MORRISON HERSHFIELD

FINAL REPORT

Asset Management Plan

North Stormont, Ontario

Presented to:

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Chief Administrative Officer

Township of North Stormont
15 Union Street
Berwick, ON, K0C 1G0

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EXECUTIVE SUMMARY

The Township of North Stormont has a capital asset value of $422 million. Based on the available information on the condition of the assets, the Township will need to invest $11 million per year over the next 5 years and $4.2 million per year over the following 10 years. Generally, the Township needs to plan for a capital investment of about 1.5% of the total capital asset value per year or about $6.4 million per year in 2017 dollars. This compares to the historical capital investment of about $1.5 million per year.

Based on the estimated age of the Township's infrastructure, the assets are generally in good condition. Detailed condition assessment of assets such as roads and water infrastructure has not been regularly undertaken.

For the Township to maintain the current level of service, a program to replace, rehabilitate and upgrade existing infrastructure will need to be planned and executed. Of particular concern is the 24 bridge structures which currently do not meet the desired level of service. Since 2014, the Township has invested $1.3 million in bridge rehabilitation and replacement, however still more investment in this particular asset is required.

For roads, the Township does not currently have sufficient condition assessment information to make the best infrastructure investment decisions. The Township has a gravel road resurfacing program that is completed over a 4 year cycle. This program has maintained the gravel roads in good condition and no change in investment is required. Paved roads have not been resurfaced over the last 2 year span. The Township does not have condition assessment information that would assist in the planning of investment for the paved road network. It is recommended that the Township complete a Road Needs Study to review the current condition of the road network. This will allow for better informed investment decisions determined by the actual condition of the paved road network.

The Ontario Clean Water Agency provides 5 year rolling capital and maintenance estimates for the water and wastewater treatment, water distribution and conveyance systems. To be consistent with the Asset Management Plan, OCWA can be requested to provide estimated capital needs for a 15 year horizon.

1.0 INTRODUCTION

Morrison Hershfield (MH) was retained by the Township of North Stormont to complete an updated asset management plan (AMP). In 2014, the Council approved an AMP submitted by Craig Keen Despatie Markell (CKDM). MH was requested to update the 2014 plan based on the as-built drawings and reports received from the Township and on information extracted from the Municipal Data Works (MDW) database.

Municipal applications for funding for capital projects to the provincial and federal government are dependent upon the completion of an updated AMP every two years. Since the original AMP was completed in 2014, an update to the plan is required before the end of 2017 to meet this commitment. The current update to the AMP addresses the next 15 years in the lifespan of the Township's assets.

The Township of North Stormont's vision and goal is to have a safe, sustainable and economically vibrant community supported by well-managed infrastructure. These assets include municipal buildings, equipment and vehicles, roadways, bridges and reliable drinking water treatment and distribution and wastewater treatment and conveyance. The AMP provides the financial basis for the investment needed to meet the expected performance levels needed to support the Township's goals.

The provincial guidelines for the preparation of AMPs recommend certain elements to be included. According to the provincial guidelines an AMP should include the following:

- How the goals of the Township are dependent on infrastructure;
- The relationship of the asset management plan to municipal planning and financial documents;
- Describes to the public how the municipality's infrastructure will be managed so that it is capable of providing the levels of service needed to support the municipality's goals;
- States which infrastructure assets are included in the plan. Best practice is to develop a plan that covers all infrastructure assets for which the municipality is responsible. At a minimum, plans should cover roads, bridges, water and wastewater systems, and social housing;
- Identifies how many years the asset management plan covers and when it will be updated. At a minimum, plans must cover 10 years and be updated regularly. Best practice is for plans to cover the entire lifecycle of assets;
- Describes how the asset management plan was developed — who was involved, what resources were used, and any limitations;
- Identifies how the plan will be evaluated and improved through clearly defined actions. Best practice is for actions to be short-term (less than three years) and include a timetable for implementation.

2.0 METHODOLOGY

Using the additional information mentioned in **Section 1.0**, MH developed a more comprehensive inventory of all Township's assets. The following types of assets are considered as part of the current AMP update:

- Vehicles and Equipment
- Water Treatment Facilities
- Wastewater Treatment Facilities
- Bridges
- Township Roads
- Sanitary Conveyance System
- Storm Sewers
- Watermains
- Township Buildings

The asset age is estimated in cases when the year of original purchase, or the year of construction is not available from the information received from the Township. These estimates are documented in **Appendix B**.

A literature review was conducted to estimate the maximum useful life of various municipal infrastructure. A reference table of the estimated useful life of various types of municipal infrastructure is found in **Appendix A**. MH applied this data and the age of the asset to estimate the remaining life. Based on the estimated remaining life of each asset, the condition of the asset was estimated.

The replacement cost for bridges is based on an actual condition assessment. The Bridge Condition Index (BCI) is used to estimate the remaining life of the bridge, instead of just the age of the asset. According to the Ontario Structure Inspection Manual (OSIM), bridge structures with BCI less than 60 are to be replaced or rehabilitated within five years. Structures with BCI 60 to 85 are to be replaced or rehabilitated within 6 to 15 years.

The replacement cost time period depends on the age based condition estimate of the assets. The detailed spreadsheet inventory used to assess conditions, replacement costs and the recommended work is found in **Appendix B**.

The approach to estimate the total value of the assets was different for each asset type. The following sections outline the approach used for each asset type.

An annual inflation rate of 1.8% was applied to determine the 2017 replacement value from the 2014 AMP. The 1.8% is the Consumer Price Index (CPI) average over the previous 20 years according to Statistics Canada.

2.1 Vehicles and Equipment

The Township owns a total of 60 vehicles and related equipment. Vehicles include trucks, fire trucks, garbage trucks and snowplows while equipment includes tractors, trailers, graders, front end loaders, packers and other assorted equipment. Several new vehicles or equipment have been purchased since 2014. The 2014 AMP included 45 vehicles and equipment. Some of the Township vehicles and equipment in the 2014 AMP were removed from the inventory.

2.2 Water Treatment Facilities

The Township owns water treatment plants in the villages of Crysler, Finch and Moose Creek. The treatment plant in Crysler was installed in 1994 and consists of two wells, a treatment plant and an elevated storage tank. The treatment plant is a two stage disinfection for a GUDI (Groundwater well Under Direct Influence of surface water). The two disinfection systems are UV and Sodium Hypochlorite.

The Village of Finch treatment system consists of two wells, a pump house with treatment, a clearwell, and an elevated storage tank. The treatment plant has an aeration system and a sodium hypochlorite disinfection system.

The Moose Creek treatment system includes three groundwater wells, a treatment plant and an elevated storage tank. The treatment is the addition of Sodium Hypochlorite for disinfection.

The operation and maintenance of these facilities has been contracted by the Township to the Ontario Clean Water Agency (OCWA). OCWA provides annual rolling 5 year capital and maintenance expenditures to the Township for review and approval. The 2017 report estimates that $412,000 needs to be expended for capital improvements and maintenance of the water treatment facilities.

The asset value of the water treatment system is calculated based on the values in the 2014 AMP prorated to 2017 dollars. This value was compared to facility cost estimates for similar systems and was found to be reasonable.

2.3 Wastewater Treatment Facilities

The Township owns two lagoons in the village of Crysler and Moose Creek for wastewater treatment. The lagoon in Crysler services both villages of Crysler and Finch. In total, the township owns six pump stations for wastewater conveyance: four located in Finch, one in Moose Creek and one at Crysler.

In 2013, the Township completed a Municipal Class Environmental Assessment for the growth requirements for the Finch and Crysler wastewater system. The study recommended the implementation of a flow optimization program and in-line storage at the Finch pumping Station for a total cost estimate of $938,000. According to the report prepared by OCWA in 2017 on the annual 5 year capital and maintenance expenditures, $458,400 needs to be invested in the wastewater treatment facilities over the next 5 years (2018-20122).

The asset value of the wastewater treatment system is calculated based on the values in the 2014 AMP prorated to 2017 dollars. This value was compared to facility cost estimates for similar systems and was found to be reasonable.

2.4 Bridges and Structural Culverts

Based on the information received, the Township owns 25 bridge structures and 19 structural culverts. Since the 2014 AMP report the township has replaced 3 bridges with culverts.

The total replacement cost for bridges and culverts is estimated based on a unit construction cost per square meter of deck area:

Bridges	Cost per Deck Area (m^2)
Small (less than 80m^2)	$ 12,000
Medium (80-499m^2)	$ 10,000
Large (more than 500m^2)	$ 7,000

Culverts	Cost per Deck Area (m^2)
Precast Box	$ 4,600
Corrugated Steel Plate (CSP)	$ 3,600
Concrete Pipe	$ 4,200

For bridge structures the bridge deck area is determined from the length and the width of the deck. For culverts, the deck area considered for costing is obtained from the MDW data.

Two sources were used to determine the estimated costs for new bridges, the MTO Parametric Estimating Guide and average bridge cost provided by the City of Ottawa. The MTO Parametric Estimating Guide provides per m^2 cost of bridges broken down into 7 different ranges of bridge deck areas, with smaller bridge deck areas having a higher per m^2 cost than larger bridge deck areas. The City of Ottawa provided a bridge cost range between $7,000 and $12,000 per m^2 with an average of $10,000 per m^2.

Based on the Parametric Estimating Guide, the difference in per m^2 cost for a bridge with a deck area of 500m^2 and a bridge with a deck area of 8,000 m^2 was minimal. Therefore, it was determined that cost per m^2 did not vary significantly once the deck size was greater than 500 m^2. There was a greater variance in cost per m^2 for decks with an area less than 500 m^2. Based on this information the cost per m^2 of deck area was broken down into three categories, small bridges (a deck area of <80 m^2), medium bridges (a deck area between 80 and 499 m^2) and large bridges (a deck area ≥500 m^2).

The version of the MTO Parametric Estimating Guide that was referenced was published in 2007 and the costs provided in this guide may be outdated. Additionally, the average costs provided in the guide are based on average MTO bridge costs for regions across Ontario and may not accurately reflect the average costs for bridges in North Stormont. For these reasons, it was determined that the bridge cost range provided by the City of Ottawa would be more reflective of costs for bridges in North Stormont. Using the cost range provided by the City of Ottawa, an average cost of $12,000 per m^2 was used for small bridges, $10,000 per m^2 was used for medium bridges and $7,000 per m^2 was used for large bridges.

2.5 Roads

The Township owns a total of approximately 340 km of road. Paved roads make up 40 km of this total with the rest of the roads having a gravel or surface treated surface. The 2014 AMP estimated the total length of Township roads to be 400 km.

The total value for roads is estimated applying the following unit costs:

- Paved “high class” road: $900/m
- Paved HL-3/4 road: $790/m
- Gravel road: $680/m
- Surface treated road: $720/m

These costs are for removal of the complete road structure down to subgrade and replacement and assume a road width of 6m. Paved “high class” roads are assumed to be 100mm superpave, 150mm of Granular A, 600mm Granular B. The paved road is assumed to be 50mm HL4 asphalt, 150mm Granular A, 600mm Granular B. Gravel road is assumed to be 250mm Granular A and 450mm Granular B. Finally surface treated roads are assumed to be surface treatment, 150mm Granular A and 600mm Granular B.

The above unit costs are based on recent projects administered by MH, as well as the 2011 MTO parametric estimating guidelines.

An alternative method for determining the life cycle cost of roads would be to assume a maintenance cycle for roads. A typical maintenance cycle would consist of completing rehabilitation of the roads every 5 to 10 years. A minor rehabilitation would be undertaken in the first and possibly second cycle, and a major rehabilitation would be completed in the second or third cycle, depending on the actual condition of the road and the traffic loading. Typical cost for minor and major rehabilitations are given in Table 1 below.

Table 1: Road Maintenance Cycle Costing

Class of Road	Minor Rehabilitation	Rate	Major Rehabilitation	Rate
Paved “high class”	One lift shave and pave - 40mm milling - 50mm SP 12.5	$150/m	Recycle and pave 2 lifts - pulverize - 50mm SP 12.5 - 50mm SP 19.0	$275/m
Paved HL-3/4	One lift Overlay - 50mm HL-4	$130/m	Recycle and pave 1 lift - pulverize - 50mm HL-4	$170/m
Gravel	Heavy grading - 100mm of Granular A	$35/m	Heavy grading - 100mm of Granular A	$35/m
Surface Treated	Surface treatment (over existing) - emulsified asphalt - Granular A	$75/m	Recycle and surface treatment - pulverize - emulsified asphalt - Granular A for roadway	$110/m

2.6 Sanitary Conveyance System

The Township owns approximately 25 km of sanitary sewers. The results of the review indicate that the material of most of the sanitary sewers is polyvinyl chloride (PVC) with sizes ranging from 200 mm to 450 mm. Approximately 60% of the total length of the sanitary sewers are 200 mm in diameter.

The Township owns approximately 11 km of sanitary forcemains. They range in size from 150mm to 300mm. The forcemains were built between 1993 and 2009

The 2017 City of Ottawa's historical construction cost data was used to estimate the total replacement cost for the sanitary sewers and forcemains.

2.7 Storm Sewers

The Township owns approximately 13 km of storm sewers with associated manholes, catchbasins, and outfall structures. The results of the review indicate that the sizes range from 250 mm to 825 mm with approximately 70% of the total length of storm sewers are 600 mm in size.

The 2017 City of Ottawa's historical construction cost data are used to estimate the total value for storm sewers.

2.8 Watermains

The Township owns approximately 30 km of watermains. The results of the review indicate that the sizes range from 100 mm to 450 mm. The majority of the watermains are PVC and are 200 mm in diameter. 80% of the watermains are PVC while 20% are ductile iron (DI).

The 2017 City of Ottawa's historical construction cost data are used to estimate the total value for watermains.

2.9 Buildings

The Township owns 46 buildings, the largest of which is the arena in the Village of Finch. This is a substantial increase from the previous 2014 AMP which listed a total of 27 buildings. The 2014 AMP did not have a complete list of the municipal buildings.

The estimate of the municipal building asset value is based on a Loss Control Inspection/Valuation Report obtained from the Township (Jardine Lloyd Thompson Canada Inc). This report lists the 2014 reconstruction cost for each building owned by the Township.

MH adjusted the 2014 value to the 2017 value by applying the annual CPI of 1.8%.

The rehabilitation cost for buildings is based on the age of the buildings relative to their expected life. A building in poor condition requires major rehabilitation, while a building in fair condition requires moderate rehabilitation measures. Similarly, a building in good condition only requires minor rehabilitation. The percentage of buildings being in excellent, good, fair or poor condition is provided in **Section 4.9**. The following percentages are applied to estimate the rehabilitation cost of buildings:

- Major rehabilitation requires 80% of the total value
- Moderate rehabilitation requires 40% of the total value
- Minor rehabilitation requires 20% of the total value

3.0 QUANTITY AND COST OVERVIEW

The Township of North Stormont has about $422 million worth of assets to manage and ultimately replace. The Township will need to invest $11 million in capital asset replacement per year over the next five years to adequately maintain the current level of service.

Roads represent the highest value asset that the Township owns and manages (see Figure 1). Approximately 38% of the Township's paved roads are in a condition where the road may be a candidate for reconstruction within five years. This conclusion is based on very limited information on the actual current condition of the paved roads.

Table 2 shows the different types of assets with respect to its corresponding costs and quantities. Figure 1 gives a graphical representation of the value of all assets. The detailed replacement costs for each asset type are found in **Appendix B**.

Table 2: Summary of Replacement Cost (2017 Dollars)

Asset Name	Quantity	Unit	Replacement Cost 2017	Replacement Cost within 1-5 years	Replacement Cost within 6-15 years
Vehicles and Equipment	41	Ea	$ 8,906,000	$ 5,262,000	$ 2,662,000
Water Treatment Facilities	6	Ea	$ 9,162,000	$ 412,000	$ 3,054,000
Wastewater Treatment Facilities	8	Ea	$ 15,810,000	$ 458,000	$ -
Bridge	3,120	m^2	$ 26,095,000	$ 13,648,000	$ 11,430,000
Road	342	km	$ 248,113,000	$ 24,710,000	$ 24,380,000
Sanitary Conveyance System	34,990	m	$ 47,774,000	$ -	$ -
Storm Sewer	12,900	m	$ 15,579,000	$ -	$ -
Watermain	30,000	m	$ 22,953,000	$ -	$ -
Building	14,100	m^2	$ 28,475,000	$ 10,755,000	$ 234,000
Total			**$ 422,867,000**	**$ 55,245,000**	**$ 41,760,000**

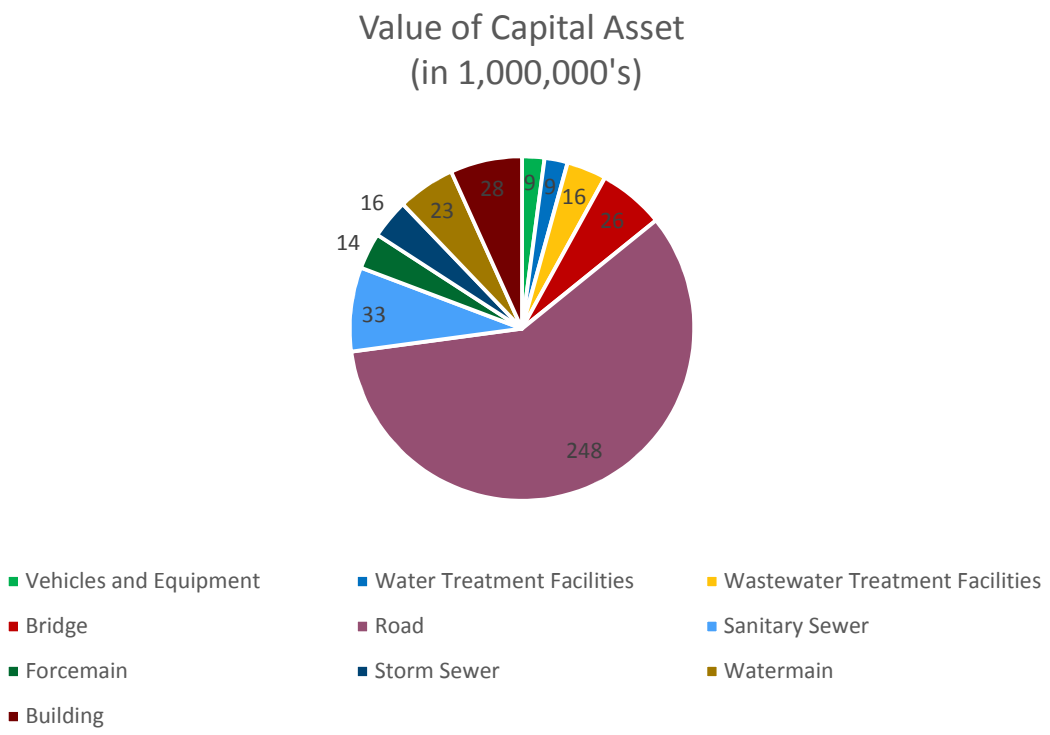


Figure 1: Value of Capital Assets (in 1,000, 000's)

4.0 ASSET CONDITIONS

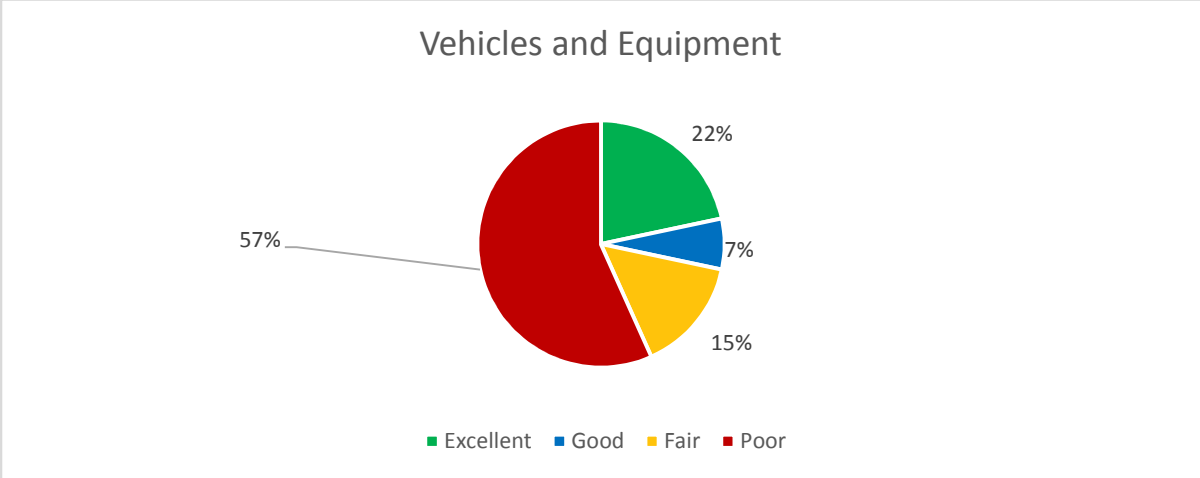
Maintenance and operation of municipal assets is designed to maintain level of service and optimize the lifespan of the assets. Investments in sampling asset condition through specific inspection and assessment provides a more accurate understanding of the actual condition of the asset. This serves to optimize financial planning, the levels and timing of capital investment.

With the exception of bridges and structural culverts, detailed condition assessments are not available for the Township's assets. The approach in estimating the condition for each asset type is outlined in **Section 2.0**. Asset condition ratings are given as either Excellent, Good, Fair or Poor. A list of each type of asset and its corresponding condition is provided in **Appendix B**.

4.1 Vehicles and Equipment

The following assumptions are made for the condition assessment:

- 1994 is assumed for unknown purchase year
- The typical life expectancy of vehicles and equipment is 10 years
- The typical life expectancy of fire trucks is 25 years



The purchase year is unknown for 13% of vehicles and equipment and an arbitrary year of 1994 is used for the condition estimate. The age of the remaining vehicles is determined by the VIN numbers supplied by the Township.

The results indicate that the majority of the vehicles and equipment are in poor condition. As such, they will need to be replaced within a year. If replacements are deferred then the serviceability of the vehicle could end at any time, resulting in a lower level of service, and unplanned expenditures to maintain the level of service. The Township should increase their capital budget in the short term (1 to 5 years) so that vehicle replacements can be spread out over 10 years. Vehicles and equipment over 10 years of age should be replaced within the next 5 years to avoid sudden loss of service and to ideally spread the age of the vehicles over the 10 years.

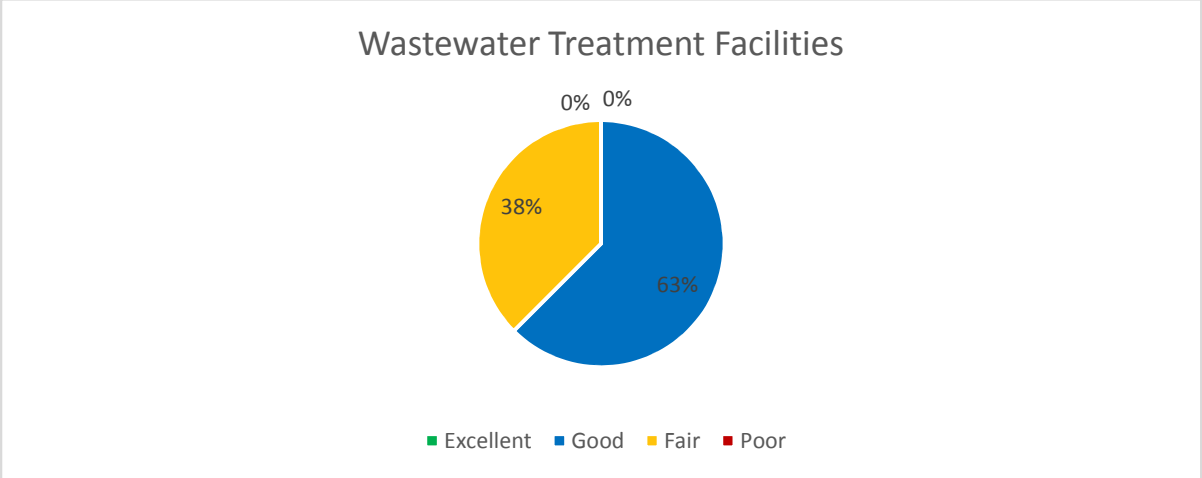
4.2 Water Treatment Facilities

The assumed life expectancy for water treatment facilities is 45 years. The Crysler water treatment facility was constructed in 1994, Finch's plant was built in 1978 and the Moose Creek treatment plant was built in 1995. Information received from OCWA indicate that the treatment facilities will require on-going review and scheduled replacement of some components. However these facilities are not expected to require a complete replacement over the next 15 years.

4.3 Wastewater Treatment Facilities

The following assumptions are made for the condition assessment:

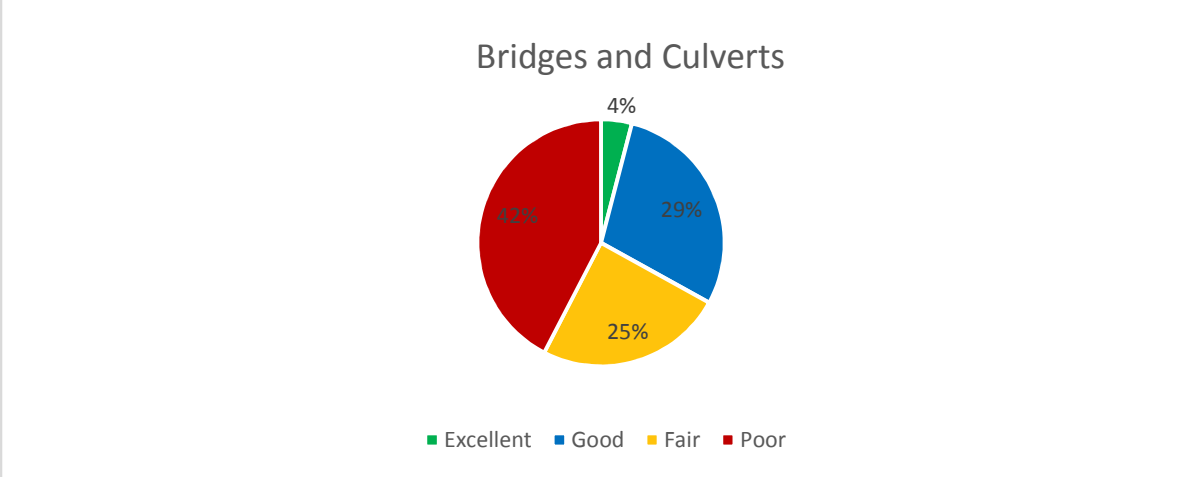
- 45 years is assumed as the typical life expectancy of the asset



The results indicate that 63% of assets are in good condition and do not require replacement within 15 years. OCWA has an ongoing maintenance and repair program for the wastewater treatment facilities, and provides estimates annual estimates for 5 year capital and maintenance requirements. This program should be maintained to prolong the lifespan of the assets. OCWA can be requested to provide estimates for capital expenditures up to 15 years based on detailed assessment of the condition of the treatment facilities.

4.4 Bridges

MH used the 2015 BCI to assess the condition of the bridges. The BCI value is obtained after each bi-annual inspection completed by a structural engineer. The 2017 Bridge inspection program has not been completed and updated BCI data is not available. Additional information about the estimated BCI value is given in **Appendix B**.



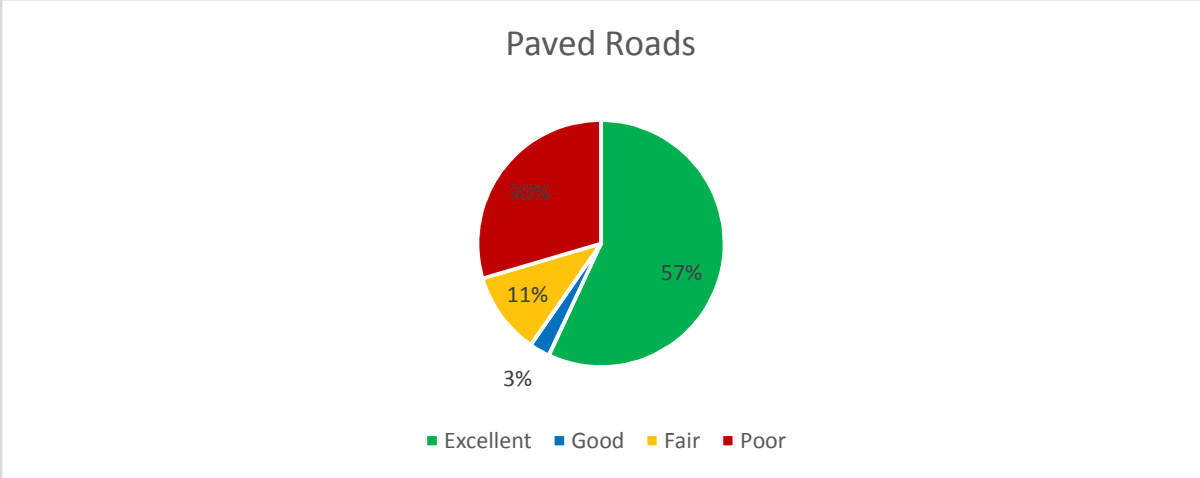
Results show that the majority of the bridges are in poor condition. No bridges are found to be in excellent condition. The capital budget should be increase to ensure the existing bridge assets are replaced before failure.

