

Water



REPLACEMENT COST

\$1,501,106,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

93%

ASSET PORTFOLIO

- ▶ **1,174** kilometres of watermains
- ▶ **91,000** service connections with meters
- ▶ **54,014** valves
- ▶ **10,609** hydrants
- ▶ **10,652** chambers
- ▶ **2** water pumping stations

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 3,450 metres of new watermains.

FUTURE OUTLOOK

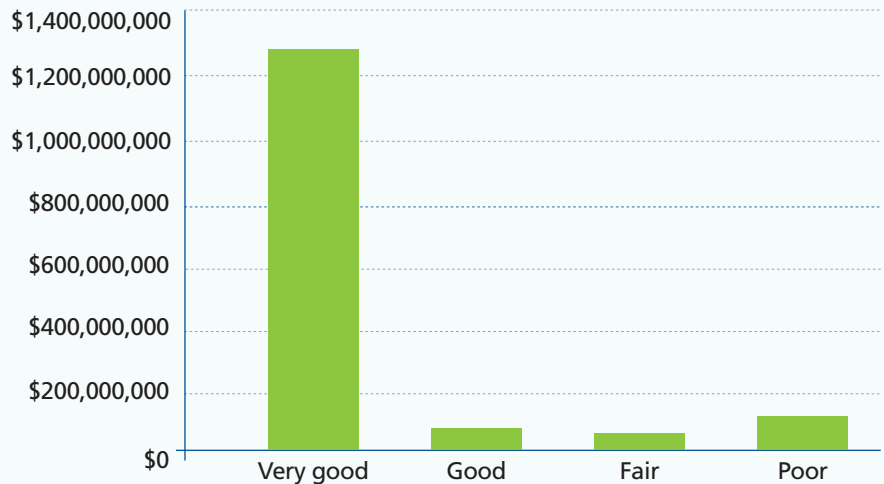
In 2024, the City will initiate a multi-year watermain condition assessment program to provide up-to-date information on Vaughan's watermains.

The City of Vaughan's water service provides drinking water and fire protection services to approximately 335,000 residents and 19,500 businesses. The City manages a reliable water system, that provides sufficient quality flow and safe and drinkable water to all residential, industrial, commercial and institutional customers.

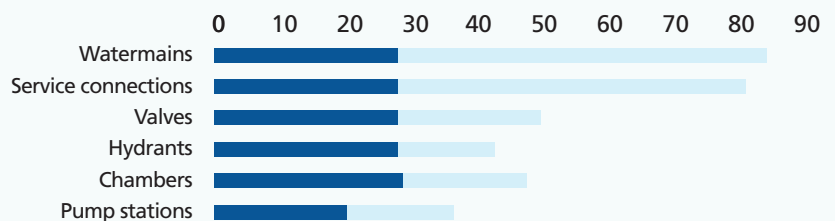
Replacement cost summary

2022 replacement cost		\$1,468,349,000
Changes		\$32,757,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$32,757,000	
Decommissioned assets	\$0	
2023 replacement cost		\$1,501,106,000

Condition



Average age and useful life expectancy in years



Wastewater



REPLACEMENT COST

\$1,120,943,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ **1,024** kilometres of wastewater mains
- ▶ **91,000** laterals
- ▶ **16,592** maintenance holes
- ▶ **12** water pumping stations
- ▶ **1** generator station

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 320 metres of new wastewater mains and lined 470 metres of existing wastewater mains.

