benefit of \$200,000; 3,200 hours of staff capacity freed; and 10,480 pieces of paper eliminated
- Consulting Services Roster – reduced lead time by more than 90 per cent by streamlining the procurement process, resulting in nearly 1,000 hours saved and an annual cost avoidance of \$62,500
- Traffic Signals Communications – freed up 1,233 hours of staff time and realized a cost avoidance of \$59,700 by proactively implementing traffic congestion mitigation measures as they pertain to road construction projects
- Delegation of Authority to Staff for Traffic Regulation Changes – reduced lead time by 97 per cent and staff touch time by 89 per cent by eliminating the requirement for a formal corporate report, providing designated authority to the Commissioner to approve. This resulted in an annual cost avoidance of \$20,400 and in 295 hours saved

Completed Initiatives					Total Benefits	
Improvement Type	2014 – 2018	2019	Up to Sep 2020	Total	Type	Total
Small Improvements	208	206	69*	483	Cost Savings and Avoidance	\$3,975,114
Rapid Improvements	6	9	7	22	Customer Service Improvements	303
Projects	7	3	2	12	Safety Improvements	98
Total	221	218	78	517	Environmental Improvements	154
In-progress Initiative	Goals of the Initiative					
Streetlighting Recoverable	Review and streamline the current process by processing invoices for damaged streetlighting infrastructure within the limitation period allowed by law, thereby increasing revenue recovered from third parties for damage costs					
Access Modification Permit Process	Improve the quality of information dissemination; reduce the efforts required for managing requests and for adherence to service levels					
Storm ON1Call Review	Reduce staff time in preparing, processing and storing documentation by 30 per cent, and reduce the overall lead time for administration and field staff by 20 per cent					
Signage and Markings in Capital Projects	Reduce or eliminate the lag time between the end of the capital construction component and the installation of signs and markings					
Bids Pricing Data Collection	Standardize spreadsheet that designers use to get prices and apply Lean 5S tool principles to reduce the amount of search time by 20 per cent, improve accuracy and update pricing by 20 per cent, decrease the number of steps in manual entry by 20 per cent, use a central repository common to all users and access more data to make more confident estimates					

Due to COVID-19, staff have been focused on sustaining critical operations. As a result, many improvements and innovations have not yet been fully logged into the system, impacting the reported results.

Advancing the City's Strategic Plan

The City's Vision and Strategic Plan are the starting points for our annual business planning and budgeting cycle. The 40-year Strategic Plan, Our Future Mississauga, is built on five pillars — **move, belong, connect, prosper, and green**. Business Plans are designed to strengthen aspects of these pillars to support the attainment of Mississauga's Vision.

Below are examples of how the initiatives of the Roads Service Area relate to the Strategic Plan pillars.

move – developing a transit oriented city

- Actively developing and implementing master plans, programs and projects that encourage transit usage, including the TMP, the Transportation Demand Management Strategy, and various Metrolinx initiatives
- Initiating/continuing TPAPs and EAs for the Dundas BRT, Lakeshore HOT corridor and the DMTTC
- The ATMS will allow staff to better respond to changing traffic conditions, and adjust traffic signals at busier times to keep the City moving. ATMS will also allow Transit Signal Priority at some intersections to provide more priority to buses
- Municipal Parking through the PMPIS will improve the state of parking in the City by right-sizing requirements and modernizing parking permits and permissions that will support the City's Strategic Plan
- Prioritizing faster winter maintenance on priority sidewalks and at bus stops

belong – ensuring youth, older adults and new immigrants thrive

- Continuing to meet and exceed *Accessibility for Ontarians with Disabilities Act* requirements through the installation of tactile warning strips and audible pedestrian signals

- Ensuring those with accessibility needs can navigate the public right-of-way safely during construction works on City streets

connect – completing our neighbourhoods

- Advancing our Vision Zero goals through the recruitment of our Vision Zero Program Lead and initiating the various safety-related action items identified in the TMP
- Environmental assessments are underway to complete our road network
- Sidewalk improvement initiatives keep our existing network in a state of good repair, allowing residents to navigate sidewalks safely and increasing walkability in neighbourhoods
- Improving how we communicate with residents and property owners about our Capital Works Program will ensure that they are kept informed and allow the construction projects to be delivered safely and efficiently
- Effectively addressing vehicle operating speeds will keep our residents connected in an environment made safer for everyone
- Enhancing how development applications are processed will ensure the City's ongoing support of intensification, and ensure conformance with the provincial Growth Plan
- The 2018 Cycling Master Plan provides a framework for increasing the amount of safe, connected, convenient and comfortable cycling infrastructure that will contribute to safer cycling in our city and ultimately achieve our vision of increasing the number of residents who choose to cycle

prosper – cultivating creative and innovative businesses

- Providing a road, transit, and pedestrian network that supports our corporate centres to ensure fast and efficient access to these employment nodes
- Businesses rely on strong utility infrastructure day-to-day and Technical Services resourcing is being requested to improve monitoring of utility companies' compliance to industry, City and provincial standards

green – living green

- Cycling and walking are embedded in our Strategic Plan; cycling and pedestrian facilities translate into a healthier, more environmentally-friendly, multi-modal city
 - The phased implementation of the Cycling Master Plan and the development of Pedestrian and Transportation Demand Management Strategies ensure that more green infrastructure and transportation options are to come
 - Improved monitoring of maintenance works by utility companies will support the City's commitment to protecting the environment, including the proper restoration of sod/grass and protection of trees
- The Fleet Operator Training program will align with the Climate Change Action Plan (CCAP) by developing and implementing a driver training program that will reduce fuel consumption and vehicle idling
 - Strengthening the LED streetlight system performance will lead to reduced energy consumption

Transforming our Business with Technology

Technology plays a critical role in the delivery of efficiencies for the Roads Service Area. Through updating existing technology systems and bringing new systems online, the Roads Service Area will continue to improve service delivery and focus on increasing efficiencies, for internal business processes and for our residents as well.

Achieving Cost Savings and Driving Efficiencies

Fleet Management Information System

A modern Fleet Management Information system (FMIS) will be implemented in 2022. An upgrade to 'Faster WEB' will support the ongoing efforts in both Fleet Services and Fire to find efficiencies, lower the total cost of ownership and maximize the value of each asset.

Telematics Project

A new Telematics (TMX) contract will be implemented for the winter of 2020/2021. The potential return on investment for a new TMX solution directly relates to successful implementation, contract management and system management to achieve the initial goals of reducing idling and winter road salt consumption.

Smart Streetlight Monitoring System

The City incorporated advanced streetlighting technology into its infrastructure, which allows remote controlling and monitoring of streetlights, reducing electricity and maintenance costs. The Streetlighting Unit is participating in a 5G Pilot Project to explore how, where, and when 5G will be deployed within the City.

Leveraging Technology to Improve Service Delivery

Advanced Transportation Management System (ATMS)

Implementation of the ATMS continues with a demonstration pilot of **Intelligent Transportation System (ITS)** initiatives along

the Dundas Street corridor between Ninth Line and Mississauga Road. The pilot will enable adaptive/responsive traffic controls to automatically adjust traffic signal timing and provide motorists with prevailing travel times. The ongoing development of a proactive ATMS will allow the City to actively monitor travel conditions, influence the operation of traffic signals, disseminate information and interact with transportation modes and agencies, with an overall view to reducing congestion and its effects on the road network.

PUCC Dynamic Portal

A new Public Utilities Co-ordination Committee (PUCC) INFOR Dynamic Portal will replace outdated manual business processes, automating them and enabling the PUCC members to use the City's system and co-ordinate work effectively and efficiently.

MIRA for Service Requests

The Service Request process for the Signs and Pavement Marking Unit has shifted to Mississauga Internal Request Application (MIRA), which is an automated system that ensures requests include important details, helps create work orders and tracks production and budget from project start through installation.