4.5 Roads

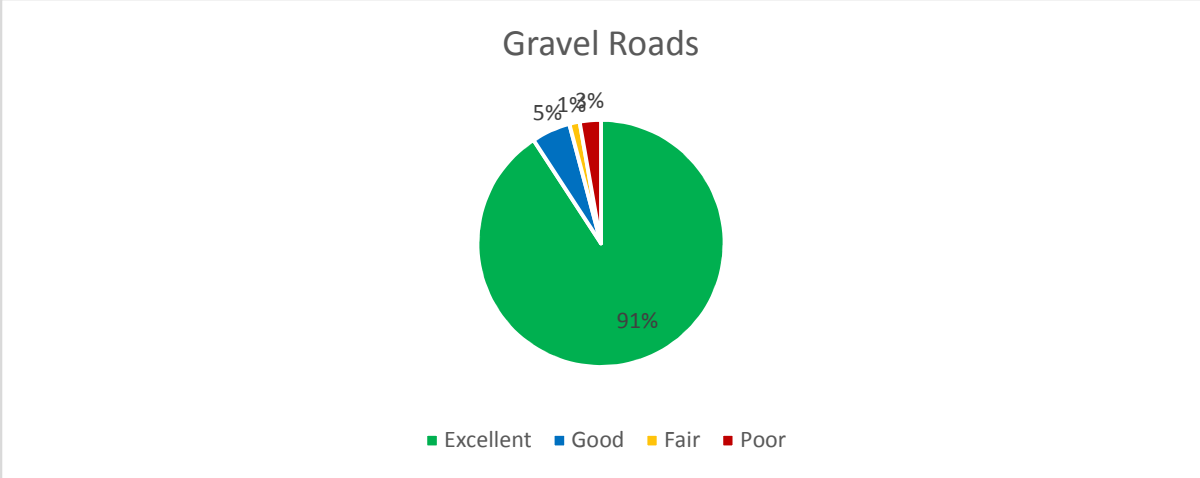
According to inventory information received, the Township of North Stormont owns about 40 km of paved roads, 90 km of surface treated roads and 210 km of gravel surface roads.

The following assumptions are made for the condition assessment:

- 20 years is assumed as the typical life expectancy for paved roads
- 25 years is assumed as the typical life expectancy for gravel roads



Typically paved roads need to be reconstructed after 20 years, and rehabilitated, or undergo resurfacing after 10 years. Township Staff has provided MH with a condition rating for each paved road based on their knowledge of the road network. The results show that 57% of the paved roads are in excellent condition, 5% are good, 15% are fair and 23% is in poor condition. The Township did not undertake any resurfacing of the paved roads in the past 3 years. Prior to that, 5 km of paved roads were resurfaced in 2013.

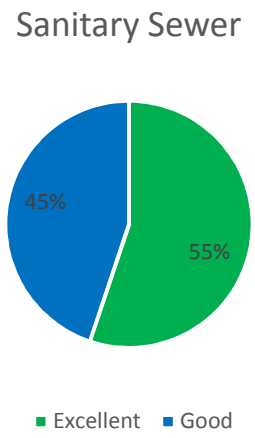


The Township has consistently resurface gravel roads every four years. As such, the gravel roads are in excellent condition, and the current level of investment is sufficient to maintain this condition.

4.6 Sanitary Conveyance Systems

The following assumptions are made for the condition assessment:

- 1996 is assumed for unknown construction year
- 75 years is estimated as the typical life expectancy of the asset

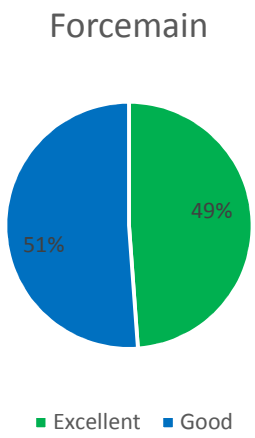


Approximately 11% of the total length of the sanitary sewer have an unknown construction year.

The results indicate that more than 50% of the sanitary sewers are in excellent condition with the remaining assets being in good condition – based on the age of the system. Although the replacement of the sanitary sewers is not an issue, it is recommended that the Township continues with their program of routine maintenance to increase the lifespan of these assets and prevent costly replacement projects in the future.

The following assumptions are made for forcemains in the condition assessment:

- 200 mm is assumed for unknown asset size
- 75 years is assumed as the typical life expectancy of the asset



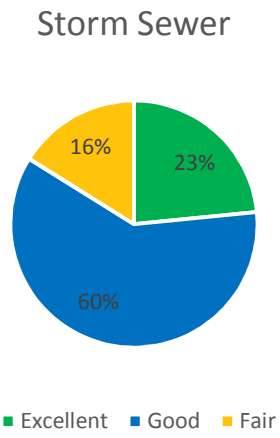
Approximately 60% of the total length of the forcemain have an assumed size of 200 mm. The as-built drawings received from the Township show that all forcemains range from 150 mm to 300 mm. Since the diameters of the forcemains are not clearly legible from the as-built drawings received, a 200 mm diameter is assumed and used for costing purposes.

The results indicate that approximately 50% of the forcemains are in excellent condition. The remaining of the assets are in good condition. As such, they do have to be rehabilitated within 15 years. Regular maintenance will extend the lifespan of these assets and prevent costly replacement projects in the future.

4.7 Storm Sewers

The following assumptions are made for the condition assessment:

- 600 mm is assumed for unknown asset size
- 75 years is assumed as the typical life expectancy of the asset
- 1996 is assumed for unknown installation year



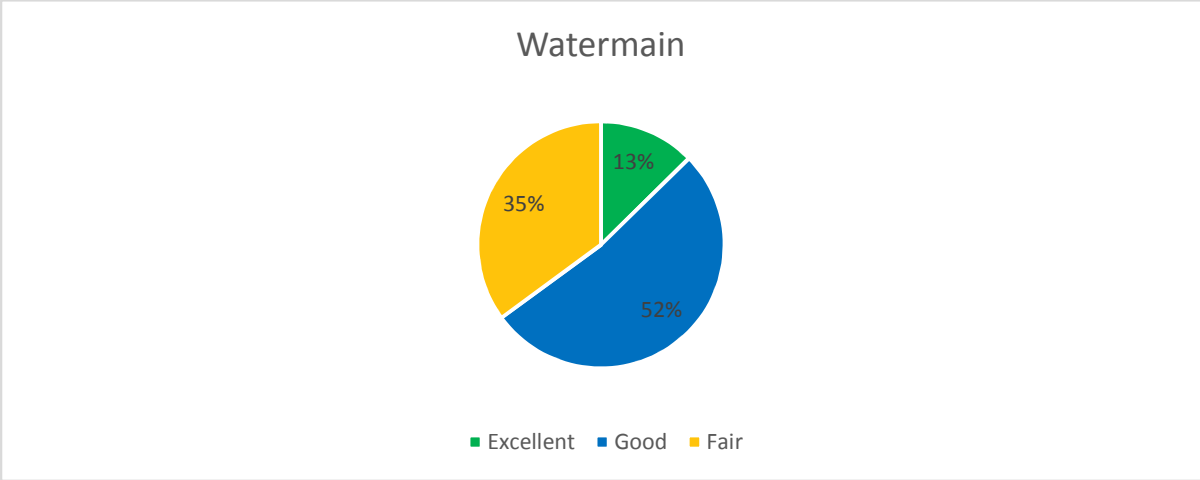
Approximately 20% of the total length of storm sewers have an assumed installation year when the installation year is unknown. 56% of the total length of storm sewers have an assumed size of 600 mm when the size of the storm sewer is unknown.

Results indicate that more than 50% of the storm sewers are in good condition. 23% are in excellent condition while 16% are in fair condition. As such, they do not have to be rehabilitated within 15 years. Regular maintenance is necessary to maintain the condition of the storm sewers. This will delay costly repairs in the future.

4.8 Watermains

The following assumptions are made for the condition assessment:

- 200 mm is assumed for unknown asset size
- 75 years is assumed as the typical life expectancy of the asset
- 1979 is assumed for unknown installation year



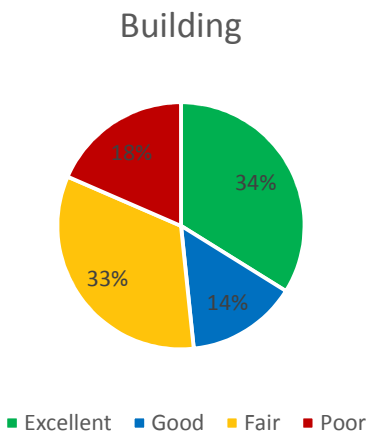
9% of the watermains have an unknown installation year and have been assumed to be built in 1979. Approximately 20% of the watermains have an unknown asset size of 200 mm.

Results indicate that approximately 50% of the watermains is in good condition with the remaining watermains in excellent or fair condition. Therefore they do not require rehabilitated or replacement within 15 years. None of the assets are in poor condition. However, approximately 35% of watermains are in fair condition. Regular maintenance is important to ensure that the percentage of watermains in poor condition does not increase.

4.9 Buildings

The following assumptions are made for the condition assessment:

- When a range of dates is provided, the age of building is taken as the earliest date
- 75 years is assumed as the typical life expectancy of the asset
- 1990 is assumed for unknown construction year



The construction year is unknown for 9 out of 46 buildings. Therefore 1990 is assumed as the construction year.

Approximately 34% of the buildings are in excellent condition. Around 18% of the buildings are in poor condition. An increase in capital budget is required to either upgrade or replace the older facilities.

5.0 DESIRED LEVELS OF SERVICE

The following section outline the criteria for the monitoring, maintenance and rehabilitation of the assets. Table 3 shows the levels of service of each asset type. Table 3 also shows the current and targeted level of service. The levels of service for forcemains, storm and sanitary sewers were not addressed as part of this evaluation. This is because there are no standards to measure the corresponding level of service. The current level of service is to be reviewed and confirmed by the Township. The current level of service is the same as in the 2014 AMP.

Table 3: Level of Service- Targeted and Current

Asset Name	**Level of Service Measurement**	**Targeted Level of Service**	**Current Level of Service**
Vehicles and Equipment	Operability	90%	To Confirm
Water Treatment Facilities and Equipment	Operability	99%	To Confirm
Wastewater Treatment Facilities and Equipment	Operability	95%	To Confirm
Bridge	Operability	98%	To Confirm
Road	Compliance with Ontario Regulation 239/02 - Minimum Maintenance Standards for Municipal Highways	Full compliance	To Confirm
Watermain	Number of water main break per km per year	0.5	To Confirm
	Response time for notices submitted in accordance with subsection 18(1) of SDWA	2 days	To Confirm
	Days under boil water advisory	0.5 days	To Confirm
Building	Availability	99%	To Confirm
	Compliance with Accessibility for Ontarians with Disability Act and Integrated Accessibility Standards	Full compliance	To Confirm

The targeted level of service may be affected by unforeseen events. An evaluation of the performance measures should take into account the impact of unforeseen events. These unforeseen events include the availability of facilities impacted from weather conditions or power disruptions. These events may cause the Township to deviate from the targeted level of service.

6.0 ASSET MANAGEMENT STRATEGY

The asset management strategy involves a set of planned actions that enable the assets to provide the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost. Those planned actions include:

- Integrated infrastructure planning
- Maintenance strategies
- Replacement or rehabilitation strategies

6.1 Summary of Planned Actions

Vehicles and Equipment

Integrated Infrastructure Planning

The purchase of new vehicles is to be planned with upcoming technologies, environmental regulations, operational changes, or service demand increase or decrease.

Maintenance Strategies

Manufacturers recommended servicing is required to maximize the lifespan of the vehicles.

Rehabilitation and Replacement Criteria

The optimal replacement year for vehicles is based on a lifecycle costs analysis. This analysis takes into consideration depreciation of the vehicle, fuel costs, repairs and insurance.

Rehabilitation and Replacement Strategies

Replacement of the vehicle is recommended when the repair cost exceeds 40% of the replacement cost. Seasonal rental opportunities and leases are alternatives to purchasing new vehicles.

Water Treatment Facilities and Equipment

The North Stormont Water Treatment system consists of three separate facilities serving the communities of Crysler, Moose Creek and Finch. Information relative to the systems are obtained from the Ontario Clean Water Agency (OCWA). OCWA provided a summary of water and sewer system information including the inspection results of the Finch water tower.

The Crysler system consists of two wells, a drinking water treatment plant, and an elevated storage tank. The treatment plant provides primary treatment by ultraviolet disinfection and secondary treatment with sodium hypochlorite – all serving 11 kilometers of watermain within the services area with a population of 700.

The Moose Creek drinking water system consists of three raw water wells, a drinking water treatment plant, and an elevated storage tank. Primary and secondary treatment is provided with sodium hypochlorite. The system feeds a 7 kilometer distribution system that serves a population of 400.

The Finch Water system consists of two wells, a pump house with treatment, a clearwell, an elevated storage tank feeding 9 kilometers of distribution watermains for a population of 500. Groundwater is pumped from one of two source wells through an aeration tower for hydrogen sulphide removal. From the tower, water flows to a contact tank where sodium hypochlorite is added and sufficient time for disinfection is allowed. As water is used throughout the distribution system, the level of the water tower falls to a preset limit and a pump in the plant starts. The pump draws water from the contact tank and forces it through pressure filters and out of the treatment plant to refill the water tower.

Integrated Infrastructure Planning

The purchase and installation of new equipment and the construction of new water treatment facilities is planned together with knowledge of demands from growth, new and more cost effective technologies, compliance with environmental regulations, and on-going operational changes.

Maintenance Strategies

Manufacturers recommended maintenance is required to maintain the expected lifespan of the equipment and facilities. This is documented in the operational manuals for the facilities. In addition, OCWA have provided a list of recommendations from inspections of the water towers. No detailed inventory and inspection reports for the treatment plants were obtained. In 2016, OCWA performed a number of repair and replacement activities at the treatment plants. These are documented in the annual report for each system filed by OCWA.

Rehabilitation and Replacement Criteria

Water treatment can be upgraded to increase its capacity and to meet new regulations, or to address the end of life of various components of the treatment facility. A detailed lifecycle cost analysis of the facility is required to plan the upgrades required.

Rehabilitation and Replacement Strategies

To meet potential increase in water demands, either additional water treatment facilities are planned and constructed, or the existing plant is expanded to increase its capacity. Alternatively, new and more efficient water treatment technologies can be applied to meet the increase in the water supply demand.

MH also recommends that the Township work with OCWA to understand the condition of these complex water treatment facilities so that a more detailed and specific plan is documented.

Waste Water Treatment Facilities and Equipment

The North Stormont Waste Water Treatment system consists of two separate facilities serving the communities of Moose Creek, Crysler and Finch. Information relative to the systems is obtained from OCWA.

Moose Creek waste water treatment system consists of approximately 4 kilometers of collection piping, one pump station and a sewage lagoon. The collection system is gravity drained to the pump station located on Simeon Lane. The pump station pumps the sewage via forcemains to the two cell sewage lagoon located northwest of the town. The Moose Creek Lagoon services a population of 400 people.

The Finch waste water treatment system consists of approximately 15 kilometers of collection piping and four pump stations. Pump Station number 4 is located on Victoria Street in the south end of Finch and services a few properties on Victoria Street pumping to the town's main gravity collection system. Pump Station number 3 is located on Front Street in the east end of Finch and services a few properties east of Payne River pumping to the town's main gravity collection system. Pump Station number 2 is located on William Street and services the northwest quadrant of the town. This pump station again pumps to the town's main gravity system.

The main Finch gravity sewer system services the remaining sections of the town. This system drains to Pump Station number 1 located north of the town on Finch Main Street. This pump station pumps the sewage to the Crysler collection system.

The Crysler waste water treatment system consists of approximately 7 kilometers of collection piping, one pump station and a sewage lagoon. The collection system is gravity drained to the pump station located just off Queen Street. The pump station pumps the sewage via forcemain to the sewage lagoon located northeast of the town. The Crysler lagoon services the 500 population of Finch and the 700 population of Crysler.

Integrated Infrastructure Planning

The purchase and installation of new equipment and the construction of new waste water treatment facilities is planned together with knowledge of demands from growth, new and more cost effective technologies, compliance with environmental regulations, and on-going operational changes.

Maintenance Strategies

Manufacturers recommended maintenance is required to maintain the expected lifespan of the equipment and facilities. This is documented in the operational manuals for the facilities. No detailed inventory and inspection reports for the lagoons and pumping stations were obtained. In 2016, OCWA performed a flushing of 50% of collections systems for Finch, Crysler and Moose Creek. These are documented in the annual report for each system filed by OCWA.

Rehabilitation and Replacement Criteria

Waste water treatment facilities are typically upgraded to increase capacity and to meet new regulations, or to address the end of life of various components of the treatment facility. A detailed lifecycle cost analysis of the facility would be required to plan the upgrades required.

Rehabilitation and Replacement Strategies

The Township can work with OCWA to understand the condition of these complex assets so that a more detailed and specific plan can be documented.

Bridges

Integrated Infrastructure Planning

Rehabilitation and replacement of bridges can be integrated with road surfacing or road widening projects.

Maintenance Strategies

Bridges and culverts are to be inspected every 2 years according to the OSIM. Routine servicing is required to increase the lifespan of bridges and culverts.

Rehabilitation and Replacement Criteria

After each bi-annual inspection, a report is submitted by a structural engineer. The report describes the severity and the extent of deterioration of the structure. An overall Bridge Condition Index (BCI) is provided for each bridge. As mentioned in **Appendix B,** the condition rating based on the BCI value is as follows:

- Excellent BCI index > 80
- Good BCI index 61 - 79
- Fair BCI index 51 - 60
- Poor BCI index < 50

Replacement within five years is recommended for BCI index less than 60. BCI index 60 to 85 requires replacement within 6 to 15 years.

Rehabilitation and Replacement Strategies

Rehabilitation or replacement is based on the condition rating given by the bi-annual condition survey.

Roads

There are approximately 340 kilometers of roadways under the ownership of the Township. This consists of 40 kilometers of paved roadways, 90 kilometers of surface treated roads, and 210 kilometers of gravel surface roads. The roads also include culvert crossings and side ditches, as well as sidewalks and street lighting in the case of urban roads.

Integrated Infrastructure Planning

Road rehabilitation projects are planned and constructed in accordance with underground utility replacement or rehabilitation projects. This decreases the overall cost

Rehabilitation and Replacement Criteria

The criteria used to make investment decisions to rehabilitate or re-construct roads include factors related to pavement performance and condition. The Township could complete road inspections of pavement condition and identify the overall condition, and list roads in various categories. Roads in poor condition have a hard surface that has deteriorated to a level where patching operations are no longer effective. These roads need to be re-constructed or have base and surface rehabilitation. Roads in fair condition need to be resurfaced to maintain condition and serviceability in the long term. Roads in good condition need to experience crack sealing to prevent deterioration. Municipalities generally apply a road resurfacing and rehabilitation program to provide a balanced approach of maintaining roads that are in good condition with surface treatment (tar & chip, or hot mix overlay), and also addressing roads in poor condition with base and surface rehabilitation.

Rehabilitation and Replacement Strategies

A road rehabilitation strategy must apply the result of an overall Roads Needs Study. The purpose of the Road Needs Study (RNS) is to present an updated inventory and assessment of the road network within the Municipality from which a financial program for the maintenance and capital improvements can be derived. The RNS will assess the condition of roads and develop a more detailed understanding of the required strategy to maintain expected performance. Generally roads need to be re-constructed every 20 years, and experience re-surfacing every 10 years. Pavement sealing and crack sealing is conducted on a more frequent basis to preserve road condition.

Water and Wastewater Collection System

Generally, the watermains and sewer systems in the Township of North Stormont are relatively new. There are 30 kilometers of watermains and 25 kilometers of sanitary sewers in North Stormont. These are generally concentrated in the Villages of Moose Creek, Crysler and Finch. The water system includes valves, valve boxes, and fire hydrants, as well as service lines to the property line. The sanitary sewer system includes manholes, 6 lift stations, and forcemains.

Integrated Infrastructure Planning

The replacement or the rehabilitation of forcemains, watermains, sanitary and storm sewers are generally combined with road rehabilitation projects to decrease cost. The replacement program can also be combined with plans for servicing growth.

Rehabilitation and Replacement Criteria

The criteria used to evaluate decisions on the replacement or rehabilitation of water and sewer system include the age, break history of watermains, CCTV inspection reports, the material type.

Rehabilitation and Replacement Strategies

Based on CCTV inspections, different strategies can be applied for a replacement/rehabilitation strategy. These include:

- Full road reconstruction and replacement of watermains and sewers;
- Cleaning, lining and structural re-lining; and
- Cathodic protection of watermains.

Buildings

Integrated Infrastructure Planning

The planning for building replacement needs to be considered with future needs of the community and is to be integrated with parks and recreation planning, emergency services planning, and the overall operations of the Township.

Maintenance Strategies

Routine maintenance is required to increase the lifespan of the buildings. This will also avoid future costly repairs.

Rehabilitation and Replacement Criteria

The construction of new buildings is dependent on the population size. An increase in population size would require more buildings.

Rehabilitation and Replacement Strategies

To meet the increase in population, new buildings can be constructed. An existing building can also be expanded to increase its capacity instead of constructing a new one.

6.2 Asset Priorities

The Township's 2017 capital budget is $560,600. Based on the condition of its infrastructure, the Township needs additional budget to improve the condition of its infrastructure. The Township would be unable to meet its ongoing infrastructure requirements without a significant increase in funding from the provincial government. The Township has to prioritize its capital investment needs. The following guidelines are required to determine the priority of projects to be completed:

Priority 1

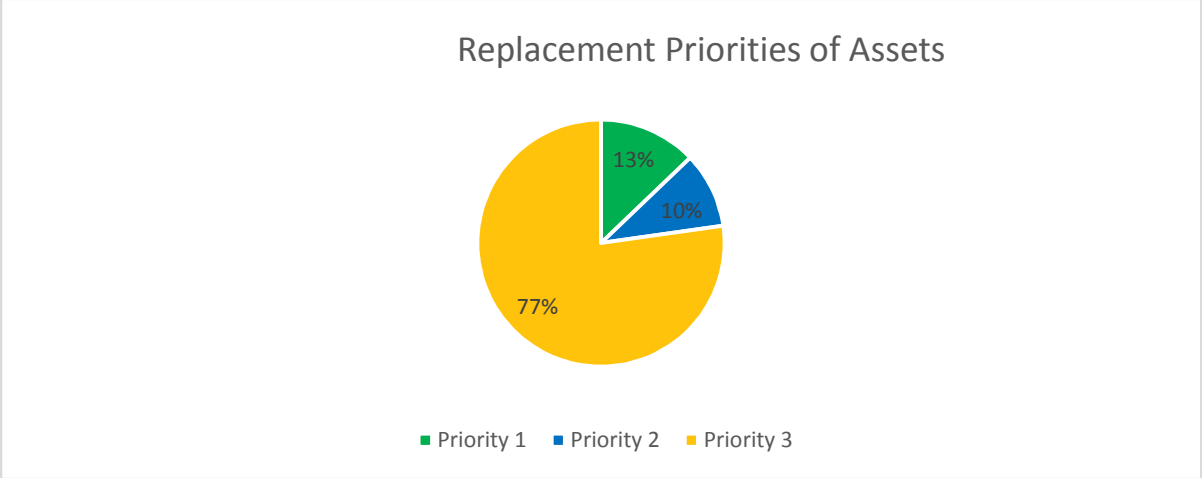
- Asset that needs capital investment within five years due to their condition
- Integrated assets that may not require investment, but should be replaced along with another infrastructure project (water and sewer with road projects)

Priority 2

- Asset that needs capital investment within 6-15 years due to their condition

Priority 3

- Asset that needs capital investment within the next 15 years due to their condition



Based on the replacement priorities of all assets, the Township is expected to replace around 13% of their assets in the first five years. The total replacement cost for priority 1 is approximately $54,375,000. The replacement cost for priority 2 is approximately $41,759,000.

Results indicate that roads constitute the majority of priority 1 at around $24,709,000. It may not be feasible for the Township to rehabilitate all roads within five years. Therefore, the Township has to identify the roads that are to be rehabilitated first and the ones that could possibly be rehabilitated at a later time.

6.3 Financing Strategy

6.3.1 Life Cycle Needs

In addition to funding the immediate needs of the infrastructure, the Township is also required to fund all of the costs associated with the life cycle and replacement costs of its infrastructure. Previously, the Township has relied on federal and provincial grants to fund a large portion of its infrastructure. This resulted in fluctuations in its actual capital investment. To reduce large fluctuations, life cycle cost of infrastructure should be funded over the entire life of the asset. **Table 4** shows the life cycle costs for each asset type. The Township requires a total of $13,601,000 to avoid fluctuations in its capital investment.

Table 4: Life Cycle Costs

Asset Name	Basis of Determination	Total Value 2017	Estimated Useful Life (Years)	Average Annual Requirement
Vehicles and Equipment	Life Cycle Costs	$ 8,906,000	10	$ 891,000
Water Treatment Facilities	Life Cycle Costs	$ 9,162,000	45	$ 200,000
Wastewater Treatment Facilities	Life Cycle Costs	$ 15,810,000	45	$ 351,000
Bridge	Life Cycle Costs	$ 26,095,000	75	$ 348,000
Paved Road	Life Cycle Costs	$ 35,644,000	20	$ 1,782,000
Gravel Road	Life Cycle Costs	$ 146,382,000	25	$ 5,855,000
Surface Treated Road	Life Cycle Costs	$ 66,087,000	25	$ 2,643,000
Sanitary Conveyance System	Replacement	$ 47,774,000	75	$ 637,000
Storm Sewer	Replacement	$ 15,579,000	75	$ 208,000
Watermain	Replacement	$ 22,953,000	75	$ 306,000
Building	Life Cycle Costs	$ 28,475,000	75	$ 380,000
Total		**$ 422,867,000**		**$ 13,601,000**

6.3.2 Infrastructure Deficit

The current capital budget is $560,600 (see **Appendix C**). The 2018 budget has been prorated with a 2.5% increase resulting in a budget of approximately $575,000.The capital required under the asset management plan is around $11,146,000. This results in a 2018 deficit of $10,571,000.

With the current capital budget, the Township will have a growing infrastructure deficit as its current investment level is insufficient to maintain its infrastructure as well as fund the immediate and short-term requirements.

The provincial guidelines state that a minimum of 10 years is to be used to estimate the deficit for asset management plans. For this assignment, a 15 year timeframe was considered to estimate the deficit. However, a best practice is to use a forecast period that covers the entire lifecycle of assets for this estimate.

Figure 2 shows the deficit that the Township will face from 2018 to 2032.

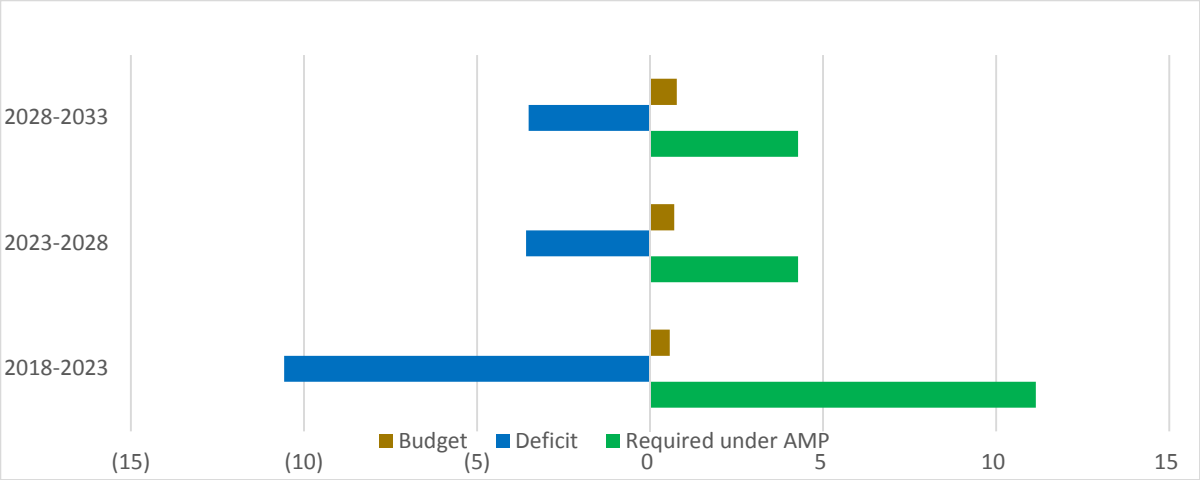


Figure 2: Funding Shortfall (in 1,000,000's)

7.0 CONCLUSION

This AMP will provide guidance to Township Council and staff to meet the expected level of service and improve the infrastructure and ensure the taxpayer's needs are met. This plan has identified the total lifecycle costs and will allow the Township to make educated decisions regarding the options for operation, maintenance, renewal and replacement of assets that provide the lowest long-term cost.

The AMP will allow the Township to prioritize their infrastructure projects based on level of service expected, and the risks and costs associated with providing that service. This AMP will allow the Township to apply for financing from the Provincial and Federal governments and will allow the township to provide the level of service expected without raising the tax rate.

The condition of the Townships roads is based on staff experience. The Township should consider completing a roads needs study. This would provide the township a comprehensive report on the condition of their road network. The vehicles and equipment are in poor condition and a program to replace the aging fleet should be undertaken before there are failures of multiple vehicles at one time. The bridge assets are also in poor condition and budget should be increased to replace the aging bridges.

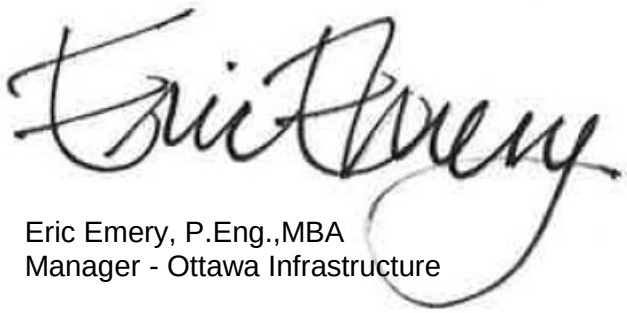
The water treatment plants and water distribution systems are in good condition. The wastewater treatment plants and collections systems are also in good condition. The storm sewer pipes are in fair or above condition. The maintenance programs for these assets should continue to be funded.

CLOSURE

We trust that this report is sufficient for your current requirements. Please contact the undersigned with any questions or clarifications.

