



Hamilton

# PUBLIC WORKS

## 2022 OPERATING BUDGET

General Issues Committee

January 26, 2022

# DEPARTMENT OVERVIEW

**Public Works contributes towards the City of Hamilton's vision to be the best place to raise a child and age successfully.**

The Public Works Department supports the City's vision by providing high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner. The department brings the City's vision and mission to life through its core services including corporate facility management, infrastructure rehabilitation, roads operations, parks and green space maintenance, transit, and waste management which are essential to the lives of residents and visitors to the City.

**Public Works provides services that are central to the lives of Hamiltonians.**

# SERVICES AND SUB-SERVICES

## Cemeteries

- Active Cemetery Management
- Dormant Cemetery Management
- Active Cemeteries Support Services

## Corporate Asset Management

## Corporate Security

## Energy Initiatives

- Energy Engineering Services
- Utilities

## Engineering Services

- Construction Services
- Corridor Services
- Design Services
- Survey and Technical Services
- Waterfront Development Initiative

## Facilities Management

- Capital Planning and Project Management
- Facilities Operations and Maintenance
- Facilities Planning and Business Solutions
- Space Management/Accommodations
- Stadium Operations
- Compliance

## Fleet Services Management

- Capital Planning and Contract Management
- Fleet Maintenance
- Materials, Fuel and Systems Management
- Regulatory Compliance and Driver Training

## Forestry

- Tree Maintenance
- Tree Planting
- Tree Maintenance and Planting Support Services

## Horticultural Programs

- Beautification
- Beautification Support Services

## Parks and Open Space Access

- Parks Maintenance
- Planning, Design, Development and Acquisition
- Natural Open Spaces
- Parks and Natural Open Space Support Services

## Public Transportation

- Conventional Public Transit
- Rapid Transit
- Specialized Public Transit
- On Demand Transit

## Roadway Maintenance

- Right of Way Infrastructure Maintenance Support Services
- Right of Way Infrastructure Repairs and Maintenance

## Transportation Operations

- Transportation Systems
- Traffic Engineering and Road Safety
- Signs and Pavement Markings Operations
- Signal, Systems & Street Lighting Operations

## Solid Waste Management

- Bulk Waste Collection Services
- Cleanliness Services
- Drop Off and Transfer Facilities
- Garbage and Organic Waste Collection
- Leaf and Yard Waste Collection Services
- Organics Processing
- Recycling Processing
- Recycling Collection
- Solid Waste Support Services
- Waste Disposal and Closed Landfills

## Storm Water Management

- Storm Water Collection
- Storm Water Support Services
- Storm Water Treatment

## Water Supply and Distribution

- Water Distribution
- Water Supply
- Water Support Services

## Wastewater Collection and Treatment

- Wastewater Collection
- Wastewater Support Services
- Wastewater Treatment

# PUBLIC WORKS BUDGET SCHEDULE

	<b>Presentation Date</b>	<b>Approval Date</b>
<b>Water – Rate Budget</b>	November 22, 2021	November 24, 2021
<b>Capital Budget</b>	November 26, 2021	December 15, 2021
<b>Transit Day</b>	January 21, 2022	TBD
<b>Public Works</b>	January 26, 2022	TBD



**Transit**

**Energy,  
Fleet &  
Facilities**



**Hamilton  
Water**



**Waste  
Management**



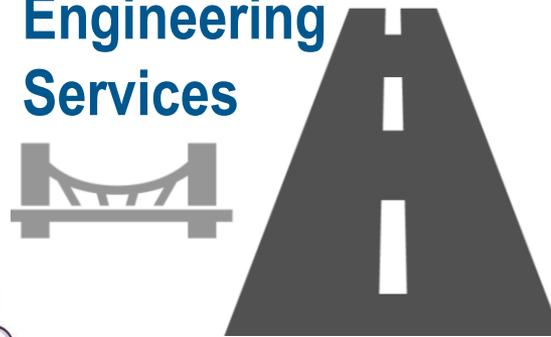
# PUBLIC WORKS

**Corporate  
Asset  
Management**



**Transportation,  
Operations &  
Maintenance**

**Engineering  
Services**



**Environmental  
Services**



# TERM OF COUNCIL PRIORITIES (2018 – 2022)

- Climate Change
- Multi-Modal Transportation
- Homelessness & Affordable Housing
- Integrated Growth & Development
- Fiscal Health & Financial Management
- Equity, Diversity & Inclusion
- Trust & Confidence in City Government
- A Healthy, Respectful & Supportive Workplace



# CAPITAL INFRASTRUCTURE

# CAPITAL INFRASTRUCTURE

## 2021 KEY METRICS

- **48** projects tendered worth **\$111M**
- Added **10.24** new lane kms roads
- Added **5.03** new lane kms of sidewalks



Pier 8 Promenade Park – Copps Pier

## PROJECT HIGHLIGHTS

- Pier 8 Promenade Park – Copps Pier
- Pier 5-7 shore wall and boardwalk
- West Harbour gas dock
- Pier 8 Wastewater Pumping Station
- Rymal Road – Fletcher to Upper Centennial
- Sherman Access rockfall protection
- Highway 8 (Phase 2)



# CAPITAL INFRASTRUCTURE

## CURRENT TRENDS & ISSUES

- Roads value for money asphalt audit
- Design guideline changes
- Managing more complex projects
  - Tunneling projects
  - Escarpment management
  - Airport Employment Growth District
  - North Waterdown corridor



Upper James Force Main



Rymal Road

# CAPITAL INFRASTRUCTURE

## LOOKING AHEAD 2022

- \$30M Canada Community Building Fund
- Development of Transportation Operational Plan (design and construction processes)
- Southcote Road reconstruction
- Claremont Access bin wall removal
- Govenors Road bridge
- Valley Inn bridge
- Concession St/Mountain Brow Blvd.
- Dickenson Road Trunk Sewer Project



Valley Inn Bridge



Claremont Access

# CAPITAL INFRASTRUCTURE

## 2023 - 2025

- Birch Avenue two way conversion and railway bridge replacement
- Lower Centennial trunk sewer twinning
- Upper Wentworth pedestrian bridge across Linc
- North Waterdown corridor
- Garner Road watermain
- 403 sewer twinning
- Stonechurch Road feeder main
- Dundas Street bridge reconstruction
- Pier 8 Gateway Park
- Macassa Bay boardwalk and trail



Birch Avenue

# CAPITAL FACILITIES



# CAPITAL FACILITIES

## 2021 KEY METRICS

- Downtown Office Space Accommodation Project
  - Target **200** rentable sq. ft. per employee
  - Reached **186** rentable sq. ft. per employee
  - Reduced gross square feet by **13.8%**



Valley Park Community Centre

## PROJECT HIGHLIGHTS

- Greenville School/Community Centre
- Beverly School/Community Centre
- Valley Park Community Centre
- Parkdale Outdoor Pool
- Ancaster Memorial Arts and Culture Centre
- 500 McNab (Ken Soble Tower)



500 McNab



## CURRENT TRENDS & ISSUES

- Capital funding shortfalls
- Accessibility for Ontarians with Disabilities Act
- Increased facility inventory
  - Acquiring aging schools
  - Civic property
  - Lodges
  - Hamilton Police Investigative Services Division



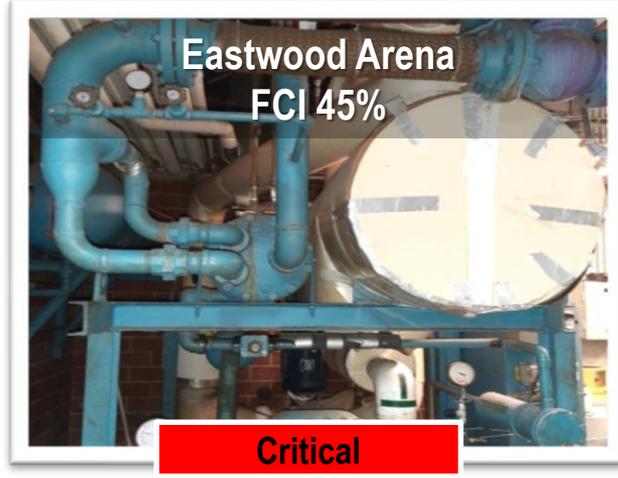
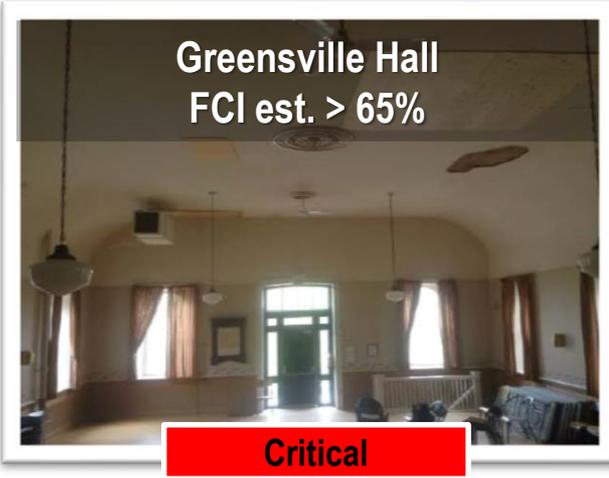
Greenville Library and Community Centre



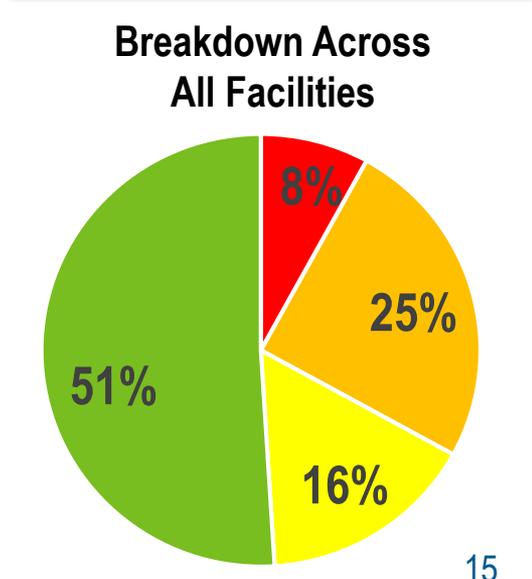
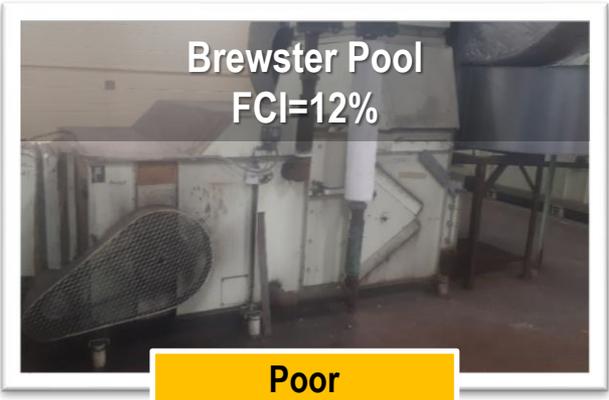
Beverley Community Centre

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# CAPITAL FACILITIES



Overall **Facilities Condition Index (FCI)** across 500+ facilities is **9.45% (Fair)** 



Facility Condition Index

0-5%	5-10%	10-30%	>30%
Good	Fair	Poor	Critical

# CAPITAL FACILITIES

## LOOKING AHEAD 2022

- Divestiture of Downtown Entertainment Facilities
- ICIP Funding:
  - Community, Culture and Recreation (CCR) Projects
  - COVID-19 Resilience Funding
- New salt facility at 350 Wentworth St. N
- Continue improving indoor air quality initiatives with air purification systems

## 2023 - 2025

- ICIP Funding:
  - New Transit Maintenance & Storage Facility
- Hamilton City Housing projects:
  - 55 Queenston Rd
  - Bay/Cannon
  - Macassa Lodge expansion
  - Carlisle Library
  - Confederation Park Phases II and III
  - Waterdown Fire and Police Station

# PARKS & OPEN SPACES



# PARKS & OPEN SPACES PROJECT HIGHLIGHTS

## 2021 KEY METRICS

- **24,782** acres of grass mowed
- **12** play structures installed
- **258** encampment cleanups
- **2,495** metres of trail constructed
- **1,467** meters of trail replaced
- **14.67** Ha parkland built or redeveloped
- **25** park and trail construction projects
- **1,168** trees planted
- **3,301** play structure inspections
- **133** Team Up to Clean Up events

- Spray pads (2 new; 1 upgrade)
- Multi-use courts (1 new; 4 upgrades)
- Tennis courts (2 upgrades)
- Fitness parks (1 new)
- Lighting upgrades/additions (5 sites)
- Condition assessments (fields, walkways)
- Albion Falls viewing platform (design)
- Shoreline protection (DMAF)



Albion Falls Viewing Platform (design)



# PARKS & OPEN SPACES

## PROJECT HIGHLIGHTS



**Waterford Park**



**Joe Sam's leisure park walkway**



**Mount Hope Boardwalk**



**Eastwood playground**



**Veevers playground**



**Winona playground**

## CURRENT TRENDS & ISSUES

- Encampment cleanups
- Climate change
- Enforcement of encroachments
- Backlog of capital investment
- Waste/cleaning increases due to COVID-19
- Legislative changes
- Operating cost increases and impact on capital



Churchill Park rain gardens



Encroachment on City property

# PARKS & OPEN SPACES

## LOOKING AHEAD 2022

- Completion of backflow compliance
- Enhanced accessibility in parks
- Shoreline protection (DMAF)
- Sam Lawrence Park (Phase 1 construction)
- HAAA construction
- Wm Connell – Winter Wonderland Phase 1
- Mountain Bike Study
- Albion Falls viewing platform (design)
- 12-15 new playground replacements
- Valley Park skateboard park

## 2023 - 2025

- Alexander Park skateboard park
- Brightside Park construction
- Mountain Brow Trail implementation
- Trails Master plan update



