



Town of Oakville

Strategic Asset Management Plan



October 2025

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Executive Summary

The Town of Oakville's Strategic Asset Management Plan (SAMP) sets out a comprehensive strategy for managing municipal assets, ensuring alignment with the Town's Asset Management Policy and compliance with Ontario Regulation 588/17. This plan is designed to maximize community value, address the challenges of aging infrastructure, and respond to increasing service demands through a commitment to continuous improvement.

Oakville has long recognized the importance of a holistic approach to asset management. In 2016, the Town conducted a maturity assessment against best practices and launched its first five-year improvement plan, focusing on policy development, service levels, risk management, informed decision-making, and robust asset data. By 2025, significant progress had been made, enabling the Town to meet regulatory requirements and strengthen its asset management capabilities.

The Town's asset management journey is ongoing. Building on past successes, the Town has initiated a second five-year improvement plan and continues to foster a culture of asset management through regular training and awareness initiatives.

Ontario Regulation 588/17 (Infrastructure for Jobs and Prosperity Act, 2015- Asset Management Planning for Municipal Infrastructure) establishes clear requirements and deadlines for municipalities:

- Every municipality is required to prepare its first strategic asset management policy by July 1, 2020, and is to review and, if necessary, update it at least every five years.
- Every municipality is required to prepare an approved asset management plan in respect of its core municipal infrastructure assets (Core assets are defined in the Regulation as Water, Wastewater, Storm Water, Roads, Bridges and Culverts) by July 1, 2022, that identifies current levels of service and the cost of maintaining those levels of service.
- Every municipality is required to prepare an approved asset management plan in respect of all of its other municipal infrastructure assets by July 1, 2024, that identifies current levels of service and the cost of maintaining those levels of service.
- Every municipality is required to have an approved asset management plan for all municipal infrastructure assets that are built upon the previous asset management plans (2022-2024). This includes an identification of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund these activities.

The Town's approach is guided by the principles of ISO 55000, focusing on delivering reliable, cost-effective services at an acceptable level of risk. Through this plan, the Town of Oakville demonstrates its commitment to transparency, accountability, and sustainable asset management for the benefit of our residents, businesses, and stakeholders.

1. Introduction

Asset Management is defined as the coordinated activities of an organization to realize value from its assets. In a Town of Oakville context, “value” means the services that the Town provides to the community and other stakeholders in return for the charges it levies. This Asset Management Strategy is intended to support the implementation and ongoing sustainment of the [Town of Oakville’s Asset Management Policy](#) as shown below. (The Policy has a related internal on-line learning video)

Town of Oakville Asset Management Policy

The Town’s asset management mission is to protect and enhance the quality of life in Oakville by making the best possible decisions regarding Town of Oakville (town) assets in a way that provides targeted levels of service and manages risk in a cost-effective manner throughout the entire asset life cycle in order to create customer value through enhancing community asset management.

The town will manage infrastructure assets in a strategic, comprehensive, enterprise-wide manner through an integrated business approach that relies on well-devised strategies, trained knowledgeable staff, and good communication with all stakeholders to achieve desired levels of service. This requires that all assets be treated as interrelated components in a unified system, rather than as isolated parts.

This Policy supports our four Key Strategic Directions, as detailed in our Strategic Plan, and defines the principles by which we will develop our asset management capability, ensuring we understand our asset needs and develop effective solutions. Successfully delivering these principles will drive the required service and value from our assets, meeting or exceeding our customer expectations.

The scope of this Policy covers the management of all of the Town’s infrastructure asset portfolio. The principles below have been established in line with leading practices.

Our Asset Management Principles	
<p>Forward-Looking and Sustainable</p>  <p>We will incorporate social, legislative, environmental and financial considerations into decisions, taking into account present and future service commitments, giving due attention to the long-term stewardship of assets.</p>	<p>Sound Asset Information</p>  <p>We will collect, collate, control, and circulate the right asset information, at the right time, informing the right asset management decision-making.</p>
<p>Robust, Repeatable, & Transparent Decision-Making</p>  <p>We will utilize a formal but scalable, consistent, and repeatable approach to manage infrastructure assets, enabling services to be provided in the most efficient and cost-effective manner.</p>	<p>Whole Life Cycle Cost Perspective</p>  <p>We will consider the combined impact of all aspects of the asset life-cycle – acquiring, operating, maintaining, renewing, and retiring assets – and no new assets will be constructed/acquired without considering future operating and maintenance costs. Asset performance will be monitored throughout the asset life cycle and will be used to inform recommendations on future asset acquisition.</p>
<p>Risk-Based Perspective</p>  <p>We will direct resources, expenditures, and priorities to achieve the agreed service outcomes and benefits, at acceptable levels of risk.</p>	<p>People-Focused (Customers & Staff)</p>  <p>We will adopt a serviceability-based approach to managing our assets, only accommodate additional demand for services without detriment to current levels of service. We will recruit, train, and retain the right staff.</p>

1.1 Scope of the Strategic Asset Management Plan

The Strategic Asset Management Plan is intended to apply to all services within the Town of Oakville that rely upon physical assets for successful delivery to residents, customers, and stakeholders. The services currently defined within the Town of Oakville are illustrated below:



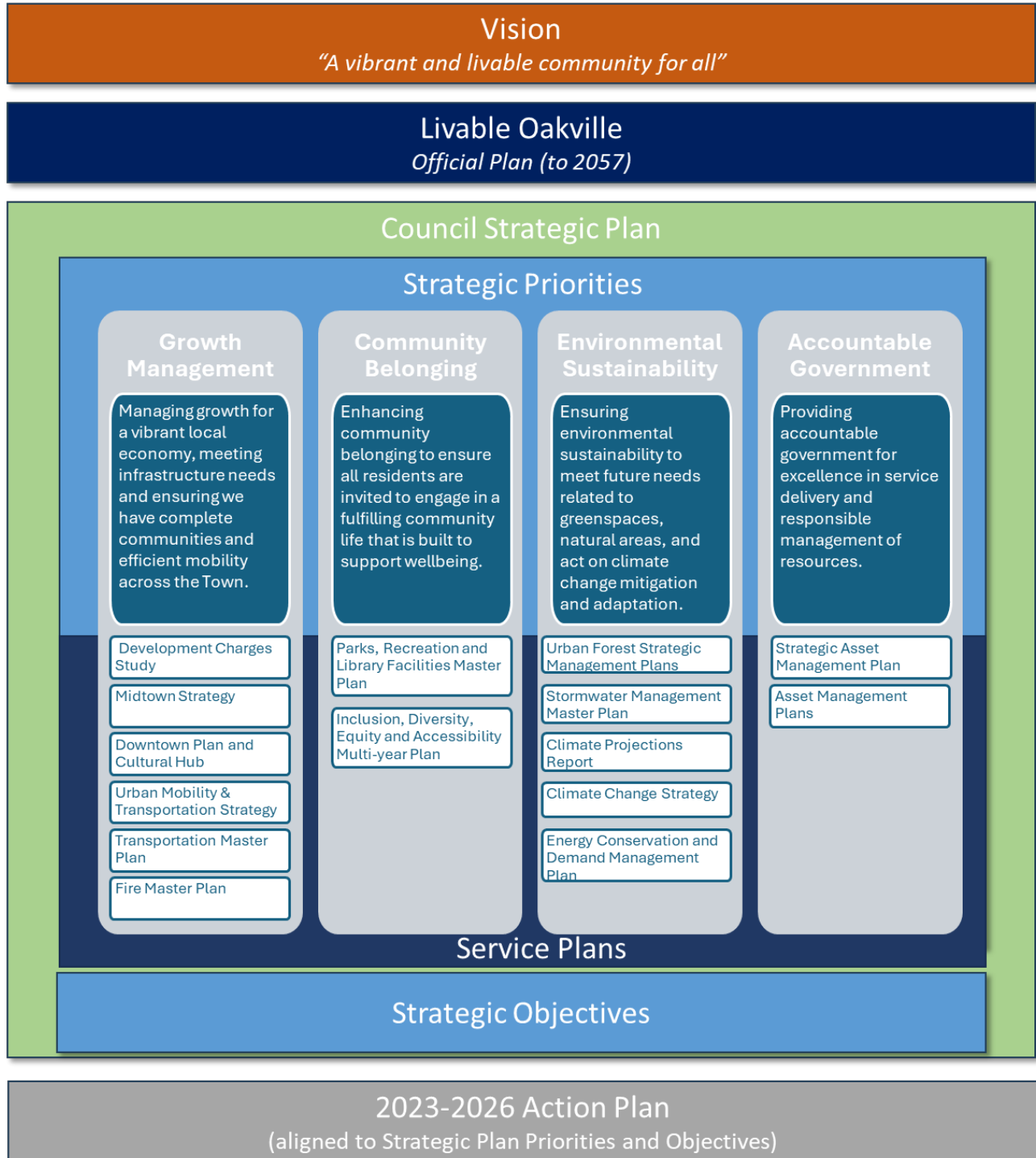
In essence, all asset categories and types of assets are to be included in the Asset Management Plan. The following table provides a summary of assets by classification.

Summary of Assets Included in the AMP

Asset classes	In-Scope Assets
Road Network	Roads, sidewalks, bridges, major culverts, traffic signaling, streetlights, transit shelters, acoustic walls, multi-use trails/ walkways, guiderails, retaining walls
Parks Network	Parks, sports fields and courts, trails, walkways, parking lots, minor buildings, minor structures, sport field & morality lighting, Park stairs & bridges, irrigation
Storm Network	Stormwater Pipes, catch basins, house connections, inlet & outfall structures, laterals, maintenance holes, pond retaining walls, water quality control devices, pond structures, underground storage tanks, Shoreline and Creeks.
Facilities	Major and Minor Buildings and all related components
Equipment	Rolling Stock equipment (ATV, Tractors, Ice Resurfacers), Service-Related Equipment (Fitness equipment, Hoists, Emergency Response equipment)
Fleet	Conventional Buses, specialized buses, Fire Trucks, Heavy Trucks, Light Auto/ Trucks, Licensed vehicles

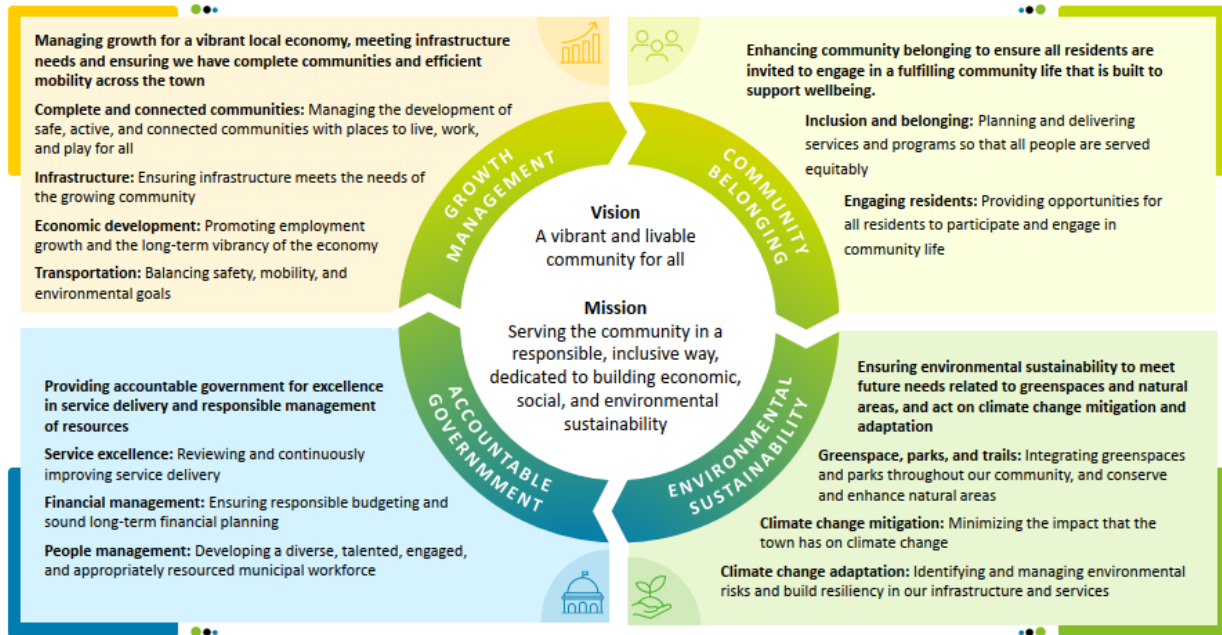
2. Town of Oakville Context

The diagram below illustrates the Town of Oakville’s current strategic planning framework.