FUTURE OUTLOOK

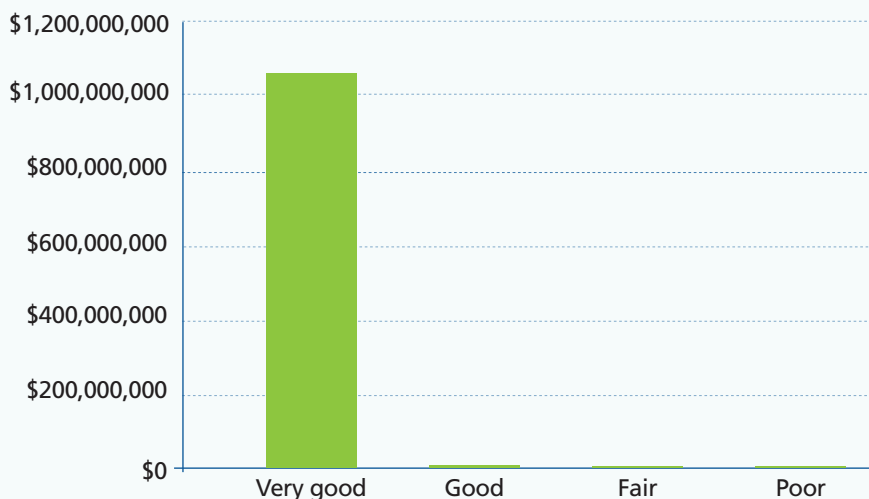
The City will continue closed-circuit television on Vaughan's pipe network to update pipe condition data in 2024.

The City of Vaughan's wastewater infrastructure is a combination of linear sewers (pipes) and pumping stations that collect residential, commercial and industrial wastewater through gravity and force mains. This infrastructure discharges the collected wastewater into regional wastewater treatment plants, where it is cleaned and returned to the environment.

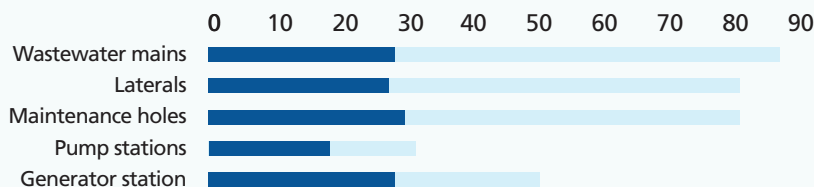
Replacement cost summary

2022 replacement cost	\$1,092,521,000	
Changes	\$28,422,000	
New and upgraded assets	\$430,000	
Asset evaluation improvements and inflation	\$27,992,000	
Decommissioned assets	\$0	
2023 replacement cost	\$1,120,943,000	

Condition



Average age and useful life expectancy in years



Stormwater



REPLACEMENT COST

\$2,360,598,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ **1,173** kilometres of stormwater mains
- ▶ **91,000** laterals
- ▶ **16,221** maintenance holes
- ▶ **22,478** catch basins
- ▶ **352** culverts
- ▶ **794** inlet-outlet structures
- ▶ **489** devices
- ▶ **1** pump station
- ▶ **191** stormwater management ponds

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 870 metres of new stormwater mains and 6 new inlet-outlet structures.

FUTURE OUTLOOK

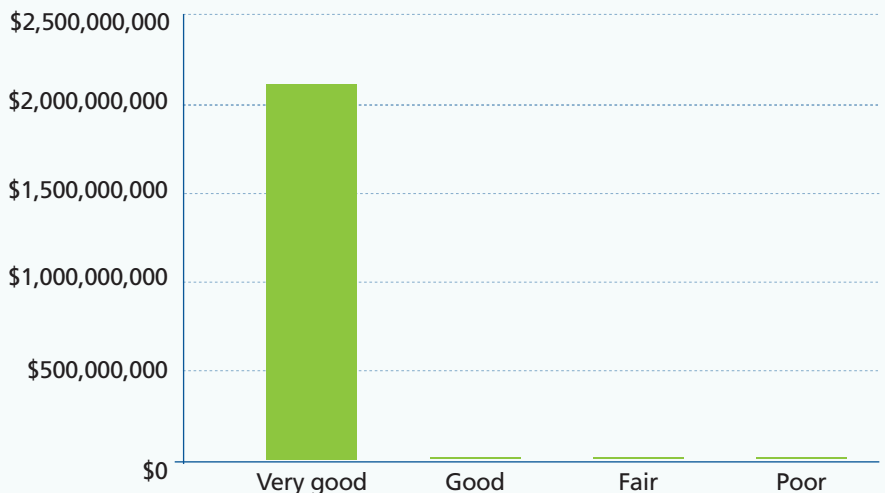
The City will continue closed-circuit television inspections on the entire pipe network to update data in 2024.

