

CORPORATE STATE OF INFRASTRUCTURE REPORT

2024 INFRASTRUCTURE
REPORT CARD



EXECUTIVE SUMMARY

Why An Infrastructure Report Card?

The annual Infrastructure Report Card provides important information about Town assets that can inform stakeholders and guide decision makers. Infrastructure supports many Town services and are an important investment shared by the community. While infrastructure assets have long service lives, the decisions made each year impact their long-term trajectory. An annual touchpoint ensures the Town remains on its desired course.

Key Questions Answered by The Report Card

Entering its fourth iteration, years of consecutive reporting not only provide the Town with a snapshot of current infrastructure conditions but also the year-over-year impacts of broader trends like aging assets, growth/intensification, construction price inflation, and new asset management innovations. Focusing on changes since last year provides readers with new information.

The report card data is staggered with present day. The data is as of December 31, 2023.

Key questions answered by the report include:

- What are the conditions of our assets, and how has this changed since the last report?
- What would our assets cost to replace, and how has this changed in light of growth and inflation?
- What are we saving and spending, and how did the projects we delivered change what we provide?

The Infrastructure Report Card includes the following service areas:



Roads



Bridges



Water



Wastewater



Stormwater



Parks



Facilities

Limitations

The municipal infrastructure report card is a tool for assessment, transparency, and planning, but it has limitations. Notably:

- **Detailed Engineering Analysis:** It is not a detailed engineering assessment of every piece of infrastructure. Instead, it provides an overview and grades based on selected criteria.
- **Financial Audit:** It does not delve deeply into financial aspects or funding sources for infrastructure projects.
- **Real-time Monitoring:** It is not a real-time monitoring system. It provides a snapshot at a specific point in time.

What Condition Is It?

Condition ratings provide a structured and standardized way to assess the current state of our assets. The ratings are assigned using a 5-point scale, as shown in the table below. For some assets, the condition ratings are derived from on-site condition inspections conducted by qualified personnel, offering detailed insights into their performance. For the remaining assets, the condition is based on the estimated remaining service life, determined through the linear relationship between the asset's age and its anticipated lifespan. This approach allows the Town to effectively monitor asset performance and make informed decisions regarding maintenance and replacement planning.

Condition Category	Condition Description
Very Good	The asset is future-ready. It is in excellent condition, well-maintained, and recently constructed or rehabilitated. It can reliably meet service needs with minimal intervention.
Good	The asset is performing well. It meets all service expectations and is supported by proactive maintenance to sustain its condition as it progresses through the early-to-mid stages of its expected service life.
Fair	The asset is functioning adequately with some active maintenance. It shows some visible signs of aging and wear.
Approaching Replacement Need	The asset is approaching the eventual end of its service life with noticeable signs of moderate deterioration. Some components beginning to require closer monitoring to maintain reliable performance and targeted maintenance is required to maintain service levels.
Ready for Replacement	The asset has reached the end of its optimal service life and is a candidate for replacement. While functional, it is not delivering services at the optimal level. There are potential increased risks of service disruption. Maintenance efforts are focused on managing risks, minimizing disruptions, and preserving functionality to provide service levels until replacement occurs.

Methodology Refinements

Each year the Corporate Asset Management Office works on refining the numbers and figures reported in asset management plans through continuous improvement. These accuracy improvements are accounted for in the report of the cost of our assets to show the impact.

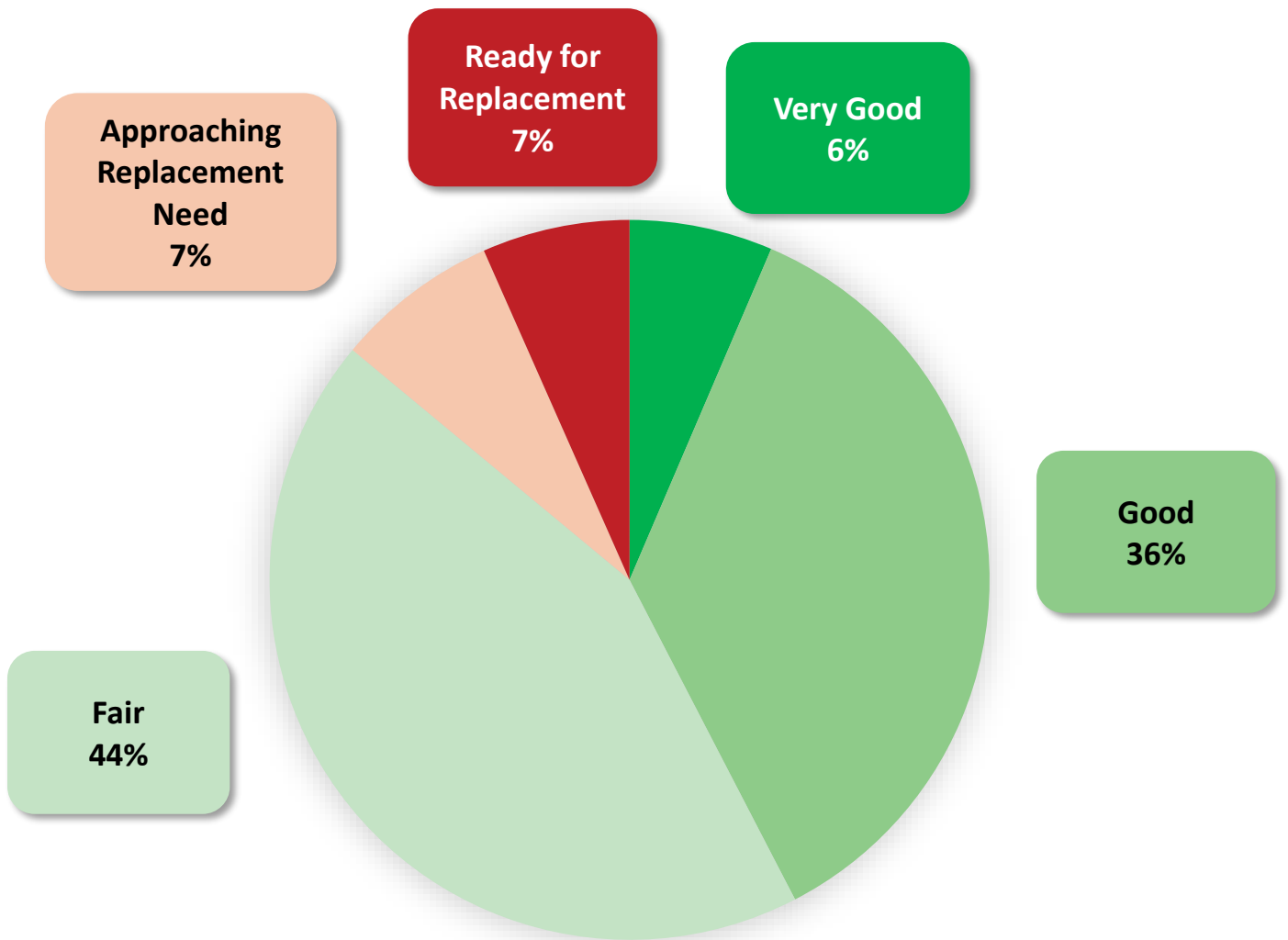
REHABILITATION AND REPLACEMENT PROJECTS IN 2023

