



OPERATIONS COMMITTEE AGENDA

Operations Committee Meeting
Monday, July 6, 2015
Tom Davies Square

COUNCILLOR ROBERT KIRWAN, CHAIR

Evelyn Dutrisac, Vice-Chair

9:30 A.M. OPERATIONS COMMITTEE MEETING
COUNCIL CHAMBER

Council and Committee Meetings are accessible. For more information regarding accessibility, please call 3-1-1 or email clerks@greatersudbury.ca.

DECLARATIONS OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF

CONSENT AGENDA

(For the purpose of convenience and for expediting meetings, matters of business of repetitive or routine nature are included in the Consent Agenda, and all such matters of business contained in the Consent Agenda are voted on collectively.

A particular matter of business may be singled out from the Consent Agenda for debate or for a separate vote upon the request of any Councillor. In the case of a separate vote, the excluded matter of business is severed from the Consent Agenda, and only the remaining matters of business contained in the Consent Agenda are voted on collectively.

Each and every matter of business contained in the Consent Agenda is recorded separately in the minutes of the meeting.)

ROUTINE MANAGEMENT REPORTS

- C-1. Report dated June 18, 2015 from the General Manager of Infrastructure Services regarding Water Wastewater Drinking Water Quality Management System Report. **5 - 7**
(RECOMMENDATION PREPARED)

(As legislated under the Safe Drinking Water Act, 2002, the Ministry of the Environment and Climate Change (MOECC) requires that municipalities, as Operating Authorities of drinking water systems (DWS), maintain an accredited QMS in order to be allowed to provide drinking water to residents)

CORRESPONDENCE FOR INFORMATION ONLY

- C-2. Report dated June 12, 2015 from the General Manager of Infrastructure Services regarding Water Production & Metered Consumption History (2006-2014). **8 - 10**
(FOR INFORMATION ONLY)

(The historical pattern of water production and metered consumption recorded from 2006 - 2014.)

REGULAR AGENDA

MANAGERS' REPORTS

- R-1. Report dated June 18, 2015 from the General Manager of Infrastructure Services regarding Amendment to Surplus Fill By-Law 2003-282. **11 - 19**
(RECOMMENDATION PREPARED)

(Manager's Report to discuss existing business processes regarding removal and disposal of surplus excavated material from construction projects and public works operations including amendments to the Surplus Fill By-law 2003-282.)

- R-2. Report dated June 18, 2015 from the General Manager of Infrastructure Services regarding Arterial And Collector Roads - Financial Plan.
(FOR INFORMATION ONLY)

20 - 54

(This report provides background and the Financial Plan for Roads and Transportation Services prepared by KPMG in 2012 for both operating and capital cost.)

MOTIONS

M-1. Request for All Way Stop at Jeanne d'Arc and Heritage Drive

As presented by Councillor Lapierre:

WHEREAS in 2011, all way stop requests were reviewed for several intersections along Jeanne d'Arc Street in Hanmer and were recommended against based on traffic volume and collision information;

AND WHEREAS a playground was established at the intersection of Jeanne d'Arc Street and Heritage Drive in August of 2012, subsequent to the traffic studies conducted in 2011;

AND WHEREAS as a result of the new playground, the intersection at Jeanne d'Arc Street and Heritage Drive is now subject to increased pedestrian and vehicular traffic;

AND WHEREAS more children play, and more people congregate at this new playground location, creating an increased need for safety precautions, such as an all way stop;

AND WHEREAS to ensure the safety of all children at play, pedestrians and drivers alike, we need to consider more than just the numbers, because even one accident is too many;

THEREFORE BE IT RESOLVED THAT an all way stop be installed at the intersection of Jeanne d'Arc Street and Heritage Drive, or, that if a traffic study must be conducted in advance of installing an all way stop at the intersection of Jeanne d'Arc Street and Heritage Drive, that this traffic study be conducted and the results reported back to the Operations Committee at its September 21st, 2015 meeting.

ADDENDUM

CIVIC PETITIONS

QUESTION PERIOD AND ANNOUNCEMENTS

NOTICES OF MOTION

ADJOURNMENT

BRIGITTE SOBUSH, DEPUTY CITY CLERK

Request for Decision

Water Wastewater Drinking Water Quality Management System Report

Presented To: Operations Committee

Presented: Monday, Jul 06, 2015

Report Date Thursday, Jun 18, 2015

Type: Routine Management Reports

Recommendation

THAT the City of Greater Sudbury endorses the Operational Plan for the Drinking Water Quality Management System (DWQMS), and the Quality Policy that supports the Quality Management System (QMS), that is maintained by the Infrastructure Services department's Water & Wastewater Services Division (WWS).

Finance Implications

There are no financial implications with endorsement of the Drinking Water Quality Management System – neither the Operational Plan nor the Quality Policy.

Background

As legislated under the Safe Drinking Water Act, 2002, the Ministry of the Environment and Climate Change (MOECC) requires that municipalities, as Operating Authorities of drinking water systems (DWS), maintain an accredited QMS in order to be allowed to provide drinking water to residents. WWS has and maintains an accredited QMS for all six of the City of Greater Sudbury's (CGS) DWS. This accreditation provides for the licensing of those systems under the MOECC's new Municipal Drinking Water Licensing Program (MDWLP). The CGS's six licensed DWS's are:

- The Sudbury DWS, comprised of the Wanapitei and David St. drinking water plants, and the Garson wells, plus the distribution and storage system that connects them;
- The Valley DWS, including all eleven (11) Valley and two (2) Capreol wells plus the distribution and storage system;
- The Dowling DWS, comprised of two wells and a distribution and storage system;
- The Falconbridge DWS, consisting of three wells plus the distribution and storage system;
- The Onaping-Levack DWS, comprised of three wells and the distribution system connecting both

Signed By

Report Prepared By

Jane Dupuis
Quality Management Systems Officer
Digitally Signed Jun 18, 15

Division Review

Nick Benkovich
Director of Water/Wastewater Services
Digitally Signed Jun 19, 15

Recommended by the Department

Tony Cecutti
General Manager of Infrastructure Services
Digitally Signed Jun 19, 15

Recommended by the C.A.O.

Bob Johnston
Interim Chief Administrative Officer
Digitally Signed Jun 23, 15

communities; and

- The original Vermilion DWS servicing the Walden area with a distribution-only system.

A DWQMS serves as one of several of multiple barriers of protection that ensure the safety of the drinking water supply. A QMS is a system of policies and procedures that describe how we do what we do to ensure a sufficient, safe and aesthetically pleasing supply of drinking water to the citizens of CGS. An Operational Plan contains a series of documents that describe how WWS complies with the requirements of the standard. Keeping the Mayor, Council and Senior Management Team (SMT) informed about the health of the QMS fulfills one of those requirements, and ensures the maintenance of the required accreditation.

In January 2009, Council was asked to and did endorse the Operational Plan which is maintained by WWS to describe the QMS. In July 2008, Council also adopted the Quality Policy which is central to this system. WWS personnel annually review both the Operational Plan and the Quality Policy in order to maintain them as current and correct. Both the Operational Plan and the Quality Policy are available online for interested parties, both internal and external.

Communication of Key Indicators

Information about the operation of the QMS in the following areas is required to be shared with the Owner – the Corporation of the City of Greater Sudbury as represented by the Mayor, Council and SMT:

- “the description of the organizational structure including respective roles, responsibilities and authorities”;
- “the relevant aspects of the Quality Management System”;
- “the findings of the review”: “the annual review of the adequacy of the infrastructure necessary to operate and maintain the subject system”;
- “sampling, testing and monitoring results”; and
- “the results of the management review, the identified deficiencies, decisions and action items”. (all quoted directly from the DWQMS)

Since several other annual reports are made to Council that fulfill some of these requirements, this report will serve to inform Council about the Division’s organizational structure, as well as the results of several reviews carried out annually, in order to inform Council’s decision concerning endorsement of the Operational Plan and Quality Policy: Management Review, internal auditing, and Risk Assessment update.

On April 22nd, 2015, key personnel involved in managing the DWS operated by the WWS met to evaluate 2014 indicators showing how well the QMS has been implemented, as well as how effectively it’s operating – QMS KPI’s, in effect. Reviewers considered topics identified in the standard as well as others added over the years to provide more information. Each input category is reviewed in order to identify if, where and when improvements to the QMS and its procedures are required in order to correct identified problems, to obtain efficiencies or to improve operations from a quality standpoint. Several opportunities for improvement were noted, but the final determination of the management personnel in attendance is that the QMS continues to be suitable, adequate, and effective to the needs of CGS’s DWS’s.

In December 2014, an internal audit occurred, whose purpose was to obtain sufficient appropriate evidence to confirm whether or not the Operational Plan substantively satisfies the MOECC’s requirements for the elements of the DWQMS. It was reported that the Operational Plan, as updated to November 2014, substantively meets MOE requirements, achieving a score of 85%. Several minor Opportunities for Improvement were identified in document and records control; communications;

maintenance; and continual improvement.

In August 2014, WWS's Registrar for the DWQMS performed the first re-accreditation audit of the QMS. One minor non-conformance was reported – in the area of evaluation of maintenance effectiveness (which was subsequently corrected) – and CGS received new Accreditation Certificates in October 2014 for all six DWS's.