The City of Vaughan's stormwater management system is designed to mitigate flooding and minimize hazards during major storm events. The system protects the environment by cleaning stormwater and returning it to the environment. By doing this, the City is helping to preserve this natural resource and protect aquatic life in the natural environment.

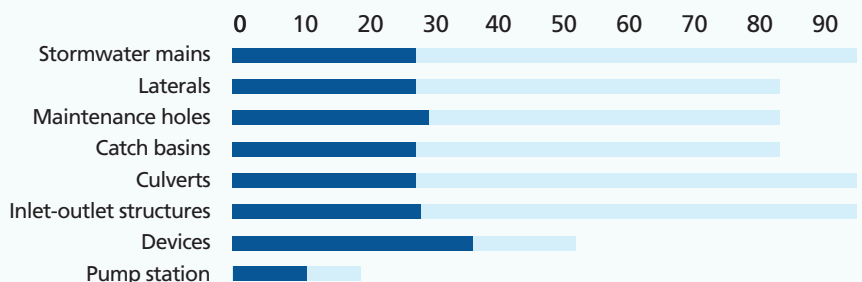
Replacement cost summary

2022 replacement cost	\$2,278,422,000	
Changes	\$82,176,000	
New and upgraded assets	\$13,630,000	
Asset evaluation improvements and inflation	\$68,546,000	
Decommissioned assets	\$0	
2023 replacement cost	\$2,360,598,000	

Condition



Average age and useful life expectancy in years



Roads



REPLACEMENT COST

\$1,499,752,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

100%

ASSET PORTFOLIO

- ▶ **1321** lane-kilometres of local roads
- ▶ **742** lane-kilometres of collector roads
- ▶ **101** lane-kilometres of rural roads
- ▶ **8** lane-kilometres of laneways

CHANGES IN ASSET PORTFOLIO

In 2023, the City rehabilitated 46 lane-kilometres of road.

FUTURE OUTLOOK

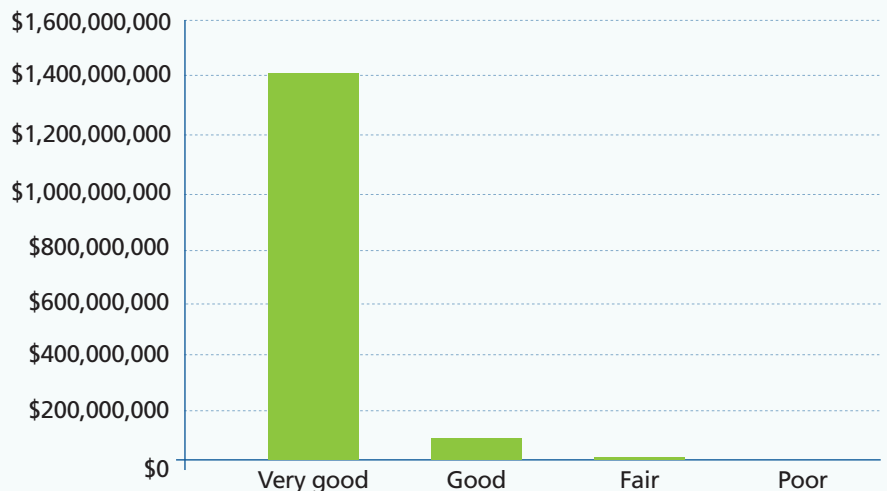
The City has several capital projects planned for 2024 to meet current and future transportation demands including preservation, rehabilitation and replacement of road pavement.

City of Vaughan-owned roads are efficiently maintained to enable safe and effective travel. The City is dedicated to achieving high-quality standards in the maintenance of its road assets through road inspections, crack sealing, pothole repairs and more.

