TOWNSHIP OF EDWARDSBURGH/CARDINAL

ASSET MANAGEMENT PLAN

FINAL REPORT

Prepared for:

The Township of Edwardsburgh/Cardinal

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RVA 132800

August 12, 2013

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August 13, 2013 RVA 132800

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Attention: Richard Bennett, Treasurer, Administration

Re: Asset Management Plan- Township of Edwardsburgh/ Cardinal
FINAL REPORT

R.V. Anderson Associates Limited (RVA) is pleased to submit herein our final report and Asset Management Plan. We appreciate very much the information and helpful assistance you and your colleagues provided to us during its preparation.

The next steps we recommend are to assess asset condition and replacement priorities on a more aggressive basis, as these determine revenue needs (capital and operational), and prioritize your capital projects in accordance with this AMP. We look forward to assisting you with this process.

The main finding of your report is that, like most small municipalities across Ontario, a significant backlog of worn out assets exists that need to be addressed over the next 5-10 years, on a priority basis. In addition, replacement funds should continue to be set aside for those assets that will be reaching the end of their useful life over the next 10-20 years.

Should you have any questions, please feel free to contact the undersigned at 1-613-226-1844.

Yours very truly,

R.V. ANDERSON ASSOCIATES LIMITED

Trish Johnson

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Senior Environmental Consultant

TOWNSHIP OF EDWARDSBURGH/CARDINAL
ASSET MANAGEMENT PLAN

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1.0 INTRODUCTION

This report represents the Township of Edwardsburgh/Cardinal's first detailed Asset Management Plan (AMP), based on currently available data and information on the Township's infrastructure. The Township will be continually improving this AMP over the coming years as additional information is collected and as knowledge of the condition of its assets increases.

1.1 Provincial Guideline

In 2010, Ontario's Ministry of Infrastructure released a guide titled *Building Together: Guide for Municipal Asset Management Plans*. This guide forms part of a comprehensive strategy called the Municipal Infrastructure Investment Initiative (MIII) intended to develop a cooperative relationship between municipalities and the Province of Ontario to address our deteriorating infrastructure.

The Province seeks to achieve standardization and consistency in the management of municipal infrastructure by requiring any municipality applying for provincial capital funding to prepare a detailed AMP that demonstrates the particular need of the project within the social, economic or environmental priorities of the community.

1.2 Vision for Infrastructure in the Township of Edwardsburgh/Cardinal

In 2009 the Township of Edwardsburgh/Cardinal adopted its latest Official Plan.[1] As part of this Plan, a Vision Statement was used to guide the growth of the Township. Although the Plan was primarily developed to guide new development in the Township, the same principles are also relevant to the management of Edwardsburgh/Cardinal's infrastructure. The following points highlight some of the key guiding principles:

- Ensure growth and development occurs in a manner which is environmentally, socially, and economically sustainable;
- Respect the cultural diversity and heritage of the area;
- Encourage residents to become involved in their community;
- Protect the natural environment and agricultural lands;
- Value energy efficiency and encourage the use of alternate energy sources; and
- Provide quality services in a fair and equitable manner.

[1] Hhttp://www.edwardsburghcardinal.ca/index.php/city-hall/departments/cityhall_building-and-planning/

As part of this Asset Management Plan, the Township has adopted the following goal for the management of its infrastructure:

> *To ensure that effective infrastructure services will be provided by the appropriate level of government or the private sector in a cost effective manner that recognizes development priorities and that ensures the protection of our environment.*

1.3 Goals of Asset Management

Asset Management strives to continually improve the Township's infrastructure. The following are a list of goals that asset management programs and processes aim to achieve:

- Reduced life cycle cost (i.e. total operating, maintenance and capital resources) of providing services to residents;
- Reduced risk exposure by ensuring that assets are managed recognizing the risk that their failure represents to the delivery of services;
- An informed and transparent decision making process integrating capital expenditures, operating costs and revenue requirements (i.e. rate and tax levels); and
- A mechanism to ensure that the infrastructure services are delivered at a sustainable and affordable level to residents.

1.4 Scope of the Asset Management Plan

This AMP covers all of the assets owned by the Township, as summarized in Section 2 of this report. It should be noted that the Township of Edwardsburgh/Cardinal does not own any social housing assets. The AMP focus is on the next 10 year period.

1.5 Development of the AMP

This AMP was developed by RVA with assistance from a project team from the Township. The following documents were reviewed and incorporated throughout the development of this AMP:

- Township of Edwardsburgh/Cardinal Tangible Capital Assets Register (2011)
- Township of Edwardsburgh/Cardinal Long Range Capital Forecast (2012)

- Township of Edwardsburgh/Cardinal Budget Highlights (2013)
- Township of Edwardsburgh/Cardinal Budget Tables (2011)
- Township of Edwardsburgh/Cardinal Financial Report (2009)
- Township of Edwardsburgh/Cardinal Financial Report (2010)
- Township of Edwardsburgh/Cardinal's Official Plan (2010)
- A Bylaw to Adopt a Policy with Respect to Tangible Capital Assets (2010)
- Township of Edwardsburgh/Cardinal Reserve and Reserve Funds Policy (2012)
- O/Reg 239/02 for the Minimum Maintenance Standards for Municipal Highways
- Township of Edwardsburgh/Cardinal Metering Rate Study (2013)

1.6 Refinement of the AMP

This AMP is a first step to achieve the Township's goals. The Township will also develop an Implementation Strategy that will improve subsequent iterations of the AMP using performance and condition information that is obtained.

2.0 STATE OF INFRASTRUCTURE

This section summarizes the state of the Township's infrastructure, including:

- Inventory of all assets;
- Value of the assets; and
- Risk of assets supported by estimates of both the probability of failure (i.e. condition) and consequences of failure.

2.1 Asset Inventory

The Township of Edwardsburgh/Cardinal maintains a Tangible Capital Asset (TCA) register of over 1,000 individual assets. These assets are separated into five (5) departments and nineteen (19) asset classes. Table 1 summarizes the assets by asset class, excluding Land. The TCA entries related to Land (85 records) were not included in the analysis developed in this report as they have no infrastructure that is not already included in other TCA entries.

Table 1 – Number of Assets by Asset Class

Asset Class	Number of Assets
Buildings	18
Leasehold Improvements	3
Vehicles	34
Unlicensed Equipment	26
Other Equipment	177
Fences	10
Library Collection	54
Plant Facility	14
Parking Lots	4
Sidewalks	9
Paved Road Paving	148
Paved Road Base	146
Gravel Roads & Unopened	69
Street Lights	11
Water Mains	142
Sanitary Sewers& FM	180
Industrial Park W&WW	5
Storm Sewers	5
Bridges & Culverts	15
Total	**1,070**

2.2 Asset Value

The Township's TCA register contained the historical value of each asset. RVA updated the valuations to current replacement costs using appropriate unit costs and escalation factors. Table 2, Table 3 and Figure 1 summarize the asset valuation in each department. The Township operates approximately $96 million of tangible assets. Water and wastewater plant assets represent 29% of the total value of the Township's infrastructure, followed by roads (25%) and linear watermain and sewer assets (19%), respectively.

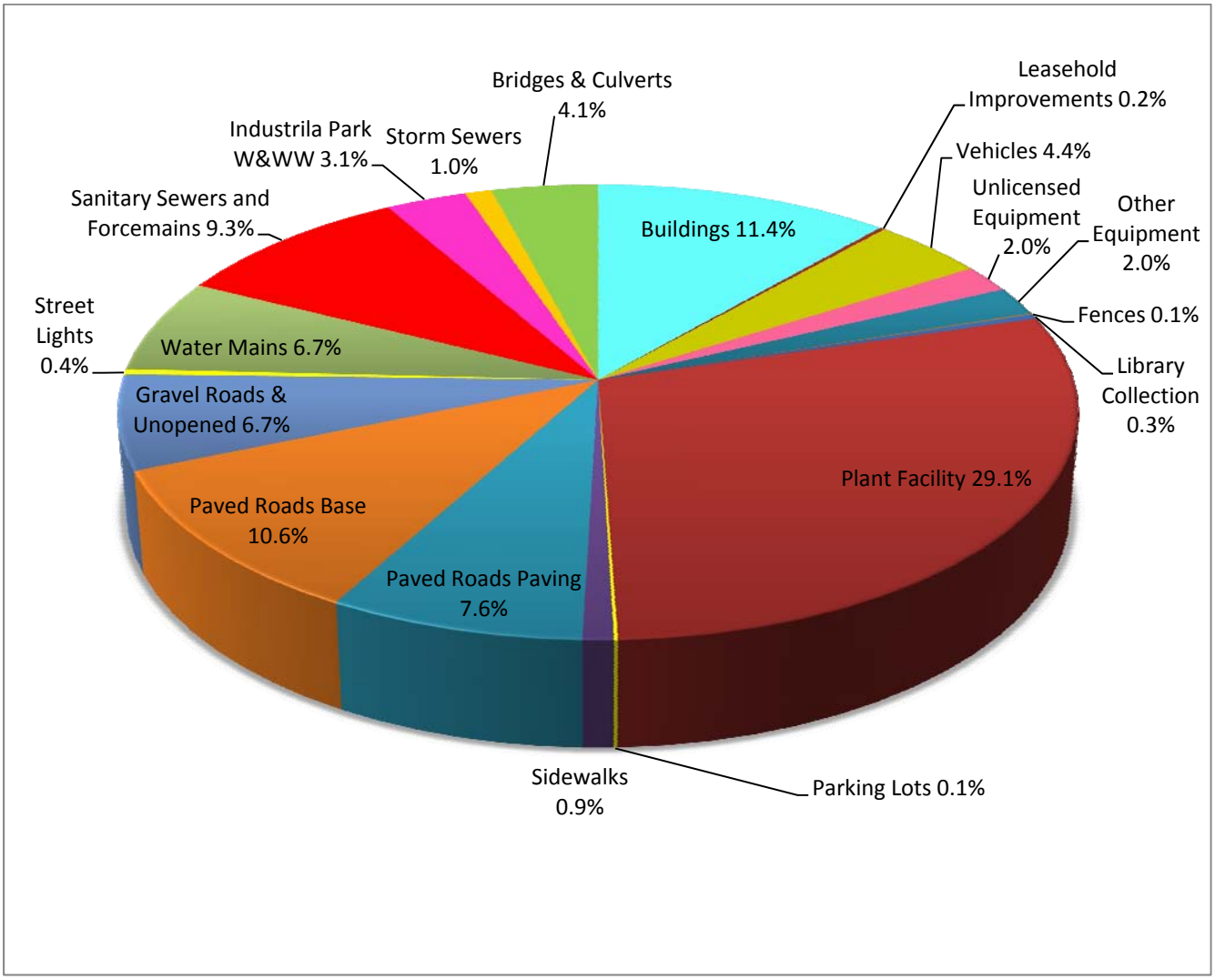
Table 2 – Value of Assets by Asset Class

Asset Class	Replacement Cost
Buildings	$10,981,816
Leasehold Improvements	$192,590
Vehicles	$4,226,422
Unlicensed Equipment	$1,885,473
Other Equipment	$1,964,889
Fences	$81,670
Library Collection	$313,254
Plant Facility	$28,033,395
Parking Lots	$108,976
Sidewalks	$881,528
Paved Road Paving	$7,323,083
Paved Road Base	$10,260,722
Gravel Roads & Unopened	$6,477,391
Street Lights	$362,566
Water Mains	$6,420,561
Sanitary Sewers& FM	$8,967,961
Industrial Park W&WW	$3,013,911
Storm Sewers	$990,186
Bridges & Culverts	$3,973,312
Total	**$96,459,706**

Table 3 – Value of Assets by Department

Department	Replacement Cost
General Government	$981,627
Protection Services	$4,669,368
Transportation Services	$34,116,179
Environmental Services	$48,116,541
Health & Recreation	$8,575,990
Total	**$96,459,706**

Figure 1 – Distribution of Asset Value



2.3 Asset Condition

Understanding the condition of the Township's assets is an essential component in an AMP. Ideally the condition information is based on assessment activities that provide first-hand knowledge of the condition of the infrastructure. However, actual condition information based on visual observations or testing is not currently available, which is very common in smaller municipalities in Ontario and across Canada. Therefore, in most cases the condition of the Township's assets had to be estimated.

Where condition data is not available, the best practice is to evaluate the amount of useful life remaining. For example, an asset that has a useful life of 10 years would be considered to be in excellent condition if it is 1 year old and poor condition if it is 9 years old. Although

this approach does not always provide accurate condition information, particularly in cases of buried linear infrastructure (i.e. water mains and sewers), it is a reasonable starting point. The Township's TCA register contains information on the asset age and the useful life that has been estimated based on local knowledge and industry standards, and therefore it was possible to estimate the condition of the assets using this approach.

Table 4 – Estimated Condition Based on Useful Life Remaining

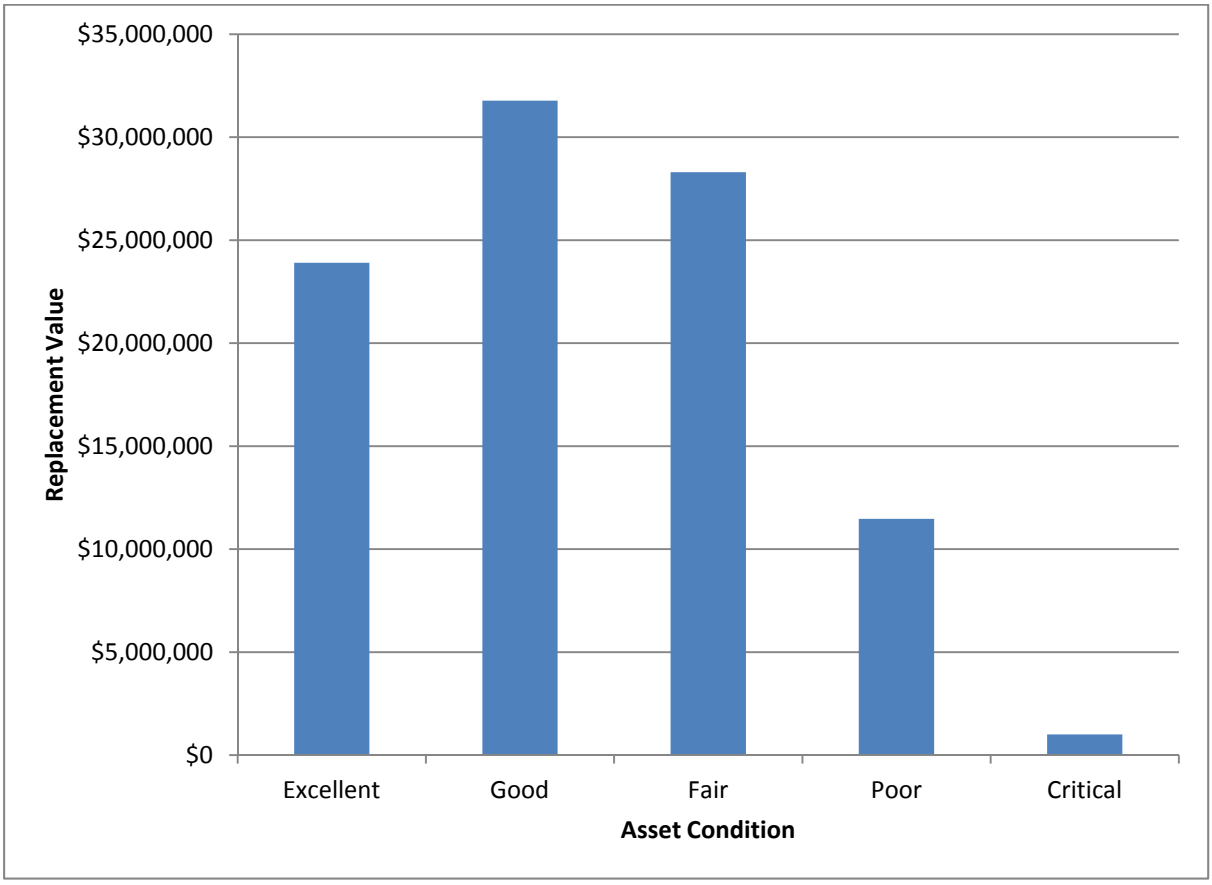
Percent of Useful Life Remaining	Estimated Condition
80% or above	Excellent
60-79%	Good
30-59%	Fair
1-29%	Poor
0%	Critical

Table 4, Table 5 and Figure 2 summarize the condition of the Township's infrastructure. It is apparent that approximately $1 million worth of assets have reached the end of their useful life span and are considered in critical condition. It should be noted that this approach may produce 'worst case' results compared to what would be found through physical condition assessments. For example a water main that has a useful life of 60 years in the TCA register may continue to provide adequate service for many more years.

Table 5 – Value of Assets by Condition Score

Condition Score	Replacement Cost
Excellent	$23,901,350
Good	$31,778,135
Fair	$28,302,746
Poor	$11,472,251
Critical	$1,005,223
Total	**$96,459,706**

Figure 2 – Distribution of Asset Condition



2.4 Comparison to the Canadian National Report Card

In September 2012 a consortium comprised of the Canadian Society for Civil Engineering, the Canadian Pubic Works Association, the Canadian Construction Association and the Federation of Canadian Municipalities released the inaugural Canadian Infrastructure Report Card[2]. This document included a summary of the "State of infrastructure" for 123 municipalities who responded to a survey.

The National Report Card reported that approximately 9% of the road, water, wastewater and storm water assets in municipalities across Canada are in poor or very poor condition. The analysis of the Township of Edwardsburgh/ Cardinal infrastructure indicates that 12% of its assets are in poor or very poor condition, slightly above the national average. Ongoing work such as testing and repair activities may improve this in future AMP editions.

[2] Hhttp://www.canadainfrastructure.ca/en/

2.5 Asset Risk

The state of an organization's infrastructure is not only defined by its physical condition but also by its function and the consequence of failure. To achieve a better understanding of the Township's needs, a risk score was calculated for each asset. For example, an asset with a low consequence of failure can be managed such that it is replaced only after it fails. However, assets that have a high consequence of failure should be managed in a proactive manner that does not permit the condition to fall below 'fair'. For the purposes of this AMP report, risk was defined as the product of the probability of failure and the consequence of failure.

2.5.1 Probability of Failure

A probability of failure score was given to each asset based on the condition rating in Section 2.3. Although the probability of as asset failing is not necessary indicative of its age (i.e. some newer water mains can fail more frequently than older water mains due to their production methods), sufficient records are not yet available to track the failure history of assets or other information that could be used to better estimate the probability of failure. This can also be addressed in future updates of the AMP. Table 6 summarizes the probability of failure score that was assigned to each asset based on the estimate of its physical condition and age.

Table 6 – Probability of Failure Score

Estimated Condition	Probability of Failure Description	Probability of Failure Score	Asset Age (years)
Excellent	Improbable	1	<10
Good	Unlikely	2	10-20
Fair	Possible	3	20-30
Poor	Likely	4	30-40
Critical	Highly Probable	5	40-60

2.5.2 Consequence of Failure

The consequence of failure score for each asset was based on a review of information that was provided by the Township, such as:

- Size/capacity/cost of the asset;
- The use of the asset; and
- The importance of the asset to the operation of the system/facility.

Table 7 summarizes the approach used to establishing the consequence of failure score for each asset.

Table 7 – Consequence of Failure Score Information

Consequence of Failure Description	Consequence of Failure Score	Replacement Cost (2013)
Very low measureable effect of any kind	1	Negligible
Low/ seldom/marginal impact on the function, serviceability, or capacity of the asset and (or) effect on public safety and the environment	2	<$5,000
Moderate/ regular impact on the function, serviceability, or capacity of the asset and (or) effect on public safety and the environment	3	$50,000
Major/ regular impact on the function, serviceability, or capacity of the asset and (or) effect on public safety and the environment	4	$500,000
Catastrophic loss of infrastructure affecting public safety or having severe environmental consequences.	5	>$500,000

2.5.3 Risk Assessment

The final step in the risk assessment was to multiply the consequence of failure scores and the probability of failure scores for each asset, resulting in a risk score for each asset of between 1 and 25. A risk category was then established for each asset based on the risk score. Figure 3 summarizes the process that was used to categorize the risk scores as follows:

- 16 - 25 represents a high level of risk;
- 10 - 15 represents a medium-high level of risk;

- 8 - 9 represents a medium level of risk;
- 4 - 6 represents a medium-low level of risk; and
- 3 or less represents a low level of risk.

Figure 3 – Risk Matrix

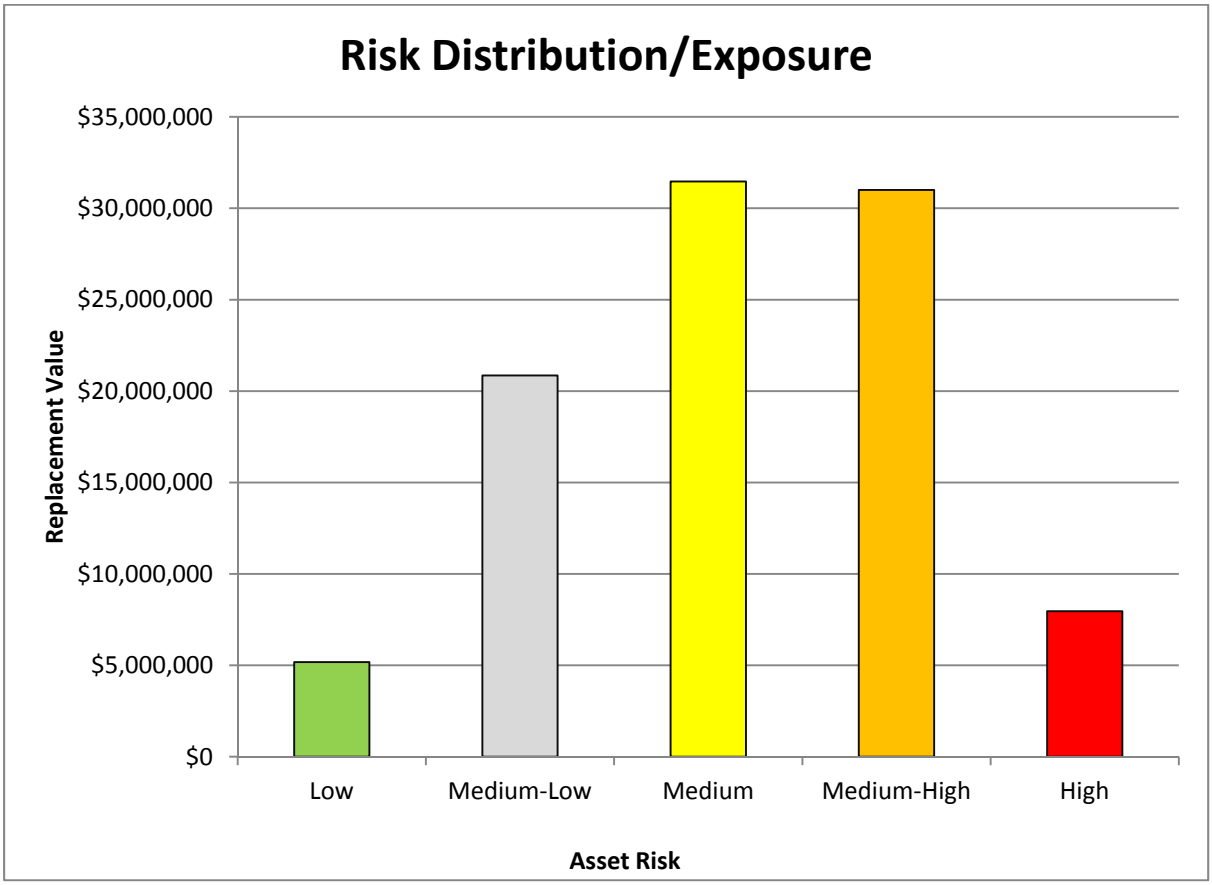
		Probability of Failure				
		1	2	3	4	5
Consequence	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

Table 8 and Figure 4 summarize the risk scores of the assets in the Township. Approximately 40 % ($39 million) of assets are in the medium-high and high risk level. These assets should be addressed in the shorter term to reduce the risk exposure to the Township. Another 33% ($31 million) of the Township's assets have a risk score of medium. These assets should be addressed next over the medium term. Section 4 of this report describes the Asset Management Strategy suggested for addressing assets that represent elevated levels of risk.

Table 8 – Risk Score by Asset Value

Risk	Replacement Cost	% of Assets
Low	$5,175046	5
Medium-Low	$20,857,541	22
Medium	$31,463,044	33
Medium-High	$31,004,601	32
High	$7,959,474	8
Total	**$96,459,706**	**100**

Figure 4 – Distribution of Asset Risk



2.6 Refinements by Township Staff

The draft condition, consequence of failure, and risk scores were reviewed with Township staff who utilized their knowledge of the Township's infrastructure to refine the scores as much as possible.

3.0 LEVELS OF SERVICE

Levels of service in smaller municipalities can vary widely related to finances, federal/provincial regulations, customer expectations, and/or corporate vision. In terms of municipal infrastructure, the services provided are especially related to O&M cost and/or development/ growth consideration. This section of the AMP gives an overview of service levels based on the Township's existing documentation and current infrastructure management practices. The levels of service are often largely informal and undocumented. Tracking customer complaints is another assessment tool in making areas that can be simply used.

3.1 Condition Levels of Service

The most basic level of service is to maintain infrastructure in an acceptable state of repair and minimize the risk exposure of the Township to an acceptable level. The capital works planning process usually addresses the infrastructure that is in the worst state of repair and would result in significant consequences if it were to fail, based on coordination with the various department managers and Council. The current capital planning process used by the Township does represent a risk-based approach to managing infrastructure and this AMP provides a more formalized approach to help develop this process.

3.2 Capacity Levels of Service

Provincial policies and regulations define some minimum levels of service for water, wastewater, transportation and emergency services. Discussions with the Township provided further indications of the current levels of service that are used to plan asset renewal or maintenance activities. However, similar to most municipalities in Ontario, a comprehensive set of service levels to support more intensive asset management activities as they relate to the capacity of infrastructure has not yet been prepared.

3.3 Existing Levels of Service

The primary resource to help define service levels was the Township's Official Plan. These can be revisited and expanded upon as part of the AMP refinement process in the future.

3.3.1 Township Official Plan

The Official Plan provides some direction on the levels of services of the asset groups in the Township at a strategic level, based on the economic, social and environmental considerations for growth in the Township. Section 5 of the Official Plan lays out some specific service levels related to the capacity of infrastructure, how growth should proceed with proper consideration for water, wastewater, storm water and transportation systems, as well as for recreation facilities, parks, open spaces and trails.

3.3.2 Documented Service Levels

Levels of Services that are documented in the Official Plan as well as other appropriate service levels based on cost consideration or public input should be adopted in updating the Township's AMP. Table 9 provides a set of typical service levels/ performance metrics that the Township can consider in future updates of its AMP.

