Asset Management Plan

Township of Hilton

2021

This Asset Management Program was prepared by:

Empowering your organization through advanced asset management, budgeting & GIS solutions

Key Statistics

Replacement cost of asset portfolio
$5.4 million

Replacement cost of infrastructure per household
$16,000 (2021)

Percentage of assets in fair or better condition
94%

Percentage of assets with assessed condition data
93%

Annual capital infrastructure deficit
$35,000

Recommended timeframe for eliminating annual infrastructure deficit
5 Years

Target reinvestment rate
5.1%

Actual reinvestment rate
4.4%

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Executive Summary

Municipal infrastructure provides the foundation for the economic, social, and environmental health and growth of a community through the delivery of critical services. The goal of asset management is to deliver an adequate level of service in the most cost-effective manner. This involves the development and implementation of asset management strategies and long-term financial planning.

Scope

This AMP identifies the current practices and strategies that are in place to manage public infrastructure and makes recommendations where they can be further refined. Through the implementation of sound asset management strategies, the Township can ensure that public infrastructure is managed to support the sustainable delivery of municipal services.

This AMP include the following asset categories:

With the development of this AMP the Township has achieved compliance with O. Reg. 588/17 to the extent of the requirements that must be completed by July 1, 2024. There are additional requirements concerning proposed levels of service and growth that must be met by July 1, 2025.

Findings

The overall replacement cost of the asset categories included in this AMP totals $5.4 million. 94% of all assets analysed in this AMP are in fair or better condition and assessed condition data was available for 93% of assets. For the remaining assets, assessed condition data was unavailable, and asset age was used to approximate condition – a data gap that persists in most municipalities. Generally, age misstates the true condition of assets, making assessments essential to accurate asset management planning, and a recurring recommendation in this AMP.
The development of a long-term, sustainable financial plan requires an analysis of whole lifecycle costs. This AMP uses a combination of proactive lifecycle strategies (paved roads) and replacement only strategies (all other assets) to determine the lowest cost option to maintain the current level of service.

To meet capital replacement and rehabilitation needs for existing infrastructure, prevent infrastructure backlogs, and achieve long-term sustainability, the Township's average annual capital requirement totals $275,000. Based on a historical analysis of sustainable capital funding sources, the Township is committing approximately $240,000 towards capital projects or reserves per year. As a result, there is currently an annual funding gap of $35,000.

It is important to note that this AMP represents a snapshot in time and is based on the best available processes, data, and information at the Township. Strategic asset management planning is an ongoing and dynamic process that requires continuous improvement and dedicated resources.

Recommendations

A financial strategy was developed to address the annual capital funding gap. The following graphic shows annual tax change required to eliminate the Township's infrastructure deficit based on a 5-year plan:

Recommendations to guide continuous refinement of the Township's asset management program. These include:

- Review data to update and maintain a complete and accurate dataset
- Develop a condition assessment strategy with a regular schedule
- Review and update lifecycle management strategies
- Development and regularly review short- and long-term plans to meet capital requirements
- Measure current levels of service and identify sustainable proposed levels of service

1 Introduction & Context

Key Insights

The goal of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value ratepayers receive from the asset portfolio

The Township's asset management policy provides clear direction to staff on their roles and responsibilities regarding asset management

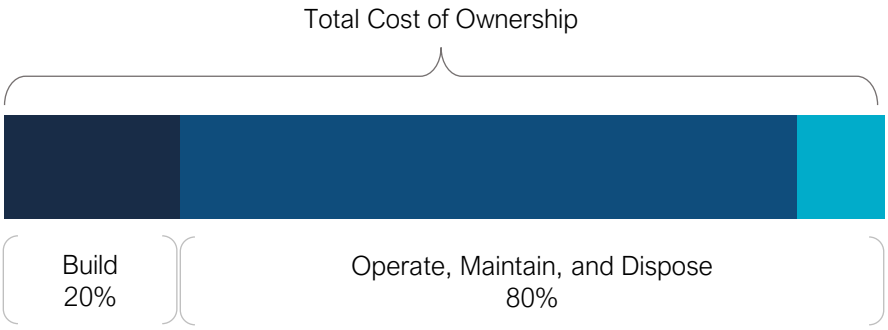
An asset management plan is a living document that should be updated regularly to inform long-term planning

Ontario Regulation 588/17 outlines several key milestone and requirements for asset management plans in Ontario between July 1, 2022 and 2025

1.1 An Overview of Asset Management

Municipalities are responsible for managing and maintaining a broad portfolio of infrastructure assets to deliver services to the community. The goal of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value ratepayers receive from the asset portfolio.

The acquisition of capital assets accounts for only 10-20% of their total cost of ownership. The remaining 80-90% derives from operations and maintenance. This AMP focuses its analysis on the capital costs to maintain, rehabilitate and replace existing municipal infrastructure assets.



These costs can span decades, requiring planning and foresight to ensure financial responsibility is spread equitably across generations. An asset management plan is critical to this planning, and an essential element of broader asset management program. The industry-standard approach and sequence to developing a practical asset management program begins with a Strategic Plan, followed by an Asset Management Policy and an Asset Management Strategy, concluding with an Asset Management Plan.

This industry standard, defined by the Institute of Asset Management (IAM), emphasizes the alignment between the corporate strategic plan and various asset management documents. The strategic plan has a direct, and cascading impact on asset management planning and reporting.

1.1.1 Asset Management Policy

An asset management policy represents a statement of the principles guiding the Township's approach to asset management activities. It aligns with the organizational strategic plan and provides clear direction to municipal staff on their roles and responsibilities as part of the asset management program.

The Township adopted a strategic asset management policy in 2019 in accordance with Ontario Regulation 588/17.

The objectives of the policy include:

- Fiscal Responsibilities
- Delivery of Services/Programs
- Public Input/Council Direction
- Risk/Impact Mitigation

1.1.2 Asset Management Strategy

An asset management strategy outlines the translation of organizational objectives into asset management objectives and provides a strategic overview of the activities required to meet these objectives. It provides greater detail than the policy on how the Township plans to achieve asset management objectives through planned activities and decision-making criteria. The Township's Asset Management Policy contains many of the key components of an asset management strategy and may be expanded on in future revisions or as part of a separate strategic document.

1.1.3 Asset Management Plan

The asset management plan (AMP) presents the outcomes of the Township's asset management program and identifies the resource requirements needed to achieve a defined level of service. The AMP typically includes the following content:

- State of Infrastructure
- Asset Management Strategies
- Levels of Service
- Financial Strategies

The AMP is a living document that should be updated regularly as additional asset and financial data becomes available. This will allow the Township to re-evaluate the state of infrastructure and identify how the organization's asset management and financial strategies are progressing.

1.2 Key Concepts in Asset Management

Effective asset management integrates several key components, including lifecycle management, risk management, and levels of service. These concepts are applied throughout this asset management plan and are described below in greater detail.

1.2.1 Lifecycle Management Strategies

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment. Asset deterioration has a negative effect on the ability of an asset to fulfill its intended function, and may be characterized by increased cost, risk and even service disruption.

To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

There are several field intervention activities that are available to extend the life of an asset. These activities can be generally placed into one of three categories: maintenance, rehabilitation and replacement. The following table provides a description of each type of activity and the general difference in cost.

Lifecycle Activity	Description	Example (Roads)	Cost
Maintenance	Activities that prevent defects or deteriorations from occurring	Crack Seal	$
Rehabilitation/ Renewal	Activities that rectify defects or deficiencies that are already present and may be affecting asset performance	Mill & Re-surface	$$
Replacement/ Reconstruction	Asset end-of-life activities that often involve the complete replacement of assets	Full Reconstruction	$$$

Depending on initial lifecycle management strategies, asset performance can be sustained through a combination of maintenance and rehabilitation, but at some point, replacement is required. Understanding what effect these activities will have on the lifecycle of an asset, and their cost, will enable staff to make better recommendations.

The Township's approach to lifecycle management is described within each asset category outlined in this AMP. Developing and implementing a proactive lifecycle strategy will help staff to determine which activities to perform on an asset and when they should be performed to maximize useful life at the lowest total cost of ownership.

1.2.2 Risk Management Strategies

Municipalities generally take a 'worst-first' approach to infrastructure spending. Rather than prioritizing assets based on their importance to service delivery, assets in the worst condition are fixed first, regardless of their criticality. However, not all assets are created equal. Some are more important than others, and their failure or disrepair poses more risk to the community than that of others. For example, a road with a high volume of traffic that provides access to critical services poses a higher risk than a low volume rural road. These high-value assets should receive funding before others.

By identifying the various impacts of asset failure and the likelihood that it will fail, risk management strategies can identify critical assets, and determine where maintenance efforts, and spending, should be focused.

This AMP includes a high-level evaluation of asset risk and criticality. Each asset has been assigned a probability of failure score and consequence of failure score based on available asset data. These risk scores can be used to prioritize maintenance, rehabilitation and replacement strategies for critical assets.

1.2.3 Levels of Service

A level of service (LOS) is a measure of what the Township is providing to the community and the nature and quality of that service. Within each asset category in this AMP, technical metrics and qualitative descriptions that measure both technical and community levels of service have been established and measured as data is available.

These measures include a combination of those that have been outlined in O. Reg. 588/17 in addition to performance measures identified by the Township as worth measuring and evaluating. The Township measures the level of service provided at two levels: Community Levels of Service, and Technical Levels of Service.

Community Levels of Service

Community levels of service are a simple, plain language description or measure of the service that the community receives. For core asset categories (roads) the Province, through O. Reg. 588/17, has provided qualitative descriptions that are required to be included in this AMP. For non-core asset categories, the Township has determined the qualitative descriptions that will be used to determine the community level of service provided. These descriptions can be found in the Levels of Service subsection within each asset category.

Technical Levels of Service

Technical levels of service are a measure of key technical attributes of the service being provided to the community. These include mostly quantitative measures and tend to reflect the impact of the Township's asset management strategies on the physical condition of assets or the quality/capacity of the services they provide.

For core asset categories (roads) the Province, through O. Reg. 588/17, has provided technical metrics that are required to be included in this AMP. For non-core asset categories, the Township has determined the technical metrics that will be used to determine the technical level of service provided. These metrics can be found in the Levels of Service subsection within each asset category.

Current and Proposed Levels of Service

This AMP focuses on measuring the current level of service provided to the community. Once current levels of service have been measured, the Township plans to establish proposed levels of service over a 10-year period, in accordance with O. Reg. 588/17.

Proposed levels of service should be realistic and achievable within the timeframe outlined by the Township. They should also be determined with consideration of a variety of community expectations, fiscal capacity, regulatory requirements, corporate goals and long-term sustainability. Once proposed levels of service have been established, and prior to July 2025, the Township must identify a lifecycle management and financial strategy which allows these targets to be achieved.

1.3 Ontario Regulation 588/17

As part of the *Infrastructure for Jobs and Prosperity Act, 2015*, the Ontario government introduced Regulation 588/17 - Asset Management Planning for Municipal Infrastructure (O. Reg 588/17). Along with creating better performing organizations, more liveable and sustainable communities, the regulation is a key, mandated driver of asset management planning and reporting. It places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

The diagram below outlines key reporting requirements under O. Reg 588/17 and the associated timelines.

2019

Strategic Asset Management Policy

2022

Asset Management Plan for Core Assets with the following components:

1. Current levels of service
2. Inventory analysis
3. Lifecycle activities to sustain LOS
4. Cost of lifecycle activities
5. Population and employment forecasts
6. Discussion of growth impacts

2024

Asset Management Plan for Core and Non-Core Assets (same components as 2022) and Asset Management Policy Update

2025

Asset Management Plan for All Assets with the following additional components:

1. Proposed levels of service for next 10 years
2. Updated inventory analysis
3. Lifecycle management strategy
4. Financial strategy and addressing shortfalls
5. Discussion of how growth assumptions impacted lifecycle and financial

1.3.1 O. Reg. 588/17 Compliance Review

The following table identifies the requirements outlined in Ontario Regulation 588/17 for municipalities to meet by July 1, 2024. Next to each requirement a page or section reference is included in addition to any necessary commentary.