In the spring of 2014, the Risk Assessments that were initially undertaken in 2008 for all of the City's DWS's were reviewed with key Water section personnel. In general, these are some of the more common moderate-to-high ranked risks: backflows introducing contaminants into the distribution system; watermain breaks (in nearly all systems) reducing water for distribution, and introducing potential contaminants; and failure of some submerged air valves. Some systems are also reporting slightly higher rankings with potential hazards impacting the systems' sources, like blue-green algae in Lake Ramsey, and failure of the aquifer to recharge due to droughts. Some of these hazards will continue to show as fairly high, although almost no hazards came within the City's "high" ranking of 45 – 125.

Work has been undertaken internally to mitigate the effects of these highly-ranked risks, like the implementation of a Source Protection Plan, and work on a Backflow Prevention by-law. Staff also continues to closely monitor important indicators, and maintains a state of emergency preparedness as appropriate to deal with some of the impacts if/when they occur.

For Information Only

Water Production & Metered Consumption History (2006-2014)

Presented To: Operations Committee

Presented: Monday, Jul 06, 2015

Report Date: Friday, Jun 12, 2015

Type: Correspondence for
Information Only

Recommendation

For Information Only

Finance Implications

No financial implications

Signed By

Report Prepared By

Nick Benkovich
Director of Water/Wastewater Services
Digitally Signed Jun 17, 15

Recommended by the Department

Tony Cecutti
General Manager of Infrastructure
Services
Digitally Signed Jun 17, 15

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Bob Johnston
Interim Chief Administrative Officer
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Water Production & Metered Consumption History 2006 - 2014

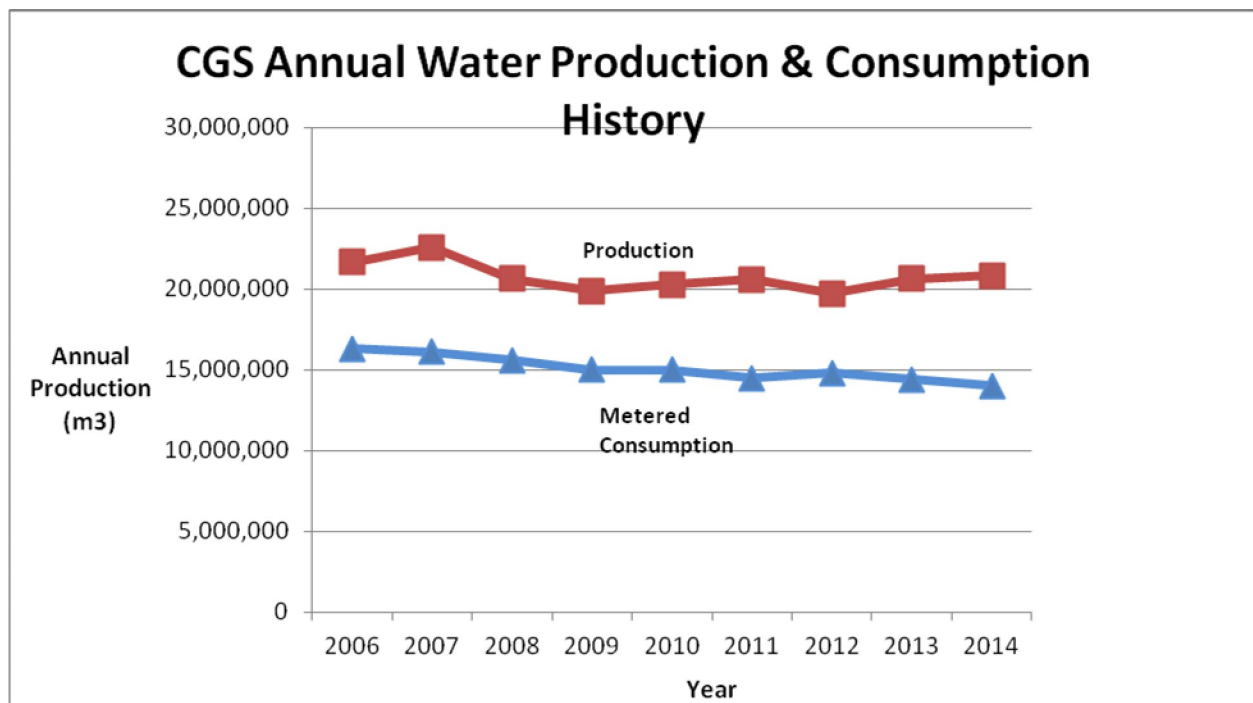
Background

The purpose of this report is to address a budget 'parking lot' request to update Council on the historical pattern of water production and metered consumption recorded in CGS' 8 potable water systems.

Water loss is a common problem observed in most public water supply systems in Ontario. Despite the prevalence of the problem it is desirable to reduce the volume of loss because the costs for variable resources such as energy and chemicals used to produce the water still need to be covered by the portion of the metered consumption.

Production & Consumption Trends

The trends for the period 2006 – 2014 are depicted in the graph below:



The data indicates that during this period the values range from a low of 25% to a high of 33% with an average difference between production and metered consumption of 27%. Note that the production values shown do not include production from the Vermilion Water Treatment Plant that supplies the CGS Vermilion System serving Walden, Lively, Copper Cliff, Naughton, & Whitefish. Inclusion of these figures would likely further increase the percentage of gap.

Possible Causes:

The difference between production & consumption can be influenced by a many factors including:

- Age & condition of linear public infrastructure – The average age of CGS infrastructure is 48 years and as infrastructure ages more resources including flushing water are required for maintenance activities such as flushing hydrants to maintain compliance with regulations & quality parameters. Also, leaks and water main breaks tend to become more frequent occurrences as systems age.
- Age & condition of private service connections – Aging private infrastructure is also more prone to leaks and losses occur when leaks occur before the water is metered;
- Running to prevent freezing;
- Fire practice and fire fighting;
- Unauthorized use.

Loss Control:

CGS has instituted a number of loss control programs over recent years to reduce the difference between production and consumption. For example, annual leak detection programs resulted in detecting and quickly repairing many system leaks.

Reducing the gap between production and consumption is an ongoing priority for CGS Water & Wastewater Services and staff plan continued loss reduction programs in the future. Ultimately reinvestment in infrastructure renewal will be the key tool in making significant long term and sustained gains in loss control.

Presented To:	Operations Committee
Presented:	Monday, Jul 06, 2015
Report Date	Thursday, Jun 18, 2015
Type:	Managers' Reports

Request for Decision

Amendment to Surplus Fill By-Law 2003-282

Recommendation

THAT the City of Greater Sudbury directs staff to prepare revisions to the Surplus Fill By-Law 2003-282 all in accordance with Scenario 2 from the report dated June 18, 2015 from the General Manager of Infrastructure Services.

Summary of Recommended Changes

The purpose of this report is to obtain approval of Council to change the standard process for disposal of surplus fill summarized as follows.

1. City of Greater Sudbury (CGS) staff will continue to make best use of surplus fill on planned CGS future projects when possible.
2. When no CGS future projects have been identified, surplus fill will be turned over to the Contractor for disposal or re-use at their discretion.
3. Contractors will be obligated to obtain a release from private owners who receive surplus fill, removing the City from any liabilities or costs associated with receipt of the surplus fill.
4. The practice of identifying and approving private sites for disposal of surplus fill will be discontinued, although private owners may be required to obtain permits from other government agencies such as the Conservation Sudbury (formerly Nickel District Conservation Authority) and, owners may have to comply with other City by-laws such as zoning.
5. The current Surplus Fill By-law 2003-282 will be amended or rescinded as necessary.
6. Standard contract documents will be amended in accordance with this report and any amended by-laws.

Finance Implications

As the cost to dispose of surplus fill is not explicitly defined in our contracts, it is difficult to ascertain the financial impact. With the adoption of shifting disposal responsibility to the Contractor (Scenario 2), it is expected that disposal costs would not increase from the current method of disposal and the CGS may benefit from Contractor efficiencies and re-use.

Signed By

Report Prepared By

Kevin Shaw
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Digitally Signed Jun 18, 15

Division Review

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Recommended by the Department

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Recommended by the C.A.O.

Bob Johnston
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Background

Current Method of Disposal (Scenario 1)

The current method of disposing of surplus fill tasks CGS Staff with reviewing and authorizing private site locations for our Contractor's use for the disposal of the surplus fill.

CGS Staff in conjunction with Conservation Sudbury jointly approve surplus fill sites, having the landowner sign a release form and provide a sketch or survey of the exact location where the surplus fill will be deposited on the property.

Our Contractor normally delivers surplus fill to an authorized private site and in many cases has to level the surplus fill because the receiving property owner has no means to do so. Leveling of the surplus fill is a necessity to the continuation of the disposal process. The cost associated with this method of disposal is normally carried in the contract pricing under the various items associated with the activities that generate the surplus fill, such as road excavation. In cases where work is performed by time and material such as emergency repairs, then excavation, disposal and leveling are all completed by time and material pricing.

The City's existing By-law 2003-282 does not allow City forces to level surplus fill on private property. It has not been practical to wait for private property owners to make arrangements to level the fill which is necessary for disposal to continue. Since the City is currently contractually obligated to delineate disposal locations, the additional cost of leveling surplus fill is deemed more practical than finding new disposal locations or paying for delays in contracts if sites are not available for disposal.

In addition to the practical challenges associated with disposal of surplus fill, the existing process is very restrictive to potential re-use. Should a Contractor have a potential re-use of the material, the City may benefit financially in the form of more favourable tender prices. The existing disposal method provides long term value to the property owner, but not to the Contractor or the City.

If the existing method of disposal of surplus fill were to be maintained then the surplus fill by-law should be amended. Alternatively, CGS staff considered two alternative methods of disposal of surplus fill, summarized in the following analysis.