2.1 Council Strategic Plan and 2023 -2026 Action Plan

The Town of Oakville Council Strategic Plan and 2023-2026 Action Plan document sets out the strategic priorities and objectives for the Town over the term of Council in line with the long-term vision and mission as summarized in the diagram below. It serves as the framework to help guide Council’s decision--making and resource allocation during the four -year term of office.



Each strategic priority is broken down into a more detailed set of categorized objectives which in turn are connected to specific action items in the 2023-2026 action plan. A set of community indicators (metrics) will be utilized to monitor progress and outputs against each of the strategic priorities will be monitored over time.

2.2 Asset Management within the Strategic Planning Framework

A key concept of effective Asset Management is the development of a “line of sight” between the Town’s strategic priorities and objectives, it’s associated asset management objectives, and the related asset management plans which sets out the specific activities (e.g. capital projects, operation and maintenance regimes) that are to be carried out on the asset portfolio. With this in mind, the international standard for Asset Management ISO 55000 recommends the following framework to be put in place:



The Asset Management Policy is important as it is endorsed at the highest level within the organization and thereby sets clear and consistent expectations around asset management practices and provides a mandate to drive continuous improvement.

The Strategic Asset Management Plan (this document) is intended to further set out how the policy is to be implemented, define both asset portfolio related objectives (typically referenced as Levels of Service) and asset management maturity objectives (related to the asset management system and practices), and to establish an improvement plan for maturity which typically looks out over the next 5 years.

The Asset Management Plans are focused on defining the lifecycle management activities (i.e. capital investment, operations, and maintenance etc.) that are required to deliver the asset portfolio objectives (i.e. levels of service) that were set out in the Strategic Asset Management Plan. The Asset Management Plans are intended to inform decision-makers so that they can make informed choices with regards to setting achievable service objectives and appropriate funding allocations.

In practice, the line of sight works in both directions and drives somewhat iterative planning and decision making throughout the organization. Top-down guiding principles and strategic directions shape decision making on the asset portfolio. However, the bottom-up realities of the asset portfolio (i.e. risks to service delivery, refurbishment and renewal needs, maintenance requirements and associated resources etc.) also

influence high level priorities such as those set out in the Strategic Plan and associated 4-year action plans.

2.2.1 The Asset Management Policy within the Strategic Planning Framework

To build this line of sight, the Town has already developed an Asset Management Policy. This Policy sets out key principles that are to be observed and embedded into the Town’s Asset Management protocols and reflect core aspects of recognized good practice. The principles also closely align with the Town’s strategic priorities and objectives as shown in the table below.

		<p style="text-align: center;"><u>Vision</u> A vibrant and livable community for all</p> <p style="text-align: center;"><u>Mission</u> Serving the community in a responsible, inclusive way, dedicated to building environmental, social, and economic sustainability</p>											
Strategic Priorities		Accountable Government			Growth Management				Community Belonging		Environmental Sustainability		
Strategic Objectives		Service Excellence	Financial Management	People Management	Complete and connected communities	Infrastructure	Economic Development	Transportation	Inclusion and belonging	Engaging residents	Greenspace, Parks and Trails	Climate Change Mitigation	Climate Change Adaptation
Asset Management Policy Principles	Forward Looking and Sustainable	●	●	●	●	●	●	●			●	●	●
	Sound Asset Information	●	●			●		●			●	●	●
	Robust, Repeatable and Transparent Decision Making	●	●			●		●		●		●	●
	Whole Lifecycle Cost Perspective	●	●			●		●			●	●	
	Risk-Based Perspective	●	●			●		●			●	●	●
	People Focused (Customer & Staff)	●	●	●	●	●	●	●	●	●	●	●	●

2.3 Influencing Factors for Asset Management at the Town of Oakville

A high-level PESTLE analysis illustrates some of the considerations driving an increased focus on Asset Management at the Town.

Political	<ul style="list-style-type: none"> ▪ There is a Provincial requirement and drive to implement Asset Management embodied in O. Reg. 588/17 ▪ Provincial/Federal funding for infrastructure requires Asset Management Plans. ▪ Town of Oakville Council has demonstrated support to the Asset Management principles.
Economic	<ul style="list-style-type: none"> ▪ There is a clear commitment to sound financial stewardship in the Strategic Plan. ▪ The Town is experiencing pressure to limit property tax increases with associated tightening of budgets. ▪ Customers are placing increased scrutiny on the spending plans. ▪ The Town expects scrutiny to increase further with O. Reg. 588/17 Asset Management Plans making more data publicly available and shifting the spotlight onto cost of service. ▪ The implications of growth within Oakville need to be coordinated with neighboring municipalities.
Social	<ul style="list-style-type: none"> ▪ There is a clear commitment to service excellence in the Strategic Plan. ▪ O. Reg. 588/17 requires development of, and reporting on, both current and target Level of Service performance. ▪ The Town expects that this information will be required to be made publicly available. ▪ There will be a need to demonstrate value for money compared to peer Municipalities. ▪ Changing demographics are affecting demand for services.
Technological	<ul style="list-style-type: none"> ▪ There is continued development of Smart Cities. ▪ There may be increasing expectations from customers around communication and quality of data/decisions. This requires better definition of data requirements. ▪ Social media is being commonly used to highlight perceived service delivery failings of the Town.
Legal	<ul style="list-style-type: none"> ▪ There are clear asset management requirements stipulated in O. Reg. 588/17 with associated implementation deadlines. ▪ ISO 55000: The Town's current aspiration is alignment to the standard, with the ultimate objective of achieving demonstrable compliance.
Environmental	<ul style="list-style-type: none"> ▪ There is a clear commitment to climate mitigation and adaptation in the Strategic Plan. ▪ Council's 2019 Climate Emergency Declaration calls for the integration of climate considerations in asset management planning. There is therefore a need to further embed and coordinate sustainability and climate resilience planning with Asset Management ▪ The Town intends to add natural assets into asset registry starting in 2027/28

2.4 Stakeholder Needs and Requirements

There are a range of key internal and external stakeholders that have needs and expectations relating to Asset Management at the Town of Oakville and these are summarized in the tables below.

External Stakeholders

Stakeholder	Asset Management Expectations	Potential Influences on Asset Management
Provincial Government	<ul style="list-style-type: none"> ▪ Appropriate activities are carried out to meet all legal and regulatory requirements and address any gaps 	<ul style="list-style-type: none"> ▪ Potential requirement for more stringent legal and regulatory requirements
Customers (Residential)	<ul style="list-style-type: none"> ▪ Service reliability and quality ▪ Perceived value for money ▪ Clear communication of LOS performance and costs ▪ Engagement in setting priorities, objectives and associated plans/ expenditures 	<ul style="list-style-type: none"> ▪ Input to target levels of service through consultation ▪ Ability to influence Council regarding priorities and rates ▪ Level of willingness to adopt demand management initiatives, etc.
Customers (Commercial)	<ul style="list-style-type: none"> ▪ Service reliability and predictability ▪ Reasonable rate increases (Competitive) ▪ Equitable tariff framework 	<ul style="list-style-type: none"> ▪ Input to target levels of service through consultation ▪ Ability to influence Council regarding priorities and rates
Community Organizations (mostly Recreation related)	<ul style="list-style-type: none"> ▪ Engagement in objectives and spending plans ▪ Predictability in charges 	<ul style="list-style-type: none"> ▪ Input to target levels of service through consultation ▪ Ability to influence Council regarding priorities and rates
Neighbour Municipalities	<ul style="list-style-type: none"> ▪ Town asset management plans are coordinated and aligned with wider plans for the Region ▪ Coordination with Ontario land use planning frameworks 	<ul style="list-style-type: none"> ▪ Regional growth not happening as predicted may change affordability of proposed investment plans and timing of other asset management activities
Developers	<ul style="list-style-type: none"> ▪ Development to be accommodated in a timely manner ▪ Changes in developer requirements or priorities to be communicated at the appropriate time 	<ul style="list-style-type: none"> ▪ Local growth not happening as predicted may change affordability of proposed investment plans and timing of other asset management activities

Internal Stakeholders

Stakeholder Groups and Individuals	Asset Management Expectations	Potential Influences on Asset Management
Council	<ul style="list-style-type: none"> ▪ Council’s Strategic Objectives & Priorities are reflected in decision making practices ▪ Robust rationale behind investment plans & budgets ▪ No surprises 	<ul style="list-style-type: none"> ▪ Sets expectations for asset management capability and practices ▪ Sets expectations for asset management plans (rigour/ timing) ▪ Changes to strategic objectives, priorities and associated AM objectives
Senior Leadership Team	<ul style="list-style-type: none"> ▪ Sufficient information is provided to explain decision rationale and implications to Council ▪ Information is accurate to best of current abilities ▪ Confidence that good practices have been followed 	<ul style="list-style-type: none"> ▪ Clear communication of Council Objectives & Priorities ▪ Support and resources for AM Policy & AM Roadmap implementation
Finance	<ul style="list-style-type: none"> ▪ Expenditure requests are driven by asset need and based on sound reasoning ▪ Certainty and transparency around budgets and expenditures ▪ No surprises 	<ul style="list-style-type: none"> ▪ Language and structure around asset accounting practices ▪ Expenditure reporting requirements ▪ Procurement policies affect life cycle decision making
Asset Management Department	<ul style="list-style-type: none"> ▪ Evidence that corporate AM practices are being followed as required ▪ Evidence that required improvements to AM capabilities and practices is being advanced in line with defined timescales 	<ul style="list-style-type: none"> ▪ Defines AM improvement plan objectives and timelines ▪ Defines corporate AM Practice requirements
Planning Teams and Service Planners	<ul style="list-style-type: none"> ▪ Clear AM objectives ▪ Clear roles & responsibilities ▪ Clarity and consistency of practices and processes 	<ul style="list-style-type: none"> ▪ Alignment of asset management decision making criteria with overarching objectives ▪ Consideration of full asset life cycle in decision making
Operations & Maintenance Staff	<ul style="list-style-type: none"> ▪ Clear AM objectives ▪ Clear roles & responsibilities ▪ Clarity and consistency of practices and processes 	<ul style="list-style-type: none"> ▪ Provide knowledge on asset risks and performance issues to Asset Managers

For all identified internal and external stakeholders, the Town is committed to clear, consistent, and timely engagement and communications, and to incorporating their expectations as far as reasonably practicable in the development of the Strategic Asset Management Plan and related asset management plans.

