

# CORPORATE STATE OF INFRASTRUCTURE REPORT 2021



# EXECUTIVE SUMMARY

## About the Report

Corporate State of Infrastructure Report (SOIR) is a key reporting document that is produced annually and highlights the condition of Region-owned assets.

## Data Collected From 13 Service Areas

Including Region-owned corporations. The data for the 2021 SOIR is based on the Region's portfolio of assets as of December 31, 2021.

## Region-Owned Organizations:



## 2021 Corporate State of Infrastructure Report Summary

The 2021 Corporate State of Infrastructure Report provides an understanding of the assets owned by the Region that are used to support each service area. This summary provides an overall analysis of how well the Region's infrastructure performed, a snapshot of the current service offerings and future outlook.

The Region's 2021 portfolio replacement cost at the end of Q4 2021 was \$19 billion.

The increase to the **portfolio replacement** cost is due, in large part, to inflation (approximately \$1.9 billion) with some contribution from the addition of assets (approximately \$196.5 million). See **Table 1** for insights into portfolio changes.



## CURRENT REPLACEMENT COST

Calculates cost to replace assets at the current price.

2020 \$16.9 Billion

2021 \$19.0 Billion

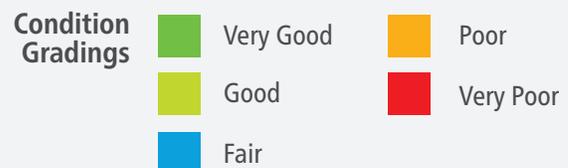


## ASSET CONDITION

Infrastructure condition changes since 2020

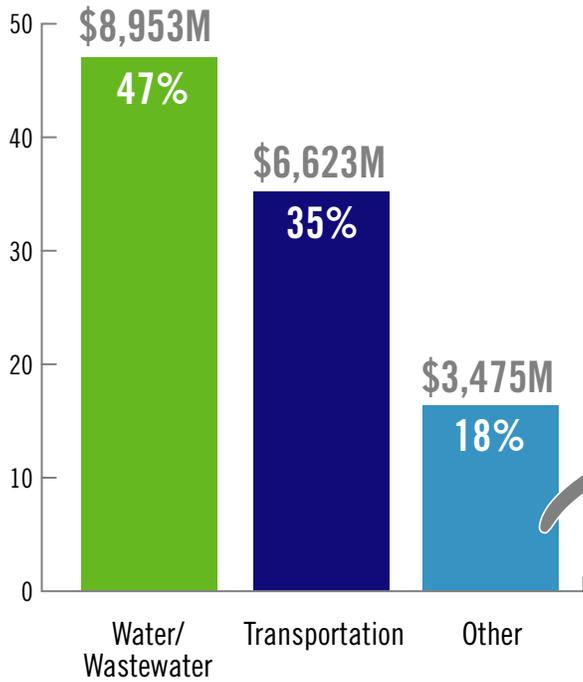
↑ Very Good/Good/Fair from 88% to 89%

↓ Poor/Very Poor from 12% to 11%

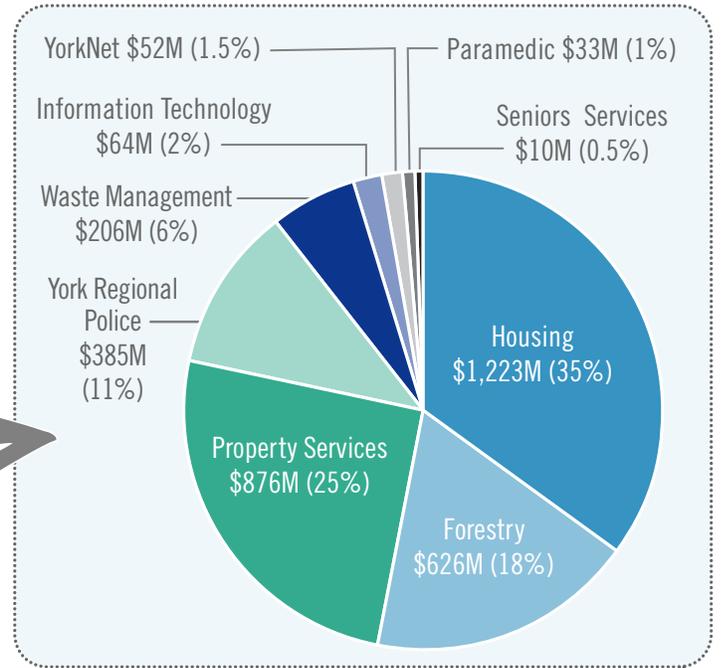


## 2021 Service Area Replacement Values (\$ in Millions):

\*Figures are rounded to nearest whole number



### OTHER SERVICES:



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# INTRODUCTION

In 2018, York Region Council adopted both an update to the Corporate Asset Management Policy and the Region's first Corporate Asset Management Plan. The Corporate Asset Management Plan outlines activities required to meet asset management best practices and comply with Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure. The Policy details the Region's Asset Management objectives and strategic steps to achieve them, as well as roles and responsibilities critical to successful implementation of the Region's asset management programs. Responsibility of asset management is shared across Regional departments and all planning, delivery, operations, maintenance and monitoring functions therein to effectively and continually assess, evaluate and improve asset management programs while delivering services to residents and businesses.

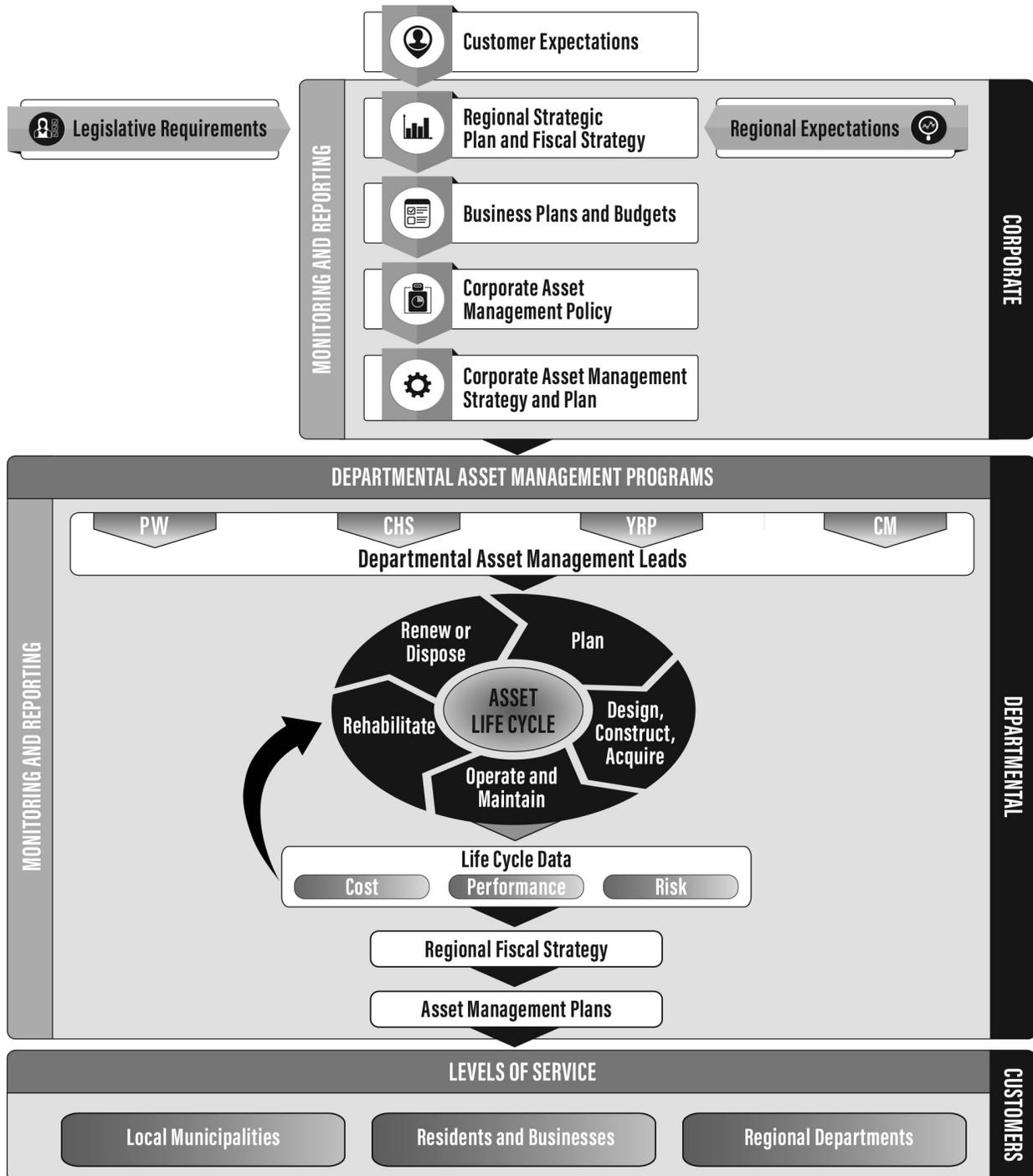
The Region's asset management practice is guided by the following objectives:

