



2023 CAPITAL BUDGET, 2024-2027 FORECAST and Asset Management Status Update

The City of St. Catharines

2023 Capital budget and 2024-2027 Forecast

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*Note: No Requirement for Niagara District Airport

2022 Asset Management Status

The City is committed to building and growing a diverse and resilient economy through fiscal responsibility, urban regeneration and collaborative partnerships. The 2023 Capital Budget aims to build and support strong, inclusive neighbourhoods that provide high quality of life for residents of all ages

Guided by our strategic goals, the 2023 Capital Budget aims to support the provision of quality municipal services that enhance our social fabric, environmental sustainability, cultural vitality; and contribute to the economic prosperity in our community. The City owns, operates and maintains infrastructure with an estimated replacement value of over \$5.94 billion

In October 2021 Council endorsed the Asset Management Plan (AMP) for Core assets, that meets the requirements set out under Ontario Regulation 588/17. The AMP identifies funding levels for our core services (water, wastewater stormwater management and transportation) required to maintain sustainable infrastructure and related services. Based on the information known on the existing infrastructure's age and condition, the City will need to increase funding for asset rehabilitation and replacement, to maintain the existing levels of service to the public. The sustainable funding targets will continue to be refined as data and information on the assets is improved.

Figures 1 and 2 below provide the forecast lifecycle requirements for the City's core services split between rate supported operations and tax supported operations.

As shown in Figure 1, the 2021 AMP found that the anticipated tax supported annual funding for the City's related core infrastructure which includes transportation, storm water management systems and related facilities, is insufficient to meet the projected needs. As the assets continue to age, increasing the funding towards their replacement will be critical to maintaining existing levels of service or alternatively targeted levels of service will need to be reduced.

Figure 1 - Forecasted Asset Portfolio for Tax Based, Core Infrastructure Expenditures (Source: 2021 AMP)

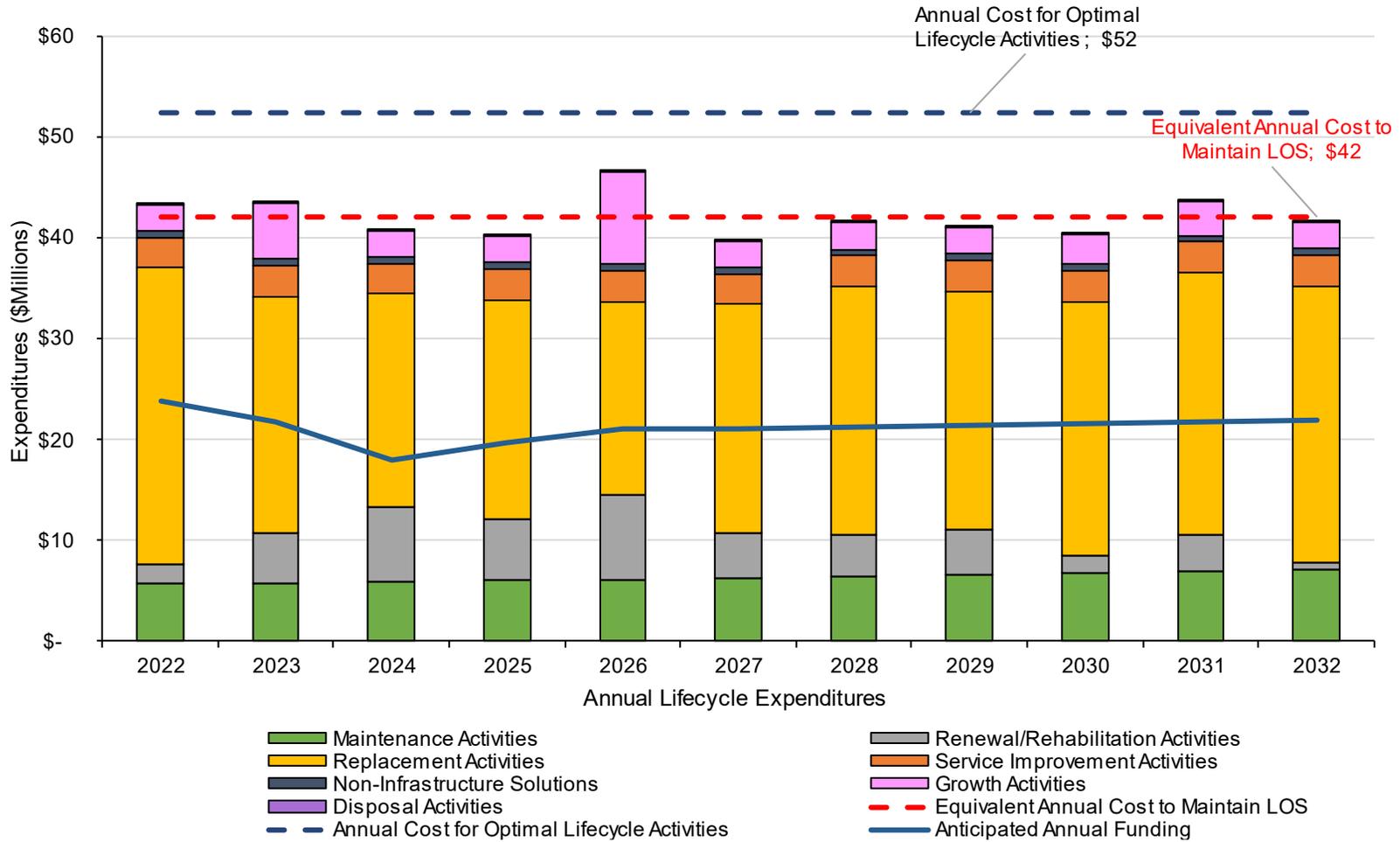
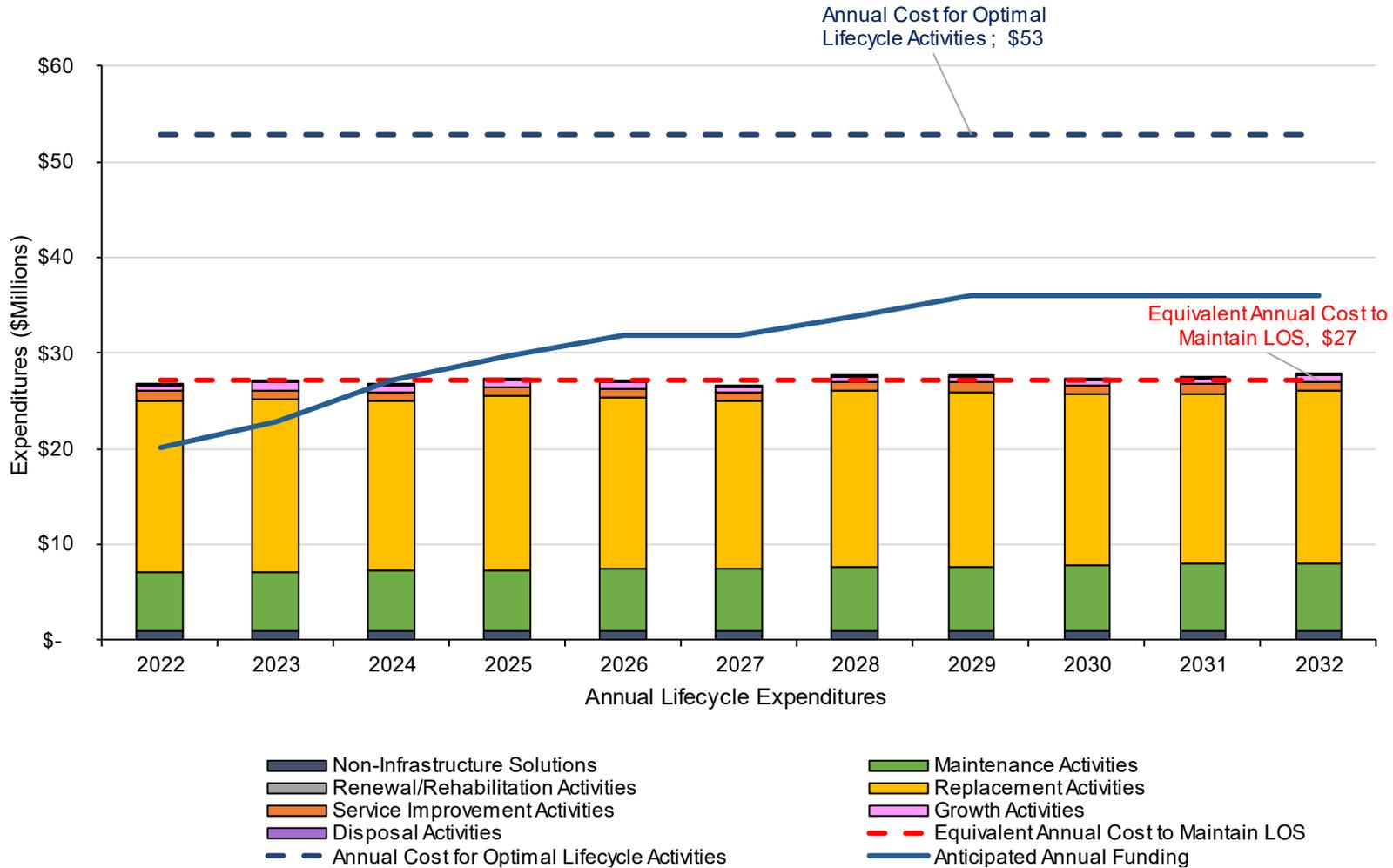


Figure 2 - Forecasted Asset Portfolio for Rate Based, Core Infrastructure Expenditures (Source: 2021 AMP)

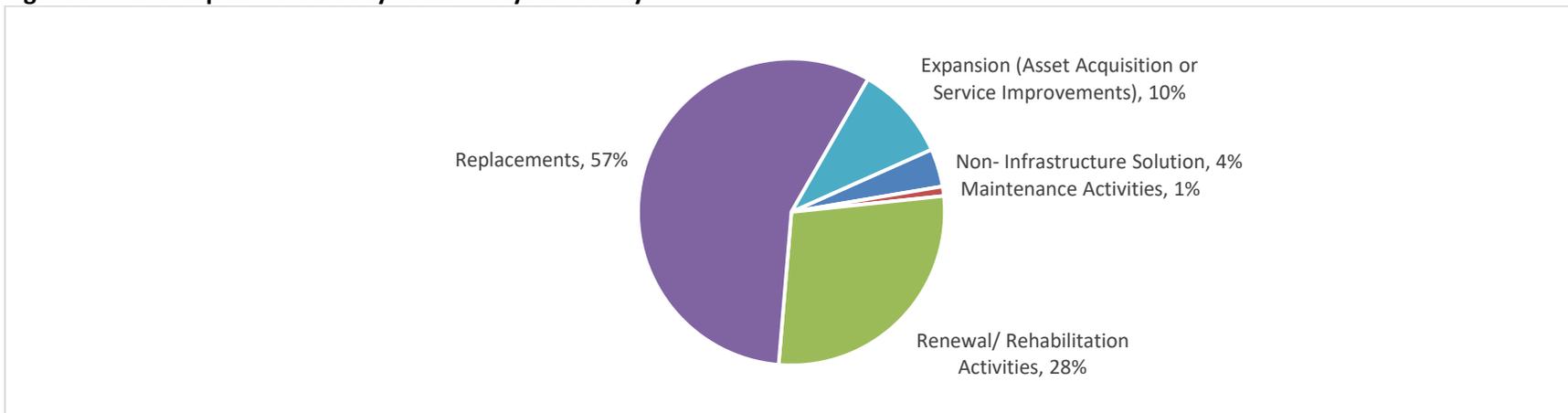


The City's water and wastewater infrastructure accounts for 58% of the City's core infrastructure. In 2019 Council approved the 10-year Financial Plan for Water and Wastewater, which included significant increases in the investment in related infrastructure over a ten-year period to assist in closing the funding gap for the Water/Wastewater assets. Even after including the planned deferrals resulting from COVID-19 related financial pressures the anticipated rate-based investments currently planned are sufficient to maintain the current condition and forecast a slight improvement to service, however are still below the optimal renewals identified.

Figure 3 shows the 2023 budget of \$57 million is split between major asset lifecycle activities, which are consistent with the activities within the AMP:

- Renewal/Rehabilitation includes the significant repairs to extend the life of the asset, and can defer the need for asset replacement
- Non infrastructure activities are made to improvement of programs and services or monitor condition of assets to maintain them in a state of good repair and support service delivery
- Replacement activities which are activities that are expected to occur once an asset has reached its end of its useful life and renewal/rehabilitation is no longer an option
- Expansion activities support increasing demands due to population growth and the expansion of existing services to improve the quality of life for our residents.
- Disposal activities are associated with disposing of an asset once it has reached the end of its useful life or is no longer needed
- Maintenance activities include regularly scheduled inspection and maintenance and more significant repairs and activities associated with unexpected events

Figure 3 – 2023 Capital Forecast by Asset Lifecycle Activity



A risk management framework was developed for each of the asset categories in the AMP to assist with the prioritization of investments within the forecasts. Moving forward risk scores will be considered in prioritizing capital expenditures. The consequence of asset failure based on financial, social and environment impacts and the likelihood of that event occurring and provide the risk score. This approach is in line with the priorities listed below.

- Alignment with core business and the strategic plan
- Renewal of aging infrastructure
- Health and safety
- Compliance with policy standards and legislative requirements
- Sustainability (economic, environment, and social)
- Accommodating population growth
- Providing service improvements

Where appropriate asset renewal and replacement within the road allowance (roads, sidewalks, sewers and watermains) are co-ordinated to take advantage of economies of scale and to reduce the impact of construction. This co-ordination may impact the timing of asset renewal for some asset categories. Determination of the final construction program is the result of iterative effort by staff in reviewing all the asset categories.

In prior years Council was provided with data as shown in Figure 3 that highlighted the cumulative infrastructure deficit and reinvestment rates. The information provided for the assets that will be included in the upcoming AMP for non-core assets may change significantly because of this work. Also, it is expected that the AMP for non-core assets will include assets not currently listed in this table including fleet, corporate infrastructure, and green infrastructure.

Figure 3 Asset Management Information by Service Area (in \$millions)

Service Area	Inventory Details	Capital Budget Sch.	Replacement Value	Backlog ⁽¹⁾	Forecasted Equivalent Annual Cost ⁽²⁾	Average Anticipated Funding 2022-2032 ⁽³⁾	2023 Capital Budget	2023 Renewal/ Replace Budget	
Water		G, R	\$1,366	\$259	\$16.2	\$21.1	\$11.93	\$11.54	
Water Distribution	593 km								
Wastewater/Pollution Control		E, F, R	\$1,627	\$172	\$10.9	\$9.9	\$6.09	\$4.90	
Wastewater Collection	568 km								
Storage facilities	9 ea.								
Transportation		B, C, R	\$1,202	\$95	\$35.3	\$15.8	\$13.11	\$9.41	
Sidewalks and pathways	585 km								
Roads	575 km								
Structures		H	\$66	\$8	\$1.8	\$1.1	\$4.20	\$3.40	
Bridges & Culverts (>=3m)	71 ea.								
Bridges & Culverts (<3m)	46 ea.								
Stormwater		D, R	\$931	\$47	\$5.0	\$4.3	\$2.13	\$0.57	
Stormwater Collection	405 km								
Treatment & Control (OGS)	31 ea.								
Facilities (incl. parking) ⁽⁴⁾		M	\$620	\$56	Will be available upon completion of Asset Management Plan Phase 2		\$16.81	\$16.56	
Buildings and Facilities	174 bldgs								
Shoreline Protection ⁽⁴⁾		I	\$70	\$9				\$0.21	\$0.00
Protected	3.612 km								
Parks and Recreation ⁽⁴⁾		L	\$71				\$2.88	\$2.02	
Playgrounds/ Tennis Courts/ Basketball Courts	110 ea.			\$7					
Outdoor Pools & Splash Pads	9 ea.			\$6					
Skatepark and Golf course	1 ea.								
Sports fields (Ball Diamonds & Soccer Fields)	55 ea.								
Leash Free Dog Park	2 sites								
Total			\$5,953	\$659			\$58	\$49	

(1) Backlog is work that should have been completed before 2023 given unlimited funds based on known condition or age

(2) Forecast Equivalent Annual Cost provided in the City's 2021 Asset Management Plan - Core Assets

(3) Average Anticipated Funding based on the 2021 Capital Budget and provided in the 2021 AMP for Core Assets

(4) Information may change significantly upon completion of the City's next AMP which will be completed in compliance with O. Reg. 588/27

In 2023, the City will continuously improve asset management through the following initiatives and projects:

- Continue to update its asset management practices and implement recommendations included within 2021 AMP for Core Assets (roads, bridges and culverts, water, wastewater, and stormwater management systems).
- Continue to gather information and complete the next phase of the AMP which will include all city assets not included (non-core) in the 2021 AMP to meet the July 1, 2024 deadline. At the conclusion of this exercise, the city will have a complete listing of the Cities assets and the costs to optimally maintain. This will help the City work towards the subsequent phases of the AMP which will include identifying a level of service and completing a financial strategy that is affordable and sustainable for the citizens of St. Catharines.
- Using the information gathered in the non-core AMP, improve the Cities financial statements to align with new accounting standards outlined in PS 3280 “Asset Retirement Obligations”.
- Continue monthly asset management working group meetings to share information with a collaborative cross departmental approach.

Climate Change Considerations

St. Catharines strategic plan identifies climate change as an important issue that will affect the City. In 2019, Council unanimously declared a Climate Emergency demonstrating the need to prepare and adapt to a changing future.

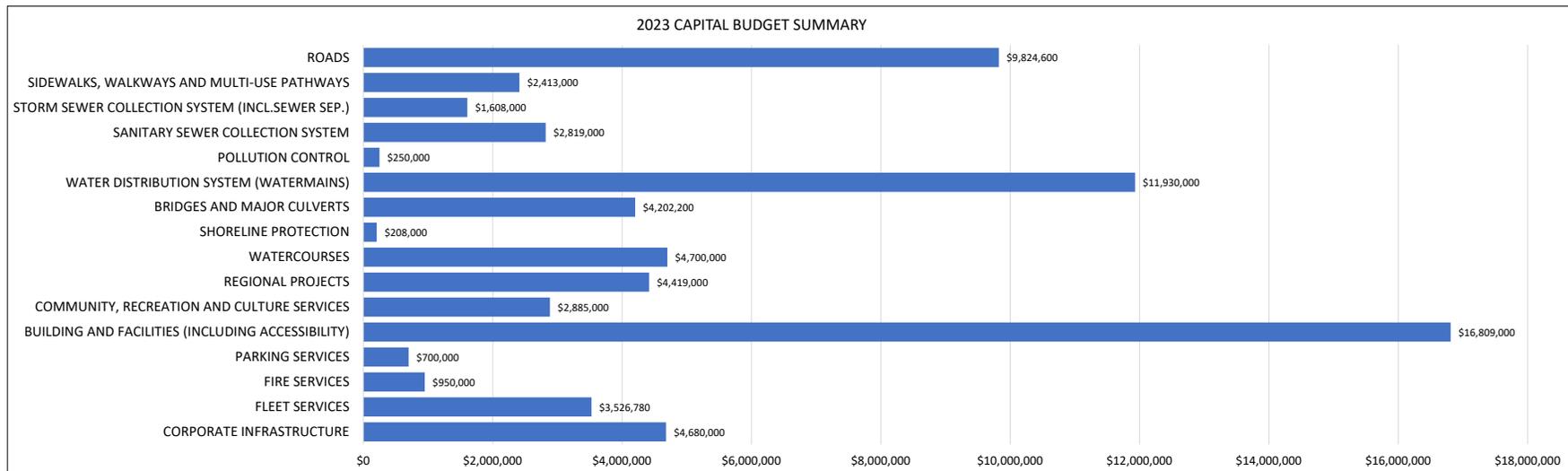
In 2021, Council approved a Climate Adaptation Plan which identified high risk impacts and prioritized necessary actions to reduce the projected negative effects of climate change. Projected climate data indicates that St. Catharines will experience overall increased temperature, increased precipitation in all seasons except for the summer and an increase in extreme events. Considering demands of a changing climate provides an opportunity for the City to replace aging infrastructure and install new infrastructure with climate resilience in mind.

In addition, it is important that the City does it’s part to reduce greenhouse emissions from municipal operations and services. This is needed for the City to achieve its climate targets and protect the health and well being of residents. Examples of projects that will help meet the City’s climate objectives include:

- Active Transportation – the City continues to prioritize active transportation investments to provide environmentally friendly options for residents.
- Tree planting / Urban Forest – trees provide multiple benefits including absorbing carbon dioxide, providing shade and cooling, stormwater improvements and increasing biodiversity.
 - Urban Canopy Target of 30% by 2030
- Shoreline protection and watercourse erosion projects to improve resiliency to extreme storms and Lake Ontario water levels.
- Modernizing sewer systems to improve capacity and reduce basement flooding risks. City facilities
 - Corporate buildings to reach Net zero by 2050
 - Energy efficiency upgrades
 - Installing vehicle charging stations at municipal facilities and parks

**CITY OF ST. CATHARINES
2023 CAPITAL BUDGET SUMMARY (SCHEDULE A)**

DESCRIPTION	SCHEDULE	GROSS COST	CANADA COMMUNITY			TAX/RATE PAYER	DEBT
			BUILDING FUND	OTHER EXTERNAL/ RESERVES			
ROADS	SCHEDULE B	9,824,600	519,000	312,236	1,915,000	7,078,364	
SIDEWALKS, WALKWAYS AND MULTI-USE PATHWAYS	SCHEDULE C	2,413,000	250,000	501,480	457,000	1,204,520	
STORM SEWER COLLECTION SYSTEM (INCL.SEWER SEP.)	SCHEDULE D	1,608,000	656,000	-	302,000	650,000	
SANITARY SEWER COLLECTION SYSTEM	SCHEDULE E	2,819,000	1,000,000	-	1,697,000	122,000	
POLLUTION CONTROL	SCHEDULE F	250,000	-	-	250,000	-	
WATER DISTRIBUTION SYSTEM (WATERMAINS)	SCHEDULE G	11,930,000	1,352,000	-	7,370,731	3,207,269	
BRIDGES AND MAJOR CULVERTS	SCHEDULE H	4,202,200	-	-	315,000	3,887,200	
SHORELINE PROTECTION	SCHEDULE I	208,000	-	52,000	12,000	144,000	
WATERCOURSES	SCHEDULE J	4,700,000	503,251	-	315,000	3,881,749	
REGIONAL PROJECTS	SCHEDULE K	4,419,000	-	-	2,359,388	2,059,612	
COMMUNITY, RECREATION AND CULTURE SERVICES	SCHEDULE L	2,885,000	-	623,498	842,000	1,419,502	
BUILDING AND FACILITIES (INCLUDING ACCESSIBILITY)	SCHEDULE M	16,809,000	-	4,699,300	912,000	11,197,700	
PARKING SERVICES	SCHEDULE N	700,000	-	-	53,000	647,000	
FIRE SERVICES	SCHEDULE O	950,000	-	185,000	58,000	707,000	
FLEET SERVICES	SCHEDULE P	3,526,780	-	-	599,000	2,927,780	
CORPORATE INFRASTRUCTURE	SCHEDULE Q	4,680,000	125,000	130,800	983,000	3,441,200	
		\$ 71,924,580	\$ 4,405,251	\$ 6,504,314	\$ 18,440,119	\$ 42,574,896	
LESS: CAPITAL BUDGETS COUNCIL PREAPPROVED IN 2022 OR PRIOR YRS		4,270,000	-	130,800	310,000	3,829,200	
CAPITAL BUDGET REQUIRING COUNCIL APPROVAL		\$ 67,654,580	\$ 4,405,251	\$ 6,373,514	\$ 18,130,119	\$ 38,745,696	



Transportation (Roads, Sidewalks, Walkways and Multi-use Pathways) (Schedules B and C)

The City is committed to providing transportation services that strive to provide a safe, efficient, accessible, and sustainable transportation system for all required uses and modes of transportation in accordance with regulatory requirements and community expectations.