Community cleanup trailer



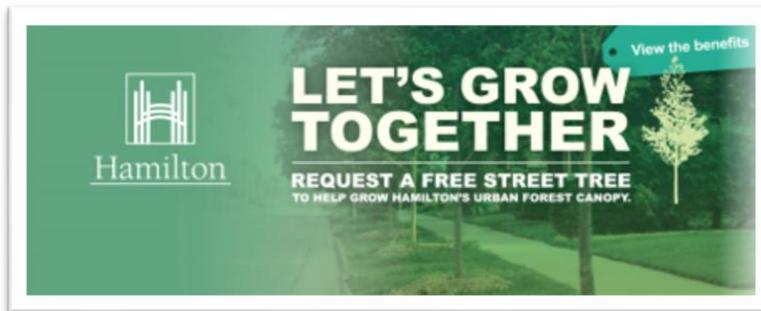
Mobi-mat

# FORESTRY



## 2021 KEY METRICS

- **17,908** trees planted
- **1,316** calls for storm damage relating to trees
- **23,020** requests for service
- **1,948** development applications reviewed
- **2,162** Emerald Ash Borer planned tree removals (Year 9 of 10)
- **1,762** trees given through the Free Tree Giveaways



## PROJECT HIGHLIGHTS

- COVID-19 staff redeployments
- GIS Tree Inventory project
- Online forestry education program for grade 3 students



Forestry truck with new wrap



## CURRENT TRENDS & ISSUES

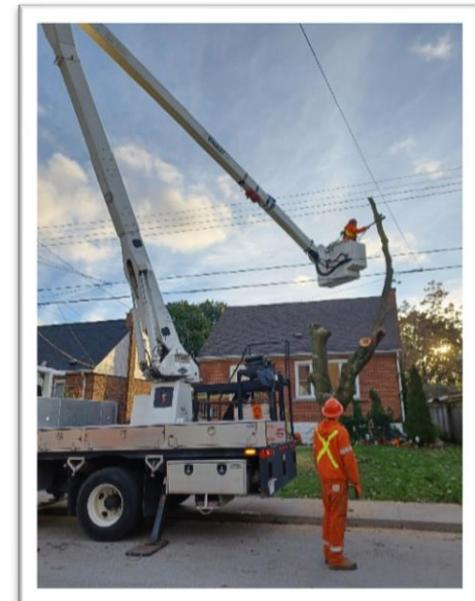
- Focus on tree maintenance program
- Lymantria dispar dispar (LDD Moth) aerial control program
- Increased tree planting, final year of Emerald Ash Borer program funding
- Tree canopy equity strategy
- Storm damage response and costs
  - Climate emergency
  - Increase intensity / frequency
- Increased development / intensification
  - Impacts to tree canopy



LDD moth aerial control program 2018/2019



Ice storm clean up



Tree maintenance

## LOOKING AHEAD 2022-2025

- Improve GIS & spatial tree inventory
- Urban Forest Strategy
- Urban forest health monitoring for new, existing, and forecasted pests and diseases
- Complete Emerald Ash Borer management by 2023
  - Tree removals
  - Tree replacements
- Strengthen relationships with Conservation Authorities and local/ provincial NGO's for tree planting initiatives



Grid trimming



Forestry winter operations

# HORTICULTURE



## 2021 KEY METRICS & HIGHLIGHTS

- Grew **273,208** plants
- Planted and maintained:
  - **72** roundabouts
  - **9** business improvement areas (BIAs)
  - **571** floral planters
  - **348** floral traffic islands
  - **669** hanging baskets
  - **131** perennial gardens
  - **68** civic buildings
- **27,978** visitors to the Gage Park Tropical Greenhouse
- **12,123** visitors to the 2021 Mum Show
- **27** Hamilton in Bloom Traffic island sponsors
- **266** White Trillium Awards
- **14** Pink Trillium Awards



Horticulture staff

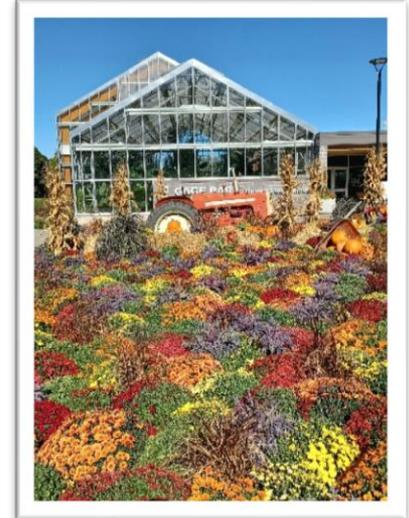


## 2021 SPECIAL HIGHLIGHTS

- Topiary at City Hall (Mickey Mantis)
- Modified Mum Show due to pandemic
- Public feedback about annual beautification
- Revamped digital Trillium Awards program



2021 Mum Show



2021 Mum Show



Sam Lawrence Park rock bed



Hayward Park naturalized bed



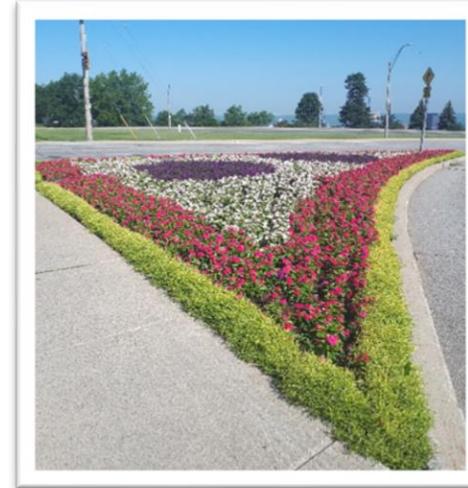
York Boulevard

## CURRENT TRENDS & ISSUES

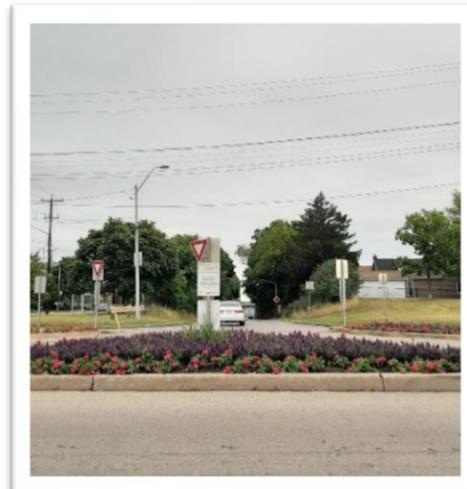
- Requests for planters to support pedestrian, bicycle and traffic calming
- Aging irrigation systems in older traffic island beds
- Compliance with backflow prevention by-law in traffic islands



Traffic island beautification



Traffic median floral display



Sherman and Crockett island



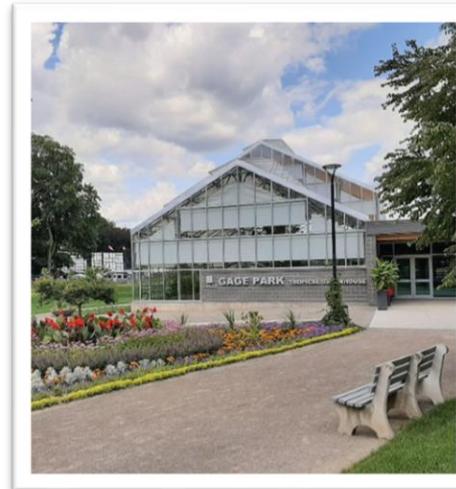
Kimberly Drive

## LOOKING AHEAD 2022-2025

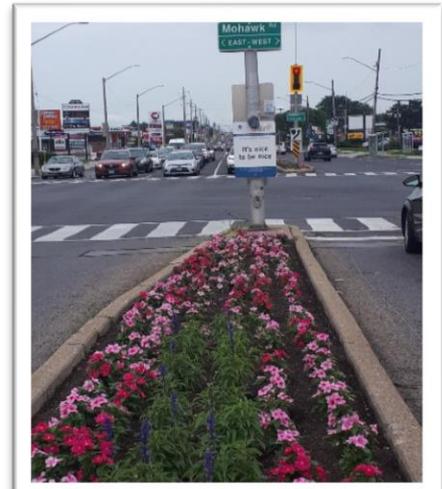
- Continue lifecycle replacements of horticultural related infrastructure such as irrigation systems
- Enhanced programming for the Tropical Greenhouse
- Ward funded traffic island conversions



Sam Lawrence Park horticulture display



Tropical Greenhouse



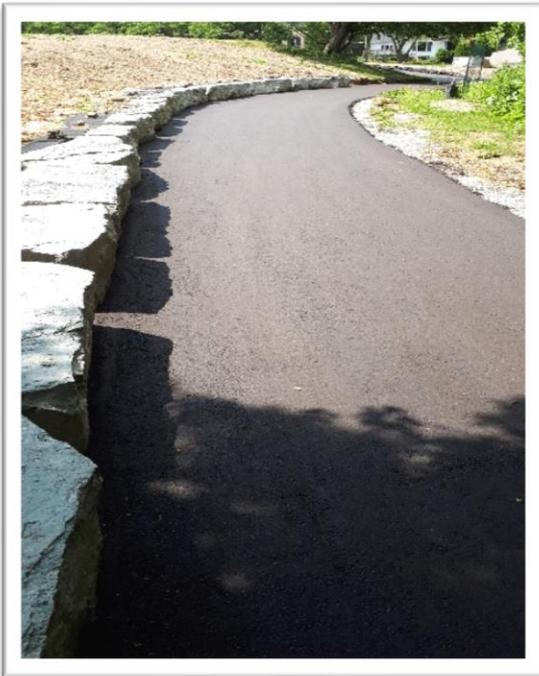
Upper James and Mohawk 30

# CEMETERIES



## 2021 KEY METRICS

- **1,244** internments
- **124** columbarium niche sales
- **\$1,360,673** pre-need sales



Parkside Cemetery path

## PROJECT HIGHLIGHTS

- Parkside Cemetery
- Cholera bed redevelopment
- Digitization of cemetery documents
- GIS inventory and assessment of cemetery paving, drinking fountains and commemorative features



Cholera bed



## CURRENT TRENDS & ISSUES

- Potential for private cemeteries to be assigned to the municipality to operate and maintain
- Cemeteries as parkland and increased visitors
- Aging infrastructure and lack of capital reinvestment



Woodland Cemetery pollinators



Columbarium

## LOOKING AHEAD 2022

- Continue to implement cemeteries branding and marketing plan developed in 2018/19
- Sales at Parkside Cemetery
- Design and construction for green burial at Mount Hamilton Cemetery
- Pet burial section at Mount Hamilton

## 2023 - 2025

- Improvements at Mountview Hamilton



Example of green burials wildflowers

# WASTE



## 2021 METRICS & HIGHLIGHTS

+27 million waste pickups per year  
225,300 tonnes of residential waste

↑ 3.2%  
**43%**  
Residential Waste  
Diversion Achieved

↓ 1.6%  
**139,700**  
**Landfill Tonnes**  
Residential garbage  
and residue from  
processing facility

↑ 39%  
**20,800**  
**Tonnes**  
Green Cart  
materials

↑ .5%  
**39,400**  
**Recycling Tonnes**  
Materials sent to end  
markets from Blue Box  
program and Community  
Recycling Centres

↓ 3.7%  
**25,400**  
**Tonnes**  
Leaf and  
Yard Waste



## 2021 HIGHLIGHTS

- New contracts for waste collection and composting facility
- Increase in blue box curbside tagging and audits
  - Lower overall recycling contamination
- Seasonal yard waste curbside collection
  - No yard waste collections between Dec - Feb
- Project underway to increase the processing capacity at the CCF beyond current 20,000 MT cap
- Implementation of the new City of Hamilton Waste Requirements for Design of New Developments
- “Separate, Don’t Contaminate” ad campaign



Waste packer truck



Waste collections vehicle

## CURRENT TRENDS & ISSUES

- Waste Free Ontario Act
  - Working with industry associations to prepare for transition, communicate future program change
- Managing an aging workforce and a work environment prone to injuries and absenteeism
- Plateaued diversion rates continue to threaten the life expectancy of the Glanbrook Landfill
  - Current 2046
- Processing capacity at the CCF is capped at 20,000 MT/year



Collections truck



Curbside waste collection

## LOOKING AHEAD 2022

- Route optimization / balancing of collection routes
- Strategy to ensure reduced contamination at waste facilities
- Blue box transition planning
- Waste audits and education to support multi-residential waste diversion



Recycling facility

## 2023 - 2025

- Implementing “green fleet” program initiatives
- Investigating “administrative penalty system” for waste bylaw enforcement
- Looking at efficiencies at the transfer stations/CRCs with goal to expand



Collections staff

# WATER, WASTEWATER & STORMWATER



## 2021 METRICS

- **78.87** billion litres of water treated
- **884** substandard water service line replacements
- **61,512** water samples tested
- **11** confirmed AWQI's



Substandard water line replacement

## PROJECT HIGHLIGHTS

- Water distribution system leak detection
- Drinking water advisory lifted in Lynden (Aug 5, 2021)
- City staff replacing public portion lead water service pipes



Lynden



## CURRENT TRENDS & ISSUES

- Increase in low chlorine adverse water quality incidents
- Contaminated soil removal at Kenilworth reservoir
- Increasing costs for water treatment chemicals



Kenilworth Reservoir

## LOOKING AHEAD 2022-2025

- Water Treatment Plant Upgrades - Contract #2
- Pressure District 7 (Elfrida) Water Tower
- SCADA Cyber Security Program
- Alectra Utilities discontinuation of water billing services



Electrical power centre – Woodward Upgrades

## 2021 METRICS

- **80.3%** wastewater treatment capacity
- **40,802** tonnes of biosolids processed on site
- **8** substantially completed projects
- **23** wastewater treatment bypasses
- **15** odour complaints at the Woodward WWTP



