



Asset Management Plan

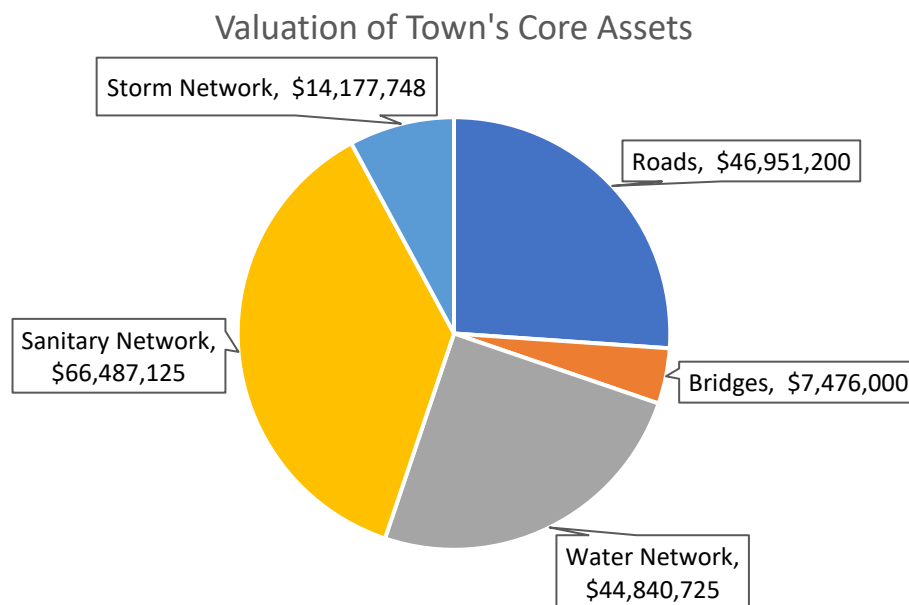
Accepted by Council - July 2022

Executive Summary

The Town of Prescott has invested in the preparation of an Asset Management Plan to measure the performance of the community's core infrastructure which provides a foundation for its economic development, competitiveness, prosperity, reputation and the overall quality of life for its residents.

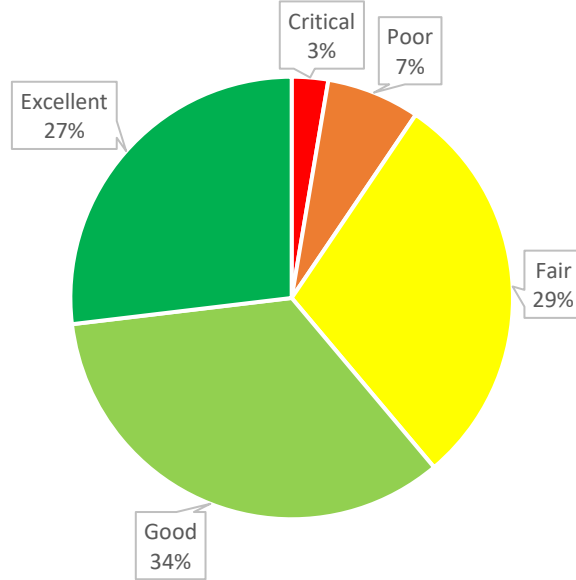
This Asset Management Plan (AMP) meets all of the requirements of Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure. It will serve as a strategic, tactical, and financial tool to ensure that the management of the Town's infrastructure follows sound asset management practices and principles, while optimizing available resources.

The AMP will demonstrate how the value of the Town's core infrastructure has grown from \$111M (2012\$) to \$180M (2021\$), provides a measurement of the current level of service, and a 10-year capital plan to address the Town's immediate infrastructure needs. The following figure illustrates a breakdown of the Town's core infrastructure.



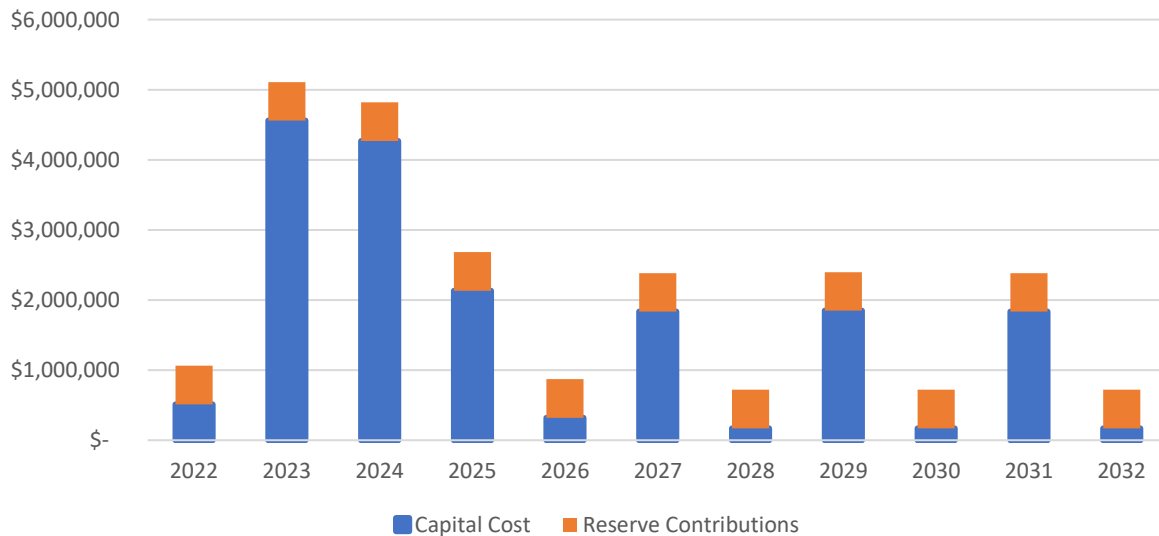
A combination of visual condition assessments and aged based assessments have been used to provide an overall assessment of the Town's core infrastructure as illustrated on the following figure.

Condition of Town's Core Assets

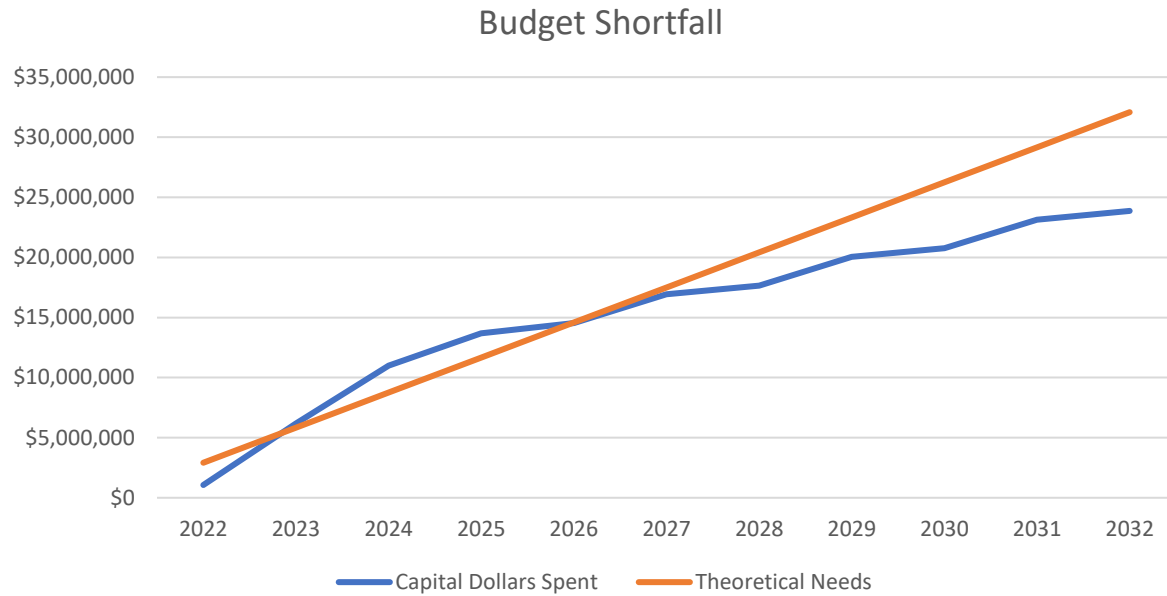


The Town has planned capital costs for the next ten years which includes the replacement of the Prescott Water Tower, road projects, capital projects at the water treatment plant and water pollution control plant, and engineering studies for the improvement of the Town's infrastructure. In addition to the planned capital expenditures the Town places a total of \$550,000 in reserves to offset future water and wastewater projects.

Planned Capital Cost



A comparison of the planned capital expenditures plus the capital reserve contributions to the theoretical replacement cost for all of the Town's core infrastructure identified a shortfall of approximately \$8M over the next ten years as illustrated by the following figure.



Please note the evaluation does not take into consideration funding possibilities which will assist in reducing the burden of paying for the capital projects.

Key Statistics

\$180 million

Value of infrastructure as of 2021

90%

Percentage of Town's core infrastructure
in fair condition or better

3%

Percentage of Town's core infrastructure
in critical condition (in needs of
replacement)

\$200

Estimated annual infrastructure deficit
per capita

74%

Percentage of annual infrastructure
funding needs currently being met

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1. Introductions

Municipalities throughout Ontario, own, operate and maintain a diverse portfolio of infrastructure assets that in turn provide a varied number of services to their residents. The infrastructure, in essence, is a conduit for the various public services the municipality provides, e.g. the roads supply transportation network service, the water infrastructure supplies safe potable water service, etc. The goal of asset management is to minimize the costs for providing these services over their lifetime, while offering a plan to manage risks.

1.1. Relationship to Other Plans

An asset management plan (AMP) is a key component of the municipality's planning process linking with multiple other corporate plans and documents. For example:

- The Official Plan – The AMP should utilize and influence the land use policy directions for long-term growth and development as provided through the Official Plan.
- Long Term Financial Plan – The AMP should both utilize and conversely influence the financial forecasts within the long-term financial plan.
- Capital Budget – The decision framework and infrastructure needs identified in the AMP form the basis on which future capital budgets are prepared.
- Infrastructure Master Plans & Growth Management Plan. The AMP will utilize goals and will influence projections from infrastructure master plans and growth management plan.
- By-Laws, standards, and policies – The AMP will influence and utilize policies and by-laws related to infrastructure management practices and standards.
- Regulations – The AMP must recognize and abide by industry and senior government regulations.
- Business Plans – The service levels, policies, processes, and budgets defined in the AMP are incorporated into business plans as activity budgets, management strategies, and performance measures.

1.2. Overview

This Asset Management Plan meets all provincial requirements as outlined in Asset Management Planning for Municipal Infrastructure - Ontario Regulation 588/17. As such, the following key sections and content are included:

1. Executive Summary
2. Asset Management Policy and Strategies
3. Inventory of the Assets (Core Infrastructure – Complete, Non-Core Infrastructure to follow)
4. Current Levels of Service (Core Infrastructure – Complete, Non-Core Infrastructure to follow)
5. Desired Levels of Service (To be Completed by July 2024)
6. Lifecycle Management Strategy (Core Infrastructure – Complete, Non-Core Infrastructure to follow)

7. Financial Strategy (To be Completed by July 2024)

The following asset classes are included in core infrastructure:

- Roads
- Bridges
- Water Network
- Sanitary Sewer Network
- Storm Sewer Network

The following asset classes are included in non-core infrastructure:

- Buildings
- Vehicles and Equipment

1.3. Objectives

The Asset Management Plan provides structure and guidance for the Town of Prescott, for the life cycle planning of their infrastructure to meet the desired level of service for the residence of the Town.

1.4. Limitations and Constraints

The inventory of the assets provides a summary of all core assets. Where possible the current condition of those assets was established based on physical inspection of the assets. Parts of some of the system's conditions have been assumed based on the age of the inventory until the asset has been inspected. Additionally, the Town is constantly working to improve the data quality as part of the desired level of service to be provided.

1.5. Compliance with O.Reg. 588/17 – Asset Management Planning for Municipal Infrastructure

The Town of Prescott is developing their Asset Management Plan in lines with the requirements of Asset Management Planning for Municipal Infrastructure, Ontario Regulation 588/17 (The Regulation). The Regulation has a phased in approach which is summarized in the following tables.

Table 1: O.Reg. 588/17 – Phases and Deadlines

Phase	Deadline ¹	Activity
1	July 1, 2019	Prepare and Publish a Strategic Asset Management Policy
2	July 1, 2022	Develop an Asset Management Plan for Core municipal Infrastructure Assets.
3	July 1, 2024	Develop an Asset Management Plan for all other municipal infrastructure

4	July 1, 2025	Develop an Expanded Asset Management Plan for all infrastructure Assets
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1 Deadlines were extended by the Province of Ontario as a result of the impacts on COVID-19 pandemic.

The compliance deadline for Asset Management Plans for the various municipal assets is provided in the table below.

Table 2: Town's Asset Inventory and Associated Deadlines

Phase	Deadline	Town's Asset
2	July 1, 2022	Road Network Bridges and Culverts Prescott Water Treatment Plant Prescott Water Tower Wastewater Collection System Five Sewage Pumping Stations Prescott Wastewater Treatment Plant Storm Sewer System
3	July 1, 2024	Buildings Leo Boivin Community Centre Firehall Grenville County Historical Society Building Lighthouse Maintenance Building Marina Tennis Building Town Hall Walker House Vehicles Equipment

1.6. Structure

The Town's Asset Management Plan is structured as follows:

Table 3: Components of an Asset Management Plan

Section	Description
Executive Summary	Overview of the Asset Management Plan
Introduction and Content	<ul style="list-style-type: none"> • Objectives of Asset Management • Principles of Asset Management • Data and Methodology (Condition and Financial) • Infrastructure Report Card Description
State of Local Infrastructure	<ul style="list-style-type: none"> • Provides full inventory, condition rating, useful life consumption data, and the backlog and upcoming infrastructure needs for each asset class
Level of Service	<ul style="list-style-type: none"> • Describes Key Performance Indicators for the various Town assets • Identifies factors that can impact the level of service provided by the Town
Lifecycle Management Strategy	<ul style="list-style-type: none"> • Defines actions to be taken by the Town to maintain their asset inventory up-to-date • Describes how the information from the Town's asset management plan is used to generate the 10-year financial needs forecast • Describe the Town's approach to risk management for potential failures of the various assets
Financial Strategy	<ul style="list-style-type: none"> • Provide Current Funding Position • Provide Financial Profile for Rate Funded Assets • Forecast annual revenues and capital needs to identify funding shortfalls

1.7. Supporting Documentation

The Asset Management Plan is to be read with the Town of Prescott's planning and budget documents. Supporting documents include:

- Town of Prescott Strategic Asset Management Policy
- The 2018 Official Plan
- The 2020 Town of Prescott Strategic Plan
- Development Charge
- Community Improvement Program
- Other related by-laws and economic plans

2. Asset Management Policies and Strategies

On June 24, 2019, the Council of the Town of Prescott approved the Town's Asset Management Policy, Policy #: FN-200-01 (Appendix A). The policy sets the following vision and goal for asset management within the Town:

The Town will proactively manage its assets to achieve:

- Effective delivery of service
- Supporting sustainability and economic development
- Employing prudent financial planning and decision-making methodologies

The goals of this of this policy are to:

- Provide a framework for implementing asset management to enable a consistent and strategic approach at all levels of the organization
- Provide guidance to staff responsible for the asset management program

In addition, the Policy defines the roles and responsibilities for Council and individuals within the Town for the management of the Town's infrastructure assets.

3. Levels of Service

3.1. Background

The level of service (LOS) is a measurement of the quality of service that the Town is providing to the community. O.Reg. 588/17 establishes two categories for LOS:

- Community Level of Service: a description of how customers expect to receive the service. As the customer's expectations may vary from customer to customer this group of matrixes are subjective and difficult to directly measure.
- Technical Level of Service: a measurable attribute that reflects the assets' ability to achieve the desired community level of service.

This update to the Town's Asset Management Plan concentrates on developing an understanding of the current level of service for the Town's core assets. Following the development of this plan, the Town will work towards identifying the proposed level of service which will meet the community's expectation with a full understanding of the financial implications of striving for the proposed level of service.

3.2. Objective

The approach was based on the following key industry state of the infrastructure documents:

- A Guide to Asset Management for Municipalities in Ontario, Municipal Finance Officers' Association of Ontario, 2018
- Developing an Asset Register, AMONTario
- Other Ontario Municipal State of the Infrastructure reports

3.3. Scope

Through the implementation of various condition assessment techniques an inventory of the current assets and their condition has been compiled for the following asset classes:

1. Road Network: Urban and rural paved
2. Bridges: Bridges with a span greater than 3m
3. Water Network: Water mains, hydrants, valves, facilities
4. Sanitary Sewer Network: Sanitary sewer mains, manholes, facilities
5. Storm Sewer Network: Storm sewer mains, catch basins, manholes

3.4. Approach






The following subsections provide a description of how each asset category's inventory and condition was established to support the plan.

