Prepared By:

The Town of Halton Hills

Corporate Fleet Management Strategy
Draft Submission

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EXECUTIVE SUMMARY

Overview

The Town of Halton Hills (the Town) owns, operates and maintains a fleet of approximately 240 vehicles and equipment with a replacement value of approximately $23M. The recent rapid population growth in the Town is expected to continue over the next 5 to 7 years, increasing by as much as 20,000 from its 2016 population of 61,161. This Corporate Fleet Management Strategy (CFMS) puts the Town on the pathway to deliver fleet management services in a manner that aligns with the Town's strategic objectives, building upon current resources to enable data-driven service levels that eliminate redundancies and bring efficiencies to the management of a growing fleet portfolio.

The CFMS details the method in which the Town will link its fleet management business practices to its overall vision and goals. The CFMS has been informed by both top-down organizational objectives and the bottom-up needs of front-line operations staff.

The CFMS is developed around management considerations related to organization; people and culture; process; and technology and data of the four (4) business processes of fleet management: procurement, operations, maintenance and disposal/replacement (refer to Figure ES-1 below).

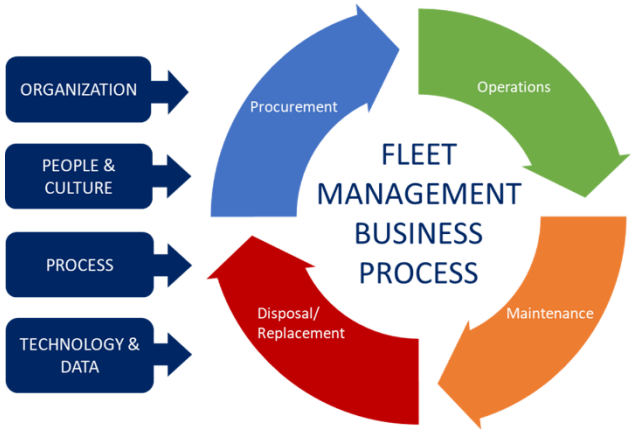

Figure ES-1. Fleet Management Business Process

Recommendations

The CFMS provides eleven (11) recommendations that are grouped into the four fleet business processes, which will enhance the current practices in place in Halton Hills. While the Town is already engaged in several activities that support best practices in Fleet Management, advancing the recommendations below are critical to achieving the goals of the CFMS.

<u>Procurement</u>

- Recommendation #1: Centralize fleet procurement under a single group that engages with subject matter experts from each fleet user group to inform the development of vehicle specifications and other technical elements of the procurement document.

- Recommendation #2: Leverage data to inform the procurement process.
- Recommendation #3: Develop an enhanced fleet procurement approach that can enable lowest lifecycle cost, standardization and the Town's strategic objectives to be considered in the process.
- Recommendation #4: Develop Service Level Agreements (SLAs) as required to bring clarity as to the roles and responsibilities of the entity providing the service that are aligned with the entity receiving the service.

Operations

- Recommendation #5: Implement a Fleet Management software system that tracks operational considerations.
- Recommendation #6: Leverage data to inform a charge out rate for all fleet assets.
- Recommendation #7: Connect environmental considerations to Operational Strategies.

Maintenance

- Recommendation #8: Implement a Fleet Management software system that optimizes and tracks maintenance activities.
- Recommendation #9: Measure and manage appropriate fleet maintenance metrics.
- Recommendation #10: Centralize maintenance management activities, data and processes.

Disposal/Replacement

- Recommendation #11: Implement an Optimum Service Life approach to disposing vehicles.

Organizational Recommendations

Under the Town's current organizational structure, many of the core recommendations of this CFMS can be implemented. Key to the implementation of this strategy, however, will be to centralize the Town's fleet operations under the current fleet management section. This will be achieved by expanding the current fleet section within Public works to support all municipal fleet activities. Within the fleet management section, a role should be designated with the *responsibilities and authority* to execute the elements of this CFMS. Under the current organizational structure, this role is most ideally suited to the current Fleet Supervisor position.

This organizational recommendation is critical to ensuring the successful implementation of the CFMS in the Town over the coming years and should introduce a number of efficiencies if amalgamated under a single section. The successful delivery of this type of initiative typically relies on a strong champion. As such, the Fleet Supervisor position will be responsible for building an annual plan to advance the recommendations of the CFMS in a prioritized manner. This commitment to the CFMS is important to ensuring that its concepts becomes engrained into the day-to-day fleet management activities in the Town.

As the Town's municipal fleet grows, the organizational structure should be reviewed to ensure continued support and enhancement of the Town's corporate fleet management program and asset management processes. In particular, the Town should consider and review the option to create a centralized Fleet Management division, with a dedicated fleet manager position to meet this need.

Closing

The strategic recommendations informed the development of a comprehensive Level of Service (LOS) Framework for the service of FM, which is documented in Appendix A. As part of this CFMS, an implementation plan was produced (documented in Appendix B), which provides a series of project (activities, initiatives, etc.) to operationalize this strategy within the Town.

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DEFINITIONS

Asset: An item, thing or entity that has potential or actual value to an organization.

Asset Management (AM): A combination of management, financial, economic, engineering, and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner at an acceptable level of risk. It involves data-driven decision-making and actions throughout the lifecycle of assets.

Corporate Asset Management (CAM): The application of asset management practices at a corporate level to maximize consistency among the diverse asset groups and create efficiency by harmonizing service levels and business process while considering climate adaptation plans and sustainability strategies.

Asset Management Plans (AMPs): Asset specific plans which are regularly updated to develop data-driven strategies and operational recommendations necessary to achieve objectives and service level expectations.

Asset Management Strategy: Formerly known as Strategic Asset Management Plan (SAMP). A strategy that documents and specifies the method in which organizational objectives are to be converted into AM objectives, the approach for developing AM plans and the role of the AM System in supporting the achievement of AM objectives.

Asset Management System: A set of interrelated and interacting elements of an organization, including the AM Policy, AM Objectives, AM Strategy, AMPs and the processes to achieve these objectives.

Asset Management Policy: A high-level statement of an organization's principles and approach to AM (IIMM, 2015).

Level of Service (LOS): A qualitative or quantitative description of a service that is being provided. Two types of Levels of Service generally exist: Customer (or Community) Levels of Service (CLOS); and, Technical Levels of Service (TLOS).

Performance Measures: Parameters used to measure Levels of Service. They include both Customer and Technical classifications.

Line of Sight: The connection between the Town's high-level strategic objectives, and detailed-level day-to-day activities, carried out by the Town's staff, programs and assets. The Line of Sight clearly illustrates how organizational objectives link to day to day activities.

Asset Lifecycle: A set of phases through the life of an asset that characterizes the ability of the asset to meet an expected level of service and retain its identity as an asset.

Lifecycle Cost: The total cost of ownership of an asset throughout its life. This may include but is not limited to capital costs, operating costs, maintenance costs, renewal costs, replacement or disposal costs, and environmental costs.

ACRONYMS

AM	Asset Management
AMP	Asset Management Plan
CAM	Corporate Asset Management
CFMS	Corporate Fleet Management Strategy
CLOS	Customer Level(s) of Service
CMMS	Computerized Maintenance Management System
FM	Fleet Management
HHCEC	Halton Hills Community Energy Corporation
LOS	Level(s) of Service
PW	Public Works
SLA	Service Level Agreement
TLOS	Technical Level(s) of Service

1. BACKGROUND

The Town of Halton Hills (the Town) owns, operates and maintains a fleet of approximately 240 vehicles and equipment with a replacement value of approximately $23M. The majority of fleet assets are operated by Public Works (PW) and the Fire Department; however, a limited number are operated by the Activan Transit, facilities, or corporate services groups.

The recent rapid population growth in the Town is expected to continue over the next 5 to 7 years, increasing by as much as 20,000 from its 2016 population of 61,161. This Corporate Fleet Management Strategy (CFMS) puts the Town on the pathway to deliver fleet management (FM) services in a manner that aligns with the Town's strategic objectives. It builds upon current resources to work toward an approach where data-driven service levels are used to eliminate redundancies and bring efficiencies to the management of a growing fleet portfolio.