Sincerely,

Morrison Hershfield Limited



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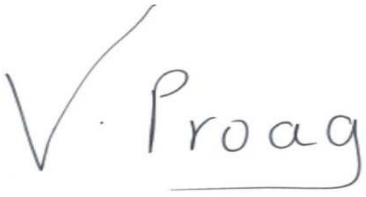

Ved Proag, B.A.Sc.,EIT
Municipal Designer

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APPENDIX A: List of Estimated Maximum Useful Life

Estimated Maximum Useful Life for Asset Management

The following tables provide an estimated maximum useful life for tangible capital assets. These estimates are for asset management and financial planning and should not necessarily be used to schedule asset replacement. Useful life estimates will vary across communities according to original design, construction, and local conditions. If estimates of useful life of tangible assets based on local knowledge are available, they should be used.

Asset Classes	Maximum Useful Life	Asset Classes	Maximum Useful Life
LAND IMPROVEMENTS		**ROADWAY SYSTEMS**	
Parking Lot		**Bridges**	Variable
Gravel	15	**Curb and Gutter**	30
BST	5-8	**Parkades**	50
Asphalt	25	**Roads and Streets**	
Landscaping	25	Lanes and Alleys	
Fences	20	*BST*	5-8
Sprinkler systems	25	*ACP – Hot Mix*	20
Golf courses	45	*Gravel*	15
Tennis courts	20	*Non-Conforming*	20
Fountains	20	Local/Collector/Arterial Surface	
Lakes/ponds	25	*Concrete*	30
Retaining walls	20	*ACP Hot Mix*	20
Running tracks	15	*ACP Cold mix*	10
Outdoor lighting	20	*Chip Seal/BST -engineeed structure*	10
Airport runways	10	*Oil*	5
Outdoor soccer pitch	20	*Gravel*	25
Bike/multi-use paths		Local/Collector/Arterial Surface	40
Gravel	15	**Road Signs**	
Asphalt	20	Traffic Control	30
Landfill		Information	30
Pits	Volume	**Guard Rails**	30
Pads	Volume	**Ramps**	30
Transfer Stations	25	**Lights**	
		Decorative	30
		Street	30
		Traffic	30
		Sidewalks and Pararamps	30

Asset Classes	Maximum Useful Life	Asset Classes	Maximum Useful Life
BUILDINGS		**WASTEWATER SYSTEMS**	
Permanent Structures		**Collection Systems**	
Frame	50	Mains	75
Metal	50	Services	75
Concrete	50	**Lifts, Pumps and Transfer Stations**	
Portable Structures		Structures	45
Metal	25	Equipment	20
Frame	25	**Plants and Facilities**	
Leasehold Improvements	Variable	Structures	45
		Treatment Equipment	
WATER SYSTEMS		*Mechanical*	*20*
Distribution Systems		*Electrical*	*20*
Mains	75	*General*	*20*
Services	75	Pumping Equipment	20
Pumps, Lifts and Transfer Stations		**Lagoons**	45
Structures	45		
Mechanical and Electric. Equip.	20	**FIBRE OPTICS**	
Plants and Facilities		Fibre Optics	30
Structures	45	**VEHICLES**	
Treatment Equipment		**Light Duty**	10
Mechanical	20	**Medium Duty**	10
Electrical	20	**Heavy Duty**	10
General	20	**Transit Buses**	20
Pumping Equipment	45	**Fire Trucks**	25
Hydrants and Fire Protection	45		
Reservoirs	45		
STORM SYSTEMS			
Collection Systems			
Mains	75		
Services	75		
Lifts and Transfer Stations	45		
Pumps	20		
Catch Basins and Outfalls	75		
Wetlands	75		
Retention Ponds	75		
Treatment Facilities	45		

Asset Classes	Maximum Useful Life
MACHINERY AND EQUIPEMENT	
Heavy Construction Equipment	Variable
Stores	25
Food Services	10
Fire Equipment	12
Police Special Equipment	10
Boats	25
Fitness Equipment	10
Control Systems	
Communication links	20
SCADA Systems	10
Fuelling Stations	15
Communications	
Radios	10
Telephone Systems	10
Tools and Shop Equipment	15
Scales	15
Bins	15
Meters	
Electrical	20
Cumulative	20
Interval	20
Water	40
Parking Meters	20
Turf Equipment	10
Ice-Resurfacer	10
Office Furniture	20
Office Equipment	10
A/V Equipment	10
Photocopiers	5
Computer Hardware	5
Computer Software	10

APPENDIX B: Results

ASSET CONDITION ASSESSMENT

The following criteria were used for the condition assessment:

VEHICLES AND EQUIPMENT

- Excellent More than 75% of useful life remaining
- Good More than 50% of useful life remaining
- Fair More than 25% of useful life remaining
- Poor Less than 25% of useful life remaining

WATER TREATMENT FACILITIES

- Excellent More than 75% of useful life remaining
- Good More than 50% of useful life remaining
- Fair More than 25% of useful life remaining
- Poor Less than 10% of useful life remaining

BRIDGES

- Excellent BCI index > 80
- Good BCI index 61 - 79
- Fair BCI index 51 - 60
- Poor BCI index < 50

ROADS

- Excellent More than 10 years remaining
- Good 6-10 years remaining
- Fair 1-5 years remaining
- Poor Less 1 year remaining

SANITARY SEWER, FORCEMAIN, STORM SEWER, WATERMAIN, BUILDING

- Excellent More than 75% of useful life remaining
- Good More than 50% of useful life remaining
- Fair More than 25% of useful life remaining
- Poor Less than 25% of useful life remaining

Asset Name	VIN Number	Condition	Year of Manufacture	Estimated Remaining Life	Recommended Work	Value ($) (2014)	Value ($) (2017)	1-5 Years	6-15 Years
International Rescue Model 4900 (MC)	1HSDAAR7TH246486	Excellent	2017	25	Routine maintenance	185,980	185,980	-	185,980
Ford F550 Rescue (F)	1FDAF57P94EC58699	Excellent	2004	12	Routine maintenance	36,672	45,253	-	45,253
GMC Tanker (F)	1GDP8J1C73F513975	Excellent	2003	11	Routine maintenance	130,610	163,524	-	163,524
GMC Tanker Top (A)	1GDM7H1M6MJ500558	Poor	1991	0	Replace within 1 year	142,930	209,821	209,821	-
International Tanker (A)	1HTSAZM3PH542451	Excellent	2017	25	Routine maintenance	142,930	142,930	-	142,930
Ford 550 Rescue (C)	1FDAF56RX8ED27490	Poor	2008	1	Replace within 1 year	104,235	121,121	121,121	-
International Pumper/Tanker	1HTWGAZT88JO42546	Poor	1994	2	Replace within 1 year	238,495	337,232	337,232	-
GMC Topkick Pumper (F)	1GDP7HIB7Y515670	Poor	1994	2	Replace within 1 year	110,395	156,099	156,099	-
2013 International Pumper (A)	1HTHKAZR4DH321682	Excellent	2013	21	Routine maintenance	234,038	250,889	-	250,889
2015 Fire Tanker Truck	1HTWAZT1FH705220	Excellent	2017	25	Routine maintenance	211,725	211,725	-	211,725
2015 Fire Tanker Truck	1HTWAZT1FH705221	Excellent	2017	25	Routine maintenance	210,420	210,420	-	210,420
X-Tractor II Streamline		Poor	1994	0	Replace within 1 year	6,255	8,845	8,845	-
Marathom Hot Box	2M9HMT4DO9H102260	Fair	2010	3	Replace within 1-5 years		21,680	21,680	-
2007 International Snowplow	1HTWYAHTO7J424020	Poor	2007	0	Replace within 1 year	190,380	224,648	224,648	-
Volvo Snowplow	4V5JC2HE7YN8700091	Poor	2000	0	Replace within 1 year	105,225	137,424	137,424	-
2004 International Snowplow	1HTGGAYT9RH582647	Poor	1994	0	Replace within 1 year	200,000	282,800	282,800	-
Ford Single Snowplow	1FDY9017PVA05376	Poor	1994	0	Replace within 1 year	200,000	282,800	282,800	-
Chev 1 Ton	1GBJC34F0XF022698	Poor	1999	0	Replace within 1 year	45,000	59,580	59,580	-
GMC Sierra 4x4 Half Ton	1GTEK14V74Z274888	Poor	2004	0	Replace within 1 year	31,720	39,142	39,142	-
Chev 4x4 Half Ton	1GCEK14JX7Z561319	Poor	2007	0	Replace within 1 year	30,940	36,509	36,509	-
Chevrolet Colorado Pickup	1GCDT199398106989	Poor	1994	0	Replace within 1 year	30,940	43,749	43,749	-
2009 Sterling Snowplow	2FZHAZDE19AAH0698	Poor	2009	2	Replace within 1 year	192,770	220,529	220,529	-
John Deere Backhoe	TO310SJ67782	Poor	2008	1	Replace within 1 year	95,580	111,064	111,064	-
Bomag 84" Roller	901583251344	Poor	2008	1	Replace within 1 year	119,000	138,278	138,278	-
New Holland Tractor		Poor	2009	2	Replace within 1 year	51,300	58,687	58,687	-
Dump Box		Poor	1994	0	Replace within 1 year	19,100	27,007	27,007	-
Case Tractor Maxxum	ZFBE03350	Excellent	2016	9	Routine maintenance	113,000	115,034	-	115,034
Slip-In Tank	2600USG	Poor	1994	0	Replace within 1 year	26,100	36,905	36,905	-
John Deere Grader	1DW770GPEA0631797	Fair	2010	3	Replace within 1-5 years	280,900	316,293	316,293	-
2013 International Plow Truck	1HTGRSHT7DJ306520	Good	2013	6	Replace within 6-10 years	220,000	235,840	-	235,840
2010 International Plow	1HTWXAHT8AJ230412	Fair	2010	3	Replace within 1-5 years	233,510	262,932	262,932	-
2015 International Plow	1HTGRSNT4FH667377	Excellent	2015	8	Routine maintenance	210,567	218,147	-	218,147
F150 Pickup	1FTFX1EF7EKD21876	Good	2014	7	Replace within 6-10 years	30,230	31,862	-	31,862
F350 Pickup	1FD8X3GT2FEA66833	Excellent	2015	8	Routine maintenance	56,000	58,016	-	58,016
F150 Pickup	1FTVX1EF0EKE99592	Good	2014	7	Replace within 6-10 years	35,130	37,027	-	37,027
2016 Snow Plow	3HAGRSNTOGL225384	Excellent	2016	9	Routine maintenance	228,600	232,715	-	232,715
Freightliner M2 Chassis	1FVHCYCYXGGGJ1721	Poor	1994	0	Replace within 1 year	259,500	366,933	366,933	-
Freigtliner 33yd. Sideloader	1FVHBXBSX4HM80208	Poor	2004	0	Replace within 1 year	214,450	264,631	264,631	-
Freigtliner 35yd. Sideloader	1FVHBXB5X4HM80208	Poor	2004	0	Replace within 1 year	196,200	242,111	242,111	-
International Recycling Truck	1HTWGAZT1CJ545957	Fair	2012	5	Replace within 1-5 years		217,595	217,595	-
Yamaha ATV	JY44KDN0-1-TA096102	Poor	1996	0	Replace within 1 year		6,000	6,000	-
Volvo WCN	4V5JC2HE7YN870091	Poor	2000	0	Replace within 1 year		200,000	200,000	-
Kalyn Trailer	2A9SPF5B2YT053275	Poor	2000	0	Replace within 1 year		20,000	20,000	-
International (Snowplow)	1HTWYAHT07J424020	Poor	2007	0	Replace within 1 year	200,000	236,000	236,000	-

Chevrolet 1/2 Ton 4x4	1GCEK14JX72561319	Poor	2007	0	Replace within 1 year	45,000	53,100	53,100	-
Trailer	FILE 280824402	Poor	2007	0	Replace within 1 year	7,500	8,850	8,850	-
International with plough	1HTWXAHT8AJ230412	Fair	2010	3	Replace within 1-5 years	220,000	247,720	247,720	-
International 7600 snowplough	3HAGRSNT0GL225384	Excellent	2016	9	Routine maintenance	253,819	258,388	-	258,388
Freightliner & Refuge Box	1FVHCYCYXGHHJ1721	Excellent	2015	8	Routine maintenance	255,000	264,180	-	264,180
Chevrolet Colorado LT Ext Cab	1GCDT199398106389	Poor	2009	2	Replace within 1 year	30,936	35,391	35,391	-
John Deere 444J Wheel Loader	DW444JZ605073	Poor	2006	0	Replace within 1 year		135,000	135,000	-
Vermeer 1230 Chipper	1VRK15156V1001278	Poor	1998	0	Replace within 1 year		32,000	32,000	-
John Deere Excavator	1FF160GXTDD055465	Good	2013	6	Replace within 6-10 years		184,732		
Champion Grader with Plow & Wing		Poor	1989	0	Replace within 1 year		230,000		
35 Massey Tractor, Front Sweeper		Poor	1970	0	Replace within 1 year		45,000		
John Deere Excavator		Poor	2003	0	Replace within 1 year		190,000		
Caterpillar Grader with Plow & Wing		Poor	2005	0	Replace within 1 year		230,000		
Trackless Sidewalk Plow, Model #MT5T	2113	Poor	2002	0	Replace within 1 year		95,000		
Trailer	FILE 280824402	Poor	2007	0	Replace within 1 year		7,500		
1 surfacer		Poor	1994	0	Replace within 1 year	45,000	63,630	63,630	-

Assumptions:

1) Typical life expectancy of asset is 10 years
2) 1994 is assumed for unknown purchase year
3) The cost for the Kalyn trailer, the International tandem and Marathon trailer was assumed
4) The 2017 total value was prorated from the 2014 value using a1.8% annual inflation rate.
The 2014 value was obtained from the Asset Management Plan approved by the Council in 2014.

Condition	Estimated Remaining Life	Recommended Work	Percentage Number of Asset
Excellent	8	Routine maintenance	22%
Good	5	Replace within 6-10 years	7%
Fair	3	Replace within 1-5 years	15%
Poor	3	Replace within 1 year	57%

Fire Trucks

Condition	Estimated Remaining Life	Recommended Work	Number of Asset
Excellent	19	Routine maintenance	7
Good	13	Replace within 6-10 years	0
Poor	6	Replace within 1 year	4
Fair	6	Replace within 1-5 years	0

All Others

Condition	Estimated Remaining Life	Recommended Work	Number of Asset
Excellent	8	Routine maintenance	6
Good	5	Replace within 6-10 years	4
Fair	3	Replace within 1-5 years	5
Poor	3	Replace within 1 year	34

Water Treatment Facilities

Village	Asset Name	Asset ID	Asset Type	Description	Installation Year/ As Built Year	Area (m^2)	Condition	Estimated Remaining Life	Recommended Work	Value ($) (2014)	Value ($) (2017)	1-5 Years	6-15 Years	Source
Crysler	Crysler WTP	unk	Treatment Plant	WTP: Aeration Cell, Cell 1 and Cell 2, Lagoon Station, Chemical Injection Building, Aeration Building	1994	64.4	Fair	22	Rehabilitation within 6-15 years		2,000,000	-	-	Discharge Structures Aeration Cell; Discharge Structure - Cell 1 & Cell 2; Control Schematic; Chemical Injection Building; Aeration Building
Crysler	Crysler Alum Building	unk	Treatment Plant	Alum Building Site	1994	37.21	Fair	22	Rehabilitation within 6-15 years		-	-	-	W&S Pumping Stations\Plan & Index.pdf
Crysler	Crysler Blower Building	unk	Treatment Plant	Blower Building	1994	30.25	Fair	22	Rehabilitation within 6-15 years		-	-	-	Blower Detail & Layout.pdf
Finch	Finch WTP	000101-1	Treatment Plant		1978	111.6	Fair	6	Rehabilitation within 6-15 years		2,000,000	-	2,000,000	MDW
Moose Creek	Moose Creek WTP	000102-3	Treatment Plant	WTP: Aeration Building, Discharge and Metering Chamber, Influent Distribution Chamber	1995	91.2	Good	23	Routine maintenance		2,000,000	-	-	Alum Feed & Metering Building; Discharge & Metering Chamber; Influent Dist Chamber
Moose Creek	Moose Creek Alum Building	000102-3	Treatment Plant	Alum Feed and Metering Building	1995	30.5	Good	23	Routine maintenance		-	-	-	MDW, Moose Creek Lagoons\Aeration Building - Plans.pdf, Moose Creek Lagoons\Aeration Building.pdf
Moose Creek	Moose Creek Blower Building	000102-3	Treatment Plant	Blower Building	1995	27.8	Good	23	Routine maintenance		-	-	-	OCWA
Crysler	Crysler Water Tower	000101-4	Water Reservoir	See OCWA Inspection Results	1994		Fair	22	Rehabilitation within 6-15 years	1,000,000	1,054,000	-	-	MDW, W&S Pumping Stations\Control Schematics.pdf, W&S Pumping Stations\Floor Plans and Details.pdf
Finch	Finch Water Tower	000101-5	Water Reservoir	See OCWA Inspection Results	1978		Fair	6	Rehabilitation within 6-15 years	1,000,000	1,054,000	-	1,054,000	MDW
Moose Creek	Moose Creek Water Tower	000102-2	Water Reservoir	See OCWA Inspection Results	1995		Good	23	Routine maintenance	1,000,000	1,054,000	-	-	MDW, Moose Creek Water Supply System\Tower Details.pdf

Assumptions: 1) Typical life expectancy of asset is 45years
2) 1996 is assumed for unknown As Built year
3) The 2017 total value was prorated from the 2014 value using a 1.8% annual inflation rate. The 2014 value was obtained from the Asset Management Plan approved by the Council in 2014.

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	34	Routine maintenance	0%
Good	23	Routine maintenance	40%
Fair	11	Rehabilitation within 6-15 years	60%
Poor	5	Rehabilitation within 1year	0%

Village	Asset Name	Asset ID	Asset Type	Description	Installation Year/ As Built Year	Area (m^2)	Condition	Estimated Remaining Life	Recommended Work	Value ($) (2014)	Value ($) (2017)	1-5 Years	6-15 Years	Source
Crysler	Crysler Lagoon	0000101-1	Lagoon	Cell 1 and Cell 2	1993	NA	Fair	21	Rehabilitation within 6-15 years	1,000,000	1,054,000	-	-	MDW, W&S Pumping Stations\Aeration System Plan.pdf, W&S Pumping Stations\Discharges Structures - Cell 1 and Cell 2.pdf
Moose Creek	Moose Creek Lagoon	0000101-2	Lagoon	Cell 1 and Cell 2	1992	NA	Fair	20	Rehabilitation within 6-15 years	2,000,000	2,108,000	-	-	MDW, Moose Creek Lagoons\General Plan.pdf
Crysler	Sewage Pumping Station	unk	Pumpstation	Generator Building @ Queen and First	1996	55.44	Good	24	Routine maintenance	2,000,000	2,108,000	-	-	W&S Pumping Stations\Control Schematic.pdf
Finch	Finch SPS #2	000101-2	Pumpstation		2001	One of 4 Finch SPS has an area of 35.2, according to OCWA	Good	29	Routine maintenance	2,000,000	2,108,000	-	-	MDW, Finch Maps Scanned\Sewer\12 William.pdf
Finch	Finch SPS #3	000101-3	Pumpstation		2001	One of 4 Finch SPS has an area of 35.2, according to OCWA	Good	29	Routine maintenance	2,000,000	2,108,000	-	-	MDW, Finch Maps Scanned\Sewer\08 Front.pdf
Finch	Finch SPS #4	000101-4	Pumpstation		2001	One of 4 Finch SPS has an area of 35.2, according to OCWA	Good	29	Routine maintenance	2,000,000	2,108,000	-	-	MDW, Finch Maps Scanned\Sewer\21 Victoria.pdf
Finch	Finch SPS #1	000101-6	Pumpstation		2001	One of 4 Finch SPS has an area of 35.2, according to OCWA	Good	29	Routine maintenance	2,000,000	2,108,000	-	-	MDW, Finch Maps Scanned\Sewer\34 County Rd 12.pdf
Moose Creek	Moose Creek SPS #1	000102-1	Pumpstation		1992	31.36	Fair	20	Rehabilitation within 6-15 years	2,000,000	2,108,000	-	-	MDW, Moose Creek SPS\SPS - Generator & Control Building Layout.pdf

Assumptions: 1) Typical life expectancy of asset is 45years
2) 1996 is assumed for unknown As Built year
3) The 2017 total value was prorated from the 2014 value using a 1.8% annual inflation rate. The 2014 value was obtained from the Asset Management Plan approved by the Council in 2014.

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	34	Routine maintenance	0%
Good	23	Routine maintenance	63%
Fair	11	Rehabilitation within 6-15 years	38%
Poor	5	Rehabilitation within 1year	0%

Bridge

Asset Name	Asset ID	Order of Priority	Description	Wearing Surface Material	Material	Structure Type	Structure Type	Installation Year	Life Expectancy (years)	Estimated Remaining Life (years)	Lanes	Roadway Width	Overall Width	Deck Length	Deck Area from MDW (m^2)	Deck Area (m^2)	Deck Area Considered (m^2)	Conditon	Conditon Index			Value ($) (2017)	1-5 Years	6-15 Years	Source
																			Year	BCI	BSI				
Con 7-8, Lot A, Over MacGregor Municipal Drain	NS Bridge #2	1	2.25 km West of County Road 20		Corrugated Steel	Aluminized Type 2 CSP	Culvert	2016	50	49	2	6	7.32	6.1		45	45	Excellent		100		160,747	-	-	Bridge was replaced with twin 3000mm diameter culverts in 2016 according to Township Staff
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									-	-													-	-	
									-	-													-	-	
Con. 8, 1-A, Over MacGregor Municipal Drain	NS Bridge #3	2	Culvert; 3.1 km West of County Road 20	Gravel	Corrugated Steel	Twin Pipe CSP Culverts	Culvert	1984	50	17	2	6.1	14.9	6	36.6		37	Poor	2015	21	21	131,760	131,760	-	MDW
									-	-													-	-	
									-	-													-	-	
Con 7-8 Over Moose Creek Drain	NS Bridge #4	6	Culvert; 2.4 km West of County Road 138		Corrugated Steel	Pipe Arch Culvert	Culvert	1971	50	4	2	5.49	11.28	4.57	25.1		25	Poor	2015	57	57	90,360	90,360	-	MDW
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									-	-													-	-	
									-	-													-	-	
Con 7, Lot 20, Over Moose Creek Drain	NS Bridge #5	4	Culvert; 2.7 km West of County Road 138		Corrugated Steel	Multi-Plate CSP Arch	Culvert	1973	50	6	2	6.7	17.4	4.3	28.61		29	Fair	2015	64	64	102,996	-	102,996	MDW
									-	-													-	-	
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									-	-													-	-	
Eighth Road West of Valley Street	NS Bridge #6	9	Culvert; 3.5 km West of County Road 138	Asphalt	Corrugated Steel	SuperCor Steel Arch	Culvert	2006	50	39	2	7.5	9.33	7.62	57.15		57	Good	2015	73	73	205,740	-	205,740	MDW
									-	-													-	-	
Con 3, Lot 6-7, Over North Raisin Creek	NS Bridge #7	2	0.17 km North of County Road 43		Corrugated Steel	CSP Arch	Culvert	2017	50	50	2	6	7.42	4.88		36	36	Excellent		100		130,355	-	-	Bridge was replaced with twin 1800mm CSP Arch Culverts in 2017 according to Township staff
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Con 1, Lot C Strathmore Road	NS Bridge #8		No inspection completed	Gravel	Corrugated Steel	Aluminized type 2 CSP	Culvert	2015	50	48	2	6	9.2	4.9		45	45	Excellent		100		162,288	-	-	Bridge was replaced with twin 1800mm culverts in 2015 according to Township Staff
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Con 2, Lot 9, Over North Raisin Creek	NS Bridge #9	9	Culvert; 1.4 km East of County Road 138	Gravel	Corrugated Steel	SuperCor Steel Arch	Culvert	2007	50	40	2	6	10.7	7.5	45		45	Good	2015	74	74	162,000	-	162,000	MDW
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Red Town Rd & Tolmie's Corners Rd. Over Payne Creek Drain	NS Bridge #11		Far south of Moose Creek, Between Avonmore and Monkland		Cast-in-place Concrete	Earth Filled Arch	Bridge		75	-	2	6.71	7.32	4.2		31	31	Poor	2007	59	59	368,928	368,928	-	MDW
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Red Town Rd. & Tolmie's Corners Rd. Over Payne Creek Drain	NS Bridge #11A	9	Culvert; 2.4 km North of County Road 43		Corrugated Steel	Multi-Plate CSP Arch	Culvert		50	-	2	5	18.29	4.88	35.7		36	Good	2015	75	75	128,520	-	128,520	MDW
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McKillican Rd. West of Tolmie's Crns	NS Bridge #12		3.2 km West of County Road 138		Cast-in-place Concrete	Earth Filled Arch	Bridge	2011	75	69	2	8.2	16.8	10.15		171	171	Poor	2013	38	38	1,705,200	1,705,200	-	MDW
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									-	-													-	-	
McKillian Road West of Tolmie's Crns	NS Bridge #12A	9	Culvert		Corrugated SteeL	Twin CSP Culverts	Culvert	2014	50	47		5	18.29	4.88	113.4		113	Good	2015	99		408,240	-	-	
Con 5, Lot 24-25, Over Moose Creek	NS Bridge #13	13	4.7 km North of County Road 43		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1955	75	13	2	4.88	12.8	4.24		54	54	Poor	2015	56	56	651,264	651,264	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 3, Lot 30, Over Payne River	NS Bridge #14	12	0.5 km West of County Road 43		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1996	75	54	2	6	10	4.82		48	48	Poor	2015	55	55	578,400	578,400	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 5, Lot 38, Over Blair McRae Steele McElheran Municipal Drain	NS Bridge #15	1	Culvert; 3.3 km North of County Road 43		Corrugated Steel	Steel Plate Pipe Arch	Culvert	1977	50	10	2	6	16.6	3.38	20.28		20	Poor	2015	52	48	73,008	73,008	-	MDW
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Con 21 East of St Rose Rd	NS Bridge #16	9	Culvert; 4.05 km West of County Road 9	Asphalt	Corrugated Steel	Twin CSP Culverts	Culvert	2006	50	39	2	7	15.23	4.88	46.97		47	Good	2015	72	72	169,092	-	169,092	MDW
									-	-													-	-	
Con 1,Lot 20, Over Johnson Municipal Drain	NS Bridge #17	5	Culvert; Intersection of County Road 14 and Finch-Ornabruck Boundary Road	Asphalt	Corrugated Steel	Multi-Plate CSP Arch	Culvert	1972	50	5	2	7	18.7	3.85	26.95		27	Good	2015	71	67	97,020	-	97,020	MDW
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Bridge

Con 1-2, Lot 21, Over the Payne River	NS Bridge #18	11	1.9 km West of County Road 43	Concrete	Hybrid	Concrete Slab on Steel I-Girders	Bridge	1960	-	-	2	7.95	10.43	16.8		175	175	Poor	2015	50	46	1,752,240	1,752,240	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 2, Lot 18-19, Over MacKenzie-Price MD	NS Bridge #19	18	0.25 km South of County Road 43		Cast-in-place Concrete	Concrete Rigid Frame	Bridge	1987	75	45	2	8.52	9.5	13.95		133	133	Good	2015	70	66	1,325,250	-	1,325,250	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 2, Lot 18-19, Over MacKenzie-Price MD	NS Bridge #20	7	880 m West of HWY 12	Asphalt	Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5.5	9.8	3.66		36	36	Poor	2015	37	37	430,416	430,416	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 3-4, Lot 10, Over Dunbar Campbell Adams MD	NS Bridge #21			Gravel	Cast-in-place Concrete		Bridge		75	-	2	5	2.44	18.29		45	45	Poor	2009	52	52	535,531	535,531	-	MDW
									-	-												-	-	
Con 3-4, Lot 10, Over Dunbar Campbell Adams MD	NS Bridge #21A	9	Culvert; 2.11 km West of HWY 12		Corrugated Steel	Twin CSP Culverts	Culvert	2010	50	43	2	5	18.29	7	128.03		128	Good	2015	75	75	460,908	-	460,908	MDW
									-	-												-	-	
Con 3-4, Lot 14, Over the Payne River	NS Bridge #22	14	270 m East of HWY 12		Cast-in-place Concrete	Rigid Concrete Arch Frame	Bridge	1970	75	28	2	7.3	9.1	18.3		167	167	Fair	2015	69	69	1,665,300	-	1,665,300	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 4-5, Lot 18, Over MacIntyre Lagrove MD	NS Bridge #23	9	2.30 km East of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5	10.36	3.05		32	32	Poor	2015	45	45	379,176	379,176	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 4-5, Lot 15, Over the Payne River	NS Bridge #24	15	300 m East of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame	Bridge	1974	75	32	2	8.35	9.15	18.3		167	167	Fair	2015	67	67	1,674,450	-	1,674,450	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 4-5, Lot 13, Over JD Forsyth MD	NS Bridge #25	5	540 m West of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5	11	3.05		34	34	Poor	2015	42	42	402,600	402,600	-	MDW
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									-	-												-	-	
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Con 4-5, Lot 9-10, Over Ray McLeod MD	NS Bridge #26	4	2.9 km West of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5	11	3.66		40	40	Poor	2015	45	45	483,120	483,120	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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									-	-												-	-	
									-	-												-	-	
Con 4, Lot 6-7, Over Manley-Saunders Branch MD	NS Bridge #27	7	Culvert; 1 km North of Concession 3-4 Road		Corrugated Steel	Twin Multi-Plate Culverts	Culvert	1984	50	17	2	6.1	20.4	10	61		61	Fair	2015	69	69	219,600	-	219,600	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 4-5, Lot 6, Over Manley-Saunders Branch MD	NS Bridge #28				Cast-in-place Concrete	Rigid Frame, Vertical Legs	Bridge		75	-	2	4.3	5.15	8.1		42	42	Poor	2009	24	24	500,580	500,580	-	MDW
									-	-												-	-	
									-	-												-	-	
Con 4-5, Lot 6, Over Manley-Saunders Branch MD	NS Bridge #28A	9	Culvert; 4.95 km West of HWY 12		Corrugated Steel	Twin CSP Culverts	Culvert	2012	50	45	2	5.2	8.15	5.32		43	43	Good	2015	94	94	156,089	-	-	MDW
									-	-												-	-	
Con 6-7, Lot 6-7, Over Geo. S. Johnstone MD	NS Bridge #29	6	4.3 km West of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5.5	11	3.66		40	40	Poor	2015	51	51	483,120	483,120	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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									-	-												-	-	
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Bridge