Each year, the Town undergoes a number of state of good repair projects to maintain and improve infrastructure. The Infrastructure Report Cards should be considered in context of the steps the Town is continually taking to maintain service levels by improving infrastructure. Projects specific to the assets in the report card substantially completed in 2023 include:

2023 Capital Projects for Assets	Assets						
	Roads	Bridges	Water	Waste-water	Storm-water	Parks	Facilities
Reconstruction of Pony Drive	✓		✓	✓	✓		
Road Resurfacing of Ringwell Drive, Kerrisdale Blvd	✓						
Queen Street Bridge Replacement (on-going)		✓					
Newmarket Heights Watermain CIPP Lining			✓				
Water Meter Replacement Program (on-going)			✓				
27 km of Roads Crack Sealed	✓						
Ray Twinney Center Electrical & Mechanical Upgrades							✓
Magna Center Roof Replacements & Control Panel Replacements							✓
Ray Twinney Center Fitness Center Renovation							✓
Other asset replacements at Town Offices, Gorman Pool, Old Town Hall							✓
Playground Replacements						✓	
Best Family Park Asset Improvements						✓	
Joe Persichini Park Sports Court Resurfacing						✓	

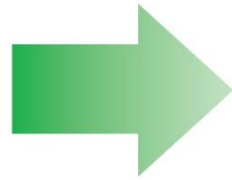
WHAT CONDITIONS ARE OUR ASSETS?

Executive Summary of Conditions for Assets



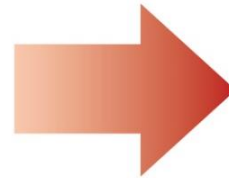
WHAT HAS CHANGED SINCE I LAST SAW THIS INFORMATION?

Infrastructure Condition Changes Since 2023



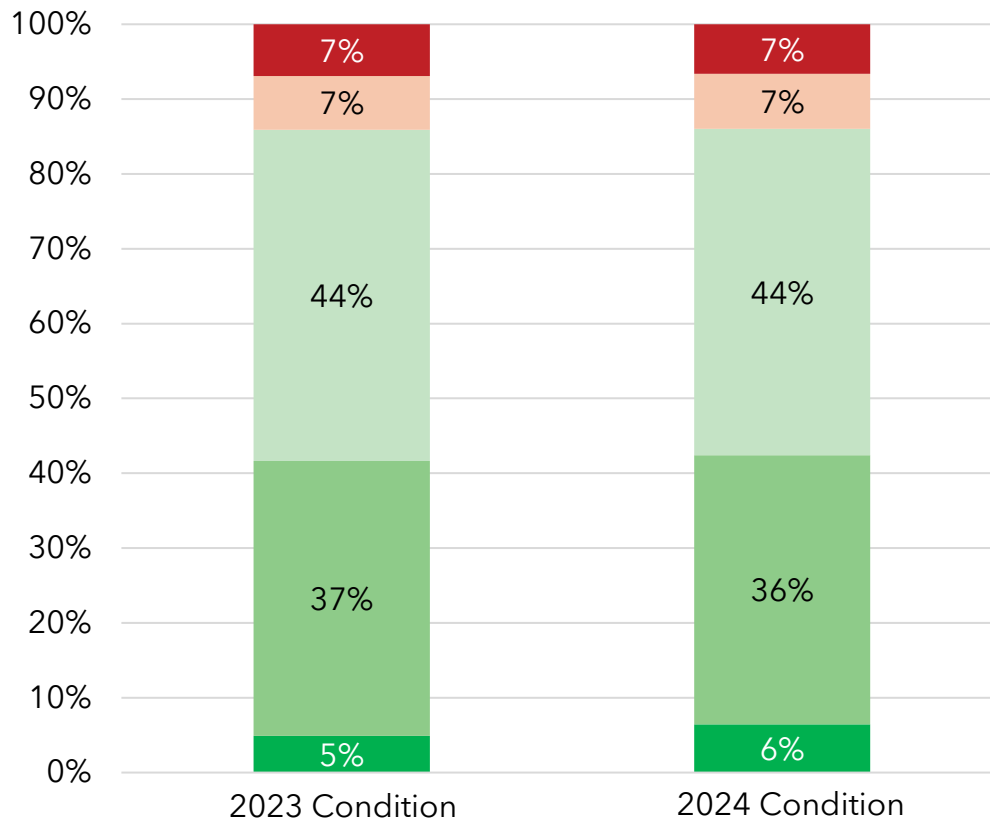
Very Good/Good/Fair
From 86% to 86%*

**Approaching Replacement
Need/Ready for Replacement**
From 14% to 14%*



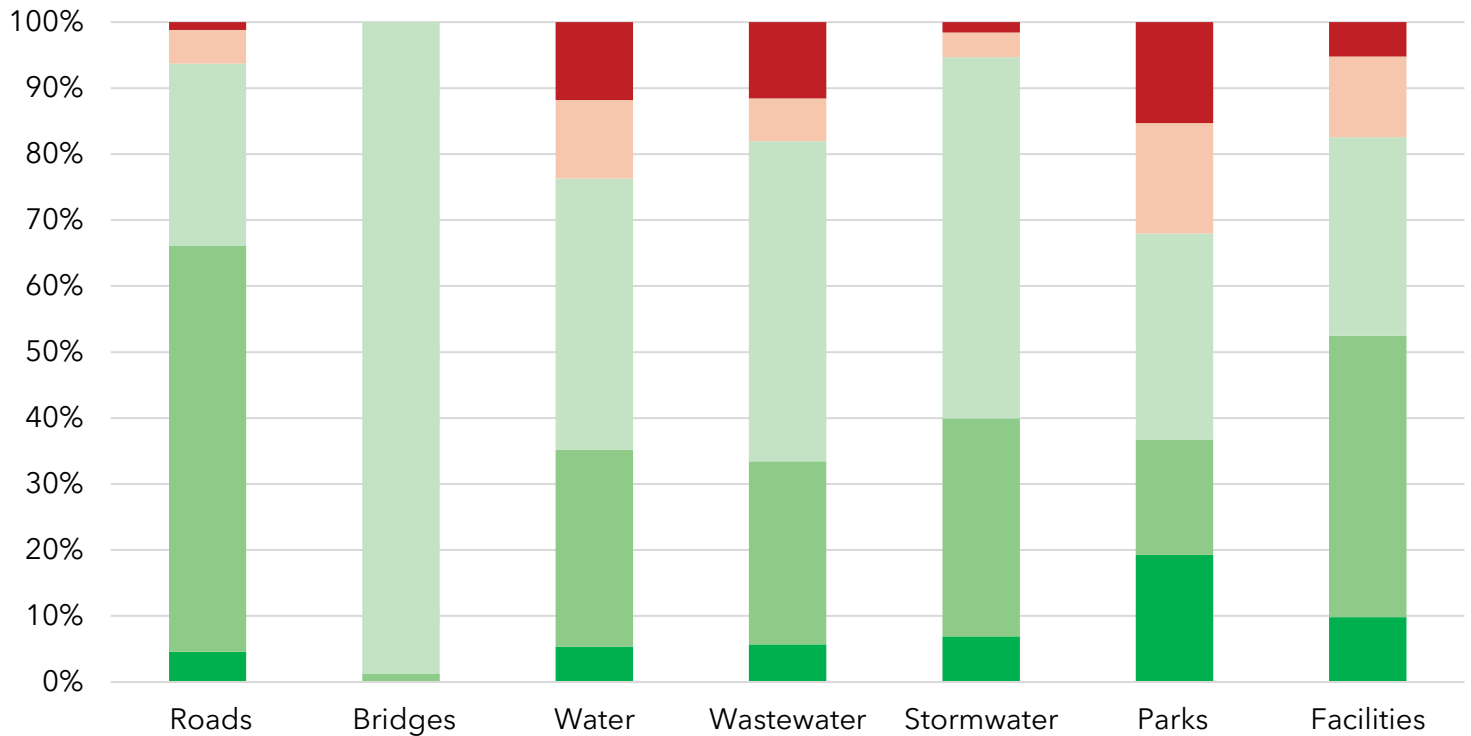
**On average, no change in condition category.*