2. PURPOSE AND SCOPE

2.1 Purpose of the Corporate Fleet Management Strategy

This CFMS is a component of the Town's overall asset management (AM) Strategy. The strategy will detail the method in which the Town will link its FM business practices to its overall vision and goals. The strategy, as detailed in this document, achieves the following objectives:

- Aligns with the Town's Corporate Asset Management (CAM) Program and AM Policy, which have been developed to align with the Town's Strategic Plan;
- Documents the Town's goals and objectives for providing fleet services across the Town and FM;
- Defines the scope of FM at the Town;
- Describes the approach to practicing FM at the Town;
- Establishes a Governance Model for the Town to effectively manage fleet assets; and,
- Provides an implementation plan for the Town to achieve its FM objectives.

2.2 Objectives of the Corporate Fleet Management Strategy

This CFMS strives to achieve the following goals:

- Streamline and standardize current FM practices within the Town;
- Ensure that current resources are leveraged, including training and coverage, to provide maximum value;
- Ensure that service levels are clearly defined and can be measured and managed;
- Create a more efficient and cohesive Town-wide FM strategy and approach;
- Support the Town through anticipated growth and demands to optimize spending;
- Support the addition of possible future fleet areas of business; and,
- Position the Town to leverage enhancements in technology to better manage fleet assets moving forward.

2.3 Scope of the Corporate Fleet Management Strategy

The scope of this CFMS pertains to all groups, departments and divisions in the Town that manage fleet assets. At the time of this initial strategy development, these groups included:

- Public Works;
- Transportation (Activan);

- Engineering;
- Building Services/CBO;
- Facilities;
- Parks and Open Space;
- Recreation Services; and,
- Fire Services.

Note that in the development of this strategy, consideration was given to the relationship between the Town and Halton Hills Community Energy Corporation (HHCEC). It is recognized that the FM business practices of the Town and HHCEC are intertwined to some degree. It should be noted that the contents of this strategy do not directly apply to HHCEC. Since HHCEC is a separate organization from the Town of Halton Hills, it is governed by a separate set of organizational objectives. Although this strategy does not explicitly apply to the organizational objectives for HHCEC it does, however, provide recommendations for the management of fleet assets that is based on industry best practices and research, which HHCEC can apply to its FM business. As a result, this strategy addresses these areas of business and provides content in this regard that can be utilized by both organizations.

3. STRATEGIC ALIGNMENT

3.1 Role of the CFMS in the Town's Asset Management System

Asset Management (AM) is an integrated series of processes intended to make the best financial investments into infrastructure assets to provide and maintain services. A number of AM practices are in place in the Town already. AM is not limited to only the municipal departments that are directly responsible for maintaining those assets. It is a multidisciplinary practice which involves many municipal departments, all of which have a role in making decisions around planning, managing and maintaining the Town's assets. AM aims to balance costs with levels of service (LOS), risk and lifecycle management strategies. Its goal is to achieve sustainable, resilient communities, through defined business processes, which result in better decision-making with respect to infrastructure assets, of which fleet assets are a subset. AM is an ongoing practice at the Town and not limited to individual studies or reports.

Two major legislative requirements are in place, which affect the direction of Asset Management for municipalities in Ontario. The first, enacted in 2015, was the *Infrastructure for Jobs and Prosperity Act*. The second, *Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure*, was created in 2017 under the Act. This regulation details requirements for municipalities to develop an AM Policy and Asset Management Plan (AMP), which also necessitates the development of an AM Strategy. The Town's AM Policy, AM Strategy and AM Plan are all components of an "AM System".

An AM System is a management system. It is a way of doing business and a process for making decisions that connects the Town's high level strategic goals (i.e. the commitments and principles in the AM Policy, Strategic Plan, etc.), with the day-to-day activities that Town staff are engaged in. The AM system is a broad collection of interconnected processes and documentation that is designed to direct and deliver the discipline of AM across the Town.

This CFMS is a subcomponent of this AM System. More specifically, it is a subcomponent of the Town's AM Strategy. This AM Strategy (including the FM strategy) serves the purpose of detailing the method in which higher level corporate objectives will be achieved through the practices of AM and FM.

The following graphic illustrates the Town's AM System.

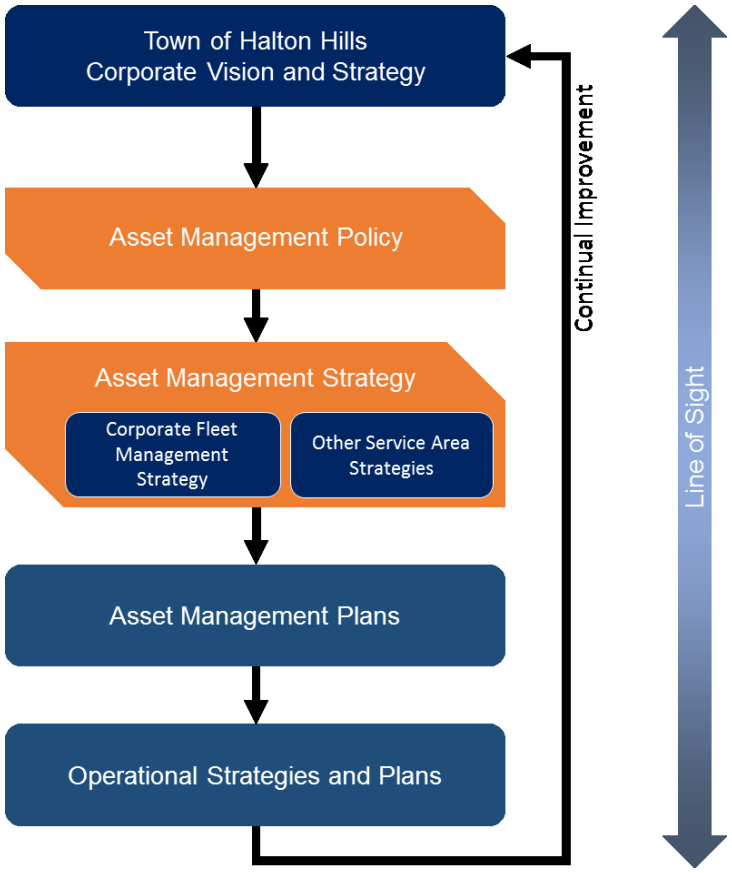

Figure 1. Framework of the Asset Management System

This graphic illustrates the hierarchy of the Town's AM System. It illustrates the link between high level corporate vision and strategy, to the tactical level of AM. This link is referred to as a "Line of Sight" within the ISO 55000 Asset Management Standard. This CFMS links to the Town's AM Policy, and details how the tactical level of FM will be executed so that it achieves the Town's AM objectives.

3.2 Alignment to Strategic Initiatives

This CFMS is aligned to the Town's strategic objectives through the Town's AM Policy. The CFMS sets out to document the Town's strategy for FM and ensure that this strategy aligns with the objectives and commitments detailed in the AM Policy. The key objectives for AM that are listed in the Town's AM Policy are detailed below. Through this CFMS, the Town will detail its approach to managing fleet assets in a way that is aligns with these objectives. Some of the relevant objectives form the Town's AM Policy are highlighted below:

- **Customer Focused:** This strategy will take a customer-focused approach, by defining customer levels of service, and integrating them into the Town's FM business practices.
- **Innovative:** This strategy will establish a framework for the continual improvement of FM practices across the Town, so that new tools, technologies and techniques can be adapted to the Town's FM business now and in the future.

- **Fact Based Decision Making:** This strategy will detail business processes and provide recommendations to collect and maintain appropriate data and information, so that FM decisions will be made based on facts in a way that is flexible, consistent, repeatable and traceable.
- **Optimal:** This strategy details approaches to make optimal decisions with respect to fleet assets, that balance levels of service, cost and risk to achieve optimal lifecycle values.
- **Whole Lifecycle Perspective:** Strategies for fleet assets will take a whole lifecycle perspective that considers the full impact of managing those assets throughout their entire lifecycle.
- **Integrated System Focused:** This strategy is developed in alignment with the Town's AM Policy and AM Strategy and how fleet assets support other Departmental objectives, to ensure that FM practices are integrated with AM practices across the organization.
- **Forward Looking and Sustainable:** Social, legislative, environmental and financial considerations are made to ensure that FM is forward looking and sustainable.
- **Regulatory Compliant:** The practice of FM at the Town will comply with all relevant legislative, regulatory and statutory requirements.
- **Risk-based:** Levels of service will be defined and balanced against risk and expenditures to ensure that the Town manages fleet assets using a risk-based approach.

