



2024 Asset Management Plan

Golf
Non-Core Assets
City of Brantford, Ontario



Prepared by: Infrastructure Planning Asset Management, Public Works
Corporation of the City of Brantford, June 2024

RECORD SHEET

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2024 Asset Management Plan	Publishing Date
Council Review	June 4, 2024
Council Approval	June 25, 2024

RECORD SHEET

Asset Management Document Set	Asset Group	First Issuance
Strategic Asset Management Policy	All	May 2019
Asset Management Plan Core Assets Overview	Core Assets Replaced by Core & Non-Core Assets Overview	September 2021
Asset Management Plan, Core Assets	Environmental Services Transportation	September 2021
Asset Management Plan Core & Non-Core Assets Overview	Core & Non-Core Assets	June 2024
Asset Management Plan, Non-Core Assets	Golf	This Document
Asset Management Plan, Non-Core Assets	Airport Cemetery Clerks Services Economic Development & Tourism Facilities Fire Fleet & Transit Forestry & Horticulture Human Resources IT Services Library Parking Parks & Recreation Police Solid Waste	June 2024
Asset Management Plan, Non-Core Assets	Housing JNH	TBD

ASSET MANAGEMENT PLAN GOLF

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GOLF INTRODUCTION

Per O.Reg 588/17 all municipal infrastructure assets which fall outside of the core asset categories (water, wastewater, stormwater and roads) and their respective subcategories, shall be non-core or “other” infrastructure assets. These assets shall have qualitative descriptions and technical metrics established by the municipality.

Table 1 below outlines which Asset Types are included under each Asset Class and will be reported on in this AMP document. In addition, it is important to note that the AMP only includes assets owned by the City or Local Boards and does not include assets that are owned privately or by other organizations.

Golf assets are managed by City staff from the Golf department.

Table 1: Asset Type Breakdown

	Asset Class
	Golf
Asset Type:	Buildings
	Site Works

1. GOLF ASSETS

1.1. INTRODUCTION

The City of Brantford owns and maintains assets under the Golf asset class. The purpose of this section is to present specific information about the Golf asset class to answer the questions posed in **Section 2** of the **Asset Management Plan (AMP) Overview Document**, and includes the following:

- Golf Assets' Data Inventory and Condition Approach;
- Summary of Golf Assets;
- Lifecycle Activities and Cost of Golf Assets;
- Current Golf Assets' Levels of Service;
- Current Golf Assets' Performance; and
- Conclusion.

1.2. GOLF ASSETS' DATA INVENTORY AND CONDITION APPROACH

Information related to the City's data collection methodologies as well as data confidence level definitions are defined in the **Asset Management Plan Overview Document**.

The City of Brantford currently has three (3) approaches to establishing the inventory and condition of Golf assets due to available resources, technologies, and budget restrictions:

- Condition assessments outsourced to consultants;
- Periodic inspection programs conducted by City staff; and
- Estimated condition based on asset specific information.

A list of all condition assessments for all non-core assets can be found in **Table 7** in the **Asset Management Plan Overview Document**.

The origin of the Golf asset data for inventory, replacement cost, and condition, as well as data confidence in each are provided in **Table 2** below.

Table 2: Golf Assets' Data Origin and Confidence Level

	Inventory			Replacement Cost			Condition		
Asset Type	Inventory (incl. Quantity and Age) From	Data Confidence Level	Data Confidence Description	Replacement Cost From	Data Confidence Level	Data Confidence Description	Condition From	Data Confidence Level	Data Confidence Description
Buildings	Inventory from GIS Staff Knowledge	High	Verified by Staff	.Tangible Capital Asset Registry .Industry Reference .Staff Knowledge	Medium	Estimated costs	Age	Medium	Recent construction for one building; others based on age
Site Works	Inventory from GIS Staff Knowledge	Medium	GIS requires updated field verification	.Tangible Capital Asset Registry .Staff Knowledge	Medium	Estimated costs	Age	Medium	Condition mostly based on age; informal inspections by staff

Per **Table 2** above, Golf assets' data for all three criteria are typically at a Medium to High confidence level with an overall average confidence level of Medium for all asset categories.

Replacement costing for Buildings is based on estimates provided from recent construction contracts, an industry standard cost guide published by a third party or Tangible Capital Asset costs brought forward to 2024 \$ from their original purchase/install dates. Replacement costing for site works is based on a combination of standard unit costs developed internally by the City for estimation purposes based on previous jobs, estimates provided in condition assessments, staff knowledge and based on costing information from the Tangible Capital Asset registry (TCA).

1.2.1 SERVICE LIFE

Formal condition assessments are periodically completed on Golf assets but informal ones are more frequent. Where formal condition assessments have not been completed in the last five years, the condition has been estimated based on the estimated service life of the asset shown below in **Table 3**. The average overall estimated service life for assets can be found in **Table 5**. Provided that assets are maintained they are expected to remain structurally sound and functional under normal conditions for the Estimated Service Lives outlined below before replacement or significant rehabilitation is required. Environmental conditions and operating practices may result in a shorter or longer useful lifetime.