- Adopt and advance industry leading asset management practices that align with established standards and legislation
- Provide defined levels of service balancing considerations of costs and risks
- Align Asset Management Plans with the Regional Fiscal Strategy, The 2019-2023 Strategic Plan and Vision
- Demonstrate financially sustainable lifecycle management by appropriately balancing cost, risk and performance to achieve full value from assets
- Improve evidence-based decision-making using in-service asset data related to expenditures, operations and maintenance, and
- Ensure organizational accountability and transparency by engaging customers to provide input into asset management planning



## Asset Management Framework:

To meet the Region's Corporate Asset Management Policy objectives, the Region follows the Corporate Asset Management Framework. The framework represents the Region's asset management process and stakeholders: Corporate, Departmental, and Customers. The asset management process begins with the alignment of legislative requirements and customer expectations into the Regional Strategic Plan and Fiscal Strategy to ultimately deliver levels of services to both external and internal customers.



### DEPARTMENTAL ASSET MANAGEMENT LEADS:

PW - Public Works

CHS - Community & Health Services

YRP - York Regional Police

CM - Corporate Management (Including Corporate Services & Finance)

**Table 1 - York Region Service Areas (\$19 Billion)**

Service Area	2021 Replacement Cost (\$ M)	2020 * Replacement Cost (\$ M)	Year Over Year Change (\$ M) (%)	Key Replacement Changes
<b>Wastewater</b>	\$6,240.7	\$5,320.1	\$920.6 17%	Wastewater Service completed a new six-kilometre YDSS Forcemain twin in Newmarket with a replacement value of \$125 million.
<b>Roads</b>	\$4,553.5	\$4,148.0	\$405.5 10%	Roads Service added \$51.5 million in new, replaced and/or rehabilitated assets to their portfolio value including: Leslie Street improvement from Elgin Mills Road to 19 <sup>th</sup> Ave (12.4 lane-kms), the rehabilitation of 175 lane-kms and preservation of 82 lane-kms of Regional roads and the completion of traffic control system upgrades.
<b>Water</b>	\$2,712.0	\$2,359.0	\$353.0 15%	Water Service continues to have 95% of its assets in fair or better condition and had no major changes to the portfolio. Observed changes to the portfolio replacement cost are attributable to inflation.
<b>Transit</b>	\$2,069.2	\$2,063.0	\$6.2 0.3%	Transit Service continues to increase the electric bus fleet, adding more e-buses to the fleet in 2021, contributing to the \$24.8 million of assets added, rehabilitated and replaced. This was balanced by decommissioned assets valued at \$18.6 million, including the decommissioning of older fleet vehicles.
<b>Housing Services</b>	\$1,223.0	\$1,002.0	\$221.0 22%	Housing Service portfolio increased by \$221 million, this significant increase was attributed to an inflationary adjustment of 21.7% to replacement values as a result of construction price increases as indicated by Statistics Canada <a href="#">Canadian Building Construction Price Index for Residential markets</a> .
<b>Property Services</b>	\$876.4	\$816.8	\$59.6 7%	Property Service portfolio added two new Paramedic Response Stations and decommissioned two older facilities updating the portfolio condition rating to 100% in fair or better condition.
<b>Forestry</b>	\$626.3	\$544.9	\$81.4 15%	The Forestry Services portfolio added 1,340 street trees to the inventory, 700 m of new access trails, 4.7 km of enhanced streetscape assumed from Transportation Capital Projects, and 142 ha added to the York Regional Forest (Queensville Property).
<b>York Regional Police</b>	\$384.9	\$349.3	\$35.6 10%	The York Regional Police added \$13.2 million in new and rehabilitated assets to the portfolio. Inflation led to an increase of \$26.5 million to the portfolio replacement cost. YRP decommissioned \$4.1 million worth of assets. Overall, the portfolio replacement cost increased by \$35.6 million from 2020 to 2021.
<b>Waste Management</b>	\$206.2	\$179.4	\$26.8 15%	Waste Management's increase in replacement cost was attributed to an inflationary adjustment. Other changes include the move of the Georgina Transfer Station's Household Hazardous Waste trailer to the Material Recovery Facility and a temporary storage tent was decommissioned at Georgina Transfer Station.

Service Area	2021 Replacement Cost (\$ M)	2020 * Replacement Cost (\$ M)	Year Over Year Change (\$ M) (%)	Key Replacement Changes
Information Technology	\$63.7	\$72.2	(\$8.5) -12%	Information Technology Services portfolio decreased by \$8.5 million, which can be attributed to decommissioning of \$20 million in assets (servers, storage hardware, etc.) including: \$9.2 million from an inventory update and \$10.8 million decommissioned in 2021. New and updated assets included network and data centre infrastructure (phones, routers, servers, storage, and security) offsetting the decommissioning of assets by \$11.5 million.
YorkNet	\$51.9	\$37.3	\$14.6 39%	YorkNet's portfolio added \$11 million in assets, expanding the network by 452 kms, and contributing to an increase of 26.9% to the portfolio's replacement cost, alongside inflation.
Paramedic Services	\$33.2	\$28.6	\$4.6 16%	Paramedic service portfolio replaced 13 existing and added three new ambulances to the fleet contributing to a net increase of \$600,000 in replacement value. This together with decommissioning of assets and updated replacement values amounted to an overall increase of \$4.6 million.
Senior Services	\$10.1	\$7.4	\$2.7 36%	The inventory of Senior Services assets was updated to include the security camera system with an estimated replacement value of \$193K which had not been reported in previous SOIRs. The remainder of the updated replacement cost is attributable to updated market pricing as surveyed from suppliers and vendors, in addition to inflationary increases.

\*The 2020 data has been updated since last reported.

**Table 2 – Grading Methodology: Performance Criteria Definitions**

<b>Reliability</b>	Measures the quality of service the infrastructure delivers. The grade reflects factors such as regulatory standards, risk, health and safety, and security.
<b>Capacity</b>	Measures the capacity available to meet servicing needs, which generally declines as demand for services rises. The grade considers both current and projected demand.
<b>Condition</b>	Measures the physical condition, which generally declines as infrastructure ages. The grade is based on observed damage and deterioration.

