

**Roads, Storm Drainage &
Watercourses Business Plan**

City of Mississauga

2012-2014 Update





Last year the City of Mississauga undertook an extensive process to create a four year, 2011 through 2014, detailed Business Plan and Budget. Approved in March 2011, the 2011-2014 Business Plan and Budget outlines how and where the City plans to allocate resources to provide good value for taxpayers. Reviewed and updated annually, the four year plan is based on the City's five strategic priorities. 2012 marks the second year of Mississauga's four year Business Plan and Budget. For this "Update Year" staff have focused on primarily updating and presenting exceptions and amendments to the four year approved Service Area Business Plans, while still providing comprehensive financial information and forecasts.

The following summary document sets out a brief description of the Service Area, what has changed since writing the 2011-2014 Business Plan and Budget and performance measurements. The complete 2011-2014 Business Plan and Budget can be found on the City's website.

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1 Existing Core Services

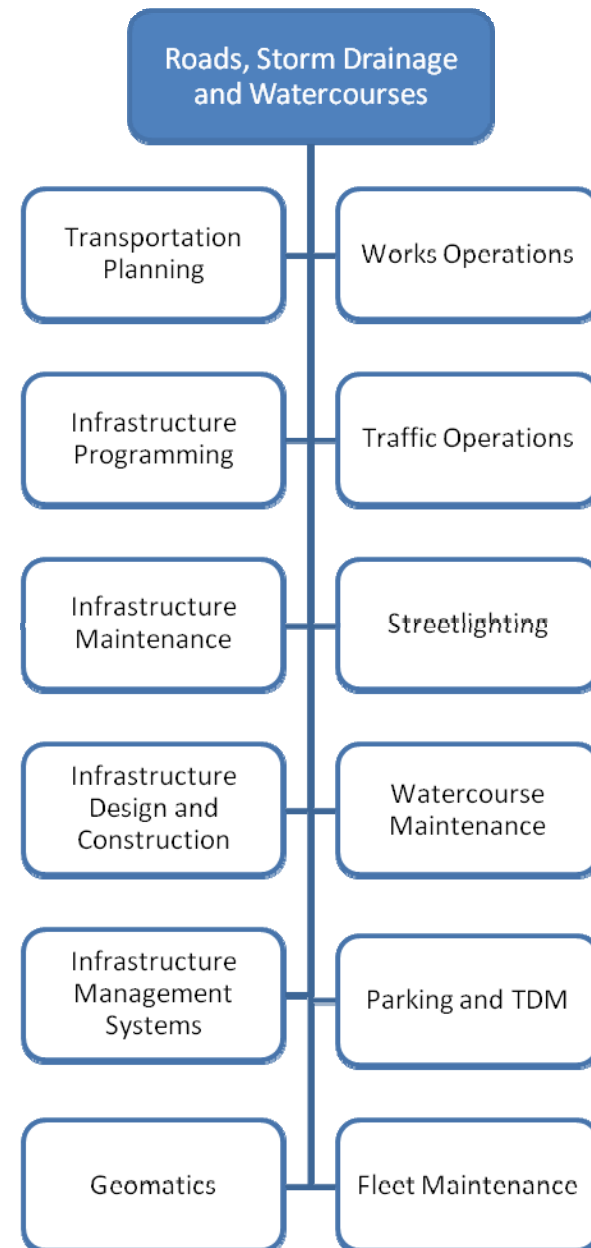
1.1 Vision and Mission

The vision for the Roads, Storm Drainage and Watercourses (RSDW) service area is to be a leader in delivering and managing safe and functional municipal transportation and storm water infrastructure.

The mission is two-fold:

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

To plan, develop, construct and maintain a storm water management system which safeguards public and private infrastructure and property from erosion and flooding and enhances water quality.



1.2 Service Delivery Model

The RSDW service area operates out of the Transportation and Works Department and is responsible for the planning, construction, maintenance and overall management of Mississauga's roadways, bridges, sidewalks, storm water management systems and related assets. Infrastructure that is managed as part of this service also includes streetlighting, municipal parking, noise barriers, watercourses, the cycling network, and the City's fleet of vehicles.

The management of infrastructure assets is accomplished through a number of activities including: infrastructure planning and programming, transportation planning, infrastructure design and construction, infrastructure maintenance and repair, geomatics and public works operations such as winter maintenance, street sweeping, graffiti cleaning and litter pick up, traffic management and crossing guards.

