

# **The Corporation of the City of Woodstock Council Agenda**

Meeting Date: Thursday October 2, 2014  
Place: Woodstock City Hall, Council Chambers  
Closed Session: No Closed  
Regular Session: 7:00 PM  
Additional Items: >  
Resolutions: Councilor Ron Fraser will read the resolutions

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- 1. Disclosure of Conflict of Interest**
- 2. Disclosure of New Business**
- 3. Matters arising from the Minutes**
- 4. Minutes**

[September 18, 2014 – Regular council minutes](#)

- 5. Additions to the Agenda**
- 6. Presentations**
- 7. Delegations**

Any person or group of persons present as a Delegation authorized to address Council shall be limited to a maximum time of 5 minutes. In the case of a rebuttal, the same time limitation shall apply. Persons wishing to address Council must notify the Clerk's Office by 2:00 p.m. on the Friday prior to the date of the meeting, with a copy in writing of the matter. Once the agenda is made available to the public, if a matter is listed on the agenda to which anyone is desirous of addressing the Council in person on behalf of himself/herself or otherwise, such person or groups of persons shall notify the clerk.

[7a – Matt Dawe/Gabe Metron, Public Sector Digest, City of Woodstock Asset Management Plan](#)

## **Consideration of Delegations**

- 8. Consideration of Planning Reports**
- 9. Consideration of Correspondence**

[9a – Beckie McCulley, Trucking for A Cure to Support Canadian Breast Cancer Foundation – Request for in-kind donation of 20 picnic tables, with delivery & pick Up to help support of the October 4, 2014 Convoy event.](#)

### Recommendation:

That the request for in-kind support for Trucking for a cure of 20 picnic tables, delivery and pickup be:

Supported      Or      Declined

[9b – Tracy Bucholtz, Canadian Cancer Society – Request for in-kind donation from various departments to help support the second annual Cool Running Trail Race on October 25, 2014 at Roth Park.](#)

### Recommendation:

That the request for in-kind support for the second annual Cool Running trail Race on October 24, 2014 from Canadian Cancer Society be:

Supported      Or      Declined

**10. Mayor's Reports**

**11. Councillor Reports**

**12. Department Reports**

The following resolutions have been prepared to facilitate Council's perusal of the various matters and are suggested for consideration

**A - Administrative Services**

[A-1 – Asset Management Plan](#)

Recommendation:

That City Council accept the 2014 Asset Management Plan for the City of Woodstock.

**G - Chief Administrative Officer**

[G-1 - City of Woodstock v County of Oxford – Cross Border Servicing](#)

Recommendation:

That City Council authorizes the Mayor and Clerk to sign the Minutes of Settlement and that the City Solicitor is directed to withdraw the legal proceeding before Superior Court.

[G-2 – Budget 2015](#)

Recommendation:

That City Council approve the 2015 Budget Deliberation Timetable.

And further that City Council directs Administration to prepare a 2015 base budget that provides for a continuation of current programs and services

**13. Special Committee and Advisory Task Force Reports**

**14. Notice of Motion**

**15. New Business**

**16. Draft By-laws**

**17. Questions and Address by members of council**

This portion of the meeting is not recorded.

**18. Adjournment**

A regular meeting of the Woodstock City Council was held on the above mentioned date commencing with Open Session at 7:00 p.m. in Council Chambers at City Hall followed by Closed Session in Committee Room A at 8:41p.m.

All members of Council were present with the exception of Councillor D. Tait who left at 8:30. Mayor Pat Sobeski chaired the meeting.

### **Minutes**

Moved by Councillor B. Bes

Seconded by Councillor S. Talbot

That the minutes of the meeting of Woodstock City Council held on Thursday September 4<sup>th</sup> 2014 be adopted.

Carried

### **Additions to the Agenda**

Moved by Councillor B. Bes

Seconded by Councillor S. Talbot

That the following items be added to the agenda:

- Delegation a- Niklas Van Haeren – Re planning report a
- Delegation b- Jeff Wettlaufer – Re planning report b

Carried

### **Presentations**

a) Mayor Pat Sobeski, on behalf of the City Council presented the 2014 Student Civic Award of Excellence to John Vu of St. Mary's High school.

b) Mayor Pat Sobeski, on behalf of City Council presented the City Beautiful Awards to the following:

Place		Address	Name	Phone	Category
1st	723	Dundas St. – Front Memorial Garden	Old St. Paul's Anglican Church	519-537-3912	Institutional
2nd	975	James St.	Domestic Abuse Services Oxford	519 539 7488 Ext. 238	Institutional
1st	372	Buller	Pat McFarland	519-536-9122	Turf-Free
2nd	752	Boyle Dr	Zofia & John Ekert	519-537-5617	Turf-Free
1st	1515	Commerce Way	Sysco	519-533-4000	Industrial
2nd	1127	Ridgeway Rd	Execulink Telecom	519-456-7200	Industrial
1st	663	Henry St.	Susan & Trevor Jones	519 539 3001	Unique Garden
2nd	701	Lancaster	Kathleen & Clifford	519-537-5623	Unique

Place		Address	Name	Phone	Category
			Hie		Garden
1st	540	Spitfire Condominiums	(Ted Murray)	519-535-0934	Multi-Residential
2nd	50-46	Cedarview Gracious Retirement Living	511 Finkle St.	519-535-0934	Multi-Residential
1st	768	Glenwood Road	Pauline E. Enright	519-536-9439	New Landscape Residential
2nd	668	Devonshire	Danny & Christine Finoro	519-539-8107	New Landscape Residential
1st	320	Drew St	Michael Sills	519-533-6095	Residential
2nd	501	Lakeview Dr.	Darryl & Amy Klein-Geltink	519-290-0717	Residential
1st	575	Peel St	Alzheimer Society of Oxford	519-421-2466	Commercial
2nd	536	Althlone	Farm Credit Canada	519-539-9839	Commercial

### **Delegations**

a) Niklas Van Haeren – Re planning report a  
Mr. N. Van Haeren, the applicant, spoke in favour of the application. This item is dealt with under Planning Report a.

b) Jeff Wettlaufer – Re planning report b  
Mr. J. Wettlaufer, the applicant, spoke in favour of the application. This item is dealt with under Planning Report b.

### **Consideration of Planning Reports**

a) ZN 8-14-10-Application for Zone Change-City of Woodstock, 275 Tecumseh St.

Moved by Councillor R. Fraser

Seconded by Councillor J. Northcott

That Woodstock City Council approve the amending Zoning By-law (File ZN 8-14-10) for lands comprising Part Lot 22, Concession 1 (Blandford), in the City of Woodstock, whereby the applicant proposes to change the zoning from 'Transitional Industrial Zone (M4)' to 'Special Transitional Industrial Zone (M4-8)' to permit a pharmaceutical and drug product industry on the subject property as well as retain all the uses permitted in the M4 zone.

Carried  
Action-Clerks  
-Planning

b) SB 14-01-8-2143677 Ontario Inc.-Application for Draft Plan of Subdivision-Village of Sally Creek

Moved by Councillor S. Talbot

Seconded by Councillor B. Bes

That Woodstock City Council advise the County of Oxford that they support the application by 2143677 Ontario Inc., to create a draft plan of residential subdivision (File No.: SB14-01-8) as applied to lands consisting of Lots 1 & 2, Plan 41M-257 and Block 29, Plan 41M-243, in the City of Woodstock, subject to the following conditions of draft plan approval:

1. This approval applies to the draft plan of subdivision, submitted by 2143677 Inc. (File SB14-01-8) and prepared by J.B. Chambers Consulting Engineers Limited, (dated February 10, 2014, revised July 30, 2014), as shown on Plate 3 of Report No. 2014-229, comprising land described as Lots 1 & 2, Plan 41M-257 and Block 29, Plan 243, in the City of Woodstock, and showing 30 single detached lots, 5 semi-detached lots, and two (2) road reserves and a walkway, all served by one (1) new local street, subject to the following modifications:
  - a. That an overland flow route for storm water runoff from Oxford Road 59 be identified and that the said route be identified within an easement to the satisfaction of the County of Oxford Public Works Department, if necessary.
2. The owner agrees in writing to satisfy all requirements, financial and otherwise, of the City of Woodstock and the County of Oxford regarding the construction of roads, installation of services and drainage facilities, and other matters pertaining to the development of the subdivision including the installation of sidewalks within the development as well as along the Oxford Road 59 frontage, the abandonment of easements and services in addition to the payment for lighting along Oxford Road 59 and payment for street trees on the subject property.
3. The owner agrees in writing to satisfy all the requirements of the appropriate authority regarding the installation of the electrical distribution system and any other matters pertaining to the development of the subdivision.
4. The development shall be phased to the satisfaction of the City of Woodstock.
5. Prior to final approval, the owner shall have a qualified acoustical consultant prepare a noise study concerning the impact of traffic noise from Oxford Road 59 and, to apply alternative site design and noise abatement measures as identified by the study. Such measures shall be in accordance with Ministry of Environment and Climate Change standards and are to be reviewed and approved by the City of Woodstock Engineering Department and the County of Oxford Public Works Department.
6. Prior to the signing of the final plan by the County, all lots/blocks shall conform to the zoning requirements of the City Zoning By-Law. Certification of lot areas, lot frontages, and lot depths shall be obtained from an Ontario Land Surveyor retained by the developer.

7. Prior to final approval of the subdivision plan, or any phase of development, the owner shall receive confirmation from County Public Works and the City that there is sufficient capacity in the water and sewage systems to service the plan of subdivision.
8. The subdivision agreement shall make provision for the assumption and operation by the County of Oxford of the water distribution system and sewage collection system within the draft plan, subject to the approval of the County of Oxford Public Works Department.
9. All walkways and 1-foot reserves shall be dedicated to the appropriate authority, free of all costs and encumbrances.
10. Prior to the approval of the final plan by the County, such easements as may be required for utility or drainage purposes shall be granted to the appropriate authority.
11. The owner agrees in writing that turning circles will be provided as necessary to the satisfaction of the City of Woodstock.
12. The road allowances included in the draft plan shall be dedicated as public highways.
13. The streets included in the draft plan shall be named to the satisfaction of the City.
14. The subdivision agreement shall contain provisions where the owner shall erect fencing adjacent to all City owned lands to the satisfaction of the City of Woodstock.
15. The subdivision agreement shall contain provisions where the owner shall construct a concrete sidewalk (Block 38) and install fencing as per the City's standards and this block shall be dedicated to the satisfaction of the City of Woodstock.
16. The subdivision agreement(s) shall be registered by the City of Woodstock against the lands to which it applies. The agreement(s) will include provisions for the following:
  - a) Any abandoned wells are to be properly capped in accordance with the relevant legislation in effect at the time;
  - b) Any former septic facilities are to be properly decommissioned and appropriate soil remediation measures undertaken;
  - c) Any former steam tunnels are to be demolished, and associated piping and asbestos material be removed and the affected lands appropriately restored;
  - d) All underground service locations that may conflict with proposed building envelopes be identified.
17. The subdivision agreement shall contain provisions that prior to grading and issuance of building permits, that a final storm water management plan as well as detailed sediment and erosion control plan, and servicing and grading plans showing the measures identified in the stormwater management and sediment and erosion control plans be reviewed and approved by the City of Woodstock and the Upper Thames River Conservation Authority and further, the subdivision agreement shall include

provisions for the owner to carry out or cause to be carried out any necessary works in accordance with the approved plans and reports.

18. Prior to the approval of the final plan by the County of Oxford, the owner shall agree in writing to satisfy the requirements of Canada Post Corporation with respect to implementing their requirements for advising prospective purchasers of the method of mail delivery, the location of temporary or temporary Centralized Mail Box locations during construction and, the provision of public information regarding the proposed locations of permanent Centralized Mail Box locations.
19. Prior to the approval of the final plan by the County of Oxford, the owner shall agree in writing to satisfy the requirements of Union Gas that the owner/developer provide Union Gas Limited with the necessary easements and/or agreements required for the provision of gas services, in a form satisfactory to Union Gas Limited.
20. Prior to the approval of the final plan by the County of Oxford, the owner shall provide to the County clearance from the Union Gas that Condition Number 19 has been met to their satisfaction. The clearance letter shall include a brief statement detailing how this condition has been satisfied.
  - Prior to the approval of the final plan by the County of Oxford, the owner shall provide clearance to the County from Canada Post Corporation that Condition Number 18 has been met to their satisfaction. The clearance letter shall include a brief statement detailing how this condition has been satisfied.
21. Prior to the signing of the final plan, the County of Oxford shall be advised that Condition 17 has been satisfied as per the requirements of the Upper Thames River Conservation Authority. The clearance letter shall include a brief statement detailing how this condition has been satisfied.
22. Prior to the approval of the final plan by the County of Oxford, the owner shall provide clearance to the County from the City of Woodstock that Conditions Number 1 to 7 inclusive, and 9 to 17 inclusive have been met to their satisfaction. The clearance letter shall include a brief statement for each condition detailing how each has been satisfied.
23. Prior to the approval of the final plan by the County of Oxford, the owner shall secure clearance from the County of Oxford Public Works Department that Conditions 1, 2, 5, 7, 8 and 10 have been met to their satisfaction. The clearance letter shall include a brief statement for each condition detailing how each has been satisfied.
24. This plan of subdivision shall be registered within three (3) years of the granting of draft approval, after which time this draft approval shall lapse unless an extension is authorized by the County of Oxford.

Carried  
Action-Clerks  
-Planning

c) ZN 8-14-13-Dave and Kim Piggott-431 & 435 Main Street

Moved by Councillor S. Talbot

Seconded by Councillor B. Bes

That Woodstock City Council approve the amending Zoning By-law (File ZN 8-14-13) for lands comprising Lots 11 & 12, Plan 54 in the City of Woodstock, whereby the applicant proposes to change the zoning from 'Entrepreneurial District Zone (C3)' to 'Special Entrepreneurial District Zone (C3-5)' to add a health club to the list of permitted uses on the subject property.

Carried

Action-Clerks

-Planning

## **Department Reports**

### **A - Administrative Services**

A-1 Statement of Revenue and Expenditure and Statement of Capital Expenditures for the period ending August 31<sup>st</sup> 2014

Moved by Councillor B. Bes

Seconded by Councillor S. Talbot

That Council receive the Statement of Revenue and Expenditure and the Statement of Capital Expenditures for the period ending August 31, 2014 as information.

Carried

### **B - Engineering Department**

B-1 Provincial and Federal Funding Programs

Moved by Councillor J. Northcott

Seconded by Councillor D. Tait

That City Council authorizes the submission of an Expression Of Interest to the Ministry of Municipal Affairs and Housing (MMAH) for funding from the OCIF in the amount of \$467,550 for the Warwick Flood Remediation Construct Flood Mitigation Measures project and for funding from the SCF in the amount of \$1,320,000 for the Bulk and HHW Depot project.

Carried

Action-Engineering

B-2 Brick Pond Land Traffic Issues

Moved by Councillor R. Fraser

Seconded by Councillor B. Bes

That Council directs the speed limit on Brick Pond Lane be reduced to 40 km/hr and the appropriate by-law be considered.

Motion Defeated



Moved by Councillor D. Tait

Seconded by Councillor P. Plant

That the report in regards to Brick Pond Lane traffic issues be received as information.

Carried

## **D - Parks and Recreation**

### **D-1 Pittock Public Land Review**

Moved by Councillor J. Northcott

Seconded by Councillor P. Plant

That Council authorizes city staff to continue discussions/negotiations with UTRCA and to obtain feedback from residents regarding the new management concept for Pittock Lake lands.

Carried

Action-Parks and Recreation

## **E - Development Commissioner**

### **E-1 Request for Sponsorship of Habitat for Humanity Woodstock Projects**

Moved by Councillor J. Northcott

Seconded by Councillor B. Bes

That City Council approve the City's sponsorship of the current Habitat for Humanity Woodstock projects and that sponsorship funds be taken from the Economic Development Publicity and Public Relations Account.

Carried

Action-Economic Development

## **F- Clerks Department**

### **F-1 Licensing –Donation Drop Box By-law**

Moved by Councillor D. Tait

Seconded by Councillor S. Talbot

That Woodstock City Council refer to the by-laws section of the agenda;

And further that City Council authorizes the City Clerk to make the necessary application to the Ministry of the Attorney General to seek approval for the proposed short form wording and set fines associated with By-law.

Carried

Action-Clerks

## **G – Chief Administrative Officer**

### **G-1 Indwell-Resolution of Support for SCF Application**

Moved by Councillor S. Talbot

Seconded by Councillor B. Bes

WHEREAS the construction of new affordable housing units involving infilling, intensification, and adaptive re-use of former non-residential buildings and

brownfields was identified as a priority in the County of Oxford's 10-Year Housing and Homelessness Plan;

WHEREAS the City of Woodstock has previously approved planning application ZN-8-12-22 required to undertake the redevelopment of the brownfield site at 18 Vansittart Avenue, Woodstock to facilitate the development of an 80-unit apartment dwelling house;

WHEREAS the City of Woodstock is a municipality with fewer than 100,000 residents, and therefore qualifies for eligibility under the Federal Government's Small Communities Fund;

BE IT RESOLVED that Woodstock City Council supports Indwell Community Homes' submission to the Building Canada Fund - Small Communities Fund (BCF-SCF) as a private sector not-for-profit charitable proponent creating affordable housing through redevelopment of a brownfield site for the benefit of the municipality and community, the project being located at 18 Vansittart Avenue, Woodstock.

Carried  
Action-Clerks

### **Special Committee and Advisory Task Force Reports**

- a) Woodstock Environmental Advisory Committee-Potential decrease of Household Hazardous Waste Days

Moved by Councillor J. Northcott  
Seconded by Councillor D. Tait

That Woodstock City Council advise Oxford County Council that the City of Woodstock opposes County Council's proposed reduction of Household Hazardous Waste days from the current two HHW days per year to one HHW day per year as it is not fitting with the City of Woodstock's Waste Reduction Strategy.

Carried  
Action-Clerks

### **By-laws**

Moved by Councillor B. Bes  
Seconded by Councillor S. Talbot

That the following by-laws be given first and second reading:

- 8939-14-A by-law to amend the City of Woodstock Municipal Code by adding thereto a Municipal Code Chapter 85 entitled-Licensing-Donation Drop Box;
- 8940-14-A by-law to amend Zoning By-law Number 8626-10, as amended (275 Tecumseh);
- 8941-14- A by-law to amend Zoning By-law Number 8626-10, as amended (Main Street)
- 8942-14-A by-law to amend Zoning By-law Number 626-10, as amended (Pittock Park Road)

Carried

Moved by Councillor B. Bes

Seconded by Councillor S. Talbot

That the following by-laws be given third and final reading:

- 8939-14-A by-law to amend the City of Woodstock Municipal Code by adding thereto a Municipal Code Chapter 85 entitled-Licensing-Donation Drop Box;
- 8940-14-A by-law to amend Zoning By-law Number 8626-10, as amended (275 Tecumseh);
- 8941-14- A by-law to amend Zoning By-law Number 8626-10, as amended (Main Street)
- 8942-14-A by-law to amend Zoning By-law Number 8626-10, as amended (Pittock Park Road)

Carried

Action-Clerks

### **Adjournment**

Moved by Councillor B. Bes

Seconded by Councillor R. Fraser

The meeting adjourned at 8:33p.m.

Carried

Moved by Councillor B. Bes

Seconded by Councillor S. Talbot

That Council now rise and go into Closed Session for the consideration of:

- Matters related to Litigation

Carried

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**Mayor Pat Sobeski**

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**Deputy Clerk-Amy Humphries**

**TO:** David Creery, Chief Administrative Officer

**FROM:** Patrice Hilderley, Director of Administrative Services  
Harold de Haan, City Engineer

**RE:** Asset Management Plan

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## **AIM**

To have City Council accept the 2014 Asset Management Plan for the City of Woodstock.

## **BACKGROUND**

Ontario municipalities are now required to develop detailed Asset Management Plans (AMP) to accompany any request for provincial infrastructure funding. Municipalities are responsible for tailoring their asset management planning practices to their unique needs and ensuring that all the relevant expertise is brought to bear. Asset management is an integrated, lifecycle approach to effective stewardship of infrastructure assets to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable and environmentally responsible manner. The overall asset management process takes an organization's objectives, determines how these rely on infrastructure, and then develops a plan to provide the supporting infrastructure services at the lowest lifecycle cost. Lifecycle costing looks at the total cost of an asset over its entire useful life, from construction to disposal, including operating costs. Asset management is essential to the development of a common, systematic understanding of what needs are most important and how they can be addressed. Having a roster of the highest priority municipal infrastructure needs will help ensure that the Province is supporting the right projects.

The 2013 Capital Budget contained funds for the City of Woodstock to complete an Asset Management Plan. Although started, this project was not completed by the end of 2013 so the funds were carried over 2014. City Council recently approved submission of an EOI for two provincially and federally funded grant programs that require the municipality to have an accepted AMP by the end of the year.

## **COMMENT**

This Asset Management Plan (AMP) for the City of Woodstock (see attached) meets all requirements as outlined within the provincial Building Together Guide for Municipal Asset Management Plans. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service.

Although the province ultimately wants municipalities to include all assets (buildings, fleet, etc.) in their AMP, the current version of the report assesses the City's road network, storm sewers and bridges and culverts. It is the intent of the AMP that it be a "living" document that will be updated and expanded by Staff. Although the City operates and maintains the sanitary sewer system and watermains, they are technically a County asset and therefore are not included in the AMP.

In assessing the municipality's state of the infrastructure, the report examined and graded both the current condition (Condition vs. Performance) of the asset classes as well as the municipality's financial capacity to fund the asset's average annual requirement for sustainability (Funding vs. Need). This generated the municipality's infrastructure report card. The

municipality received a cumulative GPA of 'D+', with an annual infrastructure deficit of \$2.4 million.

Woodstock performed relatively well on the Condition vs. Performance dimension for all of the asset classes addressed. The municipality received a 'C+' in its bridges & culverts assets and 'B+' in its storm water network. Its lowest rating of 'C' was assigned in the road network. Although this rating indicates that the road network is primarily in fair to good condition, the 38% of the network that is in fair to critical condition (based on assessed condition data) has generated significant financial needs over the next five years totaling approximately \$32 million. Woodstock's storm sewer network, based on age data only, has approximately 96% of all pipes in good or excellent condition and approximately a \$2 million requirement over the next five years. Future funds should continue to be directed towards a condition assessment program to gain a better understanding of current performance.

Woodstock's performance on the Funding vs. Need dimension varied significantly across the asset classes. Its bridges & culverts and storm assets are funded at 31% and 43% respectively of their annual needs. Consequently, the municipality received an 'F' for these two categories. Its road network is funded at 62% of its annual needs and therefore received a grade of 'C'.

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long term budgeting. The average annual investment requirement for paved roads, bridges & culverts and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets is \$3,424,000 leaving an annual deficit of \$2,410,000. These infrastructure categories are currently funded at 59% of their long term requirements.

The AMP is intended to be a living document that will be revised as more data is gathered (Road Needs Study, results of TV'ing sewers) and other assets are added (buildings, fleet, etc.). This data, along with financial data, will assist the City in long term asset and financial planning.

## **RECOMMENDATION**

That City Council accept the 2014 Asset Management Plan for the City of Woodstock.

*Authored by: Patrice Hilderley, Director of Administrative Services  
Harold de Haan, P. Eng., City Engineer*

*Approved by: David Creery, MBA, P. Eng., Chief Administrator Officer*



## THE ASSET MANAGEMENT PLAN FOR THE CITY OF WOODSTOCK

**2013**

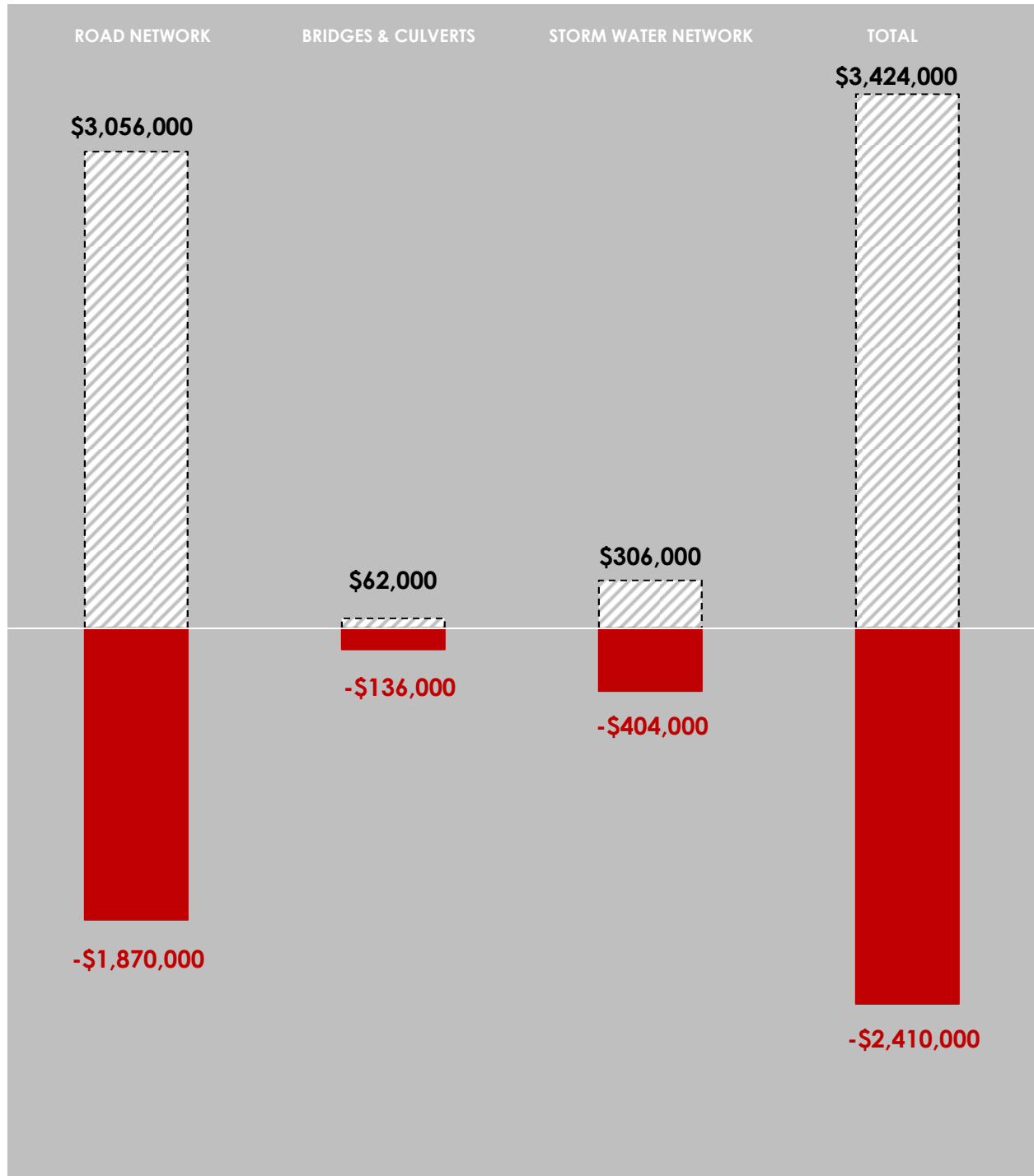
THE CITY OF WOODSTOCK  
500 DUNDAS STREET  
WOODSTOCK, ONTARIO N4S 0A7

SUBMITTED SEPTEMBER 2014  
BY PUBLIC SECTOR DIGEST  
148 FULLARTON STREET, SUITE 1410  
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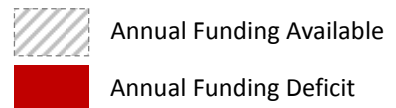
# State of the Infrastructure

## CITY OF WOODSTOCK

AVERAGE ANNUAL FUNDING REQUIRED vs. AVERAGE ANNUAL FUNDING AVAILABLE



Total Annual Deficit: **-\$2,410,000**



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September 2014  
The City of Woodstock  
500 Dundas Street  
Woodstock, Ontario N4S 0A7

We are pleased to submit the 2013 Asset Management Plan (AMP) for the City of Woodstock. This AMP complies with the requirements as outlined within the provincial *Building Together Guide for Municipal Asset Management Plans*. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service. Given the broad and profound impact of asset management on the community, and the financial & administrative complexity involved in this ongoing process, we recommend that senior decision-makers from across the organization are actively involved in its implementation.

The performance of a community's infrastructure provides the foundation for its economic development, competitiveness, prosperity, reputation, and the overall quality of life for its residents. As such, we are appreciative of your decision to entrust us with the strategic direction of its infrastructure and asset management planning, and are confident that this AMP will serve as a valuable tool.

Sincerely,  
The Public Sector Digest Inc.



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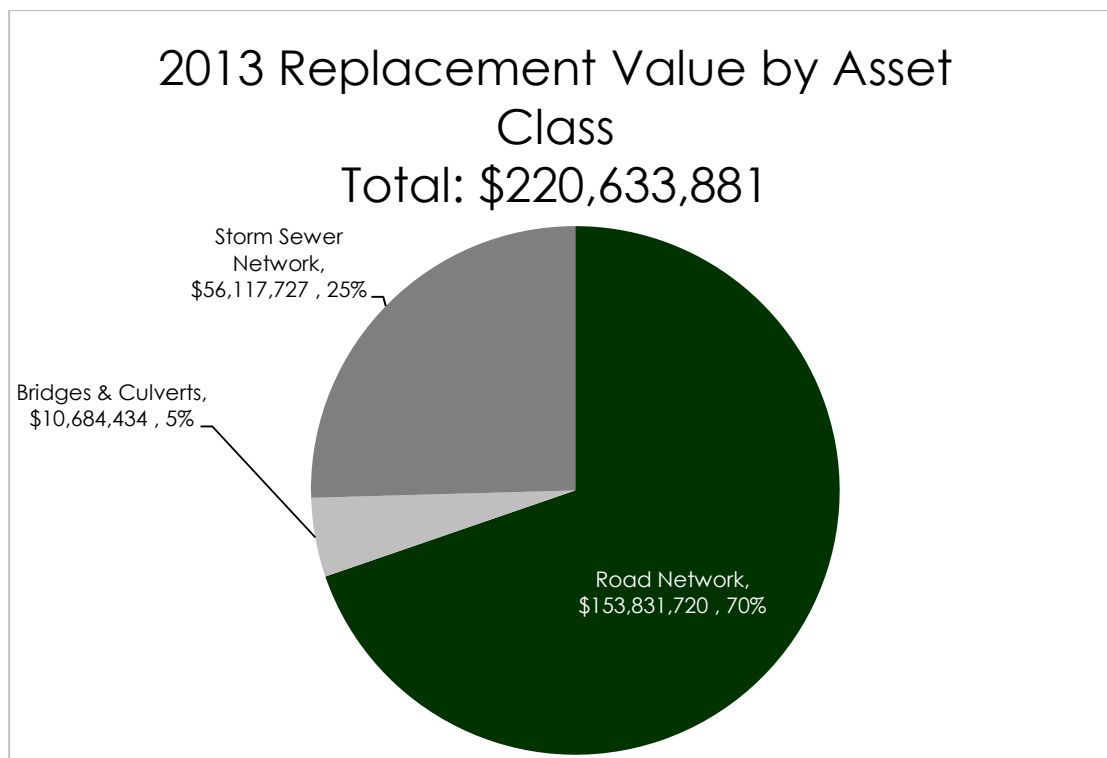
# 1.0 Executive Summary

The performance of a community's infrastructure provides the foundation for its economic development, competitiveness, prosperity, reputation, and the overall quality of life for its residents. Reliable and well-maintained infrastructure assets are essential for the delivery of critical core services for the citizens of a municipality.

A technically precise and financially rigorous asset management plan, diligently implemented, will mean that sufficient investments are made to ensure delivery of sustainable infrastructure services to current and future residents. The plan will also indicate the respective financial obligations required to maintain this delivery at established levels of service.

This Asset Management Plan (AMP) for the City of Woodstock meets all requirements as outlined within the provincial *Building Together Guide for Municipal Asset Management Plans*. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service. Given the expansive financial and social impact of asset management on both a municipality, and its citizens, it is critical that senior decision-makers, including department heads as well as the chief executives, are strategically involved.

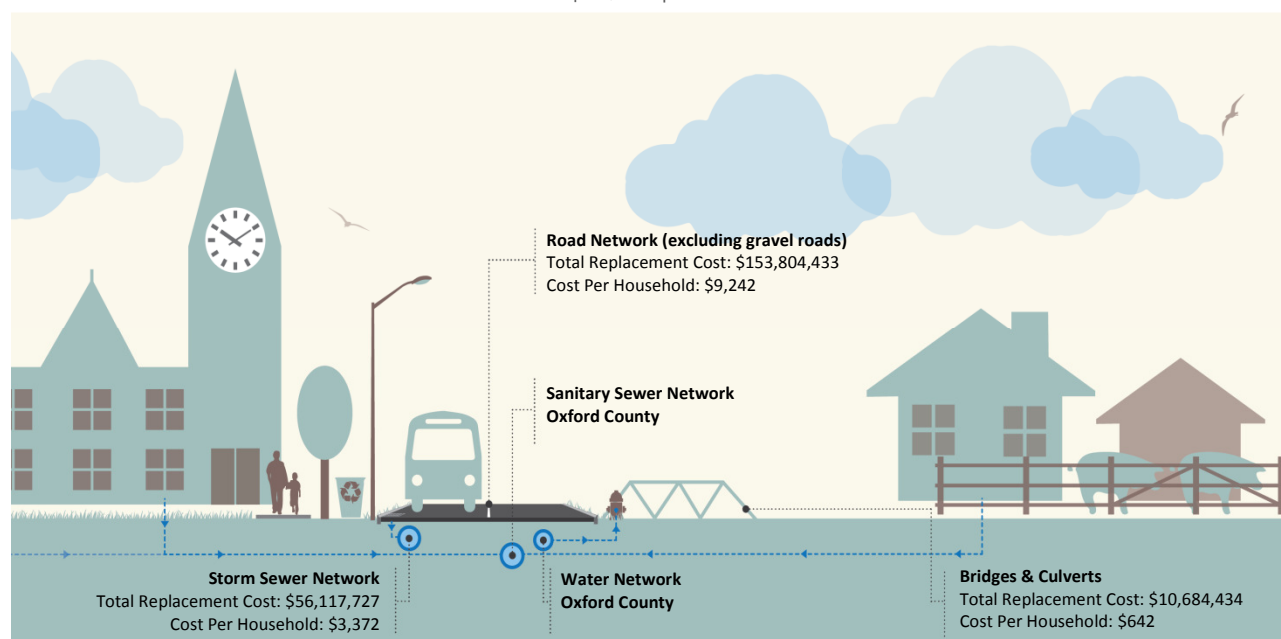
Measured in 2013 dollars, the replacement value of the asset classes analyzed totaled **\$220 million** for Woodstock.



While the municipality is responsible for the strategic direction, it is the taxpayer in Woodstock who ultimately bears the financial burden. As such, a 'cost per household' (CPH) analysis was conducted for each of the asset classes to determine the financial obligation of each household in sharing the replacement cost of the municipality's assets. Such a measurement can serve as an excellent communication tool for both the administration and the council in communicating the importance of asset management to the citizen. The diagram below illustrates the total CPH, as well as the CPH for individual asset classes.

### Infrastructure Replacement Cost Per Household

Total: \$13,256 per household



In assessing the municipality's state of the infrastructure, we examined, and graded, both the current condition (Condition vs. Performance) of the asset classes as well as the municipality's financial capacity to fund the asset's average annual requirement for sustainability (Funding vs. Need). We then generated the municipality's infrastructure report card. The municipality received a **cumulative GPA of 'D+'**, with an **annual infrastructure deficit of \$2.4 million**.

Woodstock performed relatively well on the Condition vs. Performance dimension for all of the asset classes addressed. The municipality received a 'C+' in its bridges & culverts assets and 'B+' in its storm water network. Its lowest rating of 'C' was assigned in the road network. Although this rating indicates that the road network is primarily in fair to good condition, the 38% of the network that is in fair to critical condition (based on assessed condition data) has generated significant financial needs over the next five years totaling approximately \$32 million. Woodstock's storm sewer network, based on age data only, has approximately 96% of all pipes in good or excellent condition and approximately a \$2 million requirement over the next five years. Future funds should continue to be directed towards a condition assessment program to gain a better understanding of current performance.

Woodstock's performance on the Funding vs. Need dimension varied significantly across the asset classes. Its bridges & culverts and storm assets are funded at 31% and 43% respectively of their annual needs. Consequently, the municipality received an 'F' for these two categories. Its road network is funded at 62% of its annual needs and therefore received a grade of 'C'.

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long-term budgeting. We have developed scenarios that would enable Woodstock to achieve full funding within 5 years or 10 years for the following: tax funded assets, including road network (paved roads), bridges & culverts, storm sewer network.

The average annual investment requirement for paved roads, bridges & culverts and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets is \$3,424,000 leaving an annual deficit of \$2,410,000. To put it another way, these infrastructure categories are currently funded at 59% of their long-term requirements.

Woodstock has annual tax revenues of \$43,726,000 in 2013. Full funding would require an increase in tax revenue of 5.5% over time. We recommend, with key qualifications (See the Financial Strategy section for a full discussion) the 5 year option which involves full funding being achieved over 5 years by:

- a) increasing tax revenues by 1.2% each year for the next 5 years solely for the purpose of phasing in full funding to the three asset categories covered by this AMP.
- b) continuing to allocate \$1,093,000 of the federal gas tax revenue to the paved roads category.
- c) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

The scenarios developed in this report do not draw on these funds during the phase-in period to full funding. The scenarios developed also exclude the use of debt. We recommend that as the City of Woodstock updates its AMP and expand it to include other asset categories, future planning should include determining what its long-term reserve balance requirements are and a plan to achieve such balances in the long-term.

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## 2.0 Introduction

---

This Asset Management Plan meets all provincial requirements as outlined within the Ontario Building Together Guide for Municipal Asset Management Plans. As such, the following key sections and content are included:

1. Executive Summary and Introduction
2. State of the Current Infrastructure
3. Desired Levels of Service
4. Asset Management Strategy
5. Financial Strategy

The following asset classes are addressed:

1. **Road Network:** Arterial, collector, local, and gravel roads. Alleys, sidewalks, street lights and signals.
2. **Bridges & Culverts:** Bridges and large culverts with a span greater than 3m
3. **Storm Sewer Network:** Storm sewer mains, manholes, catch basins, outlets and facilities.

Municipalities are encouraged to cover all asset classes in future iterations of the AMP.

This asset management plan will serve as a strategic, tactical, and financial document ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service.

**At a strategic level,** within the State of the Current Infrastructure section, it will identify current and future challenges that should be addressed in order to maintain sustainable infrastructure services on a long-term, life cycle basis.

It will outline a Desired Level of Service (LOS) Framework for each asset category to assist the development and tracking of LOS through performance measures across strategic, financial, tactical, operational, and maintenance activities within the organization.

**At a tactical level,** within the Asset Management Strategy section, it will develop an implementation process to be applied to the needs-identification and prioritization of renewal, rehabilitation, and maintenance activities, resulting in a 10 year plan that will include growth projections.

**At a financial level,** within the Financial Strategy section, a strategy will be developed that fully integrates with other sections of this asset management plan, to ensure delivery and optimization of the 10 year infrastructure budget.

Through the development of this plan, all data, analysis, life cycle projections, and budget models will be provided through the Public Sector Digest's CityWide suite of software products. The software and plan will be synchronized, will evolve together, and therefore, will allow for ease of updates, and annual reporting of performance measures and overall results.

This will allow for continuous improvement of the plan and its projections. It is therefore recommended that the plan be revisited and updated on an annual basis, particularly as more detailed information becomes available.

### 2.1 Importance of Infrastructure

---

Municipalities throughout Ontario, large and small, own a diverse portfolio of infrastructure assets that in turn provide a varied number of services to their citizens. The infrastructure, in essence, is a conduit for the various public services the municipality provides, e.g., the roads supply a transportation network service. A community's prosperity, economic development, competitiveness, image, and overall quality of life are inherently and explicitly tied to the performance of its infrastructure.



## 2.2 Asset Management Plan (AMP) - Relationship to Strategic Plan

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The major benefit of strategic planning is the promotion of strategic thought and action. A strategic plan spells out where an organization wants to go, how it's going to get there, and helps decide how and where to allocate resources, ensuring alignment to the strategic priorities and objectives. It will help identify priorities and guide how municipal tax dollars and revenues are spent into the future.

The strategic plan usually includes a vision and mission statement, and key organizational priorities with alignment to objectives and action plans. Given the growing economic and political significance of infrastructure, the asset management plan will become a central component of most municipal strategic plans, influencing corporate priorities, objectives, and actions.

## 2.3 AMP - Relationship to other Plans

---

An asset management plan 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** – The AMP will utilize goals and projections from infrastructure master plans and in turn will influence future master plan recommendations.
- **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.

## 2.4 Purpose and Methodology

The following diagram depicts the approach and methodology, including the key components and links between those components that embody this asset management plan:



It can be seen from the above that a municipality's infrastructure planning starts at the corporate level with ties to the strategic plan, alignment to the community's expectations, and compliance with industry and government regulations.

Then, through the State of the Infrastructure analysis, overall asset inventory, valuation, condition and performance are reported. In future updates to this AMP, accuracy of reporting will be significantly increased through the use of holistically captured condition data. Also, a life cycle analysis of needs for each infrastructure class is conducted. This analysis yields the sustainable funding level, compared against actual current funding levels, and determines whether there is a funding surplus or deficit for each infrastructure program. The overall measure of condition and available funding is finally scored for each asset class and presented as a star rating (similar to the hotel star rating) and a letter grade (A-F) within the Infrastructure Report card.

From the lifecycle analysis above, the municipality gains an understanding of the level of service provided today for each infrastructure class and the projected level of service for the future. The next section of the AMP provides a framework for a municipality to develop a Desired Level of Service (or target service level)

and develop performance measures to track the year-to-year progress towards this established target level of service.

The Asset Management Strategy then provides a detailed analysis for each infrastructure class. Included in this analysis are best practices and methodologies from within the industry which can guide the overall management of the infrastructure in order to achieve the desired level of service. This section also provides an overview of condition assessment techniques for each asset class; life cycle interventions required, including those interventions that yield the best return on investment; and prioritization techniques, including risk quantification, to determine which priority projects should move forward into the budget first.

The Financing Strategy then fully integrates with the asset management strategy and asset management plan, and provides a financial analysis that optimizes the 10 year infrastructure budget. All revenue sources available are reviewed, such as the tax levy, debt allocations, rates, reserves, grants, gas tax, development charges, etc., and necessary budget allocations are analysed to inform and deliver the infrastructure programs.

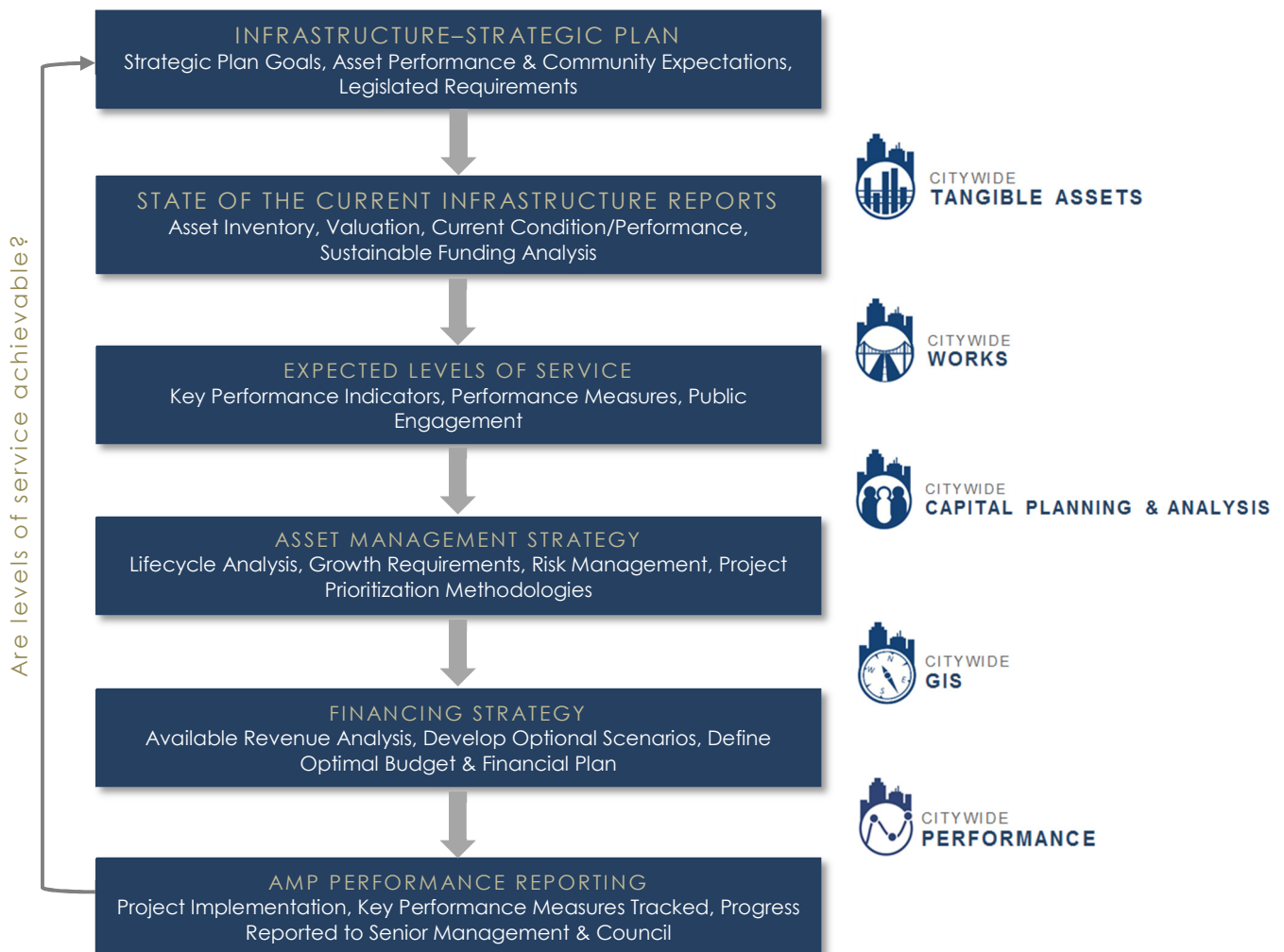
Finally, in subsequent updates to this AMP, actual project implementation will be reviewed and measured through the established performance metrics to quantify whether the desired level of service is achieved or achievable for each infrastructure class. If shortfalls in performance are observed, these will be discussed and alternate financial models or service level target adjustments will be presented.

## 2.5 CityWide Software alignment with AMP

The plan will be built and developed hand in hand with a database of municipal infrastructure information in the CityWide software suite of products. The software will ultimately contain the municipality's asset base, valuation information, life cycle activity predictions, costs for activities, sustainability analysis, project prioritization parameters, key performance indicators and targets, 10 year asset management strategy, and the financial plan to deliver the required infrastructure budget.

The software and plan will be synchronized, and will evolve together year-to-year as more detailed information becomes available. This synchronization will allow for ease of updates, modeling and scenario building, and annual reporting of performance measures and results. This will allow for continuous improvement of the plan and its projections. It is therefore recommended that it is revisited and updated on an annual basis.

The following diagram outlines the various CityWide software products and how they align to the various components of the AMP. The City currently makes use of CityWide Tangible Assets and CityWide Capital Planning & Analysis.



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## 3.0 State of the Infrastructure (SOTI)

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### 3.1 Objective and Scope

**Objective:** 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.

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

- Canadian Infrastructure Report Card
- City of Hamilton's State of the Infrastructure reports. The City of Hamilton has been a leader in the development of asset management tools.
- Other Ontario Municipal State of the Infrastructure reports

The above reports are themselves based on established principles found within key, industry best practices documents such as:

- The National Guide for Sustainable Municipal Infrastructure (Canada)
- The International Infrastructure Management Manual (Australia / New Zealand)
- American Society of Civil Engineering Manuals (U.S.A.)

**Scope:** Within this State of the Infrastructure report, a high level review will be undertaken for the following asset classes:

1. **Road Network:** Arterial, collector, local, and gravel roads. Alleys, sidewalks, street lights and signals.
2. **Bridges & Culverts:** Bridges and large culverts with a span greater than 3m
3. **Storm Sewer Network:** Storm sewer mains, manholes, catch basins, outlets and facilities.

### 3.2 Approach

Some of the asset classes above were reviewed at a high level due to the nature of data and information available. Currently, the City commissions condition studies every 4 years for roads, every 2 years for bridges as per Ministry guidelines, and every 7 years for storm sewers. Subsequent detailed reviews of this analysis are recommended on an annual basis, as more detailed conditions assessment information becomes available for each infrastructure program.

The plan does not include sanitary sewers or water mains, as these assets are owned by the County of Oxford. However, their impact on project selection process should be recognized as part of the capital planning process.

#### 3.2.1 Base Data

In order to understand the full inventory of infrastructure assets within Woodstock, all tangible capital asset data, as collected to meet the PSAB 3150 accounting standard, was loaded into the CityWide Tangible Asset™ software module. This data base now provides a detailed and summarized inventory of assets as used throughout the analysis within this report and the entire Asset Management Plan.

#### 3.2.2 Asset Deterioration Review

The City of Woodstock has supplied condition data for all of the large bridge and culvert structures and also the road network. The condition data recalculates a new performance age for each individual asset

and, as such, a far more accurate prediction of future replacement can be established and applied to the future investment requirements within this AMP report.

For those assets without condition data, the storm assets and road network appurtenances (signals, street lights, etc), the deterioration review will rely on the 'straight line' amortization schedule approach provided from the accounting data. Although this approach is based on age data and useful life projections, and is not as accurate as the use of detailed condition data, it does provide a relatively reliable benchmark of future requirements.

### 3.2.3 Identify Sustainable Investment Requirements

A gap analysis was performed to identify sustainable investment requirements for each asset category. Information on current spending levels and budgets was acquired from the organization, future investment requirements were calculated, and the gap between the two was identified.

The above analysis is performed by using investment and financial planning models, and life cycle costing analysis, embedded within the CityWide software suite of applications.

### 3.2.4 Asset Rating Criteria

Each asset category will be rated on two key dimensions:

- **Condition vs. Performance:** Based on the condition of the asset today and how well it performs its function.
- **Funding vs. Need:** Based on the actual investment requirements to ensure replacement of the asset at the right time, versus current spending levels for each asset group.

### 3.2.5 Infrastructure Report Card

The dimensions above will be based on a simple 1–5 star rating system, which will be converted into a letter grading system ranging from A-F. An average of the two ratings will be used to calculate the combined rating for each asset class. The outputs for all municipal assets will be consolidated within the CityWide software to produce one overall Infrastructure Report Card showing the current state of the assets.

Grading Scale: Condition vs. Performance			
What is the condition of the asset today and how well does it perform its function?			
Star Rating	Letter Grade	Color Indicator	Description
★★★★★	A		<b>Excellent:</b> No noticeable defects
★★★★	B		<b>Good:</b> Minor deterioration
★★★	C		<b>Fair:</b> Deterioration evident, function is affected
★★	D		<b>Poor:</b> Serious deterioration. Function is inadequate
★	F		<b>Critical:</b> No longer functional. General or complete failure

Grading Scale: Funding vs. Need		
Based on the actual investment requirements to ensure replacement of the asset at the right time, versus current spending levels for each asset group.		
Star Rating	Letter Grade	Description
★★★★★	A	<b>Excellent:</b> 91 to 100% of need
★★★★	B	<b>Good:</b> 76 to 90% of need
★★★	C	<b>Fair:</b> 61 to 75% of need
★★	D	<b>Poor:</b> 46 – 60% of need
★	F	<b>Critical:</b> under 45% of need

### **3.2.6 General Methodology and Reporting Approach**

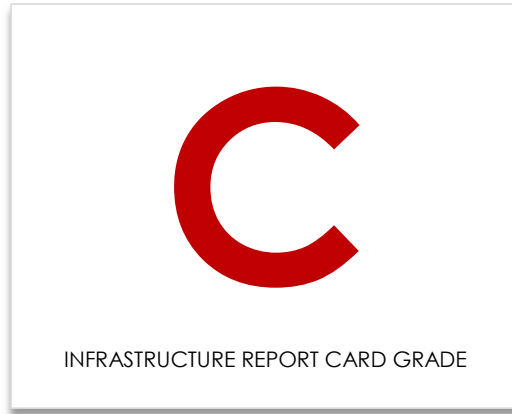
The report will be based on the seven key questions of asset management as outlined within the National Guide for Sustainable Municipal Infrastructure:

- What do you own and where is it? (inventory)
- What is it worth? (valuation / replacement cost)
- What is its condition / remaining service life? (function & performance)
- What needs to be done? (maintain, rehabilitate, replace)
- When do you need to do it? (useful life analysis)
- How much will it cost? (investment requirements)
- How do you ensure sustainability? (long-term financial plan)

The above questions will be answered for each individual asset category in the following report sections.

---

## 3.3 Road Network





### 3.3 Road Network

Note: Gravel roads are excluded from the capital replacement analysis, as by nature, they require perpetual maintenance activities and funding. However, the gravel roads have been included in the Road Network inventory and replacement value tables. There is also further information regarding gravel roads in section 3.4 "Gravel Roads – Maintenance Requirements" of this AMP.

#### 3.3.1 What do we own?

The road network inventory is shown in the table below.

Road Network Inventory		
Asset Type	Asset Component	Quantity/Units
Road Network	Road Surface	1,780,246.5m2
	Road Base	2,010,584.5m2
	Retaining Walls (built since 2008)	176m2
	Sidewalks	253,230m
	Streetlight Wires	231,051m
	Streetlights and Poles	4,080 units
	Signalization	16 intersections

The road network data was extracted from the Tangible Capital Asset module of the CityWide software suite.

#### 3.3.2 What is it worth?

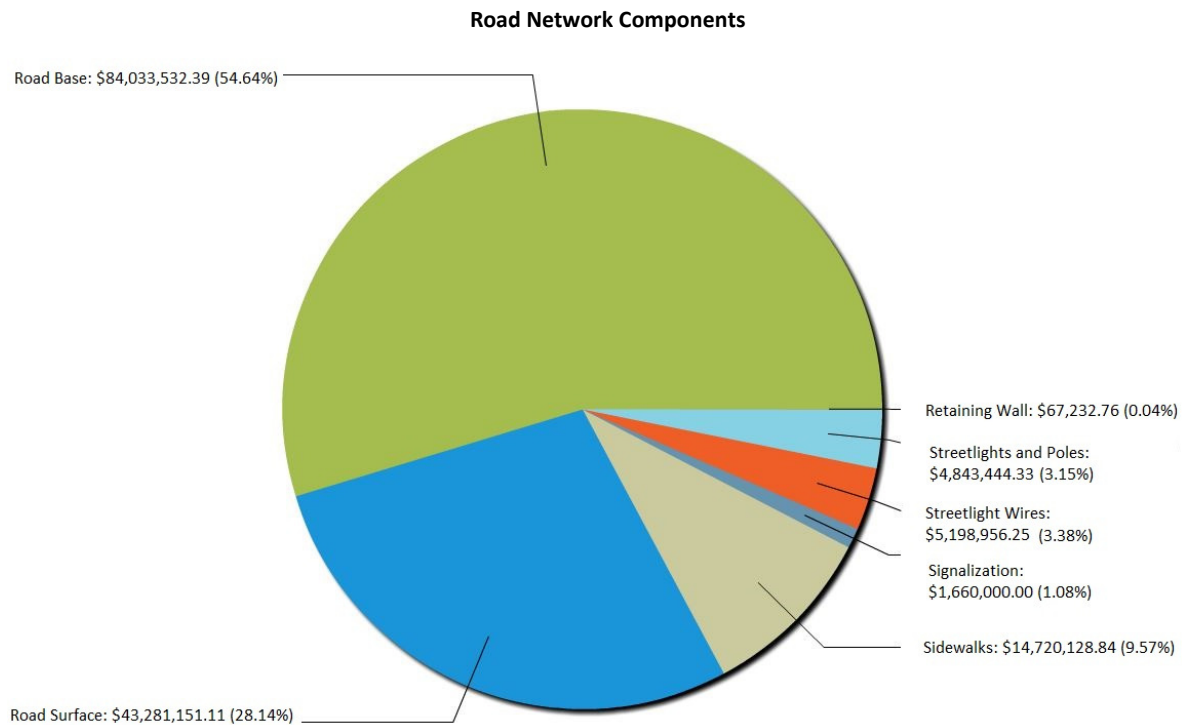
The estimated replacement value of the road network, in 2013 dollars, is approximately \$153.8 million. For the purpose of further analysis, we use a replacement cost of \$153,804,433 million (excludes gravel roads). The cost per household for the road network is \$9,242 based on 16,641 households.

Road Network Replacement Value				
Asset Type	Asset Component	Quantity/Units	2013 Unit Replacement Cost*	2013 Overall Replacement Cost
Road Network	Road Surface - Arterial	166,512m2	\$31/m2	\$5,161,340
	Road Surface - Collector	445,245.5m2	\$24.11/m2	\$10,736,072
	Road Surface - Local	1,079,702m2	\$23.92/m2	\$25,821,444
	Road Surface - Alley	4,739m2	\$34/m2	\$159,744
	Road Surface - Other	84,048m2	\$16.69/m2	\$1,402,497
	Road Base - Arterial	191,283m2	\$41.09/m2	\$7,859,798
	Road Base - Collector	487,102.5m2	\$42.44/m2	\$20,672,960
	Road Base - Local	1,213,702m2	\$45.86/m2	\$52,214,139
	Road Base - Alley	6,777m2	\$53.47/m2	\$362,353
	Road Base - Other	109,142m2	\$26.45/m2	\$2,887,008
	Road Base - Access	2,080m2	\$15.52/m2	\$37,274
	Road Base - Gravel	2,194m2	NOT PLANNED FOR REPLACEMENT	\$27,287

Retaining Walls (built since 2008)	176m2	\$382/m2	\$67,233
Sidewalks	253,230m	\$58.13/m	\$14,720,129
Streetlight Wires	231,051m	\$22.50/m	\$5,198,956
Streetlights and Poles	4,080 units	\$1,187/unit	\$4,843,431
Signalization – Pedestrian	1 intersection	\$60,000/intersec.	\$60,000
Signalization – Flashing Red/Amber	2 intersections	\$20,000/intersec.	\$40,000
Signalization - Traffic	13 intersections	\$120,000/intersec.	\$1,560,000
			<b>\$153,831,665</b>

\*2013 Unit Replacement Cost is calculated using NRBCPI (Toronto) inflation for all segments except Signalization.