**Table 3 – Grading Methodology: Forecast Future State Definitions**

	<b>State is expected to improve:</b> infrastructure investments and asset management practices are improving in order to rehabilitate and replace aging infrastructure.
	<b>State to be maintained:</b> infrastructure investments and asset management practices are established and the performance of assets is expected to be steady in order to maintain the grade.
	<b>State expected to degrade:</b> infrastructure may be at risk – opportunities exist to improve future asset performance to prevent a declining grade.

## Table 4 - Service Area Profile Summary

The following table provides a summary of the 2021 Replacement values, grades, trends, and future outlook by service area. The overall service area portfolio grades are based on asset reliability, capacity and condition metrics. These metrics will undergo more detailed review leading up to the Corporate Asset Management Plan update in 2024 and are subject to change as a result of continuous improvement efforts.

Service Area	Overall Grade & Trend	Replacement Value	Grade & Trend (→) to 2024		
			Reliability	Capacity	Condition
Wastewater	A →	\$6,240.7	A →	A →	A →
Roads	B →	\$4,553.5	A →	B →	B →
Water	A →	\$2,712.0	A →	A →	B →
Transit	B →	\$2,069.2	A →	B ↗	B →
Housing Services	B →	\$1,223.0	B →	B →	B →
Property Services	A →	\$876.4	A →	n/a	A →
Forestry	B →	\$626.3	A →	A →	B →
York Regional Police	B →	\$384.9	A →	B →	B →
Waste Management	B →	\$206.2	B →	A →	B →
Information Technology	B →	\$63.7	B →	A →	B ↘ <sup>1</sup>
YorkNet	A →	\$51.9	A →	A →	A →
Paramedic Services	A →	\$33.2	A →	A →	B →
Senior Services	A →	\$10.1	A →	A →	B →

<sup>1</sup> With condition being age-based and the current global supply constraints, delays in refresh schedules are expected which will result in assets being extended beyond their useful life.

## Table 5 – Grading Definitions

Grade	Definition
(A) <b>Very Good</b>	<b>Fit for the future:</b> Well maintained, good condition, new or recently rehabilitated.
(B) <b>Good</b>	<b>Adequate for now:</b> Acceptable, generally approaching mid-stage of expected service life.
(C) <b>Fair</b>	<b>Requires attention:</b> Signs of deterioration, some elements exhibit deficiencies
(D) <b>Poor</b>	<b>Increasing potential of affecting service:</b> Approaching end of service life, below standard, significant deterioration.
(F) <b>Very Poor</b>	<b>Near of past service life:</b> advanced deterioration, assets may be unusable.



# WASTEWATER SERVICES

## Replacement Cost:

**\$6,240.7 M**

## Performance Grade:

**A**

## Condition (Fair or Better)

**94%**

### Asset Portfolio:

- 6 Solar Arrays at Wastewater Sites
- 230 kms Trunk Sewers including Manholes
- 138 kms Sanitary Force mains
- 8 Odour Control Facilities
- 2 Equalization Tanks
- 1 Wastewater Treatment Lagoon
- 1 (co-owned with Durham) Water Pollution Control Plant
- 6 Water Resource Recovery Facilities
- 21 Wastewater Pumping Stations

### Changes in Asset Portfolio:

- Commissioning of the new 6 kms YDSS Force main twin in Newmarket in 2021

In York Region, wastewater services are delivered through a two-tier system. The Region is responsible for major pumping stations, trunk sewers and treatment facilities, whereas local municipalities are responsible for local wastewater collection and local pumping.

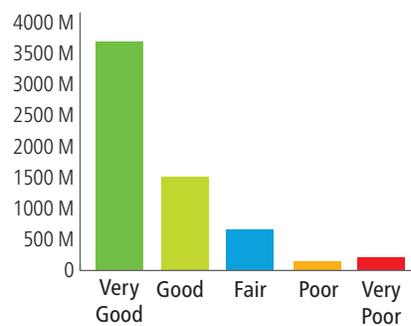
### Replacement Cost Summary:

2020 Replacement Cost	\$5,320.1 M
Changes:	\$920.6 M
New, Replaced, and Upgraded Assets	\$125.4 M
Updated Replacement Cost	\$795.2 M
Decommissioned Assets	\$0 M
2021 Replacement Cost	\$6,240.7 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	A	→

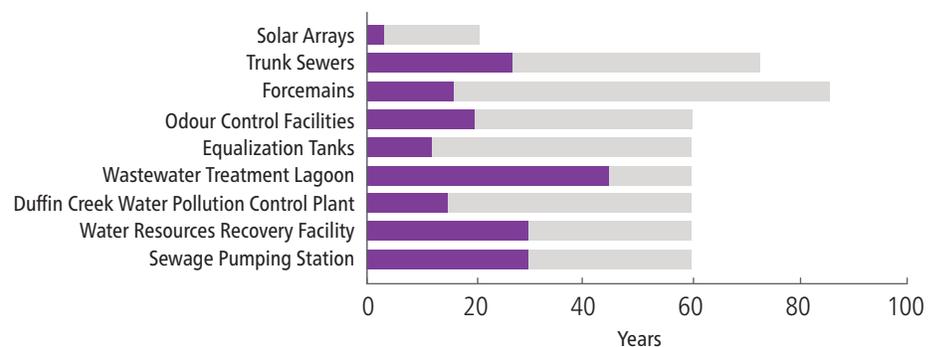
### Condition (\$M)



Assets on average have 71% of their useful life remaining.

Public Works reviews and updates its replacement cost models on a regular basis to reflect changing conditions and new information.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Region has several upcoming capital projects to maintain its ability to meet current and projected wastewater requirements, including: Duffin Creek WPCP upgrades; various Water Resource Recovery Facility and Sewage Pumping Station upgrades as determined through the Region's multi-year inspection program; and, Trunk Sewer rehabilitation.



# ROADS

## Replacement Cost:

**\$4,553.5 M**

## Performance Grade:

**B**

## Condition (Fair or Better)

**71%**

### Asset Portfolio:

- 4,382 lane-kms of Regional Roads
- 1,845 kms of Storm Pipes, Outfalls and Ditches
- 151 Bridges and 208 Structural Culverts
- 87 Retaining Walls
- 37,900 Signs
- 531 Managed Vehicles and Equipment
- 5 Maintenance Facilities

### Changes in Asset Portfolio:

- Leslie Street improvement from Elgin Mills Road to 19<sup>th</sup> Ave (12.4 Lane-kms)
- Rehabilitated 175 lane-kms and preserved 82 lane-kms of Regional roads
- Performed major rehabilitations of various structural culverts (>3m span), which contributed to improved asset conditions
- Completed traffic control system upgrade on Regional road network

York Region manages over 4,300 lane kilometres of Regional roads. York Region's roads are maintained and improved regularly, assisting in the safe and efficient transport of goods and people. York Region provides many routine and by-request services to ensure that motorists are safe and that the road network is maintained.

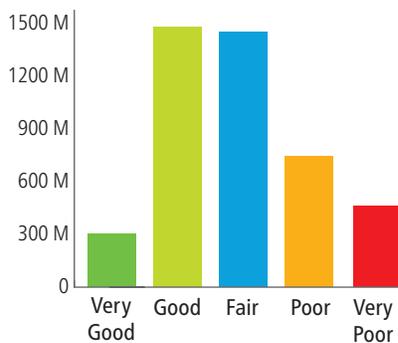
### Replacement Cost Summary:

2020 Replacement Cost	\$4,148 M
Changes:	\$405.5 M
New, Replaced, and Upgraded Assets	\$51.5 M
Updated Replacement Cost	\$354.0 M
Decommissioned Assets	\$0 M
2021 Replacement Cost	\$4,553.5 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	B	→
Condition	B	→

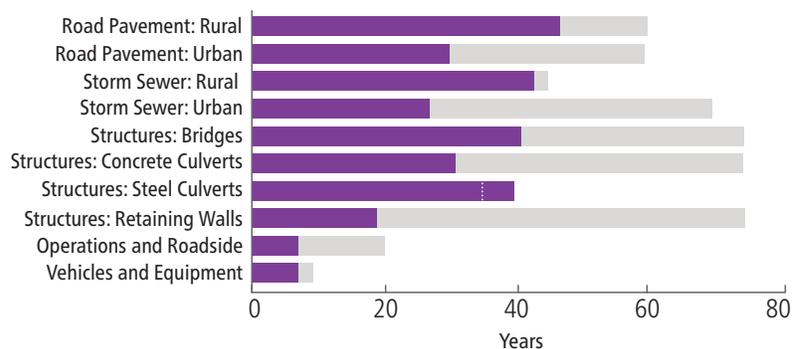
### Condition (\$M)



The average asset has reached 57% of its useful life.

