

Report from: Engineering, Facilities and Environmental Services, Engineering and Construction

Report Date: June 4, 2020

Meeting Date: June 15, 2020

Report Number: EFES/FMS-B018-2020

File: 68.81.99, 10.57.10

Subject: Corporate Asset Management Update

Recommendation

That Report EFES/FMS-B018-2020, regarding Corporate Asset Management, be received for information; and

That Appendix 1 of the Strategic Asset Management Policy be updated, as identified within Appendix 1 this report.

Summary

This report provides an overview of the City's asset management initiatives to date.

Background

The City's stewardship of varied and complex assets with an estimated replacement value of \$4.6 billion directly impacts the quality of life enjoyed in St. Catharines. These assets, which include water, wastewater and drainage systems, transportation networks, buildings, recreational facilities and green spaces, require ongoing management.

Corporate Asset Management (CAM) is the coordinated activities across the city to optimize value from its assets over all stages of the assets' life cycle. The asset life cycle includes planning, acquisition, operation, maintenance and retirement of assets. Asset optimization requires balancing costs, risks, opportunities and the level of service provided to customers.

Within the context of municipalities being the steward of the majority of public infrastructure in Canada, coupled with significant infrastructure deficits, the Province has passed legislation requiring more emphasis on CAM in municipal government. O.Reg. 588/17 is a progression of the Municipal Infrastructure Strategy launched in 2012 and the Infrastructure for Jobs and Prosperity Act of 2015. It expands asset management requirements beyond the preparation of Asset Management Plans (AMP), which the City provided in 2013 to comply with earlier legislation. O. Reg. 588/17 has numerous requirements that span the next five years.

The Asset Management Working Group (AMWG), comprising key City staff from a variety of disciplines was formed in 2018 and has been tasked with complying with the new regulations and furthering CAM.

The first deadline identified in O. Reg. 588/17 was the development of a Strategic Asset Management Policy by July 1, 2019. In June 2019, City Council approved and endorsed the Strategic Asset Management Policy that was developed by staff.

Report

The City owns a variety of complex assets, with an estimated replacement value of approximately \$4.6 billion. In accordance with O. Reg. 588/17 the City is required to develop an Asset Management Plan by July 1, 2021 for its Core Assets, which includes roads, bridges, water mains and sewer infrastructure, and by July 2023 the plan must include all assets.

AMP Work Completed or in Progress **Corporate Asset Management Plan**

Earlier this year the City engaged GM Blueplan Engineering Limited (GMBP) to provide consulting services to develop a Corporate Asset Management Plan (AMP) that produces a 10-year capital infrastructure plan that includes all major investments to address City needs, priorities and growth for the City's assets to meet the requirements of O. Reg. 588/17.

By July 1, 2021, the AMP will be required to document the current levels of service and the costs to sustain the current levels of service provided by the City's roads, bridges water, wastewater, storm and water infrastructure. (Core Assets per O. Reg. 588/17.)

By July 1, 2023, the AMP will be required to document the current levels of service and costs to sustain the current levels of services provided by all infrastructure systems in the city.

The City and consultant will collaborate to develop a Corporate Asset Management Plan that is compliant with the regulatory requirements and the City's Asset Management Policy. The end goal of the project is to provide the City with frameworks, processes, strategies and tools that are understandable and repeatable so that the process can be integrated into current practices and form part of the City's asset management system. This plan will incorporate all assets (core and non-core) but it will be phased with the Core Assets being completed first to meet the deadlines of July 1, 2021 and shall:

- Document asset inventories including cost and condition, as well as identifying and make recommendations for filling gaps where required.
- Develop the current levels of service, targets and Key Performance Indicators (KPIs), to enable the City to understand the services that it provides to its community, and to quantify and measure them to support service-centric decision-making.
- Document future demand for service and impacts to levels of service.

- Develop optimized asset lifecycle strategies that enable prediction of intervention requirements base on condition, and strategic business factors such as cost, levels of service and risk.
- Identify the funding requirements to support levels of service and the lifecycle management strategy.
- Provide financial forecasts for the next 10 years in support of the strategy.
- Develop a risk management strategy which enables prioritization of capital investments in collaboration with City staff.

This plan will form the foundation of the City's corporate Asset Management Plans as we strive for sustainable and appropriate funding levels for the management of all our assets. This document will be a living document that will be updatable as the City's performance and requirements change over time.

Staff across the City will undertake extensive work providing the in-house knowledge of our assets and will be fully engaged in the development of the AMP. GMBP brings extensive experience in the development of Municipal AMPs. This outside expertise will be able to draw from experience and exposure to infrastructure challenges across the nation so that the plan is all encompassing and meets the requirements of the regulations in a way that is sustainable and achievable based on the structure and size of our municipality. Benchmarking the City's assets to other municipalities is an important part of developing the AMP as it will assist us in identifying and establishing appropriate levels of service and risk.