Comparing Conditions of Core Assets from 2023 to 2024



HOW DO OUR SERVICE AREAS COMPARE?

Service Area Comparison (%) of Asset Conditions

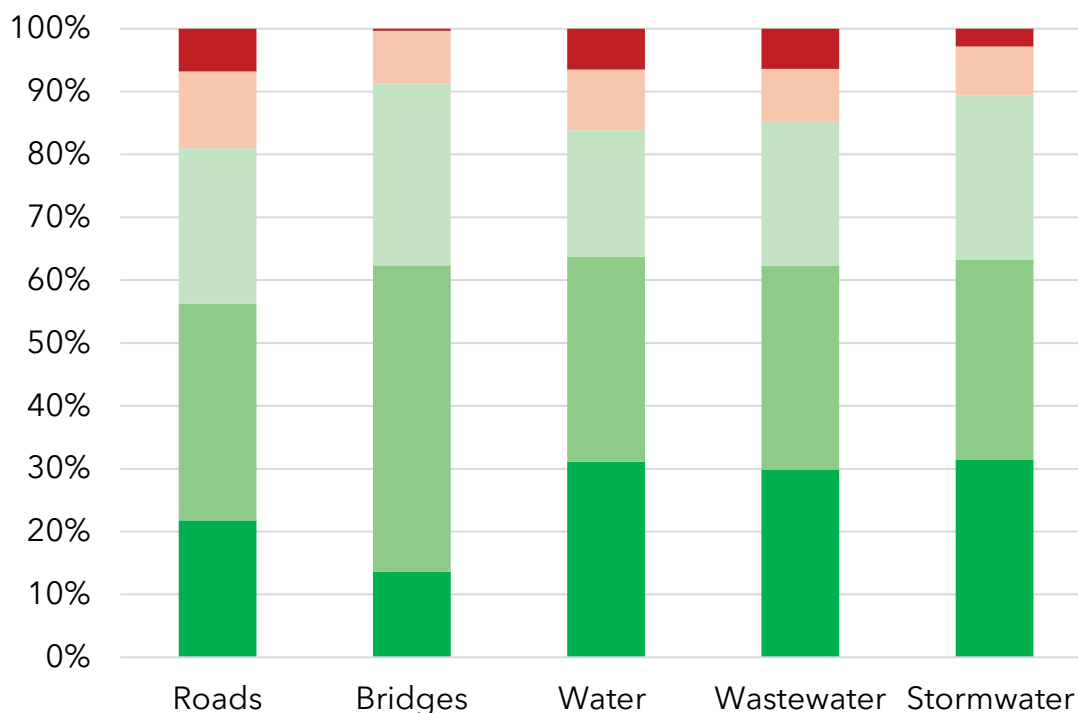


WHAT WOULD OUR ASSETS COST TO REPLACE?

Summary of Replacement Cost	
2023 Valuation	\$3,071 M
Methodology Refinements	-\$25 M
Growth	\$24 M
Inflationary Adjustment	\$123 M
2024 Valuation	\$3,192 M

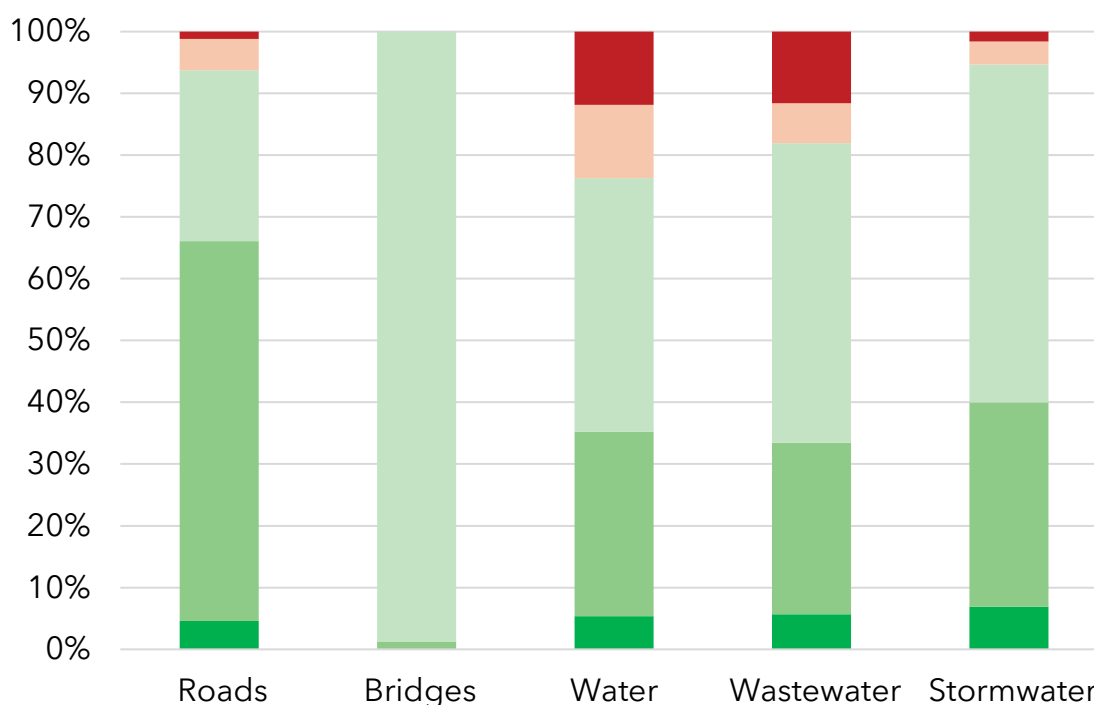
BENCHMARKING WITH SIMILAR MUNICIPALITIES IN THE STATISTICS CANADA INFRASTRUCTURE SURVEY

Core Asset Conditions (%) - Urban Canadian Municipalities



Note: This data is sourced from Statistics Canada’s Core Public Infrastructure Survey, which collects information on the inventory and condition of core public infrastructure assets in Canada. Standard definitions are provided for the survey but are subject to interpretation by individual municipalities. Methods of data collection may also vary by municipality.