Table 9 – Typical Service Levels / Performance Metrics for Small Municipalities

Department	Levels of Service	Suggested Performance Metric
Water Mains & Water Facilities	1. Provide services to Settlement Areas to accommodate growth on a cost recovery basis 2. Water system designed for maximum day + fire flow or maximum hour; Normal operating pressure between 350 to 480 kPa, 280 kPa to 700 kPa is allowable 3. Services at least 19 mm; Water mains at least 150 mm in diameter 4. Meet all regulated drinking water quality targets	1. Number of development applications that are delayed due to a lack of adequate water infrastructure 2. Locations with inadequate pressure or flows confirmed through hydraulic modeling or field testing 3. Locations with inadequate infrastructure (small mains or services) 4. Number of times the regulated drinking water quality targets are not achieved 5. Number of customer complaints
Sanitary Sewers & Wastewater Facilities	1. Provide services to Settlement Areas to accommodate growth on a cost recovery basis 2. Sanitary sewer system designed per guidelines; 200 mm minimum size; 1% minimum slope 3. Discourage the use of force mains and sewage pumping stations 4. Repair critical sections of sewer identified in CCTV assessments 5. Meet all regulated wastewater quality targets	1. Number of development applications that are delayed due to a lack of adequate wastewater infrastructure 2. Locations with inadequate infrastructure (size, slope) confirmed through hydraulic modeling or review of designs 3. Number of force mains and sewage pumping stations 4. Number of locations identified as being in critical condition that have not been addressed 5. Number of times the regulated wastewater quality targets are not achieved 6. Number of water main breaks
Storm Sewers/ Storm Water Management Facilities	1. Provide services to Settlement Areas to accommodate growth on a cost recovery basis 2. Level of protection established based on nature of area drained (risk/loss/damage of life/property): Major system - overland flooding less than 150 mm during 100 year event; Minor system – 5 year storm, 10 year storm in select high value commercial area; Culverts, major sewers designed for the 25 to 50 year depending on road classification; 50 year storm for overland flow, some flooding permitted to below depth of 100 mm. 3. Discourage the use of small isolated wet ponds with no environmental or aesthetic or recreational benefit	1. Number of development applications that are delayed due to a lack of adequate storm water infrastructure 2. Number of locations where infrastructure does not meet protection target 3. Number of resident complaints

Department	Levels of Service	Suggested Performance Metric
Roads & Bridges	1. Provide services to Settlement Areas to accommodate growth on a cost recovery basis 2. Level of Service D on all roads in peak hour 3. Urban Arterial roads have bike lanes and transit 4. Sidewalks on two sides of urban arterial and residential collector, one side on all other urban roads. 5. All new roads are paved 6. Concrete curb & gutter (and storm sewer) on all urban roads 7. Volume to capacity ratios should not exceed 0.85 to 1 at intersections 8. Provide maintenance standards in accordance with O/Reg 239/02	1. Number of development applications that are delayed 2. Number of roads less than level of service D during peak hour 3. Number of urban arterial roads with bike lanes and transit services 4. Number of roads that meet sidewalk level of service 5. Number of roads that are currently gravel that should be paved 6. Number of roads that do not meet curb/gutter/storm sewer level of service 7. Number of intersections that do not meet capacity level of service 8. Number of times road maintenance is not in accordance with O/Reg 239/02 9. Number of user complaints
Ambulance	1. Adequate emergency services coverage	1. Number of locations with inadequate emergency services coverage
Fire	1. Adequate emergency services coverage	1. Number of locations with inadequate emergency services coverage
Cemetery	1. Adequate cemetery space	1. Number of locations with inadequate cemetery space
All Facilities, including recreation	1. All areas should be adequately serviced by museums, theatres, cultural/health care/recreation facilities and libraries 2. All infrastructure should be barrier-free: new facilities should be designed to be barrier-free and existing facilities should be retrofitted	1. Number of locations that are inadequately services by the relevant facilities 2. Number of facilities that are not barrier-free
Parks	1. 3 hectares of parks per 1,000 people as a target parkland provision rate 2. Establish a network of trails and open spaces 3. Provide 1 tree for every 500 m^2 of urban area	1. Number of locations with inadequate park coverage 2. Number of parks/open spaces that are not linked to each other 3. Number of locations with inadequate tree coverage
Solid Waste	1. Provide residential solid waste services including garbage and recycling	1. Number of locations with inadequate solid waste services

4.0 ASSET MANAGEMENT STRATEGY

4.1 Asset Management Strategy Overview

This section summarizes a set of planned activities to ensure that the infrastructure achieves the target levels of service with respect to:

- The replacement or rehabilitation of assets;
- The optimal level of maintenance investment required to minimize the long term costs of the assets (i.e. does more maintenance result in a longer useful life);
- Disposing of assets that are not required to meet service levels; and
- Addressing Township policies that impact the infrastructure intervention that is used.

In this first iteration of the Township's AMP, achieving all of these was not feasible due to a lack of detailed information available.

For example, the decision to rehabilitate a water main or sewer is dependent on knowing if the water main is of an adequate size or should be increased to provide fire flow services to residents. If the pipe is too small then rehabilitation is not an option. Therefore, the Township needs to continue to focus on building its database of condition and capacity information. Our review of the local operational information on the Townships repair and replacement activities indicates that the focus has been placed on poor condition/ high risk components of its infrastructure, consistent with sound basic asset management principles.

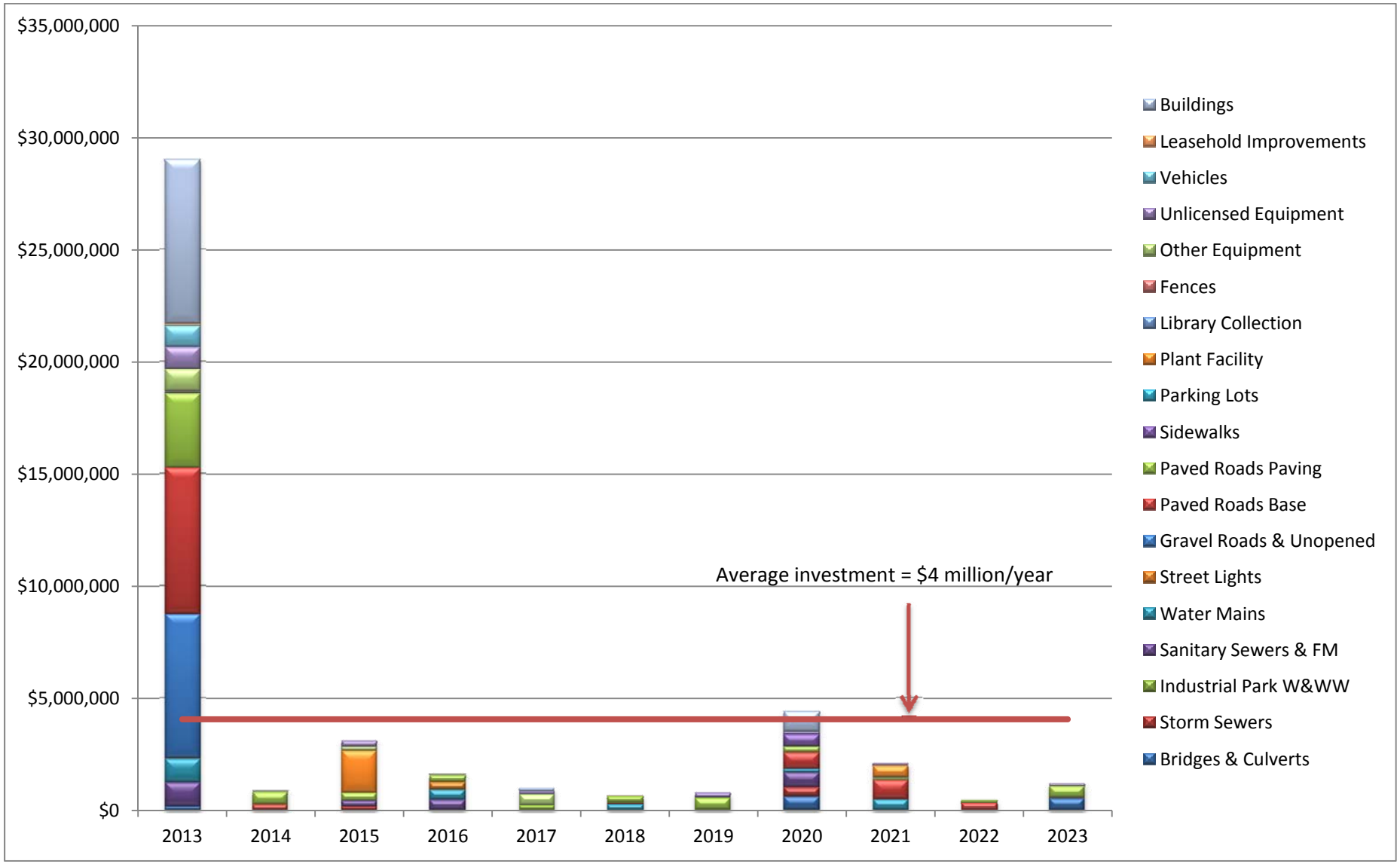
4.2 Managing Risk

The strategy to prioritize the renewal of infrastructure that represents a high risk to the Township should be continued and expanded.

4.3 Infrastructure Capital Investment Needs

Figure 5 provides a 10 year capital investment needs for the Township's infrastructure using the risk-based asset management strategy. All of the other needs presented in Figure 5 have been developed using the risk-based asset management strategy. Given such high immediate needs, it is apparent that the Township should spend an <u>average</u> of $4 million per year to address the infrastructure needs (in constant 2013 dollars). The immediate needs or assets identified as having zero remaining life, are shown as year 2013 needs, but these can be addressed over a longer period, depending on finances and further work to confirm these are all to remain as highest risk needs for the Township should be considered a priority.

Figure 5 – 10 Year Capital Investment Needs



The 100 year capital investment needs for the Township's infrastructure are approximately $2.4 million per year. This is based upon a $96 million capital asset inventory with an overall average lifecycle of 40 years. This represents an overall lifecycle cost of 2.5% on top of routine O&M costs, which usually are in the range of 3-5% for municipal infrastructure.

4.4 Asset Management Strategies to Reduce the Cost of Infrastructure Needs

The Township intends to advance its asset management practices over the next several years. The infrastructure needs provided in Figure 5 are based on the assumption that the Township will replace the existing infrastructure with an identical asset and therefore use the replacement costs included in the Township's TCA register.

However, it should be feasible to replace infrastructure at a lower cost by using alternative procurement methods, new technologies, or rehabilitating the existing assets. The following is a list of strategies that the Township may consider to reduce the costs of addressing the immediate infrastructure needs:

- Review the potential cost savings of multi-year contracts to renew infrastructure (i.e. road resurfacing, water main replacement, etc.).
- Review the potential of undertaking partnerships with neighbouring municipalities to achieve greater economies of scale with respect to infrastructure replacement contracts.
- Review the potential cost savings of undertaking structural rehabilitation of water mains or sewers where feasible and cost-effective.
- Review operational practices to seek optimization of current assets.

5.0 FINANCING STRATEGY

The financing strategy is the final component of the Asset Management Plan. It explains tax and rate implications and some suggestions for the next step, the implementation strategy.

5.1 Review of Revenues and Capital Expenditures

The next decade requires the largest investment as the short term re-investment needs, with no other modifications to level of service or fee mechanisms, are 49% of the total asset portfolio of $96.5 million. Based on current assets and their age, $47 million in assets require replacement during the next decade. Of these $8.5 million are water and wastewater rate supported and $38.5 million are tax supported.

The 2013 Water and Wastewater Capital Budget is summarized below:

Expenditures	
General Capital Budget	$827,000
Revenues	
Transfers from Reserves	370,000
Grants	175,000
User Fees	282,000
Total Revenue	$827,000

A review of the 2013 Water and Wastewater Budgets indicates that the level of financing from Reserves and User Rates, approximately $650,000, represents sustainable capital financing. The Province of Ontario has indicated that grants, unless confirmed, should not be considered as financing. The Township has recently increased its contribution to reserves, which is a step in the right direction.

After applying the Reserves and User Rates financing over the 2013 to 2023 decade, a financial shortfall of $2 million will exist. In order to finance this deficit over the next decade a 55% increase in user fees will be required, the majority in the next three years. The rate increase to meet this need would have to be 10.5% for each of next ten years. Until capital financing is realized, temporary short falls may be financed by the use of short-term debt.

The 2013 General Capital Budget is summarized below:

Expenditures	
General Capital Budget	$1,744,500
Revenues	
Transfers from Reserves	847,000
Gas Tax	185,000
Work in Progress	60,000
Taxation	652,500
Total Revenue	$1,744,500

A review of the 2013 Tax Supported Capital Budgets indicates that the level of financing from Reserves and Taxation, approximately $1.5 million, represents sustainable capital financing. The Gas Tax financing appears to be a long term commitment; including the Gas Tax financing will increase the existing financing to $1.7 million.

After applying the Reserves, Taxation and Gas Tax financing over the 2013 to 2023 decade, a financial shortfall of $22 million will still exist. In order to finance the $22 million over the next decade a 5% annual increase in taxation is required. The majority of this financing is required in 2014 ($28.3 million) based upon current information on assets. Further assessment of current asset condition and risk will probably lower this number and follow–up work should be focused on refining the condition information.

One possibility is to issue debt to cover the Capital Financing shortfall. It must be recognized that debt offers short term relief but long term pain. Money borrowed today must be paid back in the future with interest. The interest cost of a $22 million debenture issued for 15 years at 5% interest rate is $8 million. This is not a recommended solution as tax rate increases of this magnitude are clearly unacceptable and unaffordable to taxpayers and residents.

Finding a reasonable tax rate increase verses the service level decrease of using assets beyond their service life is the challenge. The following table illustrates the relationship between tax rate increases and the value of assets beyond their service life; the higher the rates of investment the lower the backlog of assets reaching the end of their useful life.

Annual Tax Rate Increase	Value of Assets Beyond Their Service Life
5%	$19.3 million
10%	$15.3 million
15%	$9.4 million
20%	$0.6 million

This will require the expenditures to be spread over the next decade and beyond to align with available financing. Only the highest priority capital projects should be undertaken.

This shortfall can more effectively be addressed through several strategies designed to reduce capital and O&M costs over the future:

- Validate and update the condition ratings;
- Adjust level of service expectations;
- Optimize existing infrastructure;
- Defer non-capital investments;
- Adopt more cost effective service levels (i.e. demand management);
- Use new technologies and servicing strategies;
- Use Preventative maintenance strategies;
- Pooling and partnering strategies;
- Alternative procurement strategies;
- Incremental upgrades of plant facilities; and
- Encouraging 'Low Impact Development' (LID).

5.2 Options for Addressing the Short-Term Financing Shortfall

The following list of alternatives should be considered to address the financing shortfall over the next ten years:

1. The Township should develop an Implementation Strategy to improve this AMP as a key next step and within the next year. This would include more detailed service levels and additional condition/risk information.

2. Increase the amount of the Capital Financing in the Water and Wastewater Budget. Each year Council should review the current year's infrastructure deficit and decide on an acceptable user rate increase for Capital Financing. The 2013 Metering Rate Study provided guidance on metering and rates to meet current revenue needs but

did not include the depreciation/replacement needs identified in this Asset Management Plan.

3. Pursue Provincial and Federal grants whenever possible. The Capital Budget assumes only Gas Tax funding from the Provincial and Federal Governments. This is a conservative approach that is recommended in the Provincial Government's Asset Management template. Both senior levels of government have acknowledged that they should share in addressing the infrastructure deficit. It is reasonable to assume that funds will become available in the future from both senior levels of government The Township of Edwardsburgh/Cardinal should develop a methodology to secure a share of these funds.

4. Issue debt to partially cover the Capital Financing shortfall each year. It must be recognized that debt offers short term relief but long term pain. Money borrowed today must be paid back in the future with interest. Council should establish criteria for the issuance of debt such as: debt should be restricted to critical health and safety projects.

5.3 Options for Addressing the Long-Term Financing Shortfall

This financing strategy discussion has been focused on the financial requirements for the next 10-15 years. Significant financing will be required to meet the peak years over the life cycle of all assets to make sure that service levels can be sustained in perpetuity.

The best strategy to address the long-term financing shortfall is to develop the improved asset management tools and processes for inclusion in the Township's Implementation Strategy. This will allow the Township to prepare a more refined estimate of the infrastructure needs that is not simply based on replacing infrastructure when it is at the end of its useful life. These strategies will include the following:

- Establish levels of service and the associated performance metrics to track how well the infrastructure is meeting the service levels. This may result in some higher-risk assets being renewed at a later time than what was established in the analysis performed in this AMP. However, this may also results in some lower-risk assets becoming a priority for renewal at an earlier time than what was established using the risk-based asset management strategy included in this AMP. For example, some storm water infrastructure that is identified as a low risk asset may need to be

replaced because it is not meeting a level of service regarding flood protection, this may be documented also by resident complaints.

- Complete detailed investigations into the operating and maintenance costs of the Township's infrastructure, and complete analyses to determine if they are within industry standards or if they can be optimized to reduce the long term costs. For example, this may demonstrate that some other roads or watermains are in better condition than anticipated. This will allow the money to be used to address the renewal of other infrastructure.
- Conduct additional condition inspections for better information on the Township's infrastructure to better assess the probability of failure. For example, tracking and reviewing water main break records is a much better indicator for the future probability of failure of the asset. This analysis can then be used to adjust the infrastructure needs. Road condition inspections may change the risk levels also.
- Identify non-infrastructure solutions to achieve new levels of service. For example, reducing water use or promoting decentralized services for new growth could be accomplished and would not require additional infrastructure.
- Identify and consolidate or eliminate redundant infrastructure. For example, removing or not replacing roads and/or bridges that are under-utilized and which have alternate routes that can be used by the community. Such a strategy will reduce the long term infrastructure needs while maintaining service levels. Public consultation on new Levels of Service is one option for township consideration.

6.0 RECOMMENDATIONS

The Township of Edwardsburgh/ Cardinal is facing infrastructure investment needs similar to what we have been finding in most small municipalities in Ontario, and indeed across Canada. However, the fact remains that a significant increase in infrastructure financing and improved asset management is urgently needed.

1. Develop an implementation strategy for this Asset Management Plan based upon aggressive testing and inspection of existing infrastructure to better assess condition risk and remaining life span, and re-assess the backlog of critical infrastructure and capital investment needs.

2. Review O&M costs of existing infrastructure such as the Industrial Park and Johnstown Water, to ensure movement to full user pay operations as Best Practice.

3. Adopt new Levels of Service for roads, water and wastewater that reflect cost effective Best Practices for the Township's infrastructure.

4. Continue to set aside reserves for asset replacement, and build appropriate depreciation costs into future water rate adjustments.

Appendix A

Township of Edwardsburgh Cardinal

	Historic Cost	2013 Replacement Cost	Risk Distribution: Low	Medium-Low	Medium	Medium-High	High	Total Check
Buildings	$4,054,486	$10,981,816	$44,121	$1,933,214	$1,668,418	$7,336,064	$0	$0
Leasehold Improvements	$118,588	$192,590	$0	$82,330	$22,202	$88,058	$0	$0
Vehicles	$3,126,431	$4,226,422	$379,279	$1,557,455	$2,047,939	$241,750	$0	$0
Unlicensed Equipment	$1,198,312	$1,885,473	$75,372	$963,691	$359,737	$486,673	$0	$0
Other Equipment	$1,159,319	$1,964,889	$264,745	$167,441	$730,274	$231,378	$571,051	$0
Fences	$61,508	$81,670	$16,089	$65,580	$0	$0	$0	$0
Library Collection	$249,077	$313,254	$313,254	$0	$0	$0	$0	$0
Plant Facility	$16,539,126	$28,033,395	$24,910	$3,384,457	$13,092,955	$11,531,073	$0	$0
Parking lots	$74,221	$108,976	$0	$58,650	$50,326	$0	$0	$0
Sidewalks	$428,340	$881,528	$79,905	$122,589	$63,427	$615,607	$0	$0
Paved Road Paving	$5,078,008	$7,323,083	$248,002	$1,573,143	$2,765,976	$2,403,092	$332,869	$0
Paved Road Base	$5,067,203	$10,260,722	$113,887	$1,434,450	$144,778	$3,672,803	$4,894,804	$0
Gravel Roads & Unopened	$2,466,978	$6,477,391	$46,145	$522,683	$5,908,563	$0	$0	$0
Street Lights	$192,231	$362,566	$14,030	$3,521	$15,325	$329,690	$0	$0
Water Mains	$2,047,705	$6,420,561	$1,792,555	$1,934,756	$248,750	$927,750	$1,516,750	$0
Sanitary Sewers& FM	$2,476,257	$8,967,961	$1,634,689	$1,315,957	$3,755,464	$1,617,850	$644,000	$0
Industrial Park W&WW	$1,173,544	$3,013,911	$54,803	$2,959,107	$0	$0	$0	$0
Storm Sewers	$409,323	$990,186	$0	$422,507	$0	$567,679	$0	$0
Bridgers & Culverts	$2,329,329	$3,973,312	$73,260	$2,356,008	$588,911	$955,133	$0	$0
Total	**$48,249,987.22**	**$96,459,706**	**$5,175,046**	**$20,857,541**	**$31,463,044**	**$31,004,601**	**$7,959,474**	$0
			5%	22%	33%	32%	8%	100%

Risk Matrix - Legend for Risk Distribution

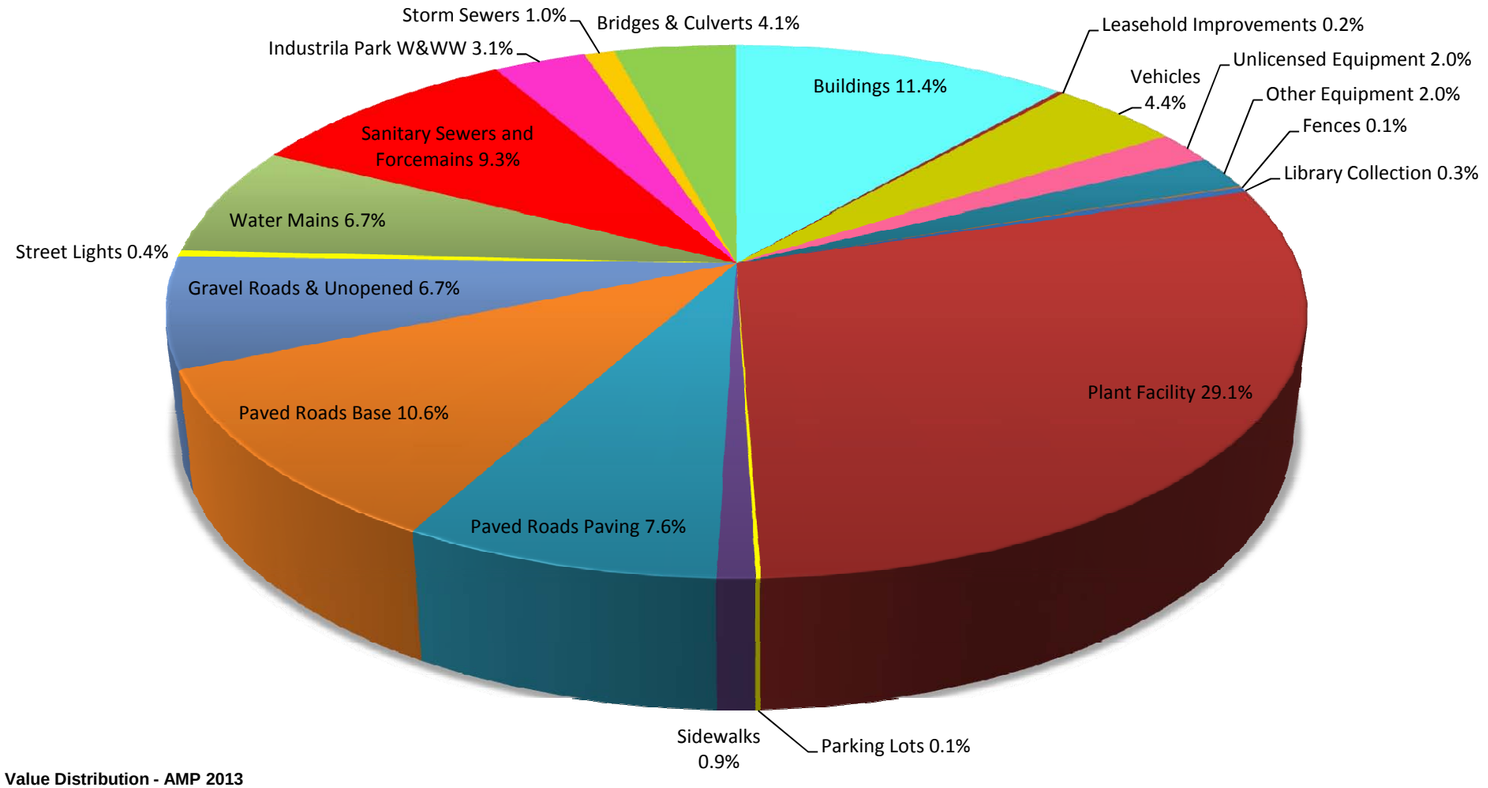
Consequence \ Probability	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Buildings	11.4%
Leasehold Improvements	0.2%
Vehicles	4.4%
Unlicensed Equipment	2.0%
Other Equipment	2.0%
Fences	0.1%
Library Collection	0.3%
Plant Facility	29.1%
Parking lots	0.1%
Sidewalks	0.9%
Paved Road Paving	7.6%
Paved Road Base	10.6%
Gravel Roads & Unopened	6.7%
Street Lights	0.4%
Water Mains	6.7%
Sanitary Sewers& FM	9.3%
Industrial Park W&WW	3.1%
Storm Sewers	1.0%
Bridgers & Culverts	4.1%
	100.0%

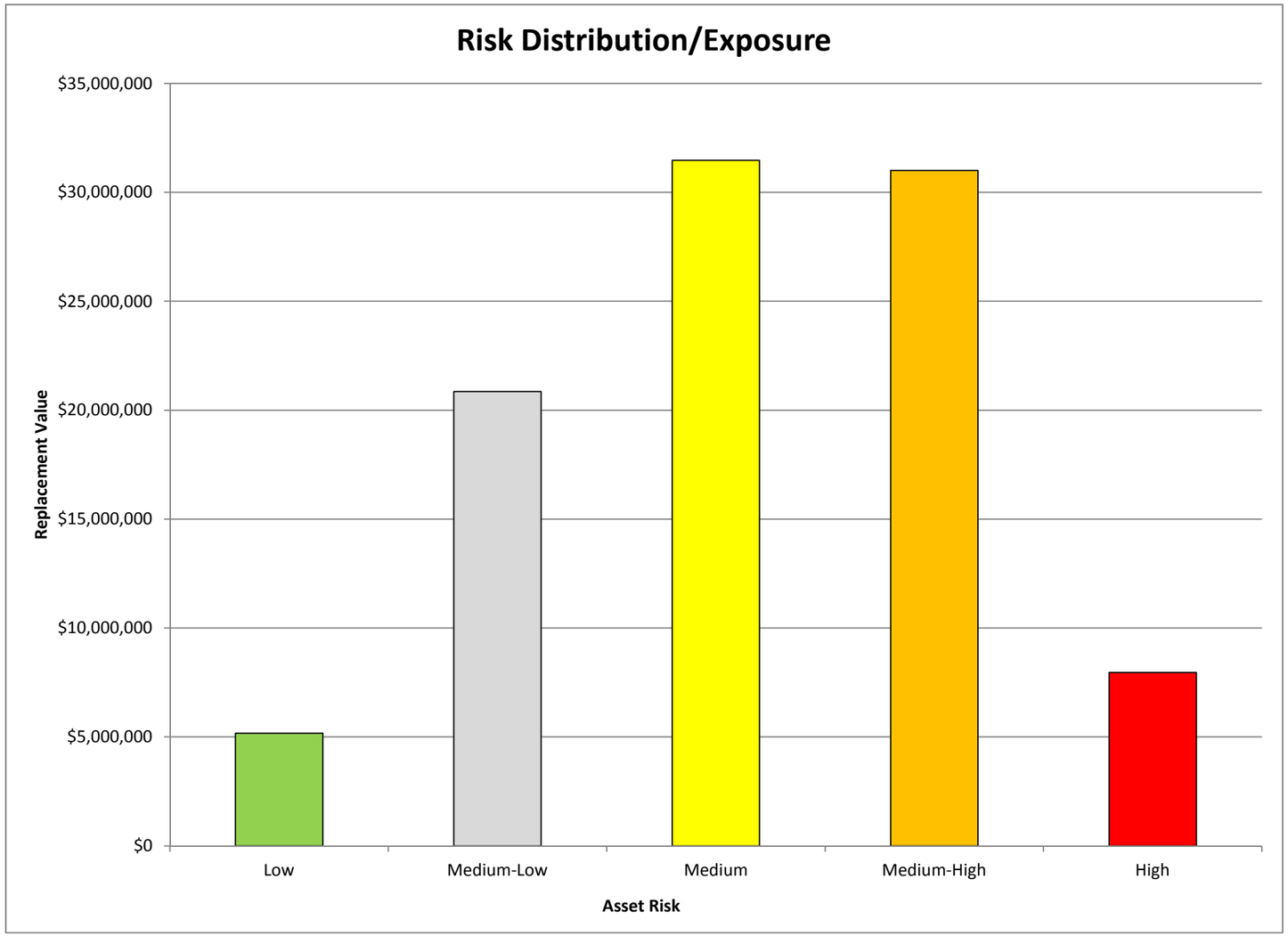
Item	Replacement Cost	% of Total Assets	Good	Fair	Poor	Total Check
Land & Buildings	$11,569,330	12.0%	$2,454,588	$9,114,742	$0	
Vehicles and Equipment	$8,076,784	8.4%	$3,407,983	$4,097,751	$571,051	
W/WW Plant & Facility	$28,033,395	29.1%	$3,409,367	$24,624,028	$0	
Roads, Sidewalks & Drainage	$30,377,764	31.5%	$7,068,780	$18,081,311	$5,227,673	
Watermains and Sewers	$15,388,522	16.0%	$6,677,958	$6,549,814	$2,160,750	
Wexford Industrial Park W/WW	$3,013,911	3.1%	$3,013,911	$0	$0	
Total	$96,459,706	100.0%	$26,032,587	$62,467,645	$7,959,474	$0 $0 $0
% of Total Assets			**27%**	**65%**	**8%**	
O&M Budget	$7,105,550.00	7.4%				
Capital Budget	$2,571,500.00	2.7%				
To Reserves	$915,900.00	0.9%				

fecycle Imp	Year (IN-SITU)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Totals (Check)
3. Buildings		$7,336,064	$0	$0	$0	$125,880	$0	$0	$903,389	$0	$0	$0	$8,365,333
5. Leasehold Improvements		$88,058	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$88,058
7. Vehicles		$952,011	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$952,011
9. Unlicensed Equipment		$987,788	$26,735	$243,473	$9,160	$121,529	$0	$190,188	$112,491	$86,207	$0	$107,903	$1,885,473
10. Other Equipment		$997,358	$57,748	$180,061	$42,192	$488,416	$16,677	$29,100	$2,843	$0	$24,815	$0	$1,839,209
11. Fences		$7,556	$0	$6,809	$19,155	$0	$16,647	$0	$0	$17,280	$4,752	$0	$72,200
13. Library Collection		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15. Plant Facility		$0	$0	$1,861,542	$0	$0	$0	$0	$0	$525,317	$0	$0	$2,386,859
17.1 Parking Lots		$0	$0	$0	$0	$0	$0	$0	$0	$22,132	$0	$0	$22,132
17.2 Sidewalks		$63,431	$0	$0	$0	$0	$0	$0	$552,176	$0	$0	$0	$615,607
17.3 Paved Roads Paving		$3,320,900	$548,848	$336,542	$272,368	$199,650	$283,527	$511,577	$249,132	$89,376	$94,436	$525,646	$6,432,003
17.4 Paved Roads Base		$6,513,700	$232,286	$0	$16,101	$0	$65,858	$0	$744,139	$849,954	$290,347	$19,603	$8,731,988
17.5 Gravel Roads & Unopened		$6,431,247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,431,247
17.6 Street Lights		$15,325	$0	$0	$329,690	$0	$0	$0	$0	$2,291	$1,230	$0	$348,537
19.1 Water Mains		$1,060,750	$0	$0	$455,750	$0	$234,000	$0	$151,750	$468,250	$0	$0	$2,370,500
19.2 Sanitary Sewers & FM		$1,062,450	$0	$256,900	$441,700	$0	$0	$0	$664,400	$0	$0	$0	$2,425,450
19.3 Industrial Park W&WW		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19.4 Storm Sewers		$0	$0	$154,061	$0	$0	$0	$0	$413,619	$0	$0	$0	$567,679
21. Bridges and Culverts		$155,125	$0	$0	$0	$0	$0	$0	$588,911	$0	$0	$503,647	$1,247,683
	Total	$28,991,764	$865,617	$3,039,388	$1,586,116	$935,475	$616,709	$730,864	$4,382,851	$2,060,806	$415,580	$1,156,800	**$44,781,970**
													$4,071,088