Analysis

Scenario 1 – Existing Methodology

This Scenario is our current method of disposal as described above. The annual cost of disposal of surplus fill, under Scenario 1, based on an average of fill generated at construction projects over the past three years, amounts to approximately \$750,000. In addition to this disposal cost, is the cost to dispose of surplus fill generated through the Operations and Maintenance activities (CGS and contracted forces) for the repair of CGS underground infrastructure or culverts and ditching. This cost amounts to approximately \$300,000 annually.

For this scenario to continue, a modification to Surplus Fill By-law 2003-282 would be required to allow City crews and/or City Contractors to level fill on private property. This flexibility is deemed necessary under this scenario to allow City operating departments and Contractors the means to execute their work on schedule.

Scenario 2 – Transfer Responsibility for Disposal

This Scenario would shift the responsibility for the locating of private surplus fill sites and the ownership of the surplus fill to the Contractor.

In preparing the cost analysis for this scenario, it was assumed that the quantity of surplus fill and the haul distances would remain the same as those used in Scenario 1. The Contractor would merely take over the work currently done by CGS staff to secure private disposal sites and assume ownership of the surplus fill. The Contractor would be responsible for convening meetings with private fill site property owners, in conjunction with Conservation Sudbury, to physically review the site to ascertain suitability to receive surplus fill. A Property Owner Release Form including various stipulations attached to the placement of the fill would be obtained from the Contractors after conclusion of the work. The cost associated with Scenario 2 is approximately \$750,000 annually. Under Scenario 2, the Contractor could elect to fill personal property or haul to smaller fill sites than the current 0.5 hectare CGS stipulated size requirement, thus potentially finding efficiencies that could be reflected in contract pricing.

Where possible, CGS contracts involving emergency repairs would either be provided suitable City-owned property for disposal, or be transferred responsibility for disposal. These alternative arrangements would be a component of the competitive procurement process.

Scenario 3 – Purchase Disposal Sites

Under Scenario 3, the CGS would potentially purchase a number of large sites, in strategic locations across the geographic area of the CGS. This scenario would considerably increase the cost of the disposal of surplus fill as a result of land purchase; security requirements such as, fencing and gates to control access; substantially longer haul distances; and, the need to locate equipment for the purpose of fill leveling. The capital cost for Scenario 3 is estimated to be \$800,000. The annual operating cost could exceed \$1,000,000 with longer haul distances and the increased operating costs.

Other Considerations

It is recognized that the best use of surplus fill is for re-use on other CGS projects. For all scenarios, CGS staff will continue to endeavour to find suitable uses for the fill. When contracts are issued for tender, the specifications will direct Contractors where to dispose surplus fill at CGS property, if opportunities exist.

Contractors and private land owners may continue to require permits from other various government agencies. For example, Conservation Sudbury may restrict placement of fill in flood plains. The Ministry of Natural Resources may also have restrictions with fill placement adjacent to waterways. The City will only manage the acquisition of supplemental permits in Scenarios 1 and 3.

In reviewing alternatives for disposal of surplus fill, CGS staff reviewed the possibility of using this material at CGS landfill sites. It was determined that most excavation sites have minimal volumes of material of a suitable nature for use at the landfill. The material must be relatively clean sands and fine gravels with low moisture content. CGS staff will continue to look for opportunities to take surplus fill to CGS landfill sites.

Conservation Sudbury would continue to provide a prime role in the examination of potential surplus fill sites for the purpose of authorizing the sites to receive fill.

In 2009, the City of Greater Sudbury passed the Site Alteration By-law 2009-170 which regulates the alteration of grades and the placing and dumping of fill. Staff will be meeting to ensure that the approach

moving forward ensures compliance with this By-law.

Ontario Provincial Standard Specification (OPSS) 180 – General Specification for the Management of Excess Material that has been developed for use in provincial and municipal oriented Contracts will be included in future CGS Contracts.

Various municipalities were contacted to understand their methods of dealing with the disposal of surplus fill. The findings of these discussions are summarized in Table 1 below:

Table 1 – Discussions with Similar Sized Municipalities

Municipality	Disposal Responsibility	Time in Effect	Private Property Release Form	Fill Site Size	Public Sale	Landfill Cover
Barrie	Contractor	Many years	yes	any size	no	never
Kingston	Contractor	15 years	yes	large	no	periodically
North Bay	Contractor	2 Years	yes	any size	n/c	periodically
Peterborough	Contractor	Many years	yes	any size	no	periodically
Sault Ste. Marie	Contractor	Many years	yes	large	n/c	periodically
Timmins	Contractor	n/c	yes	n/c	no	often

n/c = No Comment

Recommendation

Staff recommends that the CGS adopt Scenario 2, which will shift the responsibility for surplus fill disposal to the Contractor. Under this Scenario, Conservation Sudbury would continue to be involved in the site approval process. Shifting of responsibilities would remove the burden from CGS staff to locate, review, and authorize surplus fill sites and it would provide the Contractor with the opportunity to sell surplus fill, potentially reflecting a reduction in contract pricing.

Staff will continue to make best use of surplus fill on planned CGS future projects when possible. Future contracts would be modified to stipulate methods of disposal, and conditions for release of obligations where material is disposed at private property.

Subject to approval of this report, Surplus Fill By-law 2003-282 will be modified to reflect changes in surplus fill disposal methodology as well as to reflect an appropriate phase-out period.

BY-LAW 2003-282

**A BY-LAW OF THE CITY OF GREATER SUDBURY
TO ESTABLISH A SURPLUS FILL POLICY**

WHEREAS the Council of the City of Greater Sudbury deems it desirable to adopt a policy for the dumping of surplus excavated material from City of Greater Sudbury construction projects or other works;

**NOW THEREFORE THE COUNCIL OF THE CITY OF GREATER SUDBURY
HEREBY ENACTS AS FOLLOWS:**

1. In this By-law:

“City” means the City of Greater Sudbury;

“former municipalities” means the former Regional Municipality of Sudbury or any of its constituent area municipalities or any of their predecessor municipalities;

“Manager of Construction Services” means the City’s Manager of Construction Services from time to time and includes his or her authorized designate; and

“surplus fill” means surplus excavated material or fill generated by construction projects or other works conducted by or for the City of Greater Sudbury.

2. The Policy on Surplus Fill attached hereto as Schedule “A” is hereby adopted.

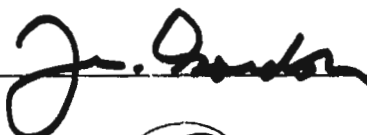
3. All previous Surplus Fill Policies of the former municipalities are hereby repealed.

4. The Manager of Construction Services is hereby authorized to process and approve or reject applications to have surplus fill disposed of on public land or private land and to authorize the disposition of surplus fill, all in accordance with the guidelines in the Policy on Surplus Fill, set out in Schedule “A” attached to and forming a part of this By-law.

5. No fee will be payable by the City for the right to deposit surplus fill generated by works conducted by the City of Greater Sudbury on public land or private land or charged by the City for the surplus fill provided to public land or private land.

6. This By-law shall come into force and take effect immediately upon the final passing thereof.

READ THREE TIMES AND PASSED IN OPEN COUNCIL this 13th day of
November, 2003.

 Mayor
 Clerk

**SCHEDULE "A" TO BY-LAW 2003-282
of the City of Greater Sudbury**

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POLICY CONCERNING SURPLUS FILL

Interpretation

1. In this Surplus Fill Policy:

"City" means the City of Greater Sudbury;

"City land" means land owned by the City, any local boards of the City or any corporation owned or controlled by the City;

"Manager of Construction Services" means the City's Manager of Construction Services from time to time and includes his or her authorized designate;

"owner" means the registered owner or registered owners of land;

"private land" means land which is not City land or public land;

"public land" means land owned by the Government of Canada, the Government of Ontario, any ministry, department, commission, corporation, authority, board or other agency established from time to time by the Government of Ontario or the Government of Canada, or by a school board; and

"surplus fill" means surplus excavated material or fill generated by construction projects or other works conducted by or for the City of Greater Sudbury.

Application of Policy

2. This Policy shall apply to all surplus fill generated in the City.

Guidelines - Disposition Surplus Fill

3. No surplus fill shall be deposited on private land or public land unless first authorized by the Manager of Construction Services.

4. An application to have surplus fill deposited on private land or public land shall:
- (a) be made in writing;
 - (b) be signed by each owner of the land to which the application applies;
 - (c) set out the legal description and where available, a municipal address of the land to which the application applies;
 - (d) contain an acknowledgement by each applicant, that he or she understands that the City will not level any surplus fill deposited on the land;

**SCHEDULE "A" TO BY-LAW 2003-282
of the City of Greater Sudbury**

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- (e) contain adequate direction or explanation of the location at which the surplus fill is to be deposited;
- (f) include a written release of liability of the City, which is satisfactory to the Manager of Construction Services, as to form and content; and
- (g) contain such other information and be accompanied by such other documentation as may be determined by the Manager of Construction Services from time to time.

5. The Manager of Construction Services shall make such investigations as to title and other matters as he or she shall consider appropriate in processing each application to have surplus fill deposited on public land or private land.

6. The Manager of Construction Services shall reject any application for deposit of surplus fill on private land or public land which the Manager of Construction Services, in his sole discretion determines:

- (a) pertains to land of less than 0.5 hectare in area, provided, however, this limitation shall not apply if the application is made by the owner of land on which the City has an easement and relates only to surplus fill generated on the portion of the City easement located on that land;
- (b) pertains to land located in a flood plain or land which the Nickel District Conservation Authority advises would not be suitable for the deposit of surplus fill;
- (c) pertains to land to which access is not appropriate for depositing surplus fill; or
- (d) does not conform with the requirements of Section 4.