Con 8, Lot 5, Over Furney MD	NS Bridge #31	3	1 km North of Concession Road 8		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5.5	10.8	4.85		52	52	Poor	2015	39	39	628,560	628,560	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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									-	-												-	-	
									-	-												-	-	
Con 11-12, Lot 3, Over Paquette McMahon MD	NS Bridge #33	8	1.71 km East of HWY 32	Asphalt	Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	6.8	11.1	3.05		34	34	Poor	2015	36	36	406,260	406,260	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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									-	-												-	-	
Con 9, Lot 11, Over Johnstone MD	NS Bridge #34	3	790 m South HWY 13		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5	15.3	6		92	92	Poor	2015	39	39	918,000	918,000	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 8-9, Lot 13, Over the Brisson MD	NS Bridge #35	5	460 m East of HWY 12		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	6	9.75	3.66		36	36	Poor	2015	46	46	428,220	428,220	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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									-	-												-	-	
									-	-												-	-	
Con 8-9, Lot 17, Over the Payne River	NS Bridge #36	16	2.85 km East of HWY 12		Cast-in-place Concrete	Concrete Box Beam	Bridge	1978	75	36	2	5	8.8	15.2		134	134	Good	2015	71	71	1,337,600	-	1,337,600	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
									-	-												-	-	
									-	-												-	-	
									-	-												-	-	
Con 7, Lot 18-19, Over Blue Creek MD	NS Bridge #37	3	350 m North of Concession Rd 6		Cast-in-place Concrete	Concrete Rigid Frame, Vertical Legs	Bridge	1950	75	8	2	5.8	9.85	3.05		30	30	Poor	2015	47	47	360,510	360,510	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 7-8, Lot 17, Over the Payne River	NS Bridge #38	17	2.2 km East of HWY 12		Cast-in-place Concrete	Concrete Box Beam	Bridge	1968	75	26	2	6.5	9.1	33.75		307	307	Fair	2015	68	68	3,071,250	-	3,071,250	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 6-7, Lot 15, Over the Payne River	NS Bridge #39	15	1.2 km East of HWY 12		Cast-in-place Concrete	Rigid Concrete Arch Frame	Bridge	1951	75	9	2	6.3	7.4	21.4		158	158	Poor	2015	51	51	1,583,600	1,583,600	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 6-7, Lot 18	NS Bridge #40				Corrugated Steel		Culvert		50	-	2	5.5	11	2.44		27	27	Poor	2004	0	0	96,624	96,624	-	MDW
Con 6-7, Lot 21-22	NS Bridge #41	14	4.9 km East of County Road 12		Cast-in-place Concrete	Concrete Rigid Frame	Bridge	1950	75	8	2	6	9.75	3.66		36	36	Good	2015	74	74	428,220	-	428,220	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 3-4, Lot 22, Over the Blair-McRae MD	NS Bridge #42	10	2 km North of County Road 43		Cast-in-place Concrete	Concrete Rigid Frame	Bridge	1950	75	8	2	6	9.75	3.66		36	36	Fair	2015	60	60	428,220	428,220	-	MDW, 15051_Township of North Stormont_Bridge Management Study_2015 HP Engineering
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Con 1, Lot 6-7, Over the North Raisin Creek	NS Bridge #43	9	Culvert; 2.31 km East of County Road 138		Corrugated Steel	SuperCor Steel Arch	Culvert	2004	50	37	2	5.5	10	10.6		106	106	Good	2015	71	71	381,600	-	381,600	MDW
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Lafleur Road, over Thompson Ferguson MD	NS Bridge #44	8	Culvert		Corrugated Steel	Multi-Plate CSP Arch	Culvert	1999	50	32		6.3	9.2	4.6	28.98		29	Poor	2015	58		104,328	104,328	-	.\Background Data\Morrison Hershfield\15051_Township of
Nine Mile Road, over Johnstone MD	NS Bridge #45	3	Culvert; 1.6 km South of HWY 13	Asphalt	Corrugated Steel	Multi-Plate CSP Arch	Culvert	1990	50	23	2	6.35	12.45	5.6	35.56		36	Poor	2015	36	36	128,016	128,016	-	MDW
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Assumptions:
1) Replacement to be completed within 1-5 years for Bridge Condition Index (BCI) less than 60
2) Replacement to be completed within 6-15 years for Bridge Condition Index (BCI) between 60 to 85
3) Condition ration was based on the 2014 data

Bridge

Bridge			Cost per m2
Small	<	80	12,000
Medium	between	80-499	10,000
Large	>	500	7,000

Culvert	Cost per m2
Precast Box	4,600
Corrugated Steel	3,600
Cast-in-place Concrete	4,200

Condition	Percentage Number of Asset
Excellent	4%
Good	29%
Fair	25%
Poor	42%

Road Section																		
Village	Asset Name	Asset ID	Description	Road Type	Material	Material	Maintenance Class	Lanes	Installation Year/ As Built Year	Width (m)	Length (m)	Value ($) (2017)	Condition	Estimated Remaining Life	Recommended Work	1-5 Years ($)	6-15 Years ($)	Source
Avonmore	Augustus, St. John to Main	A - Augustus		Local	Asphalt Type HI-4	ACP Hot Mix		2	2010	7.62	182	182,601	Excellent	13	Routine maintenance	-	182,601	MDW
Avonmore	Broadway, Railway to Fulton	A - Broadway		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	2006	5.94	713	557,637	Good	9	Rehabilitation within 6-10 years	-	557,637	MDW
Avonmore	Centennial, Main to 43	A - Centennial		Local	Asphalt Type HI-4	ACP Hot Mix		2	1998	6.25	825.1	678,989	Fair	1	Rehabilitation within 1-5 years	678,989	-	MDW
Avonmore	Fairview, 43 to Main	A - Fairview		Local	Asphalt Type HI-4	ACP Hot Mix		2	2014	5.49	392.9	284,008	Excellent	17	Routine maintenance	-	-	MDW
Avonmore	Fulton, D/E to Main	A - Fulton		Local	Asphalt Type HI-4	ACP Hot Mix		2	2006	5.49	86.9	62,816	Good	9	Rehabilitation within 6-10 years	-	62,816	MDW
Avonmore	Fulton, Main to Broadway	A - Fulton		Local	Asphalt Type HI-4	ACP Hot Mix		2	2006	5.49	39	28,191	Good	9	Rehabilitation within 6-10 years	-	28,191	MDW
Avonmore	Henry, Main to Broadway	A - Henry		Local	Asphalt Type HI-4	ACP Hot Mix		2	1994	5.18	84.7	57,768	Poor	0	Rehabilitation within 1 year	57,768	-	MDW
Avonmore	Henry, Sidney to Main	A - Henry		Local	Asphalt Type HI-4	ACP Hot Mix		2	2006	7.32	79.2	76,333	Good	9	Rehabilitation within 6-10 years	-	76,333	MDW
Avonmore	Johnston, Sidney to Main	A - Johnston		Local	Asphalt Type HI-4	ACP Hot Mix		2	1994	7.01	79.2	73,100	Poor	0	Rehabilitation within 1 year	73,100	-	MDW
Avonmore	Main, 15 to 43	A - Main		Local	Asphalt Type HI-3	ACP Hot Mix		2	2014	11.73	963.5	1,488,078	Excellent	17	Routine maintenance	-	-	MDW
Avonmore	Railway, Main to Broadway	A - Railway		Local	Asphalt Type HI-4	ACP Hot Mix		2	2006	6.1	90.5	72,687	Good	9	Rehabilitation within 6-10 years	-	72,687	MDW
Avonmore	Sidney, St. Nicholas to Johnston	A - Sidney		Local	Asphalt Type HI-4	ACP Hot Mix		2	1994	7.01	286.5	264,435	Poor	0	Rehabilitation within 1 year	264,435	-	MDW
Avonmore	St. John, Fairview to Augusts	A - St. John		Local	Asphalt Type HI-4	ACP Hot Mix		2	1985	5.79	110	83,859	Poor	0	Rehabilitation within 1 year	83,859	-	MDW
Avonmore	St. Nicholas, Main to Broadway	A - St. Nicholas		Local	Asphalt Type HI-4	ACP Hot Mix		2	1994	7.01	79.6	73,469	Poor	0	Rehabilitation within 1 year	73,469	-	MDW
Avonmore	St. Nicholas, Sidney to Main	A - St. Nicholas		Local	Asphalt Type HI-4	ACP Hot Mix		2	2006	6.4	84.7	71,374	Good	9	Rehabilitation within 6-10 years	-	71,374	MDW
Berwick	Beaver, Pearl to Union	B - Beaver		Local	Asphalt Type HI-4	ACP Hot Mix		2	2010	5.49	474.9	343,281	Excellent	13	Routine maintenance	-	343,281	MDW
Berwick	Pearl, Beaver to Cockburn	B - Pearl		Local	Asphalt Type HI-4	ACP Hot Mix		2	2010	5.79	90.8	69,221	Excellent	13	Routine maintenance	-	69,221	MDW
Berwick	Prince, Beaver to Cockburn	B - Prince		Local	Asphalt Type HI-4	ACP Hot Mix		2	2013	6.1	89	71,482	Excellent	16	Routine maintenance	-	-	MDW
Berwick	Victoria, Beaver to Cockburn	B - Victoria		Local	Asphalt Type HI-4	ACP Hot Mix		2	2013	5.49	88.4	63,900	Excellent	16	Routine maintenance	-	-	MDW
Berwick	Victoria, Cockburn to Water	B - Victoria		Local	Asphalt Type HI-4	ACP Hot Mix		2	1990	5.18	96	65,475	Poor	0	Rehabilitation within 1 year	65,475	-	MDW
Berwick	Water, Prince to Victoria	B - Water		Local	Asphalt Type HI-4	ACP Hot Mix		2	2013	5.49	93.3	67,442	Excellent	16	Routine maintenance	-	-	MDW
Crysler	Bridge Crescent, Bridge to Bridge	C - Bridge Crescent		Local	Asphalt Type HI-5	ACP Hot Mix		2	1996	6.1	110	88,348	Poor	0	Rehabilitation within 1 year	88,348	-	MDW, Crysler Sewers & Water Mains\Bridge St.pdf
Crysler	Brisson Street	C- Brisson		Local	Asphalt Type HI-6	ACP Hot Mix		2	2014	6	165	130,350	Excellent	17	Routine maintenance	-	-	Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittany Street	C- Brittany		Local	Asphalt Type HI-4	ACP Hot Mix			2014	6	145	114,550	Excellent	17	Routine maintenance	-	-	Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Champagne Extension, Concession to Station	C - Champagne Ext.		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	274	220,068	Poor	0	Rehabilitation within 1 year	220,068	-	2.pdf
Crysler	Champagne W, Champagne Ext to Queen	C - Champagne W		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	124.7	100,155	Poor	0	Rehabilitation within 1 year	100,155	-	St.pdf
Crysler	Charles E, Queen to D/E	C - Charles E		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	93	74,695	Poor	0	Rehabilitation within 1 year	74,695	-	2.pdf
Crysler	Concession West, D/E to Queen	C - Concession W		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.4	322.8	272,013	Poor	0	Rehabilitation within 1 year	272,013	-	Rd - 4.pdf
Crysler	First, Fourth to Queen	C - First		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.7	151.5	133,648	Poor	0	Rehabilitation within 1 year	133,648	-	MDW, Crysler Sewers & Water Mains\First St.pdf
Crysler	Fourth, First to Concession	C - Fourth		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	326.7	262,395	Poor	0	Rehabilitation within 1 year	262,395	-	1.pdf
Crysler	George, John to Bridge	C - George		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	290.5	233,320	Poor	0	Rehabilitation within 1 year	233,320	-	MDW, Crysler Sewers & Water Mains\George St.pdf
Crysler	Gloss, John to Bridge	C - Gloss		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	5.8	323	246,664	Poor	0	Rehabilitation within 1 year	246,664	-	MDW, Crysler Sewers & Water Mains\Gloss St.pdf
Crysler	John, Gloss to Charles	C - John		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	138.4	111,158	Poor	0	Rehabilitation within 1 year	111,158	-	MDW, Crysler Sewers & Water Mains\John St.pdf
Crysler	Mary, George to Charles	C - Mary		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	65.5	52,607	Poor	0	Rehabilitation within 1 year	52,607	-	MDW, Crysler Sewers & Water Mains\Mary St.pdf
Crysler	Mary, Gloss to George	C - Mary		Local	Asphalt Type HI-5	ACP Hot Mix		2	1996	6.1	66.4	53,330	Poor	0	Rehabilitation within 1 year	53,330	-	MDW
Crysler	Matheson St	C- Matheson		Local	Asphalt Type HI-4	ACP Hot Mix		2	2014	6	220	173,800	Excellent	17	Routine maintenance	-	-	Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Nation, Queen to D/E	C - Nation		Local	Asphalt Type HI-4	ACP Hot Mix		2	2011	7.3	94.5	90,830	Excellent	14	Routine maintenance	-	90,830	Feb 2012
Crysler	Pleasant, Concession to Station	C - Pleasant		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	172.5	138,546	Poor	0	Rehabilitation within 1 year	138,546	-	St.pdf
Crysler	Princess, Pleasant to Champagne Ext	C - Princess		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.4	185.9	156,652	Poor	0	Rehabilitation within 1 year	156,652	-	MDW, Crysler Sewers & Water Mains\Princess St.pdf
Crysler	Provost Street	C - Provost		Local	Asphalt Type HI-4	ACP Hot Mix		2	2014	6	215	169,850	Excellent	17	Routine maintenance	-	-	Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Richer	unk		Local	Asphalt Type HI-4	ACP Hot Mix		2	1905	6	470	371,300	Poor	0	Rehabilitation within 1 year	371,300	-	22,2012).pdf
Crysler	Second, D/E to Fourth	C - Second		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	103	82,726	Poor	0	Rehabilitation within 1 year	82,726	-	MDW, Crysler Sewers & Water Mains\Second St.pdf
Crysler	Second, Fourth to Queen	C - Second		Local	Asphalt Type HI-4	ACP Hot Mix		2	1905	6.1	149.7	120,234	Poor	0	Rehabilitation within 1 year	120,234	-	MDW
Crysler	Station, D/E to Queen	C - Station		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	374.9	301,107	Poor	0	Rehabilitation within 1 year	301,107	-	1.pdf, Crysler Sewers & Water Mains\Station Rd -
Crysler	Third, D/E to Fourth	C - Third		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	63.4	50,921	Poor	0	Rehabilitation within 1 year	50,921	-	MDW, Crysler Sewers & Water Mains\Third St.pdf
Crysler	Third, Fourth to Queen	C - Third		Local	Asphalt Type HI-4	ACP Hot Mix		2	1996	6.1	149.1	119,752	Poor	0	Rehabilitation within 1 year	119,752	-	MDW
Finch	Bergin, Main to Nelson	F - Bergin		Local	Asphalt Type HI-4	ACP Hot Mix		2	2009	6.7	177.4	156,496	Excellent	12	Routine maintenance	-	156,496	MDW, Finch - Wastewater
Finch	Casselman, Front to Victoria	F - Casselman		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	7	297.8	274,472	Fair	4	Rehabilitation within 1-5 years	274,472	-	Casselman.pdf
Finch	Church, Main to Nelson	F - Church		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	7	241.7	222,767	Fair	4	Rehabilitation within 1-5 years	222,767	-	MDW, Finch Maps Scanned\Sewer\18 Church.pdf
Finch	George, James to John	F - Church		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	6.4	152.4	128,422	Fair	4	Rehabilitation within 1-5 years	128,422	-	MDW
Finch	George, John to Front	F - George		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	6.4	158.8	133,815	Fair	4	Rehabilitation within 1-5 years	133,815	-	MDW, Finch Maps Scanned\Sewer\13 George.pdf
Finch	Front	unknown		Collector	Asphalt Type HI-4	ACP Hot Mix	4	2	2001	12	1400	2,520,000	Fair	4	Rehabilitation within 1-5 years	2,520,000	-	Finch Maps Scanned\Sewer\04 Front.pdf
Finch	James, William to Main	F - James		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	6.4	169.2	142,579	Fair	4	Rehabilitation within 1-5 years	142,579	-	MDW
Finch	John, William to Main	F - John		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	7	168.2	155,024	Fair	4	Rehabilitation within 1-5 years	155,024	-	MDW, Finch Maps Scanned\Sewer\15 John.pdf
Finch	Minto, Church to Nelson	F - Minto		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	8.2	190.8	206,000	Fair	4	Rehabilitation within 1-5 years	206,000	-	Campbell.pdf
Finch	Nelson, Bergin to Front	F - Nelson		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	6.4	523	440,715	Fair	4	Rehabilitation within 1-5 years	440,715	-	MDW, Finch Maps Scanned\Sewer\16 Nelson.pdf
Finch	William, James to Front	F - William		Local	Asphalt Type HI-4	ACP Hot Mix		2	2001	6.4	313	263,755	Fair	4	Rehabilitation within 1-5 years	263,755	-	MDW, Finch Maps Scanned\Sewer\12 William.pdf
Monkland	Amelia, Robinson to 43	M - Amelia		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	6.1	107.9	86,662	Poor	0	Rehabilitation within 1 year	86,662	-	MDW
Monkland	Robinson, Amelia to Station	M - Robinson		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	6.1	119.2	95,737	Poor	0	Rehabilitation within 1 year	95,737	-	MDW
Monkland	Station, Private Lane to 43	M - Station		Local	Asphalt Type HI-4	ACP Hot Mix		2	1986	6.1	121.9	97,906	Poor	0	Rehabilitation within 1 year	97,906	-	MDW
Moose Creek	Church, Labrosse to Laurier	MC - Church		Local	Gravel/Stone/Other	Gravel		2	1995	6.7	396.8	350,044	Fair	3	Rehabilitation within 1-5 years	350,044	-	Supply - Index & Plan.pdf
Moose Creek	Grant, Con 4-5, From Dewar to D/E	NS 4-5R16655-D/E		Local	Asphalt Type HI-4	ACP Hot Mix		2	2017	4.89	886	491,021	Excellent	20	Routine maintenance	-	-	Supply - Index & Plan.pdf
Moose Creek	Laurier, Church to Sabourin	MC - Laurier		Local	High Class Bituminous	ACP Hot Mix		2	1995	6.1	84.7	68,028	Poor	0	Rehabilitation within 1 year	68,028	-	Supply - Index & Plan.pdf
Moose Creek	McLean, Con 7, From 138 to Fraser	NS 7R17290-589		Local	Gravel/Stone/Other	Gravel	4	2	1995	6.1	2333	2,134,695	Fair	3	Rehabilitation within 1-5 years	2,134,695	-	Supply - Index & Plan.pdf
Moose Creek	McNeil, Con 6-7, From D/E to Tolmies	NS 6-7R16900-75		Local	High Class Bituminous	ACP Hot Mix	4	2	1995	6.1	513	354,654	Poor	0	Rehabilitation within 1 year	354,654	-	Supply - Index & Plan.pdf
Moose Creek	McNeil, Con 6-7, From Tolmies to 138	NS 6-7R16976-17287		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	1905	6.1	2306	2,109,990	Poor	0	Rehabilitation within 1 year	2,109,990	-	MDW
Moose Creek	Mill, D/E to St. Polycarp	MC - Mill		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	6.1	134.9	108,347	Poor	0	Rehabilitation within 1 year	108,347	-	Supply - Index & Plan.pdf
Moose Creek	Munroe, St. Polycarp to D/E	MC - Munroe		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	6.1	141.7	113,809	Poor	0	Rehabilitation within 1 year	113,809	-	Supply - Index & Plan.pdf
Moose Creek	Nevada, St. Polycarp to Valley	MC - Nevada		Local		ACP Hot Mix		2	1995	6.1	713.5	573,059	Poor	0	Rehabilitation within 1 year	573,059	-	Supply - Index & Plan.pdf
Moose Creek	Railway_St	unk	Railway Street		Asphalt Type HI-4	ACP Hot Mix		2	1995	6.1	75	60,238	Poor	0	Rehabilitation within 1 year	60,238	-	Index & Plan.pdf
Moose Creek	Sabourin, Labrosse to Valley	MC - Sabourin		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	8.2	639.8	690,771	Poor	0	Rehabilitation within 1 year	690,771	-	Supply - Index & Plan.pdf
Moose Creek	Simeon, D/E to D/E	MC - Simeon		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	7.3	290.8	279,507	Poor	0	Rehabilitation within 1 year	279,507	-	Supply - Index & Plan.pdf
Moose Creek	St. Eve, Church to Sabourin	MC - St. Eve		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	4.9	83.5	53,871	Poor	0	Rehabilitation within 1 year	53,871	-	Supply - Index & Plan.pdf
Moose Creek	St. Joseph	MC - St. Joseph		Local	Asphalt Type HI-4	ACP Hot Mix		2	1995	5.8	96.3	73,541	Poor	0	Rehabilitation within 1 year	73,541	-	Supply - Index & Plan.pdf
Moose Creek	St. Thomas, Simeon to St. Polycarp	MC - St. Thomas		Local	Gravel/Stone/Other	Gravel		2	1995	7	99.7	91,890	Fair	3	Rehabilitation within 1-5 years	91,890	-	Supply - Index & Plan.pdf
Moose Creek	Valley St., Con 7, Norman to Asphalt	NS R1933-2023	Valley Street North, from Norma	Local	Asphalt Type HI-4	ACP Hot Mix		2	2016	6.1	766	529,561	Excellent	19	Routine maintenance	-	-	Supply - Index & Plan.pdf
Moose Creek	Valley St., Con 7, Gravel to Labrosse	NS R2023-131	Valley Street North, from 8th Ro	Local	Asphalt Type HI-4	ACP Hot Mix	4	2	1995	6.1	798	640,927	Poor	0	Rehabilitation within 1 year	640,927	-	Supply - Index & Plan.pdf
Moose Creek	Valley St., Con 7, Labrosse to McNeil	NS R2033-293	Valley Street South, from Labros	Local	High Class Bituminous	ACP Hot Mix	4	2	1995	6.1	1228	986,289	Poor	0	Rehabilitation within 1 year	986,289	-	Supply - Index & Plan.pdf
Moose Creek	Villeneuve, 15 to D/E	NS 15-D/E		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	2009	6.1	294	269,010	Excellent	12	Routine maintenance	-	269,010	MDW, Moose Creek - Wastewater
Roxborough Ga	Chevrier, Tolmies to RG	RG - Chevrier		Local	Asphalt Type HI-4	ACP Hot Mix		2	2009	5.49	651.4	470,864	Excellent	12	Routine maintenance	-	470,864	MDW
Roxborough Ga	Delaney, Chevrier to RG	RG - Delaney		Local	Asphalt Type HI-4	ACP Hot Mix		2	2015	5.49	340.2	245,914	Excellent	18	Routine maintenance	-	-	MDW
Roxborough Ga	Patrick, Vincent to Chevrier	RG - Patrick		Local	Asphalt Type HI-4	ACP Hot Mix		2	2015	5.49	182	131,559	Excellent	18	Routine maintenance	-	-	MDW
Roxborough Ga	Vincent Hubert, Delaney to Chevrier	RG - Vincent Hubert		Local	Asphalt Type HI-4	ACP Hot Mix		2	2015	5.49	321.6	232,469	Excellent	18	Routine maintenance	-	-	MDW
Roxborough Ga	Con 2, From Tolmies to 43	NS 2R16980-17084		Local	High Class Bituminous	ACP Hot Mix	4	2	2009	5.49	894	646,228	Excellent	12	Routine maintenance	-	646,228	MDW
	Con 10-11, 32 to Gravel	NS 10-11R14020-461		Local	Gravel/Stone/Other	Gravel	4	2	2000	6.1	3338	3,054,270	Good	8	Rehabilitation within 6-10 years	-	3,054,270	MDW
	Con 10-11, Gravel to ST 14715	NS 10-11R14461-715		Collector	Asphalt Type HI-4	ACP Hot Mix	4	2	2015	6.1	1807	1,249,239	Excellent	18	Routine maintenance	-	-	MDW
	Con 10-11, Gravel to 12	NS 10-11R14715-999		Local	Gravel/Stone/Other	Gravel	4	2	1990	6.1	2200	1,766,967	Poor	0	Rehabilitation within 1 year	1,766,967	-	MDW
	F/C Boundary, Con 10-11, ST to 6	NS 10-11R15488-944		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	3289	2,273,795	Excellent	23	Routine maintenance	-	-	MDW
	F/C Boundary, Con 10, D/E W to 12	NS 10R14954-79		Local	Gravel/Stone/Other	ACP Hot Mix	4	2	2017	6.1	124	85,725	Excellent	20	Routine maintenance	-	-	MDW
	F/C Boundary, Con 10, 12 to D/E E	NS 10R14980-15146		Local	Surface Treatment	hp 150	4	2	2017	6.1	1239	906,948	Excellent	25	Routine maintenance	-	-	MDW
	Con 11-12, From 32 to Farley	NS 11-12R14022-681		Local	Gravel/Stone/Other	Gravel	4	2	2012	6.1	4921	3,952,383	Excellent	20	Routine maintenance	-	-	MDW
	F/C Bndy, Con 11, From Briere to Courville	NS 11R15380-486		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.49	954	593,579	Excellent	22	Routine maintenance	-	-	MDW
	Con 1-2, ST to 43	NS 1-2Gravel-15942		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	3538	2,445,937	Excellent	24	Routine maintenance	-	-	MDW
	Marionville, Con 12, St. Joseph to St. Edouard	NS 12R11750-12011		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	1359	939,522	Excellent	22	Routine maintenance	-	-	MDW
	Con 1-2, 11 to Goldfield	NS 1-2R13992-14484		Local	Surface Treatment	hp 150	4	2	2014	6.1	3635	2,660,820	Excellent	22	Routine maintenance	-	-	MDW
	Con 1-2, Goldfield to ST 14672	NS 1-2R14481-672		Local	Surface Treatment	hp 150	4	2	2010	6.1	1339	980,148	Excellent	18	Routine maintenance	-	-	MDW
	Con 1-2, Gravel 14672 to 12	NS 1-2R14672-15063		Local	Surface Treatment	hp 150	4	2	2007	6.1	2971	2,174,772	Excellent	15	Routine maintenance	-	2,174,772	MDW
	Con 1-2, 12 to St. Luke's	NS 1-2R15064-465		Local	Surface Treatment	hp 150	4	2	2004	6.1	3007	2,201,124	Excellent	12	Routine maintenance	-	2,201,124	MDW