Table 3: Golf Assets' Estimated Service Life

Asset Class	Estimated Service Life
Buildings	Buildings are composed of various sub-systems including structure, mechanical and electrical with different service lives. The different sub-system Estimated Service Lives are as follows: Structure & Substructure: 80 years Mechanical: 30 years Electrical: 25 years Interior: 15 years
Site Works	Benches: 25 years Bunker Drainage: 10 years Fencing: 20 years Fuel Storage: 20 years Garbage Cans: 5 years Golf Bunker Sand: 7 years Golf Green: 25 years Golf Tees: 20 years Golf Practice Tees: 10 years Irrigation Ponds: 50 years Irrigation Pump Station: 20 years Irrigation Systems: 10 years Lighting: 25 years Light Supports: 40 years Parking Lots & Site Roads: 30 years Pathways: 30 years Retaining Walls: 25 years Security: 15 years Signs: 10 years

Golf specific lifecycles based on *Golf Course Items Expected Lifecycle* by the American Society of Golf Course Architects (ASGCA).

1.2.2 CONDITION SCORING

For the purpose of this report and standardizing condition scores across all assets in the Asset Management Plan, the Condition Rating is defined by three (3) Condition Scores as defined in the table below. For assets with formal consultant condition assessments, the conditions have been modified to fit into this model.

Table 4: Condition Score Description

Condition Score	Condition Rating	Description
1 – 1.4	Good	Assets are in working order/healthy, have no or minor deficiencies/no signs of disease or infestation. Where condition data is not available, this category applies to assets which are within the first 40% of their estimated service life.
1.5 – 2.4	Fair	Assets show general signs of deterioration/age, some elements may have significant deficiencies/signs of disease or infestation, and asset will likely require repairs/removal in the next 10 years. Where condition data is not available, this category applies to assets which are within 41% - 80% of their estimated service life.
2.5 - 3	Poor	Asset is below standard showing signs of significant deterioration, is in danger of imminent failure, and will require repair, replacement or removal within the next year. Where condition data is not available, this category applies to assets which have exceeded 80% of their estimated service life.

1.3. SUMMARY OF GOLF ASSETS

The summary of assets for the Golf Asset Class can be found below. The summary of assets includes: Quantity, Replacement Cost, Average Age, and Average Condition Score for each asset type in accordance with O. Reg 588/17.

1.3.1 TOTAL SUMMARY OF ASSETS

A table summarizing all Golf assets is included in **Table 5** below. Detailed information about each asset is included in individual sections. The total replacement cost for all Golf assets is approximately \$12.1M and they are a weighted average of 9 years old which is 27% of the overall average estimated service life of 33 years. Overall Golf assets are in Good to Fair condition with a weighted average condition score of 1.3.

Table 5: Total Summary of Golf Assets

Asset	Quantity	Unit	Replacement Cost	Weighted Average Age (years)	Weighted Average Estimated Service Life (years)	% of Estimated Service Life Expended	Weighted Average Condition Score	Weighted Average Condition Description
Golf Assets Total			\$12.1M	9	33	27%	1.3	GOOD
Buildings	6	Ea	\$7.6M	10	38	26%	1.2	GOOD
Site Works	Varies	Varies	\$4.5M	9	26	35%	1.5	FAIR

1.3.2 BUILDINGS

Assets within the Buildings group consists of six (6) buildings which support Golf Services including the Club House/Learning Centre, the Pro Shop, the irrigation pump house and three (3) storage or shelter buildings.

It can be seen in

AREA OF BUILDINGS (sq m)	REPLACEMENT COST (\$)	WEIGHTED AVG AGE (YEARS)	WEIGHTED AVG ESTIMATED SERVICE LIFE (YEARS)	WEIGHTED AVG CONDITION SCORE	WEIGHTED AVG CONDITION DESCRIPTION
2.1K	7.6M	10	38	1.2	Good



Figure 1 that there is estimated to be over 2,100 sq. m. of area with a total replacement cost of \$7.6M in buildings for Golf assets. The building assets are typically in Good condition while the shelter and storage buildings are typically in Poor

Golf AMP
June 2024

condition with a weighted average condition score of 1.2 and an overall condition of Good. Condition assessments have not been conducted on Golf buildings within the last five years, the highest value building asset, the Club House/Learning Centre dates to 2020.

The average age for the City's Golf Buildings is 10 years which is 26% of the weighted average estimated service life of 38 years for all buildings.

AREA OF BUILDINGS (sq m)	REPLACEMENT COST (\$)	WEIGHTED AVG AGE (YEARS)	WEIGHTED AVG ESTIMATED SERVICE LIFE (YEARS)	WEIGHTED AVG CONDITION SCORE	WEIGHTED AVG CONDITION DESCRIPTION
2.1K	7.6M	10	38	1.2	Good



Figure 1: Buildings Asset Summary by Condition and Building Area

1.3.3 SITE WORKS

Site works refers to assets which are present at the Golf Course and support Golf operations. Assets within the Site Works group include: parking lots, access roadways, pathways, fencing, gates, parking lot lighting, fuel tanks and investments in the various vegetative surfaces required for golf courses.