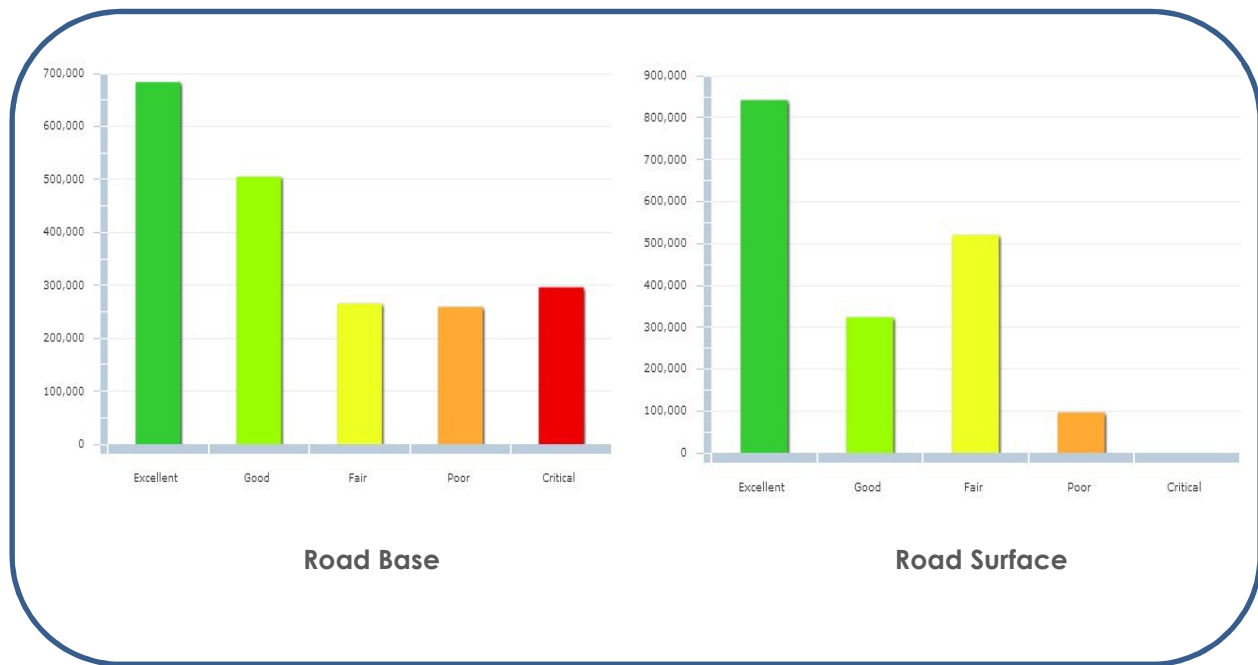
The pie chart below provides a breakdown of each of the network components to the overall system value.



### 3.3.3 What condition is it in?

Based on field condition assessments, about 62% of the municipality's road surface and base is in good to excellent condition, with the remaining in fair to poor condition. As such, the municipality received a Condition vs. Performance rating of 'C'.

**Road Condition by Area (m2)**



### 3.3.4 What do we need to do to it?

There are generally four distinct phases in an asset's life cycle that require specific types of attention and lifecycle activity. These are presented at a high level for the road network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Life Stage
Minor maintenance	Activities such as inspections, monitoring, sweeping, winter control, etc.	1 <sup>st</sup> Qtr
Major maintenance	Activities such as repairing pot holes, grinding out roadway rutting, and patching sections of road.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation activities such as asphalt overlays, mill and paves, etc.	3 <sup>rd</sup> Qtr
Replacement	Full road reconstruction	4 <sup>th</sup> Qtr

### 3.3.5 When do we need to do it?

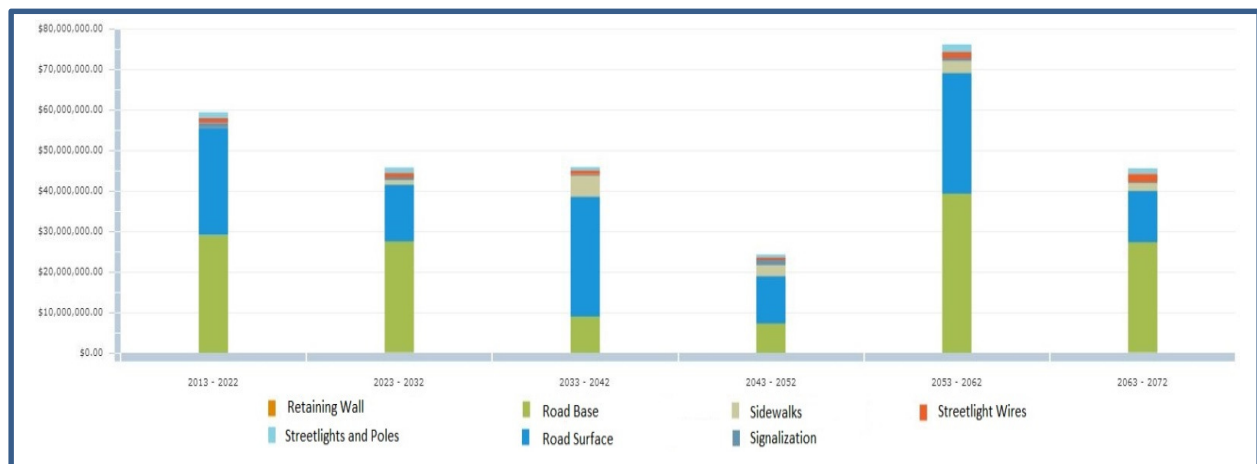
For the purpose of this report, 'useful life' data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets. These needs are calculated and quantified in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Road Network	Road Surface	20
	Road Base	40
	Retaining Walls (built since 2008)	60
	Sidewalks	60
	Streetlight Wires	30 - 60
	Streetlights and Poles	40 - 60
	Signalization	30

As additional field condition information becomes available, the data can be loaded into the CityWide system to increase the accuracy of current asset age and, therefore, that of future replacement requirements. Roads projects are often driven by the need to replace storm sewers, water mains, and/or sanitary sewers. Although water mains and sanitary sewers are owned by Oxford County, the City of Woodstock maintains and reconstructs these assets on behalf of the County.

The following graph shows the projection of road network replacement costs based on the assessed condition and age based condition of the asset.

**Road Network Replacement Profile (excludes gravel roads)**



### 3.3.6 How much money do we need?

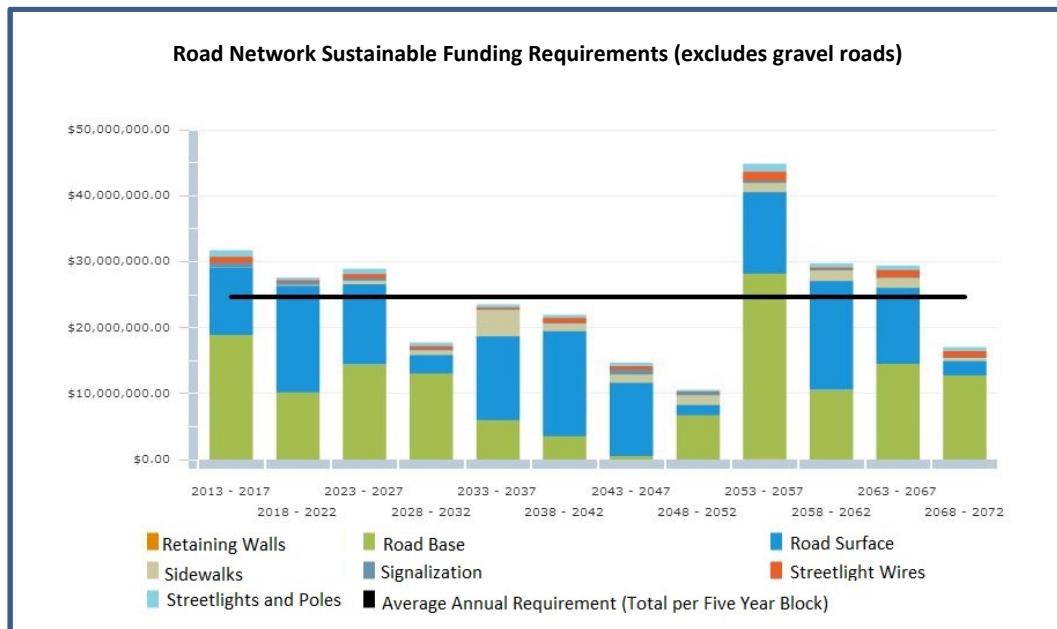
The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions

1. Replacement costs are based upon the unit costs identified within the "What is it worth" section.
2. The timing for individual road replacement was defined by the replacement year as described in the "When do you need to do it?" section.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 60 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

### 3.3.7 How do we reach sustainability?

Based upon the above parameters, the average annual revenue required to sustain Woodstock's paved road network is approximately **\$4,926,000**. Based on Woodstock's current annual funding of **\$3,056,000**, there is an annual **deficit of \$1,870,000**. As such, the municipality received a Funding vs. Need rating of 'C'.

The following graph illustrates the expenditure requirements in five year increments against the sustainable funding threshold line.



In conclusion, based on field condition data, there is a relatively small portion of the road network in poor or critical condition, generating a backlog of needs totaling approximately \$32 million in the next 5 years. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement and assist with optimizing the long and short term budgets. Further detail is outlined within the "asset management strategy" section of this AMP.

### 3.3.8 Recommendations

The municipality received an overall rating of 'C' for its road network, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement.
2. As a very small percentage of the municipality's road network is gravel roads, there are currently no plans to convert these gravel roads to paved surface.
3. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and be added to future AMP reporting.
4. The Infrastructure Report Card should be updated on an annual basis.



## **3.4 Gravel Roads – Maintenance Requirements**

### **3.4.1 Introduction**

Paved roads are usually designed and constructed with careful consideration given to the correct shape of the cross section. Once paving is complete the roadway will keep its general shape for the duration of its useful life. Gravel roads are quite different. Many have poor base construction, will be prone to wheel track rutting in wet weather, and traffic will continually displace gravel from the surface to the shoulder area, even the ditch, during wet and dry weather. Maintaining the shape of the road surface and shoulder is essential to ensure proper performance and to provide a sufficient level of service for the public.

Therefore, the management of gravel roads is not through major rehabilitation and replacement, but rather through good perpetual maintenance and some minor rehabilitation which depend on a few basic principles: proper techniques and cycles for grading; the use and upkeep of good surface gravel; and, dust abatement and stabilization.

### **3.4.2 The Cost of Maintaining Gravel Roads**

We conducted an industry review to determine the standard cost for maintaining gravel roads. However, it became apparent that no industry standard exists for either the cost of maintenance or for the frequency at which the maintenance activities should be completed. Two studies commonly referenced are the Minnesota Department of Transportation Local Road Research Board 2005 study and the South Dakota Department of Transportation 2004 study.

### **3.4.3 Ontario Municipal Benchmarking Initiative (OMBI)**

One of the many metrics tracked through the Ontario Municipal Benchmarking Initiative is the “Operating costs for Unpaved (Loose top) Roads per lane Km.” As referenced from the OMBI data dictionary, this includes maintenance activities such as dust suppression, loose top grading, loose top gravelling, spot base repair and wash out repair.

Of the six Ontario municipalities that included 2012 costs for this category, there is a wide variation in the reporting. The highest cost per lane km was \$14,900 while the lowest cost was \$397. The average cost was \$6,300 per lane km. Assuming two lanes per gravel road to match the studies above, the Ontario OMBI average becomes \$12,600 per km of roadway.

Summary of Costs	
Source	2012 Maintenance Cost per km (adjusted for inflation using NRBCPI)
Minnesota Study	\$3,500
South Dakota Study	\$5,758
OMBI Average (six municipalities)	\$12,600

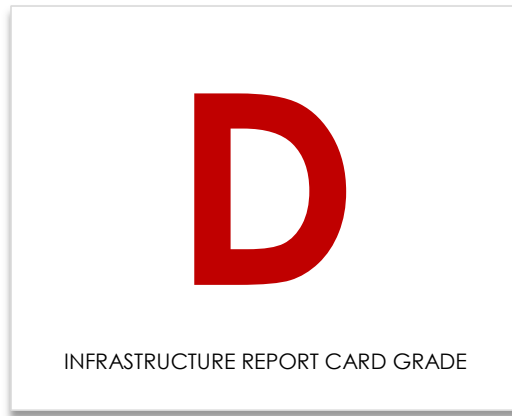
### 3.4.4 Conclusion

City of Woodstock currently owns and maintains eight gravel road sections which are laneways. Six of these sections will likely be paved when water or sewer projects are required.

As discussed above, there are currently no industry standards in regards to the cost of gravel road maintenance and the frequency at which the maintenance activities should be completed. Also, there is no established benchmark cost for the maintenance of a km of gravel road and the numbers presented above will vary significantly due to the level of service or maintenance that's provided (i.e., frequency of grading cycles and re-gravel cycles).

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## 3.5 Bridges & Culverts





## 3.5 Bridges & Culverts

### 3.5.1 What do we own?

As shown in the summary table below, the municipality owns 9 bridges, 9 large culverts and 4 pedestrian bridges.

Bridges & Culverts Inventory			
Asset Type	Asset Component	Units	Quantity
Bridges & Culverts	Bridges	9 units	3,026m2
	Pedestrian Bridge	4 units	-
	Culverts	9 units	-

The bridges & culverts data was extracted from the Tangible Capital Asset module of the CityWide software suite.

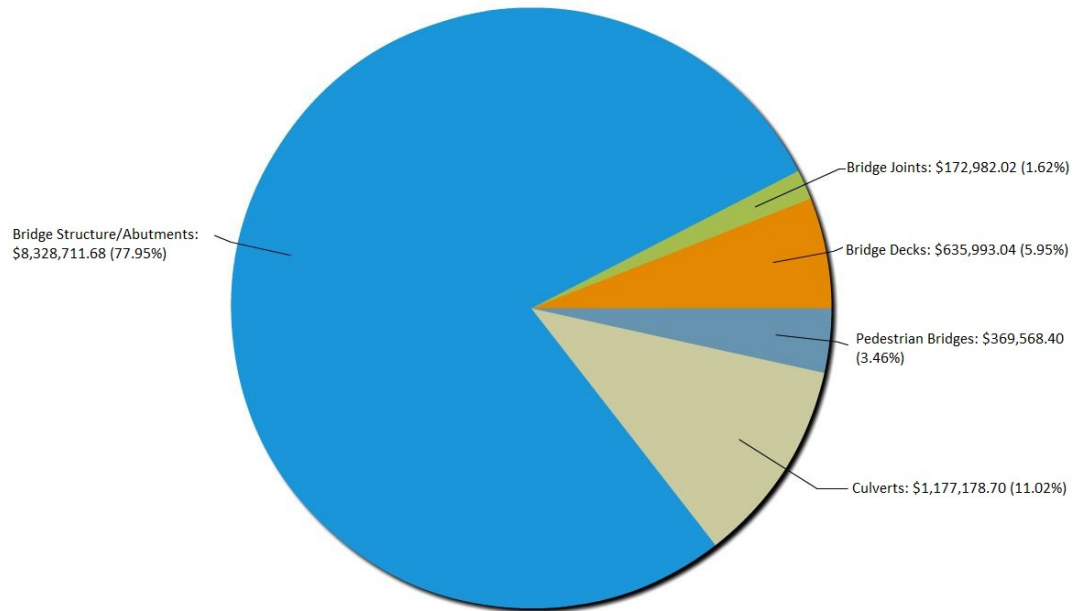
### 3.5.2 What is it worth?

The estimated replacement value of the municipality's bridges & culverts, in 2013 dollars, is approximately \$10.7 million. The cost per household for bridges & culverts is \$642 based on 16,641 households.

Bridges & Culverts Replacement Value				
Asset Type	Asset Component	Quantity/Units	2013 Unit Replacement Cost	2013 Replacement Cost
Bridges & Culverts	Bridges	9 units	\$1,015,299/unit	\$9,137,687
	Pedestrian Bridge	4 units	\$92,392/unit	\$369,568
	Culverts	9 units	\$130,798/unit	\$1,177,179
				<b>\$10,684,434</b>

The pie chart below provides a breakdown of each of the bridges & culverts components to the overall structures value.

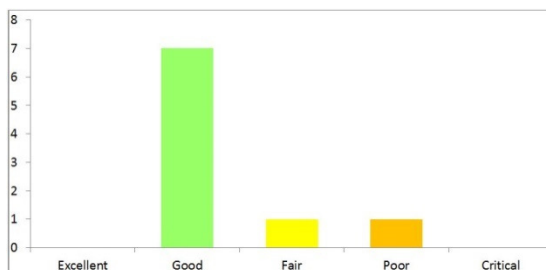
**Bridges & Culverts Components**



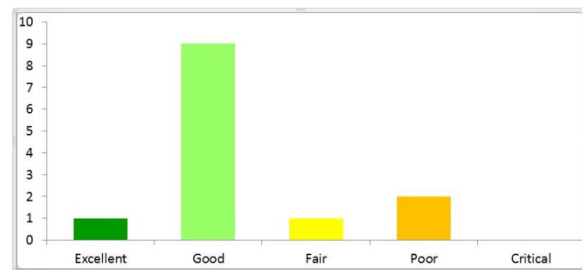
### 3.5.3 What condition is it in?

Based on field condition assessment, 78% of the municipality's bridges & culverts are in good to excellent condition. As such, the municipality received a Condition vs. Performance rating of 'C+'.

**Bridges Condition by Quantity**



**Pedestrian Bridges & Culverts Condition by Quantity**



### 3.5.4 What do we need to do to it?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the bridge and culvert structures below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Life Stage
Minor Maintenance	Activities such as inspections, monitoring, sweeping, winter control, etc.	1 <sup>st</sup> Qtr
Major Maintenance	Activities such as repairs to cracked or spalled concrete, damaged expansion joints, bent or damaged railings, etc.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation events such as structural reinforcement of structural elements, deck replacements, etc.	3 <sup>rd</sup> Qtr
Replacement	Full structure reconstruction	4 <sup>th</sup> Qtr

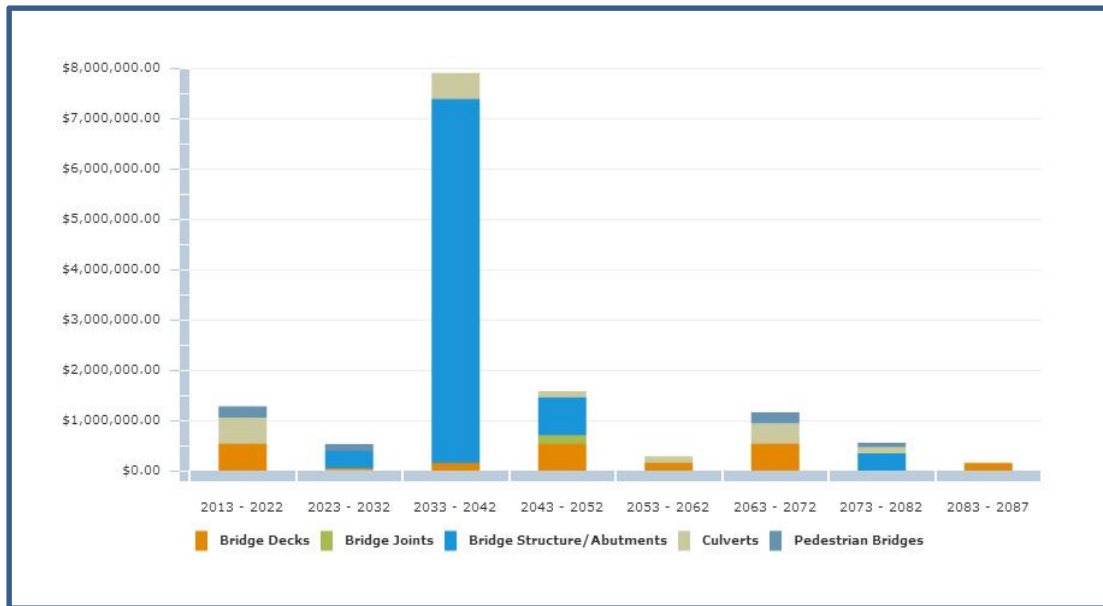
### 3.5.5 When do we need to do it?

For the purpose of this report, 'useful life' data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets, which are calculated in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life in Years
Bridges & Culverts	Bridge Deck	25
	Bridge Joints	50
	Bridge Structure/Abutments	75
	Pedestrian Bridge	50 - 75
	Culverts	75

The following graph shows the current projection of structure replacements based on the assessed condition of the assets.

**Bridges and Culverts Replacement Profile**



### 3.5.6 How much money do we need?

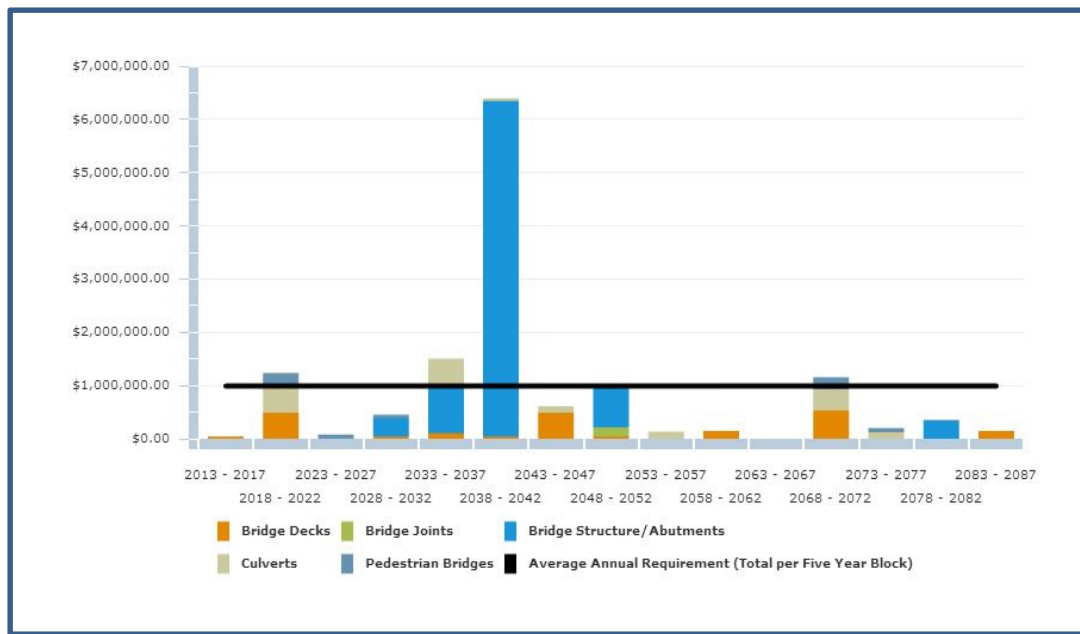
The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. Replacement costs are based upon the "What is it worth" section above.
2. The timing for individual structure replacement was defined by the replacement year as described in the "When do you need to do it?" section above.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 75 year period to ensure all assets cycled through at least one iteration of replacement, therefore providing a sustainable projection.

### 3.5.7 How do we reach sustainability?

Based upon the above assumptions, the average annual revenue required to sustain Woodstock's bridges & culverts is **\$198,000**. Based on Woodstock's current annual funding of **\$62,000** there is an annual **deficit of \$136,000**. As such, the municipality received a Funding vs. Need rating of 'F'. The following graph presents five year blocks of expenditure requirements against the sustainable funding threshold line.

**Bridges & Culverts Sustainable Revenue Requirement**



In conclusion, based on field condition data, the majority of bridges and large structures are in good to excellent condition. Therefore there is only a small backlog of \$42,000 to be addressed within the next 5 years; however, there is approximately \$1 million to be addressed within the 5 to 10 year window. Unlike the roads and storm sewer networks, bridges and culverts category is only funded on a per need basis. Since the City of Woodstock does not own and maintain many bridges, there is no annual funding set aside for this asset category.

The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement and assist with optimizing the long and short term budgets. Further detail is outlined within the "asset management strategy" section of this AMP.

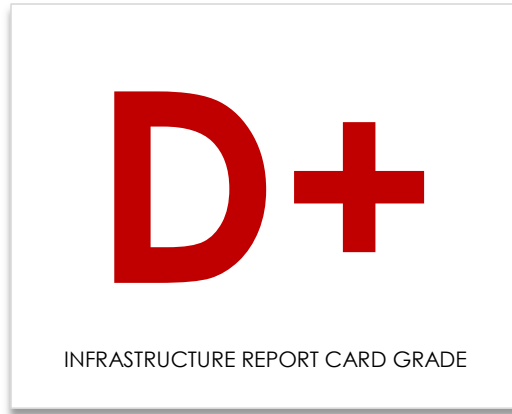
### 3.5.8 Recommendations

The municipality received an overall rating of 'D' for its bridges & culverts, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement.
2. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and added to future AMP reporting.
3. The Infrastructure Report Card should be updated on an annual basis.

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## 3.6 Storm Sewer Network



## 3.6 Storm Sewer Network

### 3.6.1 What do we own?

The inventory components of the Storm Sewer Collection system are outlined in the table below. The entire network consists of approximately 186 km of sewer mains.

Storm Sewer Network Inventory (Detailed)		
Asset Type	Asset Component	Quantity
Storm Sewer Network	Catchbasins	4,646 units
	Manholes	1,908 units
	Gravity Mains	185,833.5m
	SWM Facilities - Storm Channel Outlet	331m
	SWM Facilities	16 units
	Vortech Stormwater Treatment Unit (installed since 2008)	1 unit
	Outlet Structure (installed since 2008)	2 units

The storm sewer network data was extracted from the Tangible Capital Asset module of the CityWide software suite.

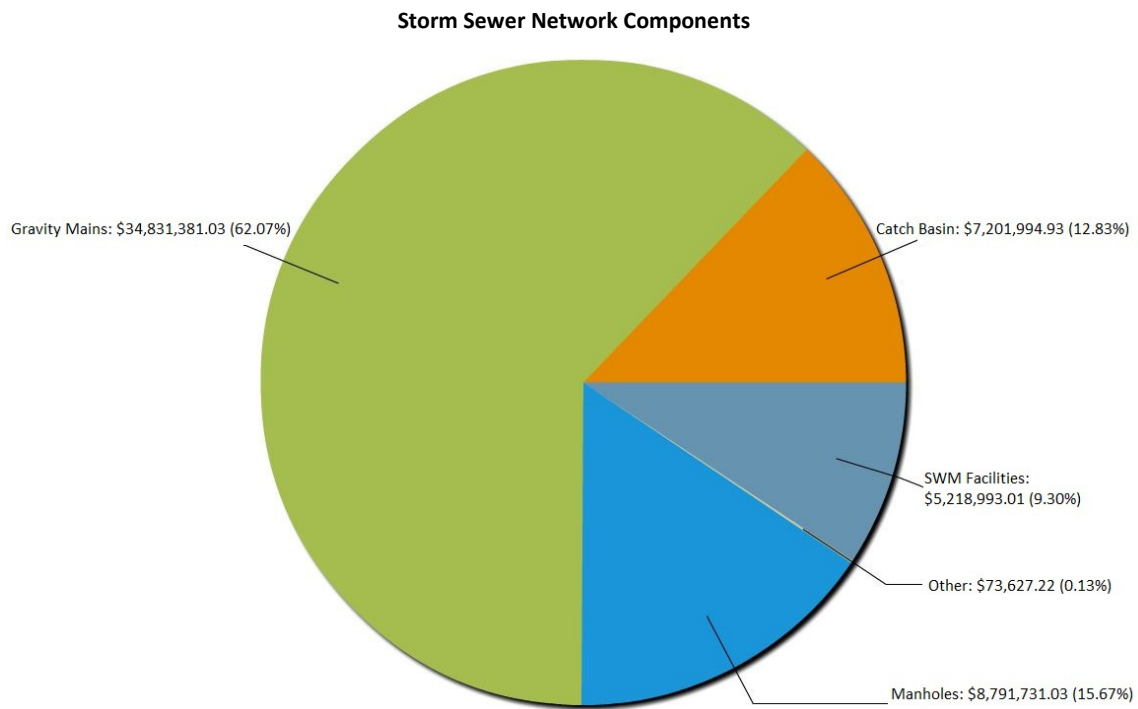
### 3.6.2 What is it worth?

The estimated replacement value of the storm sewer network, in 2013 dollars, is approximately \$56.1 million. The cost per household for the storm sewer network is \$3,372 based on 16,641 households.

Storm Replacement Value				
Asset Type	Asset Component	Quantity	2013 Unit Replacement Cost	2013 Overall Replacement Cost
Storm Sewer Network	Catchbasins	4,646 units	\$1,550/unit	\$7,201,995
	Manholes	1,908 units	\$4,608/unit	\$8,791,731
	Gravity Mains	185,833.5m	\$187/m	\$34,831,381
	Vortech Stormwater Treatment Unit (installed since 2008)	1 unit	\$47,661/unit	\$47,661
	Outlet Structure (installed since 2008)	2 units	\$12,983/unit	\$25,966
	*SWM Facilities- Wet Pond	13 units	\$337,135/unit	\$4,382,755
	*SWM Facilities- Dry Pond	3 units	\$249,149/unit	\$747,448
	SWM Facilities - Storm Channel Outlet	331m	\$268/m	\$88,790
				<b>\$56,117,727</b>

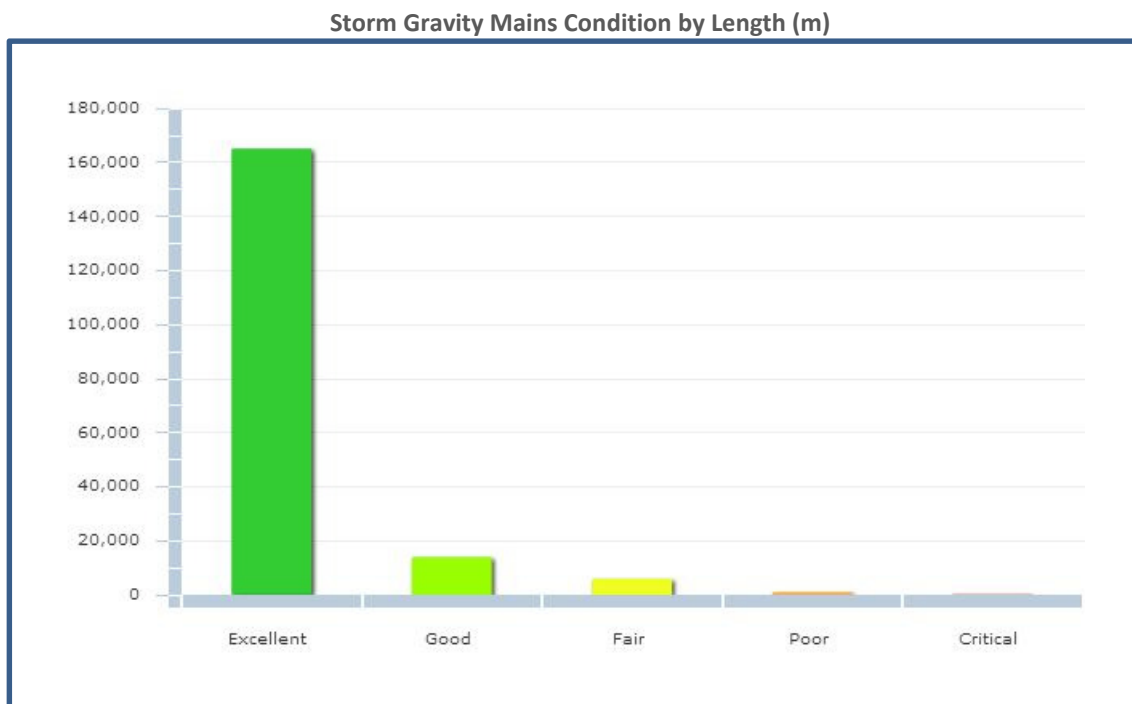
**\*Note:** Actual ponds (land) are generally not replaced and only need maintenance and rehab.

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



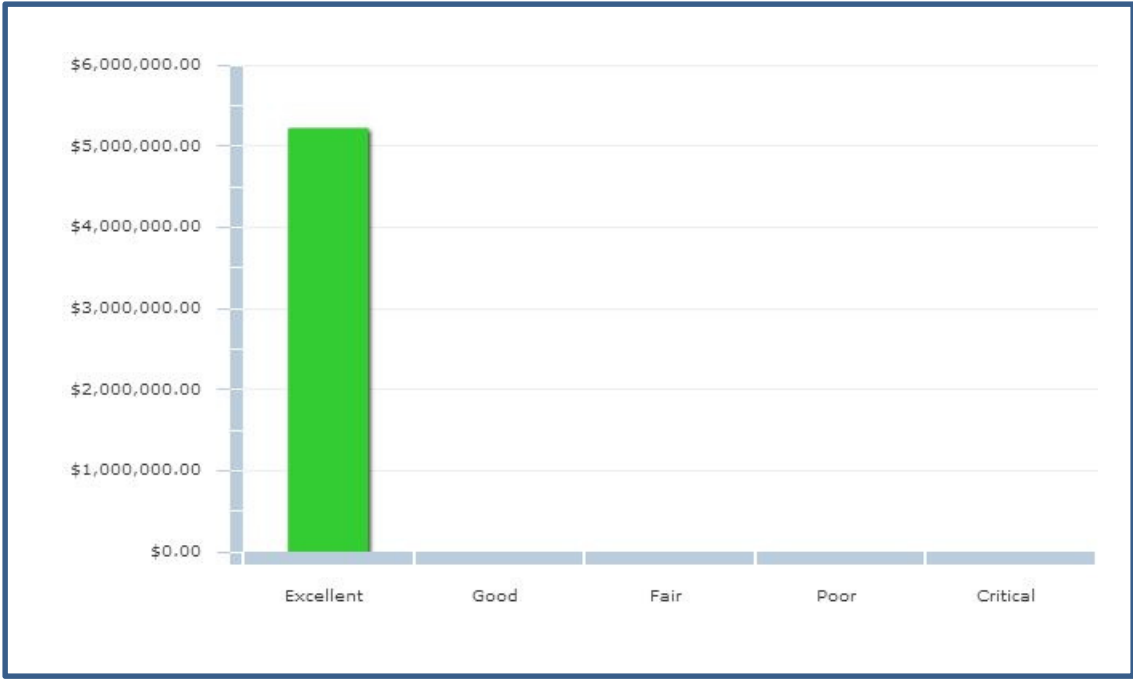
### 3.6.3 What condition is it in?

Based on age analysis only, the municipality's storm sewer mains and facilities are primarily in excellent condition. As such, the municipality received a Condition vs. Performance rating of 'B+'.

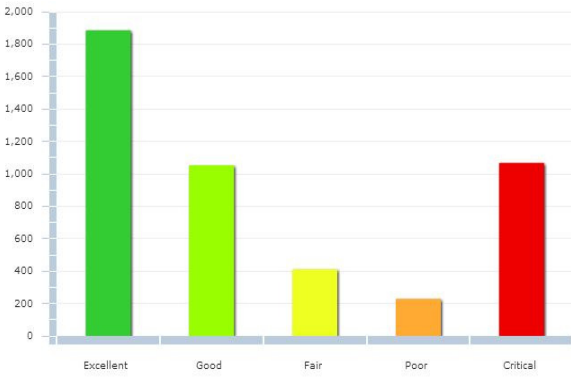




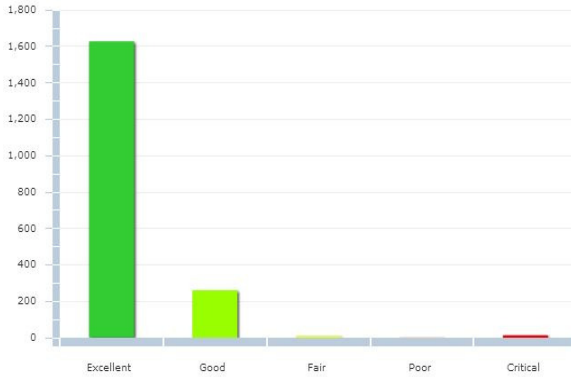
Storm Facilities Condition by Cost (\$)



Catch Basins by Units



Manholes by Units



### 3.6.4 What do we need to do to it?

There are generally four distinct phases in an assets life cycle. These are presented at a high level for the storm sewer network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Age
Minor Maintenance	Activities such as inspections, monitoring, cleaning and flushing, zoom camera and CCTV inspections, etc.	1 <sup>st</sup> Qtr
Major Maintenance	Activities such as repairing manholes and replacing individual small sections of pipe.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation events such as structural lining of pipes are extremely cost effective and provide an additional 75 plus years of life.	3 <sup>rd</sup> Qtr
Replacement	Pipe replacements	4 <sup>th</sup> Qtr

### 3.6.5 When do we need to do it?

For the purpose of this report "useful life" data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets, which are calculated in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life in Years
Storm Sewer Network	Catchbasins	40
	Manholes	80
	Gravity Mains	50 - 100
	Outlet Structure (installed since 2008)	40 / 80
	Vortech Stormwater Treatment Unit (installed since 2008)	60
	SWM Facilities*	80

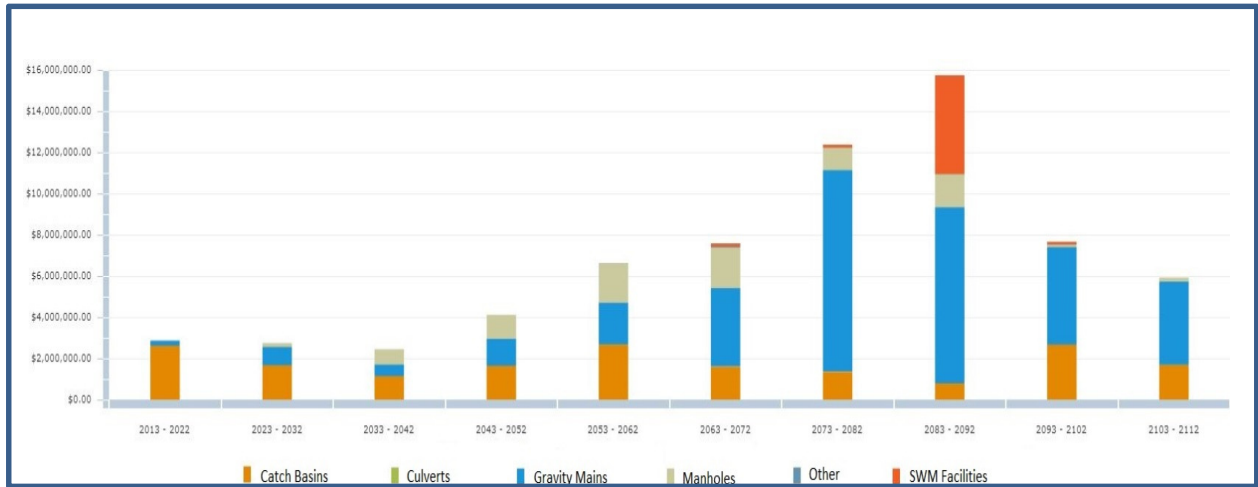
**\*Note:** Although SWM Facilities are included in the lifecycle calculations to determine replacement needs, they are more likely to be rehabbed in the future (as per City of Woodstock Engineering and Public Works Department recommendations).

As field condition information becomes available in time, the data should be loaded into the CityWide system in order to increasingly have a more accurate picture of current asset performance age and, therefore, future replacement requirements.

Storm projects are often driven by the need to replace road surfaces, water mains, and/or sanitary sewers. Although water mains and sanitary sewers are owned by Oxford County, the City of Woodstock maintains and reconstructs these assets on behalf of the County.

The following graph shows the current projection of storm sewer main replacements based on the age of the asset only.

### Storm Sewer Network Replacement Profile



### 3.6.6 How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following assumptions:

1. Replacement costs are based upon the unit costs identified within the "What is it worth" section above.
2. The timing for individual storm sewer main replacement was defined by the replacement year as described in the "When do you need to do it?" section above.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 100 year period to ensure all assets went through one iteration of replacement, therefore providing a sustainable projection.

### 3.6.7 How do we reach sustainability?

Based upon the above assumptions, the average annual revenue required to sustain Woodstock's storm sewer network is approximately **\$710,000**. Based on Woodstock's current annual funding of **\$306,000** there is an annual **deficit of \$404,000**. As such, the municipality received a Funding vs. Need rating of 'F'.

### Storm Sewer Network Sustainable Revenue Requirement



In conclusion, Woodstock's storm sewer collection network, based on age data only, is in very good condition with very few needs to be addressed within the 5 year window. The City of Woodstock has established a condition assessment program in 2012 using CCTV and zoom camera technology to determine asset condition. The City should continue implementing this program in order to define actual needs for rehabilitation and replacement and to assist with optimizing the long and short term budgets. As this data becomes available it should be updated into the CityWide system. Further detail is outlined within the "asset management strategy" section of this AMP.

### **3.6.8 Recommendations**

The municipality received an overall rating of 'C' for its storm sewer network, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment program should continue to be established for the storm sewer network to gain a better understanding of current condition and performance as outlined further within the "Asset Management Strategy" section of this AMP.
2. The condition data obtained from the above assessment program should be loaded into the CityWide software and an updated "current state of the infrastructure" analysis should be generated.
3. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and be added to future AMP reporting.
4. Storm assets are currently grouped by road section. All future storm network assets should be tracked individually in the CityWide system.
5. The Infrastructure Report Card should be updated on an annual basis.

## 4.0 Infrastructure Report Card

<div> <div>CUMULATIVE GPA</div> <div>D+</div> </div> <div> <div>Infrastructure Report Card</div> <div>The City of Woodstock</div> </div>				
<ol style="list-style-type: none"> <li>Each asset category was rated on two key, equally weighted (50/50) dimensions: <b>Condition vs. Performance</b>, and <b>Funding vs. Need</b>.</li> <li>See the "<b>What condition is it in?</b>" section for each asset category for its star rating on the Condition vs. Performance dimension.</li> <li>See the "<b>How do we reach sustainability?</b>" section for each asset category for its star rating on the Funding vs. Need dimension.</li> <li>The 'Overall Rating' below is the average of the two star ratings converted to a letter grade.</li> </ol>				
Asset Category	Condition vs. Performance	Funding vs. Need	Overall Grade	Comments
Road Network	C	C	C	The majority, 60%, of the municipality's road network is in good to excellent condition, with the remaining 40% in fair to critical condition. The average annual revenue required to sustain Woodstock's paved road network is approximately <b>\$4,926,000</b> . Based on Woodstock's current annual funding of <b>\$3,056,000</b> , there is an annual <b>deficit of \$1,870,000</b> .
Bridges & Culverts	C+	F	D	About 77% of the municipality's bridges & culverts are in good to excellent condition. The average annual revenue required to sustain Woodstock's bridges & culverts is <b>\$198,000</b> . Based on Woodstock's current annual funding of <b>\$62,000</b> there is an annual <b>deficit of \$136,000</b> .
Storm Sewer Network	B+	F	D+	Over 96% of the municipality's storm sewer mains and SWM facilities are in good to excellent condition. About 74% of catch basins and manholes are in good to excellent condition. The average annual revenue required to sustain Woodstock's storm sewer network is approximately <b>\$710,000</b> . Based on Woodstock's current annual funding of <b>\$306,000</b> there is an annual <b>deficit of \$404,000</b> .

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## 5.0 Desired Levels of Service

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Desired levels of service are high level indicators, comprising many factors, as listed below, that establish defined quality thresholds at which municipal services should be supplied to the community. They support the organisation's strategic goals and are based on customer expectations, statutory requirements, standards, and the financial capacity of a municipality to deliver those levels of service.

Levels of Service are used:

- to inform customers of the proposed type and level of service to be offered;
- to identify the costs and benefits of the services offered;
- to assess suitability, affordability and equity of the services offered;
- as a measure of the effectiveness of the asset management plan
- as a focus for the AM strategies developed to deliver the required level of service

In order for a municipality to establish a desired level of service, it will be important to review the key factors involved in the delivery of that service, and the interactions between those factors. In addition, it will be important to establish some key performance metrics and track them over an annual cycle to gain a better understanding of the current level of service supplied.

Within this first Asset Management Plan, key factors affecting level of service will be outlined below and some key performance indicators for each asset type will be outlined for further review. This will provide a framework and starting point from which the municipality can determine future desired levels of service for each infrastructure class.

### 5.1 Key factors that influence a level of service:

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- Strategic and Corporate Goals
- Legislative Requirements
- Expected Asset Performance
- Community Expectations
- Availability of Finances

#### 5.1.1 Strategic and Corporate Goals

Infrastructure levels of service can be influenced by strategic and corporate goals. Strategic plans spell out where an organization wants to go, how it's going to get there, and helps decide how and where to allocate resources, ensuring alignment to the strategic priorities and objectives . It will help identify priorities and guide how municipal tax dollars and revenues are spent into the future. The level of importance that a community's vision is dependent upon infrastructure, will ultimately affect the levels of service provided or those levels that it ultimately aspires to deliver.

#### 5.1.2 Legislative Requirements

Infrastructure levels of service are directly influenced by many legislative and regulatory requirements. For instance, the Minimum Maintenance Standards for municipal highways, building codes, and the Accessibility for Ontarians with Disabilities Act are all legislative requirements that prevent levels of service from declining below a certain standard.

#### 5.1.3 Expected Asset Performance

A level of service will be affected by current asset condition, and performance and limitations in regards to safety, capacity, and the ability to meet regulatory and environmental requirements. In addition, the design life of the asset, the maintenance items required, the rehabilitation or replacement schedule of the asset, and the total costs, are all critical factors that will affect the level of service that can be provided.

#### 5.1.4 Community Expectations

Levels of services are directly related to the expectations that the general public has from the infrastructure. For example, the public will have a qualitative opinion on what an acceptable road looks like, and a quantitative one on how long it should take to travel between two locations. Infrastructure costs

are projected to increase dramatically in the future, therefore it is essential that the public is not only consulted, but also be educated, and ultimately make choices with respect to the service levels that they wish to pay for.

#### **5.1.5 Availability of Finances**

Availability of finances will ultimately control all aspects of a desired level of service. Ideally, these funds must be sufficient to achieve corporate goals, meet legislative requirements, address an asset's life cycle needs, and meet community expectations. Levels of service will be dictated by availability of funds or elected officials' ability to increase funds, or the community's willingness to pay.

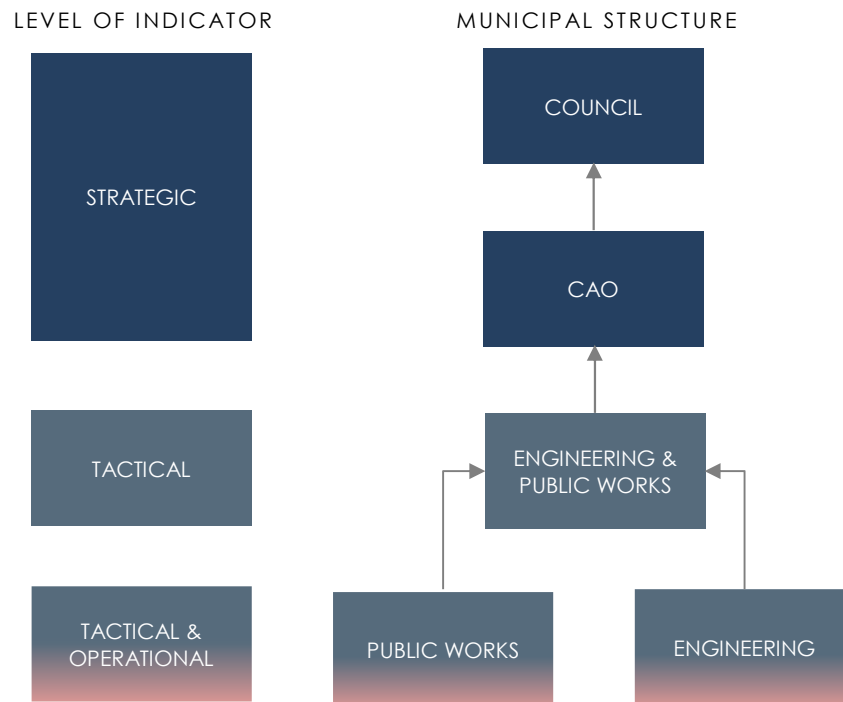
## **5.2 Key Performance Indicators**

Performance measures or key performance indicators (KPIs) that track levels of service should be specific, measurable, achievable, relevant, and timebound (SMART). Many good performance measures can be established and tracked through the CityWide suite of software products. In this way, through automation, results can be reviewed on an annual basis and adjustments can be made to the overall asset management plan, including the desired level of service targets.

In establishing measures, a good rule of thumb to remember is that maintenance activities ensure the performance of an asset and prevent premature aging, whereas rehab activities extend the life of an asset. Replacement activities, by definition, renew the life of an asset. In addition, these activities are constrained by resource availability (in particular, finances) and strategic plan objectives. Therefore, performance measures should not just be established for operating and maintenance activities, but also for the strategic, financial, and tactical levels of the asset management program. This will assist all levels of program delivery to review their performance as part of the overall level of service provided.

This is a very similar approach to the "balanced score card" methodology, in which financial and non-financial measures are established and reviewed to determine whether current performance meets expectations. The "balanced score card", by design, links day to day operations activities to tactical and strategic priorities in order to achieve an overall goal, or in this case, a desired level of service.

The structure of accountability and level of indicator with this type of process is represented in the following table, modified from the InfraGuide's best practice document, "Developing Indicators and Benchmarks" published in April 2003.



As a note, a caution should be raised over developing too many performance indicators that may result in data overload and lack of clarity. It is better to develop a select few that focus in on the targets of the asset management plan.

Outlined below for each infrastructure class is a suggested service description, suggested service scope, and suggested performance indicators. These should be reviewed and updated in each iteration of the AMP.

## 5.3 Transportation Services

### 5.3.1 Service Description

The City's transportation network comprises arterial, collector and local roads. The transport network also includes 9 bridges, 10 large culverts, 4 pedestrian bridges, sidewalks, street lights, signals and alleyways.

Together, the above infrastructure enables the municipality to deliver transportation and pedestrian facility services and give people a range of options for moving about in a safe and efficient manner.

### 5.3.2 Scope of Services

- **Movement** – providing for the movement of people and goods.
- **Access** – providing access to residential, commercial, and industrial properties and other community amenities.
- **Recreation** – providing for recreational use, such as walking, cycling, or special events such as parades.



### 5.3.3 Recommended Performance Indicators (reported annually)

Performance Indicators (reported annually)	
Strategic Indicators	<ul style="list-style-type: none"> <li>percentage of total reinvestment compared to asset replacement value</li> <li>completion of strategic plan objectives (related to transportation)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>annual revenues compared to annual expenditures</li> <li>annual replacement value depreciation compared to annual expenditures</li> <li>total cost of borrowing compared to total cost of service</li> <li>revenue required to maintain annual network growth</li> </ul>
Tactical Indicators	<ul style="list-style-type: none"> <li>percentage of road network rehabilitated / reconstructed</li> <li>value of bridge / large culvert structures rehabilitated or reconstructed</li> <li>overall road condition index as a percentage of desired condition index</li> <li>overall bridge condition index as a percentage of desired condition index</li> <li>annual adjustment in condition indexes</li> <li>annual percentage of network growth</li> <li>percent of paved road lane km where the condition is rated poor or critical</li> <li>number of bridge / large culvert structures where the condition is rated poor or critical</li> <li>percentage of road network replacement value spent on operations and maintenance</li> <li>percentage of bridge / large culvert structures replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>percentage of road network inspected within last 5 years</li> <li>percentage of bridge / large culvert structures inspected within last two years</li> <li>operating costs for paved roads per lane km</li> <li>operating costs for gravel roads per lane km</li> <li>operating costs for bridge / large culvert structures per square metre</li> <li>number of customer requests received annually</li> <li>percentage of customer requests responded to within 24 hours</li> </ul>

## 5.4 Storm Networks

### 5.4.1 Service Description

The City's storm water network comprises 186km of storm main, manholes, catch basins, storm channel outlets and facilities.

The above infrastructure enables the municipality to deliver a storm water collection service to the residents of the municipality.

### 5.4.2 Scope of services

- The removal of storm water through a collection network of storm sewer mains, catch basins and storm water management facilities.

### 5.4.3 Recommended Performance Indicators (reported annually)

Performance Indicators (reported annually)	
Strategic Indicators	<ul style="list-style-type: none"> <li>■ Percentage of total reinvestment compared to asset replacement value</li> <li>■ Completion of strategic plan objectives (storm water)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>■ Annual revenues compared to annual expenditures</li> <li>■ Annual replacement value depreciation compared to annual expenditures</li> <li>■ Total cost of borrowing compared to total cost of service</li> <li>■ Revenue required to maintain annual network growth</li> <li>■ Lost revenue from system outages</li> </ul>
Tactical Indicators	<ul style="list-style-type: none"> <li>■ Percentage of storm network rehabilitated / reconstructed</li> <li>■ Overall storm network condition index as a percentage of desired condition index</li> <li>■ Annual adjustment in condition indexes</li> <li>■ Annual percentage of growth in storm network</li> <li>■ Percentage of mains where the condition is rated poor or critical for each network</li> <li>■ Percentage of storm network replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>■ Percentage of storm network inspected.</li> <li>■ Operating costs for storm water management (collection, treatment, and disposal) per kilometre of drainage system.</li> <li>■ Number of customer requests received annually per storm networks</li> <li>■ Percentage of customer requests responded to within 24 hours per storm network</li> </ul>

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## 6.0 Asset Management Strategy

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### 6.1 Objective

To outline and establish a set of planned actions, based on best practice, that will enable the assets to provide a desired and sustainable level of service, while managing risk, at the lowest life cycle cost.

The Asset Management Strategy will develop an implementation process that can be applied to the needs identification and prioritization of renewal, rehabilitation, and maintenance activities. This will assist in the production of a 10 year plan, including growth projections, to ensure the best overall health and performance of the municipality's infrastructure.

This section includes an overview of condition assessment techniques for each asset class; the life cycle interventions required, including interventions with the best ROI; and prioritization techniques, including risk, to determine which priority projects should move forward into the budget first.

### 6.2 Non-infrastructure Solutions and Requirements

The municipality should continue to explore, as requested through the provincial requirements, which non-infrastructure solutions should be incorporated into the budgets for the road, storm sewer, and bridges & culverts programs. Non-Infrastructure solutions are such items as studies, policies, condition assessments, consultation exercises, etc., that could potentially extend the life of assets or lower total asset program costs in the future.

Typical solutions for a municipality include linking the asset management plan to the strategic plan, growth and demand management studies, infrastructure master plans, better integrated infrastructure and land use planning, public consultation on levels of service, and condition assessment programs. As part of future asset management plans, a review of these requirements should take place, and a portion of the capital budget should be dedicated for these items in each programs budget.

The City of Woodstock has implemented and completed a bi-annual Roads Needs Study and OSIM Bridge Study. The city has also implemented an assessment program for the sanitary and storm sewer networks using CCTV/Zoom cameras. This is an ongoing project with a 7-10 year cycle.

It is recommended, under this category of solutions, that the municipality continues to implement holistic condition assessment programs for their storm sewer networks. This will lead to higher understanding of infrastructure needs, enhanced budget prioritization methodologies, and a clearer path of what is required to achieve sustainable infrastructure programs.

### 6.3 Condition Assessment Programs

The foundation of good asset management practice is based on having comprehensive and reliable information on the current condition of the infrastructure. Municipalities need to have a clear understanding regarding performance and condition of their assets, as all management decisions regarding future expenditures and field activities should be based on this knowledge. An incomplete understanding about an asset may lead to its premature failure or premature replacement.

Some benefits of holistic condition assessment programs within the overall asset management process are listed below:

- Understanding of overall network condition leads to better management practices
- Allows for the establishment of rehabilitation programs
- Prevents future failures and provides liability protection
- Potential reduction in operation / maintenance costs

- Accurate current asset valuation
- Allows for the establishment of risk assessment programs
- Establishes proactive repair schedules and preventive maintenance programs
- Avoids unnecessary expenditures
- Extends asset service life therefore improving level of service
- Improves financial transparency and accountability
- Enables accurate asset reporting which, in turn, enables better decision making

Condition assessment can involve different forms of analysis such as subjective opinion, mathematical models, or variations thereof, and can be completed through a very detailed or very cursory approach.

When establishing the condition assessment of an entire asset class, the cursory approach (metrics such as good, fair, poor, critical) is used. This will be a less expensive approach when applied to thousands of assets, yet will still provide up to date information, and will allow for detailed assessment or follow up inspections on those assets captured as poor or critical condition later.

The following section outlines condition assessment programs available for road, bridge, and storm sewer networks that would be useful for the municipality.

### 6.3.1 Pavement Network Inspections

Typical industry pavement inspections are performed by consulting firms using specialised assessment vehicles equipped with various electronic sensors and data capture equipment. The vehicles will drive the entire road network and typically collect two different types of inspection data – surface distress data and roughness data.