Provided by:

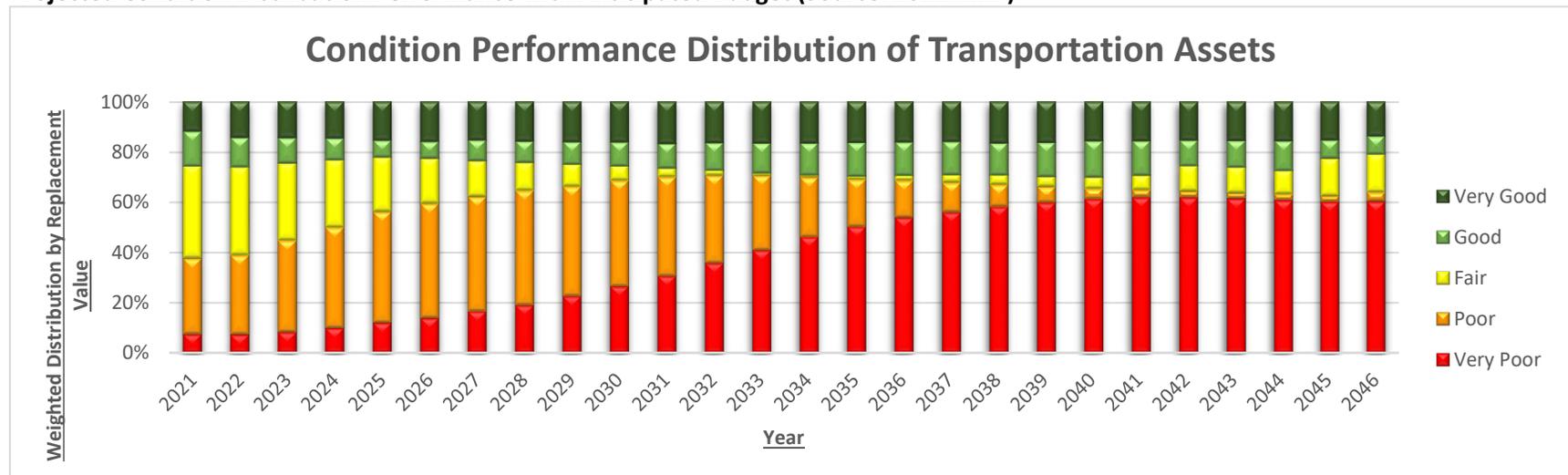
- 575 km of city owned roads or 1174 lane-km
- 62 km of roads with dedicated bike lanes*
- 16 km of roads with paved shoulders*
- 8 km of roads with Signed Cycling Route with Sharrows*
- 2 km of roads with Signed Cycling Route without Sharrows*
- 585 km of sidewalks and walkways
- 109 km of off-road trails*
- 54 Signalized Intersections
- Over 13,000 Streetlights and over 22,000 traffic signs

(*Information taken from 2021 Corporate AMP for Core Assets and City's TMP)

Value and Condition

Total replacement value: \$1,202 million
 Current backlog of work: \$95 million
 Current average condition: Fair

Projected Condition Distribution Performance with Anticipated Budget (Source: 2021 AMP)



The overall average condition of transportation assets has been deteriorating, indicating the City is not keeping pace in investing in the rehabilitation of its assets. The average Pavement Quality Index (PQI) of City's road network is 49 in 2022 compared to 54 in 2018.

Current Strategy

Renewal and Replacement: The City utilizes a pavement management system to guide the road improvement program. The system places the highest priorities for road works on a predicted future road condition using historical experience and the risks of delaying treatments. Generally, this means priority is given to roads with higher traffic volumes and will generally recommend resurfacing rather than more costly reconstruction.

Where appropriate, both the roadway expansion and renewal are co-ordinated with the replacement of other subsurface infrastructure, such as watermains or sanitary and storm sewers. Roads are typically rehabilitated or resurfaced, rather than reconstructed when there is no other subsurface infrastructure that requires replacement. Other considerations, such as the timing of proposed developments, are also incorporated into the decision to replace or rehabilitate a road. The approach for sidewalks and trails is to replace the infrastructure when they are in poor or very poor condition.

Expansion of Services: Expansion of the transportation network may be undertaken to support growth and development or to meet user demands. There continues to be increased demand for assets that support active transportation (AT). This is consistent with a recommendation from the City's recently endorsed Transportation Master Plan which recommends additional AT funding of \$18 million over the next 20 years and supports the City's strategic goal to build and support strong, inclusive neighbourhoods that provide high quality of life for residents of all ages. When assets are

renewed, opportunities for the expansion of the AT network are reviewed with the goal to improve accessibility for all users.

Non-Infrastructure Solutions: Environmental assessments, geotechnical investigation and design for future road works are undertaken a few years in advance of proposed larger construction projects. Transportation projects can take several months to years; and include public consultation and the preparation of finalized designs.

2023 Highlights

- 19% of the 2023 transportation program directly funds improvements to active transportation network
- Resurfacing of approximately 6.9km of roadway and reconstruction of approximately 600m of roadway
- Design and Public Consultation for future works on James Street, Parnell Road, Facer Street and Welland Canal Parkway

2023 CAPITAL BUDGET
ROADS (SCHEDULE B)

Project No.	Project Type	Project Name / Location	From	To	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements							
P22-064	RN	Blue Spruce / Huntingwood			411,000	Resurfacing/ full depth asphalt replacement in conjunction with watermain replacement	1a
		Kerwin Gate	Crescentwood Dr.	Cul-de-sac			
		Mariner Court	Crescentwood Dr.	Cul-de-sac			
		Harbour Heights Lane	Crescentwood Dr.	Cul-de-sac			
		Cherryblossom Lane	Crescentwood Dr.	Harbour Heights Lane			
P18-063	E / RP	Chestnut / Merritt Underground			3,169,000	Additional funding for utility relocates, streetscaping, streetlights and road reconstruction	CP, 1a, 2b & 3a
		Mountain St.	Glendale Ave.	Chestnut St.			
		Chestnut St.	Merritt St.	Glengarry Road			
		Merritt St.	Almond Lane	Walnut St.			
P21-100	RN	Flanders Watermain Improvements			129,400	Resurfacing in conjunction with watermain replacement	1a
		Flanders Ave.	Vivian Ave.	Karen Ave.			
		Karen Ave.	Grantham Ave.	Flanders Ave.			
P22-061	D / RP	James Street	King St.	Church St.	773,000	Design and Utility relocates for road reconstruction and development of a multiuse space	2a
P19-066	E	Moffatt Secondary Access - Utilities			500,000	Utility relocates for Moffat Secondary Access	1a & 4a
P20-065	E	New Access Road - Ridley Road	Ridley Road	Train Station	505,000	Additional funds for new road to train station	1a
P22-063	RP	Parnell Road Reconstruction	Richelieu Dr.	Vine St.	200,000	Additional funds for utility relocations for future road reconstruction	CP, 3b
Subtotal					\$ 5,687,400		

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
ROADS (SCHEDULE B)

Project No.	Project Type	Project Name / Location	From	To	Gross Cost	Details	Notes
New Projects							
P23-060	RN	2023 Road Resurfacing Program			2,361,400		1a
		Autumn Place	Park Ave	Cul-de-sac		Spot curb repairs and replace asphalt road surface	
		Carlisle Street	King Street	Church Street			
		Lake Street	Carlton St.	North Service Road		Resurfacing of existing roadway & spot curb repairs	
		North Service Road	YMCA Drive	Geneva Street			
		Lloyd Street	St Paul St. West	Rykert St		Curb replacement and full depth asphalt replacement	
		Linden Street	Geneva St.	Wiley Street		Spot curb repairs & replace asphalt road surface on south side; Mill and resurface	
		Welland Canal Parkway	Queenston St.	Eastchester Ave.		Full depth asphalt replacement	
		Lakeshore Road West	Seventh Street	West Limit		Pulverize road and resurface	
		Sunset Lane	Gregory Street	West Limit			
		Other locations to be determined / as required				Annual - priority locations to be determined	
P23-103	RN	Briarsdale / Donlon			207,700	Spot curb repairs & replace asphalt road surface in conjunction with watermain replacement	CP, 1a
		Briarsdale Drive	Chestnut Street	Jacobson Avenue			
		Jacobson Avenue	Briarsdale Drive	Glen Morris Drive			
P23-061	RP	Brimley Crescent Road Rehabilitation & Underground Improvements	Cindy Drive	Cul-de-sac	427,500	Curb replacement and asphalt road surface replacement in conjunction with watermain replacement and sewer	CP, 1a
P23-101	RN	Dundas / Leeson			67,000	Spot curb repairs mill and resurface existing roadway in conjunction with watermain replacement	CP, 1a
		Dundas Crescent	Bradley Street	Bradley Street			
P23-062	RP	Facer Street road and underground improvements	Grantham Ave.	Niagara St.	170,000	Design for future road improvements	3a

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
ROADS (SCHEDULE B)

Project No.	Project Type	Project Name / Location	From	To	Gross Cost	Details	Notes
P23-097	RN / RP	Traffic Signals (including pedestrian crossings)			242,000	Annual - priority location(s) to be determined	
P23-070	E	Traffic Signs (40 KM)			262,600	Annual - priority location(s) to be determined	
P23-067	RP	Third Street / Old Martindale Road Reconstruction	Old Martindale Road	South Service Road	257,000	Design for Reconstruction, realignment and widening of roadway to allow for bike lanes	1a, 5a
P23-064	RN	Welland Canal Parkway Road Rehabilitation & Drainage Improvements			142,000	Design for Future replacement of existing asphalt road surface with drainage improvements	1a, 5a
		Welland Canal Parkway	Eastchester Ave.	Carlton Street			
Subtotal					\$ 4,137,200		
					\$ 9,824,600		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)
 As per TMP road classes: 1a. Community Street; 2a. Downtown Corridor; 2b. Downtown Community Street;
 3a. Collector Mixed -Use Corridor; 3b. Collector Residential Corridor; 3c. Collector Industrial Corridor;
 4a. Main Mixed-Use Corridor; 4b. Main Residential Corridor; 5a. Rural Corridor; 5b. Rural Community Street

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
 NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
SIDEWALKS, WALKWAYS AND MULTI-USE PATHWAYS (SCHEDULE C)

Project							
Project No.	Type	Project Name/Location	From	To	Gross Cost	Details	Notes
Previously Budgeted Sidewalks and Walkways Projects - Additional Budget Requirements							
P18-063	E / RP	Chestnut / Merritt Underground Improvements			650,000	Additional funding for installation of new and replacement of s/w in conjunction with road reconstruction	CP, 1a, 2b & 3a
		Mountain St.	Glendale Ave.	Chestnut St.			
		Chestnut St.	Merritt St.	Glengarry Road			
		Merritt St.	Almond Lane	Walnut St.			
Subtotal					\$ 650,000		
New Sidewalks and Walkways Projects							
P23-040	RP	2023 Sidewalk Replacement Program			360,000	Annual - priority location(s) to be determined	
P23-040-1	RP	2023 Walkway Improvements			50,000	Annual walkway repair program locations to be determined	
P23-041	E	New Sidewalk installation Program			67,000	Annual - priority location(s) to be determined	
Subtotal					\$ 477,000		
New Multi-Use Pathways							
P23-068	E / RP	Active Transportation			250,000	Annual - priority location(s) to be determined (100% CCBF funded portion)	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
SIDEWALKS, WALKWAYS AND MULTI-USE PATHWAYS (SCHEDULE C)

Project							
Project No.	Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-068	E / RP	Active Transportation Priorities			1,036,000		
		Halene Court Pedestrian Bridge (P041S)	East of Cherie Road between Cindy Dr and Lake Ontario			Engineering services for replacement of existing pedestrian bridge	
		Walker's Creek Park Bridge (P045S)	East of Bradmon Dr, between Lakeshore Rd and Parnell Rd				
		Welland Canal Trail	South of Glendale Ave	City Limits		Engineering services for reconstruction/widening of existing trail and installation of new lighting along trail	
		Fairview Park/John Page Park Trail Lighting				Design & installation of lighting along existing trail	
		Vansickle Road	St Paul St. West	Rykert St		Widening of existing sidewalk	
		Various Locations				Installation of green bicycle lanes throughout City	
		Various Locations				Installation of Pedestrian Crossovers at priority locations throughout the City	
		Other locations to be determined as required				Annual - priority location(s) to be determined	
Subtotal					\$ 1,286,000		
					\$ 2,413,000		
Additional budget for Sidewalks within Regional Projects (Schedule K)					\$ 800,000		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)
 As per TMP road classes: 1a. Community Street; 2a. Downtown Corridor; 2b. Downtown Community Street;
 3a. Collector Mixed -Use Corridor; 3b. Collector Residential Corridor; 3c. Collector Industrial Corridor;
 4a. Main Mixed-Use Corridor; 4b. Main Residential Corridor; 5a. Rural Corridor; 5b. Rural Community Street

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
 NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Stormwater (Storm Sewer Collection system including Sewer Separation) (Schedule D)

The City of St. Catharines is committed to providing effective, sustainable, and reliable drainage of stormwater to both protect and benefit the community and environment.

Provided by:

405 kilometres of Storm Sewers

31 Oil & Grit Separators

1 constructed wetland and several natural and manmade ponds and open drainage channels

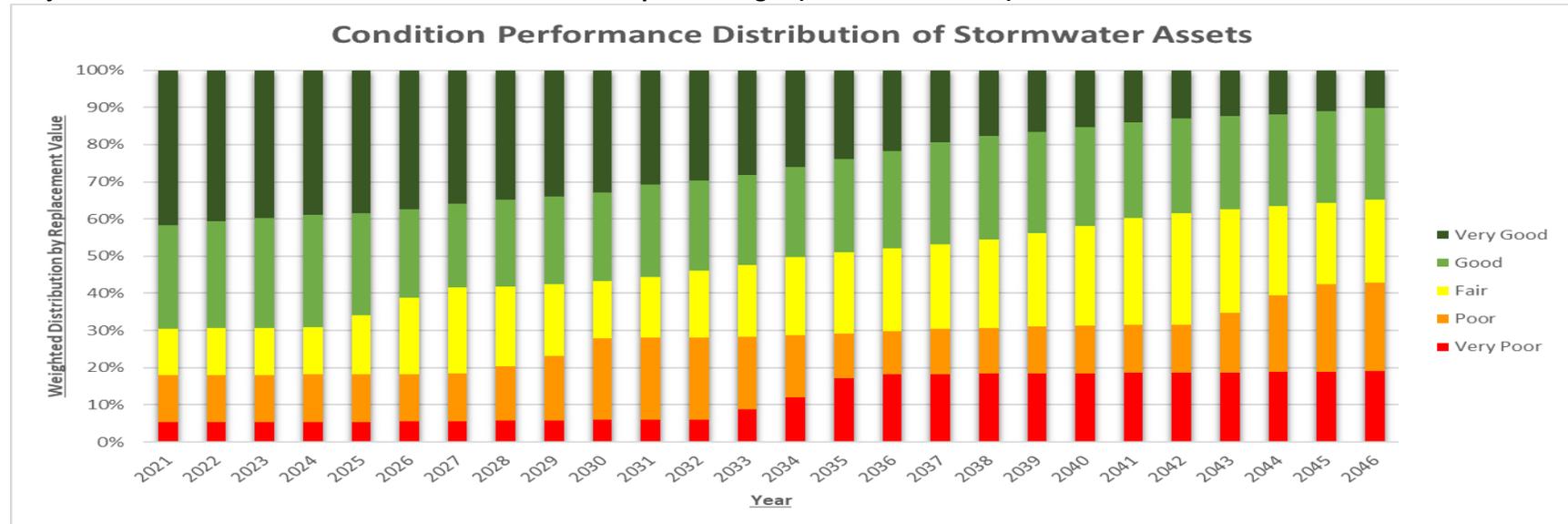
Value and Condition (As provided in the 2021 Corporate AMP for Core Assets)

Total replacement value: \$931 million

Current backlog of work: \$ 47 million

Current average condition: Good

Projected Condition Distribution Performance with Anticipated Budget (Source: 2021 AMP)



Unlike sanitary and combined sewers, storm sewers have not been inspected historically and as a result, it has been more difficult to assess their condition. A City-wide Zoom camera inspection of all the sewer systems, including storm sewers, started in August 2017 which is now complete. Results from the zoom camera inspection have helped develop a baseline of sewer conditions. The zoom camera inspection also has helped in targeting sewer sections for further detailed investigations such as CCTV (Closed Circuit TV) camera inspections. Zoom camera inspections followed by CCTV inspections of sewers guide the decisions to rehabilitate or replace sewers independently or in conjunction with other infrastructure projects.

Current Strategy

Renewal and Replacement: Rehabilitation of storm sewers is intended to ensure an adequate level of service and to reduce the likelihood of flooding in areas adjacent to the storm sewers. Deficiencies in the storm sewer system include blockages from damaged pipe sections, silt or debris accumulation and root infiltration. These restrict capacity and may lead to flooding during periods of high flow. Deficiencies also include other physical attributes of the sewers and expected consequences such as a structurally deteriorated sewer section that is still functioning but on the verge of collapsing.

Non- infrastructure Solutions: Tools such as zoom camera inspections and CCTV inspections are utilized to gauge the condition of sewers and to implement suitable maintenance, rehabilitation, or replacement strategies at appropriate times. These tools/methods also help in prioritizing needed works to match available budgets. Hydraulic and hydrologic modelling and studies monitor system capacity requirements.

Expansion of Services: Expansion of the network may be undertaken to support growth and development or to meet demands of users.

New storm sewers are installed in areas with combined sewers to divert stormwater drainage away from sanitary drainage. This practice is called sewer separation and is recommended in the Pollution Control Plan. Storm water is then conveyed to a storm water outfall for discharge directly into the environment. This reduces the risk of basement flooding by the pre-existing combined sewer, improves environmental outcomes and reduces the volume of flows which are treated at a wastewater treatment plant.

In some cases, additional features such as oil-grit separators or stormwater ponds may be added to storm sewer systems to increase the water quality of stormwater discharges to the environment.

Construction of new assets will have a direct impact on the operation and maintenance budget. The full extent of the impacts will be dependent on the design and level of services provided.

Highlights

- Budget for an extension of an existing sewer section and one project for replacement of existing sewer sections in addition to annual programs including sewer CCTV inspections and sewer spot repairs
- Budget for new sewer sections in coordination with new road off Ridley Road to the train station
- Coordination with the Region for RR48 Niagara Street (See Schedule K)

2023 CAPITAL BUDGET
STORM SEWER COLLECTION SYSTEM - INCLUDING SEWER SEPARATION (SCHEDULE D)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements							
P20-065	E	New Access Road - Ridley Road	Ridley Road	Train Station	231,000	Installation of storm infrastructure along new road to train station	CP
P18-062	RP	Lake Street Underground Improvements	Ontario St.	Welland Ave.	80,000	Construction of storm sewer in conjunction with underground improvements and road reconstruction	CP
P18-063	E / RP	Chestnut / Merritt Underground Improvements	Merritt St. Glendale Ave.	Glengarry Rd Chestnut St.	498,000	Additional funding for replacement of storm sewer in conjunction with road reconstruction	CP
Subtotal					\$ 809,000		
New Projects							
P23-060	M	2023 Road Resurfacing Program	Lloyd St.		138,000	Extension of catch basin lead for combined sewer separation on Lloyd Street	
P23-061	RP	Brimley Crescent Road Rehabilitation & Underground	Gaywood Drive	Cul-de-sac	311,000	Replacement of storm sewer sections in conjunction with watermain replacement	
P23-006	RP	Catch Basins and Storm Service Installations		City-Wide	100,000	Installation of catch basins, catch basin leads and storm laterals to alleviate isolated surface flooding	
P23-015	NI	Design for next years projects		City-Wide	50,000	Engineering services for future storm drainage system projects as required	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
STORM SEWER COLLECTION SYSTEM - INCLUDING SEWER SEPARATION (SCHEDULE D)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-014	NI	Sewer CCTV Inspections		City-Wide	100,000	CCTV sewer inspections for condition assessment of existing storm sewers including large diameter pipes	
P23-016	RP	Storm Sewer Spot Repairs		City-Wide	100,000	Spot repairs of storm sewers at various locations as necessary	
Subtotal					\$ 799,000		
					\$ 1,608,000		
Additional budget for Storm Sewers within Regional Projects (Schedule K)					<u>\$ 525,000</u>		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Wastewater (Sanitary Sewers and Pollution Control Plan) (Schedules E & F)

The City of St. Catharines is committed to providing sustainable and reliable collection and conveyance of wastewater that avoids basement flooding and environmental impacts.

Provided by:

568 kilometres of wastewater sewers

9 Wastewater Storage Facilities

1 Wastewater Pump Station

Value and Condition (As provided in the 2021 Corporate AMP for Core Assets)

Total replacement value: \$1.6 billion

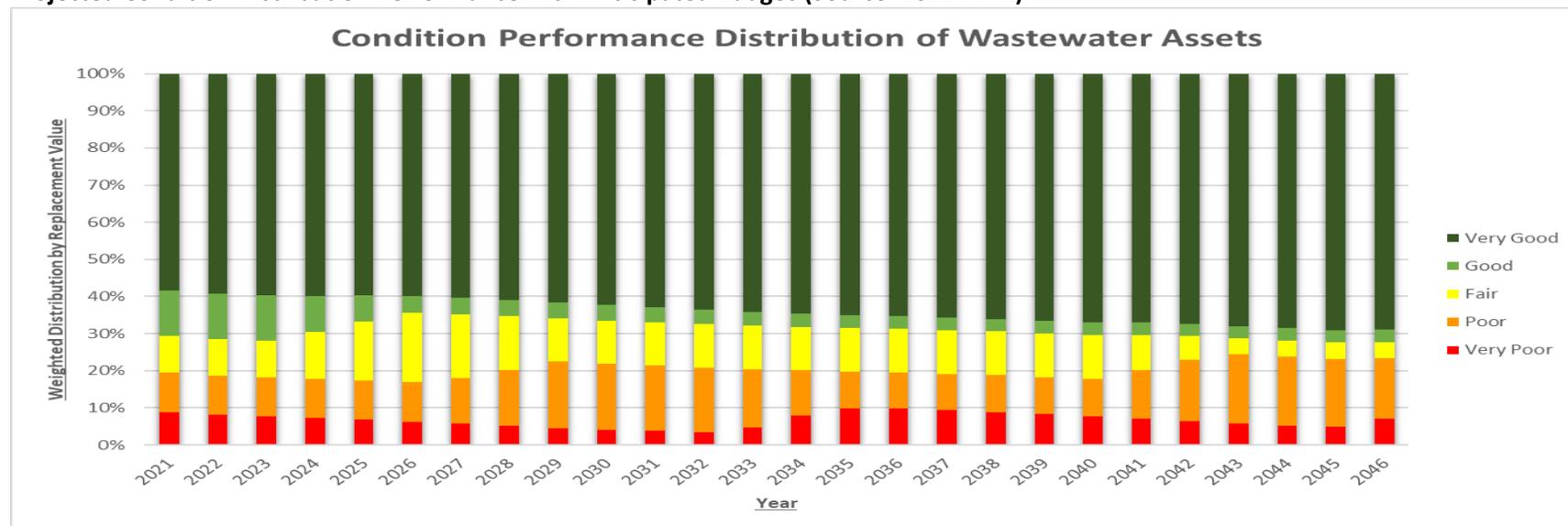
Current backlog of work: \$172 million

Current average condition: Good

Highlights

- Sewer replacement budget for two existing projects and two new projects.
- Budget for citywide CCTV inspections, spot repairs, re-lining of sewers and other annual programs.
- Coordination with Niagara Region for RR87 Main Street / Lock Street / Lakeport Road and RR48 Niagara Street (see Schedule K).

Projected Condition Distribution Performance with Anticipated Budget (Source: 2021 AMP)



The Wastewater system includes the City’s sanitary sewers, combined sewers and partially separated combined sewers and associated sewage storage facilities. Combined sewers convey both sanitary sewage and stormwater within one pipe and are a legacy of pre1960’s construction.

A City-wide Zoom camera inspection of the sewer systems started in August 2017 which is now complete. Results from the zoom camera inspection have helped develop a baseline of sewer conditions. The zoom camera inspection also has helped in targeting sewer sections for further detailed investigations such as CCTV (Closed Circuit TV) camera inspections. Zoom camera inspections followed by CCTV inspections of sewers guide the decisions to rehabilitate or replace sewers independently or in conjunction with other infrastructure projects.