	Con 1-2, St. Luke's to Gravel	NS 1-2R15467-Gravel		Local	Gravel/Stone/Other	Gravel	4	2	2004	6.1	59	40,789	Excellent	12	Routine maintenance	-	40,789	MDW
	Bog Rd, Con 1-2, From Rush City to Cty Rd 15	NS 1-2R16100-353		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	1915	1,323,903	Excellent	23	Routine maintenance	-	-	MDW
	Cedarvale, Con 1-2, From 15 to D/E	NS 1-2R16354-665		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	2017	6.1	2367	1,636,386	Excellent	20	Routine maintenance	-	-	MDW
	Red School House E, Con 1-2, 138-D/E	NS 1-2R17300-D/E		Local	Gravel/Stone/Other	Gravel	4	2	1987	6.1	82	56,689	Poor	0	Rehabilitation within 1 year	56,689	-	MDW
	Chapel Hill, Con 1-2, From Bender to Pigeon Hill	NS 1-2R17596-899		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	2295	1,586,610	Excellent	25	Routine maintenance	-	-	MDW
	Red School House W, Con 1-2, From D/E to 138	NS 1-2RD/E-17299		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	190	131,353	Excellent	24	Routine maintenance	-	-	MDW
	Ruch City, Con 1-2, Saving to Bog	NS 1-2RR/O-16099		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	1910	1,320,447	Excellent	24	Routine maintenance	-	-	MDW
	F/O Bndy, Con 1, Witteveen to Casselman	NS 1R14137-58		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	194	134,119	Excellent	22	Routine maintenance	-	-	MDW
	Casselman, Con 1, From F/O Bndy to Goldfield	NS 1R14159-483		Local	Gravel/Stone/Other	Gravel	4	2	2017	5.49	2717	1,690,517	Excellent	25	Routine maintenance	-	-	MDW
	F/O Bndy West, Con 1, From D/E to 12	NS 1R14787-15065		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2093	1,446,961	Excellent	22	Routine maintenance	-	-	MDW
	F/O Bndy East, Con 1, From 12 to D/E	NS 1R15066-121		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	459	317,322	Excellent	24	Routine maintenance	-	-	MDW
	F/O Bndy, Con 1, D/E to 14	NS 1R15435-567		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1723	1,191,167	Excellent	25	Routine maintenance	-	-	MDW
	R/C Bndy East, Con 1, From D/E to 15	NS 1R16169-349		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2134	1,475,305	Excellent	22	Routine maintenance	-	-	MDW
	R/C Bndy West, Con 1, From 15 to D/E	NS 1R16351-665		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.49	1345	836,859	Excellent	22	Routine maintenance	-	-	MDW
	Quail, Con 1, From D/E to 138	NS 1R16964-7295		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	2633	1,820,281	Excellent	23	Routine maintenance	-	-	MDW
	Campbell, Con 1, From D/E to 138	NS 1R17175-281		Local	Surface Treatment	hp 150	4	2	2015	5.49	834	549,439	Excellent	23	Routine maintenance	-	-	MDW
	McMillan's Corners, Con 1, From 138 to Bender	NS 1R17297-633		Local	Surface	hp 150	4	2	1997	6.1	2493	1,824,876	Excellent	5	Routine maintenance	1,824,876	-	MDW
	Strathmore, Con 1, Bender to Gravel	NS 1R17596-956		Local	Gravel/Stone/Other	Gravel	4	2	2008	6.1	2887	1,995,879	Excellent	16	Routine maintenance	-	-	MDW
	McIntosh, Con 1, From Pigeon Hill to Kenyon Con 1	NS 1R17904-K/R		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1522	1,052,209	Excellent	25	Routine maintenance	-	-	MDW
	Strathmore, Con 1, ST to K/R Bndy	NS 1R17956-18100		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	965	667,137	Excellent	25	Routine maintenance	-	-	MDW
	Froats, Con 1, From D/E to Lafleur	NS 1RD/E-18051		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.18	902	529,534	Excellent	22	Routine maintenance	-	-	MDW
	Rush City, Con 2, From Bog to 15	NS 2 R16100-395		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	2434	1,682,705	Excellent	24	Routine maintenance	-	-	MDW
	Con 2-3, From MacMillan to R/F Bndy	NS 2-3R15541-969		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	3202	2,213,649	Excellent	25	Routine maintenance	-	-	MDW
	Gunn Rd, Con 2, From Dead End to Cty. Rd 15	NS 2R16313-51		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.18	369	216,628	Excellent	22	Routine maintenance	-	-	MDW
	Duff's Corners, Con 2, From 15 to Tolmies Crns	NS 2R16358-965		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	4700	3,249,267	Excellent	23	Routine maintenance	-	-	MDW
	Rombough, Con 2, From Tolmies to 138	NS 2R16970-17279		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2301	1,590,758	Excellent	22	Routine maintenance	-	-	MDW
	McDonald, Con 2, From 138 to Bender	NS 2R17282-597		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	2311	1,597,671	Excellent	25	Routine maintenance	-	-	MDW
	Con 3-4, D/E to Goldfield	NS 3-4R14290-485		Local	Surface Treatment	hp 150	4	2	2017	5.49	1417	933,520	Excellent	25	Routine maintenance	-	-	MDW
	Con 3-4, Goldfield to ST	NS 3-4R14486-ST		Local	Surface Treatment	hp 150	4	2	2014	6.1	4036	2,954,352	Excellent	22	Routine maintenance	-	-	MDW
	Con 3-4, 12 to Gravel	NS 3-4R15050-Gravel		Local	Gravel/Stone/Other	Gravel	4	2	2004	6.1	537	371,246	Excellent	12	Routine maintenance	-	371,246	MDW
	Maple St., Con 3-4, From 15 to D/E	NS 3-4R16440-80		Local	Gravel/Stone/Other	Gravel	4	2	2015	4.57	252	130,519	Excellent	23	Routine maintenance	-	-	MDW
	Gravel Hill, Con 3-4, From Tolmies to 138	NS 3-4R16970-17279		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2288	1,581,771	Excellent	22	Routine maintenance	-	-	MDW
	Gravel Hill, Con 3-4, From 138 to Bender	NS 3-4R17280-593		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2336	1,614,955	Excellent	22	Routine maintenance	-	-	MDW
	Gravel Hill, Con 3-4, From Bender to D/E	NS 3-4R17594-674		Local	Gravel/Stone/Other	Gravel	4	2	2015	5.49	607	377,675	Excellent	23	Routine maintenance	-	-	MDW
	Gravel Hill, Con 3-4, From D/E to Tolmies	NS 3-4R1D/E-16969		Local	High Class Bituminous	ACP Hot Mix	4	2	2014	4.89	339	248,657	Excellent	17	Routine maintenance	-	-	MDW
	Con 3-4, Gravel to 12	NS 3-4RGravel-15049		Local	Gravel/Stone/Other	Gravel	4	2	2001	6.1	212	146,563	Good	9	Rehabilitation within 6-10 years	-	146,563	MDW
	Con 3-4, ST to F/R Bndy	NS 3-4RST-15969		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	6310	4,362,313	Excellent	25	Routine maintenance	-	-	MDW
	Kyle, Con 3, From 14 to 43	NS 3R15972-16024		Local	Gravel/Stone/Other	Gravel	4	2	2010	4.57	382	197,851	Excellent	18	Routine maintenance	-	-	MDW
	Con 4-5 West, From W/F Bndy to D/E	NS 4-5R14010-150		Local	Gravel/Stone/Other	Gravel	4	2	2014	4.88	943	521,542	Excellent	22	Routine maintenance	-	-	MDW
	Con 4-5, D/E to Goldfield	NS 4-5R14430-93		Local	Gravel/Stone/Other	Gravel	4	2	2015	4.88	468	258,835	Excellent	23	Routine maintenance	-	-	MDW
	Con 4-5, Goldfield to 12	NS 4-5R14494-15109		Local	Surface Treatment	hp 150	4	2	2015	6.1	4658	3,409,656	Excellent	23	Routine maintenance	-	-	MDW
	Con 4-5, 12 to Gravel	NS 4-5R15110-393		Local	Gravel/Stone/Other	Gravel	4	2	2007	6.1	2198	1,519,551	Excellent	15	Routine maintenance	-	1,519,551	MDW
	Con 4-5, ST to MacMillan	NS 4-5R15393-550		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	1062	734,196	Excellent	23	Routine maintenance	-	-	MDW
	Steele, Con 4-5, From R/F Bndy to 15	NS 4-5R15970-6346		Local	Gravel/Stone/Other	Gravel	4	2	2016	4.88	2864	1,583,983	Excellent	24	Routine maintenance	-	-	MDW
	MacLeod, Con 4-5, Cumming to K/R Bndy	NS 4-5R17914-K/R		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	985	680,963	Excellent	24	Routine maintenance	-	-	MDW
	Seguin, Con 4-5, From D/E to 138	NS 4-5RD/E-17285		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	257	177,673	Excellent	22	Routine maintenance	-	-	MDW
	Elm, Con 4, From R/F Bndy to 15	NS 4R15970-16345		Local	Gravel/Stone/Other	Gravel	4	2	2017	5.79	2974	1,951,539	Excellent	25	Routine maintenance	-	-	MDW
	Fourth, Con 4, From 15 to Dewar	NS 4R16362-658		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	2285	1,579,697	Excellent	24	Routine maintenance	-	-	MDW
	Redtown, Con 4, From Dewar to Tolmies	NS 4R16659-969		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	2308	1,595,597	Excellent	23	Routine maintenance	-	-	MDW
	Robinson's Crns, Con 4, From Bender to Cumming	NS 4R17592-903		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	2311	1,597,671	Excellent	24	Routine maintenance	-	-	MDW
	Con 5-6, From 9 to R/F Bndy	NS 5-6R15878-967		Local	Gravel/Stone/Other	Gravel	4	2	2017	5.18	686	402,728	Excellent	25	Routine maintenance	-	-	MDW
	MacKillican, Con 5-6, From Dewar to Tolmies	NS 5-6R16660-971		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2311	1,597,671	Excellent	22	Routine maintenance	-	-	MDW
	MacKillican, Con 5-6, From Tolmies to D/E	NS 5-6R16972-17045		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	580	400,973	Excellent	22	Routine maintenance	-	-	MDW
	Bloomington, Con 5-6, Bender to Cumming	NS 5-6R17598-899		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	2307	1,594,906	Excellent	23	Routine maintenance	-	-	MDW
	Manley, Con 5, Con 4-5 to ST	NS 5R13945-4099		Local	High Class Bituminous	ACP Hot Mix	4	2	2016	6.1	1177	1,076,955	Excellent	19	Routine maintenance	-	-	MDW
	Manley, Con 5, ST to 9	NS 5R14100-259		Local	Gravel/Stone/Other	Gravel	4	2	1980	6.1	1263	873,154	Poor	0	Rehabilitation within 1 year	873,154	-	MDW
	Lodi, Con 5, From 15 to Dewar	NS 5R16346-655		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	2324	1,606,659	Excellent	23	Routine maintenance	-	-	MDW
	Sand, Con 5, From Tolmies to 138	NS 5R16970-17295		Local	Surface Treatment	hp 150	4	2	2016	6.1	2323	1,700,436	Excellent	24	Routine maintenance	-	-	MDW
	Warina, Con 5, 138 to Bender	NS 5R17274-589		Local	Gravel/Stone/Other	Gravel	4	2	2009	6.1	2398	1,657,817	Excellent	17	Routine maintenance	-	-	MDW
	Con 6-7, From W/F Bndy to D/E	NS 6-7R14010-612		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	4411	3,049,471	Excellent	24	Routine maintenance	-	-	MDW
	Con 6-7, From D/E to 12	NS 6-7R14669-15073		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	2229	1,540,982	Excellent	22	Routine maintenance	-	-	MDW
	Con 6-7, From 12 to R/F Bndy	NS 6-7R15074-961		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	6661	4,604,971	Excellent	22	Routine maintenance	-	-	MDW
	Seventh, Con 6-7, From R/F Bndy to 15	NS 6-7R15962-16355		Local	High Class Bituminous	ACP Hot Mix	4	2	2016	6.1	2915	2,667,225	Excellent	19	Routine maintenance	-	-	MDW
	Sixth, Con 6, From 15 to Dewar	NS 6R16348-660		Local	Gravel/Stone/Other	Gravel	4	2	1990	6.1	2293	1,585,227	Poor	0	Rehabilitation within 1 year	1,585,227	-	MDW
	Allnut Rd. Con 6, From Cumming to K/R Bndy	NS 6R17912-63		Local	Surface Treatment	hp 150	4	2	2014	6.1	679	497,028	Excellent	22	Routine maintenance	-	-	MDW
	Ashburn Rd, Con 7-8, From Cty. Rd 12 to R/F Bdy	NS 7-8R12-15061		Local	Gravel/Stone/Other	Gravel	4	2	2001	6.1	6762	4,674,796	Good	9	Rehabilitation within 6-10 years	-	4,674,796	MDW
	Con 7-8, From W/F Bndy to Ouderkirk	NS 7-8R14012-759		Local	Surface Treament	hp 150	4	2	2015	6.1	5590	4,091,880	Excellent	23	Routine maintenance	-	-	MDW
	Eighth, Con 7-8, 6 to 16697	NS 7-8R16364-697		Local	Surface Treatment	hp 150	4	2	2017	6.1	2529	1,851,228	Excellent	25	Routine maintenance	-	-	MDW
	Eighth, Con 7-8, 16697 to RXing	NS 7-8R16697-RXing		Local	Gravel/Stone/Other	Gravel	4	2	2007	6.1	1213	838,587	Excellent	15	Routine maintenance	-	838,587	MDW
	McDonald's Grove, Con 7-8, From Fraser to K/R Bnd	NS 7-8R17592-18011		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	2016	6.1	3071	2,466,525	Excellent	19	Routine maintenance	-	-	MDW
	Eighth, Con 7-8, RXing to Valley	NS 7-8RRXing-16983		Local	Surface Treatment	hp 150	4	2	1993	6.1	900	658,800	Fair	1	Rehabilitation within 1-5 years	658,800	-	MDW
	Con 8-9, 12 to Gravel 15370	NS 8-9R14992-15370		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	2884	1,993,805	Excellent	23	Routine maintenance	-	-	MDW
	Con 8-9, ST to 6	NS 8-9R15370-965		Local	Surface Treatment	hp 150	4	2	2017	6.1	4393	3,215,676	Excellent	25	Routine maintenance	-	-	MDW
	Sandringham, Con 8-9, Gravel to 138	NS 8-9R17274-85		Local	Surface Treatment	hp 150	4	2	2013	4.88	106	62,074	Excellent	21	Routine maintenance	-	-	MDW
	Sandringham, Con 8-9, From 138 to Athol	NS 8-9R17286-K/R		Local	Surface Treatment	hp 150	4	2	2013	6.7	5615	4,514,460	Excellent	21	Routine maintenance	-	-	MDW
	Sandringham, Con 8-9, D/E to ST	NS 8-9RD/E-17274		Local	Gravel/Stone/Other	Gravel	4	2	2013	4.88	90	49,776	Excellent	21	Routine maintenance	-	-	MDW
	Yelle, Con 8, From D/E to 12	NS 8R14852-993		Local	High Class Bituminous	ACP Hot Mix	4	2	2014	6.1	1100	1,006,500	Excellent	17	Routine maintenance	-	-	MDW
	Allaire, Con 9-10, From 138 to Fraser	NS 9-10R17304-601		Local	Gravel/Stone/Other	Gravel	4	2	2009	7.31	2292	1,898,846	Excellent	17	Routine maintenance	-	-	MDW
	Allaire, Con 9-10, From Fraser to D/E	NS 9-10R17602-85		Local	Asphalt Type HI-4	ACP Hot Mix	4	2	2015	7.31	669	643,901	Excellent	18	Routine maintenance	-	-	MDW
	Lafleche, Con 9-10, D/E to 138	NS 9-10RD/E-138	Unknown Status	Local	Gravel/Stone/Other	Gravel	4	2	2009	7.92	1332	1,195,603	Excellent	17	Routine maintenance	-	-	MDW
	Shane, Con 9, From Forgues to Nine Mile	NS 9R14410-99		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	598	413,417	Excellent	25	Routine maintenance	-	-	MDW
	Shane, Con 9, From Nine Mile to 13	NS 9R14500-664		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1688	1,166,971	Excellent	25	Routine maintenance	-	-	MDW
	Noel, Con 12, From Marionville to Con 11-12	NS R1184-333		Local	Surface Treatment	hp 150	4	2	2014	6.1	1134	830,088	Excellent	22	Routine maintenance	-	-	MDW
	Farley, Con 12, 7 to Con 11-12	NS R1260-332		Local	Gravel/Stone/Other	Gravel	4	2	2012	6.1	683	472,181	Excellent	20	Routine maintenance	-	-	MDW
	Reveler, Con 11, From Con 11-12 to Con 10-11	NS R1324-511		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	1400	967,867	Excellent	23	Routine maintenance	-	-	MDW
	Farley, Con 11, Con 11-12 to D/E	NS R1334-466		Local	Surface Treatment	hp 150	4	2	2014	6.1	951	696,132	Excellent	22	Routine maintenance	-	-	MDW
	Smirle, Con 10, Con 10-11 to Gravel	NS R1512-Gravel		Local	Gravel/Stone/Other	Gravel	4	2	2001	6.1	416	287,595	Good	9	Rehabilitation within 6-10 years	-	287,595	MDW
	Fraser, Con 8-9, From Allaire to Sandringham	NS R1552-1730		Local	Surface Treatment	hp 150	4	2	2014	6.7	2101	1,689,204	Excellent	22	Routine maintenance	-	-	MDW
	Courville, Con 10, F/C Bndy to 13	NS R1600-1755		Local	Surface Treatment	hp 150	4	2	2010	6.7	1187	954,348	Excellent	18	Routine maintenance	-	-	MDW
	F/C Bndy, Con 10, Courville to Gravel	NS R1601-gravel		Local	Gravel/Stone/Other	Gravel	4	2	2010	5.79	246	161,425	Excellent	18	Routine maintenance	-	-	MDW
	Benoit, Con 10, F/C Bndy to 13	NS R1638-1753		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.49	929	578,024	Excellent	22	Routine maintenance	-	-	MDW
	Benoit Rd, Con 9, From F/C Bdy to Cty Rd 13	NS R1638-1755		Local	Surface Treament	hp 150		2	2014	5.49	900	592,920	Excellent	22	Routine maintenance	-	-	MDW
	F/W Bndy, Con 9, 13 to Gravel	NS R1685-1907		Local	Surface Treatment	hp 150	4	2	2007	6.1	1757	1,286,124	Excellent	15	Routine maintenance	-	1,286,124	MDW
	Nine Mile, Con 8-9, From 13 to Con 7-8	NS R1722-2085		Local	Gravel/Stone/Other	Gravel	4	2	2007	6.1	2761	1,908,771	Excellent	15	Routine maintenance	-	1,908,771	MDW
	Forgues, Con 8-9, From 13 to Con 7-8	NS R1722-2201		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	3645	2,519,910	Excellent	22	Routine maintenance	-	-	MDW
	Fraser, Con 7-8, Sandringham to ST	NS R1731-2275		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	3853	2,663,707	Excellent	23	Routine maintenance	-	-	MDW
	Ouderkirk, Con 8-9, From 13 to Con 7-8	NS R1750-2095		Local	Surface Treatment	hp 150	4	2	2017	6.1	2859	2,092,788	Excellent	25	Routine maintenance	-	-	MDW
	Courville, 13 to Gravel	NS R1756-75		Local	Gravel/Stone/Other	Gravel	4	2	2010	5.49	208	129,418	Excellent	18	Routine maintenance	-	-	MDW
	Courville, Con 9, Asphalt to Con 8-9	NS R1775-1937		Local	Gravel/Stone/Other	Gravel	4	2	2016	5.49	1147	713,663	Excellent	24	Routine maintenance	-	-	MDW
	Norman Drive, Con 8, From 138 to Valley St.	NS R1832-2038		Local	Surface Treatment	hp 150	4	2	2016	6.1	2559	1,873,188	Excellent	24	Routine maintenance	-	-	MDW
	F/W Bndy, Con 8, ST to 9	NS R1907-2440		Local	Gravel/Stone/Other	Gravel	4	2	2007	6.1	4019	2,778,469	Excellent	15	Routine maintenance	-	2,778,469	MDW
	Courville, Con 8, Con 8-9 to Ashburn	NS R1938-2119		Local	Gravel/Stone/Other	Gravel	4	2	2016	5.49	1369	851,792	Excellent	24	Routine maintenance	-	-	MDW
	McDermid, Con 8, From Con 8-9 to Ashburn	NS R1940-2127		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1376	951,275	Excellent	25	Routine maintenance	-	-	MDW
	K/R Bndy, Con 7, From K/R Bndy to 22	NS R1986-2382		Local	Surface Treatment	hp 150	4	2	2014	6.1	2913	2,132,316	Excellent	22	Routine maintenance	-	-	MDW
	F/R Bndy, 6 to 9	NS R2018-426		Local	Gravel/Stone/Other	Gravel	4	2	2009	6.7	3070	2,331,153	Excellent	17	Routine maintenance	-	-	MDW
	Dewar, Con 7, Eighth to 15	NS R2026-213		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1378	952,657	Excellent	25	Routine maintenance	-	-	MDW
	Cameron, Con 7, From McDonald Grove to 22	NS R2034-333		Local	Gravel/Stone/Other	Gravel		2	2017	6.1	2211	1,528,538	Excellent	25	Routine maintenance	-	-	MDW

	Murphy, Con 7, From Con 7-8 to Con 6-7	NS R2060-441		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	1373	949,201	Excellent	22	Routine maintenance	-	-	MDW
	Nine Mile, Con 7, From Con 7-8 to Con 6-7	NS R2086-265		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	1334	922,239	Excellent	22	Routine maintenance	-	-	MDW
	Courville, Con 7, Ashburn to Con 6-7	NS R2120-306		Local	Surface Treatment	hp 150	4	2	2014	5.49	1353	891,356	Excellent	22	Routine maintenance	-	-	MDW
	Dewar, Con 6, 15 to Sixth	NS R2214-472		Local	Gravel/Stone/Other	Gravel	4	2	2012	6.7	1935	1,469,310	Excellent	20	Routine maintenance	-	-	MDW
	Murphy, Con 6, Con 6-7 to 9	NS R2242-435		Local	Surface Treatment	hp 150	4	2	2016	6.1	1361	996,252	Excellent	24	Routine maintenance	-	-	MDW
	Fraser, Con 7, Gravel to 22	NS R2275-313		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	373	257,867	Excellent	24	Routine maintenance	-	-	MDW
	Courville, Con 6, Con 6-7 to 9	NS R2307-497		Local	Surface Treatment	hp 150	4	2	2014	5.49	1362	897,286	Excellent	22	Routine maintenance	-	-	MDW
	Tolmies Corners, Con 5-6, Valley to ST	NS R2318-621		Local	Surface Treatment	hp 150	4	2	2011	6.1	2364	1,730,448	Excellent	19	Routine maintenance	-	-	MDW
	Cumming, Con 6, 22 to Bloomington	NS R2386-618		Local	High Class Bituminous	ACP Hot Mix	4	2	2016	6.1	1788	1,636,020	Excellent	19	Routine maintenance	-	-	MDW
	F/R Bndy, 9 to 43	NS R2427-3245		Local	Surfae Treatment	hp 150	4	2	2010	6.1	6079	4,449,828	Excellent	18	Routine maintenance	-	-	MDW
	Goldfield, Con 4-5, 9 to Gravel	NS R2453-682		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	1748	1,208,451	Excellent	24	Routine maintenance	-	-	MDW
	F/W Bndy, Con 5, 9 to D/E	NS R2455-570		Local	Gravel/Stone/Other	Gravel	3	2	2014	5.49	756	470,383	Excellent	22	Routine maintenance	-	-	MDW
	Dewar, Con 4-6, Sixth to Red Town	NS R2474-3075		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	4548	3,144,184	Excellent	23	Routine maintenance	-	-	MDW
	MacMillan, Con 5, 9 to Con 4-5	NS R2499-2680		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	1358	938,831	Excellent	23	Routine maintenance	-	-	MDW
	Bender, Con 4-6, From D/E N to 43	NS R2575-3475		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	6800	4,701,067	Excellent	24	Routine maintenance	-	-	MDW
	F/W Bndy, Con 3-4, Con 4-5 to 43	NS R2597-970		Local	Gravel/Stone/Other	Gravel	4	2	2017	4.88	2683	1,483,878	Excellent	25	Routine maintenance	-	-	MDW
	Cumming, Con 4-5, Bloomington to Robinson's	NS R2620-3008		Local	Surface Treatment	hp 150	4	2	2016	6.1	2910	2,130,120	Excellent	24	Routine maintenance	-	-	MDW
	Tolmies Corners, Con 4-5, Asphalt to Red Town	NS R2621-3084		Local	Surface Treatment	hp 150	4	2	2012	6.1	3536	2,588,352	Excellent	20	Routine maintenance	-	-	MDW
	Goldfield, Con 3-4, ST to 43	NS R2682-3001		Local	Gravel/Stone/Other	Gravel	4	2	2009	6.1	2334	1,613,572	Excellent	17	Routine maintenance	-	-	MDW
	MacMillan, Con 4, From Con 4-5 to Con 3-4	NS R2682-859		Local	Gravel/Stone/Other	Gravel	4	2	2015	6.1	1327	917,399	Excellent	23	Routine maintenance	-	-	MDW
	MacMillan, Con 3, From Con 3-4 to ST	NS R2860-3045		Local	Surface Treatment	hp 150	4	2	2015	6.1	1294	947,208	Excellent	23	Routine maintenance	-	-	MDW
	Goldfield, Con 2, 43 to Con 1-2	NS R3002-180		Local	Gravel/Stone/Other	Gravel	4	2	2010	6.1	1369	946,435	Excellent	18	Routine maintenance	-	-	MDW
	Cumming, Con 4, Robinson's to D/E	NS R3010-D/E		Local	High Class Bituminous	ACP Hot Mix	4	2	2014	5.49	325	267,638	Excellent	17	Routine maintenance	-	-	MDW
	MacMillan, Con 2, Gravel to 43	NS R3046-53		Local	Surface Treatment	hp 150	4	2	2015	3.1	164	61,008	Excellent	23	Routine maintenance	-	-	MDW
	St. Luke's, Con 2, 43 to Con 1-2	NS R3054-235		Local	Surface Treatment	hp 150	4	2	2010	6.1	1467	1,073,844	Excellent	18	Routine maintenance	-	-	MDW
	Tolmies Corners, Con 3-4, Red Town to 43	NS R3086-393		Local	Gravel/Stone/Other	Gravel	4	2	2018	6.1	2344	1,620,485	Excellent	26	Routine maintenance	-	-	MDW
	Goldfield, Con 1, Con 1-2 to F/O Bndy	NS R3181-381		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1518	1,049,444	Excellent	25	Routine maintenance	-	-	MDW
	St. Luke's, Con 1, Con 1-2 to F/O Bndy	NS R3236-417		Local	Gravel/Stone/Other	Gravel	4	2	2017	6.1	1316	909,795	Excellent	25	Routine maintenance	-	-	MDW
	Cloverside, Con 3, From D/E to 43	NS R3384-5		Local	Gravel/Stone/Other	Gravel	4	2	2014	5.49	169	105,152	Excellent	22	Routine maintenance	-	-	MDW
	Cloverside, Con 2, From 43 to Duff's Corners	NS R3386-591		Local	Surface Treatment	hp 150	4	2	2015	5.49	1570	1,034,316	Excellent	23	Routine maintenance	-	-	MDW
	Tolmies Corners, Con 2, 43 to Roxborough	NS R3394-466		Local	Gravel/Stone/Other	Gravel	4	2	2016	6.1	549	379,542	Excellent	24	Routine maintenance	-	-	MDW
	Tolmies Corners, Con 2, Roxborough to Rombough	NS R3467-662		Local	Surface Treatment	hp 150	4	2	2016	6.1	1464	1,071,648	Excellent	24	Routine maintenance	-	-	MDW
	Bender, Con 1-2, From Strathmore to 43	NS R3477-895		Local	Gravel/Stone/Other	Gravel	4	2	2008	6.1	3182	2,199,823	Excellent	16	Routine maintenance	-	-	MDW
	Pigeon Hill, Con 1-2, From 43 to Strathmore	NS R3482-907		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	3235	2,236,463	Excellent	22	Routine maintenance	-	-	MDW
	Cloverside, Con 2, Duffs Crnrs to D/E	NS R3592-D/E		Local	Surface Treatment	hp 150	4	2	2014	5.49	167	110,020	Excellent	22	Routine maintenance	-	-	MDW
	Bender, Con 1, From Gravel to Strathmore	NS R3897-930		Local	Gravel/Stone/Other	Gravel	4	2	2008	6.1	218	150,711	Excellent	16	Routine maintenance	-	-	MDW
	Lafleur, Con 1, From Strathmore to Froats	NS R3904-4044		Local	Surface Treatment	hp 150	4	2	2014	6.1	1053	770,796	Excellent	22	Routine maintenance	-	-	MDW
	Bender, Con 1, From S D/E to ST	NS R3930-77		Local	Gravel/Stone/Other	gravel	4	2	2008	5.48	393	244,079	Excellent	16	Routine maintenance	-	-	MDW
	Smirle, Con 10, ST to 13	NS RST-1713		Local	Gravel/Stone/Other	Gravel	4	2	2014	6.1	1108	765,997	Excellent	22	Routine maintenance	-	-	MDW

Paved Roads

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent		Routine maintenance	57%
Good	6-10	Rehabilitation within 6-10 years	3%
Fair	1-5	Rehabilitation within 1-5 years	11%
Poor	1	Rehabilitation within 1 year	30%

Assumptions: 1) Typical life expectancy of Hot Mix road is 20 years and Gravel road is 25 years
2) 1905 is assumed for unknown construction year of roads

Gravel Roads

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent		Routine maintenance	91%
Good	6-10	Rehabilitation within 6-10 years	5%
Fair	1-5	Rehabilitation within 1-5 years	1%
Poor	1	Rehabilitation within 1 year	3%

Sanitary Sewerline														
Village	**Asset Name**	**Asset ID**	**Description**	**Installation Year/ As Built Year**	**Size (mm)**	**Length (m)**	**Value ($) per m**	**Condition**	**Estimated Remaining Life**	**Recommended Work**	**Value ($) (2017)**	**1-5 Years**	**6-15 Years**	**Source**
Crysler	Bridge	C - Bridge	Charles to Provost (MH NO. 16), PVC	1996	200	266	1,362	Good	54	Routine maintenance	362,292	-	-	MDW, Crysler Sewers & Water Mains\Bridge St.pdf
Crysler	Bridge Crescent, Bridge to corner	C - Bridge Crescent	MH NO 65 to MH NO 18, PVC	1996	200	34	1,362	Good	54	Routine maintenance	46,308	-	-	MDW, Crysler Sewers & Water Mains\George St.pdf
Crysler	Brisson	unk	PVC	2014	200	160	1,362	Excellent	72	Routine maintenance	217,920	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittancy	unk	PVC	2014	200	150	1,362	Excellent	72	Routine maintenance	204,300	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Champagne, Champagne ext to MH 59	C - Champagne	MH NO. 58 to 59, PVC	1996	200	57	1,362	Good	54	Routine maintenance	77,634	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Champagne ext, Concession to Station	C - Champagne ext	To MH NO. 48, 200 diameter, PVC	1996	200	284	1,362	Good	54	Routine maintenance	386,808	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf, Crysler Sewers & Water Mains\Concession Rd - 4.pdf, Crysler Sewers & Water Mains\Fourth St - 2.pdf
Crysler	Champagne ext, Queen	unk	Stub	1996	200	15	1,362	Good	54	Routine maintenance	20,430	-	-	Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Charles, Mary to D/E	C - Charles	PVC	1995	200	259	1,362	Good	53	Routine maintenance	352,758	-	-	MDW, Bridge St.pdf, Charles St - 2.pdf, Charles St - 3.pdf
Crysler	Charles, MH 7 to Mary	C - Charles	PVC	1996	200	447	1,362	Good	54	Routine maintenance	608,814	-	-	MDW, Crysler Sewers & Water Mains\Charles St - 4.pdf, Crysler Sewers & Water Mains\John St.pdf
Crysler	Charles, West to MH 7	C - Charles	PVC	1996	200	580	1,362	Good	54	Routine maintenance	789,960	-	-	MDW, Crysler Sewers & Water Mains\Charles St - 5.pdf, Crysler Sewers & Water Mains\Charles - 6.pdf
Crysler	Concession E	unk	Service from Nursin Home	1996	200	500	1,362	Good	54	Routine maintenance	681,000	-	-	Crysler Sewers & Water Mains\Concession Rd - 3.pdf
Crysler	Concession E, Queen to East	C - Concession E	MH NO. 33 to MH NO. 60, PVC	1996	200	251	1,362	Good	54	Routine maintenance	341,862	-	-	MDW, Crysler Sewers & Water Mains\Concession Rd - 3.pdf