Surface distress data involves the collection of multiple industry standard surface distresses, which are captured either electronically, using sensing detection equipment mounted on the van, or visually, by the van's inspection crew. Examples of surface distresses are:

- **For asphalt surfaces**  
alligator cracking; distortion; excessive crown; flushing; longitudinal cracking; map cracking; patching; edge cracking; potholes; ravelling; rippling; transverse cracking; wheel track rutting
- **For concrete surfaces**  
coarse aggregate loss; corner 'C' and 'D' cracking; distortion; joint faulting; joint sealant loss; joint spalling; linear cracking; patching; polishing; potholes; ravelling; scaling; transverse cracking

Roughness data capture involves the measurement of the roughness of the road, measured by lasers that are mounted on the inspection van's bumper, calibrated to an international roughness index.

Most firms will deliver this data to the client in a database format complete with engineering algorithms and weighting factors to produce an overall condition index for each segment of roadway. This type of scoring database is ideal for upload into the CityWide software database, in order to tag each road with a present condition and then further life cycle analysis to determine what activity should be completed on which road, in what timeframe, and to calculate the cost for the work will be completed within the CityWide system. City of Woodstock currently performs road condition studies and should continue to do so in the future.

The above process is an excellent way to capture road condition as the inspection trucks will provide detailed surface and roughness data for each road segment, and often include video or street imagery. A very rough industry estimate of cost would be about \$100 per centreline km of road, which means it would cost the municipality approximately \$28,100 for the 281 centreline km of paved road network.

Another option for a cursory level of condition assessment is for municipal road crews to perform simple windshield surveys as part of their regular patrol. Many municipalities have created data collection inspection forms to assist this process and to standardize what presence of defects would constitute a good, fair, poor, or critical score. Lacking any other data for the complete road network, this can still be seen as a good method and will assist greatly with the overall management of the road network. The CityWide Works software has a road patrol component built in that could capture this type of inspection

data during road patrols in the field, enabling later analysis of rehabilitation and replacement needs for budget development.

The city has an established pavement condition assessment program performed on 50% of paved roads every two years. It is recommended that the city continue to implement the condition assessment program and that a portion of capital funding is dedicated to this.

### **6.3.2 Bridges & Culverts (greater than 3m) Inspections**

Ontario municipalities are mandated by the Ministry of Transportation to inspect all structures that have a span of 3 metres or more, according to the OSIM (Ontario Structure Inspection Manual). At present, in the municipality, there are 22 structures that meet this criterion.

Structure inspections must be performed by, or under the guidance of, a structural engineer, must be performed on a biennial basis (once every two years), and include such information as structure type, number of spans, span lengths, other key attribute data, detailed photo images, and structure element by element inspection, rating and recommendations for repair, rehabilitation, and replacement.

The best approach to develop a 10 year needs list for the municipality's structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, and rehabilitation and replacement requirements report as part of the overall assignment. In addition to refining the overall needs requirements, the structural engineer should identify those structures that will require more detailed investigations and non-destructive testing techniques. Examples of these investigations are:

- Detailed deck condition survey
- Non-destructive delamination survey of asphalt covered decks
- Substructure condition survey
- Detailed coating condition survey
- Underwater investigation
- Fatigue investigation
- Structure evaluation

Through the OSIM recommendations and additional detailed investigations, a 10 year needs list will be developed for the municipality's bridges.

The 10 year needs list developed could then be further prioritized using risk management techniques to better allocate resources. Also, the results of the OSIM inspection for each structure, whether BCI (bridge condition index) or general condition (good, fair, poor, critical) should continue to be entered into the CityWide software to update results and analysis for the development of the budget.

### **6.3.3 Storm Sewer Network Inspections**

The most popular and practical type of storm sewer assessment is the use of Closed Circuit Television Video (CCTV). The process involves a small robotic crawler vehicle with a CCTV camera attached that is lowered down a maintenance hole into the sewer main to be inspected. The vehicle and camera then travels the length of the pipe providing a live video feed to a truck on the road above where a technician / inspector records defects and information regarding the pipe. A wide range of construction or deterioration problems can be captured including open/displaced joints, presence of roots, infiltration & inflow, cracking, fracturing, exfiltration, collapse, deformation of pipe and more. Therefore, sewer CCTV inspection is a very good tool for locating and evaluating structural defects and general condition of underground pipes.

Even though CCTV is an excellent option for inspection of sewers it is a fairly costly process and does take significant time to inspect a large volume of pipes.

Another option in the industry today is the use of Zoom Camera equipment. This is very similar to traditional CCTV, however, a crawler vehicle is not used but in it's a place a camera is lowered down a maintenance hole attached to a pole like piece of equipment. The camera is then rotated towards each connecting

pipe and the operator above progressively zooms in to record all defects and information about each pipe. The downside to this technique is the further down the pipe the image is zoomed, the less clarity is available to accurately record defects and measurement. The upside is the process is far quicker and significantly less expensive and an assessment of the manhole can be provided as well. Also, it is important to note that 80% of pipe deficiencies generally occur within 20 metres of each manhole. The following is a list of advantages of utilizing Zoom Camera technology:

- A time and cost efficient way of examining sewer systems;
- Problem areas can be quickly targeted;
- Can be complemented by a conventional camera (CCTV), if required afterwards;
- In a normal environment, 20 to 30 manholes can be inspected in a single day, covering more than 1,500 meters of pipe;
- Contrary to the conventional camera approach, cleaning and upstream flow control is not required prior to inspection;
- Normally detects 80% of pipe deficiencies, as most deficiencies generally occur within 20 meters of manholes.

The following table is based on general costs incurred by City of Woodstock for traditional CCTV inspection and Zoom Camera inspection; however, costs should be verified through local contractors. It is for illustrative purposes only but supplies a general idea of the cost to inspect Woodstock's entire storm networks.

<b>Storm Sewer Inspection Cost Estimates</b>				
Sewer Network	Assessment Activity	Cost	Metres of Main / # of Manholes	Total
Storm	Full CCTV	\$5 (per m)	186,000m	<b>\$930,000</b>
	Zoom	\$100 (Per mh)	1908 manholes	<b>\$190,800</b>

It can be seen from the above table that there is a significant cost savings achieved through the use of Zoom Camera technology. A good industry trend and best practice is to inspect the entire network using Zoom Camera technology and follow up on the poor and critical rated pipes with more detail using a full CCTV inspection. In this way, inspection expenditures are kept to a minimum, however, an accurate assessment on whether to rehabilitate or replace pipes will be provided for those with the greatest need.

The City of Woodstock has established a sewer condition assessment program in 2013. It is recommended that the condition data is uploaded in CityWide and that a portion of capital funding is dedicated to continued funding of this program.

In addition to receiving a video and defect report of each pipe's CCTV or Zoom camera inspection, many companies can now provide a database of the inspection results, complete with scoring matrixes that provide an overall general condition score for each pipe segment that has been assessed. Typically pipes are scored from 1 – 5, with 1 being a relatively new pipe and 5 being a pipe at the end of its design life. This type of scoring database is ideal for upload into the CityWide software database, in order to tag each pipe with a present condition and then further life cycle analysis to determine what activity should be done to which pipe, in what timeframe, and to calculate the cost for the work will be completed by the CityWide system.

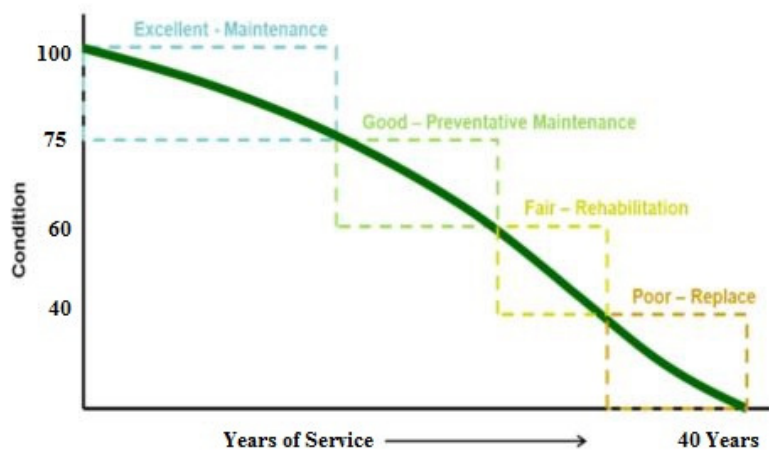
## 6.4 AM Strategy – Life Cycle Analysis Framework

An industry review was conducted to determine which life cycle activities can be applied at the appropriate time in an asset's life, to provide the greatest additional life at the lowest cost. In the asset management industry, this is simply put as doing the right thing to the right asset at the right time. If these techniques are applied across entire asset networks or portfolios (e.g., the entire road network), the municipality could gain the best overall asset condition while expending the lowest total cost for those programs.

### 6.4.1 Paved Roads

The following analysis has been conducted at a fairly high level, using industry standard activities and costs for paved roads. With future updates of this Asset Management Strategy, the municipality may wish to run the same analysis with a detailed review of municipality activities used for roads and the associated local costs for those work activities. All of this information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available.

The following diagram depicts a general deterioration profile of a road with a 40 year life.

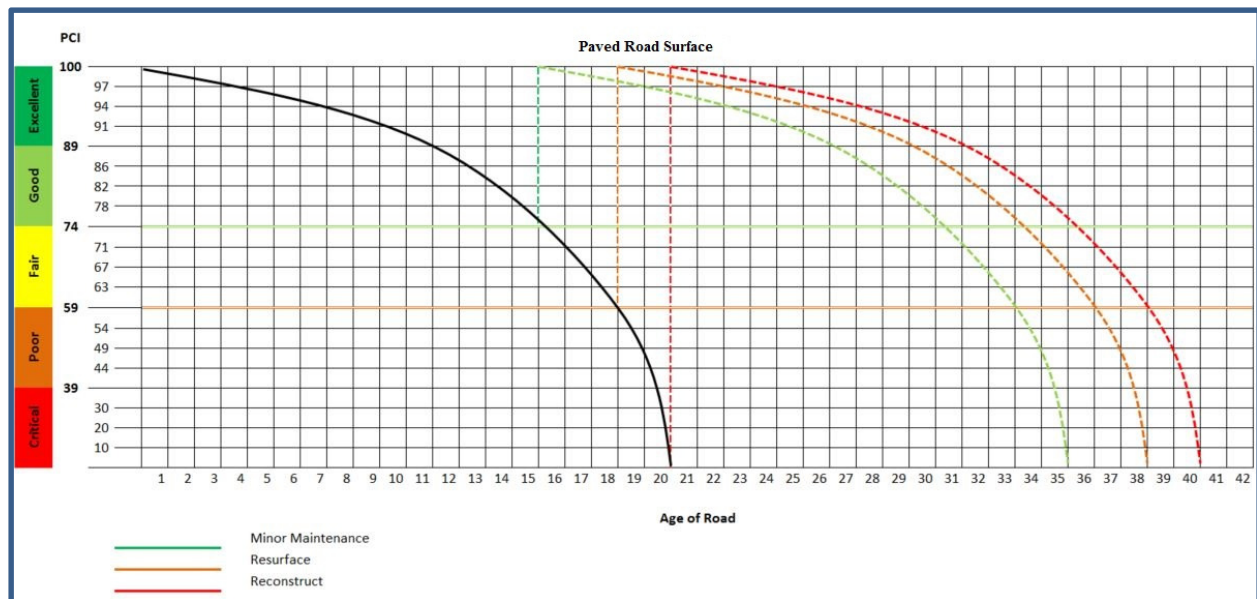


As shown above, during the road's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; preventative maintenance; rehabilitation; and replacement or reconstruction.

The windows or thresholds for when certain work activities should be applied to also coincide approximately with the condition state of the asset as shown below:

Asset Condition and Related Work Activity: Paved Roads		
Condition	Condition Range	Work Activity
excellent condition (Maintenance only phase)	100 - 90	■ maintenance only
good Condition (Preventative maintenance phase)	89 - 75	■ crack sealing ■ emulsions
fair Condition (Rehabilitation phase)	74 - 60	■ resurface - mill & pave ■ resurface - asphalt overlay ■ single & double surface treatment (for rural roads)
poor Condition (Reconstruction phase)	59 - 40	■ reconstruct - pulverize and pave ■ reconstruct - full surface and base reconstruction
critical Condition (Reconstruction phase)	39 - 0	■ critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the "poor" category above.

The following diagram depicts the results of a timely preventative maintenance based on the work activity listed in the chart above.



With future updates of this Asset Management Strategy the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These threshold and condition ranges can be easily updated with the CityWide software suite and an updated financial analysis can be



calculated. These adjustments will be an important component of future Asset Management Plans, as the Province requires each municipality to present various management options within the financing plan.

The table below outlines the costs for various road activities, the added life obtained for each, the condition range at which they should be applied, and the cost of 1 year added life for each (cost of activity / added life) in order to present an apples to apples comparison.

Road Lifecycle Activity Options				
Treatment	Average Unit Cost (per sq. m)	Added Life (Years)	Condition Range	Cost Of Activity/Added Life
Routing & Crack Sealing (P.M)	\$2	3	89 – 75	\$0.67
Double Surface Treatment	\$25	10	75 – 60	\$2.50
Urban Reconstruction	\$205	40	59 – 0	\$5.13
Urban Resurfacing	\$84	20	74 – 60	\$4.20
Rural Reconstruction	\$135	40	59 - 0	\$3.38
Rural Resurfacing	\$40	20	74 - 60	\$2.00

As can be seen in the table above, preventative maintenance activities such as routing and crack sealing have the lowest associated cost (per sq. m) in order to obtain one year of added life. Of course, preventative maintenance activities can only be applied to a road at a relatively early point in the life cycle. The City of Woodstock has an established program and it is recommended that it continues to implement this program for all paved roads and that a portion of the maintenance budget is allocated to this.

Also, rehabilitation activities, such as urban and rural resurfacing or double surface treatments (tar and chip) for rural roads have a lower cost to obtain each year of added life than full reconstruction activities. It is recommended that the municipality continue to engage in an active rehabilitation program for urban and rural paved roads and that a portion of the capital budget is dedicated to this.

Of course, in order to continue implementing the above programs it will be important to also establish a general condition score for each road segment, established through standard condition assessment protocols as previously described.

It is important to note that a “worst first” budget approach, whereby no life cycle activities other than reconstruction at the end of a roads life are applied, will result in the most costly method of managing a road network overall.

#### 6.4.2 Gravel Roads

The life cycle activities required for these roads are quite different from paved roads. Gravel roads require a cycle of perpetual maintenance, including general re-grading, reshaping of the crown and cross section, gravel spot and section replacement, dust abatement and ditch clearing and cleaning.

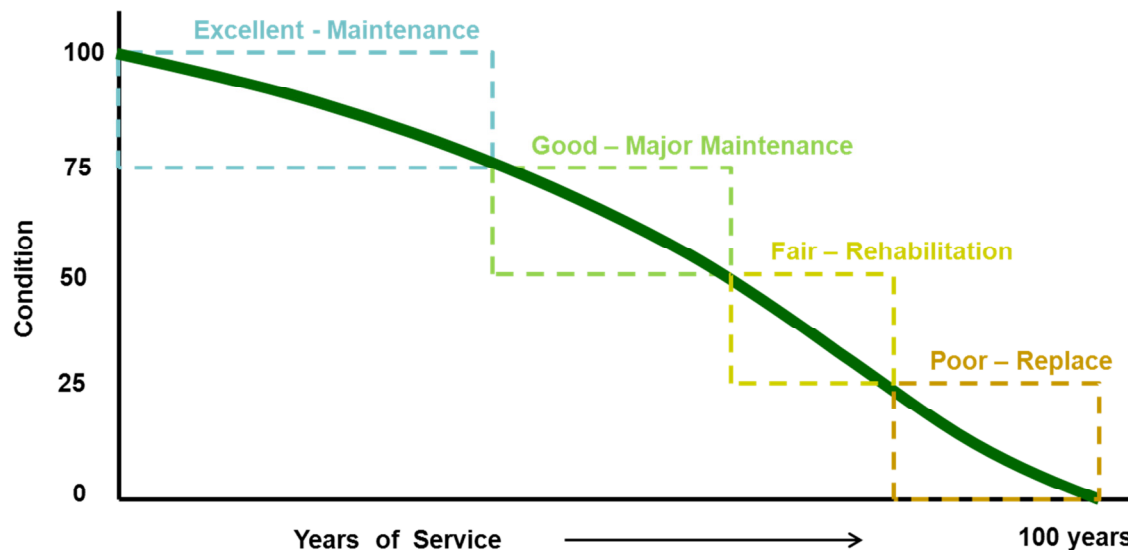
Gravel roads can require frequent maintenance, especially after wet periods and when accommodating increased traffic. Wheel motion shoves material to the outside (as well as in-between travelled lanes), leading to rutting, reduced water-runoff, and eventual road destruction if unchecked. This deterioration process is prevented if interrupted early enough, simple re-grading is sufficient, with material being pushed back into the proper profile.

#### 6.4.3 Storm Sewers

The following analysis has been conducted at a fairly high level, using industry standard activities and costs for storm sewer rehabilitation and replacement. With future updates of this asset management strategy,

the municipality may wish to run the same analysis with a detailed review of municipality activities used for sewer mains and the associated local costs for those work activities. All of this information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available.

The following diagram depicts a general deterioration profile of a sewer main with a 100 year life.



As shown above, during the sewer main's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; major maintenance; rehabilitation; and replacement or reconstruction.

The windows or thresholds for when certain work activities should be applied also coincide approximately with the condition state of the asset as shown below:

Asset Condition and Related Work Activity: Sewer Main		
Condition	Condition Range	Work Activity
excellent condition (Maintenance only phase)	100-76	■ maintenance only (cleaning & flushing etc.)
good Condition (Preventative maintenance phase)	75 - 51	■ manhole repairs ■ small pipe section repairs
fair Condition (Rehabilitation phase)	50 -26	■ structural relining
poor Condition (Reconstruction phase)	25 - 1	■ pipe replacement
critical Condition (Reconstruction phase)	0	■ critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the "poor" category above.

With future updates of this Asset Management Strategy the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These threshold and condition

ranges can be easily updated with the CityWide software suite and an updated financial analysis can be calculated. These adjustments will be an important component of future Asset Management Plans, as the province requires each municipality to present various management options within the financing plan.

The table below outlines the costs, by pipe diameter, for various sewer main rehabilitation (lining) and replacement activities. The columns display the added life obtained for each activity, the condition range at which they should be applied, and the cost of 1 year added life for each (cost of activity / added life) in order to present an apples to apples comparison.

Sewer Main Lifecycle Activity Options				
Category	Cost (per m)	Added Life	Condition Range	1 year Added Life Cost (Cost / Added Life)
Structural Rehab (m)				
0 - 325mm	\$174.69	75	50 - 75	\$2.33
325 - 625mm	\$283.92	75	50 - 75	\$3.79
625 - 925mm	\$1,857.11	75	50 - 75	\$24.76
> 925mm	\$1,771.34	75	50 - 75	\$23.62
Replacement (m)				
	\$475.00	100	76 - 100	\$4.75
325 - 625mm	\$725.00	100	76 - 100	\$7.25
625 - 925mm	\$900.00	100	76 - 100	\$9.00
> 925mm	\$1,475.00	100	76 - 100	\$14.75

As can be seen in the above table, structural rehabilitation or lining of sewer mains is an extremely cost effective industry activity and solution for pipes with a diameter less than 625mm. The unit cost of lining is approximately one third of replacement and the cost to obtain one year of added life is half the cost. Structural lining has been proven through industry testing to have a design life (useful life) of 75 years, however, it is believed that liners will probably obtain 100 years of life (the same as a new pipe).

For sewer mains with diameters greater than 625mm specialized liners are required and therefore the costs are no longer effective. It should be noted, however, that the industry is continually expanding its technology in this area and therefore future costs should be further reviewed for change and possible price reductions.

It is recommended that the city continue to engage in an active structural lining program for storm sewer mains and that a portion of the capital budget be dedicated to this.

In order to implement the above, it will be important to also establish a condition assessment program to establish a condition score for each sewer main within the storm collection networks, and therefore identify which pipes are good candidates for structural lining.

#### 6.4.4 Bridges & Culverts (greater than 3m span)

The best approach to develop a 10 year needs list for the municipality's bridge structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, a rehabilitation and replacement requirements report and identify additional detailed inspections as required. This approach is described in more detail within the "Bridges & Culverts (greater than 3m) Inspections" section above.

## 6.5 Growth and Demand

Typically a municipality will have specific plans associated with population growth. It is essential that the asset management strategy should address not only the existing infrastructure, as above, but must include the impact of projected growth on defined project schedules and funding requirements. Projects would include the funding of the construction of new infrastructure, and/or the expansion of existing infrastructure to meet new demands. The municipality should enter these projects into the CityWide software in order to be included within the short and long term budgets as required.

## 6.6 Project Prioritization

The above techniques and processes when established for the road, storm sewer networks and bridges will supply a significant listing of potential projects. Typically the infrastructure needs will exceed available resources and therefore project prioritization parameters must be developed to ensure the right projects come forward into the short and long range budgets. An important method of project prioritization is to rank each project, or each piece of infrastructure, on the basis of how much risk it represents to the organization.

### 6.6.1 Risk Matrix and Scoring Methodology

Risk within the infrastructure industry is often defined as the probability (likelihood) of failure multiplied by the consequence of that failure.

$$\text{RISK} = \text{LIKELIHOOD OF FAILURE} \times \text{CONSEQUENCE OF FAILURE}$$

The likelihood of failure relates to the current condition state of each asset, whether they are in excellent, good, fair, poor or critical condition, as this is a good indicator regarding their future risk of failure. The consequence of failure relates to the magnitude, or overall effect, that an asset's failure will cause. For instance, a small diameter gravity main break in a sub division may cause a few customers to have no service for a few hours, whereby a large trunk gravity main break outside a hospital could have disastrous effects and would be a front page news item. The following table represents the scoring matrix for risk:

High								
Consequence of Failure	5	37 Assets 190,382 m2, m \$8,825,683.61	22 Assets 69,013 m, m2, units \$8,734,018.78	12 Assets 65,889 m2 \$1,850,111.19	7 Assets 26,583 m2 \$1,092,011.52	2 Assets 7,860 m2 \$303,966.98		
	4	80 Assets 287,117 m, m2 \$9,169,671.98	86 Assets 289,315 m, m2, units \$15,280,432.57	56 Assets 197,425.5 m, m2 \$6,782,147.24	26 Assets 121,894 m, m2 \$5,042,340.28	15 Assets 70,510.5 m2 \$2,827,099.29		
	3	496 Assets 994,496.3 m, m2, units \$38,570,416.71	223 Assets 477,957 m, m2, units \$21,506,771.21	251 Assets 515,587 m, units, m2 \$17,472,702.17	90 Assets 191,671 m, m2, units \$7,764,146.44	88 Assets 215,010 m2 \$9,140,424.17		
	2	135 Assets 68,040.3 m, m2, units \$7,128,713.37	149 Assets 53,793 m, units, m2 \$8,124,101.34	58 Assets 24,794.5 m, m2, units \$2,474,659.68	26 Assets 14,737.6 m, m2, units \$1,355,150.58	6 Assets 1,591 m \$271,508.03		
	1	447 Assets 35,403.4 m, units, m2 \$4,982,248.03	355 Assets 21,251 units, m, m2 \$4,640,450.14	334 Assets 15,155 units, m, m2 \$4,866,742.99	314 Assets 13,337.3 units, m, m2 \$2,978,970.98	322 Assets 9,398.1 units, m, m2 \$2,815,253.73		
Low		1	2	3	4	5	High	
		Probability of Failure						

All of the municipality's assets analyzed within this asset management plan have been given both a likelihood of failure score and a consequence of failure score within the CityWide software.

The following risk scores have been developed at a high level for each asset class within the CityWide software system. It is recommended that the municipality undertake a detailed study to develop a more

tailored suite of risk scores, particularly in regards to the consequence of failure, and that this be updated within the CityWide software with future updates to this Asset Management Plan.

The current scores that will determine budget prioritization currently within the system are as follows:

**All assets:**

The Likelihood of Failure score is based on the condition of the assets:

Likelihood of Failure: All Assets	
Asset condition	Likelihood of failure
Excellent condition	score of 1
Good condition	score of 2
Fair condition	score of 3
Poor condition	score of 4
Critical condition	score of 5

**Bridges** (based on valuation):

The consequence of failure score for this initial AMP is based upon the replacement value of the structure. The higher the value, probably the larger the structure and therefore probably the higher the consequential risk of failure:

Consequence of Failure: Bridges	
Replacement Value	Consequence of failure
Up to \$50k	Score of 1
\$51 to \$150k	Score of 2
\$151 to \$350k	Score of 3
\$351 to \$1m	Score of 4
\$1m and over	Score of 5

**Roads** (based on classification):

The consequence of failure score for this initial AMP is based upon the road classification as this will reflect traffic volumes and number of people affected.

Consequence of Failure: Roads	
Road Classification	Consequence of failure
Alley	score of 1
Gravel	score of 2
Local	score of 3
Collector	score of 4
Arterial	score of 5

**Storm Sewer** (based on replacement cost):

The consequence of failure score for this initial AMP is based upon pipe replacement cost as this will reflect potential upstream service area affected. However, we recommend that all future storm sewer pipes are reported based on diameter size as it provides a more accurate analysis.

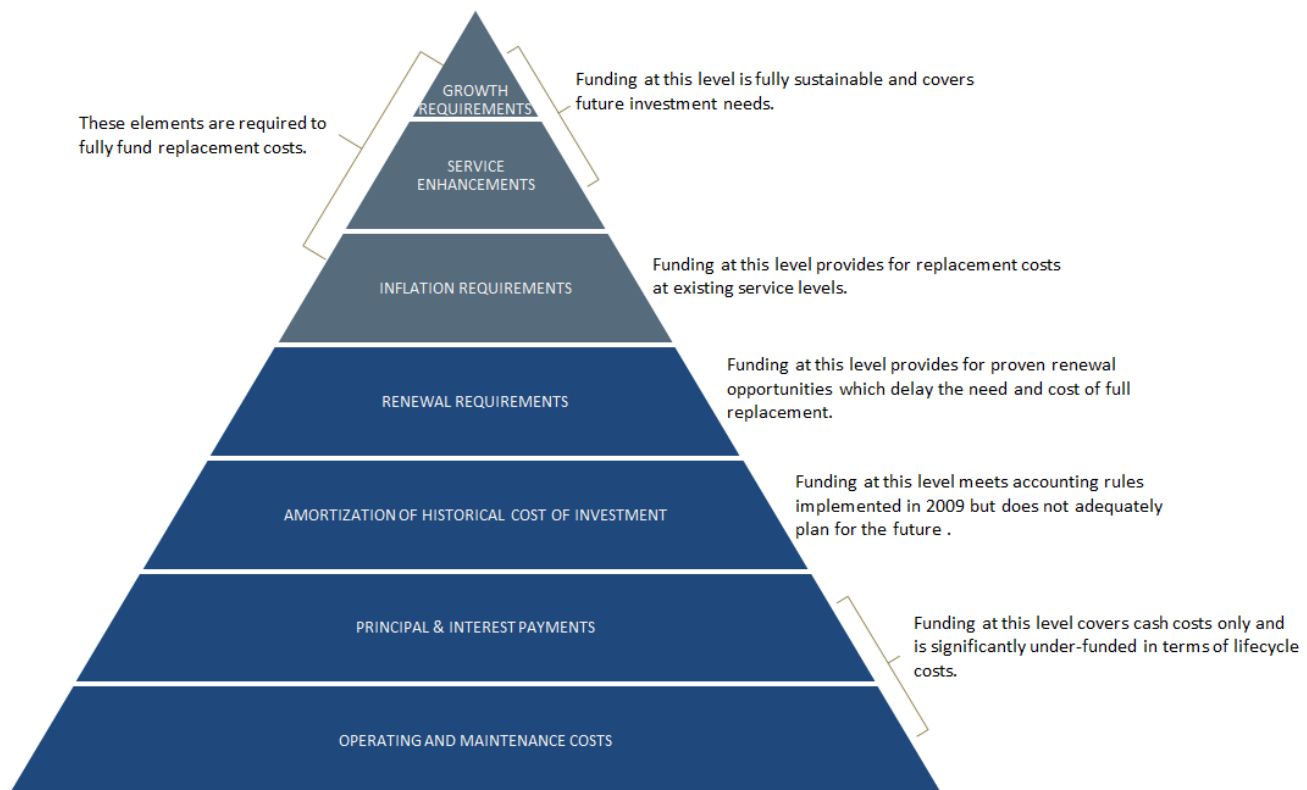
Consequence of Failure: Storm Sewer	
Pipe Replacement Cost	Consequence of failure
Up to \$19k	Score of 1
\$20 to \$99k	Score of 2
\$100 to \$199k	score of 3
\$200 to \$499k	score of 4
\$500k and over	score of 5

## 7.0 Financial Strategy

### 7.1 General overview of financial plan requirements

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow Woodstock to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service and projected growth requirements.

The following pyramid depicts the various cost elements and resulting funding levels that should be incorporated into AMP's that are based on best practices.



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

- a) the financial requirements (as documented in the SOTI section of this report) for:
  - existing assets
  - existing service levels
  - requirements of contemplated changes in service levels (none identified for this plan)
  - requirements of anticipated growth (none identified for this plan)
- b) use of traditional sources of municipal funds:
  - tax levies
  - user fees
  - reserves
  - debt (no additional debt required for this AMP)
  - development charges (not applicable)

- c) use of non-traditional sources of municipal funds:
  - reallocated budgets (not required for this AMP)
  - partnerships (not applicable)
  - procurement methods (no changes recommended)
- d) use of senior government funds:
  - gas tax
  - grants (not included in this plan due to Provincial requirements for firm commitments)

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

- a) in order to reduce financial requirements, consideration has been given to revising service levels downward
- b) all asset management and financial strategies have been considered. For example:
  - if a zero debt policy is in place, is it warranted? If not, the use of debt should be considered.
  - do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

This AMP includes recommendations that avoid long-term funding deficits.

## 7.2 Financial information relating to Woodstock's AMP

### 7.2.1 Funding objective

We have developed scenarios that would enable Woodstock to achieve full funding within 5 years or 10 years for the following assets:

Tax funded assets – Road network (paved roads); Bridges & Culverts; Storm Sewer Network

Note: For the purposes of this AMP, we have excluded the category of gravel roads since gravel roads are a perpetual maintenance asset and end of life replacement calculations do not normally apply. If gravel roads are maintained properly they, in essence, could last forever.

For each scenario developed we have included strategies, where applicable, regarding the use of tax revenues, user fees and reserves.

## 7.3 Tax funded assets

### 7.3.1 Current funding position

Tables 1 and 2 outline, by asset category, Woodstock's average annual asset investment requirements, current funding positions and funding changes required to achieve full funding on assets funded by taxes.

Table 1. Summary of Infrastructure Requirements & Current Funding Available						
Asset Category	Average Annual Investment Required	2013 Annual Funding Available				Annual Deficit/Surplus
		Taxes	Gas Tax	Capital Reserve	Total Funding Available	
Road Network	4,926,000	1,963,000	1,093,000	0	3,056,000	1,870,000
Bridges & Culverts	198,000	62,000	0	0	62,000	136,000
Storm Sewer Network	710,000	306,000	0	0	306,000	404,000
<b>Total</b>	<b>5,834,000</b>	<b>2,331,000</b>	<b>1,093,000</b>	<b>0</b>	<b>3,424,000</b>	<b>2,410,000</b>



### 7.3.2 Recommendations for full funding

The average annual investment requirement for paved roads, bridges & culverts, and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets for capital purposes is \$3,424,000 leaving an annual deficit of \$2,410,000. To put it another way, these infrastructure categories are currently funded at 59% of their long-term requirements.

In 2014, Woodstock has annual tax revenues of \$43,726,000. As illustrated in table 2, without consideration of any other sources of revenue, full funding would require the following tax increase over time:

<b>Table 2. Tax Increases Required for Full Funding</b>	
Asset Category	Tax Increase Required for Full Funding
Road Network	4.3%
Bridges & Culverts	0.3%
Storm Sewer Network	0.9%
<b>Total</b>	<b>5.5%</b>

The City of Woodstock generally issues new debt each year, in the amount of \$900,000, as part of their road network capital funding strategy. Debt payments will increase by \$171,000 from 2014 to 2018 and \$539,000 from 2014 to 2023 if the city continues to follow this funding strategy (assuming 3% interest).

Our recommendations include continued issuance of additional debt for road network projects. Table 3 outlines this concept and presents a number of options:

<b>Table 3. Effect of Changes in Debt Costs</b>				
	Increase in Debt Payments		Decrease in Debt Payments	
	5 Years	10 Years	5 Years	10 Years
Infrastructure Deficit as Outlined in Table 1	2,423,000	2,423,000	2,423,000	2,423,000
Change in Debt Costs – Existing Debt	-281,000	-417,000	-281,000	-417,000
Change in Debt Costs – New Debt	452,000	956,000	0	0
<b>Resulting Infrastructure Deficit</b>	<b>2,594,000</b>	<b>2,962,000</b>	<b>2,142,000</b>	<b>2,006,000</b>
Resulting Tax Increase Required:				
<b>Total Over Time</b>	<b>5.9%</b>	<b>6.8%</b>	<b>4.8%</b>	<b>4.5%</b>
Annually	1.2%	0.7%	1.0%	0.4%

Considering all of the above information, we recommend the 5 year option in table 3. This involves full funding being achieved over 5 years by:

- a) increasing tax revenues by 1.2% each year for the next 5 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
- b) continuing to allocate the \$1,093,000 of gas tax revenue to the paved roads category.
- c) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

#### Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this funding cannot be incorporated into the AMP unless there are firm commitments in place.

Although this option achieves full funding on an annual basis in 5 years and provides financial sustainability over the period modeled (to 2050), the recommendations do require prioritizing capital projects to fit the resulting annual funding available. As of 2014, assessed condition data shows a pent up investment demand of \$6,350,000 for paved roads, \$0 for bridges & culverts, and \$1,599,000 aged based data for storm sewers. Prioritizing future projects will require the age based data to be replaced by condition based data for all assets that have yet to be assessed. Although our recommendations include continued use of debt to fund roads network projects the option of phasing out the use of debt is also a feasible option for the city to consider as it will require a lower tax increase to reach full funding in the next five years.

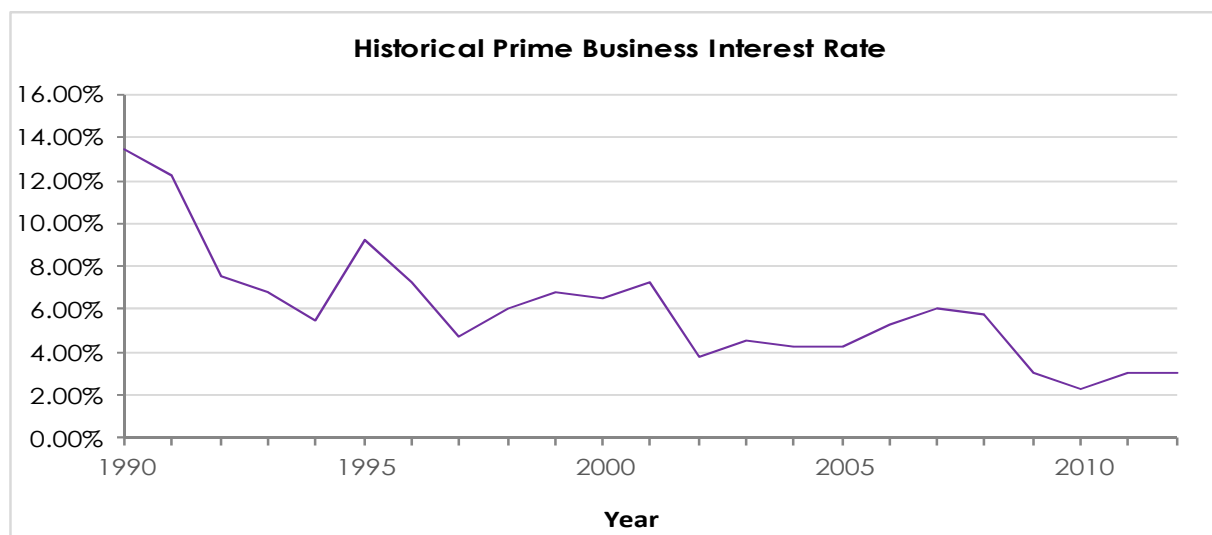
## 7.4 Use of debt

For reference purposes, table 4 outlines the premium paid on a project if financed by debt. The City of Woodstock typically issues debt over a 10 year period. For example, a \$1M project financed at 3.0%<sup>1</sup> over 10 years would result in a 17% premium or \$170,000 of increased costs due to interest payments. The table does not take into account the time value of money or the effect of inflation on delayed projects. However, when considering issuing new debt, it is important to take into account the time value of money or the effect of inflation on new or delayed projects.

<b>Table 4. Total Interest Paid as a % of Project Costs</b>						
Interest Rate	Number of Years Financed					
	5	10	15	20	25	30
<b>7.0%</b>	22%	42%	65%	89%	115%	142%
<b>6.5%</b>	20%	39%	60%	82%	105%	130%
<b>6.0%</b>	19%	36%	54%	74%	96%	118%
<b>5.5%</b>	17%	33%	49%	67%	86%	106%
<b>5.0%</b>	15%	30%	45%	60%	77%	95%
<b>4.5%</b>	14%	26%	40%	54%	69%	84%
<b>4.0%</b>	12%	23%	35%	47%	60%	73%
<b>3.5%</b>	11%	20%	30%	41%	52%	63%
<b>3.0%</b>	9%	17%	26%	34%	44%	53%
<b>2.5%</b>	8%	14%	21%	28%	36%	43%
<b>2.0%</b>	6%	11%	17%	22%	28%	34%
<b>1.5%</b>	5%	8%	12%	16%	21%	25%
<b>1.0%</b>	3%	6%	8%	11%	14%	16%
<b>0.5%</b>	2%	3%	4%	5%	7%	8%
<b>0.0%</b>	0%	0%	0%	0%	0%	0%

It should be noted that current interest rates are near all-time lows. Sustainable funding models that include debt need to incorporate the risk of rising interest rates. The following graph shows where historical lending rates have been:

<sup>1</sup> Current municipal Infrastructure Ontario rates for 15 year money is 3.2%.



As illustrated in table 4, a change in 10 year rates from 3% to 6% would change the premium from 17% to 36%. Judicious use of debt helps meet the infrastructure challenges while limiting the impact on the taxpayers.

Tables 5 and 6 outline how Woodstock has historically used debt for investing in the asset categories as listed. There is currently \$1,661,000 of debt outstanding for the assets covered by this AMP. In terms of overall debt capacity, Woodstock currently has \$6,253,000 of total outstanding debt and \$1,433,000 in total annual principal and interest payment commitments. These principal and interest payments are well within its provincially prescribed annual maximum of \$12,367,000 and the estimated repayment limit of \$10,845,674.

Asset Category	Closing 2013 Debt Outstanding	Use Of Debt in the Last Five Years				
		2009	2010	2011	2012	2013
Road Network	1,661,000	0	0	600,000	100,000	625,000
Bridges & Culverts	0	0	0	0	0	0
Storm Sewers	0	0	0	0	0	0
Total Tax Funded	1,661,000	0	0	600,000	100,000	625,000
Total Existing Infrastructure Debt	1,661,000	0	0	600,000	100,000	625,000
Total Existing General Capital Debt	4,592,000	600,000	1,602,000	1,385,000	672,000	0
<b>Overall Total</b>	<b>6,253,000</b>	<b>600,000</b>	<b>1,602,000</b>	<b>1,985,000</b>	<b>772,000</b>	<b>625,000</b>

Table 6. Overview of Debt Costs					
Asset Category	Principal & Interest Payments in the Next Five Years				
	2014	2015	2016	2017	2018
Road Network	481,000	439,000	328,000	286,000	200,000
Bridges & Culverts	0	0	0	0	0
Storm Sewer Network	0	0	0	0	0
Total Tax Funded	481,000	439,000	328,000	286,000	200,000
Total Existing Infrastructure Debt	481,000	439,000	328,000	286,000	200,000
New Roads Projects Debt	0	117,000	231,000	343,000	452,000
Total Existing General Capital Debt	952,000	659,000	474,000	461,000	447,000
<b>Overall Total</b>	<b>1,433,000</b>	<b>1,215,000</b>	<b>1,033,000</b>	<b>1,090,000</b>	<b>1,099,000</b>

The revenue options outlined in this plan allow Woodstock to fully fund its long-term infrastructure requirements with continued use of debt for road network projects.

## 7.5 Use of reserves

### 7.5.1 Available reserves

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

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

By infrastructure category, table 7 outlines the details of the reserves currently available to Woodstock.

Table 7. Summary of Reserves Available	
Asset Category	Balance at December 31, 2013
Road Network	5,202,000
Bridges	211,000
Storm Sewers	2,927,000
<b>Total Tax Funded</b>	<b>8,340,000</b>

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

- breadth of services provided
- age and condition of infrastructure
- use and level of debt
- economic conditions and outlook
- internal reserve and debt policies.

The reserves in table 7 are available for use by applicable asset categories during the phase-in period to full funding. This, coupled with Woodstock's judicious use of debt in the past, allows the scenarios to assume that, if required, available reserves and debt capacity can be used for high priority and emergency infrastructure investments in the short to medium-term.

### 7.5.2 Recommendation

As Woodstock updates its AMP and expands it to include other asset categories, we recommend that future planning should include determining what its long-term reserve balance requirements are and a plan to achieve such balances.

## 8.0 Appendix A: Report Card Calculations

### Key Calculations

1. "Weighted, unadjusted star rating":

*(% of assets in given condition) × (potential star rating)*

2. "Adjusted star rating"

*(weighted, unadjusted star rating) × (% of total replacement value)*

3. "Overall Rating"

*(Condition vs. Performance star rating) + (Funding vs. Need star rating)*

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2

### Grade Cutoffs

#### 1. Conditions vs Performance

Letter Grade	Star Rating
F	0
D	2
D+	2.5
C	2.9
C+	3.5
B	3.9
B+	4.5
A	4.9
A	5

#### 2. Funding vs Need

Funding %	Star rating	Grade
0.0%	0	F
25.0%	1	F
46.0%	1.9	D
61.0%	2.9	C
76.0%	3.9	B
91.0%	4.9	A
100.0%	5	A

## Roads Network City of Woodstock

### 1. Condition vs. Performance

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$153,804,433				\$43,281,152		28.1%	
Segment	Condition	Letter grade	Star rating	Quantities (m2) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Road Surface	Excellent	A	5	841,208	47%	2.36	1.1
	Good	B	4	323,243	18%	0.73	
	Fair	C	3	519,402	29%	0.88	
	Poor	D	2	96,394	5%	0.11	
	Critical	F	1	0	0%	0.00	
			<b>Totals</b>	<b>1,780,247</b>	<b>100%</b>	<b>4.07</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$153,804,433				\$84,033,532		54.6%	
Segment	Condition	Letter grade	Star rating	Quantities (m2) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Road Base	Excellent	A	5	683,457	34%	1.70	1.9
	Good	B	4	504,589	25%	1.01	
	Fair	C	3	265,244	13%	0.40	
	Poor	D	2	258,952	13%	0.26	
	Critical	F	1	295,651	15%	0.15	
			<b>Totals</b>	<b>2,007,893</b>	<b>100%</b>	<b>3.51</b>	

						Category star rating	Category letter grade
						3.1	C

### 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit			Category star rating	Category letter grade
\$4,926,000	\$3,056,000	62.0%	\$1,870,000			2.9	C

### 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
3.1	2.9	3.0	C

## 1. Condition vs. Performance

Total category replacement value		\$10,684,434		Segment replacement value		\$1,546,747		Segment value as a % of total category replacement value		14.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition		% of Assets in given condition		Weighted, unadjusted star rating		Segment adjusted star rating	
Culverts & Pedestrian Bridges	Excellent	A	5	1		8%		0.38		0.5	
	Good	B	4	9		69%		2.77			
	Fair	C	3	1		8%		0.23			
	Poor	D	2	2		15%		0.31			
	Critical	F	1	0		0%		0.00			
			Totals	13		100%		3.69			

Total category replacement value		\$10,684,434		Segment replacement value		\$9,137,687		Segment value as a % of total category replacement value		85.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition		% of Assets in given condition		Weighted, unadjusted star rating		Segment adjusted star rating	
Bridges	Excellent	A	5	0		0%		0.00		3.1	
	Good	B	4	7		78%		3.11			
	Fair	C	3	1		11%		0.33			
	Poor	D	2	1		11%		0.22			
	Critical	F	1	0		0%		0.00			
			Totals	9		100%		3.67			

										Category star rating	Category letter grade
										3.7	C+

## 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit				Category star rating	Category letter grade
\$198,000	\$62,000	31.3%	\$136,000					
							1.0	F

## 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
3.7	1.0	2.3	D



## 1. Condition vs. Performance

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$5,218,993		9.3%	
Segment	Condition	Letter grade	Star rating	Value (\$) in given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
SWM Facilities	Excellent	A	5	5,218,993	100%	5.00	0.5
	Good	B	4	0	0%	0.00	
	Fair	C	3	0	0%	0.00	
	Poor	D	2	0	0%	0.00	
	Critical	F	1	0	0%	0.00	
<b>Totals</b>				<b>5,218,993</b>	<b>100%</b>	<b>5.00</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$15,993,726		28.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Catchbasins and Manholes	Excellent	A	5	3,511	54%	2.68	1.1
	Good	B	4	1,312	20%	0.80	
	Fair	C	3	420	6%	0.19	
	Poor	D	2	230	4%	0.07	
	Critical	F	1	1,081	16%	0.16	
<b>Totals</b>				<b>6,554</b>	<b>100%</b>	<b>3.91</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$34,820,588		62.0%	
Segment	Condition	Letter grade	Star rating	Quantities (m) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Gravity Mains	Excellent	A	5	164,971	89%	4.44	3.0
	Good	B	4	13,875	7%	0.30	
	Fair	C	3	5,869	3%	0.09	
	Poor	D	2	928	0%	0.01	
	Critical	F	1	191	0%	0.00	
<b>Totals</b>				<b>185,834</b>	<b>100%</b>	<b>4.84</b>	

						Category star rating	Category letter grade
						4.6	B+

## 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit			Category star rating	Category letter grade
\$710,000	\$306,000	43.1%	\$404,000			1.0	F

## 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
4.6	1.0	2.8	D+

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 101 (0100-12709-0412)</b>	Gross	430															
Server Replacements - 2014	Oth. Funding																
WAN, Fire & Eng 2015 - Database & VOIP	Net Cost	430			105 CompR			55 Capital			105 Capital			45 Capital			120 Capital
<b>PROJECT 102 (0100-12709-0412)</b>	Gross	19															
Clerk's Department	Oth. Funding																
Computer Replacements	Net Cost	19			6 CompR			3 CompR			3 CompR			7 CompR			
<b>PROJECT 103 (0100-12709-0412)</b>	Gross	41															
Admin. Services - Computer	Oth. Funding																
Replacements	Net Cost	41			6 CompR			9 CompR			6 CompR			5 CompR			15 CompR
<b>PROJECT 104 (0100-12709-0412)</b>	Gross	16															
Development - Computer Replace.	Oth. Funding																
	Net Cost	16			5 CompR						5 CompR			6 CompR			
<b>PROJECT 667 (0100-12709-0412)</b>	Gross	10															
Wireless Radios - Parks & Southside	Oth. Funding																
Aquatic Center	Net Cost	10									5 CompR						5 CompR
<b>PROJECT 106 (0100-12709-0412)</b>	Gross	98															
Engineering - Computer Replacements	Oth. Funding																
Including CAD Systems	Net Cost	98			14 CompR			13 CompR			29 CompR			25 CompR			17 CompR
<b>PROJECT 107 (0100-12709-0412)</b>	Gross	49															
Fire Dept. - Computer Replacements	Oth. Funding																
	Net Cost	49			9 CompR			9 CompR			8 CompR			14 CompR			9 CompR
<b>PROJECT 108 (0100-12709-0412)</b>	Gross	44															
Parks & Recreation - Computer	Oth. Funding																
Replacements - Various	Net Cost	44			15 CompR			2 CompR			9 CompR			9 CompR			9 CompR
<b>PROJECT 400 (0100-12709-0412)</b>	Gross	33															
Printer Replacements - 2014 Clerks	Oth. Funding																
Admin Services, Development, 2015-Eng. , Fire, 2018 - Clerks	Net Cost	33			14 CompR			16 CompR									3 CompR
<b>PROJECT 112 (0100-12709-0412)</b>	Gross	50															
Engineering - Plotter/Scanner	Oth. Funding																
Replacement	Net Cost	50			50 CompR												
<b>PROJECT 115 (0100-12709-0412)</b>	Gross	8															
Building Department	Oth. Funding																
Computer Replacements	Net Cost	8						2 Bldg						6 Bldg			
<b>PROJECT 116 (0100-12709-0412)</b>	Gross	56															
I.T. Department - Computer	Oth. Funding																
Replacements & Test Environment	Net Cost	56			4 CompR			10 CompR			16 CompR			10 CompR			16 CompR
Equipment																	
<b>Sub-totals</b>	Gross	854															
	Oth. Funding	0															
	Net Cost	854	0	0	0	228	0	0	119	0	0	186	0	0	127	0	194

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 117 (0100-12709-0412)</b>	Gross	14															
CAO's Office	Oth. Funding																
Computer Replacements	Net Cost	14			5 CompR						4 CompR			3 CompR			2 CompR
		0															
<b>PROJECT 118 (0100-12709-0412)</b>	Gross	20															
Human Resources	Oth. Funding																
Computer Replacements	Net Cost	20			3 CompR			5 CompR			6 CompR			3 CompR			3 CompR
		0															
<b>PROJECT 401 (0100-12709-0412)</b>	Gross	117															
Replace Pro-Curve Switches	Oth. Funding																
& UPS - Various	Net Cost	117			18 CompR			17 CompR			16 CompR			18 CompR			48 CompR
<b>PROJECT 120 (0100-12709-0412)</b>	Gross	44															
Council Computer Replacements	Oth. Funding																
(For New Council Term)	Net Cost	44			21 CompR						2 CompR			21 CompR			
<b>PROJECT 402 (0100-12709-0412)</b>	Gross	7															
New Workstations - Council Chambers	Oth. Funding																
Mayor, Clerk & CAO & Podium	Net Cost	7						5 CompR						2 CompR			
		0															
<b>PROJECT 121 (0100-12709-0412)</b>	Gross	90															
SAN Solution - Storage Area	Oth. Funding																
Network - solution that will provide	Net Cost	90									36 Capital			18 Capital			36 Capital
better backup capabilities																	
<b>PROJECT 575 (0100-12709-0412)</b>	Gross	26															
Cultural Services - Computer	Oth. Funding																
Replacements	Net Cost	26			5 CompR			8 CompR			3 CompR			6 CompR			4 CompR
<b>PROJECT 786</b>	Gross	2															
Economic Development - Projector	Oth. Funding	0															
	Net Cost	2						2 CompR									
		0															
<b>PROJECT 668</b>	Gross	16															
Smart Board - Council Chambers	Oth. Funding																
Economic Development - 2018	Net Cost	16						8 CompR									8 CompR
		0															
<b>PROJECT 669 (0100-13409-0412)</b>	Gross	61															
Security Cameras & DVR's - various	Oth. Funding																
	Net Cost	61			5 CompR			9 Capital			5 Capital			21 Capital			21 Capital
<b>PROJECT 670 (0100-12709-0412)</b>	Gross	35															
New Firewall - Advanced	Oth. Funding																
Security Features	Net Cost	35						10 Capital						25 Capital			
		0															
<b>Project 787</b>	Gross	25															
Aruba Mobile Device Management	Oth. Funding																
Controller - Higher Security for mobile	Net Cost	25			25 Capital												
devices connected to network																	
	Gross	1311															
<b>Sub-totals</b>	Oth. Funding	0															
	Net Cost	1311	0	0	310	0	0	183	0	0	258	0	0	244	0	0	316

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location	Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 788</b>	Gross															
64 Aruba Access Points	Oth. Funding															
	Net Cost						26 Capital									
<b>Project 789</b>	Gross															
VOIP Mitel System Refresh	Oth. Funding															
	Net Cost												20 CompR			

## Reserve Legend:

Capital - Reserve for Capital Projects

CompR - Computer Replacement Res.