7. The Manager of Construction Services shall advise the applicant whether the application for surplus fill has been approved or rejected.

8. The Manager of Construction Services shall retain approved applications for surplus fill until the earliest of:

- (a) 5 years after the date of approval of the application;
- (b) a change in ownership of the land to which the application applies; or
- (c) any registered owner of the land to which the application applies requests the application be withdrawn.

9.-(1) The Manager of Construction Services shall authorize disposition of surplus fill in accordance with the following priorities:

- (a) if the surplus fill is generated on a City easement, and there is an approved application for surplus fill by the owner of the land on which the fill is generated, the surplus fill shall be disposed of on that land;
- (b) if paragraph 9(1)(a) does not apply, the surplus fill shall be deposited on City land;

**SCHEDULE "A" TO BY-LAW 2003-282
of the City of Greater Sudbury**

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- (c) if there is surplus fill which cannot be utilized on City land, the Manager of Construction Services may, in his or her sole discretion, authorize disposition of the surplus fill on public land or private land for which there is an approved application for surplus fill on file. In the event that there is more than one approved application for surplus fill on file, the Manager of Construction Services is authorized to determine where to deposit the surplus fill and his decision shall be final. In exercising his discretion the Manager of Construction Services shall consider the following factors:
 - (i) accessibility, location, cost and convenience of disposing of surplus fill should be considered in choosing a site from the approved applications on file; and
 - (ii) there shall be a preference to deposit surplus fill on public land in priority to private land.

(2) The Manager of Construction Services shall provide notice to the owner of land which was subject of an approved application for surplus fill prior to disposition of surplus fill on that land.

10. The General Manager of Public Works shall provide an annual report to Council on the use of surplus fill.

Presented To:	Operations Committee
Presented:	Monday, Jul 06, 2015
Report Date	Thursday, Jun 18, 2015
Type:	Managers' Reports

For Information Only

Arterial And Collector Roads - Financial Plan

Recommendation

For Information Only

Background

There have been recent requests from Councillors for information pertaining to the Roads Infrastructure budget deficit. This interest has been particularly directed at the condition and maintenance of arterial and collector roads.

In order to better understand the severity of the roads infrastructure deficit, a financial plan was developed with assistance from KPMG in 2012 (Appendix A and B). The financial plan (Financial Planning for Municipal Roads, Structures and Related Infrastructure) was intended to address the roads infrastructure deficit by defining the requirements through an analysis of road conditions. The plan outlines the annual operating requirements as well as the 10 year capital requirements for the assets under the administration of the Roads Division.

Signed By

Report Prepared By

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Digitally Signed Jun 19, 15

Division Review

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Recommended by the Department

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Recommended by the C.A.O.

Bob Johnston
Interim Chief Administrative Officer
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Arterial and Collector Roads

The City of Greater Sudbury maintains 741 and 616 lane kilometers of arterial and collector roads respectively. This accounts for 38% of CGS's road network. The characteristics of arterial roads include moderate to high traffic volumes with medium to high speed limits and typically contain two to six lanes. Radar Road, Municipal Road 55, and Paris Street are examples of arterial roads. Collector roads have low to moderate traffic volumes with medium speed limits and contain two to four lanes. Southview Drive, Auger Avenue and Errington Avenue are examples of collector roads.

The entire road network is reviewed every two years using sophisticated equipment to measure the condition of the pavement. A Pavement Condition Index (PCI) is calculated which rates a road from 0-100. Based on the PCI, roads can be assigned one of five categories ranging from very poor (0-25) to excellent (85-100). The average PCI for arterial and collector roads in the financial plan is approximately 65, which is in the good category. While PCI provides an indication as to the current condition of the municipal road network, it is also one component for prioritizing capital spending.

The 2012 KPMG report recommended capital expenditures of \$36 million for arterial and collector roads. In contrast, budgeted expenditures for the same year were approximately \$19.6 million or 54% of the recommended expenditure for these road categories.

Overall, the recommendations from the financial plan will drastically reduce the replacement cycle of the roads infrastructure. If followed, the replacement cycle for City roads will be reduced from 83 years to 40 years. This will be a closer reflection of the useful life of a road.

Appendices

A. Appendix

A; Council Report 20120710 - Financial Plan for Roads and Transportation Services

B. Appendix

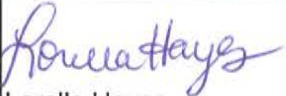
B; KPMG Report on Financial Planning for Municipal Roads, Structures and Related Infrastructure

Request for Recommendation
Finance and Administration Committee

Type of Decision									
Meeting Date	July 10, 2012				Report Date	July 10, 2012			
Decision Requested	x	Yes		No	Priority		High		Low
	Direction Only				Type of Meeting	x	Open		Closed

Report Title
Financial Plan for Roads and Transportation Services

Budget Impact/Policy Implication	Recommendation
 This report has been reviewed by the Finance Division and the funding source has been identified.	Whereas the City of Greater Sudbury maintains approximately 3,600 lane kilometres of roads infrastructure that has a replacement value of approximately \$3.0B, and requires an annual investment in operating and capital of approximately \$117M to be sustainable; Whereas the City of Greater Sudbury - Strategic Plan includes roads infrastructure as a key priority, and specifically an action item to complete the Roads 10-Year Financial Plan; Therefore, be it resolved that Council accept the report dated July 10, 2012 from the Chief Financial Officer and General Manager of Infrastructure Services outlining the financial requirements over the next 10 years to ensure municipal roads and related infrastructure are sustainable.
Background Attached	Recommendation Continued

Recommended by the Department	Recommended by the C.A.O.
 Lorella Hayes Chief Financial Officer/Treasurer	 Doug Nadorozny Chief Administrative Officer
 Greg Clausen General Manager of Infrastructure Services	

Report Prepared By	Division Review
 Shawn Turner Manager of Financial and Support Services	 David Shelsted, MBA, P.Eng Director of Roads and Transportation Services

Background

During the presentation of the Summer Maintenance – Zero Base Budget to the Finance Committee on November 21, 2011, Council was advised that the Infrastructure Services Department and Finance Department were developing a Ten Year Fiscal Sustainability Plan for Roads. With the assistance of KPMG, the financial plan has been developed and outlines the annual operating requirements as well as the 10 year capital requirements for the assets under the administration of the Roads Division.

The 3,600 lane kilometre municipal road network is the City's largest asset class with an estimated replacement value of approximately \$3.0B and includes (in millions of dollars):

Land	\$11
Drains	\$23
Streetlights	\$18
Bridges & Culverts	\$253
Urban & Rural Roads	\$2,527
Signals & Signs	\$23

In recognition of the significance of future investment requirements, the plan considers two scenarios:

Scenario 1: Capital funding is increased in order to preserve the current infrastructure until a sustainable funding level is reached. The only growth in the asset base considered in this scenario is Maley Drive. The summer maintenance zero-base budget is phased in over five years and the winter roads budget remains constant, excluding inflationary adjustments.

Scenario 2: In addition to the assumptions in the first scenario, Scenario 2 includes additional growth projects including but not limited to MR 35 (Azilda to Chelmsford), Kingsway Boulevard realignment and various storm water management projects.

The resulting funding requirement for each scenario and subsequent funding gap can be seen in Table 1 below.

TABLE 1					
Operating and Capital Funding Required (in 2012 dollars) (in millions of dollars)					
	Funding Required	Current Funding	Funding Gap	Operating Funding Gap	Capital Funding Gap
Scenario 1	117	75	42	4	38
Scenario 2	122	75	47	4	43

The complete Roads Financial Plan is attached. Some of the highlights of the plan are listed below.

Highlights of the Roads Financial Plan

- \$700M immediate infrastructure deficit, a further \$480M required within 5 years and \$90M in the next 10 years when applying Ontario Good Roads Association guidance.

- Approximately \$75M recommended for sustainable capital expenditures at the present time, as compared to the 2012 Roads capital budget of approximately \$37M. Over time, this difference will increase due to the effects of inflation.

- Investment of \$117M annually under scenario 1. Roads will require an additional \$6.2M in capital funding each year for the next 10 years to close the identified capital funding gap and address the impacts of inflation. Without other sources of funding this would equate to a 3.3% annual increase to the tax levy.

- Investment of \$122M annually under scenario 2. Roads will require an additional \$6.7M in capital funding each year for the next 10 years to close the identified capital funding gap and address the impacts of inflation. Without other sources of funding this would equate to a 3.5% annual increase to the tax levy.

- Replacement cycle for City roads reduced from 83 to 40 years which is a closer reflection of the useful life of a road.

- Summer roads maintenance - zero-based budget phased in over 5 years.

- Winter Roads budget maintained at current levels, excluding inflationary increases.

- Financial sustainability reached by 2022 if plan implemented for 10 years commencing 2013.

-Financial plan contemplates a required investment for 2013 of approximately \$80M. This is a \$5M increase over 2012 and is comprised of a \$3M increase in the capital budget and a \$2M increase in the operating budget including the phase in of the summer maintenance zero-based budget. Without other sources of funding this would equate to a 3.5% increase to the tax levy.

The Financial Plan for Roads and Transportation Services does not address the allocations within the Roads Capital Budget. Staff will report on and review the allocations with Council in September 2012.