Automated Speed Enforcement (ASE)

Traffic Management continues to invest in infrastructure enhancements to support Vision Zero, including Automated Speed Enforcement, Automated School Bus Cameras, and pursuing a future technology in the form of Red Light Cameras. Council approved the implementation of ASE on June 24, 2020. ASE is an important technology tool intended to supplement existing police enforcement in order to reduce vehicle speeds and deliver on the actions in our Transportation Master Plan.

Maintaining our Infrastructure

To ensure our infrastructure is responsibly maintained, we must define a reasonable state of good repair and set priorities to maintain this state of good repair. This involves addressing growth concerns and developing an economic lens for infrastructure.

Many initiatives are planned in order to both maintain and support Mississauga's infrastructure needs. These include the following planned and proposed Budget Requests.

Improvement to Capital Works Program Delivery (BR #5986)

The average annual approved and forecasted budget (2020-2023) for the Roads and Stormwater capital programs is \$123 million. This dollar volume of work necessitates an increase in the current staff complement in order to ensure the ongoing delivery of these critical programs.

Integrated Road Infrastructure Projects – Project Co-ordinator (BR #8488)

Over the next five years, approximately 118.5 kilometres or 32 per cent of the City's major collector and arterial roads will require pavement rehabilitation. This will provide a significant number of opportunities to address other infrastructure renewal and improvement needs concurrently within the roadway corridor. This new position will support the delivery of the Integrated Roadway Infrastructure Program by strategically aligning, co-ordinating and programming capital renewal and improvement needs and opportunities for design and construction.

Streetlighting Unit Staffing (BR #8494)

The City's Streetlighting program includes the design, installation, modernization and overall maintenance of its 50,977 streetlights. Operation and monitoring of the centralized control system will detect the streetlighting state of operation, identify

malfunctions and efficiently resolve them. There is a need to have sufficient staff to manage and maintain streetlighting infrastructure at the acceptable level of service.

Yards Master Plan

To meet future demand for higher maintenance and operational service levels, a Yards Master Plan is being developed to determine the Roads and Parks, Forestry & Environment Service Areas' short-, medium- and long-term yard requirements.

What have we done?

The following infrastructure improvements and accomplishments have been achieved over the past year in order to maintain our infrastructure in a state of good repair:

- Rehabilitated 62 streets and six bridge/culvert structures
- Installed 7.0 kilometres of multi-use trails at nine locations
- Installed 1.8 kilometres of new sidewalks at four locations
- Inspected all 276 of the City's bridge/culvert structures
- Installed 1.2 kilometres of new noise barriers
- Built and/or improved 1.4 kilometres of bike lanes
- Installed 17 bicycle cross-rides
- Completed one intersection improvement
- Installed two new traffic signals
- Completed one EA and two Master Plans
- Serviced approximately 2,000 active building permit files and 76 servicing/municipal works/development/condominium agreements
- Processed 64 rezoning applications, 22 draft plan of subdivision applications, 24 condominium applications, 602 site plan applications, and approximately 20 development-related agreements

Managing our Human Resources

Workforce Analytics

The Roads Service Area faces similar challenges to those experienced by other large operational environments when it comes to competing for, attracting and retaining skilled talent to address growth needs and manage impending turnover due to retirements. Twenty-six per cent of Roads Service Area staff are eligible to retire in the period 2021-2024. Roads has introduced talent management and succession planning programs targeted at addressing the anticipated significant turnover of staff in key areas.

Our Structure

The Roads Service Area is made up of three divisions, which in tandem provide effective and efficient planning, design, construction, operation, maintenance and overall governance of Mississauga's roadways, bridges, sidewalks and related infrastructure:

- Infrastructure Planning and Engineering Services (IPES)
- Traffic Management and Municipal Parking (TMMP)
- Works, Operations and Maintenance (WOM)

Our Talent

The Roads Service Area is made up of a mix of highly skilled technical staff with various professional backgrounds, complemented by highly dedicated front-line service delivery staff. The following is being done to foster a culture of motivated career development and employee engagement and innovation:

- Roads Service Area staff are trained on continuous improvement and project management best practices (e.g., Lean, Project Management Professional certification)

- Support is provided to staff to gain and maintain relevant accreditation, e.g., Professional Engineer (P. Eng.), Project Management Professional (PMP) designations

Critical Roles/Functions to Achieve Business Goals

Engineers and Technologists play critical roles in delivering the services within the Roads Service Area. The roles that they fulfill include: Capital Project Managers, who are responsible for the design, construction and rehabilitation of roads, bridges, culverts and active transportation infrastructure; Transportation Project Engineers, who carry out Environmental Assessment Studies for modifications to our road network and co-ordinate major road projects; and Traffic Planning Technologists, who review traffic operations impacts of development applications. Additional key roles within the Service Area include Geotechnical and Contract Compliance Co-ordinators, and Surveyors and Inspectors, who provide services to Capital Works, Maintenance Contracts, Development Construction and other key clients.

Talent Needs

As workforce demographics continue to change, the Roads Service Area has introduced initiatives to address turnover and obtain the best candidates for future positions. The following initiatives have been put in place to manage the future changes to our workforce:

- Talent management and succession planning programs targeted at addressing the anticipated significant turnover of staff in key areas
- The Supervisory development program, introduced in 2017 by WOM, which ensures that we continue to develop staff to be ready to take on more responsible roles

- Leveraging of co-op student opportunities and relationship-building with local technical school communities
- The Engineer-in-Training Internship Program, which was introduced in 2016 and which has produced three graduates who have now secured permanent positions within the Department, demonstrating the success of the Program. A second cohort of Engineering Interns started in the Fall of 2020 in order to ensure the continued training and development of people with civil engineering skill sets for upcoming positions within the Roads Service Area
- The Technologist Internship Program, introduced in 2019, which aims to produce trained, experienced and certified Technologists that are qualified to take on permanent positions that become available due to retirements

In addition to fostering excellence in our current dynamic workforce, there are upcoming needs to strategically expand and redesign our workforce. With a growing city, it is essential to expand and redesign the workforce accordingly so we can continue to provide the services necessary to design, construct, operate and maintain the City's road-related assets. Within the four-year budget cycle, the following requests for new full-time staff positions are included:

- One Capital Works Project Manager, one Engineering Specialist and one Field Ambassador in 2021; and one Business Advisor and one Supervisor, Design and Contract Administration in 2022 will provide the staffing level required to deliver future Capital Programs (BR #5986)
- One new Supervisor, one Technologist, one Bench Technician and two Field Technicians in the Streetlighting Unit in 2022 to manage the streetlighting programs and maintain infrastructure at the acceptable level of service (BR #8494)

- Four new FTEs in Technical Services including a Permit Technical Co-ordinator, Customer Service Representative, Inspector and Technical Systems Specialist in 2021 will be responsible for the administration, approval, oversight and inspection of a new Road Occupancy Permit (ROP) type for utility-related maintenance works, as well as being responsible for the investigation, inspection and resolution of non-compliance issues that arise from issued ROPs (BR #8522)
- Four Service Technicians, one Fleet Supervisor and one Junior Manager (existing position conversion) in 2022 to have the resources required for a new afternoon shift in Fleet Services. Introducing an afternoon shift will expand the capacity and hours of service without capital cost, reduce equipment downtime and position Fleet Services for efficiency as the fleet continues to grow (BR #8520)
- One new Project Co-ordinator in 2022 to support the delivery of the Integrated Roadway Infrastructure Program (BR #8488)
- One new Development Engineering & Construction Technologist in 2021 in order to meet service level expectations in addressing the increased complexity and effort associated with processing development applications and building permits (BR #8552)
- One Technologist and one Communications Advisor in 2022 to provide the necessary capacity for administration of an enhanced Automated Speed Enforcement (ASE) program; and for the operation and maintenance of ASE field equipment (BR #8556)

Proposed Full Time Equivalent Staffing Distribution by Program

Program	2020	2021	2022	2023	2024
Cleaning and Litter Pick-up	1.9	1.9	1.9	1.9	1.9
Corporate Fleet Maintenance	28.5	28.5	33.5	36.0	37.0
Crossing Guards	82.7	82.7	82.7	82.7	82.7
Infrastructure Planning & Engineering	79.0	82.0	85.0	84.0	87.0
Maintenance Control	133.4	137.4	137.4	137.4	135.4
Road Sidewalk Maintenance	0.0	0.0	0.0	2.0	2.0
Municipal Parking	7.0	7.0	7.0	10.0	10.0
Streetlighting	3.0	3.0	8.0	8.0	8.0
Survey & Inspection	59.8	61.8	61.8	61.8	61.8
Traffic Management	83.6	71.6	73.6	78.6	81.6
Winter Maintenance	3.1	3.1	3.1	3.1	3.1
Total Service Distribution	481.9	478.9	493.9	505.4	510.4

Note: Numbers may not balance due to rounding.