Keeping in mind these objectives, this CFMS will detail business practices to further the Town's FM practices, in alignment with its AM System.

3.3 How the Strategy Achieves Fleet Management Objectives

This CFMS was developed for the Town to achieve its organizational, AM, and FM objectives. It will provide recommendations to improve business processes and activate advanced FM strategies. Note that the discussion and recommendations detailed in this strategy are not intended to be a critique on the Town's existing FM business practices. They are intended to provide guidance to the Town in the advancement of its FM current business practices, to leverage industry best practices, AM strategies, and emerging technologies to achieve its goals and objectives.

The recommendations provided are not just specific recommendations to better improve or manage business processes; rather, they are also recommendations to adopt a system for FM which has the tools to assess and continually improve its business practices.

Part of the strategy development included a review of FM best practices from peer municipalities (refer to Section 4 for details). These reviews provided context for the development of this strategy and insight into best practices in FM. These reviews were not intended to be a benchmarking exercise to inform the Town's future development of its FM business. Through the implementation of this strategy, the Town will activate management systems and tools to enable evidence-based decision making for tactical decisions such as the ideal number of mechanics to execute the ideal set of preventative and reactive maintenance activities.

4. BUSINESS CONTEXT

This CFMS has been developed to support the Town in meeting its top-down strategic organizational objectives and the bottom-up needs of front-line operations staff. Top-down considerations reflect the priorities of Senior Management, Strategic Objectives of the organization and the regulatory requirements of O.Reg. 588/17 as described in the previous section.

Bottom-up considerations reflect the needs and goals of FM staff and were informed by interviews with the Town's FM staff (including management staff and mechanics), as well as a review of current fleet best practices. As part of the development of this CFMS, several workshops were conducted with FM staff. Through these workshops, information about the Town's current practices, future vision, goals, strategic drivers and business drivers for FM were communicated. FM best practice research was also conducted as part of the development of the CFMS. This included telephone interviews with fleet managers of several peer municipalities. Participating municipalities included the Regional Municipality of Halton, City of Guelph, City of London and the City of Oakville. This CFMS was developed in the context of the information obtained from this research and the information obtained from staff workshops as well as knowledge GMBP has gained through several AM and CMMS implementations with Fleet Departments.

The following figure illustrates the approach to developing the CFMS.

Figure 2. Process for Developing the Corporate Fleet Management Strategy

5. FLEET MANAGEMENT BUSINESS PROCESS

The Town's FM business process is comprised of four (4) major business areas, which pertain to the stages of the lifecycle of fleet assets. These business areas are:

- Procurement;
- Operations;
- Maintenance; and,

- Disposal/Replacement.

This CFMS details the business of FM, as centred around four primary management elements: Organization; People and Culture; Process; and, Technology and Data. The following graphic illustrates the framework of the Town's FM business process.

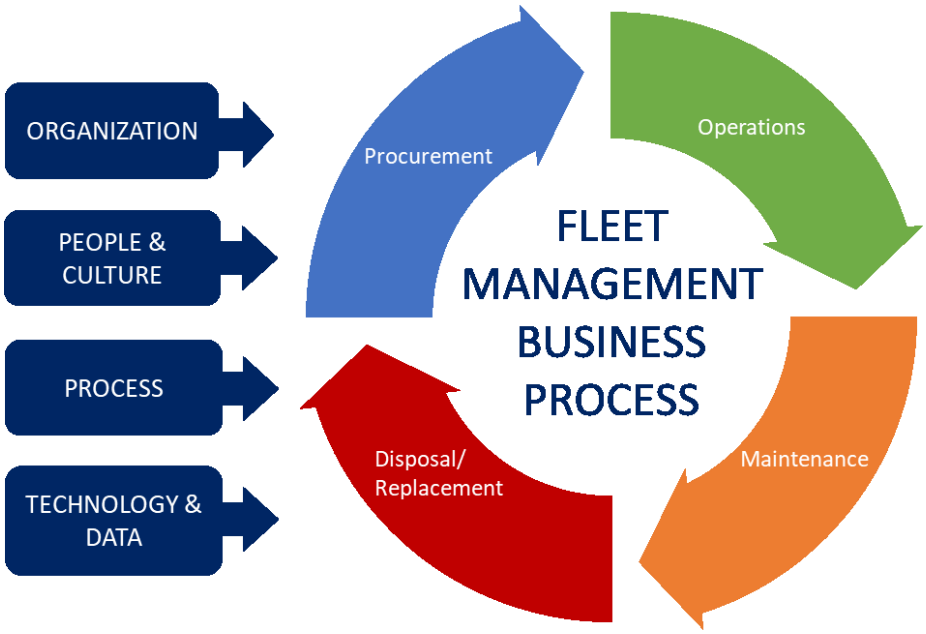

Figure 3. Fleet Management Business Process

The following subsections elaborate on each of the four (4) primary categories of the FM Business Process. Each subsection details the general business processes and the Town's goals for that process; the Town's existing business practices; strategic recommendations to align with AM and FM best practices; and, an evaluation on the effects of implementation of these recommendations.

5.1 Procurement

5.1.1 Context and Objectives

Procurement is the process in which the Town obtains its fleet assets for use. It requires a detailed preparation process and must account for many factors, including: selecting the appropriate vehicle for its intended use; right-sizing vehicles; right-sizing overall fleet; and, maintenance considerations related to the standardization of vehicles/equipment.

The following CFMS objectives have been established for Procurement:

1. Purchase fleet assets that meet customer expectations for the lowest cost to the Town over their full lifecycles, which is not necessarily the lowest up-front cost.
2. Develop a comprehensive standard for fleet assets to simplify management of parts; standardize maintenance work; and, optimize maintenance strategies.

3. Ensure procurement practices take strategic goals into consideration.

5.1.2 Current Business Practices

Fleet personnel currently work with purchasing staff to obtain new vehicles and equipment. Fleet procurement is not centralized under one department, rather, each fleet manager (for each department) is responsible for developing specifications and procuring vehicles for their respective departments with the support of the Town's corporate Procurement department.

The Town's purchasing by-law applies to FM procurement practices. As per the Town's purchasing by-law, the following purchasing rules apply:

- For assets with value of $10,000 or less, open procurement is acceptable, and no quotations are required;
- For assets with a value of $10,001 to $25,000, informal quotations are required, with at least three bids solicited;
- For assets with a value of $25,001 to $100,000, formal quotations are required, quotations are administered by purchasing and approved by the commissioner;
- For assets with a value of greater than $100,000, a formal tendering process is required. Tendering is administered by Purchasing and approved by the CAO; and,
- For assets with a value of greater than $500,000, a formal tendering process is required. Tendering is administered by Purchasing and approved by Council.

The following items capture other relevant current business practices and opportunities to enhance practices related to procurement:

- At present, the Town's fleet requires a comprehensive standard, which considers optimized full lifecycle costs of fleet assets not just purchase costs, due to the current competitive procurement process. Town FM staff have expressed that the standardization would be of benefit to the Town's business practices, and the best practice review affirmed that standardization is a common challenge of balancing FM with competitive procurement processes.
- The Town's fleet presently consists of owned vehicles. A leasing and/or renting model has not been investigated by FM staff, however has been deemed to be impractical for fleet assets with high usage/mileage.
- Right sizing of fleet assets is currently done qualitatively. An opportunity exists to collect data and introduce data analytics over the lifecycle of the asset to support decisions made with respect to right-sizing.
- Staff has indicated that procuring vehicles to share among different groups is a practice that could be applied to increase the utilization of some vehicles, for example, procuring a vacuum truck that can be utilized between multiple agencies (such as the Town and HHCEC).

5.1.3 Recommendations

Recommendation #1: Centralize fleet procurement under a single group that engages with subject matter experts from each fleet user group to inform the development of vehicle specifications and other technical elements of the procurement document.

Centralizing fleet procurement under a single group allows the Town to develop focused expertise on the procurement process that can appropriately incorporate considerations related to lowest life cycle cost procurement, vehicles standardization, and connecting the Town's strategic objectives into the process. Inclusion of the subject matter expert staff who use the fleet assets on a day-today basis is imperative due to the range of vehicle types that exist in the Town (i.e. fire apparatus, pickup trucks, construction equipment). Specifications for specialized vehicles should be developed through collaboration with managers of each front-line user group. This is especially important for specialized vehicles such as fire apparatus, which have specialized procurement details requiring specialized input.