1.4% of replacement value is planned to be spent in the 2022 budget on rehabilitation and replacement.

### Average Age and Useful Life Expectancy (YRS)



Where the average age of the asset class exceeds its Useful Life Expectancy, the purple bar extends beyond the gray bar and is noted by a hatched white line.

### Future Outlook

The Region has several upcoming capital projects planned to enhance its ability to meet current and projected transportation demands, including roads capital improvement projects detailed in the 10-year Roads Capital Plan, various road pavement rehab and preventative treatment projects, and bridge and culvert rehab/replacement projects. A sustainable funding source is developed annually in partnership with Finance that is used to prevent the degradation of assets, and ensure assets in poor or very poor condition can be rehabilitated or replaced.



# WATER SERVICES

In York Region, water services are delivered through a two-tier system. The Region is responsible for securing and delivering drinking water to the nine local municipalities, which in turn distribute it to residents and businesses.

**Replacement Cost:**  
**\$2,712 M**

**Performance Grade:**  
**A**

**Condition (Fair or Better)**  
**95%**

### Asset Portfolio:

- 8 Solar Arrays at Water Facility Sites
- 5 Storage at Grade
- 360 kms Transmission Mains including Chambers
- 22 Pumping Stations
- 10 Storage Reservoirs
- 29 Elevated Tanks
- 24 Groundwater Treatment Facilities (including 40 production wells)
- 2 Surface Water Treatment Plants

### Changes in Asset Portfolio:

- No major changes in asset inventory in 2021

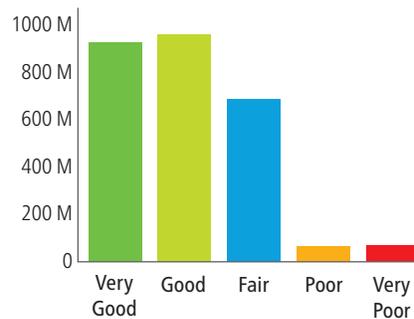
### Replacement Cost Summary:

2020 Replacement Cost	\$2,359 M
Changes:	\$353 M
New, Replaced, and Upgraded Assets	\$0 M
Updated Replacement Cost	\$353 M
Decommissioned Assets	\$0 M
2021 Replacement Cost	\$2,712 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	B	→

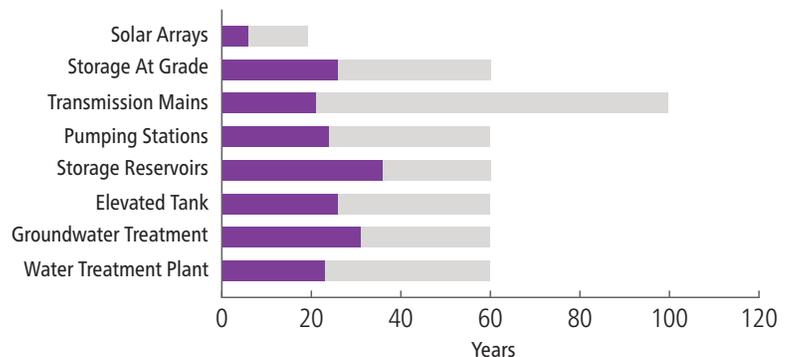
### Condition (\$M)



Assets on average have 67% of their useful life remaining.

Public Works reviews and updates its replacement cost models on a regular basis to reflect changing conditions and new information.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Region has several upcoming capital projects planned to maintain its ability to meet current and projected water demands, including: Elevated tank and Reservoir upgrades as determined through the Region's multi-year inspection program; Groundwater Treatment improvements as determined by the Groundwater Treatment Strategy; Water transmission main replacements; and Lake Simcoe Mussel Control Strategy.



# TRANSIT

## Replacement Cost:

**\$2,069.2 M**

## Performance Grade:

**B**

## Condition (Fair or Better)

**89%**

### Asset Portfolio:

- 434 Conventional York Regional Transit (YRT) Buses, which includes 11 Electric Buses
- 107 Bus Rapid Transit (Viva) Buses
- 36 Mobility Plus Buses
- 7 Region Owned Terminals, 4 Garages
- 5,000+ Transit Stops including Platforms, Shelters and Coordinated Street Furniture
- Transit Management Systems and Equipment

### Changes in Asset Portfolio:

- Improvements on buildings, garages and terminals, including completion of the facility improvement project at 18110 Yonge Street
- Replacement and addition of bus fleet (particularly further addition to the new electric buses)
- Completion of 34 kilometres of VIVA bus rapidway lanes

This service area provides reliable, convenient and seamless travel across the nine local municipalities, and easy access to the Toronto Transit Commission, Brampton Transit, and provincial GO Transit systems.

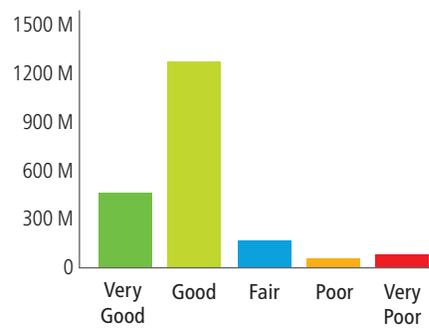
### Replacement Cost Summary:

2020 Replacement Cost	\$2,063 M
Changes:	\$6.2 M
New, Replaced, and Upgraded Assets	\$24.8 M
Updated Replacement Cost	\$0 M
Decommissioned Assets	(\$18.6) M
2021 Replacement Cost	\$2,069.2 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	B	↑
Condition	B	→

### Condition (\$M)

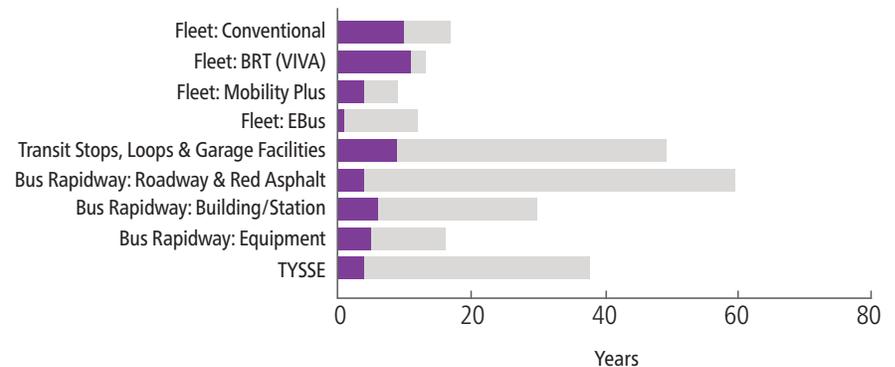


The average asset has reached 29% of its useful life.

100% of bus fleet vehicles with end of life replacement scheduled in future budget.