Bldg - Building Department Reserve

	Gross	1357																	
	Oth. Funding	0																	
TOTALS	Net Cost	1357	0	0	0	336	0	0	183	0	0	278	0	0	244	0	0	316	

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 790</b>	Gross	125																
Public Works Replace 1/2 ton	Oth. Funding				50 Equip			50 Equip										25 Equip
	Net Cost	125																
<b>PROJECT 791</b>	Gross	260																
Public Works	Oth. Funding	15	Trade															
Replace Sweeper	Net Cost	245			245 Equip													
<b>PROJECT 792</b>	Gross	310																
Public Works -	Oth. Funding	8																
Replace Plow Truck for Roll Off and attachments - plow & wing	Net Cost	302			302 Equip													
<b>PROJECT 793</b>	Gross	19																
Public Works	Oth. Funding	0	Trade															
New Trackless Attachments	Net Cost	19			19 Equip													
<b>PROJECT 794</b>	Gross	610																
Public Works	Oth. Funding	20	Trade															
Replace Plow Trucks	Net Cost	590						390 Equip										200 Equip
<b>PROJECT 795</b>	Gross	12																
Public Works	Oth. Funding	0																
Lateral Service Trailer	Net Cost	12			12 Equip													
<b>PROJECT 683 (0100-13420-0412)</b>	Gross	545																
Public Works- Fuel tanks	Oth. Funding																	
Provincial Requirement	Net Cost	545	200		345 Equip													
<b>PROJECT 796</b>	Gross	85																
Equipment Replacement - Parks	Oth. Funding	0			85 Equip													
Replace 17' Wide Area Mower	Net Cost	85																
<b>PROJECT 307 (0100-13287-0412)</b>	Gross	100																
Parks	Oth. Funding																	
Replace 1/2 tn Pick ups	Net Cost	100			50 Equip			25 Equip							25 Equip			
<b>PROJECT 797</b>	Gross	14																
Parks	Oth. Funding	0																
New Snow Blade for JD 5085	Net Cost	14			14 Equip													
<b>PROJECT 682</b>	Gross	20																
Public Works	Oth. Funding																	
Hydrant cut off saw	Net Cost	20			20 DC PW													
<b>PROJECT 798</b>	Gross	150																
Public Works	Oth. Funding	5	Trade															
Replace Trackless with attachments	Net Cost	145						145 Equip										
<b>PROJECT 799</b>	Gross	75																
Public Works	Oth. Funding	3																
Replace Stake Truck	Net Cost	72						72 Equip										
	Gross	2325																
	Oth. Funding	51																
<b>TOTALS</b>	Net Cost	2274	200	0	0	1142	0	0	682	0	0	0	0	0	25	0	0	225

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 684	Gross	22																
Complex	Oth. Funding	0																
Replace 1/2 tn Pick up	Net Cost	22						22	Equip									
PROJECT 800	Gross	25																
Parks - Top Dresser New	Oth. Funding																	
New Equipment	Net Cost	25						25	Equip									
PROJECT 801	Gross	55																
Parks	Oth. Funding	1	Trade															
Replace JD1445 Mower	Net Cost	54						54	Equip									
PROJECT 802	Gross	150																
Water Dept	Oth. Funding	8	Trade															
Replace Tandem Dump Truck	Net Cost	142						142	Equip									
PROJECT 803	Gross	50																
Water Dept	Oth. Funding																	
Replace 1/2 tn pick up	Net Cost	50						25	Equip							25	Equip	
PROJECT 804	Gross	35																
Engineering	Oth. Funding	1	Trade															
Replace Van	Net Cost	34						34	Equip									
PROJECT 805	Gross	65																
Public Works	Oth. Funding	3	Trade															
Replace Traffic Truck	Net Cost	62									62	Equip						
PROJECT 806	Gross	645																
Public Works	Oth. Funding	24	Trade															
Replace Recycling Trucks	Net Cost	621									414	Equip				207	Equip	
PROJECT 807	Gross	650																
Public Works	Oth. Funding	33																
Replace Garbage Truck	Net Cost	617									207	Equip			210	Equip	200	Equip
PROJECT 808	Gross	60																
Parks	Oth. Funding																	
Stump Grinder	Net Cost	60									60	Equip						
PROJECT 809	Gross	195																
Parks	Oth. Funding	8																
Replace Wide Area Mowers	Net Cost	187									63	Equip					124	Equip
PROJECT 810	Gross	35																
Water Dept	Oth. Funding	1	Trade															
Replace Van	Net Cost	34									34	Equip						
PROJECT 811	Gross	400																
Public Works	Oth. Funding	30	Trade															
Vactor	Net Cost	370													370	Equip		
	Gross	4712																
	Oth. Funding	160	Trade															
TOTALS	Net Cost	4552	200	0	0	1142	0	0	984	0	0	840	0	0	605	0	0	781

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit		2014			2015			2016			2017			2018		
				Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 812</b>	Gross	70																
Public Works	Oth. Funding	4	Trade															
Replace Leaf Vac	Net Cost	66															66 Equip	
<b>PROJECT 813</b>	Gross	150																
Parks	Oth. Funding	2																
Replace One Ton Dump	Net Cost	148							75 Equip								73 Equip	
<b>PROJECT 814</b>	Gross	150																
Public Works	Oth. Funding	4	Trade															
Replace Tandem Dump Truck	Net Cost	146																146 Equip

## Reserve Legend:

Equip - Equipment Replacement Reserve

DC PW - Development Charges - Public Works

<b>TOTALS</b>	Gross	5082																
	Oth. Funding	170																
	Net Cost	4912	200	0	0	1217	0	0	984	0	0	840	0	0	744	0	0	927

2014 - 2018 CAPITAL BUDGET      TRAFFIC SIGNALS & CROSSING PROTECTION 0301      All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 137 (0100-13166-0412)</b>	Gross	235															
Repairs at Existing Signalized Intersections	Oth. Funding	0															
	Net Cost	235		75		40			40			40				40	
<b>PROJECT 141</b>	Gross	350															
Woodall & Dundas	Oth. Funding	80															
Traffic Signals & Intersection Const. dc 216 in study	Net Cost	270				54		216 DC RD									
<b>PROJECT 412</b>	Gross	242															
New Traffic Signals	Oth. Funding	0										12		13 Capital		12	13 Capital
Various Locations Based on Warrants	Net Cost	242												96 DC RD			96 DC RD
2016 Dundas & Vansittart																	
2017 - Juliana & Finkle																	
<b>PROJECT 138 (0100-13080-0412)</b>	Gross	120															
New Traffic Signals	Oth. Funding	90															
Montclair Dr. & Juliana Dr.	Net Cost	30												6 Capital 24 DC RD			
<b>PROJECT 686 (0100-13422-0412)</b>	Gross	260															
Rebuild Existing Traffic Signals	Oth. Funding	0															
Dundas & Clarke (2015) Dundas & Beards (2017)	Net Cost	260				130						130					

Reserve Legend

Capital - Reserve for Capital Projects  
DC RD - Development Charges - Roads

TOTALS	Gross	1207																	
	Oth. Funding	170																	
	Net Cost	1037	0	0	75	0	0	224	216	0	0	40	30	0	182	109	0	52	109
			0																



## 2014 - 2018 CAPITAL BUDGET      ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 142 (0100-13423-0412)	Gross	125																
New Sidewalk Construction	Oth. Funding																	
Various Locations	Net Cost	125			25 FGT			25 FGT			25 FGT			25 FGT		25 FGT		
PROJECT 143 (0100-13424-0412)	Gross	5680																
Asphalt Resurfacing	Oth. Funding				600 Hydro						320 Capital			600 Capital		600 Capital		
Various Locations	Net Cost	5680			840 FGT		120	800 FGT			600 FGT			600 FGT		600 FGT		
PROJECT 144 (0100-13425-0412)	Gross	1100																
Surface Asphalt	Oth. Funding										120 Capital							
Various Locations	Net Cost	1100			180 FGT			200 FGT			100 FGT		140	100 FGT		160		
PROJECT 145 (0100-13170-0412)	Gross	470																
Bridge Rehabilitation & Inspections	Oth. Funding																	
2015 - Springbank Deck Rehab	Net Cost	470					143	107 PIF			25 Capital		170			25 Capital		
PROJECT 414 (0100-00000-0412)	Gross	460																
Brant Street Reconstruction	Oth. Funding	0	400	60														
Wellington Street to Huron Street	Net Cost	460																
PROJECT 499 (0100-00000-0412)	Gross	160																
Fair Street Reconstruction	Oth. Funding	0		160														
Wellington Street to Rivercrest Drive	Net Cost	160																
PROJECT 169 (0100-13329-0412)	Gross	375																
Lyndale Crescent Reconstruction	Oth. Funding	0	200	175														
Sprucedale Road to Dunvegan Street	Net Cost	375																
PROJECT 415 (0100-00000-0412)	Gross	165																
Marlboro Street Reconstruction	Oth. Funding	0		165														
Nelson Street to Dundas Street	Net Cost	165																
PROJECT 416 (0100-00000-0412)	Gross	215																
Nelson Street Reconstruction	Oth. Funding	0		215														
Huron Street to Marlboro Street	Net Cost	215																
PROJECT 497 (0100-00000-0412)	Gross	440																
Sixth Avenue Reconstruction	Oth. Funding	0																
St. Andrews Road to Mill Street	Net Cost	440	300		140 FGT													
PROJECT 153 (0100-13309-0412)	Gross	900																
Springbank Avenue Reconstruction	Oth. Funding	0		200	300 Capital			80 DC RD			320 Capital							
Nellis St to James St (utilities 2014, road 2015)	Net Cost	900																
PROJECT 497 (0100-00000-0412)	Gross	375																
Sydenham Street Reconstruction	Oth. Funding	0		225	150 FGT													
Knightsbridge Road to Nelson Street	Net Cost	375																
Sub-totals	Gross	10465																
	Oth. Funding	0																
	Net Cost	10465	0	900	1200	2235	0	263	1532	0	0	1190	0	310	1325	0	160	1350

**2014 - 2018 CAPITAL BUDGET      ROADS 0303**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 149 (0100-12506-0412)	Gross	40																
Asset Management	Oth. Funding	0																
Road Needs Studies	Net Cost	40					20				20							
PROJECT 687 (0100-13429-0412)	Gross	250																
Video Inspections of Storm Sewers	Oth. Funding	0																
	Net Cost	250			50		50		50		50			50		50		
PROJECT 503 (0100-13246-0412)	Gross	60																
Dundas Street Median Crossover	Oth. Funding	0																
Improvements east of Springbank	Net Cost	60			20		10		20		10							
PROJECT 688 (0100-13431-0412)	Gross	370																
944 James Street Staff Parking Lot	Oth. Funding	0																
	Net Cost	370	50				320											
PROJECT 598 (0100-13336-0412)	Gross	470																
Public Works - SWM	Oth. Funding	0																
	Net Cost	470	20		250	200 Capital												
PROJECT 689	Gross	70																
944 James Street Transit Parking Lot	Oth. Funding	0																
	Net Cost	70					70											
PROJECT 690 (0100-13432-0412)	Gross	140																
Church of Epiphany Parking Lot	Oth. Funding	0				140 PKG												
	Net Cost	140																
PROJECT 691 (0100-13433-0412)	Gross	738																
Warwick Flooding Remediation	Oth. Funding	0																
Construct Flood Mitigation Measures	Net Cost	738			130 Capital		365 Capital		150 Capital		93 Capital							
PROJECT 692 (0100-13434-0412)	Gross	756																
Norwich Flooding Remediation	Oth. Funding	0																
Construct Flood Mitigation Measures	Net Cost	756			96 Capital		225 Capital		190 Capital		20 Capital					225 Capital		
PROJECT 693	Gross	2850																
Southside Pond/Cedar Creek	Oth. Funding	0																
Improvements	Net Cost	2850			160				440		2250							
PROJECT 815	Gross	90																
Peel & Finkle Parking Lot	Oth. Funding	0				35 Pking												
Rehabilitation	Net Cost	90				55 Capital												
PROJECT 596	Gross	30																
Canrobert Storm Sewer Repair	Oth. Funding	0																
	Net Cost	30			30													
Sub-totals	Gross	16329																
	Oth. Funding	0																
	Net Cost	16329	70	900	1710	2891	0	733	2122	0	510	1530	2250	390	1438	0	210	1575

## ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018				
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		
PROJECT 158 (0100-13089-0412)		Gross	1125																
Downtown Alley Rehabilitation		Oth. Funding	0				600												
		Net Cost	1125	525															
PROJECT 594		Gross	220																
Belgrave Street Reconstruction		Oth. Funding	0			100	120												
Sloane Street to Warwick Street		Net Cost	220																
PROJECT 500		Gross	290																
Northland Crescent Rehabilitation		Oth. Funding	0				290												
Fair Street to Fair Street		Net Cost	290																
PROJECT 588		Gross	455																
Oxford Street Reconstruction		Oth. Funding	0			400	55												
Ingersoll Avenue to Dundas Street		Net Cost	455																
PROJECT 590		Gross	260																
Princess Street Reconstruction		Oth. Funding	0				260												
Wellington Street to York Street		Net Cost	260																
PROJECT 178		Gross	450																
Riddell Street Reconstruction		Oth. Funding	0			400	50												
Devonshire Ave to Ingersoll Ave		Net Cost	450																
PROJECT 496		Gross	205																
Berwick Street Reconstruction		Oth. Funding	0								205								
Cromwell Street to Warwick Street		Net Cost	205																
PROJECT 167		Gross	305																
Briarhill Road Reconstruction		Oth. Funding	0								305								
Sovereign Road to Sprucedale Road		Net Cost	305																
PROJECT 498		Gross	255																
Catherine Street Reconstruction		Oth. Funding	0								255								
Mill Street to end of cul-de-sac		Net Cost	255																
PROJECT 595		Gross	340																
Earlscourt Crescent Reconstruction		Oth. Funding	0						200	140									
Brompton Ave. to Brompton Ave.		Net Cost	340																
PROJECT 164		Gross	340																
Elmwood Crescent Reconstruction		Oth. Funding	0								340								
Alice Street to Alice Street		Net Cost	340																
PROJECT 163		Gross	450																
Fifth Avenue Reconstruction		Oth. Funding	0						350			100 FGT							
Anderson Street to Mill Street		Net Cost	450																
Sub-totals		Gross	21024																
		Oth. Funding	0																
		Net Cost	21024	595	900	1710	2891	900	2108	2122	550	1755	1630	2250	390	1438	0	210	1575

## 2014 - 2018 CAPITAL BUDGET

## ROADS 0303

All Amounts in Thousands of Dollars

Description of Project		Pr. Yr Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 501	Gross	290															
Grosvenor Street Reconstruction	Oth. Funding	0							250	40							
Knightstbridge Rd. to Brompton Ave.	Net Cost	290															
PROJECT 593	Gross	190															
Leinster Street Reconstruction	Oth. Funding	0							100	90							
Devonshire Ave to Grosvenor Street	Net Cost	190															
PROJECT 495	Gross	290															
Sprucedale Road Reconstruction	Oth. Funding	0								290							
Springbank Ave. to Briarhill Road	Net Cost	290															
PROJECT 592	Gross	95															
Beale Street Reconstruction	Oth. Funding	0											95				
Grant Street to Ingersoll Avenue	Net Cost	95															
PROJECT 816	Gross	175															
Brock Street	Oth. Funding	0											175				
Simcoe Street to Broadway Street	Net Cost	175															
PROJECT 694	Gross	140															
Centre Street Reconstruction	Oth. Funding	0											140				
Dundas Street to James Street	Net Cost	140															
PROJECT 817	Gross	90															
Duke Street Reconstruction	Oth. Funding	0											90				
Hunter Street to Dundas Street	Net Cost	90															
PROJECT 818	Gross	495															
Durham Crescent	Oth. Funding	0											495				
Leinster Street to Leinster Street	Net Cost	495															
PROJECT 168	Gross	255															
Elora Road	Oth. Funding	0											255				
Brenda Crescent to Briarhill Road	Net Cost	255															
PROJECT 819	Gross	90															
Givins Street	Oth. Funding	0											90				
Buller Street to Hunter Street	Net Cost	90															
PROJECT 820	Gross	205															
Hatch Street Reconstruction	Oth. Funding	0											205				
Wellington Street to Bay Street	Net Cost	205															
PROJECT 821	Gross	95															
Hayball Street Reconstruction	Oth. Funding	0											95				
Altadore Crescent to Huron Street	Net Cost	95															
Sub-totals	Gross	23434															
	Oth. Funding	0															
	Net Cost	23434	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2030	1438	0	210

2014 - 2018 CAPITAL BUDGET      ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 697</b>	Gross	140															
Hincks Street Reconstruction	Oth. Funding	0											140				
Dundas Street to James Street	Net Cost	140															
<b>PROJECT 822</b>	Gross	150															
John Street Reconstruction	Oth. Funding	0											150				
Norwich Avenue to Teeple Street	Net Cost	150															
<b>PROJECT 823</b>	Gross	105															
King Street Reconstruction	Oth. Funding	0											105				
Wellington Street to Victoria Street	Net Cost	105															
<b>PROJECT 824</b>	Gross	145															
Teeple Street Reconstruction	Oth. Funding	0											145				
Dundas Street to James Street	Net Cost	145															
<b>PROJECT 596</b>	Gross	2295															
Reconstruction/Rehabilitation	Oth. Funding														900	895	500 FGT
Various Street	Net Cost	2295															

Reserve Legend

Capital - Reserve for Capital Projects  
 FGT - Federal Gas Tax  
 DC RD - Development Charges Roads  
 Pking - Parking Reserve Fund  
 PIF - Ont Bridge & Infrastructure Grant

<b>TOTAL</b>	Gross	26269															
	Oth. Funding	0															
	Net Cost	26269	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2570	1438	0	900 1105 2075

## 2014 - 2018 CAPITAL BUDGET

## COUNTY RESPONSIBILITY - SANITARY SEWERS

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit		2014			2015			2016			2017			2018		
				Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT NO. 182</b>	Gross	4200			840		840			840			840			840		
Sanitary Sewer Replacement/Repair with road construction	Oth. Funding	4200	County		-840	County	-840	County		-840	County		-840	County		-840	County	
2013-2017 = \$4,200	Net Cost	0																
<b>PROJECT NO. 183</b>	Gross	350			70		70			70			70			70		
Black Pipe Lateral Replacement	Oth. Funding	350	County		-70	County	-70	County		-70	County		-70	County		-70	County	
Miscellaneous + road construction	Net Cost	0																
2013-2017 = \$350																		
<b>PROJECT NO. 600</b>	Gross	80			25		55											
Access Road for Maintenance to S/E Trunk Sanitary Sewer	Oth. Funding	80	County		-25	County	-55	County										
2014 = \$25	Net Cost	0																
2015 = \$55																		
<b>TOTALS</b>	Gross	4,630																
	Oth. Funding	4,630																
	Net Cost	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2014 - 2018 CAPITAL BUDGET      WATERMAINS 0306

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT NO. 184</b>	Gross	4500		900		900			900			900			900		
Watermain Replacement	Oth. Funding	4500	County	-900	County	-900	County		-900	County		-900	County		-900	County	
in conjunction with road work	Net Cost	0															

2014 - 2018 = \$4,500

<b>TOTALS</b>	Gross	4500															
	Oth. Funding	4500															
	Net Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 193 (0100-13435-0412)</b>	Gross	35															
Parkinson Road	Oth. Funding																
Watermain Extension	Net Cost	35			35 Indus												
Commerce Way to CR #4																	
<b>PROJECT 195 (0100-12424-0412)</b>	Gross	15															
Springbank Avenue Widening	Oth. Funding																
Parrott Five/2007557 Ontario	Net Cost	15			15 DC RD												
Lansdowne Meadows																	
<b>PROJECT 700 (0100-13439-0412)</b>	Gross	410															
Storm Pond Rehabilitation	Oth. Funding																
Commerce Way	Net Cost	410			410 Indus												
<b>PROJECT 702 (0100-13441-0412)</b>	Gross	135															
New City Entrance Signage	Oth. Funding																
2013 - Consultant	Net Cost	135		15		60			60								
<b>PROJECT 508 (0100-13341-0412)</b>	Gross	350															
Road Construction	Oth. Funding																
Hartley Farm to Sally Creek	Net Cost	350			50 Capital			300 DC RD									
<b>PROJECT 198 (0100-12507-0412)</b>	Gross	328															
Lunor Group - Bysham Park	Oth. Funding							51 DC RD			35 DC RD						
Frontage Development	Net Cost	328			13 DC RD			41 Capital			188 Capital						
<b>PROJECT 190 (0100-13094-0412)</b>	Gross	30															
Juliana Drive Widening	Oth. Funding																
west of Montclair to Longworth	Net Cost	30									30 DC RD						
<b>PROJECT 192 (0100-12508-0412)</b>	Gross	135															
Woodall & Seagrave Road	Oth. Funding																
Surface Asphalt	Net Cost	135									135 Indus						
Bysham Park Industrial Subdivision																	
<b>PROJECT 187 (0100-13092-0412)</b>	Gross	90															
Thames Development	Oth. Funding																
Road Widening in N/E	Net Cost	90										45 DC RD				45 DC RD	
<b>PROJECT 197 (0100-12510-0412)</b>	Gross	180															
Road Extension	Oth. Funding																
Pattullo Ridge Industrial Park	Net Cost	180														180 Indus	
<b>PROJECT 194 (0100-12423-0412)</b>	Gross	330															
Commerceway Industrial Park	Oth. Funding																
Surface Asphalt	Net Cost	330														330 Indus	
<b>PROJECT 825</b>	Gross	22															
Summit Estates Subdivision (Golda)	Oth. Funding																
Cost Share Street Fronting Parkland	Net Cost	22		2	20 DC RD												
<b>PROJECT 826</b>	Gross	94															
Hartley Farm	Oth. Funding																
Extra 1.5m road widening	Net Cost	94			43 DC RD				26 DC RD			25 DC RD					
	Gross	2154															
	Oth. Funding	0															
<b>Sub-Totals</b>	Net Cost	2154	0	0	17	586	0	60	392	0	60	414	0	0	70	0	555



2014 - 2018 CAPITAL BUDGET      DEVELOPMENT COSTS - 0309

Description of Project and Location	Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 904</b>	Gross	122														
Land Servicing - Mit-Steel	Oth. Funding															
Parkinson Goard	Net Cost	122			122	Indus										

Reserve Legend:

Indus - Industrial Land Reserve Fund  
Capital - Reserve for Capital Projects  
DC RD - Development Charges Roads

TOTALS	Gross	2276																
	Oth. Funding	0																
	Net Cost	2276	0	0	17	708	0	60	392	0	60	414	0	0	70	0	0	555
			0															

2014 - 2018 CAPITAL BUDGET      Cost Recoverable from Developers 0311

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 510 (0100-13443-0412)	Gross	170															
Hartley Farm Street Construction	Oth. Funding																
Non Developer Owned Frontage fronting & off site	Net Cost	170			170 Recov												
PROJECT NO. 607	Gross	435															
Lampman Place Extension	Oth. Funding																
Extend utilities and road from Juliana to Rideau EA 2016	Net Cost	435			110 Recov					70 Recov			255 Recov				
PROJECT 511 (0100-13346-0412)	Gross	1012															
SWM Facility	Oth. Funding																
EA & Construction (by Devonshire & CR #4)	Net Cost	1012			59 Recov			368 Recov		585 Recov							
PROJECT 827	Gross	35															
Hartley Farm Subdivision	Oth. Funding																
Watermain Construction on 11th Line	Net Cost	35			35 Recov												
PROJECT 828	Gross	175															
SAN Servicing to Existing Properties at County Rd 4 and Devonshire	Oth. Funding																
	Net Cost	175			25 Recov			150 Recov									
Reserve Legend:																	
Recov - Reserve Recoverable From Developers																	

Reserve Legend:

Recov - Reserve Recoverable From Developers

2014 - 2018 CAPITAL BUDGET STREET LIGHTING 0308

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 205 (0100-13348-0412)	Gross	402																
Replace Street Lights	Oth. Funding																	
Miscellaneous Locations	Net Cost	402				107 St Lt			115 St Lt			60 St Lt			60 St Lt		60 St Lt	
PROJECT 206 (0100-13098-0412)	Gross	2850																
Energy Efficient Street Lights	Oth. Funding								650 Hydro			650 Hydro			650 Hydro		650 Hydro	
Test Program - and implementation in residential & industrial areas	Net Cost	2850		50					50 FGT			50 FGT			50 FGT		50 FGT	
PROJECT 705(0100-13446-0412)	Gross	210																
New Street Lights on Devonshire	Oth. Funding					182 DC RD												
2014 - Woodall to County Rd 4	Net Cost	210				28 Capital												
Dc in study 109600 not 210																		
PROJECT NO. 611	Gross	110																
Street Light Replacement	Oth. Funding																	
Dundas Street	Net Cost	110				110 St Lt												
between Huron & Beale																		
PROJECT 513	Gross	115																
Street Lights on CR #4	Oth. Funding																	
Dundas Street to Lansdowne Avenue	Net Cost	115							60 St Lt			55 St Lt						
PROJECT 829	Gross	80																
Replace SLs on Dundas between	Oth. Funding																	
11th Line and train track overpass	Net Cost	80			80													
Reserve Legend:																		
St Lt - Street Light Reserve Fund																		
FGT - Federal Gas Tax																		
Hydro - Hydro Reserve Fund																		
	Gross	3767																
	Oth. Funding	0																
TOTALS	Net Cost	3767	0	0	130	427	0	0	875	0	0	815	0	0	760	0	0	760
			0															

**2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 208 (0100-12189-0412)	Gross	150																
General Heating Repairs	Oth. Funding	0																
All Buildings	Net Cost	150			30 Mun B			30 Mun B			30 Mun B			30 Mun B		30 Mun B		
PROJECT 209 (0100-12795-0412)	Gross	100																
General Roof Repairs	Oth. Funding	0																
All Buildings	Net Cost	100			20 Mun B			20 Mun B			20 Mun B			20 Mun B		20 Mun B		
PROJECT 210 (0100-13012-0412)	Gross	100																
Masonry Repairs	Oth. Funding	0																
All Buildings	Net Cost	100			20 Mun B			20 Mun B			20 Mun B			20 Mun B		20 Mun B		
PROJECT 830	Gross	6																
City Hall - repair stair treads	Oth. Funding	0																
	Net Cost	6			6 Mun B													
PROJECT 831	Gross	5																
City Hall - Interior door	Oth. Funding	0																
Replacement	Net Cost	5			5 Mun B													
PROJECT 433	Gross	150																
Southside Pool -	Oth. Funding	0																
Basin and Deck Retrofit	Net Cost	150			150 Mun B													
PROJECT 832	Gross	75																
Southside Pool - resurface	Oth. Funding	0																
parking lot	Net Cost	75								75 Mun B								
PROJECT NO. 618	Gross	100												10 Mun B				
Southside Pool - 2nd Floor	Oth. Funding	0												90 DCRE				
Addition	Net Cost	100																
PROJECT 707	Gross	32																
Southside Pool - Replace pool heater	Oth. Funding	0																
	Net Cost	32			32 Mun B													
PROJECT 708	Gross	120																
Southside Pool - storage room	Oth. Funding	0			108 DCRE													
Addition	Net Cost	120			12 Mun B													
PROJECT 833	Gross	30																
Southside Pool - interior doors	Oth. Funding	0																
and power operators	Net Cost	30			15 Mun B			15 Mun B										
PROJECT 834	Gross	50																
Public Works - reroof	Oth. Funding	0																
salt dome	Net Cost	50			50 Mun B													
PROJECT NO. 621	Gross	50																
Engineering - Generator	Oth. Funding	0																
	Net Cost	50						50 Mun B										
Sub-totals	Gross	968																
	Oth. Funding	0																
	Net Cost	968	0	0	0	448	0	0	135	0	0	145	0	0	170	0	0	70

**2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310**

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 835</b>	Gross	40															
Public Works - garage	Oth. Funding	0															
exhaust ventilation upgrades	Net Cost	40			40 Mun B												
<b>PROJECT 712</b>	Gross	795															
Public Works- New Storage building	Oth. Funding	0												312 DCPW			
	Net Cost	795						50 Mun B						433 Capital			
<b>PROJECT 713</b>	Gross	850															
Public Works - engineering 2nd storey	Oth. Funding	0															
addition and interior renovations	Net Cost	850						75 Mun B						775 DCPW			
<b>PROJECT 714 (0100-13453-0412)</b>	Gross	660															
Public Works - New wash building	Oth. Funding	0															
	Net Cost	660			60 Mun B			241 DCPW						359 Capital			
<b>PROJECT 836</b>	Gross	75															
Southside Park - Kinsmen	Oth. Funding	0															
Building renovation	Net Cost	75						75 Mun B									
<b>PROJECT 837</b>	Gross	10															
Southside Park - Demolish	Oth. Funding	0															
20x30 Parks storage building	Net Cost	10			10 Mun B												
<b>PROJECT 838</b>	Gross	25															
Museum - Camera and	Oth. Funding	0															
Security system	Net Cost	25			16 Fundr			9 Mun B									
<b>PROJECT 839</b>	Gross	350															
Museum - shingle roof	Oth. Funding	0															
repalcement	Net Cost	350												350 Mun B			
<b>PROJECT 840</b>	Gross	45															
Market Centre- shingle roof	Oth. Funding	0															
replacement south side of building	Net Cost	45												45 Mun B			
<b>PROJECT 841</b>	Gross	10															
Market Centre - Interior Renovations	Oth. Funding	0															
	Net Cost	10			10 Mun B												
<b>PROJECT 723</b>	Gross	80															
Southgate Centre- HVAC RTU	Oth. Funding	0															
Replacements	Net Cost	80			20 Mun B			20 Mun B				20 Mun B			20 Mun B		
<b>PROJECT 526 (0100-13402-0412)</b>	Gross	210															
Library	Oth. Funding	0															
Front Façade Restoration	Net Cost	210	10					100 Capital						100 Mun B			
<b>Sub-totals</b>	Gross	4118															
	Oth. Funding	0															
	Net Cost	4118	10	0	0	813	0	0	955	0	0	2080	0	0	190	0	70

2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018								
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves						
PROJECT 842	Gross	40																					
Southgate Centre - main hall	Oth. Funding	0																					
floor replacement	Net Cost	40											40	Mun B									
PROJECT 843	Gross	40																					
Southgate Centre - accessibility	Oth. Funding	0																					
upgrades	Net Cost	40											40	Mun B									
PROJECT 725	Gross	25																					
Community Services Office	Oth. Funding	0																					
HVAC RTU replacement	Net Cost	25													25	Mun B							
PROJECT 245	Gross	165																					
Community Complex	Oth. Funding	0																					
Additional Parking	Net Cost	165													165	Capital							
PROJECT 726	Gross	200																					
Community Complex	Oth. Funding	0																					
Elevator renovation	Net Cost	200													200	Mun B							
PROJECT 844	Gross	25																					
Community Complex	Oth. Funding	0																					
Ventilation upgrades	Net Cost	25													25	Mun B							
PROJECT 845	Gross	50																					
Community Complex - HVAC	Oth. Funding	0																					
Automation controls	Net Cost	50													50	Mun B							
PROJECT 846	Gross	550																					
Carnegie Wing Exterior Restoration	Oth. Funding	0																					
Library	Net Cost	550														550							
PROJECT 730 (0100-13468-0412)	Gross	40																					
Community Complex - Green pad	Oth. Funding	0																					
efficient lighting upgrades	Net Cost	40													40	FGT							
PROJECT 731 (0100-13469-0412)	Gross	100																					
Community Complex - Red pad	Oth. Funding	0																					
efficient lighting upgrades	Net Cost	100													100	FGT							
PROJECT 252	Gross	800																					
Civic Centre	Oth. Funding	0																					
Rink Floor & Board Replacement	Net Cost	800													800	Capital							
PROJECT 732 (0100-13470-0412)	Gross	30																					
Day Nursery -	Oth. Funding	0																					
HVAC Roof Top Replacement	Net Cost	30													30	DayN							
Sub-totals	Gross	6183																					
	Oth. Funding	0																					
	Net Cost	6183	10		0	0	1033		0	0	1205		0	0	3125		0	0	190		0	550	70

2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 275</b>	Gross	5030															
Police Station Addition	Oth. Funding																
	Net Cost	5030	30			95 DCWP	4366		539	PF							
<b>PROJECT 847</b>	Gross	5															
Fire Hall - Parkinson Road	Oth. Funding	0															
roof access	Net Cost	5				5 Mun B											
<b>PROJECT 428 (0100-13371-0412)</b>	Gross	26															
Fire Halls - General Painting	Oth. Funding	0															
	Net Cost	26				13 Mun B								13 Mun B			
<b>PROJECT 735 (0100-13473-0412)</b>	Gross	95															
Paint/carpet/blinds - City Hall	Other	0															
	Net Cost	95				25 Mun B			30 Mun B					40 Mun B			
<b>PROJECT 848</b>	Gross	10															
Southgate Centre Fitness Room	Other	0															
Renovation	Net Cost	10				10 Mun B											

Reserve Legend

Mun B - Reserve for Repairs to Municipal Buildings  
DC Rec - Development Charges - Recreation  
Capital - Reserve for Capital Projects  
DC PW - Development Charges - Public Works  
DC WP - Development Charges - Woodstock Police  
Fundr- Museum Fundraising Reserve Fund  
DayN - Complex - Day Nursery & Gym Club Trust  
PF - Invest In Ontario

	Gross	11349																
	Oth. Funding	0																
TOTALS	Net Cost	11349	40	0	0	1181	4366	0	1774	0	0	3178	0	0	190	0	550	70

2014 - 2018 CAPITAL BUDGET TRANSIT 0709

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 280 (0100-13376-0412)	Gross	60																
New Bus Shelters	Oth. Funding				30 PGT			30 PGT										
	Net Cost	60																
PROJECT 738 (0100-13475-0412)	Gross	40																
AODA Bus Stop Improvements	Oth. Funding			10			10			10 DCTR			10 DCTR					
	Net Cost	40																
PROJECT 739	Gross	185																
Para Transit Bus	Oth. Funding									185 PGT								
Replace P8	Net Cost	185																
PROJECT 740	Gross	492																
Bus Replacement	Oth. Funding				400 PGT													
Replace #14 - 1976	Net Cost	492			92 DCTR													
PROJECT 750	Gross	487																
Bus Replacements	Oth. Funding	0						400 PGT										
(replace #4-1989 MCI)	Net Cost	487						87 Equip										
PROJECT NO. 536	Gross	138																
Refurbish City Bus	Oth. Funding	0										138 PGT						
(#3-2006 Nova)	Net Cost	138																
PROJECT NO. 282	Gross	450																
Electronic Fare System	Oth. Funding	0															400 PGT	
	Net Cost	450													50			
PROJECT 751	Gross	142																
Refurbish City Bus	Oth. Funding													142 PGT				
(#5-2005 Nova)	Net Cost	142																
PROJECT 849	Gross	142																
Refurbish City Bus	Oth. Funding																142 PGT	
(#6-2008 Nova)	Net Cost	142																
Reserve Legend																		
PGT - Provincial Gas Tax																		
DCTR - Development Charges Transit																		
Equip - Equipment Replacement Reserve																		
	Gross	2136																
	Oth. Funding	0																
TOTALS	Net Cost	2136	0	0	10	522	0	10	517	0	0	333	0	0	152	0	50	542



**2014 - 2018 CAPITAL BUDGET FIRE DEPARTMENT 0400**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 286 (0100-12555-0412)	Gross	25																
Equipment for back up Dispatch & 911 PSAP	Oth. Funding																	
	Net Cost	25			5	Capital		5	Capital		5	Capital		5	Capital	5	Capital	
PROJECT 850	Gross	6																
Additional Security Cameras for Parkinson Road & Van Ave	Oth. Funding																	
	Net Cost	6			6	Capital												
PROJECT 851	Gross	5																
Replacement Positive pressure fan (Supression operations)	Oth. Funding																	
	Net Cost	5		5														
PROJECT 852	Gross	12																
Replacement Thermal Imaging Camer (Supression Operations)	Oth. Funding																	
	Net Cost	12					12											
PROJECT 853	Gross	22																
Air monitoring Device Repacement (Incident Operations)	Oth. Funding																	
	Net Cost	22		3			8				3			8				
PROJECT 757 (0100-13479-0412)	Gross	9																
Electronic Fire Safety Messages in front of both stations/station signage Van Ave 2013 PR 2015	Oth. Funding																	
	Net Cost	9					9											
PROJECT 854	Gross	6																
Responder Powered Air Purifying Respirator	Oth. Funding																	
(Fire Inspection and Investigation )	Net Cost	6		6														
PROJECT 855	Gross	4																
Remote Area Lighting (2)	Oth. Funding																	
(Fire Prevention and Investigation)	Net Cost	4		4														
PROJECT (additional funding )	Gross	125																
Fire Department Records Mgt. System and CAD interface with dispatch infrastructure	Oth. Funding																	
	Net Cost	125	75		50													
PROJECT 760	Gross	10																
Mobile Air-Filling Station for Trailer	Oth. Funding																	
	Net Cost	10		10														
PROJECT 856	Gross	4																
Replacement Ventilations Saw (Incident Operations)	Oth. Funding																	
	Net Cost	4		4														
PROJECT 762	Gross	30																
BlueCard Command w/ Sim Lab VHS to DVD Converting Device	Oth. Funding																	
	Net Cost	30		30														
PROJECT 291 (0100-13277-0412)	Gross	665																
Replace Fire Appartus Tanker \920160 Tk# 92-01 (2018)	Oth. Funding																	
	Net Cost	665									250	DC Fire				415 Fire		
	Gross	923																
	Oth. Funding	0																
Sub-totals	Net Cost	923	75	0	112	11	0	29	5	0	0	255	0	3	5	0	8	420
			0															

2014 - 2018 CAPITAL BUDGET FIRE DEPARTMENT 0400

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 542 (0100-13382-0412)</b>	Gross	60															
Replacement Extrication Tools	Oth. Funding																
	Net Cost	60	15		15	Capital					15	Capital			15	Capital	
<b>PROJECT 785</b>	Gross	20															
County Road 4 Water Access	Oth. Funding																
Partner with UTRCA	Net Cost	20					20										
<b>PROJECT 763</b>	Gross	7															
Training Props Vehicle Fire	Oth. Funding				7	Capital											
	Net Cost	7															
<b>PROJECT 742</b>	Gross	8															
Hose Dryer	Oth. Funding																
	Net Cost	8					8										
<b>PROJECT 547</b>	Gross	25															
Changeable Box Insert for Trucks	Oth. Funding																
	Net Cost	25						25	Capital								
<b>PROJECT 744</b>	Gross	22															
Bunker Gear Extractor	Oth. Funding																
	Net Cost	22						11	Capital		11	Capital					
<b>PROJECT NO. 288</b>	Gross	390															
Traffic Priority Control System	Oth. Funding																
	Net Cost	390												200	Capital	190	
<b>PROJECT 857</b>	Gross	44															
Raise interior doorway height	Oth. Funding																
at Parkinson Rd facility (H&S)	Net Cost	44					44										
<b>PROJECT 858</b>	Gross	60															
Training Building/Shelter for	Oth. Funding																
evelutions and indoor storage	Net Cost	60						60	Capital								
(Parkinson Road ) 40'x60' approx.																	

Reserve Legend

Capital - Reserve For Capital Projects  
 Fire - Reserve for Replacement of Fire Equipment  
 DC Fire - Develop Charges - Fire

	Gross	1559															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	1559	90	0	112	33	0	101	101	0	0	281	0	3	205	0	435

**2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 292 (0100-12062-0412)	Gross	100		20			20			20			20			20		
Parks Drives & Parking Areas	Oth. Funding	0																
	Net Cost	100																
PROJECT 294 (0100-12900-0412)	Gross	710		100	90 Parks		100			140			140			140		
Play Structure Improvements	Oth. Funding	0																
Armstrong/Eastdale (2014)	Net Cost	710																
Safety Surfaces																		
PROJECT 296 (0100-12978-0412)	Gross	110		2	20 DCRE		2	20 DCRE		2	20 DCRE		2	20 DCRE		2	20 DCRE	
Park Furnishings - Various Parks	Oth. Funding	0																
Benches, Picnic Tables, Bleachers	Net Cost	110																
Various Parks and Sportsfeilds																		
PROJECT 859	Gross	25			25 Ball D													
Ball Diamond Storage Boxes	Oth. Funding	0																
Cage & Safety Fencing	Net Cost	25																
PROJECT 301 (0100-12904-0412)	Gross	40			8 Land 4			8 Land 4			8 Land 4			8 Land 4			8 Land 4	
Naturalization Project - Various	Oth. Funding	0																
Parks and SWM ponds	Net Cost	40																
PROJECT 860	Gross	46		46														
Park Row Park Atheltic Pad Renewal	Oth. Funding	0																
	Net Cost	46																
PROJECT 304 (0100-12906-412)	Gross	55		11			11			11			11			11		
Park Signage - Various	Oth. Funding	0																
	Net Cost	55																
PROJECT 305 (0100-12708-0412)	Gross	75		15			15			15			15			15		
Small Equipment Replacement	Oth. Funding	0																
Weed-Eaters, Mowers, Saws	Net Cost	75																
PROJECT 861	Gross	21		21														
Skatepark Cameras & Ammenities	Oth. Funding	0																
Cement Work	Net Cost	21																
PROJECT 312 (0100-13143-0412)	Gross	125			23 DCRE			23 DCRE			23 DCRE			23 DCRE			23 DCRE	
Trail Development	Oth. Funding	0			2 FGT			2 FGT			2 FGT			2 FGT			2 FGT	
	Net Cost	125																
PROJECT 862	Gross	70			70 Parks													
131 Dundas Property Improvement	Oth. Funding	0																
	Net Cost	70																
PROJECT 321 (0100-12721-0412)	Gross	50		10			10			10			10			10		
Upgrade Sports Fields	Oth. Funding	0																
Bleachers, Turf, Surfacing Material	Net Cost	50																
Sub-totals	Gross	1427																
	Oth. Funding	0																
	Net Cost	1427	0	0	225	238	0	0	158	53	0	0	198	53	0	0	198	53
			0															

**2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 863	Gross	46						46										
Cowan Park Paving	Oth. Funding	0																
	Net Cost	46																
PROJECT 557 (0100-13293-0412)	Gross	14																
Sportsfield Lighting	Oth. Funding	0																
Sutherlands-2015; Brompton 2016	Net Cost	14						7		7								
PROJECT 559 (0100-13295-0412)	Gross	22																
Irrigation Sensor/Controller	Oth. Funding	0			6			4		4			4			4		
Museum, Gazebo, Sportsfield	Net Cost	22																
PROJECT 864	Gross	6			6													
Cowan Garden Front Entrance	Oth. Funding	0																
	Net Cost	6																
PROJECT 644 (0100-13390-0412)	Gross	8								4						4		
Tennis Net Replacement -	Oth. Funding	0																
Various Courts	Net Cost	8																
PROJECT 313 (0100-12464-0412)	Gross	10										5				5		
Molok Deep Collection System	Oth. Funding	0																
	Net Cost	10																
PROJECT 473 (0100-13217-0412)	Gross	473																
Park Development	Oth. Funding	0				203 DCRE												
David Lowes Memorial Park (2014)	Net Cost	473				22 Capital			112 DCRE				112 DCRE					
Senator Homes Park (2015)									12 Capital				12 Capital					
Springbank/Halifax Park (2016)																		
PROJECT 318	Gross	310																
Pedestrian Bridges over Thames	Oth. Funding	0	FGT		10	50 DCRE		60	90 DCRE				24 FGT					
Connecting Lions & Burgess Parks	Net Cost	310											76 DCRE					
EA - 2014; Build 2015 & 2016																		
PROJECT 865	Gross	19																
Safety Fencing & Gate Cowan	Oth. Funding	0			19													
	Net Cost	19																
PROJECT NO. 647	Gross	66																
Rehabilitation of Gazebo Gardens-	Oth. Funding	0																
SS Park	Net Cost	66						66										
PROJECT 866	Gross	20			20													
Covered Picnic Shelter	Oth. Funding	0																
	Net Cost	20																
PROJECT 867	Gross	17			8			9										
Security Camera Main washroom	Oth. Funding	0																
2015 Cadet Bldg - Southside Park	Net Cost	17																
Sub-totals	Gross	2438																
	Oth. Funding	0																
	Net Cost	2438	0	0	294	513	0	350	267	0	218	277	0	202	53	0	211	53

2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 868</b>	Gross	15			15												
Southwood Sportsfeild	Oth. Funding	0															
Accessible Walkway	Net Cost	15															
<b>PROJECT 869</b>	Gross	10			10												
Special Events Hydro Upgrade	Oth. Funding	0															
	Net Cost	10															
<b>PROJECT 870</b>	Gross	22						22									
Replace Hard Surfacing Park	Oth. Funding	0															
Complex Washroom	Net Cost	22															
<b>PROJECT 871</b>	Gross	30															
Complex Lookout - Replace	Oth. Funding	0															
Cement Work	Net Cost	30	15					15									
<b>PROJECT 905</b>	Gross	70															
Tree Planting in New Subdivisions	Oth. Funding	0															
	Net Cost	70															
						70	St. Tr										

Reserve Legend

Capital - Reserve for Capital Projects  
Parks - Parks & Open Spaces Reserve  
Land 4 - Land for Public Purposes  
DCRE - Development Charges Recreation  
FGT - Federal Gas Tax  
Ball D - Ball Diamond ReserveFund  
St Tr - Street Tree Reserve Fund

	Gross	2585																
	Oth. Funding	0																
TOTALS	Net Cost	2585	15	0	319	583	0	387	267	0	218	277	0	202	53	0	211	53
			0															

2014 - 2018 CAPITAL BUDGET

SOUTHSIDE AQUATIC CENTRE 0705  
LIONS POOL 0706

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 872</b>	Gross	15															
Pool Deck Anti Slip Resurfacing	Oth. Funding																
	Net Cost	15		15													
<b>Project 771</b>	Gross	20					20										
Splash Park minor future renewal	Oth. Funding																
	Net Cost	20															
	Gross	35															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	35	0	15	0	0	20	0	0	0	0	0	0	0	0	0	0

## 2014 - 2018 CAPITAL BUDGET

COMMUNITY COMPLEX 0708  
& CIVIC CENTRE

All Amounts in Thousands of Dollars

2013 CENTRE			Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
Description of Project and Location				Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 873	Gross	25		25														
Fanshawe Walkway	Oth. Funding																	
Replace Brickwork	Net Cost	25																
Project 774	Gross	90						90	Equip									
Ice Resurfacers	Oth. Funding																	
	Net Cost	90																
Project 775	Gross	10		10														
Goff Hall Tables	Oth. Funding																	
	Net Cost	10																
Project 776	Gross	25		25														
Civic Replace 30hp Mycom	Oth. Funding																	
Condensor	Net Cost	25																
Project 777	Gross	15								15								
Lift Truck	Oth. Funding																	
	Net Cost	15																
Project 778	Gross	25																
Rubber Flooring	Oth. Funding																	
	Net Cost	25																
Project 779	Gross	6					6											
Goff Hall replace front load coolers	Oth. Funding																	
	Net Cost	6																
Project 780	Gross	735					27	8	Carena				700					
Complex Refrigeration Retro-fit	Oth. Funding																	
	Net Cost	735																
Project 781	Gross	18					18											
Complex remove parking lot islands	Oth. Funding																	
	Net Cost	18																
Project 782	Gross	40											40					
Red pad Score Clock	Oth. Funding																	
	Net Cost	40																
Project 874	Gross	4		4														
Complex Green Pad Safety Netting	Oth. Funding																	
	Net Cost	4																
Project 875	Gross	40															40	
Red Pad Painting	Oth. Funding																	
	Net Cost	40																
	Gross	1033																
	Oth. Funding	0																
TOTALS	Net Cost	1033	0	0	64	0	0	51	98	0	40	0	0	740	0	0	40	0
			0															

2014 - 2018 CAPITAL BUDGET

COMMUNITY COMPLEX 0708  
& CIVIC CENTRE

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 876</b>	Gross	15				15											
Complex Painting Main Dressing Room	Oth. Funding																
	Net Cost	15															
<b>Project 878</b>	Gross	25				25											
Complex Green Pad players benches	Oth. Funding																
(Improve spectator seating)	Net Cost	25															

Reserve Legend

Equip - Equipment Replacement Res  
Carena - Complex Arena Trust Fund

	Gross	1073																
	Oth. Funding	0																
TOTALS	Net Cost	1073	0	0	64	0	0	91	98	0	40	0	0	740	0	0	40	0
			0															



2014 - 2018 CAPITAL BUDGET      ART GALLERY 0709

Description of Project and Location		Pr. Yr. Exp. Or Commit	All Amounts in Thousands of Dollars														
			2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 330 (0100-12292-0412) Art Acquisition	Gross	50															
	Oth. Funding																
	Net Cost	50			10	Art		10	Art		10	Art		10	Art		10

Reserve Fund Code:

Art - Art Acquisition

TOTALS	Gross	50															
	Oth. Funding	0															
	Net Cost	50	0	0	10	0	0	10	0	0	10	0	0	10	0	0	10

2014- 2018 CAPITAL BUDGET LIBRARY - 1000

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 879</b>	Gross	5															
Rebuild Security Camera At Front of Building	Oth. Funding																
	Net Cost	5		5													
<b>Project 890</b>	Gross	15															
CEO/Admin Furniture - Workstation & Storage	Oth. Funding																
	Net Cost	15		15													
<b>Project 891</b>	Gross	26															
Display Furniture - Children's & Adult Depts., Lobby	Oth. Funding																
	Net Cost	26			26												Marg Toon Reserve Fund
<b>Project 892</b>	Gross	4															
Early Childhood Literary Station Peripherals	Oth. Funding																
	Net Cost	4			4												Jessie MacDougal Trust Fund
<b>Project 893</b>	Gross	3															
Shelving - Children's Dept For customers using laptops	Oth. Funding																
	Net Cost	3			3												Jessie MacDougal Trust Fund
<b>Project 894</b>	Gross	3															
Wireless Access Point	Oth. Funding																
	Net Cost	3		3													
<b>Project 895</b>	Gross	8															
E- Government - Tablets	Oth. Funding																
	Net Cost	8		8													
<b>Project 896</b>	Gross	5															
Computers & Peripherals	Oth. Funding																
	Net Cost	5		5													
<b>PROJECT 666 (0100-13496-0412)</b>	Gross	30															
Library Expansion Feasibility Study	Oth. Funding																
	Net Cost	30		3	27												Development Charges - Library
	Gross	99															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	99	0	0	39	60	0	0	0	0	0	0	0	0	0	0	0

2014 - 2018 CAPITAL BUDGET

POLICE SERVICES BOARD

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 897</b>	Gross	50																
E-Fingerprint System	Oth. Funding																	
	Net Cost	50						50										Capital
<b>Capital - Reserve for Capital Projects</b>																		
	Gross	50																
	Oth. Funding	0																
<b>TOTALS</b>	Net Cost	50	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0

## 2014 - 2018 CAPITAL BUDGET

## STRATEGIC PLAN INIATIVES

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 898</b>	Gross	10																
Promotional Kiosk	Oth. Funding																	
	Net Cost	10		10														
<b>PROJECT 139 (0100-13323-0412)</b>	Gross	300																
Pedestrian Traffic Signals	Oth. Funding	0																
IPS signals as warranted	Net Cost	300							44		56 DC RD	20		80 DC RD		20		80 DC RD
<b>PROJECT 899</b>	Gross	550																
Cycle Master Plan Routes	Oth. Funding	0																
Phase 1 Implementation	Net Cost	550			67 FGT			88 FGT			100 FGT			130 FGT				165 FGT
<b>PROJECT 900</b>	Gross	300																
Juliana & Springbank Intersection	Oth. Funding																	
Improvements (EA and Construction)	Net Cost	300		70			30		200									
<b>PROJECT 189 (0100-12509-0412)</b>	Gross	7300																
Devonshire B&I Park	Oth. Funding																	
Roads & Grading	Net Cost	7300	1602		98 DC RD			2100			2716			84 DC RD		700		
<b>PROJECT 711</b>	Gross	2000																
Public Works Improvements	Oth. Funding	0																
Bulk and HHW depot	Net Cost	2000						100 Mun B	1900									
<b>PROJECT 901</b>	Gross	100																
Public Works - Recycling building	Oth. Funding	0																
renovations - fencing & depot	Net Cost	100			15 Mun B			50 Mun B			35 Mun B							
<b>PROJECT 902</b>	Gross	400																
Art Gallery - third floor	Oth. Funding	0																
renovations	Net Cost	400			400 Capital													
<b>PROJECT 736</b>	Gross	500																
495 Dundas Street - Renovations	Other	0																
	Net Cost	500			500 Capital													
<b>PROJECT 552 (0100-13386-0412)</b>	Gross	7565																
Complex Development Former	Oth. Funding	0																
Woodall Farm - Phase 1 - Adult Slo	Net Cost	7565	120		435 DCRE	950		3150 DCRE	62		498 DCRE	1914		436 DCRE				
Pitch Complex & land servicing			0															
<b>PROJECT 903</b>	Gross	50																
Museum - Floor in Grand Hall	Oth. Funding	0																
	Net Cost	50		50														
<b>Reserve Legend:</b> DC Rd - Development Charges - Road FGT - Federal Gas Tax DCRE - Development Charges - Recreation Capital - Reserve for Capital Projects MunB - Reserve for Repairs to Municipal Buildings																		
<b>TOTALS</b>	Gross	19075																
	Oth. Funding	0																
	Net Cost	19075	120	1602	130	1515	950	30	3388	4000	306	689	4630	20	730	700	20	245

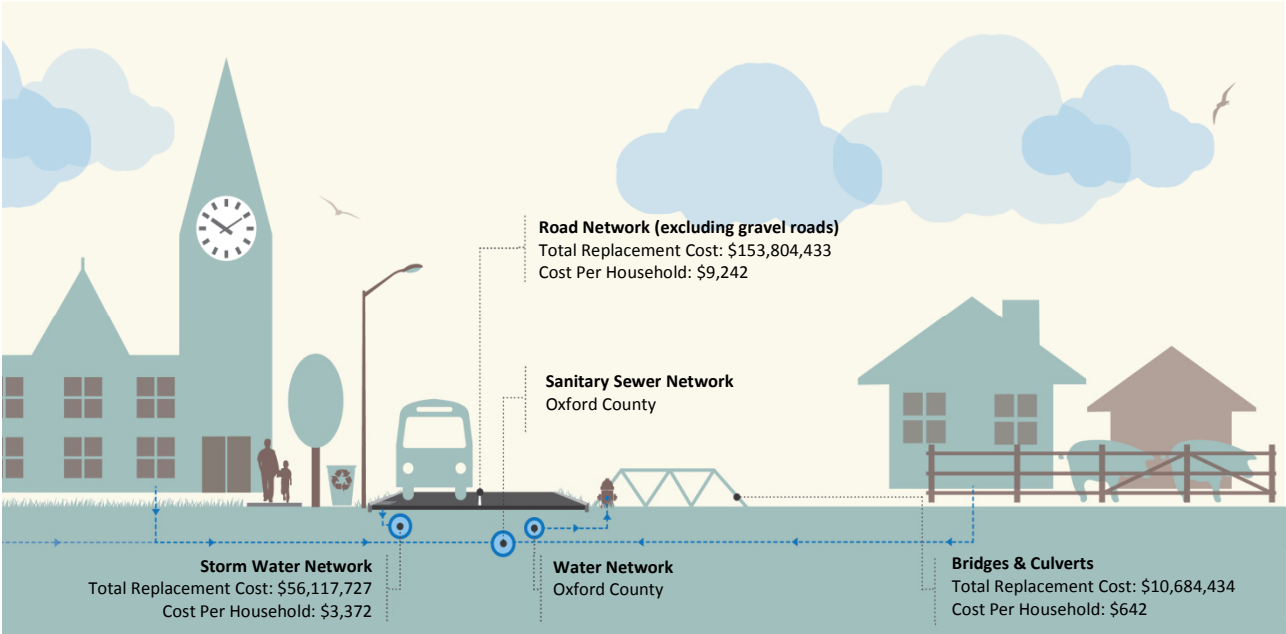
**2014 - 2018 CAPITAL BUDGET**

All Amounts in Thousands of Dollars

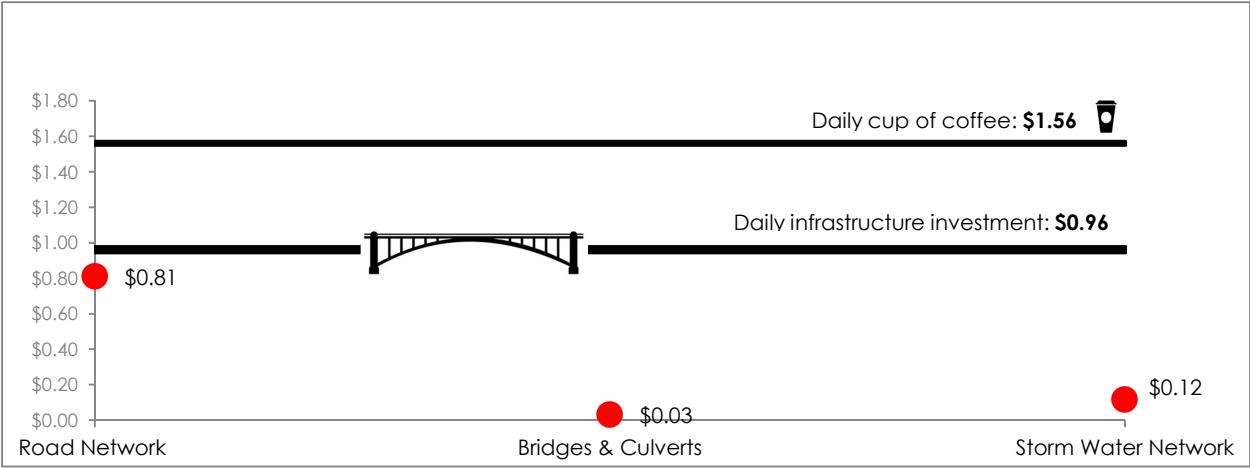
Department	Other Funding			Pr. Yr. Exp/Commit	2014			2015			2016			2017			2018		
	Gross	Sources	Net		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
COMPUTER EQUIPMENT	1357	0	1357	0	0	0	336	0	0	183	0	0	278	0	0	244	0	0	316
FLEET & EQUIPMENT	5082	170	4912	200	0	0	1217	0	0	984	0	0	840	0	0	744	0	0	927
TRAFFIC SIGNALS & CROSSING PROTECT.	1207	170	1037	0	0	75	0	0	224	216	0	40	30	0	182	109	0	52	109
ROADS	26269	0	26269	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2570	1438	900	1105	2075
<b>SANITARY SEWER - COUNTY</b>	<b>4630</b>	<b>4630</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WATERMAINS - COUNTY</b>	<b>4500</b>	<b>4500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
STREET LIGHTING	3767	0	3767	0	0	130	427	0	0	875	0	0	815	0	0	760	0	0	760
DEVELOPMENT COSTS	2276	0	2276	0	0	17	708	0	60	392	0	60	414	0	0	70	0	0	555
Recoverable from Future Development	1,827	-	1,827	-	-	-	399	-	-	518	-	-	655	-	-	255	-	-	0
NEW BUILDINGS, REPAIRS & MAINTENANC	11349	0	11349	40	0	0	1181	4366	0	1774	0	0	3178	0	0	190	0	550	70
FIRE DEPARTMENT	1559	0	1559	90	0	112	33	0	101	101	0	0	281	0	3	205	0	198	435
PARKS DEPARTMENT	2585	0	2585	15	0	319	583	0	387	267	0	218	277	0	202	53	0	211	53
SOUTHSIDE AQUATIC CENTRE	35	0	35	0	0	15	0	0	20	0	0	0	0	0	0	0	0	0	0
TRANSIT	2136	0	2136	0	0	10	522	0	10	517	0	0	333	0	0	152	0	50	542
COMMUNITY COMPLEX	1073	0	1073	0	0	64	0	0	91	98	0	40	0	0	740	0	0	40	0
ART GALLERY	50	0	50	0	0	0	10	0	0	10	0	0	10	0	0	10	0	0	10
LIBRARY	99	0	99	0	0	39	60	0	0	0	0	0	0	0	0	0	0	0	0
POLICE SERVICES	50	0	50	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>69,851</b>	<b>9,470</b>	<b>60,381</b>	<b>940</b>	<b>900</b>	<b>2,491</b>	<b>8,417</b>	<b>5,266</b>	<b>3,001</b>	<b>8,057</b>	<b>900</b>	<b>2,533</b>	<b>8,741</b>	<b>2,250</b>	<b>3,697</b>	<b>4,230</b>	<b>900</b>	<b>2,206</b>	<b>5,852</b>
<b>Strategic Plan Initiatives</b>	<b>19,075</b>	<b>-</b>	<b>19,075</b>	<b>120</b>	<b>1,602</b>	<b>130</b>	<b>1,515</b>	<b>950</b>	<b>30</b>	<b>3,388</b>	<b>4,000</b>	<b>306</b>	<b>689</b>	<b>4,630</b>	<b>20</b>	<b>730</b>	<b>700</b>	<b>20</b>	<b>245</b>
<b>Grand Total</b>	<b>88,926</b>	<b>9,470</b>	<b>79,456</b>	<b>1,060</b>	<b>2,502</b>	<b>2,621</b>	<b>9,932</b>	<b>6,216</b>	<b>3,031</b>	<b>11,445</b>	<b>4,900</b>	<b>2,839</b>	<b>9,430</b>	<b>6,880</b>	<b>3,717</b>	<b>4,960</b>	<b>1,600</b>	<b>2,226</b>	<b>6,097</b>

Infrastructure Replacement Cost Per Household

Total: \$13,256 per household



Daily Investment Required Per Household for Infrastructure Sustainability



c/o Beckie McCulley  
Highland Transport  
2815 14<sup>th</sup> Avenue,  
Markham, Ontario  
L3R 0H9



September 22, 2014

Woodstock City Council  
500 Dundas Street,  
Woodstock, ON N4S 0A7



Joanne's Truck Donated by  
Peterbilt Ontario

### **City Council Consideration - Meeting: October 2, 2014 – In Kind Donation Request**

Trucking For A Cure is a support group on behalf of the Canadian Breast Cancer Foundation-Ontario, which consists of professional organizations and individuals of the transportation industry. The Canadian Breast Cancer Foundation relies on caring, community-minded people, and organizations like Trucking For A Cure to raise funds for breast cancer awareness, education and research. Funds raised at such events as ours, are used to fund research, build fellowships, and create breast health incentives across Ontario.

Trucking For A Cure was founded by veteran trucker Joanne Millen-Mackenzie and her Team Cure volunteers, the first Trucking for a Cure Convoy event was held in Woodstock, Ontario in 2010. In 2013, the event raised over \$73,000, with over \$209,000 raised over the past 4 years. Last year's event included 80 pink'd out transport trucks in the convoy that runs from the TA truck stop east on the 401 to 403 exit north on 53 to Towerline Road to 401 and back into the TA truck stop. The crowds of supporters waving at our Convoy Drivers brought tears to many eyes. New this year our Team also ran a convoy from Prescott to Belleville including getting the blessing from the City to run the convoy through their downtown.