BACKLOG



Asset Value Distribution - AMP 2013


Risk Distribution/Exposure
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0
Replacement Value
Low
Medium-Low
Medium
Medium-High
High
Asset Risk

Buildings

				$4,054,486	$10,981,816						$274,545	
Department	**Name**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/ year**	Trigger
General Government	Township Hall	1855	40	$436,425.01	$836,235.45	0	3	5		15	$20,906	1895
Protection Services	Fire Station #1 Building	2000	40	$645,818.64	$948,406.45	27	1	5		5	$23,710	2040
Protection Services	Cardinal Fire #2	1969	40	$233,969.31	$859,007.15	0	3	5		15	$21,475	2009
Transportation Services	Cardinal PW Garage	1990	40	$65,147.41	$128,574.05	17	2	4		8	$3,214	2030
Transportation Services	Pittston Garage	1963	40	$243,711.32	$1,068,407.51	0	3	5		15	$26,710	2003
Transportation Services	Pittston Quonset		40	$1.00		0				0	$0	40
Transportation Services	Pittston Sandome	1980	40	$143,063.66	$379,452.78	7	2	4		8	$9,486	2020
Transportation Services	Cardinal Sand Shed	1997	40	$27,494.47	$44,120.55	24	1	3		3	$1,103	2037
Health & Recreation	North Centre	1965	40	$812,489.02	$3,357,409.29	0	3	5		15	$83,935	2005
Health & Recreation	North Centre Ice Plant	1991	40	$266,464.78	$510,574.07	18	2	5		10	$12,764	2031
Health & Recreation	Cardinal Arena	1969	40	$213,499.51	$783,853.26	0	3	5		15	$19,596	2009
Health & Recreation	Cardinal Pavilion	1994	40	$43,559.76	$76,382.31	21	1	4		4	$1,910	2034
Health & Recreation	Cardinal Pool	1980	40	$197,537.75	$523,936.32	7	2	5		10	$13,098	2020
Health & Recreation	Cardinal Legion Washrooms	1999	40	$48,974.54	$74,078.38	26	1	4		4	$1,852	2039
Health & Recreation	South Centre	1972	40	$128,322.69	$431,151.26	0	3	4		12	$10,779	2012
Health & Recreation	SC Pool Shed	1977	40	$43,432.81	$125,880.37	4	2	4		8	$3,147	2017
Health & Recreation	Spencerville Library	1999	40	$129,882.68	$196,459.21	26	1	4		4	$4,911	2039
Health & Recreation	Cardinal Library	1995	40	$374,692.00	$637,888.05	22	1	5		5	$15,947	2035

Leasehold Improvements

				$118,588	$192,590						$6,136	
Department	**Name**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/ year**	Trigger
Health & Recreation	Spencervile Ball Diamond	1986	25	$39,642.92	$88,058.38	0	3	4		12	$3,522	2011
Health & Recreation	NC Baseball Shed	1986	40	$9,995.00	$22,201.78	13	3	3		9	$555	2026
General Government	South Nation Retaining Wall	2007	40	$68,950.00	$82,329.91	34	1	4		4	$2,058	2047

Vehicles

					$3,126,431.03	$4,226,422.26						$278,021	
Department	**Vehicle Model**	**Actual Year**	**Useful Life**	**Serial No.**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	**Risk**	**Investement/ year**	Trigger
Protection Services	Ladder Wagon	1880	20		$5,000.00	$5,000.00	0	1	1		1	$250	1900
Protection Services	Fire Pumper	1950	20	178318630	$12,364.00	$79,598.37	0	1	1		1	$3,980	1970
Protection Services	GMC Tanker - T2	1990	20	1GDN7D1E1LV504921	$108,596.00	$214,323.60	0	3	4		12	$10,716	2010
Protection Services	GMC Rescue Van - V1	1996	20	1GDJ6HIJ5TJ504532	$115,143.93	$190,315.37	3	2	4		8	$9,516	2016
Protection Services	Ford 350 Quad Cab - T8	2002	20	1FTHW26G7TEA08198	$50,721.51	$70,210.43	9	2	4		8	$3,511	2022
Protection Services	Freightliner FL80 Tanker - T3	2000	20	1FVXJLCB5YHF78223	$228,730.18	$335,897.98	7	2	4		8	$16,795	2020
Protection Services	Freightliner FL80 Tanker - PT7	2001	20	1FVHBXBS01HJ25950	$312,664.32	$445,784.56	8	2	4		8	$22,289	2021
Protection Services	Peterbilt Rescue Van - R5	2004	20	2NPNHD7X84M831627	$232,038.45	$302,757.54	11	2	4		8	$15,138	2024
Protection Services	International 7400 - Pumper #1	2007	20	1HTWCAZR37J456168	$311,262.40	$371,663.58	14	1	4		4	$18,583	2027
Protection Services	Chevy Silverado	2010	20	3GCRKREAIAG254014	$27,078.74	$29,589.67	17	1	3		3	$1,479	2030
Protection Services	Pumper #4 (Spartan)	2010	20	4S7CT28939C071019	$300,042.17	$327,864.18	17	1	4		4	$16,393	2030
Transportation Services	Homemade Trailer	1976	12	FILE-036717451	$5,000.00	$14,926.13	0	4	3		12	$1,244	1988
Transportation Services	Homemade Trailer	1982	12	FILE-026273968	$5,000.00	$12,500.40	0	4	3		12	$1,042	1994
Transportation Services	Volvo - Truck 6	1998	12	4VHJCBBE2XN865312	$153,600.96	$239,305.29	0	2	4		8	$19,942	2010
Transportation Services	Truck 5 Sander	2000	12		$39,224.14	$57,601.97	0	2	3		6	$4,800	2012
Transportation Services	Peterbilt - Truck 4	2001	12	2NPNLDOX31M564661	$169,495.47	$241,660.02	0	2	4		8	$20,138	2013
Transportation Services	Peterbilt 330 Single Axle - Truck 8	2002	12	2NPNHD8X13M802869	$160,383.08	$222,007.69	1	2	4		8	$18,501	2014
Transportation Services	International F7600 - Truck 3	2005	12	1HTWXAHT75J005954	$191,260.00	$242,282.45	4	1	4		4	$20,190	2017
Transportation Services	GMC Sierra (Card 1 Ton) - Truck 2	2006	12	1GDJC34D96E152201	$57,502.20	$70,720.45	5	1	4		4	$5,893	2018
Transportation Services	Truck 2 Sander	2008	12		$8,154.00	$9,452.72	7	1	3		3	$788	2020
Transportation Services	Truck 7 Harness	2008	12		$17,281.73	$20,034.26	7	1	3		3	$1,670	2020
Transportation Services	Ford 7000 (Card 1 Ton) - Truck 11	2009	12	1FDAF57P57EA79791	$57,897.38	$65,164.01	8	1	4		4	$5,430	2021
Transportation Services	International 7600	2009	12	1HTWXAHT8AJ241765	$156,787.04	$176,465.19	8	1	4		4	$14,705	2021
Transportation Services	Truck 1	2011	12	IGTR2UEA9BZ396888	$25,935.25	$27,514.71	10	1	3		3	$2,293	2023
Transportation Services	Truck 7	2011	12	IHTWDAAR3CJ079408	$149,493.60	$158,597.76	10	1	4		4	$13,216	2023
Health & Recreation	Jarvis Trailer - Custom	2004	10	H0M05J04621231357	$8,716.72	$11,373.35	1	1	3		3	$1,137	2014
Health & Recreation	GMC Sierra 2 WD	2004	10	2GTEC19V141178995	$36,294.19	$47,355.69	1	1	3		3	$4,736	2014
Health & Recreation		2008	10		$8,984.00	$10,414.92	5	1	3		3	$1,041	2018
Health & Recreation		2011	10		$23,364.50	$24,787.40	8	1	3		3	$2,479	2021
Environmental Services	Carmikel Trailer	1997	10	FILE-185981706	$5,000.00	$8,023.53	0	2	3		6	$802	2007
Environmental Services	Portable Generator 150 KW	1999	10	JOH3080103	$52,275.54	$79,071.45	0	2	3		6	$7,907	2009
Environmental Services	GMC Sierra 2 WD	2007	10	2GTEK19VX41342943	$21,125.58	$25,225.05	4	1	3		3	$2,523	2017
Environmental Services	GMC Sierra 2 WD	2004	10	2GTEC19V441187223	$37,706.83	$49,198.86	1	1	3		3	$4,920	2014
Environmental Services	GMC Savana	2006	10	1GTEG15X761212958	$32,307.12	$39,733.68	3	1	3		3	$3,973	2016

Unlicensed Equipment

					$1,198,312.11	$1,885,473.29						$157,361	
Department	**Name**	**Actual Year**	**Useful Life**	**Serial No.**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	**Risk**	**Investement/year**	Trigger
Transportation Services	Hesston 65-46 Tractor	1988	12	DGM5243MOAM	$16,146	$33,806	0	3	3		9	$2,817	2000
Transportation Services	Champion 740 Diesel Grader	1989	12	20034	$139,028	$282,616	0	3	4		12	$23,551	2001
Transportation Services	Komatsu Front End Loader	1992	12	A75134	$93,240	$173,454	0	3	4		12	$14,455	2004
Transportation Services	Thompson Steamer	1995	12		$6,695	$11,398	0	2	3		6	$950	2007
Transportation Services	Water Tank	1996	12		$5,547	$9,168	0	2	3		6	$764	2008
Transportation Services	Champion 740 Diesel Grader	1997	12	6861020	$203,109	$325,931	0	2	4		8	$27,161	2009
Transportation Services	Model 200XP Brush Bandit Chipper	1998	12	12177	$34,012	$52,989	0	2	3		6	$4,416	2010
Transportation Services	Morbark 2060 Chipper	1998	12	8E2247	$14,820	$23,089	0	2	3		6	$1,924	2010
Transportation Services	Daewoo 200W-111	2007	12	#-00711	$57,240	$180,000	6	1	4		4	$15,000	2019
Transportation Services	Ditching Bucket	2008	12		$9,794	$11,354	7	1	3		3	$946	2020
Transportation Services	Derby Pacer Mower	2000	12		$5,260	$7,725	0	2	3		6	$644	2012
Transportation Services	John Deere Mower	2001	12		$4,969	$7,085	0	2	3		6	$590	2013
Transportation Services	Case 621D Loader	2003	12	JEE0135112	$158,578	$213,116	2	1	4		4	$17,760	2015
Transportation Services	Line Painter	2004	12		$7,020	$9,160	3	1	3		3	$763	2016
Transportation Services	Holder Sidewalk Plow	2005	12	52410372	$95,936	$121,529	4	1	4		4	$10,127	2017
Transportation Services	Lely Splendino Classic Disc Mower	2007	12	3050341	$8,532	$10,188	6	1	3		3	$849	2019
Transportation Services		2011	12		$101,709	$107,903	10	1	4		4	$8,992	2023
Health & Recreation	International 284 Tractor	1980	12		$5,769	$15,301	0	4	3		12	$1,275	1992
Health & Recreation	International 284 Tractor	1980	12		$5,769	$15,301	0	4	3		12	$1,275	1992
Health & Recreation	Kubota Lawn Tractor	1997	12	10604	$18,648.03	$29,925	0	2	3		6	$2,494	2009
Health & Recreation	Kubota Lawn Tractor	2002	12	21697	$19,314.03	$26,735	1	2	3		6	$2,228	2014
Health & Recreation	Kubota Lawn Tractor	2003	12	21839/17055	$22,588.54	$30,357	2	1	3		3	$2,530	2015
Health & Recreation	Zamboni Model 445	2009	12	445-9164	$76,593.40	$86,207	8	1	4		4	$7,184	2021
Health & Recreation	Olympia Ice Resurfacer	2008	12	RM080188607B	$74,894.65	$86,823	7	1	4		4	$7,235	2020
Health & Recreation	CCTV	2010	10		$5,740.00	$6,272	7	1	2		2	$627	2020
Health & Recreation	Fryer	2010	10		$7,359.34	$8,042	7	1	2		2	$804	2020

Other Equipment

					$1,159,319.10	$1,964,888.92						$155,732	
Department	**Name**	**Actual Year**	**Useful Life**	**Serial No.**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	**Risk**	**Investement/year**	Trigger
General Government	Townhall Office Furniture	1980	10		$1,990.00	$5,278.15	0	4	2		8	$528	1990
General Government	Townhall Lateral Cabinet	1996	10		$2,006.00	$3,315.61	0	2	2		4	$332	2006
General Government	HP Laser Jet 4000	2001	3		$1,875.90	$2,674.59	0	4	2		8	$892	2004
General Government	HP Scanjet 8200	2005	3		$777.60	$985.04	0	4	2		8	$328	2008
General Government	Computer	2006	3		$2,952.72	$3,631.47	0	3	2		6	$1,210	2009
General Government	HP LaserJet 2250TN	2007	3		$1,921.32	$2,294.16	0	3	2		6	$765	2010
General Government	Win UB/Receipting ONT	2007	3		$9,180.00	$10,961.40	0	3	3		9	$3,654	2010
General Government	Receipter	2007	3		$1,353.96	$1,616.70	0	3	2		6	$539	2010
General Government	Computer	2007	3		$1,656.36	$1,977.78	0	3	2		6	$659	2010
General Government	Computer	2007	3		$1,655.28	$1,976.49	0	3	2		6	$659	2010
General Government	Computer	2007	3		$2,331.72	$2,784.20	0	3	2		6	$928	2010
General Government	Laptop - TM5520-5308	2008	3		$993.60	$1,151.85	0	2	2		4	$384	2011
General Government	Epson S5 Projector & case	2008	3		$1,042.09	$1,208.07	0	2	2		4	$403	2011
General Government	MS Office 2007	2008	3		$536.71	$622.19	0	1	2		2	$207	2011
General Government	Computer	2009	3		$1,287.87	$1,449.51	0	1	2		2	$483	2012
General Government		2010	3		$2,211.05	$2,416.07	0	1	2		2	$805	2013
General Government	Filehold	2011	3		$11,509.00	$12,209.90	1	1	3		3	$4,070	2014
General Government	Supply & Install Phones	2011	40		$6,135.12	$6,508.75	38	1	3		3	$163	2051
Protection Services	Honda Generator	1990	10		$1,495.80	$2,952.09	0	3	2		6	$295	2000
Protection Services	Honda Generator	1995	10		$3,191.26	$5,432.91	0	2	4		8	$543	2005
Protection Services	Honda Generator	1998	10		$2,436.45	$3,795.91	0	2	4		8	$380	2008
Protection Services	Jaws of Life	1999	10		$14,385.63	$21,759.56	0	2	5		10	$2,176	2009
Protection Services	Defibrilator	1999	10		$5,680.09	$8,591.65	0	2	5		10	$859	2009
Protection Services	Air Bags	1999	10		$5,938.51	$8,982.53	0	2	5		10	$898	2009
Protection Services	X Tractor - Cutter	2000	10		$5,994.01	$8,802.41	0	2	5		10	$880	2010
Protection Services	Comp Air Fill Station	2003	10		$7,936.30	$10,665.72	0	1	3		3	$1,067	2013
Protection Services	Thermal Imager	2003	10		$18,334.04	$24,639.42	0	1	3		3	$2,464	2013
Protection Services	Water Tanks	2003	10		$7,685.04	$10,328.05	0	1	3		3	$1,033	2013
Protection Services	Defibrilator	2004	10		$4,857.97	$6,338.55	1	1	5		5	$634	2014
Protection Services	In Ground Water Tanks	2004	10		$5,284.82	$6,895.49	1	1	3		3	$690	2014
Protection Services	Breathing Air Compressor	2006	10		$20,876.31	$25,675.23	3	1	5		5	$2,568	2016
Protection Services	6000 psi Cylinder	2008	10		$8,370.00	$9,703.12	5	1	5		5	$970	2018
Protection Services	Honda Trash Pump	2009	10		$5,451.84	$6,136.09	6	1	3		3	$614	2019
Protection Services	MOC II Jaws	2009	10		$7,014.60	$7,894.99	6	1	3		3	$789	2019
Protection Services	SCBA and Misc	1992	10		$6,212.58	$11,557.23	0	3	5		15	$1,156	2002
Protection Services	SCBA and Misc	1994	10		$8,919.24	$15,639.94	0	3	3		9	$1,564	2004
Protection Services	SCBA and Misc	1997	10		$10,223.13	$16,405.12	0	3	3		9	$1,641	2007
Protection Services	SCBA and Misc	2000	10		$10,522.78	$15,453.06	0	3	3		9	$1,545	2010
Protection Services	SCBA and Misc	2001	10		$18,736.84	$26,714.25	0	3	3		9	$2,671	2011
Protection Services	SCBA and Misc	2002	10		$10,622.73	$14,704.34	0	3	3		9	$1,470	2012
Protection Services	Bunker Gear	1990	10		$12,336.38	$24,346.91	0	3	3		9	$2,435	2000
Protection Services	Bunker Gear	1995	10		$1,000.00	$1,702.43	0	3	2		6	$170	2005
Protection Services	Bunker Gear	1996	10		$1,800.00	$2,975.13	0	3	2		6	$298	2006
Protection Services	Bunker Gear	1997	10		$1,000.00	$1,604.71	0	3	2		6	$160	2007
Protection Services	Bunker Gear	1998	10		$3,371.36	$5,252.47	0	3	2		6	$525	2008
Protection Services	Bunker Gear	1999	10		$1,170.36	$1,770.27	0	3	2		6	$177	2009
Protection Services	Bunker Gear	2000	10		$2,540.86	$3,731.34	0	3	2		6	$373	2010
Protection Services	Bunker Gear	2002	10		$1,300.00	$1,799.50	0	3	2		6	$180	2012
Protection Services	Bunker Gear	2003	10		$6,044.04	$8,122.68	0	3	3		9	$812	2013
Protection Services	Bunker Gear	2004	10		$7,869.71	$10,268.19	1	2	3		6	$1,027	2014
Protection Services	Bunker Gear	2007	10		$6,998.39	$8,356.44	4	1	3		3	$836	2017
Protection Services	Bunker Gear	2008	10		$3,125.42	$3,623.22	5	1	2		2	$362	2018
Protection Services	Bunker Gear	2009	10		$12,821.40	$14,430.60	6	1	3		3	$1,443	2019
Protection Services	Pagers and Radios	1997	10	402AWN9583	$1,530.58	$2,456.13	0	4	2		8	$246	2007
Protection Services	Pagers and Radios	1997	10	402AWN9576	$1,530.58	$2,456.13	0	4	2		8	$246	2007

Protection Services	Pagers and Radios	1997	10	402AWQ9625	$1,530.58	$2,456.13	0	4	2		8	$246	2007
Protection Services	Pagers and Radios	1997	10	646XXM24XW	$443.92	$712.36	0	4	2		8	$71	2007
Protection Services	Pagers and Radios	1997	10	646XXM24XZ	$443.92	$712.36	0	4	2		8	$71	2007
Protection Services	Pagers and Radios	1998	10	402AXS4520	$1,669.53	$2,601.07	0	4	2		8	$260	2008
Protection Services	Pagers and Radios	1998	10	253BYE225M	$443.92	$691.61	0	4	2		8	$69	2008
Protection Services	Pagers and Radios	1998	10	253BYE225L	$443.92	$691.61	0	4	2		8	$69	2008
Protection Services	Pagers and Radios	1998	10		$443.92	$691.61	0	4	2		8	$69	2008
Protection Services	Pagers and Radios	1998	10		$443.92	$691.61	0	4	2		8	$69	2008
Protection Services	Pagers and Radios	1998	10		$443.92	$691.61	0	4	2		8	$69	2008
Protection Services	Pagers and Radios	1998	10	253BYS2734	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2733	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2732	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS272Z	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS272X	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS272W	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS272V	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS272T	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS273F	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS273D	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS273C	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS273B	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2739	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2738	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2737	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2736	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2735	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	1998	10	253BYS2736	$569.43	$887.15	0	4	2		8	$89	2008
Protection Services	Pagers and Radios	2001	10	253BBL23WV	$510.60	$727.99	0	3	2		6	$73	2011
Protection Services	Pagers and Radios	2001	10	253BBL23WW	$510.60	$727.99	0	3	2		6	$73	2011
Protection Services	Pagers and Radios	2001	10	253BBL23WX	$510.60	$727.99	0	3	2		6	$73	2011
Protection Services	Pagers and Radios	2001	10	253BBL23WZ	$510.60	$727.99	0	3	2		6	$73	2011
Protection Services	Pagers and Radios	2001	10	253BBL23X2	$510.60	$727.99	0	3	2		6	$73	2011
Protection Services	Pagers and Radios	2001	10	253BBY253J	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2001	10	253BBY253K	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2001	10	253BBY253L	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2001	10	253BBY253M	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2001	10	253BBY253N	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2001	10	253BBY253P	$457.32	$652.03	0	3	2		6	$65	2011
Protection Services	Pagers and Radios	2002	10	672HBY8290	$1,476.30	$2,043.54	0	3	2		6	$204	2012
Protection Services	Pagers and Radios	2002	10	Kenwood 30900361	$788.10	$1,090.91	0	3	2		6	$109	2012
Protection Services	Pagers and Radios	2002	10	Kenwood 31000289	$788.10	$1,090.91	0	3	2		6	$109	2012
Protection Services	Pagers and Radios	2002	10	Kenwood 31000290	$788.10	$1,090.91	0	3	2		6	$109	2012
Protection Services	Pagers and Radios	2002	10	672HCJ1795	$1,252.08	$1,733.17	0	3	2		6	$173	2012
Protection Services	Pagers and Radios	2002	10	672HCJ1794	$1,252.08	$1,733.17	0	3	2		6	$173	2012
Protection Services	Pagers and Radios	2002	10	253BCE25HH	$519.48	$719.08	0	3	2		6	$72	2012
Protection Services	Pagers and Radios	2002	10	253BCE25HJ	$519.48	$719.08	0	3	2		6	$72	2012
Protection Services	Pagers and Radios	2003	10	839SCW242T	$519.48	$698.14	0	3	2		6	$70	2013
Protection Services	Pagers and Radios	2004	10	136WEN25R7	$469.80	$612.98	1	2	2		4	$61	2014
Protection Services	Pagers and Radios	2004	10	136WEN26LK	$469.80	$612.98	1	2	2		4	$61	2014
Protection Services	Pagers and Radios	2005	10	018TFU7950	$450.00	$570.05	2	2	2		4	$57	2015
Protection Services	Pagers and Radios	2005	10	018TFU7959	$450.00	$570.05	2	2	2		4	$57	2015
Protection Services	Pagers and Radios	2005	10	018TFU7961	$450.00	$570.05	2	2	2		4	$57	2015
Protection Services	Pagers and Radios	2005	10	018TFU8008	$450.00	$570.05	2	2	2		4	$57	2015
Protection Services	Pagers and Radios	2005	10	018TFU8016	$450.00	$570.05	2	2	2		4	$57	2015
Protection Services	Pagers and Radios	2005	10	839SDC2GFB	$351.00	$444.64	2	2	2		4	$44	2015
Protection Services	Pagers and Radios	2005	10	839SDC2GF9	$351.00	$444.64	2	2	2		4	$44	2015
Protection Services	Pagers and Radios	2005	10	136WEQ25Z5	$351.00	$444.64	2	2	2		4	$44	2015
Protection Services	Pagers and Radios	2005	10	136WENS6XJ	$351.00	$444.64	2	2	2		4	$44	2015
Protection Services	Pagers and Radios	2005	10	136WEU2L79	$351.00	$444.64	2	2	2		4	$44	2015
Protection Services	Pagers and Radios	2006	10	136WFU3781	$492.75	$606.02	3	2	2		4	$61	2016
Protection Services	Pagers and Radios	2007	10	749THN1898	$1,323.00	$1,579.73	4	1	2		2	$158	2017
Protection Services	Pagers and Radios	2007	10	749THN1902	$1,323.00	$1,579.73	4	1	2		2	$158	2017