Requirement	O. Reg. Section	AMP Section Reference	Status
Summary of assets in each category	S.5(2), 3(i)	4.1 – 8.6	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	4.1 – 8.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	4.2 – 8.2	Complete
Condition of core assets in each category	S.5(2), 3(iv)	4.2 – 8.2	Complete
Description of municipality's approach to assessing the condition of assets in each category	S.5(2), 3(v)	4.2.1 – 8.2.1	Complete
Current levels of service in each category	S.5(2), 1(i-ii)	4.5 – 8.5	Complete
Current performance measures in each category	S.5(2), 2	4.5 – 8.5	Complete
Lifecycle activities needed to maintain current levels of service for 10 years	S.5(2), 4	4.3 – 8.3	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	Appendix B	Complete
Growth assumptions	S.5(2), 5(i-ii) S.5(2), 6(i-vi)	9.1-9.2	Complete

2 Scope and Methodology

Key Insights

This asset management plan includes 5 asset categories

The source and recency of replacement costs impacts the accuracy and reliability of asset portfolio valuation

Accurate and reliable condition data helps to prevent premature and costly rehabilitation or replacement and ensures that lifecycle activities occur at the right time to maximize asset value and useful life

2.1 Asset Categories Included in this AMP

This asset management plan for the Township of Hilton is produced in compliance with Ontario Regulation 588/17. The July 2024 deadline under the regulation—the second of three AMPs—requires analysis of both core and non-core assets.

The AMP summarizes the state of the infrastructure for the Township's asset portfolio, establishes current levels of service and the associated technical and customer oriented key performance indicators (KPIs), outlines lifecycle strategies for optimal asset management and performance, and provides financial strategies to reach sustainability for the asset categories listed below.

Asset Category	Source of Funding
Road Network	Tax Levy
Buildings	
Vehicles	
Machinery & Equipment	
Land Improvements	

2.2 Deriving Replacement Costs

There are a range of methods to determine the replacement cost of an asset, and some are more accurate and reliable than others. This AMP relies on two methodologies:

- **User-Defined Cost and Cost/Unit**: Based on costs provided by municipal staff which could include average costs from recent contracts; data from engineering reports and assessments; staff estimates based on knowledge and experience
- **Cost Inflation/CPI Tables**: Historical cost of the asset is inflated based on Consumer Price Index or Non-Residential Building Construction Price Index

User-defined costs based on reliable sources are a reasonably accurate and reliable way to determine asset replacement costs. Cost inflation is typically used in the absence of reliable replacement cost data. It is a reliable method for recently purchased and/or constructed assets where the total cost is reflective of the actual costs that the Township incurred. As assets age, and new products and technologies become available, cost inflation becomes a less reliable method.

2.3 Estimated Useful Life

The estimated useful life (EUL) of an asset is the period over which the Township expects the asset to be available for use and remain in service before requiring replacement or disposal. The EUL for each asset in this AMP was assigned according to the knowledge and expertise of municipal staff and supplemented by existing industry standards when necessary.

2.4 Reinvestment Rate

As assets age and deteriorate they require additional investment to maintain a state of good repair. The reinvestment of capital funds, through asset renewal or replacement, is necessary to sustain an adequate level of service. The reinvestment rate is a measurement of available or required funding relative to the total replacement cost.

By comparing the actual vs. target reinvestment rate the Township can determine the extent of any existing funding gap. The reinvestment rate is calculated as follows:

$$Target\ Reinvestment\ Rate = \frac{Annual\ Capital\ Requirement}{Total\ Replacement\ Cost}$$

$$Actual\ Reinvestment\ Rate = \frac{Annual\ Capital\ Funding}{Total\ Replacement\ Cost}$$

2.5 Deriving Asset Condition

An incomplete or limited understanding of asset condition can mislead long-term planning and decision-making. Accurate and reliable condition data helps to prevent premature and costly rehabilitation or replacement and ensures that lifecycle activities occur at the right time to maximize asset value and useful life.

A condition assessment rating system provides a standardized descriptive framework that allows comparative benchmarking across the Township's asset portfolio. The table below outlines the condition rating system used in this AMP to determine asset condition. This rating system is aligned with the Canadian Core Public Infrastructure Survey which is used to develop the Canadian Infrastructure Report Card. When assessed condition data is not available, service life remaining is used to approximate asset condition.

Condition	Description	Criteria	Service Life Remaining (%)
Very Good	Fit for the future	Well maintained, good condition, new or recently rehabilitated	80-100
Good	Adequate for now	Acceptable, generally approaching mid-stage of expected service life	60-80
Fair	Requires attention	Signs of deterioration, some elements exhibit significant deficiencies	40-60
Poor	Increasing potential of affecting service	Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration	20-40
Very Poor	Unfit for sustained service	Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable	0-20

The analysis in this AMP is based on assessed condition data only as available. In the absence of assessed condition data, asset age is used as a proxy to determine asset condition.

3 Portfolio Overview

Key Insights

The total replacement cost of the Township's asset portfolio is $5.4 million

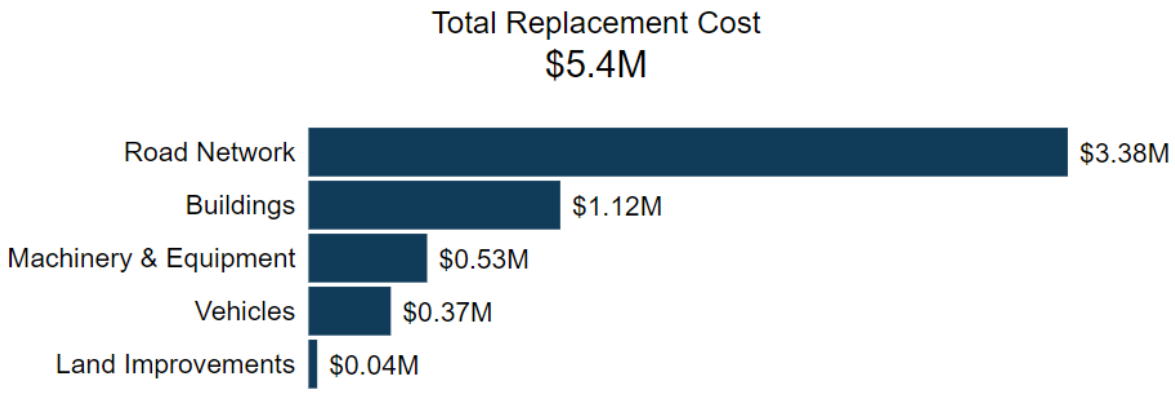
The Township's target re-investment rate is 5.1%, and the actual re-investment rate is 4.4%, contributing to an expanding infrastructure deficit

94% of all assets are in fair or better condition

Average annual capital requirements total $275k per year across all assets

3.1 Total Replacement Cost of Asset Portfolio

The asset categories analyzed in this AMP have a total replacement cost of $5.4 million based on inventory data from 2021. This total was determined based on a combination of user-defined costs and historical cost inflation. This estimate reflects replacement of historical assets with similar, not necessarily identical, assets available for procurement today.

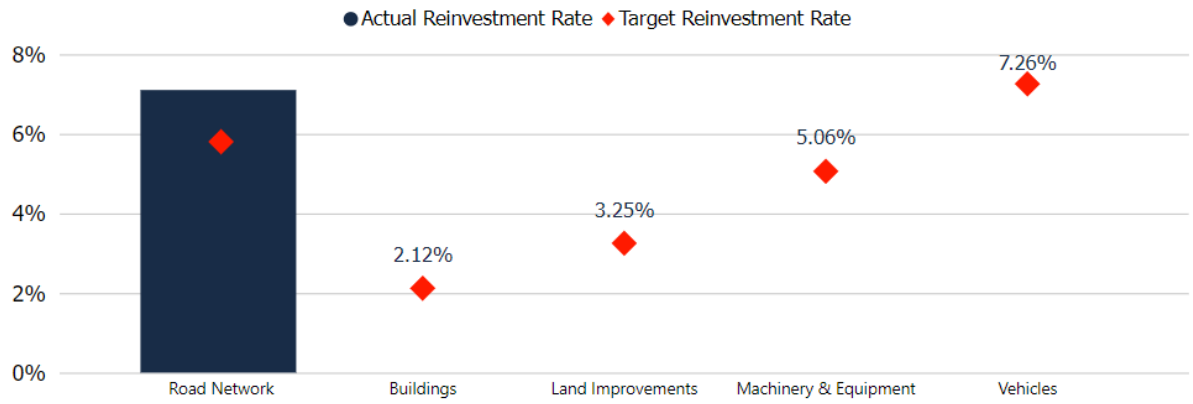


The following table identifies the methods employed to determine replacement costs across each asset category:

Asset Category	Replacement Cost Method	
	User-Defined	Notes
Road Network	100%	Staff provided cost/unit pricing for the Road Network
Buildings	93%	Insurance values along with staff expertise provided cost for majority of municipal buildings
Machinery & Equipment	97%	A combination of insurance values and staff provided cost/unit
Vehicles	39%	Insurance values and staff provided user-defined costs for serveral vehicles
Land Improvements	0%	Historical Inflation using Consumer Price Index (CPI)
Overall	**93%**	

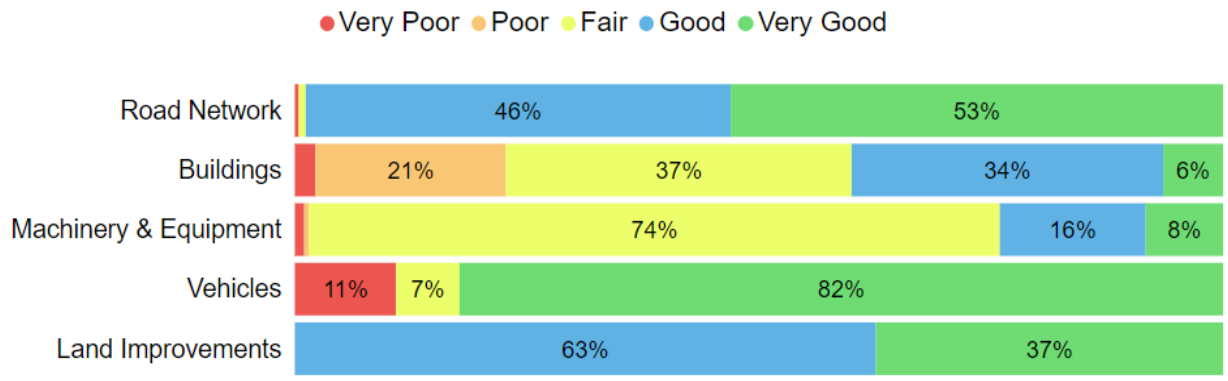
3.2 Target vs. Actual Reinvestment Rate

The graph below depicts funding gaps or surpluses by comparing target vs actual reinvestment rate. To meet the long-term replacement needs, the Township should be allocating approximately $275k annually, for a target reinvestment rate of 5.1%. Actual annual spending on infrastructure totals approximately $240k, for an actual reinvestment rate of 4.4%.



3.3 Condition of Asset Portfolio

The current condition of the assets is central to all asset management planning. Collectively, 94% of assets in Hilton are in fair or better condition. This estimate relies on both age-based and field condition data.