Crysler	Concession W, D/E to Queen	C - Concession W	PVC	1996	200	317	1,362	Good	54	Routine maintenance	431,754	-	-	MDW, Crysler Sewers & Water Mains\Concession Rd - 4.pdf, Crysler Sewers & Water Mains\Fourth St -1.pdf
Crysler	First, Fourth to Queen	C - First	PVC	1996	300	160	1,380	Good	54	Routine maintenance	220,800	-	-	MDW, Crysler Sewers & Water Mains\First St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	Fourth, First to MH 70	C - Fourth	North of MH NO. 70, PVC	1996	200	29	1,362	Good	54	Routine maintenance	39,498	-	-	MDW, Crysler Sewers & Water Mains\First St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	Fourth, Third to MH 43	C - Fourth	PVC	1996	200	129	1,362	Good	54	Routine maintenance	175,698	-	-	MDW, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	Fourth	unk	South of Concession, MH NO. 43	1996	200	280	1,362	Good	54	Routine maintenance	381,360	-	-	Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	George, John to MH 24	C - George	PVC	1996	200	264	1,362	Good	54	Routine maintenance	359,568	-	-	MDW, Crysler Sewers & Water Mains\George St.pdf, Crysler Sewers & Water Mains\John St.pdf
Crysler	Gloss, MH 21A to 19	C - Gloss	PVC	1996	200	239	1,362	Good	54	Routine maintenance	325,518	-	-	MDW, Crysler Sewers & Water Mains\Gloss St.pdf, Crysler Sewers & Water Mains\Bridge St.pdf
Crysler	John, MH 22 to 23	C - John	PVC	1996	200	52	1,362	Good	54	Routine maintenance	70,824	-	-	MDW, Crysler Sewers & Water Mains\John St.pdf, Crysler Sewers & Water Mains\Gloss St.pdf
Crysler	Mary, Gloss to River	C - Mary	PVC	1996	200	164	1,362	Good	54	Routine maintenance	223,368	-	-	MDW, Crysler Sewers & Water Mains\Charles St - 3.pdf, Crysler Sewers & Water Mains\Mary St.pdf
Crysler	Matheson	unk	PVC	2014	200	220	1,362	Excellent	72	Routine maintenance	299,640	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Nation	unk		2011	200	153	1,362	Excellent	69	Routine maintenance	208,386	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation, Queen to D/E	C - Nation	PVC	1996	200	114	1,362	Good	54	Routine maintenance	155,268	-	-	MDW
Crysler	Pleasant, Concession to Princess	C - Pleasant	To MH NO. 47, PVC	1996	200	164	1,362	Good	54	Routine maintenance	223,368	-	-	MDW, Crysler Sewers & Water Mains\Pleasant St.pdf, Crysler Sewers & Water Mains\Concession Rd - 4.pdf

Crysler	Pleasant, Princess to Richer (S)	unk	PVC	1996	200	171.2	1,362	Good	54	Routine maintenance	233,174	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Princess, Pleasant to Champagne ext	C - Princess	PVC	1996	200	190	1,362	Good	54	Routine maintenance	258,780	-	-	MDW, Crysler Sewers & Water Mains\Princess St.pdf
Crysler	Provost	unk	PVC	2014	200	215	1,362	Excellent	72	Routine maintenance	292,830	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Queen, Champagne to First	C - Queen	MH NO. 32 to MH NO. 37, PVC	1996	250	348	1,380	Good	54	Routine maintenance	480,240	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 1.pdf, Crysler Sewers & Water Mains\Queen St - 2.pdf
Crysler	Queen, First to MH 38	C - Queen	MH NO 37 to MH NO 38, PVC	1996	375	16	1,440	Good	54	Routine maintenance	23,040	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 1.pdf, Crysler Sewers & Water Mains\Champagne St.pdf, Crysler Sewers & Water Mains\First St.pdf
Crysler	Queen, MH 38 to River	C - Queen	MH NO 38 to MH NO 39, PVC	1996	200	41	1,362	Good	54	Routine maintenance	55,842	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 1.pdf
Crysler	Queen, Station to Champagne	C - Queen	MH NO. 29 to MH NO. 32, PVC	1996	200	247	1,362	Good	54	Routine maintenance	336,414	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 3.pdf
Crysler	Queen	unk	Leading into property 6	1996	200	200	1,362	Good	54	Routine maintenance	272,400	-	-	Crysler Sewers & Water Mains\Queen St - 1.pdf
Crysler	Richer	unk	PVC	1996	200	444.1	1,362	Good	54	Routine maintenance	604,864	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	River	unk		1996	200	90	1,362	Good	54	Routine maintenance	122,580	-	-	Crysler Sewers & Water Mains\Profile Across SN River.pdf
Crysler	Second, D/E to Queen	C - Second	MH NO. 40 to MH NO. 36, PVC	1996	200	261	1,362	Good	54	Routine maintenance	355,482	-	-	MDW, Crysler Sewers & Water Mains\Fourth St - 1.pdf, Crysler Sewers & Water Mains\Second St.pdf
Crysler	South Nation River Crossing	C - South	PVC	2009	200	93	1,362	Excellent	67	Routine maintenance	126,666	-	-	MDW, Crysler - Wastewater
Crysler	South Nation River Crossing	C - South	PVC	1996	200	93	1,362	Good	54	Routine maintenance	126,666	-	-	MDW

Crysler	Station, D/E to Champagne ext	C - Station	MH NO 56 to passed MH NO 64, PVC	1996	200	254	1,362	Good	54	Routine maintenance	345,948	-	-	MDW, Crysler Sewers & Water Mains\Station - 2.pdf, 10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf, Crysler Sewers & Water Mains\Fourth St - 2.pdf
Crysler	Third, D/E to Queen	C - Third	MH NO 69 to MH NO 35, PVC	1996	200	223	1,362	Good	54	Routine maintenance	303,726	-	-	MDW, Crysler Sewers & Water Mains\Fourth St - 1.pdf, Crysler Sewers & Water Mains\Third St.pdf
Finch	12 N & 3-4, MH 90A to MH 84A	F - 12 N & 3-4	H 84A (12N) to SMH 90A (Township),	2001	200	777	1,362	Excellent	59	Routine maintenance	1,058,274	-	-	MDW, Finch Maps Scanned\Sewer\33 County Rd 12-Leduc Easement.pdf, Finch Maps Scanned\Sewer\34 County Rd 12.pdf, 35 County Rd 12.pdf, Finch Maps Scanned\Sewer\36 Twp Rd.pdf
Finch	12 N, 12 to Pumping Station	F - 12 N	PVC	1996	200	33	1,362	Good	54	Routine maintenance	44,946	-	-	MDW
Finch	12 N, Main to MH 80 (Leduc)	F - 12 N	SMH 76 to SMH 80, PVC	2001	200	310	1,362	Excellent	59	Routine maintenance	422,220	-	-	MDW, Finch Maps Scanned\Sewer\32 County Rd 12.pdf, Finch Maps Scanned\Sewer\32 County Rd 12-Leduc Easement.pdf
Finch	Casselman, Front to Victoria	F - Casselman	SMH 43 to SMH 39, PVC	2001	200	261	1,362	Excellent	59	Routine maintenance	355,482	-	-	MDW, Finch Maps Scanned\Sewer\22 Casselman.pdf
Finch	Church, Main to Nelson	F - Church	SMH 33 to SMH 35B, PVC	2001	200	198	1,362	Excellent	59	Routine maintenance	269,676	-	-	MDW, Finch Maps Scanned\Sewer\18 Church.pdf
Finch	ement 1, between George, John, Main, and	F - Easement 1	PVC	2001	200	148	1,362	Excellent	59	Routine maintenance	201,576	-	-	MDW, Finch Maps Scanned\Sewer\23 Easement 1.pdf
Finch	Easement 2, Main to Minto	F - Easement 2	SMH 19 to SMH 36, PVC	2001	200	85	1,362	Excellent	59	Routine maintenance	115,770	-	-	MDW, Finch Maps Scanned\Sewer\11 Main.pdf
Finch	ment 3, between Church, Main, Front, and N	F - Easement 3	PVC	2009	200	283	1,362	Excellent	67	Routine maintenance	385,446	-	-	MDW, Finch - Wastewater
Finch	Easement 3A, West of Easement 3	F - Easement 3A	PVC	2001	200	47	1,362	Excellent	59	Routine maintenance	64,014	-	-	MDW, Finch Maps Scanned\Sewer\25 Easement 3A.pdf
Finch	Easement 4, Victoria to Front	F - Easement 4	PVC	2001	200	414	1,362	Excellent	59	Routine maintenance	563,868	-	-	MDW, Finch Maps Scanned\Sewer\26 Easement 4.pdf, Finch Maps Scanned\Sewer\27 Easement 4.pdf
Finch	Easement 5, Nelson to MH 70	F - Easement 5	Bergin, @ Minto, to Easement 6, PVC	2009	200	69	1,362	Excellent	67	Routine maintenance	93,978	-	-	MDW, Finch - Wastewater

Finch	Easement 6	unk	SMH 8 to SMH 65	2001	250	45.2	1,380	Excellent	59	Routine maintenance	62,376	-	-	Finch Maps Scanned\Sewer\06 Front.pdf
Finch	Easement 6, MH 65 to MH 9	F - Easement 6	PVC	2001	200	30	1,362	Excellent	59	Routine maintenance	40,860	-	-	MDW, Finch Maps Scanned\Sewer\06 Front.pdf
Finch	Easement 6, West of Nelson and 12	F - Easement 6	PVC	2001	250	932	1,380	Excellent	59	Routine maintenance	1,286,160	-	-	MDW, Finch Maps Scanned\Sewer\28 Easement 6.pdf
Finch	Easement 6	unk	ng Pipe, Located between SMH 71 an	2001	450	35	1,572	Excellent	59	Routine maintenance	55,020	-	-	Finch Maps Scanned\Sewer\30 Easement 6.pdf
Finch	Front, East of Nelson to Bridge	F - Front	200, SMH 9 to SMH 12, PVC	2001	200	281	1,362	Excellent	59	Routine maintenance	382,722	-	-	MDW, Finch Maps Scanned\Sewer\07 Front.pdf
Finch	Front, MH 7 to Nelson	F - Front	250, SMH 7 to SMH 8, PVC	2001	250	81	1,380	Excellent	59	Routine maintenance	111,780	-	-	MDW, Finch Maps Scanned\Sewer\06 Front.pdf
Finch	Front, Pumping Station to East	F - Front	200, SMH 13A to SMH 16, PVC	2001	200	334	1,362	Excellent	59	Routine maintenance	454,908	-	-	MDW, Finch Maps Scanned\Sewer\08 Front.pdf, Finch Maps Scanned\Sewer\09 Front.pdf
Finch	Front, West to Main	F - Front	200, SMH 1 to SMH 6, PVC	2001	200	471	1,362	Excellent	59	Routine maintenance	641,502	-	-	MDW, Finch Maps Scanned\Sewer\04 Front.pdf, Finch Maps Scanned\Sewer\05 Front.pdf
Finch	George, S of James to N of Front	F - George	200, SMH 25 to SMH 27, PVC	2009	200	219	1,362	Excellent	67	Routine maintenance	298,278	-	-	MDW, Finch - Wastewater
Finch	John, William to Main	F - John	SMH 22 to SMH 28, PVC	2001	200	159	1,362	Excellent	59	Routine maintenance	216,558	-	-	MDW, Finch Maps Scanned\Sewer\15 John.pdf
Finch	Leduc Easement, Pumping Station to MH 80	F - Leduc Easement	250, SMH 80 to SPS No. 1, PVC	2001	250	337	1,380	Excellent	59	Routine maintenance	465,060	-	-	MDW, Finch Maps Scanned\Sewer\33 County Rd 12-Leduc Easement.pdf, Finch Maps Scanned\Sewer\34 County Rd 12.pdf
Finch	Main, Bergin to Church	F - Main	200, SMH 18 to SMH 20, PVC	2001	200	106	1,362	Excellent	59	Routine maintenance	144,372	-	-	MDW, Finch Maps Scanned\Sewer\10 Main.pdf, Finch Maps Scanned Sewer\11 Main.pdf
Finch	Minto, Church to Nelson	F - Minto	200, SMH 35 to SMH 31, PVC	2001	200	205	1,362	Excellent	59	Routine maintenance	279,210	-	-	MDW, Finch Maps Scanned\Sewer\19 Minto-Campbell.pdf

Finch	Nelson, Bergin to MH 30	F - Nelson	200, SMH 30 to SMH 32, PVC	2001	200	94	1,362	Excellent	59	Routine maintenance	128,028	-	-	MDW, Finch Maps Scanned\Sewer\16 Nelson.pdf, Finch Maps Scanned\Sewer\17 Nelson-Bergin.pdf
Finch	Nelson, MH 29 to Front	F - Nelson	200, SMH 8 to SMH 29, PVC	2001	200	121	1,362	Excellent	59	Routine maintenance	164,802	-	-	MDW, Finch Maps Scanned\Sewer\16 Nelson.pdf
Finch	Victoria, Front to MH 40 @ Forcemain	F - Victoria	200, SMH 37 to SMH 40, PVC	2001	200	258	1,362	Excellent	59	Routine maintenance	351,396	-	-	MDW, Finch Maps Scanned\Sewer\20 Victoria.pdf
Finch	Victoria, Pumping Station to S	F - Victoria	200, SPS No. 4 to SMH 42, PVC	2001	200	120	1,362	Excellent	59	Routine maintenance	163,440	-	-	MDW, Finch Maps Scanned\Sewer\21 Victoria.pdf
Finch	William, James to Front	F - William	SMH 5 to SMH 24, PVC	2001	200	301	1,362	Excellent	59	Routine maintenance	409,962	-	-	MDW, Finch Maps Scanned\Sewer\12 William.pdf
Finch - Crysler	Transition Station to Crysler	Finch to Crysler	Outlet Sewer, PVC	2001	250	3479	1,380	Excellent	59	Routine maintenance	4,801,020	-	-	MDW, 'Finch Maps Scanned\Sewer\44 Road Allowance.pdf' TO 'Finch Maps Scanned\Sewer\51 AC County Rd 12.pdf'
Moose Creek	Access Road	unk		1996	250	70	1,380	Good	54	Routine maintenance	96,600	-	-	Jen-Sub Development Phase 1 - Plan and Profile Jen Avenue & Pipe Easement
Moose Creek	Calco	unk		1996	250	347.6	1,380	Good	54	Routine maintenance	479,688	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Church, Labrosse to Laurier	MC - Church	PVC	2009	250	386	1,380	Excellent	67	Routine maintenance	532,680	-	-	MDW, Moose Creek - Wastewater
Moose Creek	County Road 15,McLean	unk		1996	250	300	1,380	Good	54	Routine maintenance	414,000	-	-	Jen-Sub Development Phase 1 - Plan and Profile Jen Avenue & Pipe Easement
Moose Creek	Easement 1, Sabourin to Valley	MC - Easement 1	PVC	2009	250	109.3	1,380	Excellent	67	Routine maintenance	150,834	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Hilltop	unk	South of Marguerite	1996	200	99.1	1,362	Good	54	Routine maintenance	134,974	-	-	Jen-Sub Development - Sanitary Sewer Layout
Moose Creek	Hilltop	unk	West of Jen	1996	200	83.3	1,362	Good	54	Routine maintenance	113,455	-	-	Jen-Sub Development - Sanitary Sewer Layout

Moose Creek	Hilltop	unk	East of Jen	1996	200	92.7	1,362	Good	54	Routine maintenance	126,257	-	-	Jen-Sub Development - Sanitary Sewer Layout
Moose Creek	Jen	unk	From Calco to Villeneuve	1996	200	284.3	1,362	Good	54	Routine maintenance	387,217	-	-	Jen-Sub Development - Sanitary Sewer Layout
Moose Creek	Labrosse, across Rxing	MC - Labrosse	PVC	2009	250	47.7	1,380	Excellent	67	Routine maintenance	65,826	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Labrosse, Rxing to Valley	MC - Labrosse	PVC	1996	250	442.1	1,380	Good	54	Routine maintenance	610,098	-	-	MDW, Moose Creek Storm Sewer\Valley St South 2.pdf
Moose Creek	County Road 15, McLean	unk		2009	250	420	1,380	Excellent	67	Routine maintenance	579,600	-	-	Moose Creek - Wastewater
Moose Creek	Marguerite	unk	From Villeneuve to Jen	1996	200	194.7	1,362	Good	54	Routine maintenance	265,181	-	-	Jen-Sub Development - Sanitary Sewer Layout
Moose Creek	Mill, D/E to St. Polycarp	MC - Mill	PVC	2009	250	97	1,380	Excellent	67	Routine maintenance	133,860	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Munroe, St. Polycarp to Pool	MC - Munroe	PVC	2009	250	139.9	1,380	Excellent	67	Routine maintenance	193,062	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Railway, D/E to Labrosse	MC - Railway	PVC	2009	250	54	1,380	Excellent	67	Routine maintenance	74,520	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Sabourin, Sabourin South to Labrosse	MC - Sabourin	PVC	2009	250	492.3	1,380	Excellent	67	Routine maintenance	679,374	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Simeon, North to South	MC - Simeon	PVC	2009	250	259.9	1,380	Excellent	67	Routine maintenance	358,662	-	-	MDW, Moose Creek - Wastewater
Moose Creek	Simeon, Pumping Station to MH 46	MC - Simeon	PVC	1993	250	256.8	1,380	Good	51	Routine maintenance	354,384	-	-	MDW, Moose Creek SPS\Easement No 3-2.pdf, Moose Creek Storm Sewers\Simeon Lane.pdf
Moose Creek	St. Polycarp, East to Siphon	MC - St. Polycarp	PVC	1995	250	591.9	1,380	Good	53	Routine maintenance	816,822	-	-	MDW, Moose Creek Storm Sewers\St Thomas.pdf

Moose Creek	St. Polycarp, Munroe to Rxing	MC - St. Polycarp	PVC	2009	250	227.6	1,380	Excellent	67	Routine maintenance	314,088	-	-	MDW, Moose Creek - Wastewater
Moose Creek	St. Thomas, Simeon to St. Polycarp	MC - St. Thomas	PVC	1995	250	106.5	1,380	Good	53	Routine maintenance	146,970	-	-	MDW, Moose Creek Storm Sewers\St Thomas.pdf
Moose Creek	Valley, Sabourin to Labrosse	MC - Valley	Separate at St.Joseph, PVC	1995	250	556	1,380	Good	53	Routine maintenance	767,280	-	-	MDW, Moose Creek Storm Sewers\Valley St South 1.pdf, Moose Creek Storm Sewers\Valley St South 2.pdf
Moose Creek	Villeneuve	unk	From Jen	1996	200	84.6	1,362	Good	54	Routine maintenance	115,225	-	-	Jen-Sub Development - Sanitary Sewer Layout
Moose Creek	Villeneuve	unk	From County Road 15	1996	200	193.8	1,362	Good	54	Routine maintenance	263,956	-	-	Jen-Sub Development - Sanitary Sewer Layout

Assumptions: 1) Typical life expectancy of asset is 75 years

2) 1996 is assumed for unknown construction year of asset

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	56	Routine maintenance	55%
Good	38	Routine maintenance	45%
Fair	19	Rehabilitation	0%
Poor	19	Rehabilitation or Replacement	0%

Description	Pipe Size (mm)	Units	Estimated Unit Cost	Pipe Install and Trench Reinstatement All inclusive method per m	Engineering Services and Contingency	Total
Supply Pipe	200	m	$ 335.00	$ 800.00	$ 227.00	$ 1,362.00
	250	m	$ 350.00	$ 800.00	$ 230.00	$ 1,380.00
	300	m	$ 350.00	$ 800.00	$ 230.00	$ 1,380.00
	375	m	$ 400.00	$ 800.00	$ 240.00	$ 1,440.00
	450	m	$ 510.00	$ 800.00	$ 262.00	$ 1,572.00
	525	m	$ 540.00	$ 800.00	$ 268.00	$ 1,608.00

Village	Asset Name	Asset ID	Asset Type	Description	Installation Year/ As Built Year	Size (mm)	Length (m)	Value ($) per m	Condition	Estimated Remaining Life	Recommended Work	Value ($) (2017)	1-5 Years	6-15 Years	Source
Crysler	Queen + Bridge	C - Queen + Bridge	Sanitary Forcemain		1996	200	475	1,362	Good	54	Routine maintenance	646,950	-	-	MDW, Crysler Sewers & Water Mains\Bridge St.pdf, Crysler Sewers & Water Mains\First St.pdf
Crysler	First	unk	Sanitary Forcemain	East of Queen until Generator Building	1996	200	1930	1,362	Good	54	Routine maintenance	2,628,660	-	-	W&S Pumping Stations\SPS - Elevations.pdf
Crysler	County Road 12	unk	Sanitary Forcemain	Inlet Forcemain, From Bridge to Lagoons	1996	200	2060	1,362	Good	54	Routine maintenance	2,805,720	-	-	W&S Pumping Stations\Plan & Index.pdf
Finch	12 & 3-4, Pumping Station to 3-4 - 4-5 Road Allowance	F - 12 & 3-4	Sanitary Forcemain		2001	200	1081	1,362	Excellent	59	Routine maintenance	1,472,322	-	-	MDW
Finch	Front, Across Bridge	F - Front	Sanitary Forcemain		2001	200	68	1,362	Excellent	59	Routine maintenance	92,616	-	-	MDW, Finch Maps Scanned\Sewer\07 Front.pdf, Finch Maps Scanned\Sewer\08 Front.pdf
Finch	John, Pumping Station to Church	F - John	Sanitary Forcemain		2001	200	174.1	1,362	Excellent	59	Routine maintenance	237,124	-	-	MDW, Finch Maps Scanned\Sewer\15 John.pdf
Finch	Victoria, around culvert @ Pumping Station	F - Victoria	Sanitary Forcemain		2001	200	53	1,362	Excellent	59	Routine maintenance	72,186	-	-	MDW, Finch Maps Scanned\Sewer\21 Victoria.pdf
Finch - Crysler	Finch to Crysler	Finch to Crysler	Sanitary Forcemain	Concession 3-4 to Concession 6-7	2009	200	3796	1,362	Excellent	67	Routine maintenance	5,170,152	-	-	MDW, Finch - Wastewater
Moose Creek	Moose Creek	unk	Sanitary Forcemain		1995	200	218.7	1,362	Good	53	Routine maintenance	297,869	-	-	Moose Creek Lagoons\Forcemain & Outfall Sewer Profile.pdf
Moose Creek	Easement 3, Simeon to Lagoon (Eighth)	MC - Easement 3	Sanitary Forcemain		1993	200	450	1,362	Good	51	Routine maintenance	612,900	-	-	MDW, Moose Creek SPS\Easement No 3-1.pdf, Moose Creek SPS\Easement No 3-2.pdf
Moose Creek	Simeon, Pumping Station to Easement 3	MC - Simeon	Sanitary Forcemain		1993	200	283.7	1,362	Good	51	Routine maintenance	386,399	-	-	MDW, Moose Creek SPS\Easement No 3-2.pdf

Assumptions: 1) Typical life expectancy of asset is 75 years
2) 200mm is assumed for unknown asset size

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	56	Routine maintenance	49%
Good	38	Routine maintenance	51%
Fair	19	Rehabilitation	0%
Poor	19	Rehabilitation or Replacement	0%

Description	Pipe Size (mm)	Units	Estimated Unit Cost	Pipe Install and Trench	Engineering Services and	Total
Supply Pipe	200	m	$ 335.00	$ 800.00	$ 227.00	$ 1,362.00
	250	m	$ 350.00	$ 800.00	$ 230.00	$ 1,380.00
	300	m	$ 350.00	$ 800.00	$ 230.00	$ 1,380.00
	375	m	$ 400.00	$ 800.00	$ 240.00	$ 1,440.00
	525	m	$ 540.00	$ 800.00	$ 268.00	$ 1,608.00

Storm Sewerline													
Village	Asset Name	Asset ID	Description	Installation Year/ As Built Year	Size (mm)	Length (m)	Value ($) per m	Condition	Estimated Remaining Life	Recommended Work	Value ($) (2017)	1-5 Years	6-15 Years	Source
Crysler	Bridge	unk		2014	600	86.5	1,284	Excellent	72	Routine maintenance	111,066	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Bridge @ Matheson	unk	HDPE	2014	750	15	1,368	Excellent	72	Routine maintenance	20,520	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Bridge	unk	From George to River	1996	600	113	1,284	Good	54	Routine maintenance	145,092	-	-	Crysler Sewers & Water Mains\Bridge St.pdf
Crysler	Brisson W	unk		2014	600	172	1,284	Excellent	72	Routine maintenance	220,848	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brisson E	unk		2014	600	150	1,284	Excellent	72	Routine maintenance	192,600	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittany W	unk		2014	600	137	1,284	Excellent	72	Routine maintenance	175,908	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittany E	unk		2014	600	132	1,284	Excellent	72	Routine maintenance	169,488	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Champagne	C - Champagne	CB NO. 32 to CB NO. 66	1996	600	145	1,284	Good	54	Routine maintenance	186,180	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Champagne ext	unk	CB NO 30 to outfall	1996	600	135	1,284	Good	54	Routine maintenance	173,340	-	-	MDW, Crysler Sewers & Water Mains\Fourth St - 2.pdf
Crysler	Charles	unk	PVC, from CB NO. 109 extending SE	1996	250	14	1,002	Good	54	Routine maintenance	14,028	-	-	Crysler Sewers & Water Mains\Charles St - 3.pdf
Crysler	Charles	unk	PVC, near Mary	1996	250	110	1,002	Good	54	Routine maintenance	110,220	-	-	Crysler Sewers & Water Mains\Charles St - 3.pdf
Crysler	Charles	unk	CSP, SE of CB NO. 105C	1996	600	31	1,284	Good	54	Routine maintenance	39,804	-	-	Crysler Sewers & Water Mains\Charles St - 4.pdf
Crysler	Charles	unk	From 200 PVC to culvert	1996	600	134	1,284	Good	54	Routine maintenance	172,056	-	-	Crysler Sewers & Water Mains\Charles St - 5.pdf
Crysler	Concession W	C - Concession W	CB 29 to CB 68	1996	600	250	1,284	Good	54	Routine maintenance	321,000	-	-	MDW, Crysler Sewers & Water Mains\Concession Rd - 4.pdf
Crysler	Concession	unk	Crossing Queen (CB 68 to 73)	1996	600	23	1,284	Good	54	Routine maintenance	29,532	-	-	Crysler Sewers & Water Mains\Concession Rd - 1.pdf
Crysler	Concession E	unk	CB NO. 73 to existing DI/CB (CB NO. 4)	1996	600	280	1,284	Good	54	Routine maintenance	359,520	-	-	Crysler Sewers & Water Mains\Concession Rd - 1.pdf
Crysler	Concession E	unk	CSP, N of property 18	1996	825	80	1,404	Good	54	Routine maintenance	112,320	-	-	Crysler Sewers & Water Mains\Concession Rd - 1.pdf
Crysler	First	C - First	CB NO 45 to CB NO 41	1996	600	86	1,284	Good	54	Routine maintenance	110,424	-	-	MDW, Crysler Sewers & Water Mains\First St.pdf
Crysler	First	unk	Between properties 1 and 3, running N/S, connected to CB NO. 46	1996	600	70	1,284	Good	54	Routine maintenance	89,880	-	-	Crysler Sewers & Water Mains\First St.pdf
Crysler	Fourth	C - Fourth	West side of Fourth at First, CB/MH NO. 1 to outfall at River	1996	450	374	1,128	Good	54	Routine maintenance	421,872	-	-	MDW, Crysler Sewers & Water Mains\Fourth St - 1.pdf, Crysler Sewers & Water Mains\First St.pdf
Crysler	George	C - George	John to Bridge	1996	600	361	1,284	Good	54	Routine maintenance	463,524	-	-	MDW, Crysler Sewers & Water Mains\George St.pdf
Crysler	Gloss	C - Gloss	MH NO. 3 to passed MH NO. 1 (Mary to Bridge Crescent)	1996	600	358	1,284	Good	54	Routine maintenance	459,672	-	-	MDW, Crysler Sewers & Water Mains\Gloss St.pdf
Crysler	Matheson/Provost	unk	HDPE, between Matheson and Provost, from S55 to STMH 104	2014	600	258	1,284	Excellent	72	Routine maintenance	331,272	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Matheson N	unk		2014	600	225	1,284	Excellent	72	Routine maintenance	288,900	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Matheson S	unk	Brisson to Brittany	2014	600	60	1,284	Excellent	72	Routine maintenance	77,040	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Matheson S	unk	Bridge to Brittany	2014	600	130	1,284	Excellent	72	Routine maintenance	166,920	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Mary	unk	SE of CB/MH NO 107	1996	300	35	984	Good	54	Routine maintenance	34,440	-	-	Crysler Sewers & Water Mains\Charles St - 3.pdf
Crysler	Mary	unk	CB NO 12 to CB NO 1	1996	600	70	1,284	Good	54	Routine maintenance	89,880	-	-	Crysler Sewers & Water Mains\Mary St.pdf
Crysler	Nation NE	unk		2011	375	57	1,044	Excellent	69	Routine maintenance	59,508	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation NW	unk		2011	300	100	984	Excellent	69	Routine maintenance	98,400	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation SW	unk		2011	300	52.5	984	Excellent	69	Routine maintenance	51,660	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation SE	unk		2011	300	101	984	Excellent	69	Routine maintenance	99,384	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation	C - Nation		1996	600	193	1,284	Good	54	Routine maintenance	247,812	-	-	MDW