This service area has a number of linkages and dependencies with other City service areas including Land Development Services, Legal Services, Business Services, Strategic Policy, Transit, and Recreation Services.



Flush street design along City Centre Drive and the Mississauga Celebration Square

This section includes Major Initiatives and Activities that have changed or require updating since the approval of the 2011-2014 Business Plan & Budget. Updates and accomplishments are listed by Initiative below. Detailed descriptions of these initiatives can be found in the approved Business Plans on the City's website.

2 Updates & Accomplishments

2.1 Updates

Transportation Master Plan

As an initial step in the development of a Transportation Master Plan (TMP), an interim Transportation Strategy "*Moving Mississauga: From Vision to Action*" was presented to City Council in April 2011. This document is a multi-modal transportation action plan and will provide framework for guiding decisions and establishing priorities regarding the development of the City's Transportation system. A formal TMP will be developed when the province releases policy guidelines for municipalities to follow.

Traffic Management Centre

Planning is currently underway to convert the existing traffic control centre into a traffic management centre utilizing intelligent transportation system (ITS) technology. A number of traffic projects were completed to support the City's traffic management objective; twenty traffic control signals were converted to the City's wireless network (for a total of 47), nine traffic signals were installed (for a total of 520), seven pedestrian count down signals were installed (for a total of 86), two new accessible pedestrian signals were installed (for a total of 21), and three new traffic monitoring cameras were installed (for a total of 15).

Minimum Maintenance Standards Implementation

New inspection programs for street signs, sidewalks and streetlights were introduced in order to comply with the

changes to the *Ontario Accessibility Act* and *Minimum Maintenance Standards*. Through continuous improvement and in keeping with the service area's goal to lever existing technology, these inspection systems will continue to evolve and enable the City to manage assets more efficiently.

Burnhamthorpe Road through the City Centre

Resurfacing works planned for Burnhamthorpe Road West were deferred until the Transit Project Assessment Process (TPAP) and preliminary design for the Hurontario Street Light Rapid Transit (LRT) and the subsequent Environmental Assessment (EA) for Burnhamthorpe Road West from Living Arts Drive to Mavis Road are completed.

To ensure that the road remains in a state of good repair, minimum maintenance and patching work will be performed. Pedestrian safety improvements planned for the Kariya Gate and Duke of York Boulevard intersections will be implemented in 2012, along with a cycling and pedestrian connection along the north side of the road.

Cooksville Creek Capital Projects

New storm water projects have been identified as part of the *Cooksville Creek Flood Evaluation Study*. Design works for structure improvements are now scheduled in 2012 for the King Street East and the Paisley Boulevard East creek crossings as well as a stormwater facility in the vicinity of Hurontario Street and Matheson Boulevard. These projects have replaced most of the Cooksville Creek projects originally planned for 2012.

Watercourse Management Plan

The plan has been extended city-wide to include more frequent inspection of priority watercourse locations, utilizing the additional student resources added to the program in 2011. This means that additional planned labour increases in 2012 are not required for this program. Existing maintenance budgets will be used to accommodate needed work on a priority basis that is identified as part of the extended inspection program. The requirement to increase maintenance budgets in the future will be monitored through 2012.

Noise Barrier Replacement Program

The *Infrastructure Stimulus Fund* program allowed the City to address all the original NOW and 1-5 year needs identified by the 2004 condition survey study. An update to the condition survey was completed in 2011 and the funding was adjusted to reflect the current state of the noise barrier network. It is expected that the new 1-3 year replacement needs will be addressed by 2014.

Sidewalk Program / Transit Accessibility

The ten year sidewalk program was adjusted to reflect reduced development charges funding and to reduce the impact on operating costs. The transit accessibility priority list is expected to be completed by 2016 instead of 2014.

Transportation Demand Management (TDM) and Parking

Implementation of transportation management plans and policies continue. Paid parking was introduced in the Civic Precinct parking garages and the municipal shared use parking lots at the Sheridan College downtown campus.

Energy Efficient Street Lighting

The pilot program to implement LED lighting along City Centre Drive was completed along with a business case to replace all existing lighting along City streets and pathways.

2.2 Accomplishments

Continuous Improvement and Best Practices

Efficiencies of \$1.88 million were implemented for the leaf collection, street cleaning, and winter maintenance programs which has enabled the City to absorb increased cost pressures for 2012 across the entire maintenance program.