3.5. Deriving Asset Condition

Asset condition is a measurement of the physical state of an asset. The establishment of the condition of an asset forms the basis of the Asset Management Plan. An incomplete or incorrect representation of the condition of an asset will mislead the long-term financial planning and decision making regarding the asset.

The method in which establishes the condition of each asset category will be different, however, the rating system on which it is based will be as follows:

Table 4: Condition Grading Scale

Colour Indicator	Description
	Excellent: No noticeable defects
	Good: Minor Deterioration
	Fair: Deterioration evident, function is affected
	Poor: Serious deterioration, function is inadequate
	Critical: No longer functional. General or complete failure

The Town utilizes a combination of both formal (I.e. Road Needs Studies, OSIM Reports, etc.) and informal condition assessment techniques (I.e. CCTV, watermain break records, etc.) to determine the existing condition of its assets.

3.6. Deriving Replacement Costs

The valuation of all assets is based on the replacement cost or reconstruction of an asset which results in the maximization of the useful service life of the asset. Where possible a unit cost will be applied to the asset which has been determined based on recent construction projects in Eastern Ontario. Where

unit costs cannot be established, replacement costs will be based on inflation indexes for non-residential building construction in Eastern Ontario, as provided by Statistics Canada.

3.7. Estimating Expected Service Life

The estimated useful life of an asset is the period of time over which the Town expects the asset to be available for use and remain in service before requiring replacement. The estimated expected service life of all assets was assigned according to the experience of the Town with similar assets and/or existing industry standards.

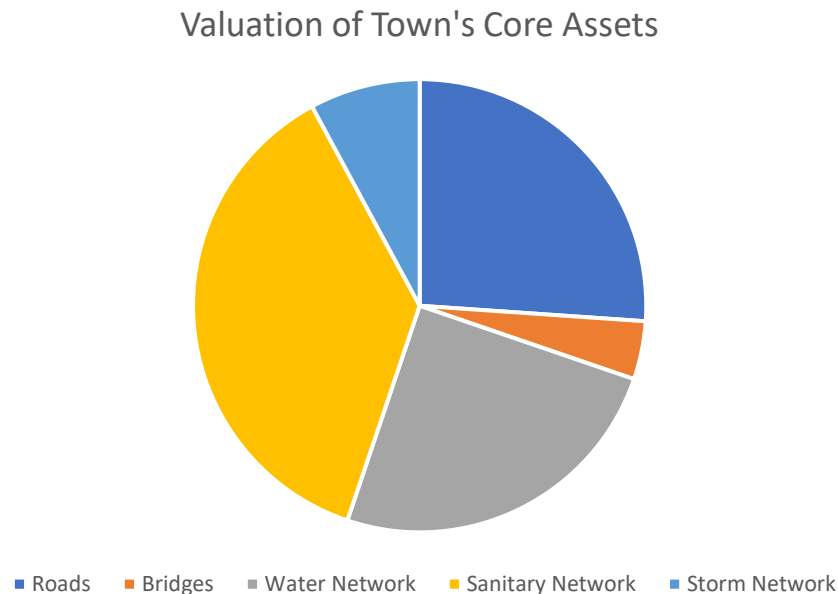
3.8. Core-Asset Overview

The Town of Prescott's core-infrastructure is composed of a road network, bridge structure, water network, sanitary network, and storm network. The following figures represents the total replacement value of the Town's core assets.

3.9. Overview of Total Replacement Cost of Town's Core Assets

This version of the Town's Asset Management Plan focuses on the core asset categories: road network, bridges, water network, sanitary network, and storm network. The Town owns core assets totaling a replacement value of approximately \$180M. The breakdown of these assets by core asset category is as follows:

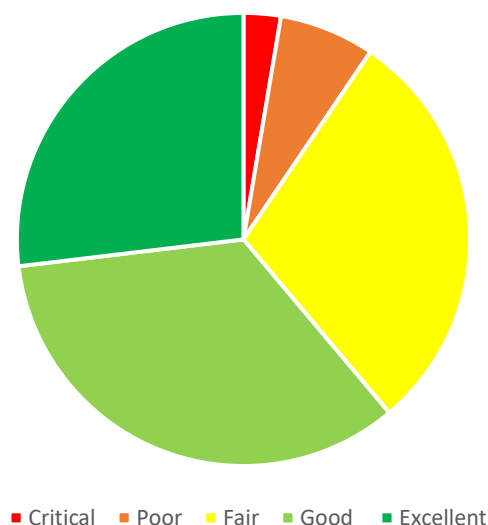
Figure 1 – Town's Total Core Infrastructure Replacement Value



The following sections provide supporting information for the condition of the core assets, based on the grading scale presented in Section 4.4, and summarized in the following figure.

Figure 2 – Town's Core Infrastructure Consolidated Condition

Condition of Town's Core Assets



3.10. Roads Network

3.10.1. What do we Own?

The Town owns three classes of road and one class of sidewalks.

Table 5: Road Classes

Asset Type	Description
Municipal Road	9.0m wide, 150mm GA, 300mm GB, 50mm HL4 asphalt
Local Street	9.0m wide, 150mm GA, 300mm GB, 50mm HL4 asphalt
Arterial Street	15m wide, 150mm GA, 300mm GB. 2 lifts of asphalt
Sidewalks	1.2m side concrete sidewalk

As shown in the following table, the entire road network is comprised of approximately 32 km of road, based on the information extracted from Streetlogix.

Table 6: Road Network Inventory

Asset Type	Asset Component	Quantity (m)
Road Network	Municipal Roads	1,475
	Local Street	26,726
	Arterial Street	4,175
	Traffic Lights	14 sets
	Streetlights	676 poles
Sidewalks	Combination of Concrete and Brick	40,617 m ²

3.10.2. Expected Useful Service Life

“Useful Service Life” is the industries best estimate of the expected period of time an asset can be used for their intended purpose. Depending on the maintenance and rehabilitation efforts over the course of the life span of an asset, the useful service life can be extended. The useful service life is used to determine replacement needs of individual assets.

The following table provides a comparison of the expected service life compared to the actual average age of the Town’s road network.

Table 7: Road Network – Useful Service Life

Asset Component	Estimated Useful Life (Years)	Average Age (Years)	Average Service Life Remaining (Years)
Municipal Roads	60	18	42
Local Streets	60	30	30
Arterial Streets	80	28	54
Streetlights	30	12	18
Sidewalks	60	30	30

3.10.3. What is it Worth?

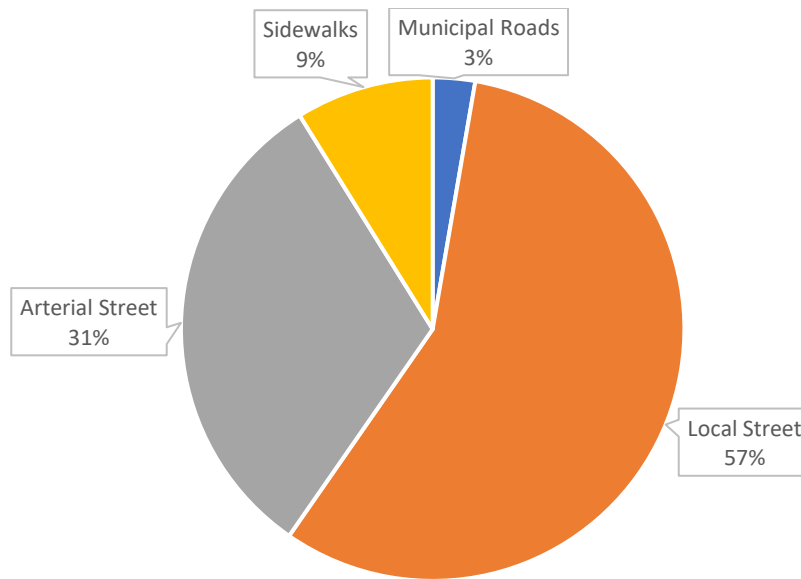
The estimated replacement value of the road network, in 2021 dollars, is approximately \$47M.

Table 8: Valuation of Road Network

Asset Type	Asset Component	Quantity (m)	Replacement Cost
Road Network	Municipal Roads	1,475	\$1,245,000
	Local Street	26,726	\$26,111,000
	Arterial Street	4,175	\$14,434,000
	Streetlights	676 (ea)	\$811,200
	Traffic Light	14 sets	\$288,000
	Sidewalks	40,617 m ²	\$4,062,000
	NET REPLACEMENT VALUE		\$46,951,000

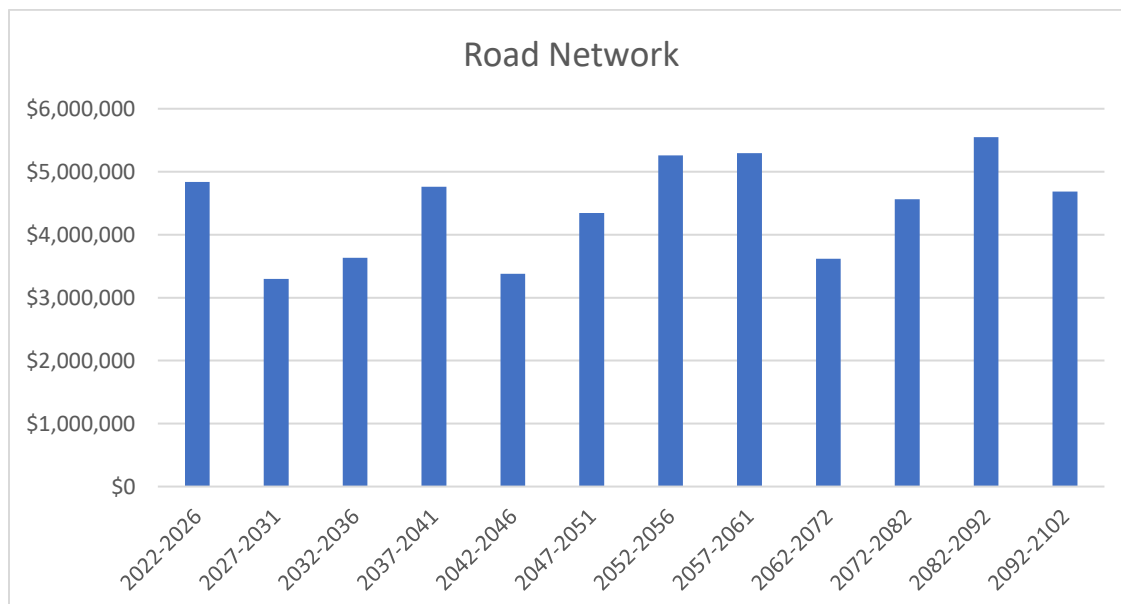
The pie chart below provides a breakdown of each of the network components to the overall system value.

Figure 3 – Road Network Components



Based on the PCI for the roads, the following chart demonstrates the future replacement requirements for the Prescott Road Network. Considerations for the needs of the underground infrastructure are to be taken when planning the road network capital projects.

Figure 4 – Estimated Future Capital Costs for Town's Road Network



Current funding levels for the road infrastructure is approximately \$1M per year and the current Town allocated funds are sufficient to meet the road network needs.

3.10.4. What Condition is it in?

To establish the condition of the road network, the Town undertakes daily road patrols in which staff collects information on conditions of the road network. In addition, the Town undertakes a comprehensive road needs study every five years, in which the paved roads are scanned, and a Pavement Condition Index (PCI) is generated. The last road needs study was completed in 2020.

Overall, the roads are in good condition with each road class having the following average pavement condition index rating: local Streets (PCI average 68.5), Arterial Street (PCI average 70.9) and municipal road (PCI average 72.5). A summary of the PCI index for each road class is provided below.

Table 9: Road Network Condition Rating

Colour Indicator	Pavement Condition Index	
	Greater than 85%	Requires regular maintenance
	70% < PCI < 85%	Minor local improvements
	55% < PCI < 70%	Requires rehabilitation and continued maintenance
	25% < PCI < 55%	Requires major rehabilitation or reconstruction
	Less than 25%	Requires Reconstruction

Figure 5 – Road Network Condition by Road Class

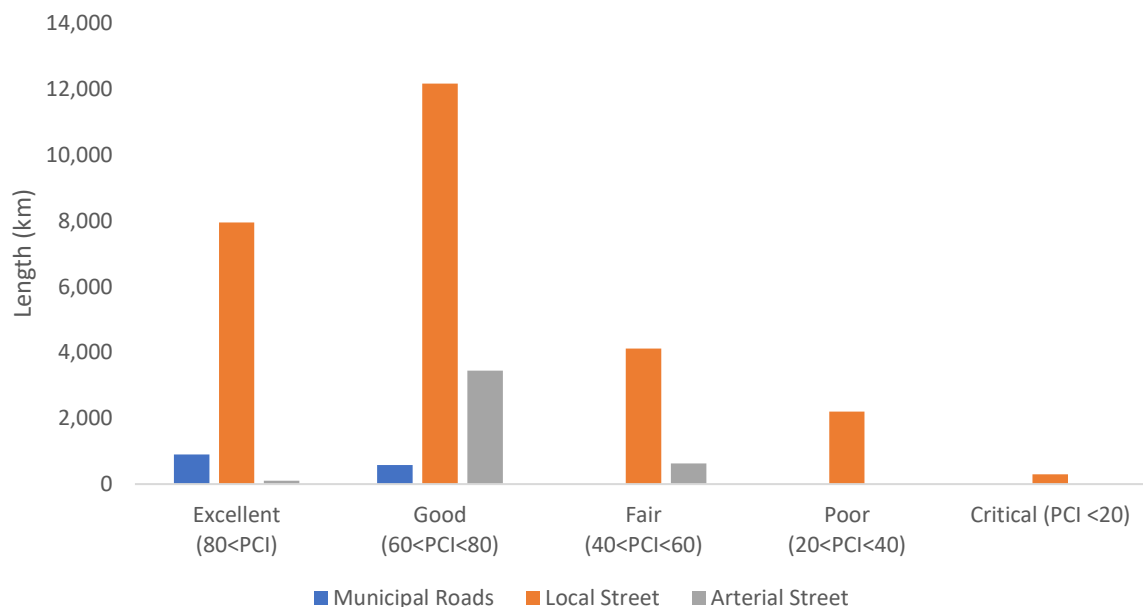
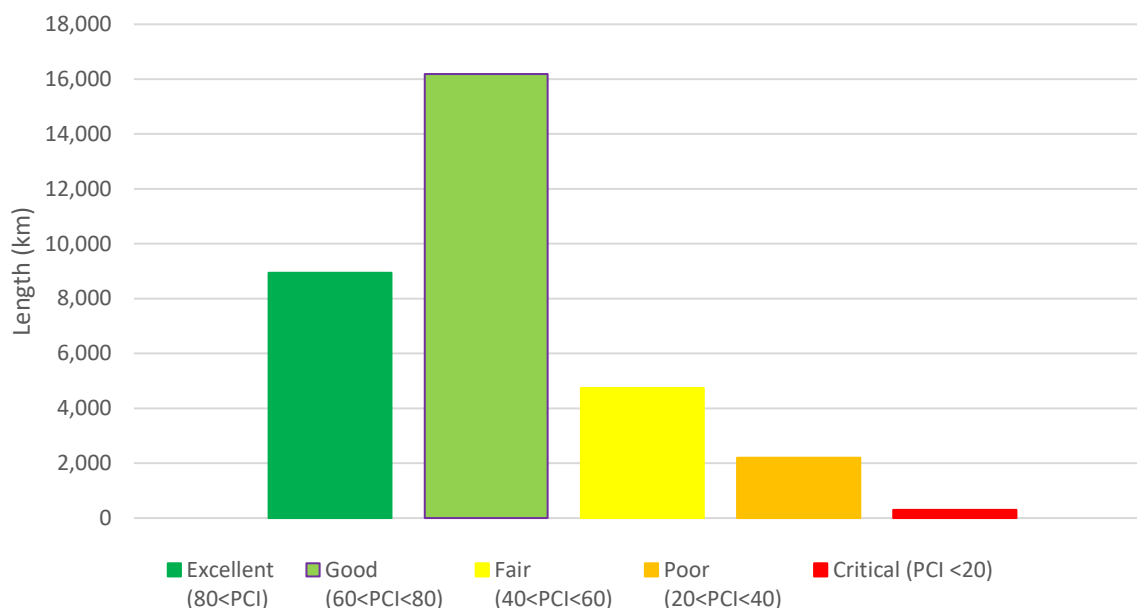


Figure 6 – Road Condition by Rating

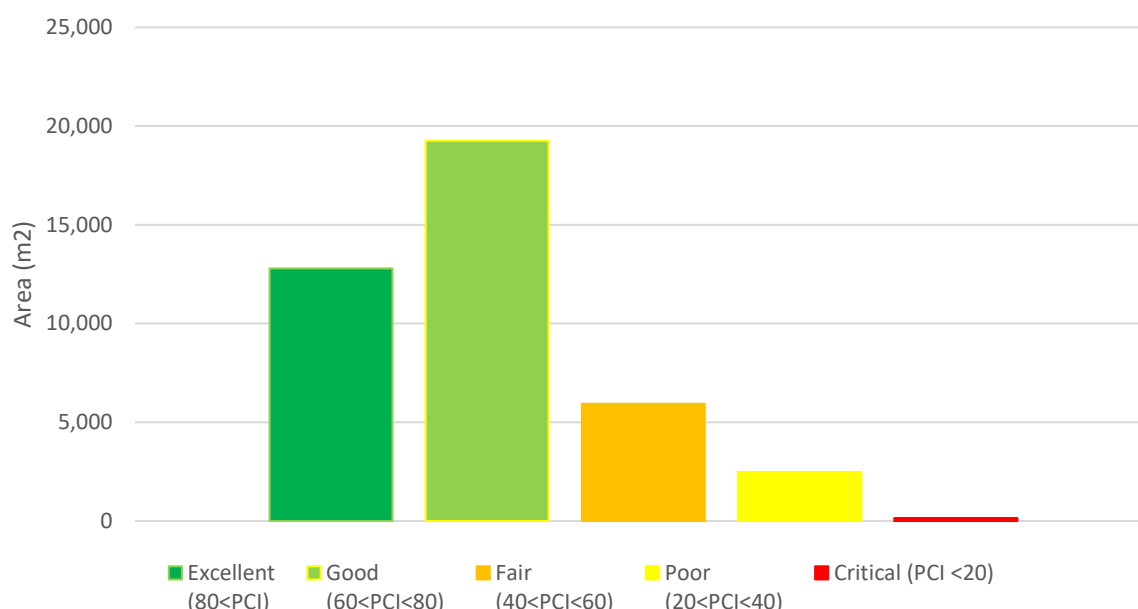


Similar to the road network, in 2020, the Town had completed a condition survey of the sidewalks, by Safesidewalks Canada. The sidewalk surface condition was assessed based on the following criteria:

Table 10: Sidewalk Surface Condition

Colour Indicator	Condition
	Minor defect and evidence of some damage and deterioration; no immediate repair required.
	Moderate defect with further deterioration expected to result in repair beginning requirement in the future.
	Significant walkway deficiency; repairs when convenient
	Severe walkway deficiency: prompt attention required.
	Extreme walkway deficiency: immediate attention required.