3. Service Profile Framework

The Town’s assets deliver value through the delivery of the various municipal services to its customers and stakeholders and by the related application of asset management techniques to manage and optimize performance, cost and risk. (Below is list of services that utilize physical assets)



The value realized from the Town’s assets are the Levels of Service that they provide to Customers and Stakeholders in exchange for the fees and charges levied. A fundamental aspect in effective Asset Management decision making is therefore to measure and report upon Level of Service performance in a way that Customers and Stakeholders can understand, and to build these Level of Service considerations into Asset Management decision making. This main principle provides a guideline to help manage town assets in way that balances customer expectations, long-term sustainability, and affordability of town services. The quantification of the expenditure requirements to maintain current levels of service, or achieve target levels of service, is a primary consideration of the O. Reg. 588/17 Asset Management Plans. The Town has therefore developed a Service Level Profile Framework which is aligned with the stipulations of O. Reg. 588/17 where each of the above services will have a profile comprised of the following:

Customer Expectations	<i>The primary expectations of customers or stakeholders regarding service delivery i.e. what is important to them?</i>
Service Commitment Statement	<i>A short statement which sets out at a high level <u>what</u> the town will do, who it will do it for, and why</i>
Customer Service Values	<i>Keywords which identify aspects of service important to Customers, and which will be expanded upon in service outcome statements Each service has defined a minimum of 3 Service Values and these are typically - Quality, Reliable, Functional.</i>
Customer Service Objective	<i>A set of succinct statements for each service value which expand upon the mission statement to clearly state what the town commits to deliver with regard to certain aspects of service</i>
Customer Level of Service Measures	<i>A suite of metrics which allow the Town to measure and report upon performance against the service objectives in a way that is meaningful to customers and stakeholders</i>
Programs (Capital and Operating)	<i>The major capital and operational activities that contribute towards delivery of the Service Objective and associated Level of Service Measures</i>
Technical Performance Measures	<i>A range of metrics which allow Town staff to track asset and operational performance characteristics, or programs performance, and how they may contribute to delivery of both current and target Customer Level of Service measures</i>

Strategic Asset Management Plan

The intent of the Service Profile Framework is that each Townservice shall have a succinct set of Customer Level of Service Measures which are clearly linked to straightforward languageso that customers, stakeholders, and staff can understand.

Where appropriate a limited set of Technical Performance Measures will be aligned to the Customer LOS measures which reflect the key technical parameters that influence the delivery of service to customers. These technical measures may change over time depending on what the underlying drivers of LOS performance are considered to be at that time. Refer to table below for an example Service Profile (Road Network).

Corporate LOS	Organizational Strategic Objective/Vision	To be the most livable town in Canada
	Customer Expectations	Safe and efficient movement of people and goods
	Customer Commitment	We will manage the road network to facilitate the safe, efficient and reliable movement of people and goods through out the town.
Customer LOS	Customer Service Values (3 minimum)	Quality, Reliable, Functional, Efficient, Accessible, Safe...
	Customer Service Objective (1 for each Value)	To manage the road infrastructure condition to provide a reasonable travel quality and minimize hazards.
	Customer Level of Service Measures (1 for each Value)	That a minimum of 90% of the road network infrastructure be maintained in a “good” or “fair” rated condition.
Technical LOS	Programs and Services	Roads, Bridges, Traffic, Active Transportation, Other ROW, Road Services (Winter Control, Road Patrol, Leaf Collection etc)
	Technical Performance Measures (several for each Value)	That the overall town road network has pavement condition (PQI) of 70 or better

The above service profile was fully developed and utilized for the O. Reg. 588/17 Asset Management Plans submitted in 2022 and 2024 .

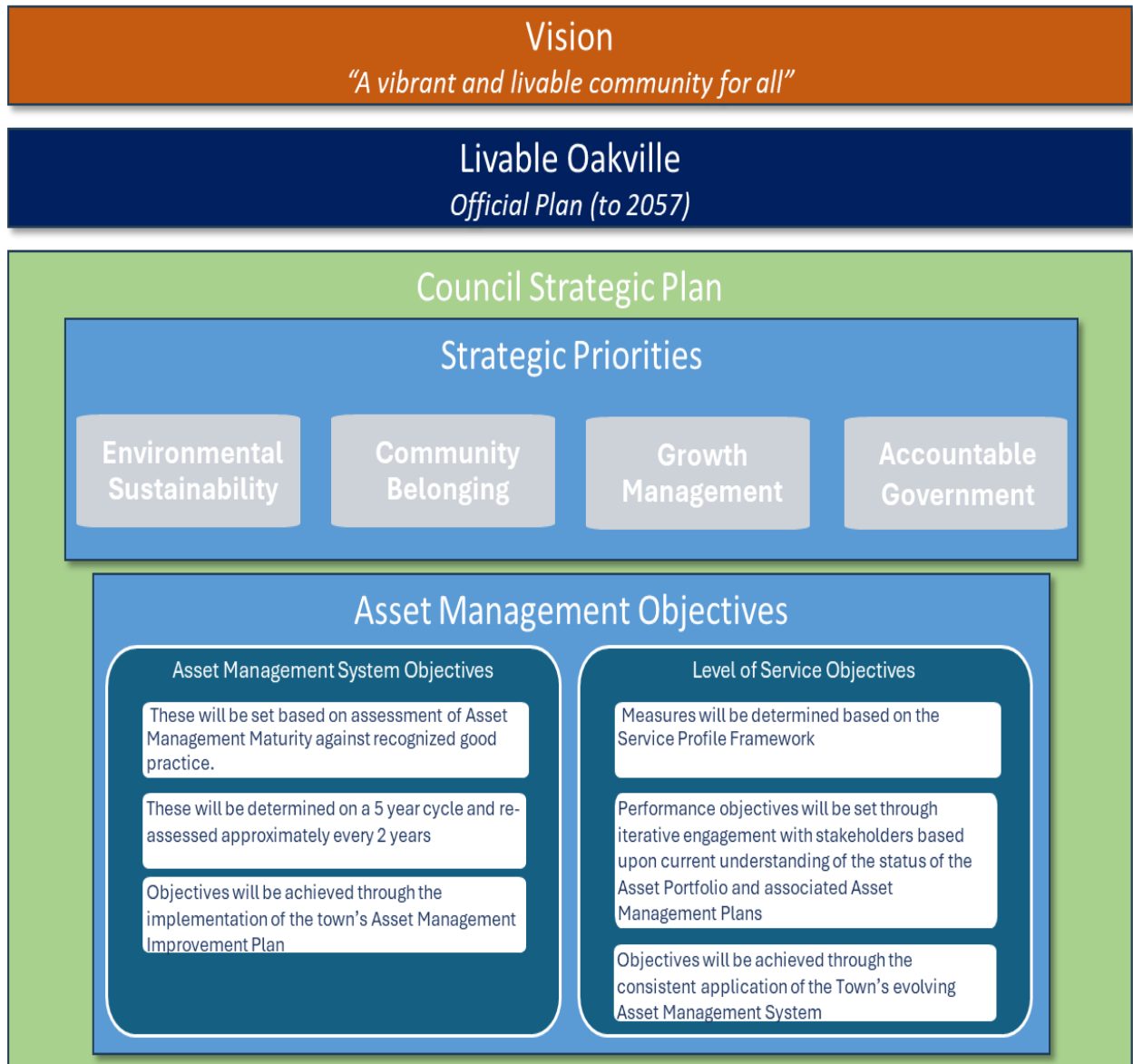
Through ongoing implementation of this framework, the town will be in full alignment with the requirements of O. Reg. 588/17 and will be able to clearly demonstrate a line of sight from Customer Expectation to Technical Performance measures in a consistent format for each service area. Asset Management Plans are then able to explain how asset lifecycle management activities, and their associated capital or operational expenditures, affect technical performance measures which in turn deliver a benefit to the customer through either maintaining or enhancing service performance. It is anticipated that, upon satisfactory development of the Service Profiles, the town will be able to better engage with its Customers and Stakeholders regarding appetite and willingness to pay for changes to service objectives.

The town has standardized the Customer Service Values to the following with the Service Profile:

Customer Service Value	Focus of Value	Examples of Programs / Activities
Quality	Asset Condition and Performance	Renewal and Rehab Programs
Reliable	Operations, Maintenance & Inspections	Operations Activities Preventative Maintenance Corrective Repairs Inspection Programs
Functional	Meeting Service Needs And Standards Change in Service demands or outside influences (climate change)	Growth Program Service/Asset Enhancement Service/Asset Efficiencies Climate Change Mitigation Climate Change Adaptation Initiatives

4. Asset Management Objectives and Performance Management

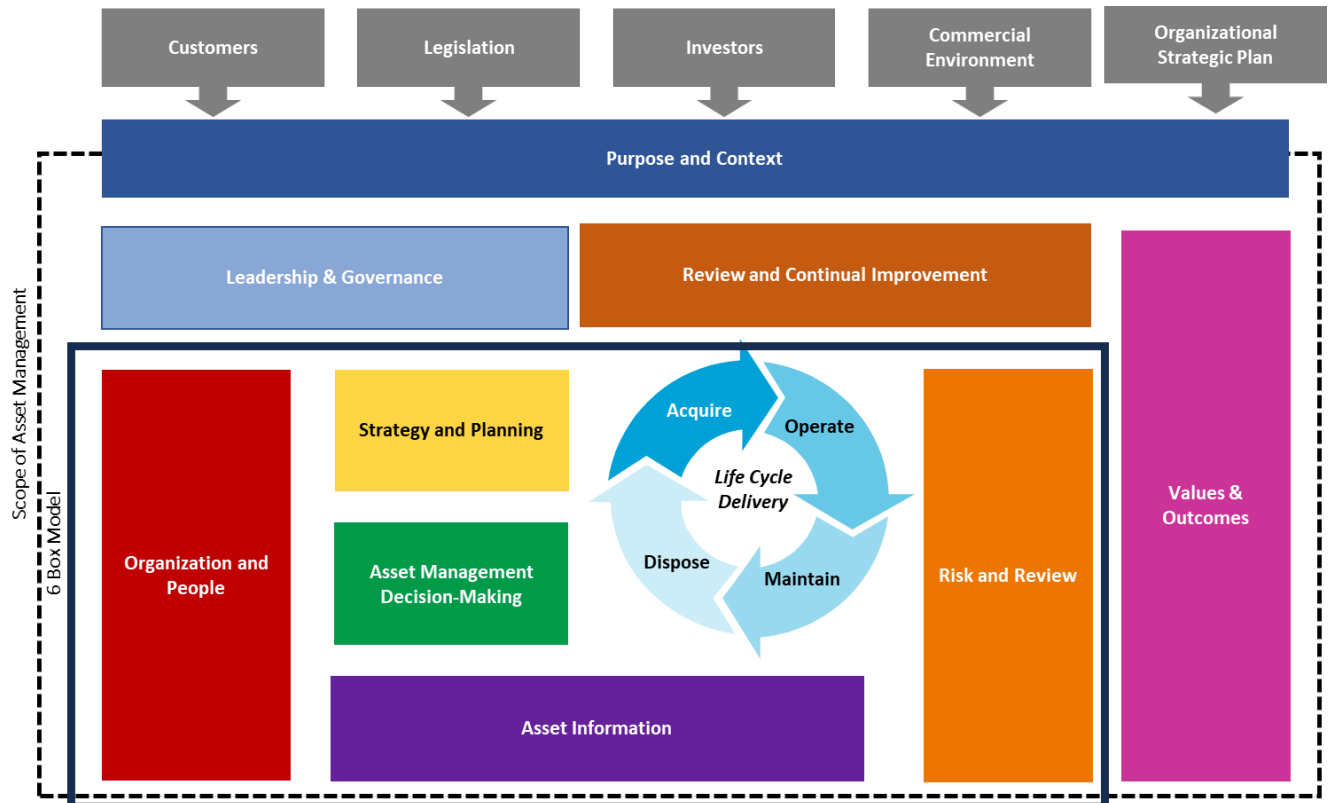
Based upon the above, and in accordance with the recommendations of ISO 55000, the town will have two key sets of Asset Management Objectives



5. The Town of Oakville Asset Management System

The town’s Asset Management System is a set of interconnected practices, processes and documentation which controls and directs the way that the wider discipline of Asset Management is applied. It should not be confused with a specific software system such as the Town’s work management software system, currently JD Edwards, which is simply a part of the overall Asset Management System.