Core Asset Conditions (%) - Town of Newmarket





Roads Network Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



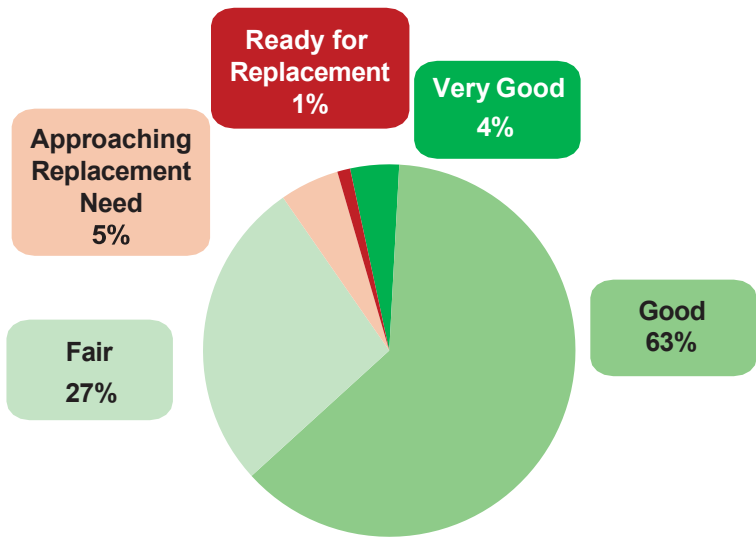
AVERAGE NETWORK CONDITION

GOOD



INVENTORY

Collector Roads (km): 66
Local Roads (km): 193
Total (km): 259



INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
From 91% to 94%



Approaching Replacement Need/Ready for Replacement
From 9% to 6%

WHAT WOULD OUR ASSETS COST TO REPLACE?

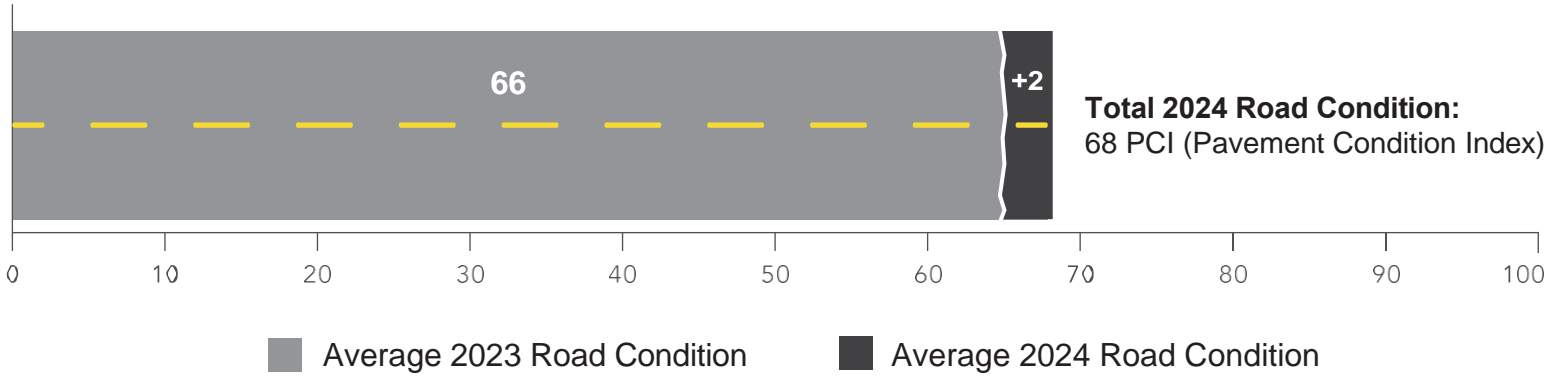


REPLACEMENT COST:
\$553 Million

Replacement Cost Summary	
2023 Replacement Cost	\$531 M
Growth	\$1 M
Inflationary Adjustment	\$21 M
Updated 2024 Replacement Cost	\$553 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS

Average Road Network Condition



MAJOR 2023 PROJECTS

2023 Projects
Road Reconstruction of Pony Drive
Road Resurfacing of Ringwell Drive & Kerrisdale Boulevard
27 km of Roads Crack Sealing



Bridge Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



AVERAGE NETWORK CONDITION

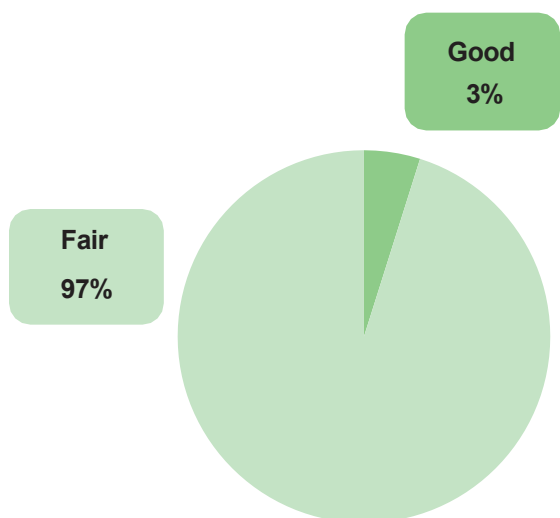
FAIR



INVENTORY*

Vehicle Bridges: 13
Structural Culverts: 18
Total: 31

*Bridge network no longer reports pedestrian bridges, reporting transferred to Parks.



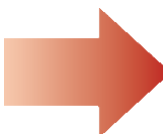
Note: Excludes Queen Street Bridge, replacement ongoing.

INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
From 100% to 100%*

**Approaching Replacement
Need/Ready for Replacement**
From 0% to 0%*



*On average, no change in condition category.