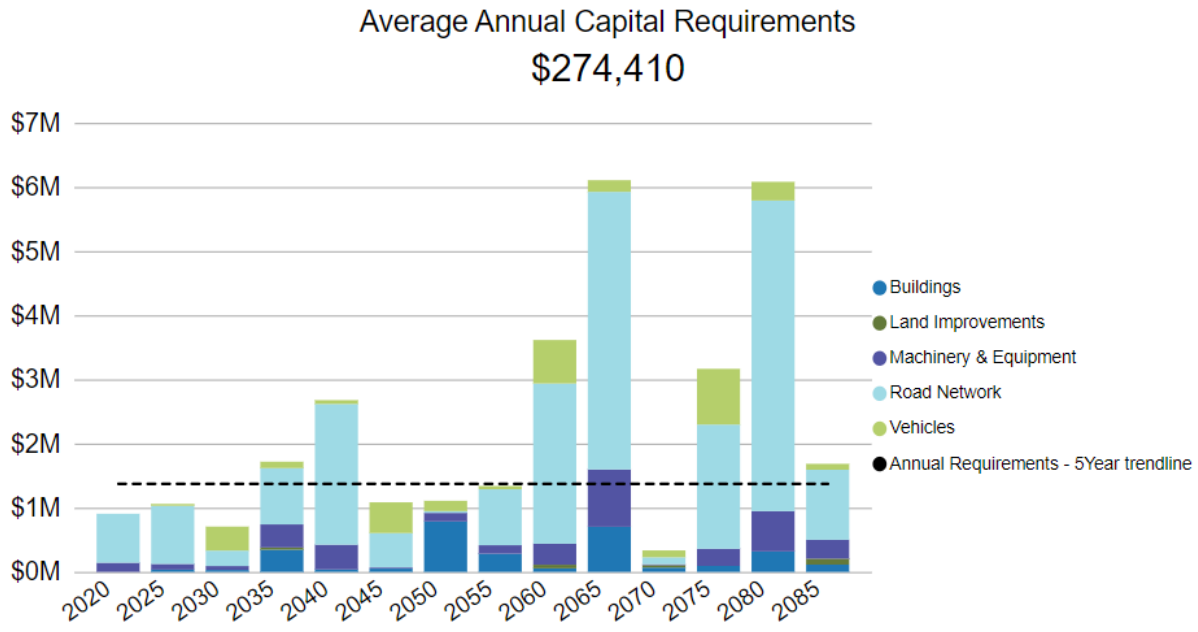
This AMP relies on assessed condition data for 93% of assets; for the remaining portfolio, age is used as an approximation of condition. Assessed condition data is invaluable in asset management planning as it reflects the true condition of the asset and its ability to perform its functions. The table below identifies the source of condition data used throughout this AMP.

Asset Category	Asset Segment	% of Assets with Assessed Condition	Source of Condition Data
Road Network	All	96%	Staff Assessments
Buildings	All	91%	Staff Assessments
Machinery & Equipment	All	97%	Staff Assessments
Vehicles	All	39%	Staff Assessments
Land Improvements	All	100%	Staff Assessments

3.4 Forecasted Capital Requirements

The development of a long-term capital forecast should include both asset rehabilitation and replacement requirements. With the development of asset-specific lifecycle strategies that include the timing and cost of future capital events, the Township can produce an accurate long-term capital forecast. The following graph identifies capital requirements over the next 65 years.

This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



4 Road Network

The road network is a critical component of the provision of safe and efficient transportation services and represents the highest value asset category in the Township's asset portfolio. It includes all municipally owned and maintained roadways.

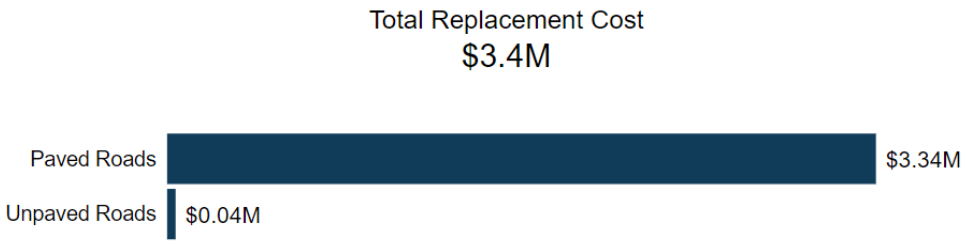
The state of the infrastructure for the road network is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$3.4 million	Good (76%)	Annual Requirement:	$196,000
		Funding Available:	$240,000
		Annual Surplus:	$44,000

4.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Township's road network inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Paved Roads	36 kms	$3,339,000	$190,000
Unpaved Roads	14.2 kms[1]	$40,000	$6,000
Total		**$3,379,000**	**$196,000**



Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

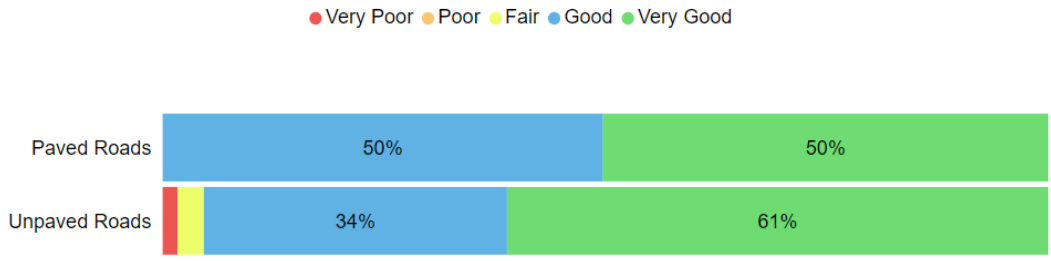
[1] Township staff are currently working towards resurfacing all gravel roads due to unsustainable operational costs and service expectations associated with them. Several of the unpaved roads have been identified for upgrade to paved roads in the next 10 years, shown in Appendix D.

4.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Paved Roads	25	24.4	Very Good (80%)
Unpaved Roads	10-25[2]	93.2	Good (79%)
Average		**44.1**	**Good (76%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



To ensure that the Township's road network continues to provide an acceptable level of service, the Township should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation, and replacement activities is required to increase the overall condition of the roads.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

[2] The useful life for unpaved roads is concerned with the re-gravelling frequency. Typically, staff maintain unpaved roads proactively so that they don't require full replacement.

4.2.1 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Township's current approach:

- Visual inspections are completed 2-3 times weekly by the Road Superintendent.
- Annual condition assessments of all roads are completed in February based on Road Superintended recommendations, which helps inform annual municipal budget

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

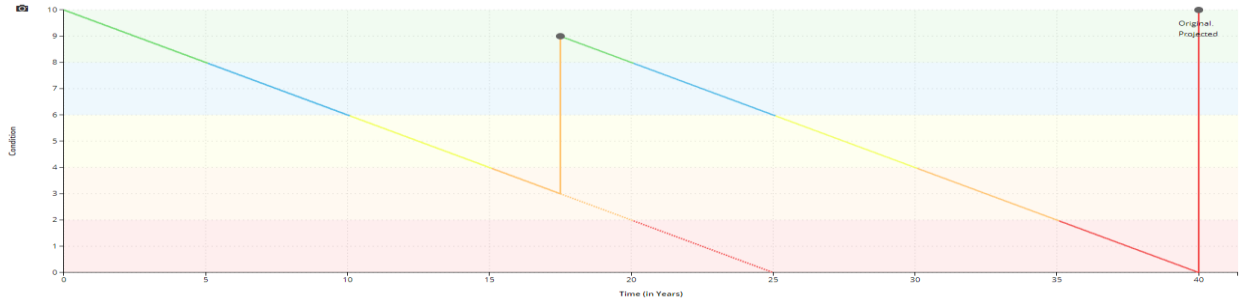
Condition	Rating
Very Good	8-10
Good	6-8
Fair	4-6
Poor	2-4
Very Poor	0-2

4.3 Lifecycle Management Strategy

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment.

The following lifecycle strategies have been developed as a proactive approach to managing the lifecycle of Low Class Bituminous (LCB) roads. Instead of allowing the roads to deteriorate until replacement is required, strategic rehabilitation is expected to extend the service life of roads at a lower total cost.

Paved Roads (LCB)		
Event Name	**Event Class**	**Event Trigger**
Double Surface Treatment	Rehabilitation	3-4 Condition
Full Reconstruction	Replacement	End-of-Life



In addition to the above lifecycle strategy that has been developed for LCB roads, the following table outlines the Township's current lifecycle management strategy for gravel Roads.

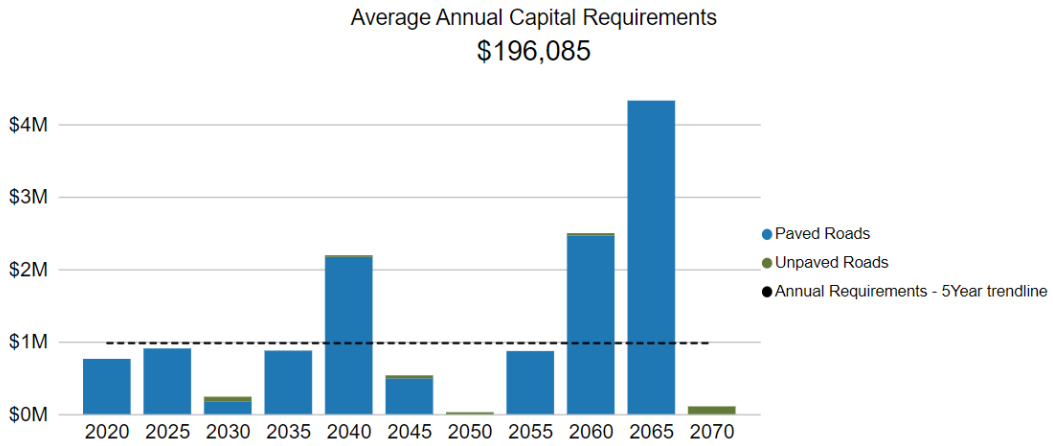
Activity Type	Description of Current Strategy
Maintenance / Rehabilitation	Road side grass and brush mowing is completed regularly, with grading completed as required
	Calcium is applied to gravel roads once per year, in June
Replacement	When early constructed roads begin to show imperfection, such as boulders from the base beginning to move up to the surface, full reconstruction of the road is completed
	Recommendations from Road Superintendent based on visual inspection will determine road replacement, along with specific direction from Council in some cases

Specific lifecycle activities performed on the Township's road network are identified in their 10 year capital plan, which can be seen in Appendix D.

4.3.1 Forecasted Capital Requirements

Based on the lifecycle strategies identified previously for LCB roads, and assuming the end-of-life replacement of all other assets in this category, the following graph forecasts capital requirements for the road network.

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 50 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

4.4 Risk & Criticality

4.4.1 Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2021 inventory data.

This is a high-level model developed for the purposes of this AMP and Township staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the roads are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
Drainage Adequacy	

The identification of critical assets allows the Township to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

4.4.2 Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Township is currently facing:

Climate Change & Extreme Events

Asset deterioration is accelerated due to extreme weather, which in some cases can cause unexpected failures. Freeze-thaw cycles, ice jams, and surface flooding from extreme rainfall have been experienced by the Town in recent years. These events make long-term planning difficult and can result in a lower level of service

Growth

The Township and surrounding communities are experiencing population growth which is resulting in additional strain on municipal roads. The road network is experiencing higher traffic volumes, and changes to the type of traffic utilizing the road network. This is causing additional wear and tear to municipal roads, accelerating their rate of deterioration.

4.5 Levels of Service

The following tables identify the Township's current level of service for the road network. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Township has selected for this AMP.

4.5.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the road network.

Service Attribute	Qualitative Description	Current LOS (2021)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity	See Appendix C
Quality	Description or images that illustrate the different levels of road class pavement condition	The Township collects condition information for its roads on a regular basis using a 0-10 condition point scale. The condition rating factors in physical surface condition, drainage adequacy and capacity demands.

4.5.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the road network.

Service Attribute	Technical Metric	Current LOS (2021)
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km^2)	0 km/116 km^2
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km^2)	31 km/116 km^2
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km^2)	94 km/116 km^2
Quality	Average pavement condition index for paved roads in the municipality	76
	Average surface condition for unpaved roads in the municipality (e.g. excellent, good, fair, poor)	Good

4.6 Recommendations

Asset Inventory

- Continue to refine and update asset attribute information to ensure accuracy of the risk and lifecycle strategies.
- Update replacement cost information on a regular basis, every 1-2 years, to maintain a reliable inventory.
- Continue to collect and update the asset management inventory with condition information to improve forecasting capabilities.