*Road Sidewalk Maintenance is included within Maintenance Control

Proposed Operating Budget

This part of the Business Plan sets out the financial resources required to deliver the proposed 2021-2024 Business Plan. Information is provided by major expenditure and revenue category as well as by program. The costs to maintain existing service levels and operationalize prior decisions are identified separately from proposed changes. The budget for 2020 was \$66.1 million and the proposed budget for 2021 is \$66.7 million.

Total Changes to Maintain Current Service Levels

The impact of maintaining current service levels for the Roads Service Area is a net increase of \$1,051,000. Highlights include:

- Increase of \$264,000 reflecting labour adjustments and other fringe benefit increases
- Increase of \$767,000 in Contractor cost for Base New Winter Maintenance Contract
- Decrease of \$300,000 for Priority Sidewalk and Bus Stop clearing reserve transfer due to New Winter Maintenance Contract
- Increase of \$330,000 in Contractor cost due to the annualization of Automated Speed Enforcement (ASE) Program
- Increase of \$230,000 in revenue for Road Permits
- Decrease of \$300,000 in Contract cost due to New Street Sweeping Contract

Efficiencies and Cost Savings

Highlights:

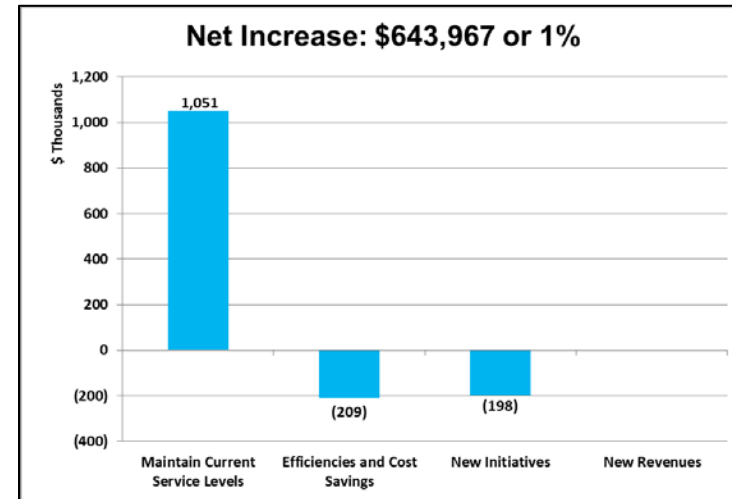
- Savings of \$194,000 in parts and materials for the Telematics Project were annualized
- \$10,000 in other budget reductions were identified by staff

New Initiatives

Three new initiatives are proposed for 2021, with a net revenue impact of \$198,000. They are:

- Improvement to Capital Works Program (BR #5986)
- Technical Services Cost Recovery (BR #8522)
- Improvement to Development Application Review, Building Permit Review & Inspection Process (BR #8552)

Proposed Changes for 2021 Net Operating Budget by Category



Operating Budget Details

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2021-2024, as well as the 2020 Budget and the 2019 Actuals by major program within the Service Area.

Proposed Budget by Program

Description	2019 Actuals (\$000s)	2020 Budget (\$000s)	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)
Expenditures to Deliver Current Services						
Bridges & Watercourses	370	387	387	387	387	387
Cleaning and Litter Pick-up	3,361	3,909	3,659	3,663	3,665	3,667
Corporate Fleet Maintenance	189	198	239	287	343	399
Crossing Guards	3,093	3,546	3,609	3,668	3,728	3,788
Infrastructure Planning & Engineering	4,408	6,257	6,568	6,636	6,761	6,932
Maintenance Control	10,740	9,329	9,543	9,704	9,934	10,164
Municipal Parking	2,351	2,322	2,467	2,418	2,376	2,386
Road Sidewalk Maintenance	9,890	10,455	10,455	10,455	10,455	10,455
Streetlighting	5,044	6,351	6,408	6,060	6,111	6,162
Survey & Inspection	1,163	1,529	1,574	1,760	1,889	2,000
Traffic Management	12,721	13,477	13,436	13,539	13,660	13,783
Winter Maintenance	26,547	25,021	25,695	26,040	26,053	26,057
Total Expenditures	79,877	82,779	84,040	84,615	85,361	86,179
Revenues	(17,385)	(14,252)	(15,026)	(14,976)	(14,926)	(14,926)
Transfers From Reserves and Reserve Funds	(1,050)	(2,405)	(2,050)	(150)	(150)	(150)
New Initiatives and New Revenues			(198)	(1,686)	(1,673)	(3,252)
Proposed Net Budget Including New Initiatives & New Revenues	61,442	66,122	66,766	67,803	68,612	67,851

Expenditures Budget - Changes by Year			2%	1%	1%	1%
Proposed Net Budget - Changes by Year			1%	2%	1%	(1%)

Note: Numbers may not balance due to rounding.

*Road Sidewalk Maintenance is included within Maintenance Control

Summary of Proposed Budget

The following table shows the proposed budget changes by description and category. Costs (labour; operational costs; and facility, IT and support costs) and revenues are shown by category with the approved 2020 budget for comparison. The three columns to the far right of the table show the totals proposed for 2021 and their dollar and percentage changes over 2020. The second table summarizes the proposed 2021 budget and 2022-2024 forecasts.

Summary of Proposed 2021 Budget (\$000s)

Description	2020 Approved Budget	Maintain Current Service Levels	Efficiencies and Cost Savings	Annualized Prior Year's Budget Decisions	Operating Impact of New Capital Projects	Proposed New Initiatives and New Revenues	Special Purpose Levies	Proposed 2021 Budget	\$ Change Over 2020	% Change Over 2020
Labour and Benefits	33,812	(68)	0	332	0	338	0	34,414	602	2%
Operational Costs	47,565	883	(204)	331	0	16	0	48,591	1,025	2%
Facility, IT and Support Costs	242	0	0	0	0	0	0	242	0	0%
Transfer To Reserves & Reserve Funds	1,160	(13)	0	0	0	0	0	1,148	(13)	-1%
Total Gross Expenditures	82,779	803	(204)	662	0	354	0	84,394	1,615	2%
Total Revenues	(14,252)	(354)	(5)	(415)	0	(552)	0	(15,578)	(1,326)	9%
Transfer From Reserves & Reserve Funds	(2,405)	355	0	0	0	0	0	(2,050)	355	-15%
Total Net Expenditures	66,122	803	(209)	247	0	(198)	0	66,766	644	1%

Summary of Proposed 2021 Budget and 2022-2024 Forecasts (\$000s)

Description	2019 Actuals	2020 Approved Budget	2021 Proposed Budget	2022 Forecast	2023 Forecast	2024 Forecast
Labour & Benefits	32,023	33,812	34,414	36,394	38,617	40,282
Operational Costs	46,357	47,565	48,591	51,348	54,029	56,439
Facility, IT and Support Costs	209	242	242	242	242	242
Transfer To Reserves & Reserve Funds	1,288	1,160	1,148	1,146	1,144	1,142
Total Gross Expenditures	79,877	82,779	84,394	89,130	94,032	98,105
Total Revenues	(17,385)	(14,252)	(15,578)	(21,176)	(25,270)	(30,104)
Transfer From Reserves & Reserve Funds	(1,050)	(2,405)	(2,050)	(150)	(150)	(150)
Total Net Expenditures	61,422	66,122	66,766	67,803	68,612	67,851

Note: Numbers may not balance due to rounding.