As summarized in **Figure 2** the Site Works assets include: 1 km of fencing, 11K sq m of access road, 13 outdoor lights and poles, 1 building flag pole, 2 fuel tanks, 36 bunkers and 18 golf course holes with a total replacement cost of \$4.5M. Assets are in overall fair condition with a weighted average condition score of 1.5, the breakdown of condition by asset subtype is shown in **Figure 2**.

The average age for the City's Golf site works assets is 9 years which is 35% of the weighted average estimated service life of 26 years.

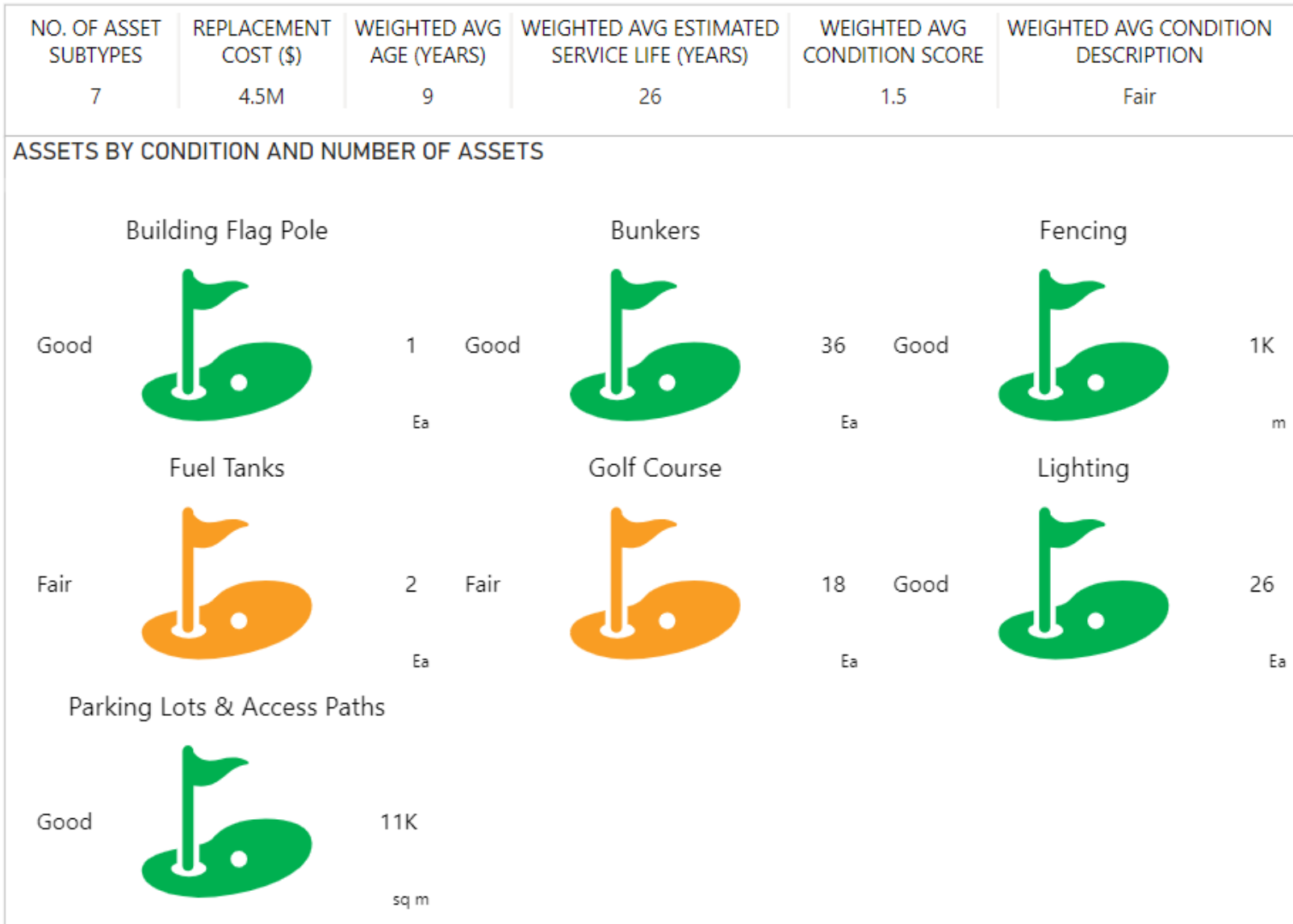


Figure 2 Site Works Assets Summary by Condition and Number of Assets

1.4. LIFECYCLE OF GOLF ASSETS

The lifecycle of Golf assets is described under four (4) categories which are described in this section:

- Key Lifecycle Stages of Golf Assets;
- Lifecycle Activities;
- Risks of Lifecycle Activities; and
- 10 Year Lifecycle Costs of Golf Assets.

