




Hamilton

# INFORMATION REPORT

<b>TO:</b>	Mayor and Members General Issues Committee
<b>COMMITTEE DATE:</b>	May 18, 2022
<b>SUBJECT/REPORT NO:</b>	Corporate Asset Management Information Report (PW22037) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
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<b>SIGNATURE:</b>	

## COUNCIL DIRECTION

Not Applicable

## INFORMATION

### 1.0 Introduction

The citizens of Hamilton enjoy a multitude of services provided by the City, from the provision of safe drinking water to reliable means for transportation to our recreation facilities and long-term care homes to name only a few. The City is highly dependent on the infrastructure required to provide these services and therefore it is critical that infrastructure be managed efficiently and effectively. Previously infrastructure assets were thought of as only those required for the delivery of essential services such as water, wastewater, stormwater, roads and, bridges, also known as core assets. All other assets (e.g. recreation facilities, parks, cemeteries, emergency services, etc.) known as non-core assets, are also important to the health and well-being of a city and are now fully embraced as being part of the asset management system.

The Corporate Asset Management (CAM) Office is bringing information Report PW22037 forward to share information related to the practices and benefits of asset management for the City of Hamilton (City). In addition, Report PW22037 is intended to

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OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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provide Council with general information, including the Guide to Asset Management Plans attached to Report PW22037 as Appendix “A”, to prepare Council for the City’s Core Asset Management Plans which will be presented to the General Issues Committee (GIC) on June 15, 2022.

Information Report PW22037 and Appendix “A” attached to Report PW22037 have been developed based on material made available through the Federation of Canadian Municipalities (FCM) and their affiliation with the Institute of Public Works Engineering Australasia (IPWEA).

Written permission has been received from IPWEA to reference sections of copyrighted work from the following source:

- (a) Association of Local Government Engineers of New Zealand., & Institute of Public Works Engineering Australia. (2020). International Infrastructure Management Manual 6<sup>th</sup> Edition. Wellington, N.Z: National Asset Management Steering (NAMS) Group. Citations will appear as (IIMM Sec. X).

There are several drivers that contribute to the increased focus on asset management in recent years. Most notably is Ontario Regulation 588/17 (O. Reg. 588/17) which requires Municipalities to have asset management plans in place for all assets to current levels of service by 2024 and to proposed levels of service by 2025. The ability to finance infrastructure renewal as well as fund investment in new assets to accommodate growth has become a growing concern for many municipalities, especially given aging infrastructure networks with their associated risks. The impacts of climate change are also focusing attention on the need to create more sustainable and resilient infrastructure. Customer expectation for enhanced levels of service often conflicts with the ability to finance enhancements. Through all of this, good asset management practice provides the evidence and tools to support community conversations around infrastructure affordability and customer expectations and priorities (IIMM Sec 1.1.3).

## 2. Defining Asset Management

Asset Management is the systematic and coordinated activities and practices of an organization to optimally and sustainably deliver on its objectives through the cost-effective lifecycle management of assets. The infrastructure asset management goal is to meet a required level of service, in the most cost-effective manner, through the management of assets for present and future customers (IIMM Sec 1.2)

Asset management principles include being service-focused (e.g. meeting stakeholder needs through levels of service and the monitoring of performance), managing demand changes (e.g. growth, decline, climate etc.) and taking long-term, lifecycle and risk

management approaches to asset management. The last principle relates to having a long-term financial plan to identify how funding will occur.

Infrastructure assets are asset systems or networks that service defined communities where the system is intended to be maintained to a specified level of service by the continuing maintenance and replacement of its components, for as long as the service is still required (IIMM Sec 1.1.1).

Given that infrastructure supports our ability to live, grow and function as a city, it is important to recognize that:

- Infrastructure networks provide the platform for economic development;
- Good infrastructure supports more sustainable societies;
- Infrastructure and property assets meet social and recreational needs of the community;
- Good quality infrastructure is the cornerstone of public health and safety;
- Infrastructure represents a significant societal investment; and,
- Resilient infrastructure is imperative.

### 3. Asset Management Benefits

There are many benefits to effective asset management including accountability, sustainability, risk management, customer service management and financial efficiency as explained below (IIMM Sec 1.1.2).

Strong governance and accountability:

- Demonstrates to owners, customers, and stakeholders that services are being delivered effectively and efficiently;
- Provides a transparent and auditable basis for making service/risk/price trade-off decisions;
- Improves accountability to customers and stakeholders for the use of resources via performance and financial indicators; and,
- Provides the ability to benchmark results against other similar organizations.

More effective and sustainable decisions:

- Have a robust data driven process to support decisions;
- Consider all viable options (including demand management) and all aspects of decisions;
- Consider climate change adaptation and management; and,

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- Ensure all lifecycle costs are included in the decision-making processes, so that the emphasis is on sustainable efficiencies not unsustainable short-term gains.