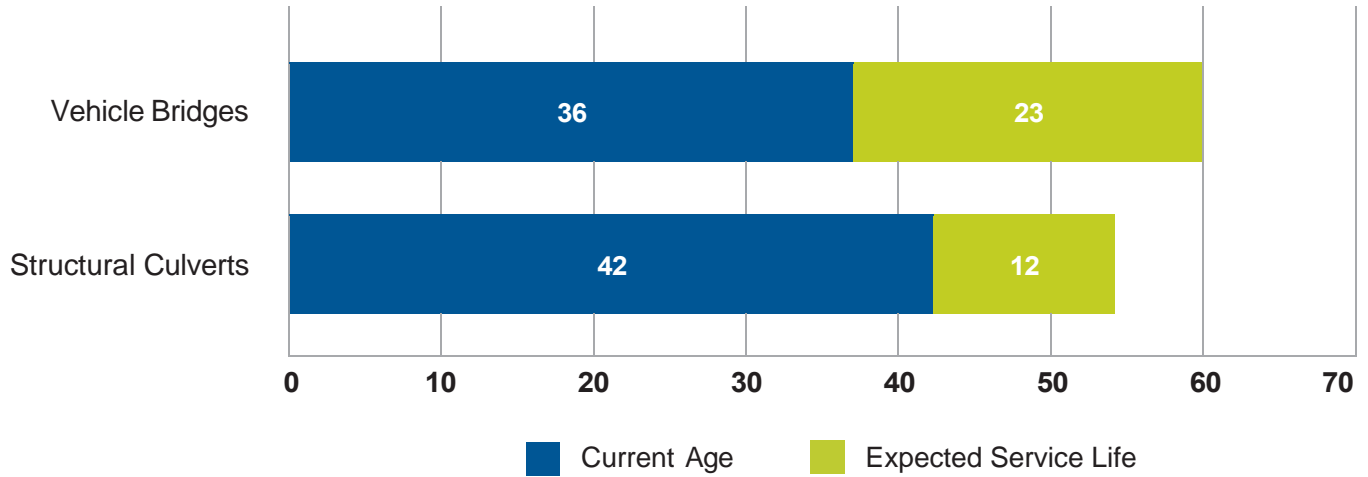
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
\$40 Million

Replacement Cost Summary	
2023 Replacement Cost	\$39 M
Growth	\$0 M
Inflationary Adjustment	\$1 M
Updated 2024 Replacement Cost	\$40 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects

Queen Street Bridge Replacement (on-going)



Water Distribution Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



AVERAGE NETWORK CONDITION

FAIR

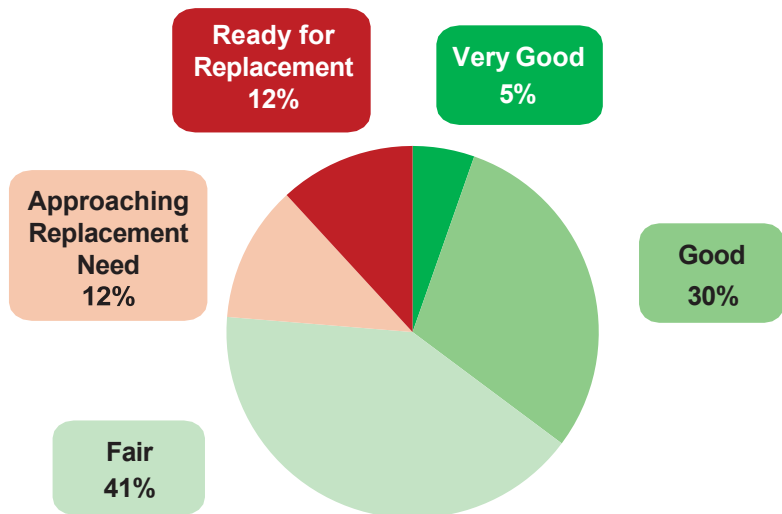


INVENTORY

Watermains (km): 315

Valves: 5255

Hydrants: 2383



INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
From 76% to 76%*

Approaching Replacement Need/Ready for Replacement
From 24% to 24%*



**On average, no change in condition category.*

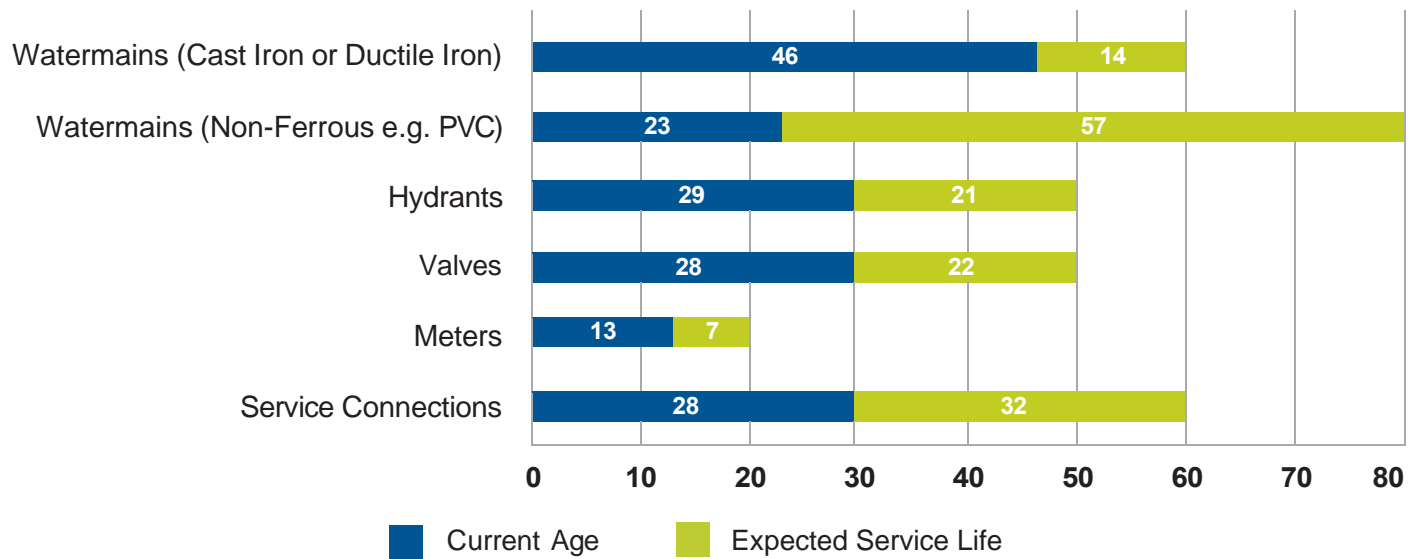
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
\$681 Million

Replacement Cost Summary	
2023 Replacement Cost	\$656 M
Methodology Refinements	-\$3 M
Growth	\$2 M
Inflationary Adjustment	\$26 M
Updated 2024 Replacement Cost	\$681 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects
Reconstruction of Pony Drive
Newmarket Heights Watermain CIPP Lining
Water Meter Replacement Program (on-going)



Wastewater Collection Infrastructure Report Card



WHAT CONDITION ARE OUR ASSETS IN?