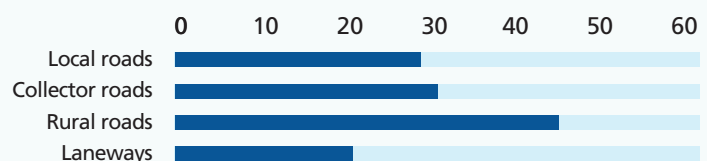
Replacement cost summary

2022 replacement cost		\$1,472,115,000
Changes		\$27,637,000
New and upgraded assets	\$20,901,000	
Asset evaluation improvements and inflation	\$6,736,000	
Decommissioned assets	\$0	
2023 replacement cost		\$1,499,752,000

Condition



Average age and useful life expectancy in years



Bridges and Major Culverts



REPLACEMENT COST

\$271,190,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

100%

ASSET PORTFOLIO

- ▶ 27 vehicular bridges
- ▶ 46 pedestrian bridges
- ▶ 5 pedestrian tunnel culverts
- ▶ 80 concrete culverts
- ▶ 34 steel culverts

CHANGES IN ASSET PORTFOLIO

In 2023, the City rehabilitated 1 vehicular bridge and replaced 2 pedestrian bridges and 4 road culverts.

FUTURE OUTLOOK

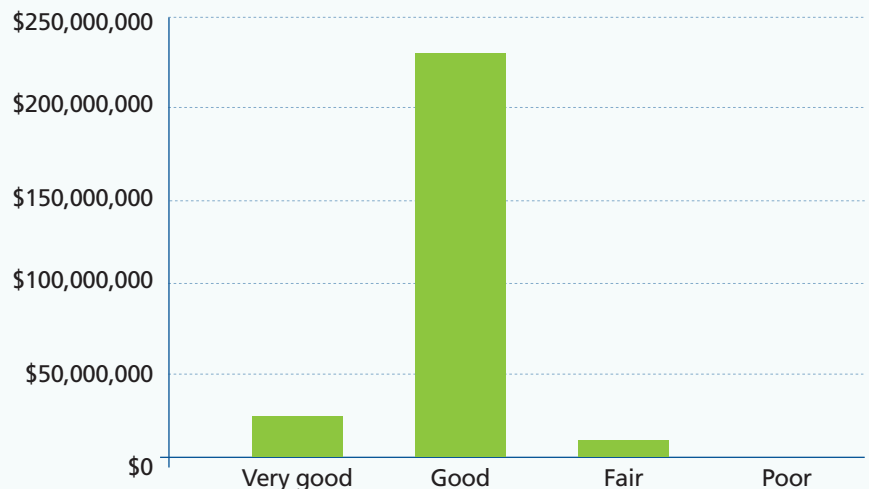
The City has several capital projects planned for 2024 to meet current and future transportation demands including preservation, rehabilitation and replacement of bridges and major culverts.

City of Vaughan-owned bridges and major culverts are managed in accordance with Provincial Bridge Legislation and Guidelines. These assets are controlled based on biennial field inspections by qualified experts to identify structural issues and concerns following the Ontario Structure Inspection Manual.

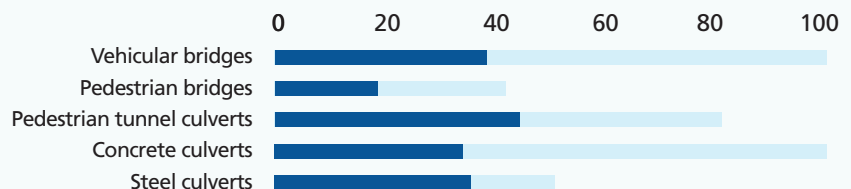
Replacement cost summary

2022 replacement cost		\$218,273,000
Changes		\$52,917,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$52,917,000	
Decommissioned assets	\$0	
2023 replacement cost		\$271,190,000