Current Strategy

In 2019, Council approved a 10 - Year Financial Plan for Water and Wastewater (The Water/Wastewater Plan). The Plan includes year over year increases for investment in capital infrastructure, which will reduce the funding gap for this asset class. As a result of the financial and operational challenges facing the City caused by COVID19, the budget and forecast years shown in Table 1 reflect a reallocation of the investment in Sanitary Sewer Collection Systems and Pollution Control. Increases in spending in the years of 2024 through 2026 result in approximately the same net investment in infrastructure, over the next 6 years. A Pollution Control Plan guides the City’s efforts to meet provincial guidelines for the discharge of combined sewage to the natural environment

Renewal and Replacement: Deficiencies in the sewer system include blockages from collapsed pipe sections, grease accumulation and severe root infiltration, which restricts capacity

and may lead to backup during periods of high flow. Deficiencies also include apparent physical condition of the sewers and expected consequences such as a structurally deteriorated sewer section that is still functioning but on the verge of collapsing. Rehabilitation of these sewers is intended to ensure an adequate level of service and to reduce the likelihood of basement flooding in adjacent and upstream areas of the sewer system.

Table 1

Year	Plan (\$000)	Proposed (\$000)	Change (\$000)
2021	5,362	4,762	(600)
2022	5,959	2,884	(3,075)
2023	6,562	6,087	(475)
2024	7,173	9,737	2,564
2025	7,797	8,481	684
2026	8,433	9,596	1,163
Total	41,286	41,547	261

Non-infrastructure Solutions: Tools such as zoom camera inspections and CCTV inspections are utilized to gauge the condition of sewers and to implement suitable maintenance, rehabilitation, or replacement strategies at appropriate times. These tools/methods also help in prioritizing needed works to match available budgets. Hydraulic studies and modelling in house and by third party consultants are completed to evaluate system capacity.

Expansion of Services: Expansion of the network may be undertaken to support growth and development or to meet demands of users. Pollution Control (Schedule F) includes \$250,000 for implementation of recommendations of a pending Pollution Control Plan Update.

2023 CAPITAL BUDGET
SANITARY SEWER COLLECTION SYSTEM (SCHEDULE E)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements							
P18-062	RP	Lake Street Underground Improvements	Ontario St	Welland Ave.	221,000	Construction of sanitary sewer in conjunction with underground improvements and road reconstruction	CP
Subtotal					\$ 221,000		
New Projects							
P23-061	RP	Brimley Crescent Road Rehabilitation & Underground Improvements	Gaywood Drive	Cul-de-sac	190,000	Replacemen of sanitary sewer section in conjunction with watemrain replacement	CP
P18-063	RP	Chestnut / Merritt Underground Improvements	Merritt St.	Glengarry Road	378,000	construction funding for replacement of san sewers in conjunction with road reconstruction	CP
P23-015	NI	Design for next years projects		City-Wide	50,000	Engineering services for future sanitary collection system projects as required	
P23-010	NI	Extraneous Flow Elimination		City-Wide	50,000	Study to determine sources of inflow and infiltration into sanitary sewer	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
SANITARY SEWER COLLECTION SYSTEM (SCHEDULE E)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-001	E / RN	Phelps/Turner/Smythe	Ellis Avenue	Turner Crescent	95,000	Installation of a new sewer section in conjunction with works for new development	CP
P23-012	M	Sanitary Sewer Flushing & Reaming		City-Wide	25,000	Sewer flushing and reaming for physical cleaning of selected sewer sections with operational issues	
P23-005	RN	Sanitary Sewer Reaming & Lining		City-Wide	1,000,000	Sewer lining to address identified deficiencies City Wide	
P23-011	M	Sanitary Sewer Spot Repair Program		City-Wide	500,000	Spot repairs for sanitary sewers as required	
P23-014	NI	Sewer CCTV Inspections		City-Wide	300,000	CCTV inspections of existing sewers to identify condition and future works	-
P23-019	NI	Sewershed Analysis		City-Wide	10,000	Engineering services for sewershed capacity analysis as required	
Subtotal					\$2,598,000		
					<u>\$2,819,000</u>		
Additional budget for Sanitary Sewers within Regional Projects (Schedule K)					<u>\$3,018,000</u>		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
 POLLUTION CONTROL (SCHEDULE F)

Project				
Project No.	Type	Project Name	Gross Cost	Details
New Projects				
P23-018	E	Pollution Control Priority Program	\$ 250,000	Implement Pollution Control Plan initiatives to reduce combined sewer overflows
			<u>\$ 250,000</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
 NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Water Distribution System (Watermains) (Schedule G)

The City of St. Catharines is committed to providing a sustainable and reliable supply of safe, high quality drinking water in accordance with regulatory requirements.

Provided by:

593 kilometres of Watermains

3,562 Hydrants

5,693 Valves

Over 41,800 Water Meters

1 Booster Pumping Station and 1 Bulk Water Station

Value and Condition (As provided in the 2021 Corporate AMP for Core Assets)

Total replacement value: \$ 1.366 billion

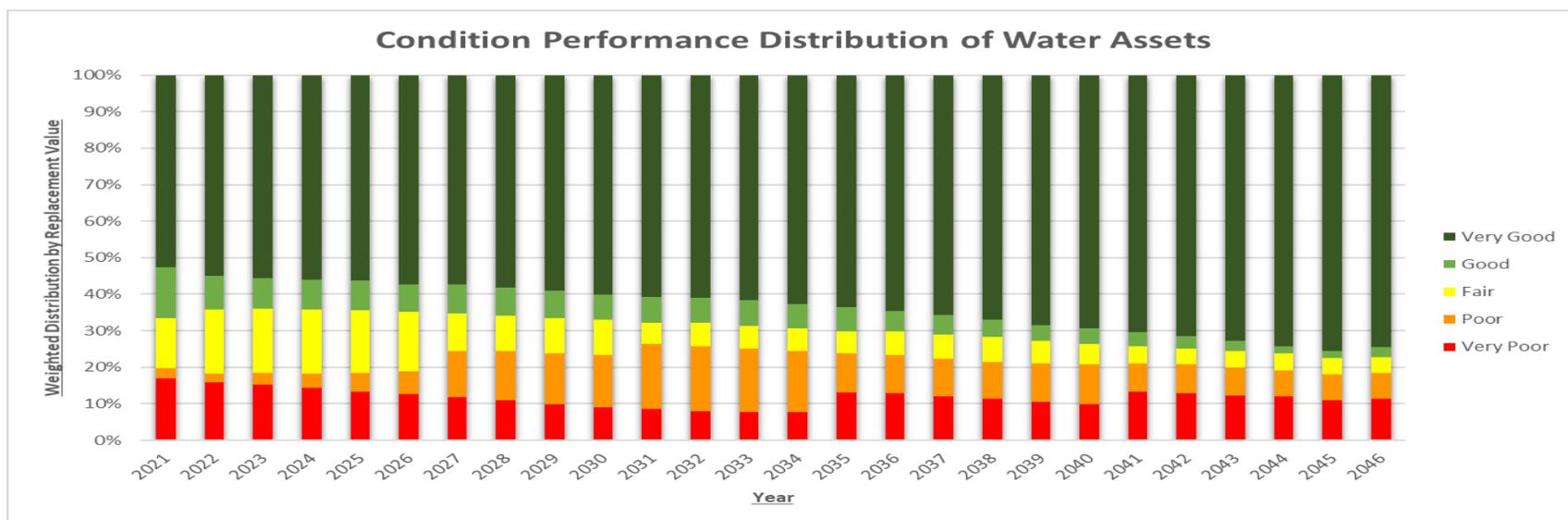
Current backlog of work: \$ 259 million

Current average condition: Good

Highlights

- Construction funding for 2 existing projects
- Budget for 10 projects at 23 locations for future watermain replacement
- 5,415m of cast iron watermains budgeted to be replaced
- Budget for ongoing stortz hydrant port conversions in key areas

Projected Condition Distribution Performance with Anticipated Budget (Source: 2021 AMP)



Current Strategy

Staff continues to monitor the number and location of existing watermain breaks. Figures 1 and 2 present records for the past 15 years and reflect the high variability in the number of annual watermain breaks. Despite the variability in annual watermain breaks, a continuous targeting of watermains with relative high break rates for replacements seems to be gradually reducing the long-term average number of annual watermain breaks. The increasing age of existing watermains makes the watermains more prone to possible failures. A proactive approach is necessary to keep the watermain system in a good and reliable condition which also reduces maintenance costs and the risks of contamination of the system. Despite these mitigation strategies and with capital reinvestment at current target levels, it is possible other risk factors are realized, resulting in increased break rates.

In 2019, Council approved a 10 - Year Financial Plan for Water and Wastewater (The Water/Wastewater Plan). The Plan includes year over year increases for investment in capital infrastructure, which will reduce the funding gap for this asset class. As a result of the financial and operational challenges facing the City caused by COVID19, the 2023 budget and 2024-2027 forecast reflects a reallocation of the investment in the water distribution system, as shown in the table 1. Increases in spending in the years of 2024 through 2026 result in the same net investment in infrastructure, over the next 6 years. However, in the short term, the spending deferrals will continue to contribute to the widening infrastructure gap.

Renewal and Replacement:

Replacements are prioritized based on watermain break histories, coloured water issues, and in conjunction with other projects. Council directed that each year's water budget should include an allocation of at least \$750,000 for the replacement of deteriorated

cast iron watermains in areas experiencing coloured water problems. Approximately 24% of the City's watermain system is comprised of cast iron watermains. Not all cast iron watermains have reached the end of their useful lives.

Table 1

Year	Plan (\$000)	Proposed (\$000)	(Decrease)/Increase (\$000)
2021	9,329	8,129	(1,200)
2022	10,516	8,287	(2,229)
2023	11,726	11,755	29
2024	12,961	13,761	800
2025	14,220	15,420	1,200
2026	15,504	16,904	1,400
Total	74,256	74,256	-

Expansion of Services: Expansion of a watermain network could be undertaken to support growth and development or to meet existing users' demand. Installation of a new watermain section on Chestnut Street West between Hastings Street and Brookdale Avenue and another watermain section between Chestnut Street and Glendale Avenue have been included to improve watermain looping and water supply in the area.

Non-Infrastructure Solutions: Environmental assessments, geotechnical investigation and design for future waterworks are undertaken in advance of proposed larger construction projects. Watermain projects can take several months to years; and could include public consultation and the preparation of finalized designs. Hydraulic modelling and studies are undertaken by third party engineering experts, as require, to understand system capacity.

Figure 1

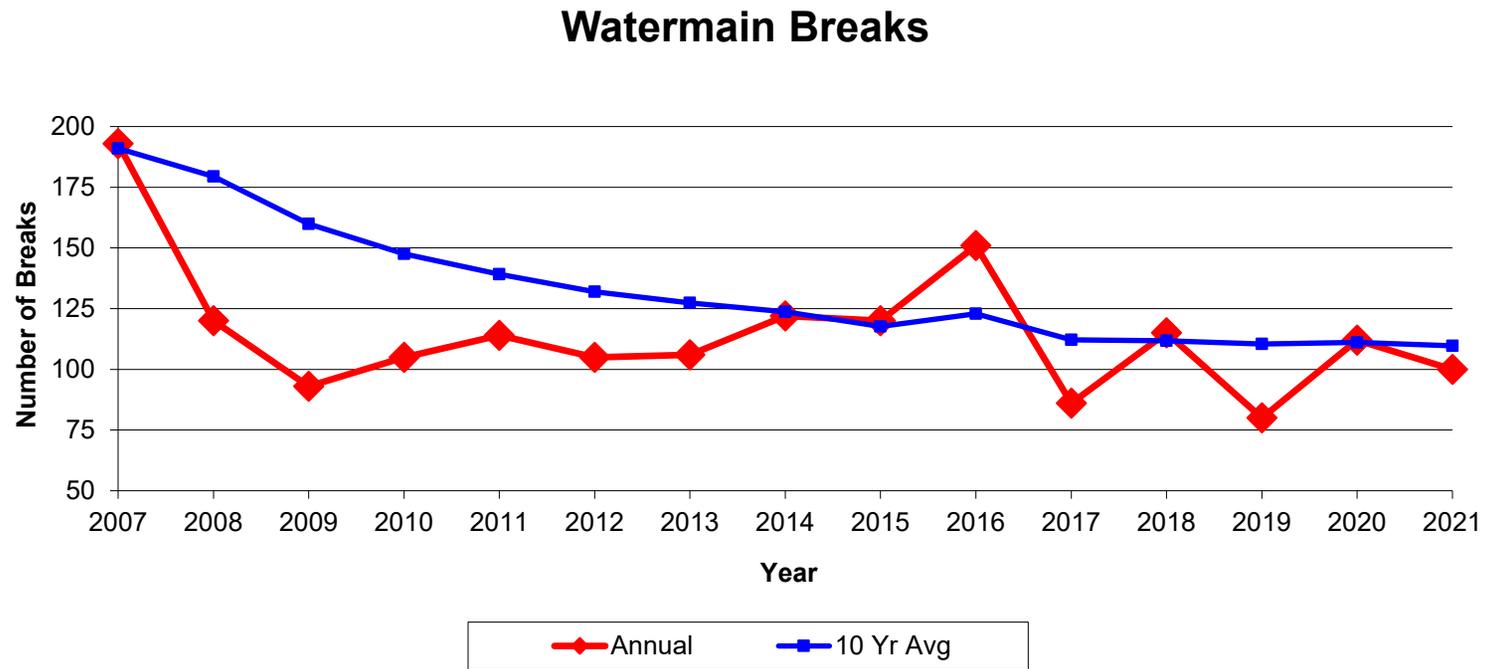
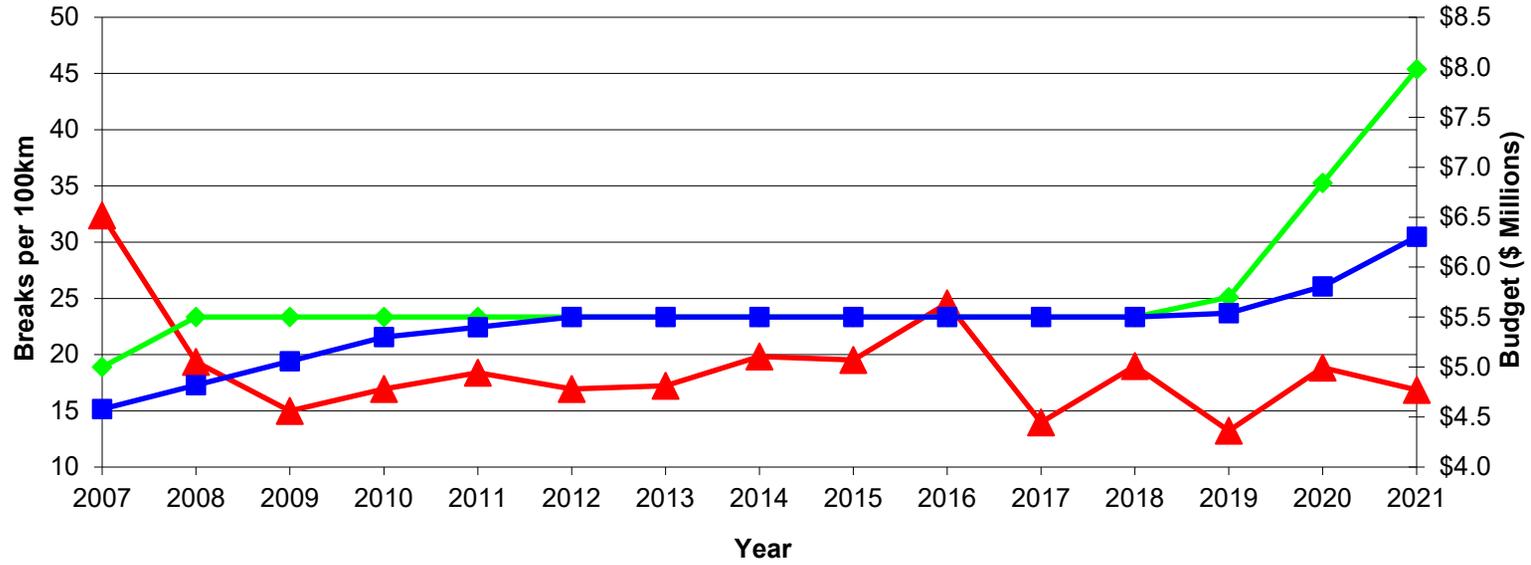


Figure 2

Watermain Breaks per 100km



2023 CAPITAL BUDGET
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements							
P18-062	RP	Lake Street Underground Improvements	Ontario St.	Welland Ave.	348,000	Construction funds for replacement of existing C.I. watermain in conjunction with road reconstruction	CP
P18-063	E	Chestnut / Merritt Underground Improvements	Merritt St. Almond Lane Glendale Ave.	Glengarry Road Walnut St. Chestnut St.	629,000	Construction funding for replacement of w/m in conjunction with road reconstruction	CP
Subtotal					\$ 977,000		
New Projects							
P23-102	RP	Adel / Donalda / Dundalk / Regent / Rainbow Adel Drive Donalda Court Dundalk Court Rainbow Drive Regent Drive	Shade Tree Adel Drive Regent Drive Rochelle Drive Sunrise Drive	Shade Tree Cul-de-sac Cul-de-sac Malibu Cul-de-sac	1,610,000	Replacement of existing C.I. and D.I. watermain	
P23-103	RN	Briarsdale / Donlon Briarsdale Drive Donlon Circle	Glen Morris Drive (N) Woodcrest Drive	Jacobson Avenue Cul-de-sac	543,000	Replacement of existing C.I. and D.I. watermain	CP

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-061	RP	Brimley Crescent Road Rehabilitation & Underground	Cindy Drive	Cul-de-sac	566,000	Replacement of existing D.I. watermain in conjunction with sewer and road works	CP
P23-015	NI	Design for next years projects			50,000	Engineering services for future waterworks projects as required	
P23-101	RN	Dundas / Leeson			865,000	Replacement of existing C.I. watermain	CP
		Dundas Crescent	Bradley Street	Bradley Street			
		Leeson Street	Wanda Road	Dundas Crescent			
P23-104	RP	Kimbermount / Lake / Monique			1,450,000	Replacement of existing C.I. watermain	
		Kimbermount Drive	Westgate Park Drive	Hazelwood Gate			
		Lake Street	Lakeshore Road	Kimbermount Drive			
		Monique Crescent	Parnell Road	Bradmon Drive			
P23-105	RP	Mohawk/Scott/Village Green			1,335,000	Replacement of existing C.I. watermain	
		Mohawk Drive	Thorndale Avenue	160m East			
		Scott Street West	Collingwood Avenue	Haig Street			
		Village Green Drive	Royal Henley Boulevard	Royal Henley Boulevard			

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-106	RP	Jasmine/Josephine			680,000	Replacement of existing C.I. watermain	
		Jasmin Crescent	Wakil Drive	Cul-de-sac			
		Josephine Street	Pelham Road	Hillview Road North			
P23-107	RP	Carriage / Grove			1,044,000	Replacement of existing C.I. watermain	
		Carriage Road	Rockwood Avenue	Grove Avenue			
			Grove Avenue	Appleford Road			
		Grove Avenue	Merritt Street	Orchard Street			
P23-001	RN	Phelps/Turner/Smythe			450,000	Replacement of watermain in conjunction with work for new development	CP
		Phelps Street	Ellis Avenue	Turner Crescent			
		Turner Crescent	Phelps Street	Oakdale Avenue			
P23-116	RN	Stortz Hydrant Port Conversions			450,000	Year 2 of multi-year conversion of existing hydrants to Stortz type pumper connections in priority areas	
P23-118	RN	Valves, Hydrants & Services			50,000	Replacement of existing valves, hydrants and services etc. in conjunction with other works	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P23-100	RP	Welland Avenue	Grantham Avenue	Bunting Road	1,860,000	Replacement of existing C.I. watermain	
				Subtotal	\$ 10,953,000		
					\$ 11,930,000		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Bridges and Major Culverts (Structures) (Schedule H)

The City of St. Catharines is committed to providing structures that connect transportation routes to provide a safe, efficient, accessible, and sustainable transportation system for all required uses and modes of transportation in accordance with regulatory requirements and expectations of the community.

Provided by:

71 Bridges (including culverts with span > 3m)

46 smaller diameter culverts on major water courses

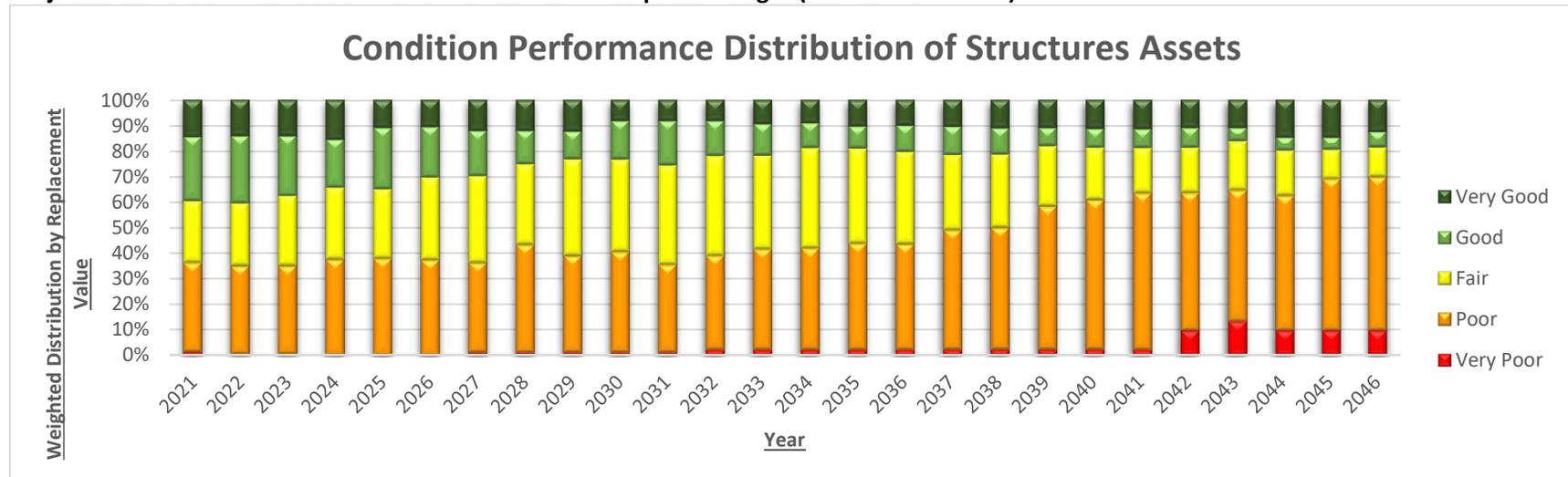
Value and Condition (As provided in the 2021 Corporate AMP for Core Assets)

Total replacement value: \$66 million

Current backlog of work: \$ 8 million

Current average condition: Fair

Projected Condition Distribution Performance with Anticipated Budget (Source: 2021 AMP)



The City follows the standards and best practices outlined in the Ontario Structure Inspection Manual to determine the condition of the bridges and culverts. Third party consultants, who are experts in the design and assessment of bridges, are engaged to complete these assessments. The inspection of bridges with a span of 3m or greater are legislated to be inspected every 2 years. All structures were inspected in 2020 and those with a span of 3m or greater are currently being reinspected in 2022 to meet regulatory requirements.

Current Strategy

Renewal and Replacement: Both pedestrian bridges and roadway structures are replaced when they reach the end of their useful life. Rehabilitation is undertaken to prolong the life of the asset. The recommended works are determined through inspections undertaken every two years, or as recommended. Other considerations such as the timing of proposed roadworks and watercourse improvements may advance or delay renewal or replacement of a structure.

Expansion of Services: Expansion of the network may be undertaken to support growth and development or to meet demands of users. When bridges are replaced, they are widened where possible to support active transportation or improve accessibility for all users.

Non- infrastructure Solutions: No new locations for rehabilitation are included in the 2023 budget. This year the budget aims to fund the construction of certain structures currently in design.