Figure 7 – Sidewalk Condition by Rating



3.10.5. Current Level of Service

Based on the asset inventory compiled for the road network, the Town has identified the current level of service being provided to the community. The Community and Technical Level of Service is reflected in the following table meeting the requirements of O.Reg. 588/17.

Table 11: Current Level of Service - Road Network

Level of Service Category	Matrix	Current Level of Service
Community LOS	Description, which may include maps, of the road network in the municipality and its level of connectivity.	Refer to Appendix B
	Description or images that illustrate the different levels of road class pavement condition.	Road network condition rating system is defined in Section 3.10.1
Technical LOS	Lane-km of Municipal Roads per land area ¹	0.01 km / km ²
	Lane-km of Collector Roads per land area ¹	0.24 km / km ²
	Lane-km of Collector Roads per land area ¹	0.06 km / km ²
	For paved roads in the municipality, the average pavement condition index value.	72.5 (good)
	Maintain an up-to-date Road Needs Study	Every Five Years
	Maintain a condition assessment of sidewalks	Every Five Years

1 based on 3.11 km²

3.10.6. Lifecycle Management

The Town has two levels of budgeting for the upkeep of their road network:

- Annual Operation and Maintenance Budget (Operating Budget)
 - Summer Activities including pavement patching, line painting, roadside mowing, tree trimming, road sign maintenance, street light maintenance, sidewalk repairs, etc.
 - Winter Activities including snow plowing, sanding/salting, sidewalk clearing, etc.
- Planned Rehabilitation and Replacement Budget (Capital Budget)
 - Paved road rehabilitation and replacement is scheduled based on the PCI of the road infrastructure as well as the condition of the underground infrastructure.

The current strategy is to maintain roads that are in good condition in good condition and concentrate road rehabilitation works in the areas where the underground infrastructure is in poor condition or is composed of pipe materials (i.e. clay and/or asbestosis concrete) that are fragile in nature.

3.11. Bridges

3.11.1. What do we Own?

The Town of Prescott owns a single bridge structure with a span greater than 3m: the Edward Street Bridge. It is a four-lane structure constructed as a slab on steel girder bridge with an approximate deck length of 52m and an overall width of approximately 18m.

Table 12: Bridge Inventory

Asset Type	Asset Component	Quantity (m ²)
Bridges	Bridge	917 m ²

The Edward Street Bridge has a posted speed limit of 60 km/hr. There are currently no load restrictions on the bridge or restrictions on the types of vehicles that can utilize the bridge.

3.11.2. Expected Useful Service Life

“Useful Service Life” is the industries best estimate of the expected period of time an asset can be used for their intended purpose. Depending on the maintenance and rehabilitation efforts over the course of the life span of an asset, the useful service life can be extended. The useful service life is used to determine replacement needs of individual assets.

The following table provides a comparison of the expected service life compared to the actual average age of the Town’s bridge network

Table 13: Bridge – Useful Service Life

Asset Component	Estimated Useful Life (Years)	Average Age (Years)	Average Service Life Remaining (Years)
Bridge	70	27	43

3.11.3. What is it Worth?

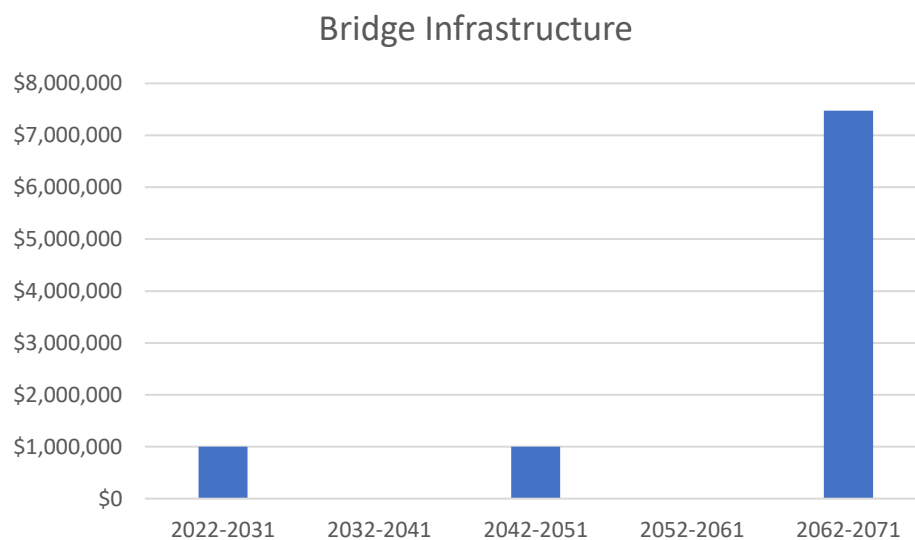
The estimated replacement value of the bridge infrastructure, in 2021 dollars, is approximately \$7.5M.

Table 14: Valuation of Bridges

Asset Type	Asset Component	Quantity (m)	Replacement Cost
Bridges	Bridge	917 m ²	\$7,476,000
	NET REPLACEMENT VALUE		\$7,476,000

Based on the history of bridge repair and the remaining useful life of the Edward Street bridge, the following chart demonstrates the future replacement requirements for the Prescott Bridge Infrastructure.

Figure 8 – Future Capital Expenses for Bridge Infrastructure



3.11.4. What Condition is it in?

The Ministry of Transportation (MTO) requires bi-annual inspections for all bridge structures in Ontario. The inspection of these structures are to follow the MTO guidelines that are contained in the Ontario's Structure Inspection Manual (OSIM). Through the use of OSIM a Bridge Condition Index is determined for each structure. The Bridge Condition Index relates to the bridge condition in the following manner:

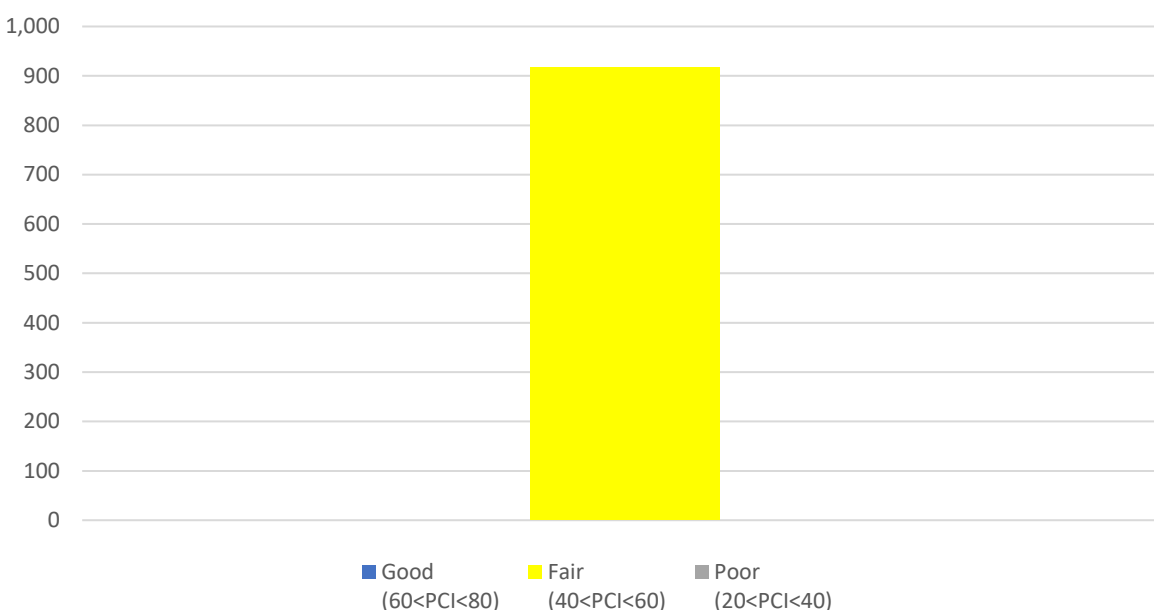
Table 15: OSIM Bridge Condition Index

Rating	Maintenance Schedule
Good: BCI: 70-100	Maintenance is not usually required within the next five years
Fair: BCI: 60-70	Maintenance work is usually scheduled within the next five years. This is the ideal time to schedule major bridge repairs to get the most out of bridge spending.

Poor: BCI: <60	Maintenance work is usually scheduled within one year.
-------------------	--

The Town had an OSIM report completed in 2019 for the Edward Street Bridge. The rating produced from this report was 66.2, meaning that the bridge is in fair condition.

Figure 9 – Bridge Condition by Rating



3.11.5. Current Level of Service

Based on the asset inventory compiled for the bridge network, the Town has identified the current level of service being provided to the community. The Community and Technical Level of Service is reflected in the following table meeting the requirements of O.Reg. 588/17.

Table 16: Current Level of Service - Bridges

Level of Service Category	Matrix	Current Level of Service
Community LOS	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	No Restrictions
	Description or images of the condition of bridges and how this would affect use of the bridges.	Refer to OSIM Report
Technical LOS	Percentage of bridges in the municipality with loading or dimensional restrictions	0%
	For bridges in the municipality, the average bridge condition index value.	66.2 (Fair)
	Completion of OSIM Report	Every Two Years

3.11.6. Lifecycle Management

The Town has two levels of budgeting for the upkeep of their bridge infrastructure:

- Annual Operation and Maintenance Budget (Operating Budget)
 - Summer Activities including pavement patching, line painting, sign maintenance, , power-washing, sidewalk repairs, etc.
 - Winter Activities including snow plowing, sanding/salting, sidewalk clearing, etc.
- Planned Rehabilitation and Replacement Budget (Capital Budget)
 - Capital items are identified in the OSIM report and integrated into the 10-year capital plan to ensure the structure is maintained in good condition.

The Town has budgeted to undertake the following work in 2023:

- Abutment bearing replacements
- Expansion joint replacements
- Structural steel repairs
- Structural steel re-coating
- Guiderail repairs
- Sidewalk repairs
- Asphalt replacement (Churchill Road to Wood Street)

This work will improve the overall bridge condition index for the structure, with the next planned large rehabilitation work to be schedule for 2048.

3.12. Water Network

3.12.1. What do we Own?

Prescott is the owner of the Prescott Drinking Water System, which includes approximately 31 km of watermains, a water treatment plant, and an elevated tower.

Table 17: Water Network Asset Inventory

Asset Type	Asset Component	Quantity
Water Network	Watermain (15mm)	45
	Watermain (25mm)	136
	Watermain (100mm)	820
	Watermain (150mm)	14,174
	Watermain (200mm)	7,121
	Watermain (250mm)	2,115
	Watermain (300mm)	5,960
	Watermain (400mm)	703
	Services	2,153
	Fire Hydrants	206
	Valves	419
	Water Treatment Plant	1
	Water Tower	1

3.12.2. Expected Useful Service Life

“Useful Service Life” is the industries best estimate of the expected period of time an asset can be used for their intended purpose. Depending on the maintenance and rehabilitation efforts over the course of the life span of an asset, the useful service life can be extended. The useful service life is used to determine replacement needs of individual assets.

The following table provides a comparison of the expected service life compared to the actual average age of the Town’s water network.

Table 18: Water Network – Useful Service Life

Asset Type	Asset Component	Useful Life in Years
Water Network	Watermains	80
	House Services	60
	Fire Hydrants	50
	Valves	50
	Elevated Water Storage	60
	Water Treatment Facilities – Mechanical Systems	25
	Water Treatment Facilities – Electrical Systems	40
	Water Treatment Facilities – Piping Networks	80
	Water Treatment Facilities – Concrete Works	100

3.12.3. What is it Worth?

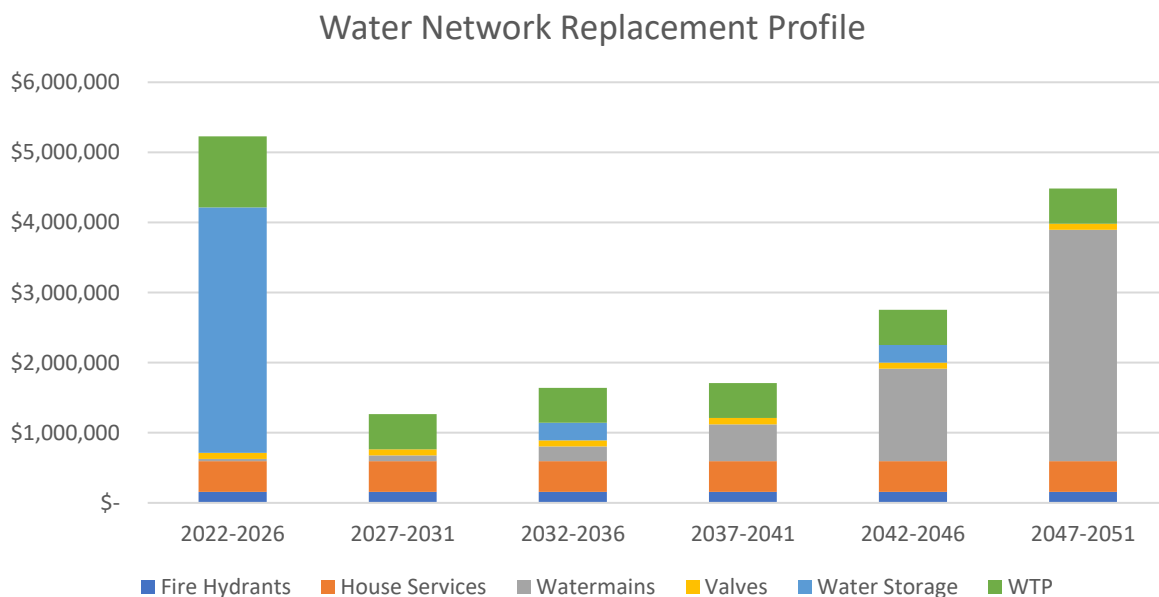
The estimated replacement value of the water network, in 2021 dollars, is approximately \$44,840,725.

Table 19: Valuation of Water Network

Asset Type	Asset Component	Quantity	2021	2012
Water Network	Watermain (15mm)	45	\$7,875	\$7,751
	Watermain (25mm)	136	\$23,800	\$26,847
	Watermain (100mm)	820	\$164,000	\$62,629
	Watermain (150mm)	14174	\$3,897,850	\$2,592,979
	Watermain (200mm)	7121	\$2,670,375	\$2,720,102
	Watermain (250mm)	2115	\$951,750	\$522,915
	Watermain (300mm)	5960	\$3,129,000	\$2,038,320
	Watermain (400mm)	703	\$439,375	\$252,105
	Services	2153	\$6,459,000	\$5,094,166
	Fire Hydrants	211	\$1,582,500	\$1,158,250
	Valves	419	\$879,200	\$1,482,675
	Water Treatment Plant	1	\$21,136,000	\$12,619,164
	Water Tower	1	\$3,500,000	\$2,000,000

Based on age for the water treatment facilities, the following chart demonstrates the future replacement requirements for the Prescott Water Network.