In addition to the development of the AMP, the Consultant will gather knowledge and information related to the technical requirements for the procurement of software that will assist with advancing and maintaining asset management at the City, as well as identifying potential studies or investigations that should be carried out on our assets so that we have the information required for meeting the July 1, 2024 deadline for Enhanced Asset Management Plans for all Municipal Assets.

Staff continue to improve the key information that will support the preparation of the Corporate Asset Management Plan. Areas of focus are outlined below.

Roads

In 2018 the City engaged the services of a consultant to complete a detailed and automated inspection of the City's roads. The results of the inspection were inputted into new software that will allow the City to manage the information and guide decisions with regards to when, during the life of the asset, the City should perform rehabilitation or asset renewal. The results of this study will require continued maintenance and updating to ensure that accurate information is available for decision making. Condition inspections are typically done every three to five years. Subject to budget considerations, the condition of the roads will be updated in 2021 and the results will be used to update deterioration curves in order to better predict the condition of our roads into the future.

Bridges

In accordance with Provincial guidelines, the City undertakes bi-annual inspections on all City owned bridges and culverts with a span greater than three meters. The results of these inspections guide the decisions for maintenance, rehabilitation and replacement for these assets. Our last inspection was completed in 2018 and will be updated again in 2020. Bridges and Culverts with a span of less than three meters are inspected every four to five years and were last inspected in 2016 and will be updated in 2020.

Sewers

In 2017, the City engaged the services of a consultant to carry out zoom camera inspections on City sewers (storm and sanitary). These inspections assisted in identifying the physical condition of our sewers and identifying locations where further detailed inspections or investigations are required, using CCTV or techniques such as smoke testing. The final report for the initial investigation should be submitted to the City in 2020.

Water mains

Investigating the condition of water mains is extremely difficult; therefore, water mains are rated primarily on the age, material type and break rates. The City tracks all this information through technical data that exists on our current system and maintenance activities that are carried out on the asset.

Asset Management Working Group

The AMWG comprising of management and staff with related expertise has continued to meet on a regular basis to guide corporate asset management activities. During the last few months it has worked on the engagement of a consultant for the delivery of the AMP, and will continue to fulfill a governance role over throughout the AMP project.

Additionally, the newly created position of Engineering Asset Manager (Linear) has been created to further support the development of the asset management plans. This role is providing the project manager for the Asset Management Plan project and has been added as a core member of the Asset Management Working Group. The Asset Management Working Group Membership list has also been updated to reflect the Q3 2019 organizational changes (see Appendix 1).

Future AMP Requirements

By July 1, 2024, the AMP will need to be enhanced and will be required to document the current levels of service, the cost to sustain the current levels of service, as well as the desired levels of service and the cost to achieve the desired levels of service and the fiscal strategy to fund expenditures.

Every municipal council is required to conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality's asset management plan is completed.

The annual review must address:

- a) the municipality's progress in implementing its asset management plan;
- b) any factors impeding the municipality's ability to implement its asset management plan; and
- c) a strategy to address the factors described in clause (b).

Financial Implications

The update and thorough review of the City's AMP is recognized as the highest priority by the AMWG. With the support of Senior Management, funds were identified as detailed in Table 1 that could be brought together and redeployed to engage a third party consultant with significant expertise in this field. The strategy developed and planning tools provided by the consultant will guide future spending on infrastructure, both in the capital and operating budgets.

Table 1

Funding Source	Amount
2020 Arena Manager Vacancy	\$139,655
2019 Water Project Design	\$29,000
2019 Storm Project Design	\$29,000
2019 Roads Project Design	\$20,000
2019 Sewer Project Design	\$49,436
Total	\$267,091

The City awarded GMBP the \$257,181 contract for the AMP of the City's assets (core and non-core assets) in April 2020. The funds in Table 1 are adequate to cover the consulting engagement costs for the update and refresh of the City's assets. Projects have also been identified within the 2021 Capital Budget and four-year forecast that will support the development of tools to support ongoing corporate asset management.

Conclusion

Staff continues to dedicate time and resources to ensure that they develop Corporate Asset Management Plans and accompanying tools and processes that not only meet legislated requirements but ensure the City is well positioned to fulfill its role as a steward of the assets that support the delivery of services to our citizens and customers.

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Appendices

- Appendix 1 – Asset Management Working Group Membership

Core Working Group Members

The core working group will consist of the following nine representatives:

1. Director Engineering, Facilities and Environmental Services / City Engineer (EFES)
2. Director of Financial Management Services / City Treasurer (FMS)
3. Director of Community, Recreation and Culture Services (CRCS)
4. Manager of Engineering and Construction (EFES)
5. Manager of Operations (MW)
6. Manager of Accounting and Payroll (FMS)
7. Manager of Corporate Communications (Office of CAO)
8. Corporate Asset Manager (FMS)
9. Engineering Asset Manager (EFES)

Additional Members (Contributing as requested)

- Director of Planning and Building Services (PBS)
- Director of Fire Services (FS)
- Director of Municipal Works (MW)
- Corporate Information Officer (CSS)
- Human Resources Consultant, Accessibility (CSS)
- Manager of Geomatics (EFES)