2023 Highlights

- Construction funds for the replacement, or relining, of three roadway culverts, including one which is co-ordinated with watercourse rehabilitation works
- Construction funds for the removal or replacement of one bridge
- Construction funds for a culvert replacement in conjunction with road works
- Additional construction funds for the replacement of a box culvert

2023 CAPITAL BUDGET
BRIDGES AND MAJOR CULVERTS (SCHEDULE H)

Project No.	Project Type	Project Name	Location	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements						
P22-122	RP	Battersea Avenue Culvert (C118M)		600,000	Replace or reline the structure.	
		Battersea Avenue Culvert (C118M)	170m East of Ferndale Ave.			
P22-130	RP	Secord Creek Construction and Culvert (C109M) Replacement		179,700	Replace existing structure with watercourse rehabilitation works	CP
		Rosedale Avenue Culvert (C109M)	36m East of Bunting Rd.			
P22-063	RP	Parnell Road Reconstruction		1,767,500	Replacement of the structure with road works	CP
		Parnell Drive Culvert (C088S)	5m east of Bradman Dr			
		Parnell Road Culvert (C094M)	120m Southwest of Niagara St.			
P15-122	RP	Third Street Culvert Replacement, 90 m South of CN Tracks		150,000	Additional funding for box culvert replacement	
		Third Street Culvert (B028S)	Approximately 95m south of CNR			
P22-122	RP	Melody Trail Culvert (C077S)		700,000	Replace or reline the structure.	
		Melody Trail Culvert (C077S)	20m east of Arthur St			
P17-125	RP	South Service Road Bridge Removal or replacement (B011S)		805,000	Following the C/S and RRA, the minimum rehabilitation work would include the following: Patch, Waterproof, and Pave, and concrete patch repair rehabilitation of the structure in 1-5 years. The City may also consider eliminating the south end of the structure or the entire structure in lieu of rehabilitating.	
		South Service Road Bridge (B011S)	Just north of Queenston St			
		Third Street Culvert (B028S)	Approximately 95m south of CNR			
				\$ 4,202,200		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Shoreline Protection (Schedule I)

The City of St. Catharines is committed to providing sustainable and reliable Lake Ontario shoreline protection to prevent the erosion of City owned property and reduce impacts to private property.

Provided by:

3.625 kilometres of Protected Shoreline

1.100 kilometres of Unprotected City owned Shoreline

Value and Condition

Total replacement value: \$ 77 million

Current backlog of work: \$ 9.2 million

2023 Highlights

- Construction of 50 metres of new shoreline protection

The City is working towards improving the stability of the City owned Lake Ontario shoreline and installing protection at the high priority locations experiencing significant erosion due to fluctuating lake water levels.

Current Strategy

Renewal and Replacement:

Over time material within shoreline protection can wash away, creating weak points within the protection. Typically, rehabilitation of the material can be undertaken to prolong the life of the protection, however at times, replacement of the protection is required.

Non-infrastructure Solutions: City of St. Catharines engages third party consultants, who are experts in the design and assessment of shoreline protection, to complete reviews of the City owned shoreline. These reviews are completed every 3 to 5 years, dependent on the water levels of Lake Ontario, and provide the City with a list of priority locations for installation of new or replacement/renewal of existing protection.

The last review of the City owned protected and unprotected shoreline was completed in 2019 and the report was finalized in late 2020. The next review is currently planned to be completed in 2024.

Expansion of Services: Expansion of the shoreline protection may be undertaken to support rising lake levels. The City is working to address known areas of erosion requiring new shoreline protection according to priority level. As additional areas of erosion along the shoreline are identified, the City will review these areas and determine the appropriate remediation actions. Construction of new assets will have a direct impact on the operation and maintenance budget. The full extent of the impacts will be dependent on the design and level of services to be provided.

2023 CAPITAL BUDGET
SHORELINE PROTECTION (SCHEDULE I)

Project No.	Project Type	Project Name / Location	Gross Cost	Details
Previously Budgeted Projects - Additional Budget Requirements				
P22-150	E	Sunset Beach (Municipal Beach)	208,000	Additional funds for construction of shoreline protection to address deficiencies along Lake Ontario in conjunction with parking lot reconstruction
			<u>\$ 208,000</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Watercourse Rehabilitation

(Schedule J)

The City of St. Catharines is committed to maintaining sustainable natural watercourses to prevent the erosion of City owned property and reduce impacts to private property

Provided by:

36.5 kilometres of natural watercourse

2 flood control structures

21 former Welland Canal locks and 1 related feature

Value and Condition

Current backlog of work (watercourse only): \$46.1M based on 2015 Flooding and Erosion Control Priority Study Report

The 2015 study (Watercourse Flooding and Erosion Control Priority Study Report) identified 87 watercourse sites within the urban boundary that are eroded and need rehabilitation. Of those sites not yet addressed, 16 were identified as highest priority based on erosion levels with an estimated \$8.9 million cost for remediation. Based on high level estimates, the total citywide watercourse rehabilitation costs within the urban boundary, excluding Twelve Mile Creek, will be approximately \$46.1 million in 2020 dollars.

In 2018, a Dam Safety Review was completed for the Martindale Pond Weir and Heywood Generating Station on Twelve Mile Creek. These two structures control the water level in Martindale Pond. The review concludes that deficiencies exist in the existing weir and to a much lesser extent at the Heywood Generating Station. Additional studies will be carried out with existing funding to suggest alternatives and recommend a preferred option for the Weir.

In 2018, a detailed inspection program was undertaken on the exposed lock walls constructed for the first three Welland Canals. The report highlighted the need for capital work and translates into an average annual funding level of more than \$170,000 over a 10-year period.

Current Strategy

Renewal and Replacement: Natural watercourses will meander naturally within their valley bottoms. Rehabilitation is undertaken using natural channel design techniques when possible if a watercourse is negatively impacting public or private infrastructure.

Dam structures and structures associated with the former Welland Canals are rehabilitated as identified to maintain watercourse function.

Coordination with other infrastructure improvements such as bridge and culverts may accelerate or delay watercourse rehabilitation.

Non- infrastructure Solutions: City of St. Catharines engages third party consultants, who are experts in the design and assessment of

watercourses, to complete reviews of the City owned watercourses and culverts which have less than 3m spans (i.e., are not bridges) in the watercourses. These reviews are completed every 5 to 10 years and provide the City with a list of priority locations for erosion rehabilitation and / or flooding.

Highlights

- Martindale Pond Weir – funding for construction
- Dick's Creek Main Branch (Tremont Creek) and East Branch (Briarsdale Creek) – funding for the environmental assessment and design
- Secord Creek - funding for construction

2023 CAPITAL BUDGET
WATERCOURSES (SCHEDULE J)

Project No.	Project Type	Project Name	From	To	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements							
P17-129	RP	Martindale Pond Weir Replacement			4,000,000	Replacement weir to address identified deficiencies in weir controlling water level in Martindale Pond and in conjunction with Heywood Generating Station improvements	
P22-130	RP	Secord Creek Construction and Culvert (C109M) Replacement			100,000	Construction to address priority items identified by EA	CP
Subtotal					\$4,100,000		
New Projects							
P23-130	NI	Dick's Creek EA/Design for Constr Ph 1, Ph 2 & Ph 3			600,000	Engineering Services (EA and design for highest priority) to address previously identified deficiencies	
		Rosedale Creek	Burgoyne Woods	Highway 406			
Subtotal					\$ 600,000		
					<u>\$4,700,000</u>		

NOTES: CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Regional Projects

(Schedule K)

This schedule includes the City's share of municipal works (such as sewer repairs, watermain replacements, new or replacement sidewalk and new storm sewer construction) on projects undertaken in cooperation with the Regional Municipality of Niagara. The Region consults with the City, when determining the timing of projects, which are managed by the Region. Coordinating the City's efforts in this way helps to minimize cost and disruption to the affected residents and businesses and provides infrastructure renewal within the City.

For more information on the service areas impacted by these regional projects refer to other sections of this document, Sidewalks, Storm Sewer, Sanitary Sewer, and Water Distribution.

Previously, Niagara Region Transportation Division advised they may proceed with tendering for road reconstruction on Regional

Road 87 consisting of Main Street, Lock Street and Lakeport Road in Port Dalhousie. The 2023 Capital budget includes partial funding for the City's share of costs for coordinated underground infrastructure improvements.

Also recommended for 2023 is additional for the cast iron watermain replacement which will benefit from being coordinated with the Region's St. Paul Street West bridge replacement project and / or the Region's redevelopment of the St. Catharines train station precinct.

Another recommended project is the reconstruction of Regional Road 48 Niagara Street. The 2023 Capital budget includes partial funding for the City's share of costs for coordinated underground infrastructure improvements.

2023 CAPITAL BUDGET
REGIONAL PROJECTS (SCHEDULE K)

Project No.	Project Type	Project Name	From	To	Gross Cost	Details
Previously Budgeted Projects- Additional Budget Requirements						
Roads						
RN20-stp	RN	St. Paul Street at CNR Bridge Replacement			76,000	City share of the St Paul Street at CNR Bridge Replacement Project
Subtotal					\$ 76,000	
New Projects						
Sanitary						
RNxx-MLL	RP	Region RR87 Main Street, Lock Street & Lakeport Road			2,350,000	Partial funding for Replacement and spot repairs of existing sewers in conjunction with road reconstruction. Capital repairs to existing sewers in conjunction with Region's roadworks. Partial funding for replacement and spot repairs of existing sewers in conjunction with road reconstruction
		Lakeport Road (RR87)	Embassy Ave.	North End		
RNxx-LL	E / RP	Region - Niagara Street (RR48) Reconstruction			668,000	Rehabilitation of existing sewer with identified deficiencies inconjunction with Regional roadworks
		Niagara St.	Carlton St.	Scott St.		

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
REGIONAL PROJECTS (SCHEDULE K)

Project No.	Project Type	Project Name	From	To	Gross Cost	Details
Sidewalk						
RNxx-GDR	RP	Region - Glenridge Ave at CNR Bridge Replacement			800,000	City's share of costs for sidewalks during Regional bridge replacement, cost sharing determined by CNR Board Order
		Glenridge Avenue	Edgedale Road	Riverview Boulevard		
Storm						
RNxx-LL	E / RP	Region - Niagara Street (RR48) Reconstruction			525,000	Partial funding of City's share of costs of new storm sewer and existing storm sewer repairs in conjunction with Regional roadwork
		Ontario St.	Linwell Rd.	Lakeshore Rd.		
Subtotal					\$4,343,000	
					<u>\$4,419,000</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Community, Recreation, and Culture Services (CRCS) (Schedule L)

The City of St. Catharines is committed to being The City Where Everybody Can Play.

CRCS Spotlight – Parks Renewal Plan

The City's Parks Renewal Plan prioritizes asset renewal based on asset condition, as well as health and safety considerations, with the assets in the poorest condition being prioritized for replacement. Playground equipment and court renewal as well as upgrades are required to maintain service levels and ongoing safe play spaces.

Provided by:

72 Playgrounds

15 Tennis courts (4 locations convertible to pickleball)

23 Basketball courts

Value and Condition

Total replacement value within the next 5 years: \$11.65 million

Total replacement value within the next 10 years: \$13.62 million

Note: Table 1 below provides additional information for other areas of CRCS

Current Strategy

Renewal and Replacement

The **Aquatics Facilities Strategy** provides recommendations on the long-term operating sustainability and health of the City's aquatics system. The 2023 Capital Budget includes \$0.35M towards the installation of a splashpad, seasonal washroom facility and sun shelter.

The **Environmental Hanging Basket Program** will transition assets to a more environmentally responsible product. The Environmentally Friendly Hanging Baskets Program will replace baskets each year from 2022-2024. This program is aligned with the City's declaration of a Climate State of Emergency.

The City's **Tree Planting Program** helps improve air quality and add economic value, beauty, and shade to its neighborhoods. Trees are planted on public boulevards, road allowances fronting residences, and in circles where trees are currently not planted. This capital program assists in increasing the tree canopy percentage on both public and private property. The 2023 budget will allow the City to hold two tree giveaways intended to assist in reaching the City's 30% tree canopy goal by 2030.

The **Welland Canal Fallen Workers Memorial** requires a panel replacement to update the name plaque and a tree replanting. The Welland Canal Fallen Workers Memorial Maintenance Reserve Fund will be utilized as it is intended for the on-going maintenance and preservation of the Memorial.

The **Memorial Bench Program** will replace 50 benches per year from 2020-2025 with the replacements concluding in 2025. The new benches will be made from composite materials that are expected to last 25-30 years. The City currently has an inventory of wooden benches with many of the benches approaching end of useful life

Expansion of Services:

The goal of the Parks Legacy Fund is to match alternative sources of funding such as donations, legacy giving and community projects to renew, and upgrade play assets in City parks. The Parks Legacy Fund will help to mitigate the financial implications of the Parks Renewal Plan by leveraging City funds with matching community donations so that twice as much work can be completed.

See Schedule M and the related narrative for information on Sunset Beach.

Highlights

- The Parks Renewal Plan will replace 2 playgrounds, 2 basketball courts, and 2 tennis courts
- Over 72 hanging baskets converted to environmentally friendly
- 50 memorial benches replaced
- Two free tree giveaways

2023 CAPITAL BUDGET
COMMUNITY, RECREATION AND CULTURE SERVICES (SCHEDULE L)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
Previously Budgeted Projects - Additional Budget Requirements					
P21-156	E	Splashpad, Sun Shelter & Washroom (funding top-up)	350,000	The 2022 Capital budget included \$1M towards the project but it is estimated that an additional \$350,000 will be required. Additional funding required for the installation of a splashpad, seasonal washroom facility and sun shelter as per the Aquatics Facilities Strategy approved by Council in Q3 2021 (CRCS-042-2021) due to the increase to construction costs.	
PRC20-01	NI	Tree Planting Program	375,000	Address asset deficiencies and move towards achieving Council approved tree canopy goal of 30%	PA
PRC22-03	RN	Environmentally Friendly Hanging Baskets Program (Year 2 of 3)	47,000	This project will transition to a more environmentally responsible product, requiring less frequent watering	PA
PRC20-04	RP	Memorial Bench Program (Year 4 of 6)	80,000	Replace assets which are approaching end of useful life and maintain level of service	PA

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
COMMUNITY, RECREATION AND CULTURE SERVICES (SCHEDULE L)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
PCR21-05-1 & PCR22-04	RP	Parks Legacy Fund	250,000	The Parks Legacy Fund will annually leverage and match alternative funding to maintain and enhance parks levels of service. Project(s) still to be determined for 2023 (As approved by Council on October 7, 2019)	
Subtotal \$			1,102,000		
New Projects					
P23-160	RN	Parks Renewal Plan - Port Dalhousie Multi-Use Court	332,931	Replace court which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	
P23-161	RN	Parks Renewal Plan - Alex Mackenzie Basketball Court & Playground	444,612	Replace court and playground which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	
P23-162	RN	Parks Renewal Plan - Bartlett Park - Playground & multi-use court	527,845	Replace court and playground which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	
P23-163	RN	Parks Renewal Plan - Community Park Multi-Use Courts	444,612	Replace court which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
COMMUNITY, RECREATION AND CULTURE SERVICES (SCHEDULE L)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
PCR23-01	M	Welland Canal Fallen Workers Memorial	33,000	Replace panel to insert a name in chronological order. The panel will be reinstalled with the ability to remove and adjust more simply in the future if required. Additionally, this work will include resetting a panel that has shifted since installation.	
Subtotal			\$ 1,783,000		
			\$ 2,885,000		
Less:					
	PA	Parks Renewal Plan Projects	\$ 1,750,000	Council approval (CRCS-B017-2021)	
Total budget requiring Council Approval			\$ 1,135,000		

Notes:

PA- Previously approved by Council in 2021

CP - Co-ordinated projects involving more than one asset group (see Schedule S)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Buildings and Facilities (including accessibility)

(Schedule M, N, O)

The City of St. Catharines is committed to providing safe and accessible Buildings and Facilities for all citizens and staff. The focus is to maintain life safety elements, barrier free accessibility, building envelope and interior conditions for all user groups.

Provided by:

174 Buildings and facilities spread across 73 properties

Value and Condition

Estimated total replacement value of City owned buildings and facilities: \$553 million

Estimated Current Backlog of Work \$55.5 million

The Arena Strategy was updated in 2019 and highlighted the need to right size the City's arenas (excluding Meridian Centre), to ensure that current levels of service can be delivered at an optimal cost. The 2017 Fire Master Plan confirmed the need for asset renewal at Firehalls, with priority given to renovations at Fire Hall 1, which would allow for the relocation of one of the Aerial Firetrucks. A 2020 Feasibility Study, to determine future needs and capital cost estimates for Fire Hall asset renewal, identified the need to replace three Fire Halls (1, 2, 3) and upgrade Fire Hall 6. These Fire Halls are nearing their end of life and they do not meet operational needs (including Accessibility).

Recent condition assessments and regulatory requirements were also considered in determining the Facilities Capital Budget. The assets included within this section of the capital budget will be addressed within the AMP for non-core assets scheduled for completion prior to July 1, 2024, in compliance with O. Reg.588/17.

Current Strategy

Renewal and Replacement

The City maintains many buildings differentiated by factors such as usage, (i.e. arenas, fire halls, operations work centres), or third party designation (i.e. Historical buildings). Various components within buildings also receive attention (i.e. roofs, washrooms) as well as overall standards for buildings (i.e. accessibility).

The City undertakes several ongoing key initiatives and programs to maintain and improve City owned facility assets such as structures, buildings and related land improvements.

There are numerous smaller projects which include the renewal and replacement of structural, architectural, mechanical, and electrical components of various City buildings that have reached the end of their service life. These projects are funded from the related reserve.

Heritage Assets: The Old Court House, Montebello Park Pavilion and Band Shell, City Hall, the Morningstar Mill, Dalhousie House, and the Old Robertson School at 85 Church Street are examples of City owned buildings which are classified as Heritage Buildings.

Due to the age of the heritage buildings, many of the architectural, structural, mechanical, and electrical components of these structures have well exceeded their useful service life and require regular maintenance and rehabilitation to preserve the integrity of these buildings. There are some components within these structures that do not meet current codes and safety regulations and require retrofits to remain in operation.

Accessibility: The City is striving to meet the provincially mandated accessibility standards by the 2025 target as set out by the Accessibility for Ontarians with Disability Act (AODA). To rectify the estimated \$5.750 million in non-compliant items, the City continues to complete accessibility upgrades, including barrier free

washrooms and elevators. The 2023 Capital budget for accessibility includes \$600,000 for upgrades to the washroom and change room facilities at Port Dalhousie Lions Park Pool and \$2,500,000 for washroom, elevator and entrance upgrades to Robertson school.

Based on 2024-2027 forecast budget levels (with an annual minimum of \$250,000), the highest priority items will be completed, however some portion of the lower priority items will remain unaddressed, at the target date.

Non-infrastructure Solutions: The City's Arena strategy was developed and approved in 2019. The 2023 Capital budget incorporates this strategy with the decommissioning of the Garden City Arena.

Highlights

- Renovation to the Central Library including window replacement, atrium redesign and leak repairs
- Funds for Seymour Hannah Arena dehumidification, compressor replacement and change room upgrades.
- Replacement of the Kiwanis Turf Field
- Baseball field lighting replacement and control system implementation at George Taylor Field
- Replacement of air handling units at City Hall

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
Previously Budgeted Projects- Additional Budget Requirements				
P22-187	NI	Garden City Arena Complex Demolition & Decommissioning of GCA complex	380,000	Garden City Arena Complex Demolition & Decommissioning of GCA complex
P22-150	RN	Municipal Beach (Sunset Beach) - Site Funding Matching (City Portion) for ICIP work - Phase 1	800,000	Funding Matching (City Portion) for ICIP work - Phase 1
P22-137	E	Buchanan House Top up funds for accessibility upgrades	420,000	Top up funds for accessibility upgrades
P22-138	RP	Old Court House replace and repair basement windows	200,000	replace and repair basement windows
P23-134	RN	Robertson School - Main Accessibility Upgrades	2,500,000	Accessibility Upgrades, add universal washroom on each floor (3), install elevator, renovate existing washrooms to FADS (4), misc internal ramps and entrance mods for barrier free access.
Subtotal			\$ 4,300,000	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
New Projects				
Administrative and Operational Centres				
P23-133	RP	City Hall Replace 3 modulating air handling units	1,000,000	Replace 3 modulating air handling units
Administrative and Operational Centres			\$ 1,000,000	
PRCS - Arenas and Recreation Facilities				
P18-164	RP	Seymour Hannah Upgrade dehumidification system for pad 2/3 - additional funds to combine with phase 1	1,500,000	Upgrade dehumidification system for pad 2/3 - additional funds to combine with phase 1
P23-139	E	Seymour Hannah renovation for Junior B Falcons	150,000	renovation of the retail space and dressing rooms for Junior B Falcons (\$75K for removal; \$75K fitout = \$150K total)
P23-138	RP	Seymour Hannah Replacement Vilter Compressor & panel (one compressor) - Phase 2 (compressor #2)	350,000	Replacement Vilter Compressor & panel (one compressor) - Phase 2 (compressor #2)
P23-140	RP	Seymour Hannah - Kiwanis Field Replace Turf	1,300,000	Replace Turf
PRCS - Arenas and Recreation Facilities			\$ 3,300,000	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
PRCS - Parks Structures and Facilities				
P23-141	RP	Merritton Park - Site Replace existing baseball field (George Taylor) lighting with LED fixtures & Musco Controls	400,000	Replace existing baseball field (George Taylor) lighting with LED fixtures & Musco Controls
P23-142	RP	Port Dalhousie Lions Park - Pool Renovate Change rooms - interior/exterior & add accessibility	600,000	Renovate Change rooms - interior/exterior & add accessibility
PRCS - Parks Structures and Facilities			\$ 1,000,000	
Senior Facilities				
P23-144	RP	Dunlop Drive Seniors Centre Roofing	260,000	Roofing Replacement
Senior Facilities			\$ 260,000	
Other Special Purpose Facilities				
P23-143	RN	Dalhousie House - Site Reconstruct Retaining wall & stairs	500,000	Reconstruct Retaining wall & stairs
P18-181	RP	St. Catharines Museum Replace / Upgrades	500,000	Replace air handling unit 6, condensing unit 5, install humidifier including all BAS connection and structural/electrical components
P17-129	RP	Martindale Pond Weir Replacement	400,000	Top up funds for weir reconstruction (design)

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
TBD23-16	RN	Meridian Centre Plant motor upgrade (2 glycol pumps, 2 compressor motors)	50,000	As per CIMCO's Life cycle of the Meridian Centre Refrigeration Plant, we need to start replacing motors on the system. Glycol pump 1&2, as well as Compressor 1 &2 have motors due for replacement.
TBD23-17	RP	Meridian Centre - Parking booth - front lot	20,000	For health and safety concerns, the Meridain Centre requires a parking booth for employees who are required to monitor the lot, outside in all weather conditions. Health & safety concerns can be avoided by having a parking booth that serves as shelter and security for the employees during all four seasons.
TBD23-18	RP	Meridian Centre - POS Replacement	136,000	In July 2021, Meridian Centre received an "End of Life/Support" Notice from our current POS Service Provider, NCR/Quest, effective 12/31/2023.
TBD23-19	RP	Meridian Centre - Daktronics Upgrade	136,000	Our current DMP-7000/VIP-4400/Show Control system has been discontinued and is no longer supported by Daktronics. Servicing the current system and sourcing replacement Parts will become hard to do moving forward. Upgrading to the newest version DMP-8000/VP-6000/Show Control

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
TBD23-20	RP	Meridian Centre - Main curtain modification	67,000	Modify the current Main Curtain that creates a required backdrop for concerts and events. The size of the curtain is a major labour and expense challenge, modification will solve the challenges
TBD23-21	RP	Meridian Centre - Suite level food cooking equipment addition	70,000	In anticipation of a Post Covid-19 food service environment, additional cooking equipment is needed for Suite Level Food and Beverage Outlets. In order to enhance cooking ability for Club Lounge and Suite holder ordering and delivery of premium food menu items, additional equipment has been procured. Two (2) cooking solutions to be added, two (2) Perfect Fry Countertop Solution (Club/Suites) and one (1) Turbo Fresh Double Stack Pizza and Cooking oven (Suite Pantry). Projected 6-8 year return on investment.
TBD23-22	RP	Meridian Centre - Mobile ordering platform	30,000	In anticipation of a Post Covid-19 food service environment, mobile ordering is the solution to enhance and support new and necessary safety measures for service during all Meridian Centre events. To reduce the risk to patrons and staff while providing premium and quick service food and beverage services, mobile ordering is necessary to implement to enhance current Covid-19 practices and