Figure 10 – Capital Forecast for Water Network



The Town has planned on replacing the Prescott Elevated Water Storage Tank in 2023. The Town was also successful in obtaining funding through the Investing in Canada Infrastructure Program to help offset this cost to the users of the system.

Current funding levels for the water infrastructure is approximately \$0.2M per year and the current Town allocated funds will need to increase within time to address the aging water network needs.

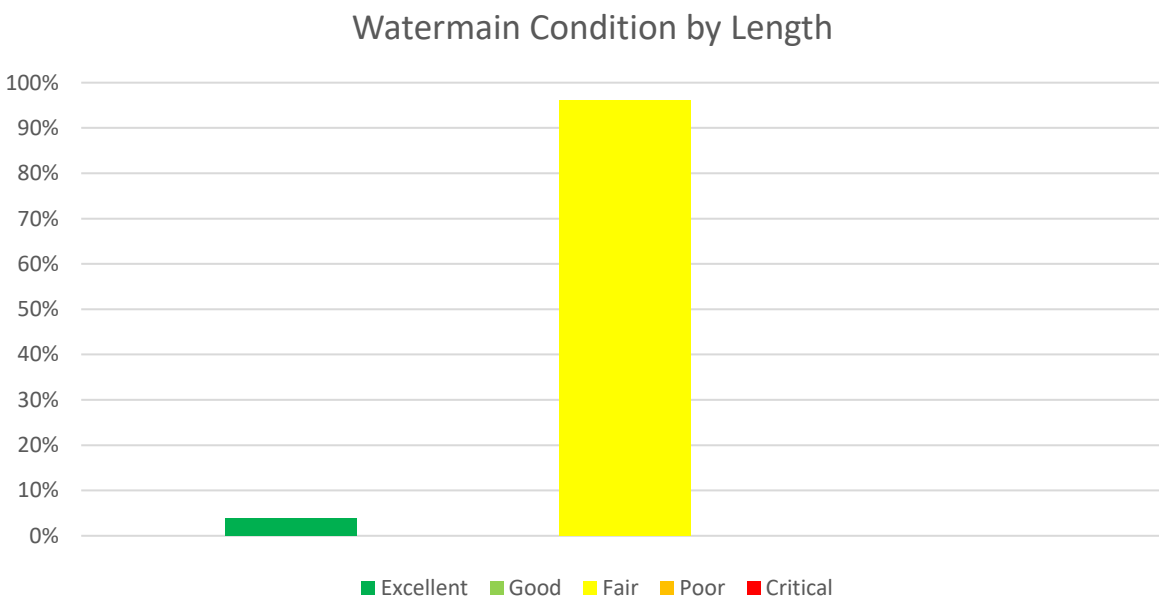
3.12.4. What Condition is it in?

The Town does not utilize a formal condition assessment process for the establishment of the condition of the water distribution network. The Town may utilize acoustic leak detection contractors to assist with maintenance strategies but only on an as needed basis. The Town has used the age of the pipe, material of the pipe, and the history of watermain breaks to help establish the condition of the water distribution system.

Condition assessments of the Prescott Water Treatment Plant and Prescott Water Tower have been undertaken and integrated into the asset management plan.

Utilizing the year of installation for the watermains and their appurtenances, and assigning a 100 years service life for watermains, we have assessed the condition of the watermains based solely on a straight line depreciation: 0-19 years of age: excellent, 20-39 years of age: good, 40-59 years of age: fair, 60-79 years of age: poor, >79 years of age: critical.

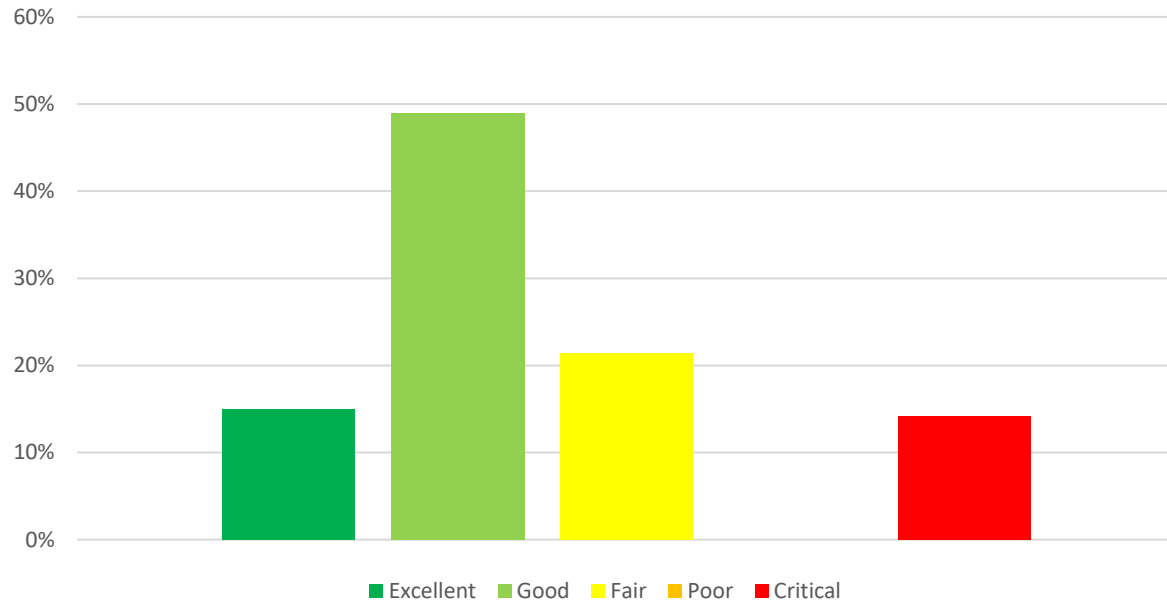
Figure 11 – Water Main Condition Assessment



In 2017, the Town completed a condition assessment of the Prescott Water Treatment Plant and the Prescott Water Tower. The water tower is in critical condition, as identified below, and the Prescott WTP has components in fair to excellent condition. Additionally, it was determined that there is inadequate water storage requirements to comply with the minimum level of water storage required by

the Ministry of the Environment, Conservation and Parks (MECP) Design Guidelines for Water Supply Systems.

Figure 12 – Water Facilities Condition Assessment



3.12.1. Current Level of Service

Based on the asset inventory compiled for the water network, the Town has identified the current level of service being provided to the community. The Community and Technical Level of Service is reflected in the following table meeting the requirements of O.Reg. 588/17.

Table 20: Current Level of Service – Water Network

Level of Service Category	Matrix	Current Level of Service
Community LOS	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system.	Refer to Appendix C
	Description, which may include maps, of the user groups or areas of the municipality that have fire flow.	Modelling in development
	Description of boil water advisories and service interruptions.	In the past five (5) years (2016-2020), there has been zero (0) boil water advisory issued.
Technical LOS	Percentage of properties connected to the municipal water system.	99%
	Percentage of properties where fire flow is available.	Modeling in development
	The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system.	In the past five (5) years (2016-2020), there has been zero (0) connection-days per year in which there was a boil water advisory in place.
	The number of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system.	2016 – 3 days 2017 – 0 days 2018 – 6 days 2019 – 9 days 2020 – 2 days

3.12.2. Lifecycle Management

The Town has two levels of budgeting for the upkeep of their water infrastructure:

- Annual Operation and Maintenance Budget (Operating Budget)
 - Summer Activities including flushing, pressure regulator valve testing, valve exercising, etc.
 - Winter Activities including winterization of hydrants, etc.
- Planned Rehabilitation and Replacement Budget (Capital Budget)
 - Capital items are identified through the tracking of watermain breaks, and leak detection surveys and then coordinated with the road network capital projects.

3.13. Sanitary Sewer Network

3.13.1. What do we Own?

The Town's sanitary sewer network is composed of approximately 28 km of sanitary sewers, 4 sewage pumping stations and a wastewater treatment plant.

Table 21: Sanitary Network Inventory

Asset Type	Asset Component	Quantity
Sanitary Network	Sanitary Sewer (150mm)	817.2
	Sanitary Sewer (200mm)	6370.2
	Sanitary Sewer (250mm)	12313.6
	Sanitary Sewer (300mm)	5710.1
	Sanitary Sewer (350mm)	457
	Sanitary Sewer (400mm)	2240
	Sanitary Sewer (450mm)	120
	Sanitary Sewer (600mm)	505
	Sanitary Sewer (675mm)	354.6
	Sanitary Sewer (750mm)	1423.1
	Sanitary Sewer (900mm)	448
	Manholes	356
	Services	2153
	SPS	4
	Water Pollution Control Plant	1

3.13.2. Expected Useful Service Life

"Useful Service Life" is the industries best estimate of the expected period of time an asset can be used for their intended purpose. Depending on the maintenance and rehabilitation efforts over the course of the life span of an asset, the useful service life can be extended. The useful service life is used to determine replacement needs of individual assets.

The following table provides a comparison of the expected service life compared to the actual average age of the Town's sanitary network.

Table 22: Sanitary Network – Useful Service Life

Asset Type	Asset Component	Useful Life in Years
Sanitary Network	Sewers	75
	Manholes	60
	Service Connections	60
	WWTP/SPS – Mechanical	25
	WWTP/SPS – Electrical	40
	WWTP/SPS – Civil	75

3.13.3. What is it Worth?

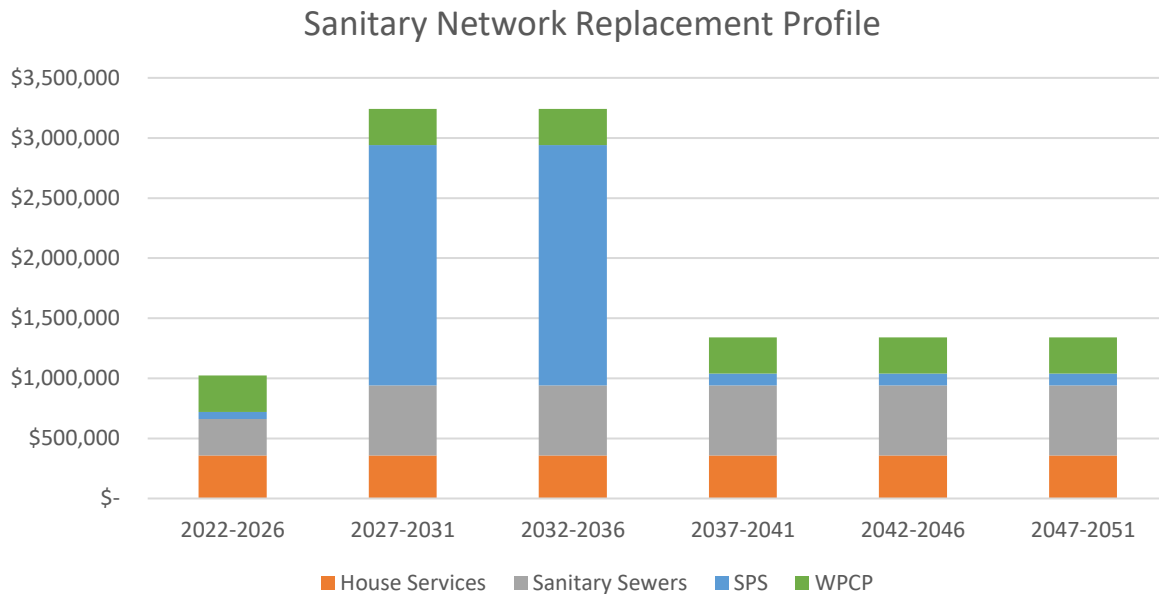
The estimated replacement value of the sanitary network, in 2021 dollars, is approximately \$66M.

Table 23: Valuation of Sanitary Network

Asset Type	Asset Component	2021	2012
Sanitary Network	Sanitary Sewer (150mm)	\$265,590	\$123,226
	Sanitary Sewer (200mm)	\$2,388,825	\$1,438,267
	Sanitary Sewer (250mm)	\$4,925,440	\$5,684,776
	Sanitary Sewer (300mm)	\$2,569,545	\$970,717
	Sanitary Sewer (350mm)	\$194,225	\$93,621
	Sanitary Sewer (400mm)	\$1,008,000	\$546,934
	Sanitary Sewer (450mm)	\$60,000	\$38,591
	Sanitary Sewer (600mm)	\$277,750	\$464,892
	Sanitary Sewer (675mm)	\$221,625	\$143,466
	Sanitary Sewer (750mm)	\$1,067,325	\$916,823
	Sanitary Sewer (900mm)	\$380,800	\$511,230
	Manholes	\$4,272,000	\$3,866,160
	Services	\$4,306,000	
	SPS	\$6,400,000	\$4,800,000
	Water Pollution Control Plant	\$38,150,000	\$23,484,081

Based on the current condition of the sanitary network, the following chart demonstrates the future replacement requirements for the Prescott Sanitary Network.

Figure 13 – Capital Forecast for Sanitary Network



Current funding levels for the sanitary infrastructure is approximately \$0.25M per year and the current Town allocated funds will need to increase within time to address the aging sanitary network needs. This capital plan includes major renovations at Sewage Pumping Station No. 5, in the years 2027-2031, and Sewage Pumping Station No. 4, in the years 2032-2036.

3.13.4. What Condition is it in?

The Town has adopted the following Key Performance Indicators (KPIs) for the evaluation of the condition of the Town's sanitary sewers. THE KPIs are based on the closed-circuit television (CCTV) inspection of the Town's infrastructure.

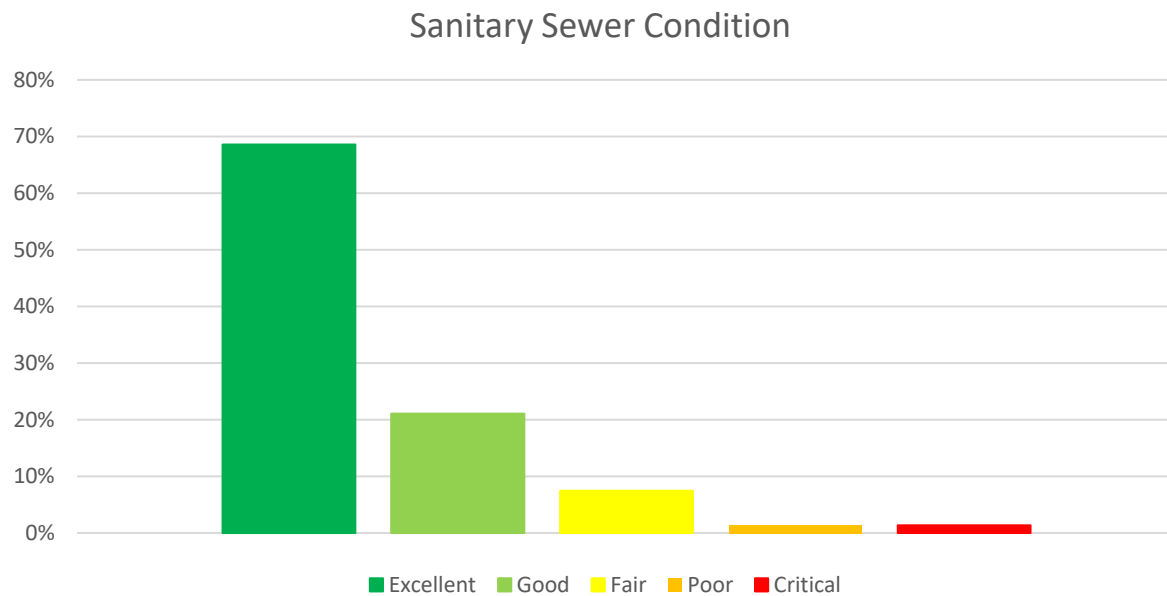
Table 24: Key Performance Factors for Assessing Condition of Sanitary Sewers

Baseline		
All Pipe less than 20 years old	1	Excellent
All pipe older than 20 years old	2	Good
Pipe Material		
AC	+1	
Steel Pipe	+1	
Structural Performance Factors		
Broken Soil Visible	+3	

Deformed Rigid (10%)	+3
Deformed Flexible Bulging Round (25%)	+3
Joint Offset Large	+2
Joint Separated Large	+2
Deformed Flexible Bulging Round (5%)	+2
Fracture Multiple	+2
Broken	+1
Joint Offset Medium	+1
Crack Multiple	+1
Deformed Flexible Elliptical (15%)	+1
Joint Separated Medium	+1
Deformed Flexible Bulging Round (2%)	+1
Miscellaneous Water Level Sag (5%)	+1
Deposits Attached Encrustation (5%)	+1
Inflow and Infiltration Factors	
Multiple Gushers in same length of Pipe	+3
Single Medium-Large Gusher	+2
Single Small Gusher	+1

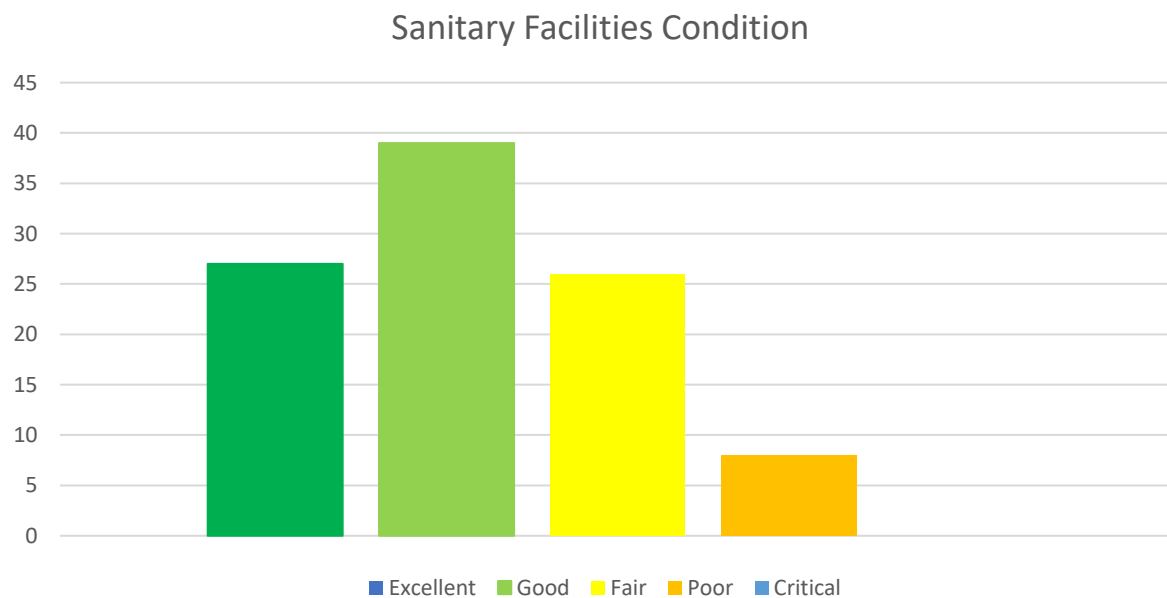
Based on the KPI and the available CCTV footage and reports for the sanitary collection system, the condition of the Town's sanitary sewers is reflected in the following figure.