Condition



Average age and useful life expectancy in years



Facilities



REPLACEMENT COST

\$680,475,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ **2** administration buildings
- ▶ **13** community centres and other City facilities
- ▶ **10** fire stations
- ▶ **19** heritage buildings
- ▶ **10** libraries
- ▶ **21** parks facilities
- ▶ **14** water pumping stations
- ▶ **7** seniors clubs
- ▶ **6** sport buildings
- ▶ **3** yards
- ▶ **3** others
- ▶ **26** tanks and generators

CHANGES IN ASSET PORTFOLIO

In 2023, The Sports Village was added to the City's facilities portfolio.

FUTURE OUTLOOK

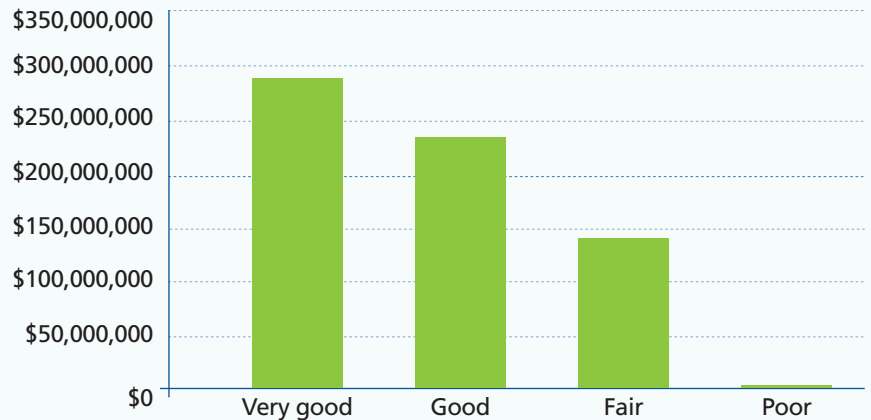
Carrville Community Centre is a new City-owned facility under development, which will be added to the facilities portfolio in 2024.

The City of Vaughan operates more than 100 properties, facilities and buildings. These facilities provide a wide range of services and programs offered by the City. Vaughan's Facility Management team focuses on the effective property management services of these assets, to ensure each facility meets functional requirements, such as building and safety codes.

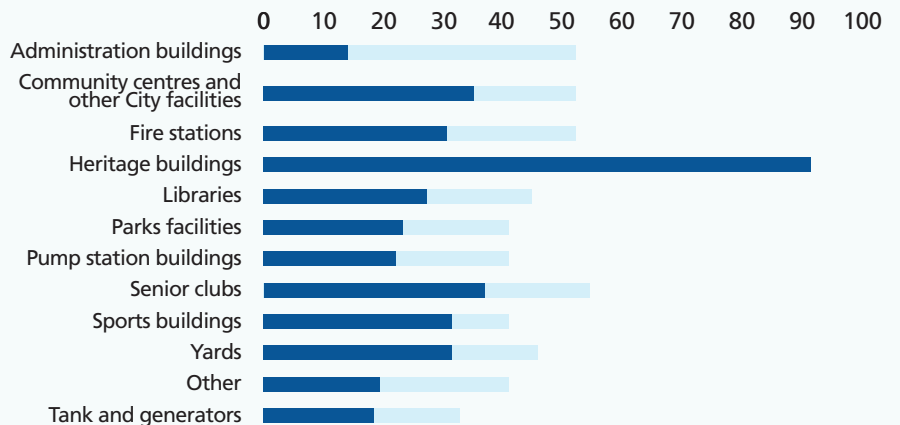
Replacement cost summary

2022 replacement cost		\$590,785,000
Changes		\$89,690,000
New and upgraded assets	\$41,625,000	
Asset evaluation improvements and inflation	\$48,065,000	
Decommissioned assets	\$0	
2023 replacement cost		\$680,475,000

Condition



Average age and useful life expectancy in years



Parks



REPLACEMENT COST

\$273,304,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ 233 parks
- ▶ 62 baseball diamonds
- ▶ 76 basketball courts
- ▶ 23 bocce courts
- ▶ 5 ice rinks
- ▶ 10 skate parks
- ▶ 149 soccer fields
- ▶ 136 tennis courts
- ▶ 277 playgrounds
- ▶ 21 splashpads

CHANGES IN ASSET PORTFOLIO

In 2023, the City updated cemetery assets and developed new condition assessment scores.