Protection Services	Pagers and Radios	2007	10	749THN1905	$1,323.00	$1,579.73	4	1	2		2	$158	2017
Protection Services	Pagers and Radios	2008	10	136WGUH687	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2008	10	136WGY2137	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2008	10	136WHA1503	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2008	10	136WHA1462	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2008	10	136WHA1497	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2008	10	136WHA1493	$481.68	$558.40	5	1	2		2	$56	2018
Protection Services	Pagers and Radios	2009	10	MR5BYG23RN	$189.00	$212.72	6	1	2		2	$21	2019
Protection Services	Pagers and Radios	2009	10	253BAJ2G5B	$189.00	$212.72	6	1	2		2	$21	2019
Protection Services	Pagers and Radios	2009	10	839SDW28C8	$189.00	$212.72	6	1	2		2	$21	2019
Protection Services	Furniture	2000	10		$6,795.10	$9,978.83	0	2	3		6	$998	2010
Protection Services	Stove and refrigerator	2000	10		$1,329.78	$1,952.83	0	2	2		4	$195	2010
Protection Services	TV & VCR	2000	10		$1,387.48	$2,037.56	0	3	2		6	$204	2010
Protection Services		2010	10		$2,601.67	$2,842.92	7	1	2		2	$284	2020
Health & Recreation	Spencerville library shelving	2001	30		$9,109.00	$12,987.26	18	1	3		3	$433	2031
Health & Recreation	Computer & Printer	2002	3		$4,295.71	$5,946.26	0	4	2		8	$1,982	2005
Health & Recreation	Modem	2002	3	712A10015759	$31.08	$43.02	0	4	2		8	$14	2005
Health & Recreation	Athena Licence & Scanner	2004	3		$6,898.40	$9,000.85	0	4	3		12	$3,000	2007
Health & Recreation	Computer	2004	3	YT1010129013	$1,228.39	$1,602.77	0	4	2		8	$534	2007
Health & Recreation	Athena Webserver	2007	3	ND1071010112	$840.99	$1,004.19	0	3	2		6	$335	2010
Health & Recreation	2 Acer Laptops	2009	3		$1,583.61	$1,782.37	0	2	2		4	$594	2012
Health & Recreation	Cardinal library shelving	2006	30		$4,876.20	$5,997.11	23	1	3		3	$200	2036
Health & Recreation	Webserver	2002	3		$4,653.72	$6,441.84	0	4	3		12	$2,147	2005
Health & Recreation	Upgrades & backup	2002	3	712A10015759	$4,600.58	$6,368.28	0	4	2		8	$2,123	2005
Health & Recreation	Server Upgrade	2004	3		$237.60	$310.01	0	4	2		8	$103	2007
Health & Recreation	2 Computers	2004	3	YT1010129013	$2,699.98	$3,522.86	0	4	2		8	$1,174	2007
Health & Recreation	Arena Fryer	2000	10		$5,544.46	$8,142.23	0	3	2		6	$814	2010
Health & Recreation	Spencerville clock	2005	25		$58,863.00	$74,565.89	17	2	4		8	$2,983	2030
Health & Recreation	Spencerville playstructure	1998	10		$4,938.95	$7,694.72	0	3	2		6	$769	2008
Health & Recreation	SC Pool playstructure	2004	10		$15,649.15	$20,418.59	1	1	3		3	$2,042	2014
Health & Recreation	South Centre Tennis Court	1980	25		$47,200.00	$125,190.22	0	4	4		16	$5,008	2005
Health & Recreation	SC Pool	1977	40		$153,836.38	$445,860.65	4	4	4		16	$11,147	2017
Health & Recreation	South Centre Gazebo	1999	40		$1.00	$1.51	26	3	1		3	$0	2039
Health & Recreation	Cardinal clock	2008	25		$22,099.38	$25,619.24	20	1	3		3	$1,025	2033
Health & Recreation	Cardinal Ball Diamond 1	1969	40		$3,083.99	$11,322.72	0	5	3		15	$283	2009
Health & Recreation	Cardinal Ball Diamond 2	1982	40		$9,925.50	$24,814.55	9	4	3		12	$620	2022
Health & Recreation	Cardinal Pool playstructure	2005	10		$18,750.54	$23,752.62	2	1	3		3	$2,375	2015
Health & Recreation	Cardinal Legion Play Park	2007	10		$15,302.31	$18,271.76	4	1	3		3	$1,827	2017
Health & Recreation	Meadowlands Play Park	2006	10		$12,936.77	$15,910.60	3	1	3		3	$1,591	2016
Health & Recreation	Cardinal Tennis Court	1990	25		$75,383.25	$148,775.37	2	3	4		12	$5,951	2015
Transportation Services	Fuel Tank	1996	10		$8,703.52	$14,385.59	0	3	4		12	$1,439	2006
Environmental Services	Welding	1991	10		$144.30	$276.49	0	3	2		6	$28	2001
Environmental Services	Tools	1991	10		$557.93	$1,069.05	0	3	2		6	$107	2001
Environmental Services	Caliper/Grinder	1991	10		$296.09	$567.34	0	3	2		6	$57	2001
Environmental Services	Tools	1991	10		$326.84	$626.27	0	3	2		6	$63	2001
Environmental Services	Tool Boxes/Generator	1991	10		$2,448.95	$4,692.45	0	3	2		6	$469	2001
Environmental Services	Tools	1991	10		$375.41	$719.33	0	3	2		6	$72	2001
Environmental Services	Welder/Drill	1991	10		$1,300.86	$2,492.59	0	3	2		6	$249	2001
Environmental Services	Tools	1991	10		$424.58	$813.54	0	3	2		6	$81	2001
Environmental Services	Meters	1992	10		$418.47	$778.48	0	3	2		6	$78	2002
Environmental Services	Airmask	1992	10		$1,992.60	$3,706.82	0	3	2		6	$371	2002
Environmental Services	Blower/ Hoist	1992	10		$3,762.91	$7,000.12	0	3	3		9	$700	2002
Environmental Services	Combustible Gas Indicator	1992	10		$2,730.71	$5,079.92	0	3	5		15	$508	2002
Environmental Services	Honda 6500 Generator	2001	10		$3,412.15	$4,864.90	0	2	5		10	$486	2011
Environmental Services	Aluminum Boat	2004	10		$300.00	$391.43	1	1	2		2	$39	2014
Environmental Services	5HP 3 ph compressor	2005	10		$1,941.84	$2,459.86	2	1	2		2	$246	2015
Environmental Services	Spencerville SCADA	2002	10		$61,577.95	$85,238.28	0	2	4		8	$8,524	2012
Environmental Services	WWTP SCADA Equipment	2002	10		$95,118.33	$131,666.01	0	2	4		8	$13,167	2012
Environmental Services	Cardinal WTP Equipment	2007	10		$9,369.70	$11,187.91	4	1	3		3	$1,119	2017
Environmental Services	WTP SCADA Equipment	1999	10		$118,785.80	$179,674.18	0	2	4		8	$17,967	2009

Fences

				$61,508.06	$81,669.70						$6,277	
Department	**Location**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Public Works Fences	1994	10	$1,776.75	$3,115.55	0	3	2		6	$312	2004
Transportation Services	Public Works Fences	2005	10	$5,375.00	$6,808.89	2	2	3		6	$681	2015
Transportation Services	Public Works Fences	2006	10	$15,575.00	$19,155.29	3	2	3		6	$1,916	2016
Transportation Services	Public Works Fences	2008	10	$5,710.00	$6,619.45	5	1	3		3	$662	2018
Environmental Services	Landfill Pittston Road	closed	10	$1.00						0	$0	
Environmental Services	Landfill Scott Road	1996	25	$10,454.80	$17,280.19	8	2	3		6	$691	2021
Environmental Services	Landfill Scott Road	1997	25	$2,961.26	$4,751.95	9	2	2		4	$190	2022
Environmental Services	Landfill Scott Road	2006	25	$7,700.00	$9,470.03	18	1	3		3	$379	2031
Environmental Services	Water Tower	2003	10	$3,304.25	$4,440.63	0	3	2		6	$444	2013
Environmental Services	Low Lift Stn	2008	10	$8,650.00	$10,027.72	5	2	3		6	$1,003	2018

Library Collection

					$249,077.39	$313,253.78					$7,831	
Department	**Location**	**Item**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	**Risk**	**Investement/year**	Trigger
Health & Recreation	Spencerville Library	Books	1998	40	$7,791.76	$12,139.31	25	1	1		1	$303	2038
Health & Recreation	Spencerville Library	Periodicals	1998	40	$509.12	$793.19	25	1	1		1	$20	2038
Health & Recreation	Spencerville Library	Media	1998	40	$650.83	$1,013.97	25	1	1		1	$25	2038
Health & Recreation	Spencerville Library	Books	1999	40	$6,246.50	$9,448.39	26	1	1		1	$236	2039
Health & Recreation	Spencerville Library	Periodicals	1999	40	$803.56	$1,215.46	26	1	1		1	$30	2039
Health & Recreation	Spencerville Library	Media	1999	40	$499.97	$756.25	26	1	1		1	$19	2039
Health & Recreation	Spencerville Library	Books	2000	40	$5,436.40	$7,983.54	27	1	1		1	$200	2040
Health & Recreation	Spencerville Library	Periodicals	2000	40	$738.41	$1,084.38	27	1	1		1	$27	2040
Health & Recreation	Spencerville Library	Media	2000	40	$645.96	$948.61	27	1	1		1	$24	2040
Health & Recreation	Spencerville Library	Books	2001	40	$8,465.62	$12,069.95	28	1	1		1	$302	2041
Health & Recreation	Spencerville Library	Periodicals	2001	40	$801.08	$1,142.15	28	1	1		1	$29	2041
Health & Recreation	Spencerville Library	Books	2002	40	$7,879.35	$10,906.86	29	1	1		1	$273	2042
Health & Recreation	Spencerville Library	Periodicals	2002	40	$494.84	$684.97	29	1	1		1	$17	2042
Health & Recreation	Spencerville Library	Books	2003	40	$4,523.53	$6,079.25	30	1	1		1	$152	2043
Health & Recreation	Spencerville Library	Periodicals	2003	40	$1,095.06	$1,471.67	30	1	1		1	$37	2043
Health & Recreation	Spencerville Library	Books	2004	40	$9,219.40	$12,029.23	31	1	1		1	$301	2044
Health & Recreation	Spencerville Library	Periodicals	2004	40	$815.12	$1,063.55	31	1	1		1	$27	2044
Health & Recreation	Spencerville Library	Books	2005	40	$8,112.50	$10,276.67	32	1	1		1	$257	2045
Health & Recreation	Spencerville Library	Periodicals	2005	40	$677.42	$858.14	32	1	1		1	$21	2045
Health & Recreation	Spencerville Library	Books	2006	40	$9,967.83	$12,259.17	33	1	1		1	$306	2046
Health & Recreation	Spencerville Library	Periodicals	2006	40	$438.43	$539.21	33	1	1		1	$13	2046
Health & Recreation	Spencerville Library	Books	2007	40	$9,592.96	$11,454.50	34	1	1		1	$286	2047
Health & Recreation	Spencerville Library	Periodicals	2007	40	$667.63	$797.19	34	1	1		1	$20	2047
Health & Recreation	Spencerville Library	Media	2007	40	$125.11	$149.39	34	1	1		1	$4	2047
Health & Recreation	Spencerville Library	Books	2008	40	$9,411.07	$10,910.01	35	1	1		1	$273	2048
Health & Recreation	Spencerville Library	Periodicals	2008	40	$819.84	$950.42	35	1	1		1	$24	2048
Health & Recreation	Spencerville Library	Media	2008	40	$217.08	$251.66	35	1	1		1	$6	2048
Health & Recreation	Spencerville Library	Books	2009	40	$11,312.52	$12,732.34	36	1	1		1	$318	2049
Health & Recreation	Spencerville Library	Periodicals	2009	40	$734.81	$827.04	36	1	1		1	$21	2049
Health & Recreation	Spencerville Library	Media	2009	40	$161.98	$182.31	36	1	1		1	$5	2049
Health & Recreation	Spencerville Library	Books	2010	40	$9,871.48	$10,786.83	37	1	1		1	$270	2050
Health & Recreation	Spencerville Library	Books	2011	40	$12,691.95	$13,464.89	38	1	1		1	$337	2051
Health & Recreation	Cardinal Library	Books	2000	40	$8,976.91	$13,182.89	27	1	1		1	$330	2040
Health & Recreation	Cardinal Library	Books	2001	40	$7,195.31	$10,258.79	28	1	1		1	$256	2041
Health & Recreation	Cardinal Library	Periodicals	2001	40	$68.49	$97.65	28	1	1		1	$2	2041
Health & Recreation	Cardinal Library	Books	2002	40	$9,645.06	$13,351.02	29	1	1		1	$334	2042
Health & Recreation	Cardinal Library	Periodicals	2002	40	$337.77	$467.55	29	1	1		1	$12	2042
Health & Recreation	Cardinal Library	Books	2003	40	$9,521.99	$12,796.76	30	1	1		1	$320	2043
Health & Recreation	Cardinal Library	Periodicals	2003	40	$74.92	$100.69	30	1	1		1	$3	2043
Health & Recreation	Cardinal Library	Books	2004	40	$8,391.71	$10,949.28	31	1	1		1	$274	2044
Health & Recreation	Cardinal Library	Periodicals	2004	40	$165.94	$216.51	31	1	1		1	$5	2044
Health & Recreation	Cardinal Library	Books	2005	40	$6,551.94	$8,299.80	32	1	1		1	$207	2045
Health & Recreation	Cardinal Library	Periodicals	2005	40	$173.38	$219.63	32	1	1		1	$5	2045
Health & Recreation	Cardinal Library	Books	2006	40	$9,619.24	$11,830.45	33	1	1		1	$296	2046
Health & Recreation	Cardinal Library	Periodicals	2006	40	$209.01	$257.06	33	1	1		1	$6	2046
Health & Recreation	Cardinal Library	Books	2007	40	$12,946.23	$15,458.48	34	1	1		1	$386	2047
Health & Recreation	Cardinal Library	Periodicals	2007	40	$224.94	$268.59	34	1	1		1	$7	2047
Health & Recreation	Cardinal Library	Media	2007	40	$30.00	$35.82	34	1	1		1	$1	2047

Health & Recreation	Cardinal Library	Books	2008	40	$9,075.43	$10,520.91	35	1	1		1	$263	2048
Health & Recreation	Cardinal Library	Periodicals	2008	40	$217.62	$252.28	35	1	1		1	$6	2048
Health & Recreation	Cardinal Library	Books	2009	40	$11,093.42	$12,485.74	36	1	1		1	$312	2049
Health & Recreation	Cardinal Library	Periodicals	2009	40	$202.87	$228.33	36	1	1		1	$6	2049
Health & Recreation	Cardinal Library	Books	2010	40	$11,693.30	$12,777.58	37	1	1		1	$319	2050
Health & Recreation	Cardinal Library	Books	2011	40	$11,242.80	$11,927.49	38	1	1		1	$298	2051

Plant Facility

					$16,539,126.00	$28,033,394.55						$728,758	
Department	**Facility Type**	**Name**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Lagoon	Spencerville Lagoon Building	2001	40	$17,471.41	$24,910.05	28	1	3		3	$623	2041
Environmental Services	Lagoon	Spencerville Sewage Lagoon	1990	25	$943,228.13	$1,861,542.31	2	3	5		15	$74,462	2015
Environmental Services	SPS	Spencerville #1	1990	40	$309,900.00	$611,614.46	17	2	4		8	$15,290	2030
Environmental Services	SPS	Spencerville #2	1990	40	$150,900.00	$297,814.20	17	2	4		8	$7,445	2030
Environmental Services	SPS	Spencerville #3	1990	40	$150,900.00	$297,814.20	17	2	4		8	$7,445	2030
Environmental Services	WWTP	Prescott WWTP	1981	40	$204,000.00	$525,316.88	8	3	5		15	$13,133	2021
Environmental Services	WWTP	Cardinal WWTP	1997	40	$6,847,671.67	$10,988,502.82	24	2	5		10	$274,713	2037
Environmental Services	CPS	Cardinal Henry Street Pump Station	1993	40	$91,000.00	$164,356.12	20	2	4		8	$4,109	2033
Environmental Services	CPS	Cardinal Adelaide Street Pump Statio	1996	40	$363,816.28	$601,332.87	23	2	5		10	$15,033	2036
Environmental Services	CPS	Cardinal Hwy #2 Pump Station	1996	40	$79,571.77	$131,520.02	23	2	4		8	$3,288	2036
Environmental Services	CPS	Cardinal Flett Street	2003	40	$97,800.00	$131,435.02	30	1	4		4	$3,286	2043
Environmental Services	Water	WMPPS Low Lift Pump Station	2008	40	$2,806,085.32	$3,253,021.96	35	1	5		5	$81,326	2048
Environmental Services	WTP	Cardinal Water Treatment	1989	40	$3,757,922.93	$7,639,083.58	16	3	5		15	$190,977	2029
Environmental Services	Storage	Cardinal Elevated Storage	1988	40	$718,858.48	$1,505,130.03	15	3	5		15	$37,628	2028

Parking Lots

						$74,221.16	$108,976.00						$4,359	
Department	**Type**	**Name**	**Surface Treatment**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Protection Services	Parking lot	Fire Station #1 Parking Lot	Asphalt	2002	25	$36,236.94	$50,160.40	14	2	3		6	$2,006	2027
Transportation Services	Parking lot	Pittston Parking Lot		1999	25	$18,640.00	$28,194.67	11	3	3		9	$1,128	2024
Health & Recreation	Parking lot	Cardinal Arena Parking Lot		1996	25	$13,390.03	$22,131.67	8	3	3		9	$885	2021
Health & Recreation	Parking lot	Spencerville Library Parking Lot	Asphalt	2001	25	$5,954.19	$8,489.25	13	2	3		6	$340	2026

Sidewalks

$428,340.15 $881,527.91 $23,070

Department	Type	Name	Surface Treatment	Actual Year	Useful Life	Historic Cost	2013 Replacement Cost	Remaining Life	Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)	Consequence of Failure (1 = low, 5 = high)	Comments	Risk	Investement/year	Trigger
Transportation Services	Sidewalk	Spencerville Centre; Spencer & Bennett St	Concrete	1992	40	$34,095.25	$63,427.21	19	2	4		8	$1,586	2032
Transportation Services	Sidewalk	Spencerville South & Mill Street	Concrete	1992	40	$15,716.86	$29,237.99	19	2	3		6	$731	2032
Transportation Services	Sidewalk	Spencerville Bennet St Extension	Concrete	2011	40	$19,932.92	$21,146.83	38	1	3		3	$529	2051
Transportation Services	Sidewalk	Ventnor	Asphalt	2007	25	$4,500.00	$5,373.24	19	1	2		2	$215	2032
Transportation Services	Sidewalk	Lewis Street	Concrete	2007	40	$78,179.82	$93,350.79	34	1	4		4	$2,334	2047
Transportation Services	Sidewalk	Walter Lambert Street	Concrete	2003	40	$24,384.27	$32,770.42	30	1	3		3	$819	2043
Transportation Services	Sidewalk	Cardinal Sidewalks	Asphalt	1980	25	$23,915.00	$63,430.60	0	4	3		12	$2,537	2005
Transportation Services	Sidewalk	Cardinal Sidewalks	Concrete	1980	40	$208,185.03	$552,176.49	7	4	3		12	$13,804	2020
Transportation Services	Sidewalk	Cardinal Sidewalks	Concrete	2011	40	$19,431.00	$20,614.35	38	1	3		3	$515	2051

Appendix A

Summary Statistics $16,539,126.00 $28,033,394.55 $728,758

Department	Facility Type	Name	Actual Year	Useful Life	Historic Cost	2013 Replacement Cost	Remaining Life	Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)	Consequence of Failure (1 = low, 5 = high)	Comments	Risk	Investement/year	Trigger
Environmental Services	Lagoon	Spencerville Lagoon Building	2001	40	$17,471.41	$24,910.05	28	1	3		3	$623	2041
Environmental Services	Lagoon	Spencerville Sewage Lagoon	1990	25	$943,228.13	$1,861,542.31	2	3	5		15	$74,462	2015
Environmental Services	SPS	Spencerville #1	1990	40	$309,900.00	$611,614.46	17	2	4		8	$15,290	2030
Environmental Services	SPS	Spencerville #2	1990	40	$150,900.00	$297,814.20	17	2	4		8	$7,445	2030
Environmental Services	SPS	Spencerville #3	1990	40	$150,900.00	$297,814.20	17	2	4		8	$7,445	2030
Environmental Services	WWTP	Prescott WWTP	1981	40	$204,000.00	$525,316.88	8	3	5		15	$13,133	2021
Environmental Services	WWTP	Cardinal WWTP	1997	40	$6,847,671.67	$10,988,502.82	24	2	5		10	$274,713	2037
Environmental Services	CPS	Cardinal Henry Street Pump Station	1993	40	$91,000.00	$164,356.12	20	2	4		8	$4,109	2033
Environmental Services	CPS	Cardinal Adelaide Street Pump Statio	1996	40	$363,816.28	$601,332.87	23	2	5		10	$15,033	2036
Environmental Services	CPS	Cardinal Hwy #2 Pump Station	1996	40	$79,571.77	$131,520.02	23	2	4		8	$3,288	2036
Environmental Services	CPS	Cardinal Flett Street	2003	40	$97,800.00	$131,435.02	30	1	4		4	$3,286	2043
Environmental Services	Water	WMPPS Low Lift Pump Station	2008	40	$2,806,085.32	$3,253,021.96	35	1	5		5	$81,326	2048
Environmental Services	WTP	Cardinal Water Treatment	1989	40	$3,757,922.93	$7,639,083.58	16	3	5		15	$190,977	2029
Environmental Services	Storage	Cardinal Elevated Storage	1988	40	$718,858.48	$1,505,130.03	15	3	5		15	$37,628	2028

Appendix A

Summary Statistics $74,221.16 $108,976.00 $4,359

Department	Type	Name	Surface Treatment	Actual Year	Useful Life	Historic Cost	2013 Replacement Cost	Remaining Life	Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)	Consequence of Failure (1 = low, 5 = high)	Comments	Risk	Investement/year	Trigger
Protection Services	Parking lot	Fire Station #1 Parking Lot	Asphalt	2002	25	$36,236.94	$50,160.40	14	2	3		6	$2,006	2027
Transportation Services	Parking lot	Pittston Parking Lot		1999	25	$18,640.00	$28,194.67	11	3	3		9	$1,128	2024
Health & Recreation	Parking lot	Cardinal Arena Parking Lot		1996	25	$13,390.03	$22,131.67	8	3	3		9	$885	2021
Health & Recreation	Parking lot	Spencerville Library Parking Lot	Asphalt	2001	25	$5,954.19	$8,489.25	13	2	3		6	$340	2026

Appendix A

Summary Statistics

						$428,340.15	$881,527.91						$23,070	
Department	**Type**	**Name**	**Surface Treatment**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Sidewalk	Spencerville Centre; Spencer & Bennett St	Concrete	1992	40	$34,095.25	$63,427.21	19	2	4		8	$1,586	2032
Transportation Services	Sidewalk	Spencerville South & Mill Street	Concrete	1992	40	$15,716.86	$29,237.99	19	2	3		6	$731	2032
Transportation Services	Sidewalk	Spencerville Bennet St Extension	Concrete	2011	40	$19,932.92	$21,146.83	38	1	3		3	$529	2051
Transportation Services	Sidewalk	Ventnor	Asphalt	2007	25	$4,500.00	$5,373.24	19	1	2		2	$215	2032
Transportation Services	Sidewalk	Lewis Street	Concrete	2007	40	$78,179.82	$93,350.79	34	1	4		4	$2,334	2047
Transportation Services	Sidewalk	Walter Lambert Street	Concrete	2003	40	$24,384.27	$32,770.42	30	1	3		3	$819	2043
Transportation Services	Sidewalk	Cardinal Sidewalks	Asphalt	1980	25	$23,915.00	$63,430.60	0	4	3		12	$2,537	2005
Transportation Services	Sidewalk	Cardinal Sidewalks	Concrete	1980	40	$208,185.03	$552,176.49	7	4	3		12	$13,804	2020
Transportation Services	Sidewalk	Cardinal Sidewalks	Concrete	2011	40	$19,431.00	$20,614.35	38	1	3		3	$515	2051