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
BUILDINGS AND FACILITIES (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details
P23-145	RP	PAC - Replace lighting fixtures in film house	80,000	PAC - Replace lighting fixtures in film house
P23-146	RP	PAC - Replacement of Leviton Lighting control system	60,000	PAC - Replacement of Leviton Lighting control system
P23-147	RP	PAC - Door replacements (Sliding Doors & other high priority doors)	50,000	PAC - Door replacements (Sliding Doors & other high priority doors)
TBD23-26	RN	Central Branch renovation (Phase 1)	4,850,000	Central Branch renovation (Phase 1)
Other Special Purpose Facilities			\$ 6,949,000	
New Projects Subtotal			\$ 12,509,000	
			\$ 16,809,000	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
PARKING SERVICES (SCHEDULE N)

Project No.	Project Type	Project Name	Gross Cost	Details
New Projects				
P23-135	RN	Carlisle Street Parking Garage Structural crack repairs (basement & stair D), and associated membrane repairs on garden park entrance ramp.	100,000	Structural crack repairs (basement & stair D), and associated membrane repairs on garden park entrance ramp.
PCI23-05	RN	Ontario Street Parking Garage Upgrade - Parking system, cameras, servers.	600,000	Parking system, cameras, servers.
			<u>\$ 700,000</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
FIRE SERVICES (SCHEDULE O)

Project No.	Project Type	Project Name	Gross Cost	Details
New Projects				
PFR23-02	RP	CAD (Computer Aid Dispatch) Software upgrade	350,000	CAD (Computer Aid Dispatch) Software upgrade
P23-136	NI	Firehall #3 - Pelham Rd Rebuild Station No. 3 - Design Funds only	500,000	Rebuild Station No. 3 - Design Funds only
P23-137	RP	Fire Hall #4 - Merritt St Parapet Flashing/Siding rework to prevent water infiltration	100,000	Parapet Flashing/Siding rework to prevent water infiltration
			<u>\$ 950,000</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
FLEET (SCHEDULE P)

Project No.	Project Type	Project Name	Gross Cost	Details
New Projects				
PFL23-01	RP	International 7400 Single Axle Dump Truck (#203)	360,000	Replacement of International 7400 Single Axle Dump Truck (#203)
PFL23-02	RP	Freightliner Tandem Dump Truck with Roller Pro (61)	380,000	Replacement of Freightliner Tandem Dump Truck with Roller Pro (61)
PFL23-03	RP	International Workstar 7600 Tandem Dump Truck (72)	420,000	Replacement of International Workstar 7600 Tandem Dump Truck (72)
PFL23-04	RP	International Workstar 7600 Tandem Dump Truck (73)	420,000	Replacement of International Workstar 7600 Tandem Dump Truck (73)
PFL23-05	RP	2004 Sutphen 95' aerial - Unit 26	1,946,780	Industry standard is to replace every 23 years. Project request expedited due to long procurement lead times
			<u>\$3,526,780</u>	

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

2023 CAPITAL BUDGET
CORPORATE INFRASTRUCTURE (SCHEDULE Q)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
Previously Budgeted Projects- Additional Budget Requirements					
ST-20-15	NI	Asset Management Plan - Phase 2	260,000	Additional budget to align with requirements of Oreg 588/17 to review level of service.	PA
PCI17-01	RP	Enterprise Resource Planning (ERP) System Implementation (included in 2023 Capital Forecast)	3,270,000	Partial budget for implementation of an ERP system that will replace the City's existing financial systems and provide enhanced support for accounts receivable, accounts payable, procurement, commitments and project management	PA
PCI17-02	RP	Customer Relationship Management (additional funding)	300,000	Software licensing fees and set-up of system to track soil movement as required by Ont. Regulation 406/19	
Subtotal			\$ 3,830,000		
New Projects					
PCI23-02	E	Backup Data Centre	500,000	Additional budget for implementation of property tax software - CentralSquare and related modules for tax certificates, point-of-sale, and citizen engagement portal. Replaces the City's current systems which are past end of life and receiving very limited vendor support (FMS-122-2021)	
PCI23-03	RP	Annual Computer Infrastructure Replacement	150,000	Replacement for Work Manager, GIS system and asset management software	
PCI23-04	E	IT Security software (log management tools)	200,000	Replace current switches which are at end of useful life	
Subtotal			\$ 850,000		
			\$ 4,680,000		
Less:					
PA		Enterprise Resource Planning (ERP) System Implementation (included in 2023 Capital Forecast)	3,270,000	Council Approval FMS-122-2021	
			\$ 1,410,000		

Notes:

PA- Previously approved by Council in 2021

Project Type: RP = Replacement, RN = Renewal, E = Expansion,
NI = Non-Infrastructure Solutions, M = Maintenance, D = Disposal

Co-ordinated Projects (Schedule S)

For asset categories within the road allowance (roads, sidewalks, sewers, water mains), coordination with other construction activities is taken into consideration to take advantage of economies of scale and reduce the impact of construction on abutting property owners and the travelling public.

Determination of the final construction program for all the assets for a particular year is the result of an iterative effort by staff in reviewing all the asset categories. Schedule S reports on the new and continuing projects included within the 2023 Capital Budget. For each project in the schedule, each of the asset categories previously reported in Schedule B to J is shown.

2023 CAPITAL BUDGET
COORDINATED PROJECTS (SCHEDULE S)

PROJECT NO	SCH	DESCRIPTION	GROSS COST	COMMENTS
P23-060		2023 Road Resurfacing Program		
	B	Roads	2,361,400	Spot curb repairs & replace asphalt road surface & extension of catch
	D	Storm Sewer Collection System	138,000	basin lead for combined sewer separation
			\$ 2,499,400	
P23-103		Briarsdale / Donlon		
	B	Roads	207,700	Spot curb repairs & replace asphalt road surface & Replacement of
	G	Water Distribution System	543,000	existing C.I. and D.I. watermain
			\$ 750,700	
P23-061		Brimley Crescent Road Rehabilitation & Underground Improvements		
	B	Roads	427,500	Curb replacement and asphalt road surface replacement in
	D	Storm Sewer Collection System	311,000	conjunction with watermain and storm sewer section replacement
	E	Sanitary	190,000	and sewer repairs
	G	Water Distribution System	566,000	
			\$ 1,494,500	
P18-063		Chestnut / Merritt Underground Improvements		
	B	Roads	3,169,000	Additional funding for utility relocates, streetscaping, streetlights and
	D	Storm Sewer Collection System	498,000	road reconstruction in conjunction with replacement of storm sewer,
	E	Sanitary	378,000	sanitary sewers and watermain replacement
	G	Water Distribution System	629,000	
			\$ 4,674,000	
P23-101		Dundas / Leeson		
	B	Roads	67,000	Additional funding for utility relocates, streetscaping, streetlights and
	G	Water Distribution System	865,000	road reconstruction in conjunction with replacement of storm sewer,
			\$ 932,000	sanitary sewers and watermain replacement
P18-062		Lake Street Underground Improvements		
	D	Storm Sewer Collection System	80,000	Additional funding for replacement of storm sewer, existing CI
	E	Sanitary	221,000	watermain underground improvements and road reconstruction.
	G	Water Distribution System	348,000	
			\$ 649,000	

2023 CAPITAL BUDGET
COORDINATED PROJECTS (SCHEDULE S)

PROJECT NO	SCH	DESCRIPTION	GROSS COST	COMMENTS
P20-065		New Access Road - Ridley Road		
	B	Roads	505,000	Additional funds for new road and storm infrastructure to train station
	D	Storm Sewer Collection System	231,000	
			\$ 736,000	
P22-063		Parnell Road Reconstruction		
	B	Roads	200,000	Additional funds for utility relocations for future road reconstruction and replacement of structure.
	H	Bridges and Major Culverts	1,767,500	
			\$ 1,967,500	
P23-001		Phelps/Turner/Smythe		
	E	Sanitary	95,000	Installation of a new sewer section and watermain replacement in conjunction with works for new development
	G	Water Distribution System	450,000	
			\$ 545,000	
P22-130		Secord Creek Construction and Culvert (C109M) Replacement		
	H	Bridges and Major Culverts	179,700	Replace existing structure with watercourse rehabilitation works
	J	Watercourse	100,000	
			\$ 279,700	
Total			<u>\$ 14,527,800</u>	

CITY OF ST.CATHARINES
2024 CAPITAL FORECAST (SCHEDULE T)

DESCRIPTION	GROSS COSTS	CANADA COMMUNITY BUILDING FUND	OTHER EXTERNAL/ RESERVES	TAX/RATE PAYER	DEBT
ROADS					
2024 Roads Priority Program	\$ 11,904,951	\$ 1,803,831	\$ 296,000	\$ 2,426,000	\$ 7,379,120
Street Lights	217,000	-	-	110,000	107,000
Traffic Signals Specific Locations	728,000	-	-	292,000	436,000
	<u>12,849,951</u>	<u>1,803,831</u>	<u>296,000</u>	<u>2,828,000</u>	<u>7,922,120</u>
SIDEWALKS, WALKWAYS AND MULTIUSE PATHS					
Active Transportation	1,241,663	210,000	198,700	71,000	761,963
Sidewalks and Walkways	1,479,000	-	24,000	597,000	858,000
	<u>2,720,663</u>	<u>210,000</u>	<u>222,700</u>	<u>668,000</u>	<u>1,619,963</u>
STORM SEWER - 2024 PRIORITIES	<u>3,815,100</u>	<u>39,420</u>	<u>745,500</u>	<u>258,000</u>	<u>2,772,180</u>
SANITARY SEWER - 2024 PRIORITIES	<u>8,737,000</u>	<u>1,000,000</u>	<u>-</u>	<u>5,329,908</u>	<u>2,407,092</u>
POLLUTION CONTROL - 2024 PRIORITIES	<u>1,000,000</u>	<u>-</u>	<u>-</u>	<u>500,000</u>	<u>500,000</u>
WATERMAINS - 2024 PRIORITIES	<u>13,761,000</u>	<u>1,352,000</u>	<u>-</u>	<u>8,846,037</u>	<u>3,562,963</u>
BRIDGES AND MAJOR CULVERTS					
Culvert Replacements	1,552,500	-	-	131,000	1,421,500
Disher St Bridge (B010S) Condition Survey & Detailed Design	68,000	-	-	6,000	62,000
Niagara Street Pedestrian Bridge E (P052S)	75,000	-	-	6,000	69,000
	<u>1,695,500</u>	<u>-</u>	<u>-</u>	<u>143,000</u>	<u>1,552,500</u>
SHORELINE PROTECTION	<u>255,000</u>	<u>-</u>	<u>-</u>	<u>22,000</u>	<u>233,000</u>
WATERCOURSES					
Old Welland Canal Lockwall Stabilization Ph2 Design	200,000	-	-	17,000	183,000
Other Creek Renewal Projects	1,600,000	-	-	136,000	1,464,000
	<u>1,800,000</u>	<u>-</u>	<u>-</u>	<u>153,000</u>	<u>1,647,000</u>
REGIONAL					
Region - Niagara Street (RR48) Reconstruction	462,000	-	-	39,000	423,000
Region - Martindale Road JR Stock Bridge at Richardson Creek	150,000	-	-	74,900	75,100
Region - Glendale Avenue RR89 Improvements	490,000	-	78,400	411,600	-
	<u>1,102,000</u>	<u>-</u>	<u>78,400</u>	<u>525,500</u>	<u>498,100</u>
Total Linear	<u>47,736,214</u>				

CITY OF ST.CATHARINES
2024 CAPITAL FORECAST (SCHEDULE T)

DESCRIPTION	GROSS COSTS	CANADA COMMUNITY BUILDING FUND	OTHER EXTERNAL/ RESERVES	TAX/RATE PAYER	DEBT
COMMUNITY, RECREATION AND CULTURE SERVICES					
Multi-Use Recreational Facility Feasibility Study	400,000	-	-	34,000	366,000
James Street Park	1,620,000	-	-	138,000	1,482,000
Parks Legacy Fund	250,000	-	125,000	125,000	-
Parks Renewal Plan	1,586,000	-	111,100	125,000	1,349,900
Lion Dunc Schooley Outdoor Pool	5,000,000	-	-	425,000	4,575,000
Tree Planting, Memorial Benches and Hanging Baskets	495,000	-	-	42,000	453,000
	9,351,000	-	236,100	889,000	8,225,900
BUILDINGS AND FACILITIES					
Administrative and Operational Facilities	545,000	-	75,000	314,000	156,000
Arenas and Recreational Facilities	4,330,000	-	480,000	662,500	3,187,500
Parks Structure and Facilities	2,425,000	-	235,000	186,000	2,004,000
Special Purpose Facilities	5,243,000	-	2,548,890	229,000	2,465,110
	12,543,000	-	3,338,890	1,391,500	7,812,610
FIRE SERVICE	120,000	-	20,000	9,000	91,000
FLEET	2,536,231	-	-	216,000	2,320,231
Parking	1,075,000	-	-	91,000	984,000
CORPORATE INFRASTRUCTURE					
ERP system	700,000	-	-	60,000	640,000
IT Security software (log management tools)	200,000	-	-	17,000	183,000
Annual Computer Infrastructure Replacement	200,000	-	-	17,000	183,000
Customer Relationship Management (additional funding)	1,000,000	-	-	85,000	915,000
Other Corporate Infrastructure	500,000	-	-	43,000	457,000
	2,600,000	-	-	222,000	2,378,000
TOTAL 2024 CAPITAL FORECAST	\$ 75,961,445	\$ 4,405,251	\$ 4,937,590	\$ 22,091,945	\$ 44,526,659

CITY OF ST.CATHARINES
2023 CAPITAL BUDGET AND FOUR YEAR FORECAST (SCHEDULE U)

	2023	2024	2025	2026	2027
CAPITAL EXPENDITURES					
Roads	9,824,600	12,849,951	12,051,000	9,347,000	9,712,000
Sidewalks, Walkways and Multi-Use Pathways	2,413,000	2,720,663	1,887,663	1,718,663	1,736,663
Storm Sewer Collection System (including Sewer Separation)	1,608,000	3,815,100	4,542,000	4,130,000	4,290,000
Sanitary Sewer Collection System	2,819,000	8,737,000	6,245,844	8,032,781	9,081,436
Pollution Control	250,000	1,000,000	1,000,000	1,000,000	-
Water Distribution System (Watermain)	11,930,000	13,761,000	10,498,964	15,442,363	17,986,110
Bridges and Major Culverts	4,202,200	1,695,500	1,765,000	230,000	-
Shoreline Protection	208,000	255,000	2,002,000	1,544,000	5,299,000
Watercourses	4,700,000	1,800,000	2,794,000	910,000	420,000
Regional Projects	4,419,000	1,102,000	10,114,000	2,991,000	-
Community, Recreation and Culture Services	2,885,000	9,351,000	3,901,000	7,221,500	2,309,000
Buildings and Facilities (including Accessibility)	16,809,000	12,543,000	12,489,000	14,300,000	16,120,000
Parking Services	700,000	1,075,000	-	-	-
Fire Services	950,000	120,000	7,700,000	8,627,299	2,191,118
Fleet	3,526,780	2,536,231	-	-	-
Corporate Infrastructure	4,680,000	2,600,000	470,000	200,000	200,000
	\$ 71,924,580	\$ 75,961,445	\$ 77,460,471	\$ 75,694,606	\$ 69,345,327
SOURCES OF FINANCING					
Canada Community - Building Fund	4,405,251	4,405,251	4,405,251	4,405,251	4,405,251
Other External Funding (including Grants)	158,000	675,000	675,000	675,000	675,000
Reserve Funds (including D.C)	6,346,314	4,262,590	11,951,320	3,884,400	2,476,300
TOTAL GRANTS/ 3rd PARTY/ RESERVES	\$ 10,909,565	\$ 9,342,841	\$ 17,031,571	\$ 8,964,651	\$ 7,556,551
Infrastructure Levy	1,581,000	1,680,000	1,680,000	1,680,000	1,680,000
Tax Support	1,800,000	2,200,000	2,472,000	2,472,000	2,472,000
Water/Wastewater	8,584,119	8,205,747	8,728,981	8,739,462	9,779,909
Capital Out of Revenue (1)	6,475,000	10,006,198	10,125,189	12,533,913	12,357,195
TOTAL TAX/ RATE PAYER	\$ 18,440,119	\$ 22,091,945	\$ 23,006,170	\$ 25,425,375	\$ 26,289,104
DEBENTURE (2)	42,574,896	44,526,659	37,422,730	41,304,580	41,499,672
TOTAL	\$ 71,924,580	\$ 75,961,445	\$ 77,460,471	\$ 75,694,606	\$ 75,345,327

CITY OF ST.CATHARINES
 2023 CAPITAL BUDGET AND FOUR YEAR FORECAST (SCHEDULE U)

	2023	2024	2025	2026	2027
Note (1)					
Capital out of Revenue Allocation					
Tax Supported	3,074,000	3,445,000	3,300,000	3,845,000	3,894,000
Water/Wastewater	3,348,000	6,470,198	6,825,189	8,688,913	8,463,195
Parking	53,000	91,000		-	
Total Capital out of Revenue	\$ 6,475,000	\$ 10,006,198	\$ 10,125,189	\$ 12,533,913	\$ 12,357,195
Note(2)					
Debenture Allocation					
Tax Supported	38,482,015	38,056,604	31,427,092	34,583,811	35,027,230
Water/Wastewater	4,092,881	6,470,055	5,995,638	6,720,769	6,472,442
Total Debenture	\$ 42,574,896	\$ 44,526,659	\$ 37,422,730	\$ 41,304,580	\$ 41,499,672

OTHER POTENTIAL CAPITAL PROJECTS - 2028 and BEYOND
SCHEDULE V

The intent of the list below is to highlight projects that have been raised to Council or discussed by Council. As these projects have not been included in the forecast at this time they would be considered in years six through ten (2028- 2032). However, some of these items represent underfunding of current programs, and so if funding was available the expenditures could be accelerated. The costs provided are based on high level estimates. Costs are expected to change as the scope is refined and project planning proceeds. This list does not include the regular ongoing annual replacement of linear assets, buildings and facilities that are being accomodated in the annual Capital Budget. Also, sidewalks and Roads underfunding has not included on this list, as they are currently under review.

Project Type	Asset	Facility/location	Description	Estimated Cost (\$000)	Supporting reports plans/strategy	Estimated Year
E	Road/ Bridge	Chestnut St Extension	new roadway from Hastings St. to Brookdale Ave (scope subject to Class Environmental Assessment process)	694	Included in Transportation Master Plan and 2021 DC Study. EA ongoing	2030
E	Road/ Bridge	Ridley & Vansickle signals	New traffic signal	291	Included in the 2021 DC Study	2030-2036
E	Equipment	Various locations	Waterbottle filling stations	459	Included in the 2021 DC Study	2028-2029
E	Land Improvement	Parkland	Parkland Development near GO Station	306	Included in the 2021 DC Study	2028-3031
E	Land Improvement	Parkland & Amenities	Parkland Development/Amenities near Glendale & Welland Canal	306	Included in the 2021 DC Study	2028-3031
E	Land Improvement	Parkland	Parkland Development at former General Motors Site	510	Included in the 2021 DC Study	2032
R	Bridges	Bridges	Replacements -Costs over \$500k annual budget	6,132	2018 Bridge and Culvert Inspection	2028-2032
E	Arena	Bill Burgoyne Arena	Twin Arena (option 1)	21,800	PRCS-124-2019 - Arena Strategy	2029
R	Facility	To be determined	Aquatics facilities	20,000	Aquatics Facility Strategy	2028
	Pool	Lincoln Park	Lincoln Park Outdoor Pool	4,000	Aquatics Facility Strategy	2028
R	Playground Replacements - various locations		57 playground replacements as planned from 2020-29	11,118	PRCS-B002-2018 - Parks Renewal Plan & CRCS-B017-2021 (2021 Update)	2028-2032
R	Tennis Court Replacements - various locations		10 tennis court replacements as planned from 2020-29	220		
R	Basketball Courts	Basketball Courts	18 basketball court replace. as planned from 2020 -29	663		
SI	Park	To be determined	Skateboard Park (north of the QEW)	500	Recreation Facility & Programming Master Plan Recommendation #28 / Recreation Master Plan Advisory Committee's highest prioritized recommendation	2028-2030
R	Vehicles	Fire Fleet	Fire Supression Vehicles	2,714	Planned Replacement Schedule	2028-2030
R	Equipment	Fire Equipment	Fire Supression Equipment	1,455	Planned Replacement Schedule	2028-2030
R	Corporate Infrastructure	To be determined	Replacement of servers and equipment at data center	2,000		2028-2030
2028-2032 identified unfunded projects				\$ 73,168		

2023 CAPITAL BUDGET
PROJECT FUNDING (SCHEDULE W)

Sch	Project No.	Facility/Project Name	Gross Cost	FUNDING SOURCES							Notes
				GRANTS/DEV.CHRGS/RESERVES			RATE/TAX PAYER SUPPORT				
				Canada Community Building Fund	Other External Funding	Reserves & Dvlpmnt Chrg	Infrastruct. Levy	Tax Support	Water / Wastewater	Capital out of Revenue	
B	P23-060	2023 Road Resurfacing Program	2,361,400	519,000	-	-	-	-	138,000	1,704,400	
B	P22-064	Blue Spruce / Huntingwood	411,000	-	-	-	-	-	31,000	380,000	
B	P23-103	Briarsdale / Donlon	207,700	-	-	-	-	207,700	-	-	
B	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	427,500	-	-	-	-	-	32,000	395,500	
B	P18-063	Chestnut / Merritt Underground Improvements	3,169,000	-	-	-	-	-	238,000	2,931,000	
B	P23-101	Dundas / Leeson	67,000	-	-	-	-	67,000	-	-	
B	P23-062	Facer Street road and underground improvements	170,000	-	-	-	-	170,000	-	-	
B	P21-100	Flanders Watermain Improvements	129,400	-	-	-	-	129,400	-	-	
B	P22-061	James Street	773,000	-	-	-	-	85,000	52,000	636,000	
B	P19-066	Moffatt Secondary Access - Utilities	500,000	-	-	80,000	-	-	32,000	388,000	5
B	P20-065	New Access Road - Ridley Road	505,000	-	-	151,500	-	-	27,000	326,500	5
B	P22-063	Parnell Road Reconstruction	200,000	-	-	-	-	200,000	-	-	
B	P23-097	Traffic Signals (including pedestrian crossings)	242,000	-	-	38,720	-	203,280	-	-	5
B	P23-070	Traffic Signs (40 KM)	262,600	-	-	42,016	-	135,620	6,000	78,964	5
B	P23-067	Third Street / Old Martindale Road Reconstruction	257,000	-	-	-	-	-	19,000	238,000	
B	P23-064	Welland Canal Parkway Road Rehabilitation & Drainage Improvements	142,000	-	-	-	-	142,000	-	-	
C	P23-040	2023 Sidewalk Replacement Program	360,000	-	-	-	-	253,720	8,000	98,280	
C	P23-040-1	2023 Walkway Improvements	50,000	-	-	-	-	50,000	-	-	
C	P18-063	Chestnut / Merritt Underground Improvements	650,000	-	-	325,000	-	-	24,000	301,000	5
C	P23-041	New Sidewalk installation Program	67,000	-	-	10,720	-	56,280	-	-	5
C	P23-068	Active Transportation	250,000	250,000	-	-	-	-	-	-	
C	P23-068	Active Transportation Priorities	1,036,000	-	-	165,760	-	-	65,000	805,240	5
D	P20-065	New Access Road - Ridley Road	231,000	-	-	-	-	-	17,000	214,000	
D	P23-060	2023 Road Resurfacing Program	138,000	-	-	-	-	-	10,000	128,000	
D	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	311,000	270,000	-	-	-	-	3,000	38,000	
D	P23-006	Catch Basins and Storm Service Installations	100,000	-	-	-	100,000	-	-	-	
D	P18-062	Lake Street Underground Improvements	80,000	-	-	-	-	-	6,000	74,000	
D	P18-063	Chestnut / Merritt Underground Improvements	498,000	386,000	-	-	-	-	8,000	104,000	
D	P23-015	Design for next years projects	50,000	-	-	-	50,000	-	-	-	
D	P23-014	Sewer CCTV Inspections	100,000	-	-	-	100,000	-	-	-	
D	P23-016	Storm Sewer Spot Repairs	100,000	-	-	-	-	-	8,000	92,000	
E	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	190,000	-	-	-	-	-	190,000	-	
E	P18-062	Lake Street Underground Improvements	221,000	-	-	-	-	-	99,000	122,000	
E	P18-063	Chestnut / Merritt Underground Improvements	378,000	-	-	-	-	-	378,000	-	
E	P23-015	Design for next years projects	50,000	-	-	-	-	50,000	-	-	
E	P23-010	Extraneous Flow Elimination	50,000	-	-	-	-	50,000	-	-	
E	P23-001	Phelps/Turner/Smythe	95,000	-	-	-	-	-	95,000	-	
E	P23-012	Sanitary Sewer Flushing & Reaming	25,000	-	-	-	-	-	25,000	-	
E	P23-005	Sanitary Sewer Reaming & Lining	1,000,000	800,000	-	-	-	-	200,000	-	