Proposed Cost Increase Required to Maintain Current Service Levels

The following table provides detailed highlights of budget changes by major cost and revenue category. It identifies the net changes to maintain existing current service levels, taking into account efficiencies, cost savings, and cost increases arising from prior year decisions.

Category	2020 Budget (\$000s)	2021 Proposed Budget (\$000s)	Change (\$000s)	Details (all values in thousands)
Labour and Benefits	33,812	34,075	264	Increase/Decrease Reflects Labour Adjustments and Other Fringe Benefit Changes
Administration and Support Costs	242	242	0	
Advertising & Promotion	110	95	(15)	(\$15) WOM specific reallocation to communication costs
Communication Costs	585	599	14	\$15 WOM specific reallocation from advertising and promotion costs
Contractor & Professional Services	33,709	34,767	1,059	\$767 Increased winter maintenance contract (\$301) Savings in street sweeping contract \$50 Reallocation from increased revenues \$40 WOM specific reallocation from materials, supplies & other services cost \$330 Vendor cost for automated speed enforcement \$200 Increase in Guild Electric contract, \$45 for license renewal/maintenance (\$55) Reversal of the one time 2020 Operating Budget Reserve (IP&E)
Equipment Costs & Maintenance Agreements	641	690	50	\$62 Increase in equipment lease cost related to telematics project (\$8) Reallocation of equipment maintenance cost in parking (\$5) Efficiencies within IP&E
Finance Other	66	98	32	\$20 Reallocation from various budgets to bank charges parking
Materials, Supplies & Other Services	8,977	8,828	(149)	(\$162) Decrease driven by efficiencies in telematics project (\$50) Decrease driven by reallocations within WOM \$60 Increase in operations for ATMS \$3 Efficiencies within Traffic Mgmt
Occupancy & City Costs	7,204	7,214	10	\$15 Increased utilities cost (\$5) Facility rental efficiencies
Staff Development	177	193	16	\$20 Reallocation from increased revenue within WOM \$5 Increase for training within traffic mgmt. reallocated from transportation costs (\$9) Transfer of Stormwater related staff development costs
Transfers To Reserves and Reserve Funds	1,160	1,148	(13)	(13) Decrease to balance Parking Cash in Lieu Reserves
Transportation Costs	(3,903)	(3,910)	(7)	(\$2) Maintenance savings from telematics project (\$5) Increase for training within traffic mgmt. reallocated to staff development
Subtotal - Other Operating Costs	48,967	49,964	997	
Total Revenues	(14,252)	(15,026)	(774)	(\$50) Increase in internal recoveries for WOM (\$5) New streetlighting fee (\$230) Increase in road permits within WOM (\$415) Revenue from MTO speed enforcement violations (\$19) Increased revenue from fees for Sheridan parking lot (\$25) Site Plan Application increase (\$29) Various small increases throughout the IP&E Division
Transfers From Reserves and Reserve Funds	(2,405)	(2,050)	355	\$300 decrease in Sidewalk and Bus Stop clearing reserve transfer due to New Winter Maintenance Contract \$55 Reversal of the one-time 2020 Operating Budget Reserve
Subtotal - Revenues	(16,657)	(17,076)	(419)	
Total	66,122	66,964	842	

Proposed New Initiatives and New Revenues

This table presents the costs by Budget Request (BR) for proposed new initiatives. Each BR is numbered. Detailed descriptions of any year one and year two BRs can be found in the pages following the table.

Description	BR #	2021 FTE Impact	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2021 to 2024 FTE Impact	2021 to 2024 Capital (\$000s)
New Initiative								
Improvement to Capital Works Program Delivery	5986	3.0	0	100	132	135	5.0	36
Integrated Road Infrastructure Projects - Project Co-ordinator	8488	0.0	0	93	123	125	1.0	0
Streetlighting Unit Staffing	8494	0.0	0	438	576	586	5.0	0
Manager, Parking Planning	8506	0.0	0	0	322	424	4.0	0
Maintenance and Repair Resourcing Fleet Services	8520	0.0	0	441	582	593	5.0	4
Safety, Compliance and Training Fleet Services	8521	0.0	0	0	197	389	3.5	12
Technical Services Cost Recovery	8522	4.0	(130)	(51)	(44)	(43)	4.0	51
Sidewalk Repair	8524	0.0	0	0	175	230	2.0	4,043
Improvement to Development Application Review, Building Permit Review & Inspection Process	8552	1.0	(68)	(43)	(41)	(40)	1.0	13
Expanded Internship Program	8553	0.0	0	0	0	146	3.0	0
Neighbourhood Speed Management	8555	0.0	0	0	1,039	1,392	7.0	920
Automated Speed Enforcement – Phase 2	8556	0.0	0	(2,665)	(4,734)	(7,190)	4.0	0
Total New Initiatives		8.0	(198)	(1,686)	(1,673)	(3,252)	44.5	5,079
Total		8.0	(198)	(1,686)	(1,673)	(3,252)	44.5	5,079

Note: Numbers may not balance due to rounding.

Proposed Initiative	Department	Service Area
Improvement to Capital Works Program Delivery	Transportation & Works Department	Roads

Description of Budget Request

This Budget Request is seeking approval for an increase in the current staffing level and range of skills of the Capital Works Delivery Section by one permanent Capital Works Project Manager, one permanent Engineering Specialist and one permanent Field Ambassador in 2021; and one permanent Business Advisor and one permanent Supervisor, Design and Contract Administration in 2022. Of these, only the Business Advisor position is funded by the operating budget.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	0.0	100.4	132.3	134.6
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	100.4	132.3	134.6
* Net Change in \$		100.4	31.9	2.3
FTEs	3.0	5.0	5.0	5.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	36.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The Roads and Stormwater Capital Programs are forecast to increase by \$30.9 million, or 34 per cent, over the previous actual annual average Capital Program of \$91.9 million. In order to ensure the ongoing successful delivery of the increasing value of the Capital Programs an increase in staff resources and skills is required.

Details of Service Change

The average annual approved and forecasted budget (2020-2023) for the Roads and Stormwater Capital Programs is \$122.8 million. The growth occurring in the Roads and Stormwater Capital Programs necessitates an increase in the current staff complement in order to ensure the ongoing delivery of these critical programs.

In addition to the growing Capital Programs, implementation of current programs is limited by the current staffing level, and is not keeping pace with budgeted plans. There is a backlog of capital projects that needs to be addressed, which also requires additional resources.

In order to address these pressures, this request is recommending an increase in Capital Works delivery staff by of one permanent Project Manager, one permanent Engineering Specialist and one permanent Field Ambassador in 2021; and one permanent Business Advisor and one permanent Supervisor, Design and Contract Administration in 2022. Except for the Business Advisor position, all FTEs will be funded by capital programs at an estimated cost of \$1.9 million (2021-2024).