Summary

It is recommended that Council accept the Financial Plan for Roads and Transportation Services. The financial plan may differ from the annual Roads budget to the degree to which Council approves the annual budget. It is recommended that Council use the information and assumptions inherent in the financial plan, including future amendments to assist with budget decisions and strategies to achieve fiscal sustainability. Staff will continue to pursue funding from senior levels of government and seek to maximize efficiencies and reduce costs.



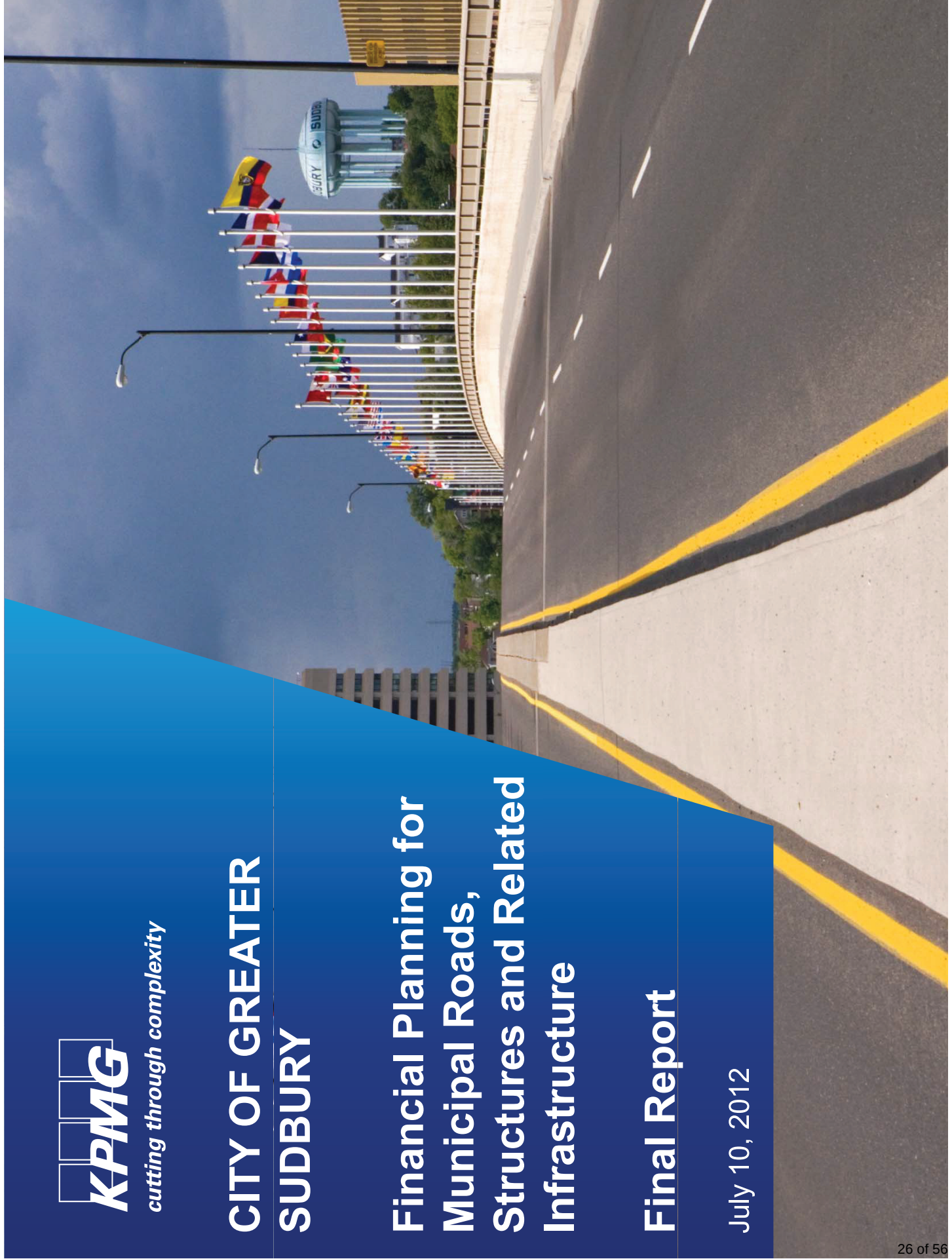
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CITY OF GREATER SUDBURY

Financial Planning for Municipal Roads, Structures and Related Infrastructure

Final Report

July 10, 2012



Financial Planning for Roads

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Financial Planning for Roads

Executive Summary

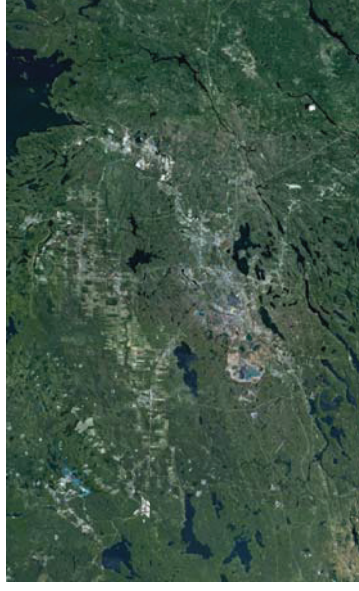
With a total area of over 3,600 square kilometres, the City of Greater Sudbury (the "City") and its predecessor municipalities have invested heavily in the municipal road network and related infrastructure. Overall, the City maintains approximately 3,600 lane kilometres of roadways, the equivalent of a single lane highway connecting Greater Sudbury to the US-Mexican border at El Paso, Texas.

Total spending on the City's road network during 2012 (operating and capital) is expected to amount to \$75 million, representing the largest single expense item for the City and accounting for 13% of the total municipal budget. The significance of the municipal road network is also demonstrated by the investment in the underlying infrastructure. With a historical cost of \$1.1 billion and estimated replacement cost of \$3.0 billion, the municipal road network represents the largest single asset class for the City.

With the implementation of accounting for tangible capital assets, municipalities, including the City, have a better understanding of the cost and investment requirements associated with their infrastructure, allowing for enhanced planning for the funding and rehabilitation of key infrastructure components. The City has already introduced sustainable capital asset management for its water and wastewater services, increasing the amount of capital funding in response to impending needs. This financial plan outlines a similar strategy for the City's road network.

Prepared in conjunction with staff from the City's Infrastructure and Financial Services Divisions, the financial plan for roads is intended to address a growing infrastructure and operational deficit, one that manifests itself through an increasing deterioration of the City's road network. In 2012, the City will spend approximately \$35 million on capital expenditures for roads, compared to the estimated \$75 million that it is required to invest in order to maintain the road network at the recommended standard. The gap between actual and required spending has resulted in an immediate roads infrastructure deficit of approximately \$700 million, with a further \$570 million to be required on existing infrastructure over the next ten years. In addition, new infrastructure requirements arising from growth amount to a further \$241 million.

The financial plan recognizes that the magnitude of the roads infrastructure deficit cannot be addressed in a short timeframe. Rather, the financial plan considers a ten year phase-in period during which the City will increase funding for capital purposes by \$7 million per year each year to deal with the infrastructure shortfall, with an additional \$4 million invested in summer roads maintenance over five years. The increase in financial resources contemplated under the financial plan will allow the City to reduce its maintenance cycle from the current 83 years to approximately 40 years, which is a much closer reflection of the useful life of the road network. While the City intends to continue its efforts to secure support from senior levels of government for reinvestment in its roads network, the financial plan anticipates that, in the absence of senior government assistance, the City would be required to increase the municipal levy by 3.3% to 3.5% each year over the next ten years to fund its operating and capital requirements associated with roads.



Financial Planning for Roads

Background to the Study

During 2011, the City completed a ten year financial plan for water and wastewater services. While the impetus for the plan was Provincial licensing requirements, it represented the continuation of the City's efforts to appropriately address its infrastructure issues for water and wastewater services, which began with the implementation of sustainable capital asset management for water and wastewater services in 2001.

The completion of the financial plan for water and wastewater services was made possible through the adoption of tangible capital asset accounting by the City, which reflected a change in accounting policies for Canadian municipalities. For the first time in many years, municipalities have a perspective on the historical cost of their underlying infrastructure which, when combined with other elements such as useful life and replacement values, form the basis for effective asset management, recognizing that effective asset management involves not only the acquisition of assets, but also their maintenance and eventual replacement.

In recognition of the value of long-term financial planning, as well as concerns over the sufficiency of funding for both operating and capital requirements associated with its road network and related infrastructure (structures, signage, streetlights, storm sewers), the City has embarked on the preparation of a financial plan for the municipal road network and has retained KPMG to assist City staff with the development of the financial plan.

The financial plan outlined in this document is intended to assist Council and City staff to achieve a level of annual financing that will provide sustainability for the municipal road network. For the purposes of the financial plan, sustainability is defined as the condition whereby the level of financial resources allocated to roads is sufficient to provide for the recommended level of operational maintenance as well as the required capital reinvestment in the roads infrastructure.

It is important to recognize that the financial plan is simply that – a plan. It does not represent a binding multi-year budget and Council retains the authority and responsibility to establish budgets and tax rates on an annual basis, which may vary from those outlined in the financial plan.