Twenty Road Wastewater Pumping Station

## PROJECT HIGHLIGHTS

- Partnerships and contributions to SARS-CoV-2 testing in wastewater - University of Ottawa
- Continuous wastewater treatment plant effluent compliance
- AEGD pumping station upgrades



Twenty Road Wastewater Pumping Station

## CURRENT TRENDS & ISSUES

- Dundas wastewater treatment plant upgrades funding
- Increased # of Woodward wastewater treatment plant bypasses in 2021
- Biosolids facility odour complaints



Wastewater pumping stations at the WWTP

## LOOKING AHEAD 2022-2025

- Woodward Upgrades program completion
- Real time control phase 2 construction
- CSO outfall monitoring enhancement
- Design and tendering phase for Woodward wastewater treatment plant capacity expansion

## 2021 METRICS

- **512** emergency spill responses
- **2,249** rain barrels sold
- **80** downspout disconnections
- **440** back water valves installed
- **24,652** tests on environmental samples

## PROJECT HIGHLIGHTS

- Chedoke Creek and Cootes Paradise short term direct measures
- Surface water quality program
- Protective Plumbing Program enhancements (downspout disconnection grant)



Stormwater outfall

## CURRENT TRENDS & ISSUES

- Stormwater source control enforcement
- Chedoke Creek dredge plan extension
- Invasive species in watercourses and storm water facilities
- Backlog of stormwater facility dredging
- MECP consolidated linear ECAs



Stormwater flooding

## LOOKING AHEAD 2022-2025

- Flooding and drainage master servicing study workplan
- Chedoke Creek and Cootes Paradise workplans
- Development of comprehensive storm water system hydraulic model



Floating vegetation mats Chedoke Creek

# INFRASTRUCTURE REHABILITATION



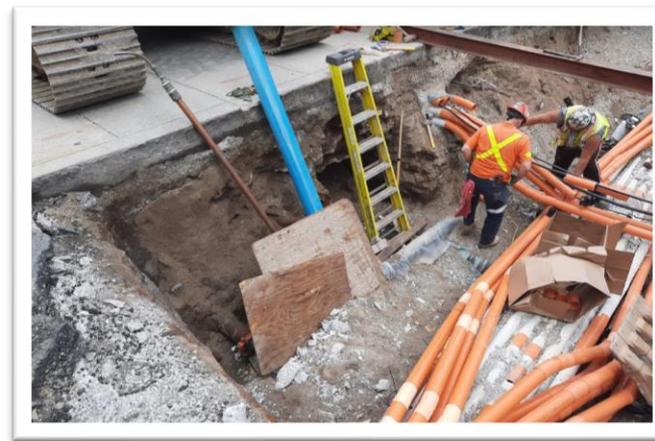
# INFRASTRUCTURE REHABILITATION

## 2021 KEY METRICS

- **57 lane km** roads rehabilitated
- **67 lane km** rural roads rehabilitated
- **99 km** mainline sewers inspected
- **14km** sewers rehabilitated
- **6 km** watermains inspected
- **5km** watermains rehabilitated
- **226** bridges inspected
- **14** bridges rehabilitated
- **22,000** catch basins inspected and cleaned
- **3.2 kms** sidewalk replaced
- **11.11 kms** sidewalks repaired

## PROJECT HIGHLIGHTS

- Bell Project
  - Total Homes Permitted: **43,000**
  - Total Metres Permitted: **298,000m**
  - Total Approved Permits: **138**
- Road cut restorations
  - Total road cut locations: **2,800**
  - Total road cut value: **\$6.1M**



Bell Project



# INFRASTRUCTURE REHABILITATION

## CURRENT TRENDS & ISSUES

- Backlog of structural rehabilitations
- Lead service replacement
- Implementing complete, liveable, better streets



Mudd Street Bridge



Example: Complete, liveable, better streets

# INFRASTRUCTURE REHABILITATION

## LOOKING AHEAD 2022

### Critical watermain lining

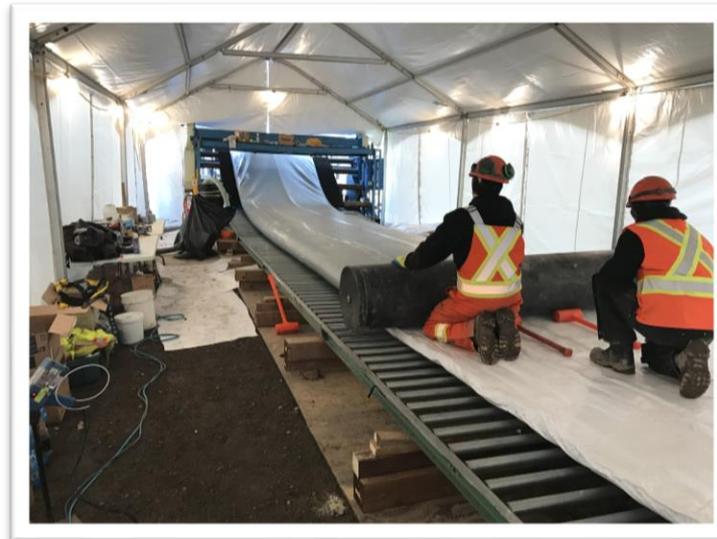
- Beach Road
- Kenilworth Tunnel
- Rosedale Park Red Hill Creek Crossing

### Critical sewer main lining

- Satellite City
- Inverness Avenue East

### Road rehab projects

- Barton Street
- Scenic Drive
- Nebo Road
- Kenilworth Avenue
- Wilson Street



Sewer lining process

# TRANSPORTATION



# TRANSPORTATION

## PROJECT HIGHLIGHTS

## 2021 KEY METRICS

- **17,200** catch basins cleaned
- **55** cross road culverts replaced
- **68** lane km of rural road resurfaced
- **7,291** pothole sites repaired
- **49** guide rail locations repaired
- **6,825 km** of protected bike lanes installed
- **4,357** traffic signs repaired/replaced
- **9,095** MMS sidewalk deficiencies reported
- **9,581** Non MMS sidewalk deficiencies reported
- **3,207** sidewalk deficiencies repaired
- **22** lane kms of sidewalks repaired

- Inventory audits
- LINC Annual Spring Maintenance
- Red Hill Valley Parkway Operational Plan



Traffic Operations Centre garage



Rural roads - maintenance



## CURRENT TRENDS & ISSUES

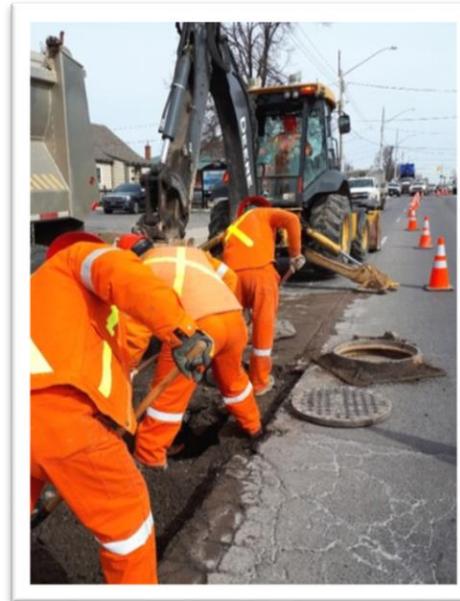
- Operational impacts from growth capital projects
- Increased roadway repair costs
- Improved inventory controls resulting from audits
- Expanding and enhancing cycling infrastructure



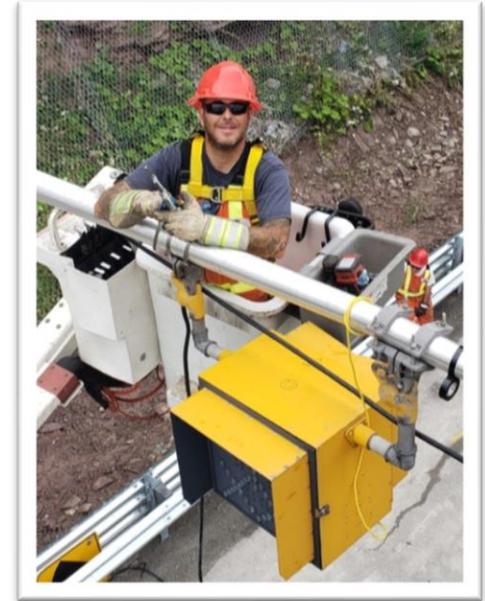
Safari Road – localized flooding



Hunter St. bike lanes



Operations staff



Traffic signal repairs

## LOOKING AHEAD 2022

- Enhanced winter sidewalk snow clearing
- Crack sealing program

## LOOKING AHEAD 2023 - 2025

- Pavement preservation strategy
- Transportation Operational Plan
- Optimization of maintenance and operations activities



Pavement markings



Winter conditions – snow clearing



Roads vehicles

# ROADWAY SAFETY



# ROADWAY SAFETY

## PROJECT HIGHLIGHTS

- Vision Zero Action Plan & Dashboard
- Intelligent Transportation System Strategy
- Cycling facility design and implementation
- Ward 8, 14 & 3 complete street studies



Millen @ Shoreview – New pedestrian crossover

## 2021 KEY METRICS

- **159** new speed cushion locations
- **640** community safety zone locations reviewed
- **15** automated speed enforcement pilot locations
- **16** new pedestrian crossovers installed
- **12** traffic signals installed/rehabilitated
- **48** neighbourhoods added to Vision Zero speed reduction program
- **33%** reduction in total collisions



## CURRENT TRENDS & ISSUES

- **50%** reduction in vehicular traffic volumes – COVID-19 impact
- Collisions involving vulnerable road users regularly result in injury
  - Pedestrian injuries - **90.7%** of the time
  - Cyclist injuries - **78.7%** of the time



Wellington @ Hunter – intersection enhancements



# ROADWAY SAFETY

## LOOKING AHEAD 2022

- Automated speed enforcement program
- Neighbourhood speed reduction project
- Roadway safety program examination

## LOOKING AHEAD 2023 - 2025

- Implementing complete, liveable, better streets
- Administrative Monetary Penalty System (AMPS) integration for Red Light Camera and Automated Speed Enforcement programs



Cycling lanes



King @ Green Forest – New pedestrian crossover 58

# TRANSIT



## 2021 KEY METRICS

- **885,146** service hours (90% of budgeted hours as of November 30)
- **88%** on-time performance
- **80,571** kms between preventable collisions
- **6,837** kms between mechanical failures

## PROJECT HIGHLIGHTS

- Introduced the first RNG fueled bus
- HSR myRide expands the service coverage in Waterdown and increases the number of bus stops
- 36 shelters along Main/King/Queenston are now solar shelters



PRESTO on DARTS vehicles



First carbon negative bus pilot

60



## CURRENT TRENDS & ISSUES

- Continued need for investments and funding for both operating and capital
- COVID-19 impacts and continued importance of safety measures for staff and customers alike
- Post pandemic ridership strategy – welcoming customers back to transit and encouraging new customers to try transit



Bus at City Hall



Bus Operator on Route 58

## LOOKING AHEAD 2022

- Ridership recovery through service excellence
- Year 6 of 10 Year Local Transit Strategy
- Specialized accessible transportation review through fleet strategy



## 2023 - 2025

- Network redesign
- Years 7-10 Local Transit Strategy
- Moving towards zero emissions



Bayfront bus on James St.

# FLEET



## 2021 METRICS & HIGHLIGHTS

- 8 electric vehicles
- **32.4%** commercial vehicle operator's registration (CVOR) rating
  - Winter 2019 – CVOR at **84.5%**
- Green fleet electric vehicle conversion
- Green fleet strategy expected to reduce GHG's by **18.4%** by 2024
- Funding grant approval from Natural Resource Canada (NRCan) for electric vehicle infrastructure for **\$300,000**



Electric sweeper



Electric sweeper



# CURRENT TRENDS & ISSUES

- Electric vehicle purchases will require more charging stations
- Yard study impacts to fleet maintenance operations locations and fuel site infrastructure
- Converting all diesel vehicles by 2030
- Increase in fuel costs



## LOOKING AHEAD 2022-2025

- Green Fleet Strategy Implementation:
  - 3 year forecast of **89** vehicles that can be replaced with battery electric vehicles
  - **49** electric charging stations to be installed
  - A pilot on the use of biodiesel to identify highest blend possible
  - Eco Driving and Anti-Idling awareness campaigns and training for all fleet operators
- Conversion of **10** waste packers from diesel to natural gas



Electric street sweeper



Fleet vehicle

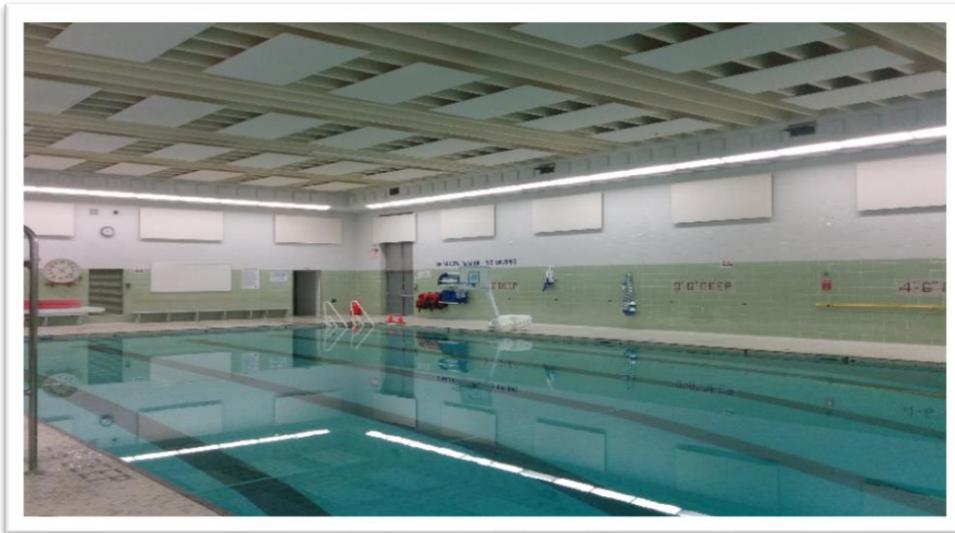
# ENERGY

*Hamilton*



## 2021 KEY METRICS

- **35%** energy intensity reduction in corporate buildings since 2005
- **42%** GHG emission reductions since 2005
- **21,800 MWH** electricity produced (Woodward and Glanbrook)