Service Impact

These additions will ensure that the growing Roads and Stormwater Capital Programs continue to be successfully delivered. The additional resources will also assist in addressing the current backlog of capital projects. The addition of one Field Ambassador will assist in implementing the Capital Works Communications Strategy developed in 2019 and to ensure the strategy is properly resourced. The addition of the Business Advisor will assist in analyzing, identifying and implementing business process improvements to ensure the efficient planning, programming and delivery of the Capital Program. The addition of the Supervisor, Design and Contract Administration in 2022 will assist with business process improvements.

Proposed Initiative

Integrated Road Infrastructure
Projects - Project Co-ordinator

Department

Transportation & Works
Department

Service Area

Roads

Description of Budget Request

This Budget Request is seeking a Project Co-ordinator position within the Transportation Projects Unit in the Transportation Infrastructure Management Section, starting in April 2022, to support the delivery of the Integrated Roadway Infrastructure Program. This position will be dedicated to strategically aligning, co-ordinating and programming capital renewal and improvement needs and opportunities within municipal roads and rights-of-way for design and construction.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	0.0	93.3	122.6	124.7
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	93.3	122.6	124.7
* Net Change in \$		93.3	29.3	2.1
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The goal of the program is to strategically align and integrate infrastructure renewal and improvement opportunities along road corridors to improve the delivery of the City's strategic goals for active transportation, transit priority and asset management. The requested dedicated staff resource will ensure that a greater number of opportunities are realized, leading to improved services, fewer disruptions to local residents and business, and reduced capital costs over the long term.

Details of Service Change

The Project Co-ordinator will report to the Manager, Transportation Projects and will support the Transportation Project Engineer in delivering the Integrated Roadway Infrastructure Program. The position will be responsible for liaising with internal and external partners and stakeholders, identifying the full range of project requirements, and co-ordinating the Capital programming for each infrastructure renewal or improvement component to ensure the alignment timing and budget requirements for the pre-engineering, detailed design and construction phases of each integrated roadway project. The Project Co-ordinator will also prepare detailed project summaries for the Capital Project Manager responsible for design and construction to ensure that all of the design elements are captured and that the capital budget requests align with project cost estimates, and will leverage the City's digital and spatial asset inventories and mapping tools as they are further developed to improve the communication of project information to the public.

Service Impact

Over the next five years, approximately 118.5 kilometres of the City's major collector and arterial roads will require pavement rehabilitation. This represents 32 per cent of these road networks and will provide a significant number of opportunities to address other infrastructure renewal and improvement needs concurrently within the roadway corridor. Many of these needs are tied to the delivery of the City's strategic goals and master plans for active transportation, transit priority, traffic signals, streetlight poles, forestry, Region of Peel infrastructure, and others.

This new position will support the planning and co-ordination of infrastructure renewals and improvements within the municipal right-of-way. Improved co-ordination will ensure a greater number of opportunities are realized, leading to improved delivery of the City's strategic goals, improved transportation services along major corridors, fewer disruptions to residents and businesses, and reduced capital costs. Project information-sharing with internal and external partners, the public and other stakeholders will also be improved with this dedicated resource.

Proposed Initiative	Department	Service Area
Streetlighting Unit Staffing	Transportation & Works Department	Roads

Description of Budget Request

This budget request is for five new positions to be added to the staff of two presently supporting the Streetlighting Unit. Proactive infrastructure management does not take place, and without sufficient staff a number of risks will occur.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	0.0	438.0	576.4	586.5
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	438.0	576.4	586.5
* Net Change in \$		438.0	138.4	10.1
FTEs	0.0	5.0	5.0	5.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The Streetlighting Unit does not have the staff resources needed to adequately manage the streetlighting programs. The City's growth and advances in technology are changing the way we operate and we need to have sufficient staff to perform at the acceptable level of service. It is critical to recruit the recommended number of staff as the right fit for operations.

Details of Service Change

The streetlighting staff of two is not adequate compared to the number of streetlights nor does it respond to streetlight growth. Streetlighting is changing and technology is advancing: from standard high pressure sodium (HPS) lights to the full-scale smart Light Emitting Diode (LED) system, technology is changing the way we operate. The advanced streetlight technology also adds a level of complexity, thus contributing to the need for sufficient staff to manage and make the right decisions at the right time. With the proposed increase in staffing level, and with structure and clear, high-quality service standards, risks to the adequate management of street lighting will be low.

Service Impact

Existing staff levels are barely sufficient to react to complaints (both maintenance and lighting levels) and do a rudimentary job of managing current contractors' maintenance activities. Infrastructure management does not take place at all, and decision-making tends to be ad hoc, rather than based on good information and analysis. Capital projects for site-specific improvements are significantly backlogged. Thus, most of the tasks are not done at all, or are only completed to a minimal level. Operation and monitoring of the centralized control system will detect the streetlighting state of operation, identify malfunctions and efficiently resolve them. Contract management will oversee all aspects of the contractor operation, including compliance with the timeframe requirements and validation of invoices. Field inspection will ensure contractor compliance with traffic and electrical health and safety standards. Capital budget development will be based on the infrastructure and new expansion needs.

Budget Request #: 8520

Proposed Initiative	Department	Service Area
Maintenance and Repair Resourcing Fleet Services	Transportation & Works Department	Roads

Description of Budget Request

This Budget Request is to introduce an afternoon shift at the Mavis Fleet facility, Monday to Friday, 3:30 p.m. - 12:00 a.m. which will comprise four Service Technicians, one Fleet Supervisor and one Junior Manager (existing position conversion). Fleet lacks the building capacity to add staff on the same shift in the same space. Introducing an afternoon shift will expand the capacity and hours of service without the corresponding capital that would be required to expand the existing facilities.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	0.0	441.3	581.8	593.1
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	441.3	581.8	593.1
* Net Change in \$		441.3	140.6	11.3
FTEs	0.0	5.0	5.0	5.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	4.0	0.0	0.0

Why Staff Recommend this Initiative

The objective is to minimize fleet maintenance costs that will continue to increase proportionally with fleet growth. The Fleet Services staff complement lacks the capacity to support effective fleet operations and has remained the same for more than 20 years, while the fleet has grown 60 per cent. A new shift will increase capacity without big capital costs, reduce need for high-cost overtime, reduce equipment downtime and position Fleet Services for efficiency as the fleet continues to grow.

Details of Service Change

Introducing an afternoon shift with new staff complement will expand the staff capacity and hours of service without the corresponding capital cost to expand existing facilities. The addition of an afternoon shift will achieve the following benefits:

- Meet the maintenance requirements of the increasing fleet size
- Minimize the cost of repairs and maintenance associated with fleet growth
- Increase service hours to repair and maintain equipment outside of regular business/in-use hours
- Reduce overtime for after-hours maintenance and urgent repairs
- Provide support to clients working afternoon shifts
- Maximize facility usage, increase capacity of Fleet Services without the need for facility expansion
- Enhance customer service
- Meet service levels and support the growth of City operations
- Increase accountability and provide oversight by the Afternoon Shift Supervisor to ensure productivity and safety are maintained
- Enhance client service and help achieve preventative maintenance compliance goals

Service Impact

Maintenance and repair costs are going to increase proportionally with fleet growth; minimizing these costs while maintaining a safe and efficient fleet is the basis of this budget request. Introduction of an afternoon shift will:

- Improve service delivery and availability to all fleet clients
- Increase service hours from eight hours a day to 16 hours a day, Monday through Friday
- Improve preventative maintenance performance and compliance
- Reduce vehicle and equipment downtime
- Improve and maintain fleet availability at 95 per cent
- Meet the maintenance requirements of the increasing fleet size and complexity
- Maximize current facility usage and capacity without the need for additional or increased building space
- Build the internal capacity and expertise required to maintain a complex Municipal fleet
- Provide increased accountability and oversight by ensuring that adequate leadership is available during all service hours

Proposed Initiative	Department	Service Area
Technical Services Cost Recovery	Transportation & Works Department	Roads

Description of Budget Request

This request is for four new permanent FTEs including a Permit Technical Co-ordinator, Customer Service Representative, Inspector, and Technical Systems Specialist. These new FTEs will be responsible for the administration, approval, oversight and inspection of a new Road Occupancy Permit (ROP) type for utility-related maintenance works as well as being responsible for the investigation, inspection and resolution of non-compliance issues that arise from issued ROPs.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	272.3	358.2	372.0	380.4
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	401.8	408.9	416.0	423.3
Tax Levy Requirements	(129.6)	(50.6)	(44.1)	(42.9)
* Net Change in \$		78.9	6.6	1.1
FTEs	4.0	4.0	4.0	4.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	51.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The Technical Services Section is inadequately resourced to 1) address non-compliance issues that arise from ROPs, which has resulted in operational inefficiencies and capacity issues as staff strive to enforce compliance and hold Permit Holders accountable; and 2) provide oversight to maintenance works that are being performed by utility companies on their infrastructure located within the road right-of-way. Oversight for these works is key from a due diligence and risk management perspective.