Lifecycle Management Strategies

Implement the identified lifecycle management strategies for LCB roads to realize potential cost avoidance and maintain a high quality of road pavement condition.

Evaluate the efficacy of the Township's lifecycle management strategies at regular intervals to determine the impact cost, condition and risk.

Risk Management Strategies

Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.

Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Continue to measure current levels of service in accordance with the metrics identified in O. Reg. 588/17 and those metrics that the Township believes to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service.

5 Buildings

The Township of Hilton owns and maintains several facilities and recreation centres that provide key services to the community. These include:

- Storage sheds and public works garages
- Recreation facilities such as parks
- Municipal offices
- Fire hall

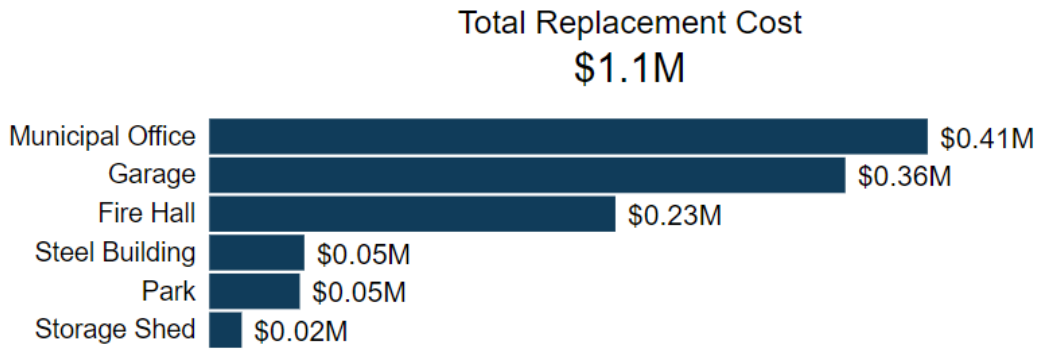
The state of the infrastructure for the buildings is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$1.1 million	Fair (52%)	Annual Requirement:	$24,000
		Funding Available:	$0
		Annual Deficit:	$24,000

5.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Township's buildings inventory.

Asset Segment	Quantity (Components)	Replacement Cost	Annual Capital Requirement
Fire Hall	1	$230,000	$4,000
Garage	1 (3)	$360,000	$6,000
Municipal Office	1 (3)	$407,000	$12,000
Park	2	$51,000	$900
Steel Building	1 (3)	$54,000	$900
Storage Shed	1	$18,000	$300
Total		**$1,120,000**	**$24,000**



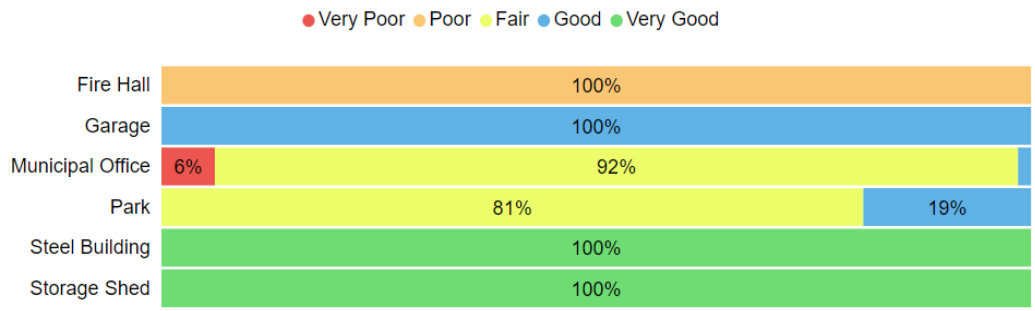
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

5.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Fire Hall	60	42.0	Poor (21%)
Garage	60	32.0	Good (72%)
Municipal Office	60	13.3	Fair (43%)
Park	60	24.0	Fair (53%)
Steel Building	60	1.0	Very Good (98%)
Storage Shed	60	1.0	Very Good (98%)
Average		**17.7**	**Fair (52%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



To ensure that the Township's buildings continue to provide an acceptable level of service, the Township should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the buildings and facilities.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

5.2.1 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Township's current approach:

- There are no formal condition assessment programs in place for municipally owned buildings. Staff visually inspect buildings on a regular basis with the goal of capturing critical and immediate issues.
- Buildings are inspected on a monthly basis for Heath & Safety as set by the Technical Standards and Safety Authorities (TSSA).
- Components such as HVAC and generators are inspected as required by manufacturer recommendations and Building Code Act.

In this AMP the following rating criteria is used to determine the current condition of buildings and forecast future capital requirements:

Condition	Rating
Very Good	8-10
Good	6-8
Fair	4-6
Poor	2-4
Very Poor	0-2

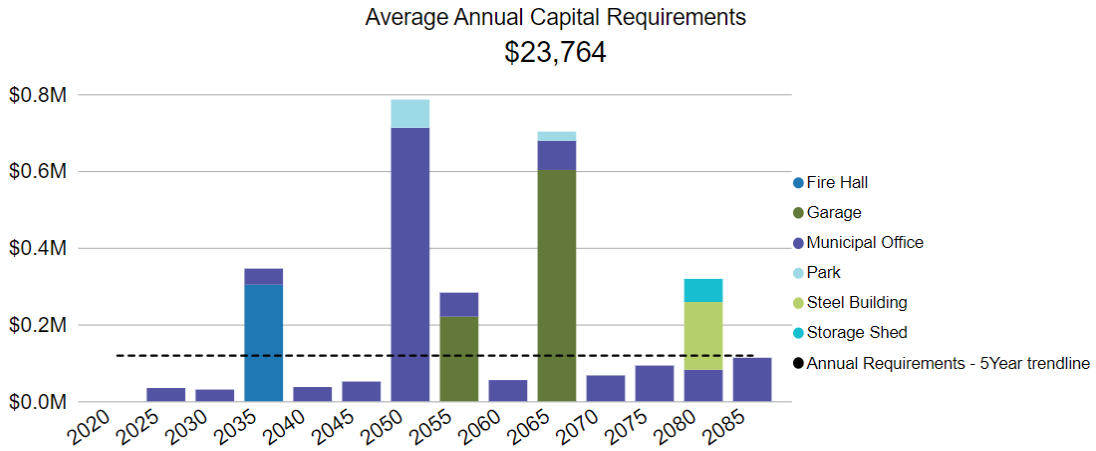
5.3 Lifecycle Management Strategy

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration. The following table outlines the Township's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance / Rehabilitation/ Replacement	Public Works staff identify concerns and deficiencies on a regular basis. These concerns are documented and prioritized for maintenance, rehabilitation and/or replacement.
	Third-party buildings are completed on an as needed basis when funding is available. Buildings and building components are prioritized based on criticality, physical condition, capacity and functionality concerns, and healthy & safety concerns.

5.3.1 Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 65 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

5.4 Risk & Criticality

5.4.1 Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2021 inventory data.

This is a high-level model developed for the purposes of this AMP and Township staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of buildings are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
	Function (Operational)

The identification of critical assets allows the Township to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

5.4.2 Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Township is currently facing:

Regulatory Compliance

Municipally owned buildings must comply with Accessibility for Ontarians with Disabilities Act (AODA) standards. Ensuring that all buildings in the Township are in compliance with AODA standards is a challenge for the Township due to limited available funding and frequently changing standards.

Capital Funding Strategies

Major capital rehabilitation and replacement projects are often entirely dependant on the availability of grant funding opportunities. When grants are not available, rehabilitation and replacement projects may be deferred. An annual capital funding strategy could reduce dependency on grant funding and help prevent deferral of capital works.

5.5 Levels of Service

The following tables identify the Township's current level of service for the buildings. These metrics include the technical and community level of service metrics that the Township has selected for this AMP.

5.5.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the buildings.

Service Attribute	Qualitative Description	Current LOS (2021)
Scope	Description, which may include maps, of the types of facilities that the municipality operates and maintains	The munciplaity operates and maintains a variety of facilities including the municipal office, a recently construction steel storage building, pavillion and washrooms at Twin Lakes Park, a public works garage, an additional storage shed, and a fire hall.

5.5.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the buildings.

Service Attribute	Technical Metric	Current LOS (2021)
Quality	% of buildings that meet accessibility standards	TBD
Performance	% of buildings that are in good/very good condition	40%
	% of buildings that are in poor/very poor condition	23%

5.6 Recommendations

Asset Inventory

The Township's asset inventory contains single records for all facilities. Facilities consist of several separate capital components that have unique estimated useful lives and require asset-specific lifecycle strategies. Staff should work towards a component-based inventory of all facilities to allow for component-based lifecycle planning.

Gather accurate replacement costs and update on a regular basis to ensure the accuracy of capital projections.

The Township should implement regular condition assessments for all facilities to better inform short- and long-term capital requirements.

Risk Management Strategies

Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.

Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring current levels of service in accordance with the metrics that the Township has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service.

6 Vehicles

Vehicles allow staff to efficiently deliver municipal services and personnel. Municipal vehicles are used to support several service areas, including:

- Public works vehicles including a plow truck and pickup trucks
- Protection services vehicles including a fire tanker and pumper

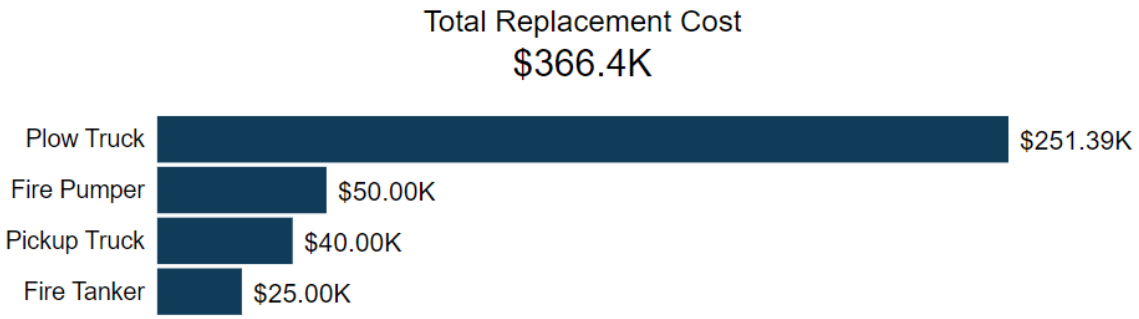
The state of the infrastructure for the vehicles is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$367,000	Good (67%)	Annual Requirement:	$27,000
		Funding Available:	$0
		Annual Deficit:	$27,000

6.1 Asset Inventory & Costs

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Township's vehicles.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Fire Pumper	1	$50,000	$3,000
Fire Tanker	1	$25,000	$3,000
Pickup Truck	1	$40,000	$4,000
Plow Truck	1	$251,000	$17,000
	Total	**$366,000**	**$27,000**



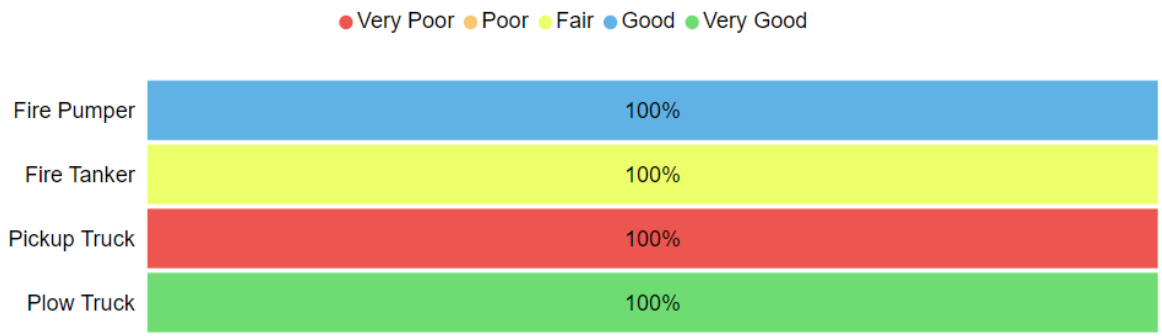
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

6.2 Asset Condition & Age

The table below identifies the current average condition and source of available condition data for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Fire Pumper	15	11.0	Good (63%)
Fire Tanker	6	3.0	Fair (52%)
Pickup Truck	10	11.0	Very Poor (0%)
Plow Truck	15	3.0	Very Good (80%)
	Average	**7.4**	**Good (67%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



To ensure that the Township's vehicles continue to provide an acceptable level of service, the Township should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the vehicles.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

6.2.1 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Township's current approach:

- Staff complete regular visual inspections of vehicles to ensure they are in state of adequate repair prior to operation
- Annual inspections are completed by external mechanics on all municipal vehicles
- Fire vehicles are inspected annually in accordance with National Fire Protection Association (NFPA) guidelines.