Enhanced customer service:

- Improves understanding of service requirements and options;
- Improves performance and control of service delivery to the required standards; and,
- Provides a more holistic approach to asset management within the organization, via multi-disciplinary management teams.

Effective risk management:

- Demonstrates compliance with legal and regulatory requirements;
- Understands the risks related to asset management and service delivery and applies a framework to prioritise risk mitigation;
- Applies business continuity practices; and,
- Addresses the inter-relationships between different networks.

Improved financial efficiency:

- Improves decision-making based on costs and benefits of alternatives;
- Prioritizes investments, interventions, and asset care activities;
- Justifies forward works programmes and funding;
- Recognizes all costs of owning/operating assets over the lifecycle of the assets; and,
- Benchmarks condition and performance to promote innovation and efficiency.

The Corporate Asset Management (CAM) Office formed in July 2021 with the objective of meeting the City's obligations under O. Reg. 588/17 and to develop a Corporate Asset Management Program for the City. The CAM Office has adopted an Asset Management Framework from the Institute for Asset Management as the basis for the City's Program.

The accompanying Guide to Asset Management Plans attached to PW22037 as Appendix "A", discusses the elements of this framework in more detail.

4. Asset Management Policy, Strategy and Plans

There are four different levels of documents that contribute to the overall asset management approach, the Asset Management Policy, Strategy, Asset Management Plans and Operational Plans/Programs. Each is discussed briefly below.

4.1 Asset Management Policy

In June 2019 Council approved report PW19053 Strategic Asset Management Policy in order to affirm the City's commitments to asset management through defined principles and processes, and to align and integrate asset management into strategic planning processes.

Pursuant to O. Reg. 588/17, the City made the following policy statement commitments regarding Asset Management Planning:

- The City is committed to offering opportunities for municipal residents and other interested parties to provide input into asset management planning; and,
- The City is committed to coordinating asset management planning for infrastructure assets interrelated with neighbouring municipalities, or jointly owned, including inter-connected drinking water distribution assets and road networks.

As part of its asset management planning for municipal infrastructure, the City is committed to considering climate change. This includes the following:

- Identifying the vulnerabilities of the City's existing and proposed infrastructure assets caused by climate change, and subsequent potential costs;
- Considering the means to address those vulnerabilities, related to operations, levels of service and lifecycle activities;
- Considering adaptation opportunities that may be undertaken to manage the vulnerabilities;
- Considering mitigation approaches to limit the magnitude or rate of long-term climate change (such as greenhouse gas emission reduction objectives); and,
- Considering disaster planning and contingency funding.

The City also committed in the Policy to consider the principles of Community Focus, Prioritization, Health, Safety and the Environment, Transparency and Coordination in decisions to invest, design, construct, acquire, operate, maintain, renew, replace or decommission infrastructure assets.

#### 4.1.1 Equity and Asset Management

The CAM Office was recently asked how equity informs our asset management plans. Ensuring equity exists in our asset management activities starts with the City's Strategic Asset Management Policy and need for the three main pillars of sustainable development (economic growth, environmental protection and socio-cultural equity) to strongly guide asset management actions (Source: Federation of Canadian Municipalities Guide on How to develop an asset management policy, strategy and governance framework page 69).

While the City's current Policy speaks to economic growth and the environment, it is not strong in recognizing socio-cultural equity. As the Policy requires updating in the short-term to include non-core assets, socio-cultural equity will be added in the same revision. Once established in the Policy, equity can then be taken into account in how levels of service are applied across the city as well as in the capital prioritization process and the determination of which capital projects are approved for implementation. The CAM office will incorporate strategic processes when engaging with the community to ensure that everyone's voice is heard as part of the asset management process

#### 4.2 Asset Management Strategy

The strategy document is in the process of being developed and will be the high level, long-term action plan for the delivery of the Asset Management Policy. The strategy will document how organizational objectives are converted into asset management objectives and plans.

Elements of the Asset Management Strategy will include:

- Governance (more detail provided below),
- Communication (more detail provided below),
- Risk Management,
- Level of Service,
- Lifecycle Management,
- Finance,
- Data Management, and,
- Integration.

##### 4.2.1 Governance Strategy

In order to implement Corporate Asset Management, the City needs to put in place an appropriate corporate governance strategy. This strategy includes a combination of, systems and structures built upon a strategic/operational framework, which together will ensure that appropriate decisions are made, and actions carried out.

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The Governance Strategy defines asset management roles and responsibilities and enables participants to manage assets in an informed manner using reliable and consistent practices. Proper governance of the Corporate Asset Management Program ensures efficiency in asset management practices across the City.