Asset Management

In keeping with the service area's goal of maintaining a state of good repair for infrastructure, 100 roads (44 kilometres) were resurfaced, seven bridge/culvert structures were rehabilitated, four kilometres of noise barriers were replaced along Tomken Road, Burnhamthorpe Road East and West, Rathburn Road East and Robert Speck Parkway and watercourse improvements were completed along Little Etobicoke Creek, Cooksville Creek and the Credit River.

In addition, the pavement and bridge/culvert management systems were updated with new inventory and condition assessment information. The information was analyzed and presented to Budget Committee.

Cycling Master Plan Implementation

The Cycling Office was opened in mid-2011 and work began on expanding the cycling network. It is expected that 20 kilometres of new facilities will be completed by year end with a targeted average of 30 kilometres of new cycling facilities to be built annually thereafter.



New cycling sharrows on City Centre Drive

New on-road cycling facilities were installed along City Centre Drive, Tenth Line West, Elm Drive West, Camilla Road, Webb Drive, Mississauga Road, Aldridge Street, Truscott Drive and Lorne Park Road. New multi-use trail facilities have been constructed along Burnhamthorpe Road East, Rathburn Road West, Derry Road West and Walden Circle. Additional multi-use trails were added in partnership with the Region of Peel along Britannia Road West, the Queensway and Derry Road West.

Pilot projects implemented in 2011 include green pavement markings in the bike lane at Dundas Street West and Mississauga Road as well as a demonstration of innovative bicycle parking at the Port Credit Farmers Market.

Greening – Environmental Stewardship

The construction of the Elm Drive low impact development project was completed and included new cycling lanes and parking lay-bys with permeable pavers and rain gardens.

Municipal parking lots completed for the Sheridan College downtown campus feature permeable pavement and LED lighting.



Low impact development features along Elm Drive West

New Transportation Infrastructure

The Ridgeway Drive overpass connection between Unity Drive and Angel Pass was completed and now provides a connection over Highway 403 between Burnhamthorpe Road West and Eglinton Avenue.

Nine kilometres of new transit accessible sidewalks were installed along various transit routes throughout the City. The

sidewalks were installed mostly along major and industrial roads.

Twelve subdivisions were assumed, adding 18.5 kilometres of roadway to the City's network and maintenance programs.

Downtown 21 Master Plan Projects

The Duke of York roundabout and Square One Drive extension adjacent to Sheridan College were completed. The projects include the City's first roundabout and an innovative flush street design, giving priority to the needs of pedestrians and cyclists.



Duke of York, Square One Drive Roundabout

- 2010 OPWA - Project of the Year Award in the Environmental Category to the Region of Peel, City of Mississauga and Credit Valley for the Cooksville Creek Flooding Remediation Program Project
- 2011 Canadian Institute of Planners Award for Planning Excellence in Transportation and Infrastructure for the Hurontario/Main Street Corridor Master Plan; and
- 2011 Friends of the Credit Conservation Award for municipal leadership in the integration of low impact development practices for the Elm Drive Project

2.3 Awards and Recognition

- 2011 Ontario Public Works Association (OPWA), Bruce Brunton Award for National Public Works Week;
- 2011 Excellence in Storage Award from Salt Institute for the Malton, Meadowvale and Mavis District Works Yards;

3 Proposed Changes

3.1 Proposed Budget Summary

This part of the Business Plan provides changes to the 2012 - 2014 Business Plan Update and 2012 Budget. The tables below summarize the changes to maintain current service levels and costs for net budget reduction options and proposed new initiatives. A more detailed summary is available in later sections.

Changes to Maintain Current Service Levels -- see 3.2

Description (\$ 000's)	2012	2013	2014
Prior Year Budget	64,246	67,210	70,405
Increases/(Decreases) to Maintain Current Service Levels			
Labour and Benefits	1,333	1,232	1,047
Annualization of Previous Years Operating Cost Decisions	(143)	0	0
Cost Increases	3,700	1,937	2,022
Operating Impact of New Capital Projects	10	0	0
Efficiencies and Cost Savings	(1,050)	0	0
Current Revenue Changes	(886)	25	25
Total Changes to Maintain Current Service Levels	2,964	3,194	3,093
Total Cost to Maintain Current Services Levels	67,210	70,405	73,498
Total Proposed New Initiatives	0	0	0
Total Recommended Tax Rate Reduction Options	0	0	0
Proposed Budget	67,210	70,405	73,498

Note: Numbers may not balance due to rounding

3.2 Changes to Maintain Current Service Levels

The following table illustrates highlights of this service area's costs to maintain current service levels. A detailed description is provided in Appendix 1 of Volume 2.