Recommendation #2: Leverage data to inform the procurement process

Collecting and analyzing fleet data will be imperative to the successful implementation of procurement strategies. Through collected data, the Town will be able to justify procurement decisions related to procuring fleet assets that have a higher initial cost but a lower total lifecycle cost; that will bring savings through standardization despite a higher initial cost; or, that have a higher initial cost but better meets a Town strategic objective (i.e. lower/zero emission vehicle). Data collection will be the foundation for evidence-based decision-making with respect to procurement. It will inform the procurement approach detailed in Recommendation #3, below. Data collection strategies are typically tied to operations and maintenance activities and collected through a computerized maintenance management system (CMMS). Recommendations for data collection strategies are detailed in Subsection 5.3.3 below.

Recommendation #3: Develop an enhanced fleet procurement approach that can enable lowest lifecycle cost, standardization and the Town's strategic objectives to be considered in the process.

This will be achieved via a standardized evaluation approach/scoring system that captures appropriate CFMS considerations, such as technical (i.e. does the vehicle meet the requested specifications); financial (i.e. what is the initial cost and the expected lifecycle cost); and, strategic objectives such as environmental (i.e. what is the annual fuel consumption). This evaluation approach will enable the Town to make fleet procurement decisions that achieve the CFMS objectives. The information required to enable this approach will be obtained through collected data (refer to Recommendation #2, below). For example, collected data will be able to provide evidence to support whether or not vehicle standardization results in a lower lifecycle cost.

Recommendation #4: Develop Service Level Agreements (SLAs) as required to bring clarity to the roles and responsibilities of the entity providing the service and the entity receiving the service.

Formal SLAs will be the mechanism to document the services being provided by the Town's FM group to either internal groups (i.e. fire department, public works) or external groups (i.e. HHCEC). SLAs will enable vehicle sharing or the delegation of procurement/maintenance responsibilities by detailing issues such as vehicle ownership, financial reimbursement/compensation, utilization between groups/organizations and maintenance responsibilities. SLAs are common best practices for single sourced management departments, such as fleet, IT, purchasing, etc., to ensure the expectations of the multiple departments they support are clearly documented and integrated into decision making practices.

5.1.4 Discussion

Centralizing the process to develop vehicle specifications for procurement will create efficiencies by offloading this task to a centralized role. Staff commitments from each department will still be necessary but minimized to the technical elements of vehicle specifications, since the bulk of procurement work can be completed by this centralized group/person.

Developing service level agreements between the Town and HHCEC will enable vehicle sharing between the organizations and result in efficiency gains by increasing utilization of vehicles and therefore possibly reducing the number of fleet assets required to support these Departments. It will also allow the Town to obtain new vehicles that it has a need for but may not be able to fully utilize. By sharing utilization with HHCEC, the Town would be able to obtain these vehicles that that it could not otherwise, which will result in an overall increase of service.

Enabling data-driven procurement strategies will allow the Town to reduce its overall costs, by ensuring that the appropriate vehicle is procured, for the lowest possible lifecycle cost.

5.2 Operations

5.2.1 Context and Objectives

This business practice pertains to activities associated with the day-to-day operation of fleet assets throughout the course of their service life. Operations activities include tracking and managing equipment utilization, environmental considerations (i.e. fuel consumption) and financial considerations (i.e. vehicle rates).

The following objectives have been established for Operations:

1. Optimize the in-service time of fleet assets that enable business units to provide services that meet the community's/customer's expectations at the lowest feasible cost.
2. Leverage technology to inform equipment/vehicle rate calculation.
3. Minimize environmental impact during fleet operations.

5.2.2 Current Business Practices

Generally, for public works, parks and transit vehicles, operating budgets for each of the units are funded through an hourly charge out rate that is calculated according to lifecycle costs and usage. The charge out rate is based on anticipated costs for mechanics labour, parts, tires, fuel, insurance, licensing, overhead as well as funding the replacement of the vehicle at the end of its service life. This approach to creating an operating budget has not been adopted by all departments. Presently, the charge out rate is developed by the finance group with input from technical staff.

Fleet utilization rate metrics are tracked by the Town based on hours billed through its costing model. As a result, utilization metrics are only tracked for public works, parks and transit vehicles. Fire services tracks vehicle utilization for its apparatus by emergency calls received. Although the majority of business areas employ some form of data-based tracking of utilization, some areas track utilization qualitatively (this applies only to a small number of vehicles).

At present, the Town has some strategies in place that address environmental considerations. The Town uses vehicles in multiple roles wherever possible to increase utilization (thus, reducing environmental impact). For example, some grass-cutting vehicles can be fitted with a snow plow to be utilized in the winter to clear sidewalks. Other environmental strategies are not in place.

5.2.3 Recommendations

Recommendation #5: Implement a Fleet Management software system that tracks operational considerations

Collecting and analyzing fleet operations data will be imperative to the successful implementation of the CFMS. Through collected data, the Town will be able to have clear evidence to establish the vehicle charge out rates by understanding the number of hours each asset is being used, fuel consumption, hours/kilometers in service, etc. This data can be analyzed to understand variations over time (i.e. trending over months/years) or by weather conditions (i.e. lights vs heavy winter, dry vs wet summer, etc.). At present, data for the charge out rate is obtained from the Town's financial system. Using data from a FM system that is connected to the financial system will provide better data to inform the charge-out rates.

Recommendation #6: Leverage data to inform a charge out rate for all fleet assets

It is recommended to develop a charge-out model for all rolling stock, and not just public works, parks and transit vehicles. This includes capital and maintenance charge-out rates (i.e. for the Fire department, maintenance is only applicable). This model should be standardized and consistent across all service areas where applicable. The model should be developed, maintained and applied by a centralized fleet staff member, still with input from the finance group, to ensure that subject matter expertise is applied to the model development.

Recommendation #7: Connect environmental considerations to Operational Strategies

Over time, the Town's strategic environmental goals will be achieved in part through fleet operational strategies. For example, anti-idling policies can be implemented to reduce the Town's environmental impact and the benefit will be measured using operational data. It is important to note that these policies cannot necessarily be applied to all vehicle types, as some vehicles such as fire apparatus require idling while in service. Furthermore, anti-idling policies should also take into consideration the health and safety of workers, since some vehicles are regularly used for heating and cooling while in the field. Technology, such as idling time trackers can assist in implementing an anti-idling policy. Other areas where environmental considerations can be connected to fleet operational strategies include monitoring fuel consumption to identify high-consumption assets or the analysis of individual vehicle operators that consume more fuel than others due to the operational practices.

5.2.4 Discussion

Applying the charge-out model to all fleet assets using data from a FM system will bring efficiencies to the delivery of front-line services to Town residents and business. This will be accomplished by maximizing the utilization of fleet assets (and therefore minimizing their charge-out rate), and by having a confident full cost recovery charge-out rate that connects back to the lowest lifecycle cost procurement strategy.

The adoption of additional environmental strategies and policies will create efficiencies in normal vehicle operation practices, reduce lifecycle costs to operate vehicles, and ensure that organizational and AM objectives related to environmental stewardship are achieved. Once implemented data analysis can be completed for environmental

considerations to ensure that they are continually improved upon and tailored to be effective, cost-efficient and optimized.

5.3 Maintenance

5.3.1 Context and Objectives

Activities associated with maintaining fleet assets have an impact on all areas of the fleet business. Maintenance activities are generally categorized by two types: preventative and reactive. Preventative (or planned) maintenance relates to regularly scheduled maintenance activities; and reactive (or unplanned) maintenance relates to activities required due to failures or damage. Both types of maintenance activities aim to reduce vehicle down-time and optimize vehicle performance. Data on maintenance practices is critical to enable evidence-based decision-making with respect to procurement, disposal and operations/lifecycle strategies for fleet assets.

The following objectives have been established for Maintenance:

1. Complete maintenance activities for the lowest possible cost, at the optimal time and in the lowest amount of time to optimize the service life of vehicles.
2. Minimize vehicle down-time and ensure that vehicles can be brought in for maintenance with minimal disruption in service.
3. Leverage technology to collect appropriate maintenance data and activate advanced maintenance strategies.