The Institute of Asset Management defines the Asset Management System using the following conceptual model.



Source: IAM Anatomy: 2012

Each of the 6 Box Model coloured boxes refers to a subject group and each subject group contains several distinct subjects. In total there are 39 distinct subjects which comprise the recognized discipline of Asset Management (shown below). The colour coding of the AM System and associated 39 subjects are consistent with the AM Policy principles as shown in the figure below.

Group 1 – Strategy & Planning

1. Asset Management Policy
2. Asset Management Strategy & Objectives
3. Demand Analysis
4. Strategic Planning
5. Asset Management Planning

Group 2 – Asset Management Decision-Making

6. Capital Investment Decision-Making
7. Operations & Maintenance Decision-Making
8. Lifecycle Value Realization
9. Resourcing Strategy
10. Shutdowns & Outage Strategy

Group 3 – Life Cycle Delivery

11. Technical Standards & Legislation
12. Asset creation & Acquisition
13. Systems Engineering
14. Configuration Management
15. Maintenance Delivery
16. Reliability Engineering
17. Asset Operations
18. Resource Management
19. Shutdown & Outage Management
20. Fault & Incident Response
21. Asset Decommissioning & Disposal

Group 4 – Asset Information

22. Asset Information Strategy
23. Asset Information Standards
24. Asset Information Systems
25. Data & Information Management

Group 5 – Organization & People

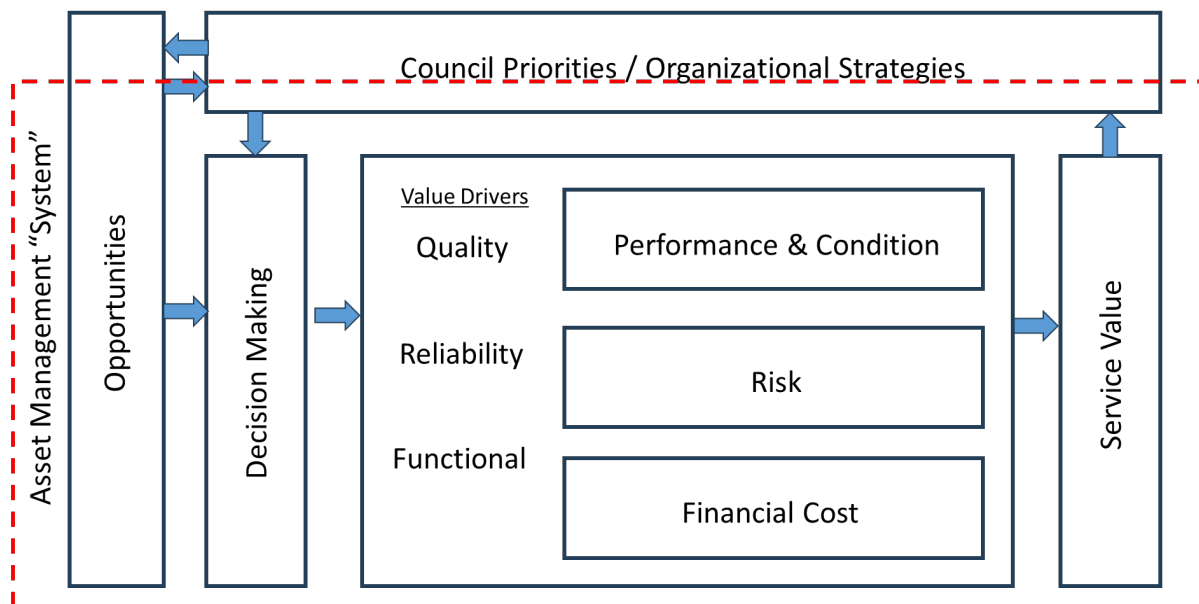
26. Procurement & Supply Chain Management
27. Asset Management Leadership
28. Organizational Structure
29. Organizational Culture
30. Competence Management

Group 6 – Risk & Review

31. Risk Assessment & Management
32. Contingency Planning & Resilience Analysis
33. Sustainable Development
34. Management of Change
35. Asset Performance & Health Monitoring
36. Asset Management System Monitoring
37. Management Review, Audit & Assurance
38. Asset Costing & Valuation
39. Stakeholder Engagement

The Asset Management System is therefore the mechanism to control and direct the application of the various subjects to ensure that the Town is maintaining “line of sight” throughout its decision making and other asset management activities. Below is the diagram that outlines the town’s Asset Management Model.

Asset Management Model



The establishment of the Asset Management Department is a pivotal step, centered around five pillars that closely correspond to key subject areas outlined in the standard. These pillars encompass:

The Town continues to develop and embed these, and other aspects, of its Asset Management System, guided by the 2023 Maturity assessment through a series of ongoing improvement initiatives which are defined in the Asset Management Improvement Plan (see section 10).

5.1 Key Asset Management System Roles

Pillar		Functions
Asset Management System Administration	Policies and processes designed to establish and ensure effective management of a comprehensive Asset Management System for both infrastructure and natural assets at a corporate level.	<ul style="list-style-type: none"> • Policy Management & Governance • Strategy Management • Process and Procedure Management
Asset Management Planning & Prioritization Management	Processes and activities dedicated to supporting, contextualizing, and articulating the strategic direction, integration, and priority setting for corporate assets.	<ul style="list-style-type: none"> • Asset Planning • Condition Assessment Management • Priority Planning & Management • Budget Planning and Preparation
Business Information / Intelligence Management	Processes and practices that integrate business analytics, data mining, data visualization, data tools and infrastructure, and industry best practices to facilitate data-driven decision-making.	<ul style="list-style-type: none"> • Asset Management Information Systems • Data Integrity Management • Analysis Management & Reporting • Asset Records Management • Application & Business Process Management
Knowledge & Capability Training	Processes and practices systematically implemented to foster the development of asset management competencies and capabilities within the organization and among its staff.	<ul style="list-style-type: none"> • Asset Management Competency Framework • Education and Training
Relationship Management	Processes and practices aimed at ensuring productive and effective relationships, both internally and externally, to enhance collaboration and overall effectiveness.	<ul style="list-style-type: none"> • Corporate Leadership and Asset Managers • Council Relations • Government and Agency Relations

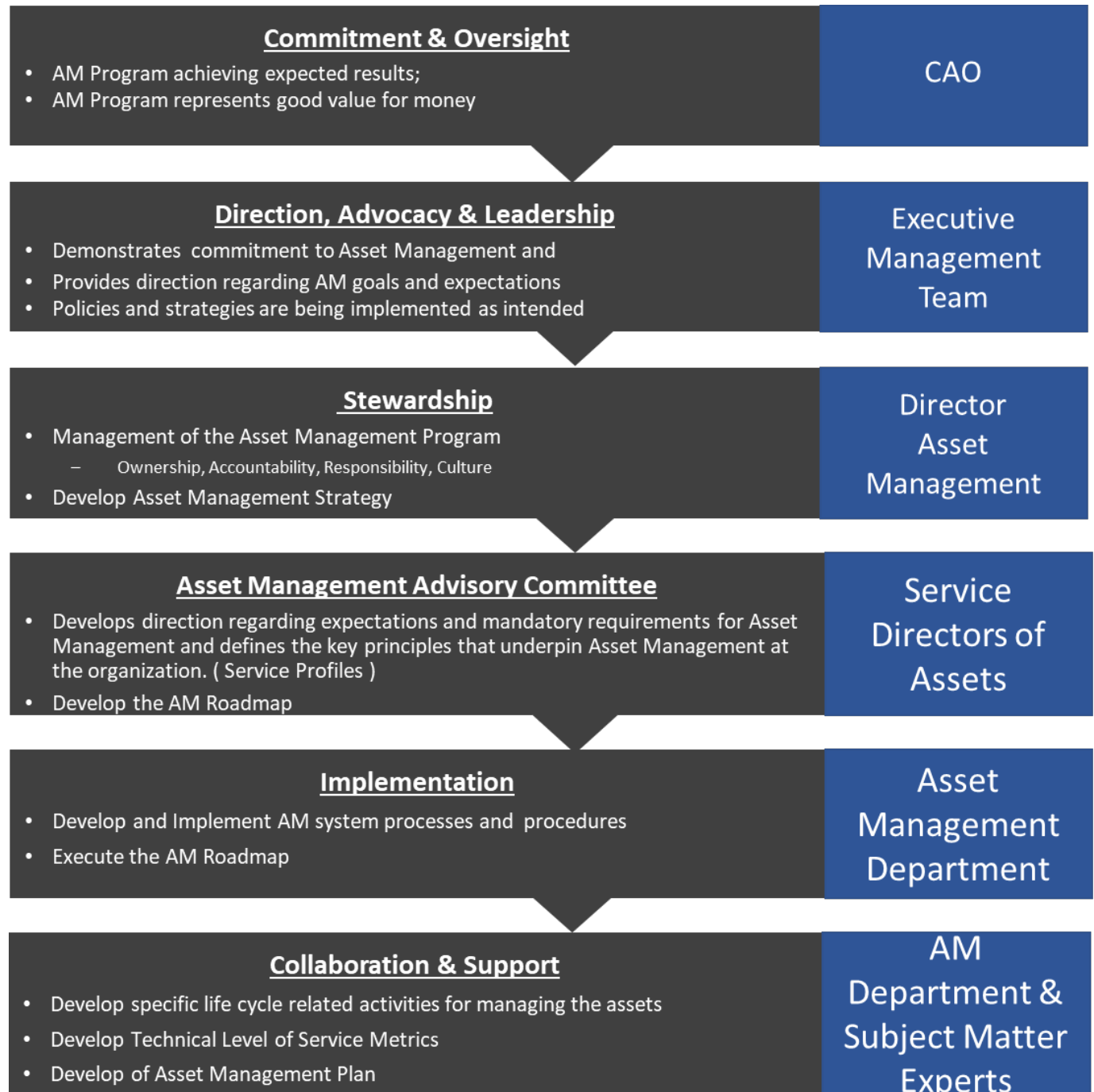
6. Asset Management Governance Framework

A robust Asset Management Governance Framework is essential to ensure that asset management is embedded as a core discipline throughout the Town of Oakville. This framework will:

- **Establish Culture** : Formalize Asset Management as a discipline that is consistently applied across the Town of Oakville.
- **Cultivate a Continuous Improvement Culture:** Promote and foster a culture which supports Asset Management and continuous improvement.
- **Provide Strategic Guidance:** Guide management in the implementation and application of the Asset Management System
- **Ensure Oversight and Accountability:** Maintain clear oversight and control over the development, implementation, and improvement of the Asset Management System.
- **Align with Organizational Goals:** Monitor how asset management contributes to the Town’s strategic objectives, making adjustments as needed to stay on course.
- **Promote Inclusive Participation:** Ensure that appropriate functions, departments, and roles are involved in the development and implementation of the Asset Management Improvement Plan.
- **Adapt to Strategic Change:** Regularly refine success criteria and asset management objectives to remain aligned with the Town’s evolving corporate strategy.