Changes to Maintain Current Service Levels

Changes to Maintain Current Service Levels Description (\$ 000's)	FTE	2012	2013	2014	Total Net Costs
Labour and Benefits	(1.6)	1,333	1,232	1,047	3,612
Annualization of Previous Years Operating Cost Decisions					
Off-Street Parking-Additional Revenue	0.0	(265)	0	0	(265)
Off-Street Parking-Operating Costs	0.0	122	0	0	122
Cost Increases					
Winter Maintenance Contracts and Materials Increases	0.0	1,819	785	816	3,420
Streetlighting Hydro and Maintenance (see 2012 Light Emitting Diode (LED) reduction below)	0.0	1,910	763	826	3,499
Traffic Maintenance	0.0	142	142	142	426
Other Changes	0.0	(171)	247	238	314
Operating Impact of New Capital Projects					
Rain Gauge Program Increased Costs	0.0	10	0	0	10
Efficiencies and Cost Savings					
Light Emitting Diode (LED) Streetlighting Retrofit Cost Avoidance	0.0	(1,000)	0	0	(1,000)
Windrow Subsidy	0.0	(50)	0	0	(50)

Changes to Maintain Current Service Levels Description (\$ 000's)	FTE	2012	2013	2014	Total Net Costs
Current Revenue Changes					
Increase in Contract Recoveries	0.0	(489)	0	0	(489)
Realignment of Budget to Reflect Actuals	0.0	(200)	0	0	(200)
Road Degradation-Fees and Charges Approved for 2012	0.0	(122)	0	0	(122)
Other Changes	0.0	(75)	25	25	(26)
Total Changes to Maintain Current Service Levels	(1.6)	2,964	3,194	3,093	9,251

2011 - 2014 Cost to Maintain Current Service Levels - Budget and Forecast

(\$ 000's)	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast
Labour Costs	25,992	27,294	28,526	29,573
Other Operating Expenses	44,123	46,710	48,575	50,535
Total Costs	70,115	74,004	77,101	80,107
Total Revenues	(7,913)	(8,874)	(8,849)	(8,824)
Net Cost before Corporate Support Allocations	62,202	65,130	68,252	71,283
Corporate Support Allocations	2,044	2,081	2,153	2,215
Total Net Budget	64,246	67,210	70,405	73,498

Note: Numbers may not balance due to rounding.

2012 - 2014 Net Operating Budget by Program to Maintain Current Service Levels

Program Expenditures (\$ 000's)	2012 Budget	2013 Forecast	2014 Forecast
Maintenance Control	7,458	7,899	8,280
Sewer Bridges & Watercourses	1,456	1,456	1,456
Winter Maintenance	19,657	20,453	21,279
Roads and Sidewalk Maintenance	4,711	4,752	4,793
Cleaning and Litter Pickup	3,876	3,944	4,009
Development Construction	1,125	1,175	1,217
Engineering & Capital Works	575	746	891
Corporate Fleet Maintenance	1,454	1,596	1,728
Transportation & Infrastructure Planning	4,472	4,697	4,892
Streetlighting	8,059	8,800	9,604
Crossing Guards	2,517	2,584	2,641
Traffic Management	8,786	9,091	9,371
Parking Facilities	(177)	(168)	(159)
Geomatics	3,241	3,378	3,495
Total Net Budget	67,210	70,405	73,498

Note: Numbers may not balance due to rounding.

2012 Net Operating Budget by Program to Maintain Current Service Levels

Program Expenditures (\$ 000's)	2010 Actual	2011 Budget	2012 Budget	Change %
Maintenance Control	9,403	7,134	7,458	4.5
Sewer Bridges & Watercourses	1,559	1,363	1,456	6.8
Winter Maintenance	16,419	18,671	19,657	5.3
Roads and Sidewalk Maintenance	4,915	4,703	4,711	0.2
Cleaning and Litter Pickup	3,194	3,648	3,876	6.3
Development Construction	999	1,071	1,125	5.1
Engineering & Capital Works	(45)	320	575	79.7
Corporate Fleet Maintenance	1,138	1,320	1,454	10.1
Transportation & Infrastructure Planning	3,092	4,362	4,472	2.5
Streetlighting	7,880	7,149	8,059	12.7
Crossing Guards	2,504	2,472	2,517	1.8
Traffic Management	7,606	9,125	8,786	(3.7)
Parking Facilities	(144)	(168)	(177)	(5.7)
Geomatics	2,941	3,077	3,241	5.3
Total Net Budget	61,461	64,246	67,210	4.6%

Note: Numbers may not balance due to rounding.