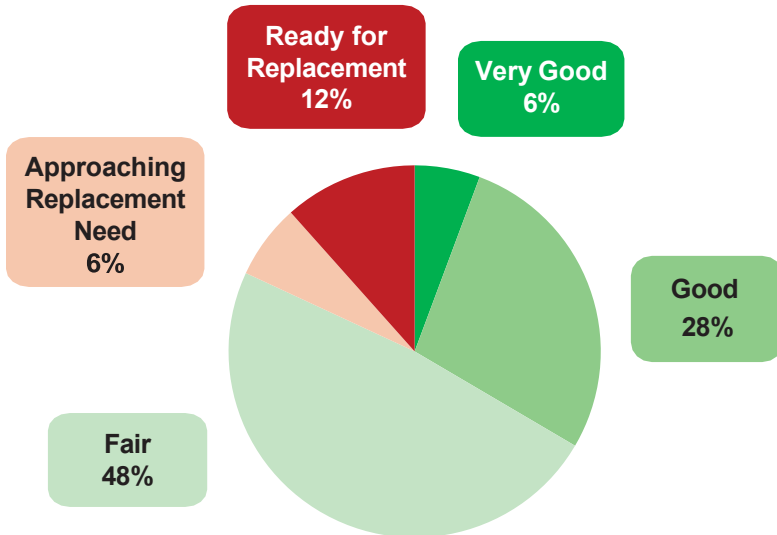
AVERAGE NETWORK CONDITION

FAIR

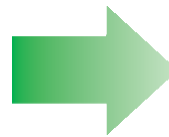


INVENTORY

Sewers (km): 284
Maintenance Holes: 4569
Pump Stations: 6

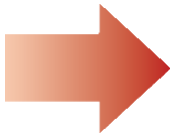


INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
From 82% to 82%*

Approaching Replacement Need/Ready for Replacement
From 18% to 18%*



*On average, no change in condition category.

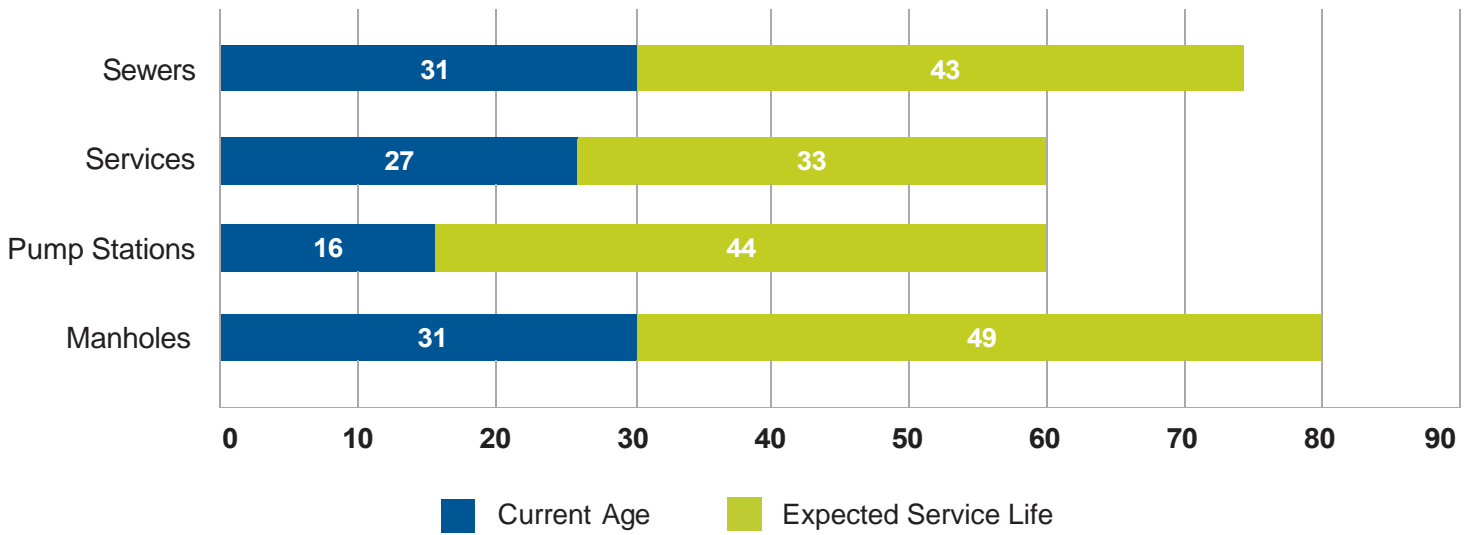
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
\$712 Million

Replacement Cost Summary	
2023 Replacement Cost	\$675 M
Growth	\$10 M
Inflationary Adjustment	\$27 M
Updated 2024 Replacement Cost	\$712 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects
Reconstruction of Pony Drive



Stormwater System Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



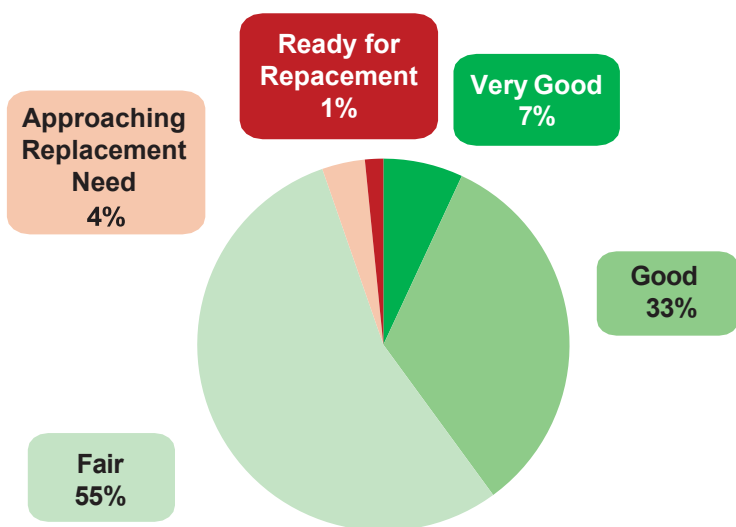
AVERAGE NETWORK CONDITION

FAIR



INVENTORY

Sewers (km): 318
 Maintenance Holes & Catchbasins: 11574
 Oil Grit Separators: 39
 Wet Ponds & LID's*: 57
 *Low Impact Development



INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
 From 94% to 94%*

Approaching Replacement Need/Ready for Replacement
 From 6% to 6%*

**On average, no change in condition category.*

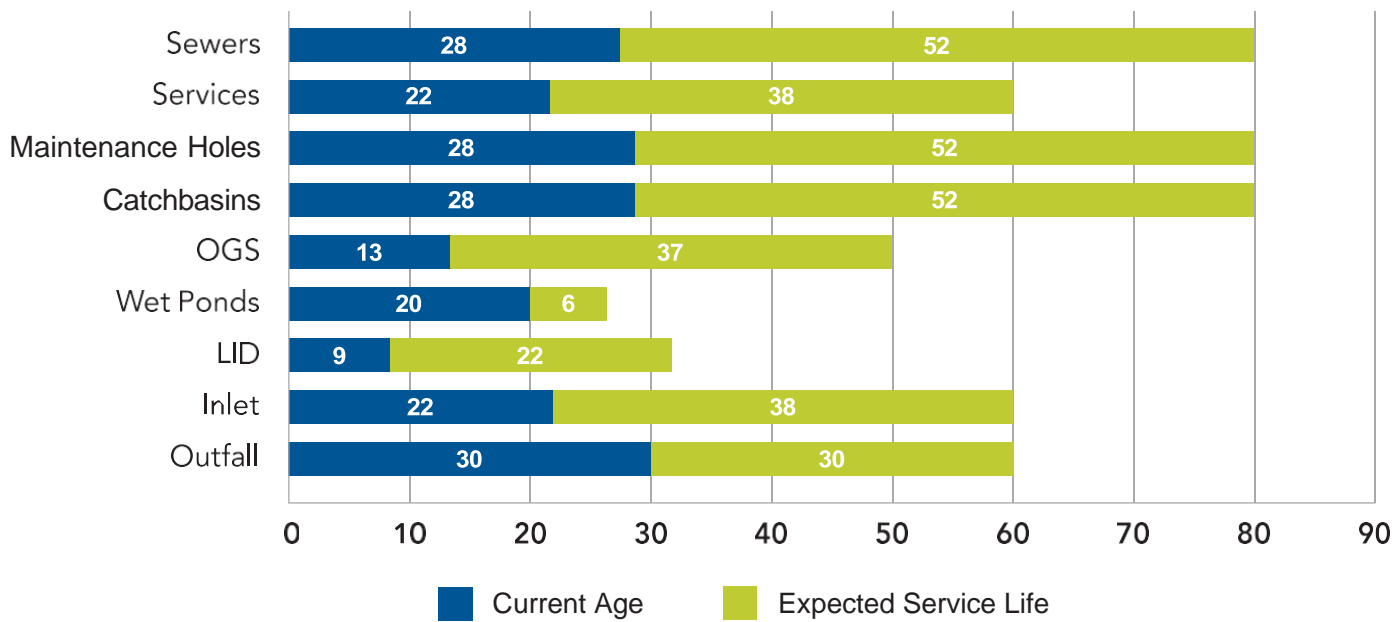
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
 \$858 Million

Replacement Cost Summary	
2023 Replacement Cost	\$836 M
Methodology Refinements	-\$23 M
Growth	\$12 M
Inflationary Adjustment	\$33 M
Updated 2024 Replacement Cost	\$858 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects

Reconstruction of Pony Drive



Parks Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



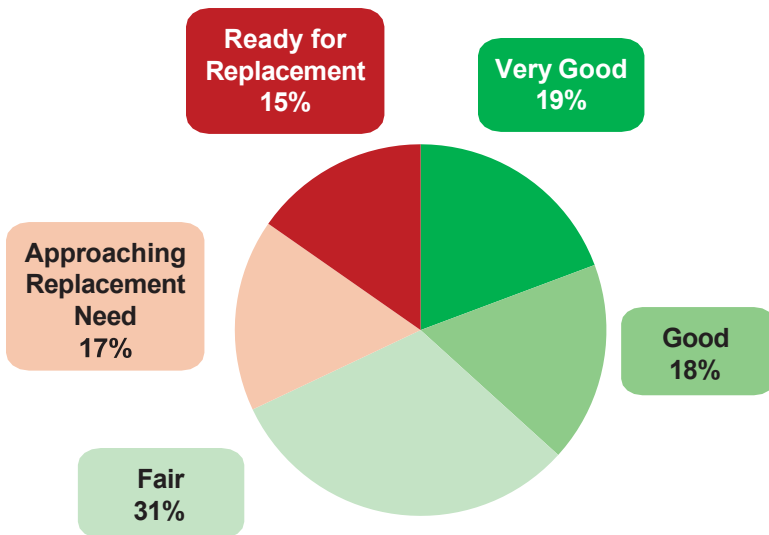
AVERAGE NETWORK CONDITION

FAIR



INVENTORY

Total Assets: 1387
Walkways & Trails (km): 47



INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
From 71% to 68%

Approaching Replacement
Need/Ready for Replacement
From 29% to 32%



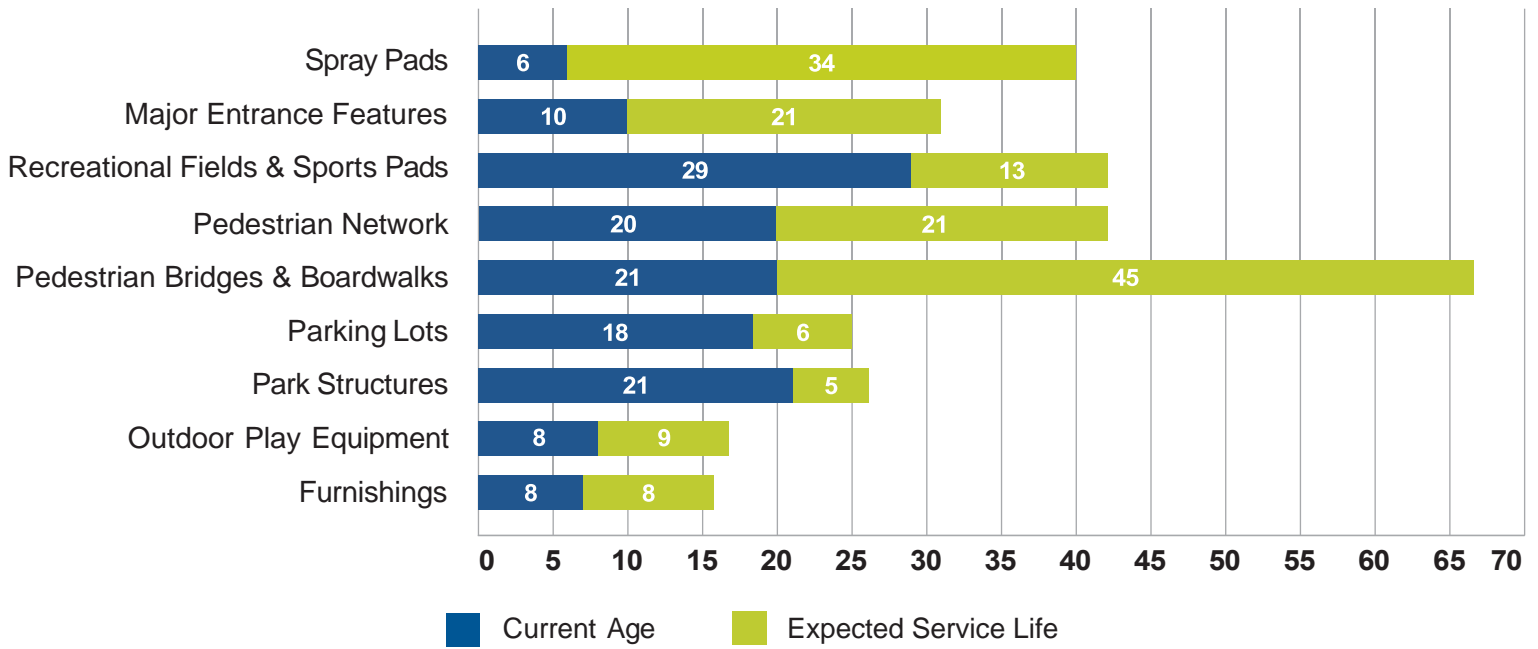
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
\$101 Million