Our Team's goal is to turn the transportation industry "PINK" in the month of October! We drive for your mother, sister, spouse and daughters. We are the driving force battling breast cancer one truck at a time and we will keep steering towards a cancer free future!

We are asking the City of Woodstock for an in-kind donation of 20 picnic tables with delivery & pickup. We would like to use these tables again this year in our event area. In the past the tables were dropped off at the TA truck stop on the Friday before our event (Friday October 3, 2014) and picked up on the following Monday (Monday October 6, 2014).

Thank you in advance for your consideration.

Beckie McCulley  
Trucking For A Cure Team Member  
905 513 2029 – work  
416 371 5615 – cell – text only

***Come out and support this cause and Let's drive out cancer, one truck at a time!  
Bring the family to see the Pink'd Out Trucks, bouncy castle, face painting,  
balloon sculpture, plus live music throughout the day. A BBQ lunch and goodies  
from the bake sale table are also available.***

**Convoy Blessing at 11:00 am  
Convoy starts rolling at 11:15 am  
Convoy returns at 12noon**



March 18, 2014

To Whom It May Concern

**Letter of Endorsement**

Dear Supporter

The Canadian Breast Cancer Foundation believes that a future without breast cancer is achievable. To accomplish our mission, we collaborate with others, including fundraisers in the community to maximize our efforts for the cause. This letter confirms that **Trucking for a Cure** is a significant contributor to our work, through their annual event trucking event. **Over the past 4 years, the event has raised over \$200,000 on behalf of the Foundation, with over \$73,000 being raised in 2013 alone! We are truly grateful for their support.**

The Canadian Breast Cancer Foundation relies on caring, community-minded individuals to raise funds for breast cancer awareness, education and research. **In 2013, Joanne Millen-Mackenzie, organizer of Trucking for a Cure, was awarded with the Top Community Event Award** by the Foundation. Funds raised at events such as this are used to fund research, fellowships and breast health initiatives across Canada, work which is already improving and saving lives.

Last year, the Foundation awarded more than \$8.4 million in research and fellowship grants across the province. Your contribution is helping fund groundbreaking research on prevention, detection, diagnosis and treatment. Because of the work of dedicated breast cancer scientists and clinicians, we are seeing more targeted and less invasive treatments, fewer side effects and better outcomes. Though advancements are being made, 1 in 9 women will still be diagnosed with breast cancer in her lifetime. It's only with your continued support that we can meet the needs of the breast cancer research community and continue to make progress in understanding, detecting, and treating breast cancer.

Thanks again for everything you've done to make our work possible. **We are achieving great things together, as we work to create a future without breast cancer.**

If you have any questions, please feel free to contact me directly at (416) 815-1313 x 325 or by email at clewis-thurab@cbcf.org.

Sincerely,

Cheryl Lewis-Thurab  
Community Events Specialist



**To: Mayor and Members of Council**

**From: David Creery, Chief Administrative Officer**

**Re: City of Woodstock v County of Oxford – Cross Border Servicing**

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**AIM**

To approve Minutes of Settlement for the action before Superior Court.

**BACKGROUND**

At its meeting of June 19<sup>th</sup>, City Council approved the following recommendation from the Mayor's Report 10a -2014 County of Oxford Cross Border Servicing Approval – Tillsonburg Sanitary Collection System:

*"That City Council authorize the City Solicitor to file an Application against the County of Oxford seeking an interim injunction and a declaration that the County is purporting to act in contravention of the Official Plan with respect to the recent decision by Oxford County Council to connect an existing residential property and that the associated costs be financed from the Reserve for Contingencies to an upset limits of \$30,000."*

The Mayor's report from the June 19<sup>th</sup> agenda (attached) provides the background information to this decision.

**COMMENTS**

The Application was filed with Superior Court and has been held over to October 31 pending a possible resolution of the matter by way of the attached Minutes of Settlement. The Minutes of Settlement were approved by County Council at its meeting of September 24<sup>th</sup>.

The Minutes of Settlement establish that County's Council's decision to connect the existing residence is not in conformity with the Official Plan and is a contravention of the Planning Act. The County further agrees to conform to the Official Plan for any future requests for cross border servicing and to reimburse the City for its costs of this action.

This is the second cross border servicing issue that the City has had with the County's interpretation and application of the Official Plan policy. In May, the Ontario Municipal Board ruled in favour of a City appeal of an Official Plan Amendment that authorized cross border servicing for an expansion of the County's road patrol yard on the 11<sup>th</sup> Line outside City Limits.

For clarity the effect of this offer of settlement is that no action can or would be taken by the City to seek disconnection of the now constructed connection between the subject property and the Tillsonburg Sanitary Collection System.

**RECOMMENDATION**

That City Council authorizes the Mayor and Clerk to sign the Minutes of Settlement and that the City Solicitor is directed to withdraw the legal proceeding before Superior Court.

*Authored by: David Creery, Chief Administrative Officer*

**To: Members of Council**

**From: Pat Sobeski, Mayor**

**Re: 2014 County of Oxford Cross Border Servicing Approval – Tillsonburg  
Sanitary Collection System**

---

### **AIM**

To recommend the filing of an Application against the County of Oxford seeking an interim injunction and a declaration that the County is purporting to act in contravention of the Official Plan with respect to the recent decision by Oxford County Council to connect an existing residential property.

### **BACKGROUND**

At its meeting of May 28, 2014 County Council considered a report from the Community and Strategic Planning Office concerning a request to connect to the Tillsonburg sanitary collection system by an existing residence located in the Township of Norwich. The County staff report is appended.

The septic system at the existing house is reported to have completely failed leaving the homeowners with the expense to replace their septic system.

As the house is located in the Township of Norwich, the homeowner is seeking a connection to the Tillsonburg sanitary sewer system. This represents cross border servicing. The Oxford County Official Plan provides the Policy guidance and exceptions to allow for cross border servicing. The homeowner's proposal does not meet the exception criteria for the extension of services in the Oxford County Official Plan.

### **COMMENTS**

The report from the Community and Strategic Planning Department did not recommend approval of the sanitary sewer connection as the exception criteria of the Official Plan were not satisfied.

Excerpted from the Planning report:

*"Risks and/or implications associated with this proposal are related primarily to whether the proposal maintains the intent and purpose of the County Official Plan as it pertains to the connection of municipal services to properties outside of settlement boundaries. The approval of proposals that do not comply with the objectives and policies of the Official Plan can set an undesirable precedent which could undermine the future application or effectiveness of the policies."*

The approval of this connection sets a dangerous precedent. County Council denied a similar request to connect on an existing house outside of Woodstock city limits on Oxford Road 17 (Tollgate Road) in November of 2013.

My understanding is that once an Official Plan is in effect, it guides all of the municipality's planning decisions. This means that the local council and municipal officials must follow the plan and all new services, such as sewer or watermain, must conform to the official plan.

Cross border servicing is fundamentally prohibited by Oxford County's Official Plan. This was recently affirmed in the Ontario Municipal Board decision that denied an Official Plan Amendment to connect the County Roads Patrol Yard on the 11<sup>th</sup> Line to the Woodstock sanitary collection system.

The May 28, 2014 decision by County Council is also believed to be a contravention of Section 24 of the Planning Act.

The Ontario Municipal Board writes that Section 24 (1) of the *Planning Act* requires any by-law passed by a municipality to conform to the Official Plan. It also requires any public work performed by the municipality to conform to the Plan. Public work is defined as "any improvement of a structural nature or other undertaking that is within the jurisdiction of the council of a municipality or a local board. Examples include road construction or sewer line extension.

As an Official Plan Amendment has not been filed there is no recourse through the Ontario Municipal Board. The only recourse is through the filing of an Application against the County of Oxford. The cost of litigation is estimated to be in the range of \$20,000-\$30,000. The City Solicitor has reviewed this report and concurs with this recommendation.

This is an issue of great importance to the City of Woodstock. Fundamentally, the question at issue is whether County Council can simply waive away any of the restrictions of the Official Plan to avoid facing the scrutiny of the Ontario Municipal Board.

There are a number of reasons the City opposes cross border servicing within the County. Firstly, the extension of services beyond urban limits establishes a precedent which attracts interest by other property owners to use these services. Sewer and water infrastructure that is extended to serve one property will always have additional capacity to service other properties in the vicinity. This additional capacity can be used to intensify existing land uses or develop land for industrial or residential uses.

The intensification of land uses outside the Corporate Urban Boundaries is attractive as the tax rates in the adjacent Townships are lower than the City. The tax rates are lower as the Townships do not offer the same level of service and do not offer the same services as provided by the City. Cross border servicing creates an incentive to intensify land uses on the periphery of urban boundaries in an unplanned manner. This type of development is not supported by Provincial Policy.

Secondly, the City of Woodstock taxpayer has significant investments in serviced industrial land. These costs are recovered when the land is sold. City Councils, past and present, have always maintained a good supply of shovel ready serviced industrial land. Attracting new industry and the jobs that come with new industry is very competitive and having a ready land supply is necessary to compete. The availability of serviced land outside the City Limit with a lower tax rate will make the job of selling the City's land supply more difficult. This will make the job of recovering our investments more difficult.

New industrial development brings more than new jobs. Industrial and commercial development has a higher assessment weighting than residential assessment. The result is that more industrial and commercial development helps to offset residential tax increases.

### **RECOMMENDATION**

That City Council authorize the City Solicitor to file an Application against the County of Oxford seeking an interim injunction and a declaration that the County is purporting to act in contravention of the Official Plan with respect to the recent decision by Oxford County Council to connect an existing residential property and that the associated costs be financed from the Reserve for Contingencies to an upset limit of \$30,000.00.

*Authored by: Pat Sobeski, Mayor*

**ONTARIO  
SUPERIOR COURT OF JUSTICE**

**B E T W E E N :**

**THE CORPORATION OF THE CITY OF WOODSTOCK**

Applicant

- and -

**COUNTY OF OXFORD**

Respondent

**MINUTES OF SETTLEMENT**

The Applicant and the respondent agree to settle this application as follows:

1. County of Oxford acknowledges that resolution #3 of County of Oxford By-law 5575-2014 does not conform to Section 4.2.2.5.1 of the County of Oxford Official Plan in contravention of sub-section 24(1) of the *Planning Act*, R.S.O. 1990, chapter P.13.
2. All future requests for extension of centralized waste water or water supply facilities and infrastructure to service beyond the limit of the Large Urban Centre or Future Urban Growth designations as established on Schedules W-1, I-1, T-1 and Schedule C-3, Settlement Strategy Plan, of the County of Oxford Official Plan, shall be subject to County Council approval.

3. Subject to paragraph 4 hereof, County Council shall not entertain any such request unless all six specified criteria set out in Section 4.2.2.5.1 of the County of Oxford Official Plan are met
4. If not all of the six specified criteria set out in Section 4.2.2.5.1 of the County of Oxford Official Plan are met, County Council shall not entertain any such request, unless an application to specifically amend the County of Oxford Official Plan is filed with such a request. In such a case, County Council will not approve the request unless County Council passes a bylaw adopting the Official Plan amendment.
5. The Respondent shall pay the applicants costs in the amount of \$5,000.00 inclusive of HST
6. The Application shall be dismissed on consent.

Date: \_\_\_\_\_

THE CORPORATION OF THE  
CITY OF WOODSTOCK

Per: \_\_\_\_\_

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk

Date: \_\_\_\_\_

County of Oxford

Per: \_\_\_\_\_

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk



Canadian Cancer Society  
Société canadienne  
du cancer

Oxford County Community Office  
65 Springbank Ave. N #3  
Woodstock, ON  
N4S 8V8  
PH: (519) 537-5592  
F: (519) 537-3945

September 18, 2014

Mayor Pat Sobeski and  
City of Woodstock Members of Council  
500 Dundas Street  
P.O. Box 1539  
Woodstock, ON N4S 0A7

Dear Mayor Sobeski and City of Woodstock Members of Council:

The Canadian Cancer Society is hosting its second annual Cool Runnings Trail Race on October 25 at Roth Park. The trail race extends through Pittock Conservation Area and Burgess Park, allowing runners from all over Ontario to see Woodstock's picturesque trails. The event complements the Society's mission as it advocates for physical activity all the while promoting health and family time.

The funds raised at this event will have a direct impact on the lives of Woodstock's citizens including new and improved treatments from research breakthroughs and information and support for those living with cancer. We are asking for your support with this event by loaning some of the logistical needs free-of-charge thereby allowing more of our donors' dollars to go towards our mission.

In return, the Society will recognize the City's contribution by placing its logo on various event materials like on-site banners and signage. The items we are requesting include:

From the Works Department:

- 20 traffic cones
- 10 wooden barricades
- Items to be delivered on Friday evening (October 24) and picked up Saturday afternoon at 12:00 noon (October 25)

With support from you and the Woodstock community, we will fund Canada's best researchers – researchers who work tirelessly towards the next breakthrough in cancer prevention, diagnosis and treatment to save more lives in the future. For those battling cancer today, you are enabling our Information Specialists provide the information and support they urgently need to fight their cancer.

**This work could not happen without you.**

Thank you very much for considering our request.

Sincerely,

*Tracy Bucholtz*

Tracy Bucholtz  
Fundraising Coordinator

**To: Mayor and Members of Council**

**From: David Creery, Chief Administrative Officer**

**Re: Budget 2015**

---

**AIM**

To establish a schedule for the review and approval of the 2015 Revenue Fund Budget and 2015-2019 Capital and Forecast Budget and to confirm Council Budget directives to Staff.

**BACKGROUND**

Section 290 of the Municipal Act requires a municipality to, in the year or the immediately preceding year, prepare and adopt a budget including estimates of all sums required during the year for the purposes of the municipality.

The 2014 Capital Budget was approved by City Council on December 12, 2013 while the Revenue Fund Budget was adopted by City Council on March 6<sup>th</sup>.

**COMMENTS**

**Budget Deliberation Sequence & Timetable**

Council inauguration will take place on December 4<sup>th</sup> with the first regular Council meeting on December 11<sup>th</sup>. For the past two years, Council reviewed the Capital Budget in late November with approval at the regular December meeting; reversing the traditional sequence of reviewing the Revenue Fund Budget first. This new sequence of budget review works quite well as it provides Staff with additional time to complete capital projects. However, Capital Budget review and approval is proposed for January of next year due to the municipal election.

Suggested dates for Budget meetings are appended to this report. It is recommended that Council check their schedules for availability on the suggested dates.

**Budget 2015 Council Direction**

Past practice for the development of the City Budgets has been to provide Council with a base budget. The base budget represents the status quo in terms of staff, materials, equipment and other costs to deliver the same programs and services. Administration identifies additional items above the base budget for Council's consideration. Examples of additional items include staff to expand or introduce new services or to respond to additional workload resulting from a growing City. Options to reduce the levy are also provided when possible.

City Council approved, in principle, a Community Strategic Plan and an Integrated Community Sustainability Plan in March of 2013. This Plan identified four general goals with 17 underlying objectives. Through an extensive public consultation program, a total of 52 possible actions addressing these objectives were identified and prioritized.



All of the actions documented in the final Plan were then forwarded to each of City Council's Advisory Committee's and affiliate organizations (ie BIA) for the development of further detail and ideas to be considered with the 2014 Budget. City Council approved a number of Strategic Plan Initiative projects with the 2014 Budget. The 2015 Budget will include recommendations for continuation of priority projects and recommendations for additions/changes to base budget. A brief presentation will be available to provide some context for the 2015 Budget.

#### **RECOMMENDATION**

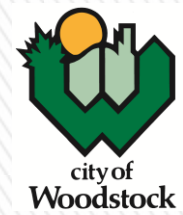
That City Council approve the 2015 Budget Deliberation Timetable, and

That City Council directs Administration to prepare a 2015 base budget that provides for a continuation of current programs and services.

*Authored by: David Creery, Chief Administrative Officer*

## 2015 Draft Budget Deliberation Timetable

<b>2015 Capital Budget &amp; 2016-2019 Forecast Capital Budget</b>		
Thursday, January 15	Distribution of 2015 Capital Budget and Overview Presentation (during regular Council meeting)	City Council CAO & Treasurer
Monday, January 19	2015 Capital Budget Review meeting	City Council, City Staff
Thursday, January 22	2015 Capital Budget Review meeting (if required)	City Council, City Staff
Thursday, February 5	2015 Capital Budget approval (during regular Council meeting)	City Council, City Staff
<b>2015 Revenue Fund Budget</b>		
Thursday, February 5	Distribution of 2015 Revenue Fund Budget & Overview Presentation (during regular Council meeting)	City Council, City Staff
Tuesday, February 10	Revenue Fund Budget Review	City Council Department Heads
Thursday, February 12	Revenue Fund Budget Review	City Council Department Heads
Tuesday, February 17	Alternate and supplemental dates for Revenue Fund Budget Review if needed	City Council Department Heads
Thursday, February 19	Suggested Police Board and Library Board Budget Overview (during regular Council meeting)	City Council
Thursday, March 5	Council Budget Motions (during regular Council meeting)	City Council Department Heads
TBD	General Levy By-law	City Council



# CITY OF WOODSTOCK

**“INCLUSIVE, VIBRANT, SUSTAINABLE”**



## **ENHANCE QUALITY OF LIFE**

**Public Safety, City Services, Recreation, Transportation,  
Culture, Communication**

## **CREATE A DYNAMIC, DIVERSIFIED ECONOMY**

**Vibrant Downtown, Business Retention & Attraction,  
Destination “Woodstock”**

## **PROTECT & ENHANCE OUR NATURAL ENVIRONMENT**

**Natural Resources, Green Initiatives, Energy  
Consumption**

## **FINANCIAL STABILITY FOR THE CITY**

## **ENHANCE THE QUALITY OF LIFE**

- **Recreation Facility Needs Study**
- **Transit Master Plan Update**
- **Recreation Programming Changes (New & Evolving Programs, Fair)**
- **Art Gallery – (Advisory Board, Capital Project)**
- **Cycle Master Plan – Phased Implementation**
- **Communication – Evolution of WOW, Recreation & Leisure Guide, City Services Calendar, Social Media, New Accessible Website**

## **CREATE A DYNAMIC, DIVERSIFIED ECONOMY**

- **Downtown Community Improvement Plan**
- **Economic Diversification - (Sysco, Trans-Mit Steel)**
- **Partnership with uOttawa**
- **Servicing Additional Industrial Land (2014, 2015)**  
**i.e. Woodall Development**

## **PROTECT & ENHANCE OUR NATURAL ENVIRONMENT**

- **Burgess & Standard Tube Lands Master Plan**
- **Pittock Lake Lands ( Potential for Open Public Access & Additional Recreation Amenities)**
- **Conservation and Demand Management Plan**
- **Municipal Energy Plan Development**
- **Renewable Energy (Solar Installations)**



## **FINANCIAL SUSTAINABILITY FOR THE CITY**

- **Asset Management Plan/Roads Need Study**
- **Investment of Woodstock Hydro Sale Proceeds (Subject to O.E.B. Approval)**
- **Increasing Contribution to Reserves (Parks Reserve, Capital Out of Revenue)**
- **Reserve & Reserve Fund Policy**



## **CAPITAL BUDGET 2015**

- **Woodall Recreation Complex – 1<sup>st</sup> Phase \$4.1 Million  
(Financing - \$3.15 Million – Development Charge &  
\$950,000 Debt)**
- **Woodstock Police Station Expansion \$4 Million – \$5  
Million  
(Debt Financing)**
- **Provincial & Federal Funding Programs (OCIF & SCF)  
(Warwick Street & Public Works HHW/Recyclables/Waste  
Depot)**

## **REVENUE FUND BUDGET 2015**

- **Community Development/Grant Writer – New Staff Position**
- **Manager of Accounting – New Staff Position**
- **Librarian – New Staff Position**
- **Web Master/Social Media Support – New Staff Position**
- **Southgate Centre – Additional Financial Support**
- **Financial Sustainability – Reserve Contributions**
- **Collective Agreements Expiring December, 2014**

## 2015 Capital Budget & 2016-2019 Forecast Capital Budget

Thursday, January 15	Distribution of 2015 Capital Budget and Overview Presentation (during regular Council meeting)	City Council CAO & Treasurer
Monday, January 19	2015 Capital Budget Review meeting	City Council, City Staff
Thursday, January 22	2015 Capital Budget Review meeting (if required)	City Council, City Staff
Thursday, February 5	2015 Capital Budget approval (during regular Council meeting)	City Council, City Staff

## 2015 Revenue Fund Budget

Thursday, February 5	Distribution of 2015 Revenue Fund Budget & Overview Presentation (during regular Council meeting)	City Council, City Staff
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TBD	General Levy By-law	City Council

**TO: David Creery, Chief Administrative Officer**

**FROM: Patrice Hilderley, Director of Administrative Services**  
**Harold de Haan, City Engineer**

**RE: Asset Management Plan**

---

## **AIM**

To have City Council accept the 2014 Asset Management Plan for the City of Woodstock.

## **BACKGROUND**

Ontario municipalities are now required to develop detailed Asset Management Plans (AMP) to accompany any request for provincial infrastructure funding. Municipalities are responsible for tailoring their asset management planning practices to their unique needs and ensuring that all the relevant expertise is brought to bear. Asset management is an integrated, lifecycle approach to effective stewardship of infrastructure assets to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable and environmentally responsible manner. The overall asset management process takes an organization's objectives, determines how these rely on infrastructure, and then develops a plan to provide the supporting infrastructure services at the lowest lifecycle cost. Lifecycle costing looks at the total cost of an asset over its entire useful life, from construction to disposal, including operating costs. Asset management is essential to the development of a common, systematic understanding of what needs are most important and how they can be addressed. Having a roster of the highest priority municipal infrastructure needs will help ensure that the Province is supporting the right projects.

The 2013 Capital Budget contained funds for the City of Woodstock to complete an Asset Management Plan. Although started, this project was not completed by the end of 2013 so the funds were carried over 2014. City Council recently approved submission of an EOI for two provincially and federally funded grant programs that require the municipality to have an accepted AMP by the end of the year.

## **COMMENT**

This Asset Management Plan (AMP) for the City of Woodstock (see attached) meets all requirements as outlined within the provincial Building Together Guide for Municipal Asset Management Plans. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service.

Although the province ultimately wants municipalities to include all assets (buildings, fleet, etc.) in their AMP, the current version of the report assesses the City's road network, storm sewers and bridges and culverts. It is the intent of the AMP that it be a "living" document that will be updated and expanded by Staff. Although the City operates and maintains the sanitary sewer system and watermains, they are technically a County asset and therefore are not included in the AMP.

In assessing the municipality's state of the infrastructure, the report examined and graded both the current condition (Condition vs. Performance) of the asset classes as well as the municipality's financial capacity to fund the asset's average annual requirement for sustainability (Funding vs. Need). This generated the municipality's infrastructure report card. The

municipality received a cumulative GPA of 'D+', with an annual infrastructure deficit of \$2.4 million.

Woodstock performed relatively well on the Condition vs. Performance dimension for all of the asset classes addressed. The municipality received a 'C+' in its bridges & culverts assets and 'B+' in its storm water network. Its lowest rating of 'C' was assigned in the road network. Although this rating indicates that the road network is primarily in fair to good condition, the 38% of the network that is in fair to critical condition (based on assessed condition data) has generated significant financial needs over the next five years totaling approximately \$32 million. Woodstock's storm sewer network, based on age data only, has approximately 96% of all pipes in good or excellent condition and approximately a \$2 million requirement over the next five years. Future funds should continue to be directed towards a condition assessment program to gain a better understanding of current performance.

Woodstock's performance on the Funding vs. Need dimension varied significantly across the asset classes. Its bridges & culverts and storm assets are funded at 31% and 43% respectively of their annual needs. Consequently, the municipality received an 'F' for these two categories. Its road network is funded at 62% of its annual needs and therefore received a grade of 'C'.

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long term budgeting. The average annual investment requirement for paved roads, bridges & culverts and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets is \$3,424,000 leaving an annual deficit of \$2,410,000. These infrastructure categories are currently funded at 59% of their long term requirements.

The AMP is intended to be a living document that will be revised as more data is gathered (Road Needs Study, results of TV'ing sewers) and other assets are added (buildings, fleet, etc.). This data, along with financial data, will assist the City in long term asset and financial planning.

## **RECOMMENDATION**

That City Council accept the 2014 Asset Management Plan for the City of Woodstock.

*Authored by: Patrice Hilderley, Director of Administrative Services  
Harold de Haan, P. Eng., City Engineer*

*Approved by: David Creery, MBA, P. Eng., Chief Administrator Officer*





## THE ASSET MANAGEMENT PLAN FOR THE CITY OF WOODSTOCK

**2013**

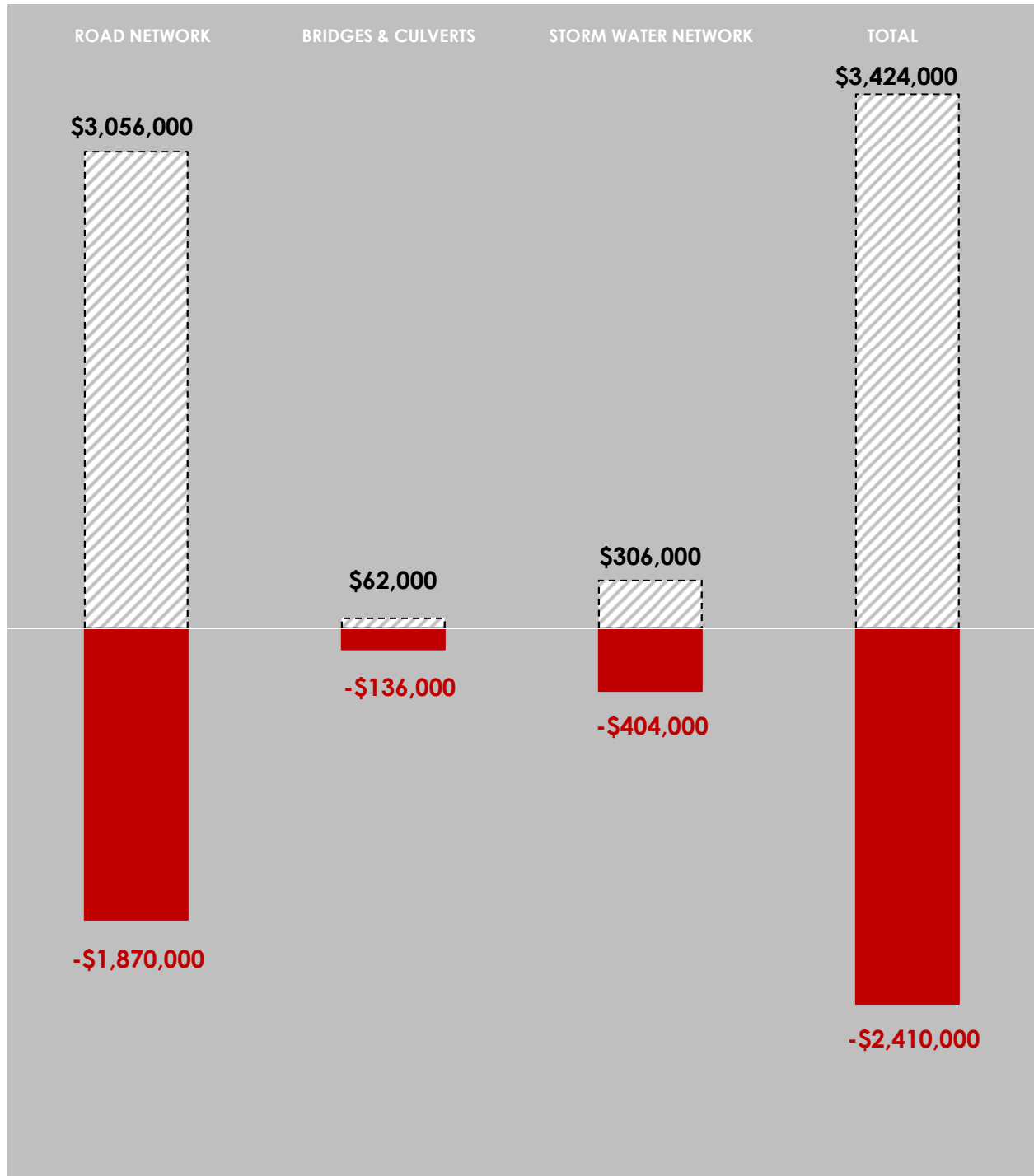
THE CITY OF WOODSTOCK  
500 DUNDAS STREET  
WOODSTOCK, ONTARIO N4S 0A7

SUBMITTED SEPTEMBER 2014  
BY PUBLIC SECTOR DIGEST  
148 FULLARTON STREET, SUITE 1410  
LONDON, ONTARIO, N6A 5P3

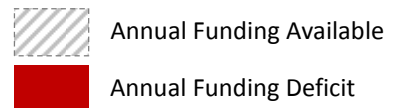
# State of the Infrastructure

## CITY OF WOODSTOCK

AVERAGE ANNUAL FUNDING REQUIRED vs. AVERAGE ANNUAL FUNDING AVAILABLE



**Total Annual Deficit: -\$2,410,000**



**PUBLIC SECTOR DIGEST**  
INTELLIGENCE FOR THE PUBLIC SECTOR.

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London, Ontario, N6A 5P3  
T: 519.690.2565 F: 519.649.2010  
[www.publicsectordigest.com](http://www.publicsectordigest.com)  
[www.citywidesolutions.com](http://www.citywidesolutions.com)

September 2014  
The City of Woodstock  
500 Dundas Street  
Woodstock, Ontario N4S 0A7

We are pleased to submit the 2013 Asset Management Plan (AMP) for the City of Woodstock. This AMP complies with the requirements as outlined within the provincial *Building Together Guide for Municipal Asset Management Plans*. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service. Given the broad and profound impact of asset management on the community, and the financial & administrative complexity involved in this ongoing process, we recommend that senior decision-makers from across the organization are actively involved in its implementation.

The performance of a community's infrastructure provides the foundation for its economic development, competitiveness, prosperity, reputation, and the overall quality of life for its residents. As such, we are appreciative of your decision to entrust us with the strategic direction of its infrastructure and asset management planning, and are confident that this AMP will serve as a valuable tool.

Sincerely,  
The Public Sector Digest Inc.



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**PUBLIC SECTOR DIGEST**  
INTELLIGENCE FOR THE PUBLIC SECTOR.

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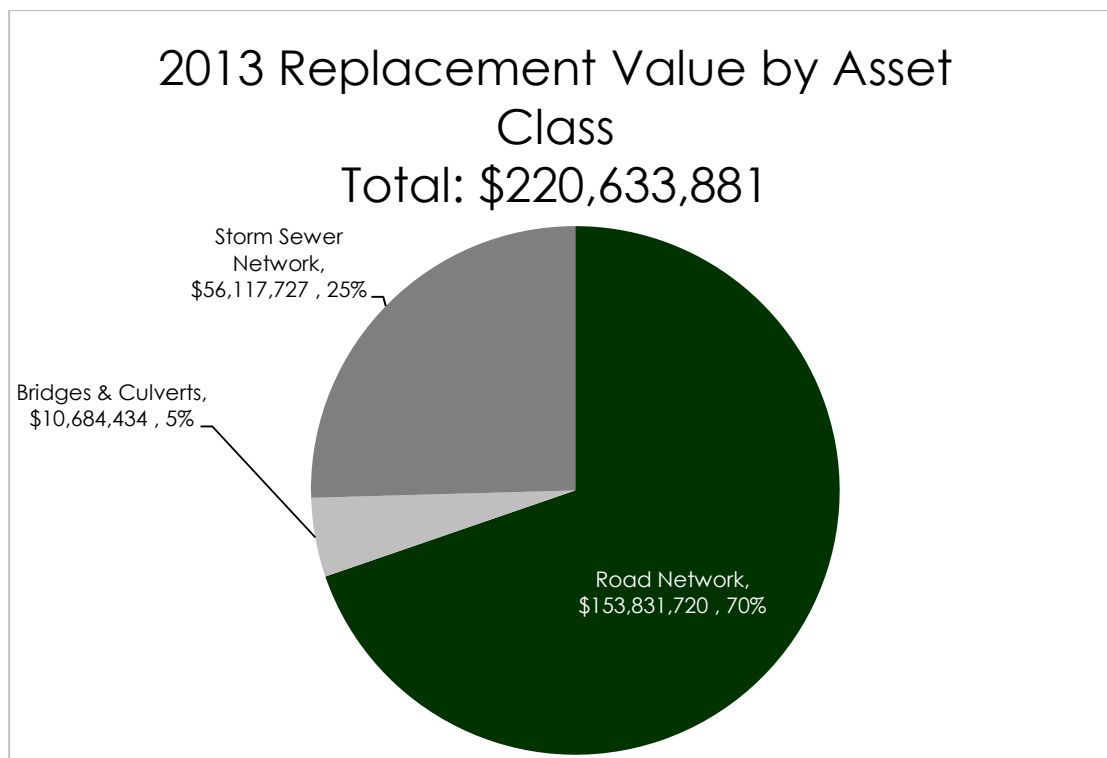
# 1.0 Executive Summary

The performance of a community's infrastructure provides the foundation for its economic development, competitiveness, prosperity, reputation, and the overall quality of life for its residents. Reliable and well-maintained infrastructure assets are essential for the delivery of critical core services for the citizens of a municipality.

A technically precise and financially rigorous asset management plan, diligently implemented, will mean that sufficient investments are made to ensure delivery of sustainable infrastructure services to current and future residents. The plan will also indicate the respective financial obligations required to maintain this delivery at established levels of service.

This Asset Management Plan (AMP) for the City of Woodstock meets all requirements as outlined within the provincial *Building Together Guide for Municipal Asset Management Plans*. It will serve as a strategic, tactical, and financial document, ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service. Given the expansive financial and social impact of asset management on both a municipality, and its citizens, it is critical that senior decision-makers, including department heads as well as the chief executives, are strategically involved.

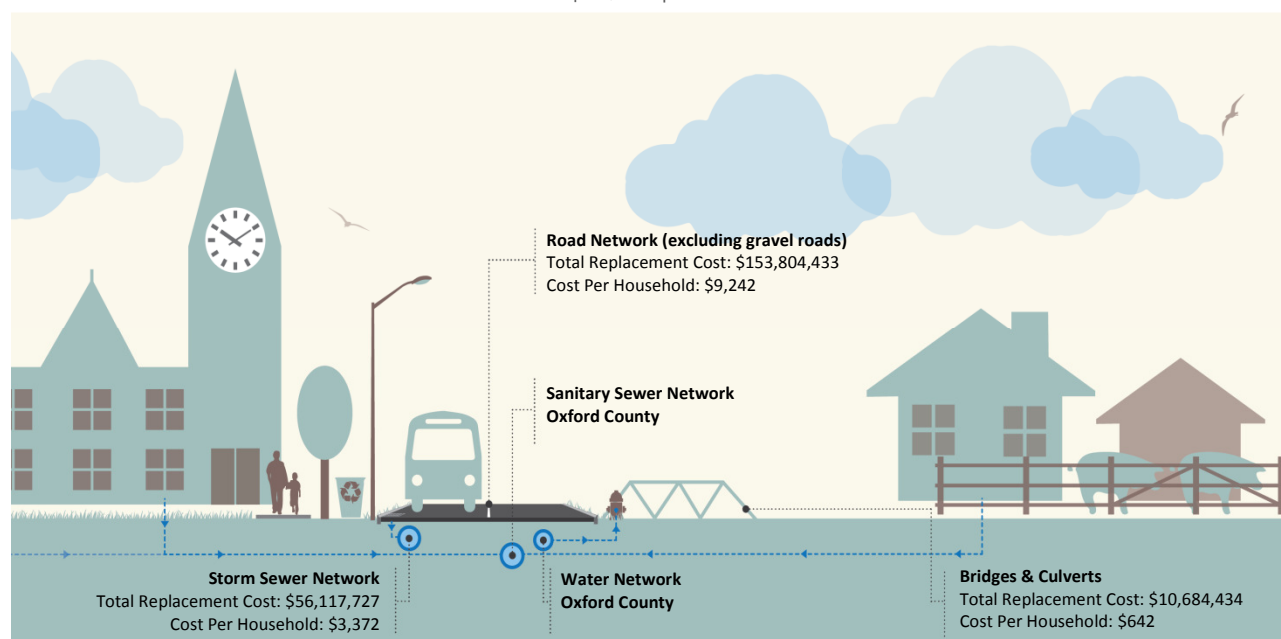
Measured in 2013 dollars, the replacement value of the asset classes analyzed totaled **\$220 million** for Woodstock.



While the municipality is responsible for the strategic direction, it is the taxpayer in Woodstock who ultimately bears the financial burden. As such, a 'cost per household' (CPH) analysis was conducted for each of the asset classes to determine the financial obligation of each household in sharing the replacement cost of the municipality's assets. Such a measurement can serve as an excellent communication tool for both the administration and the council in communicating the importance of asset management to the citizen. The diagram below illustrates the total CPH, as well as the CPH for individual asset classes.

### Infrastructure Replacement Cost Per Household

Total: \$13,256 per household



In assessing the municipality's state of the infrastructure, we examined, and graded, both the current condition (Condition vs. Performance) of the asset classes as well as the municipality's financial capacity to fund the asset's average annual requirement for sustainability (Funding vs. Need). We then generated the municipality's infrastructure report card. The municipality received a **cumulative GPA of 'D+'**, with an **annual infrastructure deficit of \$2.4 million**.

Woodstock performed relatively well on the Condition vs. Performance dimension for all of the asset classes addressed. The municipality received a 'C+' in its bridges & culverts assets and 'B+' in its storm water network. Its lowest rating of 'C' was assigned in the road network. Although this rating indicates that the road network is primarily in fair to good condition, the 38% of the network that is in fair to critical condition (based on assessed condition data) has generated significant financial needs over the next five years totaling approximately \$32 million. Woodstock's storm sewer network, based on age data only, has approximately 96% of all pipes in good or excellent condition and approximately a \$2 million requirement over the next five years. Future funds should continue to be directed towards a condition assessment program to gain a better understanding of current performance.

Woodstock's performance on the Funding vs. Need dimension varied significantly across the asset classes. Its bridges & culverts and storm assets are funded at 31% and 43% respectively of their annual needs. Consequently, the municipality received an 'F' for these two categories. Its road network is funded at 62% of its annual needs and therefore received a grade of 'C'.

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long-term budgeting. We have developed scenarios that would enable Woodstock to achieve full funding within 5 years or 10 years for the following: tax funded assets, including road network (paved roads), bridges & culverts, storm sewer network.

The average annual investment requirement for paved roads, bridges & culverts and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets is \$3,424,000 leaving an annual deficit of \$2,410,000. To put it another way, these infrastructure categories are currently funded at 59% of their long-term requirements.

Woodstock has annual tax revenues of \$43,726,000 in 2013. Full funding would require an increase in tax revenue of 5.5% over time. We recommend, with key qualifications (See the Financial Strategy section for a full discussion) the 5 year option which involves full funding being achieved over 5 years by:

- a) increasing tax revenues by 1.2% each year for the next 5 years solely for the purpose of phasing in full funding to the three asset categories covered by this AMP.
- b) continuing to allocate \$1,093,000 of the federal gas tax revenue to the paved roads category.
- c) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

The scenarios developed in this report do not draw on these funds during the phase-in period to full funding. The scenarios developed also exclude the use of debt. We recommend that as the City of Woodstock updates its AMP and expand it to include other asset categories, future planning should include determining what its long-term reserve balance requirements are and a plan to achieve such balances in the long-term.

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## 2.0 Introduction

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This Asset Management Plan meets all provincial requirements as outlined within the Ontario Building Together Guide for Municipal Asset Management Plans. As such, the following key sections and content are included:

1. Executive Summary and Introduction
2. State of the Current Infrastructure
3. Desired Levels of Service
4. Asset Management Strategy
5. Financial Strategy

The following asset classes are addressed:

1. **Road Network:** Arterial, collector, local, and gravel roads. Alleys, sidewalks, street lights and signals.
2. **Bridges & Culverts:** Bridges and large culverts with a span greater than 3m
3. **Storm Sewer Network:** Storm sewer mains, manholes, catch basins, outlets and facilities.

Municipalities are encouraged to cover all asset classes in future iterations of the AMP.

This asset management plan will serve as a strategic, tactical, and financial document ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service.

**At a strategic level,** within the State of the Current Infrastructure section, it will identify current and future challenges that should be addressed in order to maintain sustainable infrastructure services on a long-term, life cycle basis.

It will outline a Desired Level of Service (LOS) Framework for each asset category to assist the development and tracking of LOS through performance measures across strategic, financial, tactical, operational, and maintenance activities within the organization.

**At a tactical level,** within the Asset Management Strategy section, it will develop an implementation process to be applied to the needs-identification and prioritization of renewal, rehabilitation, and maintenance activities, resulting in a 10 year plan that will include growth projections.

**At a financial level,** within the Financial Strategy section, a strategy will be developed that fully integrates with other sections of this asset management plan, to ensure delivery and optimization of the 10 year infrastructure budget.

Through the development of this plan, all data, analysis, life cycle projections, and budget models will be provided through the Public Sector Digest's CityWide suite of software products. The software and plan will be synchronized, will evolve together, and therefore, will allow for ease of updates, and annual reporting of performance measures and overall results.

This will allow for continuous improvement of the plan and its projections. It is therefore recommended that the plan be revisited and updated on an annual basis, particularly as more detailed information becomes available.

### 2.1 Importance of Infrastructure

---

Municipalities throughout Ontario, large and small, own a diverse portfolio of infrastructure assets that in turn provide a varied number of services to their citizens. The infrastructure, in essence, is a conduit for the various public services the municipality provides, e.g., the roads supply a transportation network service. A community's prosperity, economic development, competitiveness, image, and overall quality of life are inherently and explicitly tied to the performance of its infrastructure.



## 2.2 Asset Management Plan (AMP) - Relationship to Strategic Plan

---

The major benefit of strategic planning is the promotion of strategic thought and action. A strategic plan spells out where an organization wants to go, how it's going to get there, and helps decide how and where to allocate resources, ensuring alignment to the strategic priorities and objectives. It will help identify priorities and guide how municipal tax dollars and revenues are spent into the future.

The strategic plan usually includes a vision and mission statement, and key organizational priorities with alignment to objectives and action plans. Given the growing economic and political significance of infrastructure, the asset management plan will become a central component of most municipal strategic plans, influencing corporate priorities, objectives, and actions.

## 2.3 AMP - Relationship to other Plans

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An asset management plan 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** – The AMP will utilize goals and projections from infrastructure master plans and in turn will influence future master plan recommendations.
- **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.

## 2.4 Purpose and Methodology

The following diagram depicts the approach and methodology, including the key components and links between those components that embody this asset management plan:



It can be seen from the above that a municipality's infrastructure planning starts at the corporate level with ties to the strategic plan, alignment to the community's expectations, and compliance with industry and government regulations.

Then, through the State of the Infrastructure analysis, overall asset inventory, valuation, condition and performance are reported. In future updates to this AMP, accuracy of reporting will be significantly increased through the use of holistically captured condition data. Also, a life cycle analysis of needs for each infrastructure class is conducted. This analysis yields the sustainable funding level, compared against actual current funding levels, and determines whether there is a funding surplus or deficit for each infrastructure program. The overall measure of condition and available funding is finally scored for each asset class and presented as a star rating (similar to the hotel star rating) and a letter grade (A-F) within the Infrastructure Report card.

From the lifecycle analysis above, the municipality gains an understanding of the level of service provided today for each infrastructure class and the projected level of service for the future. The next section of the AMP provides a framework for a municipality to develop a Desired Level of Service (or target service level)

and develop performance measures to track the year-to-year progress towards this established target level of service.

The Asset Management Strategy then provides a detailed analysis for each infrastructure class. Included in this analysis are best practices and methodologies from within the industry which can guide the overall management of the infrastructure in order to achieve the desired level of service. This section also provides an overview of condition assessment techniques for each asset class; life cycle interventions required, including those interventions that yield the best return on investment; and prioritization techniques, including risk quantification, to determine which priority projects should move forward into the budget first.

The Financing Strategy then fully integrates with the asset management strategy and asset management plan, and provides a financial analysis that optimizes the 10 year infrastructure budget. All revenue sources available are reviewed, such as the tax levy, debt allocations, rates, reserves, grants, gas tax, development charges, etc., and necessary budget allocations are analysed to inform and deliver the infrastructure programs.

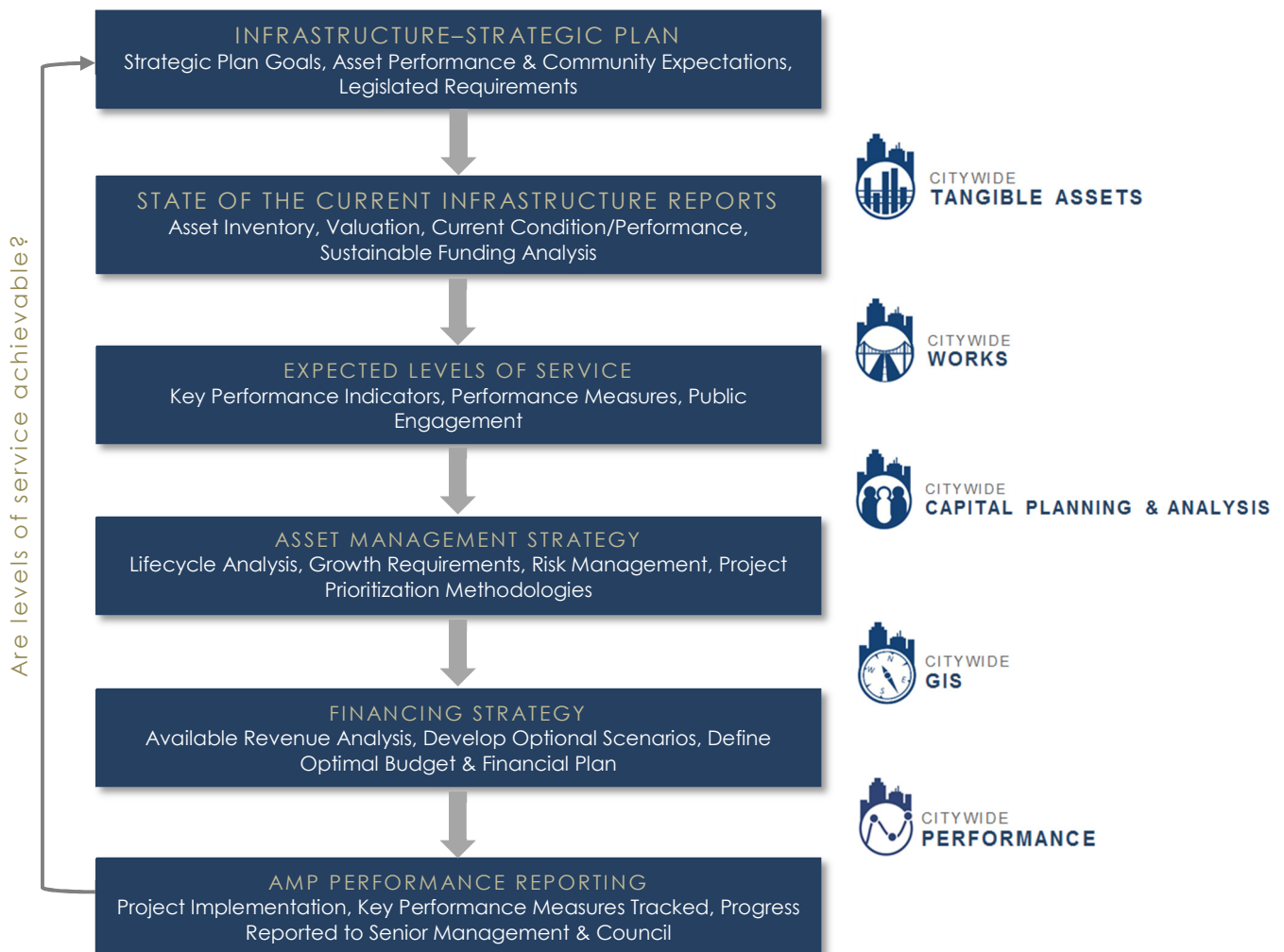
Finally, in subsequent updates to this AMP, actual project implementation will be reviewed and measured through the established performance metrics to quantify whether the desired level of service is achieved or achievable for each infrastructure class. If shortfalls in performance are observed, these will be discussed and alternate financial models or service level target adjustments will be presented.

## 2.5 CityWide Software alignment with AMP

The plan will be built and developed hand in hand with a database of municipal infrastructure information in the CityWide software suite of products. The software will ultimately contain the municipality's asset base, valuation information, life cycle activity predictions, costs for activities, sustainability analysis, project prioritization parameters, key performance indicators and targets, 10 year asset management strategy, and the financial plan to deliver the required infrastructure budget.

The software and plan will be synchronized, and will evolve together year-to-year as more detailed information becomes available. This synchronization will allow for ease of updates, modeling and scenario building, and annual reporting of performance measures and results. This will allow for continuous improvement of the plan and its projections. It is therefore recommended that it is revisited and updated on an annual basis.

The following diagram outlines the various CityWide software products and how they align to the various components of the AMP. The City currently makes use of CityWide Tangible Assets and CityWide Capital Planning & Analysis.



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## 3.0 State of the Infrastructure (SOTI)

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### 3.1 Objective and Scope

**Objective:** 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.

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

- Canadian Infrastructure Report Card
- City of Hamilton's State of the Infrastructure reports. The City of Hamilton has been a leader in the development of asset management tools.
- Other Ontario Municipal State of the Infrastructure reports

The above reports are themselves based on established principles found within key, industry best practices documents such as:

- The National Guide for Sustainable Municipal Infrastructure (Canada)
- The International Infrastructure Management Manual (Australia / New Zealand)
- American Society of Civil Engineering Manuals (U.S.A.)

**Scope:** Within this State of the Infrastructure report, a high level review will be undertaken for the following asset classes:

1. **Road Network:** Arterial, collector, local, and gravel roads. Alleys, sidewalks, street lights and signals.
2. **Bridges & Culverts:** Bridges and large culverts with a span greater than 3m
3. **Storm Sewer Network:** Storm sewer mains, manholes, catch basins, outlets and facilities.

### 3.2 Approach

Some of the asset classes above were reviewed at a high level due to the nature of data and information available. Currently, the City commissions condition studies every 4 years for roads, every 2 years for bridges as per Ministry guidelines, and every 7 years for storm sewers. Subsequent detailed reviews of this analysis are recommended on an annual basis, as more detailed conditions assessment information becomes available for each infrastructure program.

The plan does not include sanitary sewers or water mains, as these assets are owned by the County of Oxford. However, their impact on project selection process should be recognized as part of the capital planning process.

#### 3.2.1 Base Data

In order to understand the full inventory of infrastructure assets within Woodstock, all tangible capital asset data, as collected to meet the PSAB 3150 accounting standard, was loaded into the CityWide Tangible Asset™ software module. This data base now provides a detailed and summarized inventory of assets as used throughout the analysis within this report and the entire Asset Management Plan.

#### 3.2.2 Asset Deterioration Review

The City of Woodstock has supplied condition data for all of the large bridge and culvert structures and also the road network. The condition data recalculates a new performance age for each individual asset

and, as such, a far more accurate prediction of future replacement can be established and applied to the future investment requirements within this AMP report.

For those assets without condition data, the storm assets and road network appurtenances (signals, street lights, etc), the deterioration review will rely on the 'straight line' amortization schedule approach provided from the accounting data. Although this approach is based on age data and useful life projections, and is not as accurate as the use of detailed condition data, it does provide a relatively reliable benchmark of future requirements.

### 3.2.3 Identify Sustainable Investment Requirements

A gap analysis was performed to identify sustainable investment requirements for each asset category. Information on current spending levels and budgets was acquired from the organization, future investment requirements were calculated, and the gap between the two was identified.

The above analysis is performed by using investment and financial planning models, and life cycle costing analysis, embedded within the CityWide software suite of applications.

### 3.2.4 Asset Rating Criteria

Each asset category will be rated on two key dimensions:

- **Condition vs. Performance:** Based on the condition of the asset today and how well it performs its function.
- **Funding vs. Need:** Based on the actual investment requirements to ensure replacement of the asset at the right time, versus current spending levels for each asset group.

### 3.2.5 Infrastructure Report Card

The dimensions above will be based on a simple 1–5 star rating system, which will be converted into a letter grading system ranging from A-F. An average of the two ratings will be used to calculate the combined rating for each asset class. The outputs for all municipal assets will be consolidated within the CityWide software to produce one overall Infrastructure Report Card showing the current state of the assets.

Grading Scale: Condition vs. Performance			
What is the condition of the asset today and how well does it perform its function?			
Star Rating	Letter Grade	Color Indicator	Description
★★★★★	A		<b>Excellent:</b> No noticeable defects
★★★★	B		<b>Good:</b> Minor deterioration
★★★	C		<b>Fair:</b> Deterioration evident, function is affected
★★	D		<b>Poor:</b> Serious deterioration. Function is inadequate
★	F		<b>Critical:</b> No longer functional. General or complete failure

Grading Scale: Funding vs. Need		
Based on the actual investment requirements to ensure replacement of the asset at the right time, versus current spending levels for each asset group.		
Star Rating	Letter Grade	Description
★★★★★	A	<b>Excellent:</b> 91 to 100% of need
★★★★	B	<b>Good:</b> 76 to 90% of need
★★★	C	<b>Fair:</b> 61 to 75% of need
★★	D	<b>Poor:</b> 46 – 60% of need
★	F	<b>Critical:</b> under 45% of need

### **3.2.6 General Methodology and Reporting Approach**

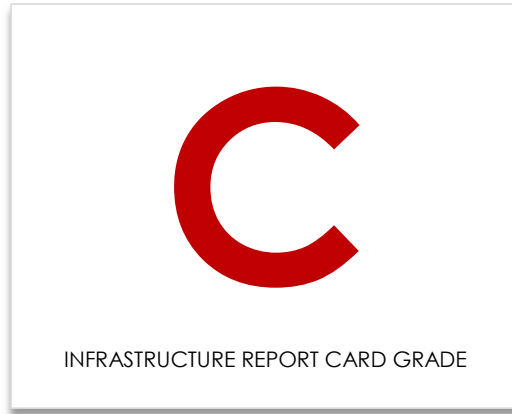
The report will be based on the seven key questions of asset management as outlined within the National Guide for Sustainable Municipal Infrastructure:

- What do you own and where is it? (inventory)
- What is it worth? (valuation / replacement cost)
- What is its condition / remaining service life? (function & performance)
- What needs to be done? (maintain, rehabilitate, replace)
- When do you need to do it? (useful life analysis)
- How much will it cost? (investment requirements)
- How do you ensure sustainability? (long-term financial plan)

The above questions will be answered for each individual asset category in the following report sections.

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## 3.3 Road Network





### 3.3 Road Network

Note: Gravel roads are excluded from the capital replacement analysis, as by nature, they require perpetual maintenance activities and funding. However, the gravel roads have been included in the Road Network inventory and replacement value tables. There is also further information regarding gravel roads in section 3.4 "Gravel Roads – Maintenance Requirements" of this AMP.

#### 3.3.1 What do we own?

The road network inventory is shown in the table below.

Road Network Inventory		
Asset Type	Asset Component	Quantity/Units
Road Network	Road Surface	1,780,246.5m2
	Road Base	2,010,584.5m2
	Retaining Walls (built since 2008)	176m2
	Sidewalks	253,230m
	Streetlight Wires	231,051m
	Streetlights and Poles	4,080 units
	Signalization	16 intersections

The road network data was extracted from the Tangible Capital Asset module of the CityWide software suite.

#### 3.3.2 What is it worth?

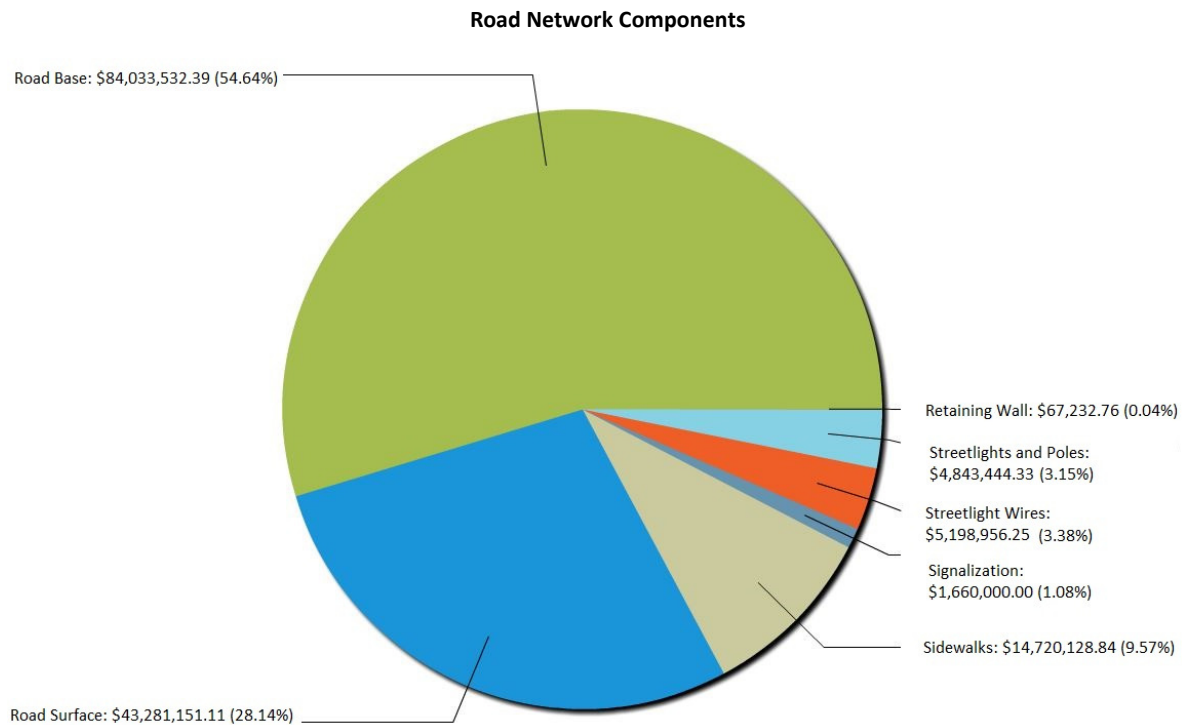
The estimated replacement value of the road network, in 2013 dollars, is approximately \$153.8 million. For the purpose of further analysis, we use a replacement cost of \$153,804,433 million (excludes gravel roads). The cost per household for the road network is \$9,242 based on 16,641 households.