In addition to this introductory section, the financial plan includes:

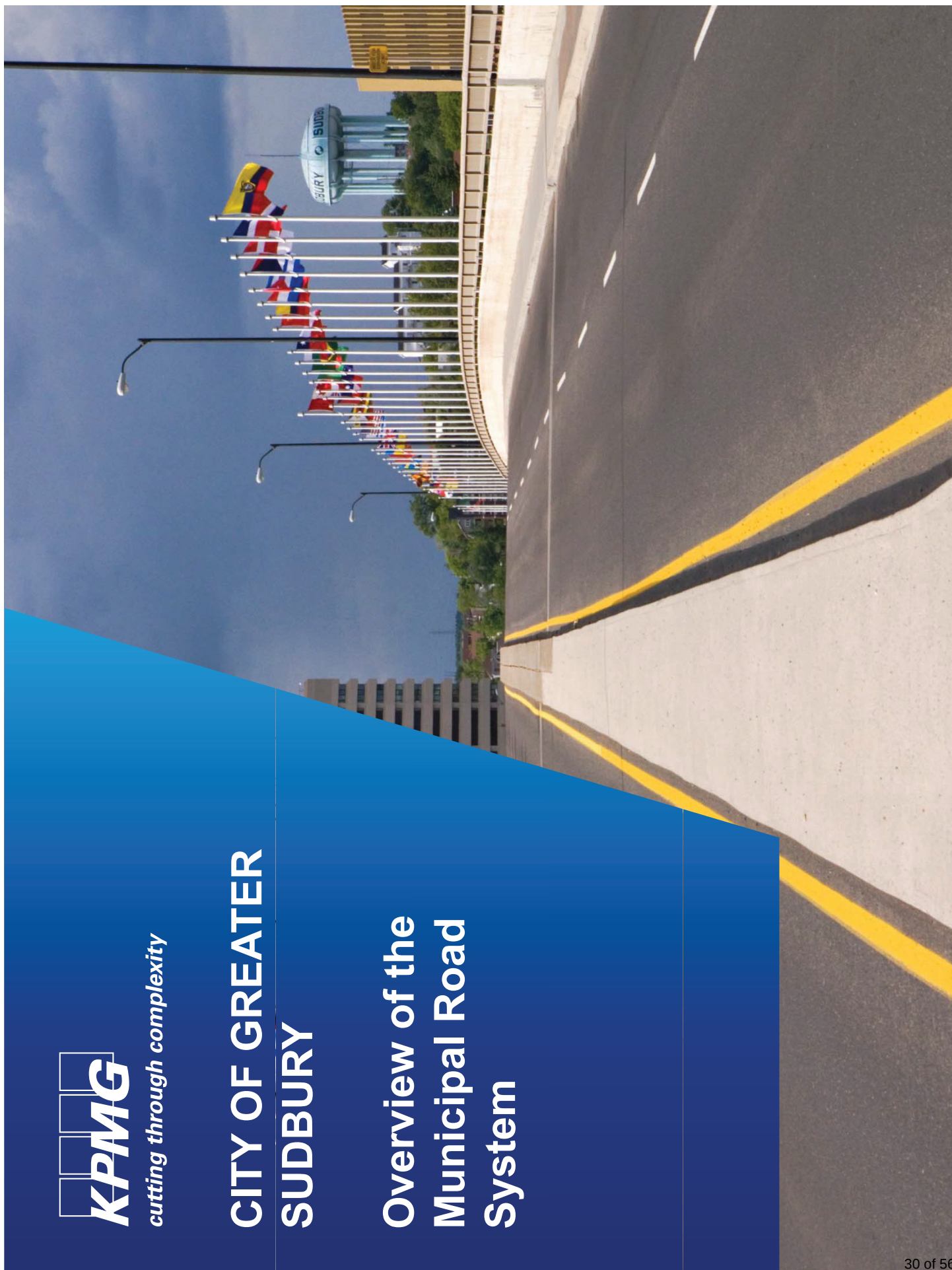
- An overview of the City's road network
- An analysis of historical and budgeted road expenditures (operating and capital)
- Observations concerning key challenges facing the City from a roads perspective
- An overview of the financial planning process, including key assumptions and outcomes



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CITY OF GREATER SUDBURY

Overview of the Municipal Road System



Overview of the Municipal Road System

Roads Categories

For the purposes of managing its road network, the City has categorized municipal roads into three groups – arterial, collector and local – based on traffic volumes, speeds and other considerations, with local roads representing the majority (62%) of all roads in Greater Sudbury. In addition, the City's road network is also classified by type of construction, with asphalt surfaced roads representing two-thirds of all roads infrastructure in the City (based on total lane kilometres¹).

Category	Characteristics	Lane kilometres				% of Total Road Network	Examples
		Asphalt	Surface Treatment	Gravel	Total		
Arterial roads	- Moderate to high traffic volumes - Medium to high speed - Two to six lanes - Limited to no on-street parking - Limited or controlled direct access	741	–	–	741	20.8%	Paris Street Garson-Falconbridge Road Barry Downe Road
Collector roads	- Low to moderate traffic volumes - Medium speed - Two to four lanes - Controlled on-street parking - Direct access (normally controlled)	616	–	–	616	17.3%	Errington Street (Chelmsford) Southview Drive Auger Avenue
Local roads	- Low traffic volumes - Low speed - Two lanes - On-street parking - Uncontrolled direct access	985	601	618	2,204	61.9%	Baker Street Laura Avenue Michael Street
Total		2,342	601	618	3,561	100.0%	
Percentage of total		65.8%	16.9%	17.3%	100.0%		

¹ A lane kilometre refers to one kilometre of single lane roadway. One kilometre of two lane road represents two lane kilometres, while five kilometres of four lane road represents 20 lane kilometres (four lanes x five kilometres = 20 lane kilometres).

Overview of the Municipal Road System

Assessing the Physical State of Greater Sudbury's Roads

Since 2000, the City has also classified its road network based on a Pavement Condition Index ("PCI"), which ranks roads based on four factors – structural cracking, non-structural cracking, rutting and roughness. Based on the PCI, roads can be assigned one of five rankings ranging from excellent to very poor, as noted below.

Category	PCI Score		Description
	Low	High	
Excellent	85	100	Sound pavement with few defects perceived by drivers
Good	60	85	Slight rutting and/or cracking and /or roughness that is noticeable to drivers
Fair	40	60	Multiple cracks are apparent and/or rutting may pull at the wheel and/or roughness necessitates drivers to make minor steering corrections
Poor	25	40	Significant cracks may cause potholes and/or rutting pulls at the vehicles and/or roughness is uncomfortable to occupants. Drivers may need to correct steering to avoid road defects.
Very poor	0	25	Significant cracks with potholes and/or rutting pulls at the vehicle and/or roughness is uncomfortable to occupants. Drivers will need to correct steering to avoid road defects.

Overview of the Municipal Road System

Assessing the Physical State of Greater Sudbury's Roads (continued)

While PCI provides an indication as to the current condition of the municipal road network, it also provides a framework for prioritizing capital spending. Guidance provided by the Ontario Good Roads Association attempts to link PCI to the timing and nature of capital spending on roads, recognizing that municipalities will adopt their own standards.

	Arterial	Collector	Local
Road condition is adequate	PCI > 85	PCI > 80	PCI > 80
Improvement required within six to 10 years	PCI of 76 to 85	PCI of 71 to 80	PCI of 66 to 80
Improvement required within one to five years	PCI of 56 to 75	PCI of 51 to 70	PCI of 46 to 65
Immediate rehabilitation	PCI of 50 to 55	PCI of 45 to 50	PCI of 40 to 45
Immediate reconstruction	PCI < 50	PCI < 45	PCI < 40

The most recent PCI rankings indicate that just over half of the City's road network is in either excellent or good condition. However, arterial and collector roads are in generally better condition than local roads. Two-thirds of arterial and collector roads is ranked as excellent or good as compared to 42% of local roads. Overall, the average PCI for the City's road network is in the order of 65 for arterial and collector roads and 57 for local roads¹.

Category	PCI Index		Lane Kilometres				Percentage of Total	
	From	To	Arterial	Collector	Local	Total		
Excellent	85	100	39	–	4	43	1.5%	
Good	60	85	702	177	659	1,538	52.3%	
Fair	40	60	–	399	729	1,128	38.3%	
Poor	25	40	–	39	173	212	7.2%	
Very poor	0	25	–	1	21	22	0.7%	
Total – asphalt and surface treatment			741	616	1,586	2,943	100.0%	
Gravel						618		
Total						3,561		

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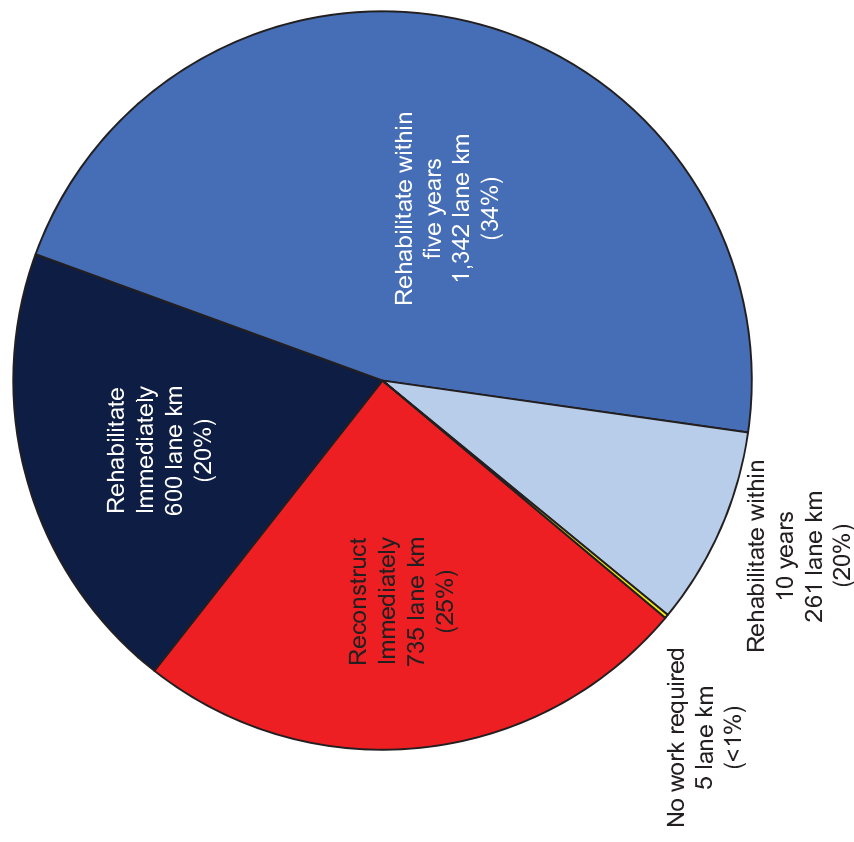
¹ Based on 2009 PCI data.