3.3 Capital Plan

The table below lists new capital projects and/or changes to existing capital projects from the previous 2011- 2020 Capital Forecast, in priority order. The next pages(s) provides a summary of each 2012 newly identified capital projects. Details of each new Capital budget Request are contained in Appendix 2 of Volume 2

2012 - 2014 Net Capital Detail Changes

Program Expenditures (\$ 000's)	BR #	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)	Area of Focus	Strategic Pillar
Streetlighting Retrofit to Light Emitting Diode (LED) light source	749	18,000	17,000	0	0	35,000	Continuous improvement, value for money and tax rate management	
Recycling Receptacles on the City's Road Allowance	773	750	750	0	0	1,500	Identifying any new initiatives that align with the Strategic Plan	Green - Living Green
Ninth Line - Derry Road West to North Limit	N/A	(9,400)	4,700	4,700	0	0	Road Improvements	
Creekbank Road Extension North Limit of Creekbank to South Highway 401	N/A	930	0	(930)	0	0	Road Improvements	
Creekbank Road Extension - Highway 401 Bridge to Enterprise Road	N/A	0	(2,362)	0	2,362	0	Road Improvements	
Drew Road - Dixie Road to Tomken Road - Phase 1	N/A	0	(6,000)	0	6,000	0	Road Improvements	
Drew Road - Dixie Road to Tomken Road - Phase 2	N/A	0	0	(8,500)	8,500	0	Road Improvements	

Program Expenditures (\$ 000's)	BR #	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)	Area of Focus	Strategic Pillar
Centreview Drive Widening - Duke of York to Rathburn Road West	N/A	0	0	(1,270)	1,270	0	Road Improvements	
Courtneypark Drive East Widening - Tomken Road to Dixie Road	N/A	0	0	(3,770)	0	(3,770)	Road Improvements	
Goreway Drive Grade Separation - Construction	N/A	0	0	0	(8,000)	(8,000)	Grade Separation	
Highway 403 North Service Road from Mavis Road to Hurontario Street	N/A	0	0	0	(8,050)	(8,050)	Road Improvements	
Creebank Road Extension Structure over Highway 401	N/A	0	0	0	(11,302)	(11,302)	Road Improvements	
Sawmill Creek Erosion Control - Burnhamthorpe Road West to Swallowdale Court	N/A	(1,890)	750	0	0	(1,140)	Erosion Control	
Retrofit - Cooksville Creek - North of Bristol Road between McLaughlin Road and Hurontario Street	N/A	(3,500)	0	0	0	(3,500)	Storm Water Management	
Retrofit - Mullet Creek Arch Storm Water Management Pond #5401 - West of Argentia Road & North of Derry Road West	N/A	(3,590)	0	0	0	(3,590)	Storm Water Management	
Cooksville Creek Crossing Improvement - Canadian Pacific Railway	N/A	0	0	(3,360)	0	(3,360)	Culvert Improvement	

Program Expenditures (\$ 000's)	BR #	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)	Area of Focus	Strategic Pillar
Cooksville Creek Crossing Improvements and Flood Protection - King Street East and Paisley Boulevard East	N/A	0	0	7,210	0	7,210	Flood Relief	
New Facility - Cooksville Creek North of Matheson Road Between McLaughlin Road and Hurontario Street	N/A	0	0	16,800	0	16,800	Storm Water Management	
Mullet Creek Erosion Control - Wabukayne Tributary, Upstream of Canadian Pacific Railway	N/A	0	0	0	(2,740)	(2,740)	Erosion Control	
Land Acquisition - Avonhead Creek Storm Water Management Facility #0402	N/A	0	0	0	(2,160)	(2,160)	Storm Water Management	
Cycling Program	N/A	(3,620)	(1,850)	(1,620)	900	(6,190)	Cycling Master Plan	
Noise Wall Program	N/A	(2,200)	(2,375)	(131)	(1,437)	(6,143)	Maintaining a state of good repair for our infrastructure	
Property Acquisition	N/A	(7,030)	(1,680)	(2,180)	21,180	10,290	Property Acquisition	
Total Net Expenditures		18,750	17,750	0	0	36,500		

Note: Numbers may not balance due to rounding.