Road Network Replacement Value				
Asset Type	Asset Component	Quantity/Units	2013 Unit Replacement Cost*	2013 Overall Replacement Cost
Road Network	Road Surface - Arterial	166,512m2	\$31/m2	\$5,161,340
	Road Surface - Collector	445,245.5m2	\$24.11/m2	\$10,736,072
	Road Surface - Local	1,079,702m2	\$23.92/m2	\$25,821,444
	Road Surface - Alley	4,739m2	\$34/m2	\$159,744
	Road Surface - Other	84,048m2	\$16.69/m2	\$1,402,497
	Road Base - Arterial	191,283m2	\$41.09/m2	\$7,859,798
	Road Base - Collector	487,102.5m2	\$42.44/m2	\$20,672,960
	Road Base - Local	1,213,702m2	\$45.86/m2	\$52,214,139
	Road Base - Alley	6,777m2	\$53.47/m2	\$362,353
	Road Base - Other	109,142m2	\$26.45/m2	\$2,887,008
	Road Base - Access	2,080m2	\$15.52/m2	\$37,274
	Road Base - Gravel	2,194m2	NOT PLANNED FOR REPLACEMENT	\$27,287

Retaining Walls (built since 2008)	176m2	\$382/m2	\$67,233
Sidewalks	253,230m	\$58.13/m	\$14,720,129
Streetlight Wires	231,051m	\$22.50/m	\$5,198,956
Streetlights and Poles	4,080 units	\$1,187/unit	\$4,843,431
Signalization – Pedestrian	1 intersection	\$60,000/intersec.	\$60,000
Signalization – Flashing Red/Amber	2 intersections	\$20,000/intersec.	\$40,000
Signalization - Traffic	13 intersections	\$120,000/intersec.	\$1,560,000
			<b>\$153,831,665</b>

\*2013 Unit Replacement Cost is calculated using NRBCPI (Toronto) inflation for all segments except Signalization.

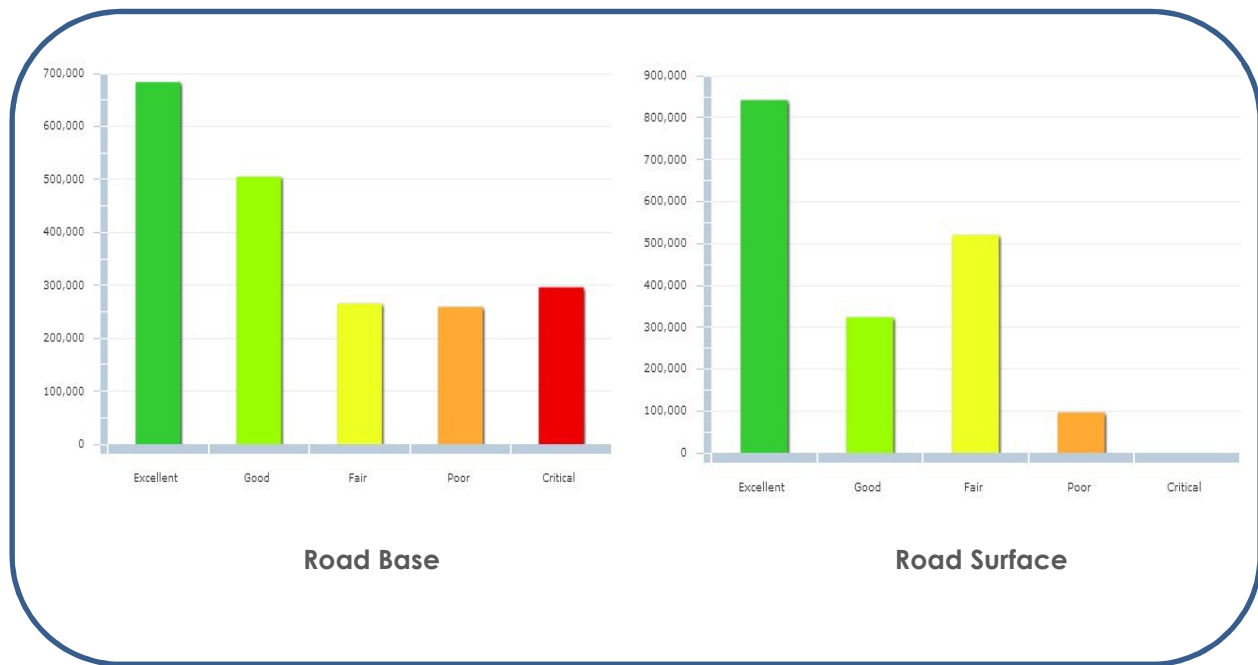
The pie chart below provides a breakdown of each of the network components to the overall system value.



### 3.3.3 What condition is it in?

Based on field condition assessments, about 62% of the municipality's road surface and base is in good to excellent condition, with the remaining in fair to poor condition. As such, the municipality received a Condition vs. Performance rating of 'C'.

**Road Condition by Area (m2)**



### 3.3.4 What do we need to do to it?

There are generally four distinct phases in an asset's life cycle that require specific types of attention and lifecycle activity. These are presented at a high level for the road network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Life Stage
Minor maintenance	Activities such as inspections, monitoring, sweeping, winter control, etc.	1 <sup>st</sup> Qtr
Major maintenance	Activities such as repairing pot holes, grinding out roadway rutting, and patching sections of road.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation activities such as asphalt overlays, mill and paves, etc.	3 <sup>rd</sup> Qtr
Replacement	Full road reconstruction	4 <sup>th</sup> Qtr

### 3.3.5 When do we need to do it?

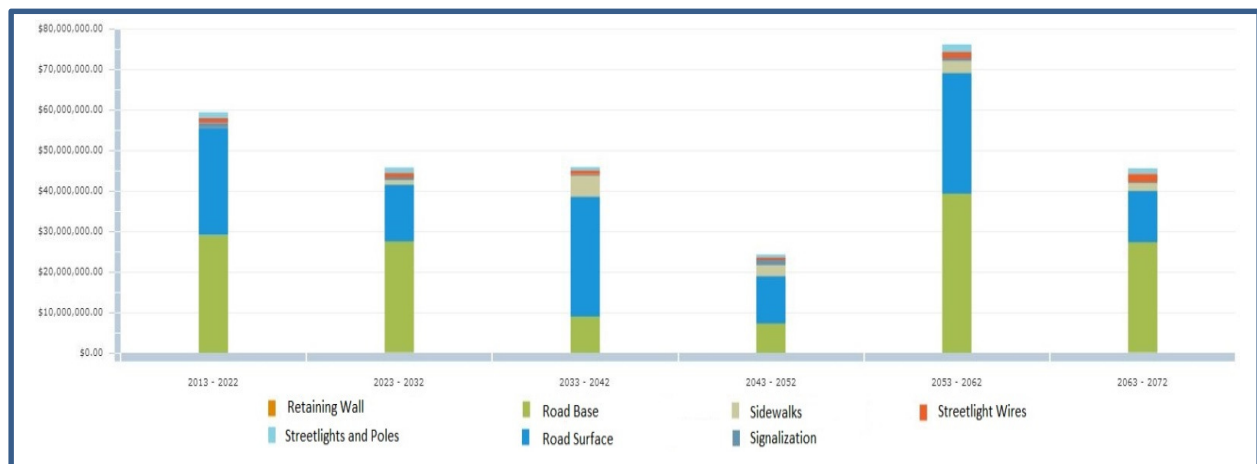
For the purpose of this report, 'useful life' data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets. These needs are calculated and quantified in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Road Network	Road Surface	20
	Road Base	40
	Retaining Walls (built since 2008)	60
	Sidewalks	60
	Streetlight Wires	30 - 60
	Streetlights and Poles	40 - 60
	Signalization	30

As additional field condition information becomes available, the data can be loaded into the CityWide system to increase the accuracy of current asset age and, therefore, that of future replacement requirements. Roads projects are often driven by the need to replace storm sewers, water mains, and/or sanitary sewers. Although water mains and sanitary sewers are owned by Oxford County, the City of Woodstock maintains and reconstructs these assets on behalf of the County.

The following graph shows the projection of road network replacement costs based on the assessed condition and age based condition of the asset.

**Road Network Replacement Profile (excludes gravel roads)**



### 3.3.6 How much money do we need?

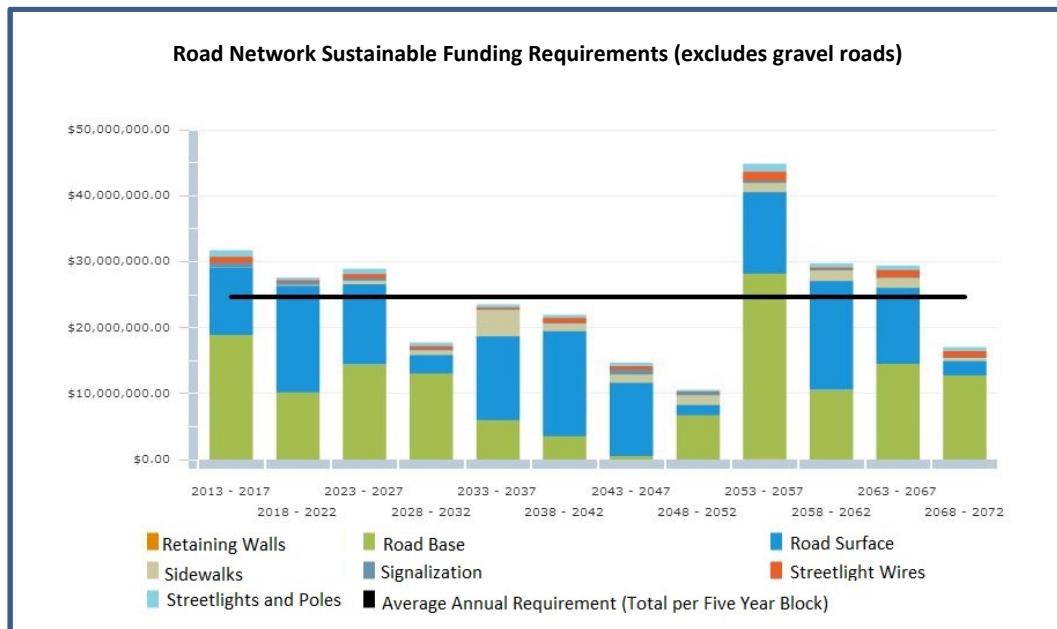
The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions

1. Replacement costs are based upon the unit costs identified within the "What is it worth" section.
2. The timing for individual road replacement was defined by the replacement year as described in the "When do you need to do it?" section.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 60 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

### 3.3.7 How do we reach sustainability?

Based upon the above parameters, the average annual revenue required to sustain Woodstock's paved road network is approximately **\$4,926,000**. Based on Woodstock's current annual funding of **\$3,056,000**, there is an annual **deficit of \$1,870,000**. As such, the municipality received a Funding vs. Need rating of 'C'.

The following graph illustrates the expenditure requirements in five year increments against the sustainable funding threshold line.



In conclusion, based on field condition data, there is a relatively small portion of the road network in poor or critical condition, generating a backlog of needs totaling approximately \$32 million in the next 5 years. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement and assist with optimizing the long and short term budgets. Further detail is outlined within the "asset management strategy" section of this AMP.

### 3.3.8 Recommendations

The municipality received an overall rating of 'C' for its road network, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement.
2. As a very small percentage of the municipality's road network is gravel roads, there are currently no plans to convert these gravel roads to paved surface.
3. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and be added to future AMP reporting.
4. The Infrastructure Report Card should be updated on an annual basis.



## **3.4 Gravel Roads – Maintenance Requirements**

### **3.4.1 Introduction**

Paved roads are usually designed and constructed with careful consideration given to the correct shape of the cross section. Once paving is complete the roadway will keep its general shape for the duration of its useful life. Gravel roads are quite different. Many have poor base construction, will be prone to wheel track rutting in wet weather, and traffic will continually displace gravel from the surface to the shoulder area, even the ditch, during wet and dry weather. Maintaining the shape of the road surface and shoulder is essential to ensure proper performance and to provide a sufficient level of service for the public.

Therefore, the management of gravel roads is not through major rehabilitation and replacement, but rather through good perpetual maintenance and some minor rehabilitation which depend on a few basic principles: proper techniques and cycles for grading; the use and upkeep of good surface gravel; and, dust abatement and stabilization.

### **3.4.2 The Cost of Maintaining Gravel Roads**

We conducted an industry review to determine the standard cost for maintaining gravel roads. However, it became apparent that no industry standard exists for either the cost of maintenance or for the frequency at which the maintenance activities should be completed. Two studies commonly referenced are the Minnesota Department of Transportation Local Road Research Board 2005 study and the South Dakota Department of Transportation 2004 study.

### **3.4.3 Ontario Municipal Benchmarking Initiative (OMBI)**

One of the many metrics tracked through the Ontario Municipal Benchmarking Initiative is the “Operating costs for Unpaved (Loose top) Roads per lane Km.” As referenced from the OMBI data dictionary, this includes maintenance activities such as dust suppression, loose top grading, loose top gravelling, spot base repair and wash out repair.

Of the six Ontario municipalities that included 2012 costs for this category, there is a wide variation in the reporting. The highest cost per lane km was \$14,900 while the lowest cost was \$397. The average cost was \$6,300 per lane km. Assuming two lanes per gravel road to match the studies above, the Ontario OMBI average becomes \$12,600 per km of roadway.

Summary of Costs	
Source	2012 Maintenance Cost per km (adjusted for inflation using NRBCPI)
Minnesota Study	\$3,500
South Dakota Study	\$5,758
OMBI Average (six municipalities)	\$12,600

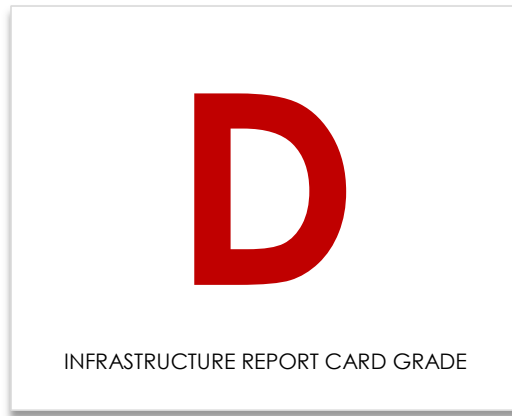
### 3.4.4 Conclusion

City of Woodstock currently owns and maintains eight gravel road sections which are laneways. Six of these sections will likely be paved when water or sewer projects are required.

As discussed above, there are currently no industry standards in regards to the cost of gravel road maintenance and the frequency at which the maintenance activities should be completed. Also, there is no established benchmark cost for the maintenance of a km of gravel road and the numbers presented above will vary significantly due to the level of service or maintenance that's provided (i.e., frequency of grading cycles and re-gravel cycles).

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## 3.5 Bridges & Culverts





## 3.5 Bridges & Culverts

### 3.5.1 What do we own?

As shown in the summary table below, the municipality owns 9 bridges, 9 large culverts and 4 pedestrian bridges.

Bridges & Culverts Inventory			
Asset Type	Asset Component	Units	Quantity
Bridges & Culverts	Bridges	9 units	3,026m2
	Pedestrian Bridge	4 units	-
	Culverts	9 units	-

The bridges & culverts data was extracted from the Tangible Capital Asset module of the CityWide software suite.

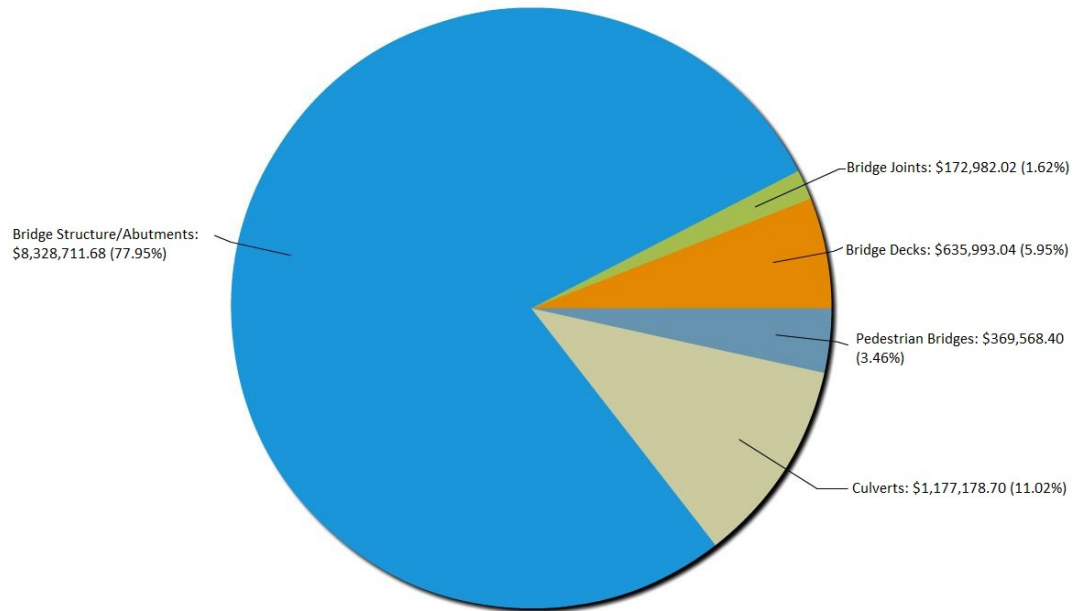
### 3.5.2 What is it worth?

The estimated replacement value of the municipality's bridges & culverts, in 2013 dollars, is approximately \$10.7 million. The cost per household for bridges & culverts is \$642 based on 16,641 households.

Bridges & Culverts Replacement Value				
Asset Type	Asset Component	Quantity/Units	2013 Unit Replacement Cost	2013 Replacement Cost
Bridges & Culverts	Bridges	9 units	\$1,015,299/unit	\$9,137,687
	Pedestrian Bridge	4 units	\$92,392/unit	\$369,568
	Culverts	9 units	\$130,798/unit	\$1,177,179
				<b>\$10,684,434</b>

The pie chart below provides a breakdown of each of the bridges & culverts components to the overall structures value.

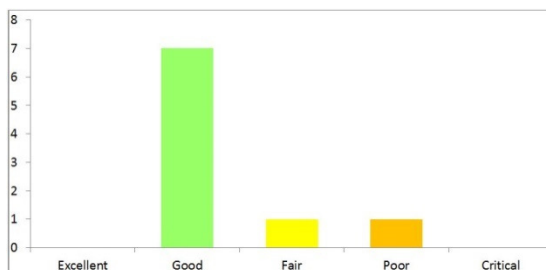
**Bridges & Culverts Components**



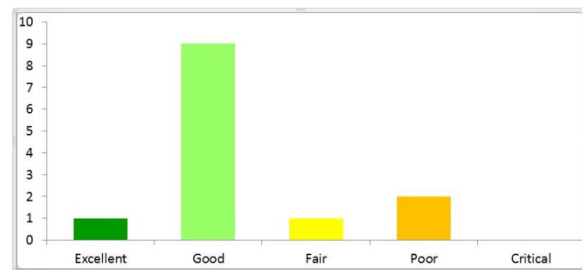
### 3.5.3 What condition is it in?

Based on field condition assessment, 78% of the municipality's bridges & culverts are in good to excellent condition. As such, the municipality received a Condition vs. Performance rating of 'C+'.

**Bridges Condition by Quantity**



**Pedestrian Bridges & Culverts Condition by Quantity**



### 3.5.4 What do we need to do to it?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the bridge and culvert structures below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Life Stage
Minor Maintenance	Activities such as inspections, monitoring, sweeping, winter control, etc.	1 <sup>st</sup> Qtr
Major Maintenance	Activities such as repairs to cracked or spalled concrete, damaged expansion joints, bent or damaged railings, etc.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation events such as structural reinforcement of structural elements, deck replacements, etc.	3 <sup>rd</sup> Qtr
Replacement	Full structure reconstruction	4 <sup>th</sup> Qtr

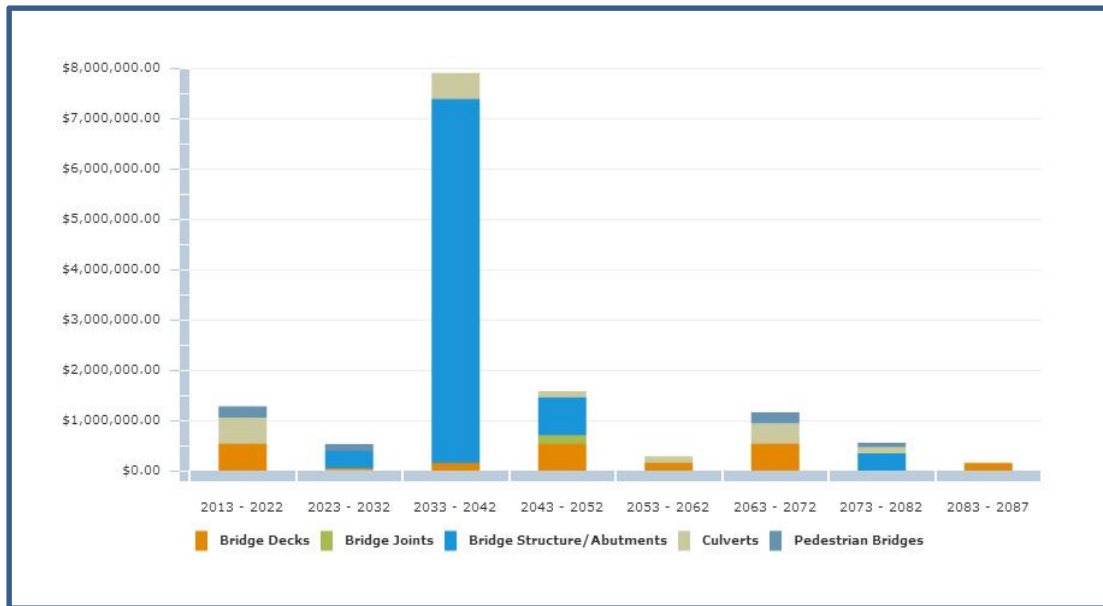
### 3.5.5 When do we need to do it?

For the purpose of this report, 'useful life' data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets, which are calculated in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life in Years
Bridges & Culverts	Bridge Deck	25
	Bridge Joints	50
	Bridge Structure/Abutments	75
	Pedestrian Bridge	50 - 75
	Culverts	75

The following graph shows the current projection of structure replacements based on the assessed condition of the assets.

**Bridges and Culverts Replacement Profile**



### 3.5.6 How much money do we need?

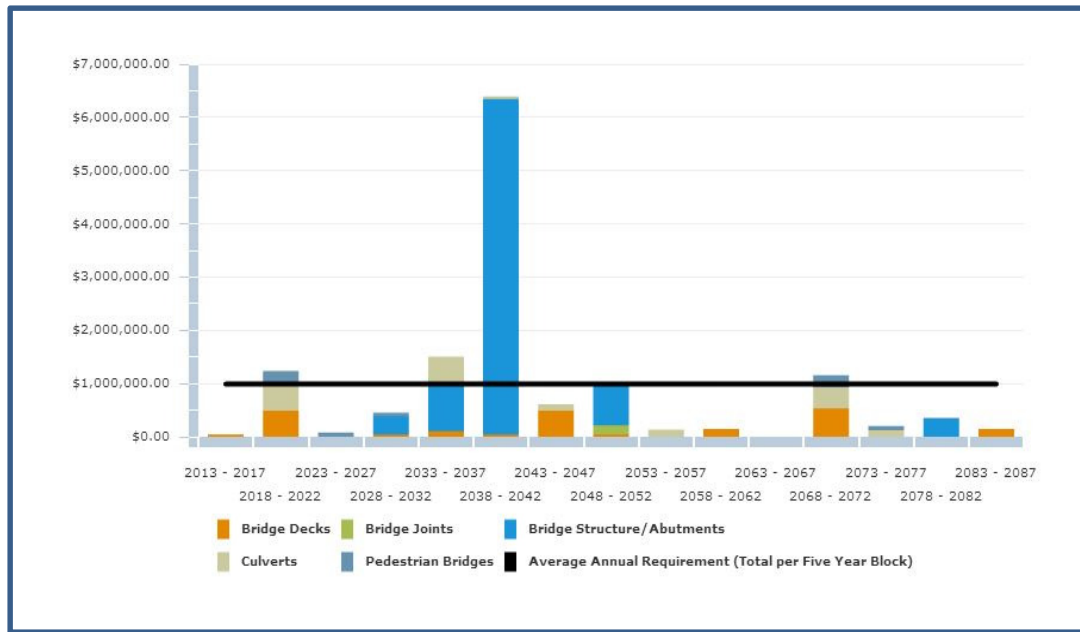
The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. Replacement costs are based upon the "What is it worth" section above.
2. The timing for individual structure replacement was defined by the replacement year as described in the "When do you need to do it?" section above.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 75 year period to ensure all assets cycled through at least one iteration of replacement, therefore providing a sustainable projection.

### 3.5.7 How do we reach sustainability?

Based upon the above assumptions, the average annual revenue required to sustain Woodstock's bridges & culverts is **\$198,000**. Based on Woodstock's current annual funding of **\$62,000** there is an annual **deficit of \$136,000**. As such, the municipality received a Funding vs. Need rating of 'F'. The following graph presents five year blocks of expenditure requirements against the sustainable funding threshold line.

**Bridges & Culverts Sustainable Revenue Requirement**



In conclusion, based on field condition data, the majority of bridges and large structures are in good to excellent condition. Therefore there is only a small backlog of \$42,000 to be addressed within the next 5 years; however, there is approximately \$1 million to be addressed within the 5 to 10 year window. Unlike the roads and storm sewer networks, bridges and culverts category is only funded on a per need basis. Since the City of Woodstock does not own and maintain many bridges, there is no annual funding set aside for this asset category.

The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement and assist with optimizing the long and short term budgets. Further detail is outlined within the "asset management strategy" section of this AMP.

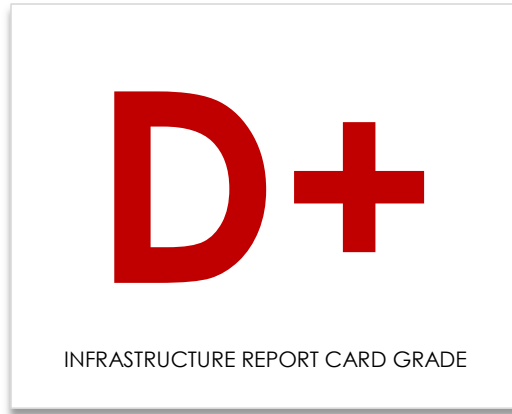
### 3.5.8 Recommendations

The municipality received an overall rating of 'D' for its bridges & culverts, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment data, along with risk management strategies, should be reviewed together to aid in prioritizing overall needs for rehabilitation and replacement.
2. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and added to future AMP reporting.
3. The Infrastructure Report Card should be updated on an annual basis.

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## 3.6 Storm Sewer Network



## 3.6 Storm Sewer Network

### 3.6.1 What do we own?

The inventory components of the Storm Sewer Collection system are outlined in the table below. The entire network consists of approximately 186 km of sewer mains.

Storm Sewer Network Inventory (Detailed)		
Asset Type	Asset Component	Quantity
Storm Sewer Network	Catchbasins	4,646 units
	Manholes	1,908 units
	Gravity Mains	185,833.5m
	SWM Facilities - Storm Channel Outlet	331m
	SWM Facilities	16 units
	Vortech Stormwater Treatment Unit (installed since 2008)	1 unit
	Outlet Structure (installed since 2008)	2 units

The storm sewer network data was extracted from the Tangible Capital Asset module of the CityWide software suite.

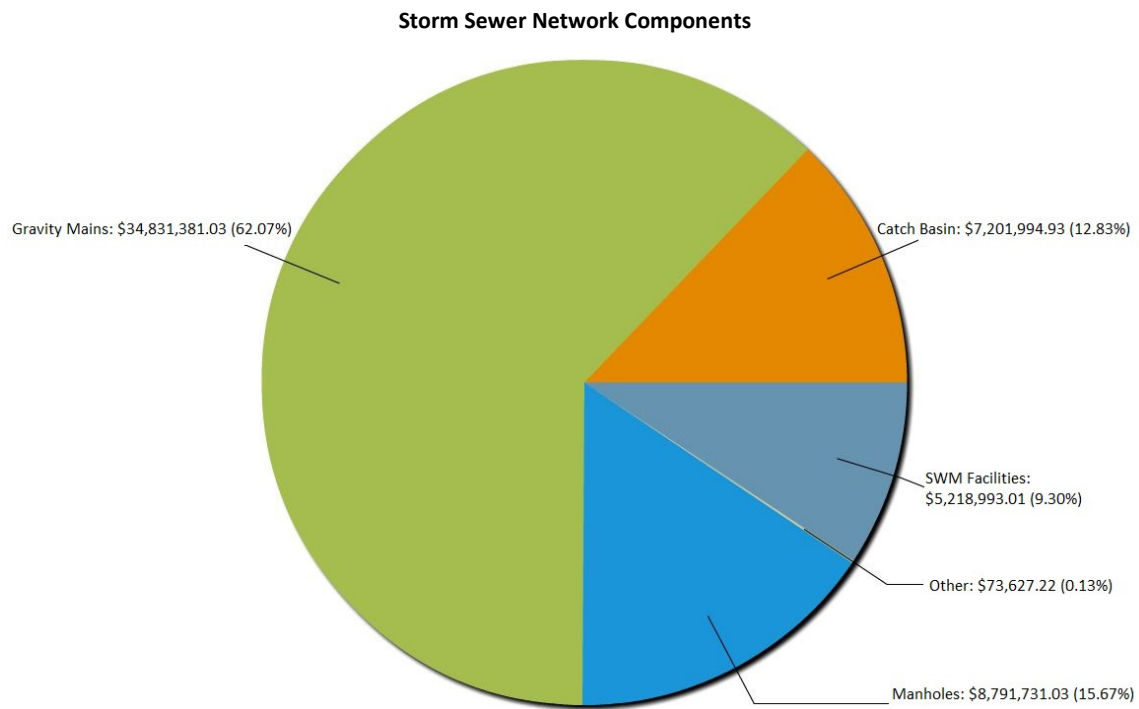
### 3.6.2 What is it worth?

The estimated replacement value of the storm sewer network, in 2013 dollars, is approximately \$56.1 million. The cost per household for the storm sewer network is \$3,372 based on 16,641 households.

Storm Replacement Value				
Asset Type	Asset Component	Quantity	2013 Unit Replacement Cost	2013 Overall Replacement Cost
Storm Sewer Network	Catchbasins	4,646 units	\$1,550/unit	\$7,201,995
	Manholes	1,908 units	\$4,608/unit	\$8,791,731
	Gravity Mains	185,833.5m	\$187/m	\$34,831,381
	Vortech Stormwater Treatment Unit (installed since 2008)	1 unit	\$47,661/unit	\$47,661
	Outlet Structure (installed since 2008)	2 units	\$12,983/unit	\$25,966
	*SWM Facilities- Wet Pond	13 units	\$337,135/unit	\$4,382,755
	*SWM Facilities- Dry Pond	3 units	\$249,149/unit	\$747,448
	SWM Facilities - Storm Channel Outlet	331m	\$268/m	\$88,790
				<b>\$56,117,727</b>

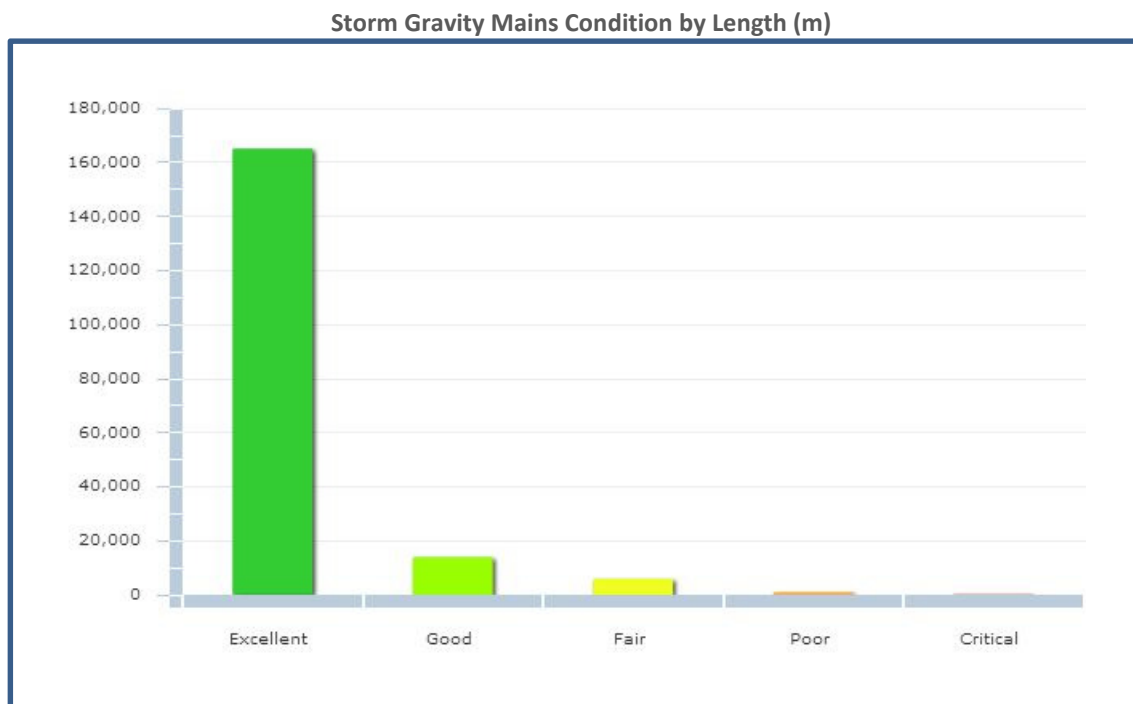
**\*Note:** Actual ponds (land) are generally not replaced and only need maintenance and rehab.

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



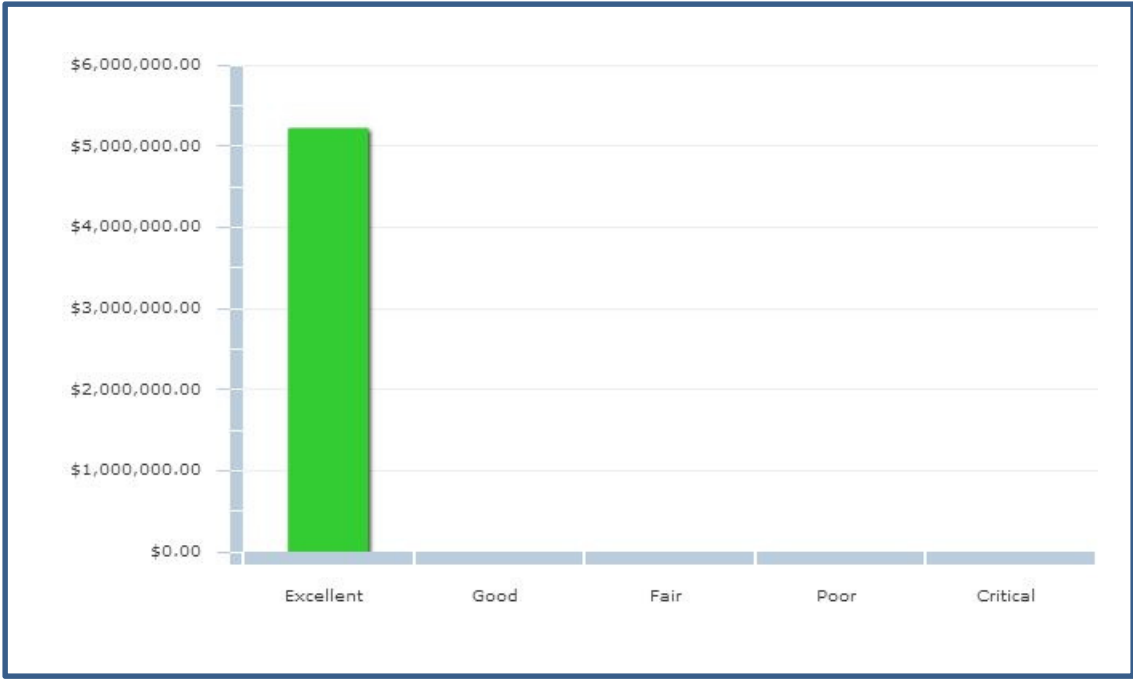
### 3.6.3 What condition is it in?

Based on age analysis only, the municipality's storm sewer mains and facilities are primarily in excellent condition. As such, the municipality received a Condition vs. Performance rating of 'B+'.

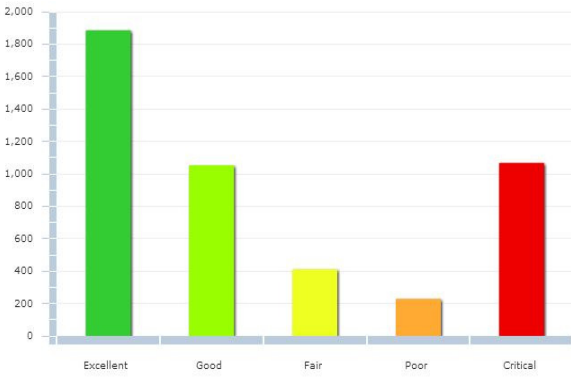




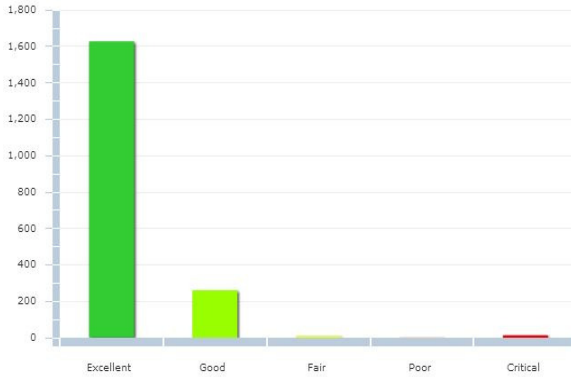
Storm Facilities Condition by Cost (\$)



Catch Basins by Units



Manholes by Units



### 3.6.4 What do we need to do to it?

There are generally four distinct phases in an assets life cycle. These are presented at a high level for the storm sewer network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	Lifecycle Activity	Asset Age
Minor Maintenance	Activities such as inspections, monitoring, cleaning and flushing, zoom camera and CCTV inspections, etc.	1 <sup>st</sup> Qtr
Major Maintenance	Activities such as repairing manholes and replacing individual small sections of pipe.	2 <sup>nd</sup> Qtr
Rehabilitation	Rehabilitation events such as structural lining of pipes are extremely cost effective and provide an additional 75 plus years of life.	3 <sup>rd</sup> Qtr
Replacement	Pipe replacements	4 <sup>th</sup> Qtr

### 3.6.5 When do we need to do it?

For the purpose of this report "useful life" data for each asset class was obtained from the accounting data within the CityWide software database. This proposed useful life is used to determine replacement needs of individual assets, which are calculated in the system as part of the overall financial requirements.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life in Years
Storm Sewer Network	Catchbasins	40
	Manholes	80
	Gravity Mains	50 - 100
	Outlet Structure (installed since 2008)	40 / 80
	Vortech Stormwater Treatment Unit (installed since 2008)	60
	SWM Facilities*	80

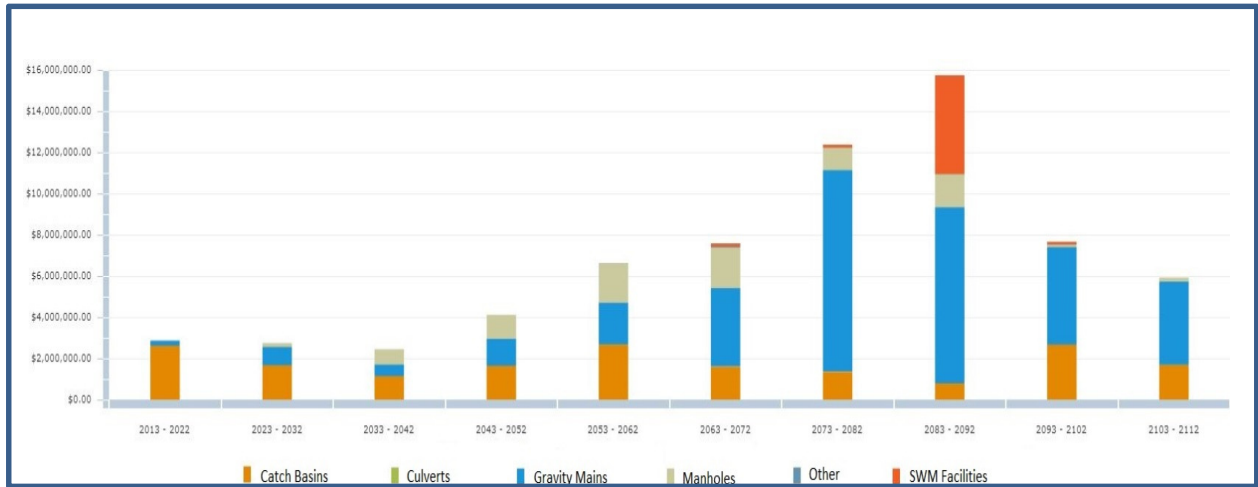
**\*Note:** Although SWM Facilities are included in the lifecycle calculations to determine replacement needs, they are more likely to be rehabbed in the future (as per City of Woodstock Engineering and Public Works Department recommendations).

As field condition information becomes available in time, the data should be loaded into the CityWide system in order to increasingly have a more accurate picture of current asset performance age and, therefore, future replacement requirements.

Storm projects are often driven by the need to replace road surfaces, water mains, and/or sanitary sewers. Although water mains and sanitary sewers are owned by Oxford County, the City of Woodstock maintains and reconstructs these assets on behalf of the County.

The following graph shows the current projection of storm sewer main replacements based on the age of the asset only.

### Storm Sewer Network Replacement Profile



### 3.6.6 How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following assumptions:

1. Replacement costs are based upon the unit costs identified within the "What is it worth" section above.
2. The timing for individual storm sewer main replacement was defined by the replacement year as described in the "When do you need to do it?" section above.
3. All values are presented in 2013 dollars.
4. The analysis was run for a 100 year period to ensure all assets went through one iteration of replacement, therefore providing a sustainable projection.

### 3.6.7 How do we reach sustainability?

Based upon the above assumptions, the average annual revenue required to sustain Woodstock's storm sewer network is approximately **\$710,000**. Based on Woodstock's current annual funding of **\$306,000** there is an annual **deficit of \$404,000**. As such, the municipality received a Funding vs. Need rating of 'F'.

### Storm Sewer Network Sustainable Revenue Requirement



In conclusion, Woodstock's storm sewer collection network, based on age data only, is in very good condition with very few needs to be addressed within the 5 year window. The City of Woodstock has established a condition assessment program in 2012 using CCTV and zoom camera technology to determine asset condition. The City should continue implementing this program in order to define actual needs for rehabilitation and replacement and to assist with optimizing the long and short term budgets. As this data becomes available it should be updated into the CityWide system. Further detail is outlined within the "asset management strategy" section of this AMP.

### **3.6.8 Recommendations**

The municipality received an overall rating of 'C' for its storm sewer network, calculated from the Condition vs. Performance and the Funding vs. Need ratings. Accordingly, we recommend the following:

1. The condition assessment program should continue to be established for the storm sewer network to gain a better understanding of current condition and performance as outlined further within the "Asset Management Strategy" section of this AMP.
2. The condition data obtained from the above assessment program should be loaded into the CityWide software and an updated "current state of the infrastructure" analysis should be generated.
3. An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of O & M activities and be added to future AMP reporting.
4. Storm assets are currently grouped by road section. All future storm network assets should be tracked individually in the CityWide system.
5. The Infrastructure Report Card should be updated on an annual basis.

## 4.0 Infrastructure Report Card

<div> <div>CUMULATIVE GPA</div> <div>D+</div> </div> <div> <div>Infrastructure Report Card</div> <div>The City of Woodstock</div> </div>				
<ol style="list-style-type: none"> <li>Each asset category was rated on two key, equally weighted (50/50) dimensions: <b>Condition vs. Performance</b>, and <b>Funding vs. Need</b>.</li> <li>See the "<b>What condition is it in?</b>" section for each asset category for its star rating on the Condition vs. Performance dimension.</li> <li>See the "<b>How do we reach sustainability?</b>" section for each asset category for its star rating on the Funding vs. Need dimension.</li> <li>The 'Overall Rating' below is the average of the two star ratings converted to a letter grade.</li> </ol>				
Asset Category	Condition vs. Performance	Funding vs. Need	Overall Grade	Comments
Road Network	C	C	C	The majority, 60%, of the municipality's road network is in good to excellent condition, with the remaining 40% in fair to critical condition. The average annual revenue required to sustain Woodstock's paved road network is approximately <b>\$4,926,000</b> . Based on Woodstock's current annual funding of <b>\$3,056,000</b> , there is an annual <b>deficit of \$1,870,000</b> .
Bridges & Culverts	C+	F	D	About 77% of the municipality's bridges & culverts are in good to excellent condition. The average annual revenue required to sustain Woodstock's bridges & culverts is <b>\$198,000</b> . Based on Woodstock's current annual funding of <b>\$62,000</b> there is an annual <b>deficit of \$136,000</b> .
Storm Sewer Network	B+	F	D+	Over 96% of the municipality's storm sewer mains and SWM facilities are in good to excellent condition. About 74% of catch basins and manholes are in good to excellent condition. The average annual revenue required to sustain Woodstock's storm sewer network is approximately <b>\$710,000</b> . Based on Woodstock's current annual funding of <b>\$306,000</b> there is an annual <b>deficit of \$404,000</b> .

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## 5.0 Desired Levels of Service

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Desired levels of service are high level indicators, comprising many factors, as listed below, that establish defined quality thresholds at which municipal services should be supplied to the community. They support the organisation's strategic goals and are based on customer expectations, statutory requirements, standards, and the financial capacity of a municipality to deliver those levels of service.

Levels of Service are used:

- to inform customers of the proposed type and level of service to be offered;
- to identify the costs and benefits of the services offered;
- to assess suitability, affordability and equity of the services offered;
- as a measure of the effectiveness of the asset management plan
- as a focus for the AM strategies developed to deliver the required level of service

In order for a municipality to establish a desired level of service, it will be important to review the key factors involved in the delivery of that service, and the interactions between those factors. In addition, it will be important to establish some key performance metrics and track them over an annual cycle to gain a better understanding of the current level of service supplied.

Within this first Asset Management Plan, key factors affecting level of service will be outlined below and some key performance indicators for each asset type will be outlined for further review. This will provide a framework and starting point from which the municipality can determine future desired levels of service for each infrastructure class.

### 5.1 Key factors that influence a level of service:

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- Strategic and Corporate Goals
- Legislative Requirements
- Expected Asset Performance
- Community Expectations
- Availability of Finances

#### 5.1.1 Strategic and Corporate Goals

Infrastructure levels of service can be influenced by strategic and corporate goals. Strategic plans spell out where an organization wants to go, how it's going to get there, and helps decide how and where to allocate resources, ensuring alignment to the strategic priorities and objectives . It will help identify priorities and guide how municipal tax dollars and revenues are spent into the future. The level of importance that a community's vision is dependent upon infrastructure, will ultimately affect the levels of service provided or those levels that it ultimately aspires to deliver.

#### 5.1.2 Legislative Requirements

Infrastructure levels of service are directly influenced by many legislative and regulatory requirements. For instance, the Minimum Maintenance Standards for municipal highways, building codes, and the Accessibility for Ontarians with Disabilities Act are all legislative requirements that prevent levels of service from declining below a certain standard.

#### 5.1.3 Expected Asset Performance

A level of service will be affected by current asset condition, and performance and limitations in regards to safety, capacity, and the ability to meet regulatory and environmental requirements. In addition, the design life of the asset, the maintenance items required, the rehabilitation or replacement schedule of the asset, and the total costs, are all critical factors that will affect the level of service that can be provided.

#### 5.1.4 Community Expectations

Levels of services are directly related to the expectations that the general public has from the infrastructure. For example, the public will have a qualitative opinion on what an acceptable road looks like, and a quantitative one on how long it should take to travel between two locations. Infrastructure costs

are projected to increase dramatically in the future, therefore it is essential that the public is not only consulted, but also be educated, and ultimately make choices with respect to the service levels that they wish to pay for.

#### **5.1.5 Availability of Finances**

Availability of finances will ultimately control all aspects of a desired level of service. Ideally, these funds must be sufficient to achieve corporate goals, meet legislative requirements, address an asset's life cycle needs, and meet community expectations. Levels of service will be dictated by availability of funds or elected officials' ability to increase funds, or the community's willingness to pay.

### **5.2 Key Performance Indicators**

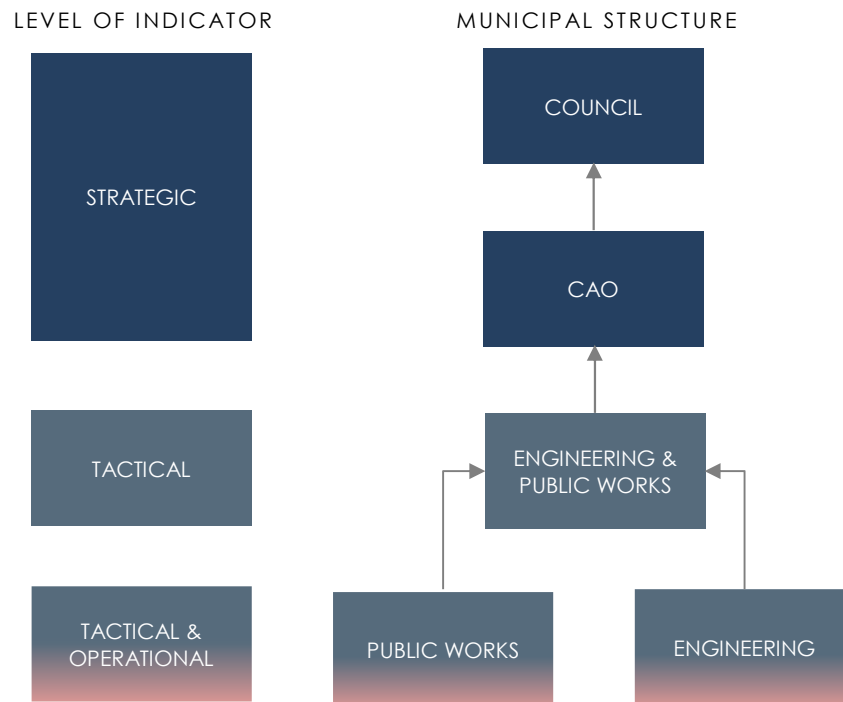
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Performance measures or key performance indicators (KPIs) that track levels of service should be specific, measurable, achievable, relevant, and timebound (SMART). Many good performance measures can be established and tracked through the CityWide suite of software products. In this way, through automation, results can be reviewed on an annual basis and adjustments can be made to the overall asset management plan, including the desired level of service targets.

In establishing measures, a good rule of thumb to remember is that maintenance activities ensure the performance of an asset and prevent premature aging, whereas rehab activities extend the life of an asset. Replacement activities, by definition, renew the life of an asset. In addition, these activities are constrained by resource availability (in particular, finances) and strategic plan objectives. Therefore, performance measures should not just be established for operating and maintenance activities, but also for the strategic, financial, and tactical levels of the asset management program. This will assist all levels of program delivery to review their performance as part of the overall level of service provided.

This is a very similar approach to the "balanced score card" methodology, in which financial and non-financial measures are established and reviewed to determine whether current performance meets expectations. The "balanced score card", by design, links day to day operations activities to tactical and strategic priorities in order to achieve an overall goal, or in this case, a desired level of service.

The structure of accountability and level of indicator with this type of process is represented in the following table, modified from the InfraGuide's best practice document, "Developing Indicators and Benchmarks" published in April 2003.



As a note, a caution should be raised over developing too many performance indicators that may result in data overload and lack of clarity. It is better to develop a select few that focus in on the targets of the asset management plan.

Outlined below for each infrastructure class is a suggested service description, suggested service scope, and suggested performance indicators. These should be reviewed and updated in each iteration of the AMP.

## 5.3 Transportation Services

### 5.3.1 Service Description

The City's transportation network comprises arterial, collector and local roads. The transport network also includes 9 bridges, 10 large culverts, 4 pedestrian bridges, sidewalks, street lights, signals and alleyways.

Together, the above infrastructure enables the municipality to deliver transportation and pedestrian facility services and give people a range of options for moving about in a safe and efficient manner.

### 5.3.2 Scope of Services

- **Movement** – providing for the movement of people and goods.
- **Access** – providing access to residential, commercial, and industrial properties and other community amenities.
- **Recreation** – providing for recreational use, such as walking, cycling, or special events such as parades.



### 5.3.3 Recommended Performance Indicators (reported annually)

Performance Indicators (reported annually)	
Strategic Indicators	<ul style="list-style-type: none"> <li>percentage of total reinvestment compared to asset replacement value</li> <li>completion of strategic plan objectives (related to transportation)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>annual revenues compared to annual expenditures</li> <li>annual replacement value depreciation compared to annual expenditures</li> <li>total cost of borrowing compared to total cost of service</li> <li>revenue required to maintain annual network growth</li> </ul>
Tactical Indicators	<ul style="list-style-type: none"> <li>percentage of road network rehabilitated / reconstructed</li> <li>value of bridge / large culvert structures rehabilitated or reconstructed</li> <li>overall road condition index as a percentage of desired condition index</li> <li>overall bridge condition index as a percentage of desired condition index</li> <li>annual adjustment in condition indexes</li> <li>annual percentage of network growth</li> <li>percent of paved road lane km where the condition is rated poor or critical</li> <li>number of bridge / large culvert structures where the condition is rated poor or critical</li> <li>percentage of road network replacement value spent on operations and maintenance</li> <li>percentage of bridge / large culvert structures replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>percentage of road network inspected within last 5 years</li> <li>percentage of bridge / large culvert structures inspected within last two years</li> <li>operating costs for paved roads per lane km</li> <li>operating costs for gravel roads per lane km</li> <li>operating costs for bridge / large culvert structures per square metre</li> <li>number of customer requests received annually</li> <li>percentage of customer requests responded to within 24 hours</li> </ul>

## 5.4 Storm Networks

### 5.4.1 Service Description

The City's storm water network comprises 186km of storm main, manholes, catch basins, storm channel outlets and facilities.

The above infrastructure enables the municipality to deliver a storm water collection service to the residents of the municipality.

### 5.4.2 Scope of services

- The removal of storm water through a collection network of storm sewer mains, catch basins and storm water management facilities.

### 5.4.3 Recommended Performance Indicators (reported annually)

Performance Indicators (reported annually)	
Strategic Indicators	<ul style="list-style-type: none"> <li>■ Percentage of total reinvestment compared to asset replacement value</li> <li>■ Completion of strategic plan objectives (storm water)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>■ Annual revenues compared to annual expenditures</li> <li>■ Annual replacement value depreciation compared to annual expenditures</li> <li>■ Total cost of borrowing compared to total cost of service</li> <li>■ Revenue required to maintain annual network growth</li> <li>■ Lost revenue from system outages</li> </ul>
Tactical Indicators	<ul style="list-style-type: none"> <li>■ Percentage of storm network rehabilitated / reconstructed</li> <li>■ Overall storm network condition index as a percentage of desired condition index</li> <li>■ Annual adjustment in condition indexes</li> <li>■ Annual percentage of growth in storm network</li> <li>■ Percentage of mains where the condition is rated poor or critical for each network</li> <li>■ Percentage of storm network replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>■ Percentage of storm network inspected.</li> <li>■ Operating costs for storm water management (collection, treatment, and disposal) per kilometre of drainage system.</li> <li>■ Number of customer requests received annually per storm networks</li> <li>■ Percentage of customer requests responded to within 24 hours per storm network</li> </ul>

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## 6.0 Asset Management Strategy

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### 6.1 Objective

To outline and establish a set of planned actions, based on best practice, that will enable the assets to provide a desired and sustainable level of service, while managing risk, at the lowest life cycle cost.

The Asset Management Strategy will develop an implementation process that can be applied to the needs identification and prioritization of renewal, rehabilitation, and maintenance activities. This will assist in the production of a 10 year plan, including growth projections, to ensure the best overall health and performance of the municipality's infrastructure.

This section includes an overview of condition assessment techniques for each asset class; the life cycle interventions required, including interventions with the best ROI; and prioritization techniques, including risk, to determine which priority projects should move forward into the budget first.

### 6.2 Non-infrastructure Solutions and Requirements

The municipality should continue to explore, as requested through the provincial requirements, which non-infrastructure solutions should be incorporated into the budgets for the road, storm sewer, and bridges & culverts programs. Non-Infrastructure solutions are such items as studies, policies, condition assessments, consultation exercises, etc., that could potentially extend the life of assets or lower total asset program costs in the future.

Typical solutions for a municipality include linking the asset management plan to the strategic plan, growth and demand management studies, infrastructure master plans, better integrated infrastructure and land use planning, public consultation on levels of service, and condition assessment programs. As part of future asset management plans, a review of these requirements should take place, and a portion of the capital budget should be dedicated for these items in each programs budget.