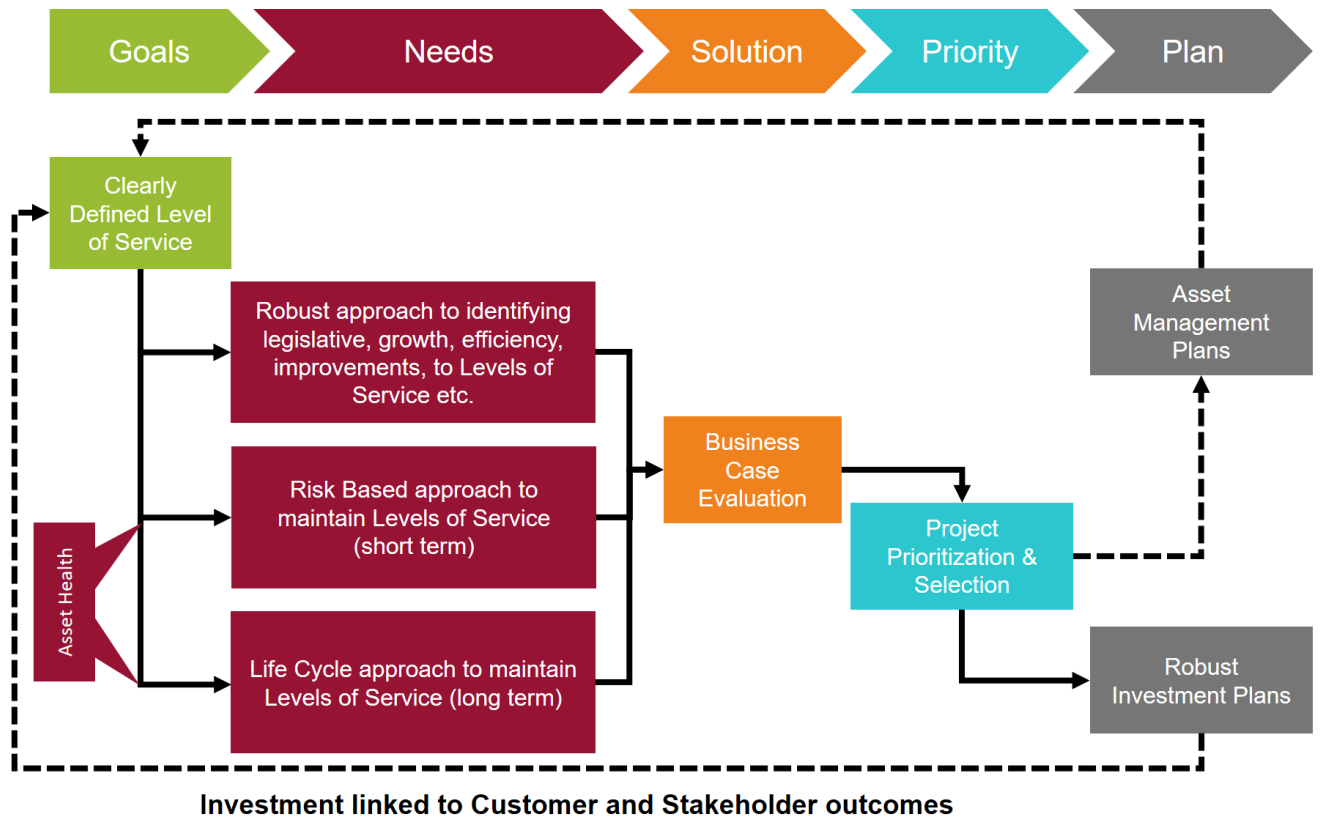
6.1 Asset Management Governance Structure

The following Governance Structure exists in the town



7. Asset Management Planning Framework

The town is committed to a service focused Asset Management planning approach, and this is to be embedded in decision making through application of the framework as shown in the diagram below. This planning framework and associated processes are a cornerstone of the Town’s Asset Management System and exemplifies the intent and requirements behind O. Reg. 588/17 in that it seeks to clearly link investment dollars to either maintaining or enhancing customer level of service outputs.



Fundamental aspects of this framework will be explained further in the following sections. However, the key concept is that the Customer Level of Service objective is always at the forefront of the Asset Management decision-making process.

The key output of application of this Framework are Asset Management Plans which meet the requirements of Regulation 588/17 and explain the holistic suite of lifecycle management activities required to meet Level of Service objectives and the associated collective costs of these activities. Where affordability or other relevant constraints are in place, the Asset Management Plan will then explain the projected effects of these constraints upon the Town’s ability to deliver Levels of Service.

7.1 Role of Master Plans

Each Service Area within the Town typically prepares Master Plans which are focused upon:

- Growth and change in demand requirements
- Legislative requirements
- Efficiency opportunities
- Service improvement opportunities

Asset Management Plans typically provides input into the Master Planning process as well as utilize the outputs of the Master Planning process where appropriate and seek to overlay these outputs upon the underlying requirements for maintaining Levels of Service – i.e. managing the risk of asset failure and subsequent level of service degradation – to present a holistic and comprehensive view of the activities and resources necessary to deliver the Town’s Level of Service objectives. The Town’s Master Plans can be found on the town’s website: Oakville.ca

7.2 Maintaining Levels of Service (Asset Performance Expectation)

The Town measures and monitors a broad range of technical performance measures for each Service which provide an indication of the “health” of the asset base. Asset health can degrade through simple age and/or use or a range of other causes. Poor asset health may indicate a risk to service delivery and an associated need to intervene. This intervention could take many forms – such as an improved operation and maintenance regime, a capital renewal project, a contingency plan or a combination of several lifecycle management approaches.

The renewal capital investment required to manage asset health degradation and associated risks is typically considered over two timeframes.

- a) Lifecycle models are generally utilized to apply typical renewal or refurbishment actions to the asset inventory over a long-term horizon (such as 10-25 years). The current age and condition of the asset is used to extrapolate the remaining useful life of the asset and trigger a refurbishment and/or replacement investment at an appropriate point in time in the model. These modelled investments can then be aggregated to derive a total annual expenditure required to renew existing assets over the selected planning horizon. This is a very useful input into the Town’s long-term financial planning and reserve fund deliberations and, as such, is a core focus of the Reg 588/17 Asset Management Plans.
- b) Asset risk assessments are used to identify, define, and prioritize the actual renewal projects and other potential interventions within the short-term horizon – typically 1-5 years. Risk assessments are informed by the outputs of the lifecycle models (in terms of assets that may be degraded and candidates for renewal), but additional condition assessments and inspections confirm the true nature and extent of the risk and whether a renewal project is justified within the next few years. The risk assessment process can also help to apply a further layer or prioritization on competing interventions within limited budgets, together with identifying additional risks and causes that may not be covered by a lifecycle model. See 7.4 below for more details on asset risk assessment.

7.3 Asset Condition

Asset Condition is a commonly used indicator of overall asset health and condition data is derived from periodic asset inspections. Typically, assets in poor condition are at higher likelihood of failure with associated potential adverse impacts on Customer Levels of Service. The Town of Oakville utilizes a standard condition rating scale as one means of tracking Asset Health. The scale is shown in the table below. Some slight adjustments are made to Roads and Bridges as detailed in AMP within the Road Network Chapter.

			Condition Table		
Rank			Description of Condition	General Description	3 AMP Grouping
A	1	Very Good	Very Good Condition - Only Normal Maintenance Required	Performs at expectation and is in excellent condition.	Good
B	2	Good	Minor Defects Only - Minor Maintenance Required (10%)	Performs at expectation with minor wear and tear.	Good
C	3	Fair	Periodic Maintenance Required to Return to Accepted Level of Service - Maintenance Required (10 - 30%)	Performs at expectation with minor break downs.	Fair
D	4	Poor	Planning Renewal/ Upgrade Required- Consistent Maintenance Required	Reduction in quality and appearance, can be damaged or performing below expectation	Fair/Poor
F	5	Very Poor	Asset Unserviceable - Over 50% - Asset Requires Replacement	Inoperable or damaged, constantly breaking down	Poor

Key information on the age, condition and replacement cost profile for each asset type and associated sub-types are presented in standardized Asset Reports available from the Town’s Asset Management team. For the purposes of reporting simplicity, the 5-point condition assessment scale shown above is mapped to a common Good/ Fair/ Poor category.

Other Asset Health related data – such as failure and work histories - is extracted on an as needed basis from the JD Edwards work management system.

7.4 Asset Risk

As mentioned in 7.2 above, Asset Risk Management is a process which typically utilizes asset health and other asset data, combined with the experience and knowledge of town staff to identify, assess and evaluate risks associated with the Town’s asset portfolio. Asset Risk considers both the likelihood of asset failure but also the consequences of failure in terms of Safety, Level of Service, Compliance, Environmental Protection, Cost etc. Assets that exhibit high risks are typically targeted for implementation of appropriate risk mitigation actions – such as capital renewal projects or enhanced maintenance regimes. The town has created a scoring system to evaluate the consequence of asset failure based on a set of five criteria which have been weighed to create an overall criticality score for individual asset categories. A summary of the Consequence factors and scoring system are summarized below.

Strategic Asset Management Plan

Sub-Factor and Percent Weight of the Main Factor	Rating	Description	
Replacement Effort (Percentage weight 35%)			
Replacement Time Percentage Weight (20%)	1	Within normal operations (0-18 months)	
	3	Requires planned Replacement but can be done within 24 months	
	5	Requires major planned replacement, potentially more than 24 months	
Replacement Money Percentage Weight (30%)	1	Less than \$300K	
	2	\$300K - \$750K	
	3	\$750K - \$1M	
	4	\$1M - \$2M	
	5	Greater than \$2M	
Single/Multi Point Failure Percentage Weight (50%)	1	Single effect: only affect the failed asset	
	3	One parent effect: indirect interruption to the parent asset	
	5	Multiple/asset network effect: cascading effect to other assets	
Type of Non-Compliance (Percentage Weight 15%)			
-	1	Town policy/procedure/strategic goals	
	3	Governing body's guidelines: e.g. PEO and CFSA	
	5	Direct regulatory (legislative effect)	
Service Delivery (Percentage Weight 50%)			
Service Interruption (50%)	Degree of Service Degradation (50%)	0	Non-Critical: Service can continue for extended periods under redundancy or continuity plans or without continuity plans for greater than 2 months
		2	Low Critical: Service can tolerate operating under redundancy or continuity plans for 1 to 2 months
		3	moderate Critical :Service can continue for extended period under redundancy or continuity plans for two weeks to 1 month
		4	High Critical :Service can continue for extended period under redundancy or continuity plans for 1 to 2 weeks
		5	Mission Critical :Service cannot continue for extended periods under redundancy or continuity plans for up to 1 week
	Length of Service Interruption (50%)	1	Service interruption acceptable
		2	Short period of time: less than a day
		3	A few days: 1-2 days
		4	Long period of time: a week
		5	Longer than a week
Service Redundancy and Continuity Response (50%)	Redundancy (50%)	1	Total redundancy in place
		3	Partial redundancy in place
		5	No redundancy
	Continuity (50%)	1	Total continuity in place
		3	Partial continuity plan in place
		5	No continuity

Condition/Likelihood	Criticality/Consequence
Highly Likely F	;
Likely D	<
Possible C	=
Unlikely B	>
Rare A	?