Figure 14 – Sanitary Sewer Condition Assessment



In 2017, the Town completed a condition assessment of the Prescott Water Pollution Control Plant and sewage pumping stations. Most of the infrastructure is in good to fair condition.

Figure 15 – Sanitary Facilities Condition Assessment



3.13.5. Current Level of Service

Based on the asset inventory compiled for the sanitary network, the Town has identified the current level of service being provided to the community. The Community and Technical Level of Service is reflected in the following table meeting the requirements of O.Reg. 588/17.

Table 25: Current Level of Service – Sanitary Network

Level of Service Category	Matrix	Current Level of Service
Community LOS	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system.	Appendix D
	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.	Over the past five years they have been a total of 24 bypass events occurring at the SPS, for a total duration of 111 hours with a total discharge of 23,618 m ³ , representing a release of 0.37% of all wastewater treated at the Prescott WPCP. Refer to Table 20 for additional details.
	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.	All overflows occurred at the sewage pumping stations.
	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes.	Stormwater can enter the sanitary network through inflow (i.e. sump pumps, footing drains, rain leader connections, etc.) or infiltration (i.e. seepage through cracks in sewers or manholes, loose joints, etc.)
	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described above.	The Town has a comprehensive design manual to ensure that new sewers and connections comply with the highest standards.
	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.	Final effluent from the Prescott Water Pollution Control Plant discharges by gravity to the St. Lawrence River, in accordance with the requirements of the ECA.
Technical LOS	Percentage of properties connected to the municipal wastewater system.	99%

	The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.	0
	The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.	One (1) exceedence of <i>E.coli</i> in 2018.

Table 26: Sanitary Bypass Events

Bypasses	Units	2016	2017	2018	2019	2020
# of Events		0	11	2	10	1
Duration	hours	0	74.93333	3	29.9	3.33
Volume	m3	0	18266	565	4572.36	215

3.13.6. Lifecycle Management

The Town has two levels of budgeting for the upkeep of their water infrastructure:

- Annual Operation and Maintenance Budget (Operating Budget)
 - Summer Activities including flushing, CCTV inspection, etc.
 - Winter Activities including winterization of hydrants, etc.
- Planned Rehabilitation and Replacement Budget (Capital Budget)
 - Capital items are identified through prioritizing replacement of pipe made from fragile materials (i.e. clay and/or asbestosis concrete) and CCTV surveys and then coordinated with the road network capital projects.

3.14. Storm Sewer Network

3.14.1. What do we Own?

The inventory components of the storm sewer collection network are outlined in the table below. The entire network consists of approximately 18km of storm sewers.

Table 27: Storm Sewer Network Inventory

Asset Type	Asset Component	Quantity (m)
Storm Network	Storm Sewer (200mm)	126
	Storm Sewer (2250mm)	131.5
	Storm Sewer (250mm)	1403.7
	Storm Sewer (300mm)	3576.2
	Storm Sewer (350mm)	279
	Storm Sewer (375mm)	1894.7
	Storm Sewer (400mm)	478.1
	Storm Sewer (450mm)	3808.9
	Storm Sewer (525mm)	720.7
	Storm Sewer (600mm)	984.9
	Storm Sewer (675mm)	346
	Storm Sewer (750mm)	941.9
	Storm Sewer (825mm)	282
	Storm Sewer (900mm)	1459.8
	Storm Sewer (1050mm)	1023.8
	Storm Sewer (1200mm)	112.7
	Storm Sewer (1220mm)	138.7
	Manholes	246
	Stormwater Ponds	2
	Catchbasins	493

3.14.2. Expected Useful Service Life

“Useful Service Life” is the industries best estimate of the expected period of time an asset can be used for their intended purpose. Depending on the maintenance and rehabilitation efforts over the course of the life span of an asset, the useful service life can be extended. The useful service life is used to determine replacement needs of individual assets.

The following table provides a comparison of the expected service life compared to the actual average age of the Town’s storm network.

Table 28: Storm Sewer Network – Useful Service Life

Asset Type	Asset Component	Useful Life in Years
Storm Network	Catch Basins	60
	Manholes	60
	Stormwater Ponds	50
	Storm Sewers	75

3.14.3. What is it Worth?

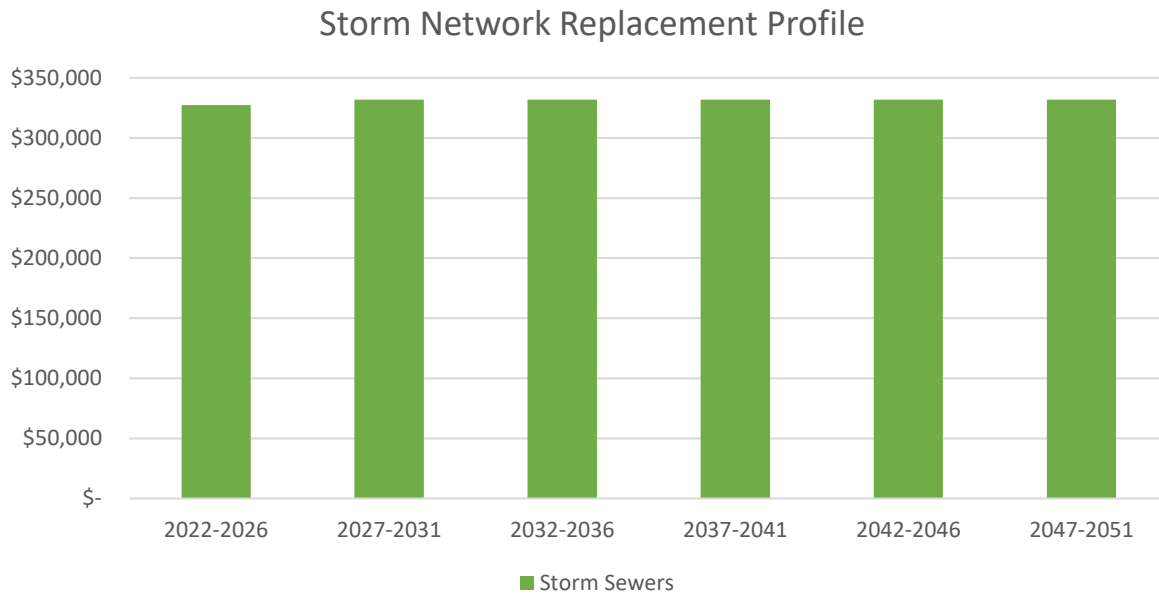
The estimated replacement value of the storm sewer network is approximately \$XXM.

Table 29: Valuation of Storm Sewer Network

Asset Type	Asset Component	Quantity	2021	2012
Storm Network	Storm Sewer (200mm)	126	\$47,250	\$47,696
	Storm Sewer (2250mm)	131.5	\$52,600	\$26,918
	Storm Sewer (250mm)	1403.7	\$561,480	\$339,684
	Storm Sewer (300mm)	3576.2	\$1,430,480	\$572,192
	Storm Sewer (350mm)	279	\$118,575	\$57,621
	Storm Sewer (375mm)	1894.7	\$852,615	\$466,096
	Storm Sewer (400mm)	478.1	\$227,098	\$118,096
	Storm Sewer (450mm)	3808.9	\$1,904,450	\$773,207
	Storm Sewer (525mm)	720.7	\$396,385	\$453,077
	Storm Sewer (600mm)	984.9	\$615,563	\$655,724
	Storm Sewer (675mm)	346	\$233,550	\$291,363
	Storm Sewer (750mm)	941.9	\$706,425	\$336,258
	Storm Sewer (825mm)	282	\$225,600	\$264,758
	Storm Sewer (900mm)	1459.8	\$1,240,830	\$1,191,680
	Storm Sewer (1050mm)	1023.8	\$1,023,800	\$2,289,439
	Storm Sewer (1200mm)	112.7	\$135,240	\$179,299
	Storm Sewer (1220mm)	138.7	\$169,908	\$343,255
	Manholes	246	\$2,952,000	\$2,280,125
	Stormwater Ponds	2	\$150,000	
	Catchbasins	493	\$ 1,133,900	\$ 1,608,840

Based on the current condition of the storm network, the following chart demonstrates the future replacement requirements for the Prescott Storm Network.

Figure 16 – Capital Forecast for Storm Network



Current funding levels for the storm infrastructure is approximately \$0.06M per year and the current Town allocated funds will need to increase within time to address the aging storm network needs.

3.14.4. What Condition is it in?

The Town has adopted the following Key Performance Indicators for the evaluation of the condition of the Town's storm sewers.

Table 30: Key Performance Factors for Assessing Condition of Stormwater Sewers

Baseline		
All Pipe less than 20 years old	1	Excellent
All pipe older than 20 years old	2	Good
Pipe Material		
AC	+1	
Steel Pipe	+1	
Structural Performance Factors		
Broken Soil Visible	+3	

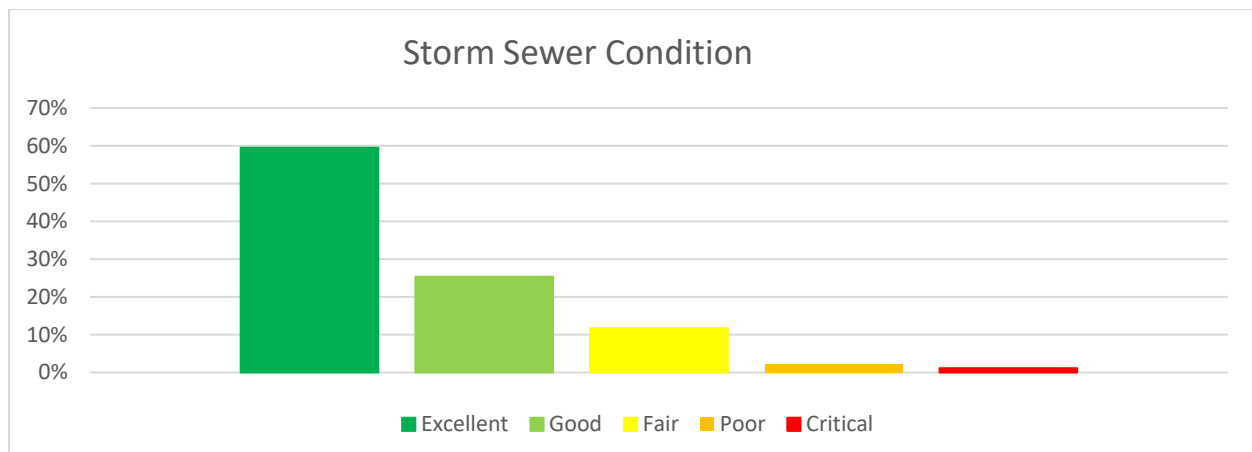
Deformed Rigid (10%)	+3
Deformed Flexible Bulging Round (25%)	+3
Joint Offset Large	+2
Joint Separated Large	+2
Deformed Flexible Bulging Round (5%)	+2
Fracture Multiple	+2
Broken	+1
Joint Offset Medium	+1
Crack Multiple	+1
Deformed Flexible Elliptical (15%)	+1
Joint Separated Medium	+1
Deformed Flexible Bulging Round (2%)	+1
Miscellaneous Water Level Sag (5%)	+1
Deposits Attached Encrustation (5%)	+1

Inflow and Infiltration Factors

Multiple Gushers in same length of Pipe	+3
Single Medium-Large Gusher	+2
Single Small Gusher	+1

Based on the KPI and the available CCTV footage and reports for the stormwater collection system, the condition of the Town's storm sewers is reflected in the following figure.

Figure 17 – Storm Sewer Condition Assessment



3.14.5. Current Level of Service

Based on the asset inventory compiled for the storm sewer network, the Town has identified the current level of service being provided to the community. The Community and Technical Level of Service is reflected in the following table meeting the requirements of O.Reg. 588/17.

Table 31: Current Level of Service – Storm Sewer Network

Level of Service Category	Matrix	Current Level of Service
Community LOS	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	Appendix E
Technical LOS	Percentage of properties in municipality resilient to a 100-year storm.	Model being developed
	Percentage of the municipal stormwater management system resilient to a 5-year storm.	Model being developed

3.14.6. Lifecycle Management

The Town has two levels of budgeting for the upkeep of their stormwater infrastructure:

- Annual Operation and Maintenance Budget (Operating Budget)
 - Summer Activities including cathbasin cleanouts, stormwater pond maintenance and outlet cleaning.
- Planned Rehabilitation and Replacement Budget (Capital Budget)
 - Capital items are identified through prioritizing replacement of pipe made from fragile materials (i.e. clay and/or asbestosis concrete) and CCTV surveys and then coordinated with the road network capital projects.

4. Desired Level of Service

*To be part of 2025 Asset Management Plan Update

5. Lifecycle Management Strategy

5.1. Lifecycle Management Strategies

The purpose of developing a lifecycle strategy, for each of the asset categories, is to assist the Town staff with planning for various activities requires for the upkeep of the Town's assets. The strategy should address which activity should be performed and when the activity should be performed in order to

maximize and/or extend the useful life of an asset. The lifecycle management activities can be grouped into one of three event types:

Table 32: Life Cycle Management Strategies

Event Type	Description	Cost
Maintenance	Activities that prevent defects and/or the deterioration of assets	\$
Rehabilitation	Activities that rectify defects and/or deficiencies that are already present and reducing the useful service life of the asset.	\$\$
Replacement	The removal of an existing asset with a new asset.	\$\$\$

5.2. Current Funding Levels

To identify the state of the municipality's infrastructure today and the projected state in the future if current funding levels and management practices remain status quo.

The analysis and subsequent communication tools will outline future asset requirements, will start the development of tactical implementation plans, and ultimately assist the organization to provide cost effective sustainable services to the current and future community.

5.2.1. Planned Capital Expenses

The Town has prepared the following 10-year capital plan to identify both replacement and rehabilitation needs for their core infrastructure.