The City of Woodstock has implemented and completed a bi-annual Roads Needs Study and OSIM Bridge Study. The city has also implemented an assessment program for the sanitary and storm sewer networks using CCTV/Zoom cameras. This is an ongoing project with a 7-10 year cycle.

It is recommended, under this category of solutions, that the municipality continues to implement holistic condition assessment programs for their storm sewer networks. This will lead to higher understanding of infrastructure needs, enhanced budget prioritization methodologies, and a clearer path of what is required to achieve sustainable infrastructure programs.

### 6.3 Condition Assessment Programs

The foundation of good asset management practice is based on having comprehensive and reliable information on the current condition of the infrastructure. Municipalities need to have a clear understanding regarding performance and condition of their assets, as all management decisions regarding future expenditures and field activities should be based on this knowledge. An incomplete understanding about an asset may lead to its premature failure or premature replacement.

Some benefits of holistic condition assessment programs within the overall asset management process are listed below:

- Understanding of overall network condition leads to better management practices
- Allows for the establishment of rehabilitation programs
- Prevents future failures and provides liability protection
- Potential reduction in operation / maintenance costs

- Accurate current asset valuation
- Allows for the establishment of risk assessment programs
- Establishes proactive repair schedules and preventive maintenance programs
- Avoids unnecessary expenditures
- Extends asset service life therefore improving level of service
- Improves financial transparency and accountability
- Enables accurate asset reporting which, in turn, enables better decision making

Condition assessment can involve different forms of analysis such as subjective opinion, mathematical models, or variations thereof, and can be completed through a very detailed or very cursory approach.

When establishing the condition assessment of an entire asset class, the cursory approach (metrics such as good, fair, poor, critical) is used. This will be a less expensive approach when applied to thousands of assets, yet will still provide up to date information, and will allow for detailed assessment or follow up inspections on those assets captured as poor or critical condition later.

The following section outlines condition assessment programs available for road, bridge, and storm sewer networks that would be useful for the municipality.

### 6.3.1 Pavement Network Inspections

Typical industry pavement inspections are performed by consulting firms using specialised assessment vehicles equipped with various electronic sensors and data capture equipment. The vehicles will drive the entire road network and typically collect two different types of inspection data – surface distress data and roughness data.

Surface distress data involves the collection of multiple industry standard surface distresses, which are captured either electronically, using sensing detection equipment mounted on the van, or visually, by the van's inspection crew. Examples of surface distresses are:

- **For asphalt surfaces**  
alligator cracking; distortion; excessive crown; flushing; longitudinal cracking; map cracking; patching; edge cracking; potholes; ravelling; rippling; transverse cracking; wheel track rutting
- **For concrete surfaces**  
coarse aggregate loss; corner 'C' and 'D' cracking; distortion; joint faulting; joint sealant loss; joint spalling; linear cracking; patching; polishing; potholes; ravelling; scaling; transverse cracking

Roughness data capture involves the measurement of the roughness of the road, measured by lasers that are mounted on the inspection van's bumper, calibrated to an international roughness index.

Most firms will deliver this data to the client in a database format complete with engineering algorithms and weighting factors to produce an overall condition index for each segment of roadway. This type of scoring database is ideal for upload into the CityWide software database, in order to tag each road with a present condition and then further life cycle analysis to determine what activity should be completed on which road, in what timeframe, and to calculate the cost for the work will be completed within the CityWide system. City of Woodstock currently performs road condition studies and should continue to do so in the future.

The above process is an excellent way to capture road condition as the inspection trucks will provide detailed surface and roughness data for each road segment, and often include video or street imagery. A very rough industry estimate of cost would be about \$100 per centreline km of road, which means it would cost the municipality approximately \$28,100 for the 281 centreline km of paved road network.

Another option for a cursory level of condition assessment is for municipal road crews to perform simple windshield surveys as part of their regular patrol. Many municipalities have created data collection inspection forms to assist this process and to standardize what presence of defects would constitute a good, fair, poor, or critical score. Lacking any other data for the complete road network, this can still be seen as a good method and will assist greatly with the overall management of the road network. The CityWide Works software has a road patrol component built in that could capture this type of inspection

data during road patrols in the field, enabling later analysis of rehabilitation and replacement needs for budget development.

The city has an established pavement condition assessment program performed on 50% of paved roads every two years. It is recommended that the city continue to implement the condition assessment program and that a portion of capital funding is dedicated to this.

### **6.3.2 Bridges & Culverts (greater than 3m) Inspections**

Ontario municipalities are mandated by the Ministry of Transportation to inspect all structures that have a span of 3 metres or more, according to the OSIM (Ontario Structure Inspection Manual). At present, in the municipality, there are 22 structures that meet this criterion.

Structure inspections must be performed by, or under the guidance of, a structural engineer, must be performed on a biennial basis (once every two years), and include such information as structure type, number of spans, span lengths, other key attribute data, detailed photo images, and structure element by element inspection, rating and recommendations for repair, rehabilitation, and replacement.

The best approach to develop a 10 year needs list for the municipality's structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, and rehabilitation and replacement requirements report as part of the overall assignment. In addition to refining the overall needs requirements, the structural engineer should identify those structures that will require more detailed investigations and non-destructive testing techniques. Examples of these investigations are:

- Detailed deck condition survey
- Non-destructive delamination survey of asphalt covered decks
- Substructure condition survey
- Detailed coating condition survey
- Underwater investigation
- Fatigue investigation
- Structure evaluation

Through the OSIM recommendations and additional detailed investigations, a 10 year needs list will be developed for the municipality's bridges.

The 10 year needs list developed could then be further prioritized using risk management techniques to better allocate resources. Also, the results of the OSIM inspection for each structure, whether BCI (bridge condition index) or general condition (good, fair, poor, critical) should continue to be entered into the CityWide software to update results and analysis for the development of the budget.

### **6.3.3 Storm Sewer Network Inspections**

The most popular and practical type of storm sewer assessment is the use of Closed Circuit Television Video (CCTV). The process involves a small robotic crawler vehicle with a CCTV camera attached that is lowered down a maintenance hole into the sewer main to be inspected. The vehicle and camera then travels the length of the pipe providing a live video feed to a truck on the road above where a technician / inspector records defects and information regarding the pipe. A wide range of construction or deterioration problems can be captured including open/displaced joints, presence of roots, infiltration & inflow, cracking, fracturing, exfiltration, collapse, deformation of pipe and more. Therefore, sewer CCTV inspection is a very good tool for locating and evaluating structural defects and general condition of underground pipes.

Even though CCTV is an excellent option for inspection of sewers it is a fairly costly process and does take significant time to inspect a large volume of pipes.

Another option in the industry today is the use of Zoom Camera equipment. This is very similar to traditional CCTV, however, a crawler vehicle is not used but in it's a place a camera is lowered down a maintenance hole attached to a pole like piece of equipment. The camera is then rotated towards each connecting

pipe and the operator above progressively zooms in to record all defects and information about each pipe. The downside to this technique is the further down the pipe the image is zoomed, the less clarity is available to accurately record defects and measurement. The upside is the process is far quicker and significantly less expensive and an assessment of the manhole can be provided as well. Also, it is important to note that 80% of pipe deficiencies generally occur within 20 metres of each manhole. The following is a list of advantages of utilizing Zoom Camera technology:

- A time and cost efficient way of examining sewer systems;
- Problem areas can be quickly targeted;
- Can be complemented by a conventional camera (CCTV), if required afterwards;
- In a normal environment, 20 to 30 manholes can be inspected in a single day, covering more than 1,500 meters of pipe;
- Contrary to the conventional camera approach, cleaning and upstream flow control is not required prior to inspection;
- Normally detects 80% of pipe deficiencies, as most deficiencies generally occur within 20 meters of manholes.

The following table is based on general costs incurred by City of Woodstock for traditional CCTV inspection and Zoom Camera inspection; however, costs should be verified through local contractors. It is for illustrative purposes only but supplies a general idea of the cost to inspect Woodstock's entire storm networks.

Storm Sewer Inspection Cost Estimates				
Sewer Network	Assessment Activity	Cost	Metres of Main / # of Manholes	Total
Storm	Full CCTV	\$5 (per m)	186,000m	<b>\$930,000</b>
	Zoom	\$100 (Per mh)	1908 manholes	<b>\$190,800</b>

It can be seen from the above table that there is a significant cost savings achieved through the use of Zoom Camera technology. A good industry trend and best practice is to inspect the entire network using Zoom Camera technology and follow up on the poor and critical rated pipes with more detail using a full CCTV inspection. In this way, inspection expenditures are kept to a minimum, however, an accurate assessment on whether to rehabilitate or replace pipes will be provided for those with the greatest need.

The City of Woodstock has established a sewer condition assessment program in 2013. It is recommended that the condition data is uploaded in CityWide and that a portion of capital funding is dedicated to continued funding of this program.

In addition to receiving a video and defect report of each pipe's CCTV or Zoom camera inspection, many companies can now provide a database of the inspection results, complete with scoring matrixes that provide an overall general condition score for each pipe segment that has been assessed. Typically pipes are scored from 1 – 5, with 1 being a relatively new pipe and 5 being a pipe at the end of its design life. This type of scoring database is ideal for upload into the CityWide software database, in order to tag each pipe with a present condition and then further life cycle analysis to determine what activity should be done to which pipe, in what timeframe, and to calculate the cost for the work will be completed by the CityWide system.

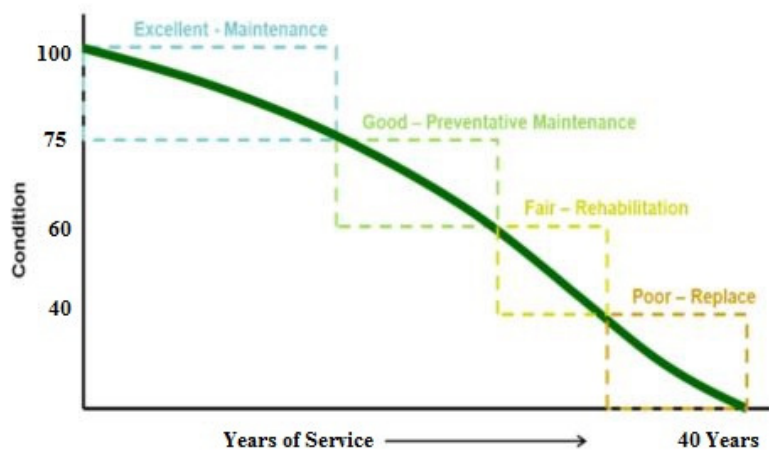
## 6.4 AM Strategy – Life Cycle Analysis Framework

An industry review was conducted to determine which life cycle activities can be applied at the appropriate time in an asset's life, to provide the greatest additional life at the lowest cost. In the asset management industry, this is simply put as doing the right thing to the right asset at the right time. If these techniques are applied across entire asset networks or portfolios (e.g., the entire road network), the municipality could gain the best overall asset condition while expending the lowest total cost for those programs.

### 6.4.1 Paved Roads

The following analysis has been conducted at a fairly high level, using industry standard activities and costs for paved roads. With future updates of this Asset Management Strategy, the municipality may wish to run the same analysis with a detailed review of municipality activities used for roads and the associated local costs for those work activities. All of this information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available.

The following diagram depicts a general deterioration profile of a road with a 40 year life.

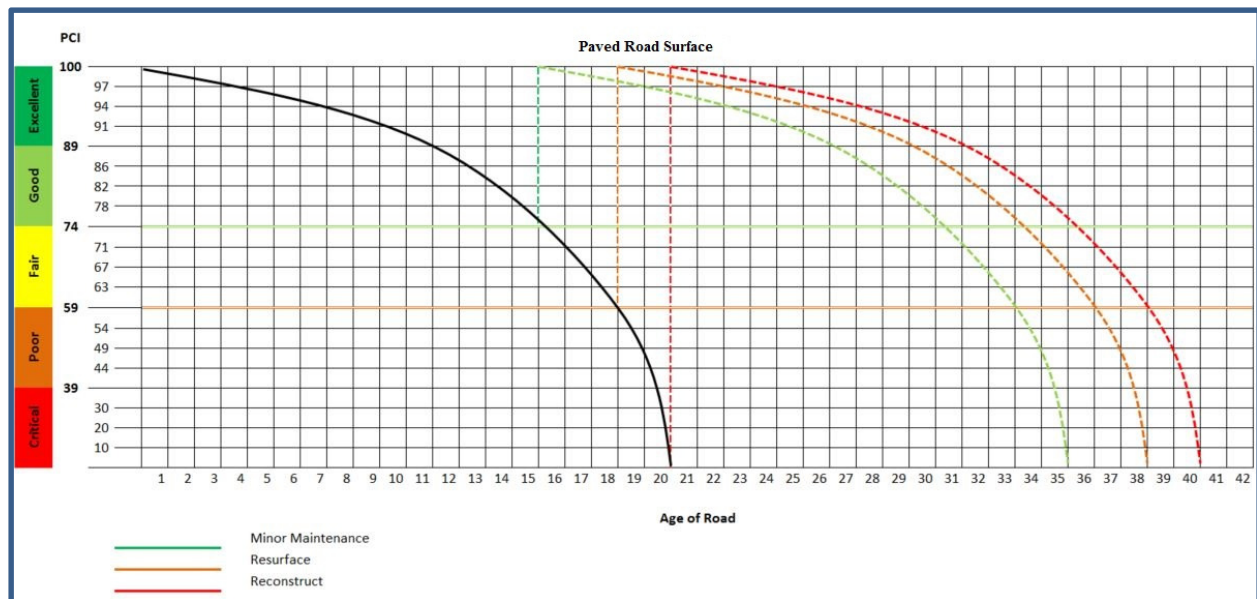


As shown above, during the road's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; preventative maintenance; rehabilitation; and replacement or reconstruction.

The windows or thresholds for when certain work activities should be applied to also coincide approximately with the condition state of the asset as shown below:

Asset Condition and Related Work Activity: Paved Roads		
Condition	Condition Range	Work Activity
excellent condition (Maintenance only phase)	100 - 90	■ maintenance only
good Condition (Preventative maintenance phase)	89 - 75	■ crack sealing ■ emulsions
fair Condition (Rehabilitation phase)	74 - 60	■ resurface - mill & pave ■ resurface - asphalt overlay ■ single & double surface treatment (for rural roads)
poor Condition (Reconstruction phase)	59 - 40	■ reconstruct - pulverize and pave ■ reconstruct - full surface and base reconstruction
critical Condition (Reconstruction phase)	39 - 0	■ critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the "poor" category above.

The following diagram depicts the results of a timely preventative maintenance based on the work activity listed in the chart above.



With future updates of this Asset Management Strategy the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These threshold and condition ranges can be easily updated with the CityWide software suite and an updated financial analysis can be



calculated. These adjustments will be an important component of future Asset Management Plans, as the Province requires each municipality to present various management options within the financing plan.

The table below outlines the costs for various road activities, the added life obtained for each, the condition range at which they should be applied, and the cost of 1 year added life for each (cost of activity / added life) in order to present an apples to apples comparison.

Road Lifecycle Activity Options				
Treatment	Average Unit Cost (per sq. m)	Added Life (Years)	Condition Range	Cost Of Activity/Added Life
Routing & Crack Sealing (P.M)	\$2	3	89 – 75	\$0.67
Double Surface Treatment	\$25	10	75 – 60	\$2.50
Urban Reconstruction	\$205	40	59 – 0	\$5.13
Urban Resurfacing	\$84	20	74 – 60	\$4.20
Rural Reconstruction	\$135	40	59 - 0	\$3.38
Rural Resurfacing	\$40	20	74 - 60	\$2.00

As can be seen in the table above, preventative maintenance activities such as routing and crack sealing have the lowest associated cost (per sq. m) in order to obtain one year of added life. Of course, preventative maintenance activities can only be applied to a road at a relatively early point in the life cycle. The City of Woodstock has an established program and it is recommended that it continues to implement this program for all paved roads and that a portion of the maintenance budget is allocated to this.

Also, rehabilitation activities, such as urban and rural resurfacing or double surface treatments (tar and chip) for rural roads have a lower cost to obtain each year of added life than full reconstruction activities. It is recommended that the municipality continue to engage in an active rehabilitation program for urban and rural paved roads and that a portion of the capital budget is dedicated to this.

Of course, in order to continue implementing the above programs it will be important to also establish a general condition score for each road segment, established through standard condition assessment protocols as previously described.

It is important to note that a “worst first” budget approach, whereby no life cycle activities other than reconstruction at the end of a roads life are applied, will result in the most costly method of managing a road network overall.

#### 6.4.2 Gravel Roads

The life cycle activities required for these roads are quite different from paved roads. Gravel roads require a cycle of perpetual maintenance, including general re-grading, reshaping of the crown and cross section, gravel spot and section replacement, dust abatement and ditch clearing and cleaning.

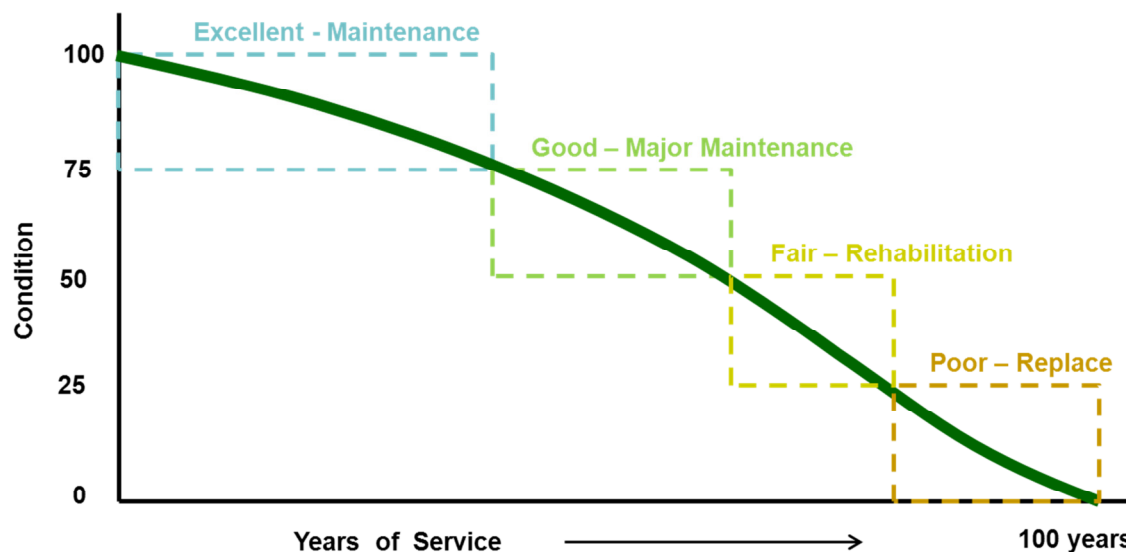
Gravel roads can require frequent maintenance, especially after wet periods and when accommodating increased traffic. Wheel motion shoves material to the outside (as well as in-between travelled lanes), leading to rutting, reduced water-runoff, and eventual road destruction if unchecked. This deterioration process is prevented if interrupted early enough, simple re-grading is sufficient, with material being pushed back into the proper profile.

#### 6.4.3 Storm Sewers

The following analysis has been conducted at a fairly high level, using industry standard activities and costs for storm sewer rehabilitation and replacement. With future updates of this asset management strategy,

the municipality may wish to run the same analysis with a detailed review of municipality activities used for sewer mains and the associated local costs for those work activities. All of this information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available.

The following diagram depicts a general deterioration profile of a sewer main with a 100 year life.



As shown above, during the sewer main's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; major maintenance; rehabilitation; and replacement or reconstruction.

The windows or thresholds for when certain work activities should be applied also coincide approximately with the condition state of the asset as shown below:

Asset Condition and Related Work Activity: Sewer Main		
Condition	Condition Range	Work Activity
excellent condition (Maintenance only phase)	100-76	■ maintenance only (cleaning & flushing etc.)
good Condition (Preventative maintenance phase)	75 - 51	■ manhole repairs ■ small pipe section repairs
fair Condition (Rehabilitation phase)	50 -26	■ structural relining
poor Condition (Reconstruction phase)	25 - 1	■ pipe replacement
critical Condition (Reconstruction phase)	0	■ critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the "poor" category above.

With future updates of this Asset Management Strategy the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These threshold and condition

ranges can be easily updated with the CityWide software suite and an updated financial analysis can be calculated. These adjustments will be an important component of future Asset Management Plans, as the province requires each municipality to present various management options within the financing plan.

The table below outlines the costs, by pipe diameter, for various sewer main rehabilitation (lining) and replacement activities. The columns display the added life obtained for each activity, the condition range at which they should be applied, and the cost of 1 year added life for each (cost of activity / added life) in order to present an apples to apples comparison.

Sewer Main Lifecycle Activity Options				
Category	Cost (per m)	Added Life	Condition Range	1 year Added Life Cost (Cost / Added Life)
Structural Rehab (m)				
0 - 325mm	\$174.69	75	50 - 75	\$2.33
325 - 625mm	\$283.92	75	50 - 75	\$3.79
625 - 925mm	\$1,857.11	75	50 - 75	\$24.76
> 925mm	\$1,771.34	75	50 - 75	\$23.62
Replacement (m)				
	\$475.00	100	76 - 100	\$4.75
325 - 625mm	\$725.00	100	76 - 100	\$7.25
625 - 925mm	\$900.00	100	76 - 100	\$9.00
> 925mm	\$1,475.00	100	76 - 100	\$14.75

As can be seen in the above table, structural rehabilitation or lining of sewer mains is an extremely cost effective industry activity and solution for pipes with a diameter less than 625mm. The unit cost of lining is approximately one third of replacement and the cost to obtain one year of added life is half the cost. Structural lining has been proven through industry testing to have a design life (useful life) of 75 years, however, it is believed that liners will probably obtain 100 years of life (the same as a new pipe).

For sewer mains with diameters greater than 625mm specialized liners are required and therefore the costs are no longer effective. It should be noted, however, that the industry is continually expanding its technology in this area and therefore future costs should be further reviewed for change and possible price reductions.

It is recommended that the city continue to engage in an active structural lining program for storm sewer mains and that a portion of the capital budget be dedicated to this.

In order to implement the above, it will be important to also establish a condition assessment program to establish a condition score for each sewer main within the storm collection networks, and therefore identify which pipes are good candidates for structural lining.

#### 6.4.4 Bridges & Culverts (greater than 3m span)

The best approach to develop a 10 year needs list for the municipality's bridge structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, a rehabilitation and replacement requirements report and identify additional detailed inspections as required. This approach is described in more detail within the "Bridges & Culverts (greater than 3m) Inspections" section above.

## 6.5 Growth and Demand

Typically a municipality will have specific plans associated with population growth. It is essential that the asset management strategy should address not only the existing infrastructure, as above, but must include the impact of projected growth on defined project schedules and funding requirements. Projects would include the funding of the construction of new infrastructure, and/or the expansion of existing infrastructure to meet new demands. The municipality should enter these projects into the CityWide software in order to be included within the short and long term budgets as required.

## 6.6 Project Prioritization

The above techniques and processes when established for the road, storm sewer networks and bridges will supply a significant listing of potential projects. Typically the infrastructure needs will exceed available resources and therefore project prioritization parameters must be developed to ensure the right projects come forward into the short and long range budgets. An important method of project prioritization is to rank each project, or each piece of infrastructure, on the basis of how much risk it represents to the organization.

### 6.6.1 Risk Matrix and Scoring Methodology

Risk within the infrastructure industry is often defined as the probability (likelihood) of failure multiplied by the consequence of that failure.

$$\text{RISK} = \text{LIKELIHOOD OF FAILURE} \times \text{CONSEQUENCE OF FAILURE}$$

The likelihood of failure relates to the current condition state of each asset, whether they are in excellent, good, fair, poor or critical condition, as this is a good indicator regarding their future risk of failure. The consequence of failure relates to the magnitude, or overall effect, that an asset's failure will cause. For instance, a small diameter gravity main break in a sub division may cause a few customers to have no service for a few hours, whereby a large trunk gravity main break outside a hospital could have disastrous effects and would be a front page news item. The following table represents the scoring matrix for risk:

High								
Consequence of Failure	5	37 Assets 190,382 m2, m \$8,825,683.61	22 Assets 69,013 m, m2, units \$8,734,018.78	12 Assets 65,889 m2 \$1,850,111.19	7 Assets 26,583 m2 \$1,092,011.52	2 Assets 7,860 m2 \$303,966.98		
	4	80 Assets 287,117 m, m2 \$9,169,671.98	86 Assets 289,315 m, m2, units \$15,280,432.57	56 Assets 197,425.5 m, m2 \$6,782,147.24	26 Assets 121,894 m, m2 \$5,042,340.28	15 Assets 70,510.5 m2 \$2,827,099.29		
	3	496 Assets 994,496.3 m, m2, units \$38,570,416.71	223 Assets 477,957 m, m2, units \$21,506,771.21	251 Assets 515,587 m, units, m2 \$17,472,702.17	90 Assets 191,671 m, m2, units \$7,764,146.44	88 Assets 215,010 m2 \$9,140,424.17		
	2	135 Assets 68,040.3 m, m2, units \$7,128,713.37	149 Assets 53,793 m, units, m2 \$8,124,101.34	58 Assets 24,794.5 m, m2, units \$2,474,659.68	26 Assets 14,737.6 m, m2, units \$1,355,150.58	6 Assets 1,591 m \$271,508.03		
	1	447 Assets 35,403.4 m, units, m2 \$4,982,248.03	355 Assets 21,251 units, m, m2 \$4,640,450.14	334 Assets 15,155 units, m, m2 \$4,866,742.99	314 Assets 13,337.3 units, m, m2 \$2,978,970.98	322 Assets 9,398.1 units, m, m2 \$2,815,253.73		
Low		1	2	3	4	5	High	
		Probability of Failure						

All of the municipality's assets analyzed within this asset management plan have been given both a likelihood of failure score and a consequence of failure score within the CityWide software.

The following risk scores have been developed at a high level for each asset class within the CityWide software system. It is recommended that the municipality undertake a detailed study to develop a more

tailored suite of risk scores, particularly in regards to the consequence of failure, and that this be updated within the CityWide software with future updates to this Asset Management Plan.

The current scores that will determine budget prioritization currently within the system are as follows:

**All assets:**

The Likelihood of Failure score is based on the condition of the assets:

Likelihood of Failure: All Assets	
Asset condition	Likelihood of failure
Excellent condition	score of 1
Good condition	score of 2
Fair condition	score of 3
Poor condition	score of 4
Critical condition	score of 5

**Bridges** (based on valuation):

The consequence of failure score for this initial AMP is based upon the replacement value of the structure. The higher the value, probably the larger the structure and therefore probably the higher the consequential risk of failure:

Consequence of Failure: Bridges	
Replacement Value	Consequence of failure
Up to \$50k	Score of 1
\$51 to \$150k	Score of 2
\$151 to \$350k	Score of 3
\$351 to \$1m	Score of 4
\$1m and over	Score of 5

**Roads** (based on classification):

The consequence of failure score for this initial AMP is based upon the road classification as this will reflect traffic volumes and number of people affected.

Consequence of Failure: Roads	
Road Classification	Consequence of failure
Alley	score of 1
Gravel	score of 2
Local	score of 3
Collector	score of 4
Arterial	score of 5

**Storm Sewer** (based on replacement cost):

The consequence of failure score for this initial AMP is based upon pipe replacement cost as this will reflect potential upstream service area affected. However, we recommend that all future storm sewer pipes are reported based on diameter size as it provides a more accurate analysis.

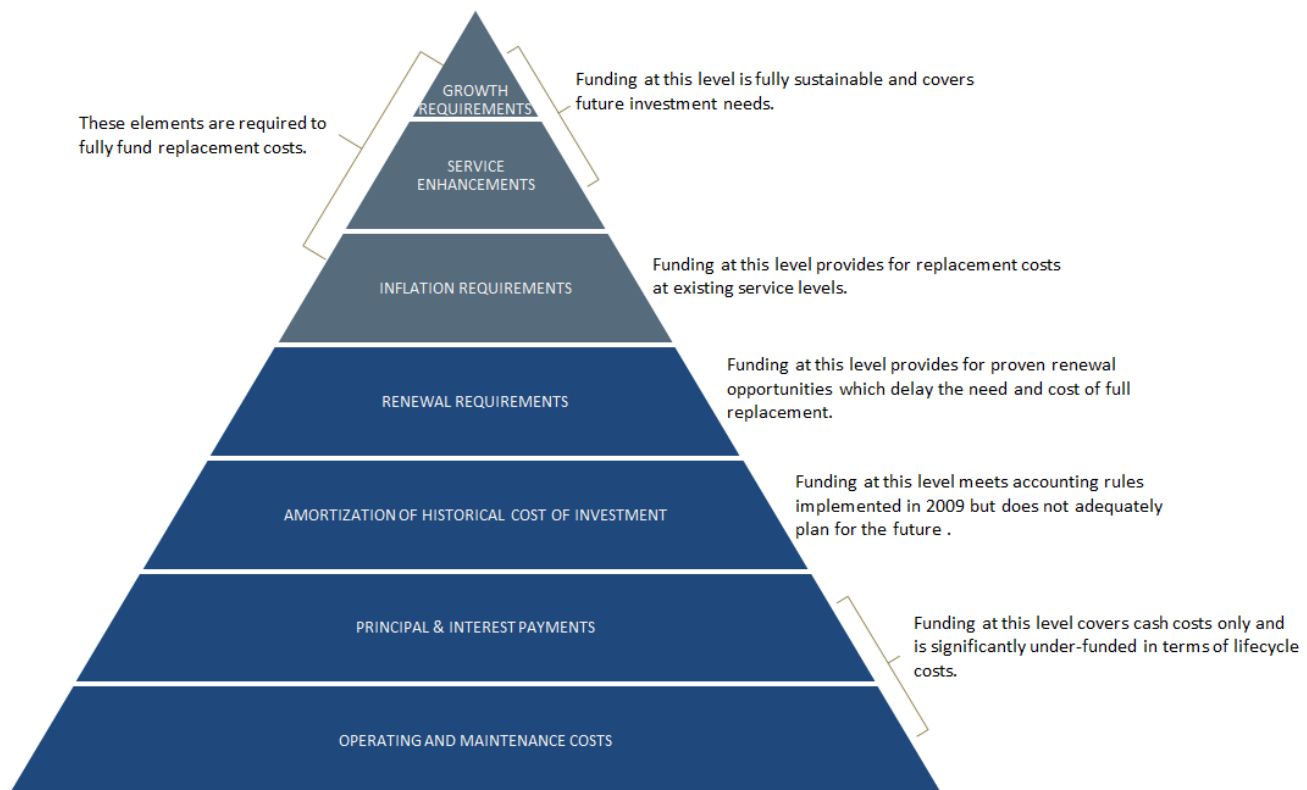
Consequence of Failure: Storm Sewer	
Pipe Replacement Cost	Consequence of failure
Up to \$19k	Score of 1
\$20 to \$99k	Score of 2
\$100 to \$199k	score of 3
\$200 to \$499k	score of 4
\$500k and over	score of 5

## 7.0 Financial Strategy

### 7.1 General overview of financial plan requirements

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow Woodstock to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service and projected growth requirements.

The following pyramid depicts the various cost elements and resulting funding levels that should be incorporated into AMP's that are based on best practices.



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

- a) the financial requirements (as documented in the SOTI section of this report) for:
  - existing assets
  - existing service levels
  - requirements of contemplated changes in service levels (none identified for this plan)
  - requirements of anticipated growth (none identified for this plan)
- b) use of traditional sources of municipal funds:
  - tax levies
  - user fees
  - reserves
  - debt (no additional debt required for this AMP)
  - development charges (not applicable)

- c) use of non-traditional sources of municipal funds:
  - reallocated budgets (not required for this AMP)
  - partnerships (not applicable)
  - procurement methods (no changes recommended)
- d) use of senior government funds:
  - gas tax
  - grants (not included in this plan due to Provincial requirements for firm commitments)

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

- a) in order to reduce financial requirements, consideration has been given to revising service levels downward
- b) all asset management and financial strategies have been considered. For example:
  - if a zero debt policy is in place, is it warranted? If not, the use of debt should be considered.
  - do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

This AMP includes recommendations that avoid long-term funding deficits.

## 7.2 Financial information relating to Woodstock's AMP

### 7.2.1 Funding objective

We have developed scenarios that would enable Woodstock to achieve full funding within 5 years or 10 years for the following assets:

Tax funded assets – Road network (paved roads); Bridges & Culverts; Storm Sewer Network

Note: For the purposes of this AMP, we have excluded the category of gravel roads since gravel roads are a perpetual maintenance asset and end of life replacement calculations do not normally apply. If gravel roads are maintained properly they, in essence, could last forever.

For each scenario developed we have included strategies, where applicable, regarding the use of tax revenues, user fees and reserves.

## 7.3 Tax funded assets

### 7.3.1 Current funding position

Tables 1 and 2 outline, by asset category, Woodstock's average annual asset investment requirements, current funding positions and funding changes required to achieve full funding on assets funded by taxes.

Table 1. Summary of Infrastructure Requirements & Current Funding Available						
Asset Category	Average Annual Investment Required	2013 Annual Funding Available				Annual Deficit/Surplus
		Taxes	Gas Tax	Capital Reserve	Total Funding Available	
Road Network	4,926,000	1,963,000	1,093,000	0	3,056,000	1,870,000
Bridges & Culverts	198,000	62,000	0	0	62,000	136,000
Storm Sewer Network	710,000	306,000	0	0	306,000	404,000
<b>Total</b>	<b>5,834,000</b>	<b>2,331,000</b>	<b>1,093,000</b>	<b>0</b>	<b>3,424,000</b>	<b>2,410,000</b>



### 7.3.2 Recommendations for full funding

The average annual investment requirement for paved roads, bridges & culverts, and storm sewers is \$5,834,000. Annual revenue currently allocated to these assets for capital purposes is \$3,424,000 leaving an annual deficit of \$2,410,000. To put it another way, these infrastructure categories are currently funded at 59% of their long-term requirements.

In 2014, Woodstock has annual tax revenues of \$43,726,000. As illustrated in table 2, without consideration of any other sources of revenue, full funding would require the following tax increase over time:

<b>Table 2. Tax Increases Required for Full Funding</b>	
Asset Category	Tax Increase Required for Full Funding
Road Network	4.3%
Bridges & Culverts	0.3%
Storm Sewer Network	0.9%
<b>Total</b>	<b>5.5%</b>

The City of Woodstock generally issues new debt each year, in the amount of \$900,000, as part of their road network capital funding strategy. Debt payments will increase by \$171,000 from 2014 to 2018 and \$539,000 from 2014 to 2023 if the city continues to follow this funding strategy (assuming 3% interest).

Our recommendations include continued issuance of additional debt for road network projects. Table 3 outlines this concept and presents a number of options:

<b>Table 3. Effect of Changes in Debt Costs</b>				
	Increase in Debt Payments		Decrease in Debt Payments	
	5 Years	10 Years	5 Years	10 Years
Infrastructure Deficit as Outlined in Table 1	2,423,000	2,423,000	2,423,000	2,423,000
Change in Debt Costs – Existing Debt	-281,000	-417,000	-281,000	-417,000
Change in Debt Costs – New Debt	452,000	956,000	0	0
<b>Resulting Infrastructure Deficit</b>	<b>2,594,000</b>	<b>2,962,000</b>	<b>2,142,000</b>	<b>2,006,000</b>
Resulting Tax Increase Required:				
<b>Total Over Time</b>	<b>5.9%</b>	<b>6.8%</b>	<b>4.8%</b>	<b>4.5%</b>
Annually	1.2%	0.7%	1.0%	0.4%

Considering all of the above information, we recommend the 5 year option in table 3. This involves full funding being achieved over 5 years by:

- a) increasing tax revenues by 1.2% each year for the next 5 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
- b) continuing to allocate the \$1,093,000 of gas tax revenue to the paved roads category.
- c) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

#### Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this funding cannot be incorporated into the AMP unless there are firm commitments in place.

Although this option achieves full funding on an annual basis in 5 years and provides financial sustainability over the period modeled (to 2050), the recommendations do require prioritizing capital projects to fit the resulting annual funding available. As of 2014, assessed condition data shows a pent up investment demand of \$6,350,000 for paved roads, \$0 for bridges & culverts, and \$1,599,000 aged based data for storm sewers. Prioritizing future projects will require the age based data to be replaced by condition based data for all assets that have yet to be assessed. Although our recommendations include continued use of debt to fund roads network projects the option of phasing out the use of debt is also a feasible option for the city to consider as it will require a lower tax increase to reach full funding in the next five years.

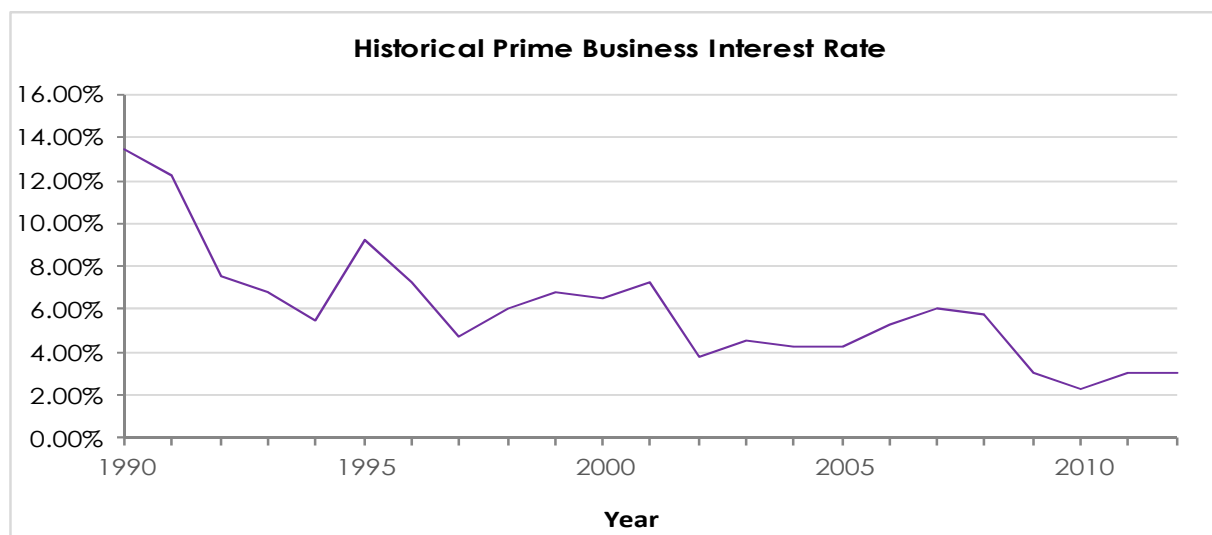
## 7.4 Use of debt

For reference purposes, table 4 outlines the premium paid on a project if financed by debt. The City of Woodstock typically issues debt over a 10 year period. For example, a \$1M project financed at 3.0%<sup>1</sup> over 10 years would result in a 17% premium or \$170,000 of increased costs due to interest payments. The table does not take into account the time value of money or the effect of inflation on delayed projects. However, when considering issuing new debt, it is important to take into account the time value of money or the effect of inflation on new or delayed projects.

Table 4. Total Interest Paid as a % of Project Costs						
Interest Rate	Number of Years Financed					
	5	10	15	20	25	30
7.0%	22%	42%	65%	89%	115%	142%
6.5%	20%	39%	60%	82%	105%	130%
6.0%	19%	36%	54%	74%	96%	118%
5.5%	17%	33%	49%	67%	86%	106%
5.0%	15%	30%	45%	60%	77%	95%
4.5%	14%	26%	40%	54%	69%	84%
4.0%	12%	23%	35%	47%	60%	73%
3.5%	11%	20%	30%	41%	52%	63%
3.0%	9%	17%	26%	34%	44%	53%
2.5%	8%	14%	21%	28%	36%	43%
2.0%	6%	11%	17%	22%	28%	34%
1.5%	5%	8%	12%	16%	21%	25%
1.0%	3%	6%	8%	11%	14%	16%
0.5%	2%	3%	4%	5%	7%	8%
0.0%	0%	0%	0%	0%	0%	0%

It should be noted that current interest rates are near all-time lows. Sustainable funding models that include debt need to incorporate the risk of rising interest rates. The following graph shows where historical lending rates have been:

<sup>1</sup> Current municipal Infrastructure Ontario rates for 15 year money is 3.2%.



As illustrated in table 4, a change in 10 year rates from 3% to 6% would change the premium from 17% to 36%. Judicious use of debt helps meet the infrastructure challenges while limiting the impact on the taxpayers.

Tables 5 and 6 outline how Woodstock has historically used debt for investing in the asset categories as listed. There is currently \$1,661,000 of debt outstanding for the assets covered by this AMP. In terms of overall debt capacity, Woodstock currently has \$6,253,000 of total outstanding debt and \$1,433,000 in total annual principal and interest payment commitments. These principal and interest payments are well within its provincially prescribed annual maximum of \$12,367,000 and the estimated repayment limit of \$10,845,674.

Asset Category	Closing 2013 Debt Outstanding	Use Of Debt in the Last Five Years				
		2009	2010	2011	2012	2013
Road Network	1,661,000	0	0	600,000	100,000	625,000
Bridges & Culverts	0	0	0	0	0	0
Storm Sewers	0	0	0	0	0	0
Total Tax Funded	1,661,000	0	0	600,000	100,000	625,000
Total Existing Infrastructure Debt	1,661,000	0	0	600,000	100,000	625,000
Total Existing General Capital Debt	4,592,000	600,000	1,602,000	1,385,000	672,000	0
<b>Overall Total</b>	<b>6,253,000</b>	<b>600,000</b>	<b>1,602,000</b>	<b>1,985,000</b>	<b>772,000</b>	<b>625,000</b>

Table 6. Overview of Debt Costs					
Asset Category	Principal & Interest Payments in the Next Five Years				
	2014	2015	2016	2017	2018
Road Network	481,000	439,000	328,000	286,000	200,000
Bridges & Culverts	0	0	0	0	0
Storm Sewer Network	0	0	0	0	0
Total Tax Funded	481,000	439,000	328,000	286,000	200,000
Total Existing Infrastructure Debt	481,000	439,000	328,000	286,000	200,000
New Roads Projects Debt	0	117,000	231,000	343,000	452,000
Total Existing General Capital Debt	952,000	659,000	474,000	461,000	447,000
<b>Overall Total</b>	<b>1,433,000</b>	<b>1,215,000</b>	<b>1,033,000</b>	<b>1,090,000</b>	<b>1,099,000</b>

The revenue options outlined in this plan allow Woodstock to fully fund its long-term infrastructure requirements with continued use of debt for road network projects.

## 7.5 Use of reserves

### 7.5.1 Available reserves

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

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

By infrastructure category, table 7 outlines the details of the reserves currently available to Woodstock.

<b>Table 7. Summary of Reserves Available</b>	
Asset Category	Balance at December 31, 2013
Road Network	5,202,000
Bridges	211,000
Storm Sewers	2,927,000
<b>Total Tax Funded</b>	<b>8,340,000</b>

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

- breadth of services provided
- age and condition of infrastructure
- use and level of debt
- economic conditions and outlook
- internal reserve and debt policies.

The reserves in table 7 are available for use by applicable asset categories during the phase-in period to full funding. This, coupled with Woodstock's judicious use of debt in the past, allows the scenarios to assume that, if required, available reserves and debt capacity can be used for high priority and emergency infrastructure investments in the short to medium-term.

### 7.5.2 Recommendation

As Woodstock updates its AMP and expands it to include other asset categories, we recommend that future planning should include determining what its long-term reserve balance requirements are and a plan to achieve such balances.

## 8.0 Appendix A: Report Card Calculations

### Key Calculations

1. "Weighted, unadjusted star rating":

*(% of assets in given condition) × (potential star rating)*

2. "Adjusted star rating"

*(weighted, unadjusted star rating) × (% of total replacement value)*

3. "Overall Rating"

*(Condition vs. Performance star rating) + (Funding vs. Need star rating)*

---

2

### Grade Cutoffs

#### 1. Conditions vs Performance

Letter Grade	Star Rating
F	0
D	2
D+	2.5
C	2.9
C+	3.5
B	3.9
B+	4.5
A	4.9
A	5

#### 2. Funding vs Need

Funding %	Star rating	Grade
0.0%	0	F
25.0%	1	F
46.0%	1.9	D
61.0%	2.9	C
76.0%	3.9	B
91.0%	4.9	A
100.0%	5	A

## Roads Network City of Woodstock

### 1. Condition vs. Performance

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$153,804,433				\$43,281,152		28.1%	
Segment	Condition	Letter grade	Star rating	Quantities (m2) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Road Surface	Excellent	A	5	841,208	47%	2.36	1.1
	Good	B	4	323,243	18%	0.73	
	Fair	C	3	519,402	29%	0.88	
	Poor	D	2	96,394	5%	0.11	
	Critical	F	1	0	0%	0.00	
			<b>Totals</b>	<b>1,780,247</b>	<b>100%</b>	<b>4.07</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$153,804,433				\$84,033,532		54.6%	
Segment	Condition	Letter grade	Star rating	Quantities (m2) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Road Base	Excellent	A	5	683,457	34%	1.70	1.9
	Good	B	4	504,589	25%	1.01	
	Fair	C	3	265,244	13%	0.40	
	Poor	D	2	258,952	13%	0.26	
	Critical	F	1	295,651	15%	0.15	
			<b>Totals</b>	<b>2,007,893</b>	<b>100%</b>	<b>3.51</b>	

						Category star rating	Category letter grade
						3.1	C

### 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit			Category star rating	Category letter grade
\$4,926,000	\$3,056,000	62.0%	\$1,870,000			2.9	C

### 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
3.1	2.9	3.0	C

## 1. Condition vs. Performance

Total category replacement value		\$10,684,434		Segment replacement value		\$1,546,747		Segment value as a % of total category replacement value		14.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition		% of Assets in given condition		Weighted, unadjusted star rating		Segment adjusted star rating	
Culverts & Pedestrian Bridges	Excellent	A	5	1		8%		0.38		0.5	
	Good	B	4	9		69%		2.77			
	Fair	C	3	1		8%		0.23			
	Poor	D	2	2		15%		0.31			
	Critical	F	1	0		0%		0.00			
			Totals	13		100%		3.69			

Total category replacement value		\$10,684,434		Segment replacement value		\$9,137,687		Segment value as a % of total category replacement value		85.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition		% of Assets in given condition		Weighted, unadjusted star rating		Segment adjusted star rating	
Bridges	Excellent	A	5	0		0%		0.00		3.1	
	Good	B	4	7		78%		3.11			
	Fair	C	3	1		11%		0.33			
	Poor	D	2	1		11%		0.22			
	Critical	F	1	0		0%		0.00			
			Totals	9		100%		3.67			

										Category star rating	Category letter grade
										3.7	C+

## 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit				Category star rating	Category letter grade
\$198,000	\$62,000	31.3%	\$136,000					
							1.0	F

## 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
3.7	1.0	2.3	D



## 1. Condition vs. Performance

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$5,218,993		9.3%	
Segment	Condition	Letter grade	Star rating	Value (\$) in given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
SWM Facilities	Excellent	A	5	5,218,993	100%	5.00	0.5
	Good	B	4	0	0%	0.00	
	Fair	C	3	0	0%	0.00	
	Poor	D	2	0	0%	0.00	
	Critical	F	1	0	0%	0.00	
<b>Totals</b>				<b>5,218,993</b>	<b>100%</b>	<b>5.00</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$15,993,726		28.5%	
Segment	Condition	Letter grade	Star rating	Units in given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Catchbasins and Manholes	Excellent	A	5	3,511	54%	2.68	1.1
	Good	B	4	1,312	20%	0.80	
	Fair	C	3	420	6%	0.19	
	Poor	D	2	230	4%	0.07	
	Critical	F	1	1,081	16%	0.16	
<b>Totals</b>				<b>6,554</b>	<b>100%</b>	<b>3.91</b>	

Total category replacement value				Segment replacement value		Segment value as a % of total category replacement value	
\$56,117,727				\$34,820,588		62.0%	
Segment	Condition	Letter grade	Star rating	Quantities (m) given condition	% of Assets in given condition	Weighted, unadjusted star rating	Segment adjusted star rating
Gravity Mains	Excellent	A	5	164,971	89%	4.44	3.0
	Good	B	4	13,875	7%	0.30	
	Fair	C	3	5,869	3%	0.09	
	Poor	D	2	928	0%	0.01	
	Critical	F	1	191	0%	0.00	
<b>Totals</b>				<b>185,834</b>	<b>100%</b>	<b>4.84</b>	

						Category star rating	Category letter grade
						4.6	<b>B+</b>

## 2. Funding vs. Need

Average annual investment required	2014 funding available	Funding percentage	Deficit			Category star rating	Category letter grade
\$710,000	\$306,000	43.1%	\$404,000			1.0	<b>F</b>

## 3. Overall Rating

Condition vs Performance star rating	Funding vs. Need star rating	Average star rating	Overall letter grade
4.6	1.0	2.8	D+

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 101 (0100-12709-0412)</b>	Gross	430															
Server Replacements - 2014	Oth. Funding																
WAN, Fire & Eng 2015 - Database & VOIP	Net Cost	430			105 CompR			55 Capital			105 Capital			45 Capital			120 Capital
<b>PROJECT 102 (0100-12709-0412)</b>	Gross	19															
Clerk's Department	Oth. Funding																
Computer Replacements	Net Cost	19			6 CompR			3 CompR			3 CompR			7 CompR			
<b>PROJECT 103 (0100-12709-0412)</b>	Gross	41															
Admin. Services - Computer	Oth. Funding																
Replacements	Net Cost	41			6 CompR			9 CompR			6 CompR			5 CompR			15 CompR
<b>PROJECT 104 (0100-12709-0412)</b>	Gross	16															
Development - Computer Replace.	Oth. Funding																
	Net Cost	16			5 CompR						5 CompR			6 CompR			
<b>PROJECT 667 (0100-12709-0412)</b>	Gross	10															
Wireless Radios - Parks & Southside	Oth. Funding																
Aquatic Center	Net Cost	10									5 CompR						5 CompR
<b>PROJECT 106 (0100-12709-0412)</b>	Gross	98															
Engineering - Computer Replacements	Oth. Funding																
Including CAD Systems	Net Cost	98			14 CompR			13 CompR			29 CompR			25 CompR			17 CompR
<b>PROJECT 107 (0100-12709-0412)</b>	Gross	49															
Fire Dept. - Computer Replacements	Oth. Funding																
	Net Cost	49			9 CompR			9 CompR			8 CompR			14 CompR			9 CompR
<b>PROJECT 108 (0100-12709-0412)</b>	Gross	44															
Parks & Recreation - Computer	Oth. Funding																
Replacements - Various	Net Cost	44			15 CompR			2 CompR			9 CompR			9 CompR			9 CompR
<b>PROJECT 400 (0100-12709-0412)</b>	Gross	33															
Printer Replacements - 2014 Clerks	Oth. Funding																
Admin Services, Development, 2015-Eng. , Fire, 2018 - Clerks	Net Cost	33			14 CompR			16 CompR									3 CompR
<b>PROJECT 112 (0100-12709-0412)</b>	Gross	50															
Engineering - Plotter/Scanner	Oth. Funding																
Replacement	Net Cost	50			50 CompR												
<b>PROJECT 115 (0100-12709-0412)</b>	Gross	8															
Building Department	Oth. Funding																
Computer Replacements	Net Cost	8						2 Bldg						6 Bldg			
<b>PROJECT 116 (0100-12709-0412)</b>	Gross	56															
I.T. Department - Computer	Oth. Funding																
Replacements & Test Environment	Net Cost	56			4 CompR			10 CompR			16 CompR			10 CompR			16 CompR
Equipment																	
<b>Sub-totals</b>	Gross	854															
	Oth. Funding	0															
	Net Cost	854	0	0	0	228	0	0	119	0	0	186	0	0	127	0	194

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 117 (0100-12709-0412)</b>	Gross	14															
CAO's Office	Oth. Funding																
Computer Replacements	Net Cost	14			5 CompR						4 CompR			3 CompR			2 CompR
		0															
<b>PROJECT 118 (0100-12709-0412)</b>	Gross	20															
Human Resources	Oth. Funding																
Computer Replacements	Net Cost	20			3 CompR			5 CompR			6 CompR			3 CompR			3 CompR
		0															
<b>PROJECT 401 (0100-12709-0412)</b>	Gross	117															
Replace Pro-Curve Switches	Oth. Funding																
& UPS - Various	Net Cost	117			18 CompR			17 CompR			16 CompR			18 CompR			48 CompR
<b>PROJECT 120 (0100-12709-0412)</b>	Gross	44															
Council Computer Replacements	Oth. Funding																
(For New Council Term)	Net Cost	44			21 CompR						2 CompR			21 CompR			
<b>PROJECT 402 (0100-12709-0412)</b>	Gross	7															
New Workstations - Council Chambers	Oth. Funding																
Mayor, Clerk & CAO & Podium	Net Cost	7						5 CompR						2 CompR			
		0															
<b>PROJECT 121 (0100-12709-0412)</b>	Gross	90															
SAN Solution - Storage Area	Oth. Funding																
Network - solution that will provide	Net Cost	90									36 Capital			18 Capital			36 Capital
better backup capabilities																	
<b>PROJECT 575 (0100-12709-0412)</b>	Gross	26															
Cultural Services - Computer	Oth. Funding																
Replacements	Net Cost	26			5 CompR			8 CompR			3 CompR			6 CompR			4 CompR
<b>PROJECT 786</b>	Gross	2															
Economic Development - Projector	Oth. Funding	0															
	Net Cost	2						2 CompR									
		0															
<b>PROJECT 668</b>	Gross	16															
Smart Board - Council Chambers	Oth. Funding																
Economic Development - 2018	Net Cost	16						8 CompR									8 CompR
		0															
<b>PROJECT 669 (0100-13409-0412)</b>	Gross	61															
Security Cameras & DVR's - various	Oth. Funding																
	Net Cost	61			5 CompR			9 Capital			5 Capital			21 Capital			21 Capital
<b>PROJECT 670 (0100-12709-0412)</b>	Gross	35															
New Firewall - Advanced	Oth. Funding																
Security Features	Net Cost	35						10 Capital						25 Capital			
		0															
<b>Project 787</b>	Gross	25															
Aruba Mobile Device Management	Oth. Funding																
Controller - Higher Security for mobile	Net Cost	25			25 Capital												
devices connected to network																	
	Gross	1311															
<b>Sub-totals</b>	Oth. Funding	0															
	Net Cost	1311	0	0	310	0	0	183	0	0	258	0	0	244	0	0	316

## 2014 - 2018 CAPITAL BUDGET

## COMPUTER EQUIPMENT 0205

All Amounts In Thousands of Dollars

Description of Project and Location	Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 788</b>	Gross															
64 Aruba Access Points	Oth. Funding															
	Net Cost						26 Capital									
<b>Project 789</b>	Gross															
VOIP Mitel System Refresh	Oth. Funding															
	Net Cost												20 CompR			

## Reserve Legend:

Capital - Reserve for Capital Projects

CompR - Computer Replacement Res.