In this AMP the following rating criteria is used to determine the current condition of vehicles and forecast future capital requirements:

Condition	Rating
Very Good	8-10
Good	6-8
Fair	4-6
Poor	2-4
Very Poor	0-2

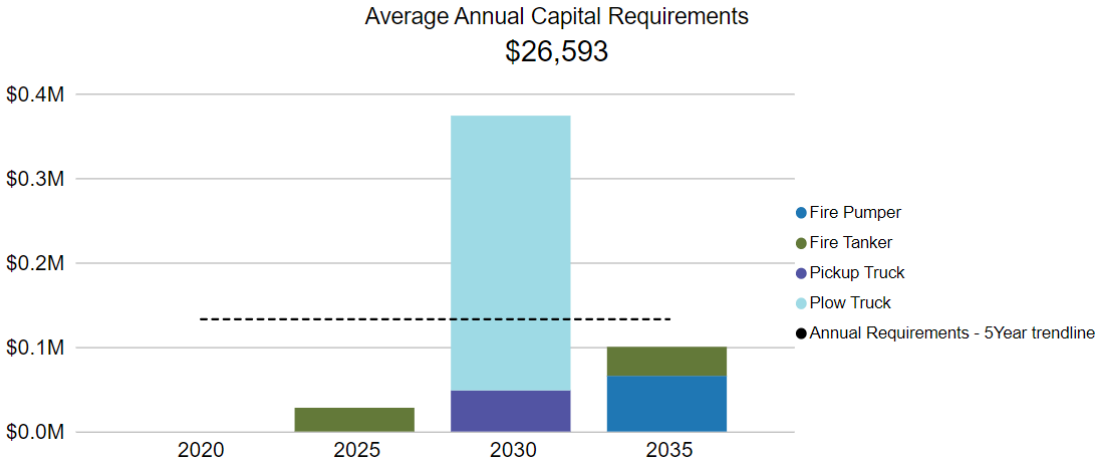
6.3 Lifecycle Management Strategy

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration. The following table outlines the Township's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance / Rehabilitation	Regular maintenance and servicing is completed as needed. Public Works staff inspect vehicle assets on a regular basis.
	Mandated inspections are completed on Fire vehicles annually
Replacement	Vehicle age, mileage and annual repair costs are taken into consideration when determining appropriate treatment options.

6.3.1 Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 15 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

6.4 Risk & Criticality

6.4.1 Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2021 inventory data.

This is a high-level model developed for the purposes of this AMP and Township staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of vehicles are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
	Function (Operational)

The identification of critical assets allows the Township to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

6.4.2 Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Township is currently facing:

Regulatory Compliance
Fire vehicle inspections are mandated to ensure regulatory compliance. These inspections involve significant costs to have them performed by an external contractor, however they must be completed annually even when the vehicles have had minimal use throughout the year.

6.5 Levels of Service

The following tables identify the Township's current level of service for the vehicles. These metrics include the technical and community level of service metrics that the Township has selected for this AMP.

6.5.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the vehicles.

Service Attribute	Qualitative Description	Current LOS (2021)
Scope	Description or images of the types of vehicles (e.g. light, medium and heavy-duty) that the municipality operates and the services that they help to provide to the community	The munciplaity operates a variety of vehicles including: a pickup truck to support parks, winter control, and road patrols, a plow truck to support winter control of paved and unpaved roads, and a fire pumper and tanker to provide protective services to the municipality.

6.5.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the vehicles.

Service Attribute	Technical Metric	Current LOS (2021)
Performance	% of vehicles that are in good/very good condition	82%
	% of vehicles that are in poor/very poor condition	11%

6.6 Recommendations

Replacement Costs

Gather accurate replacement costs and update on a regular basis to ensure the accuracy of capital projections.

Condition Assessment Strategies

- Identify condition assessment strategies for high value and high-risk equipment.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.

Risk Management Strategies

Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.

Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring current levels of service in accordance with the metrics that the Township has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service.

7 Machinery & Equipment

In order to maintain the high quality of public infrastructure and support the delivery of core services, Township staff own and employ various types of machinery and equipment. This includes:

- Landscaping equipment to maintain public parks
- Fire equipment to support the delivery of emergency services
- Tractor, grader, excavator, and float to support public works services

Keeping machinery and equipment in an adequate state of repair is important to maintain a high level of service.

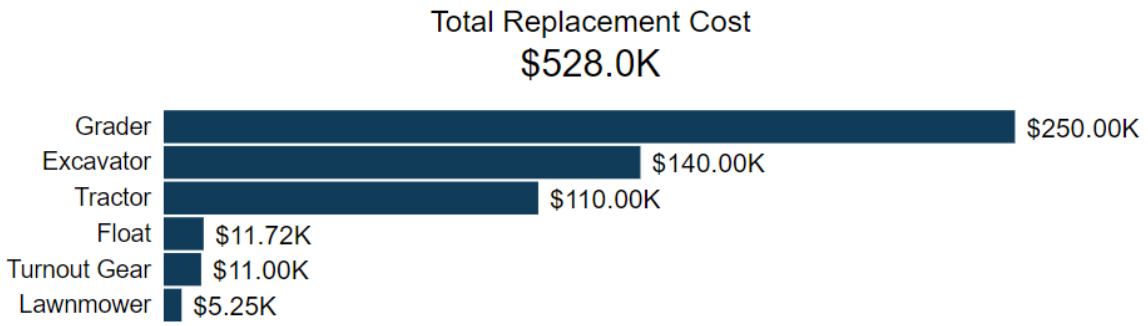
The state of the infrastructure for the machinery and equipment is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$528,000	Fair (52%)	Annual Requirement:	$27,000
		Funding Available:	$0
		Annual Deficit:	$27,000

7.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Township's machinery and equipment inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Excavator	1	$140,000[3]	$7,000
Float	1	$12,000	$600
Grader	1	$250,000	$8,000
Lawnmower	1	$5,000	$500
Tractor	1	$110,000	$9,000
Turnout Gear	1	$11,000	$1,000
Total		**$528,000**	**$27,000**



Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

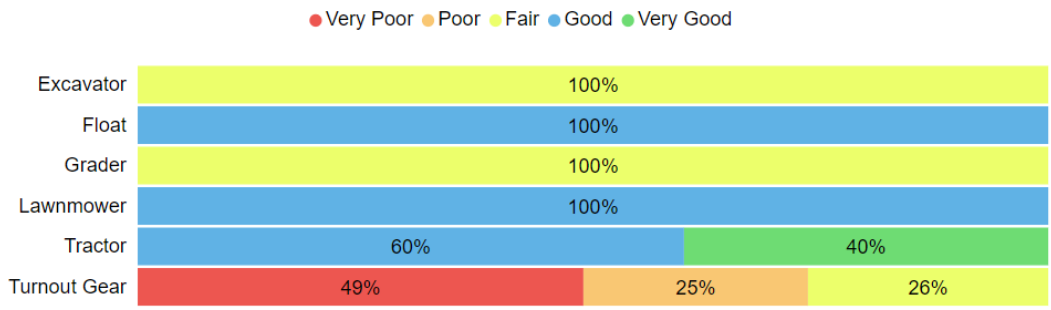
[3] This replacement cost represents the cost of a new backhoe that Staff will be replacing the excavator with in recent years.

7.2 Asset Condition & Age

The table below identifies the current average condition and source of available condition data for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Excavator	20	20.0	Fair (45%)
Float	20	13.0	Good (70%)
Grader	30	20.0	Fair (46%)
Lawnmower	10	3.0	Good (70%)
Tractor	12	2.0	Good (73%)
Turnout Gear	10	9.7	Very Poor (18%)
Average		**11.1**	**Fair (52%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



To ensure that the Township's machinery and equipment continues to provide an acceptable level of service, the Township should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the machinery and equipment.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

7.2.1 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Township's current approach:

- Staff complete regular visual inspections of machinery and equipment to ensure they are in state of adequate repair.
- There are no formal condition assessment programs in place, although some machinery and equipment were assigned cursory condition ratings for this AMP.

In this AMP the following rating criteria is used to determine the current condition of machinery and equipment and forecast future capital requirements:

Condition	Rating
Very Good	8-10
Good	6-8
Fair	4-6
Poor	2-4
Very Poor	0-2

7.3 Lifecycle Management Strategy

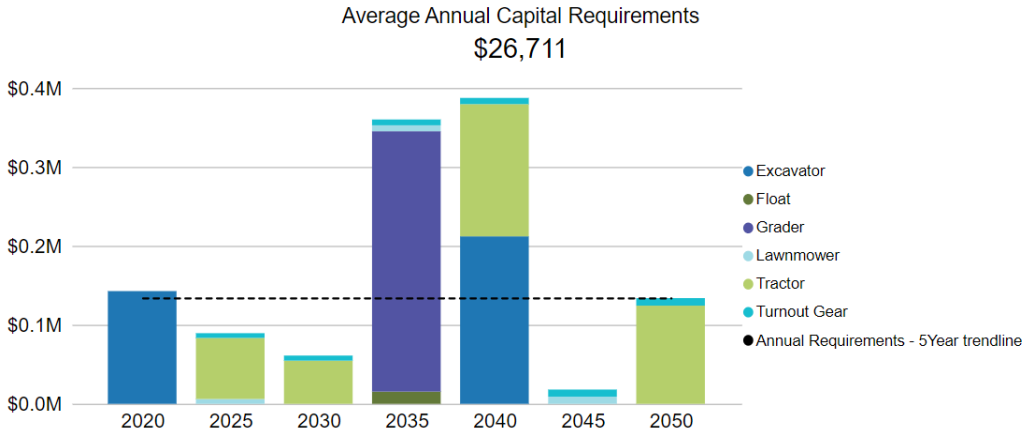
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Township's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance/ Rehabilitation/ Replacement	Machinery and equipment assets are maintained with the goal of maximizing their useful service life.
	Fire equipment is subject to a more rigorous inspection and maintenance program compared to other equipment
	The renewal and/or replacement of machinery and equipment asset is prioritized based on condition, funding available, and criticality of operations.

7.3.1 Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 30 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

7.4 Risk & Criticality

7.4.1 Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2021 inventory data.

This is a high-level model developed for the purposes of this AMP and Township staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of machinery and equipment are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Township to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

7.4.2 Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Township is currently facing:

Staff Cognizance
Presently there is no documentation or formal standards in place in the municipality for maintenance or life cycle activities. Decisions for replacement or rehabilitation of machinery and equipment is subjective based on staff recommendations. As staff retire, there is a loss of expertise and no formal hand-over process for new staff.

7.5 Levels of Service

The following tables identify the Township's current level of service for the machinery and equipment. These metrics include the technical and community level of service metrics that the Township has selected for this AMP.

7.5.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the machinery and equipment.