5.3.2 Current Business Practices

Maintenance occurs in a centralized location at the Town's operations centre. Although activities occur at a centralized location, the organizational structure governing maintenance is not centralized. The PW department employs four (4) mechanics, which maintain all PW vehicles, including both Road and Parks operations; Activan Transit; and, facility support vehicles. These mechanics possess 310S and 310T certifications. Approximately 15% to 20% of maintenance activities are contracted to external providers.

Fire apparatus are maintained by a staff member who was a former mechanic. This staff member primarily completes minor maintenance activities and possesses 310T and EVT certification. Fire services utilizes a mechanic from HHCEC (with 310T and EVT certifications) to contribute to the maintenance of fire apparatus on an as-needed basis. Annual certifications of fire apparatus are completed by this mechanic as well. Remaining fire services maintenance activities are contracted to external providers, which represents a significant portion of maintenance activities.

At present the Town has implemented an informal maintenance management strategy. Part of this strategy includes informal tracking of maintenance activity, which is mostly completed manually. Contracted services are also tracked in the Town's budget. The Town does not currently utilize a computerized maintenance management system (CMMS). The Towns' financial system, *Great Plains*, is the best available information source for the quantity of maintenance that is completed on each asset, however the details are generally limited to the cost and text description of the asset.

For the PW department, staff have developed a simple asset inventory to assist with budgeting and replacement forecasting. This inventory houses important asset information but is not at present tied to maintenance information. Inventories for Fire fleet assets have also been developed internally and contain a lower level of detail than the PW fleet asset inventory.

5.3.3 Recommendations

Recommendation #8: Implement a Fleet Management software system that tracks maintenance activities

It is imperative for the Town to collect and maintain detailed data on the maintenance activities completed on fleet assets, including maintenance activity details such as type (preventative vs reactive), hours, purchased materials and costs. The information should be collected through a CMMS and tied to an inventory of assets, similar to the inventory that was developed for PW fleet assets. This CMMS should be linked to the Town's Corporate AM software. It is also important that maintenance staff are trained on the appropriate use of the CMMS as part of its roll-out.

Prior to procurement of a CMMS, a needs assessment should be completed, which will define the detailed specifications and processes for how the CMMS will be used. Typical CMMS implementations include some of the following functionality:

- Technical architecture based on a common and open platform that can integrate with a variety of Town technology platforms such as finance, etc.;
- Compatibility with the operating system used at the Town;
- Ability to be useable on devices issued to Town staff, such as smartphones and tablets;
- Support for asset management of fleet assets through the full lifecycle;
- Ability to maintain an accurate inventory of assets and parts/supplies, including scanning of parts during maintenance activities;
- Tracking of fuel management related information (odometer readings, fuel costs, etc.);
- Tracking of costs;
- Tracking of maintenance activities, distinguishing between preventative and reactive maintenance;
- Ability to identify when assets require maintenance on a predefined schedule (i.e. preventative maintenance) allowing PM work to be optimally planned if a vehicle is brought in for repairs;
- Ability to allow staff to generate work order requests;
- Real-time support for maintenance operations and technician time tracking;
- Ability to automate work flow and routing of work orders;
- Identify when assets need to be replaced based on predefined criteria and trend asset performance over time;
- Track service level agreements;
- Support customer communications regarding job status and scheduling of service appointments;
- Support the development of analytics to indicate trends and historical performance;
- Generate detailed reports;
- Link to the Town's Corporate AM software;
- Be scalable and adaptable to future business needs and technology changes; and,
- Adhere to all Town, Provincial and Federal policies and regulations regarding privacy and data.

Recommendation #9: Measure and manage appropriate fleet maintenance metrics

The Town should formalize its maintenance management strategy, by identifying the appropriate metrics that should be measured and managed using the CMMS data. The conceptual Level of Service table developed (refer to Appendix A) provides some insight into the industry best practices of metrics that are used in advanced FM groups. These

metrics should be analyzed on a monthly/annual basis as appropriate to enable the Town to optimize the number and type of maintenance activities completed.

Recommendation #10: Centralize maintenance management activities, data and processes

The typical best practice approach is to centralize fleet maintenance management to develop efficiencies. This approach is founded in industry best practices, which were validated by the best practice review completed as part of the development of this CFMS and is reflected in a number of Enterprise CMMS implementations currently underway across Ontario (i.e. Waterloo, Peel, Toronto, Ontario Clean Water Agency, Welland, St. Thomas, etc.).

As a result, it is recommended that maintenance management be centralized through a single group. This will ensure a coordinated Town-wide approach to prioritizing maintenance activities and ensuring the appropriate staff are assigned to complete each activity. This approach will still enable fire department staff to complete the maintenance activities on fire apparatus but will also ensure that the appropriate information is being collected through the CMMS as the activities are completed.

To support this recommendation, the Town should develop a maintenance priority matrix which ranks the need for competing maintenance of assets based on factors including mileage, time in service, criticality of service provided and repair costs. This centralization will also ensure that appropriate training is provided to maintenance staff to ensure that skill sets are developed for the full range of fleet vehicles, including light/heavy vehicles and emergency vehicles (i.e. EVT designation). In particular, training is required for the certification of fire apparatus.

As noted above, annual certifications of fire apparatus are completed by a mechanic from HHCEC with an EVT designation. This business model represents the short-term solution to have fire apparatus certified. Service level agreements should be maintained in order to ensure that this business practice continues. Long-term plans for maintenance include obtaining the appropriate training to certify fire apparatus in-house. As a supplement to this long-term strategy, service level agreements with HHCEC can be kept in place to handle unforeseen circumstances, such as peaks in workflow or emergency situations.

5.3.4 Discussion

Centralizing maintenance activities will increase efficiencies for the Town by increasing utilization of maintenance staff, providing a larger qualified pool to complete maintenance activities, and sharing specialized maintenance skills (ex. EVT designation) across departments. Centralization of maintenance activities will also allow the Town to better manage the amount of maintenance that is currently being contracted to external providers. It is expected that some external contracting will be required moving forward (for example, to manage peaks in maintenance activities); however, the amount can be minimized to ensure maximum value is obtained from Town staff. A centralized maintenance management department can also take advantage of efficiencies with respect to staff training.

The implementation of new data collection practices through a CMMS may not necessarily result in a short-term increase in efficiency; however, over time it will allow the Town to activate advanced maintenance strategies that will result in efficiency gains. Examples of these types of strategies include: optimization of fuel/oil consumption; minimizing down time; identification of problematic assets (i.e. lemons); optimization of repair strategies; and, prediction of preventative maintenance needs.

Furthermore, strategies to identify and maintain an appropriate ratio of preventative to reactive maintenance can also be implemented through collection of this data, which will result in the minimum possible down time for assets

and the lowest possible maintenance costs. The collected data will also inform maintenance staffing requirements, which will result in optimization of staff and minimization of external contracted maintenance.

The development of a priority matrix will create efficiencies in maintenance activities, and ultimately the operation of fleet assets, by ensuring that assets are maintained at the appropriate time and downtime of assets due to maintenance activity is minimized.

It is noted that the certification of fire apparatus is currently shared with HHCEC. There is no reason for this business model to change at present (i.e. in the short-term); however, note that longer-term maintenance plans include the development of a full suite of maintenance skills in-house, including fire apparatus certification (refer to Recommendation #3) Note that under the short-term plan, the development of formal service level agreements with respect to maintenance will be required to ensure that coordination and standardization is maintained between the Town and HHCEC.

5.4 Disposal/Replacement

5.4.1 Context and Objectives

The category of disposal and replacement pertains to the activities related to selecting the appropriate time to dispose of (or replace) a vehicle. It also pertains to the financial activities associated with disposing vehicles and the methods of disposal. The decision to dispose of or replace a fleet asset must account for the asset's condition, the financial impact to the Town, and the optimum time to replace the asset.

The following objectives have been established for Disposal/Replacement:

1. Reduce lifecycle costs by determining the optimum age to dispose of or replace fleet assets.
2. Utilize disposed vehicles as spares, where possible.