FUTURE OUTLOOK

In 2024, the City plans to:

- refine replacement costs based on capital project expenditures.
- refine playground condition scores based on inspections done by Parks Operations staff.
- investigate the use of drones for monitoring and assessing parks.

The City of Vaughan's park network features more than 230 locations across 640 hectares of land in Vaughan. The City's Parks Operations team manages these assets to ensure they meet the needs of current and future generations.

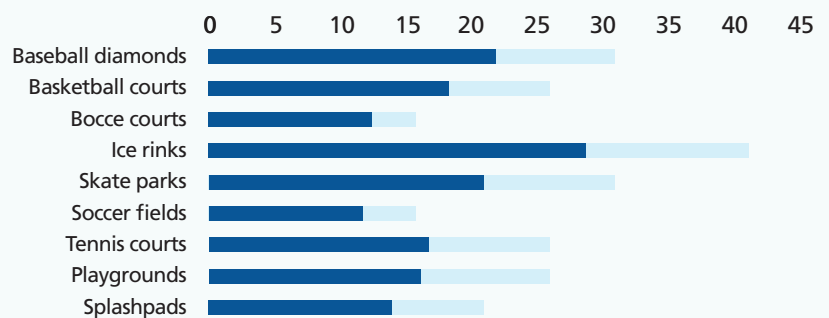
Replacement cost summary

2022 replacement cost	\$242,550,000	
Changes	\$30,754,000	
New and upgraded assets	\$3,813,000	
Asset evaluation improvements and inflation	\$26,941,000	
Decommissioned assets	\$0	
2023 replacement cost	\$273,304,000	

Condition



Average age and useful life expectancy in years



Urban Forestry



REPLACEMENT COST

\$117,121,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

77%

ASSET PORTFOLIO

▶ **129,508** street trees

CHANGES IN ASSET PORTFOLIO

In 2023, the City aligned its Asset Management Plan with the Urban Forest Management Plan.

FUTURE OUTLOOK

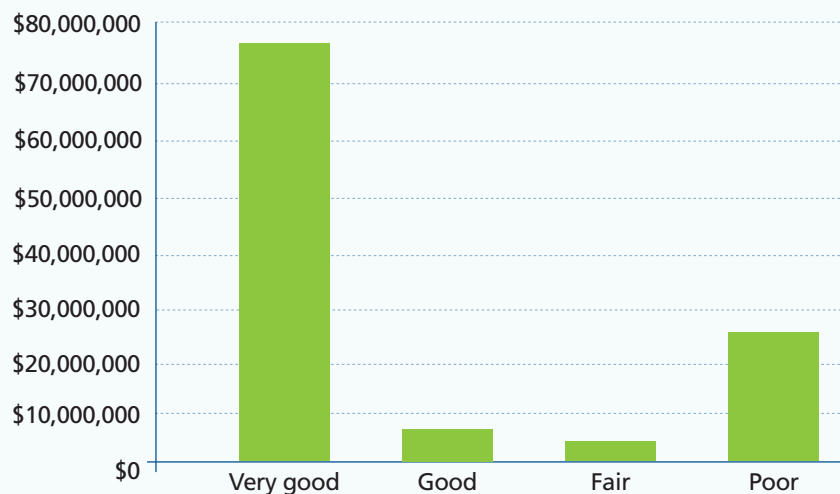
The City will work to integrate the Woodland Management Strategy into the Asset Management Plan in 2024.