Ryerson Pool

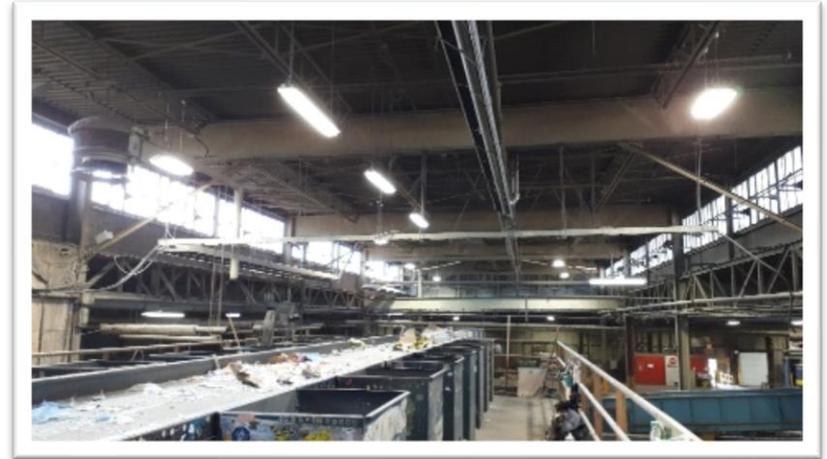
## PROJECT HIGHLIGHTS

- Completing Energy and GHG reduction projects
- Global adjustment benefit
- Energy efficient upgrades to 3 pools and domestic water heating
- Latest version of Corporate Energy & Sustainability Policy approved



## CURRENT TRENDS & ISSUES

- Council declared Climate Change Emergency
- Investigation of actions to achieve net-zero carbon emissions by 2050
- Community Energy & Emissions Plan
- Carbon tax increases impacting natural gas and fuels (diesel and gasoline)
- Volatility of utilities and commodities
  - Volatility especially around extreme weather events



MRF LED lighting



Solar Panels at 330 Wentworth

## LOOKING AHEAD 2022-2025

- Focus on pathway to Net Zero in Corporate buildings by 2050
- Renewable energy opportunities (solar, renewable, natural gas)
  - Corporate sites
  - Hamilton Renewable Power operations
- Stakeholder roles on:
  - Community Energy & Emission Plan
  - Corporate Climate Change Task Force
  - Public Works Resiliency Plans



Parkdale Pool

# CORPORATE SECURITY



# 2021 KEY METRICS & HIGHLIGHTS

- **44** mass gatherings in public spaces
- **85%** decrease in the number of trespass to properties from 2020
- **116,013** security guard service hours:
  - **21%** are directly related to COVID services
  - **14%** directly related to services on-demand
- **1,400+** service calls responded to



# CORPORATE SECURITY LOOKING AHEAD

- Security trends continue to change
- Creation of the Security Staff Advisory Committee
- Security Awareness Training
- Site security upgrades and perimeter fencing at the HSR Mountain Transit Centre

## SECURITY AWARENESS TRAINING



# FACILITIES MANAGEMENT



# FACILITIES MANAGEMENT PROJECT HIGHLIGHTS

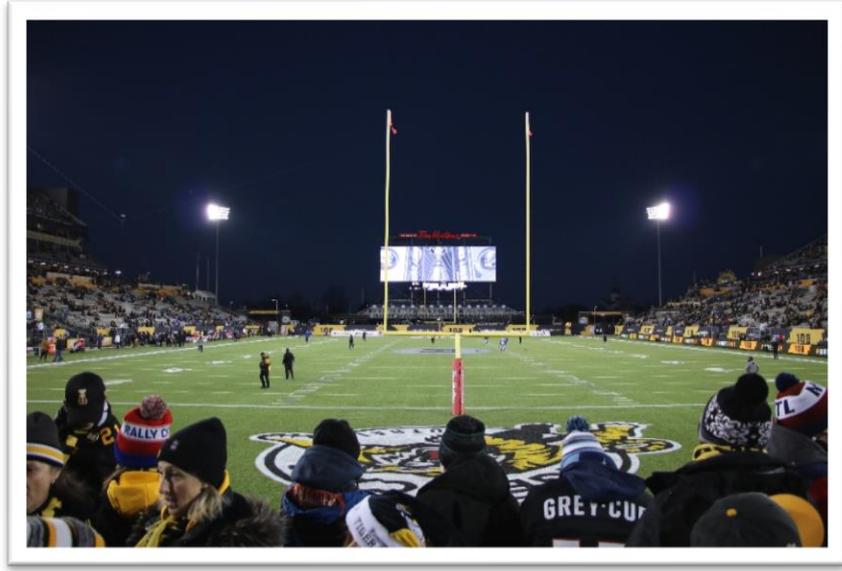
## 2021 KEY METRICS

- **20,624** preventative maintenance work orders
- **22,325** on-demand work orders
- **42,949** total work orders issued

- 2nd year of operation of 125 Barton St. Facility Yard to a centralized COVID-19 Supply Distribution Warehouse
- 108th Grey Cup @ Tim Hortons Field



Barton Street supply distribution warehouse



108<sup>th</sup> Grey Cup



## CURRENT TRENDS & ISSUES

- Facility condition index (FCI) **9.45%** overall rating fair state of repair
- On going review of aging infrastructure including roof replacements and mechanical upgrades/replacements



Rosedale tennis club roof

Overall **Facilities Condition Index (FCI)** across 500+ facilities is **9.45% (Fair)**



### Facility Condition Index

0-5%	5-10%	10-30%	>30%
Good	Fair	Poor	Critical

## LOOKING AHEAD 2022-2025

- Continue improving indoor air quality initiatives through air purification systems
- Priority roof replacements and mechanical upgrades



Mount Hope library roof



Inch Park arena roof

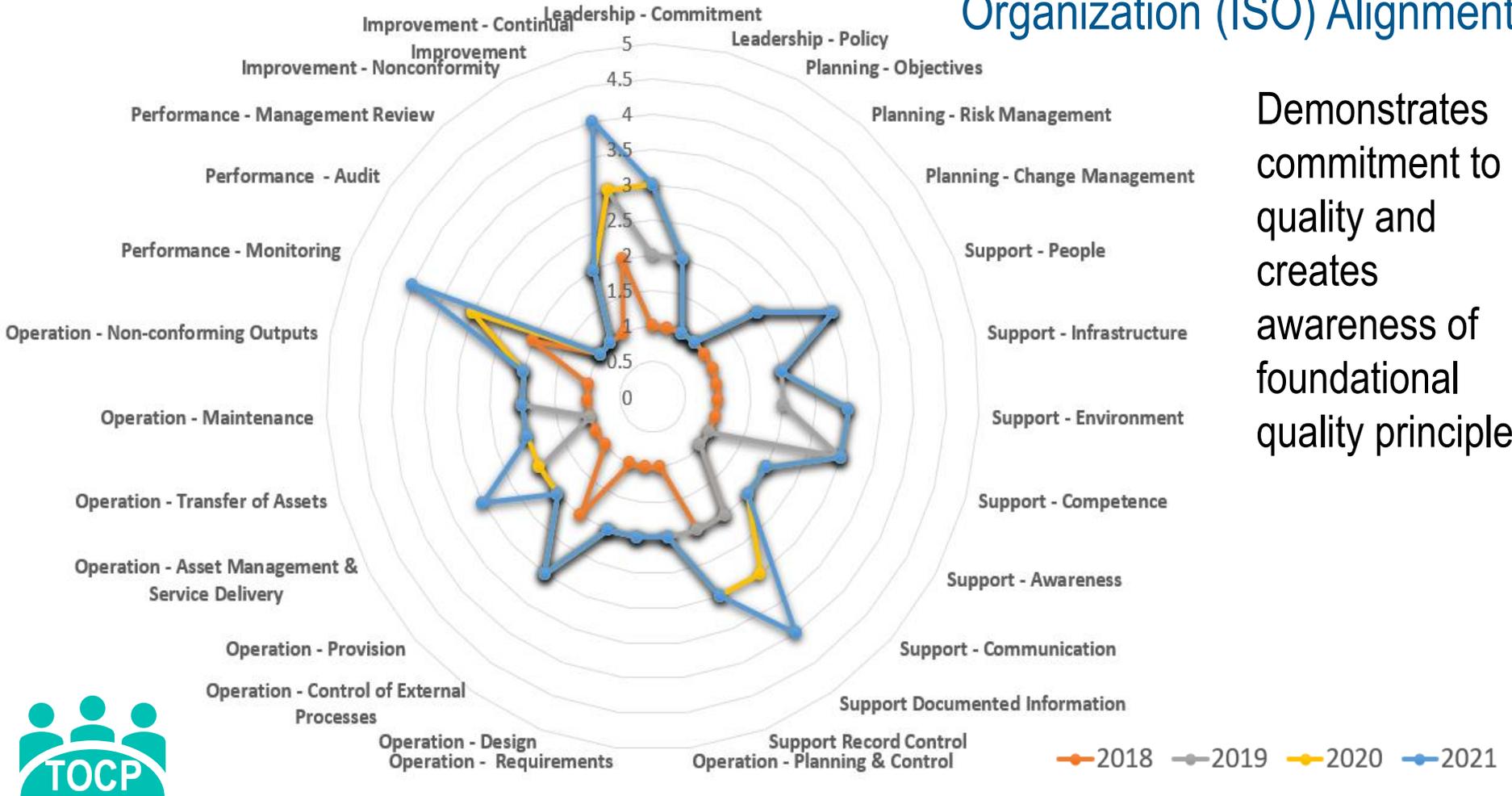


# Quality Management

# PUBLIC WORKS QUALITY MANAGEMENT SYSTEM

## Assessment Tool for International Standards Organization (ISO) Alignment

Demonstrates commitment to quality and creates awareness of foundational quality principles



# PUBLIC WORKS QUALITY MANAGEMENT SYSTEM

## 2021 KEY HIGHLIGHTS

- Departmental Training Framework
- Departmental Internal Audit Program
- PW QMS Non-Conformance Process
- PW QMS Document Management for Emergency Response



# PUBLIC WORKS QUALITY MANAGEMENT SYSTEM

## LOOKING AHEAD 2022-2025

- Departmental audit program launch
- Transfer of assets process implementation
- Quality objectives identification
- Risk management process implementation
- Management review process developed
- Change management
- Vendor management



# PERFORMANCE MEASUREMENT



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# PERFORMANCE MEASUREMENT PROGRAM

Introduction of  
Data Collection  
Web Tool - BIMA

Include Levels of  
Service to align with  
Corporate Asset  
Management Program

Dashboard and  
Visualization



# PERFORMANCE MEASUREMENT PROGRAM

## HIGH-PERFORMING KPIs



As of January 7, 2022

Objective	Metric	Target	YTD	Health
<b>Transit – Cancelled Service</b>	% of scheduled service cancelled due to no operator available	0	0	
<b>WWTP Regulatory Compliance</b>	Number of instances effluent not compliant with regulatory standards (limit / daily loading) for Woodward & Dundas	0	0	
<b>Safety - CVOR</b>	Average CVOR (Commercial Vehicle Operator's Rating) Safety Rating (%)	49.9%	32.4%	
<b>Purchasing Policies</b>	Total number of Policy 19 Occurrences	12	5	
<b>Traffic – Street Light Inspections</b>	% street light inspections completed to MMS standards (4443)	100	100	

# PERFORMANCE MEASUREMENT PROGRAM

## OPPORTUNITIES FOR IMPROVEMENT KPIs



As of January 7, 2022

Objective	Metric	Target	YTD	Health
<b>Small drinking water systems</b>	Small drinking water systems - # of adverse conditions	0	2	
<b>Drinking Water Quality</b>	Maintain zero confirmed adverse water quality incidents (AWQIs)	0	11	
<b>Safety - Lost time</b>	Number of days lost as a result of workplace accident	0	1638	

# CLIMATE CHANGE ACTION



85

# CLIMATE CHANGE ACTION

## 2021 HIGHLIGHTS

- Supported Corporate Community Energy & Emissions Plan and Climate Impact Adaptation Plan
- Completed climate actions inventory for Public Works – identified **275** initiatives related to climate change adaptation and mitigation
- **Partnered with 5 GTHA municipalities** to complete an adaptation pilot to analyze acute and chronic climate related stressors on vertical and linear infrastructure
- Completed **3** student based CityLab projects
- Completed a framework for an inaugural **climate education program**



CNG Vehicles for Waste Collection



Anti-Idling Campaign



# CLIMATE CHANGE ACTION

## LOOKING AHEAD 2022

- First climate lens
- Completion of first annual resiliency assessment
- Complete Public Works climate strategy that aligns with Community Energy & Emissions Plan and Climate Impact Adaptation Plan
- Public Works second climate summit

## 2023 - 2025

- Launch of the innovation incubator and climate futures program



# CLIMATE CHANGE ACTION

## CLIMATE CHANGE PROJECTS

- Hamilton Parks Master Plan
- Tree Planting Program
- Cycling Infrastructure
- Landfill Gas (LFG) collection system expansion (Stage 3)
- CNG Vehicles for waste collection
- Waste collection anti-idling campaign
- Flooding and drainage improvement framework servicing review
- Stormwater modelling to support climate adaptation
- Beach Blvd environmental assessment



Sam Lawrence park



CNG fueling

# CLIMATE CHANGE ACTION

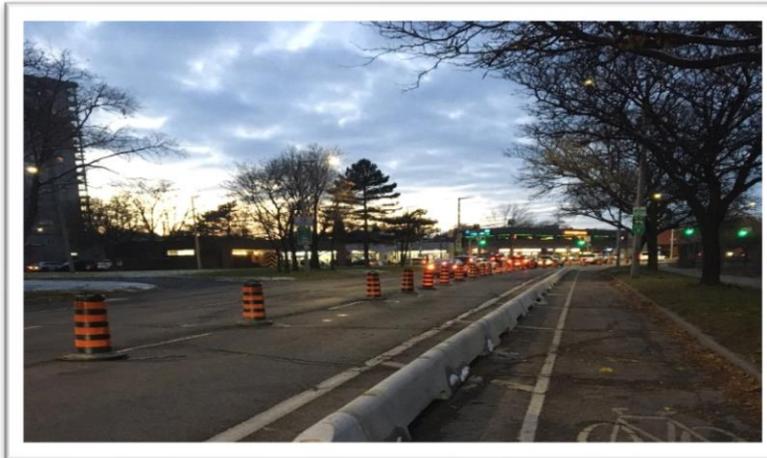
## CLIMATE CHANGE PROJECTS



Hunter Street cycling infrastructure



Beach Boulevard



York Boulevard cycling infrastructure



Bayfront Park

# CONTINUOUS IMPROVEMENT

A woman in a yellow vest and a man in a purple shirt are looking at a wall covered in sticky notes in an office setting. The woman is on the left, looking up and to the right. The man is on the right, looking up and to the left, with his hands raised as if pointing at the wall. The background is a blurred office environment with a computer monitor visible on the left.