Overview of the Municipal Road System

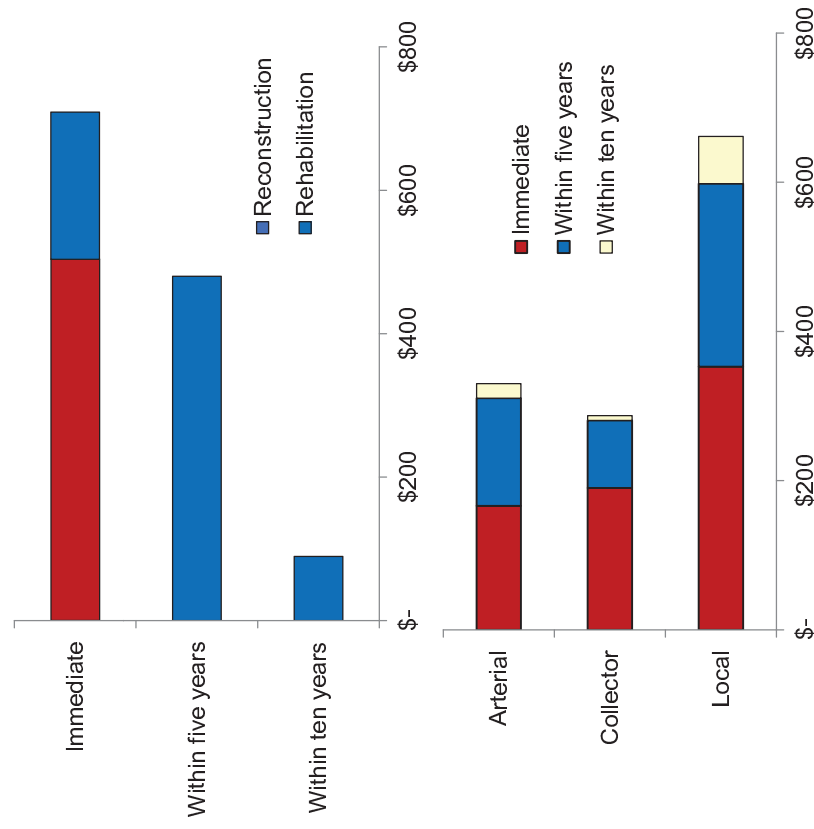
Assessing the Physical State of Greater Sudbury's Roads (continued)

Application of the guidance provided by the Ontario Good Roads Association to the City's municipal road network in 2009 identifies an immediate infrastructure deficit (representing roads that are considered to be in immediate need of rehabilitation or reconstruction) of approximately \$700 million, with an additional \$480 million and \$90 million in capital reinvestment required over the next five years. While the City has invested significantly in road infrastructure since 2009, the magnitude of this infrastructure deficit likely has not changed significantly as the ongoing aging of roads continues to add to the investment requirement.

Calculated capital investment requirement in 2009 (in lane kilometres)



Calculated capital investment requirement in 2009 (in millions of dollars)



Overview of the Municipal Road System Road Expenditures and Funding

The 2012 municipal budget anticipates just under \$75 million in spending on roads, comprised of \$38 million in operating costs and \$37 million in capital. Overall, road expenditures in 2012 are approximately 2.5% lower than the 2011 budgeted amounts, reflecting decreases in both operation and capital expenditures.

The municipal levy represents the largest source of funding for roads costs, amounted to over 80% of total revenues. Other funding sources for roads are primarily capital in nature and include Federal Gas Tax revenues, reserve contributions and advances from future years' capital envelopes.

Summary of roads expenditures and revenues¹

(in thousands)	2011 Budget		2012 Budget	
	Amount	Percentage	Amount	Percentage
Winter roads maintenance	\$15,294	20.0%	\$15,298	20.5%
Summer roads maintenance	\$14,522	19.0%	\$14,036	18.8%
Other costs	\$7,989	10.5%	\$8,252	11.1%
Total operating expenditures	\$37,805	49.5%	\$37,586	50.4%
Capital expenditures	\$38,619	50.5%	\$36,957	49.6%
Total roads expenditures	\$76,424	100.0%	\$74,543	100.0%
Municipal levy – operating purposes	\$36,555	47.8%	\$36,740	49.3%
Municipal levy – capital purposes	\$24,017	31.4%	\$24,498	32.9%
Gas tax grants	\$8,072	10.6%	\$7,960	10.7%
Other capital revenues	\$6,530	8.5%	\$4,499	6.0%
Other operating revenues	\$1,250	1.7%	\$846	1.1%
Total revenues	\$76,424	100.0%	\$74,543	100.0%

¹ Budgeted information for 2012 does not include the announced \$15 million contribution from Vale Canada Limited for the Municipal Road No. 4 capital project.

Overview of the Municipal Road System Capital Reinvestment

As part of its capital budgeting process, the City has prepared a multi-year outlook that forecasts capital spending over a five year period (2012 to 2016). While the City plans to continue investment in the municipal road network, including increasing capital fund envelopes by the non-residential construction rate of inflation, the total planned capital expenditures over the next five years (\$172 million) represents only 7% of the calculated infrastructure requirements over the next five years for existing assets only (\$2.5 billion).

In addition to its planned expenditures, the City has identified new road and drainage projects that are currently unfunded, meaning that sufficient financing has not been allocated to the projects. The cost of these unfunded capital projects is currently estimated to be in the order of \$241 million. As these projects reflect new and not existing infrastructure, they are not included in the calculated infrastructure deficit.

Unfunded roads and drainage projects (2012 cost estimates)

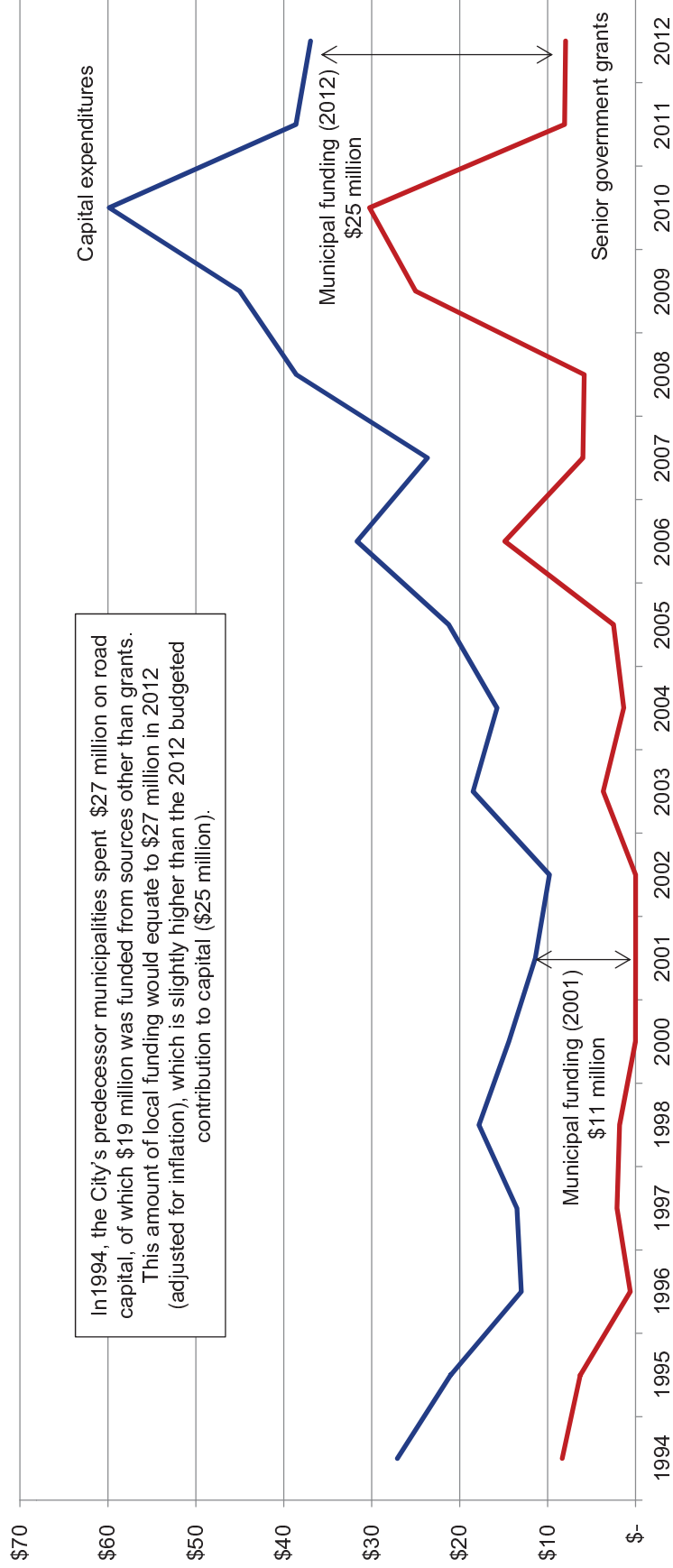
Project	Estimated Cost
A. Maley Drive Extension	
Total cost	\$115 million
Identified funding for Maley Drive extension	\$21 million
Maley Drive extension (unfunded component)	\$94 million
B. Other Growth Related Projects	
Municipal Road 35 widening (Azilda to Chelmsford)	\$29 million
Kingsway Boulevard realignment	\$25 million
Construction of new University link road	\$16 million
Notre Dame Avenue widening (Lasalle to Kathleen)	\$16 million
Lake Ramsey drainage system improvements	\$25 million
Junction Creek stormwater management	\$10 million
Other projects (each \$5 million or less)	\$26 million
Other capital projects	\$147 million
Total identified unfunded capital projects	\$241 million