Crysler	Nation N	unk	Between properties 5 and 6	2011	450	41	1,128	Excellent	69	Routine maintenance	46,248	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation N	unk	Crosses above stm	2011	450	20	1,128	Excellent	69	Routine maintenance	22,560	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation	unk	CB-13 to CB-15	2011	300	14.5	984	Excellent	69	Routine maintenance	14,268	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation	unk		2011	375	9	1,044	Excellent	69	Routine maintenance	9,396	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation	unk	CSP	2011	375	1.5	1,044	Excellent	69	Routine maintenance	1,566	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Pleasant	C - Pleasant	HDPE, East, CB-06 to CB-40	1996	300	119	984	Good	54	Routine maintenance	117,096	-	-	MDW, 10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant	unk	HDPE, West, CB-26 to CB-23	1996	250	125	1,002	Good	54	Routine maintenance	125,250	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant	unk	HDPE, between properties	1996	250	54.8	1,002	Good	54	Routine maintenance	54,910	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant W	unk	Near Pleasant and Princess	1996	600	70	1,284	Good	54	Routine maintenance	89,880	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant E	unk	Near Pleasant and Princess	1996	600	70	1,284	Good	54	Routine maintenance	89,880	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant	unk	HDPE, crossing Pleasant at intersection with Princess	1996	450	16	1,128	Good	54	Routine maintenance	18,048	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Pleasant	unk	Culvert to CB NO. 28	1996	600	110	1,284	Good	54	Routine maintenance	141,240	-	-	Crysler Sewers & Water Mains\Pleasant St.pdf
Crysler	Princess N	unk	Princess and Pleasant	1996	600	50	1,284	Good	54	Routine maintenance	64,200	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Princess S	unk	Princess and Pleasant	1996	600	40	1,284	Good	54	Routine maintenance	51,360	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Princess	C - Princess		1996	600	259	1,284	Good	54	Routine maintenance	332,556	-	-	MDW, Crysler Sewers & Water Mains\Princess St.pdf
Crysler	Provost N	unk		2014	600	210	1,284	Excellent	72	Routine maintenance	269,640	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Provost S	unk		2014	600	210	1,284	Excellent	72	Routine maintenance	269,640	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Queen	unk	CB NO. 58 to CB NO. 63	1996	600	115	1,284	Good	54	Routine maintenance	147,660	-	-	Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Queen	unk	Champagne to Concession, CB 65 to CB 68	1996	600	65	1,284	Good	54	Routine maintenance	83,460	-	-	Crysler Sewers & Water Mains\Queen St - 2.pdf, Crysler Sewers & Water Mains\Queen St - 3.pdf
Crysler	Queen	unk	Concession to South Nation River	1996	600	450	1,284	Good	54	Routine maintenance	577,800	-	-	Crysler Sewers & Water Mains\Queen St - 2.pdf, Crysler Sewers & Water Mains\Queen St - 1.pdf
Crysler	Queen	unk	Extends NW of CB NO. 87A, near First St/property 5	1996	600	60	1,284	Good	54	Routine maintenance	77,040	-	-	Crysler Sewers & Water Mains\Queen St - 1.pdf, Crysler Sewers & Water Mains\First St.pdf
Crysler	Queen	unk	CB NO. 74 to CB NO. 81, South of Third	1996	600	115	1,284	Good	54	Routine maintenance	147,660	-	-	Crysler Sewers & Water Mains\Queen St - 2.pdf
Crysler	Queen	unk	West of CB/MH NO. 76, North of property 31	1996	600	50	1,284	Good	54	Routine maintenance	64,200	-	-	Crysler Sewers & Water Mains\Queen St - 2.pdf
Crysler	Richer	unk	HDPE, inner loop	1996	450	470	1,128	Good	54	Routine maintenance	530,160	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE (outer loop)	1996	450	500	1,128	Good	54	Routine maintenance	564,000	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	SE of NW Properties	1996	600	160	1,284	Good	54	Routine maintenance	205,440	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE running W	1996	600	40	1,284	Good	54	Routine maintenance	51,360	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE, passed W corner of Richer	1996	450	19.6	1,128	Good	54	Routine maintenance	22,109	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE, passed W corner of Richer	1996	525	21.6	1,044	Good	54	Routine maintenance	22,550	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE, passed W corner of Richer	1996	600	12.2	1,284	Good	54	Routine maintenance	15,665	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	HDPE, passed W corner of Richer	1996	450	13.2	1,128	Good	54	Routine maintenance	14,890	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Richer	unk	Perforated Pipe N of Richer	1996	450	136	1,128	Good	54	Routine maintenance	153,408	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Second	C - Second	Across Second, between properties 2 and 15	1996	600	65	1,284	Good	54	Routine maintenance	83,460	-	-	MDW, Crysler Sewers & Water Mains\Second St.pdf
Crysler	Station	C - Station	From culvert to CB NO 95	1996	300	64	984	Good	54	Routine maintenance	62,976	-	-	MDW, Crysler Sewers & Water Mains\Station Rd - 2.pdf
Crysler	Station	C - Station		1996	250	33	1,002	Good	54	Routine maintenance	33,066	-	-	MDW
Crysler	Third	C - Third		1996	600	76	1,284	Good	54	Routine maintenance	97,584	-	-	MDW, Crysler Sewers & Water Mains\Third St.pdf

Finch	Church, Main to Minto	unk		2001	600	75	1,284	Excellent	59	Routine maintenance	96,300	-	-	Finch Maps Scanned\Sewer Full Set\Church St.pdf
Finch	Front	unk	Payne River, N side of Front	2001	450	150	1,128	Excellent	59	Routine maintenance	169,200	-	-	Finch Maps Scanned\Sewer Full Set\Front St - 4.pdf
Finch	Front	unk	S side of Front	2001	600	110	1,284	Excellent	59	Routine maintenance	141,240	-	-	Finch Maps Scanned\Sewer Full Set\Front St - 4.pdf
Finch	Front	unk		2001	600	80	1,284	Excellent	59	Routine maintenance	102,720	-	-	Finch Maps Scanned\Sewer Full Set\Front St - 1.pdf
Finch	Front	unk	William to outfall at Nelson	1979	600	480	1,284	Fair	37	Rehabilitation	616,320	-	-	Finch Maps Scanned\Water\Front 5.pdf, Finch Maps Scanned\Water\Front 4.pdf
Finch	Front	unk		1979	600	145	1,284	Fair	37	Rehabilitation	186,180	-	-	Finch Maps Scanned\Water\Front 2.pdf
Finch	George	unk	Front to John	2001	600	130	1,284	Excellent	59	Routine maintenance	166,920	-	-	Finch Maps Scanned\Sewer Full Set\George St - 1.pdf
Finch	John	unk	Insulated PVC	1979	250	175	1,002	Fair	37	Rehabilitation	175,350	-	-	Finch Maps Scanned\Water\John.pdf
Finch	Main	unk		1979	600	285	1,284	Fair	37	Rehabilitation	365,940	-	-	Finch Maps Scanned\Water\Main 2.pdf
Finch	Main	unk		1979	300	265	984	Fair	37	Rehabilitation	260,760	-	-	Finch Maps Scanned\Water\Main 2.pdf
Finch	Nelson	unk		1979	600	200	1,284	Fair	37	Rehabilitation	256,800	-	-	Finch Maps Scanned\Water\Nelson 2.pdf
Finch	Victoria	unk	NE side of Victoria	1979	600	470	1,284	Fair	37	Rehabilitation	603,480	-	-	Finch Maps Scanned\Water\Victoria 1.pdf
Finch	Victoria	unk	SW side of Victoria	2001	600	290	1,284	Excellent	59	Routine maintenance	372,360	-	-	Finch Maps Scanned\Sewer Full Set\Victoria St - 1.pdf
Finch	William	unk	PVC	1979	250	55	1,002	Fair	37	Rehabilitation	55,110	-	-	Finch Maps Scanned\Water\William.pdf
Moose Creek	Calco	unk	From STCB 53 to CBMH 55	1996	250	65	1,002	Good	54	Routine maintenance	65,130	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Calco	unk	From CBMH 38 to CBMH 55	1996	600	55	1,284	Good	54	Routine maintenance	70,620	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Calco	unk	West	1996	450	165	1,128	Good	54	Routine maintenance	186,120	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Calco	unk	Across Calco	1996	525	20	1,044	Good	54	Routine maintenance	20,880	-	-	Jen-Sub Development Phase 1 - Site Servicing and Grading Plan
Moose Creek	Calco	unk	Across Calco	1996	525	20	1,044	Good	54	Routine maintenance	20,880	-	-	Jen-Sub Development Phase 1 - Site Servicing and Grading Plan
Moose Creek	Calco	unk	Across Calco	1996	525	20	1,044	Good	54	Routine maintenance	20,880	-	-	Jen-Sub Development Phase 1 - Site Servicing and Grading Plan
Moose Creek	Calco	unk	East	1996	375	175	1,044	Good	54	Routine maintenance	182,700	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Labrosse	unk	East of Valley	1995	300	200	984	Good	53	Routine maintenance	196,800	-	-	Moose Creek Storm Sewers\Valley St South 2.pdf
Moose Creek	Simeon	unk		1995	600	284	1,284	Good	53	Routine maintenance	364,656	-	-	Moose Creek Storm Sewers\Simeon Lane.pdf
Moose Creek	St. Thomas	unk		1995	300	75	984	Good	53	Routine maintenance	73,800	-	-	Moose Creek Storm Sewers\St Thomas.pdf
Moose Creek	Valley	unk		1995	525	227.9	1,044	Good	53	Routine maintenance	237,928	-	-	Moose Creek Storm Sewers\Valley St South 2.pdf
Moose Creek	Moose Creek	unk	Outfall Sewer	1995	450	242.9	1,128	Good	53	Routine maintenance	273,991	-	-	Moose Creek Lagoons\Forcemain & Outfall Sewer Profile.pdf

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	56	Routine maintenance	23%
Good	38	Routine maintenance	60%
Fair	19	Rehabilitation	16%
Poor	19	Rehabilitation or Replacement	0%

Description	Pipe Size (mm)	Units	Estimated Unit Cost	Pipe Install and Trench Reinstatement All inclusive	Engineering Services and	Total
Supply Pipe	250	m	$ 315.00	$ 520.00	$ 167.00	$ 1,002.00
	300	m	$ 300.00	$ 520.00	$ 164.00	$ 984.00
	375	m	$ 350.00	$ 520.00	$ 174.00	$ 1,044.00
	450	m	$ 420.00	$ 520.00	$ 188.00	$ 1,128.00
	525	m	$ 350.00	$ 520.00	$ 174.00	$ 1,044.00
	600	m	$ 550.00	$ 520.00	$ 214.00	$ 1,284.00
	675	m	$ 570.00	$ 520.00	$ 218.00	$ 1,308.00
	750	m	$ 620.00	$ 520.00	$ 228.00	$ 1,368.00
	825	m	$ 650.00	$ 520.00	$ 234.00	$ 1,404.00

Assumptions: 1) Typical life expectancy of asset is 75 years

2) 600mm is assumed for unknown asset size

Waterline														
Village	Asset Name	Asset ID	Pipe Material	Installation Year/ As Built Year	Size (mm)	Length (m)	Condition	Value ($) per m	Estimated Remaining Life	Recommended Work	Value ($) (2017)	1-5 Years	6-15 Years	Source
Crysler	Bridge, Charles to Provost	C - Bridge	PVC	1996	200	270	Good	720	54	Routine maintenance	194,400	-	-	MDW, Crysler Sewers & Water Mains\Bridge St.pdf
Crysler	Bridge Crescent, Bridge to corner	C - Bridge Crescent	PVC	1996	150	40	Good	720	54	Routine maintenance	28,800	-	-	MDW, Crysler Sewers & Water Mains\George St.pdf
Crysler	Bridge	unk	PVC	2014	150	130	Excellent	720	72	Routine maintenance	93,600	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brisson	unk	PVC	2014	200	160	Excellent	720	72	Routine maintenance	115,200	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittany	unk	PVC	2014	200	145	Excellent	720	72	Routine maintenance	104,400	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Brittany, North of Matheson	unk	PVC	2014	150	55	Excellent	720	72	Routine maintenance	39,600	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Champagne, Champagne ext to Queen	C - Champagne	PVC	1996	150	136	Good	720	54	Routine maintenance	97,920	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Champagne	unk	PVC	1996	150	15	Good	720	54	Routine maintenance	10,800	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf
Crysler	Champagne ext, Concession to Station	C - Champagne ext	PVC	1996	150	282	Good	720	54	Routine maintenance	203,040	-	-	MDW, Crysler Sewers & Water Mains\Champagne St.pdf, Crysler Sewers & Water Mains\Concession Rd - 4.pdf, Crysler Sewers & Water Mains\Fourth St - 2.pdf
Crysler	Charles, John to Mary	C - Charles	PVC	1996	300	114	Good	996	54	Routine maintenance	113,544	-	-	MDW, Crysler Sewers & Water Mains\John St.pdf
Crysler	Charles, Mary to D/E	C - Charles	PVC	1996	200	270	Good	720	54	Routine maintenance	194,400	-	-	MDW, Crysler Sewers & Water Mains\Bridge St.pdf, Crysler Sewers & Water Mains\Charles St - 2.pdf
Crysler	Charles, West to John	C - Charles	PVC	1996	250	902	Good	732	54	Routine maintenance	660,264	-	-	MDW, Crysler Sewers & Water Mains\Charles St - 4.pdf, Charles St - 5.pdf, Charles St - 6.pdf
Crysler	Concession E, Queen to East	C - Concession E	PVC	1996	300	604	Good	996	54	Routine maintenance	601,584	-	-	MDW, Crysler Sewers & Water Mains\Concession Rd - 2.pdf, Crysler Sewers & Water Mains\Concession Rd - 3.pdf
Crysler	Concession E	unk	PVC	1996	100	200	Good	684	54	Routine maintenance	136,800	-	-	Crysler Sewers & Water Mains\Concession Rd - 3.pdf
Crysler	Concession E	unk	PVC	1996	100	40	Good	684	54	Routine maintenance	27,360	-	-	Crysler Sewers & Water Mains\Concession Rd - 2.pdf
Crysler	Concession E	unk	PVC	1996	100	30	Good	684	54	Routine maintenance	20,520	-	-	Crysler Sewers & Water Mains\Concession Rd - 2.pdf
Crysler	Concession W, D/E to Queen	C - Concession W	PVC	1996	200	318	Good	720	54	Routine maintenance	228,960	-	-	MDW, Crysler Sewers & Water Mains\Concession Rd - 4.pdf, Crysler Sewers & Water Mains\Fourth St -1.pdf
Crysler	County Road 13	unk	PVC	1996	200	4340	Good	720	54	Routine maintenance	3,124,800	-	-	W&S Pumping Stations\Water PS - Site Plan.pdf
Crysler	First, Fourth to Queen	C - First	PVC	1996	200	162	Good	720	54	Routine maintenance	116,640	-	-	MDW, Crysler Sewers & Water Mains\First St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	First	unk	PVC	1996	200	50	Good	720	54	Routine maintenance	36,000	-	-	W&S Pumping Stations\SPS - Elevations.pdf
Crysler	Fourth, First to Concession	C - Fourth	DI	1996	200	340	Good	960	54	Routine maintenance	326,400	-	-	MDW, Crysler Sewers & Water Mains\First St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	George, John to Bridge	C - George	PVC	1996	150	299	Good	720	54	Routine maintenance	215,280	-	-	MDW, Crysler Sewers & Water Mains\George St.pdf
Crysler	Goerge	unk	PVC	1996	150	300	Good	720	54	Routine maintenance	216,000	-	-	Crysler Sewers & Water Mains\George St.pdf
Crysler	John and Gloss, Charles to Bridge	C - John and Gloss	PVC	1996	150	450	Good	720	54	Routine maintenance	324,000	-	-	MDW, Crysler Sewers & Water Mains\Gloss St.pdf

Crysler	La Ferniere	unk	PVC	1996	200	105	Good	720	54	Routine maintenance	75,600	-	-	W&S Pumping Stations\Water PS - Site Plan.pdf
Crysler	Gloss to River	C - Mary	PVC	1996	150	161	Good	720	54	Routine maintenance	115,920	-	-	MDW, Crysler Sewers & Water Mains\Mary St.pdf, Crysler Sewers & Water Mains\Charles St - 3.pdf
Crysler	Matheson	unk	PVC	2014	200	215	Excellent	720	72	Routine maintenance	154,800	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Nation	unk	PVC	2011	200	60	Excellent	720	69	Routine maintenance	43,200	-	-	As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Nation, Queen to D/E	C - Nation	PVC	2011	150	120	Excellent	720	69	Routine maintenance	86,400	-	-	MDW, As-builts Corvinelli Shane Meadows Phase 2 Feb 2012.pdf
Crysler	Pleasant, Concession to Princess	C - Pleasant	PVC	1996	150	182	Good	720	54	Routine maintenance	131,040	-	-	MDW, Crysler Sewers & Water Mains\Pleasant St.pdf, 10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf, Crysler Sewers & Water Mains\Concession Rd - 4.pdf
Crysler	Pleasant, Princess to Station	unk	PVC	1979	200	165	Fair	720	37	Rehabilitation	118,800	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	Princess, Pleasant to Champagne Ext	C - Princess	PVC	1996	150	189	Good	720	54	Routine maintenance	136,080	-	-	MDW, 10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf, Crysler Sewers & Water Mains\Princess St.pdf
Crysler	Provost N	unk	PVC	2014	200	220	Excellent	720	72	Routine maintenance	158,400	-	-	110752 - Flagstone Meadows - Phase II Drwgs - Revised as Per Ainley Group - Aug 27, 2012.pdf
Crysler	Queen, South to Station	C - Queen	PVC	1996	200	55	Good	720	54	Routine maintenance	39,600	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 3.pdf
Crysler	Queen, Station to Concession	C - Queen	PVC	1996	150	306	Good	720	54	Routine maintenance	220,320	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 2.pdf, Crysler Sewers & Water Mains\Queen St - 3.pdf
Crysler	Queen, Concession to Third	C - Queen	PVC	1996	250	196	Good	732	54	Routine maintenance	143,472	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 2.pdf
Crysler	Queen, Third to Bridge	C - Queen	PVC	1996	200	190	Good	720	54	Routine maintenance	136,800	-	-	MDW, Crysler Sewers & Water Mains\Queen St - 1.pdf, Crysler Sewers & Water Mains\Queen St - 2.pdf
Crysler	Richer	unk	PVC	1979	150	440	Fair	720	37	Rehabilitation	316,800	-	-	10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf
Crysler	River	unk	PVC	1996	300	90	Good	996	54	Routine maintenance	89,640	-	-	Crysler Sewers & Water Mains\Profile Across SN River.pdf
Crysler	Second, D/E to Queen	C - Second	PVC	1996	200	265	Good	720	54	Routine maintenance	190,800	-	-	MDW, Crysler Sewers & Water Mains\Second St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	South Nation River Crossing	C - South Nation River	PVC	1979	300	82	Fair	996	37	Rehabilitation	81,672	-	-	MDW
Crysler	Station, Champagne ext to Queen	C - Station	PVC	1996	150	128	Good	720	54	Routine maintenance	92,160	-	-	MDW, Crysler Sewers & Water Mains\Station Rd - 1.pdf
Crysler	Station, D/E to Champagne Ext	C - Station	PVC	1996	200	252	Good	720	54	Routine maintenance	181,440	-	-	MDW, 10885 -Riverview Subdivision Drwgs (Oct 22,2012).pdf, Crysler Sewers & Water Mains\Station Rd - 1.pdf, Crysler Sewers & Water Mains\Station Rd - 2.pdf
Crysler	Third, D/E to Fourth	C - Third	PVC	1996	200	68	Good	720	54	Routine maintenance	48,960	-	-	MDW, Crysler Sewers & Water Mains\Third St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Crysler	Third, Fourth to Queen	C - Third	PVC	1996	150	161	Good	720	54	Routine maintenance	115,920	-	-	MDW, Crysler Sewers & Water Mains\Third St.pdf, Crysler Sewers & Water Mains\Fourth St - 1.pdf
Finch	12 and Main	F - 12 and Main	PVC	1979	200	590	Fair	720	37	Rehabilitation	424,800	-	-	MDW
Finch	12 N & 3-4, Hydrant @ 3-4 to Main	F - 12 N & 3-4	PVC	1979	150	688	Fair	720	37	Rehabilitation	495,360	-	-	MDW, Finch Maps Scanned\Water\Concession 3-4.pdf, Finch Maps Scanned\Water\Road 12 North A.pdf
Finch	12 S & 1-2, Victoria to Hydrant @ 1-2	F - 12 S & 1-2	PVC	1979	100	1342	Fair	684	37	Rehabilitation	917,928	-	-	MDW, Finch Maps Scanned\Water\Road 12 South A.pdf
Finch	Casselman, Front to Victoria	F - Casselman	DI	1979	150	321	Fair	720	37	Rehabilitation	231,120	-	-	MDW, Finch Maps Scanned\Water\Casselman & Manse.pdf

Finch	Church, Main to Nelson	F - Church	DI	1979	200	252	Fair	960	37	Rehabilitation	241,920	-	-	MDW, Finch Maps Scanned\Water\Church.pdf
Finch	Front	unk	DI	1979	200	4	Fair	960	37	Rehabilitation	3,840	-	-	Finch Maps Scanned\Water\Front 2.pdf
Finch	Front, East to West	F - Front	DI	1979	200	1546	Fair	960	37	Rehabilitation	1,484,160	-	-	MDW, Finch Maps Scanned\Water\Front 6.pdf, Finch Maps Scanned\Water\Front 5.pdf, Finch Maps Scanned\Water\Front 4.pdf, Finch Maps
Finch	George, James to John	F - George	DI	1979	150	158	Fair	720	37	Rehabilitation	113,760	-	-	MDW, Finch Maps Scanned\Water\George 1.pdf
Finch	George - John to Front	F - George	PVC	1979	150	171	Fair	720	37	Rehabilitation	123,120	-	-	MDW, Finch Maps Scanned\Water\George 2.pdf
Finch	Highway 43 East	unk	PVC	1979	200	100	Fair	720	37	Rehabilitation	72,000	-	-	Finch Maps Scanned\Water\Hwy 43 East A.pdf
Finch	Highway 43 East	unk	PVC	1979	100	170	Fair	684	37	Rehabilitation	116,280	-	-	Finch Maps Scanned\Water\Hwy 43 East A.pdf, Finch Maps Scanned\Water\Hwy 43 East B.pdf
Finch	James and William, Front to Main	F - James and William	DI	1979	200	491	Fair	960	37	Rehabilitation	471,360	-	-	MDW, Finch Maps Scanned\Water\James.pdf, Finch Maps Scanned\Water\William.pdf
Finch	John, William to Main	F - John	DI	1979	200	170	Fair	960	37	Rehabilitation	163,200	-	-	MDW, Finch Maps Scanned\Water\John.pdf
Finch	Main	unk	DI	1979	200	590	Fair	960	37	Rehabilitation	566,400	-	-	Finch Maps Scanned\Water\Main 1.pdf, Finch Maps Scanned\Water\Main 2.pdf
Finch	Main @ James	unk	DI	1979	450	20	Fair	1520	37	Rehabilitation	30,400	-	-	Finch Maps Scanned\Water\Main 1.pdf
Finch	Minto, Church to Nelson	F - Minto	PVC	1979	150	197	Fair	720	37	Rehabilitation	141,840	-	-	MDW, Finch Maps Scanned\Water\Minto & Campbell.pdf
Finch	Nelson and Bergin, Main to Front	F - Nelson and Bergin	DI	1979	150	532	Fair	720	37	Rehabilitation	383,040	-	-	MDW, Finch Maps Scanned\Water\Nelson 1.pdf, Finch Maps Scanned\Water\Nelson 2.pdf
Finch	Pumping Station 2 line, William	F - Pumping Station 2	PVC	1979	150	10	Fair	720	37	Rehabilitation	7,200	-	-	MDW, Finch Maps Scanned\Water\William.pdf
Finch	Shaver E	unk	PVC	1979	200	4	Fair	720	37	Rehabilitation	2,880	-	-	Finch Maps Scanned\Water\Shaver rd East B.pdf
Finch	Tower line, William	F - Tower	PVC	1979	250	43	Fair	732	37	Rehabilitation	31,476	-	-	MDW, Finch Maps Scanned\Water\William.pdf
Finch	Treatment Plan, William	F - Treatment Plant	PVC	1979	150	6	Fair	720	37	Rehabilitation	4,320	-	-	MDW
Finch	Victoria	F - Victoria	DI	1979	200	565	Fair	960	37	Rehabilitation	542,400	-	-	MDW, Finch Maps Scanned\Water\Victoria 1.pdf
Finch	Victoria	unk	DI	1979	200	200	Fair	960	37	Rehabilitation	192,000	-	-	Finch Maps Scanned\Water\Front 5.pdf
Finch	William	unk	DI	1979	200	310	Fair	960	37	Rehabilitation	297,600	-	-	Finch Maps Scanned\Water\William.pdf
Moose Creek	Access Road	unk	DI	1979	200	70	Fair	960	37	Rehabilitation	67,200	-	-	Jen-Sub Development Phase 1 - Plan and Profile Jen Avenue & Pipe Easement
Moose Creek	Calco	unk	DI	1979	200	280	Fair	960	37	Rehabilitation	268,800	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Calco	unk	DI	1979	200	200	Fair	960	37	Rehabilitation	192,000	-	-	Jen-Sub Development Phase 1 - Plan and Profile Calco Crescent
Moose Creek	Church, Labrosse to Laurier	MC - Church	PVC	2009	200	400.5	Excellent	720	67	Routine maintenance	288,360	-	-	MDW, Moose Creek - Water
Moose Creek	County Rd 15, McLean	unk	PVC	1979	200	200	Fair	720	37	Rehabilitation	144,000	-	-	Jen-Sub Development Phase 1 - Plan and Profile Jen Avenue & Pipe Easement

Moose Creek	Easement 2, McNeil to Sabourin	MC - Easement 2	PVC	1995	200	744.9	Good	720	53	Routine maintenance	536,328	-	-	MDW, Moose Creek Water Supply System\Water Supply - Detailed Site Plan.pdf
Moose Creek	Easement 4, St. Polycarp to Villeneuve	MC - Easement 4	PVC	2009	200	368	Excellent	720	67	Routine maintenance	264,960	-	-	MDW, Moose Creek - Water, Jen-Sub Development - Preliminary Water Layout
Moose Creek	Forced, St. Polycarp to Easement 2	MC - Forced	PVC	2009	200	507.8	Excellent	720	67	Routine maintenance	365,616	-	-	MDW, Moose Creek - Water
Moose Creek	Hilltop	unk	PVC	1979	200	210	Fair	720	37	Rehabilitation	151,200	-	-	Jen-Sub Development - Preliminary Water Layout
Moose Creek	Jen	unk	PVC	1979	200	170	Fair	720	37	Rehabilitation	122,400	-	-	Jen-Sub Development - Preliminary Water Layout
Moose Creek	Laurier, Sabourin to Church	MC - Laurier	PVC	2009	200	86	Excellent	720	67	Routine maintenance	61,920	-	-	MDW, Moose Creek - Water
Moose Creek	Marguerite	unk	PVC	1979	200	195	Fair	720	37	Rehabilitation	140,400	-	-	Jen-Sub Development - Preliminary Water Layout
Moose Creek	Mill, D/E to St. Polycarp	MC - Mill	PVC	2009	200	97.4	Excellent	720	67	Routine maintenance	70,128	-	-	MDW, Moose Creek - Water
Moose Creek	Munroe, Pool to St. Polycarp	MC - Munroe	PVC	2009	200	139	Excellent	720	67	Routine maintenance	100,080	-	-	MDW, Moose Creek - Water
Moose Creek	Railway, D/E to Labrosse	MC - Railway	PVC	2009	200	55.5	Excellent	720	67	Routine maintenance	39,960	-	-	MDW, Moose Creek - Water
Moose Creek	Sabourin, Easement 2 to Labrosse	MC - Sabourin	PVC	2009	200	556.5	Excellent	720	67	Routine maintenance	400,680	-	-	MDW, Moose Creek - Water
Moose Creek	Sabourin South, Valley to Sabourin	MC - Sabourin South	PVC	2009	200	158.4	Excellent	720	67	Routine maintenance	114,048	-	-	MDW, Moose Creek - Water
Moose Creek	Simeon, North to South	MC - Simeon	PVC	1993	200	278.4	Good	720	51	Routine maintenance	200,448	-	-	MDW, Moose Creek SPS\Easement No 3-2.pdf, Moose Creek Storm Sewers\Simeon Lane.pdf
Moose Creek	St. Polycarp & Labrosse, East to West	C - St. Polycarp & Labross	PVC	1995	200	1626.5	Good	720	53	Routine maintenance	1,171,080	-	-	MDW, Moose Creek Storm Sewers\St Thomas.pdf
Moose Creek	St. Thomas, Simeon to St. Polycarp	MC - St. Thomas	PVC	1995	200	107.4	Good	720	53	Routine maintenance	77,328	-	-	MDW, Moose Creek Storm Sewers\St Thomas.pdf
Moose Creek	Valley, Sabourin to Eighth	MC - Valley	PVC	1995	200	1370	Good	720	53	Routine maintenance	986,400	-	-	MDW, Moose Creek Storm Sewers\Valley St South 1.pdf, Moose Creek Storm Sewers\Valley St South 2.pdf
Moose Creek	Villeneuve, Easement 4 to Tower	MC - Villeneuve	PVC	2009	200	310	Excellent	720	67	Routine maintenance	223,200	-	-	MDW, Moose Creek - Water

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	56	Routine maintenance	13%
Good	38	Routine maintenance	52%
Fair	19	Rehabilitation	35%
Poor	19	Rehabilitation or Replacement	0%