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# CONTINUOUS IMPROVEMENT

## 2021 HIGHLIGHTS



### Ideas Generated



74



517%

488 Since Program Inception

### Projects Started



187



105%

580 Since Program Inception

### Projects Completed



170



89%

441 Since Program Inception

### Kaizen Events



6



20%

41 Since Program Inception

### Recovered Capacity



\$1.2M



141%

\$14.1M Since Program Inception

### Cost Reduction



\$0

\$1.7M Since Program Inception

### Cross - Dep / Cross Div. Collaboration

50



14%



### Staff Involvement



850



24%

### Green Belts Trained



30

Since Program Inception

# CORPORATE ASSET MANAGEMENT



92

# WHAT IS AN ASSET?



Assets provide services that contribute to our quality of life



# ASSET MANAGEMENT IS...



# Asset management is a process used in decision-making.

It helps us care for the infrastructure that delivers valuable services to our community, in a way that:

- **Considers service needs of our community**
- **Manages risks and opportunities**
- **Uses resources wisely**

## WHY IT MATTERS?

- **A process**
- **A journey**
- **An approach**
- **A way of doing business**



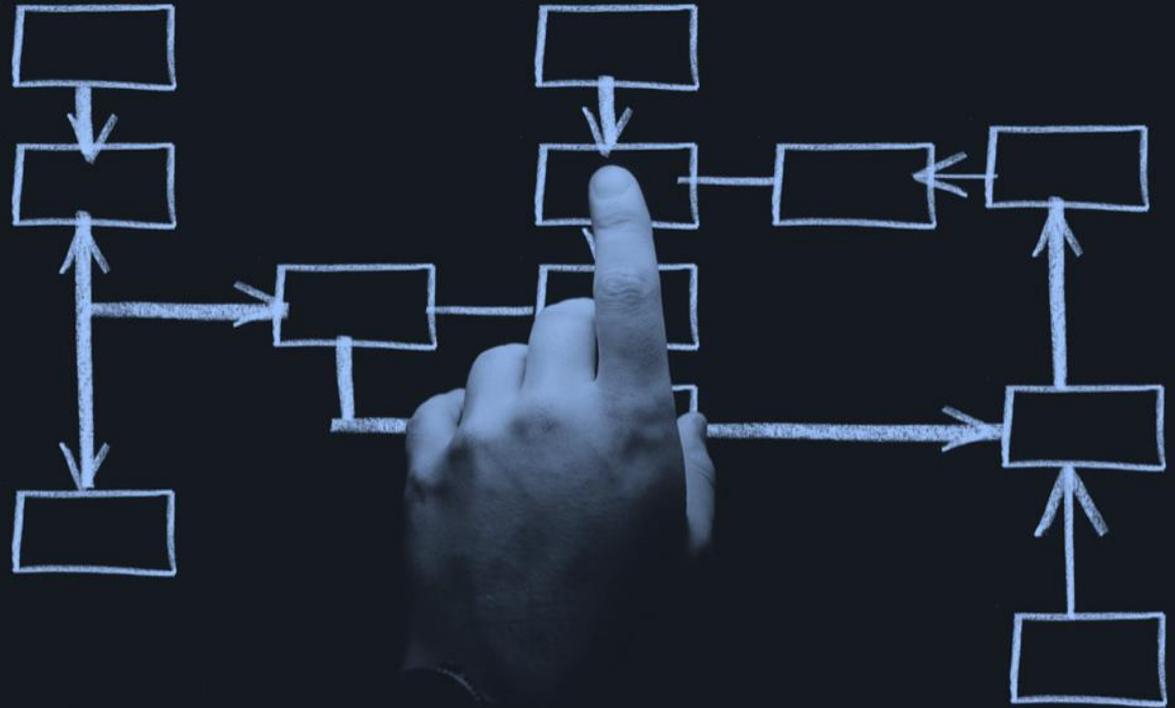
# ASSET MANAGEMENT

gives us the empirical evidence so we can...

- Do the right thing
- To the right asset
- At the right time
- For the right cost

# WE NEED A SYSTEM THAT HELPS...

- Maintain the delivery of services
- Plan for the future
- Manage risk
- Budget smartly



Council needs  
**information** about  
asset performance,  
risk and cost to **set**  
**direction.**



# ASSET MANAGEMENT AT THE CITY OF HAMILTON

In recent years, the discipline of Asset Management has evolved.  
Hamilton needs to catch up ...



## THEN

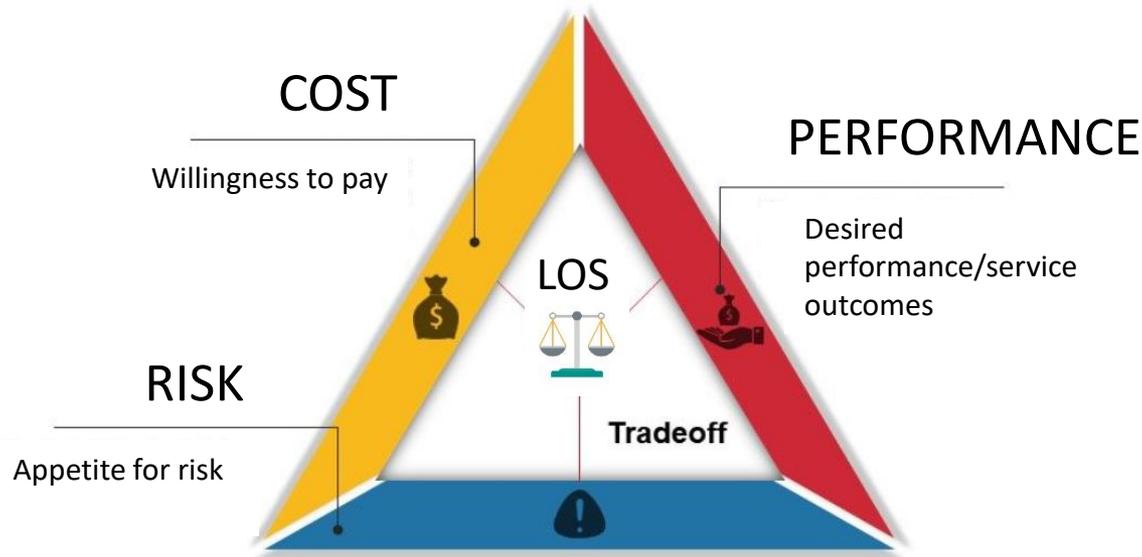
A focus on the implementation of managing asset activities (e.g. condition assessments).



## NOW

All the activities and practices an organization applies to assets in order to achieve its strategic objectives.

# FUTURE STATE – BALANCING COST, RISK AND PERFORMANCE



- Desired levels of service will be achieved through the balance of cost, risk and performance.
- Prioritization of funds becomes critical in order to ensure the best balance is achieved.
- Must find the balance that delivers the greatest value to the City.

# ASSET MANAGEMENT FRAMEWORK



Source: Institute of Asset Management

# ONTARIO REGULATION 588/17 MANDATES

## Asset Management Policy



2019

## Asset Management Plan for Remaining Assets

- Current LOS with cost to maintain
- Gap analysis in progress

JULY 1, 2022

JULY 1, 2024

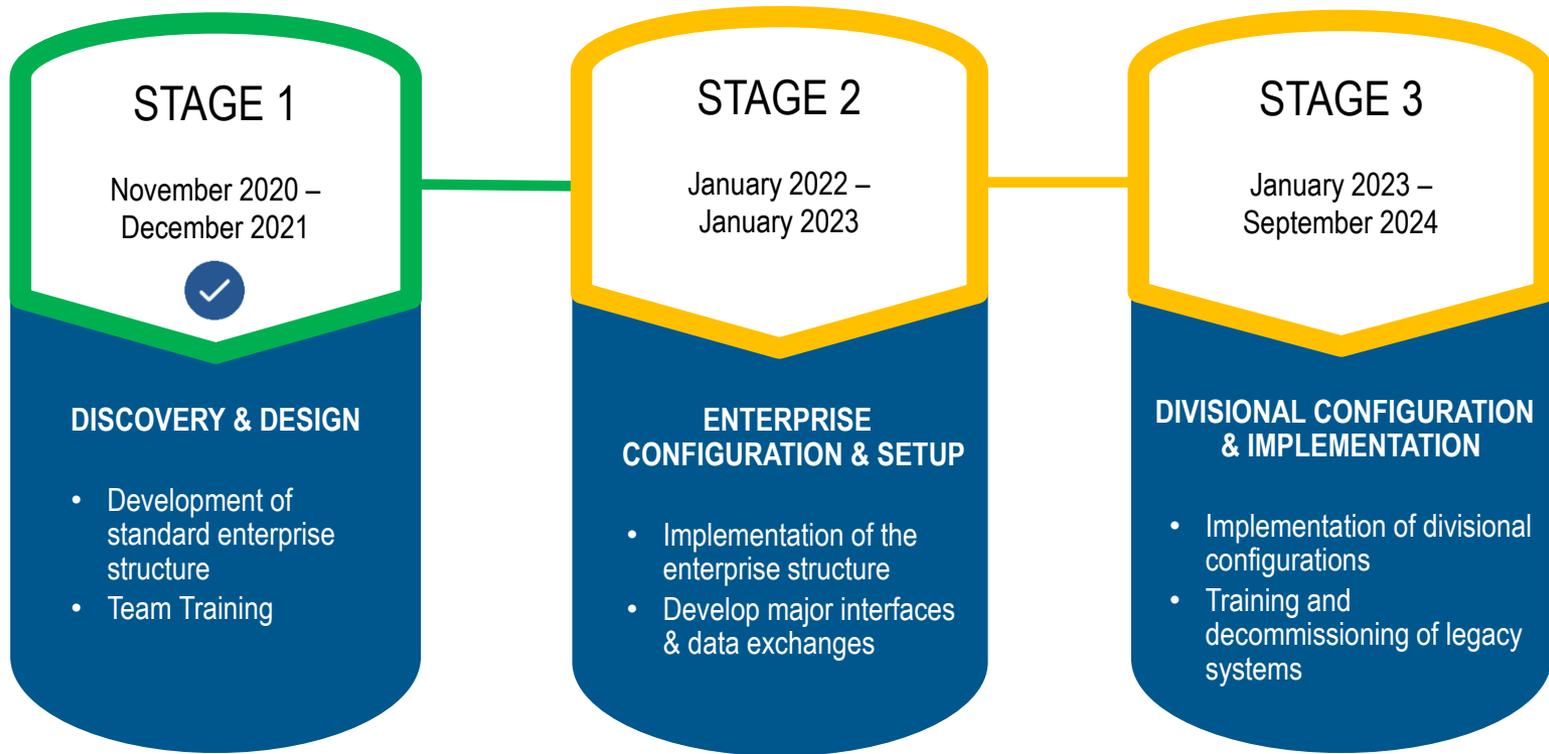
JULY 1, 2025

## Asset Management Plan for Core Assets

- Roads, Bridges, Water, Wastewater, Stormwater
- Current Levels of Service (LOS) with cost to maintain
- Expected Q2 2022

## Proposed LOS Completed

# ENTERPRISE ASSET MANAGEMENT PROJECT UPDATE



- Significant opportunity for improved asset management and higher quality service delivery with less cost.
- Project has identified the opportunity to standardize 47 process flows across Public Works.