1.4.1 KEY LIFECYCLE STAGES OF GOLF ASSETS

The lifecycle of an asset refers to the following stages: Planning, Creation/Acquisition, Operations and Maintenance, Renewal/Disposal which are defined in the Main Body of the report. For Golf assets specifically our general process is as follows:

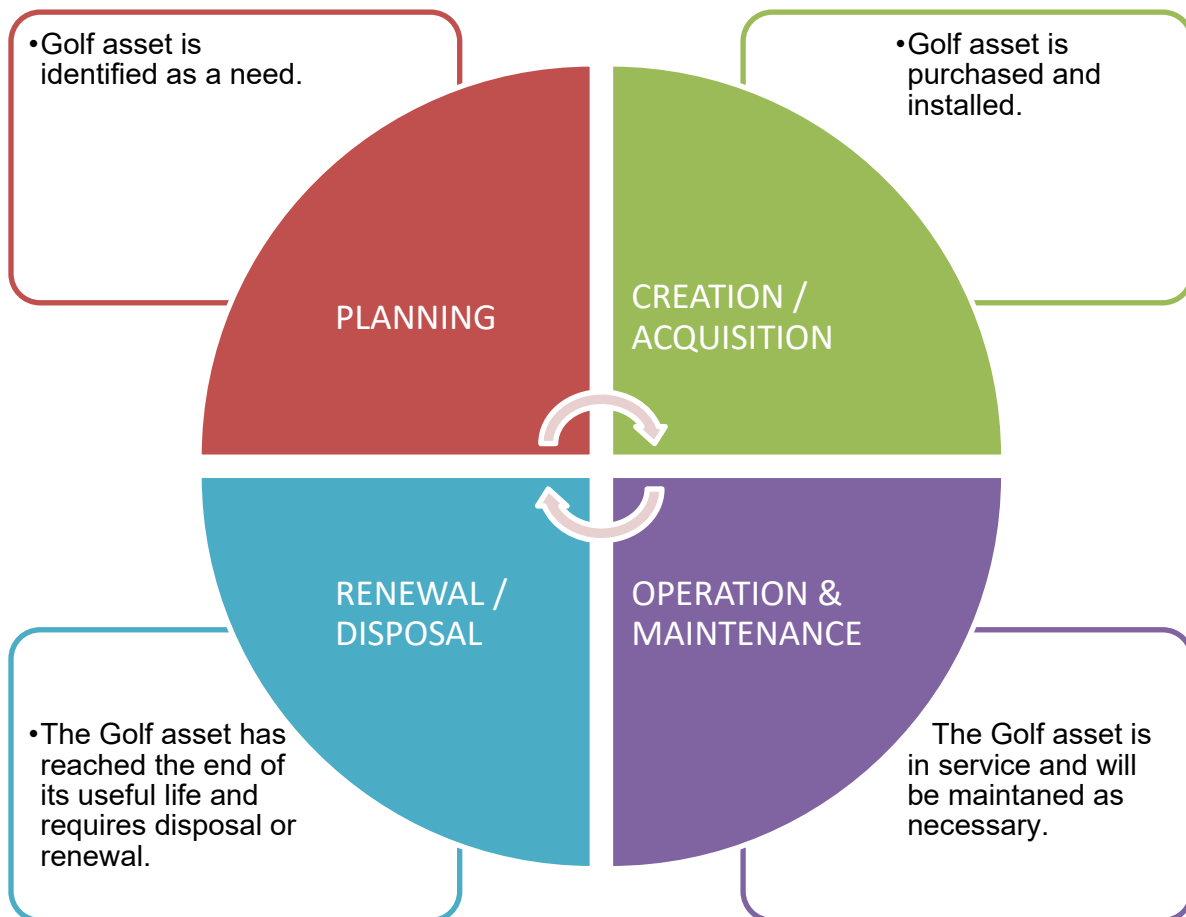


Figure 3: Lifecycle Stages of Golf Assets

1. **Planning** –The Golf asset has been identified as a need. The asset is purchased considering all needs, City policies and Master Plans.

2. **Creation / Acquisition / Replacement** – The cost and requirements for the new asset are defined considering all City needs and policies. The asset is purchased and installed/planted.
3. **Operation and Maintenance** – The Golf asset has been installed and is providing benefits to the community. Maintenance (Lifecycle) Activities are completed on the asset at specific time intervals as shown in **Table 6** to prevent premature failures of the asset. Additional monitoring and potential improvements are evaluated during this process.
4. **Renewal / Disposal / Monitoring** – The Golf asset has reached the end of its useful life or has been replaced and requires disposal. Disposal considers the effect on customers such as required detouring or service disruptions which are taken into account in the Planning stage thereby restarting the cycle. The City follows industry standards when disposing of these assets. The golf course assets are unusual as upon reaching the end of their useful life, while some assets will be able to be disposed of, others will not be replaced at the end of their useful life and will instead undergo a renewal.

1.4.2 LIFECYCLE ACTIVITIES

A list of the planned Lifecycle Activities, annual cost, and frequency for each Golf Asset Type can be found in **Table 6** below. These activities are currently being undertaken to maintain these Golf assets and therefore maintain the current levels of service.