The Forestry Operations team manages 130,000 street trees in the Vaughan. Unlike other assets, trees are living, natural assets and increase in value with age for most of their lifecycle. The City of Vaughan recognizes the significant role that the urban tree canopy plays in providing an improved quality of life. Preserving and protecting the health of trees will help the City achieve its commitment to maintaining and enhancing the urban forest and the environment.

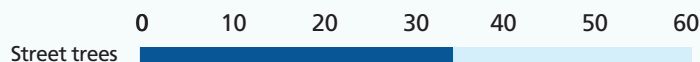
Replacement cost summary

2022 replacement cost		\$114,825,000
Changes		\$2,296,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$2,296,000	
Decommissioned assets	\$0	
2023 replacement cost		\$117,121,000

Condition



Average age and useful life expectancy in years



Active Transportation



REPLACEMENT COST

\$227,776,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

94%

ASSET PORTFOLIO

- ▶ **1120** kilometres of sidewalks and walkways
- ▶ **14** kilometres of cycle tracks
- ▶ **41** kilometres of in-boulevard multi-use pathways
- ▶ **52** kilometres of open space multi-use recreational trails

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 6 kilometres of new cycle tracks and 5 kilometres of new in-boulevard multi-use pathways.

FUTURE OUTLOOK

Active transportation infrastructure on local and regional roads will continue to be advanced in 2024 as part of larger capital and development projects and annual planning and implementation budgets.

The City of Vaughan has an expansive active transportation network – and it continues to grow. This network includes more than 1,000 kilometres of pedestrian, cycling and shared-use facilities to get people through the city, in whichever mode of transportation they choose, seamlessly.

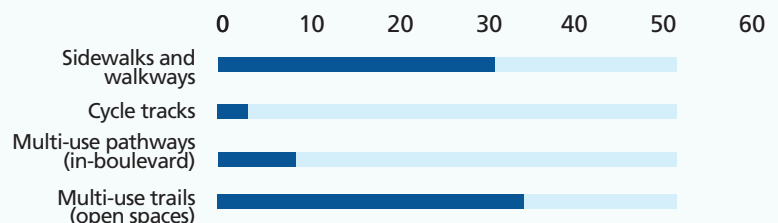
Replacement cost summary

2022 replacement cost	\$217,480,000	
Changes	\$10,296,000	
New and upgraded assets	\$2,820,000	
Asset evaluation improvements and inflation	\$7,476,000	
Decommissioned assets	\$0	
2023 replacement cost	\$227,776,000	

Condition



Average age and useful life expectancy in years



Traffic Control and Streetlights



REPLACEMENT COST

\$226,730,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

77%

ASSET PORTFOLIO

- ▶ **96** traffic signal controls
- ▶ **435** traffic calming measures
- ▶ **23,717** street signs
- ▶ **27,084** streetlights

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 250 new streetlight poles and 300 LED lights.

FUTURE OUTLOOK

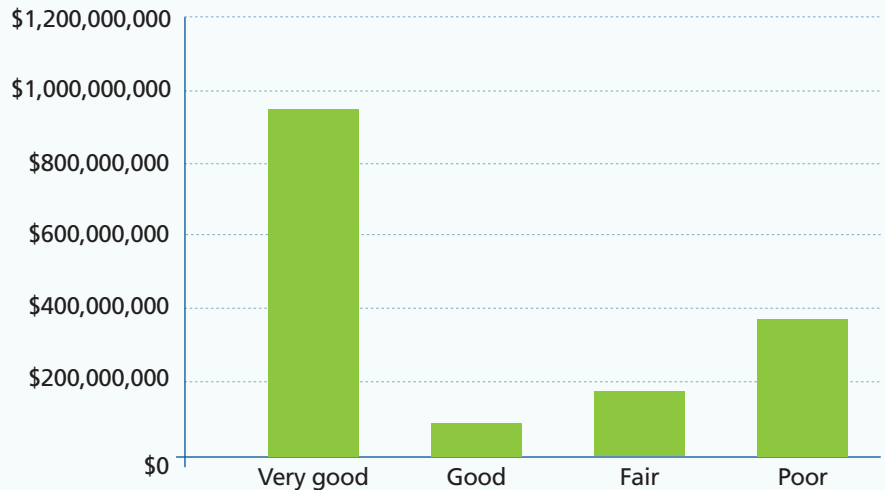
The City will convert all the remaining high-pressure sodium (HPS) streetlights to LEDs and refine replacement costs based on capital project expenditures.