Service Attribute	Qualitative Description	Current LOS (2021)
Scope	Description or images of the types of equipment that the municipality operates and the services that they help to provide to the community	Municipally owned equipment includes equipment to support public works services, such as float, excavator, grader and tractor, landscaping equipment to support the parks including a riding lawnmower, and turnout gear to support the fire department.

7.5.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the machinery and equipment.

Service Attribute	Technical Metric	Current LOS (2021)
Performance	% of equipment that are in good/very good condition	24%
	% of equipment that are in poor/very poor condition	2%

7.6 Recommendations

Replacement Costs

- Some replacement costs used in this AMP were based on the inflation of historical costs. These costs should be evaluated to determine their accuracy and reliability. Replacement costs should be updated according to the best available information on the cost to replace the asset in today's value.

Condition Assessment Strategies

- Identify condition assessment strategies for high value and high-risk equipment.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.

Risk Management Strategies

Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.

Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring current levels of service in accordance with the metrics that the Township has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service.

8 Land Improvements

The Township of Hilton owns a small number of assets that are considered land improvements. This category includes:

A well for the municipal office
Boat launch in Milford Haven park

The land improvements inventory is currently at a basic level. Staff are working toward building a more robust inventory of their land improvement assets

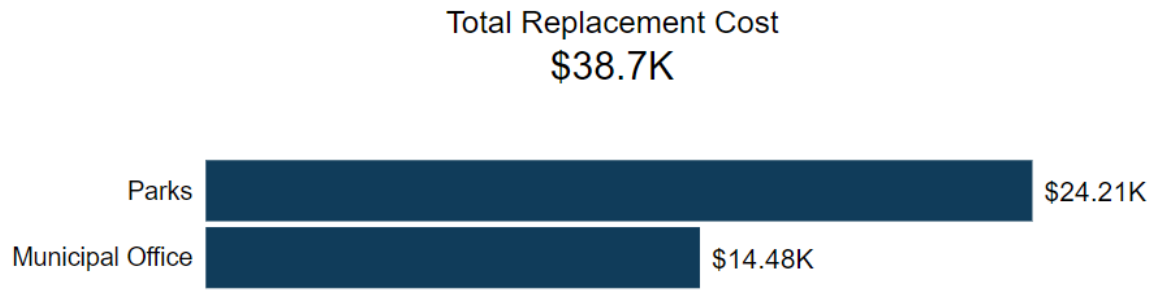
The state of the infrastructure for the land improvements is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$39,000	Very Good (81%)	Annual Requirement:	$1,000
		Funding Available:	$0
		Annual Deficit:	$1,000

8.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Township's land improvements inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Municipal Office	1	$15,000	$300
Parks	1	$24,000	$1,000
Total		**$39,000**	**$1,300**



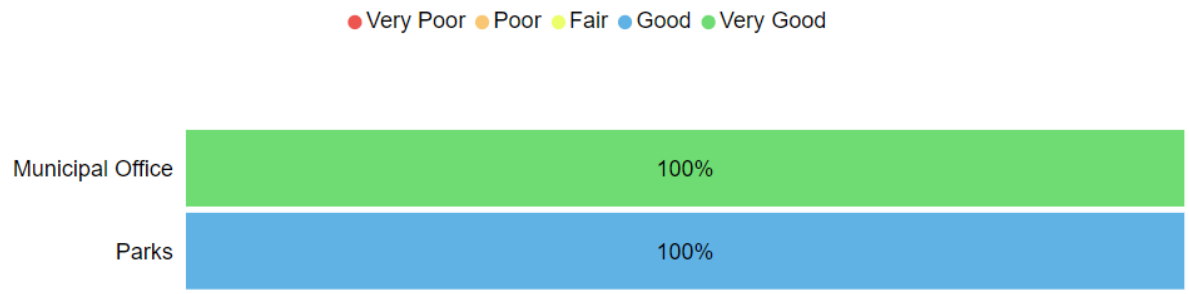
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

8.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Municipal Office	25	38.0	Very Good (98%)
Parks	25	32.0	Good (71%)
Average		**35.0**	**Very Good (81%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



To ensure that the Township's land improvements continues to provide an acceptable level of service, the Township should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the land improvements.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

8.2.1 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Township's current approach:

- Staff complete regular visual inspections for land improvement assets to ensure they are in an adequate state of repair
- There are no formal condition assessment programs in place for land improvements

In this AMP the following rating criteria is used to determine the current condition of land improvement assets and forecast future capital requirements:

Condition	Rating
Very Good	8-10
Good	6-8
Fair	4-6
Poor	2-4
Very Poor	0-2

8.3 Lifecycle Management Strategy

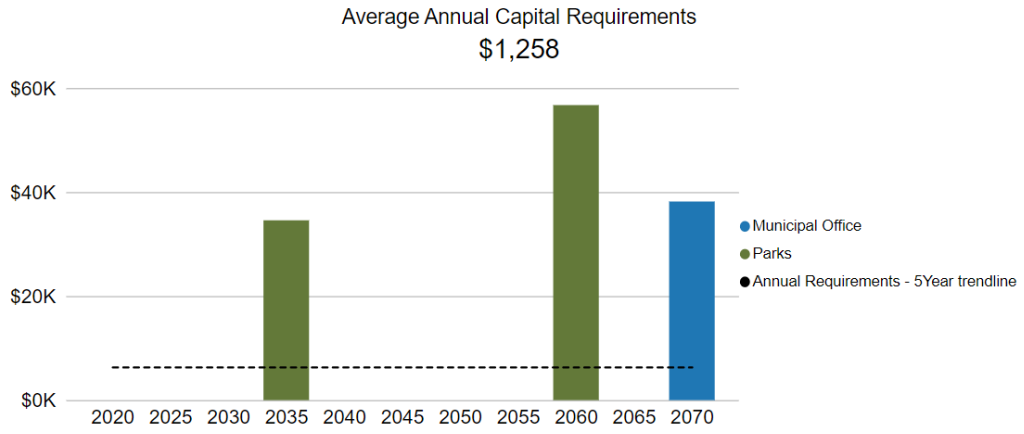
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Township's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenanace/ Rehabilitation/ Replacement	Maintenace activities include grass cutting/triming, cleaning of washrooms and change rooms, inspecting beach front for broken glass, visual inspections of playground equipment, and checking for broken limbs of trees in area.
	Visual inspections by staff and suggestions from residents that use the facilities determine which assets require renewal or replacement

8.3.1 Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 50 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

8.4 Risk & Criticality

8.4.1 Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2021 inventory data.

This is a high-level model developed for the purposes of this AMP and Township staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of land improvements are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Township to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

8.4.2 Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Township is currently facing:

Capital Funding Strategies
Major capital rehabilitation and replacement projects are often entirely dependant on the availability of grant funding opportunities. When grants are not available, rehabilitation and replacement projects may be deferred. An annual capital funding strategy could reduce dependency on grant funding and help prevent deferral of capital works.

8.5 Levels of Service

The following tables identify the Township's current level of service for the land improvement assets. These metrics include the technical and community level of service metrics that the Township has selected for this AMP.

8.5.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the land improvement assets.

Service Attribute	Qualitative Description	Current LOS (2021)
Scope	Description, which may include maps, of the outdoor recreational facilities that the municipality operates and maintains	The municipality owns and operates two parks and a boat launch. Additionally, they own a well for the municipal office. In 2022, they will also be assuming ownership for a cemetery that was previously owned/operated by a local church group, and they plan on creating a 5km trail system.

8.5.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the land improvement assets.

Service Attribute	Technical Metric	Current LOS (2021)
Performance	% of land improvements that are in good/very good condition	100%
	% of land improvements that are in poor/very poor condition	0%

8.6 Recommendations

Replacement Costs

- All replacement costs used in this AMP were based on the inflation of historical costs. These costs should be evaluated to determine their accuracy and reliability. Replacement costs should be updated according to the best available information on the cost to replace the asset in today's value.

Condition Assessment Strategies

- Identify condition assessment strategies for high value and high-risk assets.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.

Risk Management Strategies

Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.

Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring current levels of service in accordance with the metrics that the Township has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service.

9 Impacts of Growth

Key Insights

Understanding the key drivers of growth and demand will allow the Township to more effectively plan for new infrastructure, and the upgrade or disposal of existing infrastructure

Moderate population and employment growth is expected

The costs of growth should be considered in long-term funding strategies that are designed to maintain the current level of service

9.1 Description of Growth Assumptions

The demand for infrastructure and services will change over time based on a combination of internal and external factors. Understanding the key drivers of growth and demand will allow the Township to plan for new infrastructure more effectively, and the upgrade or disposal of existing infrastructure. Increases or decreases in demand can affect what assets are needed and what level of service meets the needs of the community.

9.1.1 Hilton Township Official Plan (2010)

The St. Joseph Island Official Plan, which includes Hilton Township, began preparation in the summer of 2003, with modifications approved on January 6th, 2010. The purpose of the plan is to guide the decisions of public authorities and private interests for the next 20 years.

The Official Plan provides a basis for managing growth that will protect the character, diversity, civic identity, and heritage features of St. Joseph Island. It is intended to be a land use management tool, to positively impact future growth and development on the island. New residential growth is to be directed to the urban town sites in the Official Plan, with limited housing opportunities available in the rural and shoreline areas. A long-term role and function for the rural areas is also established in the Official Plan, to permit limited development on rural lands that is compatible with the character, role, and function of the area.

The population of the island is estimated to increase by between 400 and 850 people in the next twenty years. Most new residential development will be directed to the town sites, with balanced development anticipated in the rural and shoreline areas. The goal of the Island is to strengthen the local economy, continue to develop the Island as a tourist destination and ensuring the schools and hospitals in the community remain viable. Based on 2016 and 2021 Census data, the Township of Hilton is experiencing moderate growth. In 2016, the population of the Township was 307, and in 2021 the population was 382 – a growth of 24%.

The existing pattern of development is not anticipated to change substantially in the future; however, the development of additional recreational residential development is anticipated to contribute to the Island's economy and accommodate the needs of seasonal residents.

9.1.2 Hilton 10-Year Improvement Plan

In order to accommodate the growing population and community expectations in the Township of Hilton, staff have developed a 10-year improvement plan which outlines all capital projects planned for the next 10 years. Primarily this includes the work completed on the road network, including updates of gravel roads to surface treated, however it also includes several growth assets for buildings, land improvements, and vehicles.

The Township plans to purchase a new Caterpillar Backhoe in the year 2022, in order to replace their existing Excavator, which is no longer needed. A new 2-wheel drive pickup is also planned for purchase in 2023 from the roads equipment reserve fund. New trail grooming equipment is planned for purchase in 2024, pending grant funding opportunities or $25,000 in taxation.

A 5km trail system is also planned to be created by the Township, consisting of a pedestrian walking/snowshoeing/cross country ski trail pending grant approval. In addition to this, the Township plans to construct a Pickleball Court in 2023 with grant funding, remaining Covid Funding, or parks reserve funding. The purchase of new playground equipment at Twins Lakes Park and Big Point Park is also planned for 2025 with grant funding.

A new sand dome is planned to be constructed on Municipal Office Grounds in 2023 with both taxation and municipal buildings reserve funding. Finally, a Satellite Firehall is planned to be constructed in the year 2025 at 4377 W Line, pending grant funding.

9.2 Impact of Growth on Lifecycle Activities

By July 1, 2025, the Township's asset management plan must include a discussion of how the assumptions regarding future changes in population and economic activity informed the preparation of the lifecycle management and financial strategy.

Planning for forecasted population growth may require the expansion of existing infrastructure and services. As growth-related assets are constructed or acquired, they should be integrated into the Town's AMP. Furthermore, the municipality will need to review the lifecycle costs of growth-related infrastructure. These costs should be considered in long-term funding strategies that are designed to, at a minimum, maintain the current level of service.