# SHARED ISSUES & TRENDS



# SHARED TRENDS & ISSUES

## ACROSS PUBLIC WORKS

- **Human Resources**

- Recruitment of skilled labour
- Managing vacancies
- Student hiring

- **Shared Issues**

- COVID-19 impacts
- Redeployments
- Supply chain challenges
- Rising construction costs
- Inflationary pressures
- Contract pressures
- Coordination of funding opportunities (ICIP, DMAF)

- **Shared Projects & Initiatives**

- Excess soils
- LRT
- Consolidated linear infrastructure  
Environmental Compliance Approval (ECA)
- Enterprise asset management
- Project management standardization
- Corporate asset management
- Quality management

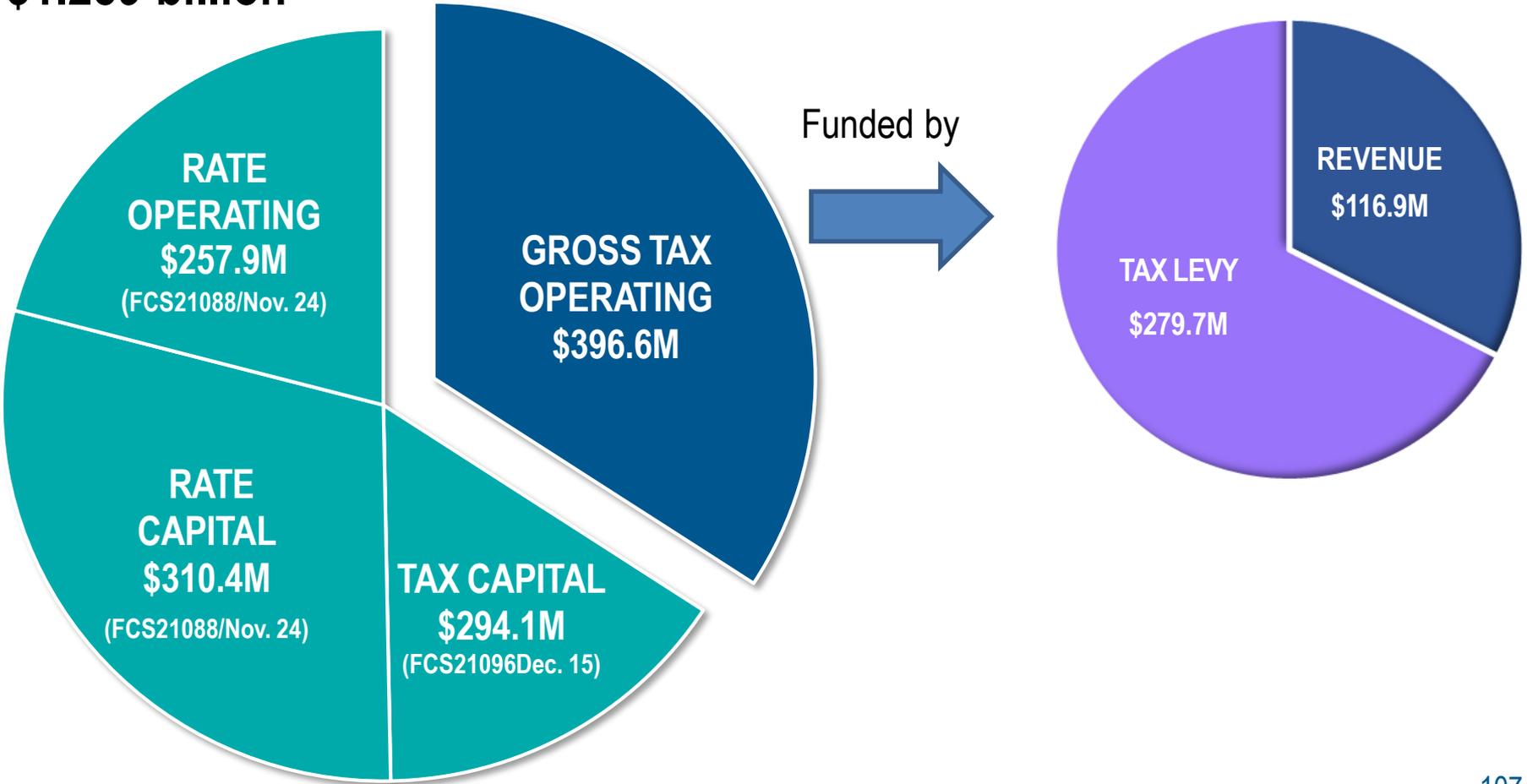


# 2022 PRELIMINARY TAX OPERATING BUDGET

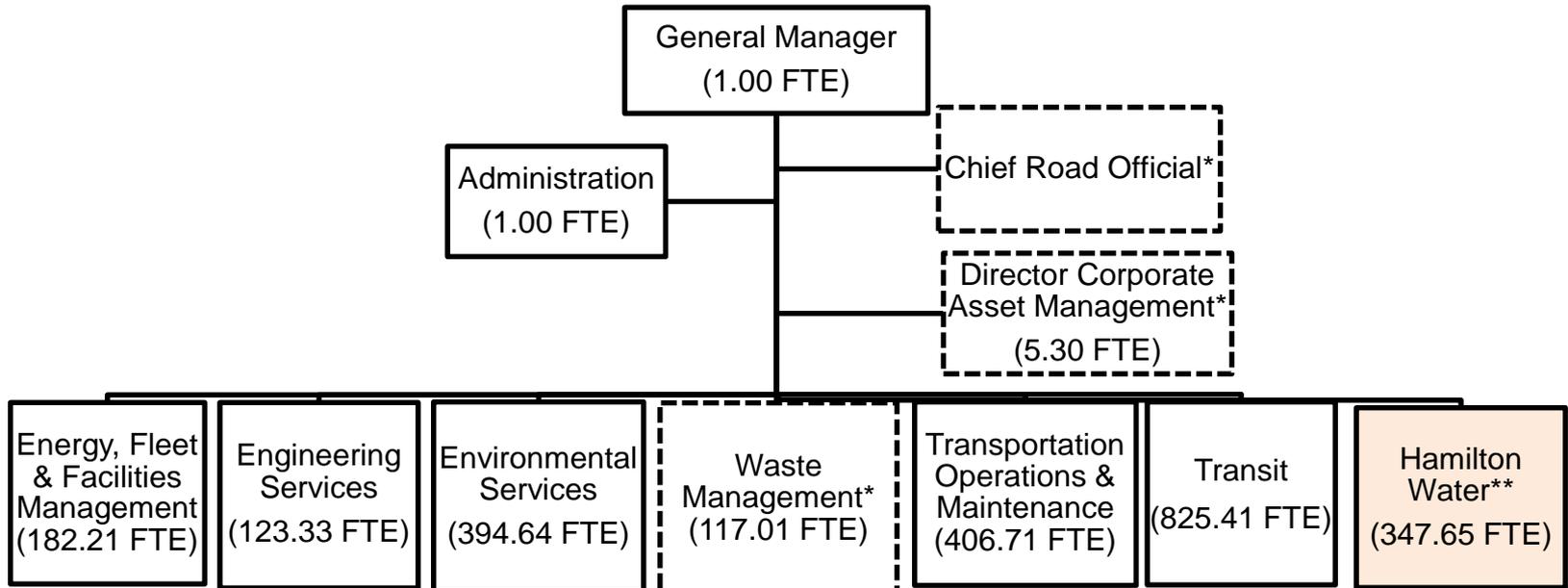
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# 2022 GROSS BUDGET

2022 Gross Capital and Operating Budgets  
**\$1.259 billion**



# ORGANIZATIONAL CHART



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio
2021	33.00	1980.35	2013.35	60.01:1
2022	33.00	2023.61	2056.61	61.32:1
<b>Change</b>	0.00	43.26	43.26	

- \* 3.0 Director positions are excluded from the 2022 Budgeted Complement count. The positions are currently temporary and not counted as part of the permanent FTE Complement. If positions were included the Staff to Mgt Ratio would be 56.21:1
- \*\* Complement excludes Hamilton Water

# 2022 OPERATING BUDGET BY DIVISION

2022 vs 2021 Net Change

	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	\$	%
PW-General Administration	634,870	658,900	658,900	24,030	3.8%
Energy Fleet and Facilities	13,273,690	21,946,730	14,276,080	1,002,390	7.6%
Engineering Services	-	21,743,950	-	-	0.0%
Environmental Services	44,240,900	48,556,680	45,582,310	1,341,410	3.0%
Waste Management	44,104,610	62,013,470	46,944,820	2,840,210	6.4%
Transit	80,834,700	150,197,660	87,972,010	7,137,310	8.8%
Transportation Operations & Maintenance	83,485,680	91,441,190	84,234,120	748,440	0.9%
<b>Total Public Works</b>	<b>266,574,450</b>	<b>396,558,580</b>	<b>279,668,240</b>	<b>13,093,790</b>	<b>4.9%</b>
<b>Proposed Amendment - Waste Management: Blue Box Municipal Funding Allocation</b>				<b>(573,940)</b>	<b>(0.2%)</b>
<b>Total Public Works - Less Proposed Amendment</b>				<b>12,519,850</b>	<b>4.7%</b>

# 2022 KEY BUDGET DRIVERS

TRANSIT	Year 5 Annualization + Year 6 of the 10 Year Local Transit Strategy	\$ 4,144,000
	PRESTO Agreement	\$ 381,000
	Transit Fleet Reserve Inflationary Increase	\$ 230,000
EFFM	Tim Hortons Field Pressures	\$ 487,000
WASTE MGMT	Curbside Waste Collection Contract	\$ 1,969,250
	Materials Recycling Facility Contract	\$ 246,380
	Hazardous & Speciality Products Regulation Subsidy Reduction	\$ 202,000
	Transfer Station / Community Recycling Centres (TS / CRC) Contract	\$ 293,420
	TS / CRC Tipping Fee, Municipal Blue Box Funding & Recycling Commodities Revenue Adjustment Increases	\$ (1,084,610)
TOM	Winter Program Adjustment Decrease	\$ (1,450,000)
	Sidewalk Snow Clearing (Option 2A total incremental cost is \$2.34M. 2022 Budget \$936K {Nov, Dec} and 2023 Budget \$1.404M {Jan, Feb, Mar})	\$ 936,000
	Catch Basin Cleaning, Grass Cutting & Phragmite Control Contract Pressures	\$ 325,000
PW - ALL	Employee Related Costs - Excludes ERC related to Transit Strategy	\$ 3,790,320
	Fuel (Budgeted at 1.10/L, pressure \$750K partially mitigated by tax stabilization reserve)	\$ 375,100
	Insurance and Vehicle Insurance Charges	\$ 663,300

( ) Denotes budget savings / revenue increases <sup>10</sup>

# MULTI-YEAR OUTLOOK

Multi-Year Outlook					
2023		2024		2025	
Budget \$	% Change from 2022	Budget \$	% Change from 2023	Budget \$	% Change from 2024

**Total Public Works - Tax Net Levy**

<b>292,656,810</b>	<b>4.6%</b>	<b>303,918,900</b>	<b>3.8%</b>	<b>315,676,630</b>	<b>3.9%</b>
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**Key Transit Drivers:**

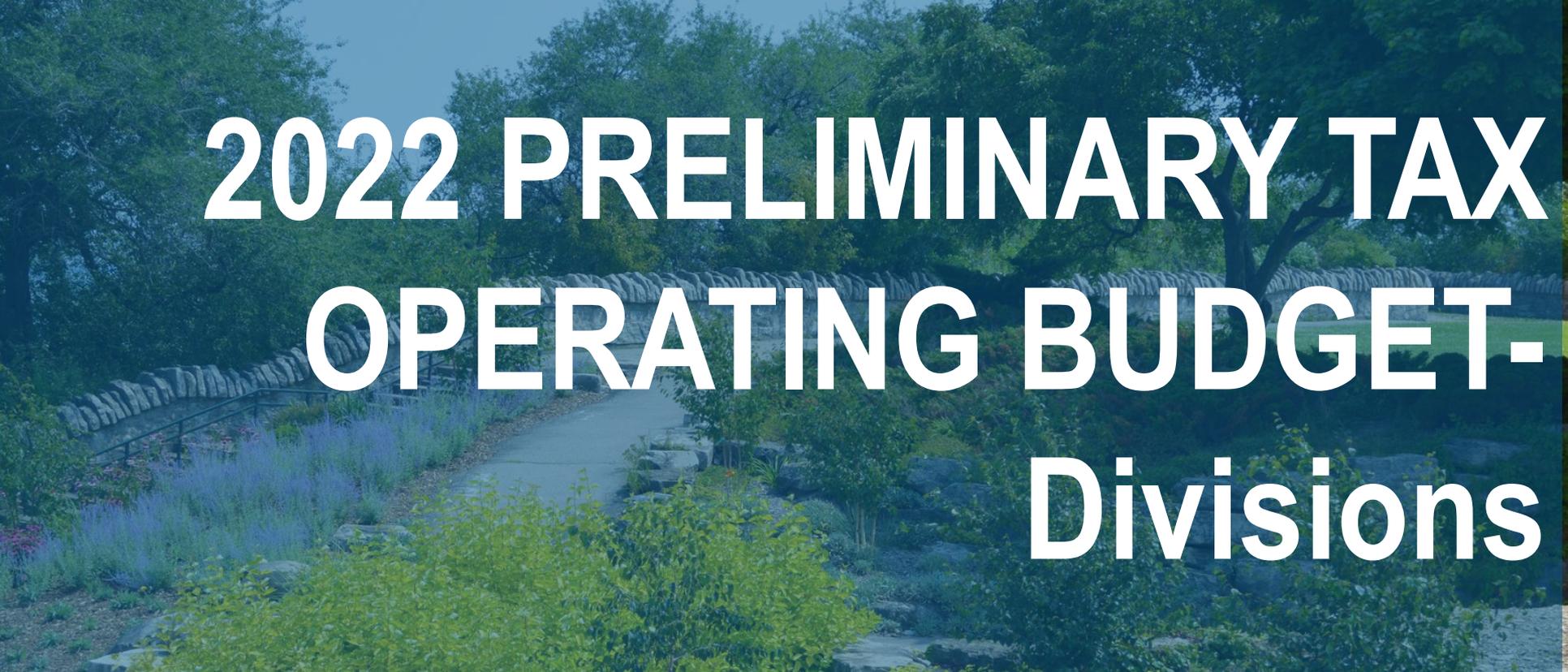
DARTS Ridership Growth	-	1,820,000	1,950,000
10 Year Transit Strategy (Net)	3,315,000	3,085,000	3,577,000
PRESTO Maintenance Agreement	189,000	208,000	187,000
Transit Fleet Reserve Inflationary Increase	252,800	276,490	302,240

