

# 2. INTRODUCTION

## 2.1 PROVINCIAL GUIDELINES ON ASSET MANAGEMENT PLANS

As part of the 2014 renewal of the Municipal Funding Agreement, municipalities were mandated to create an Asset Management Plan (AMP) by December 31, 2016 to be eligible for Canada Community Building Funds. Throughout 2015 and 2016, staff developed the Asset Management Plan in accordance with the Ministry of Infrastructure's — Building Together: Guide for Municipal Asset Management Plans as mandated. Council approved the 2016 Asset Management Plan on November 16, 2016.

In 2018, the Province implemented the Asset Management Planning for Municipal Infrastructure Regulation, O. Reg. 588/17, which took effect on January 1, 2018. In order to comply with O. Reg. 588/17 municipalities are required to:

- Prepare an Asset Management Plan in respect of its core municipal infrastructure assets (water, waste water, storm water, road, bridge or culvert) by July 1, 2022; and
- Prepare an Asset Management Plan in respect of its non-core/other municipal infrastructure assets by July 1, 2024.

An Asset Management Plan developed per O. Reg. 588/17 must include:

- The current Levels of Service (LOS) being provided, determined in accordance with the qualitative descriptions and technical metrics provided in the regulation and based on data from at most the two calendar years prior to the year in which all information required under the Section 5 of O. Reg. 588/17;
- State of Infrastructure – summary of assets, replacement cost, average age, condition and condition assessment strategy;
- Financing Strategy – cost of 10 year life cycle activities to ensure continuous delivery of current Levels of Service;
- Portion of the population and employment growth forecasts allocated to the City of Markham in the official plan of York Region and the estimated 10 years capital and operating costs associated with the increased demand of current Levels of Service due to growth; and
- A Municipal Climate Change Strategy.

Furthermore, by July 1, 2025, every Asset Management Plan prepared under Section 5 of O. Reg. 588/17 must include the following additional information:

- Proposed Levels of Service of both core and non-core municipal assets for the next 10-year period;
- An explanation of why the proposed Levels of Service are appropriate for the municipality, including associated risks, affordability and achievability;
- The proposed performance of each asset category for each year of the 10-year periods;
- A 10-year life cycle management strategy;
- A 10-year financial strategy; and
- For municipalities with a population of 25,000 or more,
  - Estimated capital expenditures and significant operating costs to achieve the proposed Levels of Service in order to accommodate projected increases in demand caused by population and employment growth.
  - Funding sources for projected expenditure.
  - Associated risks with the implementation of the Asset Management Plan.

Every Asset Management Plan must be endorsed by an executive lead of the municipality and approved by a resolution passed by municipal council. The approved current Asset Management Plan and Policy (refer to Appendix A) shall be posted on a website that is available to the public.

## 2.2 CITY OF MARKHAM GOALS / STRATEGIC PLAN

Historically, the City has been diligent with the management of its assets and currently has a solid foundation to meet the requirements of O. Reg. 588/17. Beginning in 1998, Council recognized the need to set aside funds for the rehabilitation and eventual replacement of aging assets, and approved an 8 per cent property tax increase for this purpose. Markham formally established the Life Cycle Replacement and Capital Reserve in 2004 to address on-going capital replacements and preventative maintenance of capital assets. The adequacy of the Life Cycle Reserve is also reviewed annually using a 25-year rolling planning horizon (AMP minimum requirement is a 10-year period), based on projected inflows and outflows to sustain future rehabilitation and replacement requirements for the City's existing assets, over the next 25 years.

The City of Markham's 2020 – 2023 Strategic Plan, *Building Markham Future Together (BMFT)*, and other key strategic documents, including *Integrated Leisure Master Plan*, *Greenprint*, *Markham's Community Sustainability Plan*, *Municipal Energy Plan* and the *Official Plan*, help ensure our work is aligned with the City's four goals:

- Exceptional Services by Exceptional People;
- Engaged, Diverse, Thriving, and Vibrant City;
- Safe, Sustainable and Complete Community, and
- Stewardship of Money and Resources.

Further, the City uses Excellence Canada's Excellence Framework for Municipalities to guide how we manage the organization as a whole, focusing on the areas of Customer Satisfaction, Operational Excellence, Staff Engagement and Financial Performance.

For the City to meet its strategic goals and deliver services in a responsible and sustainable manner, the Asset Management Plan has and will ensure City infrastructure is planned, built, and maintained through sound asset management principles and practices, demonstrating fiscal responsibility.

## 2.3 CITY OF MARKHAM ASSET MANAGEMENT PLAN (AMP)

The City of Markham's Asset Management Plan will:

- Serve as a strategic, tactical, and financial document ensuring the City's investments are timely, while optimizing available resources to deliver current Levels of Service;
- Provide an effective approach to managing the City's existing and future infrastructure assets through sound asset management practices and principles via a comprehensive review of the core and non-core infrastructure assets particularly; constructing, renewing, operating, maintaining, replacing and disposing of infrastructure; and
- Identify funding strategies to accommodate an increase in demand due to population and employment growth.