Table 6: Lifecycle Activities for Golf Assets

Asset Type	Lifecycle Activity	2024 Annual Cost*	Frequency	Completed by
Buildings	Building Operations Utilities	\$37,500	Daily	Golf Staff
	Cleaning	\$22,700	Daily	Contractor
	Repairs	\$20,000	As Required	Golf Staff or Contractor
Site Works	Inspections	\$1,200	Annual/As Required	Golf Staff or Contractor
	Repair	\$9,600	As Required	Contractor
	Irrigation Winterize & Season Start	\$3,600	Seasonal – As Required	Golf Staff
	Garbage Removal	\$1,500	Weekly – During Golf Season As Required – Outside of Golf Season	Golf Staff or Contractor
	Landscaping	\$57,000	Seasonal - As Required	Golf or Parks Staff

*2024 Annual Cost is typically based on an average of the 4 year cost estimates presented in the 2024 Operating Budget.

Lifecycle activities occur on each of our Golf assets classes. Golf assets are maintained by Golf staff, Parks staff or contractors and activities are currently tracked through a combination of email, excel, and the City's customer relationship management system.

1.4.3 RISKS OF LIFECYCLE ACTIVITIES

The identified lifecycle activities in **Table 6** above are historical activities taken on by Golf Operations staff or hired contractors. Some risks associated with these activities include:

- **Short Term Operational Disruption** – Depending on the scope of maintenance or repair activities they could result in normal operations being unable to continue while the work is in progress. This can be mitigated by completing maintenance and repairs at the correct time of year, and by appropriately communicating with golf members and staff.
- **Safety Hazards** – Improperly conducted activities could pose risks to workers, the environment and the public.

However, if these activities were not completed, the risks would include:

- **Long Term Operational Disruption** due to maintenance or repair activities being delayed until the scope has increased beyond the initial issue resulting in a more time consuming or costly repair.
- **Safety Hazards to Environment and People** due to undetected issues posing safety risks if inspections were not completed in a timely fashion or safety risks which were not remedied promptly.
- **Chemical Overuse** due to increased need for quick or intensive fixes if regular maintenance is not completed on the course grounds.
- **Revenue Loss** due to a poor state of repair of golf course assets resulting in a degraded quality of play leading to decreased memberships, tournaments or other revenue streams;
- **Increased Cost** due to reactive actions which could have been prevented with preventative maintenance.

1.4.4 10 YEAR LIFECYCLE COSTS OF GOLF ASSETS

Figure 4 below outlines the 10 year lifecycle costs of Golf assets.

Although there are a number of assets needing to be replaced over the 10 years, the average annual cost for Operation and Maintenance of Golf Assets outweighs the capital cost for this infrastructure.

Based on the information presented in the figure below, the total annual average capital cost for the next 10 years needed to maintain the state of good repair of these Golf assets is \$0.1m, and the average annual Operation and Maintenance cost to maintain the current state of good repair and level of service is \$0.7M. Therefore, it is recommended that the City invest \$0.8M in Golf assets annually to maintain the state of good repair and current level of service.