The Condition/Likelihood rating is then combined with the Criticality/Consequence rating to create an overall asset level risk ranking which can be used to set the priority of the individual assets in any given year based on the consequence and likelihood of failure. For example, assets in good condition and low consequences would be ranked at the bottom of the priority scale and alternatively assets in poor condition and high consequence would rank at the top. As the asset ages and conditions begin to deteriorate the priority ranking of the individual asset will increase. Below is the Priority Rating Matrix that will be used to assess the overall risk of town assets.



Currently Asset Risk is routinely but informally considered using the experience of the Town’s planning and operational staff when proposing lifecycle management activities. However, with the establishment of this risk matrix a formal process to incorporate the risk framework into the planning process and begin to be able to assess risk across all town assets is a next step that has been identified in the Asset Management Improvement Plan.

7.5 Climate Change Risk and Resilience

The Town will be developing its approach to assessing the potential risks to its assets associated with Climate Change as part of its ongoing Asset Management Improvement Plan.

7.6 Project Prioritization and Selection

The Finance and Asset Management Departments are responsible for facilitating the development of the Capital and Operating budgets at the Town. This involves facilitating discussions on the selection of proposed capital investment projects over the long-term planning period.

While a formal prioritization system does not currently exist, the Town has developed the following broad prioritization criteria to assess the different types of capital project drivers and relative weightings which are used to guide prioritization discussions. This project prioritization system will be used in conjunction with the risk priority matrix to develop an overall strategy for prioritizing the long-term capital program needs.

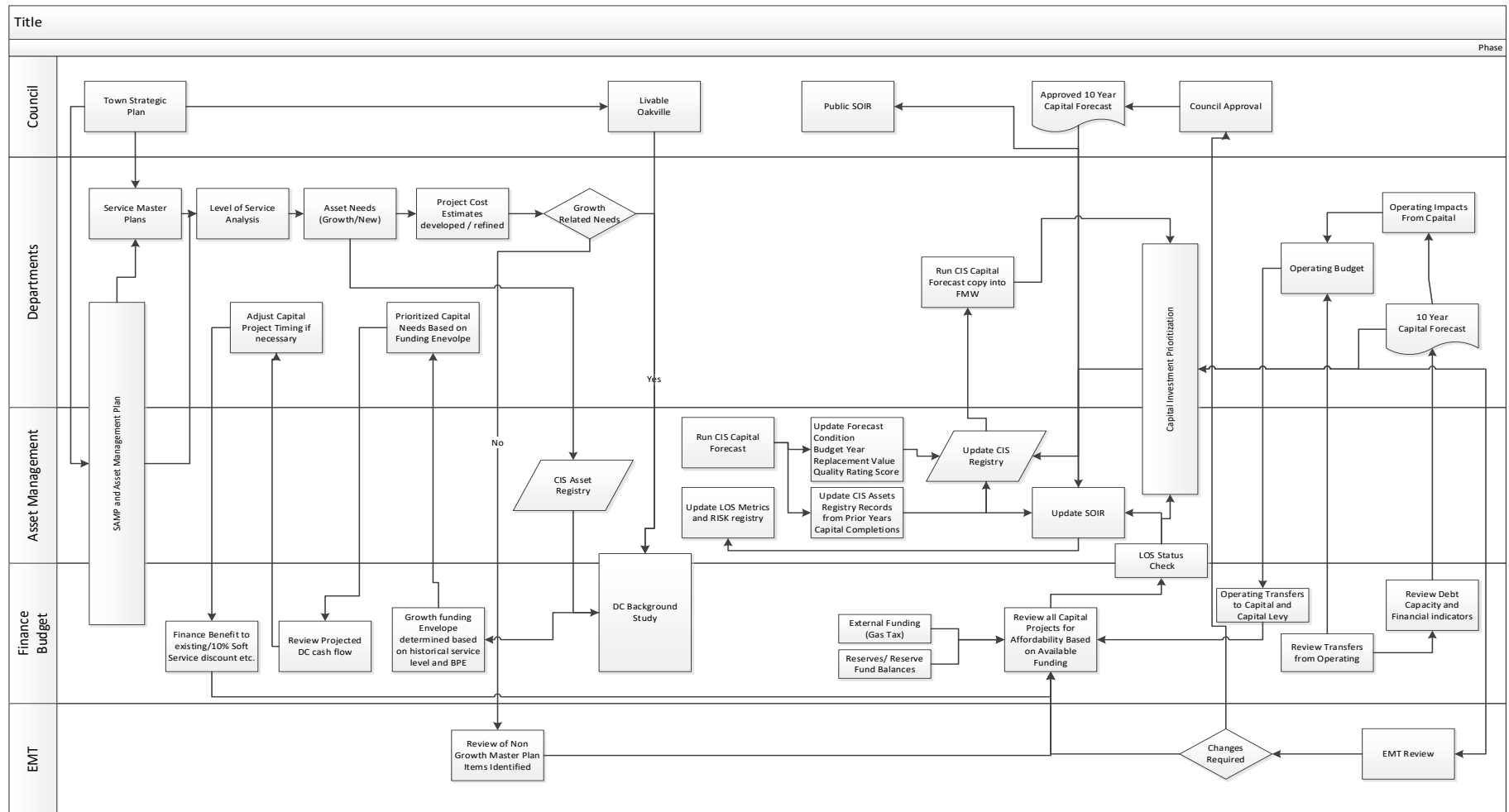
Category	Criteria	Definition	Weight
Safety & Regulatory	Maintaining Safety	Maintains the safety aspects of a service.	38%
	Safety Improvement	Improves the safety aspects of a service.	
	New Regulations	Makes changes to the service to meet new regulatory requirements.	
Maintain Service	Maintaining Regulated Service Outputs	Maintains the aspects of service as set down in existing legislation/ regulation or regarding public health.	25%
	Maintaining Discretionary Service Outputs	Maintains the aspects of service as directed by current Town Policies, Strategies, etc.	
	Maintaining Aesthetic Service Outputs	Maintains aesthetic aspects of a service.	
Sustainability	Environmental Improvement	Makes changes to the service to improve environmental/ sustainability aspects. May include changes staff working environment.	20%
	Financial Sustainability	Replaces existing infrastructure to improve operational efficiency. E.g. (Spend to Save)	
	Resilience	Hardens the assets against natural or man-made threats or improves resiliency.	
Growth & Service Enhancements	Growth	Either supports business development or enables growth of the Town.	17%
	Enhance Aesthetic Service Outputs	Enhances aesthetic aspects of a service.	
	Enhance Discretionary Service Outputs	Enhances the aspects of service as directed by new Town Policies, Strategies, etc.	

7.7 Capital Investment Planning Process Summary

The Investment Planning process is summarized in the diagram overleaf.

7.8 Capital Investment Planning Process Summary

The Investment Planning process is summarized in the diagram overleaf.



7.9 Operations and Maintenance

Each Town Service conducts its own ongoing operations and maintenance tasks through a mix of in-house and contracted services. These tasks are wide range but typically involve:

- general housekeeping, cleaning, and janitorial services
- asset inspections
- planned asset maintenance
- reactive (e.g. breakdown repair) asset maintenance
- responding to Service Oakville Calls.

Tasks are generally carried out by Town staff in accordance with documented standard operating procedures (SOP's) where appropriate.

All maintenance activities are managed using the JD Edwards software system. The system has been in use for several years and the asset registry data is generally to be considered of relatively high quality (see section 8). The town uses GIS applications and a range of mobile devices to support its operations and maintenance activities in the field and to interface with JD Edwards for distribution of work orders etc.

One area that is included in the 5-year improvement plan is the investigation and recording of asset failures. It is recognized that the Town could be more systematic in its recording of failure data in JD Edwards and its subsequent analysis to better understand causes and trends related to asset degradation and failure.

7.10 Asset Management Plans

The Town's framework for Asset Management Plans (AMP) generally follows ISO 55000 guidelines and adheres to Reg 588/17 but with minor modifications to facilitate communication of key issues. The AMPs will be structured as follows:

1. Introduction
2. Overview
3. State of Infrastructure
4. Level Of Service
5. Asset Lifecycle Management Strategies
6. Proposed Level of Service
7. Financing Strategy
8. Plan Improvement

8. Asset Data and Information

8.1 Asset Registry

The Asset Registry is comprised of two systems: ERP System - JD Edwards and GIS.

JD Edwards This system contains all the Strategic Asset Information involved in Asset Forecasting and Planning. The Asset Registry contains assets at various levels for example:

- Tangible Capital Assets as defined by PSAB3150,
- Assets critical to service provision
- Assets that have specific legislative maintenance requirements
- Assets that require maintenance tracking

GIS: This system contains geographical location and other detail attributes.

8.2 Asset Data and Information Management

Over the last several years the Town has invested significant time and resources into improving its Asset Data. The Asset Management Team, in conjunction with Service staff, have implemented data-cleansing and improved processes focused upon the quality of Asset Registry data including both master data and asset attribute data. The Asset Register data quality for all service areas is now considered to be generally in the “high” category.

However, it is recognized that the town still needs to improve upon the consistency, coverage, and currency of its condition assessment practices within some Services and is actively taking steps to do so.

9. Asset Management Enablers

Successful Asset Management relies upon people and their collaborative working practices to make the best decisions on behalf of Customers and Stakeholders. The Town has over the last several years implemented the following on an ongoing basis:

- **Periodic Asset Management Training**

The Town has engaged trainers endorsed by the Institute of Asset Management to provide Principles of Asset Management training and certification for a wide range of Town staff. This training has explained and reinforced the key concepts embedded in the Town's Asset Management Policy.

- **Asset Management Awareness Videos**

The Town has developed and published online set of Asset Management awareness videos that are intended to be used with new staff or on an as needed refresher basis.

- **Asset Management Governance**

The Town is committed to implementing the Asset Management Governance Framework and, in particular, the Service and Asset Management Network. This Network provides a forum for sharing and discussing good practices in Asset Management and how this can be applied at the Town.

- **Asset Management Guidelines**

There are a suite of fundamental practices and processes within the Asset Management System that support delivery of the Asset Management Policy and, as a result, enable staff to manage assets and deliver asset management objectives in the most efficient and effective manner. The Town's Asset Management Team will be responsible for developing process guidance that facilitates a consistent approach across the Town.

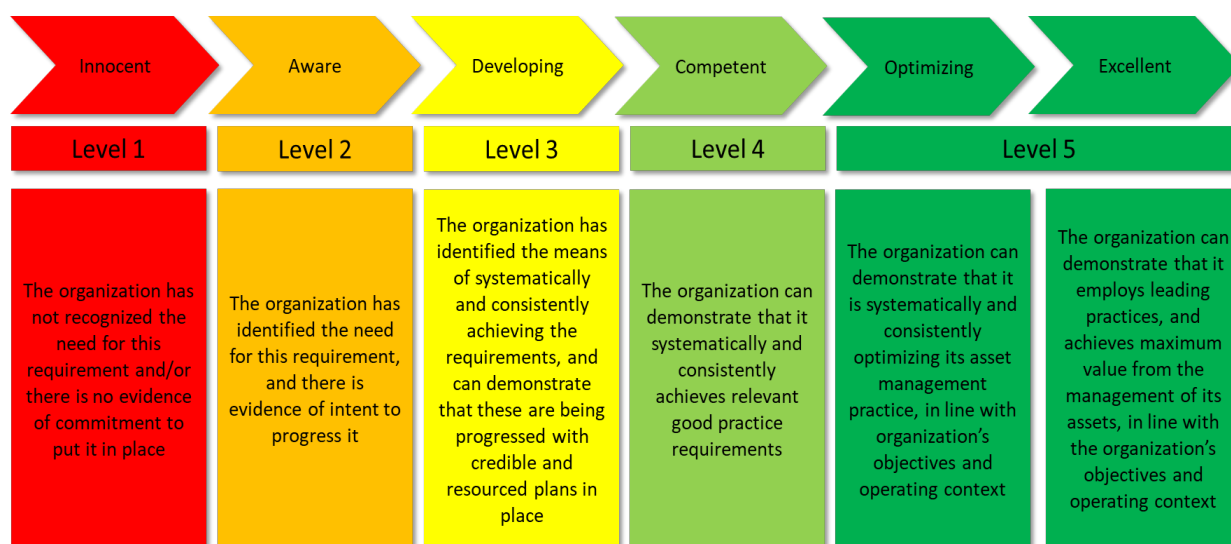
To continue to build and support the Town's AM Culture the 5-year AM improvement plan includes an initiative to further develop its Asset Management Learning and Development framework which is focused on ensuring that both teams and individuals have the necessary competences to fulfil their AM roles within the AM System and Reg 588/17 AMP requirements.