Each transit stop and terminal is inspected at various frequencies throughout the year and any deficiencies are reported as part of the inspection.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

Transit has several upcoming capital projects planned to enhance its ability to meet current and projected public demands, including active expansion construction at 55 Orlando and planned expansion activity at 8300 Keele (anticipated completion in 2026). A robust plan to continue replacing end of life bus fleet vehicles, to address the current status of an average age of 10 years for transit fleet with a significant portion being in the 10-15 years range.



# HOUSING SERVICES

As Housing Service Manager, York Region funds more than 6,893 units, of which 2,860 are owned and managed by Housing York Inc. (HYI), York Region's municipal housing corporation. The HYI data includes 103 emergency and transitional housing units.

## Replacement Cost Summary:

2020 Replacement Cost	\$1,002 M
Changes:	\$221 M
New, Replaced, and Upgraded Assets	\$4 M
Updated Replacement Cost	\$217 M
Decommissioned Assets	\$0 M
<b>2021 Replacement Cost</b>	<b>\$1,223 M</b>

## Performance Grade:

Criteria	Grade	Trend
Reliability	B	→
Capacity	B	→
Condition	B	→

### Replacement Cost:

**\$1,223 M**

### Performance Grade:

**B**

### Condition (Fair or Better)

**100%**

### Asset Portfolio:

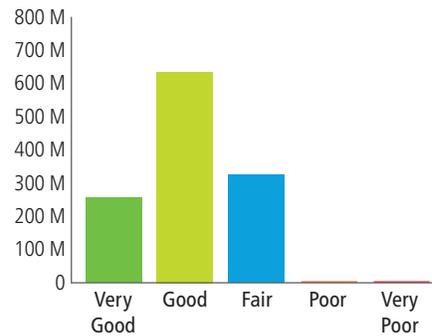
- 4 Emergency and Transitional Housing Facilities
- 7 Townhouse Complexes
- 20 Mid- or High-rise Housing Apartment Buildings
- 11 Low-rise Housing Apartment Buildings

### Changes in Asset Portfolio:

- No major changes in asset inventory in 2021

\*An inflationary adjustment of 21.7% was applied to replacement values. This adjustment is much higher than in recent years to capture the significant increases in construction prices over the past year. Rate is based on the 4th Quarter 2021 Canadian Building Construction Price Index for Residential markets.

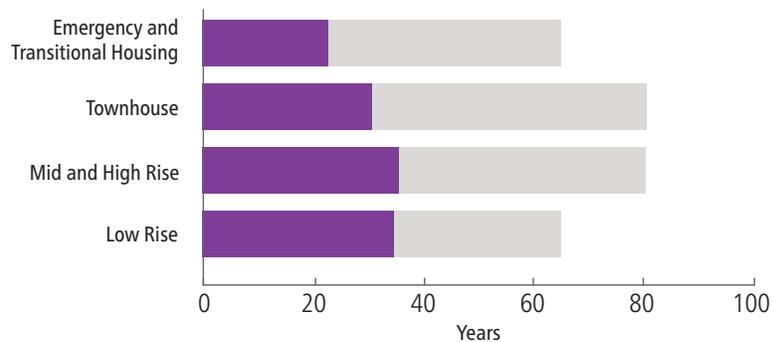
## Condition (\$M)



The average asset has reached 45% of its useful life.

\$10.8 M is budgeted on average each year for capital rehabilitation and replacement.

## Average Age and Useful Life Expectancy (YRS)



## Future Outlook

The Region has several upcoming capital projects planned to enhance the housing stock, including: 265 seniors housing apartment units in Markham - anticipated partial occupancy in late 2022 with full occupancy in 2023; 7 mixed housing apartment units in Whitchurch-Stouville - anticipated completion Q4 2023; and 26 units of transitional housing - 8 units in Georgina and 18 units in East Gwillimbury (anticipated completion in Q2 2022).



# PROPERTY SERVICES

### Replacement Cost:

**\$876.4 M**

### Performance Grade:

**A**

### Condition (Fair or Better)

**100%**

### Asset Portfolio:

- 4 Administrative Office Facilities
- 4 Mixed Use Facilities
- 2 Long Term Care Homes
- 19 Paramedic Response Stations (owned)
- 5 Road Maintenance Yards

### Changes in Asset Portfolio:

- Addition of Paramedic Response Stations at 12388 Woodbine, Gormley and 107 Glen Cameron, Thornhill/Markham
- Two of the facilities at 62 and 80 Bayview Parkway were decommissioned

Property Services plans for growth and upgrade of Regional facilities, acquires property for Regional uses, manages capital construction projects, and is responsible for facility maintenance and day to day building operations, including security and parking services.

### Replacement Cost Summary:

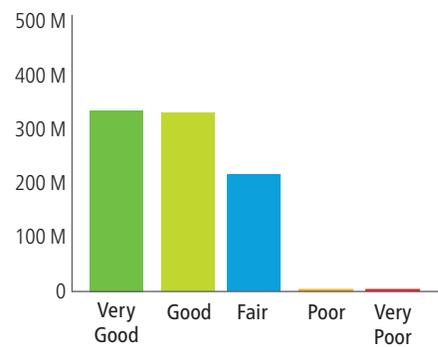
2020 Replacement Cost	\$816.8 M
Changes:	\$59.6 M
New, Replaced, and Upgraded Assets	\$8.3 M
Updated Replacement Cost	\$64.9 M
Decommissioned Assets	(\$13.6 M)
2021 Replacement Cost	\$876.4 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	N/A*	N/A
Condition	A	→

\*Property Services did not report on capacity for 2021. Capacity grade is intended to measure the asset's ability to provide accommodation space for staff; however, as the COVID-19 Pandemic continued in 2021 so did the requirement for staff to work from home which meant the true capacity of the assets could not be measured for 2021.

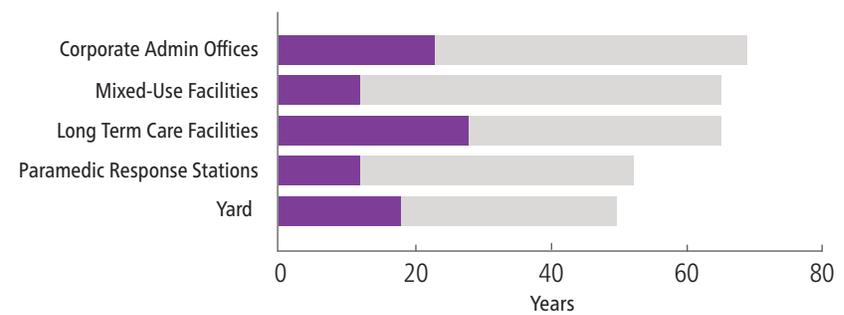
### Condition (\$M)



On average, over \$8.5 million is spent each year on rehabilitation and replacement.

100% of facilities have work scheduled in the 10-year capital plan.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Property Services asset portfolio is expected to have stable reliability and condition. This will be supported as facilities are renovated and rehabilitated and new buildings are commissioned. Upcoming capital work includes construction of three new Paramedic Response Stations, renovations to the York Region Administrative Centre and implementation of a Multi-year Building Condition Assessment Program.



# FORESTRY SERVICES

York Region owns and manages a diverse network of planted and natural vegetation communities, as well as associated recreational and supporting infrastructure collectively known as green infrastructure.