The City of Vaughan's traffic control and streetlight assets are managed by the Traffic Engineering team. These assets include traffic signal controls, traffic signs, traffic calming measures and streetlights.

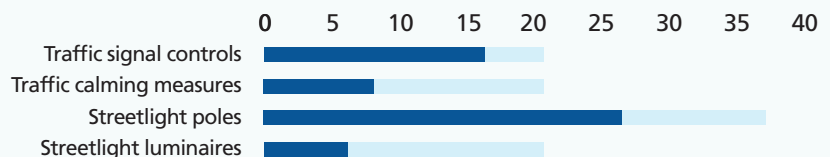
Replacement cost summary

2022 replacement cost	\$184,644,000	
Changes	\$42,086,000	
New and upgraded assets	\$1,367,400	
Asset evaluation improvements and inflation	\$40,718,600	
Decommissioned assets	\$0	
2023 replacement cost	\$226,730,000	

Condition



Average age and useful life expectancy in years



Fleet



REPLACEMENT COST

\$58,789,000

OVERALL CONDITION GRADE

C

CONDITION (FAIR OR BETTER)

49%

ASSET PORTFOLIO

- ▶ 323 vehicles
- ▶ 782 pieces of equipment
- ▶ 79 trailers
- ▶ 22 other

CHANGES IN ASSET PORTFOLIO

In 2023, the City purchased or replaced 12 vehicles, 25 pieces of equipment and 2 trailers.

FUTURE OUTLOOK

The City is considering making new additions to its fleet, which could include fully electric and hybrid vehicles.

Fleet assets – which include City of Vaughan-owned vehicles and equipment – are managed and maintained by the City of Vaughan’s Fleet Management Services department. These vehicles and equipment are utilized by various City departments for their day-to-day operations.

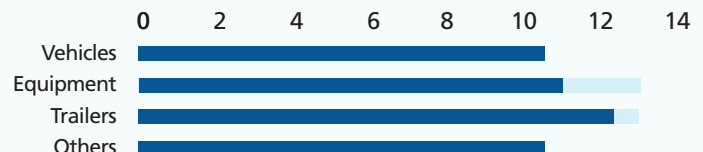
Replacement cost summary

2022 replacement cost		\$39,928,000
Changes		\$18,861,000
New and upgraded assets	\$3,622,000	
Asset evaluation improvements and inflation	\$15,239,000	
Decommissioned assets	-	
2023 replacement cost		\$58,789,000

Condition



Average age and useful life expectancy in years



Fire



REPLACEMENT COST

\$53,170,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

83%

ASSET PORTFOLIO

- ▶ 27 emergency response vehicles
- ▶ 22 passenger vehicles
- ▶ 3,082 pieces of equipment

CHANGES IN ASSET PORTFOLIO

In 2023, the City updated unit costs for vehicles and equipment.

FUTURE OUTLOOK

New emergency response vehicles are planned for in 2024 and 2025.

The City of Vaughan's Vaughan Fire and Rescue Service (VFRS) manages an array of emergency response vehicles and equipment such as fire suppression and support vehicles. VFRS is dedicated to providing efficient emergency response as well as fire protection, prevention, safety and education to those who live, work and visit the city.

Replacement cost summary

2022 replacement cost		\$49,018,000
Changes		\$4,152,000
New and upgraded assets	\$188,000	
Asset evaluation improvements and inflation	\$3,964,000	
Decommissioned assets	\$0	
2023 replacement cost		\$53,170,000

Condition



Average age and useful life expectancy in years