10. Asset Management Improvement Plan

10.1 Maturity Assessment

Implementing the Asset Management Policy requires improved asset management practices, competencies, and capabilities both within the individual Services and across the Town as a whole.

To advance the state of asset management practice, an initial baseline asset management maturity assessment was conducted in 2016/2017 and was then reviewed and updated in 2023. The assessment used the Comprehensive Asset Management Review and Assessment (CAMRA) tool and was facilitated by Institute of Asset Management Endorsed Assessors. CAMRA is an assessment methodology developed by Jacobs which is fully aligned with the requirements of ISO 55000. It involves the facilitated assessment of maturity against 33 facets of good practice asset management for each Service using a standard maturity scale as shown below. The 33 facets are reviewed in a workshop environment with attendees that are selected to provide both a vertical and horizontal cross section of each service area. The minimum target maturity level, to be achieved in all facets over time, is Level 4 (Competent).



The Town conducted CAMRA workshops for the Storm Network, Road Network, Land Improvement, Facilities, Transit and Fleet. The section below reports on the Service for which CAMRA workshops were completed in 2016/2017.

Asset Category	CAMRA Assessment Status
Storm Network	Completed – November 2022
Roads Network	Completed – December 2022
Land Improvement	Completed – January 2023
Facilities	Completed – November 2022
Transit	Completed – January 2023
Fleet	Completed – January 2023

The table below shows the maturity level (at the time of the 2016/17 baseline assessment) and the current maturity level as of 2023.

Organizational Strategic Plans	2.9	3.2
Scope of the Management System for Asset Management (the Asset Management System)	2.3	2.8
Asset Management Policy & Strategic Asset Management Plan	2	3.3
Asset Management Leadership & Governance	3.2	3.5
Asset Management Roles & Responsibilities	2.6	2.9
Master Plan For Development Of Asset Management Business Processes & Procedures	1.8	2.4
Master Plan for Development of Asset Management Skills & Competences	2	2.4
Master Plan For Development of Asset Management Information Technology	1	1.5
"Service Performance Measures/ Levels of Service"	2.4	3.2
Future Trends (Impact Of Growth)	3.4	3.8
Legal, Regulatory & Statutory Requirements	3.2	3.3
Asset Inventory	3.3	3.9
Asset Information	2.8	3.3
Information Management	2.8	3.3
Business Applications	3.4	3.1
Risk Framework - Strategic Level & Asset Level	2.3	2.3
Asset Strategies		2.8
Long Term Renewals Planning		3.3
Optimized Asset Intervention Planning	2.6	2.6
Asset Management Plans	2	3.2
Capital Investment Plan Development & Governance	2.5	3
Capital Projects - Planning, Design & Construction	2.6	3.3
Operations Management	2.9	3.4
Maintenance Management	3.3	3.3
Investigation And Recording Of Routine Asset Failures & Reactive Work	3.1	2.9
Materials Management	3.6	3.1
Emergency Preparedness & Response	4.4	3.4
Control of Documented Information	2.6	3.1
Learning & Development	2	2.1
Knowledge Retention & Succession Planning	1.9	2.5
Asset Management Quality Assurance & Management Review	2	2.3
Continual Improvement Culture	3	2.8
Communication & Change Management	2.7	2.8

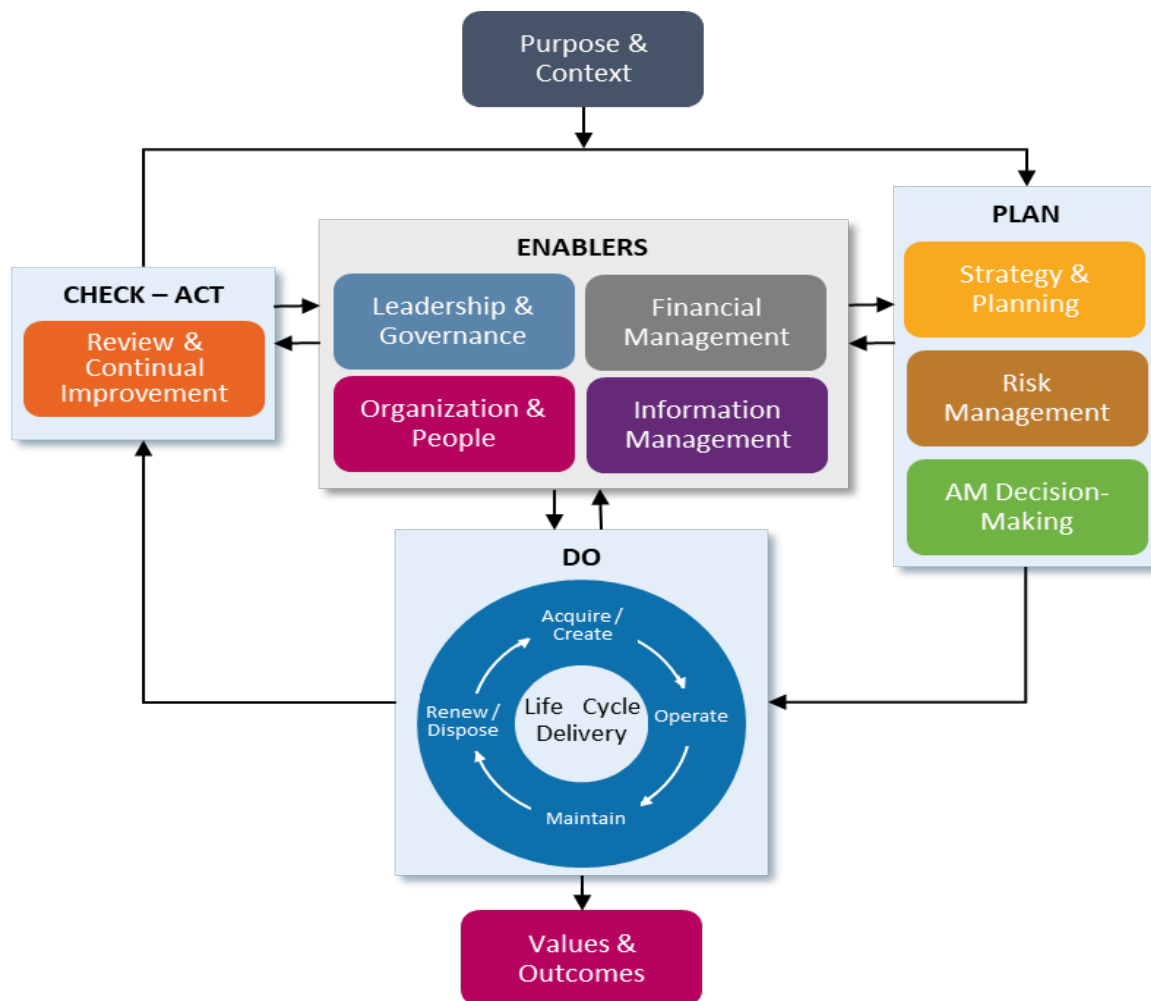
As can be seen here have been significant improvements noted in the areas targeted by the initial 5-year improvement plan such as:

- Asset Management Policy and Strategic Asset Management Plan (AM Strategy)
- Service Performance Measures / Levels of Service
- Asset Inventory
- Asset Information
- Information Management
- Asset Management Plans
- Capital Investment Plan Development & Governance
- Capital Projects – Planning, Design and Construction
- Operations Management
- Control of Documented Information

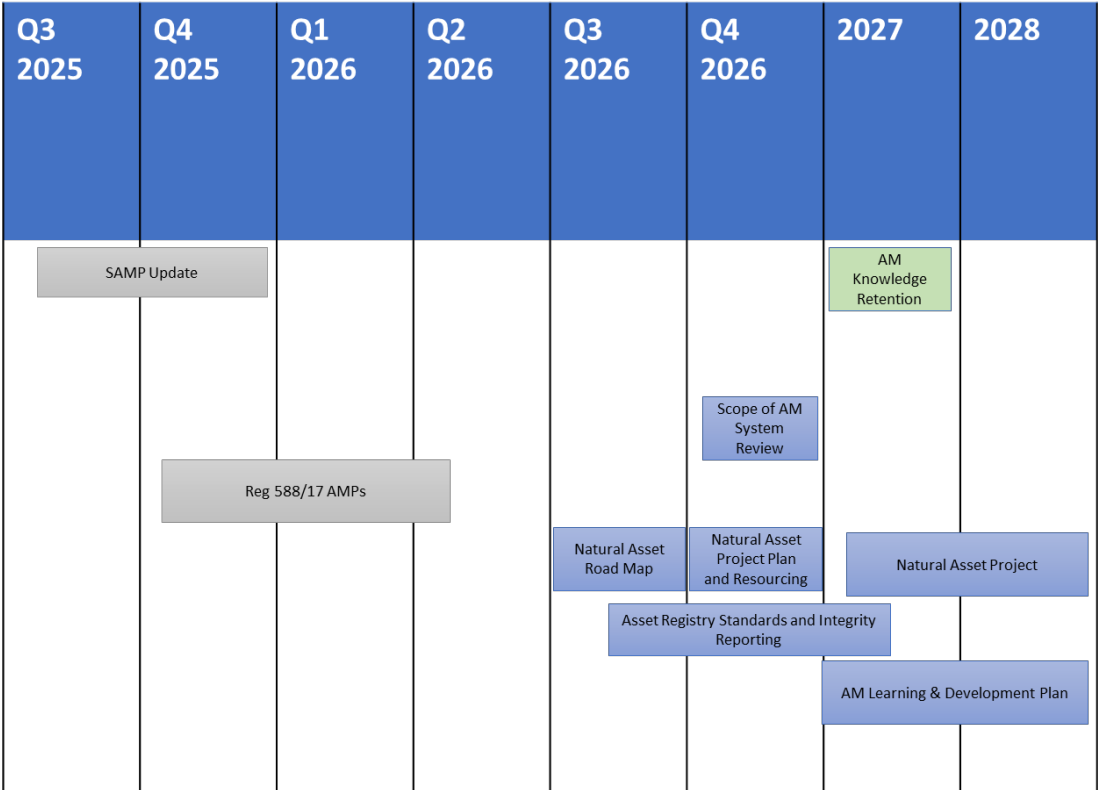
10.2 5-Year Improvement Plan

The Asset Management Department is continuously refining processes and Asset Data Collection to move the town along the Maturity Assessment Scale. The continuous improvement processes are focused on the boxes listed below.