Details of Service Change

Currently, the costs for inspections for non-compliance and oversight for utility-related maintenance works are not recovered by the City. In order to recover costs for the administration and inspections to be provided by the City to Permit Holders (including utility companies), the City is proposing the introduction of two new fees:

- 1) Non-compliance fee related to on-site non-compliance issues that require investigation and inspection (\$190)
- 2) Utility (Municipal Consent-Limited) ROP and fee to provide oversight for the following utility-related maintenance works (\$25 per location):
 - Excavating a pit (1m x 1m x 1m) in the road right-of-way soft surface (i.e., grassed boulevard area)
 - Cable pulling and placing through or on existing utility infrastructure
 - Temporary aerial service drops and temporary aerial cables
 - Repair to equipment including cabinets, pedestals, poles and other above-ground infrastructure

The two new fees detailed above will be included in the upcoming 2021 update to the User Fees and Charges By-law 0156-2019 and will capture all costs associated with the four FTEs.

Service Impact

The service impacts of the four FTEs are:

- Align with the City's strategic pillars by ensuring walkable, connected neighbourhoods; and by supporting a transit-oriented City with improved safety and accessibility on City roads for pedestrians, motorists and cyclists
- Ensure a transparent process as the City has improved the tracking and the monitoring of utility-related maintenance works within City roads
- Improve City reputation by demonstrating improved inspection, monitoring and compliance practices for construction works being undertaken within City roads
- Improve adherence to provincial legislative requirements and City standards by demonstrating increased compliance practices
- Increase operational efficiency and raise service levels by introducing new FTEs to support existing staff and a cost recovery plan
- Promote cost savings in reducing risk and litigation by demonstrating increased compliance practices that will mitigate against preventable incidents
- Levy additional costs on Permit Holders including utility companies
- Ensure that costs will be completely recovered

Proposed Initiative

Improvement to Development
Application Review, Building Permit
Review & Inspection Process

Department

Transportation & Works
Department

Service Area

Roads

Description of Budget Request

Increase the complement of Technologists involved in the review of development applications and building permits by one permanent FTE in order to keep pace with the growth of development and to ensure that any backlog is eliminated (Development Engineering & Construction).

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	82.0	106.8	108.5	110.3
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	150.0	150.0	150.0	150.0
Tax Levy Requirements	(68.0)	(43.2)	(41.5)	(39.7)
* Net Change in \$		24.8	1.7	1.8
FTEs	1.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	13.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The target is to complete 100 per cent of the application/permit reviews within the legislated timeframes. It is expected it will become increasingly challenging to maintain the service levels as the City continues to intensify and applications become more complex. In addition, service levels that have been established for the release of security deposits will be more difficult to maintain with increasing numbers of inspection requests and increasing number of inspections required per site.

Details of Service Change

- The cost as of April 1, 2020 for one additional FTE at the Technologist (E) level is \$101,430
- The site review fees are intended to cover staff costs associated with permit review and site inspections
- In 2019, the operating revenue for inspection fees was \$346,088, generated from approximately 900 site reviews. The operating revenue for 2017 and 2018 were similar, with a similar number of site reviews
- In 2021, the site review fee is recommended to be increased in order to appropriately recover staff time. The operating revenue will be increased to \$450,000, yielding a projected revenue surplus of \$150,000
- The projected fee revenues are expected to be sufficient to fund the cost of one additional Development Construction Technologist starting in 2021

Service Impact

The benefits of dedicating an additional Technologist FTE include:

- Compliance with the review timelines as set out by the City for submitted development applications, building permits and inspection requests
- Improved customer service to both internal and external stakeholders
- Resiliency within the group to maintain service levels during staff vacations and absences
- Increased morale with decreased burden on existing Technologists
- The ability to focus on succession planning and prepare for future resourcing needs
- With the additional Technologist, it is expected that service levels will increase with the goal of meeting the target to complete reviews and inspections within expected timelines 100 per cent of the time, improving overall service delivery

Proposed Initiative	Department	Service Area
Automated Speed Enforcement – Phase 2	Transportation & Works Department	Roads

Description of Budget Request

This Budget Request is for one Technologist and one Communication Advisor in 2022, one Technologist in 2023 and one Technologist in 2024 to implement an enhanced Automated Speed Enforcement (ASE) program in Mississauga. This includes costs for administration of the program; the operation and maintenance of ASE field equipment such as cameras; charges generated, and revenue. Additional resources associated with the Provincial Court System will need to be addressed through a separate process.

Required Annual Operating Investment

Impacts (\$000s)	2021	2022	2023	2024
Gross Expenditures	0.0	2,976.6	5,044.4	7,414.4
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	5,641.8	9,778.6	14,604.8
Tax Levy Requirements	0.0	(2,665.2)	(4,734.1)	(7,190.4)
* Net Change in \$		(2,665.2)	(2,068.9)	(2,456.2)
FTEs	0.0	2.0	3.0	4.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Phase 1 of ASE was approved through the 2020 budget process and is a limited deployment program scheduled to begin operation in 2021. Mississauga residents and Members of Council have supported and approved the Transportation Master Plan with all of the contained goals and action items. Multiple action items in the Transportation Master Plan, specifically including a Speed Management Program, support the expansion of ASE.

Details of Service Change

The City has identified a speeding problem on many of its roadways. Though many programs and initiatives have been implemented to address speeding issues in some areas, the speeding problem persists. Automated Speed Enforcement (ASE) has been used effectively in other jurisdictions to address excessive speeding. The expansion of ASE will provide another effective tool in reducing vehicle operating speeds on the City's roadways.

The planned 2020 Neighbourhood Speed Limit Project, which includes the implementation of 30 km/hr school zone speed limits, will have significant impacts on speed limit compliance and on projected ASE charge volumes. Lower speed limits throughout the City's neighbourhoods will further increase the need for road safety countermeasures, which are effective in reducing operating speeds.

Municipalities throughout Ontario participated in a joint request for proposals (RFP) which resulted in the selection of an ASE vendor for all municipalities interested in operating ASE. The ASE vendor will be responsible for the installation, operation and maintenance of cameras. All processing for ASE violations will be completed by a joint processing centre on a cost-recovery model.

In order to implement additional ASE cameras and process the resulting charges, additional resources are required within Transportation & Works, and other budgets. Additional courtrooms and associated resources are currently unknown and will be required for an expanded ASE program.

Service Impact

As part of the City's Vision Zero framework and Road Safety Program, Automated Speed Enforcement has been identified as a road safety initiative to reduce vehicle operating speeds and the number of injuries and fatalities on the City's roadways. ASE Phase 2 will provide a countermeasure necessary to achieve suitable operating speeds within school zones where speed limits have been reduced through the Neighbourhood Speed Limit Project.