Paved Road Paving

						113.498						$5,078,007.88	$7,323,082.62					$488,206	
Department	**Type**	**Name**	**From**	**To**	**Surface Treatment**	**Length (km)**	**Area**	**Volume**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Surface	Ann Street	Shanly Road	The end of the road	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	Benson Street	John Street	George Street	Asphalt	0.3	1,830	91.5	1980	15	$1,432.95	$3,800.66	0	4	2		8	$253	1995
Transportation Services	Surface	Beverly	The beginning of the road	County Road 21/Centre	Asphalt	0.5	3,050	152.5	1980	15	$2,388.26	$6,334.47	0	4	3		12	$422	1995
Transportation Services	Surface	Canal Street	Bridge Street	West Street	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	Cedar	Charles Street	David Street	Asphalt	0.2	600	30	1980	15	$469.82	$1,246.12	0	4	2		8	$83	1995
Transportation Services	Surface	Cedar	David Street	Centre Street	Asphalt		600	30	1980	15	$469.82	$1,246.12	0	4	2		8	$83	1995
Transportation Services	Surface	Cherry	The beginning of the road	Charles Street	Asphalt	0.1	300	15	1980	15	$234.91	$623.06	0	4	2		8	$42	1995
Transportation Services	Surface	Cherry	David Street/Irving Street	Centre Street	Asphalt		300	15	1980	15	$234.91	$623.06	0	4	2		8	$42	1995
Transportation Services	Surface	Connell Street	Adams/Ventnor Road	Henry Farm	Asphalt	0.45	2,700	135	1980	15	$2,114.19	$5,607.54	0	4	3		12	$374	1995
Transportation Services	Surface	Cook	The beginning of the road	Charles Street	Asphalt	0.15	300	15	1980	15	$234.91	$623.06	0	4	2		8	$42	1995
Transportation Services	Surface	Cook	Charles Street	David Street	Asphalt		300	15	1980	15	$234.91	$623.06	0	4	2		8	$42	1995
Transportation Services	Surface	Cook	David Street	Centre Street	Asphalt		300	15	1980	15	$234.91	$623.06	0	4	2		8	$42	1995
Transportation Services	Surface	Dishaw Street	County Road 2	Gill Street	Asphalt	0.5	3,050	152.5	1980	15	$2,388.26	$6,334.47	0	4	3		12	$422	1995
Transportation Services	Surface	Dodge Street	The beginning of the road	Shanly Road	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Dundas Street E	New Galop Canal	Victoria/Lambert Street	Asphalt	1.7	10,370	518.5	1980	15	$8,120.07	$21,537.15	0	4	3		12	$1,436	1995
Transportation Services	Surface	Edward Street	Howard Street	Adams Road	Asphalt	0.4	2,440	122	1980	15	$1,910.61	$5,067.58	0	4	2		8	$338	1995
Transportation Services	Surface	First Street	Walker Street	Shanly Road	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Frederick	County Road 2	The end of the road	Asphalt	1.6	9,760	488	1980	15	$7,642.42	$20,270.26	0	4	3		12	$1,351	1995
Transportation Services	Surface	George Street	The beginning of the road	Dundas Street East	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Henry Street	Power Plant	Dundas Street West	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	Hotel	The hotel	Spencer Street	Asphalt	0.1	600	30	1980	15	$469.82	$1,246.12	0	4	2		8	$83	1995
Transportation Services	Surface	Howard Street	Edward Street	Ventnor Road	Asphalt	0.5	3,050	152.5	1980	15	$2,388.26	$6,334.47	0	4	3		12	$422	1995
Transportation Services	Surface	James Street	Middle Street	Lewis Street	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	James Street	Lewis Street	Henry Street	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Lower Street	Dundas Street East	The end of the road	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Marjorie Street E	Dishaw Street	The end of the road	Asphalt	0.3	1,830	91.5	1980	15	$1,432.95	$3,800.66	0	4	2		8	$253	1995
Transportation Services	Surface	Meadowland Dr	Maple Street	St. Lawrence Street	Asphalt	0.5	3,050	152.5	1980	15	$2,388.26	$6,334.47	0	4	3		12	$422	1995
Transportation Services	Surface	Middle Street	The beginning of the road	Dundas Street East	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	Murray	Irving Street	Centre Street	Asphalt	0.1	600	30	1980	15	$469.82	$1,246.12	0	4	2		8	$83	1995
Transportation Services	Surface	New Street	James Street	The end of the road	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Queen/Charlotte	County Road 2	Charlotte Street	Asphalt	1.1	6,710	335.5	1980	15	$5,254.16	$13,935.79	0	4	3		12	$929	1995
Transportation Services	Surface	Railway Street	The beginning of the road	The end of the road	Asphalt		3,000	150	1980	15	$968.61	$2,569.08	0	4	2		8	$171	1995
Transportation Services	Surface	Rooney - MTO			Asphalt	0.4	3,050	152.5	1980	15	$1,910.61	$5,067.58	0	4	2		8	$338	1995
Transportation Services	Surface	Ross Spencer Ave	Linton Street	Sophia Street	Asphalt	0.2	1,220	61	1980	15	$955.30	$2,533.78	0	4	2		8	$169	1995
Transportation Services	Surface	Ryan Street	Sloan	Arena Back	Asphalt		1,013	50.625	1980	15	$792.82	$2,102.82	0	4	2		8	$140	1995
Transportation Services	Surface	Sixth	The beginning of the road	Charlotte Street	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	Victoria Street	James Street	Dundas Street East	Asphalt	0.4	2,440	122	1980	15	$1,910.61	$5,067.58	0	4	2		8	$338	1995
Transportation Services	Surface	Waddell Street	Dundas Street West	Canal Street	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	West Street	Dundas Street West	Canal Street	Asphalt	0.1	610	30.5	1980	15	$477.65	$1,266.89	0	4	2		8	$84	1995
Transportation Services	Surface	William Street	The beginning of the road	Dundas West	Asphalt	0.2	1,220	61	1980	15	$955.34	$2,533.88	0	4	2		8	$169	1995
Transportation Services	Surface	Commerce	County Road 2	The end of the road	Asphalt	0.6	3,660	183	1981	15	$13,387.15	$34,473.02	0	4	3		12	$2,298	1996
Transportation Services	Surface	Hudson Cres.	Blair Road	Judy Place	Asphalt	0.5	3,050	152.5	1984	15	$3,169.17	$7,468.36	0	4	3		12	$498	1999
Transportation Services	Surface	Judy Place	Hudson Cres	Hudson cres	Asphalt	0.35	2,100	105	1984	15	$2,182.05	$5,142.14	0	4	2		8	$343	1999
Transportation Services	Surface	Crowder	Rock Street	County Road 44	Asphalt		10,370		1989	15	$15,329.75	$31,162.23	0	4	3		12	$2,077	2004
Transportation Services	Surface	David	Cherry Street	Cook Street	Asphalt		450	22.5	1990	15	$1,439.55	$2,841.08	0	4	2		8	$189	2005
Transportation Services	Surface	David	Cook Street	Cedar Street	Asphalt		600	30	1990	15	$1,919.40	$3,788.10	0	4	2		8	$253	2005
Transportation Services	Surface	Henderson	Bennet Street	Centennial '67 Public School	Asphalt	0.068	415	20.74	1990	15	$3,710.00	$7,322.01	0	4	3		12	$488	2005
Transportation Services	Surface	Irving	South Street	Cherry Street	Asphalt		1,950	97.5	1990	15	$0.00	$0.00	0	4	1		4	$0	2005
Transportation Services	Surface	Ryan Street	Centre Street	Sloan	Asphalt	0.2	488	24.375	1990	15	$2,961.00	$5,843.79	0	4	3		12	$390	2005
Transportation Services	Surface	South Street	Water Street	Irving Street	Asphalt	0.33	11,400	570	1990	15	$4,554.24	$8,988.19	0	4	3		12	$599	2005
Transportation Services	Surface	South Street	Irving Street	Apartment Building	Asphalt		8,400	420	1990	15	$3,355.76	$6,622.88	0	4	3		12	$442	2005
Transportation Services	Surface	Water Street	Spencer Street	The Spencerville Mill	Asphalt	0.4	2,440	122	1990	15	$3,697.75	$7,297.83	0	4	3		12	$487	2005
Transportation Services	Surface	Gillis	Elizabeth Street	The end of the road	Asphalt	0.15	915	45.75	1991	15	$1,326.23	$2,541.19	0	4	2		8	$169	2006
Transportation Services	Surface	Hyndman W	Hyndman E	County Road 44	Asphalt	5.9	35,990	1799.5	1991	15	$134,722.00	$258,141.28	0	4	4		16	$17,209	2006
Transportation Services	Surface	Windmill	The beginning of the road	County Road 2	Asphalt	1.5	9,150	457.5	1991	15	$39,000.00	$74,728.03	0	4	4		16	$4,982	2006
Transportation Services	Surface	Blair S	Moore Road	County Road 44	Asphalt	0.5	3,050	152.5	1993	15	$9,976.08	$18,017.91	0	3	3		9	$1,201	2008
Transportation Services	Surface	North Channel	County Road 2	Tuttle Point	Asphalt	0.5	3,050	152.5	1993	15	$18,148.38	$32,777.99	0	3	3		9	$2,185	2008
Transportation Services	Surface	Ventnor W	Millar Road	2009 Pavement	Asphalt				1993	15	$112,354.78	$202,925.23	0	3	4		12	$13,528	2008
Transportation Services	Surface	Barbara	Glenway Avenue	Sophia Street	Asphalt	0.3	1,830	91.5	1994	15	$8,748.49	$15,340.53	0	3	3		9	$1,023	2009
Transportation Services	Surface	Brouseville W	County Road 22	Wynands/Mainsville Road	Asphalt	7.5	10,370	518.5	1994	15	$63,045.57	$110,550.79	0	3	4		12	$7,370	2009
Transportation Services	Surface	Burchell	County Road 2	The end of the road	Asphalt	0.4	2,440	122	1994	15	$13,744.12	$24,100.40	0	3	3		9	$1,607	2009
Transportation Services	Surface	Elizabeth	County Road 2	The end of the road	Asphalt	0.8	4,880	244	1994	15	$31,462.73	$55,170.09	0	3	4		12	$3,678	2009
Transportation Services	Surface	Froom	Marine Station Road	County Road 22	Asphalt	1.3	7,930	396.5	1994	15	$45,246.78	$79,340.50	0	3	4		12	$5,289	2009
Transportation Services	Surface	Goodin Town	County Road 44	Ray Gilmer	Asphalt	2.4	915	45.75	1994	15	$6,851.77	$12,014.62	0	3	3		9	$801	2009
Transportation Services	Surface	Hooker	The beginning of the road	Railway Street	Asphalt	0.2	1,220	61	1994	15	$1,817.70	$3,187.35	0	3	2		6	$212	2009
Transportation Services	Surface	Mainsville N	Brouseville Road	Pavement end	Asphalt	1.4	610	30.5	1994	15	$3,373.57	$5,915.58	0	3	3		9	$394	2009
Transportation Services	Surface	Pittston W	County Road 22	Young Road	Asphalt	5.6	6,710	335.5	1994	15	$1,879.28	$3,295.33	0	3	2		6	$220	2009
Transportation Services	Surface	Sophia	County Road 2	Sutton Drive	Asphalt	1.1	4,880	244	1994	15	$16,856.65	$29,558.24	0	3	3		9	$1,971	2009
Transportation Services	Surface	Ventnor W	Campbell	Groveton	Asphalt	4.1	14,640	732	1994	15	$42,842.72	$75,124.97	0	3	4		12	$5,008	2009
Transportation Services	Surface	Crowder	1316	Rock Street	Asphalt		14,030		1995	15	$296,247.35	$504,341.28	0	3	5		15	$33,623	2010
Transportation Services	Surface	Joseph Street	John Street	Dundas Street East	Asphalt	0.3	1,830	91.5	1995	15	$8,833.11	$15,037.78	0	3	3		9	$1,003	2010
Transportation Services	Surface	Millar E	County Road 21	Millar Road West	Asphalt	2.9	7,320	366	1995	15	$26,545.58	$45,192.07	0	3	3		9	$3,013	2010
Transportation Services	Surface	Park Street	The beginning of the road	Dundas Street East	Asphalt	0.1	610	30.5	1995	15	$4,000.18	$6,810.04	0	3	3		9	$454	2010
Transportation Services	Surface	Smith	Dukelow Road	Totem Ranch Road W	Asphalt	5.7	34,770	1738.5	1995	15	$53,414.23	$90,934.15	0	3	4		12	$6,062	2010
Transportation Services	Surface	Walker Street	County Road 2	Gill Street	Asphalt	0.6	3,660	183	1995	15	$35,370.05	$60,215.14	0	3	4		12	$4,014	2010
Transportation Services	Surface	Cedar Grove	County Road 44	Fraser Road	Asphalt	5	17,690	884.5	1996	15	$56,751.64	$93,801.81	0	3	4		12	$6,253	2011
Transportation Services	Surface	Cedar Grove	Fraser Road	Noe Road	Asphalt		4,880	244	1996	15	$41,096.01	$67,925.44	0	3	4		12	$4,528	2011
Transportation Services	Surface	Keefer	The beginning of the road	Hooker Street	Asphalt	0.1	610	30.5	1996	15	$1,760.08	$2,909.14	0	3	2		6	$194	2011
Transportation Services	Surface	Reilly	The beginning of the road	Railway Street	Asphalt	0.4	2,440	122	1996	15	$6,540.67	$10,810.73	0	3	3		9	$721	2011
Transportation Services	Surface	Riverview Lane	County Road 2	County Road 2	Asphalt	0.2	1,220	61	1996	15	$6,306.84	$10,424.25	0	3	3		9	$695	2011
Transportation Services	Surface	Charles	Cherry Street	Cedar Street	Asphalt	1.75			1997	15	$21,812.00	$35,001.86	0	3	3		9	$2,333	2012
Transportation Services	Surface	Glen Smail E	Young Road	County road 44	Asphalt	9	6,100	305	1997	15	$30,461.00	$48,880.96	0	3	3		9	$3,259	2012
Transportation Services	Surface	Goodin Town	Ray Gilmer	Cleary Road	Asphalt		13,725	686.25	1997	15	$107,772.00	$172,942.42	0	3	4		12	$11,529	2012
Transportation Services	Surface	Pittston E	Webb Road	County Road 22	Asphalt	2.8	17,080	854	1997	15	$121,297.00	$194,646.08	0	3	4		12	$12,976	2012
Transportation Services	Surface	Pittston W		Hutton Road	Asphalt				1997	15	$31,387.00	$50,366.92	0	3	3		9	$3,358	2012
Transportation Services	Surface	Weir	Augusta Town Line	Burnie Road	Asphalt	2.1	7,320		1997	15	$60,472.00	$97,039.81	0	3	4		12	$6,469	2012
Transportation Services	Surface	Buckwheat E	County Road 44	Highway 416	Asphalt	0.6	1,220	61	1998	15	$1,985.92	$3,094.00	0	3	2		6	$206	2013
Transportation Services	Surface	Holly	The beginning of the road	Sophia Street	Asphalt	0.5	3,050	152.5	1998	15	$20,542.70	$32,004.86	0	3	3		9	$2,134	2013
Transportation Services	Surface	Mary	County Road 2	The end of the road	Asphalt	0.7	4,270	213.5	1998	15	$30,394.76	$47,354.05	0	3	3		9	$3,157	2013
Transportation Services	Surface	Newport Drive	County Road 2	End	Asphalt				1998	15	$18,741.17	$29,198.13	0	3	3		9	$1,947	2013
Transportation Services	Surface	Pittston W	Hutton Road	Tutecky Road	Asphalt				1998	15	$194,910.00	$303,663.43	0	3	4		12	$20,244	2013
Transportation Services	Surface	Scott	County Road 22	Holmes Road	Asphalt	1.3	7,930	396.5	1998	15	$63,290.33	$98,604.27	0	3	4		12	$6,574	2013

Paved Road Paving

						113.498					$5,078,007.88	$7,323,082.62						$488,206	
Transportation Services	Surface	Sutton Drive	The beginning of the road	Sophia Street	Asphalt	0.4	2,440	122	1998	15	$15,802.16	$24,619.25	0	3	3		9	$1,641	2013
Transportation Services	Surface	Brouseville E	Safford Road	County Road 22	Asphalt	2.8	6,100	305	1999	15	$107,429.66	$162,497.00	1	2	4		8	$10,833	2014
Transportation Services	Surface	Brouseville W	Wynands/Mainsville Roads	Jordan Road	Asphalt		12,810	640.5	1999	15	$107,430.00	$162,497.51	1	2	4		8	$10,833	2014
Transportation Services	Surface	Cleary Road	County Road 21	Goodin Road	Asphalt	0.7	4,270	213.5	1999	15	$16,812.00	$25,429.66	1	2	3		6	$1,695	2014
Transportation Services	Surface	Fifth			Asphalt	0.4	2,440	122	1999	15	$8,229.00	$12,447.10	1	2	3		6	$830	2014
Transportation Services	Surface	Grandview Place	County Road 2	End	Asphalt	0.4	2,440	122	1999	15	$1,910.61	$2,889.97	1	2	2		4	$193	2014
Transportation Services	Surface	Hands Road	Glen Smail	End of Pavement	Asphalt		6,100	8	1999	15	$65,992.00	$99,818.82	1	2	4		8	$6,655	2014
Transportation Services	Surface	Safford			Asphalt				1999	15	$9,771.00	$14,779.51	1	2	3		6	$985	2014
Transportation Services	Surface	Sloan Street	Spencer Street	Ryan Street	Asphalt	0.4			1999	15	$13,308.00	$20,129.54	1	2	3		6	$1,342	2014
Transportation Services	Surface	Sophia	Sutton Drive	End of Street	Asphalt		1,830	91.5	1999	15	$31,971.00	$48,359.01	1	2	3		6	$3,224	2014
Transportation Services	Surface	Cedar Grove	Noe Road	Augusta Town Line	Asphalt		7,930	396.5	2000	15	$85,370.00	$125,368.72	2	2	4		8	$8,358	2015
Transportation Services	Surface	Hyndman E	Latimer Road	County Road 22	Asphalt	3	12,810	640.5	2000	15	$107,166.00	$157,376.88	2	2	4		8	$10,492	2015
Transportation Services	Surface	Pittdale	County Road 22	End	Asphalt	0.5	3,050	152.5	2000	15	$20,803.00	$30,549.91	2	2	3		6	$2,037	2015
Transportation Services	Surface	Weir	Burnie Road	County Road 21	Asphalt		2,745		2000	15	$15,830.00	$23,246.89	2	2	3		6	$1,550	2015
Transportation Services	Surface	East Street	The beginning of the road	Dundas Street East	Asphalt	0.4	2,440	122	2001	15	$6,489.00	$9,251.76	3	2	3		6	$617	2016
Transportation Services	Surface	East Street		John Street	Asphalt				2001	15	$16,480.03	$23,496.58	3	2	3		6	$1,566	2016
Transportation Services	Surface	John Street	Waste Water Treatment Plant	Lewis Street	Asphalt	0.6	3,660	183	2001	15	$13,493.00	$19,237.79	3	2	3		6	$1,283	2016
Transportation Services	Surface	Legion Way	Dundas Street West	Legion	Asphalt	1.1	4,880	244	2001	15	$1,648.00	$2,349.65	3	2	2		4	$157	2016
Transportation Services	Surface	Legion Way	Legion	The end of the road	Asphalt				2001	15	$13,247.21	$18,887.35	3	2	3		6	$1,259	2016
Transportation Services	Surface	Maple Street	The beginning of the road	St. Lawrence Street	Asphalt	0.2	1,220	61	2001	15	$824.00	$1,174.83	3	2	2		4	$78	2016
Transportation Services	Surface	Reid Street	Dundas Street East	East Street	Asphalt	0.5	3,050	152.5	2001	15	$2,266.00	$3,230.77	3	2	2		4	$215	2016
Transportation Services	Surface	Ventnor E to #22	County Road 22	Howard	Asphalt	6.6	17,080	854	2001	15	$136,586.19	$194,739.25	3	2	4		8	$12,983	2016
Transportation Services	Surface	Crowder	821	1316	Asphalt		10,980		2002	15	$91,906.37	$127,219.91	4	2	4		8	$8,481	2017
Transportation Services	Surface	Fourth E to M	Mary Street	Elizabeth Street	Asphalt	0.15	915	45.75	2002	15	$6,468.06	$8,953.31	4	2	3		6	$597	2017
Transportation Services	Surface	Fourth M to S	Sophia Street	Mary Street	Asphalt	0.1	610	30.5	2002	15	$4,312.04	$5,968.87	4	2	3		6	$398	2017
Transportation Services	Surface	Fourth W	Elizabeth Street	The end of the road	Asphalt	0.1	610	30.5	2002	15	$4,312.04	$5,968.87	4	2	3		6	$398	2017
Transportation Services	Surface	Froom	Marine Station Road	County Road 22	Asphalt	1.8	10,980	549	2002	15	$37,232.58	$51,538.60	4	2	4		8	$3,436	2017
Transportation Services	Surface	Adams	County Road 21	Edward	Asphalt	2.1	12,810	640.5	2003	15	$89,558.90	$120,359.67	5	2	4		8	$8,024	2018
Transportation Services	Surface	Brouseville W	Jordan Road	County Road 44	Asphalt		22,570	1128.5	2003	15	$60,852.77	$81,781.03	5	2	4		8	$5,452	2018
Transportation Services	Surface	Lambert	Dundas Street East	Walter Street	Asphalt	0.1			2003	15	$17,650.54	$23,720.85	5	2	3		6	$1,581	2018
Transportation Services	Surface	Ventnor E	Howard Street	Adams Road	Asphalt	6.6	5,490	274.5	2003	15	$25,258.22	$33,944.94	5	2	3		6	$2,263	2018
Transportation Services	Surface	Walter Street	Dundas Street East	The end of the road	Asphalt	0.1	610	30.5	2003	15	$17,650.54	$23,720.85	5	2	3		6	$1,581	2018
Transportation Services	Surface	Glen Smail W	Patterson Road	Township	Asphalt				2004	15	$392,080.90	$511,576.64	6	2	5		10	$34,105	2019
Transportation Services	Surface	Glen Smail W	416	Patterson Road	Asphalt				2005	15	$196,667.07	$249,131.96	7	2	4		8	$16,609	2020
Transportation Services	Surface	Gill Street	Ball Fields	Shanly Road	Asphalt	0.2	1,220	61	2006	15	$27,804.24	$34,195.71	8	2	3		6	$2,280	2021
Transportation Services	Surface	Weir			Asphalt		2,745		2006	15	$44,866.81	$55,180.52	8	2	4		8	$3,679	2021
Transportation Services	Surface	Lewis Street	James Street	John Street	Asphalt	0.1	610	30.5	2007	15	$79,088.73	$94,436.08	9	2	4		8	$6,296	2022
Transportation Services	Surface	Baker Drive	Lennox Road	County Road 44	Asphalt		1,220	62.55	2008	15	$17,964.81	$20,826.14	10	1	3		3	$1,388	2023
Transportation Services	Surface	Edison Ave	County Road 2	Greenfield Ethanol	Asphalt	0.3	1,830		2008	15	$258,762.41	$299,976.55	10	1	4		4	$19,998	2023
Transportation Services	Surface	Lennox Road	Baker Drive	County Road 21	Asphalt		1,830	91.5	2008	15	$26,947.22	$31,239.21	10	1	3		3	$2,083	2023
Transportation Services	Surface	Linton	The beginning of the road	The end of the road	Asphalt	0.3	1,830	91.5	2008	15	$31,932.59	$37,018.62	10	1	3		3	$2,468	2023
Transportation Services	Surface	Meyers	The beginning of the road	Linton Street	Asphalt	0.1	610	30.5	2008	15	$477.65	$553.73	10	1	2		2	$37	2023
Transportation Services	Surface	Munro Street	Lewis Street	William Street	Asphalt	0.1	610	30.5	2008	15	$45,426.70	$52,662.00	10	1	4		4	$3,511	2023
Transportation Services	Surface	Rooney - MTO	Rooney Road	Hwy 416	Asphalt	0.1			2008	15	$31,137.83	$36,097.28	10	1	3		3	$2,406	2023
Transportation Services	Surface	Second M to S	Sophia Street	Mary Street	Asphalt	0.2	1,220	61	2008	15	$21,549.10	$24,981.31	10	1	3		3	$1,665	2023
Transportation Services	Surface	St. Lawrence St	County Road 2	The end of the road	Asphalt	0.3	1,830	91.5	2008	15	$19,228.60	$22,291.22	10	1	3		3	$1,486	2023
Transportation Services	Surface	Helen Street	Dishaw Street	Shanly Road	Asphalt	0.2	1,220	61	2009	15	$80,520.89	$90,626.97	11	1	4		4	$6,042	2024
Transportation Services	Surface	Ventnor W	2009 Pavement	County Road 44	Asphalt		3,050	152.5	2009	15	$55,041.82	$61,950.05	11	1	4		4	$4,130	2024
Transportation Services	Surface	Crowder Rd			Asphalt				2010	15	$123,911.39	$135,401.32	12	1	4		4	$9,027	2025
Transportation Services	Surface	Hoy St	Shanly Road	The end of the road	Asphalt	0.2	1,220	61	2010	15	$26,612.71	$29,080.43	12	1	3		3	$1,939	2025
Transportation Services	Surface	Latimer Rd			Asphalt				2010	15	$42,018.18	$45,914.40	12	1	3		3	$3,061	2025
Transportation Services	Surface	Adelaide Street E	Dishaw Street	The end of the road	Asphalt	0.4	2,440	122	2011	15	$83,374.48	$88,451.99	13	1	4		4	$5,897	2026
Transportation Services	Surface	Dukelow			Asphalt				2011	15	$160,974.70	$170,778.06	13	1	4		4	$11,385	2026
Transportation Services	Surface	Goodin			Asphalt				2011	15	$71,501.75	$75,856.21	13	1	4		4	$5,057	2026
Transportation Services	Surface	Hurley			Asphalt				2011	15	$112,159.20	$118,989.70	13	1	4		4	$7,933	2026
Transportation Services	Surface	Perry Street	Dishaw Street	Shanly Road	Asphalt	0.2	1,220	61	2011	15	$69,781.03	$74,030.69	13	1	4		4	$4,935	2026

Paved Road Base

						108.593				$5,067,202.93	$10,260,721.59						$410,429	
Department	**Type**	**Name**	**From**	**To**	**Surface Treatment**	**Length (km)**	**Area**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Base	Ann Street	Shanly Road	The end of the road	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Benson Street	John Street	George Street	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Beverly	The beginning of the road	County Road 21/Centre	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Burchell	County Road 2	The end of the road	Streets	0.4	2,440	1980	25	$12,105.54	$32,107.95	0	4	3		12	$1,284	2005
Transportation Services	Base	Canal Street	Bridge Street	West Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Cedar	Charles Street	David Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	Cedar	David Street	Centre Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	Cedar Grove	County Road 44	Fraser Road	Streets	2.9	17,690	1980	25	$87,765.13	$232,782.55	0	4	4		16	$9,311	2005
Transportation Services	Base	Cedar Grove	Fraser Road	Noe Road	Streets	0.8	4,880	1980	25	$24,211.07	$64,215.87	0	4	4		16	$2,569	2005
Transportation Services	Base	Cedar Grove	Noe Road	Augusta Town Line	Streets	1.3	7,930	1980	25	$39,342.99	$104,350.80	0	4	4		16	$4,174	2005
Transportation Services	Base	Charles	Cherry Street	Cook Street	Streets	0.075	450	1980	25	$2,232.58	$5,921.55	0	4	3		12	$237	2005
Transportation Services	Base	Charles	Cook Street	Cedar Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	Cherry	The beginning of the road	Charles Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Cherry	David Street/Irving Street	Centre Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Cleary Road	County Road 21	Goodin Road	Streets	0.7	4,270	1980	25	$21,184.69	$56,188.90	0	4	4		16	$2,248	2005
Transportation Services	Base	Connell Street	Adams/Ventnor Road	Henry Farm	Streets	0.45	2,700	1980	25	$13,395.47	$35,529.28	0	4	3		12	$1,421	2005
Transportation Services	Base	Cook	The beginning of the road	Charles Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Cook	Charles Street	David Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Cook	David Street	Centre Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Crowder	County Road 22	821	Streets	0.8	4,880	1980	25	$24,211.07	$64,215.87	0	4	4		16	$2,569	2005
Transportation Services	Base	David	Cherry Street	Cook Street	Streets	0.075	450	1980	25	$2,232.58	$5,921.55	0	4	3		12	$237	2005
Transportation Services	Base	David	Cook Street	Cedar Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	Dishaw Street	County Road 2	Gill Street	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Dodge Street	The beginning of the road	Shanly Road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Dundas Street E	New Galop Canal	Victoria/Lambert Street	Streets	1.7	10,370	1980	25	$51,448.53	$136,458.75	0	4	4		16	$5,458	2005
Transportation Services	Base	East Street	The beginning of the road	Dundas Street East	Streets	0.4	2,440	1980	25	$12,105.54	$32,107.95	0	4	3		12	$1,284	2005
Transportation Services	Base	Elizabeth	County Road 2	The end of the road	Streets	0.8	4,880	1980	25	$24,211.07	$64,215.87	0	4	4		16	$2,569	2005
Transportation Services	Base	Fifth	Sophia Street	The end of the road	Streets	0.4	2,440	1980	25	$5,720.36	$15,172.31	0	4	3		12	$607	2005
Transportation Services	Base	First Street	Walker Street	Shanly Road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Fourth E to M	Mary Street	Elizabeth Street	Streets	0.15	915	1980	25	$4,539.58	$12,040.49	0	4	3		12	$482	2005
Transportation Services	Base	Fourth M to S	Sophia Street	Mary Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Fourth W	Elizabeth Street	The end of the road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Frederick	County Road 2	Canadian National Railway	Streets	1.6	9,760	1980	25	$48,422.14	$128,431.75	0	4	4		16	$5,137	2005
Transportation Services	Base	Froom	Marine Station Road	County Road 22	Streets	1.3	7,930	1980	25	$107,990.74	$286,427.65	0	4	4		16	$11,457	2005
Transportation Services	Base	Froom	Marine Station Road	County Road 22	Streets	1.8	10,980	1980	25	$54,474.91	$144,485.72	0	4	4		16	$5,779	2005
Transportation Services	Base	George Street	The beginning of the road	Dundas Street East	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Gill Street	Ball Fields	Shanly Road	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Glen Smail E	Young Road	County road 44	Streets	1	6,100	1980	25	$30,263.84	$80,269.85	0	4	4		16	$3,211	2005
Transportation Services	Base	Glen Smail W	County Road 44	416	Streets	8	48,800	1980	25	$242,110.71	$642,158.77	0	4	5		20	$25,686	2005
Transportation Services	Base	Hands Road	Glen Smail	End of Pavement	Streets	1	6,100	1980	25	$30,263.84	$80,269.85	0	4	4		16	$3,211	2005
Transportation Services	Base	Helen Street	Dishaw Street	Shanly Road	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Henderson	Bennet Street	Centennial '67 Public School	Streets	0.068	415	1980	25	$2,057.94	$5,458.35	0	4	3		12	$218	2005
Transportation Services	Base	Henry Street	Power Plant	Dundas Street West	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Holly	The beginning of the road	Sophia Street	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Hooker	The beginning of the road	Railway Street	Streets	0.2	1,220	1980	25	$6,077.57	$16,119.75	0	4	3		12	$645	2005
Transportation Services	Base	Hotel	The hotel	Spencer Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	Howard Street	Edward Street	Ventnor Road	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Hyndman E	Latimer Road	County Road 22	Streets	2.1	12,810	1980	25	$63,554.06	$168,566.67	0	4	4		16	$6,743	2005
Transportation Services	Base	Hyndman E	County Road 22	Hyndman W	Streets	0.9	5,490	1980	25	$27,237.45	$72,242.85	0	4	4		16	$2,890	2005
Transportation Services	Base	Hyndman W	Hyndman E	County Road 44	Streets	5.9	35,990	1980	25	$178,556.65	$473,592.09	0	4	4		16	$18,944	2005
Transportation Services	Base	Irving	South Street	Cherry Street	Streets	0.325	1,950	1980	25	$9,674.51	$25,660.04	0	4	3		12	$1,026	2005
Transportation Services	Base	James Street	Middle Street	Lewis Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	James Street	Lewis Street	Henry Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	John Street	Waste Water Treatment Plant	Lewis Street	Streets	0.6	3,660	1980	25	$18,158.30	$48,161.90	0	4	3		12	$1,926	2005
Transportation Services	Base	Joseph Street			Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Keefer	The beginning of the road	Hooker Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Legion Way	Dundas Street West	The end of the road	Streets	1.1	6,710	1980	25	$33,290.22	$88,296.82	0	4	4		16	$3,532	2005
Transportation Services	Base	Lewis Street	James Street	Dundas Street West	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Linton	The beginning of the road	The end of the road	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Lower Street	Dundas Street East	The end of the road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Mainsville N	Brouseville Road	Pavement end	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Maple Street	The beginning of the road	St. Lawrence Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Marjorie Street E	Dishaw Street	The end of the road	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Mary	County Road 2	The end of the road	Streets	0.7	4,270	1980	25	$21,184.69	$56,188.90	0	4	4		16	$2,248	2005
Transportation Services	Base	Meadowland Dr	Maple Street	St. Lawrence Street	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Meyers	The beginning of the road	Linton Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Middle Street	The beginning of the road	Dundas Street East	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Munro Street	Lewis Street	William Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Murray	Irving Street	Centre Street	Streets	0.1	600	1980	25	$2,976.77	$7,895.39	0	4	3		12	$316	2005
Transportation Services	Base	New Street	James Street	The end of the road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	North Channel	County Road 2	Tuttle Point	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Park Street	The beginning of the road	Dundas Street East	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Pittdale	County Road 22	End	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Pittston E	Webb Road	County Road 22	Streets	2.8	17,080	1980	25	$84,738.75	$224,755.57	0	4	4		16	$8,990	2005
Transportation Services	Base	Pittston W	County Road 22	County Road 44	Streets	1.1	6,710	1980	25	$33,290.22	$88,296.82	0	4	4		16	$3,532	2005
Transportation Services	Base	Pittston W			Streets	4.5	27,450	1980	25	$136,187.27	$361,214.30	0	4	4		16	$14,449	2005
Transportation Services	Base	Queen/Charlotte	County Road 2	Charlotte Street	Streets	1.1	6,710	1980	25	$33,290.22	$88,296.82	0	4	4		16	$3,532	2005
Transportation Services	Base	Railway Street	The beginning of the road	The end of the road	Streets	0.5	3,000	1980	25	$14,883.86	$39,476.99	0	4	3		12	$1,579	2005
Transportation Services	Base	Reid Street	Dundas Street East	East Street	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Reilly	The beginning of the road	Railway Street	Streets	0.4	2,440	1980	25	$12,105.54	$32,107.95	0	4	3		12	$1,284	2005
Transportation Services	Base	Riverview Lane	County Road 2	County Road 2	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Rooney - MTO	Rooney Road	Hwy 416	Streets	0.5	3,050	1980	25	$15,131.92	$40,134.92	0	4	3		12	$1,605	2005
Transportation Services	Base	Ross Spencer Ave	Linton Street	Sophia Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Ryan Street	Centre Street	Sloan	Streets	0.065	488	1980	25	$2,418.63	$6,415.02	0	4	3		12	$257	2005
Transportation Services	Base	Ryan Street	Sloan	Arena Back	Streets	0.135	1,013	1980	25	$5,023.30	$13,323.48	0	4	3		12	$533	2005