5.4.2 Current Business Practices

At present, the Town determines vehicle lifecycles and times for replacement based on a review of inspection reports and vehicle kilometers. Lifecycles are not standardized across business areas. An informal process is in place to keep equipment and vehicles beyond the end of their estimated service life to create a spare ratio. This practice is sometimes completed across departments (ex. fire prevention vehicles will be transferred to PW at the end of life to be further utilized as spares). Spare ratios are not formally tracked for PW and fire services do not maintain any spare apparatus.

5.4.3 Recommendations

Recommendation #11: Implement an Optimum Service Life approach to disposing vehicles

It is recommended that the Town implement an "Optimum Service Life" approach to determine the appropriate asset disposal/replacement age/mileage/condition. As fleet assets age, they typically reach a point where they require more annual maintenance or have higher annual operating costs while seeing a decline in resale/salvage costs. Optimum service life calculations should consider resale/salvage costs as well as lifecycle costs of the asset, which can be compared against changes to annual operating and maintenance costs and down time as the asset ages. In order

to complete the optimum service life analysis, the Town must collect the appropriate maintenance and operation data, as well as tracking the salvage/resale value of assets.

As part of its strategy for maintaining spare vehicles, the town should continue to use vehicles as spares at the end of their service lives. This process should be formally defined and standardized across all service areas and spare ratios should be formally tracked.

5.4.4 Discussion

Presently, through staff knowledge, several factors are incorporated into decision-making with respect to vehicle lifecycles. Best practices are to standardize this process and collect data in order to make decisions in a more analytical fashion. By collecting and analyzing the appropriate data, several types of analyses can be performed, including analyses of long-term impacts and annual maintenance costs based on age of a vehicle, which will affect decision-making in the long term as well as in the short-term.

As a result, an opportunity exists for the Town to enhance its existing lifecycle strategy, to incorporate the collection of additional data and these types of analyses. Lifecycle decisions can then be based on a number of factors including mileage, inspection reports, annual maintenance costs, depreciation, and operating costs. This will activate an optimum service life analysis. Utilizing data to make disposal and replacement decisions will improve efficiency for this process and will reduce financial impact to the Town by ensuring that the lowest possible annual cost of ownership is achieved for each vehicle.

6. GOVERNANCE STRUCTURE

6.1 Context and Objectives

The Town's governance structure represents the organizational component of managing fleet assets. Establishing the appropriate governance structure will be imperative to successfully executing the recommendations provided in this CFMS.

In keeping with the Town's CFMS goals, the governance structure objectives are to:

- Optimize fleet services, including required resources and infrastructure;
- Meet organizational needs;
- Eliminate redundancies and overlaps where the same or similar services are provided by other Town divisions, subdivisions or municipally owned agencies; and,
- Prepare FM to support anticipated growth.

6.2 Current Governance Structure

The Town's current organizational structure is illustrated in the following figure:

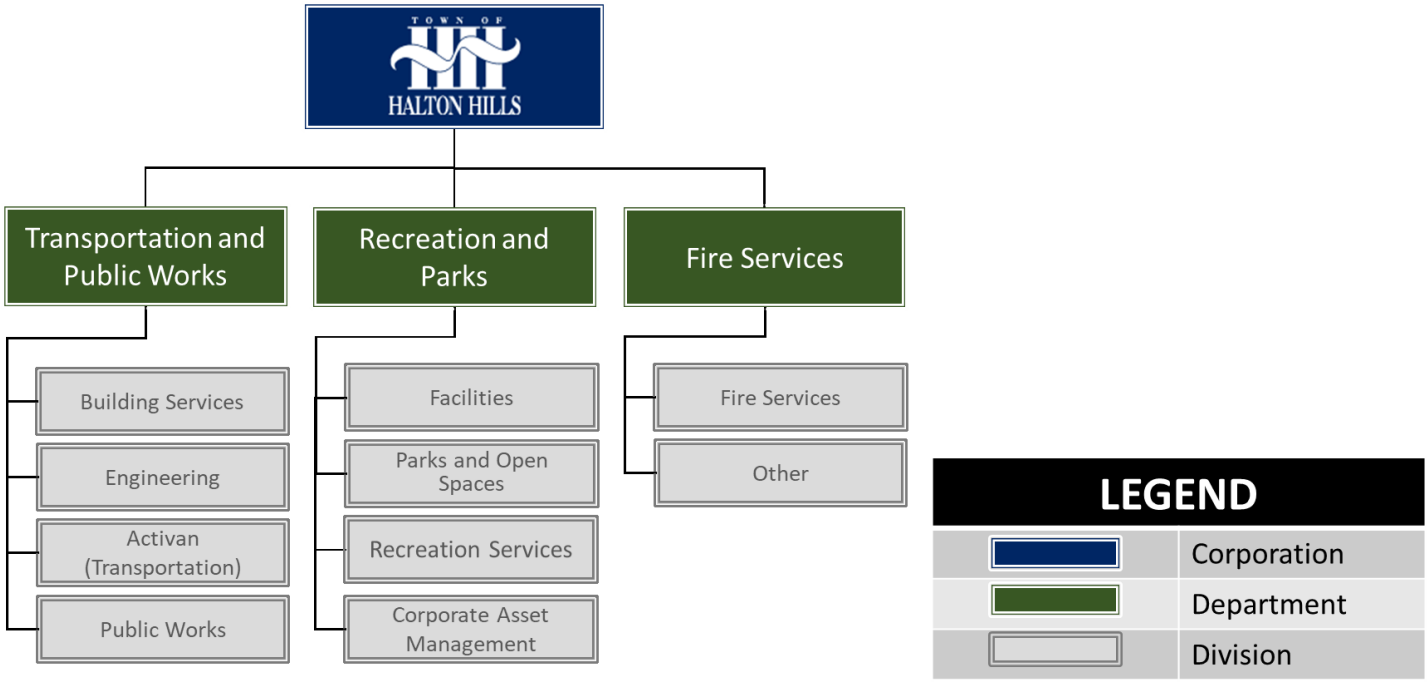

Figure 4. Halton Hills Organizational Structure (Departments with Fleet Assets)

Under the Town's organizational structure each group is responsible for the management of its own fleet assets. Three groups that own the bulk of fleet assets operate with some form of collaboration. These groups are: Transportation & Public Works; Fire Services; and, Halton Hills Hydro (a division of HHCEC). Note only two of these three groups are part of the Town of Halton Hills and are reported as municipal assets. The third group, Halton Hills Hydro, is a division of HHCEC, which is not part of the Town of Halton Hills' governance structure.

Currently, there is some collaboration of activities between municipal departments that generally includes vehicle maintenance and the sharing of services such as snow plowing and tree-cutting.

As noted in Subsection 2.3, the scope of this CFMS (including the governance structure) applies to the Town and does not include other separate entities such as HHCEC; however, it is recognized that there is a collaborative working environment between these two corporations. This CFMS strives to maintain that collaboration through the recommendations to development and maintain formal service level agreements between the two corporations.

6.3 Recommendations

To improve efficiencies and meet the above-noted governance commitments, it is recommended that the Town centralize its current fleet operations. Under the current organizational structure, this can be achieved by expanding its current fleet section within Public Works to support all municipal fleet activities. This section will be responsible for the management of all fleet assets across the Town. Within the fleet section, a role should be designated with the

responsibilities and authority to execute the elements of this CFMS. Under the current organizational structure, this role is most ideally suited to the current Fleet Supervisor position.

Under the current organizational structure, the Fleet Supervisor role should be expanded to:

- Champion, promote and build momentum for the CFMS implementation;
- Lead coordinated FM activities across the Town;
- Develop, manage and report on LOS metrics;
- Manage maintenance staff;
- Implement FM strategies related to procurement, operations, maintenance and disposal/ replacement;
- Lead coordination and development of Service Level Agreements between the Town and other organizations (i.e. HHCEC);
- Implement and manage FM technologies (i.e. CMMS); and,
- Coordinate with the Town's CAM team.

The Fleet Supervisor's responsibilities will be to:

- Ensure consistency of FM practices across departments;
- Project manage the execution of the Town's CFMS;
- Develop and manage the Town's FM and maintenance teams;
- Provide technical advice related to the FM to departmental staff;
- Collect tactical and operational-level data and feedback on FM practices, to be used to continually improve FM strategies;
- Develop and maintain Service Level Agreements for all shared vehicles/services;
- Coordinate FM training for staff;
- Perform fleet prioritization activities, and recommend an optimized capital plan; and,
- Communicate resourcing needs to the CAM team.