**Replacement Cost:**  
**\$626.3 M**

**Performance Grade:**  
**B**

**Condition (Fair or Better)**  
**98%**

### Asset Portfolio:

- Urban Forest: 71,820 street trees, 25,478 shrubs and 62,660 perennials including landscaped boulevard and center median planters
- York Regional Forest: 2,526 hectares including forested and non-forested areas, roads, parking facilities, trails and fences
- The Bill Fisch Forest Stewardship and Education Centre

### Changes in Asset Portfolio:

- 1,340 Street trees added to the inventory
- 700 m of new access trails
- 4.7 km of enhanced streetscape assumed from transportation capital projects
- 142 ha added to the York Regional Forest (Queensville Property)

### Replacement Cost Summary:

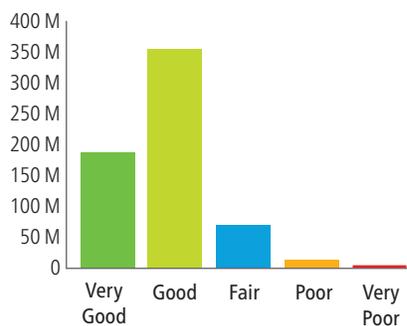
2020 Replacement Cost	\$544.9 M
<b>Changes:</b>	<b>\$81.4 M</b>
New, Replaced, and Upgraded Assets	\$0 M*
Updated Replacement Cost	\$81.4 M
Decommissioned Assets	\$0 M
<b>2021 Replacement Cost</b>	<b>\$626.3 M</b>

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	B	→

\*Replacement Values for new assets are calculated by a third party during each Asset Management Plan update. The next plan update will develop a green infrastructure replacement cost model with functionality to calculate updated replacement values for new assets on demand.

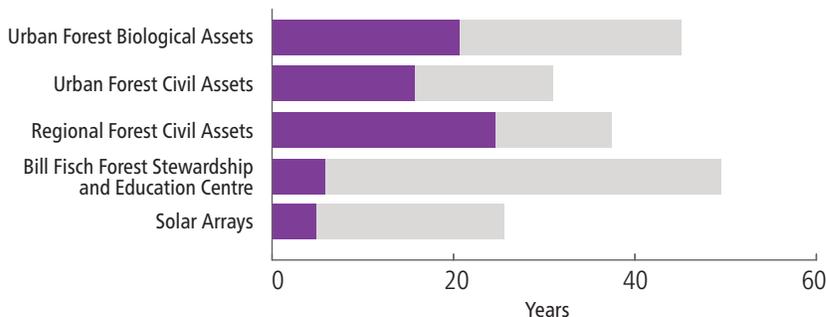
### Condition (\$M)



Assets on average have 52% of their useful life remaining.

York Regional Forest biological assets are excluded from the *Average Age and Useful Life* chart as they are self-sustaining natural communities with no measurable life expectancy.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Region has several projects planned and ongoing to enhance its ability to manage green infrastructure and meet its level of service through: Updating the Green Infrastructure Asset Management Plan; Capital infrastructure improvements in the York Regional Forest; and Expanding and improving the green infrastructure asset inventory and inspection program.



# YORK REGIONAL POLICE

## Replacement Cost:

**\$384.9 M**

## Performance Grade:

**B**

## Condition (Fair or Better)

**94%**

### Asset Portfolio:

- Eight Police-owned Facilities
- Information Technology Assets (Hardware, IT Infrastructure and Applications)
- Fleet:
  - 721 Vehicles
  - One Helicopter
  - Eight Vessels
  - Specialized Equipment
- Telecommunication Towers

### Changes in Asset Portfolio:

- New Marine Facility opened 2020

York Regional Police (YRP) provides crime prevention and law enforcement in the nine local municipalities that comprise York Region. YRP assets support its sworn and civilian member in providing these service. This plan specifically covers assets that supports police when responding to emergency calls.

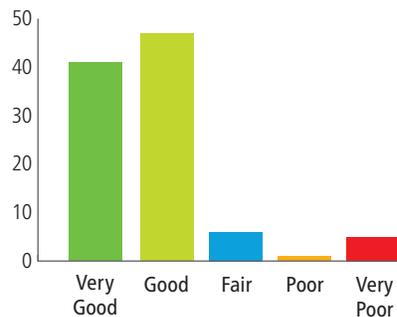
### Replacement Cost Summary:

2020 Replacement Cost	\$349.3 M
Changes:	\$35.6 M
New, Replaced, and Upgraded Assets	\$13.2 M
Updated Replacement Cost	\$26.5 M
Decommissioned Assets	(\$4.1) M
2021 Replacement Cost	\$384.9 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	B	→
Condition	B	→

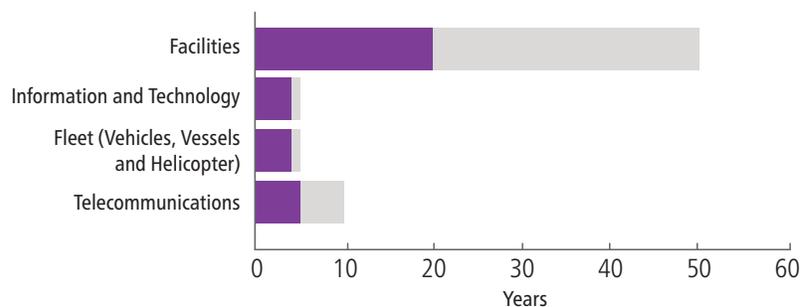
### Condition (%)



Assets on average have 38% of their useful life remaining.

On average, 2.9% of replacement value is spent each year on rehabilitation and replacement.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

Staff are working on a scope of work for consultant assignment to assist with lifecycle and condition evaluation. York Regional Police will continue to add new equipment and fleet assets to meet the Region's growth. York Regional Police will be adding the New One District Headquarters (Facility) located at 429 Harry Walker Parkway, Newmarket. This will add to the Police-owned facilities. The current One District (240 Prospect Street) will remain as a YRP facility used for other operational needs.



# WASTE MANAGEMENT

This service area works in partnership with the Region's local municipalities to ensure proper processing and disposal of solid waste. It also operates public drop-off depots to supplement curbside service as well as collect materials not managed at curbside, such as: electronic waste, scrap metal, and household hazardous waste.

**Replacement Cost:**  
**\$206.2 M**

**Performance Grade:**  
**B**

**Condition (Fair or Better)**  
**97%**

### Asset Portfolio:

- 2 Community Environmental Centres (each with a Household Hazardous Waste Depot)
- 2 standalone Household Hazardous Waste Depots
- 1 Transfer Station with a Household Hazardous Waste Depot
- 1 co-owned Energy-from-Waste Facility
- 1 Material Recovery Facility and Transfer Station
- 1 Solar Array at a Waste Management Site Centre

### Changes in Asset Portfolio:

- The HHW trailer at Georgina Transfer Station was moved to the Material Recovery Facility
- A temporary storage tent was decommissioned at Georgina Transfer Station

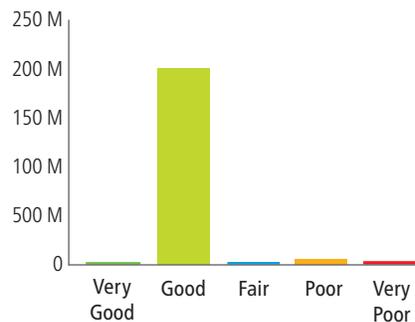
### Replacement Cost Summary:

2020 Replacement Cost	\$179.4 M
<b>Changes:</b>	<b>\$26.8 M</b>
New, Replaced, and Upgraded Assets	\$0 M
Updated Replacement Cost	\$26.8 M
Decommissioned Assets	(\$68.6) K
<b>2021 Replacement Cost</b>	<b>\$206.2 M</b>

### Performance Grade:

Criteria	Grade	Trend
Reliability	B	→
Capacity	A	→
Condition	B	→

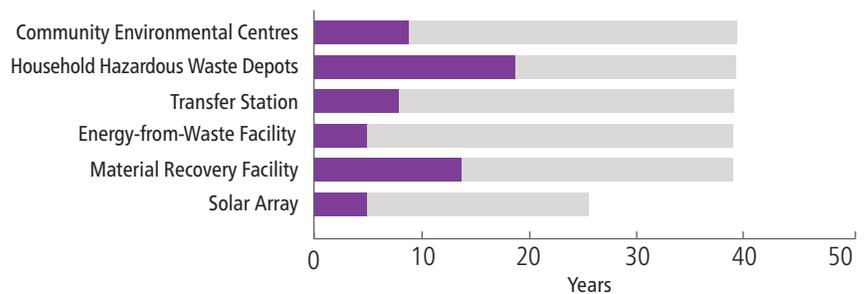
### Condition (\$M)



Assets on average have 74% of their useful life remaining.