Proposed Capital Budget

This section summarizes the forecast 10-year capital requirements for this service. The following table presents the forecast by major program.

Proposed 2021-2030 Capital Budget by Program

Program Expenditures	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025-2030 Forecast (\$000s)	Total 2021-2030 (\$000s)
Active Transportation	13,310	7,865	7,205	8,327	46,908	83,615
Bridge & Structure Renewal	7,800	7,500	7,500	8,000	45,050	75,850
Environmental Management	375	375	375	375	2,250	3,750
Major Road Construction	21,145	22,350	18,930	29,936	100,408	192,769
Municipal Parking	600	100	6,100	100	6,600	13,500
Noise Wall Infrastructure	1,250	750	950	1,720	12,300	16,970
Roadway Rehabilitation	26,317	27,998	29,994	24,684	181,659	290,652
Traffic Management	10,814	8,040	7,850	8,020	34,600	69,324
Works Fleet and Equipment Management	3,927	3,467	3,606	4,086	30,957	46,043
Works Improvement	3,550	8,900	50	50	300	12,850
Total	89,089	87,345	82,560	85,298	461,032	805,323

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2021-2030 Capital Forecast Highlights:

- Courtenypark Drive East/Highway 410 Interchange (2021-2024) – \$25.5 million
- Ninth Line Widening - Eglinton Avenue West to Derry Road West (2021-2026) – \$31.3 million
- Vehicle & Equipment Replacement (2021-2030) – \$43.0 million
- Cycling Programs (Scenario C-Three Years, Improvements, Structures, Major Roads) (2021-2030) – \$49.7 million
- Bridge & Infrastructure Renewal and Appraisal (2021-2030) – \$75.8 million
- Road Rehabilitation (Integrated, Residential and Non-Residential) (2021-2030) – \$287.5 million

Proposed 2021-2030 Capital Budget by Funding Source

The following table provides the funding sources proposed to fund the capital portion of the proposed 2021-2024 Business Plan and 2021 Budget and the consolidated forecast for 2025-2030.

Funding	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025-2030 Forecast (\$000s)	2021-2030 Total (\$000s)
Tax Capital	15,865.0	14,388.6	21,641.9	18,702.2	86,069.0	156,666.6
Planning Act Reserve Funds	500.0	0.0	0.0	0.0	0.0	500.0
Development Charges	28,090.0	29,235.0	27,930.0	25,065.0	153,080.0	263,400.0
Developer Contributions	920.0	0.0	560.0	660.0	3,400.0	5,540.0
Gas Tax	39,663.7	38,688.1	29,894.3	32,927.7	217,089.6	358,263.3
Recoveries	0.0	760.0	40.0	5,343.3	760.0	6,903.3
Subsidies and Senior Govt. Level Grants	4,050.0	4,273.3	2,493.3	2,600.0	633.3	14,049.9
Total	89,088.6	87,345.0	82,559.5	85,298.1	461,031.9	805,323.1

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2021 Capital Budget Detail

The following tables provide a detailed listing of proposed capital projects for 2021.

Program: Active Transportation

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWCP07739	Cycling Program (Mid-Block Crossings)	200	0	200	Development Charges
TWCP07768	Cycling Program (Structures)	300	0	300	Development Charges
TWOE00192	Cycling Program	50	0	50	Gas Tax, Tax Capital
TWOE00194	Sidewalks	1,085	0	1,085	Developer Contributions, Development Charges
TWOE002489	Cycling Program	2,750	0	2,750	Development Charges
TWOE00360	Cycling Program	250	0	250	Tax Capital
TWOE06839	Cycling Program (Structures)	250	0	250	Development Charges
TWOE06851	Cycling Program (Improvements)	150	0	150	Tax Capital
TWOE06860	Cycling Program (Parking)	50	0	50	Gas Tax
TWOE06872	Cycling Program	550	0	550	Development Charges
TWOE06995	Cycling Program - Scenario C	770	0	770	Gas Tax, Tax Capital
TWOE08521	Cycling Program - Scenario C	20	0	20	Gas Tax
TWOE08536	Cycling Program	5,700	0	5,700	Development Charges, Gas Tax
TWSW08530	Sidewalks	600	0	600	Gas Tax, Tax Capital
TWSW08531	Sidewalks	585	0	585	Gas Tax, Tax Capital
Total		13,310	0	13,310	

Note: Numbers may not balance due to rounding.

Program: Bridge & Structure Renewal

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWBR00036	Bridge & Structure Renewal	3,800	0	3,800	Gas Tax, Tax Capital
TWBR00057	Bridge & Structure Biennial Appraisal	200	0	200	Gas Tax
TWBR07715	Bridge & Structure Renewal	300	0	300	Gas Tax, Tax Capital
TWBR07716	Bridge & Structure Renewal	300	0	300	Gas Tax, Tax Capital
TWBR08511	Dundas Street Retaining Wall Construction	3,200	0	3,200	Gas Tax, Tax Capital
Total		7,800	0	7,800	

Note: Numbers may not balance due to rounding.

Program: Environmental Management

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWOE00290	Site Assessments and Data Management	375	0	375	Tax Capital
Total		375	0	375	

Note: Numbers may not balance due to rounding.

Program: Major Road Construction

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWMR000148	Courtneypark Drive East/Highway 410 Interchange	8,100	4,050	4,050	Development Charges
TWMR000190	Clarkson Road/Lakeshore Road Intersection - Design & Construction	230	0	230	Development Charges
TWMR000050	Creekbank Road Extension - Shawson Dr to future Enterprise Rd extension	300	0	300	Development Charges, Tax Capital
TWMR000077	Intersection Capital Program	500	0	500	Development Charges
TWMR000078	Preliminary Engineering Studies	115	0	115	Development Charges
TWMR0009013	McLaughlin Road Improvements Review	150	0	150	Tax Capital
TWMR06885	Road Characterization and Complete Streets Guidelines	250	0	250	Development Charges
TWMR07725	Transit Master Plan	250	0	250	Development Charges
TWMR07726	Downtown Mississauga Movement Plan Update	465	0	465	Development Charges
TWMR07998	Kariya Dr. 110 M South of Elm Dr. to Central Pkwy W.	150	0	150	Development Charges, Tax Capital
TWMR08508	Development Charges Update (Major Roads)	175	0	175	Development Charges
TWOE00464	Square One Drive - Amacon Driveway to Rathburn Road West	9,410	0	9,410	Development Charges
TWOE06884	Transportation Master Plan Implementation	150	0	150	Development Charges
TWOE06885	Corridor Transportation Master Plans	750	0	750	Development Charges
TWOE06886	Local Network Studies	150	0	150	Development Charges
Total		21,145	4,050	17,095	

Note: Numbers may not balance due to rounding.

Program: Municipal Parking

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TW008633	Parking Data Collection Strategy for Smart Parking	75	0	75	Planning Act Reserve Funds
TW008634	Curbside Management Study	150	0	150	Planning Act Reserve Funds
TW008635	Parking Digital Signage Strategy	150	0	150	Planning Act Reserve Funds
TW008636	Parking Facility Design Guidelines	50	0	50	Planning Act Reserve Funds
TW008637	Parking Infrastructure Development Plan	75	0	75	Planning Act Reserve Funds
TWRR00064	Parking Lot Rehabilitation	100	0	100	Tax Capital
Total		600	0	600	

Note: Numbers may not balance due to rounding.

Program: Noise Wall Infrastructure

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWNW07773	Noise Wall Upgrades	200	0	200	Development Charges, Tax Capital
TW0E00270	Noise Wall Replacement	650	0	650	Tax Capital
TW0E00279	Noise Wall Replacement	200	0	200	Tax Capital
TW0E06957	Noise Wall Upgrades	200	0	200	Development Charges, Tax Capital
Total		1,250	0	1,250	

Note: Numbers may not balance due to rounding.