**Key Waste Management Drivers:**

Various Contractual Agreements	1,153,900	1,297,590	1,241,630
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**Key Transportation Operations & Maintenance Drivers:**

Sidewalk Snow Clearing	1,404,000	46,800	47,740
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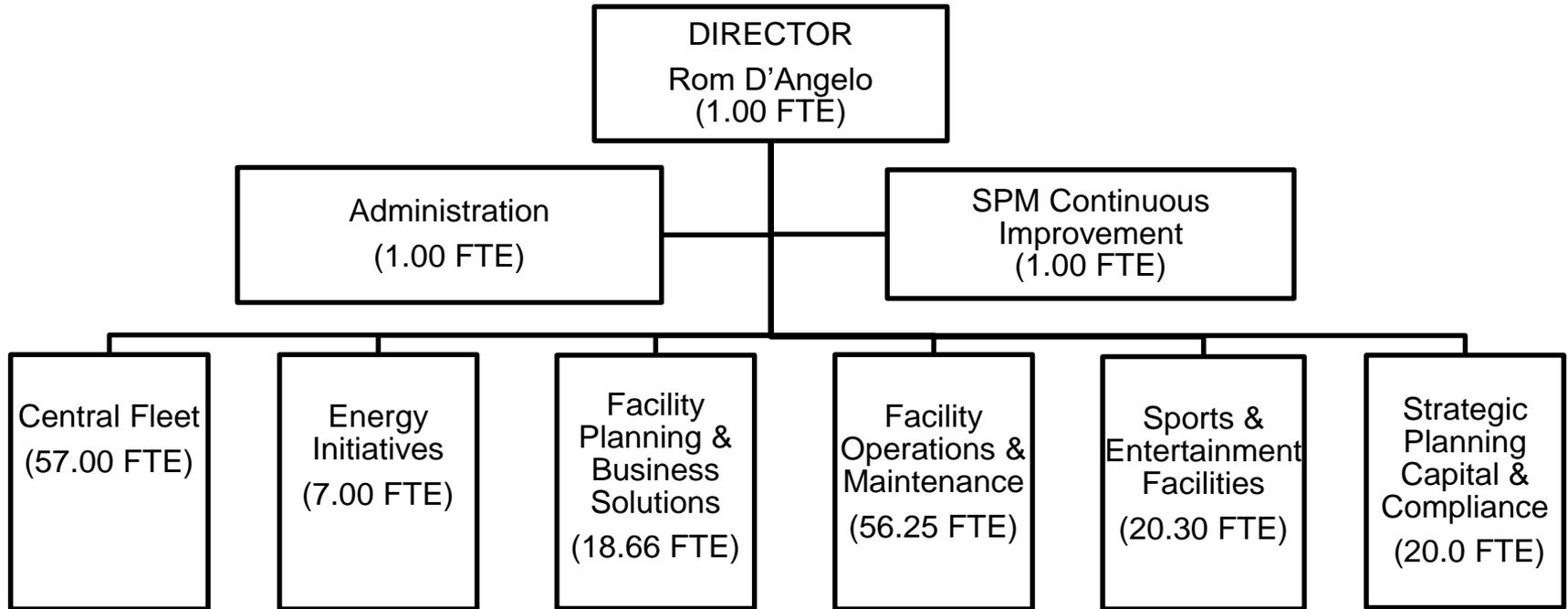


# 2022 PRELIMINARY TAX OPERATING BUDGET- Divisions



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# ENERGY, FLEET & FACILITIES MANAGEMENT



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio
2021	7.00	174.95	181.95	24.99:1
2022	7.00	175.21	182.21	25.03:1
Change	0.00	0.26	0.26	

# 2022 OPERATING BUDGET

## ENERGY, FLEET & FACILITIES MANAGEMENT

### Energy Fleet and Facilities

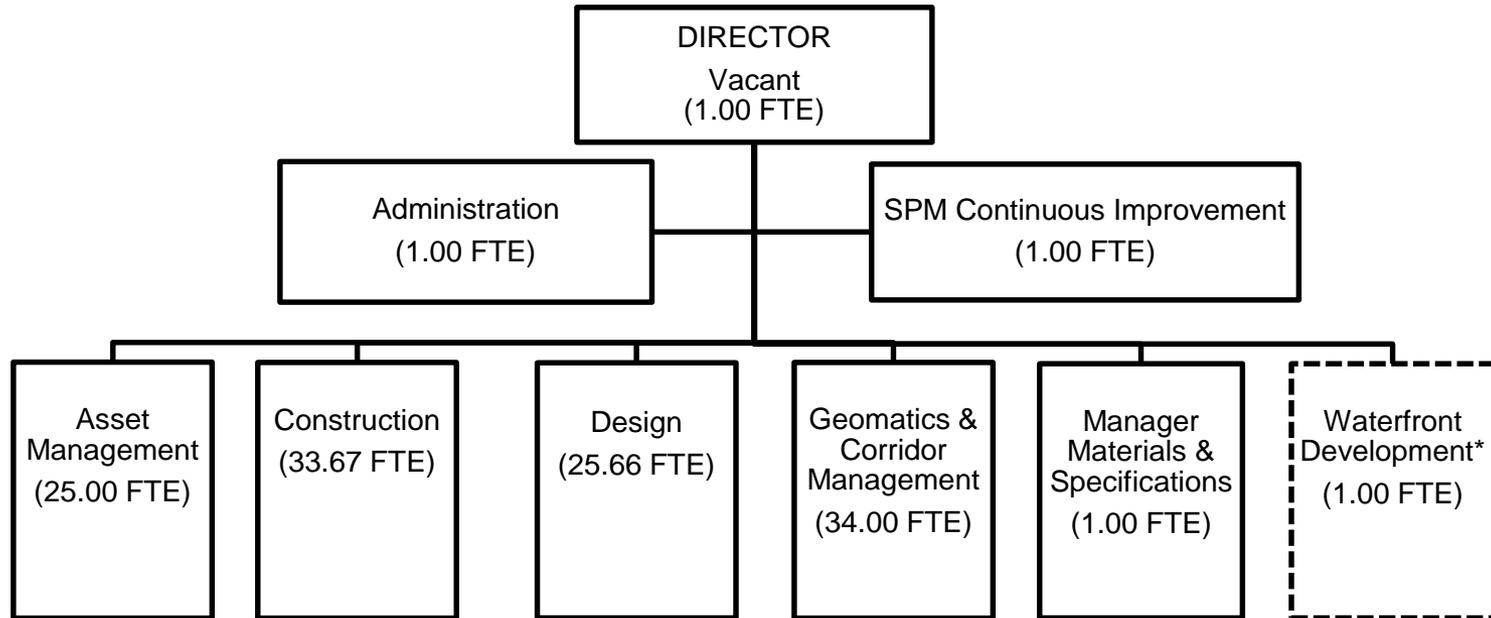
	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Fleet Services	62,630	1,652,400	147,780	85,150	136.0%
Corporate Facility Ops & Tech	2,000,660	2,964,940	1,813,140	(187,520)	(9.4)%
Facilities Planning and Business Solutions	948,010	1,807,310	1,218,840	270,830	28.6%
Community Facility Ops & Tech Serv	6,609,990	6,572,820	6,551,310	(58,680)	(0.9)%
Sports & Entertainment Facilities	3,097,410	6,710,860	3,696,350	598,940	19.3%
Director EFF	312,560	488,750	465,550	152,990	48.9%
Energy Initiatives	0	1,366,530	0	0	0.0%
Strategic Plan & Capital Compliance	242,430	383,110	383,110	140,680	58.0%
<b>Total Energy Fleet and Facilities</b>	<b>13,273,690</b>	<b>21,946,720</b>	<b>14,276,080</b>	<b>1,002,390</b>	<b>7.6%</b>

# 2022 ENERGY, FLEET & FACILITIES MANAGEMENT BUDGET DRIVERS

Item	Impact (\$000)
Tim Hortons Field Contract Pressures	\$487
Contract Pressures Facilities	\$148
Employee Related Costs	\$535
Recoveries from Capital	\$404
Fuel (Budgeted at 1.10/L, pressure \$101K partially mitigated by tax stabilization reserve)	\$79

( ) Denotes budget savings / revenue increases <sup>115</sup>

# ENGINEERING SERVICES



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio**
2021	6.00	117.33	123.33	19.56:1
2022	6.00	117.33	123.33	19.56:1
Change	0.00	0.00	0.00	

- \* 1.0 Manager position is excluded from the 2022 Budgeted Complement count. The position is currently temporary and not counted as part of the permanent FTE Complement. If position was included the Staff to Mgt Ratio would be 16.76:1

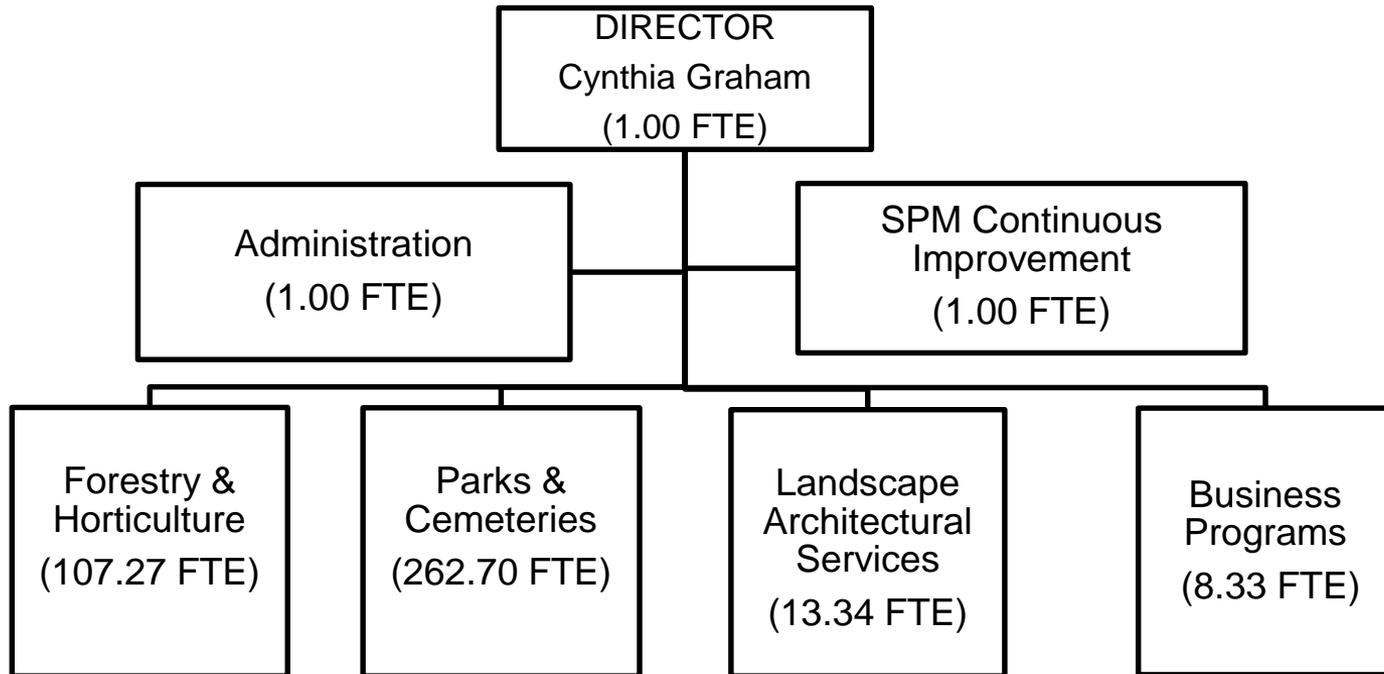
# 2022 OPERATING BUDGET ENGINEERING SERVICES

## Engineering Services

	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Asset Management	0	3,764,670	0	0	0.0%
Construction	0	4,822,430	0	0	0.0%
Design Services	0	3,296,880	0	0	0.0%
Director of Engineering Services	0	2,231,730	0	0	0.0%
Geomatics and Corridor Management	0	7,255,950	0	0	0.0%
Waterfront Development	0	372,290	0	0	0.0%
<b>Total Engineering Services</b>	<b>0</b>	<b>21,743,950</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>

- Costs are mainly recovered from capital

# ENVIRONMENTAL SERVICES



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio
2021	5.00	389.64	394.64	77.93:1
2022	5.00	389.64	394.64	77.93:1
Change	0.00	0.00	0.00	

# 2022 OPERATING BUDGET ENVIRONMENTAL SERVICES

## Environmental Services

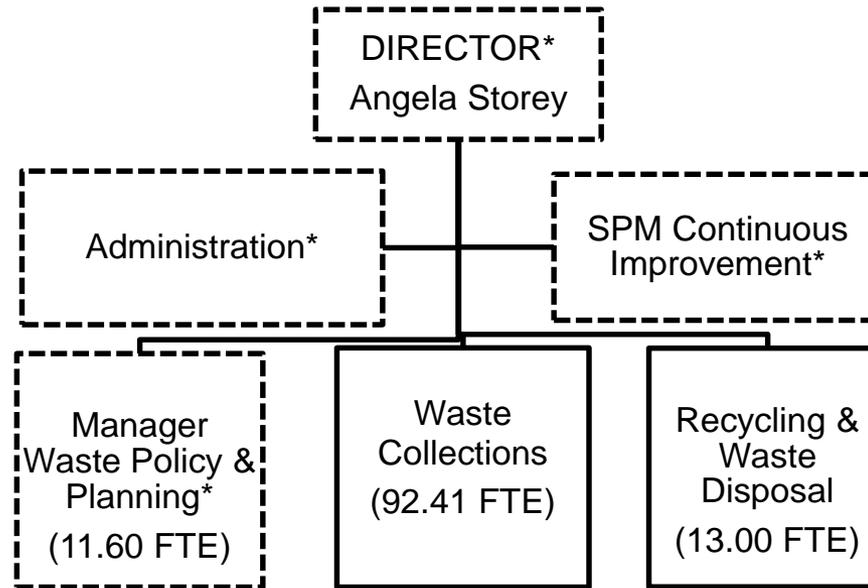
	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Business Programs	994,170	1,187,170	1,187,170	193,000	19.4%
Director Environ Services	(551,070)	(551,070)	(551,070)	0	0.0%
Forestry & Horticulture	14,175,850	14,852,830	14,399,710	223,860	1.6%
Landscape & Architectural Serv	119,590	274,350	274,350	154,760	129.4%
Parks & Cemeteries	29,501,290	32,793,400	30,272,150	770,860	2.6%
<b>Total Environmental Services</b>	<b>44,239,830</b>	<b>48,556,680</b>	<b>45,582,310</b>	<b>1,342,480</b>	<b>3.0%</b>