Replacement Cost Summary	
2023 Replacement Cost	\$97 M
Growth	\$0 M
Inflationary Adjustment	\$4 M
Updated 2024 Replacement Cost	\$101 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects
Playground Replacements
Best Family Park Asset Improvements
Joe Persichini Park Sports Court Resurfacing



Facilities Infrastructure Report Card

WHAT CONDITION ARE OUR ASSETS IN?



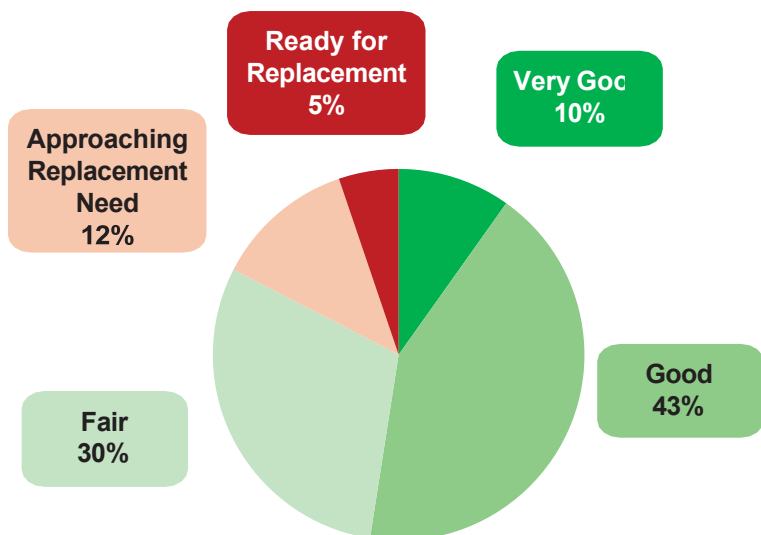
AVERAGE NETWORK CONDITION

GOOD



INVENTORY

Administration and Operations: 13
 Recreation and Community: 22
 Shared Fire Services: 2
 Total: 37



INFRASTRUCTURE CONDITION CHANGES SINCE 2023



Very Good/Good/Fair
 From 88% to 83%

Approaching Replacement Need/Ready for Replacement
 From 12% to 17%



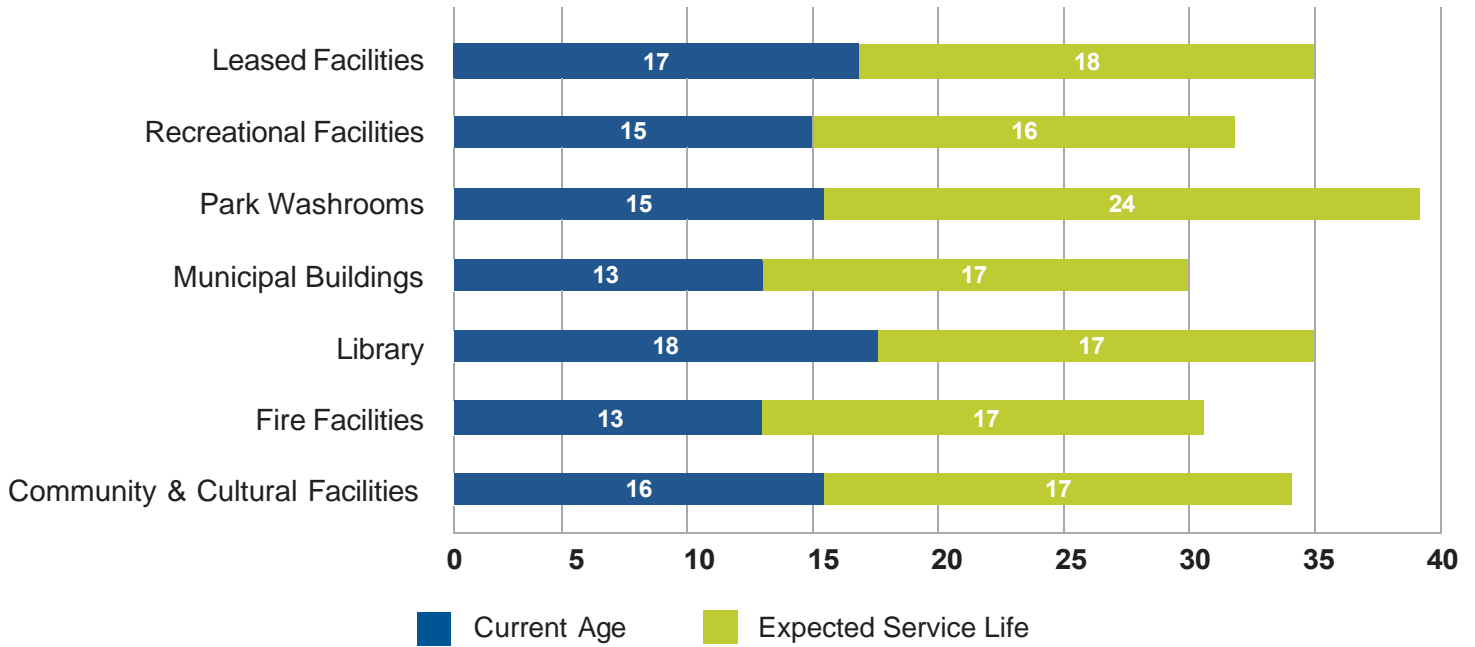
WHAT WOULD OUR ASSETS COST TO REPLACE?



REPLACEMENT COST:
 \$247 Million

Replacement Cost Summary	
2023 Replacement Cost	\$237 M
Growth	\$0 M
Inflationary Adjustment	\$10 M
Updated 2024 Replacement Cost	\$247 M

AGE & USEFUL LIFE EXPECTANCY OF ASSETS



MAJOR 2023 PROJECTS

2023 Projects
Ray Twinney Center Electrical & Mechanical Upgrades
Magna Center Roof Replacements & Control Panel Replacements
Ray Twinney Center Fitness Center Renovation
Other Asset Replacements at Town Offices, Gorman Pool & Old Town Hall