2012 New Initiatives for Capital Budget

Priority	Initiative	Budget Impact (\$000)s	FTE Impact	Summary and Justification
1	BR 749 Streetlighting Retrofit to Light Emitting Diode (LED) light source	\$18,000	0.0	Based on the "New Streetlighting Technologies" pilot project results, Transportation and Works recommends the conversion of the City's streetlights to light emitting diode technology with a streetlighting monitoring system. The streetlighting monitoring system allows for constant monitoring of the status and energy consumption of the streetlighting system. The capital cost of this project is estimated to be \$33.6 million (net). The payback period for this project, relative to a "do nothing" scenario, is 6 years after project completion. Light Emitting Diode technology will reduce streetlighting energy and maintenance costs in Mississauga by approximately 50%. This includes the elimination of costs to patrol and relamp the existing streetlighting system.
2	BR 773 Recycling Receptacles on the City's Road Allowance	\$750	0.0	This initiative deals with the fabrication and installation of up to 750 combined waste and recycling receptacles at transit bus stops, platforms, terminals and other appropriate locations in the City's road allowance. The installation of the recycling bins on the City's road allowance in areas of high pedestrian activity offers the public opportunities to recycle, thereby diverting material from the waste stream.
Total		\$18,750	0.0	

2012 - 2021 Total Net Capital Program

Program Expenditures (\$ 000's)	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)
Bridge and Structure Rehabilitation	4,500	4,500	4,500	31,500	45,000
Major Roads	5,625	11,755	10,405	122,107	149,892
Other Engineering	32,113	48,098	21,545	141,463	243,219
Roadway Rehabilitation	14,774	16,224	23,900	168,900	223,798
Storm Drainage	9,900	7,290	29,790	46,833	93,813
Total Net Expenditures	66,912	87,867	90,140	510,803	755,722

Note: Numbers may not balance due to rounding.

3.4 Human Resources

Human Resources Requirement Distribution

Program	2011	2012	2013	2014
Maintenance Control	118.0	118.0	118.0	118.0
Engineering & Capital Works	60.6	60.6	60.6	60.6
Development Construction	12.0	12.0	12.0	12.0
Corporate Fleet Maintenance	27.7	27.7	27.7	27.7
Crossing Guards	68.8	68.8	68.8	68.8
Traffic Management	54.0	54.0	54.0	54.0
Transportation & Infrastructure Planning	43.7	42.1	42.1	42.1
Parking Facilities	2.0	2.0	3.0	3.0
Corporate Support Services Geomatics	32.0	32.0	32.0	32.0
Total Service Distribution	418.9	417.3	418.3	418.3

4 Performance Measures

4.1 Balanced Scorecard

A Balanced Scorecard identifies measures for four key areas for an organization's performance: Financial; Customers; Employees; and Business Processes.

By paying attention to all four areas an organization can retain balance to its performance and know that it is moving towards the attainment of its goals.

About the Measures for Roads, Storm Drainage and Watercourses

Financial Measures

The average road and storm water maintenance operating costs is a measure that indicates the city's ability to manage cost pressures associated with aging infrastructure and climate change respectively. Without compromising public safety, this service area will continue to apply best practices and find efficiencies in day to day operations while providing consistent service levels.

The average winter maintenance operating cost is a measure of the city's ability to balance winter maintenance operating costs with defined service levels. Without compromising public safety, this service area will continue to apply best practices and find operating efficiencies throughout all winter maintenance activities.

The annual gross revenue for parking is a measure of the city's ability to introduce new parking management initiatives and adjust parking rates. The city's objective is to implement improvements to parking management in strategic areas

which is expected to increase parking revenues over the term of this business plan.

Customer Measures

The percentage of customer requests meeting target response dates is a measure that indicates the service area's ability to respond to resident and Council service requests according with established response times and service levels.

Citizen satisfaction is a measure that indicates how satisfied residents are with services on roads, traffic flow and environmental planning. The scale for this measure is from one to ten with ten being the highest level of satisfaction.

Employee Measures

Overall employee engagement is a measure which indicates the extent to which employees value, enjoy and believe in what they do. The employee engagement survey is conducted every two years and it enables employees to rate how they feel about the City of Mississauga as an Employer of Choice

Employee engagement survey participation is a measure indicating the percentage of employees participating in the Employee Engagement Survey. This statistic is measured every two years. It is important to the City that employees continue to participate in this survey and express how they feel about working at the city.