The key objectives for a Corporate Asset Management Governance Strategy can best be described as follows:

- Provide an organization design to ensure successful implementation of all phases of the City's corporate asset management program;
- Provide an organization design that operationalizes integrated and comprehensive asset management across the City's Service Areas;
- Provide clear roles and responsibilities for staff to enable changes needed for the program to progress;
- Ensure consistency in asset management concepts and practices at a corporate level but also provide Service Area flexibility for implementation and management at the tactical and operations levels; and,
- Allow for strategic planning and understanding of future challenges and business drivers that may require changes to existing asset management concepts and practices to ensure effectiveness and sustainability.

The selected governance approach is to have a centralized Corporate Asset Management Office with a Decentralized Asset Management Network. This model is intended to provide both guidance and support to all Service Areas, by providing common standards (including tools and templates), consistency in delivery and reporting and ongoing support to Service Area Asset Owners enabling Corporate Asset Management concepts and practices to be operationalized and instilled in the City's culture at all levels of the corporation.

A key element of the governance structure is the role of the Asset Owner. The Asset Owner has direct responsibility for the operation and provision of services related to an asset and is therefore responsible for the effective management of the asset over the asset's lifecycle, while also recognizing that assets spend the majority of their lifecycle in the operate and maintain stages. This involves ensuring that assets deliver their identified levels of service in a sustainable manner which is compliant with all policies and regulatory requirements, while emphasizing public safety and climate resiliency.

Asset Owners may seek assistance from others (e.g. Engineering Services division, Facilities Management section, Fleet or an external source) for the provision of certain tasks (e.g. maintenance activities or technical services including, but not limited to, condition assessments, asset maintenance, and capital programming activities) to aid in decision making related to the management of the assets.

The Asset Owner model will help drive accountability and ownership of assets within the city, allowing the owner a better understanding of asset lifecycle costing models that directly relate to the need to balance cost, risk and performance to achieve the desired level of service.

#### 4.2.2 Communications Strategy

Strong communication is critical for the success of the Corporate Asset Management program. Given the program impacts a sizable and diverse audience, this Communications Strategy will be essential to ensuring key audiences are informed and engaged, are confident in the City's program and have a good understanding of the different facets of Corporate Asset Management in Hamilton.

The Corporate Asset Management Communication Strategy will be phased in over time, moving from a campaign approach to a way of doing business approach. The plan will help to develop a structure for ongoing communications and updates to key stakeholders that support the immediate business needs and functions of the Corporate Asset Management program.

#### 4.3 Asset Management Plan(s)

These documents outline the asset activities for each service area or asset class, and the resources to provide a defined level of service in the most cost-effective manner. attached to report PW22037as Appendix "A",\_Guide to Asset Management Plans provides a general overview of the requirements and steps involved in the development of an Asset Management Plan.

#### 4.4 Operational Plans and Programs

These plans represent the mechanism for delivery of the Asset Management Policy, Strategy and Plans, through the implementation of Operations and Maintenance Plans and the Capital Program.

#### 5. Final Comments

The CAM Team along with Asset Owners and stakeholders associated with the City's Core Assets (Water, Wastewater, Stormwater, Roads and Bridges) are currently finalizing the Asset Management Plan for Core Assets for presentation to the General Issues Committee on June 15, 2022. This plan was primarily completed with the City's internal staff, and some initial external support from consultant(s).

Asset management provides Council with the data it needs to make informed infrastructure decisions and therefore it is critical that staff have the resources and



support they need to gather this information. While Council sets direction and allocates resources, it is the role of municipal staff to manage risk and maintain the expected level of service to residents. This goes beyond simply preventing service failures—it is also about managing risks to public health and safety. In order to continue delivering safe and sustainable services in a predictable and cost-effective manner, staff need to be able to provide Council with solid information on our assets. Without this information, we are unlikely to be able to identify possible service disruptions, expected levels of service and risk related to condition and performance of our assets.

Once a desired level of service and the risks associated with an asset have been determined, Council and staff can work together to establish the cost so that residents can receive the full value of the service provided. Data and field data in particular is critical to accurately understanding the performance, risks and costs associated with assets. For example, the Association of Municipalities of Ontario commissioned a study in 2015 that found the condition of roads, culverts and bridges, when calculated using age data alone, was up to 30% poorer than when the condition of the same assets was assessed using field data.

In summary, the Corporate Asset Management Office has made good progress in both the finalization of the Core Asset Management Plans and the development of the Corporate Asset Management Program. Asset Management is a journey. Some great first steps have been taken to not only meeting the requirements under O.Reg. 588/17 but also in developing a corporate wide asset management program that will support the City in making better informed decisions about our assets and the services that we provide.

#### **APPENDICES AND SCHEDULES ATTACHED**

Appendix “A” attached to Report PW22037 - Guide to Asset Management Plans