# 2022 ENVIRONMENTAL SERVICES BUDGET DRIVERS

Item	Impact (\$000)
Employee Related Costs	\$985
Fuel (Budgeted at 1.10/L, pressure \$65K partially mitigated by tax stabilization reserve)	\$30

120  
( ) Denotes budget savings / revenue increases

# WASTE MANAGEMENT



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio
2021	2.00	115.01	117.01	57.51:1
2022	2.00	115.01	117.01	57.51:1
Change	0.00	0.00	0.00	

- \* 4.0 positions are excluded from the 2022 Budgeted Complement count. The positions are currently temporary and not counted as part of the permanent FTE Complement. If Management positions were included the Staff to Mgt Ratio would be 28.75:1 121

# 2022 OPERATING BUDGET WASTE MANAGEMENT

## Waste Management

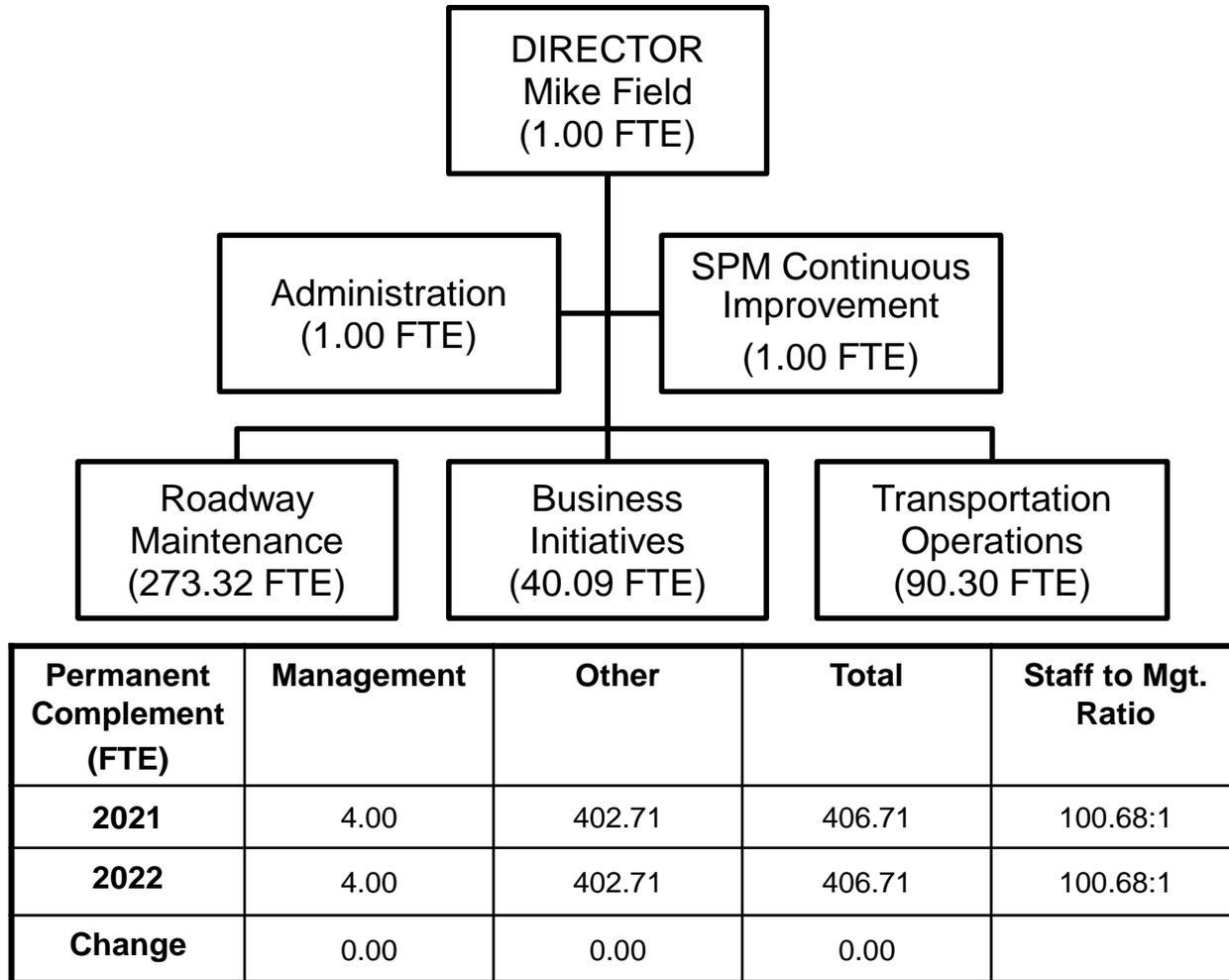
	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Recycling & Waste Disposal	6,944,210	22,452,140	7,431,960	487,750	7.0%
Waste Collections	35,764,650	38,100,010	38,065,080	2,300,430	6.4%
Waste Policy & Planning	1,545,750	1,611,330	1,597,790	52,040	3.4%
Director Waste	(150,000)	(150,000)	(150,000)	0	0.0%
<b>Total Waste Management</b>	<b>44,104,610</b>	<b>62,013,480</b>	<b>46,944,830</b>	<b>2,840,220</b>	<b>6.4%</b>
<b>Proposed Amendment - Blue Box Municipal Funding Allocation</b>				<b>(573,940)</b>	<b>(1.3)%</b>
<b>Total Waste Management - Less Proposed Amendment</b>				<b>2,266,280</b>	<b>5.1%</b>

# 2022 WASTE MANAGEMENT BUDGET DRIVERS

Item	Impact (\$000)
Curbside Waste Collection Contract	\$1,969
Transfer Station / Community Recycling Centres (TS / CRC) Contract	\$293
Materials Recycling Facility Contract	\$246
Hazardous & Specialty Products Regulation Subsidy Reduction	\$202
Fuel (Budgeted at 1.10/L, pressure \$65K partially mitigated by tax stabilization reserve)	\$30
Employee Related Costs	\$131
TS / CRC Tipping Fee & Recycling Commodities Revenue Adjustment Increases	(\$511)
Increased Blue Box Municipal Funding Allocation	(\$574)

( ) Denotes budget savings / revenue increases <sup>123</sup>

# TRANSPORTATION OPERATIONS & MAINTENANCE



# 2022 OPERATING BUDGET TRANSPORTATION OPERATIONS & MAINTENANCE

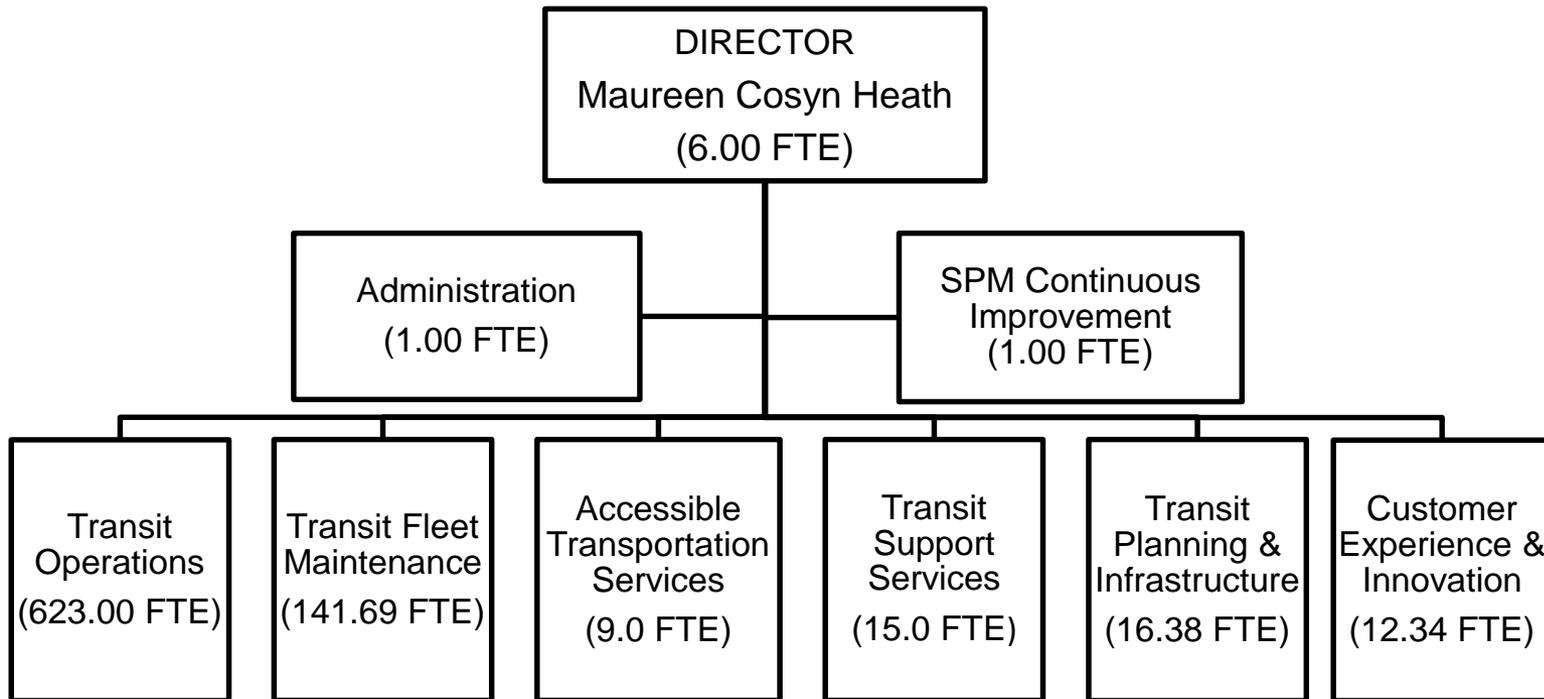
## Transportation Operations & Maintenance

	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Roadway Maintenance	63,784,480	65,856,270	63,876,840	92,360	0.1%
Director – Trans Ops & Mtce	(629,950)	(622,000)	(622,000)	7,950	1.3%
Transportation Operations	15,843,200	21,534,130	16,367,080	523,880	3.3%
Business Initiatives	4,487,950	4,672,780	4,612,190	124,240	2.8%
<b>Total Transportation Operations &amp; Maintenance</b>	<b>83,485,680</b>	<b>91,441,180</b>	<b>84,234,110</b>	<b>748,430</b>	<b>0.9%</b>

# 2022 TRANSPORTATION OPERATIONS & MAINTENANCE BUDGET DRIVERS

Item	Impact (\$000)
Sidewalk Snow Clearing	\$936
Employee Related Costs	\$442
Catch Basin Cleaning, Grass Cutting & Phragmite Control Contract Pressures	\$325
Insurance and Vehicle Insurance Charges	\$173
Fuel (Budgeted at 1.10/L, pressure \$308K partially mitigated by tax stabilization reserve)	\$140
Winter Program Adjustment Decrease	(\$1,450)

( ) Denotes budget savings / revenue increases <sup>126</sup>



Permanent Complement (FTE)	Management	Other	Total	Staff to Mgt. Ratio
<b>2021</b>	7.00	775.41	782.41	110.77:1
<b>2022</b>	7.00	818.41	825.41	116.92:1
<b>Change</b>	0.00	43.00	43.00	

# 2022 OPERATING BUDGET TRANSIT

## Transit

	2021 Restated Budget Net	2022 Preliminary Budget Gross	2022 Preliminary Budget Net	2022 Preliminary Budget Net vs. 2021 Restated Budget Net	
				Change \$	Change %
Customer Experience and Innovation	1,639,560	1,841,070	1,841,070	201,510	12.3%
Transit Planning and Infrastructure	3,110,870	3,161,870	3,161,870	51,000	1.6%
Support Services	1,801,990	1,785,830	1,784,810	(17,180)	(1.0)%
Director Of Transit	140,730	627,860	627,860	487,130	346.1%
Financial Charges & General Revenue	(33,457,140)	17,999,300	(34,474,040)	(1,016,900)	(3.0)%
Operations HSR	51,355,470	62,760,340	55,859,980	4,504,510	8.8%
Transit Fleet	31,938,300	35,112,400	34,787,770	2,849,470	8.9%
ATS	24,304,920	26,908,980	24,382,680	77,760	0.3%
<b>Total Transit</b>	<b>80,834,700</b>	<b>150,197,650</b>	<b>87,972,000</b>	<b>7,137,300</b>	<b>8.8%</b>

# 2022 TRANSIT BUDGET DRIVERS

Item	Impact (\$000)
Year 5 Annualization + Year 6 of the 10 Year Local Transit Strategy	\$4,144
Employee Related Costs – Excludes Year 5 Annualization + Year 6	\$1,158
Fuel – Natural Gas	\$657
Insurance and Vehicle Insurance Charges	\$448
PRESTO Operating Agreement	\$381
Transit Fleet Reserve Inflationary Increase	\$230
Fuel (Budgeted at 1.10/L, pressure \$204K partially mitigated by tax stabilization reserve)	\$89

( ) Denotes budget savings / revenue increases <sup>129</sup>



Hamilton

THANK YOU