Table 33: 10 Year Capital Plan

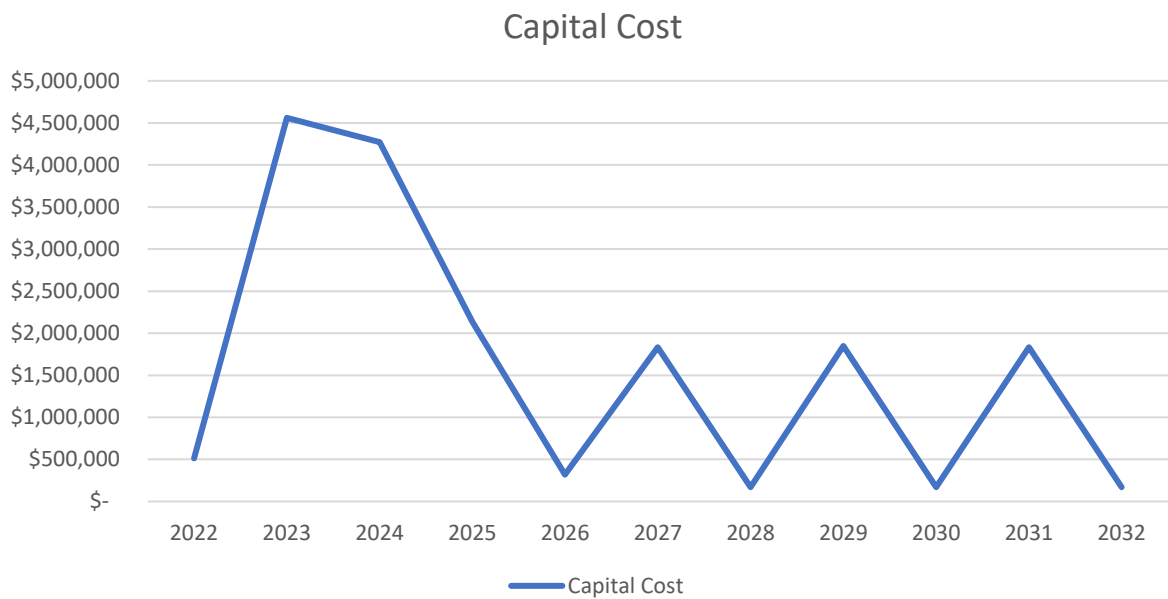
Project Name	Asset Category	Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Dibble Street East Renovation	E	Design Engineer Services	\$170,000										
	R	Construction Component	\$494,000										
	W	Construction Component	\$338,000										
	S	Construction Component	\$295,000										
	ST	Construction Component	\$320,000										
	G	Construction Component	\$255,000										
	E	Contract Administration Services	\$128,000										
Prescott Water Tower	E	Design Engineer Services	\$87,000										
	W	Construction Component		\$100,000	\$2,000,000								
	G	Construction Component		\$900,000	\$1,800,000								
	E	Contract Administration Services		\$30,000	\$60,000								
Edward Street Bridge	E	Design Engineer Services	\$59,000										
	R	Construction Component		\$850,000									
	G	Construction Component		\$150,000									
	E	Contract Administration Services		\$47,000									
East Street Reconstruction	E	Design Engineer Services			\$170,000								
	R	Construction Component				\$494,000							
	W	Construction Component				\$338,000							
	S	Construction Component				\$295,000							
	ST	Construction Component				\$320,000							
	G	Construction Component				\$255,000							
	E	Contract Administration Services				\$128,000							
Park and Duke Street Reconstruction	E	Design Engineer Services					\$170,000						
	R	Construction Component						\$494,000					
	W	Construction Component						\$338,000					
	S	Construction Component						\$295,000					
	ST	Construction Component						\$320,000					
	G	Construction Component						\$255,000					
	E	Contract Administration Services						\$128,000					
Henry Street Reconstruction	E	Design Engineer Services							\$170,000				
	R	Construction Component								\$494,000			
	W	Construction Component								\$338,000			
	S	Construction Component								\$295,000			
	ST	Construction Component								\$320,000			
	G	Construction Component								\$255,000			
	E	Contract Administration Services								\$128,000			
King Street (Phase 1) Reconstruction	E	Design Engineer Services									\$170,000		
	R	Construction Component										\$494,000	
	W	Construction Component										\$338,000	

	S	Construction Component										\$295,000	
	ST	Construction Component										\$320,000	
	G	Construction Component										\$255,000	
	E	Contract Administration Services										\$128,000	
King Street (Phase 2) Reconstruction	E	Design Engineer Services											\$170,000
	R	Construction Component											
	W	Construction Component											
	S	Construction Component											
	ST	Construction Component											
	G	Construction Component											
	E	Contract Administration Services											
Water Network	W	WTP - Filter surface wash replacement # 1, 2 & 3		\$650,000									
	W	WTP - PLC CPU											
	W	WTP - SCADA - HMI	\$60,000										
Sanitary Network	SA	WWTP - SCADA - HMI	\$100,000										
	SA	WWTP - Sludge Cover			\$100,000								
	SA	WWTP - Equalization Tank Cover			\$65,000								
	SA	WWTP - Grease Dewatering	\$36,000										
	SA	Pump Station Communications / Integration			\$60,000								
Engineering Studies	E	Road Needs Study			\$45,000					\$45,000			
	E	Safe Sidewalks Study			\$20,000					\$20,000			
	E	OSIM Reporting		\$3,000		\$3,000		\$3,000		\$3,000		\$3,000	
	E	Schedule "C" EA for Prescott WPCP				\$150,000							
	E	Schedule "C" EA for Prescott WTP					\$150,000						
	E	Transportation Master Plan				\$150,000							

Abbreviations: (E) Engineering, (R) Road Network, (B) Bridge, (W) Water Network, (SA) Sanitary Network, (ST) Storm Network, (G) General Construction

The 10 Year Capital Plan spending is summarized in the following table.

Table 34: 10 Year Annual Capital Spending Summary



5.3. Desired Funding Levels

*To be part of 2025 Asset Management Plan Update

6. Financing Strategy

*To be part of 2025 Asset Management Plan Update

Appendix A

Town of Prescott's Strategic Asset Management Planning Policy

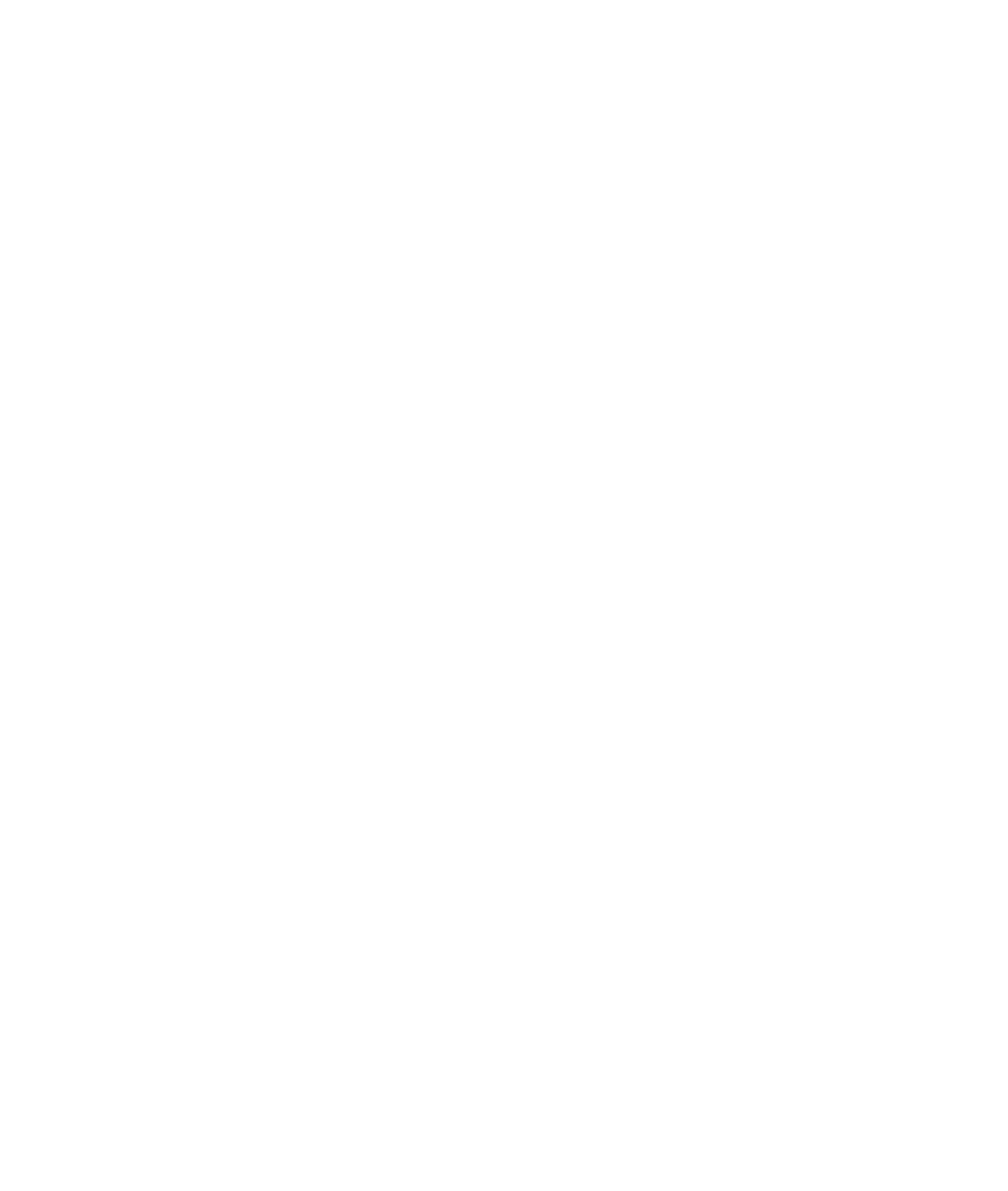
Appendix B

Road Network Figures



Appendix C

Water Network Figures



Appendix D

Sanitary Network Figures



Appendix E

Storm Network Figures





Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy

Policy

The Corporation of the Town of Prescott is committed to providing services to residents in a fiscally responsible manner that support a healthy and vibrant community. With this commitment in mind, assets must be managed in a way that allows the Town to achieve its goals, plans and policies.

The asset management plans and progress made on the plans will be considered annually in the development of the Town's capital budgets, operating budgets, and long-term financial plans.

Staff will reference the asset management plan to determine forecasted spending needs identified in the plan, verify progress made on the plan to identify potential gaps, and prioritize spending needs, based on the gaps identified in the plan and recent developments, for the year to be budgeted for.

Asset management planning will be aligned with the Town's Official Plan. The asset management plans will reflect how the community is projected to change and the related asset impact. The Town will achieve this by consulting with those responsible for managing the assets to analyze the future costs and viability of projected changes. Methods, assumptions, and data used in the selection of projected changes should be documented to support the recommendations in the Asset Management Plan.

Climate change and environmental impact will be considered as part of the Town's risk management approach embedded in local asset management planning methods. This approach will balance the potential cost of vulnerabilities to climate change impact and other risks with the cost of reducing these vulnerabilities. The decision making process will also consider the environmental impact of choosing particular materials or assets and seek to reduce the overall environmental impact over the life and disposal of the asset. A balance will be struck in the levels of service delivered through operations, maintenance schedules, disaster response plans, contingency funding, and capital investments. The Town will continue to work with our partners in regard to climate change mitigation and adaptation.

The Town recognizes the need for stakeholder input into the planning process and will foster informed dialogue using the best available information.



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

Definitions

In this policy the following definitions are used:

Asset management Plan - Means a strategic document that states how a group of assets are to be managed over a period of time. The plan describes the characteristics and condition of infrastructure assets, the levels of service expected from them, planned actions to ensure the assets are providing the expected level of service, and financing strategies to implement the planned actions.

Capitalization Thresholds – The Town's Asset Management Policy applies to all assets whose role in service delivery requires deliberate management by the Town. The Service-focus intent of this policy differentiates its requirements for identifying assets from the capitalization thresholds which are developed for the purposes of financial reporting. For this reason, the capitalization threshold developed for financial reporting will not be the guide in selecting the assets covered by the asset management planning process.

Infrastructure - Means municipal tangible capital assets primarily for public use or benefit in Ontario.

Purpose

The purpose of this policy is to establish consistent standards and guidelines for management of the Town's assets applying sound technical, social, and economic principles that consider present and future needs of users, and the service expected from the assets. This means balancing the total lifecycle cost of ownership and service levels that best meet the needs of the community while being cognizant of the risk of failure that is acceptable. The standards and guidelines must adhere to the following:



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

Vision and Goals

The Town will proactively manage its assets to achieve:

- Effective delivery of service
- Supporting sustainability and economic development
- Employing prudent financial planning and decision making methodologies

The goals of this of this policy are to:

- Provide a framework for implementing asset management to enable a consistent and strategic approach at all levels of the organization
- Provide guidance to staff responsible for the asset management program

Statutory Requirements

The Infrastructure for Jobs and Prosperity Act, 2015 sets out principles to guide asset management planning in municipalities in Ontario. The Town of Prescott will strive to incorporate the following principles whenever possible into the day to day operation of the Town.

Forward looking: The Towns shall take a long-term view while considering demographic and economic trends in the Region.

Budgeting and planning: The Town shall take into account any applicable budgets or fiscal plans, such as fiscal plans released under the Fiscal Transparency and Accountability Act, 2004 and Budgets adopted under Part VII of the Municipal Act, 2001.

Customer Focused: The Town will have clearly defined levels of service and apply asset management practices to maintain the confidence of customer in how the Town's assets are managed.

Service Focused: The Town will consider all the assets in a service context and take into account a coordinated approach to optimizing those assets.



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

Risk Based: The Town will manage the risks associated with attaining the desired level of service by focusing resources, expenditures, and priorities based upon risk assessments, and the corresponding cost/benefit, recognizing that public safety is paramount.

Prioritizing: The Town shall clearly identify infrastructure priorities which will drive investment decisions.

Economic Development: The Town shall promote economic competitiveness, productivity, job creation, and training opportunities.

Transparency: The Town shall be evidence-based and transparent. Additionally, subject to any prohibition under an Act or otherwise by law on the collection, use, or disclosure of information, the Town shall make decisions with respect to infrastructure based on information that is publicly available or made available to the public and share information with implications on infrastructure and investment decisions with the Government and broader public sector entities.

Consistency: The Town shall ensure the continued provision of core public services.

Environmental conscious; the Town shall minimize the impact of infrastructure on the environment by respecting and helping maintain ecological and biological diversity, by augmenting resilience to effects of climate change and by endeavouring to make use of acceptable recycled aggregates.

Health and safety: The Town shall ensure that the health and safety of workers involved in the construction and maintenance of infrastructure assets is protected.

Community focused: The Town shall promote community benefits, being the supplementary social and economic benefits arising from an infrastructure project that are intended to improve the well-being of a community affected by the project, such as local job creation and training opportunities, improvement of public spaces within the community, and promoting accessibility for persons with disabilities.

Value Based Affordability: The Town will chose practices, interventions, and operations that aim at reducing the total life cycle costs of an asset, while maintaining the acceptable



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

level of service. Decisions are based on balancing the level of service, with risks, and costs.

Innovation: the Town shall create opportunities to make use of innovative technologies, services and practices, particularly where doing so would utilize technology, techniques, and practices developed in Ontario.

In addition the Town must adhere to the requirements outlined in the Minimum Maintenance Standards currently in force and any other legislation specific to the Municipality.

Existing Plans and Policies

The Town has developed and adopted an Official Plan, an Emergency Management Plan, a Multi-Year Accessibility Plan, a Community Improvement Plan, an Asset Management Plan, and Recreation Master Plan. These plans were designed to meet the legislative requirements and work together to achieve the Town's mission of providing innovation and excellence in service delivery. These plans will be reviewed regularly by staff and annual spending requirements in support of the plans' objectives will be incorporated into the budgeting process. All of the Town's plans rely to some extent on the physical assets owned by the Town and the commitment of staff to ensure their strategic use. This includes the long term maintenance, repair, and replacement of existing assets along with the acquisition of new assets to meet the evolving needs in the Town.

In addition, the existing Town policies complement the planning documents by providing details for the implementation of strategic objectives.



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

Guiding Principles

The policy requires the commitment of key stakeholders within the Town's organization to ensure the policy contains a clear plan that can be implemented, reviewed and updated.

Council, on behalf of the citizens, are entrusted with the responsibility of overseeing the management of the assets. They will approve the Asset Management Planning documents and required updates every five years. They will review management's implementation of the plan as part of the annual budget process. They will support efforts to improve the plan and ensure it includes changes necessitated by updates to other Town strategic documents.

Staff will oversee the policy implementation and ensure both the Asset Management Plan and the Asset Management Policy are in compliance with Provincial Asset Management regulations. Management will ensure that current year and long range asset requirements are incorporated into the budget presented to Council annually. Management will update the Policy and Plan to reflect changes as needed and present them for Council approval at least every five years. These changes will include those reflected in the updates to the Development Charges Study, Roads Needs Study, Structural assessment reports, and all other condition assessments commissioned for assets covered by the plan.

Roles and Responsibilities

The Town's Asset Management Program requires a wide range of participation to ensure that it is executed and used effectively for the management of Town assets. The following parties have duties and responsibilities in the asset management program:

Council

- Approve the Asset Management Policy and direction of the Asset Management Program.
- Maintain adequate organization and financial resources to support the core practices of the Asset Management Program.



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

- Prioritize effective stewardship of assets in relation to establishing Township policies and plans and future budgets.
- Establish and monitor levels of service.

Senior Management Team

- Develop policy and update as required.
- Provide corporate oversight to goals and provide direction in support of the Asset Management Program.
- Provide departmental staff coordination
- Develop and monitor levels of service and make recommendations to Council.
- Track, analyze and report on the Asset Management Program's progress and results.

Chief Administrative Officer / Treasurer

- Provide organization-wide leadership in Asset Management practices and concepts.
- Ensure senior management team staff coordination and participation.
- Manage policy and policy updates.
- Coordinate, data management, and track Asset Management program implementation and progress.