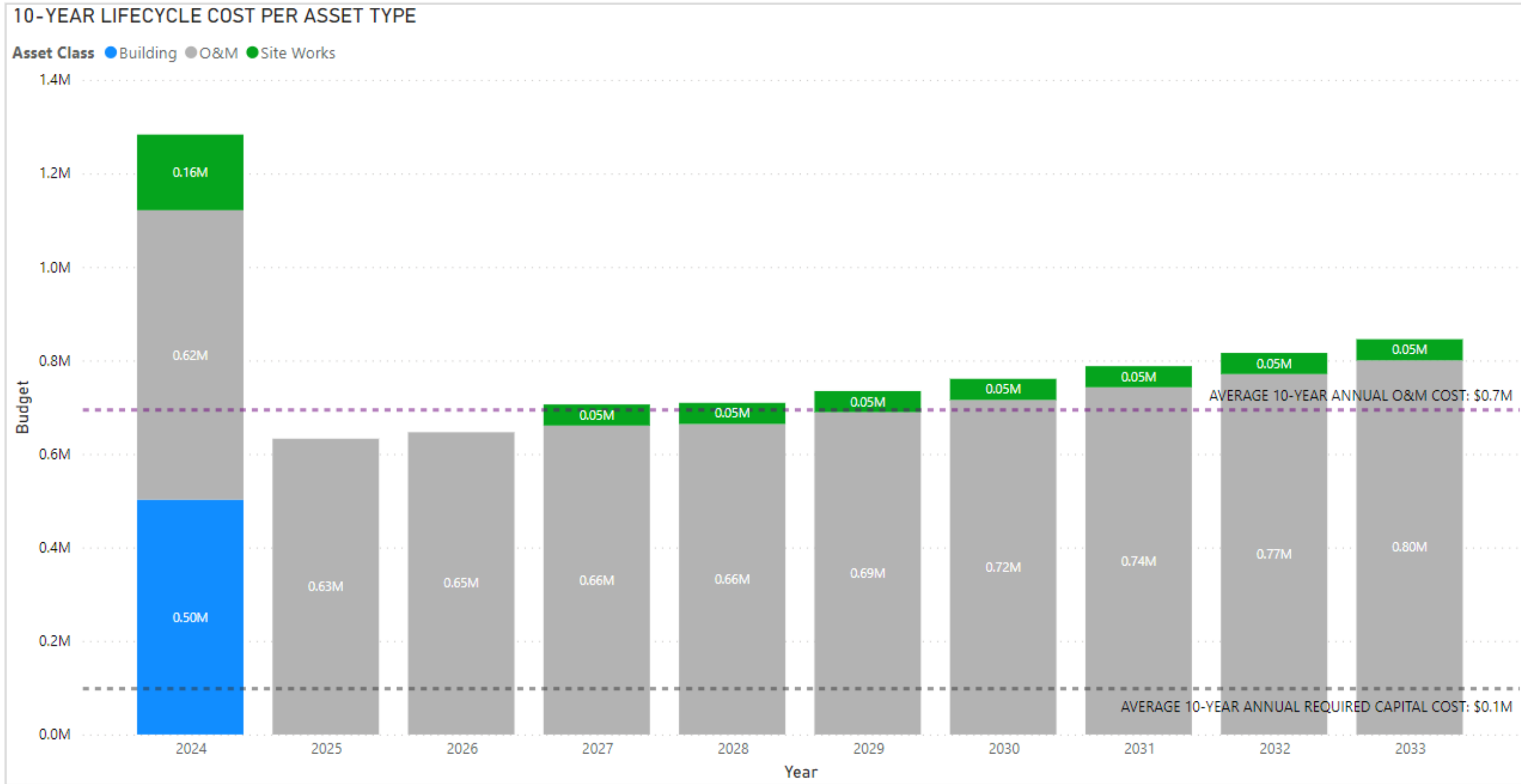


Figure 4: 10-Year Lifecycle Cost Per Golf Asset Type

Notes:

1. Operation and Maintenance Costs are estimated based on the 2024 Operating Budget and are inflated by 3.8% each year.
2. For assets where no formal capital forecast was available, the replacement year is based on the estimated remaining service life of each asset or the condition assessment of each asset, as applicable.
3. Reimbursements and revenues are ignored in order to capture total cost/expenses.

Per **Figure 5** below, the existing 10-year forecast from 2024 – 2033, further explained in **Section 8.3 of the Asset Management Plan Overview Document**, indicates that the City is currently planning to spend an average of \$0.12M on Golf assets capital work annually, and as noted above, the required 10-year average amount is \$0.10M to maintain the state of good repair for these assets, which indicates that currently the funding matches the anticipated need for this asset class.

The City of Brantford is currently moving to a four (4) year budget cycle and departments will complete long term planning as opposed to annual planning for projects within this time period. The Prioritization Matrix explained in **Section 9** of the **Asset Management Plan Overview Document** has also been implemented which will help departments confirm priority projects. It is anticipated that the new process for the City's 2024 budget cycle will help departments prepare and request funding in advance of significant replacement costs for assets reaching the end of their useful life.

It is important to note that currently the City does not have access to detailed data on Capital or Operation and Maintenance costs for Golf assets, on a single job basis but with the implementation of new work tracking software and department initiatives, it is anticipated this information will improve in future iterations of the AMP.