2023 CAPITAL BUDGET
PROJECT FUNDING (SCHEDULE W)

Sch	Project No.	Facility/Project Name	Gross Cost	FUNDING SOURCES							Notes	
				GRANTS/DEV.CHRGS/RESERVES			RATE/TAX PAYER SUPPORT					
				Canada Community Building Fund	Other External Funding	Reserves & Dvlpmnt Chrg	Infrastruct. Levy	Tax Support	Water / Wastewater	Capital out of Revenue		Debenture
E	P23-011	Sanitary Sewer Spot Repair Program	500,000	200,000	-	-	-	300,000	-	-		
E	P23-014	Sewer CCTV Inspections	300,000	-	-	-	-	300,000	-	-		
E	P23-019	Sewershed Analysis	10,000	-	-	-	-	10,000	-	-		
F	P23-018	Pollution Control Priority Program	250,000	-	-	-	-	250,000	-	-		
G	P23-102	Adel / Donalda / Dundalk / Regent / Rainbow	1,610,000	-	-	-	-	175,000	646,000	789,000		
G	P23-103	Briarsdale / Donlon	543,000	-	-	-	-	543,000	-	-		
G	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	566,000	-	-	-	-	566,000	-	-		
G	P18-062	Lake Street Underground Improvements	348,000	-	-	-	-	348,000	-	-		
G	P18-063	Chestnut / Merritt Underground Improvements	629,000	-	-	-	-	629,000	-	-		
G	P23-015	Design for next years projects	50,000	-	-	-	-	50,000	-	-		
G	P23-101	Dundas / Leeson	865,000	-	-	-	-	865,000	-	-		
G	P23-104	Kimbermount / Lake / Monique	1,450,000	1,352,000	-	-	-	98,000	-	-		
G	P23-105	Mohawk/Scott/Village Green	1,335,000	-	-	-	-	281,000	474,000	580,000		
G	P23-106	Jasmine/Josephine	680,000	-	-	-	-	241,731	197,000	241,269		
G	P23-107	Carriage / Grove	1,044,000	-	-	-	-	-	470,000	574,000		
G	P23-001	Phelps/Turner/Smythe	450,000	-	-	-	-	450,000	-	-		
G	P23-116	Stortz Hydrant Port Conversions	450,000	-	0	-	-	450,000	-	-		
G	P23-118	Valves, Hydrants & Services	50,000	-	0	-	-	50,000	-	-		
G	P23-100	Welland Avenue	1,860,000	-	0	-	-	-	837,000	1,023,000		
H	P22-122	Battersea Avenue Culvert (C118M)	600,000	-	0	-	-	-	45,000	555,000		
H	P22-130	Secord Creek Construction and Culvert (C109M) Replacement	179,700	-	0	-	-	-	13,000	166,700		
H	P22-063	Parnell Road Reconstruction	1,767,500	-	0	-	-	-	133,000	1,634,500		
H	P15-122	Third Street Culvert Replacement, 90 m South of CN Tracks	150,000	-	0	-	-	-	11,000	139,000		
H	P22-122	Melody Trail Culvert (C077S)	700,000	-	0	-	-	-	53,000	647,000		
H	P17-125	South Service Road Bridge Removal or replacement	805,000	-	0	-	-	-	60,000	745,000		
I	P22-150	Sunset Beach (Municipal Beach)	208,000	-	52000	-	-	-	12,000	144,000	5	
J	P23-130	Dick's Creek EA/Design for Constr Ph 1, Ph 2 & Ph 3	600,000	-	0	-	-	-	45,000	555,000		
J	P17-129	Martindale Pond Weir Replacement	4,000,000	503,251	0	-	-	-	262,000	3,234,749		
J	P22-130	Secord Creek Construction and Culvert (C109M) Replacement	100,000	-	0	-	-	-	8,000	92,000		
K	RN20-stp	St. Paul Street at CNR Bridge Replacement	76,000	-	0	-	-	-	6,000	70,000		
K	RNxx-GDR	Region - Glenridge Ave at CNR Bridge Replacement	800,000	-	0	-	-	-	60,000	740,000		
K	RNxx-MLL	Region RR87 Main Street, Lock Street & Lakeport Road	2,350,000	-	0	-	-	961,388	625,000	763,612		
K	RNxx-LL	Region - Niagara Street (RR48) Reconstruction	525,000	-	0	-	-	-	39,000	486,000		
K	RNxx-LL	Region - Niagara Street (RR48) Reconstruction	668,000	-	0	-	-	668,000	-	-		
L	P21-156	Splashpad, Sun Shelter & Washroom (funding top-up)	350,000	-	350000	-	-	-	-	-	5	
L	P23-160	Parks Renewal Plan - Port Dalhousie Multi-Use Court	332,931	-	21905	-	-	-	22,000	269,026	5	
L	P23-161	Parks Renewal Plan - Alex Mackenzie Basketball Court & Playground	444,612	-	29372	-	-	-	25,000	29,000	361,240	5
L	P23-162	Parks Renewal Plan - Bartlett Park - Playground & multi-use court	527,845	-	34849	-	-	-	30,000	35,000	427,996	5

2023 CAPITAL BUDGET
PROJECT FUNDING (SCHEDULE W)

Sch	Project No.	Facility/Project Name	Gross Cost	FUNDING SOURCES							Notes	
				GRANTS/DEV.CHRGS/RESERVES			RATE/TAX PAYER SUPPORT					
				Canada Community Building Fund	Other External Funding	Reserves & Dvlpmnt Chrg	Infrastruct. Levy	Tax Support	Water / Wastewater	Capital out of Revenue		Debenture
L	P23-163	Parks Renewal Plan - Community Park Multi-Use Courts	444,612			29,372		25,000		29,000	361,240	5
L	PRC20-01	Tree Planting Program	375,000			-	375,000			-	-	
L	PRC22-03	Environmentally Friendly Hanging Baskets Program (Year 2 of 3)	47,000			-	47,000			-	-	
L	PRC20-04	Memorial Bench Program (Year 4 of 6)	80,000			-	80,000			-	-	
L	PCR21-05-1	Parks Legacy Fund	250,000		125,000	-	125,000			-	-	3
L	PCR23-01	Welland Canal Fallen Workers Memorial	33,000		33,000	-				-	-	3
M	P22-137	Buchanan House Top up funds for accessibility upgrades (previously used for BBA Decomm)	120,000			4,800				9,000	106,200	5
M	P22-187	Garden City Arena Complex Demolition & Decommissioning of GCA complex	380,000			-				29,000	351,000	
M	P22-150	Municipal Beach (Sunset Beach) - Site Funding Matching (City Portion) for ICIP work - Phase 1	800,000			200,000				45,000	555,000	5
M	P22-137	Buchanan House Top up funds for accessibility upgrades (previously used for Museum HVAC)	300,000			12,000				22,000	266,000	5
M	P22-138	Old Court House replace and repair basement windows	200,000			200,000				-	-	4
M	P23-134	Robertson School - Main Accessibility Upgrades, add universal washroom on each floor (3), install elevator, renovate existing washrooms to FADS (4), misc internal ramps and entrance mods for barrier free access.	2,500,000			100,000				180,000	2,220,000	5
M	P23-133	City Hall Replace 3 modulating air handling units	1,000,000			-				75,000	925,000	
M	P18-164	Seymour Hannah Upgrade dehumidification system for pad 2/3 - additional funds to combine with phase 1	1,500,000			500,000				75,000	925,000	PA, 5
M	P23-139	Seymour Hannah renovation for Junior B Falcons	150,000			150,000				-	-	4
M	P23-138	Seymour Hannah Replacement Vilter Compressor & panel (one compressor) - Phase 2 (compressor #2)	350,000			0				26,000	324,000	
M	P23-140	Seymour Hannah - Kiwanis Field Replace Turf	1,300,000			-				98,000	1,202,000	
M	P23-141	Merritton Park - Site Replace existing baseball field (George Taylor) lighting with LED fixtures & Musco Controls	400,000			-				30,000	370,000	
M	P23-142	Port Dalhousie Lions Park - Pool Renovate Change rooms - interior/exterior & add accessibility	600,000			-				45,000	555,000	
M	P23-144	Dunlop Drive Seniors Centre Roofing Replacement	260,000			260,000				-	-	4
M	P23-143	Dalhousie House - Site Reconstruct Retaining wall & stairs	500,000			-				38,000	462,000	
M	P18-181	St. Catharines Museum Replace air handling unit 6, condensing unit 5, install humidifier including all BAS connection and structural/electrical components	500,000			-				38,000	462,000	
M	P17-129	Martindale Pond Weir Replacement	400,000			0				30,000	370,000	
M	TBD23-16	Meridian Centre Plant motor upgrade (2 glycol pumps, 2 compressor motors)	50,000			50,000				-	-	2
M	TBD23-17	Meridian Centre - Parking booth - front lot	20,000			-				2,000	18,000	
M	TBD23-18	Meridian Centre - POS Replacement	136,000			-				10,000	126,000	
M	TBD23-19	Meridian Centre - Daktronics Upgrade	136,000			-				10,000	126,000	
M	TBD23-20	Meridian Centre - Main curtain modification	67,000			67,000				-	-	2
M	TBD23-21	Meridian Centre - Suite level food cooking equipment addition	70,000			70,000				-	-	2

2023 CAPITAL BUDGET
PROJECT FUNDING (SCHEDULE W)

Sch	Project No.	Facility/Project Name	Gross Cost	FUNDING SOURCES							Notes	
				GRANTS/DEV.CHRGS/RESERVES			RATE/TAX PAYER SUPPORT					
				Canada Community Building Fund	Other External Funding	Reserves & Dvlpmnt Chrg	Infrastruct. Levy	Tax Support	Water / Wastewater	Capital out of Revenue		Debenture
M	TBD23-22	Meridian Centre - Mobile ordering platform	30,000			30,000				-	-	2
M	P23-145	PAC - Replace lighting fixtures in film house	80,000			-				6,000	74,000	
M	P23-146	PAC - Replacement of Leviton Lighting control system	60,000			-				5,000	55,000	
M	P23-147	PAC - Door replacements (Sliding Doors & other high priority doors)	50,000			-				4,000	46,000	
M	TBD23-26	Central Branch renovation (Phase 1)	4,850,000			3,055,500				135,000	1,659,500	5
N	P23-135	Carlisle Street Parking Garage Structural crack repairs (basement & stair D), and associated membrane repairs on garden park entrance ramp.	100,000			-				8,000	92,000	
N	PCI23-05	Ontario Street Parking Garage Upgrade - Parking system, cameras, servers.	600,000			-				45,000	555,000	
O	PFR23-02	CAD (Computer Aid Dispatch) Software upgrade	350,000			-				26,000	324,000	
O	P23-136	Firehall #3 - Pelham Rd Rebuild Station No. 3 - Design Funds only	500,000			185,000				24,000	291,000	5
O	P23-137	Fire Hall #4 - Merritt St Parapet Flashing/Siding rework to prevent water infiltration	100,000			-				8,000	92,000	
P	PFL23-01	International 7400 Single Axle Dump Truck (#203)	360,000			-			360,000	-	-	
P	PFL23-02	Freightliner Tandem Dump Truck with Roller Pro (61)	380,000			-				29,000	351,000	
P	PFL23-03	International Workstar 7600 Tandem Dump Truck (72)	420,000			-				32,000	388,000	
P	PFL23-04	International Workstar 7600 Tandem Dump Truck (73)	420,000			-				32,000	388,000	
P	PFL23-05	2004 Sutphen 95' aerial - Unit 26	1,946,780			-				146,000	1,800,780	
Q	PCI17-01	Enterprise Resource Planning (ERP) System Implementation (included in 2023 Capital Forecast)	3,270,000		-	130,800				235,000	2,904,200	5, PA
Q	PCI23-02	Backup Data Centre	500,000			-				38,000	462,000	
Q	PCI23-03	Annual Computer Infrastructure Replacement	150,000		-	-	69,000			6,000	75,000	
Q	PCI23-04	IT Security software (log management tools)	200,000			-	200,000			-	-	
Q	ST-20-15	Asset Management Plan - Phase 2	260,000	125,000		-	135,000			-	-	
Q	PCI17-02	Customer Relationship Management (additional funding)	300,000			-	300,000			-	-	
TOTAL			\$ 71,924,580	\$ 4,405,251	\$ 158,000	\$ 6,346,314	\$ 1,581,000	\$ 1,800,000	\$ 8,584,119	\$ 6,475,000	\$ 42,574,896	
Less Amounts Previously Approved by Council			\$ 4,270,000	\$ -	\$ -	\$ 130,800	\$ -	\$ -	\$ -	\$ 310,000	\$ 3,829,200	
Capital Budget Requiring Council Approval			\$ 67,654,580	\$ 4,405,251	\$ 158,000	\$ 6,215,514	\$ 1,581,000	\$ 1,800,000	\$ 8,584,119	\$ 6,165,000	\$ 38,745,696	

Notes:

1 - Provincial Funding

2 - Meridian Reserve

3 - Donations

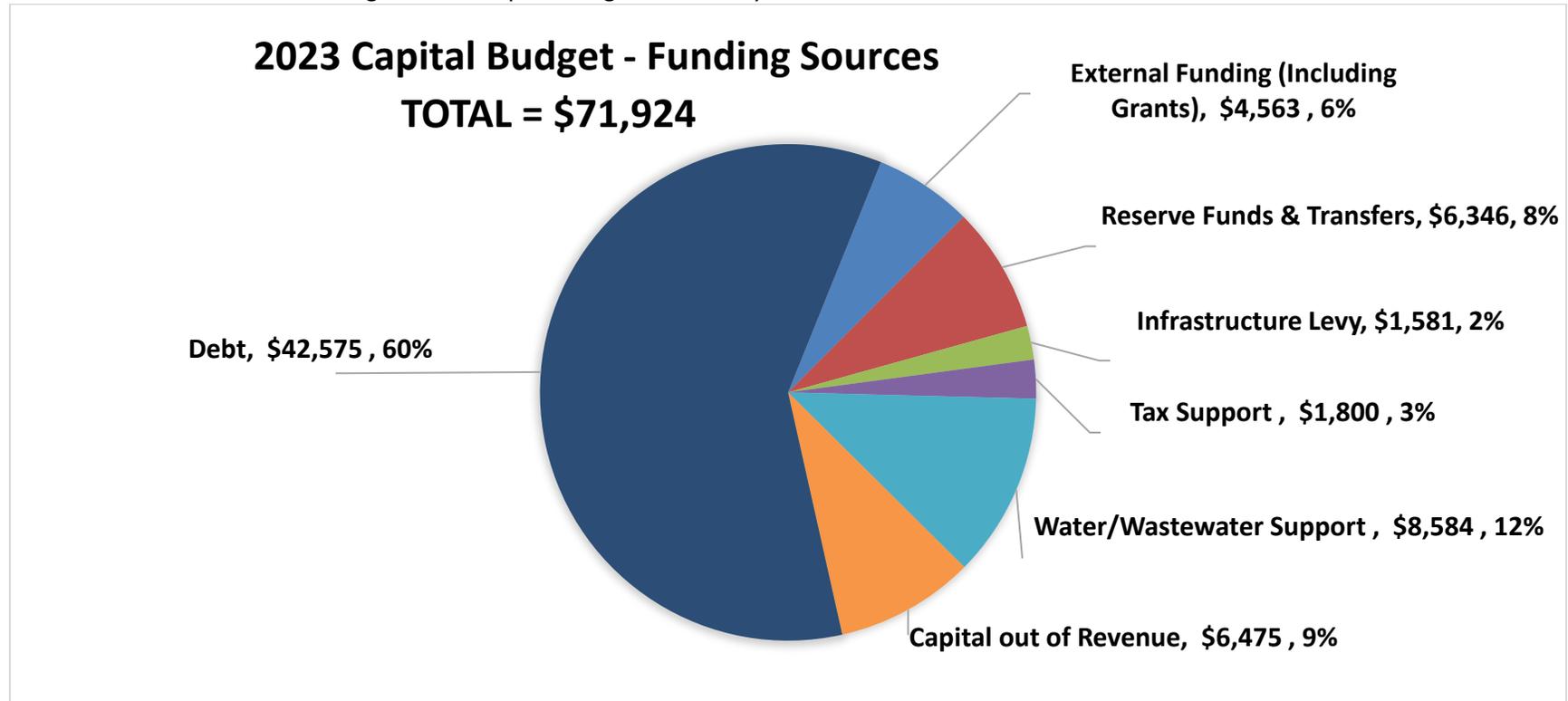
4 - Building Reserve

5 - Development Charges / Community Benefit Charges

PA - Previously Approved by Council

Funding Our Capital Assets (Schedule X)

Seven different sources of funding for 2023 Capital Budget for the City of St. Catharines are shown below:



External Funding (Including Grants) - \$4,563,251

Canada Community-Building Fund (CCBF) provides \$4,405,251 which is the largest portion of external funding for capital projects. The CCBF grants fund various linear projects that are discussed in further detail in Schedule Y. The Parks Legacy Fund projects rely upon donor contributions of \$125,000. An additional \$33,000 of donations is from donations for the Welland Canal Fallen Workers memorial.

Infrastructure Levy - \$1,581,000

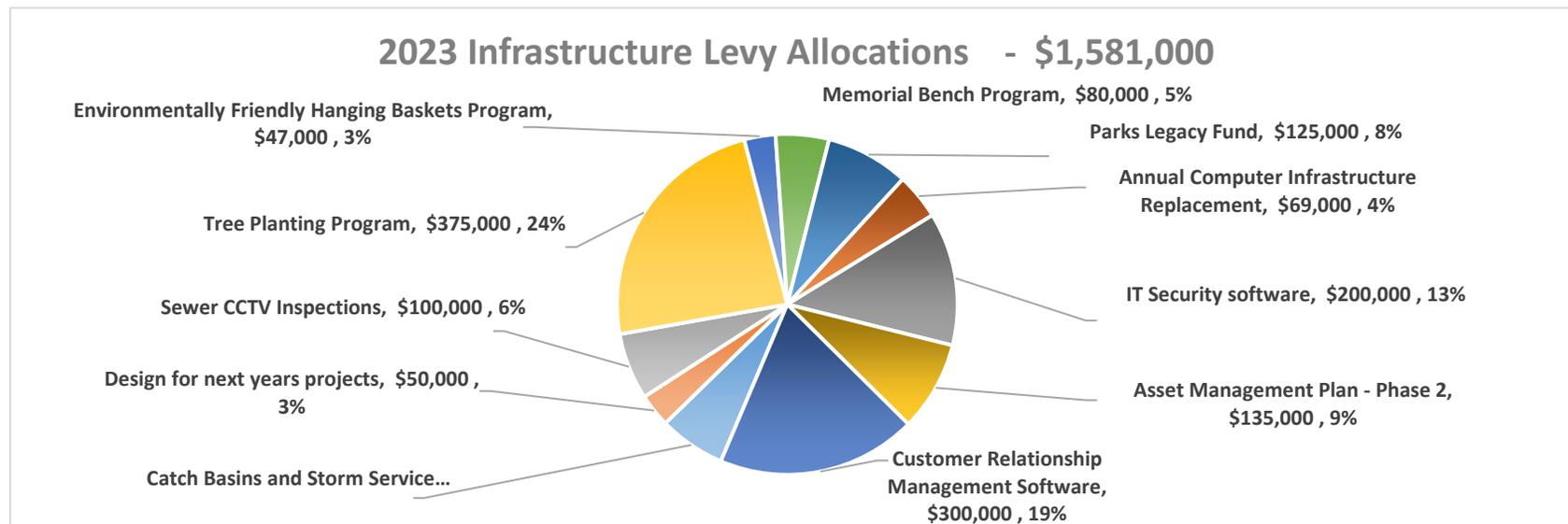
The Infrastructure Levy was established in 2016 to address the infrastructure deficit. The funds are being utilized to fund renewal. Any funds not allocated in the year will be maintained in a reserve for use in future years for eligible projects. The annual funding has been set at 1.5% of the City’s portion of the prior year tax levy, providing \$1,581,000. The projects funded by the 2023 infrastructure levy are shown in the graph below.

Reserves and Project Transfers - \$6,346,314

In 2022, the City introduced Community Benefit Charges to compliment the reintroduced Development Charges to recover growth costs in 2021. The 2023 Budget includes \$5,019,314 of funding from these sources. The Building Reserve Fund (\$960,000), Meridian Centre Capital Reserve (\$50,000) and Meridian Centre Event Reserve (\$167,000) and transfers from projects (\$150,000) is providing a total of \$1,327,000 of funding for works related to building and facilities infrastructure.

Tax Support - \$1,800,000

Road and Sidewalk rehabilitation projects and park renewal projects are included in the Capital Budget and funded from the Operating Budget. Tax support has increased from the prior year in line with the prior year forecast.



Water/Wastewater (Rate) Support - \$8,584,119

In 2019 Council approved the 10-year Financial Plan for Water and Wastewater (Water/Wastewater Plan) that included a significant increase in capital renewal, funded from rates. The Water/Wastewater Plan includes annual increases of no more than 6.5% on a typical residential household bill. The Water/Wastewater Plan was guided by the following principles (FMS-057-2019):

- 1) to reduce existing funding gaps, and
- 2) moving towards a sustainable replacement level of capital spending year over year.

The capital spending and funding amounts from rates, capital out of revenue, and debt that were included in The Water/Wastewater Plan, have been adjusted in the 2023 budget in response to the financial and operational challenges facing the City caused by COVID19. The 2023 budget and 2024-2027 forecast reflect the reallocation of the investment in Water and Wastewater. Decreased spending in years 2021-2023 is offset by increases in spending in the years 2024 - 2026, resulting in the same net investment in infrastructure over the next 6 years. However, in the short term the spending deferrals will continue to contribute to the widening infrastructure gap.

Capital out of Revenue - \$6,475,000

Capital out of revenue is the portion of the project cost that is funded from the tax or rate budgets. This Council supported strategy, sets the contribution rate at 10% of the project costs funded from debt. The capital out of revenue contribution approximates one year's worth of debenture costs of the project.

As part of the COVID-19 Financial Recovery Plan, the capital out of revenue was reduced to 5% in 2022 and will slowly phase back to the 10% Council supported strategy. For 2023, capital out of revenue was set to 7.5%.

Where the City is issuing debt for water or wastewater, a separate capital out of revenue payment is required from the respective area. The capital out of revenue contribution rates for Water and Wastewater set out in the Water/Wastewater Plan range from 40% to 60%, so as to manage debt levels while increasing investment in capital. For 2023, the capital out of revenue contribution percentage has been set to 45% (Water) and 45%(Wastewater) to slowly phase in the recovery from the impacts of COVID-19.

Debt - \$42,574,896

Debt is the most significant funding source for the annual Capital Budget and is utilized after all other funding has been applied. Debenture financing allows the City to spread the costs of capital over the term of debt, rather than requiring funding in the year of construction. Consistent with council approved debt strategy, debt terms for specific projects have been increased to 30 years. This change results in better alignment between debt repayment terms and expected asset life. Debt Management is necessary to ensure that the City maintains an appropriate debt level. The Council Approved Debt Management Strategy is outlined in schedule AB.

Debenture funding has been utilized to balance tax payer affordability and infrastructure sustainability. As a result of the recommendations from the Council approved Asset Management Plan, the Capital Budget has been right sized to maintain the existing level of service. As a result of this, debt now makes up 60% of the capital financing. A strategy to balance the use of debt will be developed as part of the requirement of a financial strategy for 2025 in alignment with the provincial legislation on Asset Management (O.Reg 588/17).