Policy Type: Finance
Policy #: FN-200-01
Approved by Council on:

Finance – Asset Management Policy cont'd

Director of Operations

- Provide leadership in Asset Management practices and concepts of municipal infrastructure assets.
- Develop the Asset Management Program component for assessing existing infrastructure and planning requirements for the lifecycle evaluation of these assets.
- Monitor levels of service.
- Coordinate, data management, and track Asset Management program implementation and progress.
- Coordinate and track Asset Management program for assets.

Departmental Staff

- Utilize the new business processes and technology tools developed as part of the Asset Management Program.
- Participate in implementation task teams to carry-out Asset Management activities.
- Implement and maintain the desired level of service.



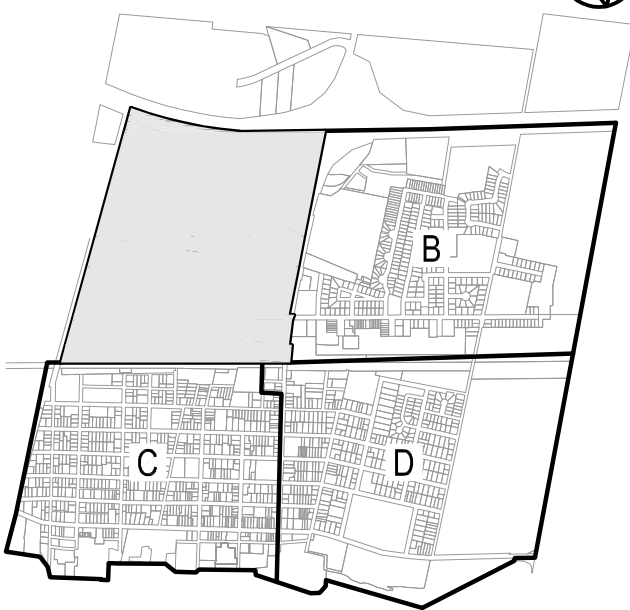
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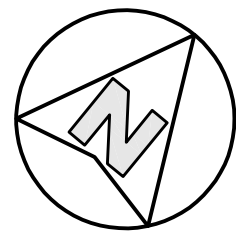
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- EXISTING HYDRANT
- EXISTING VALVE
- 150 NOMINAL PIPE DIAMETER
- CU EXISTING COPPER PIPE
- CI EXISTING CAST IRON PIPE
- DI EXISTING DUCTILE IRON PIPE
- PVC EXISTING POLYVINYL CHLORIDE PIPE

KEYPLAN



2020/07/13	1	UPDATED WATERMAIN LAYOUT
DATE	No.	REVISION

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CLIENT:

PRESCOTT
EST. 1784
THE FORT TOWN

PROJECT:

**PRESCOTT WATER
AND SEWER ATLAS**

TITLE:

WATERMAIN ATLAS

SCALE:

1:2000

DESIGNED BY:

E.M.

DRAWN BY:

E.M./K.B.W.

CHECKED BY:

M.M.

JOB NO:

17158

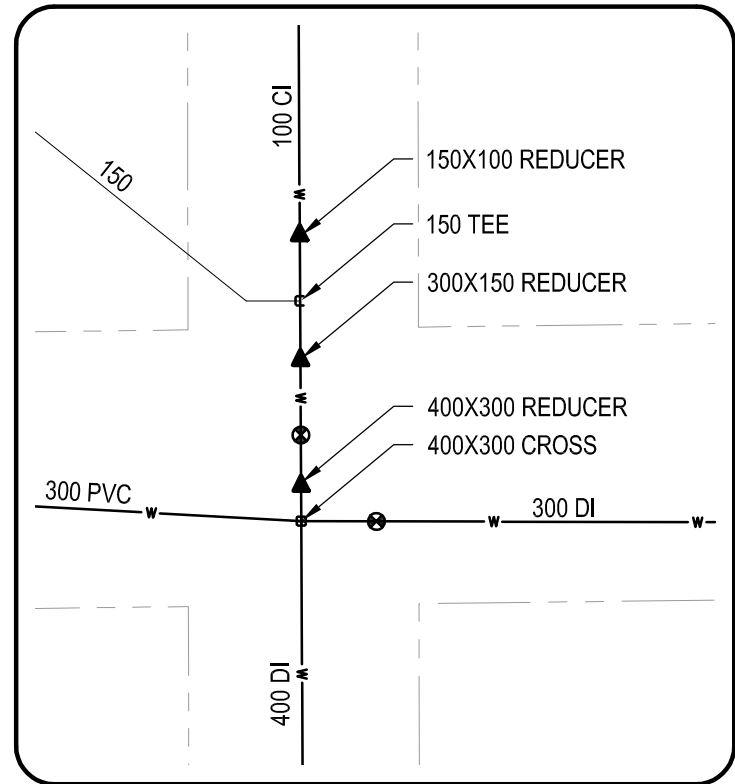
DATE:

2017/08/16

DRAWING NO.

C3.1

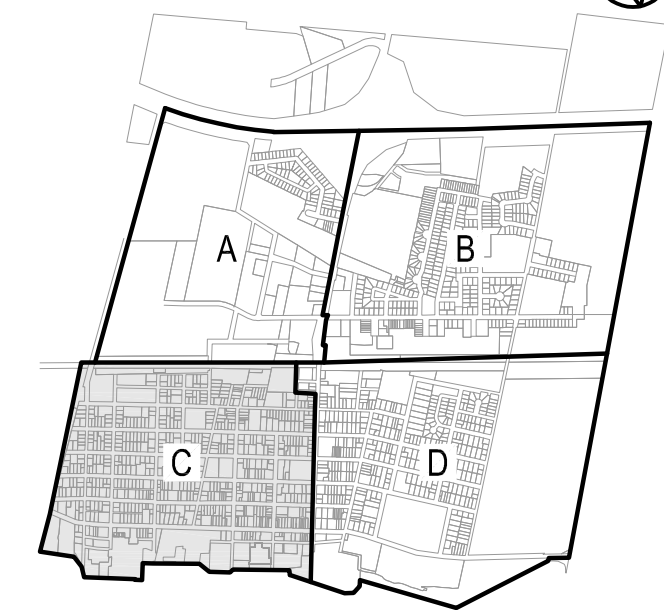
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- EXISTING VALVE
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- EXISTING COPPER PIPE
- EXISTING CAST IRON PIPE
- EXISTING DUCTILE IRON PIPE
- EXISTING POLYVINYL CHLORIDE PIPE

KEYPLAN



2020/07/13	1	UPDATED WATERMAIN LAYOUT
DATE	No.	REVISION

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EST 1784
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PROJECT:

**PRESCOTT WATER
AND SEWER ATLAS**

TITLE:

WATERMAIN ATLAS

SCALE:

1:2000

DESIGNED BY:

E.M.

DRAWN BY:

E.M./K.B.W.

CHECKED BY:

M.M.

JOB NO:

17158

DATE:

2017/08/16

DRAWING NO.

C3.3

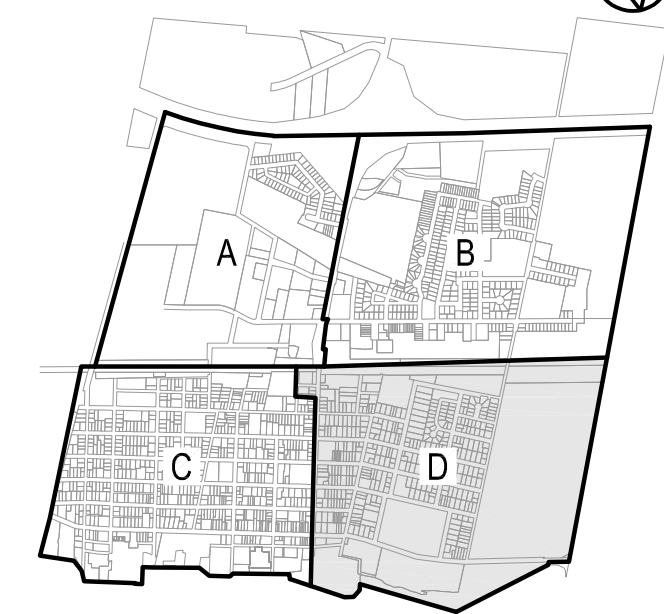
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●	EXISTING VALVE
150	NOMINAL PIPE DIAMETER
CU	EXISTING COPPER PIPE
CI	EXISTING CAST IRON PIPE
DI	EXISTING DUCTILE IRON PIPE
PVC	EXISTING POLYVINYL CHLORIDE PIPE

KEYPLAN



2020/07/13	1	UPDATED WATERMAIN LAYOUT
DATE	No.	REVISION

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EST 1784
THE FORT TOWN

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**PRESCOTT WATER
AND SEWER ATLAS**

TITLE:

WATERMAIN ATLAS

SCALE:

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M.M.

JOB NO:

17158

DATE:

2017/08/16

DRAWING NO.

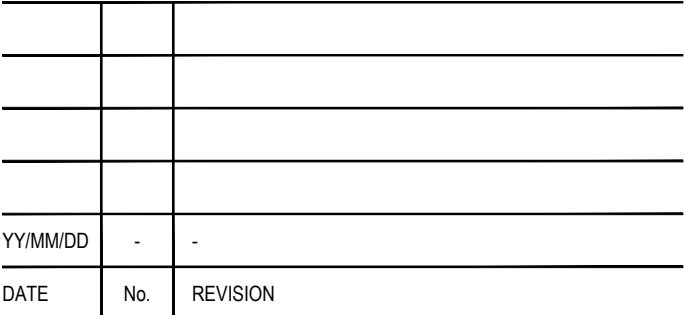
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11/2/2021 21:00 - Present AMPI6 N David 2 Cull 3 N Non-conduction 3 1 EGSS Infection Simmons 17458 C4.1-3 Sanitary 11/2/2021 21:00 Present



SA EXISTING SANITARY SEWER
 FM EXISTING SANITARY FORCEMAIN
 ● EXISTING SANITARY MANHOLE
 ► DIRECTION OF FLOW
 200 PIPE SIZE DIAMETER
 A2700 MANHOLE NUMBER

PIPE CONDITION FROM CAMERA INSPECTION ASSESSMENT:
 — INSPECTED/NO COMMENTS
 — EXCELLENT
 — GOOD
 — FAIR
 — POOR
 — IMMEDIATE ACTION REQUIRED



PRESCOTT
EST 1784
THE FORT TOWN

PRESCOTT WATER AND SEWER ATLAS

SANITARY SEWER ATLAS

C1.2

M:\2021\21049 - Prescott ANPI\6.0 Dwg\6.2 Civil\3.0 Non-production\3.1 FGS\Inspection Summary\17158-C1-1-3-Sanitary_Atlas.dwg Apr 20, 2022-2:24pm BY:(Adam.Poaps)



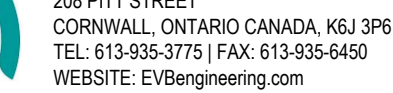
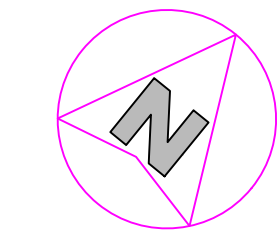
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FM	EXISTING SANITARY FORCEMAIN
●	EXISTING SANITARY MANHOLE
►	DIRECTION OF FLOW
200	PIPE SIZE DIAMETER
A2700	MANHOLE NUMBER

PIPE CONDITION FROM CAMERA INSPECTION ASSESSMENT:

Yellow	INSPECTED/NO COMMENTS
Green	EXCELLENT
Blue	GOOD
Purple	FAIR
Orange	POOR
Red	IMMEDIATE ACTION REQUIRED

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PRESCOTT
EST 1784
THE FORT TOWN

PRESCOTT WATER AND SEWER ATLAS

SANITARY SEWER ATLAS

C1.4

New Manhole No.	Old Manhole No.	T/G (m)	North Invert (m)	South Invert (m)	West Invert (m)	East Invert (m)
A6075	ST5115					
A6080	ST5117					
A6085	ST5118					
A6090	ST5116					
A6095	ST5102					
A6100	ST5103					
A6105	ST5206					
A6110	ST5119					
A6115	ST801					
A6120	ST5201					
A6125	ST5202					
A6130	ST5203					
A6135	ST5204					
A6140	ST803					
A6145	ST804					
A6150	ST5107					
A6155						
A6160	ST5108					
	ST5109					
	ST5110					

LEGEND:

- ST

EXISTING STORM SEWER
- O

EXISTING STORM MANHOLE
- ▣

EXISTING CATCHBASIN
- EXISTING CATCHBASIN MANHOLE
- ▶

DIRECTION OF FLOW
- 200

PIPE SIZE DIAMETER
- D5120

MANHOLE NUMBER
- PIPE CONDITION FROM CAMERA INSPECTION ASSESSMENT:

INSPECTED/NO COMMENTS

EXCELLENT

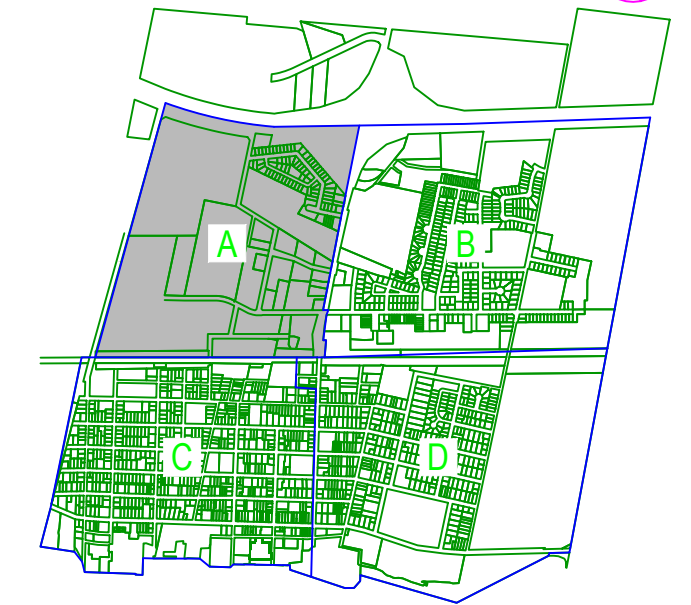
GOOD

FAIR

POOR

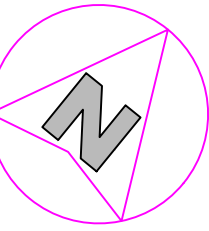
IMMEDIATE ACTION REQUIRED

KEYPLAN



YYMMDD	No.	REVISION

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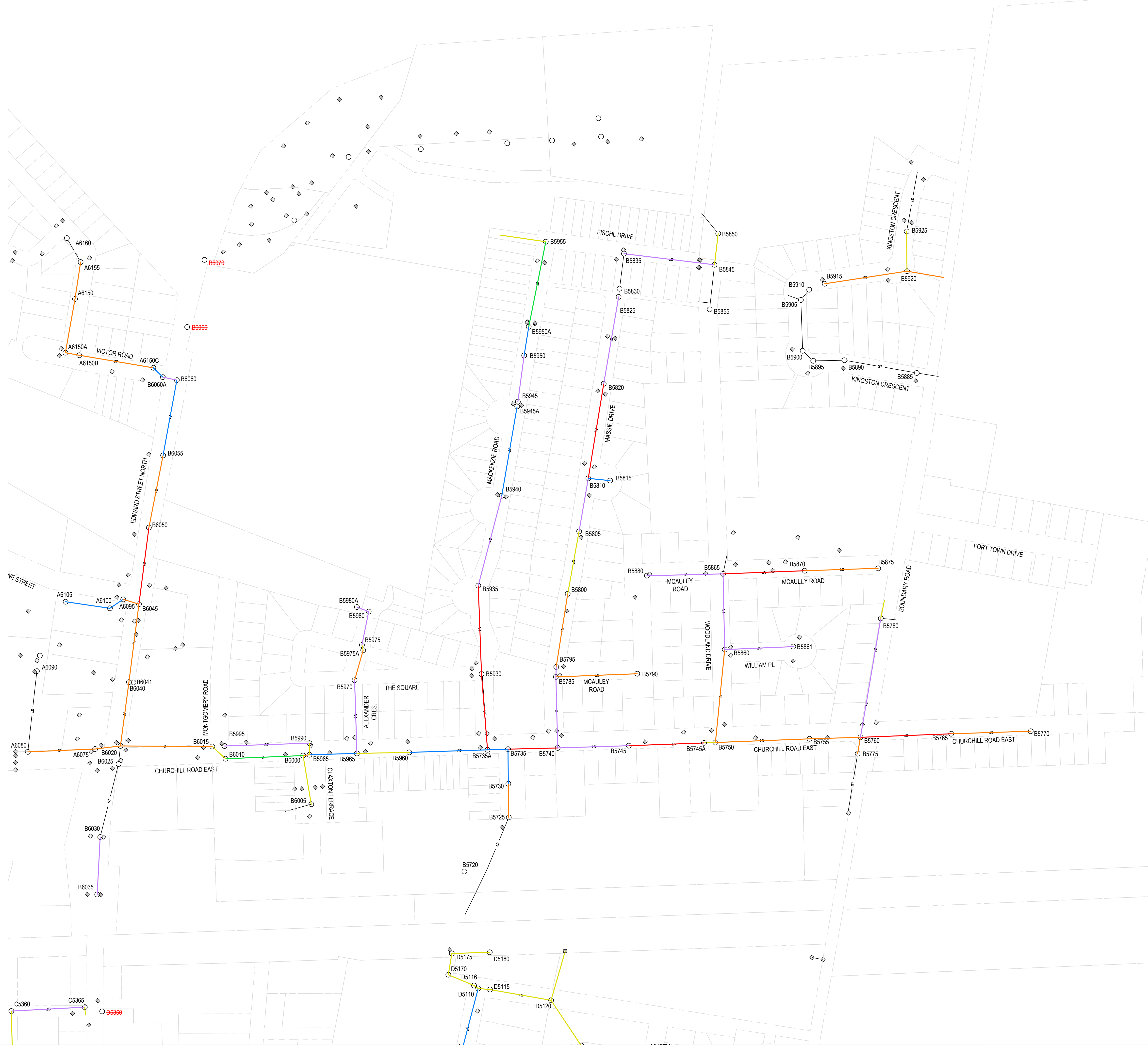
**PRESCOTT WATER
AND SEWER ATLAS**