Size (mm)	Material	Description	Units	Estimated Unit Cost	Trench Reinstatement	Engineering Services and Contingency	Total
100	PVC	100mm Watermain, PVC, CL 150, DR-18 including all appurtenances	ea	$ 370.00	$ 200.00	$ 114.00	$ 684.00
150	PVC	150mm Watermain, PVC, CL 150, DR-18 including all appurtenances	ea	$ 400.00	$ 200.00	$ 120.00	$ 720.00
200	PVC	200mm Watermain, PVC, CL 150, DR-18 including all appurtenances	ea	$ 400.00	$ 200.00	$ 120.00	$ 720.00
250	PVC	250mm Watermain, PVC, CL 150, DR-18 including all appurtenances	ea	$ 410.00	$ 200.00	$ 122.00	$ 732.00
300	PVC	300mm Watermain, PVC, CL 150, DR-18 including all appurtenances	ea	$ 630.00	$ 200.00	$ 166.00	$ 996.00
150	DI	150mm Watermain, DI, CL 52 including all appurtenanceS	ea	$ 400.00	$ 200.00	$ 120.00	$ 720.00
200	DI	200mm Watermain, DI, CL 52 including all appurtenances	ea	$ 600.00	$ 200.00	$ 160.00	$ 960.00

Assumptions:

1) Typical life expectancy of asset is 75 years

2) 1979 is assumed for unknown construction year of asset

3) 200mm or 100mm is assumed for unknown asset size

4) PVC or Ductile Iron is assumed when the pipe material is unknown

Building													
Village	**Asset Name**	**Asset ID**	**Description**	**Address**	**Value ($) 2014**	**Value ($) 2017**	**Area (m2)**	**Year Built**	**Condition**	**Estimated Remaining Life**	**Recommended Work**	**1-5 Years**	**6-15 Years**	**Source**
	West Patrol	001						1990	Good	48	Minor Rehabilitation within 6-15 years	-		MDW
	East Patrol	002						1990	Good	48	Minor Rehabilitation within 6-15 years	-		MDW
Berwick	Township of NS Office	003	Municipal Office	15 Union St	1,096,800	1,156,027	428	1928-1970	Poor	0	Major Rehabilitation within 1year	924,822	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Finch	NS Arena	004	Arena, Community Centre	4 John St	6,500,000	6,851,000	2659	1970-2013	Fair	28	Moderate Rehabilitation within 1-5 years	2,740,400	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Finch	Finch Hall	005	Finch Meeting Hall	9 John St	631,000	665,074	420	1950	Poor	8	Major Rehabilitation within 1year	532,059	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Berick Ball Diamond Canteen	006				-		1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
Finch	Finch Ball Diamond Canteen	007	Canteen-Washrooms	2 Front St	95,000	100,130	82	2003	Excellent	61	Routine maintenance	-	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Avonmore	North Stormont Place	008		16229 Fairview Dr	1,302,000	1,372,308	901	2009	Excellent	67	Routine maintenance	-	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Avonmore	Avonmore Pool	009	Avonmore Pool Changehouse	16318 Augustus St	176,000	185,504	95	1977	Fair	35	Moderate Rehabilitation within 1-5 years	74,202	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Avonmore	Ambulance Bay	010	Assuming part of Avonmore Fire Hall	16307 County Rd 43	832,000	876,928		2006	Excellent	64	Routine maintenance	-	-	MDW
Avonmore	Avonmore Fair Grounds Canteen	011				-		1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
Crysler	Crysler Recreation Centre	012	Crysler Community Centre	16 Third St	1,341,400	1,413,836	919	1957-1971	Poor	15	Major Rehabilitation within 1year	1,131,068	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Ball Diamond Canteen	013	Crysler Ball Diamond Storage	16 Third St	19,000	20,026	30	1990	Good	48	Minor Rehabilitation within 6-15 years	-	4,005	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Monkland	Monkland Community Centre	014		17337 County Road 43	560,000	590,240	325	1950	Poor	8	Major Rehabilitation within 1year	472,192	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Moose Creek Recreation Centre	015		2 Munroe St	680,000	716,720	286	2009	Excellent	67	Routine maintenance	-	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Moose Creek Ball Diamond Canteen	016				-		1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
Moose Creek	Moose Creek Pool	017	Part of Moose Creek Recreation Centre	2 Munroe St	Unknown additional cost		-	2009	Excellent	67	Routine maintenance	-	-	MDW
Moose Creek	Moose Creek Hall	018	Community Hall	4 St. Polycarp St	1,036,000	1,091,944	416	1942	Poor	0	Major Rehabilitation within 1year	873,555	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Avonmore	Avonmore Fire Hall	019	Fire Hall #2/Ambulance Bay	16307 County Rd 43	832,000	876,928	475	2006	Excellent	64	Routine maintenance	-	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Fire Hall	020		18 Second St	309,000	325,686	200	1976	Fair	34	Moderate Rehabilitation within 1-5 years	130,274	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Finch	Finch Fire Hall	021		11 John St	500,000	527,000	312	1967-2004	Fair	25	Moderate Rehabilitation within 1-5 years	210,800	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Moose Creek Fire Hall	022	Fire Hall #1	60 Sabourin St	400,000	421,600	260	1987	Good	45	Minor Rehabilitation within 6-15 years	-	84,320	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Avonmore	Avonmore Library	023				-	978	1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
Crysler	Crysler Library	024	Same building as Crysler Recreation Centre?			-		1957-1971	Poor	15	Major Rehabilitation within 1year	-	-	MDW
Finch	Finch Library	025	Part of Arena and Community Centre	4 John St	6,500,000	6,851,000	-	1970-2013	Fair	28	Moderate Rehabilitation within 1-5 years	2,740,400	-	MDW
Berwick	South Nation Garage	026	Berwick Garage	15 Union St	184,700	194,674	22	1980	Good	38	Minor Rehabilitation within 6-15 years	-	38,935	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Change House	027		21 Third St	128,000	134,912	107	1990	Good	48	Minor Rehabilitation within 6-15 years	-	26,982	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Berwick Picnic Shelter	028	Berwick Ballpark Pavilion	59 Cockburn St	56,000	59,024	92	1997	Good	55	Minor Rehabilitation within 6-15 years	-	11,805	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
	West Patrol Salt Dome	029				-		1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
	East Patrol Salt Dome	030				-		1990	Good	48	Minor Rehabilitation within 6-15 years	-	-	MDW
Berwick	Storage Shed/Well Shelter	031	Berwick Storage, Well Structure	59 Cockburn St	15,000	15,810	15	1964	Fair	22	Moderate Rehabilitation within 1-5 years	6,324	-	MDW, Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Berwick Sign Garage			15 Union St	18,000	18,972	22	1990	Good	48	Minor Rehabilitation within 6-15 years	-	3,794	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Berwick Works Depot			19 Beaver St	457,000	481,678	348	1967	Fair	25	Moderate Rehabilitation within 1-5 years	192,671	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report

Berwick	Berwick Works Depot Storage			19 Beaver St	48,000	50,592	87	1990	Good	48	Minor Rehabilitation within 6-15 years	-	10,118	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Sand/Salt Shed			19 Beaver St	207,000	218,178	372	1990	Good	48	Minor Rehabilitation within 6-15 years	-	43,636	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Superstructure			19 Beaver St	145,000	152,830	312	2013	Excellent	71	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Berwick	Concession Booth, Washroom, Change House			59 Cockburn St	49,800	52,489	58	1990	Good	48	Minor Rehabilitation within 6-15 years	-	10,498	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Pavilion			2 Munroe St	40,000	42,160	67	2011	Excellent	69	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Outdoor Rink			2 Munroe St	627,000	660,858	970	2011	Excellent	69	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Patrol Storage Garage & Depot			2594 Tolmies Corner Rd	1,174,000	1,237,396	605	1977	Fair	35	Moderate Rehabilitation within 1-5 years	494,958	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Moose Creek	Sand Dome			2594 Tolmies Corner Rd	198,000	208,692	357	1974	Fair	32	Moderate Rehabilitation within 1-5 years	83,477	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Outdoor Rink			16 Third St	552,000	581,808	1524	2013	Excellent	71	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Storage Pavilion			16 Third St	29,000	30,566	63	2013	Excellent	71	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Crysler	Crysler Gazebo			16 Third St	68,000	71,672	63	2013	Excellent	71	Routine maintenance	-	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Monkland	Monkland Change House			17339 County Rd 43	67,000	70,618	56	1965-1975-1985	Fair	23	Moderate Rehabilitation within 1-5 years	28,247	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report
Strathmore	Strathmore Community Hall			17731 Strathmore Rd	142,000	149,668	82	1940-1950-1952	Poor	0	Major Rehabilitation within 1year	119,734	-	Corporation of the Township of NS: Loss Control Inspection/Valuation Report

Assumptions:

1) Typical building life = 75 years
2) When a range of dates is provided, age of building is the earliest date
3) Cost for major rehabilitation is 80% of cost to rebuild
4) Cost for moderate rehabilitation is 40% of cost to rebuild
5) Cost for minor rehabilitation is 20% of cost to rebuild
6) Cost to rebuild is based on JLT Loss Control Inspection Valuation Report.
7) The condition assessment of the buildings is based stricly on the age of building and not on an actual site visit
8) 1990 is assumed for unknown asset years
9) The 2017 total value was prorated from the 2014 value using a1.8% annual inflation rate. The 2014 value was obtained from the Asset Management Plan approved by the Council in 2014.

Condition	Years	Recommended Work	Percentage Number of Asset
Excellent	56	Routine maintenance	34%
Good	38	Minor Rehabilitation within 6-15 years	14%
Fair	19	Moderate Rehabilitation within 1-5 years	33%
Poor	19	Major Rehabilitation within 1year	18%

Major Rehabilitaion	80%	of cost to re-build
Moderate Rehabilitaion	40%	of cost to re-build
Minor Rehabilitaion	20%	of cost to re-build

APPENDIX C: 2017 Budget

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET
GENERAL REVENUE			
Taxation from Grants in Lieu	360	1,854	1,854
Township portion of PIL's	16,629	19,000	19,000
Railway/Right of way	12,101	29,761	11,787
Province of Ontario	1,060,128	1,527,949	1,329,382
Fees and service charges	937,059	848,150	1,037,288
Other	84,181	67,733	55,494
Penalties & interest - taxes	157,503	150,000	162,800
Investment income	7,058	18,000	15,000
Sale of land and equipment	-	-	-
Transfer from roads capital		-	-
Transfer from reserves	-	-	-
	2,275,019	**2,662,447**	**2,632,604**
OWN PURPOSES LEVY	2,474,991	**2,637,000**	**2,684,788**
TOTAL MONEY RECEIVED	**4,750,009**	**5,299,447**	**5,317,392**
GENERAL EXPENDITURE (OPERATIONS ONLY)			
General government	932,623	819,944	1,081,164
Protection to persons & property	575,065	699,257	773,949
Transportation - roads	1,718,489	1,733,212	1,808,280
Transportation - street lighting	27,510	80,220	67,972
Environment	348,243	366,457	339,422
Health	38,072	28,000	24,500
Recreation	447,876	636,811	502,238
Planning/Drains & Donations	152,280	277,659	159,268
Other items			
	4,240,159	**4,641,559**	**4,756,792**
CAPITAL EXPENDITURE			
General government	44,955	40,000	10,000
Protection to persons & property	128,247	100,000	66,600
Transportation - roads	524,160	425,888	406,000
Environment	-	30,000	-
Health			
Recreation	16,088	62,000	78,000
Planning/Drains & Donations	-	-	-
Other items			
	713,449	**657,888**	**560,600**
TOTAL MONEY SPENT	**4,953,608**	**5,299,447**	**5,317,392**
Surplus- (DEFICIT)	**- 203,599**	**0**	**0**

TOWNSHIP OF NORTH STORMONT
Budget 2017

		2016 Oct. 2016	2016 BUDGET	2017 BUDGET
GRANTS IN LIEU				
Hydro	1-3-1500-0465	360	1,854	1,854
TOTAL GRANTS IN LIEU		**360**	**1,854**	**1,854**
RAILWAY RIGHT-OF-WAY	1-3-1500-0260	12,101	29,761	11,787
TOWNSHIP PORTION OF PIL'S	1-3-1500-0150	**16,629**	**19,000**	**19,000**
ONTARIO GRANTS (G)				
OMPF	1-3-1055-0300	810,700	810,700	790,000
Prov - roads gas tax revenue	1-3-3000-0735	-	397,173	205,982
Drainage Superintendent grant	1-3-1055-0405	43,095	46,000	46,000
Provincial rebate for drains				
Recycling waste diversion program	1-3-1055-0407	72,571	61,536	60,000
Aggregate resources	1-3-1055-0408	60,234	60,000	60,000
Source Protection Municipal Implementation Fund	1-3-1055-0451	-	-	
FD/MTO & insurance claims	1-3-1055-0410/0413	2,350	15,000	2,500
OCIF funding	1-3-1055-0446	28,540	28,540	58,000
Grant arena retrofit		-		
MIII asset management plan funding		-	-	-
JCP - MTCU - marketing		-	-	-
Hazardous waste day	1-3-4030-7422/7410	6,565	9,000	6,900
Local improvements/tile drainage	1-3-1055-0560	36,073	100,000	100,000
TOTAL ONTARIO GRANTS		**1,060,128**	**1,527,949**	**1,329,382**

FEES AND SERVICE CHARGES (F)					
Arena - Finch	1-3-7100-0720/0725	207,263	160,000	183,000	
Tax certificates/compliance reports	1-3-1055-0600	13,140	12,000	12,000	
Lafleche tonnage	1-3-4010-7420	492,630	440,000	540,000	
Recycling (blue boxes, tires, electronics)	1-3-4250-0640	-	2,550	3,000	
Building permits	1-3-2150-0710	134,159	110,000	140,000	
By-Law & Property Standards	1-3-2155-0810/1-3-2210-7220	185	-	275	
Miscellaneous roads	1-3-3000-0730/1-3-3000-0740	9,842	10,000	22,000	
Fire permits	1-3-2000-0710	1,700	1,500	1,600	
Ambulance bay rental - Avonmore	1-3-2030-0720/21	31,655	36,500	36,500	
Medical centre rent - Avonmore	1-3-5000-0720	12,600	12,600	12,600	
North Stormont Place - 60% share of maintenance	1-3-5000-0705	-	8,000	-	
Finch small hall		-	-	-	
Lottery licenses	1-3-1055-0700	760	1,000	1,000	
Death certificates & Declarations of Oath				1,800	
Dog tags	1-3-2160-0700	7,759	20,000	10,000	
Planning administration	1-3-8000-0650	750	5,000	5,000	
Minor variance fees	1-3-8000-0655	2,500	6,000	3,000	
OPA & Site Plans	1-3-8000-0660	-	-	2,000	
Zoning amendement	1-3-8000-0665	2,500	-	8,000	new
Severances application fees	1-3-1700-7815	5,300	8,000	4,000	
Misc user fees (by-law)	all depart			35,000	
Misc treasury/other/licences/chip stands	1-3-1055-0999/1-3-1700-7120	8,425	7,000	12,200	
Garbage collection	1-3-4150-0630/5	5,892	8,000	4,313	
TOTAL FEES AND SERVICE CHARGES		**937,059**	**848,150**	**1,037,288**	

OTHER (W)				
Billings, fines - Fire Dept.	1-3-2000-7230	2,056	1,500	1,500
Billings per drains				
Donation - Bretzler Farms - other general	1-3-1055-0415	-	1,000	1,000
Summer Jobs Students and Lifeguards	1-3-1055-0454	18,328	25,000	10,000
SNC - reimburse hydro	1-3-1055-0458	1,268	1,000	1,000
Counties/Library rentals	1-3-7150-0720	6,224	7,000	7,000
Province - compensation livestock	1-3-2175-0460	30	2,000	2,000
Arena Retrofit - donations/construction advance	1-3-7125-0915	1,000	-	2,994
Infrastructure Ontario				
Counties/Councils' convention registration + Roads	1-3-1055-0523	55,275	30,233	30,000
TOTAL OTHER REVENUE		**84,181**	**67,733**	**55,494**

OTHER (O)				
Sale of Assets	1-3-1055-0930	-	-	-
Transfer from Election reserves		-	-	-
Insurance proceeds		-		
Penalties, interest, Service Charges and Fines	1-3-1055-0800/0620/0625/7760	157,503	150,000	162,800
Bank interest / Other interest income	1-3-1055-0900	7,058	18,000	15,000
TOTAL OTHER		**164,561**	**168,000**	**177,800**

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET	
GENERAL GOVERNMENT				
COUNCIL				
Remuneration (including EHT & WCB)	72,566	75,422	76,453	
Conventions/functions	20,822	17,000	16,000	
Materials/supplies/services/mileage/etc.	8,052	8,600	8,600	
Elections	1,862	1,200	1,900	
	103,303	**102,222**	**102,953**	
ADMINISTRATION				
Remuneration	512,214	484,956	590,873.97	
Conventions, conferences & mileage	20,622	6,000	17,500.00	
Office supplies/equipment/etc.	14,670	26,800	16,300.00	
Training expense/Subscription and Membership	9,190	8,000	9,000.00	
Legal fees	25,176	25,000	30,000.00	
Audit	10,685	10,000	11,000.00	
Consultants & It	61,019	15,000	34,000.00	
Insurance	12,718	12,500	13,000.00	
Advertising & promotion	3,676	-	-	
Interest and bank charges	19,175	8,700	11,000.00	
Tax write-offs, interest	13,963	500	-	
Postage & courier	14,811	7,500	12,000.00	
Telephone, cell phones, internet	7,977	14,500	10,100.00	
Hydro & gas	11,425	10,500	10,500.00	
Leases & contracts	17,130	18,000	18,000.00	
Building maintenance	22,643	40,500	50,500.00	
Software, Website, Computer and Misc. updates & Maintenance	17,117	16,500	20,000.00	
Loans Interest	35,111	-	79,300.00	new present
Other			45,137.00	
Transfer to Infrasturcture Reserve	-	12,765	-	
	829,320.73	**717,721.10**	**978,210.97**	
TOTAL OPERATIONS	**932,623.47**	**819,943.51**	**1,081,163.52**	
CAPITAL				
Wi Fi project	44,955	40,000	10,000	
	44,955	**40,000**	**10,000**	
TOTAL GENERAL GOVERNMENT	**977,578.22**	**859,943.51**	**1,091,163.52**	

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET
PROTECTION TO PERSONS AND PROPERTY			
FIRE			
Fire salaries	105,111	107,480	150,000
Convention, conferences, training & mileage	12,186	16,400	12,000
Office Supplies, equipement, etc.	14,837	7,600	3,400
Radio & Pagers	2,886	4,000	2,000
Fire Dispatch	20,870	45,000	35,000
Mutual aid	7,398	-	10,000
Prevention & public education	3,418	4,000	1,500
Subscription and Membership	400	480	1,200
Insurance	25,118	28,000	28,000
Advertising & promotion	-	800	-
Cell Phones	1,120	1,920	1,920
Telephone	8,033	6,500	2,000
Heathing, hydro & gas	14,825	18,000	18,000
Vehicles Maintenance	29,514	14,000	14,000
Fuel	5,220	8,000	8,000
Equipement purchase and maintenance	8,109	14,800	9,000
Fire extinguisher	109	6,000	2,000
Air tank refil & tests	2,005	4,400	4,400
Personal Protective Equipment	29,617	12,000	8,000
Building maintenance	10,831	8,800	8,800
Debenture payment: Water Truck	-	47,777	38,843
Appropriations to reserves	-	100,000	125,000
	301,605	**455,957**	**483,063**
POLICE RENTALS/TELEPHONE - MOOSE CREEK		**-**	
MUNICIPAL OWNED BLDGS/GRASS CUTTING, UTILITIES, ETC.			
Grass cutting, Utilities, etc.	-	3,100	3,100
Debenture payment: Avonmore Place	29,091	-	30,403
	29,091	**3,100**	**33,503**

CONSERVATION AUTHORITIES			
South Nation	30,555	30,555	33,000
Raisin River	6,343	6,500	7,000
	36,898	**37,055**	**40,000**
DOG CONTROL	**24,909**	**14,250**	**23,550**
BUILDING INSPECTOR			
Wages	160,130	161,259	142,971
Fuel/truck maintenance	5,379	6,000	4,050
Training expenses	2,718	4,000	2,500
Misc, materials, supplies, legal fees	6,080	7,636	5,000
	174,306	**178,895**	**154,521**
BY LAW & PROPERTY STANDARDS			
Wages			**26,541**
Fuel/truck maintenance			**450**
Property standars misc materials & supplies	**2,214**	**1,500**	**1,500**
	2,214	**1,500**	**28,491**
EMERGENCY PREPAREDNESS	**5,488**	**6,500**	**8,820**
LIVESTOCK/FENCEVIEWERS	**553**	**2,000**	**2,000**
TOTAL OPERATIONS	**575,065**	**699,257**	**773,949**
CAPITAL			
All fire departments	**128,247**	**100,000**	**66,600**
TOTAL - PROTECTION TO PERSONS & PROPERTY	**703,312**	**799,257**	**840,549**

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET
TRANSPORTATION			
ROADS - OPERATIONS			
Wages & benefits	690,061	685,669	703,397
Insurance	36,418	36,000	36,000
Bridges, culverts & storm drains	24,035	28,750	45,000
Grass cutting, weed spraying-maintenance	15,274	22,000	21,000
Brushing/tree trimming	5,266	5,500	5,500
Ditching	330	2,000	1,000
Catch basins	1,126	3,500	2,500
Patching	11,827	10,000	12,000
Sweeping, flushing, cleaning, crack sealing	6,182	12,500	10,500
Shoulder maintenance	10,166	10,000	12,500
Grader & plow blades	-	2,500	2,500
Dust layer - calcium	144,136	130,000	146,000
Gravel resurfacing	229,777	230,000	230,000
Snow plowing claims	2,077	3,000	3,000
Sanding/salting/scraping	63,120	61,000	61,000
Safety devices/signs	16,161	13,500	13,500
Crossing maintenance	39,837	54,000	36,000
Municipal drain assessment	4,412	5,000	5,000
Buildings and grounds	65,850	34,000	33,500
Small tools	6,072	6,000	6,000
Overhead/service/radio/licences/advertising	19,269	18,700	20,700
Road widening/legal/road needs study	-	2,000	2,000
Sidewalk repairs	717	3,000	3,000
Vehicle maintenance	262,576	275,000	260,000
Excavator payment/snow plow payments	63,800	54,593	33,683
Transfer to roads reserve		25,000	103,000
TOTAL ROADS-OPERATIONS	**1,718,489**	**1,733,212**	**1,808,280**

CAPITAL				
Roads Capital Projects	524,160	425,888	406,000	
	524,160	**425,888**	**406,000**	
TOTAL ROADS	**2,242,649**	**2,173,822**	**2,214,280**	
LIGHTING (debenture payment)	-	47,220	44,372	New presenta
LIGHTING HYDRO & MAINTENANCE	27,510	33,000	23,600	
	27,510	**80,220**	**67,972**	

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET	
ENVIRONMENT				
WASTE/LANDFILL				
Wages & benefits	70,279	69,033	75,441	
Materials & supplies	265	1,900	1,900	
Garbage truck expenses	12,363	6,900	6,405	
Garbage truck/recycle spare	301	6,700	2,000	
Landfill sites -maint. and signs		-	-	
Consultants	40,499	31,000	34,000	
Lafleche environmental	101,364	100,000	100,000	
New garbage truck				
Transfer to reserves				
	225,070	**215,533**	**219,746**	
RECYCLING				
Wages & benefits	59,158	39,176	40,000	
Materials & supplies	-	2,200	600	
Recycling plan & promotion (blue boxes, tires, electronics)	-	2,000	100	
Recycling truck expenses	18,519	10,000	10,000	
Hazardous waste event	15,080	19,000	15,000	
Tire pick up program				
Recycle Truck Payment	-	47,548	22,976	debeture new tr
RARE tipping fees	30,417	31,000	31,000	
	123,174	**150,924**	**119,676**	

TOTAL ENVIRONMENT - OPERATIONS	**348,243**	**366,457**	339,422	

CAPITAL PURCAHSE - GARBAGE TRUCK		30,000.00	-	

TOTAL ENVIRONMENT	**348,243**	**396,457**	**339,422**	

HEALTH				
North Stormont Health & Safety - fire extinguisher		-		
Ambulance Bay - debentures & expenditures				
Finch Community Hall		-		
North Stormont Medical Centre - Avonmore		-		
Finch Medical Centre	574	-	-	
Cemetery grass cutting & repairs	17,032	13,000	7,000	
Ontario drinking water system				
Municipal Groundwater Study				
General municipal ownes building	17,610	15,000	15,500	new presentatio
Miscellaneous Expenses	2,857	-	2,000	
TOTAL HEALTH	**38,072**	**28,000**	**24,500**	

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET
RECREATION			
GENERAL			
Wages & benefits	41,202	75,548	-
General expenses and building maintenance	8,533	5,500	4,500
Insurance	25,354	25,000	25,500
Grant - Berwick	7,500	7,500	
Grant - Crysler	15,000	15,000	15,000
Grant - Finch	5,818	-	
Grant - Avonmore	15,000	15,000	15,000
Grant - Monkland	10,000	10,000	10,000
Grant - Moose Creek	15,000	15,000	15,000
Crysler summer students	3,941		
North Stormont Place - increase reserve cap-water			
North Stormont Place - 40% Twp	24,486	10,650	-
Library Grant - Crysler		1,812	
Library Grant - Avonmore (60%)		1,404	
Library Grant - Arena	-	-	1,844
Library Grant - NSP (40%) Twshp			
Donations and Grants	12,173	12,000	20,600
Rec/EDO Meetings & Conferences	5,857	11,500	8,900
Rec/EDO General Expenses	7,626	5,000	8,000
Crysler Arena Debenture	22,518	28,865	23,250
	220,009	**239,779**	**147,594**
ARENA			
Wages & benefits	119,523	114,337	121,986
Materials & supplies	15,385	15,000	12,800
Buildings maintenance	148,629	112,800	118,987
Insurance and legal fees	21,881	21,000	22,000
Debenture Payment	56,102	102,491	57,935
	361,520	**365,629**	**333,708**

POOLS			
Moose Creek	20,238	15,705	10,470
Avonmore	17,944	15,698	10,465
	38,182	**31,403**	**20,935**
TOTAL OPERATIONS	**447,876**	**636,811**	**502,238**
CAPITAL			
North Stormont arena - building upgrade & accesibility	8,769	15,000	-
Recreation - grants	7,308	30,000	78,000
Ice resurfacer - arena			
Walking trails	10	17,000	
	16,088	**62,000**	**78,000**
TOTAL RECREATION	**635,798**	**698,811**	**580,238**

TOWNSHIP OF NORTH STORMONT
Budget 2017

	2016 Unaudited	2016 BUDGET	2017 BUDGET
PLANNING/ZONING/GRANTS/DRAINS			
GENERAL			
Salary & expenses	61,112.50	63,459	68,168
Materials & services	7,240.91	7,200	5,600
Consultants	-	-	-
Legal	-	6,500	-
Zoning fees for updates			
Local improvement/tile drainage		100,000	
Medical Centre Moose Creek taxes		5,000	
Municipal Drains:			
General maintenance/write-offs	685.44	500	500
Ineligible - drainage superintendent	4,863.62	5,000	5,000
Eligible - drainage superintendent	78,127.23	90,000	80,000
Tile drainage inspection fees	250.00		
	152,279.70	**277,659**	**159,268**
CAPITAL			
Municipal drains			
Design Standards Document - RFP - for subdivisions		-	
	-	**-**	**-**
TOTAL PLANNING AND ZONING	**152,280**	**277,659**	**159,268**

Township of North Stormont
Capital Expenses for 2017

			Funding
General - Admin			
	WI-FI project	$10,000.00	Operational fund
		$10,000.00	
Public Works			
	Double Overlay 8th road	$114,000.00	
	McLean	$0.00	
	Tolmies Rebuild	$125,000.00	
	Con 10-11	$0.00	
	Smirle	$0.00	
	Goldfield	$0.00	
	Bridge # 7 (AMP Bridge : 2016)	$70,000.00	
	Bridge # 34 (AMP Bridge : 2017)	$0.00	
	Major pipe replacement program over 1M	$50,000.00	
	Crysler George street investigation	$0.00	
	Side walks replacement	$0.00	
	Blower and Sander	$35,000.00	
	Hydro-Vac trailer	$0.00	
	Flail mower	$12,000.00	
		$406,000.00	Operational fund
	Salt dome - moose creek (build a reserve 1 to 4 years)	$23,000.00	
	Plow truck (build a reserve 1 to 3 years) total $240,000	$80,000.00	
		$103,000.00	Operational fund
Garbage & Recycle			
		$0.00	
		$0.00	

Planning and zoning

Construction $0.00

$0.00

Protection (Fire dept)

Crysler File Hall	$100,000	Transfer to reserve from operational fund
Reserve for 2 used vehicles for Avonmore and Moose Creek	$25,000	Transfer to reserve from operational fund
	$125,000	
Bunker Gear 3 sets per station per year	$14,400	Operational fund
Pagers 3 per station	$7,200	Operational fund
Towers	$45,000	Operational fund
	$66,600	

Recreation

Laser Leveling System - Zamboni	$18,000.00	
	$0.00	
	$0.00	
	$0.00	
	$0.00	
Finch		
Crysler community centre - roof repair	$45,000.00	
Monkland Community Centre - Playground update		
Monkland Community Centre	$0.00	
Avonmore Community centre - roof repairs		
Avonmore Pool - Pump & elect + chlorination system		
Moose Creek Floor Scruber	$15,000.00	
Moose Creek Accessibility Improvement	$ -	

Arena	$0.00
	$18,000.00
Avonmore	$0.00
Crysler	$45,000.00
Monkland	$0.00
Finch	$0.00
Moose Creek	$15,000.00
Walking trail	$0.00
	$78,000.00