10 Financial Strategy

Key Insights

The Township is committing approximately $240,000 towards capital projects per year from sustainable revenue sources

Given the annual capital requirement of $275,000, there is currently a funding gap of $35,000 annually

For tax-funded assets, we recommend increasing tax revenues by 1.0% each year for the next 5 years to achieve a sustainable level of funding

10.1 Financial Strategy Overview

For an asset management plan to be effective and meaningful, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the Township of Hilton to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service, and projected growth requirements.

This report develops such a financial plan by presenting several scenarios for consideration and culminating with final recommendations. As outlined below, the scenarios presented model different combinations of the following components:

1. The financial requirements for:
    a. Existing assets
    b. Existing service levels
    c. Requirements of contemplated changes in service levels (none identified for this plan)
    d. Requirements of anticipated growth (none identified for this plan)
2. Use of traditional sources of municipal funds:
    a. Tax levies
    b. User fees
    c. Reserves
    d. Debt
3. Use of non-traditional sources of municipal funds:
    a. Reallocated budgets
    b. Partnerships
    c. Procurement methods
4. Use of Senior Government Funds:
    a. Gas tax
    b. Annual grants

Note: Periodic grants are normally not included due to Provincial requirements for firm commitments. However, if moving a specific project forward is wholly dependent on receiving a one-time grant, the replacement cost included in the financial strategy is the net of such grant being received.

If the financial plan component results in a funding shortfall, the Province requires the inclusion of a specific plan as to how the impact of the shortfall will be managed. In determining the legitimacy of a funding shortfall, the Province may evaluate a Township's approach to the following:

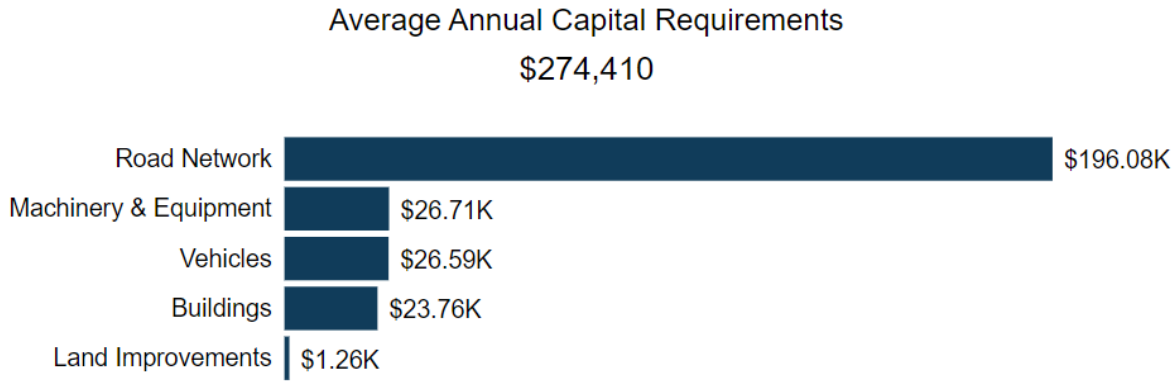
1. In order to reduce financial requirements, consideration has been given to revising service levels downward.

2. All asset management and financial strategies have been considered. For example:
    a. If a zero-debt policy is in place, is it warranted? If not, the use of debt should be considered.
    b. Do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

10.1.1 Annual Requirements & Capital Funding

Annual Requirements

The annual requirements represent the amount the Township should allocate annually to each asset category to meet replacement needs as they arise, prevent infrastructure backlog and achieve long-term sustainability. In total, the Township must allocate approximately $275,000 annually to address capital requirements for the assets included in this AMP.



For most asset categories the annual requirement has been calculated based on a "replacement only" scenario, in which capital costs are only incurred at the construction and replacement of each asset.

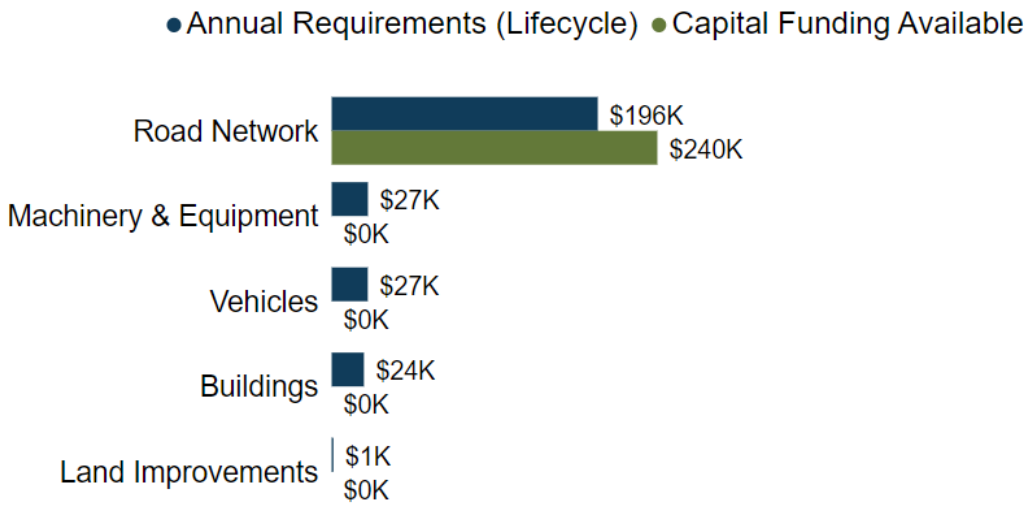
However, for the road network, lifecycle management strategies have been developed to identify capital costs that are realized through strategic rehabilitation and renewal of the Township's roads. The development of these strategies allows for a comparison of potential cost avoidance if the strategies were to be implemented.

1. **Replacement Only Scenario**: Based on the assumption that assets deteriorate and – without regularly scheduled maintenance and rehabilitation – are replaced at the end of their service life.
2. **Lifecycle Strategy Scenario**: Based on the assumption that lifecycle activities are performed at strategic intervals to extend the service life of assets until replacement is required.

The implementation of a proactive lifecycle strategy can lead to direct and indirect cost savings. Potential cost savings are influenced by current rehabilitation and reconstruction costs, the coordination of projects, and the criticality of the assets. Beyond cost avoidance, having proactive lifecycle strategies can also improve other valuable levels of service to the Township such as lowering health and safety hazards, decreasing the number of complaints received, and meeting Public expectations.

Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Township is committing approximately $240,000 towards capital projects per year from sustainable revenue sources. Given the annual capital requirement of $275,000, there is currently a funding gap of $35,000 annually.



10.2 Funding Objective

We have developed a scenario that would enable Hilton to achieve full funding within 1 to 20 years for the following assets:

1. **Tax Funded Assets:** Buildings, Land Improvements, Machinery & Equipment, Road Network, Vehicles

Note: For the purposes of this AMP, we have excluded gravel roads since they are a perpetual maintenance asset and end of life replacement calculations do not normally apply. If gravel roads are maintained properly, they can theoretically have a limitless service life.

For each scenario developed we have included strategies, where applicable, regarding the use of cost containment and funding opportunities.

10.3 Financial Profile: Tax Funded Assets

10.3.1 Current Funding Position

The following tables show, by asset category, Hilton's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by taxes.

Asset Category	Avg. Annual Requirement	Annual Funding Available				Annual Deficit
		Taxes	Gas Tax	OCIF	Total Available	
Buildings	$24,000	$0	$0	$0	$0	$24,000
Land Improvements	$1,000	$0	$0	$0	$0	$1,000
Machinery & Equipment	$27,000	$0	$0	$0	$0	$27,000
Road Network	$196,000	$121,000	$19,000	$100,000	$240,000	-$44,000
Vehicles	$27,000	$0	$0	$0	$0	$27,000
	$275,000	**$121,000**	**$19,000**	**$100,000**	**$240,000**	**$35,000**

The average annual investment requirement for the above categories is $275,000. Annual revenue currently allocated to these assets for capital purposes is $240,000 leaving an annual deficit of $35,000. Put differently, these infrastructure categories are currently funded at 87% of their long-term requirements.

10.3.2 Full Funding Requirements

In 2022, Township of Hilton has annual tax revenues of $718,000. As illustrated in the following table, without consideration of any other sources of revenue or cost containment strategies, full funding would require the following tax change over time:

Asset Category	Tax Change Required for Full Funding
Buildings	3.3%
Land Improvements	0.1%
Machinery & Equipment	3.8%
Road Network	-6.1%
Vehicles	3.8%
	4.9%

Our recommendations include capturing the above changes and allocating them to the infrastructure deficit outlined above. The table below outlines this concept and presents several options:

	Without Capturing Changes				With Capturing Changes			
	5 Years	**10 Years**	**15 Years**	**20 Years**	**5 Years**	**10 Years**	**15 Years**	**20 Years**
Infrastructure Deficit	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000
Change in Debt Costs[4]	N/A	N/A	N/A	N/A	0	0	0	0
Change in OCIF Grants	N/A	N/A	N/A	N/A	0	0	0	0
Resulting Infrastructure Deficit	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000
Tax Increase Required	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%
Annually	**1.0%**	**0.5%**	**0.4%**	**0.3%**	**1.0%**	**0.5%**	**0.4%**	**0.3%**

[4] The Township does not have any outstanding debt payments as of 2021.

10.3.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 5-year option. This involves full Capital Expenditures (CapEx) funding being achieved over 5 years by:

a) increasing tax revenue by 1.0% each year for the next 5 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
b) adjusting tax revenue increases in future year(s) when allocations to CapEx exceed or fail to meet budgeted amounts.
c) allocating the current gas tax and OCIF revenue as outlined previously.
d) allocating any scheduled OCIF grant increases to the infrastructure deficit as they occur.
e) reallocating appropriate revenue from categories in a surplus position to those in a deficit position.
f) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this periodic funding cannot be incorporated into an AMP unless there are firm commitments in place. We have included any applicable OCIF formula-based funding since this funding is a multi-year commitment[5].
2. We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

Although this option achieves full CapEx funding on an annual basis in 5 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of $25,000 for Buildings, $5,000 for Machinery & Equipment, and $40,000 for Vehicles

Prioritizing future projects will require the current data to be replaced by condition-based data. Although our recommendations include no further use of debt, the results of the condition-based analysis may require otherwise.

[5] The Township should take advantage of all available grant funding programs and transfers from other levels of government. While OCIF has historically been considered a sustainable source of funding, the program is currently undergoing review by the provincial government. This review may impact its availability.

10.4 Use of Reserves

10.4.1 Available Reserves

Reserves play a critical role in long-term financial planning. The benefits of having reserves available for infrastructure planning include:

a) the ability to stabilize tax rates when dealing with variable and sometimes uncontrollable factors
b) financing one-time or short-term investments
c) accumulating the funding for significant future infrastructure investments
d) managing the use of debt
e) normalizing infrastructure funding requirement

By asset category, the table below outlines the details of the reserves currently available to Hilton.

Asset Category	Balance on December 31, 2021
Road Network	$76,000
Buildings	$194,000
Machinery & Equipment	$37,000
Land Improvements	$97,000
Vehicles	$271,000
Total Tax Funded:	$675,000

There is considerable debate in the municipal sector as to the appropriate level of reserves that a Township should have on hand. There is no clear guideline that has gained wide acceptance. Factors that municipalities should take into account when determining their capital reserve requirements include:

a) breadth of services provided
b) age and condition of infrastructure
c) use and level of debt
d) economic conditions and outlook
e) internal reserve and debt policies.

These reserves are available for use by applicable asset categories during the phase-in period to full funding. This coupled with Hilton's judicious use of debt in the past, allows the scenarios to assume that, if required, available reserves and debt capacity can be used for high priority and emergency infrastructure investments in the short- to medium-term.

10.4.2 Recommendation

In 2025, Ontario Regulation 588/17 will require Hilton to integrate proposed levels of service for all asset categories in its asset management plan update. We recommend that future planning should reflect adjustments to service levels and their impacts on reserve balances.