The City's Asset Management Plan will serve to provide the public with details of our current state of infrastructure, current Levels of Service, asset management strategies and financial strategies. The Asset Management Plan is intended to capture asset management practices within the City, as the Plan is a living document, and will require ongoing refinement to reflect the evolution of asset management practices and maturity within the City of Markham over time. The Plan will be updated with reference to O. Reg. 588/17.

The Asset Management Plan is a key component of the City's planning process linking with multiple other corporate plans and documents and supports the Building Markham's Future Together: 2020 – 2023 Strategic Plan in the following ways:

- Exceptional Services by Exceptional People: The Plan describes the asset management strategy, including processes and practices that empower and inspire City employees to be champions of excellent service delivery by efficient and tactical management of City's assets.

- **Engaged, Diverse, Thriving and Vibrant City:** The Plan provides current Levels of Service for each asset category to not only document how City employees efficiently manage municipal assets but to also provide what service levels the community shall expect to receive.
- **Safe, Sustainable and Complete Community:** The Plan is integral to provide excellence in sustainable community planning and infrastructure management to accommodate growth.
- **Stewardship of Money and Resources:** The Plan provides strategies that demonstrate responsible financial and resource management to mitigate risks while ensuring efficient and effective service delivery. Integration between financial planning and infrastructure management is crucial and is clearly outlined by the Asset Management Plan.

The Asset Management Plan aligns with Excellence Canada's Excellence Framework for Municipalities on how the City manages the organization. The Plan will set out how the infrastructure is managed and identify service levels (Operational Excellence), outline consistent corporate asset management processes and practices (Staff Engagement), and assist with financial investment decisions that optimize the asset's life cycle (Financial Performance).

## 2.4 WHICH INFRASTRUCTURE IS INCLUDED IN AMP?

### CORE ASSETS

- Water
- Wastewater
- Stormwater
- Roads
- Bridge and Culverts

### NON-CORE ASSETS

- Streetlights
- Parks (including Forestry)
- Facilities
- Fleet
- Information Technology Assets (infrastructure hardware)

## 2.5 DEVELOPMENT AND EVALUATION OF THE AMP

The 2016 Asset Management Plan formed the basis of the 2021 Asset Management Plan. The plan was developed by staff and led by the Acting Manager, Corporate Asset Management from the Sustainability and Asset Management Department, under the direction of Asset Management Steering Committee (AMSC). The AMSC is comprised of heads of stakeholder departments including Engineering, Environmental Services (ES), Finance, Information Technology Services (ITS), Operations, Recreation and Sustainability and Asset Management (S&AM). The working group includes staff from each of the service areas that are responsible for operating, maintaining and replacing the above mentioned core and non-core assets.

AMSC was provided with project status updates on a monthly basis and any outcomes or decisions were presented and approved by AMSC prior to inclusion in the Asset Management Plan, ensuring the Plan aligned with the City's Strategic Plan and with the Excellence Markham Framework.

The Plan covers a 25 year period consistent with the City's Life Cycle Reserve Study that is updated every year, and used the following resources to document the current infrastructure management practices:

- Building Markham's Future Together: 2020-2023 Strategic Plan
- Excellence Markham Framework
- City of Markham Annual Report (2019)
- Yearly capital and operating budget planning documents
- 25 year Life Cycle Reserve Study (2020-2045) of various assets and programs
- Tangible Capital Asset documents
- Department Business Plans and Service Level documentation

The development and implementation of the 2016 Asset Management Plan has provided the following benefits to the City:

- Detailed risk analyses of critical infrastructure across the City;
- Prioritized infrastructure investments that maximize benefits, reduce risk and provide desired levels of service;
- Support informed decision making over the life of assets (including operation, maintenance, renewal, replacement and decommissioning); and
- More efficient and effective delivery of services.

Furthermore, from the development of the 2016 AMP, the gaps in the then-current asset inventory, processes and practices has enabled the City in further enhancing the asset management program. These enhancements are evident in the following ways:

- Improved asset inventory/data in comparison with 2016 data;
- Development of condition audit program;
- Improved methodology and quality of replacement cost estimation;
- Development of asset condition evaluation practices; and
- Synergies through project integration.

The Asset Management Plan will become a living and breathing document that will not only document the City's current state of infrastructure, levels of service, financial and asset management strategies and will continue to evolve. As a living document, the Plan will enable the City in the adoption of asset management best practices that will ensure the community of Markham continues to receive the level of service the City has committed to, while demonstrating fiscal responsibility. The future development of asset management strategies and plan is anticipated to entail the following enhancements:

- Performance Management Framework
- Risk Management Framework
- Enhanced Climate Change Strategy