Employee engagement with professional and personal development is a measure which indicates employee's opportunities for personal and professional growth. This statistic is measured every two years as part of the Employee engagement survey.

Business Process Measures

The percentage of roads in “good” condition or better is a measure that indicates the city’s ability to manage lifecycle asset management programs for roads. A pavement condition survey is conducted every three years whereby a condition rating is applied to every city owned road in Mississauga.

The 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. A mandatory bridge and culvert condition survey is performed every two years whereby a condition rating is applied to every city owned bridge and culvert in Mississauga.

The percentage of City owned intersections that function at or above capacity is a measure that indicates the efficiency with which traffic moves through intersections within the City. While the percentage of intersections operating at or above capacity has not changed in recent years, the delay experienced by vehicles has increased.

The number of collisions per thousand population is a measure that indicates the city’s ability to provide safe traffic management programs. This measure is very sensitive and will fluctuate from year to year.

The percentage of time that established winter maintenance response times are met is a measure that indicates the frequency with which the city meets its service level objectives for winter operations. The extent and severity of winter events will have an impact on this measure.

The percentage of scheduled fleet converted to Green Fleet Standards is a measure that indicates the city’s responsiveness to environmental initiatives contained within

the Green Fleet Plan. By 2011, it is expected that the city will reach its Green Fleet objective. The conversion of 113 of the 211 (54%) vehicles that were identified for down-sizing, improved fuel efficiency and hybrid electric vehicles will have been completed. The Green Fleet Standards will need to be updated in 2011.

Performance Measures Update

Measures for Roads, Storm Drainage and Watercourses

	Objective	Measure	2009 Actual	2010 Planned	2010 Actual	2011 Planned	2012 Planned	2013 Planned	2014 Planned
Financial	Without compromising public safety, continue to find efficiencies in day to day operations while providing consistent service levels.	Average Road Maintenance Operating Cost Per Lane Km	\$1,989	\$2,000	\$1,839	\$2,000	\$2,100	\$2,200	\$2,400
		Average Storm Water Management Operating Cost per Km of Storm Sewer	\$1,235	\$1,300	\$1,334	\$1,300	\$1,350	\$1,400	\$1,400
		Average Winter Maintenance Operating Cost Per Lane Km	\$2,877	\$3,500	\$3,196	\$3,500	\$3,700	\$3,800	\$4,000
	Planned increase in parking revenues over time with the introduction of new parking facilities	Annual Gross Parking Revenues	\$290,204	\$255,000	\$345,977	\$729,200	\$891,200	\$900,000	\$1,157,000
Customers	Adhere to service request response Level	Percentage of customer requests meeting target response date	68%	75%	94%	90%	90%	90%	90%
	Citizen Satisfaction	Average citizen satisfaction rating for roads, traffic and environmental planning	7.1	7.5	7.1	7.5	8	8	8
Employees	Employee Satisfaction	Overall employee engagement for Transportation and Works	65%	66%	63%	67%	68%	69%	70%
		Employee engagement survey participation for Transportation and Works	45%	48%	58%	58%	58%	58%	55%
		Employee satisfaction professional and personal development for Transportation and Works	62%	63%	61%	61%	65%	66%	67%

Measures for Roads, Storm Drainage and Watercourses

	Objective	Measure	2009 Actual	2010 Planned	2010 Actual	2011 Planned	2012 Planned	2013 Planned	2014 Planned
Internal Business Processes	Adhere to planned asset condition levels while maintaining public safety	Percentage of Roads in Good Condition Or Better	77%	76%	77%	75%	74%	73%	72%
		Percentage of Bridges in Good Condition Or Better	87%	90%	81%	80%	80%	80%	90%
	Move traffic efficiently, volume to capacity ratio	Percentage of City owned intersections that function at or above capacity	14%	14%	14%	14%	15%	15%	15%
	Traffic Safety	Number of Collisions per 1000 population	8	8	8	8	8	8	8
	Adhere to operational service levels	Percentage of Time that Winter Response Times Were Met	100%	100%	100%	100%	100%	100%	100%
	Adhere to Green Fleet Plan	Percentage of scheduled fleet converted to Green Fleet Standards	80%	90%	89%	93%	100%	100%	100%