Paved Road Base

						108.593				$5,067,202.93	$10,260,721.59						$410,429	
Transportation Services	Base	Scott	County Road 22	Holmes Road	Streets	1.3	7,930	1980	25	$39,342.99	$104,350.80	0	4	4		16	$4,174	2005
Transportation Services	Base	Second E to M	Mary Street	Elizabeth Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Second M to S	Sophia Street	Mary Street	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Second W	Elizabeth Street	The end of the road	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Sixth	The beginning of the road	Charlotte Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Sloan Street	Spencer Street	South Street	Streets	0.05	300	1980	25	$1,488.39	$3,947.71	0	4	2		8	$158	2005
Transportation Services	Base	Sloan Street	South Street	Ryan Street	Streets	0.35	2,100	1980	25	$10,418.70	$27,633.89	0	4	3		12	$1,105	2005
Transportation Services	Base	Sophia	County Road 2	Sutton Drive	Streets	0.8	4,880	1980	25	$24,211.07	$64,215.87	0	4	4		16	$2,569	2005
Transportation Services	Base	Sophia	Sutton Drive	End of Street	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	South Street	Water Street	Centre Street	Streets	1.9	11,400	1980	25	$56,558.65	$150,012.50	0	4	4		16	$6,001	2005
Transportation Services	Base	South Street	Centre Street	Apartment Building	Streets	1.4	8,400	1980	25	$41,674.79	$110,535.51	0	4	4		16	$4,421	2005
Transportation Services	Base	St. Lawrence St	County Road 2	The end of the road	Streets	0.3	1,830	1980	25	$9,079.15	$24,080.95	0	4	3		12	$963	2005
Transportation Services	Base	Sutton Drive	The beginning of the road	Sophia Street	Streets	0.4	2,440	1980	25	$12,105.54	$32,107.95	0	4	3		12	$1,284	2005
Transportation Services	Base	Ventnor E	Howard Street	Adams Road	Streets	0.9	5,490	1980	25	$27,237.45	$72,242.85	0	4	4		16	$2,890	2005
Transportation Services	Base	Ventnor E to #22	County Road 22	Howard	Streets	2.8	17,080	1980	25	$84,738.75	$224,755.57	0	4	4		16	$8,990	2005
Transportation Services	Base	Ventnor W	Campbell	Groveton	Streets	2.4	14,640	1980	25	$72,633.21	$192,647.62	0	4	4		16	$7,706	2005
Transportation Services	Base	Victoria Street	James Street	Dundas Street East	Streets	0.4	2,440	1980	25	$12,105.54	$32,107.95	0	4	3		12	$1,284	2005
Transportation Services	Base	Waddell Street	Dundas Street West	Canal Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Walker Street	County Road 2	Gill Street	Streets	0.6	3,660	1980	25	$18,158.30	$48,161.90	0	4	3		12	$1,926	2005
Transportation Services	Base	Walter Street	Dundas Street East	The end of the road	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	Water Street	Spencer Street	The Spencerville Mill	Streets	0.4	2,440	1980	25	$1,617.38	$4,289.83	0	4	2		8	$172	2005
Transportation Services	Base	Weir	Augusta Town Line	Burnie Road	Streets	1.2	7,320	1980	25	$36,316.61	$96,323.82	0	4	4		16	$3,853	2005
Transportation Services	Base	Weir	Burnie Road	County Road 21	Streets	0.45	2,745	1980	25	$13,618.73	$36,121.44	0	4	3		12	$1,445	2005
Transportation Services	Base	Weir			Streets	0.45	2,745	1980	25	$13,618.73	$36,121.44	0	4	3		12	$1,445	2005
Transportation Services	Base	West Street	Dundas Street West	Canal Street	Streets	0.1	610	1980	25	$3,026.38	$8,026.97	0	4	3		12	$321	2005
Transportation Services	Base	William Street	The beginning of the road	Dundas West	Streets	0.2	1,220	1980	25	$6,052.77	$16,053.98	0	4	3		12	$642	2005
Transportation Services	Base	Windmill	The beginning of the road	County Road 2	Streets	1.5	9,150	1980	25	$45,395.76	$120,404.77	0	4	4		16	$4,816	2005
Transportation Services	Base	Commerce	County Road 2	The end of the road	Streets	0.6	3,660	1981	25	$20,733.91	$53,391.53	0	4	4		16	$2,136	2006
Transportation Services	Base	Hudson Cres.	Blair Road	Judy Place	Streets	0.5	3,050	1984	25	$20,079.74	$47,319.22	0	4	3		12	$1,893	2009
Transportation Services	Base	Judy Place	Hudson Cres	Hudson cres	Streets	0.35	2,100	1984	25	$13,825.39	$32,580.44	0	4	3		12	$1,303	2009
Transportation Services	Base	Edward Street	Howard Street	Adams Road	Streets	0.4	2,440	1987	25	$19,892.97	$42,901.01	0	4	3		12	$1,716	2012
Transportation Services	Base	Barbara	Glenway Avenue	Sophia Street	Streets	0.3	1,830	1989	25	$17,140.38	$34,842.86	1	3	3		9	$1,394	2014
Transportation Services	Base	Crowder	Rock Street	County Road 44	Streets	1.7	10,370	1989	25	$97,128.83	$197,442.91	1	3	4		12	$7,898	2014
Transportation Services	Base	Gillis	Elizabeth Street	The end of the road	Streets	0.15	915	1991	25	$8,402.98	$16,100.98	3	3	3		9	$644	2016
Transportation Services	Base	Blair S	Moore Road	County Road 44	Streets	0.5	3,050	1993	25	$28,049.05	$50,659.70	5	3	3		9	$2,026	2018
Transportation Services	Base	Goodin Town	County Road 44	Ray Gilmer	Streets	0.15	915	1993	25	$8,414.72	$15,197.92	5	3	3		9	$608	2018
Transportation Services	Base	Millar E	County Road 21	Millar Road West	Streets	1.2	7,320	1995	25	$98,672.43	$167,983.21	7	3	4		12	$6,719	2020
Transportation Services	Base	Smith	Dukelow Road	Totem Ranch Road W	Streets	5.7	34,770	1995	25	$338,430.87	$576,155.90	7	3	5		15	$23,046	2020
Transportation Services	Base	Brouseville E	Safford Road	County Road 22	Streets	1	6,100	1996	25	$60,498.34	$99,994.54	8	3	4		12	$4,000	2021
Transportation Services	Base	Brouseville W	County Road 22	Wynands/Mainsville Road	Streets	1.7	10,370	1996	25	$102,847.18	$169,990.72	8	3	4		12	$6,800	2021
Transportation Services	Base	Brouseville W	Wynands/Mainsville Roads	Jordan Road	Streets	2.1	12,810	1996	25	$127,046.52	$209,988.54	8	3	4		12	$8,400	2021
Transportation Services	Base	Brouseville W	Jordan Road	County Road 44	Streets	3.7	22,570	1996	25	$223,843.87	$369,979.81	8	3	4		12	$14,799	2021
Transportation Services	Base	Goodin Town	Ray Gilmer	Cleary Road	Streets	2.25	13,725	1997	25	$138,981.42	$223,024.38	9	3	4		12	$8,921	2022
Transportation Services	Base	Newport Drive	County Road 2	End	Streets			1997	25	$41,953.08	$67,322.38	9	3	4		12	$2,693	2022
Transportation Services	Base	Buckwheat E	County Road 44	Highway 416	Streets	0.2	1,220	1998	25	$12,582.72	$19,603.47	10	1	3		3	$784	2023
Transportation Services	Base	Grandview Place	County Road 2	End	Streets	0.4	2,440	1999	25	$25,775.60	$38,987.91	11	1	3		3	$1,560	2024
Transportation Services	Base	Baker Drive	Lennox Road	County Road 44	Streets	0.2	1,220	2002	25	$27,449.94	$37,997.14	14	1	3		3	$1,520	2027
Transportation Services	Base	Crowder	821	1316	Streets	1.8	10,980	2002	25	$76,347.96	$105,683.43	14	1	4		4	$4,227	2027
Transportation Services	Base	Lennox Road	The beginning of the road	County Road 21	Streets	0.3	1,830	2002	25	$41,174.92	$56,995.72	14	1	4		4	$2,280	2027
Transportation Services	Base	Adams	County Road 21	Edward	Streets	2.1	12,810	2003	25	$64,741.78	$87,007.54	15	1	4		4	$3,480	2028
Transportation Services	Base	Lambert	Dundas Street East	Walter Street	Streets	0.1	610	2003	25	$7,650.54	$10,281.69	15	1	3		3	$411	2028
Transportation Services	Base	Frederick	Canadian National Railway	The end of the road	Streets			2007	25	$51,523.99	$61,522.34	19	1	4		4	$2,461	2032
Transportation Services	Base	Crowder	1316	Armstrong	Streets	2.3	14,030	2008	25	$279,299.40	$323,784.55	20	1	4		4	$12,951	2033
Transportation Services	Base	Edison Ave	County Road 2	Greenfield Ethanol	Streets	0.3	1,830	2008	25	$185,783.00	$215,373.42	20	1	4		4	$8,615	2033
Transportation Services	Base	Hoy Street	Shanly Road	The end of the road	Streets	0.2	1,220	2008	25	$6,052.77	$7,016.82	20	1	3		3	$281	2033
Transportation Services	Base	Ventnor W	2009 Pavement	County Road 44	Streets	0.5	3,050	2009	25	$126,138.78	$141,970.31	21	1	4		4	$5,679	2034
Transportation Services	Base	Dukelow			Streets			2010	25	$147,283.00	$160,940.11	22	1	4		4	$6,438	2035
Transportation Services	Base	Goodin			Streets			2010	25	$65,807.00	$71,909.09	22	1	4		4	$2,876	2035
Transportation Services	Base	Hurley			Streets			2010	25	$100,278.06	$109,576.54	22	1	4		4	$4,383	2035
Transportation Services	Base	Adelaide Street E	Dishaw Street	The end of the road	Streets	0.4	2,440	2011	25	$45,401.85	$48,166.82	23	1	4		4	$1,927	2036
Transportation Services	Base	Perry Street	Dishaw Street	Shanly Road	Streets	0.2	1,220	2011	25	$48,563.04	$51,520.53	23	1	4		4	$2,061	2036

Gravel Roads

						87.63	209	64				$2,466,977.92	$6,477,391.22						$259,096	
Department	**Type**	**Name**	**From**	**To**	**Surface Treatment**	**Length (km)**	**Culverts**	**Sections**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	**Risk**	**Investement/year**	**Trigger**
Transportation Services	Road	Adams	County Road 21	Edward Street	Gravel	2.1	3	2	1980	25	$59,119.61	$156,805.03	0	2	4		8	$6,272	2005
Transportation Services	Road	Adams	Edward Street	Ventnor Road	Gravel														
Transportation Services	Road	Armstrong	Crowder Road	Rock Street	Gravel	2.6	6	2	1980	25	$73,195.71	$194,139.56	0	2	4		8	$7,766	2005
Transportation Services	Road	Armstrong	Rock Street	County Road 21	Gravel														
Transportation Services	Road	Blair N	County Road 44	Scott Road	Gravel	1.7	6	1	1980	25	$47,858.73	$126,937.40	0	2	4		8	$5,077	2005
Transportation Services	Road	Brouseville E	Safford Road	County Road 22	Gravel	2.8	10	1	1980	25	$78,826.15	$209,073.37	0	2	4		8	$8,363	2005
Transportation Services	Road	Buckwheat E	County Road 44	The end of the road	Gravel	0.6		1	1980	25	$16,891.32	$44,801.44	0	2	3		6	$1,792	2005
Transportation Services	Road	Buckwheat W	Smith Road	Abandoned Rail Line	Gravel	2.2	3	2	1980	25	$61,934.83	$164,271.93	0	2	4		8	$6,571	2005
Transportation Services	Road	Burnie	The beginning of the road	Weir Road	Gravel	0.7	2	1	1980	25	$19,706.54	$52,268.34	0	2	3		6	$2,091	2005
Transportation Services	Road	Byers Road	County Road 22	Mainsville Road	Gravel	3.1	11	2	1980	25	$87,271.81	$231,474.09	0	2	4		8	$9,259	2005
Transportation Services	Road	Byers Road	Mainsville Road	The end of the road	Gravel														
Transportation Services	Road	Byker	County Road 21	Pitt Road	Gravel	0.7	3	2	1980	25	$19,706.54	$52,268.34	0	2	4		8	$2,091	2005
Transportation Services	Road	Byker	Pitt Road	Dobbie Road	Gravel														
Transportation Services	Road	Campbell	Ventnor Road	Hyndman Road	Gravel	3.6	8	1	1980	25	$101,347.90	$268,808.62	0	2	4		8	$10,752	2005
Transportation Services	Road	Chambers	Safford Road	County Road 22	Gravel	2.5	6	1	1980	25	$70,380.49	$186,672.65	0	2	4		8	$7,467	2005
Transportation Services	Road	Connell	County Road 21	Henry Farm	Gravel	3.1	10	1	1980	25	$87,271.81	$231,474.09	0	2	4		8	$9,259	2005
Transportation Services	Road	Cucman	Hyndman Road	The end of the road	Gravel	0.25	1	1	1980	25	$7,038.05	$18,667.27	0	2	3		6	$747	2005
Transportation Services	Road	Dobbie	Byker Road	County Road 22	Gravel	2.9	4	2	1980	25	$81,641.37	$216,540.28	0	2	4		8	$8,662	2005
Transportation Services	Road	Dukelow	Hurley Road	The end of the road	Gravel				1980	25	$0.00	$0.00	0	2	1		2	$0	2005
Transportation Services	Road	Fraser	Cedar Grove Road	The end of the road	Gravel	0.4		1	1980	25	$11,260.88	$29,867.62	0	2	3		6	$1,195	2005
Transportation Services	Road	Galop Canal	County Road 2	The end of the road	Gravel	0.4	2	1	1980	25	$11,260.88	$29,867.62	0	2	3		6	$1,195	2005
Transportation Services	Road	Glen Smail E	The beginning of the road	Young Road	Gravel	1.5	4	2	1980	25	$42,228.29	$112,003.59	0	2	4		8	$4,480	2005
Transportation Services	Road	Glen Smail E	Young Road	County Road 44	Gravel														
Transportation Services	Road	Goodin E	County Road 44	Hwy 416	Gravel	0.9	2	1	1980	25	$25,336.98	$67,202.15	0	2	4		8	$2,688	2005
Transportation Services	Road	Groveton	Ventnor Road	County Road 44	Gravel	3.7	4	1	1980	25	$104,163.12	$276,275.53	0	2	4		8	$11,051	2005
Transportation Services	Road	Hands E	The beginning of the road	Hands W	Gravel	1.6	5	1	1980	25	$45,043.51	$119,470.50	0	2	4		8	$4,779	2005
Transportation Services	Road	Hands W	Hands E	Glen Smail W	Gravel	1.3	1	1	1980	25	$36,597.85	$97,069.78	0	2	4		8	$3,883	2005
Transportation Services	Road	Holmes	Scott Road	The end of the road	Gravel	0.4	0	1	1980	25	$11,260.88	$29,867.62	0	2	3		6	$1,195	2005
Transportation Services	Road	Hutton	The beginning of the road	Pittston Road	Gravel	0.3	2	1	1980	25	$8,445.66	$22,400.72	0	2	3		6	$896	2005
Transportation Services	Road	Jochem E	County Road 44	Jochem W	Gravel	1.65	3	1	1980	25	$46,451.12	$123,203.95	0	2	4		8	$4,928	2005
Transportation Services	Road	Jochem W	Jochem E	Smith Road	Gravel	0.45	2	2	1980	25	$12,668.49	$33,601.08	0	2	3		6	$1,344	2005
Transportation Services	Road	Jochem W	Smith Road	The end of the road	Gravel														
Transportation Services	Road	Jordan	County Road 22	Wynands Road	Gravel	4.5	10	4	1980	25	$126,684.88	$336,010.77	0	2	4		8	$13,440	2005
Transportation Services	Road	Jordan	Wynands Road	Rooney Road	Gravel														
Transportation Services	Road	Jordan	Rooney Road	Brouseville Road	Gravel														
Transportation Services	Road	Jordan	Brouseville Road	The end of the road	Gravel														
Transportation Services	Road	Kain	Safford Road	County Road 22	Gravel	2.6	9	1	1980	25	$73,195.71	$194,139.56	0	2	4		8	$7,766	2005
Transportation Services	Road	Latimer	Hyndman Road	County Road 22	Gravel	2.5	5		1980	25	$70,380.49	$186,672.65	0	2	4		8	$7,467	2005
Transportation Services	Road	Liezert	The beginning of the road	County Road 22	Gravel	1.1	4	1	1980	25	$30,967.42	$82,135.97	0	2	4		8	$3,285	2005
Transportation Services	Road	Mainsville N	Brouseville Road	Byers Road	Gravel	1.4	4	1	1980	25	$39,413.07	$104,536.69	0	2	4		8	$4,181	2005
Transportation Services	Road	Marine Station	County Road 2	Froom Road	Gravel	2.2	9		1980	25	$61,934.83	$164,271.93	0	2	4		8	$6,571	2005
Transportation Services	Road	Martelle			Gravel	0.2	2	1	1980	25	$5,630.44	$14,933.81	0	2	3		6	$597	2005
Transportation Services	Road	McNeilly	County Road 44	The end of the road	Gravel	1.5	1	1	1980	25	$42,228.29	$112,003.59	0	2	4		8	$4,480	2005
Transportation Services	Road	Millar E	County Road 21	Millar Road W	Gravel	2.9	7	1	1980	25	$81,641.37	$216,540.28	0	2	4		8	$8,662	2005
Transportation Services	Road	Millar E	Millar Road W	Ventnor Road	Gravel														
Transportation Services	Road	Millar W	Millar Road E	The end of the road	Gravel	1.2	4	1	1980	25	$33,782.63	$89,602.87	0	2	4		8	$3,584	2005
Transportation Services	Road	Moulton	Crowder Road	Unmaintained	Gravel	0.1	0	1	1980	25	$2,815.22	$7,466.91	0	2	3		6	$299	2005
Transportation Services	Road	Newman Road	County Road 44	The end of the road	Gravel	0.6	1	1	1980	25	$16,891.32	$44,801.44	0	2	3		6	$1,792	2005
Transportation Services	Road	Noe	Cedar Grove Road	The end of the road	Gravel	1.3	6	1	1980	25	$36,597.85	$97,069.78	0	2	4		8	$3,883	2005
Transportation Services	Road	Patterson	Glen Smail Road	Skakum Road	Gravel	1.3	3	1	1980	25	$36,597.85	$97,069.78	0	2	4		8	$3,883	2005
Transportation Services	Road	Patterson	Skakum road	Skakum Road	Gravel	0.6	3		1980	25	$16,891.32	$44,801.44	0	2	3		6	$1,792	2005
Transportation Services	Road	Pitt	County Road 22	The end of the road	Gravel	0.5	2	1	1980	25	$14,076.10	$37,334.53	0	2	3		6	$1,493	2005
Transportation Services	Road	Rock Street	Crowder Road	Armstrong Road	Gravel	2.4	4	1	1980	25	$67,565.27	$179,205.75	0	2	4		8	$7,168	2005
Transportation Services	Road	Rooney	Jordan Road	Rooney-MTO	Gravel	7.2	14	2	1980	25	$202,695.81	$537,617.24	0	2	5		10	$21,505	2005
Transportation Services	Road	Rooney	Rooney-MTO	County Road 44	Gravel														
Transportation Services	Road	Schuttens	Schuttens Farm	County Road 21	Gravel	0.5		1	1980	25	$14,076.10	$37,334.53	0	2	3		6	$1,493	2005
Transportation Services	Road	Scott	County Road 22	Holmes Road	Gravel	1.2	5	2	1980	25	$33,782.63	$89,602.87	0	2	4		8	$3,584	2005
Transportation Services	Road	Scott	Holmes Road	Blair Road	Gravel														
Transportation Services	Road	Totem W	Smith Road	Birchview Lane	Gravel	2.3	9	2	1980	25	$64,750.05	$171,738.84	0	2	4		8	$6,870	2005
Transportation Services	Road	Totem W	Birchview Lane	Abandoned Rail Line	Gravel														
Transportation Services	Road	Tutecky	The beginning of the road	Pittston Road	Gravel	0.3		1	1980	25	$8,445.66	$22,400.72	0	2	3		6	$896	2005
Transportation Services	Road	Wey	County Road 21	South Nation River	Gravel	0.1	1	1	1980	25	$2,815.22	$7,466.91	0	2	3		6	$299	2005
Transportation Services	Road	Woodhead	The beginning of the road	County Road 21	Gravel	0.6		1	1980	25	$16,891.32	$44,801.44	0	2	3		6	$1,792	2005
Transportation Services	Road	Wynands	Jordan Road	Brouseville Road	Gravel	2.24	6	1	1980	25	$63,060.92	$167,258.70	0	2	4		8	$6,690	2005
Transportation Services	Road	Wynands	Jordan Road	Brouseville Road	Gravel	2.24			1980	25	$63,060.92	$167,258.70	0	2	4		8	$6,690	2005
Transportation Services	Road	Young	Glen Smail Road	Pittston Road	Gravel	1.1	2	1	1980	25	$30,967.42	$82,135.97	0	2	4		8	$3,285	2005
Transportation Services	Road	Legion Way	Legion	Canal cut	Gravel	1.1		1	2010	25	$30,967.42	$33,838.93	22	1	3		3	$1,354	2035
Transportation Services	Road	Station Road	County Road 22	End	Gravel	0.4		1	2010	25	$11,260.88	$12,305.07	22	1	3		3	$492	2035
Transportation Services	Road	Unopened			Surface treated				1850	10	$1.00	$1.00	0	3	1		3	$0	1860

Street Lights

					$192,230.64	$362,566.29						$14,503	
Department	**Type**	**Quanitity**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Street Lights	3	1981	25	$2,004.60	$5,162.01	0	4	2		8	$206	2006
Transportation Services	Street Lights	1	1983	25	$516.95	$1,254.77	0	4	2		8	$50	2008
Transportation Services	Street Lights	7	1986	25	$4,010.52	$8,908.52	0	3	3		9	$356	2011
Transportation Services	Street Lights		1991	25	$172,062.75	$329,690.02	3	3	4		12	$13,188	2016
Transportation Services	Street Lights	3	1996	25	$1,386.12	$2,291.04	8	2	2		4	$92	2021
Transportation Services	Street Lights	1	1997	25	$766.71	$1,230.35	9	2	2		4	$49	2022
Transportation Services	Street Lights	2	2001	25	$3,211.26	$4,578.48	13	1	2		2	$183	2026
Transportation Services	Street Lights	1	2007	25	$709.99	$847.77	19	1	2		2	$34	2032
Transportation Services	Street Lights	4	2008	25	$3,604.04	$4,178.07	20	1	2		2	$167	2033
Transportation Services	Street Lights	3	2009	25	$3,067.70	$3,452.72	21	1	2		2	$138	2034
Transportation Services	Street Lights		2010	25	$890.00	$972.53	22	1	2		2	$39	2035