As the Town's municipal fleet grows, the organizational structure should be reviewed to ensure continued support and enhancement of the Town's corporate FM program and asset management processes. In particular, the Town should consider and review the option to create a centralized fleet management division, with a dedicated fleet manager position to meet this need.

6.4 Discussion

Centralizing FM activities under the Public Works fleet section will enable several opportunities to increase efficiencies across the Town's FM business practice. These changes/enhancements include the following:

Table 1. Efficiencies of Centralized Fleet Management Section

Item	Efficiencies Gained
Centralize fleet operations	• Eliminates redundancies of some staff activities such as tendering activities and capital purchases. • Eliminates need to standardize operations across separate departments – one section is responsible.
Centralize maintenance staff	• Creates efficiencies in staff – staff members utilized fully to manage fleet assets in all department. • Eliminates redundancies.
Resource sharing	• Creates efficiencies by sharing resources across departments and managing one centralized pool of staff.
Oversee implementation and management of CMMS	• Eliminates redundancies in staff commitment – centralized fleet section responsible for implementation and management.
Accommodates future growth	• Centralized fleet section allows flexibility in growth – multiple departments no longer responsible for managing growth. • Creates a system that can easily accommodate future growth and new fleet business areas – standardization allows for easy scaling of business practices as needed.
Staff training	• Creates efficiencies in staff training – training operations under one fleet section.
Standardization of fleet practices	• Eliminates resource and time needs to standardize practices among managers of several departments that manage fleet assets – one role (i.e. fleet supervisor) responsible for practices and ensuring standardization.
Alignment with AM Objectives	• Creates efficiencies to ensure that single role (i.e. fleet supervisor) responsible for ensuring that fleet practices are in alignment with overall AM objectives and AM system.

7. LEVELS OF SERVICE

As part of the implementation of this strategy, key strategic recommendations have been provided to be incorporated into the Town's existing FM business practices. These strategic recommendations, along with the Town's existing FM business practices, have informed the development of a comprehensive Level of Service (LOS) Framework for the service of FM.

The development of the LOS Framework was completed through a working session with the Town's key FM management staff and subject matter experts. The details of the framework are illustrated in an LOS table. Both

Technical and Customer LOS were derived. The complete LOS table is provided in Appendix A. The following subsections provide information on the structure and operation of this table.

7.1 Structure of the LOS Table

The LOS table was developed in accordance with Ontario Regulation 588/17, "Asset Management Planning for Municipal Infrastructure", made under the Infrastructure For Jobs and Prosperity Act, 2015. The table is organized into four primary components: Service Statements; Key Service Attributes; LOS Statements; and, Performance Measures. The structure of the table is as follows:

1. A ***Service Statement*** is listed above the table, which briefly describes the FM service that is being provided. This service statement is: "Efficiently providing safe, reliable and fuel-efficient vehicles at a cost affordable to the client".
2. ***Key Service Attributes*** is the first major column of the table. The column contains a list of Key Service Attributes, which are intended to cover all important aspects of the FM service in a way that is easily understandable and recognizable by the fleet customer. Each Key Service attribute consists of a phrase, which describes an important area of focus for the FM service. The Key Service Attributes are Cost Efficient, Safe, Quality, Reliable and Environmental Stewardship.
3. ***LOS Statement*** is the second major column of the table. The column contains a list of LOS Statements, corresponding to each Key Service Attribute. One, or multiple LOS statements may apply to each Key Service Attribute. Each LOS Statement is comprised of a short sentence, describing the outputs of the service category. Each LOS Statement should clearly state customer standards and be measurable. As an example, for the LOS Key Service Attribute, "Cost Efficient", the corresponding LOS Statement is "Providing fleet services in an efficient manner".
4. The remainder of the table is comprised of ***Performance Measures.*** Performance measures identify specific areas of focus that can be measured to support each Key Service Attribute. Multiple performance measures can be listed for each Key Service Attribute. The LOS tables provide two types of Performance Measures: Customer and Technical. Each Performance Measure should be defined using the SMART acronym (specific, measurable, achievable, relevant, and time-bound). Each Performance Measure is further subdivided into four components, which are represented as additional columns in the LOS table. These components detail the Performance Measure, Current Performance, Data Source (that will be used to measure performance); and, Target.

7.2 UPDATING PERFORMANCE MEASURES AND REPORTING

As part of operationalizing Levels of Service, the Town will adopt an annual LOS metrics review and reporting exercise. As part of that review, current performances and performance targets should be assessed annually, and updated if needed. The procedure for annually updating performances and performance targets is as follows:

- Amalgamate annual updated data;
- Perform LOS analysis;
- Update current performance and log past performance for each measure;
- Review performance targets; and,
- Report on LOS.

8. OPERATING COSTS

A detailed review of the Towns' approach to developing charge-out rates (and the associated impact on the operating budget of each user group) was completed as part of developing this CFMS. The following points summarize this review:

- The process to establish the charge-out rate is following general best practices, accounting for the full costs associated with the operations, maintenance and capital cost recovery of the asset. This full cost recovery approach ensures that the operating budget of each user group is fully funding the costs to provide the fleet assets that support the provision of front-line services.
- The information used in the charge-out rate calculation is a combination of data from the Town's financial system and assumptions based on professional judgement from FM experts.

The recommendations provided in this CFMS will put the Town on a pathway to leverage data from a FM system that tracks all maintenance and operational in future updates to the charge-out rate calculations. This data will be combined with an understanding of current service levels being provided by front-line staff to find opportunities to reduce costs while maintain service levels, or to understand the full cost of provided higher service levels.

9. IMPLEMENTATION PLAN

The Implementation Plan provides a series of activities (projects, initiatives, etc.) that are designed to operationalize the concepts and recommendations provided in this CFMS. The completion of each of the activities listed will continually enhance the respective components of the Town's FM business, which over time will allow the Town to continually monitor, regulate and improve its FM business, and to achieve its broader corporate AM and organizational objectives. The implementation plan is provided in Appendix B.

All of the activities detailed in the implementation plan have two primary components. First, the activities consist of finite projects, intended to build a core or foundational component of the Town's AM System. Second, the activities will result in the implementation of an ongoing business process, which should be integrated into the Town's AM business processes required to ensure the continual operation of the Town's AM System.

The implementation plan provides the following information:

Project – details the recommended project.

Scope/Objectives – provides a brief description of the project, including the general scope of work and objectives.

Benefits – provides a brief description of the components of the project that will improve the Town's FM business practices.

Related Business Practices – details the category of the FM Business Process that relates to the recommended activity.

Priority – Details the priority of the activity. Priorities are also linked to criticality and urgency. High priority activities are also critical; and should be completed sooner, when compared to medium or low priority activities.

Project Start Date – indicates the recommended time to begin the project. Note that start dates are often linked to priority (i.e. criticality).

Implementation Timeline – indicates the estimated duration of the project.

Internal Resources – indicates the internal staff resource requirements within the Town (provided in number of hours) that will support the project.

Outsourcing Cost – indicates the estimated cost to engage outsourcing either to advance the existing processes or to implement foundational components of the respective project.

Dependent Activities – details other activities in the implementation plan that should be completed prior to the given activity.

Note that for each of the projects in the implementation plan, the potential for outsourcing is identified if an outsourcing cost is detailed. Outsourcing can be necessary to leverage external resources when resource requirements are higher than can be accommodated by internal staff. Furthermore, outsourcing can help to complete projects in a timely manner. Outsourcing can also provide the Town with access to AM expertise that can bring perspectives from other municipalities and can provide the resources required without the cost of long term staff positions. It should be noted that the extent to which any project is outsourced can vary depending on the scope of the project and the Town's internal capacity to support smaller/larger portions of each project. The Town should review the scope of each project at the time the terms of reference are developed to determine more specific outsourcing requirements.

The implementation plan has also identified internal staff resource requirements for each project, provided as a number of hours. These values represent the resource requirements to implement the project. It is important to note that the recommendations do not necessarily represent a need for net new resources. Resource requirements should be considered and reviewed with senior staff to determine if new resources are needed, or if the work can be accommodated with the existing Town staff resources.