The requirement for continued development of Reg 588/17 AMPs will by necessity drive further improvement in AM processes, data and documentation – primarily related to Levels of Service, Asset Strategies and Long-Term Renewals Planning



An overview of the 5 Year plan is shown in the diagram below. It is anticipated that these improvement initiatives will be driven and coordinated by the Asset Management Team.



A formal update to the 2023 Maturity Assessment, which will involve externally facilitated workshops, will take place in late 2028. A further revised Asset Management Improvement Plan will be developed subsequent to this formal re-assessment.

10.3 Improvement Plan Initiative Details

The following is a brief description of the improvement plan initiatives. Further information is provided in the maturity assessment report itself.

10.4 Short Term (within 2 years)

10.4.1 Asset Management Business Processes

As discussed in Section 5 (Asset Management System), to further solidify and embed the Asset Management System it is recommended that the Town define a short-list of key AM Business Processes that should be documented, communicated to, and applied consistently across the Service areas. Such processes should be developed in a standard format, held in a centralized repository (such as a SharePoint site) for ease of access and updating, and subject to a targeted future audit/review procedure to identify and rectify any implementation issues. A review of any relevant related processes such as Project Management processes should also be conducted to ensure consistency and clarity of interfaces where appropriate. Preliminary suggestions for AM Processes would be:

- New Asset Handover (focused on Asset Data and Information)
- Asset Management and Financial Data Updates

- Level of Service Tracking and Reporting
- State of Infrastructure Reporting
- Strategic Risk Management
- Asset Risk Management
- Long Term Renewals Planning
- Asset Failure Investigation and Data Recording

10.4.2 Strategic and Asset Risk

As discussed in Section 7.4 it is recommended that the Town:

- Document a Strategic Risk Framework and accompanying process whereby each Service Area should develop and maintain a Strategic Risk Register identifying the key risks that could influence achievement of its objectives. This Strategic Risk Register should also identify key action owners and delivery timescales. This Strategic Risk Register would typically be reviewed once or twice per year by Service Area management.
- Review available frameworks and approaches for assessing the infrastructure related risks associated with Climate Change (e.g. Climate Lens, PIEVC etc.) and defining associated adaptation requirements, select a preferred approach, pilot on a selected service area/ asset portfolio, and embed in AM decision-making; specifically with regards to Reg 588/ 17 AMP development and budgeting for potential longer-term infrastructure related climate adaptation investment requirements.
- Review its existing Asset Risk and Criticality Framework to ensure that it supports sound AM decision making, and that there is a well-defined Asset Risk management process in place for all service areas.

10.4.3 Learning and Development Framework

As discussed in Section 9, this initiative will further develop the Town's Asset Management Learning and Development framework which is focused on ensuring that both teams and individuals have the necessary competences to fulfil their AM roles within the AM System and Reg 588/ 17 AMP requirements.

The framework will be based around recognized competency frameworks (i.e. IAM, CNAM) as far as possible and will involve a high-level assessment of teams and individuals against defined competency requirements which will then feed into a tailored AM learning and development plan. It is envisaged this plan will involve a mix of corporate and service area led activities based around some core bespoke training material and/ or services addressing key AM requirements across the Town.

The framework will be targeted at three distinct levels i) General AM Awareness and Culture ii) Specific AM Topics (e.g. AM Policy, Reg 588/ 17 AMP requirements) and iii) specific AM processes and practices (e.g. Asset Risk, State of Infrastructure Reporting etc.) and will consider a range of delivery mechanisms (e.g. group in-person or online sessions, online self-study, work-shadow etc.). The framework will also consider onboarding requirements for new staff.

The overall approach will also involve implementing a formalized feedback mechanism to allow the Town to review the effectiveness of the learning and development plan as it is delivered and to adjust as required. It is envisaged that this will primarily be done through post-training feedback surveys, for example. In

addition, the Town will implement an AM competence tracking and record -keeping process to align with the requirements set out in ISO 55000.

10.4.4 Communication and Change Management

Recognizing the requirement for Town staff to be suitably engaged in both the short-term and medium-term improvement initiatives and Reg 588/17 submissions, it is recommended that the Town invest some time in developing an integrated communications and change management strategy to support successful delivery and long-term embedment in day-to-day work practices and organizational culture.

Using recognized change management strategies such as ADKAR is recommended and the communications strategy should dovetail with this overall change management approach.

It is therefore recommended that the AM Team:

- a) Review key AM related initiatives and timelines – Reg 588/17 and this roadmap – and develop a “storyboard” of ongoing/upcoming changes
- b) Conduct a high-level stakeholder analysis
- c) Define the key messages which a) relate to the storyboard and relate the initiatives back to the Town’s overarching strategic vision and the AM Policy and b) convey “what’s in it for me?” for the various stakeholders so as to create the desire to engage with the proposed changes and knowledge of what is involved.
- d) Define how and when these key messages should best be articulated to the stakeholders (e.g. emails, newsletters, online sessions etc.)
- e) Ensure that any necessary awareness, training, and support opportunities are referenced and made available in line with the learning and development plan
- f) Implement a feedback mechanism (such as an online feedback or suggestions form) to allow individuals to provide constructive comments on the ongoing AM program and a route to have these considered by management and/or the AM Steering Committee if valid.
- g) Design specific proactive “check-in” sessions to gauge staff feedback post-implementation and identify any major lessons-learned or further opportunities
- h) Develop a specific mechanism to proactively report on successes – for example an annual “state of asset management” newsletter

10.5 Medium Term (3-5 Year) Initiatives

10.5.1 Investigation and Recording of Asset Failures

As discussed in Section 7.7 and 8.2 there is an opportunity to more systematically record and categorize asset failure data, build failure histories, and support future analyses such as the development of deterioration curves. Key steps will be:

- For each Service Area, define routine/standard failure types and typical causes across main asset classes

Strategic Asset Management Plan

- Review how well each failure type is currently recorded in JD Edwards etc., and assess if improved data capture processes are both warranted and practicable
- AM Team to work with Service Areas to define improved categorization system(s) for problem, cause, and remedy where appropriate
- Develop a root cause analysis and incident investigation framework and process for differing degrees of asset failure and associated incident

10.5.2 Optimized Asset Intervention Planning (Whole Life Cost Analysis)

To support the Town's strategic objectives around sound financial management, it would be beneficial to move towards a more consistent application of whole life costing approaches for significant investment decisions. This would involve:

- Working with the Service Areas to pick 2-3 investment decisions that either have been considered, or may be beneficial to be considered, from a whole life cost perspective
- Engaging with procurement and purchasing to review these cases at a high-level and fully assess/ define whole life costing requirements
- Developing a set of guidelines for circumstances in which a formal whole-life cost comparison of options should be applied
- Developing a standard Net Present Cost (NPC) and Equivalent Annualized Cost (EAC) toolkit
- Developing illustrative examples and training materials as required
- Maintaining a library of actual WLC analyses for future reference

11. Implementation, Monitoring and Continual Improvement

11.1 External Asset Management Coordination and Benchmarking

The Town participates in the Halton Region Asset Management Working Committee which meets quarterly. The purpose of the group is to share and coordinate the application of Asset Management good practices across the Region.

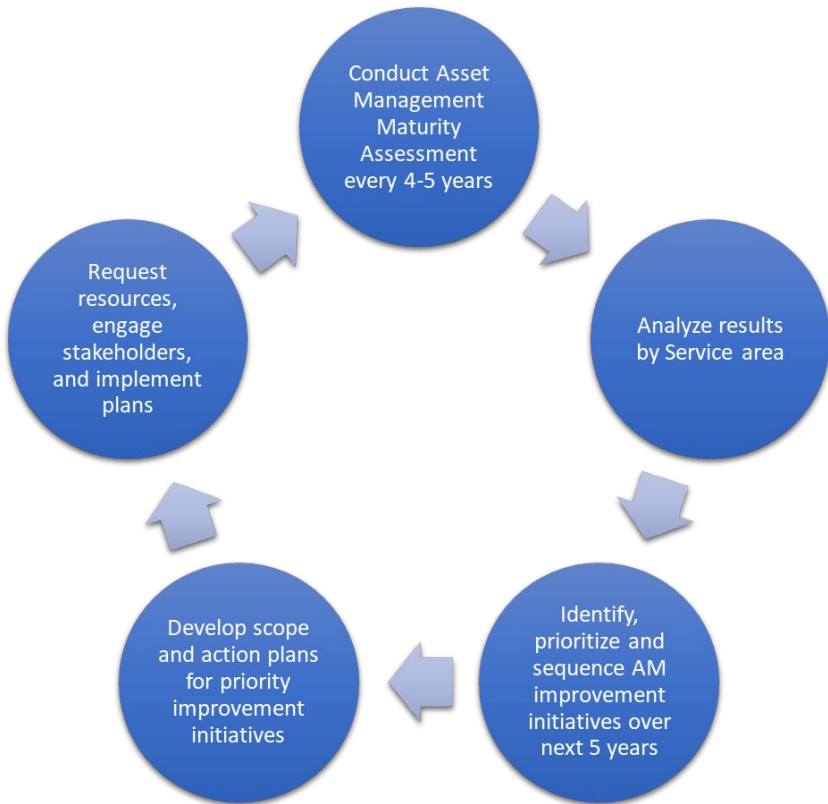
The Town also participates in Asset Management Ontario which is a forum for sharing experiences and good practices developed by Municipalities across the Province.

The Town also attends the Canadian Network of Asset Managers (CNAM) workshops and AM Ontario conferences and workshops which are National and Provincial forums for sharing good practices within the Asset Management field.

11.2 Continual Improvement Planning Cycle

Continuous improvement in asset management refers to the ongoing effort to enhance asset performance, reliability, and value through incremental changes, data-driven decision-making, and organizational learning. It's a core principle in standards like ISO 55000, which emphasizes regular review, measurement, and refinement of asset management processes to optimize cost, risk, and performance.

The following is a graphical representation of the Asset Management Improvement Plan Cycle. The Improvement Plan cycle is focused on the six principles of Asset Management contained with the AM Policy.



Strategic Asset Management Plan

The Town is committed to continual improvement in all aspects of Asset Management. The Town's management will ensure that the following take s place:

- The AM Policy will be reviewed, and refreshed if required, every 5 years maximum in accordance with the requirements of O. Reg. 588/17. The next review is planned for 2024.
- The AM Strategy (this document) will be subject to an interim refresh every four years to coincide with Council Strategic Plans Updates
- A Maturity Assessment and Improvement Plan update will be carried out in late 2028 (approx. 4-5 years after the last assessment (2023)).
- Asset Management Plans will be created and submitted to meet relevant Reg 588 deadlines and will subsequently be reviewed and updated on a 3-year cycle. Sections of the plan may be updated during the budget planning cycle as a result of funding or forecasting changes.
- Customer Level of Service performance will be reported throughout the budget process on a yearly basis
- Technical Level of Service performance will be reported throughout the budget process on a yearly basis.
- Asset data and information management will be leveraged to analyze and identify inefficiencies and areas of improvement. We will be implementing predictive maintenance and performance trend analysis to proactively address issues.
- Fostering a culture of innovation by encouraging team members (Service Areas and AM team) to be innovative in their approach to asset management. This will be done in a structured manner by establishing clear channels for suggesting improvements or reporting challenges, providing assistance for testing new approaches, and documenting successes and failures for future reference.
- Embracing change and being flexible to new ideas and improved ways of doing things and managing assets, fostering relationships by networking with internal and external stakeholders and staying ahead of industry developments.
- Remembering that continuous improvement is a journey, not a destination. Regular review and refinement of our processes will help maintain momentum and drive lasting positive changes in our asset management practices.