11 Appendices

Key Insights

Appendix A includes a one-page report card with an overview of key data from each asset category

Appendix B identifies projected 10-year capital requirements for each asset category

Appendix C includes several maps that have been used to visualize the current level of service

Appendix D includes the Hilton 10-Year Improvement Plan

Appendix A: Infrastructure Report Card

Asset Category	Replacement Cost	Asset Condition	Financial Capacity	
Road Network	$3.4 million	Good (76%)	Annual Requirement:	$196,000
			Funding Available:	$240,000
			Annual Deficit:	-$44,000
Buildings	$1.1 million	Fair (52%)	Annual Requirement:	$24,000
			Funding Available:	$0
			Annual Deficit:	$24,000
Machinery & Equipment	$528,000	Fair (52%)	Annual Requirement:	$27,000
			Funding Available:	$0
			Annual Deficit:	$27,000
Vehicles	$367,000	Good (67%)	Annual Requirement:	$27,000
			Funding Available:	$0
			Annual Deficit:	$27,000
Land Improvements	$39,000	Very Good (81%)	Annual Requirement:	$1,000
			Funding Available:	$0
			Annual Deficit:	$1,000
Overall	$5.4 million	Fair	Annual Requirement:	$275,000
			Funding Available:	$240,000
			Annual Deficit:	**$35,000**

Appendix B: 10-Year Capital Requirements

The following tables identify the capital cost requirements for each of the next 10 years in order to meet projected capital requirements and maintain the current level of service.

Road Network

Asset Segment	Backlog	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Paved Roads	$0	$0	$336,500	$240,000	$187,000	$230,000	$175,700	$222,000	$140,500	$139,000	$56,000
Unpaved Roads	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$51,500
	$0	**$0**	**$336,500**	**$240,000**	**$187,000**	**$230,000**	**$175,700**	**$222,000**	**$140,500**	**$139,000**	**$107,500**

Buildings

Asset Segment	Backlog	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Fire Hall	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Garage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Municipal Office	$25,000	$0	$0	$0	$0	$0	$27,602	$0	$6,966	$0	$0
Park	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steel Building	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Storage Shed	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$25,000	**$0**	**$0**	**$0**	**$0**	**$0**	**$27,602**	**$0**	**$6,966**	**$0**	**$0**

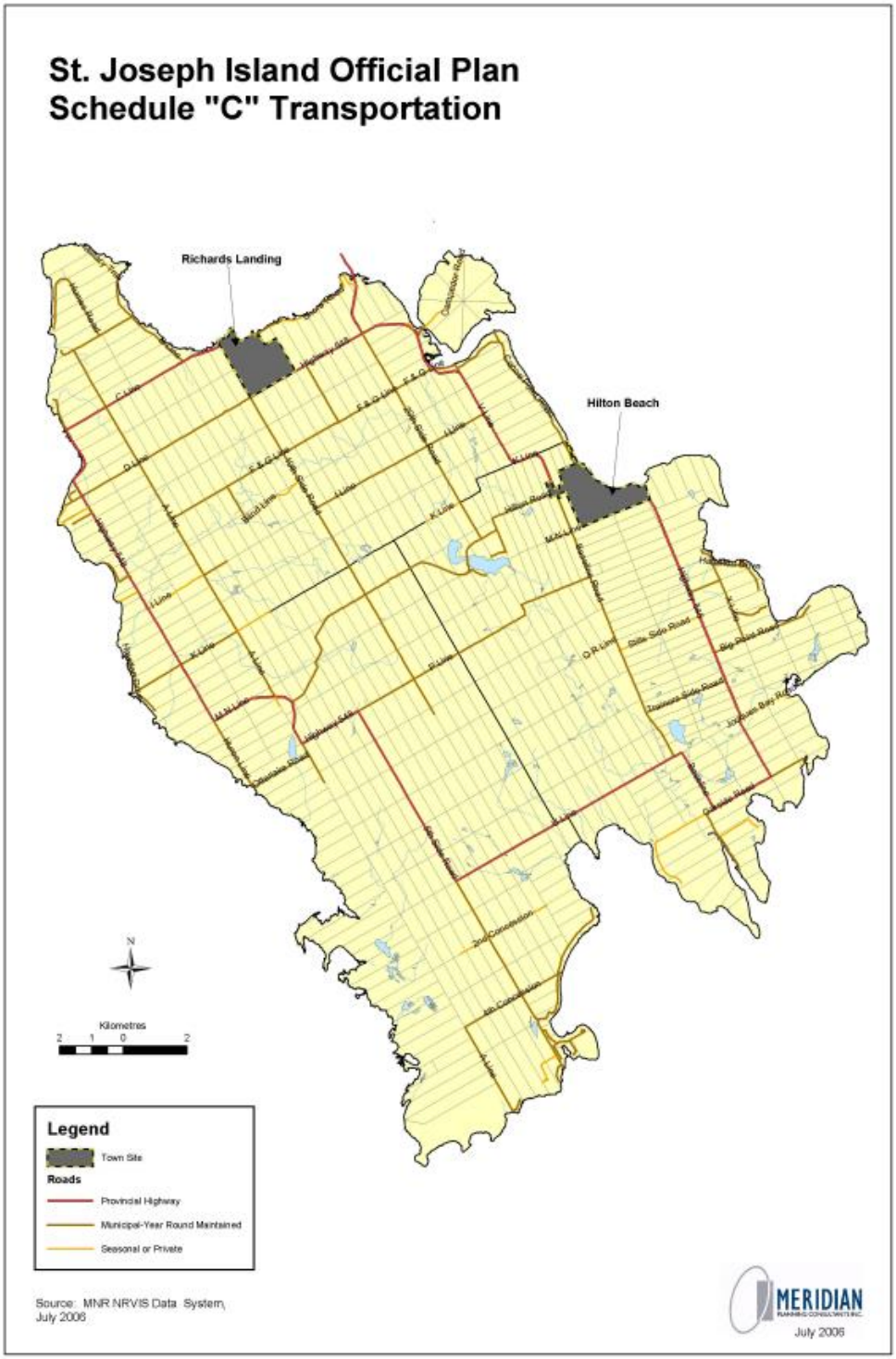
Vehicles											
Asset Segment	Backlog	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Fire Pumper	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fire Tanker	$0	$0	$0	$0	$0	$0	$0	$28,154	$0	$0	$0
Pickup Truck	$40,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plow Truck	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$40,000	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$28,154**	**$0**	**$0**	**$0**

Machinery & Equipment											
Asset Segment	Backlog	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Excavator	$0	$0	$142,800	$0	$0	$0	$0	$0	$0	$0	$0
Float	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Grader	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lawnmower	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,149	$0
Tractor	$0	$0	$0	$0	$0	$0	$0	$0	$0	$77,330	$0
Turnout Gear	$5,278	$0	$0	$0	$0	$2,879	$3,142	$0	$0	$0	$0
	$5,278	**$0**	**$142,800**	**$0**	**$0**	**$2,879**	**$3,142**	**$0**	**$0**	**$83,478**	**$0**

Land Improvements											
Asset Segment	Backlog	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Municipal Office	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Parks	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$0	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Appendix C: Level of Service Maps

Road Network Map – St. Joseph's Island



Road Network Map – St. Joseph's Island

Appendix D: Hilton 10-Year Improvement Plan

Hilton 10-Year Improvement Plan	
2022	
Activity	**Costs**
Base Line Road (Section 85): 2.0 km Reconstruct Park Surface Treatment Single and Double	$165,000
X-Line (Section 120): 1.0 km Surface Treatment - Double	$69,000
X-Line (Section 115): Add gravel 200 m section Surface Treatment Single and Double 200 m section	$34,000
Hilton Road (Section 25): Build up road by Park + over 2 pipes Replace steel culvert Surface Treatment Single	$68,500
New Caterpillar Backhoe	$140,000
Total:	**$476,500**
2023	
Activity	**Costs**
Trainors Side Road (Section 175): Top up Gravel Surface Treatment Double	$141,500
Whybourne Road/Haight Road (Section 10): Reconstruct part Surface Treatment Single and Double	$80,000
M and N (Section 55): Remove overhanging branches Surface Treatment Single	$18,500
P-Line (Section 40): Preliminary work prior to Surface Treatment: Remove trees Replace culvert at creek	$0
Sand Dome	$150,000
Pickleball Court	$60,000
New 2 wheel drive	$40,000
Total:	**$490,000**

Hilton 10-Year Improvement Plan

2024

Activity	Costs
P-Line (Section 45): Remove overburden Gravel	$0
Big Point Road: Surface Treatment Single	$23,000
Big Point Road Turnaround: Remove stone/patch. Add 6" 5/8 from park entrance to base of hill. 200m Double Surface Treatment + Single Surface Treatment Remainder	$51,000
X-Line (Section 105/110): Surface Treament Single	$28,000
Hamilton Drive (Section 95): Surface Treatment Single	$46,000
Hamilton Court (Section 100): Surface Treatment Single	$7,000
Garside Road West (Section 205): Surface Treatment Single	$9,000
Garside Road West (Section 210): Surfance Treament Single	$23,000
Trail Grooming Equipment	$25,000
Total:	**$212,000**

2025

Activity	Costs
Reid Road (Section 30): Surface Treatment Single plus parking lot	$9,000
Base Line Road (Secition 50): Remove stumps from windstorm Surface Treatment - Single	$66,000
20th Side Road (Section 20): Surface Treatment Single	$30,000
Garside Road East (Section 165): Remove stones Surface Treatment Single	$26,000
Red Maple Drive (Section 200): Add 5cm (2") of 5/8 gravel for shaping Remove light brush from east side Surface Treatment Double	$99,000
Satellitle Firehall	$300,000
Playground Equipment: Twins Lake Park	$50,000
Playground Equipment: Big Point Park	$50,000
Total:	**$630,000**

Hilton 10-Year Improvement Plan

2026

Activity	Costs
Canoe Point Road (Setion 60/65): Remove stones New pipe at K Line Surface Treatment mix of double + single	$24,000
K-Line Road (Section 70): Add 10cm (4") of 5/8 gravel Surface Treat Double	$4,700
20th Side Road (Section 20): Surface Treatment Single	$30,000
P-Line (Section 40): Gravel	$38,000
P-Line (Section 45): Gravel	$23,000
Base Line (Section 195): Remove trees down Re-ice storm/ditch Remove overburden from east side 1.1 km - Surface Treatment Single	$56,000
Total:	**$175,700**

2027

Activity	Costs
P-Line (Section 40): Surface Treatment Double	$139,000
P-Line (Section 45): Surface Treatment Double	$83,000
Total:	**$222,000**

2028

Activity	Costs
Hilton Road (Section 5): Surface Treatment Single	$69,500
Neal Drive (Section 125): Surface Treatment Single	$25,000
Base Line (Section 160): Clean Shoulders Surface Treatment Single	$46,000
Total:	**$140,500**

Hilton 10-Year Improvement Plan	
2029	
Activity	**Costs**
Hamilton Bay Road (Section 90): Surface Treatment Single	**$23,000**
Milford Haven Road (Section 220): Surface Treatment Single	**$30,000**
Richmond Bay (Section 225): New guard rails Add 10cm (4") 5/8 gravel Surface Treatment Double	**$86,000**
Total:	**$139,000**
2030	
Activity	**Costs**
Jocques Bay Road (Section 170): Apply 15cm (6") of 5/8 gravel Clean ditches	**$24,000**
Q and R (Section 180): Remove trees Remove stones in road bed Ditch Add 15cm (6") of 2" Add 10cm (4") of 5/8"	**$27,500**
Base Line (Section 185): 2.0km Surface Treatment Single	**$56,000**
Total:	**$107,500**
2031	
Activity	**Costs**
Hilton Road (Section 25): Surface Treatment Single	**$54,000**
Garside Road West (Section 210): Surfance Treament Single	**$19,000**
Ellwood Blvd (Section 215): Surface Treatment Single	**$42,000**
Total:	**$115,000**