York Region's Waste Management facilities are operated by third-party contractors.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Region has several upcoming and ongoing capital projects planned to enhance its ability to meet current and projected solid waste demands, including: Ongoing rehabilitation of Markham Household Hazardous Waste Depot to improve its condition, replacement of equipment at York Region's Waste Management Centre, replacement and upgrades to equipment at drop-off facilities.



# I.T. SERVICES

Replacement Cost:

**\$63.7 M**

Performance Grade:

**B**

Condition (Fair or Better)

**58%**

### Asset Portfolio:

- 20,629 Computers (including Monitors and Docking Stations)
- 924 Printers
- 6,598 Cellular Devices (cell phones, Pagers and Wireless Modems including Machine to Machine)
- 8,333 Network and Data Centre Devices (includes Network Switches, Phones, Firewalls, Routers, Servers and Storage)
- Software (Applications, Systems etc.)

- Overall average of assets in the portfolio have reached 86% of their useful life.

### Changes in Asset Portfolio:

- \$20.0 M in assets retired across all classes and 56% of new assets (by value) were added to Network and Data Centre Infrastructure (including IT Security)

The Finance Department's Information Technology Services (IT Services) Branch is responsible for building, operating and maintaining the Region's corporate technology infrastructure. This includes procuring, operating, maintaining and disposing of end-user devices, network switches, firewalls, routers, servers, software and data centres that make up the technology infrastructure.

### Replacement Cost Summary:

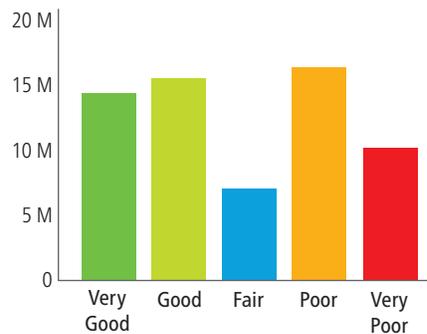
2020 Replacement Cost	\$72.2 M
Changes:	(\$8.5 M)
New, Replaced, and Upgraded Assets	\$11.5 M
Updated Replacement Cost	\$0 M
Decommissioned Assets	(\$20.0 M)
2021 Replacement Cost	\$63.7 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	B	→
Capacity	A	→*
Condition	B	→

\*See Future Outlook below

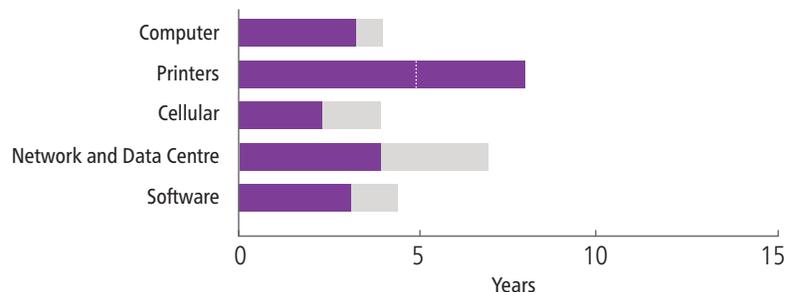
### Condition (\$M)



The following are mitigation measures in ITS to manage potential area of vulnerability to assets and services:

- Purchase extended warranty of assets
- Advance/early ordering to accommodate for the lead times
- Increase the pool of spare assets and parts for replacement/repairs
- Monitor health of assets and gear up team for replacement/repairs

### Average Age and Useful Life Expectancy (YRS)



Where the average age of the asset class exceeds its Useful Life Expectancy, the purple bar extends beyond the gray bar and is noted by a hatched white line.

### Future Outlook

The overall condition grading of the technology asset portfolio is expected to trend downward as interruptions continue with the global technology supply chain. This issue has led to instability in the availability and cost of technology. Delays and impacts are expected in meeting the increasing demand for technology and their respective refresh schedules. As a result, existing assets within the portfolio will continue to be in use beyond their expected life.



# YORKNET

YorkNet (formerly YTN) is a wholly-owned subsidiary of the Region, incorporated on August 9, 2017 under the Business Corporations Act (Ontario). YorkNet is responsible for the planning, acquisition/construction, maintenance, renewal and disposal of the Region's fibre assets.

**Replacement Cost:**  
**\$51.9 M**

**Performance Grade:**  
**A**

**Condition (Fair or Better)**  
**100%**

- Asset Portfolio:**  
 452 kms of network infrastructure made up of:
- Aerial/Buried Fibre
  - Conduit
  - Fibre Optic Splice Enclosures
  - Gators/Traffic Controllers
  - Patch Panels (Connection Points)
  - Manholes
  - Hand-wells

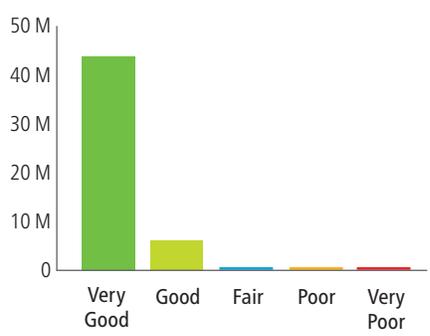
**Replacement Cost Summary:**

2020 Replacement Cost	\$37.3 M
<b>Changes:</b>	<b>\$14.6 M</b>
New, Replaced, and Upgraded Assets	\$11 M
Updated Replacement Cost	\$3.6 M
Decommissioned Assets	\$0 M
<b>2021 Replacement Cost</b>	<b>\$51.9 M</b>

**Performance Grade:**

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	A	→

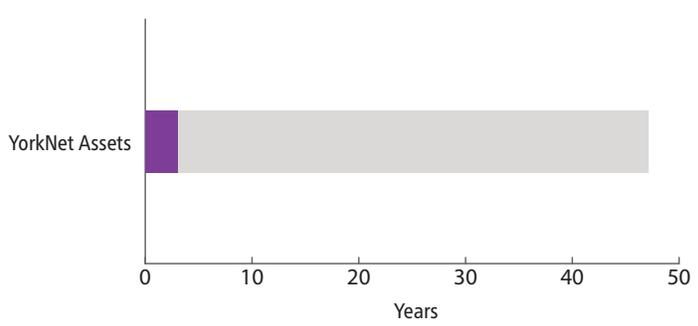
**Condition (\$M)**



The average asset has reached 6.5% of its useful life.

On average, YorkNet plans to spend 2.0% of replacement value on rehabilitation and replacement over the next five years.

**Average Age and Useful Life Expectancy (YRS)**



**Future Outlook**

Future asset requirements are primarily focused on continuing to build the network as quickly as possible. By 2025, the network will have tripled in size going from 450 kms to more than 1,350 kms through the following initiatives: Rural Expansion, Fibre construction in Vaughan, Richmond Hill, Stouffville and Markham, Fibre Swaps and Co-Builds. In addition, YorkNet will be making increased investments in maintenance and repairs while also contributing to long-term asset management reserves.



# PARAMEDIC SERVICES

In York Region, Paramedic Services sits within the Paramedic and Seniors Services branch of the Community and Health Services department. Through Paramedic Services, the Region provides emergency and non-emergency medical response for the Municipalities within York Region.