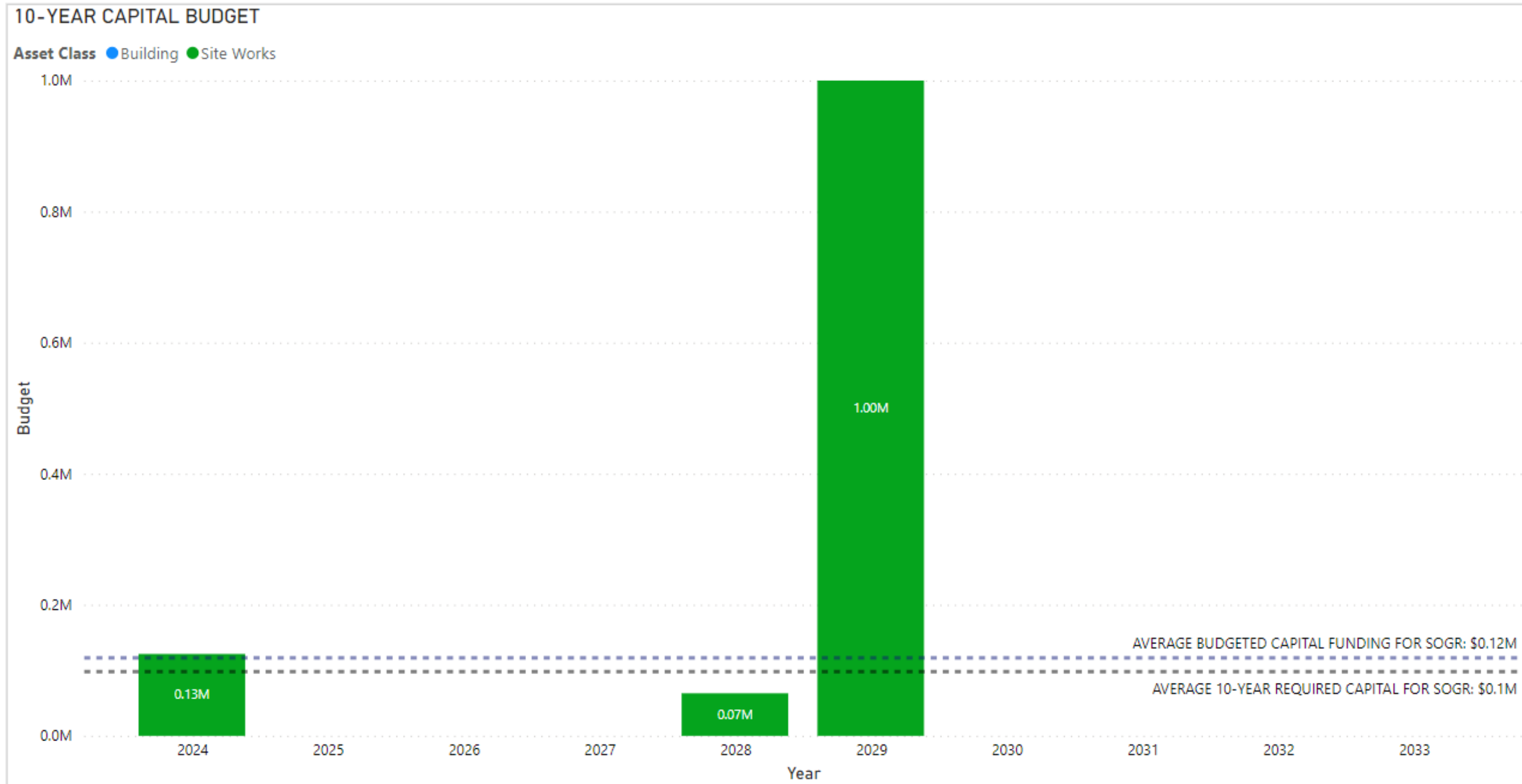


Figure 5: Existing Capital Budget Forecast from 2024 – 2033 for Golf Assets

1.5. CURRENT LEVELS OF SERVICE

1.5.1 O. REG 588/17 CUSTOMER LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined customer levels of service for this asset class that must be reported within this plan. This section will be kept for future plan iterations should O. Reg 588/17 be updated and require defined customer levels of service be reported.

1.5.2 O. REG 588/17 TECHNICAL LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined technical levels of service for this asset class that must be reported within this plan. This section will be kept for future plan iterations should O. Reg 588/17 be updated and require defined technical levels of service be reported.

1.5.3 MUNICIPALLY DEFINED CUSTOMER LEVELS OF SERVICE

The customer levels of service are defined in **Section 6.2** of the **Asset Management Plan Overview**. For Golf assets, the asset specific interpretation of these levels of service is defined below in **Table 7**.

Table 7: Municipally Defined Customer Levels of Service

Customer Level of Service	Definition
Accessibility	Golf assets should be available to and easily accessed by the local population.
Quality	Golf assets should deliver their intended services at a certain quality.
Cost Efficiency	Golf assets should meet the needs of the user at an affordable cost to the City.
Safety	Golf assets should not endanger people or property.
Environmental Sustainability	Golf assets shall consider measures to improve energy and environmental performance.
Reliability	Golf assets should be available as needed.
Responsiveness	Requests for repair or access to Golf assets should be completed as quickly as safely practical. Responsiveness should account for the relative risk to the public, the surrounding property, the asset itself and to the staff completing the response.

1.5.4. MUNICIPALLY DEFINED TECHNICAL LEVELS OF SERVICE

The technical levels of service for Golf assets have been developed based on the customer levels of service defined in **Table 7**. The currently available customer levels of service with the corresponding technical levels of service and Key Performance Indicators (KPI) metrics are defined in **Table 8**. N/A indicates information which is Not Available for this AMP, and will be reviewed for future iterations. Due to a low response rate on customer surveys conducted from 2023/2024, the confidence level in the applicability of the KPIs derived from the survey data, to the wider population, is Low.

The need for additional KPIs and KPI targets has been identified and the City will look for opportunities to gather and include this information for future iterations of this AMP.