TITLE:

STORM SEWER ATLAS

SCALE: 1:2000	JOB NO: 17158
DESIGNED BY: E.M.	DATE: 2017/08/16
DRAWN BY: E.M./K.B.W.	DRAWING NO.
CHECKED BY: M.M.	C2.1

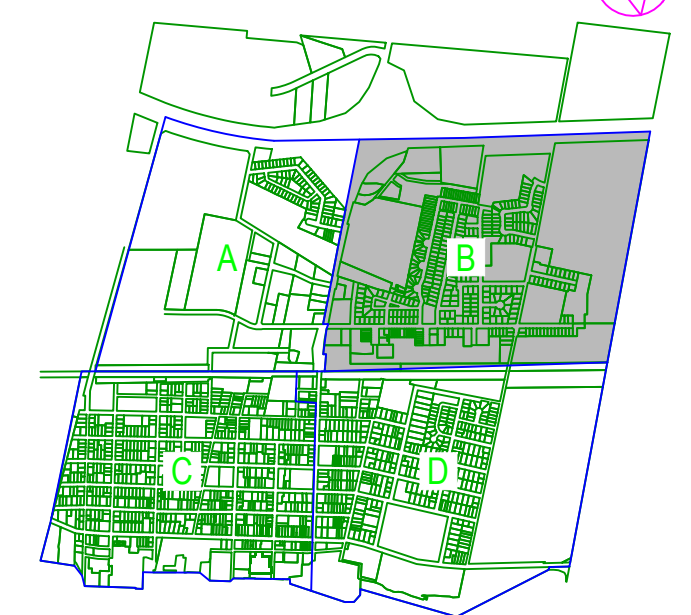
New Manhole No.	Old Manhole No.	T/G (m)	North Invert (m)	South Invert (m)	West Invert (m)	East Invert (m)
B5720	ST5051					
B5725	ST5050					
B5730	ST5065/5066					
B5735	ST5067					
B5740	ST5075					
B5745	ST5087					
B5750	ST5088					
B5755	ST5093					
B5760	ST5094					
B5765	ST5095					
B5770	ST5096					
B5775	ST5041					
B5780	ST5098					
B5785	ST5076					
B5790	ST5078					
B5795	ST5077					
B5800	ST5080					
B5805	ST5081					
B5810	ST5083					
B5815	ST5082					
B5820	ST5084					
B5825	ST5085					
B5830	ST5086					
B5835	-					
B5840	-					
B5845	-					
B5850	-					
B5855	-					
B5860	ST5089					
B5861	ST5090					
B5865	ST5091					
B5870	ST5206					
B5875	ST5092					
B5880	ST5079					
B5885	ST771					
B5890	ST702					
B5895	ST703					
B5900	ST704					
B5905	ST705					
B5910	ST706					
B5915	ST707					
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B5930	ST5071					
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B5940	ST5073					
B5945	ST5074					
B5950	-					
B5955	-					
B5960	ST5064					
B5965	ST5063					
B5970	ST5068					
B5975	ST5069					
B5980	ST5070					
B5985	ST5055					
B5990	ST5056					
B5995	ST5057					
B6000	ST5054					
B6005	ST5053					
B6010	ST5059					
B6015	ST5058					
B6020	ST5099					
B6025	ST5114					
B6030	ST5113					
B6035	ST5112					
B6040	ST5100					
B6041	-					
B6045	ST5101					
B6050	ST5208					
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B6060	ST5105					
B6065	ST5103					
B6070	ST5207					



LEGEND:

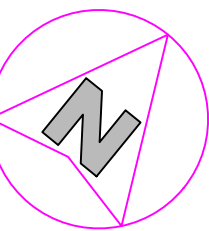
- ST EXISTING STORM SEWER
 - EXISTING STORM MANHOLE
 - EXISTING CATCHBASIN
 - EXISTING CATCHBASIN MANHOLE
 - ▶ DIRECTION OF FLOW
 - 200 PIPE SIZE DIAMETER
 - D5120 MANHOLE NUMBER
- PIPE CONDITION FROM CAMERA INSPECTION ASSESSMENT:
- INSPECTED/NO COMMENTS
 - EXCELLENT
 - GOOD
 - FAIR
 - POOR
 - IMMEDIATE ACTION REQUIRED

KEYPLAN



YYMMDD	-	-
DATE	No.	REVISION

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WEBSITE: EVBengineering.com

CLIENT:

PRESCOTT
EST. 1784
THE FORT TOWN

PROJECT:

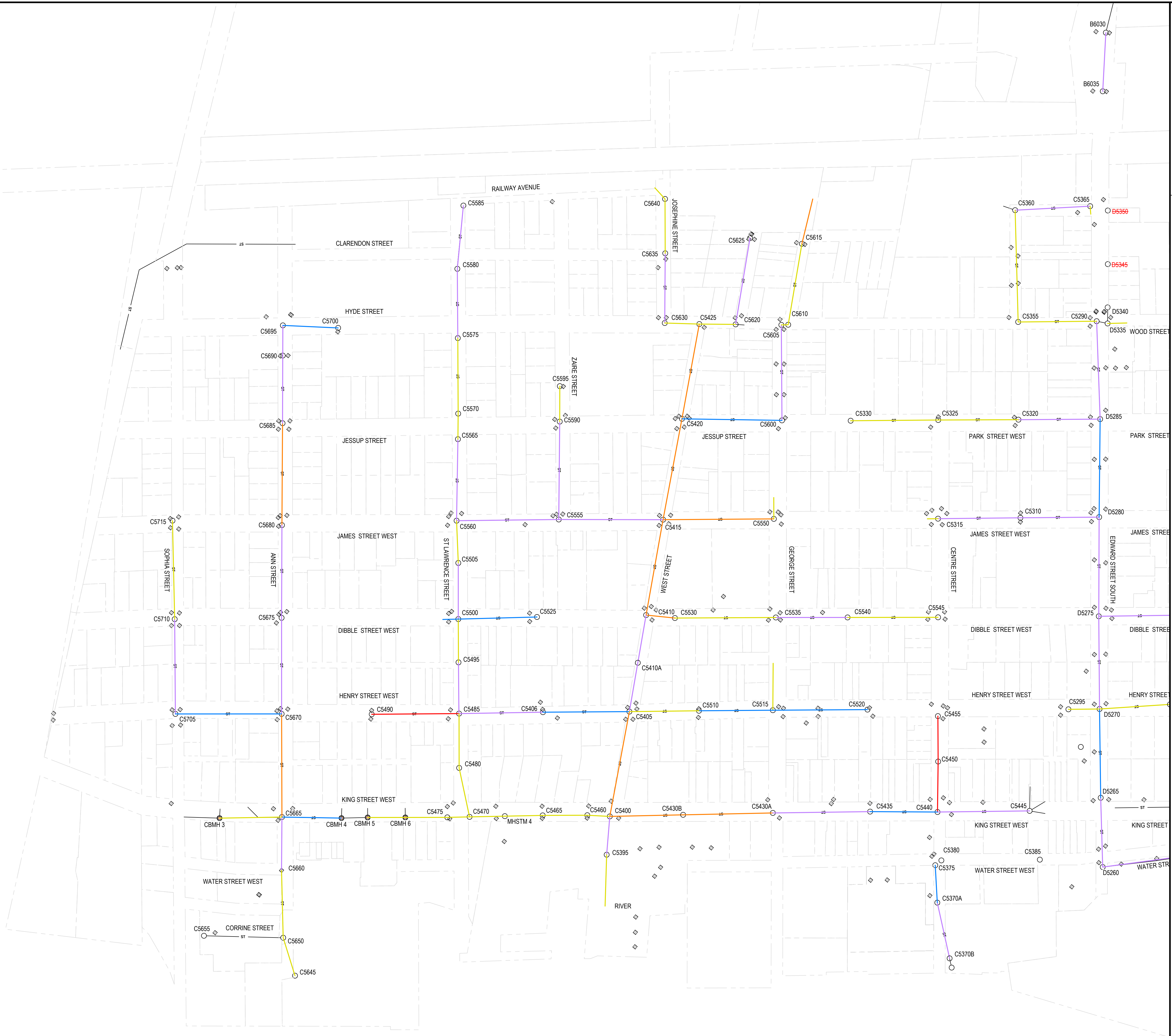
**PRESCOTT WATER
AND SEWER ATLAS**

TITLE:

STORM SEWER ATLAS

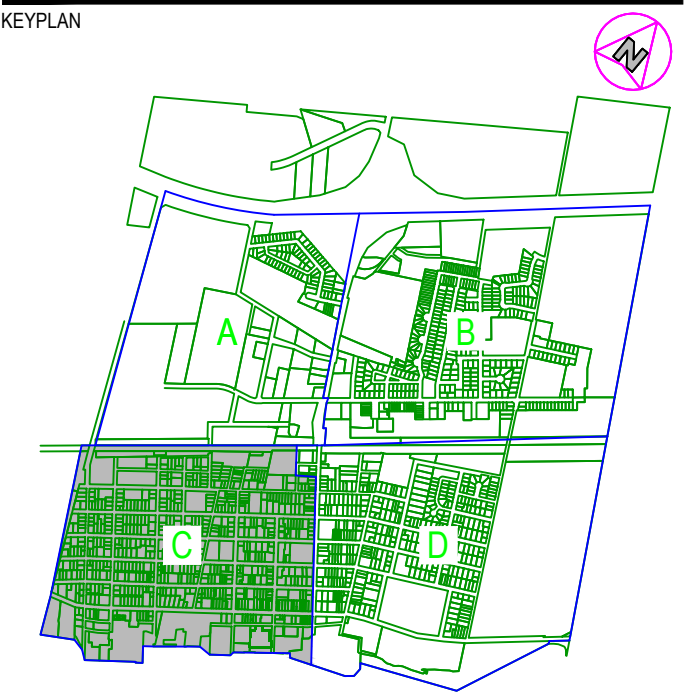
SCALE: 1:2000	JOB NO: 17158
DESIGNED BY: E.M.	DATE: 2017/08/16
DRAWN BY: E.M./K.B.W.	DRAWING NO.
CHECKED BY: M.M.	C2.2

New Manhole No.	Old Manhole No.	T/G (m)	North Invert (m)	South Invert (m)	West Invert (m)	East Invert (m)
C5295	ST408					
C5310	ST415					
C5315	ST426					
C5320	ST417					
C5325	ST418					
C5330	ST419					
C5335	ST423					
C5360	ST424					
C5365	ST425					
C5370	ST301					
C5375	ST302					
C5380	ST303					
C5385	ST304					
C5390	-					
C5395	ST201					
C5400	ST202					
C5405	ST214					
C5410	ST224					
C5415	ST231					
C5420	ST235					
C5425	ST239					
C5430	ST209					
C5435	ST210					
C5440	ST211					
C5445	ST212					
C5450	ST213					
C5455	-					
C5460	ST203					
C5465	ST204					
C5470	ST106	80.75	78.34		78.22	78.22
C5475	ST118					
C5480	-	81.67	79.53	79.45		
C5485	ST216	82.73	81.08	81.09	80.74	80.55
C5490	ST217					
C5495	ST435	84.25	82.22	82.18		
C5500	ST428	86.23	83.24	83.13	83.32	83.33
C5505	ST427	89.32	89.61	86.73		
C5510	ST219					
C5515	ST220					
C5520	ST221					
C5525	ST225					
C5530	ST227					
C5535	ST228					
C5540	ST229					
C5545	ST230					
C5550	ST234					
C5555	ST232					
C5560	ST233	91.90	89.54	89.63	89.47	89.43
C5565	ST429	95.78	94.12	93.00		
C5570	ST430	96.71	94.44	94.37		
C5575	ST431	97.23	95.49	95.23		
C5580	ST432	96.50	94.74	94.77		
C5585	ST433	95.23	94.06	93.88	93.87	
C5590	ST236					
C5595	ST237					
C5600	ST238					
C5605	ST245					
C5610	ST246					
C5615	ST248					
C5620	ST243					
C5625	ST244					
C5630	ST240					
C5635	ST241					
C5640	ST242					
C5645	OUTLET					
C5650	ST101					
C5655	ST117					
C5660	ST102					
C5665	ST103					
C5670	ST107					
C5675	ST109					
C5680	ST111					
C5685	ST113					
C5690	ST114					
C5695	ST115					
C5700	ST116					
C5705	ST108					
C5710	ST110					
C5715	ST112					



LEGEND:

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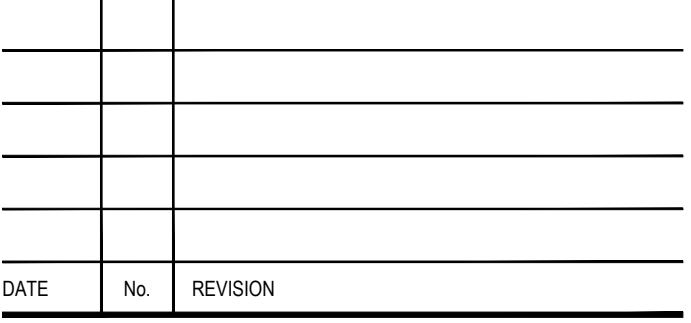
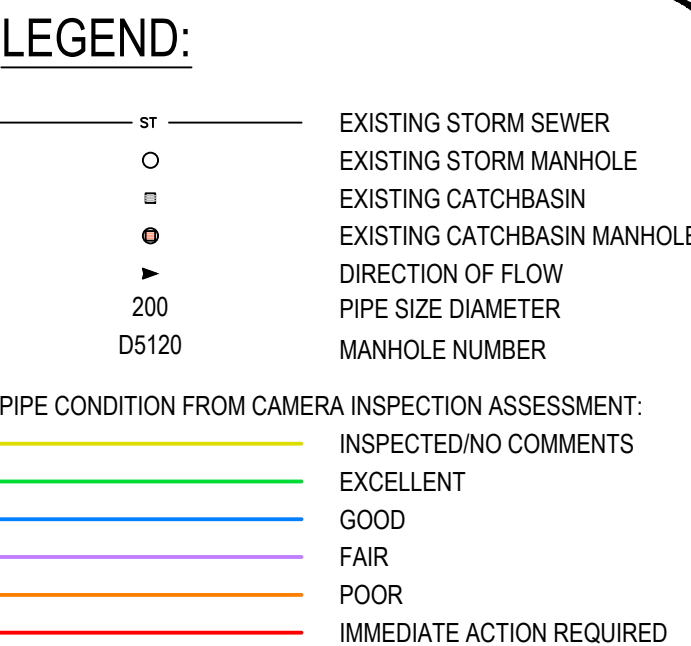


PROJECT: **PRESCOTT WATER AND SEWER ATLAS**

TITLE: **STORM SEWER ATLAS**

SCALE: 1:2000	JOB NO: 17158
DESIGNED BY: E.M.	DATE: 2017/08/16
DRAWN BY: E.M./K.B.W.	DRAWING NO.
CHECKED BY: M.M.	C2.3

M:\2021\21049 - Prescott AMP\6.0 Dwd\6.2 Civil\3.0 Non-production\3.1 FGS\Inspection Summary\17158-C2-1-4-Storm Atlas.dwg Apr 20, 2022-2:26pm BY:(Adam.Poapst)



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PRESCOTT
EST 1784
THE FORT TOWN

PROJECT

PRESCOTT WATER AND SEWER ATLAS

TITLE:

TORM SEWER ATLA

SCALE:
1.0000

1:2000
DESIGN

E.M.

DRAWN

E.M./KCHECKED
MM

JOB N°
47450

DATE:

2017/

DRAW

C2.4