Program: Roadway Rehabilitation

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TWRA07729	Road Asphalt Crack Sealing	100	0	100	Tax Capital
TWRR00046	Road Asphalt Crack Sealing	100	0	100	Tax Capital
TWRR00093	Roadway Rehabilitation	17,304	0	17,304	Gas Tax, Tax Capital
TWRR00103	Roadway Rehabilitation	6,313	0	6,313	Gas Tax, Tax Capital
TWRR07762	Roadway Rehabilitation	2,500	0	2,500	Gas Tax, Tax Capital
Total		26,317	0	26,317	

Note: Numbers may not balance due to rounding.

Program: Traffic Management

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TW008472	Transportation Data Study	594	0	594	Tax Capital
TW008643	40 km/h When Flashing Speed Zones	420	0	420	Tax Capital
TW0E00158	LED City Wide Traffic Signal Lens Replacement	1,500	0	1,500	Tax Capital
TW0E00160	Transit Signal Priority (TSP)	340	0	340	Development Charges
TW0E00197	Field Equipment Replacement - Traffic Controllers	190	0	190	Tax Capital
TW0E00198	Traffic Signal Equipment Enhancements	350	0	350	Development Charges
TW0E00200	Traffic Signals - New	1,070	0	1,070	Developer Contributions, Development Charges
TW0E00201	Traffic Signals - Rebuild	1,200	0	1,200	Tax Capital
TW0E00202	Traffic System and ITS	200	0	200	Development Charges
TW0E00272	Streetlighting	850	0	850	Tax Capital
TW0E00306	Fire Pre-Emption Equipment Replacement	1,500	0	1,500	Tax Capital
TW0E00396	Streetlighting	300	0	300	Tax Capital
TW0E00408	Traffic Calming Program	250	0	250	Tax Capital
TW0E006749	ITS Initiatives - Place Holder	250	0	250	Development Charges
TW0E006756	Streetlighting	800	0	800	Tax Capital
TW0E007602	Pedestrian Crossover Program	200	0	200	Tax Capital
TW0E008582	Streetlighting	300	0	300	Tax Capital
TW0E008632	Arterial Speed Management and Road Safety Study	500	0	500	Tax Capital
Total		10,814	0	10,814	

Note: Numbers may not balance due to rounding.

Program: Works Fleet and Equipment Management

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TW008390	Infor Mobile for WOM	231	0	231	Tax Capital
TW0E00254	Specialized Equipment	50	0	50	Tax Capital
TW0E00267	New Vehicles & Equipment	230	0	230	Development Charges
TW0E00271	Vehicle & Equipment Replacement	3,391	0	3,391	Tax Capital
TW0E008570	BIA Waste Equipment	25	0	25	Tax Capital
Total		3,927	0	3,927	

Note: Numbers may not balance due to rounding.

Program: Works Improvement

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net Cost (\$000s)	Funding Source
TW008400	West Credit Site	3,500	0	3,500	Development Charges, Tax Capital
TW0E00193	Salt Management Program	50	0	50	Tax Capital
Total		3,550	0	3,550	

Note: Numbers may not balance due to rounding.

Proposed 2021-2030 Capital Budget by Sub-Program

The following tables provide a listing of capital forecast by sub-program for 2021-2030.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Active Transportation											
ROADS Cycling Program	11,040	5,207	3,377	6,100	1,925	6,032	5,550	5,800	18,600	5,800	69,430
ROADS Sidewalks	2,270	1,265	3,755	2,227	0	450	450	227	227	454	11,325
Subtotal	13,310	6,472	7,132	8,327	1,925	6,482	6,000	6,027	18,827	6,254	80,755

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Bridge & Structure Renewal											
ROADS Bridge & Structure Appraisal	200	0	300	0	300	0	300	0	300	0	1,400
ROADS Bridge & Structure Renewal	7,600	7,500	7,200	8,000	7,200	7,500	7,250	7,500	7,200	7,500	74,450
Subtotal	7,800	7,500	7,500	8,000	7,500	7,500	7,550	7,500	7,500	7,500	75,850

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Environmental Management											
ROADS Environmental Mgmt-City Owned Properties	375	375	375	375	375	375	375	375	375	375	3,750
Subtotal	375	375	375	375	375	375	375	375	375	375	3,750

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Major Road Construction											
ROADS Grade Separation	0	11,750	5,250	0	0	0	0	0	0	0	17,000
ROADS Intersection Improvements	730	0	0	1,200	750	1,550	0	500	0	469	5,199
ROADS Property Acquisition	0	0	0	1,108	0	7,341	4,154	3,856	1,434	0	17,893
ROADS Road Improvements	16,365	6,960	11,220	19,685	20,714	11,012	11,181	14,983	4,944	17,520	134,584
Subtotal	17,095	18,710	16,470	21,993	21,464	19,903	15,335	19,339	6,379	17,989	174,676

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Municipal Parking											
ROADS Parking - Municipal	500	0	6,000	0	0	0	6,000	0	0	0	12,500
ROADS Parking Lot Rehab	100	100	100	100	100	100	100	100	100	100	1,000
Subtotal	600	100	6,100	100	100	100	6,100	100	100	100	13,500

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Noise Wall Infrastructure											
ROADS Noise Wall Program	1,250	750	950	1,720	1,200	3,500	3,400	1,400	1,400	1,400	16,970
Subtotal	1,250	750	950	1,720	1,200	3,500	3,400	1,400	1,400	1,400	16,970

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Roadway Rehabilitation											
ROADS Crack Sealing	200	200	200	200	200	200	200	200	200	200	2,000
ROADS Road Rehabilitation	26,117	27,598	29,594	24,284	30,424	32,724	25,974	28,554	31,523	30,660	287,452
ROADS Roadways Infrastructure Review	0	200	200	200	200	200	200	0	0	0	1,200
Subtotal	26,317	27,998	29,994	24,684	30,824	33,124	26,374	28,754	31,723	30,860	290,652

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Traffic Management											
ROADS Road Safety	250	250	500	920	1,460	250	250	250	250	250	4,630
ROADS Signs & Markings	0	0	0	0	0	0	0	0	0	0	0
ROADS Street Lighting	2,250	3,000	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	23,250
ROADS Traffic Signals	8,314	4,790	5,100	4,850	1,390	3,350	3,350	3,350	3,600	3,350	41,444
Subtotal	10,814	8,040	7,850	8,020	5,100	5,850	5,850	5,850	6,100	5,850	69,324

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Works Fleet and Equipment Management											
ROADS New Vehicles & Equipment	230	195	230	195	195	195	195	195	195	195	2,020
ROADS Specialized Equipment	306	272	85	50	50	50	50	50	50	50	1,013
ROADS Vehicle & Equipment Replacement	3,391	3,000	3,291	3,841	3,941	4,041	4,141	4,241	8,682	4,441	43,010
Subtotal	3,927	3,467	3,606	4,086	4,186	4,286	4,386	4,486	8,927	4,686	46,043

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026 Forecast (\$000s)	2027 Forecast (\$000s)	2028 Forecast (\$000s)	2029 Forecast (\$000s)	2030 Forecast (\$000s)	Total Forecast (\$000s)
Works Improvement											
ROADS Salt Management Program	50	50	50	50	50	50	50	50	50	50	500
ROADS Streetscape	0	0	0	0	0	0	0	0	0	0	0
ROADS Works Yard Storage Facilities	3,500	0	0	0	0	0	0	0	0	0	3,500
ROADS Works Yards Space	0	8,850	0	0	0	0	0	0	0	0	8,850
Subtotal	3,550	8,900	50	50	50	50	50	50	50	50	12,850
Total Expenditures	85,039	82,312	80,026	77,355	72,724	81,170	75,420	73,881	81,381	75,063	784,370

Note: Numbers may not balance due to rounding. Numbers are net.