Table 8 Technical Levels of Service KPIs

Customer Level of Service	Technical LOS	2024 KPI	Units
Accessibility	Not Available (N/A)	N/A	N/A
Quality*	Citizen Assessment of Value for Money	74%	% of survey responses on value for money indicating an assessment of average or higher
Cost Efficiency	Annual Cost per maintained area	\$1.66	\$/sq m
Safety	N/A	N/A	N/A
Environmental Sustainability	N/A	N/A	N/A
Reliability	N/A	N/A	N/A
Responsiveness	N/A	N/A	N/A

*Information obtained from external surveys conducted in 2023/2024, more details available in Overview Document. Note due to the low response rate the confidence level in the applicability of survey results to the wider City population is Low

1.6. CURRENT ASSET PERFORMANCE

The current asset performance for Golf assets have been separated into two (2) categories for this section of the report:

- Energy Performance; and
- Operating Performance

1.6.1 GOLF ASSETS CURRENT ENERGY PERFORMANCE

The City of Brantford has a Corporate Energy Management Plan (CEMP) which emphasizes energy efficiency within the City. The goals of the CEMP are to reduce energy use, energy intensity, and greenhouse gas (GHG) emissions in our Facilities. In addition, through the City’s Climate Change Action Plan and Climate Lens Tool explained in **Section 10** of the **Asset Management Plan Overview Document**, the City has been working to improve our facilities’ energy efficiency and reduce the associated carbon footprint.

Under the CEMP, annual energy management data is reported, but has a reporting delay of two (2) years. **Table 9** contains data from the 2020 Corporate Energy Management Report (CEMR) which is available on the City’s website. The weighted average energy intensity by area for all City buildings is 41.25 ekWh/sq ft. The Walter Gretzky Municipal Golf Course and Learning Centre building was not included in the 2020 CEMR, it is expected that the data will be available in the next version of the report. The information will be updated in future iterations of the AMP once it is available.

Table 9: Current Energy Performance of Golf Facilities*

Building	Address	Avg Hours Per Week	Electricity (kWh)	Natural Gas (m3)	GHG Emissions (kg)	Energy Intensity (ekWh/sq ft)
Walter Gretzky Municipal Golf Course and Learning Centre	320 Balmoral Dr	N/A	N/A	N/A	N/A	N/A

*Based on information provided in the 2022 Corporate Energy Management Report

1.6.2 GOLF ASSETS CURRENT OPERATING PERFORMANCE

Table 10 contains criteria by which the City’s Golf operating performance can be assessed. At this time limited data is available to calculate current performance. The City will work to gather sufficient information to begin reporting on additional metrics in future iterations of the AMP.

Table 10: Golf Operating Performance

Criteria	Proposed Measurement	Future Improvement
Utilization Rates	Percent of available tee times which are booked	Improvements in data tracking to allow for reporting of this metric.
Water Usage Efficiency	Total water used by the area maintained	Improvements in data tracking to allow for reporting of this metric.
Chemical Usage	Total amount of fertilizers, pesticides and herbicides used per acre	Improvements in data tracking to allow for reporting of this metric.
Biodiversity Index	Measure the abundance of plant and animal species on the golf course.	Develop an indexing approach.
Turf Health Index	Not available	Develop an indexing approach based on factors like colour, density and disease presence.
Maintenance Schedule Adherence	Percent of maintenance tasks completed on schedule	Implementation of work order system to allow for better tracking.
Safety Incident Rate	Number of safety incidents reported per 1,000 rounds played.	Improvements in data tracking to allow for reporting of this metric.

1.7. DISCUSSION AND CONCLUSIONS

In conclusion, the City of Brantford operates and maintains many Golf assets. These assets are in overall Good condition with a total estimated replacement cost of approximately \$12.1M. The asset inventory and condition data confidence for Golf is typically at a Medium to High level.

The lifecycle stages for Golf assets includes: Planning, Creation, Operation and Maintenance, and Renewal/Disposal. During the Planning stage, the City identifies the need for the asset; during the Creation stage, the asset is purchased and installed or deployed; during the Operation and Maintenance stage, the asset is in use and lifecycle activities occur to maintain the state of good repair; and the Renewal/Disposal stage is when the asset has reached the end of its useful life and requires renewal or disposal.

Lifecycle activities are currently typically tracked through a combination of email, excel, and the City's customer relationship management system. For more information on key database applications and work order management, please refer to **Section 4.2**, in the **AMP Overview** document. As staff continue to track data and review opportunities to improve tracking, the frequency and costs associated with specific activities will be better represented.

It is estimated based on the average annual cost in the 10 Year Life Cycle Costing that the City should be spending an average \$0.10M annually for capital Golf asset costs and will be spending an average of \$0.7M on Operating and Maintenance activities. The City is currently proposing to spend an average of \$0.12M annually on capital for Golf assets' state of good repair, resulting in a surplus of \$0.02M per year between the forecasted required capital expenditure and the expenditure which has been budgeted.

While some Current Levels of Service have been identified, additional metrics have been identified as a need for Golf assets. Brantford is working to continue to develop the process to track these metrics which will assist in tracking these and any further identified KPIs for future iterations.

Asset performance is separated into operating and energy performance in the City's AMPs. Currently no golf buildings are tracked as part of the Corporate Energy Management Report. This is partly due to some of the Golf buildings not having utility hookups and the Club House construction occurring in 2020/2021. It is expected to be included in the next report on energy usage.

For operating performance, the City has identified a number of measures which can be used to track operating performance including utilization rates, water usage, chemical usage and a turf health index. These will be developed further for future iterations of the AMP.