Funding from Canada Community-Building Fund - \$4,405,251 (Schedule Y)

The Canada Community-Building Fund (CCBF), formally known as the Federal Gas Tax Program (FGT) provides the largest ongoing external funding contribution for capital projects.

Council endorsed a five-year capital investment plan for FGT revenues in 2009 which identified continued funding for combined sewer system upgrades (storm sewer separations) and watermain replacement in conjunction with the combined sewer system upgrade and various road resurfacing projects. Council subsequently shifted focus away from underground infrastructure to include facility energy related initiatives and non-resurfacing roadwork. One of the requirements of the CCBF is that the expenditures are incremental, meaning that the funds cannot be used to displace current capital investment or reduce municipal taxes.

The City's \$4,405,251 of CCBF funding is in the last year of the funding schedule. An updated 5-year funding schedule is anticipated to be released with next years Federal budget.

Below is a list of the 2023 capital projects funded by CCBF:

Schedule	Asset Category	Amount
B	Road Construction	\$519,000
C	Multi-use Pathways	250,000
D	Storm Sewer Collection	656,000
E	Sanitary Sewer Collection	1,000,000
G	Water Distribution	1,352,000
J	Watercourses	503,251
Q	Asset Management Plan	125,000
	Total	4,405,251

Debt Management Strategy (Schedule Z)

The currently established Debt Management Strategy, with Council's ongoing support, has the following criteria:

1. **Eligibility:** Not all capital projects are suited for debt financing. The City's strategy is to recommend debt financing only for infrastructure purposes. Large projects that provide assets with well-defined benefits to the community, have long asset lives and the ability to leverage additional financing elsewhere are eligible for debt financing.
2. **Sustainable Level of Borrowing:** For debt management purposes, the City shall limit external debt charges to a maximum of 10% of the City's total own source revenues. This guideline ensures that the debt service costs are sustainable within the operating budget. It protects against debt servicing becoming an increasing burden and a larger portion of the City's budget.
3. **Capital Out of Revenue Contributions:**

Tax Supported Projects - The City requires a down payment equal to 10% of the tax supported capital costs eligible for debt financing. This down payment reduces the amount to be borrowed and matches the approximate costs of one year's debt service to the year in which project is approved. As a result, Council will raise, through property taxes, an amount which will be equivalent of at least one year's debt charges for each particular tax supported project.

Water / Wastewater Projects - The capital from revenue contributions for Water/Wastewater projects include increasing revenue percentages over the next ten (10) years.

Consistent with the Water / Wastewater Financial Plan, targets of at least 40/60 are intended to balance asset renewal and debt levels.

4. **Debenture Term considerations and Limitations:** Tax supported debentures may be issued for terms between 5 to 10 years. Debentures funding Water and Wastewater capital assets may be issued for terms up to 30 years. Debentures funding specific large projects, may in consultation with Council be issued for terms up to 30 years. Furthermore, debt terms will be for no more than 75% of the Asset's useful life and the selection of term will consider available interest rates.

The capital out of revenue contributions of 7.5% for tax supported projects included in the 2023 Capital Budget are outside of the current Debt Management Strategy's guidance. These reduced rates will provide temporary relief to the 2023 Operating Budget. The debt funded projects remain in compliance with criteria 1 listed above.

The debt charges for 2023 are forecast to increase marginally above 10% of the City's own source revenues. In compliance with criteria 2 of the Strategy, the future year forecasts outlined below indicate that the debt charge ratio will move above 10%. These forecasts will be updated and the debt servicing ratios will continue to be monitored and reviewed with Council on a regular basis.

Debt Management Strategy (Schedule Z)

The Municipal Act requires that a Municipality have a five-year capital financing forecast. Ontario Regulation 403/02 limits annual debt charges to no more than 25% of the City's own source revenues. Using this guideline, the City could increase its debt (approximately) by a further \$126.4 million based on an interest rate of 7%, which is the rate the Ministry of Municipal Affairs uses for illustrative purposes. (Calculation is provided on Schedule AA). Using a lower estimated borrowing rate of 5%, the City's additional debt capacity would be \$143.2 million.

The City Treasurer has updated the Debt Repayment Limit for the City, and the debenture amount proposed in the 2023 Capital Budget will not cause the City to exceed its limit.

In 2021, the City's debt charges were 9.6% of the City's own source revenues. Each year, the Ministry of Municipal Affairs, produces a financial indicator review that states that debt costs between 5% and 10% are considered moderate risk – which is where the City of St Catharines currently resides. Table 1 below reports the estimated impact of increased borrowing activities for the next five years.

Table 1

	2022	2023	2024	2025	2026	2027
Outstanding Debt (external)	\$118.9m	\$141.7m	\$155.1m	\$179.5m	195.2m	192.1m
Outstanding Debt (internal)	2.8m	2.2m	1.5m	0.8m	-	-
Debt per Household	2,028	2,407	2,574	2,925	3,126	3,038
Total Annual Debt Servicing	20.4m	20.7m	22.4m	24.9m	29.4m	31.1m
Debt Servicing as % of Own Source Revenues	10.02%	10.18%	10.76%	11.74%	13.61%	14.10%

Table 1 below shows the total debt charges as a percentage of own source revenues exceeding the 10% upper limit in 2022. There are many assumptions to determine this percentage, including the amount of debt to be issued, timing of the debt issuances and total amount of expenditures. The assumptions made are conservative. The forecasts are also impacted by the reduction in own source revenues in 2020 as a result of COVID-19. This projection assumes that future debt is issued for a 10-year term with an interest rate of 5%, or a 30 year term with an interest rate of 6%. Debt terms are consistent with the Council Approved Capital Financing and Debt Management Strategy. The interest rate on recent debentures issues has been increasing but still lower than our assumptions (2022-3.80%, 2021 -1.78%). Any changes made to any of the assumptions – whether that is timing, term or interest rate for debt issuances, or the level of capital spending supported by debt, will have an impact on the debt charges as a percentage of own source revenues, the projected debt balance and future tax levy impacts.

As the City continues to refine its Asset Management Plan and formulate its future debt needs these forecasts will be updated and the debt servicing will continue to be monitored and reviewed on a regular basis, for compliance with Council set limits.

2023 CAPITAL BUDGET -MUNICIPAL ACT DEBT LIMITS (SCHEDULE AA)

Calculation of Debt Charges:		(Per 2021 FIR schedule 81)					
Total Principal		\$	13,944,756				
Total Interest			3,990,928				
			<u>17,935,684</u>				
Payments of Long Term Commitments and Liabilities (SLC42 6010 01)			1,648,359				
NET DEBT CHARGES		A	<u><u>\$ 19,584,043</u></u>				
Calculation of Annual Repayment Limit:							
Total Revenue Fund Revenue (sch10 9910)		\$	256,981,146				
Excluded Revenue Amounts							
Tile Drainage and Shoreline Assistance (SLC 12 1850 04)			-				
Ontario Grants - incl. Grants for TCAs (SLC 10 0699 01+SLC 10 0810 01+ SLC10 0815 01)			(10,955,474)				
Canada Grants - incl. Grants for TCAs (SLC 10 0820 01+SLC 10 0825 01)			(8,223,116)				
Deferred Revenue Earned (Provincial Gas Tax) (SLC 10 830 01)			(2,000,033)				
Deferred Revenue Earned (Canada Gas Tax) (SLC 10 831 01)			(6,895,767)				
Other Municipalities including revenue for TCA (SLC 10 1098 01+SLC 101099 01)			(4,560,473)				
Gain/Loss on sale of land & capital assets (SLC 10 1811 01)			(352,317)				
Deferred revenue earned (Development Charges) (SLC 10 1812 01)			-				
Deferred revenue earned (Development Charges) (SLC 10 1812 01)			(30,169)				
Deferred revenue earned (Recreation Land(the planning act) (SLC 10 1813 01)			(218,636)				
Other Deferred revenue earned (SLC 10 1814 01)			(5,097,904)				
Donated Tangible Capital Assets (SLC 53 0610 01)			(14,290,943)				
Increase/Decrease in Gov't Business Enterprise equity (SLC 10 1905 01)			(271,323)				
			<u>(52,896,155)</u>				
NET REVENUE FUND REVENUES		\$	<u><u>204,084,991</u></u>				
25% OF NET REVENUE FUND REVENUE		B	<u><u>\$ 51,021,248</u></u>				
Adjustments to Annual Repayment Limit							
ANNUAL REPAYMENT LIMIT UNDER REGULATION		C (B - A)	<u><u>\$ 31,437,205</u></u>				
Unfinanced prior year capital projects/unissued debt (details in AA-1)	\$	56,934,155					
Capitalized Annual Repayment	<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">Years</td> <td style="text-align: center;">Rate</td> </tr> <tr> <td style="text-align: center; border-top: 1px solid black;">10</td> <td style="text-align: center; border-top: 1px solid black;">5.00%</td> </tr> </table>	Years	Rate	10	5.00%		D
Years	Rate						
10	5.00%						
			<u>7,373,234</u>				
ADJUSTED ANNUAL REPAYMENT LIMIT		(C - D)	<u><u>\$ 24,063,971</u></u>				
Remaining Debt Capacity							
Capitalized Debt Capacity			\$185,815,605				
2023 Capital Budget			<u>(42,574,896)</u>				
REMAINING DEBT CAPACITY			<u><u>143,240,709</u></u>				

2023 CAPITAL BUDGET - SCHEDULE AA-1

MUNICIPAL ACT DEBT LIMITS

UNFINANCED PRIOR YEAR CAPITAL PROJECTS/UNISSUED DEBT
(INCLUDES 2022 CAPITAL PROJECTS)

	<u>Debt Amount</u>
Administration & Operational Centres	\$ 1,006,277
Arenas and Recreational Facilities	5,361,308
Bridges and Culverts	1,292,996
Cemetery	38,017
Corporate Infrastructure	6,827,000
Fire	4,853,643
Other Special Purpose Facilities	3,211,996
Parking Operations	90,972
Parks, Structures and Facilities	3,116,700
Pollution Control Plan	1,175,438
Regional Projects	351,900
Roads	13,185,116
Sanitary Sewer Collection	760,520
Shoreline Protection	335,700
Sidewalks, Walkways & Multi Use Pathways	3,160,049
Storm Sewer Collection (incl. Separation)	5,422,204
Water Distribution System	4,086,118
Watercourses	2,658,200
TOTAL	<u>\$ 56,934,155</u>

Capital Budget and Debt – Municipal Comparators (Schedule AB)

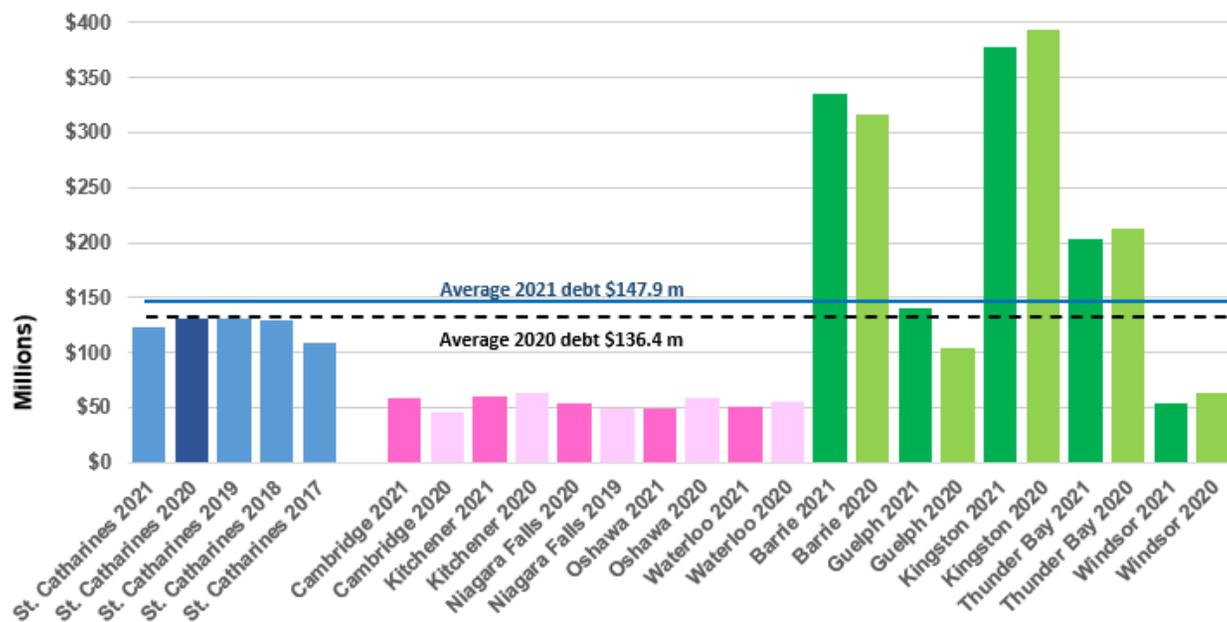
Unlike Federal and Provincial budgets, municipal budgets are very capital intensive. Borrowing for capital projects provides many economic benefits for the future of the municipality, especially so, as choosing to be debt-free would result in substantially less infrastructure being renewed and available to the public. City Council has identified five single-tier and five lower-tier municipalities with similar characteristics to the City of St. Catharines, which are shown in Graph 1 below

Table 2 below shows the City of St. Catharines debt burden for the last four years (including internal debt).

Table 2 – City of St. Catharines Outstanding Debt (Millions)

2018	\$128.5
2019	\$131.1
2020	\$130.1
2021	\$123.0

Graph 1. Debt Levels Comparator Municipalities



Source: 2021 BMA study

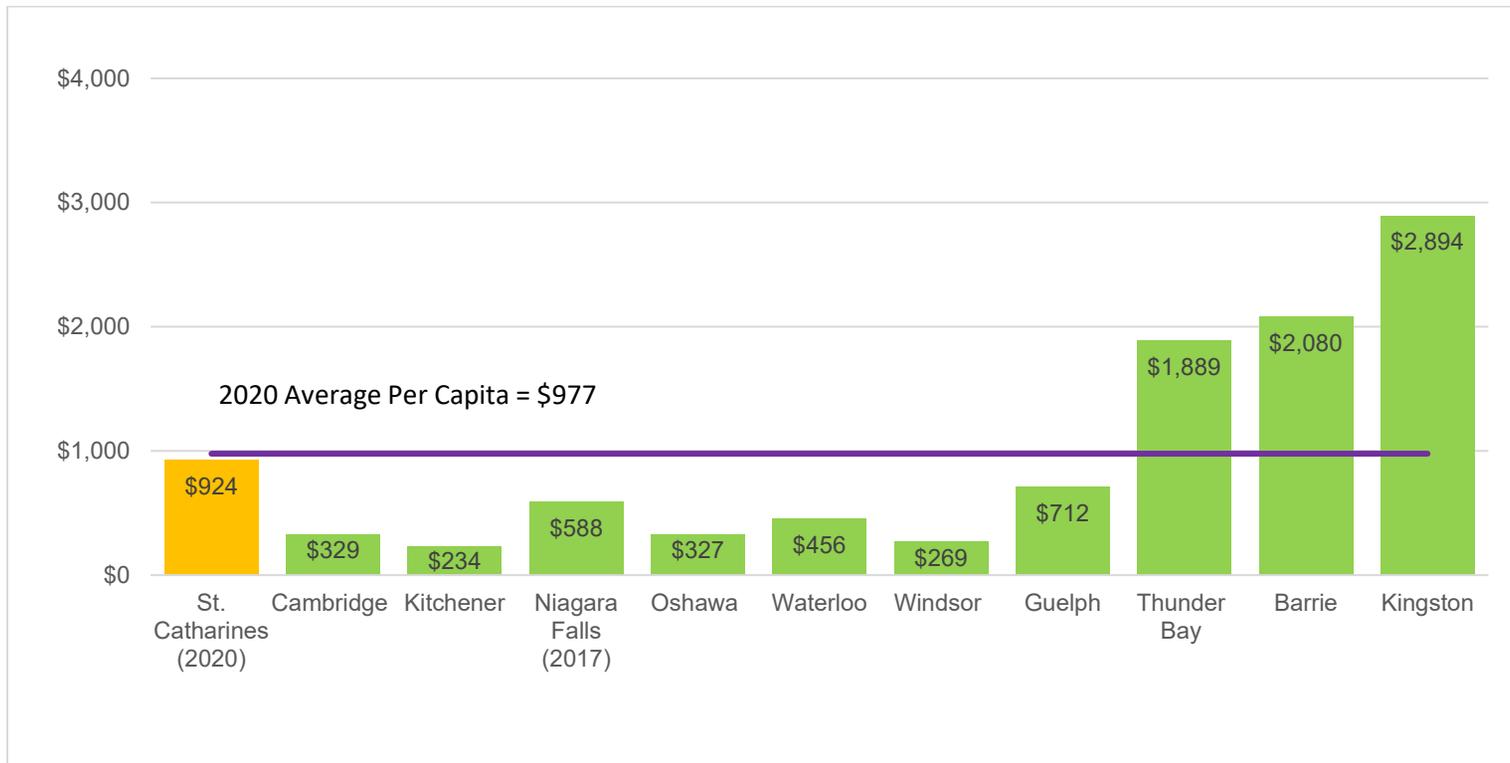
Capital Budget and Debt – Municipal Comparators
Schedule AB (continued)

Debt per capita is another common debt ratio. The latest data available from the 2021 BMA Study based on 2020 FIR data is shown in the Graph 2 below. The City of St. Catharines total debt outstanding per capita for 2020 was \$924, which is above the average for all reporting municipalities in the BMA study. The 2020 average for municipalities in the 2020 BMA Study was \$685.

Looking amongst our comparators the data is a bit different. The comparator municipalities' average for 2019 was \$977.

St. Catharines outstanding debt per capita of \$924 for 2020 (2019 - \$933) is below the average for the Council approved municipal comparators. While St. Catharines' debt is at the higher end of the comparators, it is still at a reasonable level in comparison to other municipalities, particularly older cities with similar aged infrastructure.

Graph 2. Debt Per Capita Comparator Municipalities



2023 CAPITAL BUDGET
REPRIORITIZED PRIOR FOUR YEAR FORECASTS (SCHEDULE AC)

This summary of capital expenditures compares the projected four year forecast (2023-2026) included in the 2022 Capital Budget with the 2023 capital budget and forecast for the same forecast time period.

CAPITAL EXPENDITURES	2023			2024			2025			2026		
	2022 Forecast	2023 Forecast	Variance \$	2022 Forecast	2024 Forecast	Variance \$	2022 Forecast	2025 Forecast	Variance \$	2022 Forecast	2026 Forecast	Variance \$
Roads	12,654,000	9,824,600	(2,829,400)	10,771,951	12,849,951	2,078,000	8,595,001	12,051,000	3,455,999	9,147,000	9,347,000	200,000
Sidewalks, Walkways and Multi-Use Pathways	2,092,400	2,413,000	320,600	1,808,663	2,720,663	912,000	1,701,663	1,887,663	186,000	1,701,663	1,718,663	17,000
Storm Sewer Collection System (Incl. Sewer Sep.)	2,275,168	1,608,000	(667,168)	3,815,100	3,815,100	-	3,970,000	4,542,000	572,000	4,130,000	4,130,000	-
Sanitary Sewer Collection System	5,087,133	2,819,000	(2,268,133)	5,805,376	8,737,000	2,931,624	6,245,844	6,245,844	-	8,032,781	8,032,781	-
Pollution Control	1,000,000	250,000	(750,000)	1,000,000	1,000,000	-	1,000,000	1,000,000	-	1,000,000	1,000,000	-
Water Distribution System (Watermains)	8,240,225	11,930,000	3,689,775	13,760,749	13,761,000	251	12,629,964	10,498,964	(2,131,000)	16,904,363	15,442,363	(1,462,000)
Bridges and Major Culverts	2,540,000	4,202,200	1,662,200	1,300,000	1,695,500	395,500	-	1,765,000	1,765,000	-	230,000	230,000
Shoreline Protection	284,000	208,000	(76,000)	140,000	255,000	115,000	1,693,000	2,002,000	309,000	1,481,000	1,544,000	63,000
Watercourses	6,830,000	4,700,000	(2,130,000)	3,930,000	1,800,000	(2,130,000)	664,000	2,794,000	2,130,000	910,000	910,000	-
Regional Projects	8,041,200	4,419,000	(3,622,200)	1,862,000	1,102,000	(760,000)	7,492,000	10,114,000	2,622,000	-	2,991,000	2,991,000
Community Recreation and Culture Services	3,860,000	2,885,000	(975,000)	7,270,000	9,351,000	2,081,000	3,255,000	3,901,000	646,000	7,125,000	7,221,500	96,500
Buildings and Facilities (Including Accessibility)	6,083,000	16,809,000	10,726,000	9,745,000	12,543,000	2,798,000	7,930,000	12,489,000	4,559,000	8,080,000	14,300,000	6,220,000
Parking Services	25,000	700,000	675,000	1,050,000	1,075,000	25,000	-	-	-	60,000	-	(60,000)
Fire Services	7,600,000	950,000	(6,650,000)	8,186,000	120,000	(8,066,000)	8,000,000	7,700,000	(300,000)	-	8,627,299	8,627,299
Fleet	1,260,000	3,526,780	2,266,780	-	2,536,231	2,536,231	310,000	-	(310,000)	1,797,000	-	(1,797,000)
Corporate Infrastructure	5,300,000	4,680,000	(620,000)	2,920,000	2,600,000	(320,000)	2,000,000	470,000	(1,530,000)	2,000,000	200,000	(1,800,000)
Transit Commission	1,050,000	-	(1,050,000)	1,050,000	-	(1,050,000)	1,050,000	-	(1,050,000)	1,050,000	-	(1,050,000)
	74,222,126	71,924,580	(2,297,546)	74,414,839	75,961,445	1,546,606	66,536,472	77,460,471	10,923,999	63,418,807	75,694,606	12,275,799
Projects Added/Increased				Projects Added/Increased			Projects Added/Increased			Projects Added/Increased		
Central Library Renovation Added			4,850,000	Bridges and Major Culverts Increased		395,500	Building and Facilities Improvement Increased		1,495,000	Building and Facilities Increased		6,220,000
Building/Facility Upgrades & Repairs Increased			2,776,000	ERP Software Increased		680,000	Bridges and Culvert Program Increased		1,765,000	Bridges and Culverted Deferred		230,000
Robertson School Accessibility Added			2,500,000	Data Centre and Other Hardware Increased		1,500,000	ERP Software Increased		270,000	Memorial Bench Program Added		80,000
Kiwanis Turf Field Replacement Increased			600,000	James Street Park Added		1,620,000	Parks Renewal Plan Increased		36,000	Park Renewal Program Increased		1,500
Parnell Road Increased Reconstruction			1,512,200	Multi-Use Recreational Facility Feasibility Study		400,000	Port Dalhousie Splash Pad Increased		600,000	Tree Planting Program Increased		15,000
Third Street Culvert Replacement Added			150,000	Park Renewal Program Increased		56,000	Tree Planting Program Increased		10,000	Firehall #1 - Geneva St Renovation and expansion of headquarters - Added		6,000,000
Asset Management Study - LOS Review Added			260,000	Tree Planting Program		5,000	Firehall Upgrades and Repairs Increased		700,000	Fleet Increased		330,299
Customer Mgmt Software Added			300,000	Firetruck Replacement Increased		350,231	Region - Louth Street (RR72) Reconstruction Increased		78,000	Region - St Paul St. W (RR81) Reconstruc		2,991,000
Enterprise Resource Planning Increased			470,000	Carlisle Street Parking Garage Replacement Added		25,000	Region RR87 Main Street, Lock Street & Lakeport Road Added		5,535,000	Shoreline Protection Program Increased		63,000
Park Renewal Plan & Hanging Baskets			262,000	Region - Glendale Avenue RR89 Improvements Added		490,000	Shoreline Improvement Program Increased		309,000	Sidewalk Replacement		17,000
Splashpad, Sun Shelter & Washroom Increased			350,000	Region - Martindale Road JR Stock Bridge at Richardson Creek Added		150,000	Storm Sewer Improvement Program and Combined Sewer Separations Increased		572,000	Roads Priority Program Increased		200,000
Welland Canal Fallen Workers Mem. Added			33,000	Sanitary Sewer Improvement Program Increased		2,931,624	Active Transportation Increased		186,000	Firehall #1 Expansion Phase 1		6,500,000
Firehall upgrade and repairs Increased			400,000	Shoreline Protection Increased		115,000	Roads Priority Program Increased		3,455,999			
Dispatch Software upgrade Added			350,000	Active Transportation Increased		250,000	Francis Creek Added		2,130,000			
Single Axle Dump Truck Added			360,000	Priority Road Program Increased		1,133,000	Central Library Renovation Added		3,064,000			
Fire Truck aerial Added			1,946,780	Sidewalk Improvement Program Increased		1,607,000	Firehall #3 Rebuild		5,500,000			
Parking Garage Repairs Increased			675,000	Watermain Improvement Program Increased		251						
Region - Niagara Street Reconstruction Added			525,000	Central Library Renovation Added		3,903,000						
Region - Glenridge Ave/CNR Bridge Added			800,000									
Region - St. Paul Street/ CNR Bridge Added			76,000									
Sunset Beach (Municipal Beach) Increased			24,000									
Active Transportation Increased			187,600									
Sidewalk Installation & Replace Increased			133,000									
Watermain Improvement Program Increased			3,514,775									
			\$ 23,055,355			\$ 15,611,606			\$ 25,705,999			\$ 22,647,799