Water Mains

										$500.00							
						12118.0			$2,047,705.07	$6,420,561.25						$107,009	
Department	**Village**	**Pipe Node**	**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	WMPPS		Raw Water Line	2008	60				$270,217.50	$313,256.14	55	1	4		4	$5,221	2068
Environmental Services	Industrial Park		Riverview Crescent	1998	60		150	PVC	$31,005.21	$48,305.11	45	1	3		3	$805	2058
Environmental Services	Cardinal	P-105	New St.(John St. North)	1940	60	69	150	Cast Iron	$794.75	$34,500.00	0	4	3		12	$575	2000
Environmental Services	Cardinal	P-115	John S. to John N. (Under railroad tracks at New St.)	1940	60	17.5	150	Cast Iron	$163.63	$8,750.00	0	4	3		12	$146	2000
Environmental Services	Cardinal	P-163	Munro St. (William St. to Henry St.)	1940	60	85.5	200	Cast Iron	$1,233.27	$42,750.00	0	4	3		12	$713	2000
Environmental Services	Cardinal	P-168	Victoria St. (John St. to Dundas St.)	1940	60	175	150	Cast Iron	$2,563.77	$87,500.00	0	4	4		16	$1,458	2000
Environmental Services	Cardinal	P-191	Dundas/West to Canal/West	1940	60	110	100	Cast Iron	$1,447.38	$55,000.00	0	4	5		20	$917	2000
Environmental Services	Cardinal	P-53	William St. (Dundas St. to Munro St.)	1940	60	118	200	Cast Iron	$2,008.38	$59,000.00	0	4	4		16	$983	2000
Environmental Services	Cardinal	P-62	James St. (New St. to Victoria St.)	1940	60	84.5	200	Cast Iron	$887.32	$42,250.00	0	4	3		12	$704	2000
Environmental Services	Cardinal	P-67	New St. (James St. to John St.)	1940	60	92.5	100	Cast Iron	$1,066.84	$46,250.00	0	4	3		12	$771	2000
Environmental Services	Cardinal	P-69	Victoria (James St. to John St.)	1940	60	97	150	Cast Iron	$1,363.23	$48,500.00	0	4	3		12	$808	2000
Environmental Services	Cardinal	P-82	Middle/John to Dundas/Middle	1940	60	221	100	Cast Iron	$3,412.75	$110,500.00	0	4	4		16	$1,842	2000
Environmental Services	Cardinal	P-161	Hwy 2 (Shanly Rd to Walker St.)	1953	60	133	150	Cast Iron	$3,376.58	$66,500.00	0	5	5		25	$1,108	2013
Environmental Services	Cardinal	P-164	Henry St. (Munro St. to Dundas St.)	1953	60	95	100	Cast Iron	$2,832.86	$47,500.00	0	4	3		12	$792	2013
Environmental Services	Cardinal	P-17	Hwy # 2 (Shanly Rd to Hwy # 2 west limit)	1953	60	412	150	Cast Iron	$10,023.36	$206,000.00	0	5	5		25	$3,433	2013
Environmental Services	Cardinal	P-183	Henry St. (James St. to Sithe Energy)	1953	60	25			$492.50	$12,500.00	0	4	3		12	$208	2013
Environmental Services	Cardinal	P-42	Hwy #2 (Walker St. to Dishaw St.)	1953	60	148.5	200	Cast Iron	$3,461.29	$74,250.00	0	5	5		25	$1,238	2013
Environmental Services	Cardinal	P-59	Henry St. (Munro St. to James St.)	1953	60	77	200	Cast Iron	$3,187.46	$38,500.00	0	4	3		12	$642	2013
Environmental Services	Cardinal	P-60	James St. (Henry St. to Lewis St.)	1953	60	65	200	Cast Iron	$1,706.02	$32,500.00	0	4	3		12	$542	2013
Environmental Services	Cardinal	P-61	James St. (Lewis St. to New St.)	1953	60	96	200	Cast Iron	$3,152.00	$48,000.00	0	4	3		12	$800	2013
Environmental Services	Cardinal	P-133	Walker St.(Helen St. to Perry St.)	1956	60	92	150	Cast Iron	$3,158.40	$46,000.00	3	4	3		12	$767	2016
Environmental Services	Cardinal	P-151	Gill St. (Walker St. to Shanly Rd.)	1956	60	134	150	Cast Iron	$4,947.60	$67,000.00	3	4	4		16	$1,117	2016
Environmental Services	Cardinal	P153	Walker St (Helen St. to Marjorie St.)	1956	60	79.5	150	Cast Iron	$2,895.90	$39,750.00	3	4	3		12	$663	2016
Environmental Services	Cardinal	P-156	Walker St. (Adelaide St. to Marjorie St.)	1956	60	83.5	150	Cast Iron	$2,979.90	$41,750.00	3	4	3		12	$696	2016
Environmental Services	Cardinal	P-158	Walker St. (Adelaide St. to Hwy 2)	1956	60	83.5	150	Cast Iron	$3,198.30	$41,750.00	3	4	3		12	$696	2016
Environmental Services	Cardinal	P-23	Fire Hydrant # 1 to Dishaw/Helen	1956	60	35	200	Cast Iron	$1,709.40	$17,500.00	3	4	3		12	$292	2016
Environmental Services	Cardinal	P-28	Dishaw St. (Helen St. to Marjorie St.)	1956	60	83	200	Cast Iron	$1,978.20	$41,500.00	3	4	3		12	$692	2016
Environmental Services	Cardinal	P-29	Dishaw St. (Marjorie St. to Adelaide St. N Valve)	1956	60	69.5	200	Cast Iron	$2,669.10	$34,750.00	3	4	3		12	$579	2016
Environmental Services	Cardinal	P-32	Dishaw St. (Adelaide St. N Valve to Adelaide St. S Valve	1956	60	12.5	150	Cast Iron	$262.50	$6,250.00	3	4	3		12	$104	2016
Environmental Services	Cardinal	P-43	Dishaw St. (Adelaide S Valve to Hwy # 2)	1956	60	74.5	200	Cast Iron	$2,421.30	$37,250.00	3	4	3		12	$621	2016
Environmental Services	Cardinal	P-5	Walker St. (Gill St. to First St.)	1956	60	80.5	150	Cast Iron	$3,269.70	$40,250.00	3	4	3		12	$671	2016
Environmental Services	Cardinal	P-7	Walker St. (First St. to Perry St.)	1956	60	84	150	Cast Iron	$2,973.60	$42,000.00	3	4	3		12	$700	2016
Environmental Services	Cardinal	P-91	Benson (John St. to Reid St.)	1958	60	159	100	Ductile Iron	$5,282.15	$79,500.00	5	4	4		16	$1,325	2018
Environmental Services	Cardinal	P-94	Joseph St. (Dundas St. to George St.)	1958	60	81.5	150	Cast Iron	$3,094.98	$40,750.00	5	4	3		12	$679	2018
Environmental Services	Cardinal	P-95	Benson St. (Reid St. to George St. includes George)	1958	60	132.5	150	Cast Iron	$4,728.13	$66,250.00	5	4	4		16	$1,104	2018
Environmental Services	Cardinal	P-96	Joseph St. (George St. to Reid St.)	1958	60	95	150	Cast Iron	$3,911.55	$47,500.00	5	4	3		12	$792	2018
Environmental Services	Cardinal	P-162	Hwy 2 (Shanly Rd to Dundas St. connection)	1960	60	97.5	150	Cast Iron	$2,429.63	$48,750.00	7	4	3		12	$813	2020
Environmental Services	Cardinal	P-219	Dundas St.(East Node Dundas St. W to J-101)	1960	60	103	200	Cast Iron	$4,289.25	$51,500.00	7	4	4		16	$858	2020
Environmental Services	Cardinal	P-220	Dundas St.(J-101 to West St.)	1960	60	103	200	Cast Iron	$4,745.25	$51,500.00	7	4	4		16	$858	2020
Environmental Services	Cardinal	P-204	Hwy # 2 (St. Lawrence St to J-92)	1961	60	722	200	AC	$26,239.62	$361,000.00	8	4	4		16	$6,017	2021
Environmental Services	Cardinal	P-44	Hwy #2 (Dishaw St. to St. Lawrence St.)	1961	60	214.5	200	A.C.	$6,114.44	$107,250.00	8	5	5		25	$1,788	2021
Environmental Services	Cardinal	P-118	Hwy # 2 (North Reducer to Sample Stn E)	1969	60	148	100	PVC	$7,551.50	$74,000.00	16	5	5		25	$1,233	2029
Environmental Services	Cardinal	P152	Hoy St. (Shanly to dead end)	1969	60	149.5	150	Cast Iron	$7,877.59	$74,750.00	16	2	4		8	$1,246	2029
Environmental Services	Cardinal	P-138	Adelaide St. (Shanly to Adelaide W.)	1972	60	212.5	150	Cast Iron	$16,331.88	$106,250.00	19	2	4		8	$1,771	2032
Environmental Services	Cardinal	P-150	Perry St. (Walker St. to Shanly Rd.)	1972	60	135.5	150	PVC	$8,133.13	$67,750.00	19	2	4		8	$1,129	2032
Environmental Services	Cardinal	P-157	Adelaide St. (Walker St. to Dishaw St.)	1974	60	144.5	150	PVC	$11,712.74	$72,250.00	21	1	4		4	$1,204	2034
Environmental Services	Cardinal	P-154	Marjorie St. (/Walker St. to Dishaw St.)	1975	60	143.5	150	PVC	$15,595.86	$71,750.00	22	1	4		4	$1,196	2035
Environmental Services	Cardinal	P-155	Adelaide St. (Walker St. to Shanly Rd connection)	1976	60	124.5	100	PVC	$10,340.96	$62,250.00	23	1	4		4	$1,038	2036
Environmental Services	Cardinal	P-6	First St. (Walker St. to 110 m West on First St.)	1977	60	110	100	PVC	$9,767.45	$55,000.00	24	1	4		4	$917	2037
Environmental Services	Cardinal	P-210	Reid St.(Dundas St. to J-96	1979	60	78	150	PVC	$9,332.67	$39,000.00	26	1	3		3	$650	2039
Environmental Services	Cardinal	P-211	Reid St.(J-96 to J97)	1979	60	78	150	PVC	$8,616.89	$39,000.00	26	1	3		3	$650	2039
Environmental Services	Cardinal	P-212	Reid St.(J-97 to George St. Cul-de-sac)	1979	60	79	150	PVC	$10,612.82	$39,500.00	26	1	3		3	$658	2039
Environmental Services	Cardinal	P-33	Adelaide N. Valve (Dishaw St. to Meadowland Dr)	1979	60	151.5	200	PVC	$10,426.99	$75,750.00	26	1	4		4	$1,263	2039
Environmental Services	Cardinal	P-98	Reid St. (Joseph St. to George St.)	1979	60	74	150	PVC	$6,910.03	$37,000.00	26	1	3		3	$617	2039
Environmental Services	Cardinal	P-99	George St. (cul-de-sac south to Reid St.)	1979	60	91.5	150	PVC	$6,627.85	$45,750.00	26	1	3		3	$763	2039
Environmental Services	Cardinal	P-110	Benson St. (Dundas St. south on Benson)	1980	60	19	25	Copper	$1,903.43	$9,500.00	27	1	3		3	$158	2040
Environmental Services	Cardinal	P-114	Middle St. S(John St. South)	1980	60	40	25	Copper	$3,528.30	$20,000.00	27	1	3		3	$333	2040
Environmental Services	Cardinal	P-19	Connection to Old Marina	1980	60	147.5	25	Copper	$11,846.11	$73,750.00	27	1	4		4	$1,229	2040
Environmental Services	Cardinal	P-21	Dishaw/Perry to Fire Hydrant # 1	1980	60	99	100	PVC	$8,464.83	$49,500.00	27	1	3		3	$825	2040
Environmental Services	Cardinal	P-4	Gill St. (Walker St. to East Dead End)	1980	60	45.5	25	Copper	$1,299.90	$22,750.00	27	1	3		3	$379	2040
Environmental Services	Cardinal	P-52	William St. (Munro St. to William S.)	1980	60	55.5	25	Copper	$5,160.91	$27,750.00	27	1	3		3	$463	2040
Environmental Services	Cardinal	P-148	Dundas/Reid to Hydrant #	1985	60	28	150	PVC	$10,432.62	$14,000.00	32	1	3		3	$233	2045
Environmental Services	Cardinal	P-165	John St (E. of Lewis to New St.)	1985	60	65.5	100	PVC	$10,076.96	$32,750.00	32	1	3		3	$546	2045
Environmental Services	Cardinal	P-166	John St. (Lewis St. to John E. of Lewis)	1985	60	31	100	PVC	$4,461.89	$15,500.00	32	1	3		3	$258	2045
Environmental Services	Cardinal	P-107	Water Tower	1988	60	41.5	250	PVC	$7,115.49	$20,750.00	35	1	3		3	$346	2048
Environmental Services	Cardinal	P-159	Marjorie St. (Walker St. to dead end)	1988	60	111.5	100	PVC	$26,254.65	$55,750.00	35	1	4		4	$929	2048
Environmental Services	Cardinal	P-35	Meadowland Dr.(Adelaide to St. Lawrence St. S Valve)	1988	60	55.5	200	PVC	$10,570.41	$27,750.00	35	1	3		3	$463	2048
Environmental Services	Cardinal	P-36	St. Lawrence St. (St Lawrence S Valve to N Valve)	1988	60	13	150	Cast Iron	$7,375.98	$6,500.00	35	1	3		3	$108	2048

						12118.0			$2,047,705.07	$6,420,561.25						$107,009	
Department	**Village**	**Pipe Node**	**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Cardinal	P-37	St Lawrence St. (St Lawrence S Valve to Hwy # 2)	1988	60	78.5	200	PVC	$15,259.23	$39,250.00	35	1	3		3	$654	2048
Environmental Services	Cardinal	P-86	East St. (John St. to East St. S.)	1988	60	26	25	Copper	$4,332.36	$13,000.00	35	1	3		3	$217	2048
Environmental Services	Cardinal	P-102	Dundas St. (Reid St. to Park St.)	1989	60	70	150	Cast Iron	$14,198.49	$35,000.00	36	1	3		3	$583	2049
Environmental Services	Cardinal	P-103	Park St.	1989	60	40.5	100	PVC	$8,253.24	$20,250.00	36	1	3		3	$338	2049
Environmental Services	Cardinal	P-104	Dundas St. (Park St. to Dundas Sample Stn)	1989	60	36.5	150	PVC	$11,408.46	$18,250.00	36	1	3		3	$304	2049
Environmental Services	Cardinal	P-109	Dundas St. (East St. to Benson St.)	1989	60	71.5	200	PVC	$21,312.34	$35,750.00	36	1	3		3	$596	2049
Environmental Services	Cardinal	P-111	Dundas St. (Benson St. to Joseph St.)	1989	60	75	200	PVC	$14,812.01	$37,500.00	36	1	3		3	$625	2049
Environmental Services	Cardinal	P-113	John St. (Middle St to Middle St. W.)	1989	60	13.5	150	Cast Iron	$1,972.01	$6,750.00	36	1	3		3	$113	2049
Environmental Services	Cardinal	P-145	John St. (Middle West to East St.)	1989	60	65	200	PVC	$16,155.90	$32,500.00	36	1	3		3	$542	2049
Environmental Services	Cardinal	P-146	John St. (Benson to Joseph)	1989	60	66.5	200	PVC	$10,415.15	$33,250.00	36	1	3		3	$554	2049
Environmental Services	Cardinal	P-147	Joseph St. (John St. to Reid St.)	1989	60	129.5	150	Cast Iron	$32,939.91	$64,750.00	36	1	4		4	$1,079	2049
Environmental Services	Cardinal	P-149	Hydrant # to Dundas/Joseph	1989	60	87	200	PVC	$15,980.61	$43,500.00	36	1	3		3	$725	2049
Environmental Services	Cardinal	P-167	Dundas St. (Walter St. to Victoria St.)	1989	60	139.5	200	PVC	$31,712.88	$69,750.00	36	1	4		4	$1,163	2049
Environmental Services	Cardinal	P-20	Dundas St. @ Island	1989	60	11.5	200	Cast Iron	$1,679.86	$5,750.00	36	1	4		4	$96	2049
Environmental Services	Cardinal	P-47	Dishaw St. and Waddell St. connection	1989	60	86	200	PVC	$19,340.33	$43,000.00	36	1	5		5	$717	2049
Environmental Services	Cardinal	P-49	Waddell St. (Canal St. to Dundas St.)	1989	60	135.5	200	PVC	$33,816.36	$67,750.00	36	1	4		4	$1,129	2049
Environmental Services	Cardinal	P-50	Dundas St.(West St. to William St.)	1989	60	22	200	PVC	$3,914.81	$11,000.00	36	1	4		4	$183	2049
Environmental Services	Cardinal	P-51	Dundas (William St. to Waddell St.)	1989	60	64.5	200	PVC	$14,680.54	$32,250.00	36	1	4		4	$538	2049
Environmental Services	Cardinal	P-58	Dundas St. (Waddell St. to Lewis St.)	1989	60	71	200	PVC	$15,162.59	$35,500.00	36	1	4		4	$592	2049
Environmental Services	Cardinal	P-73	New/John to Victoria/John	1989	60	75	200	Cast Iron	$19,369.55	$37,500.00	36	1	3		3	$625	2049
Environmental Services	Cardinal	P-74	Dundas St. (Lewis St. to Walter St.)	1989	60	68.5	200	PVC	$30,106.06	$34,250.00	36	1	4		4	$571	2049
Environmental Services	Cardinal	P-79	Dundas St. (Victoria St. to Middle St.)	1989	60	85.5	200	PVC	$22,539.37	$42,750.00	36	1	4		4	$713	2049
Environmental Services	Cardinal	P-81	Victoria/John to Middle/John	1989	60	82	150	Cast Iron	$18,288.59	$41,000.00	36	1	3		3	$683	2049
Environmental Services	Cardinal	P-87	Dundas St. (Middle St. to Lower St.)	1989	60	59.5	200	PVC	$18,040.26	$29,750.00	36	1	4		4	$496	2049
Environmental Services	Cardinal	P-88	Lower St.	1989	60	35.5	25	Copper	$7,639.72	$17,750.00	36	1	3		3	$296	2049
Environmental Services	Cardinal	P-89	Dundas St. (Lower St. to East St.)	1989	60	36.5	200	PVC	$9,304.98	$18,250.00	36	1	3		3	$304	2049
Environmental Services	Cardinal	P-92	John St. (East St. to Benson St.)	1989	60	70.5	200	PVC	$17,777.33	$35,250.00	36	1	3		3	$588	2049
Environmental Services	Cardinal	P-170 A	Adelaide/St. Lawrence St. N to St. Lawrence @ 5017	1990	60	54.6			$14,636.72	$27,300.00	37	1	3		3	$455	2050
Environmental Services	Cardinal	P-170 B	St. Lawrence @ 5017 to 5025 (St. Lawrence)	1990	60	59.7			$15,381.70	$29,850.00	37	1	3		3	$498	2050
Environmental Services	Cardinal	P-170 C	St. Lawrence St. @ 5025 to St Lawrence St. N	1990	60	40			$12,504.02	$20,000.00	37	1	3		3	$333	2050
Environmental Services	Cardinal	P-170 D	St. Lawrence St. N to tie-in @ 5180 Meadowland	1990	60	14			$8,706.07	$7,000.00	37	1	3		3	$117	2050
Environmental Services	Cardinal	P-173 A	St. Lawrence St. N to Meadowland @ 5191	1990	60	59.4			$15,337.88	$29,700.00	37	1	3		3	$495	2050
Environmental Services	Cardinal	P-173 B	Meadowland @ 5191 to Meadowland St. E	1990	60	66.1			$16,316.58	$33,050.00	37	1	3		3	$551	2050
Environmental Services	Cardinal	P-174 A	Meadowland St. E to 5214	1990	60	38.1			$12,226.48	$19,050.00	37	1	3		3	$318	2050
Environmental Services	Cardinal	P-174 B	5214 Meadowland to Maple St. E	1990	60	40.2			$12,533.24	$20,100.00	37	1	3		3	$335	2050
Environmental Services	Cardinal	P-206	J-94 to Meadowland N.	1990	60	88.1	200	PVC	$18,224.58	$44,050.00	37	1	3		3	$734	2050
Environmental Services	Cardinal	P-207	Meadowland/Adealaide to J-94	1990	60	75.3	200	PVC	$24,933.38	$37,650.00	37	1	3		3	$628	2050
Environmental Services	Cardinal	P-208	Meadowland N. to J-95	1990	60	70.7			$20,051.53	$35,350.00	37	1	3		3	$589	2050
Environmental Services	Cardinal	P-209	J-95 to P-209	1990	60	68			$13,537.40	$34,000.00	37	1	3		3	$567	2050
Environmental Services	Cardinal	P-209A	meadowland/st. lawrence to north-east tie-in	1990	60	12.5			$4,267.88	$6,250.00	37	1	3		3	$104	2050
Environmental Services	Cardinal	P-175	Maple St. (St. Lawrence to Maple St. E.)	1996	60	246	200	PVC	$61,560.65	$123,000.00	43	1	4		4	$2,050	2056
Environmental Services	Cardinal	P-189	Canal St. (Waddell St. to West St.)	2000	60	200	150	PVC	$35,495.00	$100,000.00	47	1	4		4	$1,667	2060
Environmental Services	Cardinal	P-190	Canal St. (West St. to Walker st. S dead end)	2000	60	25	150	PVC	$5,430.74	$12,500.00	47	1	3		3	$208	2060
Environmental Services	Cardinal	P-213	East St. (Dundas St. to J-98)	2001	60	132	150	PVC	$47,443.20	$66,000.00	48	1	4		4	$1,100	2061
Environmental Services	Cardinal	P-214	East St. (J-98 to John St.)	2001	60	133	150	PVC	$41,994.65	$66,500.00	48	1	4		4	$1,108	2061
Environmental Services	Cardinal	P-70	Walter St. (Lambert to Walter St. Sample Stn)	2002	60	34	150	PVC	$18,331.92	$17,000.00	49	1	3		3	$283	2062
Environmental Services	Cardinal	P-75	Walter St. (Dundas St. to Lambert St.)	2002	60	71.5	150	PVC	$20,727.14	$35,750.00	49	1	3		3	$596	2062
Environmental Services	Cardinal	P-119	Shanly Rd (Gill St. to Dodge St.)	2003	60	69.5	250	PVC	$26,895.00	$34,750.00	50	1	4		4	$579	2063
Environmental Services	Cardinal	P-124	Shanly Rd (Dodge St. North)	2003	60	14.5	250	Riv. Steel	$3,775.08	$7,250.00	50	1	4		4	$121	2063
Environmental Services	Cardinal	P-127	Shanly Rd (Adelaide E and N)	2003	60	16.5	250	PVC	$3,227.40	$8,250.00	50	1	4		4	$138	2063
Environmental Services	Cardinal	P-128	DodgeSt. (Shanly Rd to Dodge St. end)	2003	60	67	150	PVC	$23,276.40	$33,500.00	50	1	3		3	$558	2063
Environmental Services	Cardinal	P-130	Shanly Rd (First St. to Gill St.)	2003	60	81.5	250	PVC	$31,589.40	$40,750.00	50	1	4		4	$679	2063
Environmental Services	Cardinal	P-131	First St. (Shanly Rd to First St. connection)	2003	60	25.5	150	PVC	$5,926.68	$12,750.00	50	1	3		3	$213	2063
Environmental Services	Cardinal	P-132	Shanly Rd (First St. to Perry St.)	2003	60	83.5	250	PVC	$24,939.00	$41,750.00	50	1	4		4	$696	2063
Environmental Services	Cardinal	P-134	Shanly Rd (Perry St. to Helen St.)	2003	60	83.5	250	PVC	$31,824.12	$41,750.00	50	1	4		4	$696	2063
Environmental Services	Cardinal	P-135	Helen St. (Shanly Rd. to Helen connection)	2003	60	22	150	PVC	$12,283.68	$11,000.00	50	1	3		3	$183	2063
Environmental Services	Cardinal	P-137	Shanly Rd (Hoy St. to N./Adelaide St.)	2003	60	55.5	250	PVC	$18,836.28	$27,750.00	50	1	4		4	$463	2063
Environmental Services	Cardinal	P-139	Adelaide (Shanly to Adelaide E connection)	2003	60	11	150	PVC	$3,090.48	$5,500.00	50	1	2		2	$92	2063
Environmental Services	Cardinal	P-142	Shanly Rd (Helen St. to Ann St.)	2003	60	40.5	250	PVC	$16,371.72	$20,250.00	50	1	4		4	$338	2063
Environmental Services	Cardinal	P-143	Shanly Rd (Ann St. to Hoy St.)	2003	60	61.5	250	PVC	$18,445.08	$30,750.00	50	1	4		4	$513	2063
Environmental Services	Cardinal	P-144	Ann St. (Shanly Rd to Ann St. end)	2003	60	17	150	PVC	$6,454.80	$8,500.00	50	1	3		3	$142	2063
Environmental Services	Cardinal	P-160	Shanly Rd (Adelaide St. to Hwy 2)	2003	60	76.5	250	PVC	$22,943.88	$38,250.00	50	1	4		4	$638	2063
Environmental Services	Cardinal	P-179	Flett St. (Hwy # 2 to Loyalist Dr.)	2003	60	42			$8,215.20	$21,000.00	50	1	3		3	$350	2063
Environmental Services	Cardinal	P-185	Hwy #2/Flett to Hwy # 2 Reducer	2003	60	25			$4,890.00	$12,500.00	50	1	3		3	$208	2063
Environmental Services	Cardinal	P-186	Hwy # 2/Flett to Flett	2003	60	123.5		HDPE	$24,156.60	$61,750.00	50	1	3		3	$1,029	2063
Environmental Services	Cardinal	P-192	Loyalist Dr.tie in to Loyalist Dr. deadend	2003	60	2.4	200	PVC	$469.44	$1,200.00	50	1	2		2	$20	2063
Environmental Services	Cardinal	P-193	Loyalist Dr./Flett to Loyalist tie in	2003	60	77.7	200	PVC	$18,484.20	$38,850.00	50	1	3		3	$648	2063
Environmental Services	Cardinal	P-194	Flett/Loyalist Dr to Flett tie in	2003	60	120.4	200	PVC	$30,122.40	$60,200.00	50	1	3		3	$1,003	2063
Environmental Services	Cardinal	P-195	Flett tie in to Flett dead end	2003	60	26.2	200	PVC	$6,220.08	$13,100.00	50	1	3		3	$218	2063

						12118.0			$2,047,705.07	$6,420,561.25						$107,009	
Department	**Village**	**Pipe Node**	**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Cardinal	P-196	Flett tie in to Loyalist Dr. tie in	2003	60	87.1	200	PVC	$17,036.76	$43,550.00	50	1	3		3	$726	2063
Environmental Services	Cardinal	P-205	Hwy # 2 (J-92 to Flett St.)	2003	60	25			$12,870.48	$12,500.00	50	1	3		3	$208	2063
Environmental Services	Cardinal	P-63	LewisSt. (John St. to James St.)	2007	60	94.5	200	PVC	$53,825.00	$47,250.00	54	1	3		3	$788	2067
Environmental Services	Cardinal	P-64	Lewis St. (John St. to Dundas St.)	2007	60	81.5	200	PVC	$32,775.00	$40,750.00	54	1	3		3	$679	2067
Environmental Services	Cardinal	P-22	Helen St. (Dishaw St. to Walker St.)	2009	60	143	156	PVC	$52,682.52	$71,500.00	56	1	4		4	$1,192	2069

Sanitary Sewers and Forcemains

							14885.4			$2,476,257.21	$8,967,960.71						$140,062	
Department	**Village**	**Manhole No.**		**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacment Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
		From	**To**															
Environmental Services	Spencerville	1	2	Goodin Road	1990	60	60	200	PVC	$27,136.84	$53,556.89	37	2	4		8	$893	2050
Environmental Services	Spencerville	2	3	Goodin Road	1990	60	85	200	PVC	$38,443.85	$75,872.27	37	2	4		8	$1,265	2050
Environmental Services	Spencerville	3	4	Bennett St.	1990	60	93	200	PVC	$42,062.10	$83,013.18	37	2	4		8	$1,384	2050
Environmental Services	Spencerville	4	5	Bennett St.	1990	60	71	200	PVC	$32,111.92	$63,375.66	37	2	4		8	$1,056	2050
Environmental Services	Spencerville	5	7	Bennett St.	1990	60	100	200	PVC	$45,228.06	$89,261.49	37	2	4		8	$1,488	2050
Environmental Services	Spencerville	6	7	Victoria St.	1990	60	77.5	200	PVC	$35,051.75	$69,177.65	37	2	4		8	$1,153	2050
Environmental Services	Spencerville	7	8	Bennett St.	1990	60	71.5	200	PVC	$32,338.06	$63,821.96	37	2	4		8	$1,064	2050
Environmental Services	Spencerville	8	9	Bennett St.	1990	60	73.5	200	PVC	$33,242.62	$65,607.19	37	2	4		8	$1,093	2050
Environmental Services	Spencerville	9	10	Bennett St.	1990	60	68	200	PVC	$30,755.08	$60,697.81	37	2	4		8	$1,012	2050
Environmental Services	Spencerville	10	23	Spencer St	1990	60	95	200	PVC	$42,966.66	$84,798.41	37	2	4		8	$1,413	2050
Environmental Services	Spencerville	23	24	Spencer St	1990	60	86	250	PVC	$38,896.13	$76,764.88	37	2	4		8	$1,279	2050
Environmental Services	Spencerville	24	36	Spencer St	1990	60	70	250	PVC	$31,659.64	$62,483.04	37	2	4		8	$1,041	2050
Environmental Services	Spencerville	36	35	Water St	1990	60	78.5	200	PVC	$35,504.03	$70,070.27	37	2	4		8	$1,168	2050
Environmental Services	Spencerville	35	34	South St.	1990	60	125	200	PVC	$56,535.08	$111,576.86	37	2	4		8	$1,860	2050
Environmental Services	Spencerville	34	33	South St.	1990	60	33	200	PVC	$14,925.26	$29,456.29	37	2	3		6	$491	2050
Environmental Services	Spencerville	34	32	James St.	1990	60	125	200	PVC	$56,535.08	$111,576.86	37	2	4		8	$1,860	2050
Environmental Services	Spencerville	32	31	James St.	1990	60	121.7	200	PVC	$55,042.55	$108,631.23	37	2	4		8	$1,811	2050
Environmental Services	Spencerville	31	30	David St.	1990	60	61	200	PVC	$27,589.12	$54,449.51	37	2	4		8	$907	2050
Environmental Services	Spencerville	30	29	David St.	1990	60	50	200	PVC	$22,614.03	$44,630.74	37	2	3		6	$744	2050
Environmental Services	Spencerville	31	28	Cherry St.	1990	60	48	100	PVC	$21,709.47	$42,845.51	37	2	3		6	$714	2050
Environmental Services	Spencerville			FORCEMAIN	1990	60	24	200	PVC	$160,167.50	$316,104.42	37	2	4		8	$5,268	2050
Environmental Services	Spencerville	28	27	Charles St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	27	26	Charles St.	1990	60	69	200	PVC	$31,207.36	$61,590.43	37	2	4		8	$1,027	2050
Environmental Services	Spencerville	26	25	Cedar St.	1990	60	50	200	PVC	$22,614.03	$44,630.74	37	2	3		6	$744	2050
Environmental Services	Spencerville	23	22	Centre St.	1990	60	70.5	200	PVC	$31,885.78	$62,929.35	37	2	4		8	$1,049	2050
Environmental Services	Spencerville	22	19	Centre St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	19	18	Centre St.	1990	60	62.5	200	PVC	$28,267.54	$55,788.43	37	2	4		8	$930	2050
Environmental Services	Spencerville	18	15	Centre St.	1990	60	100	200	PVC	$45,228.06	$89,261.49	37	2	4		8	$1,488	2050
Environmental Services	Spencerville	15	14	Centre St.	1990	60	77.5	200	PVC	$35,051.75	$69,177.65	37	2	4		8	$1,153	2050
Environmental Services	Spencerville	11	12	Centre St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	12	13	Centre St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	18	9	Centre St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	9	17	Centre St.	1990	60	120	200	PVC	$54,273.67	$107,113.79	37	2	4		8	$1,785	2050
Environmental Services	Spencerville	17	16	Centre St.	1990	60	60	200	PVC	$27,136.84	$53,556.89	37	2	4		8	$893	2050
Environmental Services	Spencerville	22	21	South St.	1990	60	110	200	PVC	$49,750.87	$98,187.64	37	2	4		8	$1,636	2050
Environmental Services	Spencerville	21	20	South St.	1990	60	40	200	PVC	$18,091.22	$35,704.60	37	2	3		6	$595	2050
Environmental Services	Cardinal	323	322	East St. (Dundas St. to (house number) East St.)	1931	100	103.7	200	V.C.	$924.05	$51,850.00	18	1	4		4	$519	2031
Environmental Services	Cardinal	322	321	625 East St. to 649 East St.	1931	100	91.5	200	V.C.	$833.28	$45,750.00	18	1	3		3	$458	2031
Environmental Services	Cardinal	321	319	649 East St. to John St.	1931	100	106.6	250	V.C.	$945.62	$53,300.00	18	1	4		4	$533	2031
Environmental Services	Cardinal	320	319	John St. (east to East St.)	1931	60	58	250	V.C.	$584.04	$29,000.00	0	5	3		15	$483	1991
Environmental Services	Cardinal	319	318	East St. (south at John St.)	1931	100	67.3	250	V.C.	$653.23	$33,650.00	18	1	3		3	$337	2031
Environmental Services	Cardinal	318	340	672 East St. east to between East St. & Benson St.	1931	60	35.1	375	V.C.	$413.66	$17,550.00	0	5	2		10	$293	1991
Environmental Services	Cardinal	340	353	North-east to park south of John/Benson	1931	60	52	375	V.C.	$539.40	$26,000.00	0	5	3		15	$433	1991
Environmental Services	Cardinal	316	314	534 Middle St. to John St.	1940	60	91.2	200	V.C.	$1,149.68	$45,600.00	0	5	3		15	$760	2000
Environmental Services	Cardinal	324	323	Dundas St. west to East St.)	1940	60	58.2	200	V.C.	$857.96	$29,100.00	0	5	3		15	$485	2000
Environmental Services	Cardinal	352	351	Dundas St. to west of Middle St.	1940	60	79.4	200	V.C.	$1,061.41	$39,700.00	0	5	3		15	$662	2000
Environmental Services	Cardinal	351	323	Dundas St. (west of Middle St. to East St.)	1940	60	91.2	200	V.C.	$1,239.44	$45,600.00	0	5	3		15	$760	2000
Environmental Services	Cardinal	328	353	726 Benson St. to park south of John/Benson	1940	60	174.3	200	V.C.	$1,457.10	$87,150.00	0	5	4		20	$1,453	2000
Environmental Services	Cardinal	353	341	North-east to easment west of catchbasin (John/Joseph)	1940	60	71.9	450	V.C.	$691.15	$35,950.00	0	5	3		15	$599	2000
Environmental Services	Cardinal	341	342	John St. to Joseph St.	1940	60	10.5	450	V.C.	$231.88	$5,250.00	0	5	2		10	$88	2000
Environmental Services	Cardinal	324	325	Dundas St. (west of Benson St. to Joseph St.)	1940	100	106.5	200	V.C.	$949.96	$53,250.00	27	1	4		4	$533	2040
Environmental Services	Cardinal	349	332	Dundas St. (Cul-de-sac west to Park St.)	1940	100	34	375	V.C.	$407.66	$17,000.00	27	1	2		2	$170	2040
Environmental Services	Cardinal	332	331	Dundas St. (Park St. to Reid St.)	1940	100	77	375	V.C.	$729.30	$38,500.00	27	1	3		3	$385	2040
Environmental Services	Cardinal	331	330	Dundas/Reid St. to 2221 Dundas St.	1940	100	61	375	V.C.	$609.62	$30,500.00	27	1	3		3	$305	2040
Environmental Services	Cardinal	330	325	2221 Dundas St. to Joseph St.	1940	100	59.6	375	V.C.	$599.15	$29,800.00	27	1	3		3	$298	2040
Environmental Services	Cardinal	312	311	427 Victoria St. to 448 Victoria St.	1950	100	79.2	200	V.C.	$2,154.10	$39,600.00	37	1	3		3	$396	2050
Environmental Services	Cardinal	311	309	448 Victoria St. to John St.	1950	100	91.5	200	V.C.	$2,158.00	$45,750.00	37	1	2		2	$458	2050
Environmental Services	Cardinal	310	309	3036 John St. to Victoria St.	1950	60	39.6	200	V.C.	$859.30	$19,800.00	0	4	3		12	$330	2010
Environmental Services	Cardinal	309	308	Victoria St. (John St. to James St.)	1950	60	104.4	200	V.C.	$2,091.70	$52,200.00	0	4	4		16	$870	2010
Environmental Services	Cardinal	317	316	Victoria St. (John St. to James St.)	1950	60	122.6	200	V.C.	$3,030.30	$61,300.00	0	4	4		16	$1,022	2010
Environmental Services	Cardinal	315	314	3050 john St. to Middle St.	1950	60	38.1	200	V.C.	$995.80	$19,050.00	0	4	3		12	$318	2010
Environmental Services	Cardinal	314	313	Middle St. (John St. to James St.)	1950	100	104.7	200	V.C.	$1,783.60	$52,350.00	37	1	4		4	$524	2050
Environmental Services	Cardinal	401	402	HWY #2 @ (house number) to HWY #2 @ 410	1950	60	115.8	300	V.C.	$1,771.90	$57,900.00	0	4	4		16	$965	2010
Environmental Services	Cardinal	402	403	HWY #2 @ 410 to east Pumping Station	1950	60	69.7	300	V.C.	$1,172.60	$34,850.00	0	4	3		12	$581	2010
Environmental Services	Cardinal	201	202	Victoria St. (Lambert St. to Dundas St.)	1950	60	63.9	200	V.C.	$1,253.20	$31,950.00	0	4	3		12	$533	2010
Environmental Services	Cardinal	202	203	Dundas St. (west at Victoria St.)	1950	60	80.4	200	V.C.	$1,857.70	$40,200.00	0	4	3		12	$670	2010
Environmental Services	Cardinal	203	204	Dundas St. (west to Casco spur line)	1950	60	83.6	200	V.C.	$2,055.30	$41,800.00	0	4	3		12	$697	2010
Environmental Services	Cardinal	204	205	Dundas St. (west to Lewis St.)	1950	60	51.7	200	V.C.	$1,484.60	$25,850.00	0	4	3		12	$431	2010
Environmental Services	Cardinal	205	206	Dundas St. (Lewis St. to Waddell St.)	1950	60	82.5	250	V.C.	$1,651.00	$41,250.00	0	4	3		12	$688	2010
Environmental Services	Cardinal	206	215	Dundas St. (Waddell St. to West St.)	1950	60	91.4	250	V.C.	$2,078.70	$45,700.00	0	4	3		12	$762	2010
Environmental Services	Cardinal	223	222	William St. (to Munro St.)	1950	60	76.9	200	V.C.	$2,202.20	$38,450.00	0	4	3		12	$641	2010
Environmental Services	Cardinal	222	221	William St. (Munro St. to cul-de-sac)	1950	60	83.8	200	V.C.	$1,589.90	$41,900.00	0	4	3		12	$698	2010