10. CLOSING REMARKS

This Corporate Fleet Management Strategy (CFMS) puts the Town on the pathway to deliver FM services in a manner that aligns with the Town's strategic objectives. It builds upon current resources to work toward an approach where data-driven service levels are used to eliminate redundancies and bring efficiencies to the management of a growing fleet portfolio.

This CFMS has been developed to provide the specific approaches that the Town will enact with respect to FM. The approaches are in alignment with the objectives of the Town's AM Policy to ultimately link infrastructure decisions to the Town's overall vision and goals. The scope of the Strategy pertains to all groups, departments and divisions in the Town that use or manage fleet assets.

The strategy details the Town's FM Business Process, which is comprised of four (4) major business categories:

1. Procurement.
2. Operations.
3. Maintenance.
4. Disposal/Replacement.

The strategy provides eleven (11) recommendations to further FM business processes in each of these categories. It also provides organizational recommendations to achieve the implementation of this strategy, which consist of centralizing its current FM practices under the FM fsection and expanding the role of the fleet supervisor position to have the *responsibilities and authority* to execute the elements of this CFMS.

The strategic recommendations informed the development of a comprehensive Level of Service (LOS) Framework for the service of FM, which is documented in Appendix A. As part of this CFMS, an implementation plan was produced (documented in Appendix B), which provides a series of project (activities, initiatives, etc.) to operationalize this strategy within the Town.

APPENDIX A:
LEVEL OF SERVICE TABLE

Fleet Asset Levels of Service Table

Service Area: Fleet Management
Service Statement: Efficiently providing safe, reliable, and fuel efficient vehicles at a cost affordable to the client.

Key Service Attribute	LOS Statement	Customer/Council Focused Performance Measures			Technical Focused Performance Measures			
		Performance Measure	Data Source	Target	Performance Measure	Current Performance	Data Source	Target
Cost Efficient	Providing fleet services in an efficient manner	Annual cost to provide service ($/km)	Financial Analysis	TBD	Operating budget for fleet services	TBD	Financial Analysis	TBD
					Cost per km ($/km)	TBD	Financial Analysis	TBD
					Cost per hour ($/hr)	TBD	Financial Analysis	
					% of vehicles not recovering 100% of replacement cost between recovery and salvage	TBD	Financial Analysis	TBD
					10 Year average fleet asset renewal budget as a % of replacement value	TBD	Financial Analysis	TBD
Safe	Providing safe vehicles and equipment	% of fleet assets that meet legislated safety standards	Work Management System	TBD	% of regulated MTO maintenance inspections completed	TBD	Work Management System	100%
Quality	Providing fleet services at the appropriate quality	% of fleet assets that meet the quality targets of the user group	Service Level Agreements	TBD	% of vehicles that meet or exceed the target design standard	TBD	Service Level Agreements	TBD
					# of vehciles not meeting Town cleanliness objectives	TBD	Work Management System	TBD
					# of complaints due to physical condition of vehicles	TBD	Work Management System	TBD
Reliable	Providing reliable vehicles and equipment	% of time the appropriate number of vehicles are ready for use by a service group	Work Management System	TBD	% of vehicles and equipment past their optimum service life	TBD	Asset Inventory	TBD
					Number of vehicles being replaced early due to rust/corrosion, physical condition.	TBD	Asset Inventory	TBD
					# of failures by failure type	TBD	Work Management System	TBD
					% of non-critical preventative maintenance activities completed on time	TBD	Work Management System	TBD
					% of critical preventative maintenance activities completed on time	TBD	Work Management System	TBD
					% of uptime by vehicle class	TBD	Work Management System	TBD
					Ratio of Reactive vs. Preventative Maintenance	TBD	Work Management System	TBD
					Asset Classes with Appropriate Spare Ratios	TBD	Asset Inventory	TBD
Environmental Stewardship	Providing vehicles & equipment with minimal greenhouse gas emissions	Annual greenhouse gas emissions and fuel consumption	Work Management System	TBD	Total fuel consumption per year (L/100 km)	TBD	Work Management System	TBD
					% of vehicles above target idle time	TBD	Work Management System	TBD
					# of vehicles with above typical fuel consumption	TBD	Work Management System	TBD

	Foundational Metrics
	Advanced Metrics

APPENDIX B:
IMPLEMENTATION PLAN

Table B-1. Implementation Plan

	Project	Scope/Objectives	Benefits	Related Business Practices	Priority	Project Start Date	Project Duration	Internal Resources (hours)	Outsourcing Cost (if applicable)	Dependent Projects
1	Refine and Operationalize LOS	Establish LOS to document and manage FM business practices. Operationalize LOS by collecting appropriate data, and implementing annual review/updating.	Documents FM strategic elements. Enables fact/evidence-based decision making. Provides framework to measure, practice and continually improve FM.	All	High	Ongoing	Continuous Improvement	N/A	N/A	N/A
2	Centralize fleet management practices under the fleet management section.	Expand the current fleet management section to support all municipal fleet activities, as detailed in Section 6 of the CFMS. Entrust the Fleet Supervisor with the responsibilities and authority to execute the elements of the CFMS.	Creates efficiencies in FM service Standardizes FM operations Operationalizes FM strategy	All	High	Immediate	2 years	750 - 1,000	N/A	N/A
3	Develop Fleet Asset Inventories	Create detailed asset inventories for all fleet assets, using PW inventories as a model. Capture additional attribute information as needed. Create data standard.	Provides framework for asset data collection Standardizes inventory across all fleet assets Activates data-driven FM strategies.	All	High	Immediate	4 to 6 months	200	$25,000	N/A
4	Implement CMMS	Develop CMMS Implementation strategy (define needs, develop implementation plan) Procure and implement CMMS software Provide staff training to operationalize CMMS	Provides efficiencies in operations and maintenance business process Provides data management strategy and practice to activate advanced FM practices, standardizes data being collected against assets	All	High	Immediate	2 to 3 years	2500	$125,000 to $175,000	N/A
5	Create Service Level Agreements	Create service level agreements between the fleet department and other organizations/departments (ex. internal departments and HHCEC) applying to shared areas of business, including procurement, sharing of services, etc.	Increases efficiency of FM operation, by teaming with HHCEC Increases service delivery by leveraging HHCEC resources and needs Documents clearly expectations of business units for fleet assets.	Procurement Operations Maintenance	Medium	Medium-term (2+ years)	4 to 6 months (initial) Continuous Improvement (as needed to update)	200	$25,000	2
6	Develop and enhance charge-out model for all rolling stock	Analyze all costs associated with rolling stock using existing available data Continually improve and enhance model with additional data when available	Increases efficiency and cost recovery	Operations	Medium	Medium-term (2+ years)	4 to 6 months	200	$25,000	4, 5
7	Implement Advanced Procurement Strategies	Implementation of: Operator and management feedback forms to inform procurement Develop procurement scoring methodology/matrix	Creates efficiencies in procurement & incorporates user feedback early in procurement lifecycle Optimizes procurement process Reduces overall costs of procurement	Procurement	Medium	Medium-term (2+ years)	4 to 6 months	120	N/A	2, 3, 4
8	Implement Advanced Environmental Strategies	Implement Anti-idling Policy Develop driver environmental training program Monitor and report on fuel usage	Creates efficiencies Alignment with organizational objectives through environmental stewardship	Operations	Low	Long-term (2 to 5 years)	4 to 6 months	120	N/A	2, 3, 4
9	Develop Formal Maintenance Management Strategy	Standardize and define maintenance activities Provide appropriate maintenance training in alignment with CFMS and AM objectives Provide appropriate training associated with CMMS, to obtain appropriate data required to implement CFMS Develop maintenance piroity matrix Incorporate preventative maintenance IDs into CMMS for all vehicles	Develops framework to activate advanced maintenance strategies, and data strategies Ensures assets are being effectively maintained and warranty is valid Optimizes vehicle maintenance & replacement process	Maintenance	Medium	Medium-term (2+ years)	1 year	200	$50,000 to $100,000	2, 3, 4
10	Implement Advanced Disposal/Replacement Strategies	Implement optimum service life analysis Formally define and track vehicle spare ratios	Creates efficiencies in disposal/replacement Optimizes disposal/replacement process Reduces overall costs of disposal/replacement	Disposal/Replacement	Low	Long-term (2 to 5 years)	4 to 6 months	120	N/A	2, 3, 4