## Replacement Cost:

# \$33.2 M

## Performance Grade:

# A

## Condition (Fair or Better)

# 63%

### Asset Portfolio:

- 538 Equipment - Defibrillators, Stretchers, Stair Chairs, Powered Air Purifying Respirator
- 90 Ambulances
- 28 Rapid Response Units
- 1 Emergency Support Unit
- 7 Special Response Units
- 1 Multi Patient Ambulance
- 2 Logistics Vehicles
- 2 Trailers

### Changes in Asset Portfolio:

- 2 Paramedic Response Stations
- 3 Ambulances
- 7 Rapid Response Units
- 177 Powered Air Purifying Respirator
- 50 Other Equipment
- 2 Special Response Units

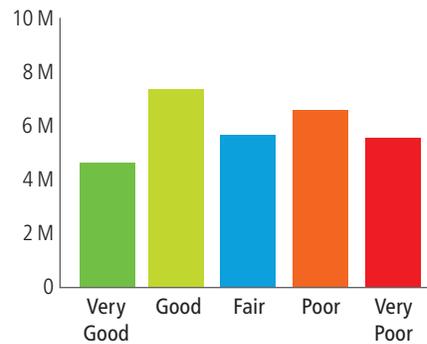
### Replacement Cost Summary:

2020 Replacement Cost	\$28.6 M
Changes:	\$4.6 M
New, Replaced, and Upgraded Assets	\$5.4 M
Updated Replacement Cost	\$1.8 M
Decommissioned Assets	(\$2.6) M
<b>2021 Replacement Cost</b>	<b>\$33.2 M</b>

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	B	→

### Condition (\$M)

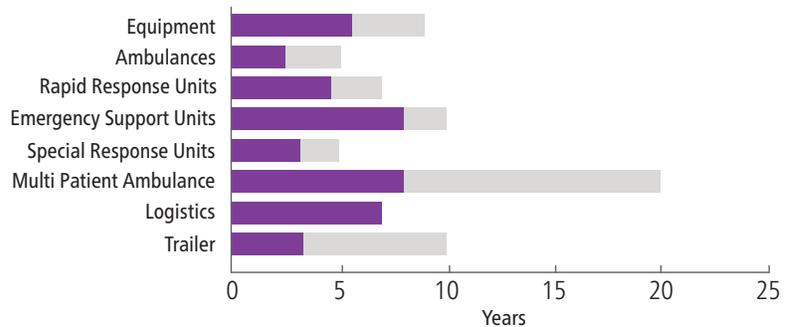


Assets have reached 61% of useful life.

16% of total replacement value was spent on rehabilitation and replacement.

The Region adheres to strict legislative and regulatory requirements related to its fleet and equipment.

### Average Age and Useful Life Expectancy (YRS)



### Future Outlook

The Region has several upcoming capital projects planned to enhance its ability to meet current paramedic response times: Continue to replace medical equipment based on annual replacement program; and update the 10-year Facility and Resources Master Plan to replace response vehicles and increase spare ratio.



# SENIOR SERVICES (LTC)

**Replacement Cost:**  
**\$10.1 M**

**Performance Grade:**  
**A**

**Condition (Fair or Better)**  
**52%**

### Asset Portfolio:

- 196 Resident Unit Interiors - Flooring
- 196 Resident Unit Interiors – Doors, Walls, Ceilings
- 200 Services – Plumbing, Fire Protection
- 246 Equipment – Communications\*
- 32 Equipment – Environmental\*
- 120 Equipment – Kitchen
- 263 Equipment – Lifts, Scales
- 1290 Equipment – Other\*
- 2 Long Term-Care Homes (Reported Under Property Services)

\*Count of inventory may be understated as some assets are pooled and not separately itemized

### Changes in Asset Portfolio:

- Security Cameras

York Region owns and operates two municipal Long-Term Care Homes (Newmarket Health Centre and Maple Health Centre). Newmarket Health Centre has 132 long-term care beds (110 long stay, 19 convalescent care and 3 respite care). Maple Health Centre has 100 long-term care beds (82 long stay, 15 convalescent care and 3 respite care).

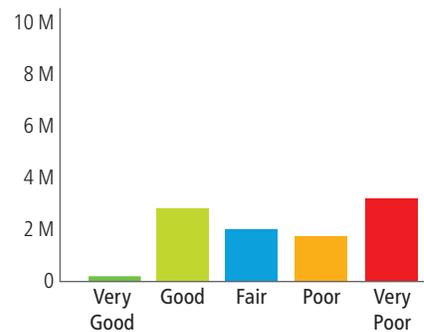
### Replacement Cost Summary:

2020 Replacement Cost	\$7.4 M
Changes:	\$2.7 M
New, Replaced, and Upgraded Assets	\$0.3 M
Updated Replacement Cost	\$2.4 M
Decommissioned Assets	\$0 M
2021 Replacement Cost	\$10.1 M

### Performance Grade:

Criteria	Grade	Trend
Reliability	A	→
Capacity	A	→
Condition	B	→

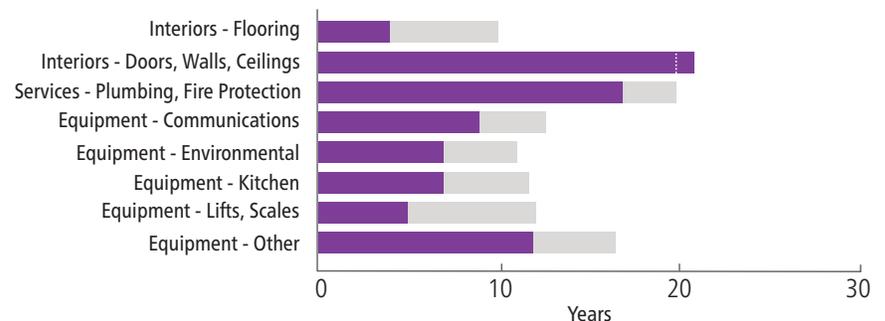
### Condition (\$M)



The average asset has reached 64% of its useful life.

3% of replacement value was spent in 2021 on rehabilitation and replacement.

### Average Age and Useful Life Expectancy (YRS)



Where the average age of the asset class exceeds its Useful Life Expectancy, the purple bar extends beyond the gray bar and is noted by a hatched white line

### Future Outlook

The Region has several upcoming minor capital projects planned in accordance with the asset replacement schedule. These include: nurse call system, resident beds, ceiling lifts, portable lifts, kitchen equipment, flooring in resident rooms and movable furnishings.

# CONCLUSION

As of December 2021, the Region of York owned and managed a portfolio of infrastructure assets with a replacement cost of over \$19 billion. 89% of these assets are in fair to very good condition, receiving an overall average grade of B+.

Assets are vital to support the range of services delivered to the community. York Region is required to plan for Provincial Growth Plan forecasts for a population of 2.02 million and 990,000 jobs to 2051. This represents the addition of approximately 800,000 people and 345,000 jobs between 2021 and 2051. Infrastructure system vitality is key to ensuring services are provided reliably.

To improve on future state of infrastructure, reporting focus will be on:

- Defining community and technical levels of service and connecting them with enabling assets;
- Creating quantifiable measures to determine grades;
- Improvement on asset condition evaluation methods; and
- Continuing to commit resources towards asset management.

Playing a critical role in asset management decision making, service areas are further developing their current and targeted levels in 2022/2023. To gauge where they are in the process and help focus efforts, service areas completed a maturity assessment in Q4 2021.

Each asset group has its own data methodology for generating, assessing, and evaluating the state of inventory and performance data. To ensure accuracy and consistency of the state of infrastructure reporting, continual effort and improvements are made toward data quality by way of data standards, sources, and quality assurance programs.

The next State of Infrastructure Report will be released in 2023.