Bldg - Building Department Reserve

	Gross	1357																	
	Oth. Funding	0																	
TOTALS	Net Cost	1357	0	0	0	336	0	0	183	0	0	278	0	0	244	0	0	316	

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 790</b>	Gross	125																
Public Works Replace 1/2 ton	Oth. Funding				50 Equip			50 Equip										25 Equip
	Net Cost	125																
<b>PROJECT 791</b>	Gross	260																
Public Works	Oth. Funding	15	Trade															
Replace Sweeper	Net Cost	245			245 Equip													
<b>PROJECT 792</b>	Gross	310																
Public Works -	Oth. Funding	8																
Replace Plow Truck for Roll Off and attachments - plow & wing	Net Cost	302			302 Equip													
<b>PROJECT 793</b>	Gross	19																
Public Works	Oth. Funding	0	Trade															
New Trackless Attachments	Net Cost	19			19 Equip													
<b>PROJECT 794</b>	Gross	610																
Public Works	Oth. Funding	20	Trade															
Replace Plow Trucks	Net Cost	590						390 Equip										200 Equip
<b>PROJECT 795</b>	Gross	12																
Public Works	Oth. Funding	0																
Lateral Service Trailer	Net Cost	12			12 Equip													
<b>PROJECT 683 (0100-13420-0412)</b>	Gross	545																
Public Works- Fuel tanks	Oth. Funding																	
Provincial Requirement	Net Cost	545	200		345 Equip													
<b>PROJECT 796</b>	Gross	85																
Equipment Replacement - Parks	Oth. Funding	0			85 Equip													
Replace 17' Wide Area Mower	Net Cost	85																
<b>PROJECT 307 (0100-13287-0412)</b>	Gross	100																
Parks	Oth. Funding																	
Replace 1/2 tn Pick ups	Net Cost	100			50 Equip			25 Equip							25 Equip			
<b>PROJECT 797</b>	Gross	14																
Parks	Oth. Funding	0																
New Snow Blade for JD 5085	Net Cost	14			14 Equip													
<b>PROJECT 682</b>	Gross	20																
Public Works	Oth. Funding																	
Hydrant cut off saw	Net Cost	20			20 DC PW													
<b>PROJECT 798</b>	Gross	150																
Public Works	Oth. Funding	5	Trade															
Replace Trackless with attachments	Net Cost	145						145 Equip										
<b>PROJECT 799</b>	Gross	75																
Public Works	Oth. Funding	3																
Replace Stake Truck	Net Cost	72						72 Equip										
	Gross	2325																
	Oth. Funding	51																
<b>TOTALS</b>	Net Cost	2274	200	0	0	1142	0	0	682	0	0	0	0	0	25	0	0	225

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 684	Gross	22																
Complex	Oth. Funding	0																
Replace 1/2 tn Pick up	Net Cost	22						22	Equip									
PROJECT 800	Gross	25																
Parks - Top Dresser New	Oth. Funding																	
New Equipment	Net Cost	25						25	Equip									
PROJECT 801	Gross	55																
Parks	Oth. Funding	1	Trade															
Replace JD1445 Mower	Net Cost	54						54	Equip									
PROJECT 802	Gross	150																
Water Dept	Oth. Funding	8	Trade															
Replace Tandem Dump Truck	Net Cost	142						142	Equip									
PROJECT 803	Gross	50																
Water Dept	Oth. Funding																	
Replace 1/2 tn pick up	Net Cost	50						25	Equip							25	Equip	
PROJECT 804	Gross	35																
Engineering	Oth. Funding	1	Trade															
Replace Van	Net Cost	34						34	Equip									
PROJECT 805	Gross	65																
Public Works	Oth. Funding	3	Trade															
Replace Traffic Truck	Net Cost	62									62	Equip						
PROJECT 806	Gross	645																
Public Works	Oth. Funding	24	Trade															
Replace Recycling Trucks	Net Cost	621									414	Equip				207	Equip	
PROJECT 807	Gross	650																
Public Works	Oth. Funding	33																
Replace Garbage Truck	Net Cost	617									207	Equip		210	Equip		200 Equip	
PROJECT 808	Gross	60																
Parks	Oth. Funding																	
Stump Grinder	Net Cost	60									60	Equip						
PROJECT 809	Gross	195																
Parks	Oth. Funding	8																
Replace Wide Area Mowers	Net Cost	187									63	Equip					124 Equip	
PROJECT 810	Gross	35																
Water Dept	Oth. Funding	1	Trade															
Replace Van	Net Cost	34									34	Equip						
PROJECT 811	Gross	400																
Public Works	Oth. Funding	30	Trade															
Vactor	Net Cost	370												370	Equip			
	Gross	4712																
	Oth. Funding	160	Trade															
TOTALS	Net Cost	4552	200	0	0	1142	0	0	984	0	0	840	0	0	605	0	0	781

## 2014 - 2018 CAPITAL BUDGET

## FLEET &amp; EQUIPMENT 0300

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit		2014			2015			2016			2017			2018		
				Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 812</b>	Gross	70																
Public Works	Oth. Funding	4	Trade															
Replace Leaf Vac	Net Cost	66															66 Equip	
<b>PROJECT 813</b>	Gross	150																
Parks	Oth. Funding	2																
Replace One Ton Dump	Net Cost	148							75 Equip								73 Equip	
<b>PROJECT 814</b>	Gross	150																
Public Works	Oth. Funding	4	Trade															
Replace Tandem Dump Truck	Net Cost	146																146 Equip

## Reserve Legend:

Equip - Equipment Replacement Reserve

DC PW - Development Charges - Public Works

<b>TOTALS</b>	Gross	5082																
	Oth. Funding	170																
	Net Cost	4912	200	0	0	1217	0	0	984	0	0	840	0	0	744	0	0	927

2014 - 2018 CAPITAL BUDGET      TRAFFIC SIGNALS & CROSSING PROTECTION 0301      All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 137 (0100-13166-0412)</b>	Gross	235															
Repairs at Existing Signalized	Oth. Funding	0															
Intersections	Net Cost	235		75		40			40			40				40	
<b>PROJECT 141</b>	Gross	350															
Woodall & Dundas	Oth. Funding	80															
Traffic Signals & Intersection Const.	Net Cost	270				54		216 DC RD									
dc 216 in study																	
<b>PROJECT 412</b>	Gross	242															
New Traffic Signals	Oth. Funding	0										12		13 Capital		12	13 Capital
Various Locations Based on Warrants	Net Cost	242												96 DC RD			96 DC RD
2016 Dundas & Vansittart																	
2017 - Juliana & Finkle																	
<b>PROJECT 138 (0100-13080-0412)</b>	Gross	120															
New Traffic Signals	Oth. Funding	90															
Montclair Dr. & Juliana Dr.	Net Cost	30										6 Capital		24 DC RD			
<b>PROJECT 686 (0100-13422-0412)</b>	Gross	260															
Rebuild Existing Traffic Signals	Oth. Funding	0															
Dundas & Clarke (2015) Dundas & Beards (2017)	Net Cost	260				130						130					

Reserve Legend

Capital - Reserve for Capital Projects  
DC RD - Development Charges - Roads

TOTALS	Gross	1207																	
	Oth. Funding	170																	
	Net Cost	1037	0	0	75	0	0	224	216	0	0	40	30	0	182	109	0	52	109
			0																



## 2014 - 2018 CAPITAL BUDGET

## ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 142 (0100-13423-0412)	Gross	125																
New Sidewalk Construction	Oth. Funding																	
Various Locations	Net Cost	125			25 FGT			25 FGT			25 FGT			25 FGT		25 FGT		
PROJECT 143 (0100-13424-0412)	Gross	5680																
Asphalt Resurfacing	Oth. Funding				600 Hydro						320 Capital			600 Capital		600 Capital		
Various Locations	Net Cost	5680			840 FGT		120	800 FGT			600 FGT			600 FGT		600 FGT		
PROJECT 144 (0100-13425-0412)	Gross	1100																
Surface Asphalt	Oth. Funding										120 Capital							
Various Locations	Net Cost	1100			180 FGT			200 FGT			100 FGT		140	100 FGT		160		
PROJECT 145 (0100-13170-0412)	Gross	470																
Bridge Rehabilitation & Inspections	Oth. Funding																	
2015 - Springbank Deck Rehab	Net Cost	470					143	107 PIF			25 Capital		170			25 Capital		
PROJECT 414 (0100-00000-0412)	Gross	460																
Brant Street Reconstruction	Oth. Funding	0	400	60														
Wellington Street to Huron Street	Net Cost	460																
PROJECT 499 (0100-00000-0412)	Gross	160																
Fair Street Reconstruction	Oth. Funding	0		160														
Wellington Street to Rivercrest Drive	Net Cost	160																
PROJECT 169 (0100-13329-0412)	Gross	375																
Lyndale Crescent Reconstruction	Oth. Funding	0	200	175														
Sprucedale Road to Dunvegan Street	Net Cost	375																
PROJECT 415 (0100-00000-0412)	Gross	165																
Marlboro Street Reconstruction	Oth. Funding	0		165														
Nelson Street to Dundas Street	Net Cost	165																
PROJECT 416 (0100-00000-0412)	Gross	215																
Nelson Street Reconstruction	Oth. Funding	0		215														
Huron Street to Marlboro Street	Net Cost	215																
PROJECT 497 (0100-00000-0412)	Gross	440																
Sixth Avenue Reconstruction	Oth. Funding	0																
St. Andrews Road to Mill Street	Net Cost	440	300		140 FGT													
PROJECT 153 (0100-13309-0412)	Gross	900																
Springbank Avenue Reconstruction	Oth. Funding	0		200	300 Capital			80 DC RD			320 Capital							
Nellis St to James St (utilities 2014, road 2015)	Net Cost	900																
PROJECT 497 (0100-00000-0412)	Gross	375																
Sydenham Street Reconstruction	Oth. Funding	0		225	150 FGT													
Knightsbridge Road to Nelson Street	Net Cost	375																
Sub-totals	Gross	10465																
	Oth. Funding	0																
	Net Cost	10465	0	900	1200	2235	0	263	1532	0	0	1190	0	310	1325	0	160	1350

**2014 - 2018 CAPITAL BUDGET      ROADS 0303**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 149 (0100-12506-0412)	Gross	40																
Asset Management	Oth. Funding	0																
Road Needs Studies	Net Cost	40					20				20							
PROJECT 687 (0100-13429-0412)	Gross	250																
Video Inspections of Storm Sewers	Oth. Funding	0																
	Net Cost	250			50		50		50		50			50		50		
PROJECT 503 (0100-13246-0412)	Gross	60																
Dundas Street Median Crossover	Oth. Funding	0																
Improvements east of Springbank	Net Cost	60			20		10		20		10							
PROJECT 688 (0100-13431-0412)	Gross	370																
944 James Street Staff Parking Lot	Oth. Funding	0																
	Net Cost	370	50				320											
PROJECT 598 (0100-13336-0412)	Gross	470																
Public Works - SWM	Oth. Funding	0																
	Net Cost	470	20		250	200 Capital												
PROJECT 689	Gross	70																
944 James Street Transit Parking Lot	Oth. Funding	0																
	Net Cost	70					70											
PROJECT 690 (0100-13432-0412)	Gross	140																
Church of Epiphany Parking Lot	Oth. Funding	0				140 PKG												
	Net Cost	140																
PROJECT 691 (0100-13433-0412)	Gross	738																
Warwick Flooding Remediation	Oth. Funding	0																
Construct Flood Mitigation Measures	Net Cost	738			130 Capital		365 Capital		150 Capital		93 Capital							
PROJECT 692 (0100-13434-0412)	Gross	756																
Norwich Flooding Remediation	Oth. Funding	0																
Construct Flood Mitigation Measures	Net Cost	756			96 Capital		225 Capital		190 Capital		20 Capital					225 Capital		
PROJECT 693	Gross	2850																
Southside Pond/Cedar Creek	Oth. Funding	0																
Improvements	Net Cost	2850			160				440		2250							
PROJECT 815	Gross	90																
Peel & Finkle Parking Lot	Oth. Funding	0				35 Pking												
Rehabilitation	Net Cost	90				55 Capital												
PROJECT 596	Gross	30																
Canrobert Storm Sewer Repair	Oth. Funding	0																
	Net Cost	30			30													
Sub-totals	Gross	16329																
	Oth. Funding	0																
	Net Cost	16329	70	900	1710	2891	0	733	2122	0	510	1530	2250	390	1438	0	210	1575

## ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 158 (0100-13089-0412)	Gross	1125																
Downtown Alley Rehabilitation	Oth. Funding	0					600											
	Net Cost	1125	525															
PROJECT 594	Gross	220																
Belgrave Street Reconstruction	Oth. Funding	0				100	120											
Sloane Street to Warwick Street	Net Cost	220																
PROJECT 500	Gross	290																
Northland Crescent Rehabilitation	Oth. Funding	0					290											
Fair Street to Fair Street	Net Cost	290																
PROJECT 588	Gross	455																
Oxford Street Reconstruction	Oth. Funding	0				400	55											
Ingersoll Avenue to Dundas Street	Net Cost	455																
PROJECT 590	Gross	260																
Princess Street Reconstruction	Oth. Funding	0					260											
Wellington Street to York Street	Net Cost	260																
PROJECT 178	Gross	450																
Riddell Street Reconstruction	Oth. Funding	0				400	50											
Devonshire Ave to Ingersoll Ave	Net Cost	450																
PROJECT 496	Gross	205																
Berwick Street Reconstruction	Oth. Funding	0									205							
Cromwell Street to Warwick Street	Net Cost	205																
PROJECT 167	Gross	305																
Briarhill Road Reconstruction	Oth. Funding	0									305							
Sovereign Road to Sprucedale Road	Net Cost	305																
PROJECT 498	Gross	255																
Catherine Street Reconstruction	Oth. Funding	0									255							
Mill Street to end of cul-de-sac	Net Cost	255																
PROJECT 595	Gross	340																
Earlscourt Crescent Reconstruction	Oth. Funding	0								200	140							
Brompton Ave. to Brompton Ave.	Net Cost	340																
PROJECT 164	Gross	340																
Elmwood Crescent Reconstruction	Oth. Funding	0									340							
Alice Street to Alice Street	Net Cost	340																
PROJECT 163	Gross	450																
Fifth Avenue Reconstruction	Oth. Funding	0								350		100 FGT						
Anderson Street to Mill Street	Net Cost	450																
Sub-totals	Gross	21024																
	Oth. Funding	0																
	Net Cost	21024	595	900	1710	2891	900	2108	2122	550	1755	1630	2250	390	1438	0	210	1575

## 2014 - 2018 CAPITAL BUDGET

## ROADS 0303

All Amounts in Thousands of Dollars

Description of Project		Pr. Yr Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 501	Gross	290															
Grosvenor Street Reconstruction	Oth. Funding	0							250	40							
Knightstbridge Rd. to Brompton Ave.	Net Cost	290															
PROJECT 593	Gross	190															
Leinster Street Reconstruction	Oth. Funding	0							100	90							
Devonshire Ave to Grosvenor Street	Net Cost	190															
PROJECT 495	Gross	290															
Sprucedale Road Reconstruction	Oth. Funding	0								290							
Springbank Ave. to Briarhill Road	Net Cost	290															
PROJECT 592	Gross	95															
Beale Street Reconstruction	Oth. Funding	0											95				
Grant Street to Ingersoll Avenue	Net Cost	95															
PROJECT 816	Gross	175															
Brock Street	Oth. Funding	0											175				
Simcoe Street to Broadway Street	Net Cost	175															
PROJECT 694	Gross	140															
Centre Street Reconstruction	Oth. Funding	0											140				
Dundas Street to James Street	Net Cost	140															
PROJECT 817	Gross	90															
Duke Street Reconstruction	Oth. Funding	0											90				
Hunter Street to Dundas Street	Net Cost	90															
PROJECT 818	Gross	495															
Durham Crescent	Oth. Funding	0											495				
Leinster Street to Leinster Street	Net Cost	495															
PROJECT 168	Gross	255															
Elora Road	Oth. Funding	0											255				
Brenda Crescent to Briarhill Road	Net Cost	255															
PROJECT 819	Gross	90															
Givins Street	Oth. Funding	0											90				
Buller Street to Hunter Street	Net Cost	90															
PROJECT 820	Gross	205															
Hatch Street Reconstruction	Oth. Funding	0											205				
Wellington Street to Bay Street	Net Cost	205															
PROJECT 821	Gross	95															
Hayball Street Reconstruction	Oth. Funding	0											95				
Altadore Crescent to Huron Street	Net Cost	95															
Sub-totals	Gross	23434															
	Oth. Funding	0															
	Net Cost	23434	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2030	1438	0	210

## 2014 - 2018 CAPITAL BUDGET      ROADS 0303

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 697</b>	Gross	140															
Hincks Street Reconstruction	Oth. Funding	0												140			
Dundas Street to James Street	Net Cost	140															
<b>PROJECT 822</b>	Gross	150															
John Street Reconstruction	Oth. Funding	0												150			
Norwich Avenue to Teeple Street	Net Cost	150															
<b>PROJECT 823</b>	Gross	105															
King Street Reconstruction	Oth. Funding	0												105			
Wellington Street to Victoria Street	Net Cost	105															
<b>PROJECT 824</b>	Gross	145															
Teeple Street Reconstruction	Oth. Funding	0												145			
Dundas Street to James Street	Net Cost	145															
<b>PROJECT 596</b>	Gross	2295															
Reconstruction/Rehabilitation	Oth. Funding														900	895	500 FGT
Various Street	Net Cost	2295															

## Reserve Legend

Capital - Reserve for Capital Projects

FGT - Federal Gas Tax

DC RD - Development Charges Roads

Pking - Parking Reserve Fund

PIF - Ont Bridge &amp; Infrastructure Grant

TOTAL	Gross	26269																
	Oth. Funding	0																
	Net Cost	26269	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2570	1438	0	900	1105

## 2014 - 2018 CAPITAL BUDGET

## COUNTY RESPONSIBILITY - SANITARY SEWERS

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT NO. 182</b>	Gross	4200		840		840			840			840			840		
Sanitary Sewer Replacement/Repair with road construction	Oth. Funding	4200	County	-840	County	-840	County		-840	County		-840	County		-840	County	
2013-2017 = \$4,200	Net Cost	0															
<b>PROJECT NO. 183</b>	Gross	350		70		70			70			70			70		
Black Pipe Lateral Replacement	Oth. Funding	350	County	-70	County	-70	County		-70	County		-70	County		-70	County	
Miscellaneous + road construction	Net Cost	0															
2013-2017 = \$350																	
<b>PROJECT NO. 600</b>	Gross	80		25		55											
Access Road for Maintenance to S/E Trunk Sanitary Sewer	Oth. Funding	80	County	-25	County	-55	County										
2014 = \$25	Net Cost	0															
2015 = \$55																	
<b>TOTALS</b>	Gross	4,630															
	Oth. Funding	4,630															
	Net Cost	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2014 - 2018 CAPITAL BUDGET      WATERMAINS 0306

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT NO. 184</b>	Gross	4500		900		900			900			900			900		
Watermain Replacement	Oth. Funding	4500	County	-900	County	-900	County		-900	County		-900	County		-900	County	
in conjunction with road work	Net Cost	0															

2014 - 2018 = \$4,500

<b>TOTALS</b>	Gross	4500															
	Oth. Funding	4500															
	Net Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 193 (0100-13435-0412)</b>	Gross	35															
Parkinson Road	Oth. Funding																
Watermain Extension	Net Cost	35			35 Indus												
Commerce Way to CR #4																	
<b>PROJECT 195 (0100-12424-0412)</b>	Gross	15															
Springbank Avenue Widening	Oth. Funding																
Parrott Five/2007557 Ontario	Net Cost	15			15 DC RD												
Lansdowne Meadows																	
<b>PROJECT 700 (0100-13439-0412)</b>	Gross	410															
Storm Pond Rehabilitation	Oth. Funding																
Commerce Way	Net Cost	410			410 Indus												
<b>PROJECT 702 (0100-13441-0412)</b>	Gross	135															
New City Entrance Signage	Oth. Funding																
2013 - Consultant	Net Cost	135		15		60			60								
<b>PROJECT 508 (0100-13341-0412)</b>	Gross	350															
Road Construction	Oth. Funding																
Hartley Farm to Sally Creek	Net Cost	350			50 Capital			300 DC RD									
<b>PROJECT 198 (0100-12507-0412)</b>	Gross	328															
Lunor Group - Bysham Park	Oth. Funding							51 DC RD			35 DC RD						
Frontage Development	Net Cost	328			13 DC RD			41 Capital			188 Capital						
<b>PROJECT 190 (0100-13094-0412)</b>	Gross	30															
Juliana Drive Widening	Oth. Funding																
west of Montclair to Longworth	Net Cost	30									30 DC RD						
<b>PROJECT 192 (0100-12508-0412)</b>	Gross	135															
Woodall & Seagrave Road	Oth. Funding																
Surface Asphalt	Net Cost	135									135 Indus						
Bysham Park Industrial Subdivision																	
<b>PROJECT 187 (0100-13092-0412)</b>	Gross	90															
Thames Development	Oth. Funding																
Road Widening in N/E	Net Cost	90										45 DC RD				45 DC RD	
<b>PROJECT 197 (0100-12510-0412)</b>	Gross	180															
Road Extension	Oth. Funding																
Pattullo Ridge Industrial Park	Net Cost	180														180 Indus	
<b>PROJECT 194 (0100-12423-0412)</b>	Gross	330															
Commerceway Industrial Park	Oth. Funding																
Surface Asphalt	Net Cost	330														330 Indus	
<b>PROJECT 825</b>	Gross	22															
Summit Estates Subdivision (Golda)	Oth. Funding																
Cost Share Street Fronting Parkland	Net Cost	22		2	20 DC RD												
<b>PROJECT 826</b>	Gross	94															
Hartley Farm	Oth. Funding																
Extra 1.5m road widening	Net Cost	94			43 DC RD				26 DC RD			25 DC RD					
	Gross	2154															
	Oth. Funding	0															
<b>Sub-Totals</b>	Net Cost	2154	0	0	17	586	0	60	392	0	60	414	0	0	70	0	555



2014 - 2018 CAPITAL BUDGET      DEVELOPMENT COSTS - 0309

Description of Project and Location	Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 904</b>	Gross	122														
Land Servicing - Mit-Steel	Oth. Funding															
Parkinson Goard	Net Cost	122			122	Indus										

Reserve Legend:

Indus - Industrial Land Reserve Fund  
Capital - Reserve for Capital Projects  
DC RD - Development Charges Roads

TOTALS	Gross	2276																
	Oth. Funding	0																
	Net Cost	2276	0	0	17	708	0	60	392	0	60	414	0	0	70	0	0	555
			0															

2014 - 2018 CAPITAL BUDGET      Cost Recoverable from Developers 0311

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 510 (0100-13443-0412)	Gross	170															
Hartley Farm Street Construction	Oth. Funding																
Non Developer Owned Frontage fronting & off site	Net Cost	170			170 Recov												
PROJECT NO. 607	Gross	435															
Lampman Place Extension	Oth. Funding																
Extend utilities and road from Juliana to Rideau EA 2016	Net Cost	435			110 Recov					70 Recov			255 Recov				
PROJECT 511 (0100-13346-0412)	Gross	1012															
SWM Facility	Oth. Funding																
EA & Construction (by Devonshire & CR #4)	Net Cost	1012			59 Recov			368 Recov		585 Recov							
PROJECT 827	Gross	35															
Hartley Farm Subdivision	Oth. Funding																
Watermain Construction on 11th Line	Net Cost	35			35 Recov												
PROJECT 828	Gross	175															
SAN Servicing to Existing Properties at County Rd 4 and Devonshire	Oth. Funding																
	Net Cost	175			25 Recov			150 Recov									
Reserve Legend:																	
Recov - Reserve Recoverable From Developers																	

Reserve Legend:

Recov - Reserve Recoverable From Developers

2014 - 2018 CAPITAL BUDGET STREET LIGHTING 0308

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 205 (0100-13348-0412)	Gross	402																
Replace Street Lights	Oth. Funding																	
Miscellaneous Locations	Net Cost	402			107 St Lt			115 St Lt			60 St Lt			60 St Lt		60 St Lt		
PROJECT 206 (0100-13098-0412)	Gross	2850																
Energy Efficient Street Lights	Oth. Funding							650 Hydro			650 Hydro			650 Hydro		650 Hydro		
Test Program - and implementation in residential & industrial areas	Net Cost	2850		50				50 FGT			50 FGT			50 FGT		50 FGT		
PROJECT 705(0100-13446-0412)	Gross	210																
New Street Lights on Devonshire	Oth. Funding				182 DC RD													
2014 - Woodall to County Rd 4	Net Cost	210			28 Capital													
Dc in study 109600 not 210																		
PROJECT NO. 611	Gross	110																
Street Light Replacement	Oth. Funding																	
Dundas Street	Net Cost	110			110 St Lt													
between Huron & Beale																		
PROJECT 513	Gross	115																
Street Lights on CR #4	Oth. Funding																	
Dundas Street to Lansdowne Avenue	Net Cost	115						60 St Lt			55 St Lt							
PROJECT 829	Gross	80																
Replace SLs on Dundas between	Oth. Funding																	
11th Line and train track overpass	Net Cost	80		80														
Reserve Legend:																		
St Lt - Street Light Reserve Fund																		
FGT - Federal Gas Tax																		
Hydro - Hydro Reserve Fund																		
	Gross	3767																
	Oth. Funding	0																
TOTALS	Net Cost	3767	0	0	130	427	0	0	875	0	0	815	0	0	760	0	0	760
			0															

**2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 208 (0100-12189-0412)	Gross	150																
General Heating Repairs	Oth. Funding	0																
All Buildings	Net Cost	150			30 Mun B			30 Mun B			30 Mun B			30 Mun B		30 Mun B		
PROJECT 209 (0100-12795-0412)	Gross	100																
General Roof Repairs	Oth. Funding	0																
All Buildings	Net Cost	100			20 Mun B			20 Mun B			20 Mun B			20 Mun B		20 Mun B		
PROJECT 210 (0100-13012-0412)	Gross	100																
Masonry Repairs	Oth. Funding	0																
All Buildings	Net Cost	100			20 Mun B			20 Mun B			20 Mun B			20 Mun B		20 Mun B		
PROJECT 830	Gross	6																
City Hall - repair stair treads	Oth. Funding	0																
	Net Cost	6			6 Mun B													
PROJECT 831	Gross	5																
City Hall - Interior door	Oth. Funding	0																
Replacement	Net Cost	5			5 Mun B													
PROJECT 433	Gross	150																
Southside Pool -	Oth. Funding	0																
Basin and Deck Retrofit	Net Cost	150			150 Mun B													
PROJECT 832	Gross	75																
Southside Pool - resurface	Oth. Funding	0																
parking lot	Net Cost	75								75 Mun B								
PROJECT NO. 618	Gross	100												10 Mun B				
Southside Pool - 2nd Floor	Oth. Funding	0												90 DCRE				
Addition	Net Cost	100																
PROJECT 707	Gross	32																
Southside Pool - Replace pool heater	Oth. Funding	0																
	Net Cost	32			32 Mun B													
PROJECT 708	Gross	120																
Southside Pool - storage room	Oth. Funding	0			108 DCRE													
Addition	Net Cost	120			12 Mun B													
PROJECT 833	Gross	30																
Southside Pool - interior doors	Oth. Funding	0																
and power operators	Net Cost	30			15 Mun B			15 Mun B										
PROJECT 834	Gross	50																
Public Works - reroof	Oth. Funding	0																
salt dome	Net Cost	50			50 Mun B													
PROJECT NO. 621	Gross	50																
Engineering - Generator	Oth. Funding	0																
	Net Cost	50						50 Mun B										
Sub-totals	Gross	968																
	Oth. Funding	0																
	Net Cost	968	0	0	0	448	0	0	135	0	0	145	0	0	170	0	0	70

**2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310**

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 835</b>	Gross	40															
Public Works - garage	Oth. Funding	0															
exhaust ventilation upgrades	Net Cost	40			40 Mun B												
<b>PROJECT 712</b>	Gross	795															
Public Works- New Storage building	Oth. Funding	0												312 DCPW			
	Net Cost	795						50 Mun B						433 Capital			
<b>PROJECT 713</b>	Gross	850															
Public Works - engineering 2nd storey	Oth. Funding	0															
addition and interior renovations	Net Cost	850						75 Mun B						775 DCPW			
<b>PROJECT 714 (0100-13453-0412)</b>	Gross	660															
Public Works - New wash building	Oth. Funding	0															
	Net Cost	660			60 Mun B			241 DCPW						359 Capital			
<b>PROJECT 836</b>	Gross	75															
Southside Park - Kinsmen	Oth. Funding	0															
Building renovation	Net Cost	75						75 Mun B									
<b>PROJECT 837</b>	Gross	10															
Southside Park - Demolish	Oth. Funding	0															
20x30 Parks storage building	Net Cost	10			10 Mun B												
<b>PROJECT 838</b>	Gross	25															
Museum - Camera and	Oth. Funding	0															
Security system	Net Cost	25			16 Fundr			9 Mun B									
<b>PROJECT 839</b>	Gross	350															
Museum - shingle roof	Oth. Funding	0															
repalcement	Net Cost	350												350 Mun B			
<b>PROJECT 840</b>	Gross	45															
Market Centre- shingle roof	Oth. Funding	0															
replacement south side of building	Net Cost	45												45 Mun B			
<b>PROJECT 841</b>	Gross	10															
Market Centre - Interior Renovations	Oth. Funding	0															
	Net Cost	10			10 Mun B												
<b>PROJECT 723</b>	Gross	80															
Southgate Centre- HVAC RTU	Oth. Funding	0															
Replacements	Net Cost	80			20 Mun B			20 Mun B				20 Mun B			20 Mun B		
<b>PROJECT 526 (0100-13402-0412)</b>	Gross	210															
Library	Oth. Funding	0															
Front Façade Restoration	Net Cost	210	10					100 Capital						100 Mun B			
<b>Sub-totals</b>	Gross	4118															
	Oth. Funding	0															
	Net Cost	4118	10	0	0	813	0	0	955	0	0	2080	0	0	190	0	70

2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018				
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		
PROJECT 842	Gross	40																	
Southgate Centre - main hall	Oth. Funding	0																	
floor replacement	Net Cost	40												40	Mun B				
PROJECT 843	Gross	40																	
Southgate Centre - accessibility	Oth. Funding	0																	
upgrades	Net Cost	40												40	Mun B				
PROJECT 725	Gross	25																	
Community Services Office	Oth. Funding	0																	
HVAC RTU replacement	Net Cost	25														25	Mun B		
PROJECT 245	Gross	165																	
Community Complex	Oth. Funding	0																	
Additional Parking	Net Cost	165														165	Capital		
PROJECT 726	Gross	200																	
Community Complex	Oth. Funding	0																	
Elevator renovation	Net Cost	200														200	Mun B		
PROJECT 844	Gross	25																	
Community Complex	Oth. Funding	0																	
Ventilation upgrades	Net Cost	25														25	Mun B		
PROJECT 845	Gross	50																	
Community Complex - HVAC	Oth. Funding	0																	
Automation controls	Net Cost	50														50	Mun B		
PROJECT 846	Gross	550																	
Carnegie Wing Exterior Restoration	Oth. Funding	0																	
Library	Net Cost	550															550		
PROJECT 730 (0100-13468-0412)	Gross	40																	
Community Complex - Green pad	Oth. Funding	0																	
efficient lighting upgrades	Net Cost	40														40	FGT		
PROJECT 731 (0100-13469-0412)	Gross	100																	
Community Complex - Red pad	Oth. Funding	0																	
efficient lighting upgrades	Net Cost	100														100	FGT		
PROJECT 252	Gross	800																	
Civic Centre	Oth. Funding	0																	
Rink Floor & Board Replacement	Net Cost	800														800	Capital		
PROJECT 732 (0100-13470-0412)	Gross	30																	
Day Nursery -	Oth. Funding	0																	
HVAC Roof Top Replacement	Net Cost	30														30	DayN		
Sub-totals	Gross	6183																	
	Oth. Funding	0																	
	Net Cost	6183	10		0	0	1033	0	0	1205	0	0	3125	0	0	190	0	550	70

2014 - 2018 CAPITAL BUDGET      NEW BUILDINGS, REPAIRS & MAINTENANCE 0310

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 275</b>	Gross	5030															
Police Station Addition	Oth. Funding																
	Net Cost	5030	30			95 DCWP	4366		539	PF							
<b>PROJECT 847</b>	Gross	5															
Fire Hall - Parkinson Road	Oth. Funding	0															
roof access	Net Cost	5				5 Mun B											
<b>PROJECT 428 (0100-13371-0412)</b>	Gross	26															
Fire Halls - General Painting	Oth. Funding	0															
	Net Cost	26				13 Mun B								13 Mun B			
<b>PROJECT 735 (0100-13473-0412)</b>	Gross	95															
Paint/carpet/blinds - City Hall	Other	0															
	Net Cost	95				25 Mun B			30 Mun B					40 Mun B			
<b>PROJECT 848</b>	Gross	10															
Southgate Centre Fitness Room	Other	0															
Renovation	Net Cost	10				10 Mun B											

Reserve Legend

Mun B - Reserve for Repairs to Municipal Buildings  
DC Rec - Development Charges - Recreation  
Capital - Reserve for Capital Projects  
DC PW - Development Charges - Public Works  
DC WP - Development Charges - Woodstock Police  
Fundr- Museum Fundraising Reserve Fund  
DayN - Complex - Day Nursery & Gym Club Trust  
PF - Invest In Ontario

	Gross	11349																
	Oth. Funding	0																
TOTALS	Net Cost	11349	40	0	0	1181	4366	0	1774	0	0	3178	0	0	190	0	550	70

2014 - 2018 CAPITAL BUDGET TRANSIT 0709

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 280 (0100-13376-0412)	Gross	60																
New Bus Shelters	Oth. Funding				30 PGT			30 PGT										
	Net Cost	60																
PROJECT 738 (0100-13475-0412)	Gross	40																
AODA Bus Stop Improvements	Oth. Funding			10			10			10 DCTR			10 DCTR					
	Net Cost	40																
PROJECT 739	Gross	185																
Para Transit Bus	Oth. Funding									185 PGT								
Replace P8	Net Cost	185																
PROJECT 740	Gross	492																
Bus Replacement	Oth. Funding				400 PGT													
Replace #14 - 1976	Net Cost	492			92 DCTR													
PROJECT 750	Gross	487																
Bus Replacements	Oth. Funding	0						400 PGT										
(replace #4-1989 MCI)	Net Cost	487						87 Equip										
PROJECT NO. 536	Gross	138																
Refurbish City Bus	Oth. Funding	0										138 PGT						
(#3-2006 Nova)	Net Cost	138																
PROJECT NO. 282	Gross	450																
Electronic Fare System	Oth. Funding	0															400 PGT	
	Net Cost	450													50			
PROJECT 751	Gross	142																
Refurbish City Bus	Oth. Funding													142 PGT				
(#5-2005 Nova)	Net Cost	142																
PROJECT 849	Gross	142																
Refurbish City Bus	Oth. Funding																142 PGT	
(#6-2008 Nova)	Net Cost	142																
Reserve Legend																		
PGT - Provincial Gas Tax																		
DCTR - Development Charges Transit																		
Equip - Equipment Replacement Reserve																		
	Gross	2136																
	Oth. Funding	0																
TOTALS	Net Cost	2136	0	0	10	522	0	10	517	0	0	333	0	0	152	0	50	542



**2014 - 2018 CAPITAL BUDGET FIRE DEPARTMENT 0400**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 286 (0100-12555-0412)	Gross	25																
Equipment for back up Dispatch & 911 PSAP	Oth. Funding																	
	Net Cost	25			5	Capital		5	Capital		5	Capital		5	Capital	5	Capital	
PROJECT 850	Gross	6																
Additional Security Cameras for Parkinson Road & Van Ave	Oth. Funding																	
	Net Cost	6			6	Capital												
PROJECT 851	Gross	5																
Replacement Positive pressure fan (Supression operations)	Oth. Funding																	
	Net Cost	5		5														
PROJECT 852	Gross	12																
Replacement Thermal Imaging Camer (Supression Operations)	Oth. Funding																	
	Net Cost	12					12											
PROJECT 853	Gross	22																
Air monitoring Device Repacement (Incident Operations)	Oth. Funding																	
	Net Cost	22		3			8				3			8				
PROJECT 757 (0100-13479-0412)	Gross	9																
Electronic Fire Safety Messages in front of both stations/station signage Van Ave 2013 PR 2015	Oth. Funding																	
	Net Cost	9					9											
PROJECT 854	Gross	6																
Responder Powered Air Purifying Respirator	Oth. Funding																	
(Fire Inspection and Investigation )	Net Cost	6		6														
PROJECT 855	Gross	4																
Remote Area Lighting (2)	Oth. Funding																	
(Fire Prevention and Investigation)	Net Cost	4		4														
PROJECT (additional funding )	Gross	125																
Fire Department Records Mgt. System and CAD interface with dispatch infrastructure	Oth. Funding																	
	Net Cost	125	75		50													
PROJECT 760	Gross	10																
Mobile Air-Filling Station for Trailer	Oth. Funding																	
	Net Cost	10		10														
PROJECT 856	Gross	4																
Replacement Ventilations Saw (Incident Operations)	Oth. Funding																	
	Net Cost	4		4														
PROJECT 762	Gross	30																
BlueCard Command w/ Sim Lab VHS to DVD Converting Device	Oth. Funding																	
	Net Cost	30		30														
PROJECT 291 (0100-13277-0412)	Gross	665																
Replace Fire Appartus Tanker \920160 Tk# 92-01 (2018)	Oth. Funding																	
	Net Cost	665									250	DC Fire				415 Fire		
	Gross	923																
	Oth. Funding	0																
Sub-totals	Net Cost	923	75	0	112	11	0	29	5	0	0	255	0	3	5	0	8	420
			0															

2014 - 2018 CAPITAL BUDGET FIRE DEPARTMENT 0400

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 542 (0100-13382-0412)</b>	Gross	60															
Replacement Extrication Tools	Oth. Funding																
	Net Cost	60	15		15	Capital					15	Capital			15	Capital	
<b>PROJECT 785</b>	Gross	20															
County Road 4 Water Access	Oth. Funding																
Partner with UTRCA	Net Cost	20					20										
<b>PROJECT 763</b>	Gross	7															
Training Props Vehicle Fire	Oth. Funding				7	Capital											
	Net Cost	7															
<b>PROJECT 742</b>	Gross	8															
Hose Dryer	Oth. Funding																
	Net Cost	8					8										
<b>PROJECT 547</b>	Gross	25															
Changeable Box Insert for Trucks	Oth. Funding																
	Net Cost	25						25	Capital								
<b>PROJECT 744</b>	Gross	22															
Bunker Gear Extractor	Oth. Funding																
	Net Cost	22						11	Capital		11	Capital					
<b>PROJECT NO. 288</b>	Gross	390															
Traffic Priority Control System	Oth. Funding																
	Net Cost	390												200	Capital	190	
<b>PROJECT 857</b>	Gross	44															
Raise interior doorway height	Oth. Funding																
at Parkinson Rd facility (H&S)	Net Cost	44					44										
<b>PROJECT 858</b>	Gross	60															
Training Building/Shelter for	Oth. Funding																
evelutions and indoor storage	Net Cost	60						60	Capital								
(Parkinson Road ) 40'x60' approx.																	

Reserve Legend

Capital - Reserve For Capital Projects  
 Fire - Reserve for Replacement of Fire Equipment  
 DC Fire - Develop Charges - Fire

	Gross	1559															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	1559	90	0	112	33	0	101	101	0	0	281	0	3	205	0	435

**2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 292 (0100-12062-0412)	Gross	100		20			20			20			20			20	
Parks Drives & Parking Areas	Oth. Funding	0															
	Net Cost	100															
PROJECT 294 (0100-12900-0412)	Gross	710		100	90 Parks		100			140			140			140	
Play Structure Improvements	Oth. Funding	0															
Armstrong/Eastdale (2014)	Net Cost	710															
Safety Surfaces																	
PROJECT 296 (0100-12978-0412)	Gross	110		2	20 DCRE		2	20 DCRE		2	20 DCRE		2	20 DCRE		2	20 DCRE
Park Furnishings - Various Parks	Oth. Funding	0															
Benches, Picnic Tables, Bleachers	Net Cost	110															
Various Parks and Sportsfeilds																	
PROJECT 859	Gross	25			25 Ball D												
Ball Diamond Storage Boxes	Oth. Funding	0															
Cage & Safety Fencing	Net Cost	25															
PROJECT 301 (0100-12904-0412)	Gross	40			8 Land 4			8 Land 4			8 Land 4			8 Land 4			8 Land 4
Naturalization Project - Various	Oth. Funding	0															
Parks and SWM ponds	Net Cost	40															
PROJECT 860	Gross	46		46													
Park Row Park Atheltic Pad Renewal	Oth. Funding	0															
	Net Cost	46															
PROJECT 304 (0100-12906-412)	Gross	55		11			11			11			11			11	
Park Signage - Various	Oth. Funding	0															
	Net Cost	55															
PROJECT 305 (0100-12708-0412)	Gross	75		15			15			15			15			15	
Small Equipment Replacement	Oth. Funding	0															
Weed-Eaters, Mowers, Saws	Net Cost	75															
PROJECT 861	Gross	21		21													
Skatepark Cameras & Ammenities	Oth. Funding	0															
Cement Work	Net Cost	21															
PROJECT 312 (0100-13143-0412)	Gross	125			23 DCRE			23 DCRE			23 DCRE			23 DCRE			23 DCRE
Trail Development	Oth. Funding	0			2 FGT			2 FGT			2 FGT			2 FGT			2 FGT
	Net Cost	125															
PROJECT 862	Gross	70			70 Parks												
131 Dundas Property Improvement	Oth. Funding	0															
	Net Cost	70															
PROJECT 321 (0100-12721-0412)	Gross	50		10			10			10			10			10	
Upgrade Sports Fields	Oth. Funding	0															
Bleachers, Turf, Surfacing Material	Net Cost	50															
Sub-totals	Gross	1427															
	Oth. Funding	0															
	Net Cost	1427	0	0	225	238	0	0	158	53	0	0	198	53	0	198	53
			0														

**2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701**

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018			
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	
PROJECT 863	Gross	46						46										
Cowan Park Paving	Oth. Funding	0																
	Net Cost	46																
PROJECT 557 (0100-13293-0412)	Gross	14																
Sportsfield Lighting	Oth. Funding	0																
Sutherlands-2015; Brompton 2016	Net Cost	14						7		7								
PROJECT 559 (0100-13295-0412)	Gross	22																
Irrigation Sensor/Controller	Oth. Funding	0			6			4		4			4			4		
Museum, Gazebo, Sportsfield	Net Cost	22																
PROJECT 864	Gross	6			6													
Cowan Garden Front Entrance	Oth. Funding	0																
	Net Cost	6																
PROJECT 644 (0100-13390-0412)	Gross	8								4						4		
Tennis Net Replacement -	Oth. Funding	0																
Various Courts	Net Cost	8																
PROJECT 313 (0100-12464-0412)	Gross	10										5				5		
Molok Deep Collection System	Oth. Funding	0																
	Net Cost	10																
PROJECT 473 (0100-13217-0412)	Gross	473																
Park Development	Oth. Funding	0				203 DCRE												
David Lowes Memorial Park (2014)	Net Cost	473				22 Capital			112 DCRE				112 DCRE					
Senator Homes Park (2015)									12 Capital				12 Capital					
Springbank/Halifax Park (2016)																		
PROJECT 318	Gross	310																
Pedestrian Bridges over Thames	Oth. Funding	0	FGT		10	50 DCRE		60	90 DCRE				24 FGT					
Connecting Lions & Burgess Parks	Net Cost	310											76 DCRE					
EA - 2014; Build 2015 & 2016																		
PROJECT 865	Gross	19																
Safety Fencing & Gate Cowan	Oth. Funding	0			19													
	Net Cost	19																
PROJECT NO. 647	Gross	66																
Rehabilitation of Gazebo Gardens-	Oth. Funding	0																
SS Park	Net Cost	66						66										
PROJECT 866	Gross	20			20													
Covered Picnic Shelter	Oth. Funding	0																
	Net Cost	20																
PROJECT 867	Gross	17			8			9										
Security Camera Main washroom	Oth. Funding	0																
2015 Cadet Bldg - Southside Park	Net Cost	17																
Sub-totals	Gross	2438																
	Oth. Funding	0																
	Net Cost	2438	0	0	294	513	0	350	267	0	218	277	0	202	53	0	211	53

2014 - 2018 CAPITAL BUDGET      PARKS DEPARTMENT 0701

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 868</b>	Gross	15			15												
Southwood Sportsfeild	Oth. Funding	0															
Accessible Walkway	Net Cost	15															
<b>PROJECT 869</b>	Gross	10			10												
Special Events Hydro Upgrade	Oth. Funding	0															
	Net Cost	10															
<b>PROJECT 870</b>	Gross	22						22									
Replace Hard Surfacing Park	Oth. Funding	0															
Complex Washroom	Net Cost	22															
<b>PROJECT 871</b>	Gross	30															
Complex Lookout - Replace	Oth. Funding	0															
Cement Work	Net Cost	30	15					15									
<b>PROJECT 905</b>	Gross	70															
Tree Planting in New Subdivisions	Oth. Funding	0															
	Net Cost	70															
						70	St. Tr										

Reserve Legend

Capital - Reserve for Capital Projects  
Parks - Parks & Open Spaces Reserve  
Land 4 - Land for Public Purposes  
DCRE - Development Charges Recreation  
FGT - Federal Gas Tax  
Ball D - Ball Diamond ReserveFund  
St Tr - Street Tree Reserve Fund

	Gross	2585																
	Oth. Funding	0																
TOTALS	Net Cost	2585	15	0	319	583	0	387	267	0	218	277	0	202	53	0	211	53
			0															

2014 - 2018 CAPITAL BUDGET

SOUTHSIDE AQUATIC CENTRE 0705  
LIONS POOL 0706

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>PROJECT 872</b>	Gross	15															
Pool Deck Anti Slip Resurfacing	Oth. Funding																
	Net Cost	15		15													
<b>Project 771</b>	Gross	20					20										
Splash Park minor future renewal	Oth. Funding																
	Net Cost	20															
	Gross	35															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	35	0	15	0	0	20	0	0	0	0	0	0	0	0	0	0

## 2014 - 2018 CAPITAL BUDGET

COMMUNITY COMPLEX 0708  
& CIVIC CENTRE

All Amounts in Thousands of Dollars

Description of Project and Location			Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
				Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 873	Gross	25		25														
Fanshawe Walkway	Oth. Funding																	
Replace Brickwork	Net Cost	25																
Project 774	Gross	90						90	Equip									
Ice Resurfacer	Oth. Funding																	
	Net Cost	90																
Project 775	Gross	10		10														
Goff Hall Tables	Oth. Funding																	
	Net Cost	10																
Project 776	Gross	25		25														
Civic Replace 30hp Mycom	Oth. Funding																	
Condensor	Net Cost	25																
Project 777	Gross	15								15								
Lift Truck	Oth. Funding																	
	Net Cost	15																
Project 778	Gross	25																
Rubber Flooring	Oth. Funding										25							
	Net Cost	25																
Project 779	Gross	6					6											
Goff Hall replace front load coolers	Oth. Funding																	
	Net Cost	6																
Project 780	Gross	735					27	8	Carena				700					
Complex Refrigeration Retro-fit	Oth. Funding																	
	Net Cost	735																
Project 781	Gross	18					18											
Complex remove parking lot islands	Oth. Funding																	
	Net Cost	18																
Project 782	Gross	40											40					
Red pad Score Clock	Oth. Funding																	
	Net Cost	40																
Project 874	Gross	4		4														
Complex Green Pad Safety Netting	Oth. Funding																	
	Net Cost	4																
Project 875	Gross	40														40		
Red Pad Painting	Oth. Funding																	
	Net Cost	40																
	Gross	1033																
	Oth. Funding	0																
TOTALS	Net Cost	1033	0	0	64	0	0	51	98	0	40	0	0	740	0	0	40	0
			0															

2014 - 2018 CAPITAL BUDGET

COMMUNITY COMPLEX 0708  
& CIVIC CENTRE

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 876</b>	Gross	15				15											
Complex Painting Main Dressing Room	Oth. Funding																
	Net Cost	15															
<b>Project 878</b>	Gross	25				25											
Complex Green Pad players benches	Oth. Funding																
(Improve spectator seating)	Net Cost	25															

Reserve Legend

Equip - Equipment Replacement Res  
Carena - Complex Arena Trust Fund

	Gross	1073																
	Oth. Funding	0																
TOTALS	Net Cost	1073	0	0	64	0	0	91	98	0	40	0	0	740	0	0	40	0
			0															



2014 - 2018 CAPITAL BUDGET      ART GALLERY 0709

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
PROJECT 330 (0100-12292-0412) Art Acquisition	Gross	50															
	Oth. Funding																
	Net Cost	50			10	Art		10	Art		10	Art		10	Art		10

Reserve Fund Code:

Art - Art Acquisition

<b>TOTALS</b>	Gross	50															
	Oth. Funding	0															
	Net Cost	50	0	0	10	0	0	10	0	0	10	0	0	10	0	0	10

2014- 2018 CAPITAL BUDGET LIBRARY - 1000

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			2018		
			Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
<b>Project 879</b>	Gross	5															
Rebuild Security Camera At Front of Building	Oth. Funding																
	Net Cost	5		5													
<b>Project 890</b>	Gross	15															
CEO/Admin Furniture - Workstation & Storage	Oth. Funding																
	Net Cost	15		15													
<b>Project 891</b>	Gross	26															
Display Furniture - Children's & Adult Depts., Lobby	Oth. Funding																
	Net Cost	26			26			Marg Toon Reserve Fund									
<b>Project 892</b>	Gross	4															
Early Childhood Literary Station Peripherals	Oth. Funding																
	Net Cost	4			4			Jessie MacDougal Trust Fund									
<b>Project 893</b>	Gross	3															
Shelving - Children's Dept For customers using laptops	Oth. Funding																
	Net Cost	3			3			Jessie MacDougal Trust Fund									
<b>Project 894</b>	Gross	3															
Wireless Access Point	Oth. Funding																
	Net Cost	3		3													
<b>Project 895</b>	Gross	8															
E- Government - Tablets	Oth. Funding																
	Net Cost	8		8													
<b>Project 896</b>	Gross	5															
Computers & Peripherals	Oth. Funding																
	Net Cost	5		5													
<b>PROJECT 666 (0100-13496-0412)</b>	Gross	30															
Library Expansion Feasibility Study	Oth. Funding																
	Net Cost	30		3	27			Development Charges - Library									
	Gross	99															
	Oth. Funding	0															
<b>TOTALS</b>	Net Cost	99	0	0	39	60	0	0	0	0	0	0	0	0	0	0	0

2014 - 2018 CAPITAL BUDGET

POLICE SERVICES BOARD

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 897</b>	Gross	50																
E-Fingerprint System	Oth. Funding																	
	Net Cost	50						50										Capital
<b>Capital - Reserve for Capital Projects</b>																		
	Gross	50																
	Oth. Funding	0																
<b>TOTALS</b>	Net Cost	50	0	0	0	50	0	0	0	0	0	0	0	0		0	0	0

## 2014 - 2018 CAPITAL BUDGET

## STRATEGIC PLAN INIATIVES

All Amounts in Thousands of Dollars

Description of Project and Location		Pr. Yr. Exp. Or Commit	2014			2015			2016			2017			Res Name	2018		
			Debent	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves		Debent.	Revenue	Reserves
<b>PROJECT 898</b>	Gross	10																
Promotional Kiosk	Oth. Funding																	
	Net Cost	10		10														
<b>PROJECT 139 (0100-13323-0412)</b>	Gross	300																
Pedestrian Traffic Signals	Oth. Funding	0																
IPS signals as warranted	Net Cost	300							44		56 DC RD	20		80 DC RD		20		80 DC RD
<b>PROJECT 899</b>	Gross	550																
Cycle Master Plan Routes	Oth. Funding	0																
Phase 1 Implementation	Net Cost	550			67 FGT			88 FGT			100 FGT			130 FGT				165 FGT
<b>PROJECT 900</b>	Gross	300																
Juliana & Springbank Intersection	Oth. Funding																	
Improvements (EA and Construction)	Net Cost	300		70			30		200									
<b>PROJECT 189 (0100-12509-0412)</b>	Gross	7300																
Devonshire B&I Park	Oth. Funding																	
Roads & Grading	Net Cost	7300	1602		98 DC RD			2100			2716			84 DC RD		700		
<b>PROJECT 711</b>	Gross	2000																
Public Works Improvements	Oth. Funding	0																
Bulk and HHW depot	Net Cost	2000						100 Mun B	1900									
<b>PROJECT 901</b>	Gross	100																
Public Works - Recycling building	Oth. Funding	0																
renovations - fencing & depot	Net Cost	100			15 Mun B			50 Mun B			35 Mun B							
<b>PROJECT 902</b>	Gross	400																
Art Gallery - third floor	Oth. Funding	0																
renovations	Net Cost	400			400 Capital													
<b>PROJECT 736</b>	Gross	500																
495 Dundas Street - Renovations	Other	0																
	Net Cost	500			500 Capital													
<b>PROJECT 552 (0100-13386-0412)</b>	Gross	7565																
Complex Development Former	Oth. Funding	0																
Woodall Farm - Phase 1 - Adult Slo	Net Cost	7565	120		435 DCRE	950		3150 DCRE	62		498 DCRE	1914		436 DCRE				
Pitch Complex & land servicing			0															
<b>PROJECT 903</b>	Gross	50																
Museum - Floor in Grand Hall	Oth. Funding	0																
	Net Cost	50		50														
<b>Reserve Legend:</b> DC Rd - Development Charges - Road FGT - Federal Gas Tax DCRE - Development Charges - Recreation Capital - Reserve for Capital Projects MunB - Reserve for Repairs to Municipal Buildings																		
<b>TOTALS</b>	Gross	19075																
	Oth. Funding	0																
	Net Cost	19075	120	1602	130	1515	950	30	3388	4000	306	689	4630	20	730	700	20	245

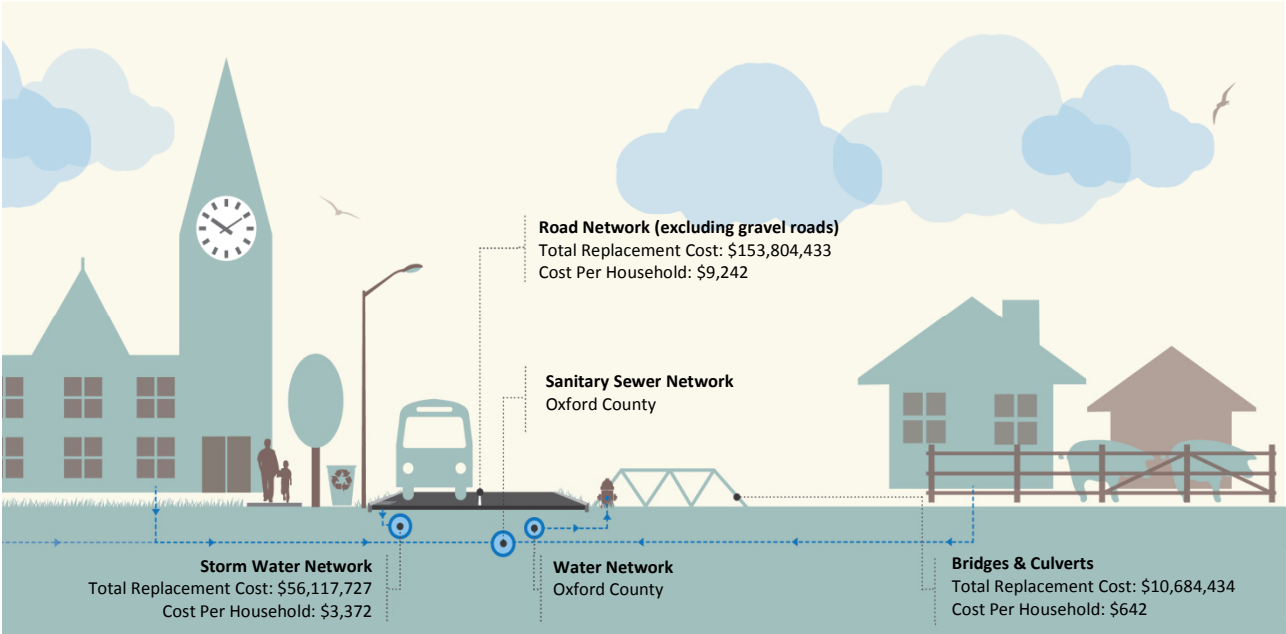
2014 - 2018 CAPITAL BUDGET

All Amounts in Thousands of Dollars

Department	Other Funding			Pr. Yr. Exp/Commit	2014			2015			2016			2017			2018		
	Gross	Sources	Net		Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves	Debent.	Revenue	Reserves
COMPUTER EQUIPMENT	1357	0	1357	0	0	0	336	0	0	183	0	0	278	0	0	244	0	0	316
FLEET & EQUIPMENT	5082	170	4912	200	0	0	1217	0	0	984	0	0	840	0	0	744	0	0	927
TRAFFIC SIGNALS & CROSSING PROTECT.	1207	170	1037	0	0	75	0	0	224	216	0	40	30	0	182	109	0	52	109
ROADS	26269	0	26269	595	900	1710	2891	900	2108	2122	900	2175	1630	2250	2570	1438	900	1105	2075
<b>SANITARY SEWER - COUNTY</b>	<b>4630</b>	<b>4630</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WATERMAINS - COUNTY</b>	<b>4500</b>	<b>4500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
STREET LIGHTING	3767	0	3767	0	0	130	427	0	0	875	0	0	815	0	0	760	0	0	760
DEVELOPMENT COSTS	2276	0	2276	0	0	17	708	0	60	392	0	60	414	0	0	70	0	0	555
Recoverable from Future Development	1,827	-	1,827	-	-	-	399	-	-	518	-	-	655	-	-	255	-	-	0
NEW BUILDINGS, REPAIRS & MAINTENANC	11349	0	11349	40	0	0	1181	4366	0	1774	0	0	3178	0	0	190	0	550	70
FIRE DEPARTMENT	1559	0	1559	90	0	112	33	0	101	101	0	0	281	0	3	205	0	198	435
PARKS DEPARTMENT	2585	0	2585	15	0	319	583	0	387	267	0	218	277	0	202	53	0	211	53
SOUTHSIDE AQUATIC CENTRE	35	0	35	0	0	15	0	0	20	0	0	0	0	0	0	0	0	0	0
TRANSIT	2136	0	2136	0	0	10	522	0	10	517	0	0	333	0	0	152	0	50	542
COMMUNITY COMPLEX	1073	0	1073	0	0	64	0	0	91	98	0	40	0	0	740	0	0	40	0
ART GALLERY	50	0	50	0	0	0	10	0	0	10	0	0	10	0	0	10	0	0	10
LIBRARY	99	0	99	0	0	39	60	0	0	0	0	0	0	0	0	0	0	0	0
POLICE SERVICES	50	0	50	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>69,851</b>	<b>9,470</b>	<b>60,381</b>	<b>940</b>	<b>900</b>	<b>2,491</b>	<b>8,417</b>	<b>5,266</b>	<b>3,001</b>	<b>8,057</b>	<b>900</b>	<b>2,533</b>	<b>8,741</b>	<b>2,250</b>	<b>3,697</b>	<b>4,230</b>	<b>900</b>	<b>2,206</b>	<b>5,852</b>
<b>Strategic Plan Initiatives</b>	<b>19,075</b>	<b>-</b>	<b>19,075</b>	<b>120</b>	<b>1,602</b>	<b>130</b>	<b>1,515</b>	<b>950</b>	<b>30</b>	<b>3,388</b>	<b>4,000</b>	<b>306</b>	<b>689</b>	<b>4,630</b>	<b>20</b>	<b>730</b>	<b>700</b>	<b>20</b>	<b>245</b>
<b>Grand Total</b>	<b>88,926</b>	<b>9,470</b>	<b>79,456</b>	<b>1,060</b>	<b>2,502</b>	<b>2,621</b>	<b>9,932</b>	<b>6,216</b>	<b>3,031</b>	<b>11,445</b>	<b>4,900</b>	<b>2,839</b>	<b>9,430</b>	<b>6,880</b>	<b>3,717</b>	<b>4,960</b>	<b>1,600</b>	<b>2,226</b>	<b>6,097</b>

Infrastructure Replacement Cost Per Household

Total: \$13,256 per household



Daily Investment Required Per Household for Infrastructure Sustainability