Sanitary Sewers and Forcemains

							14885.4			$2,476,257.21	$8,967,960.71						$140,062	
Department	**Village**	**Manhole No.**		**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacment Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Cardinal	221	228	William St. to Henry St. Pumping Station	1950	60	103.5	375	V.C.	$1,612.00	$51,750.00	0	4	4		16	$863	2010
Environmental Services	Cardinal	224	225	Henry St. (south to Munro St.)	1950	60	69.1	200	V.C.	$1,788.80	$34,550.00	0	4	3		12	$576	2010
Environmental Services	Cardinal	226	225	Munro St. (west to Henry St.)	1950	60	43.2	200	V.C.	$984.10	$21,600.00	0	4	3		12	$360	2010
Environmental Services	Cardinal	225	227	Henry St. (Munro St. to James St.)	1950	60	82.9	200	V.C.	$1,656.20	$41,450.00	0	4	3		12	$691	2010
Environmental Services	Cardinal	325	326	Joseph St. (Dundas St. to George St.)	1955	60	92.6	375	V.C.	$1,829.96	$46,300.00	2	3	4		12	$772	2015
Environmental Services	Cardinal	350	327	Benson St. (Reid St. to George St.)	1955	60	89.1	200	V.C.	$1,773.33	$44,550.00	2	3	3		9	$743	2015
Environmental Services	Cardinal	327	326	George St. (Benson St. to Joseph St.)	1955	60	71.3	200	V.C.	$1,485.32	$35,650.00	2	3	3		9	$594	2015
Environmental Services	Cardinal	326	329	Joseph St. (George St. to Reid St.)	1955	60	103.5	375	V.C.	$2,006.32	$51,750.00	2	3	4		12	$863	2015
Environmental Services	Cardinal	329	348	Joseph/Reid St to 837 Joseph St.	1955	60	111.4	300	V.C.	$2,134.14	$55,700.00	2	3	4		12	$928	2015
Environmental Services	Cardinal	348	342	837 Jospeh St. to John St.	1955	60	45.9	300	V.C.	$1,074.35	$22,950.00	2	3	4		12	$383	2015
Environmental Services	Cardinal	124	124A		1956	60	25	250		$764.40	$12,500.00	3	3	2		6	$208	2016
Environmental Services	Cardinal	122	123	Adelaide St. West of Shanly Road	1956	100	105.2	250	V.C.	$3,018.96	$52,600.00	43	1	4		4	$526	2056
Environmental Services	Cardinal	123	124	Adelaide St. West of Shanly Road	1956	100	102.9	250	V.C.	$2,375.52	$51,450.00	43	1	4		4	$515	2056
Environmental Services	Cardinal	124	125	Adelaide St. East of Shanly Road and West of Walker St	1956	100	75.1	250	V.C.	$2,009.28	$37,550.00	43	1	3		3	$376	2056
Environmental Services	Cardinal	125	126	Adelaide St. East of Shanly Road to Walker St	1956	100	74.7	250	V.C.	$2,204.16	$37,350.00	43	1	3		3	$374	2056
Environmental Services	Cardinal	104	105	Walker St. (Gill St. to First St.)	1956	60	92	375	V.C.	$2,494.80	$46,000.00	3	4	4		16	$767	2016
Environmental Services	Cardinal	106	105	First St west of Walker St.	1956	60	73.6	250	V.C.	$2,286.48	$36,800.00	3	3	3		9	$613	2016
Environmental Services	Cardinal	105	110	Walker St. (First St. to Perry St.)	1956	60	92.9	375	V.C.	$2,308.32	$46,450.00	3	4	4		16	$774	2016
Environmental Services	Cardinal	108	109	Perry St east of Shanly Road	1956	100	71	250	V.C.	$2,142.00	$35,500.00	43	1	3		3	$355	2056
Environmental Services	Cardinal	109	110	Perry St west of Walker St.	1956	100	75.9	250	V.C.	$2,022.72	$37,950.00	43	1	3		3	$380	2056
Environmental Services	Cardinal	110	111	Walker St. (Perry to Helen St.)	1956	60	88.2	375	V.C.	$2,229.36	$44,100.00	3	4	4		16	$735	2016
Environmental Services	Cardinal	111	117	Walker St. (Helen St. to Marjorie St.)	1956	60	93.1	375	V.C.	$2,412.48	$46,550.00	3	4	4		16	$776	2016
Environmental Services	Cardinal	116	117	Marjorie St. east to Walker St.	1956	60	83.5	250	V.C.	$2,251.20	$41,750.00	3	3	3		9	$696	2016
Environmental Services	Cardinal	118	117	Marjorie St. west to Walker St.	1956	60	33.9	250	V.C.	$1,115.52	$16,950.00	3	3	3		9	$283	2016
Environmental Services	Cardinal	117	126	Walker St. (Marjorie St. to Adelaide St.)	1956	60	89.1	375	V.C.	$2,345.28	$44,550.00	3	4	4		16	$743	2016
Environmental Services	Cardinal	148B	148	HWY #2 (Village limit to Shanly Rd.)	1956	100	190.6	300	V.C.	$4,453.68	$95,300.00	43	1	4		4	$953	2056
Environmental Services	Cardinal	148	147	HWY #2 (Shanly Rd. to Walker St.)	1956	100	153.1	300	V.C.	$3,521.28	$76,550.00	43	1	4		4	$766	2056
Environmental Services	Cardinal	149	150	HWY #2 (Pumping Station west)	1956	100	30.6	300	V.C.	$1,060.08	$15,300.00	43	1	3		3	$153	2056
Environmental Services	Cardinal	150	142	HWY #2 @ 418 to HWY #2 @ 424	1956	100	67.9	300	V.C.	$1,888.32	$33,950.00	43	1	3		3	$340	2056
Environmental Services	Cardinal	142	141	HWY #2 @ 424 to HWY #2 @ 510	1956	100	106.1	300	V.C.	$2,832.48	$53,050.00	43	1	4		4	$531	2056
Environmental Services	Cardinal	141	140	HWY #2 @ 510 to HWY #2 @ 518	1956	100	99.5	300	V.C.	$2,520.00	$49,750.00	43	1	3		3	$498	2056
Environmental Services	Cardinal	140	139	HWY #2 @ 518 to HWY #2 @ 524	1956	100	98.8	300	V.C.	$2,306.64	$49,400.00	43	1	3		3	$494	2056
Environmental Services	Cardinal	139	138	HWY #2 (east of St. Lawrence St.)	1956	100	98.1	300	V.C.	$2,395.68	$49,050.00	43	1	3		3	$491	2056
Environmental Services	Cardinal	138	137	HWY #2 (west through St. Lawrence St.)	1956	100	99.5	300	V.C.	$2,016.00	$49,750.00	43	1	3		3	$498	2056
Environmental Services	Cardinal	137	136	HWY #2 (west of St. Lawrence St.)	1956	100	91.5	300	V.C.	$2,184.00	$45,750.00	43	1	3		3	$458	2056
Environmental Services	Cardinal	136	135	HWY #2 @ 614 to Dishaw St.	1956	100	92	300	V.C.	$2,091.60	$46,000.00	43	1	3		3	$460	2056
Environmental Services	Cardinal	135	147	HWY #2 (Dishaw St. to Walker St.)	1956	100	145.6	300	V.C.	$3,193.68	$72,800.00	43	1	4		4	$728	2056
Environmental Services	Cardinal	147	126	Walker St. (HWY #2 to Adelaide St.)	1956	60	88.1	300	V.C.	$2,429.28	$44,050.00	3	4	4		16	$734	2016
Environmental Services	Cardinal	126	127	Adelaide St. (east to Adelaide St. Pumping Station)	1956	100	60.6	375	V.C.	$1,664.88	$30,300.00	43	1	3		3	$303	2056
Environmental Services	Cardinal	113	112	Helen St. east of Shanly Road	1960	60	70.7	250	V.C.	$2,302.80	$35,350.00	7	3	3		9	$589	2020
Environmental Services	Cardinal	112	111	Helen St. west of Walker St.	1960	60	75.9	250	V.C.	$2,401.60	$37,950.00	7	3	3		9	$633	2020
Environmental Services	Cardinal	145	144	Dishaw St. (Perry St. to Helen St.)	1960	60	100.7	300	V.C.	$2,416.80	$50,350.00	7	3	3		9	$839	2020
Environmental Services	Cardinal	144	143	Dishaw St. (Helen St. to Marjorie St.)	1960	60	90.3	300	V.C.	$2,333.20	$45,150.00	7	3	3		9	$753	2020
Environmental Services	Cardinal	143B	143	Marjorie St. (east to Dishaw St.)	1960	60	85	300	V.C.	$3,030.50	$42,500.00	7	3	3		9	$708	2020
Environmental Services	Cardinal	143	128	Dishaw St. (Marjorie St. to Adelaide St.)	1960	60	90.2	300	V.C.	$2,445.30	$45,100.00	7	3	3		9	$752	2020
Environmental Services	Cardinal	211	212	Bridge St. (to Waddell St.)	1960	60	50	250	V.C.	$1,339.50	$25,000.00	7	3	3		9	$417	2020
Environmental Services	Cardinal	229	212	Waddell St.	1960	60	67.4	250	V.C.	$2,354.10	$33,700.00	7	3	3		9	$562	2020
Environmental Services	Cardinal	212	213	Waddell St. (to Canal St.)	1960	60	23	250	V.C.	$1,054.50	$11,500.00	7	3	2		6	$192	2020
Environmental Services	Cardinal	213	214	Canal St. (Waddell St. to West St.)	1960	60	87.9	250	V.C.	$2,173.60	$43,950.00	7	3	3		9	$733	2020
Environmental Services	Cardinal	214A	214	Canal St./West St. north by mall	1960	60	16	250	V.C.	$693.50	$8,000.00	7	3	2		6	$133	2020
Environmental Services	Cardinal	214	215	West St. (Canal St. to Dundas St.)	1960	60	96.3	300	V.C.	$3,131.20	$48,150.00	7	3	4		12	$803	2020
Environmental Services	Cardinal	215	216	Dundas St. (West St. W)	1960	60	57.7	300	V.C.	$2,283.80	$28,850.00	7	3	4		12	$481	2020
Environmental Services	Cardinal	217	216	Dundas St. W to 2010 Dundas St.	1960	60	152.2	200	V.C.	$4,649.30	$76,100.00	7	3	4		12	$1,268	2020
Environmental Services	Cardinal	216	218	2010 Dundas St. south to B218 easment	1960	60	92.7	375	V.C.	$2,150.80	$46,350.00	7	3	4		12	$773	2020
Environmental Services	Cardinal	218	219	South-east to B219 easment	1960	60	65.1	375	V.C.	$1,626.40	$32,550.00	7	3	4		12	$543	2020
Environmental Services	Cardinal	219	220	South-east to B220 easment	1960	60	37.9	375	V.C.	$1,109.60	$18,950.00	7	3	4		12	$316	2020
Environmental Services	Cardinal	220	221	South-east to end of William St.	1960	60	69.8	375	V.C.	$1,715.70	$34,900.00	7	3	4		12	$582	2020
Environmental Services	Cardinal	121	120	Hoy St. (17 Hoy St. - 9 Hoy St.)	1965	60	76.1	250		$3,175.42	$38,050.00	12	3	3		9	$634	2025
Environmental Services	Cardinal	120	115	Hoy St. (9 Hoy St. - SW corner Hoy/Shanly)	1965	60	87.1	250		$2,362.90	$43,550.00	12	3	3		9	$726	2025
Environmental Services	Cardinal	130	129	Meadowland Dr. S (west to spur line)	1970	60	85.4	300	V.C.	$3,164.29	$42,700.00	17	3	4		12	$712	2030
Environmental Services	Cardinal	129	128	Spur Line west to Dishaw St.	1970	60	75.5	300	V.C.	$2,868.48	$37,750.00	17	3	4		12	$629	2030
Environmental Services	Cardinal	128	127	Adelaide St. (Dishaw St. to Adelaide St. Pumping Station)	1970	60	91	300	V.C.	$4,586.58	$45,500.00	17	3	4		12	$758	2030
Environmental Services	Cardinal	333	334	948 Reid St. to 951 Reid St.	1975	60	48.5	250	V.C.	$3,358.92	$24,250.00	22	2	3		6	$404	2035
Environmental Services	Cardinal	334	335	951 Reid St. to 936 Reid St.	1975	60	66.2	250	V.C.	$4,220.56	$33,100.00	22	2	3		6	$552	2035
Environmental Services	Cardinal	335	336	936 Reid St. to 932 Reid St.	1975	60	35.1	250	V.C.	$2,706.61	$17,550.00	22	2	3		6	$293	2035
Environmental Services	Cardinal	338	337	George St. cresent south-east to easment	1975	60	65	250	V.C.	$4,162.14	$32,500.00	22	2	3		6	$542	2035
Environmental Services	Cardinal	337	336	South to easment @ 932 Reid St.	1975	60	45.2	250	V.C.	$3,198.28	$22,600.00	22	2	3		6	$377	2035
Environmental Services	Cardinal	336	339	932 Reid St. south to easment	1975	60	87.2	250	V.C.	$5,242.84	$43,600.00	22	2	3		6	$727	2035
Environmental Services	Cardinal	339	344	South-west to easment	1975	60	53.9	250	V.C.	$3,621.79	$26,950.00	22	2	3		6	$449	2035
Environmental Services	Cardinal	344	345	south-east to easment	1975	60	16.1	450	V.C.	$1,781.69	$8,050.00	22	2	4		8	$134	2035
Environmental Services	Cardinal	313A	350A	North to easment (off of Middle St.)	1980	60	36.5	300	PVC	$3,528.30	$18,250.00	27	2	4		8	$304	2040
Environmental Services	Cardinal	350A	318	East to easment at end of East St.	1980	60	74.3	300	PVC	$5,868.12	$37,150.00	27	2	4		8	$619	2040
Environmental Services	Cardinal	303	304	James St. (Lewis St. to New St.)	1987	60	118.3	250	V.C.	$17,780.66	$59,150.00	34	2	4		8	$986	2047

Sanitary Sewers and Forcemains

							14885.4			$2,476,257.21	$8,967,960.71						$140,062	
Department	**Village**	**Manhole No.**		**Location**	**Actual Year**	**Useful Life**	**Length (m)**	**Diameter**	**Material**	**Historic Cost**	**2013 Replacment Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Cardinal	306	305	John St. (east to New St.)	1987	60	65.3	200	V.C.	$11,779.18	$32,650.00	34	2	3		6	$544	2047
Environmental Services	Cardinal	307	305	New St. to John St.	1987	60	45.9	200	V.C.	$7,364.53	$22,950.00	34	2	3		6	$383	2047
Environmental Services	Cardinal	305	304	New St. (John St. to James St.)	1987	60	103.7	200	V.C.	$13,854.26	$51,850.00	34	2	4		8	$864	2047
Environmental Services	Cardinal	304	308	James St. (New St. to Victoria St.)	1987	60	82.7	300	V.C.	$11,107.82	$41,350.00	34	2	4		8	$689	2047
Environmental Services	Cardinal	308	313	James St. (Victoria St. to Middle St.)	1987	60	97	300	V.C.	$11,952.10	$48,500.00	34	2	4		8	$808	2047
Environmental Services	Cardinal	313	313A	James St. east-end (by Middle St.)	1987	60	17	300	V.C.	$3,814.50	$8,500.00	34	2	4		8	$142	2047
Environmental Services	Cardinal	152	132	St. Lawrence St. (to Meadowland Dr. South)	1990	60	33.7	250	PVC	$9,368.36	$18,489.27	37	2	3		6	$308	2050
Environmental Services	Cardinal	132	130	St. Lawrence St. (west to Meadowland Dr.)	1990	60	57.2	300	PVC	$10,746.06	$28,600.00	37	2	3		6	$477	2050
Environmental Services	Cardinal	133	131	NW Meadowland Dr. (to park access path)	1990	60	87.6	300	PVC	$19,419.58	$43,800.00	37	2	3		6	$730	2050
Environmental Services	Cardinal	131	130	Meadowland Dr. (park access path south)	1990	60	64.6	300	PVC	$13,788.98	$32,300.00	37	2	3		6	$538	2050
Environmental Services	Cardinal	227	228	Henry St. (James St. to Henry St. Pumping Station)	1993	60	78.9	200	V.C.	$12,093.60	$39,450.00	40	1	3		3	$658	2053
Environmental Services	Cardinal	342	343	John/Joseph east to easment	1997	60	41.5	450	V.C.	$7,833.08	$20,750.00	44	1	4		4	$346	2057
Environmental Services	Cardinal	343	344	north-east to easment	1997	60	20.6	450	V.C.	$5,192.57	$10,300.00	44	1	4		4	$172	2057
Environmental Services	Cardinal	207	208	Lambert St.	2002	60	127.6	200	V.C.	$30,492.85	$63,800.00	49	1	4		4	$1,063	2062
Environmental Services	Cardinal	209	208	Walter St. north to WalterSt./Lambert St.	2002	60	43.2	200	V.C.	$15,948.02	$22,075.78	49	1	3		3	$368	2062
Environmental Services	Cardinal	208	210	Walter St./Lambert St. north on Walter St.	2002	60	8.8	200	V.C.	$4,420.78	$6,119.40	49	1	3		3	$102	2062
Environmental Services	Cardinal	230	210	Walter St.	2002	60	24.3	200	V.C.	$9,475.26	$13,115.98	49	1	3		3	$219	2062
Environmental Services	Cardinal	210	211	Walter St. (to Bridge St.)	2002	60	72.5	250	V.C.	$14,031.84	$36,250.00	49	1	3		3	$604	2062
Environmental Services	Cardinal	101	102	Shanly Road (Dodge St. to Gill St.)	2003	60	67.3	200	PVC	$17,494.46	$33,650.00	50	1	3		3	$561	2063
Environmental Services	Cardinal	102	107	Shanly Road (Gill St. to First St.)	2003	60	83.1	200	PVC	$19,966.85	$41,550.00	50	1	3		3	$693	2063
Environmental Services	Cardinal	107	108	Shanly Road (First St. to Perry St.)	2003	60	99.7	200	PVC	$22,564.42	$49,850.00	50	1	3		3	$831	2063
Environmental Services	Cardinal	108	113	Shanly Road (Perry St. to Helen St.)	2003	60	88.2	200	PVC	$20,764.90	$44,100.00	50	1	3		3	$735	2063
Environmental Services	Cardinal	113	114	Shanly Road (Helen St. to Hoy St.)	2003	60	88.8	200	PVC	$21,797.66	$44,400.00	50	1	3		3	$740	2063
Environmental Services	Cardinal	114	124	Shanly Road (Hoy St. to Adelaide St.)	2003	60	78.9	200	PVC	$22,126.27	$39,450.00	50	1	3		3	$658	2063
Environmental Services	Cardinal	301	302	Lewis St. (Dundas St. to Munro St.)	2007	60	94.8	200	V.C.	$31,460.00	$47,400.00	54	1	3		3	$790	2067
Environmental Services	Cardinal	302	303	Lewis St. (Munro St. to James St.)	2007	60	77.3	200	V.C.	$26,760.00	$38,650.00	54	1	3		3	$644	2067
Environmental Services	Cardinal	146	144	Helen St. east to Dishaw St.	2009	60	85	250	PVC	$33,759.57	$42,500.00	56	1	3		3	$708	2069
Environmental Services	Cardinal	119	111	Helen St. west to Walker/Helen	2009	60	42.5	250	PVC	$23,332.42	$26,260.84	56	1	3		3	$438	2069
Environmental Services	Cardinal	102	103	Shanly Rd. to 505 Gill St.	2012	60	71.1	250	V.C.	$19,904.92	$35,550.00	59	1	3		3	$593	2072
Environmental Services	Cardinal	103	104	505 Gill St. to Walker St.	2012	60	77.4	250	V.C.	$22,500.30	$38,700.00	59	1	3		3	$645	2072
Environmental Services	Cardinal	104B	104	Gill St. (east of Walker St.)	2012	60	50.4	250	V.C.	$16,035.47	$25,200.00	59	1	3		3	$420	2072
Environmental Services	Cardinal			Adelaide St FORCEMAIN	1996	60	179	150	PVC	$24,441.95	$89,500.00	43	2	4		8	$1,492	2056
Environmental Services	Cardinal			Bridge Canal FORCEMAIN	1974	60	600	150	C.I.	$21,721.61	$300,000.00	21	3	4		12	$5,000	2034
Environmental Services	Cardinal			Henry St FORCEMAIN	1956	60	124	150	PVC	$1,659.22	$62,000.00	3	4	4		16	$1,033	2016
Environmental Services	Industrial Park			Edison Avenue	2008	60	320	525	PVC	$183,103.67	$212,267.34	55	1	3		3	$3,538	2068

Industrial Park Water & Sewer

				$1,173,544.43	$3,013,910.53						$50,232	
Department	**Location**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Industrial Park	1981	60	$1,149,131.00	$2,959,107.42	28	1	5		5	$49,318	2041
Environmental Services	Industrial Park	1982	60	$15,407.00	$38,518.74	29	1	3		3	$642	2042
Environmental Services	Industrial Park	1983	60	$658.00	$1,597.14	30	1	2		2	$27	2043
Environmental Services	Industrial Park	1984	60	$4,403.00	$10,375.96	31	1	3		3	$173	2044
Environmental Services	Industrial Park	2010	60	$3,945.43	$4,311.28	57	1	2		2	$72	2070

Storm Sewers

					$409,322.52	$990,186.11						$16,503	
Department	**Village**	**Location**	**Actual Year**	**Useful Life**	**Historic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Environmental Services	Cardinal	Waler St and Lambert St	2003	60	$155,011.07	$208,321.92	50	1	4		4	$3,472	2063
Environmental Services	Cardinal		1955	60	$27,741.67	$154,060.60	2	3	4		12	$2,568	2015
Environmental Services	Cardinal		1960	60	$86,343.03	$413,618.74	7	3	4		12	$6,894	2020
Environmental Services	Cardinal		1994	60	$89,743.08	$157,365.04	41	1	4		4	$2,623	2054
Environmental Services	Cardinal		2009	60	$50,483.67	$56,819.82	56	1	4		4	$947	2069

Bridges and Culverts

					$2,329,329.34	$3,973,312.22						$99,333	
Department	**Type**	**Item Name & Description**	**Actual Year**	**Useful Life**	**Histroic Cost**	**2013 Replacement Cost**	**Remaining Life**	**Condition/Probability of Failure (1 = good/not likely, 5 = poor/likely)**	**Consequence of Failure (1 = low, 5 = high)**	**Comments**	Risk	**Investement/year**	Trigger
Transportation Services	Bridge	Weir Road	1983	40	$207,496.00	$503,647.25	10	3	5		15	$12,591	2023
Transportation Services	Bridge	Frederick Street	2012	40	$14,484.00	$14,918.52	39	1	3		3	$373	2052
Transportation Services	Bridge	Galop Canal South Foot Bridge	1989	40	$145,790.00	$296,361.05	16	3	4		12	$7,409	2029
Transportation Services	Bridge	Galop Canal North	1930	40	$9,030.25	$105,000.00	0	5	3		15	$2,625	1970
Transportation Services	Culvert	Legion Way	1996	40	$76,232.07	$126,000.00	23	1	4		4	$3,150	2036
Transportation Services	Bridge	North Channel	1996	40	$18,609.41	$30,758.51	23	1	3		3	$769	2036
Transportation Services	Bridge	Martin	1971	40	$14,484.00	$50,124.72	0	4	3		12	$1,253	2011
Transportation Services	Bridge	Millar Road	1996	40	$870,000.00	$1,437,977.44	23	1	5		5	$35,949	2036
Transportation Services	Bridge	East Bridge Ventnor	2013	40	$247,501.00	$247,501.00	40	1	4		4	$6,188	2053
Transportation Services	Culvert	Edison Avenue	2008	40	$23,792.89	$27,582.48	35	1	3		3	$690	2048
Transportation Services	Culvert	Pittston	2007	40	$64,583.23	$77,115.75	34	1	4		4	$1,928	2047
Transportation Services	Culvert	Hyndman	2009	40	$141,292.57	$159,026.03	36	1	4		4	$3,976	2049
Transportation Services	Culvert	Ventnor	2009	40	$143,847.27	$161,901.37	36	1	4		4	$4,048	2049
Transportation Services	Culvert	Goodin Road	2009	40	$130,151.66	$146,486.84	36	1	4		4	$3,662	2049
Transportation Services	Culvert	Road Culverts	1980	40	$222,035.00	$588,911.25	7	2	5		10	$14,723	2020