Less: Projects Decreased/Deferred	Less: Projects Decreased/Deferred	Less: Projects Decreased/Deferred	Less: Projects Deferred/Decreased
IT Hardware & Software Deferred	Building and Facilities Decreased	Computer Infrastructure Replacement	Annual Computer Infrastructure Replacement
1,650,000	1,105,000	1,800,000	1,800,000
James Street Park Deferred	Customer Relationship Management	Fleet deferred	Parking Lot Upgrades
1,620,000	1,500,000	310,000	60,000
Firehall #1 Renovation / Expansion Deferred	Water Wastewater System Deferred	Region - St Paul St. W (RR81)	Transit - Removed
6,500,000	1,000,000	2,991,000	1,050,000
Fire Equipment SCBA - expedited approval	Firehall Upgrades and Repairs Decreased	Reconstruction Deferred	Watermain
900,000	380,000	1,050,000	1,462,000
Dump Truck with Roller Decreased	Region - Niagara Street (RR48) Reconstruc	Transit - Removed	Firehall #1 Expansion Phase 2
40,000	1,400,000	2,131,000	6,000,000
Pollution Control Program Decreased	Transit - Removed	Watermain Improvement Program	
750,000	1,050,000	6,500,000	
Region - Glendale Avenue RR89 Deferred	Francis Creek -	Firehall #1 Expansion Phase 1	
490,000	2,130,000		
Region - RR87 Main St., Lock St. & Lakeport Rd. Decreased	Firehall #3 Rebuild		
5,201,200	5,500,000		
Sanitary Sewer Improvement Decreased			
1,600,133			
Shoreline Protection Study Deferred			
100,000			
Storm Sewer Improvement Program and Combined Sewer Separations Decreased			
667,168			
Transit - Removed			
1,050,000			
Traffic Signal Program Decreased			
331,400			
Roads Priority Program Decreased			
2,323,000			
Francis Creek Watercourse Deferred			
2,130,000			
<u>\$ 25,352,901</u>	<u>\$ 14,065,000</u>	<u>\$ 14,782,000</u>	<u>\$ 10,372,000</u>
<u>\$ (2,297,546)</u>	<u>\$ 1,546,606</u>	<u>\$ 10,923,999</u>	<u>\$ 12,275,799</u>

2023 CAPITAL BUDGET SORTED BY WARD - LINEAR PROJECTS
(SCHEDULE AD)

Schedule	Project No.	Project Name / Location	Details	WARD
B	P23-103	Briarsdale / Donlon	Spot curb repairs & replace asphalt road surface	1
B	P18-063	Chestnut / Merritt Underground Improvements	Additional funding for utility relocates, streetscaping, streetlights and road reconstruction	1
B	P23-101	Dundas / Leeson	Spot curb repairs mill and resurface existing roadway in conjunction with watermain replacement	1
B	P19-066	Moffatt Secondary Access - Utilities	Utility relocates for Moffat Secondary Access	1
B	P23-067	Third Street / Old Martindale Road Reconstruction	Reconstruction, realignment and widening of roadway to allow for bike lanes	1
C	P18-063	Chestnut / Merritt Underground Improvements	Additional funding for installation of new and replacement of s/w in conjunction with road reconstruction	1
D	P18-063	Chestnut / Merritt Underground Improvements	Additional funding for replacement of storm sewer in conjunction with road reconstruction	1
E	P18-063	Chestnut / Merritt Underground Improvements	construction funding for replacement of san sewers in conjunction with road reconstruction	1
E	P23-001	Phelps/Turner/Smythe	Installation of a new sewer section in conjunction with works for new development	1
G	P23-103	Briarsdale / Donlon	Replacement of existing C.I. and D.I. watermain	1
G	P18-063	Chestnut / Merritt Underground Improvements	Construction funding for replacement of w/m in conjunction with road reconstruction	1
G	P23-101	Dundas / Leeson	Replacement of existing C.I. watermain	1
G	P23-107	Carriage / Grove	Replacement of existing C.I. watermain	1
G	P23-001	Phelps/Turner/Smythe	Replacement of watermain in conjunction with work for new development	1
H	P22-122	Battersea Avenue Culvert (C118M)	Replace or reline the structure.	1
H	P22-130	Secord Creek Construction and Culvert (C109M) Replacement	Replace existing structure with watercourse rehabilitation works	1

2023 CAPITAL BUDGET SORTED BY WARD - LINEAR PROJECTS
(SCHEDULE AD)

Schedule	Project No.	Project Name / Location	Details	WARD
H	P22-122	Melody Trail Culvert (C077S)	Replacement of the structure now. The City may consider lining the structure.	1
J	P23-130	Dick's Creek EA/Design for Constr Ph 1, Ph 2 & Ph 3	Engineering Services (EA and design for highest priority) to address previously identified deficiencies	1
B	P20-065	New Access Road - Ridley Road	Additional funds for new road to train station	2
D	P20-065	New Access Road - Ridley Road	Installation of storm infrastructure along new road to train station	2
G	P23-106	Jasmine/Josephine	Replacement of existing C.I. watermain	2
H	P15-122	Third Street Culvert Replacement, 90 m South of CN Tracks	Additional funding for box culvert replacement	2
K	RNxx-GDR	Region - Glenridge Ave at CNR Bridge Replacement	City's share of costs for sidewalks during Regional bridge replacement, cost sharing determined by CNR Board Order	2
B	P23-062	Facer Street road and underground improvements	Design for future road improvements	3
B	P21-100	Flanders Watermain Improvements	Resurfacing in conjunction with watermain replacement	3
G	P23-102	Adel / Donalda / Dundalk / Regent / Rainbow	Replacement of existing C.I. and D.I. watermain	3
G	P23-100	Welland Avenue	Replacement of existing C.I. watermain	3
H	P17-125	South Service Road Bridge Removal or replacement (B011S)	Following the C/S and RRA, the minimum rehabilitation work would include the following: Patch, Waterproof, and Pave, and concrete patch repair rehabilitation of the structure in 1-5 years. The City may also consider eliminating the south end of the structure or the entire structure in lieu of rehabilitating.	3
B	P22-061	James Street	Design and Utility relocates for road reconstruction and development of a multiuse space	4
D	P18-062	Lake Street Underground Improvements	Construction of storm sewer in conjunction with underground improvements and road reconstruction	4

2023 CAPITAL BUDGET SORTED BY WARD - LINEAR PROJECTS
(SCHEDULE AD)

Schedule	Project No.	Project Name / Location	Details	WARD
E	P18-062	Lake Street Underground Improvements	Construction of sanitary sewer in conjunction with underground improvements and road reconstruction	4
G	P18-062	Lake Street Underground Improvements	Construction funds for replacement of existing C.I. watermain in conjunction with road reconstruction	4
G	P23-105	Mohawk/Scott/Village Green	Replacement of existing C.I. watermain	4
B	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	Curb replacement and asphalt road surface replacement in conjunction with watermain replacement and sewer repairs	5
B	P22-063	Parnell Road Reconstruction	replacement of the structure with road works	5
B	P23-064	Welland Canal Parkway Road Rehabilitation & Drainage Improvements	Design for Future replacement of existing asphalt road surface with drainage improvements	5
D	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	Replacement of storm sewer sections in conjunction with watermain replacement	5
E	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	Replacement of sanitary sewer section in conjunction with watermain replacement	5
G	P23-061	Brimley Crescent Road Rehabilitation & Underground Improvements	Replacement of existing D.I. watermain in conjunction with sewer and road works	5
G	P23-104	Kimbermount / Lake / Monique	Replacement of existing C.I. watermain	5
H	P22-063	Parnell Road Reconstruction	Replacement of the structure with road works	5
J	P22-130	Secord Creek Construction and Culvert (C109M) Replacement	Construction to address priority items identified by EA	5
K	RNxx-LL	Region - Niagara Street (RR48) Reconstruction	Partial funding of City's share of costs of new storm sewer and existing storm sewer repairs in conjunction with Regional roadwork	5
K	RNxx-LL	Region - Niagara Street (RR48) Reconstruction	Rehabilitation of existing sewer with identified deficiencies inconjunction with Regional roadworks	5
B	P22-064	Blue Spruce / Huntingwood	Spot curb repairs & replace asphalt road surface	6
J	P17-129	Martindale Pond Weir Replacement	Replacement weir to address identified deficiencies in weir controlling water level in Martindale Pond and in conjunction with Heywood Generating Station	6

2023 CAPITAL BUDGET SORTED BY WARD - LINEAR PROJECTS
(SCHEDULE AD)

Schedule	Project No.	Project Name / Location	Details	WARD
K	RNxx-MLL	Region RR87 Main Street, Lock Street & Lakeport Road	Replacement and spot repairs of existing sewers in conjunction with road reconstruction, Replacement and spot repairs of existing sewers in conjunction	6
B	P23-060	2023 Road Resurfacing Program	Spot curb repairs & replace asphalt road surface	City Wide
B	P23-097	Traffic Signals (including pedestrian crossings)	Annual - priority location(s) to be determined	City Wide
B	P23-070	Traffic Signs (40 KM)	Expansion of the neighbourhood 40 km/h speed limit project	City Wide
C	P23-040	2023 Sidewalk Replacement Program	Annual - priority location(s) to be determined	City Wide
C	P23-040-1	2023 Walkway Improvements	Annual walkway repair program locations to be determined	City Wide
C	P23-041	New Sidewalk installation Program	Annual - priority location(s) to be determined	City Wide
C	P23-068	Active Transportation	Annual - priority location(s) to be determined (100% CCBF funded portion)	City Wide
C	P23-068	Active Transportation Priorities	Various initiative locations	City Wide
D	P23-060	2023 Road Resurfacing Program	Extension of catch basin lead for combined sewer separation on Lloyd Street	City Wide
D	P23-006	Catch Basins and Storm Service Installations	Installation of catch basins, catch basin leads and storm laterals to alleviate isolated surface flooding	City Wide
D	P23-015	Design for next years projects	Engineering services for future storm drainage system projects as required	City Wide
D	P23-014	Sewer CCTV Inspections	CCTV sewer inspections for condition assessment of existing storm sewers including large diameter pipes	City Wide
D	P23-016	Storm Sewer Spot Repairs	Spot repairs of storm sewers at various locations as necessary	City Wide
E	P23-015	Design for next years projects	Engineering services for future sanitary collection system projects as required	City Wide
E	P23-010	Extraneous Flow Elimination	Study to determine sources of inflow and infiltration into sanitary sewer system	City Wide

2023 CAPITAL BUDGET SORTED BY WARD - LINEAR PROJECTS
(SCHEDULE AD)

Schedule	Project No.	Project Name / Location	Details	WARD
E	P23-012	Sanitary Sewer Flushing & Reaming	Sewer flushing and reaming for physical cleaning of selected sewer sections with operational issues	City Wide
E	P23-005	Sanitary Sewer Reaming & Lining	Sewer lining to address identified deficiencies City Wide	City Wide
E	P23-011	Sanitary Sewer Spot Repair Program	Spot repairs for sanitary sewers as required	City Wide
E	P23-014	Sewer CCTV Inspections	CCTV inspections of existing sewers to identify condition and future works	City Wide
E	P23-019	Sewershed Analysis	Engineering services for sewershed capacity analysis as required	City Wide
G	P23-015	Design for next years projects	Engineering services for future waterworks projects as required	City Wide
G	P23-116	Stortz Hydrant Port Conversions	Year 2 of multi-year conversion of existing hydrants to Stortz type pumper connections in priority areas	City wide
G	P23-118	Valves, Hydrants & Services	Replacement of existing valves, hydrants and services etc. in conjunction with other works	City wide

2023 CAPITAL BUDGET SORTED BY WARD - NON LINEAR PROJECTS
(SCHEDULE AE)

Schedule	Project No.	Project Name / Location	Details	WARD
L	P23-163	Parks Renewal Plan - Community Park Multi-Use Courts	Replace court which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	1
M	P23-141	Merritton Park - Site Replace existing baseball field (George Taylor) lighting with LED fixtures & Musco Controls	Replace existing baseball field (George Taylor) lighting with LED fixtures & Musco Controls	1
O	P23-137	Fire Hall #4 - Merritt St Parapet Flashing/Siding rework to prevent water infiltration	Parapet Flashing/Siding rework to prevent water infiltration	1
K	RN20-stp	St. Paul Street at CNR Bridge Replacement	City share of the St Paul Street at CNR Bridge Replacement Project	2
M	P18-164	Seymour Hannah Upgrade dehumidification system for pad 2/3 - additional funds to combine with phase 1	Upgrade dehumidification system for pad 2/3 - additional funds to combine with phase 1	2
M	P23-139	Seymour Hannah renovation for Junior B Falcons	renovation of the retail space and dressing rooms for Junior B Falcons (\$75K for removal; \$75K fitout = \$150K total)	2
M	P23-138	Seymour Hannah Replacement Vilter Compressor & panel (one compressor) - Phase 2 (compressor #2)	Replacement Vilter Compressor & panel (one compressor) - Phase 2 (compressor #2)	2
M	P23-140	Seymour Hannah - Kiwanis Field Replace Turf	Replace Turf	2
O	P23-136	Firehall #3 - Pelham Rd Rebuild Station No. 3 - Design Funds only	Rebuild Station No. 3 - Design Funds only	2
L	P23-162	Parks Renewal Plan - Bartlett Park - Playground & multi-use court	Replace court and playground which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	3
L	PCR23-01	Welland Canal Fallen Workers Memorial	Replace panel to insert a name in chronological order. The panel will be reinstalled with the ability to remove and adjust more simply in the future if required. Additionally, this work will include resetting a panel that has shifted since installation.	3
M	P23-144	Dunlop Drive Seniors Centre Roofing Replacement	Roofing Replacement	3
L	P23-161	Parks Renewal Plan - Alex Mackenzie Basketball Court & Playground	Replace court and playground which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	4
M	P22-138	Old Court House replace and repair basement windows	replace and repair basement windows	4

2023 CAPITAL BUDGET SORTED BY WARD - NON LINEAR PROJECTS
(SCHEDULE AE)

Schedule	Project No.	Project Name / Location	Details	WARD
M	P23-134	Robertson School - Main Accessibility Upgrades, add universal washroom on each floor (3), install elevator, renovate existing washrooms to FADS (4), misc internal ramps and entrance mods for barrier free access.	Accessibility Upgrades, add universal washroom on each floor (3), install elevator, renovate existing washrooms to FADS (4), misc internal ramps and entrance mods for barrier free access.	4
M	P23-133	City Hall Replace 3 modulating air handling units	Replace 3 modulating air handling units	4
M	TBD23-16	Meridian Centre Plant motor upgrade (2 glycol pumps, 2 compressor motors)	As per CIMCO's Life cycle of the Meridian Centre Refrigeration Plant, we need to start replacing motors on the system. Glycol pump 1&2, as well as Compressor 1 &2 have motors due for replacement.	4
M	TBD23-17	Meridian Centre - Parking booth - front lot	For health and safety concerns, the Meridain Centre requires a parking booth for employees who are required to monitor the lot, outside in all weather conditions. Health & safety concerns can be avoided by having a parking booth that serves as shelter and security for the employees during all four seasons.	4
M	TBD23-18	Meridian Centre - POS Replacement	In July 2021, Meridian Centre received an "End of Life/Support" Notice from our current POS Service Provider, NCR/Quest, effective 12/31/2023.	4
M	TBD23-19	Meridian Centre - Daktronics Upgrade	Our current DMP-7000/VIP-4400/Show Control system has been discontinued and is no longer supported by Daktronics. Servicing the current system and sourcing replacement Parts will become hard to do moving forward. Upgrading to the newest version DMP-8000/VP-6000/Show Control	4
M	TBD23-20	Meridian Centre - Main curtain modification	Modify the current Main Curtain that creates a required backdrop for concerts and events. The size of the curtain is a major labour and expense challenge, modification will solve the challenges	4

2023 CAPITAL BUDGET SORTED BY WARD - NON LINEAR PROJECTS
(SCHEDULE AE)

Schedule	Project No.	Project Name / Location	Details	WARD
M	TBD23-21	Meridian Centre - Suite level food cooking equipment addition	In anticipation of a Post Covid-19 food service environment, additional cooking equipment is needed for Suite Level Food and Beverage Outlets. In order to enhance cooking ability for Club Lounge and Suite holder ordering and delivery of premium food menu items, additional equipment has been procured. Two (2) cooking solutions to be added, two (2) Perfect Fry Countertop Solution (Club/Suites) and one (1) Turbo Fresh Double Stack Pizza and Cooking oven (Suite Pantry). Projected 6-8 year return on investment.	4
M	TBD23-22	Meridian Centre - Mobile ordering platform	In anticipation of a Post Covid-19 food service environment, mobile ordering is the solution to enhance and support new and necessary safety measures for service during all Meridian Centre events. To reduce the risk to patrons and staff while providing premium and quick service food and beverage services, mobile ordering is necessary to implement to enhance current Covid-19 practices and protocols.	4
M	P23-145	PAC - Replace lighting fixtures in film house	PAC - Replace lighting fixtures in film house	4
M	P23-146	PAC - Replacement of Leviton Lighting control system	PAC - Replacement of Leviton Lighting control system	4
M	P23-147	PAC - Door replacements (Sliding Doors & other high priority doors)	PAC - Door replacements (Sliding Doors & other high priority doors)	4
M	TBD23-26	Central Branch renovation (Phase 1)	Central Branch renovation (Phase 1)	4
N	P23-135	Carlisle Street Parking Garage Structural crack repairs (basement & stair D), and associated membrane repairs on garden park entrance ramp.	Structural crack repairs (basement & stair D), and associated membrane repairs on garden park entrance ramp.	4
N	PCI23-05	Ontario Street Parking Garage Upgrade - Parking system, cameras, servers.	Parking system, cameras, servers.	4
I	P22-150	Sunset Beach (Municipal Beach)	Additional funds for construction of shoreline protection to address deficiencies along Lake Ontario in conjunction with parking lot reconstruction	5
M	P22-137	Buchanan House Top up funds for accessibility upgrades (previously used for BBA Decomm)	Top up funds for accessibility upgrades (previously used BBA GCA)	5
M	P22-187	Garden City Arena Complex Demolition & Decommisioning of GCA complex	Garden City Arena Complex Demolition & Decommisioning of GCA complex	5

2023 CAPITAL BUDGET SORTED BY WARD - NON LINEAR PROJECTS
(SCHEDULE AE)

Schedule	Project No.	Project Name / Location	Details	WARD
M	P22-150	Municipal Beach (Sunset Beach) - Site Funding Matching (City Portion) for ICIP work - Phase 1	Funding Matching (City Portion) for ICIP work - Phase 1	5
M	P22-137	Buchanan House Top up funds for accessibility upgrades (previously used for Museum HVAC)	Top up funds for accessibility upgrades (previously used for Museum HVAC)	5
M	P18-181	St. Catharines Museum Replace air handling unit 6, condensing unit 5, install humidifier including all BAS connection and structural/electrical components	Replace air handling unit 6, condensing unit 5, install humidifier including all BAS connection and structural/electrical components	5
L	P23-160	Parks Renewal Plan - Port Dalhousie Multi-Use Court	Replace court which is at end of useful life, and maintain level of service as per the Parks Renewal Plan (CRCS-B017-2021)	6
M	P23-142	Port Dalhousie Lions Park - Pool Renovate Change rooms - interior/exterior & add accessibility	Renovate Change rooms - interior/exterior & add accessibility	6
M	P23-143	Dalhousie House - Site Reconstruct Retaining wall & stairs	Reconstruct Retaining wall & stairs	6
M	P17-129	Martindale Pond Weir Replacement	Top up funds for weir reconstruction (design)	6
F	P23-018	Pollution Control Priority Program	Implement Pollution Control Plan initiatives to reduce combined sewer overflows	City Wide
L	P21-156	Splashpad, Sun Shelter & Washroom (funding top-up)	The 2022 Capital budget included \$1M towards the project but it is estimated that an additional \$350,000 will be required. Additional funding required for the installation of a splashpad, seasonal washroom facility and sun shelter as per the Aquatics Facilities Strategy approved by Council in Q3 2021 (CRCS-042-2021) due to the increase to construction costs.	City Wide
L	PRC20-01	Tree Planting Program	Address asset deficiencies and move towards achieving Council approved tree canopy goal of 30%	City Wide
L	PRC22-03	Environmentally Friendly Hanging Baskets Program (Year 2 of 3)	This project will transition to a more environmentally responsible product, requiring less frequent watering	City Wide
L	PRC20-04	Memorial Bench Program (Year 4 of 6)	Replace assets which are approaching end of useful life and maintain level of service	City Wide
L	PCR21-05-1 & PCR22-04	Parks Legacy Fund	The Parks Legacy Fund will annually leverage and match alternative funding to maintain and enhance parks levels of service. Project(s) still to be determined for 2023 (As approved by Council on October 7, 2019)	City Wide

2023 CAPITAL BUDGET SORTED BY WARD - NON LINEAR PROJECTS
(SCHEDULE AE)

Schedule	Project No.	Project Name / Location	Details	WARD
O	PFR23-02	CAD (Computer Aid Dispatch) Software upgrade	CAD (Computer Aid Dispatch) Software upgrade	City Wide
P	PFL23-01	International 7400 Single Axle Dump Truck (#203)	Replacement of International 7400 Single Axle Dump Truck (#203)	City Wide
P	PFL23-02	Freightliner Tandem Dump Truck with Roller Pro (61)	Replacement of Freightliner Tandem Dump Truck with Roller Pro (61)	City Wide
P	PFL23-03	International Workstar 7600 Tandem Dump Truck (72)	Replacement of International Workstar 7600 Tandem Dump Truck (72)	City Wide
P	PFL23-04	International Workstar 7600 Tandem Dump Truck (73)	Replacement of International Workstar 7600 Tandem Dump Truck (73)	City Wide
P	PFL23-05	2004 Sutphen 95' aerial - Unit 26	Industry standard is to replace every 23 years - this was originally in 2026 - as per meeting with Finance changed to 2024	City Wide
Q	PCI17-01	Enterprise Resource Planning (ERP) System Implementation (included in 2023 Capital Forecast)	Partial budget for implementation of an ERP system that will replace the City's existing financial systems and provide enhanced support for accounts receivable, accounts payable, procurement, commitments and project management	City Wide
Q	PCI23-02	Backup Data Centre	Additional budget for implementation of property tax software - CentralSquare and related modules for tax certificates, point-of-sale, and citizen engagement portal. Replaces the City's current systems which are past end of life and receiving very limited vendor support (FMS-122-2021)	City Wide
Q	PCI23-03	Annual Computer Infrastructure Replacement	Replacement for Work Manager, GIS system and asset management software	City Wide
Q	PCI23-04	IT Security software (log management tools)	Replace current switches which are at end of useful life	City Wide
Q	ST-20-15	Asset Management Plan - Phase 2	Additional budget to align with requirements of Oreg 588/17 to review level of service.	City Wide
Q	PCI17-02	Customer Relationship Management (additional funding)	Software licensing fees and set-up of system to track soil movement as required by Ont. Regulation 406/19	City Wide