Overview of the Municipal Road System

Historical Capital Expenditures and Grants

Historically, the level of capital expenditures available for roads and related infrastructure has been significantly influenced by the availability of grants from senior levels of government. In 1994, the predecessor municipalities spent a total of \$27 million on roads capital projects, including \$8 million in grants from senior levels of government. With the incorporation of conditional roads grants into municipal support grants in 1998, capital-specific grants for roads decreased to nil, with a corresponding reduction in capital expenditures by municipalities due to other external influences and financial pressures. Since that time, the City has significantly increase in capital expenditures for roads, due in large part to the availability of stimulus funding as well as the additional capital financing generated by the City's capital levy, both of which reflect the importance of roads infrastructure. The City's contribution to roads capital in 2012 is budgeted to be \$25 million, compared to \$11 million in 2001.

Roads capital expenditures and grant revenues – City of Greater Sudbury and predecessor municipalities (in millions)



Overview of the Municipal Road System Concerns and Challenges

As part of the financial planning process as well as other communications to Council, City staff have expressed concerns over the insufficiency of funding for the City's road network, both from an operational and capital perspective:

- Staff recommend that the City attempt to maintain an average PCI of 70 for arterial and collector roads, with an average PCI of 60 recommended for local roads. To achieve this standard, staff advised that total annual capital expenditures need to increase to \$65 million for arterial, collector and local roads, with additional funding required for drainage, structures, streetlights, signage and other components of the road network. As noted below, the capital budget for 2012 provides approximately 38% of the recommended roads funding on an overall basis, with arterial and collector roads receiving a higher percentage of the recommended funding (54%) than local roads (18%).

	Budgeted Expenditures (2012)	Recommended Expenditures	Difference	Percentage of Recommended Expenditures Provided
Arterial and collector roads	\$19.6 million	\$36.0 million	\$16.4 million	54.4%
Local roads	\$5.1 million	\$29.0 million	\$23.9 million	17.6%
Total	\$24.7 million	\$65.0 million	\$40.3 million	38.0%

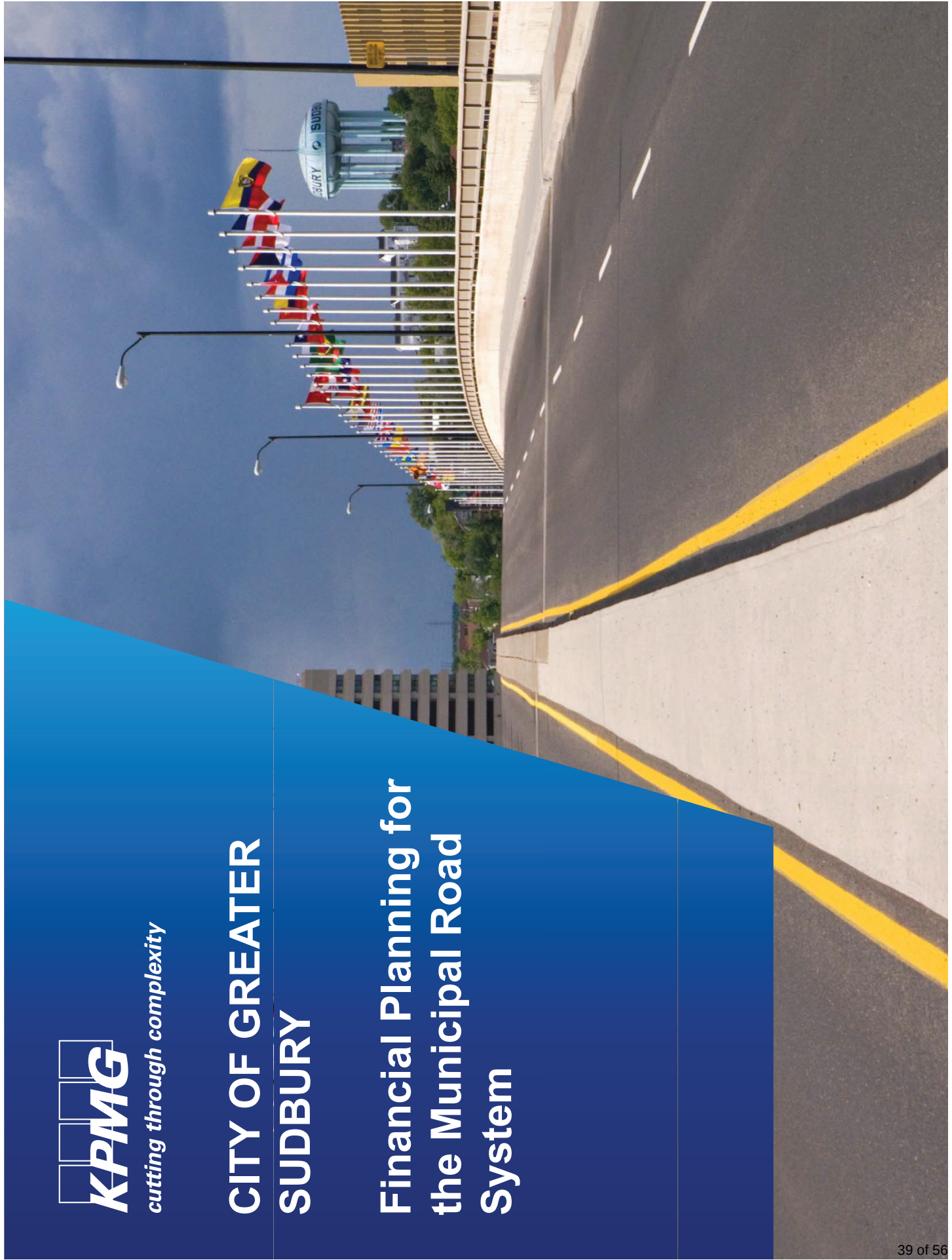
- In November 2011, City staff prepared a Zero Based Budget analysis for summer roads maintenance programs which indicated that a total of \$18,041 million would be required to staff's recommended standard of maintenance for roads, an increase of approximately \$4.0 million above the 2012 budgeted expenditures. The majority of this increase results from three specific changes to service levels:
 - Increasing the amount of asphalt patching undertaken by contractors from 8,000 m² per year (representing 0.08% of the municipal road network) to 25,000 m² per year (0.24%) +\$700,000
 - Decrease the cycle for gravel resurfacing from 80 years to 20 years +\$800,000
 - Increasing the frequency of catchbasin and manhole repairs from a 29 year cycle to a 20 year cycle and cleaning from a six year cycle to a two year cycle +\$1,000,000



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CITY OF GREATER SUDBURY

Financial Planning for the Municipal Road System



Financial Planning for the Municipal Road System

Key Assumptions

The financial plan for the City's road network considers a ten year planning period (2013 to 2022) and establishes as its starting point the City's 2012 budget (operating and capital). Recognizing the significance of future infrastructure investment requirements, the financial plan considers two scenarios:

- **Scenario 1** assumes that the City will adopt a sustainable capital asset management plan for roads whereby capital contributions will increase over a 10-year period until such time as the level of capital funding is sufficient to provide for sustainable reinvestment in road infrastructure. Additionally, this scenario assumes that the Maley Drive extension will be the only significant investment in growth-related infrastructure, with other growth-related projects deferred. The Maley Drive extension is forecasted to be funded through a combination of grants, capital fund contributions and debt financing, with the debt servicing cost reflected in the financial model.
- **Scenario 2** is based on the first scenario but assumes that additional growth infrastructure projects (with a total forecasted cost of \$146 million) will also be undertaken by the City. These additional growth infrastructure projects are forecasted to be financed through a combination of grants and debt, with the debt servicing cost reflected in the financial model.

For both scenarios, the following assumptions have been considered:

- Operating costs have been increased by 3% annually, which reflects the assumed rate of inflation.
- Summer maintenance costs have been projected to increase by an additional amount to reflect a gradual increase in service levels consistent with those identified in the Zero Based Budget scenario prepared by staff. For the purpose of the financial plan, we have assumed that the service level increases will be phased-in over a five year period (2013 to 2017).
- Excluding inflationary increases, no adjustments (positive or negative) have been made to winter maintenance costs to reflect changing climatic conditions. To the extent that surpluses or deficits are experienced, it is assumed that the City will utilize its existing winter roads maintenance reserves to compensate for the budgetary variances.
- No changes in the method of allocating administrative costs or internal recoveries have been considered in the financial plan.
- Operating expenditures have not been adjusted to reflect the forecasted increases in capital spending, which will require additional resources for project management and other administrative responsibilities.

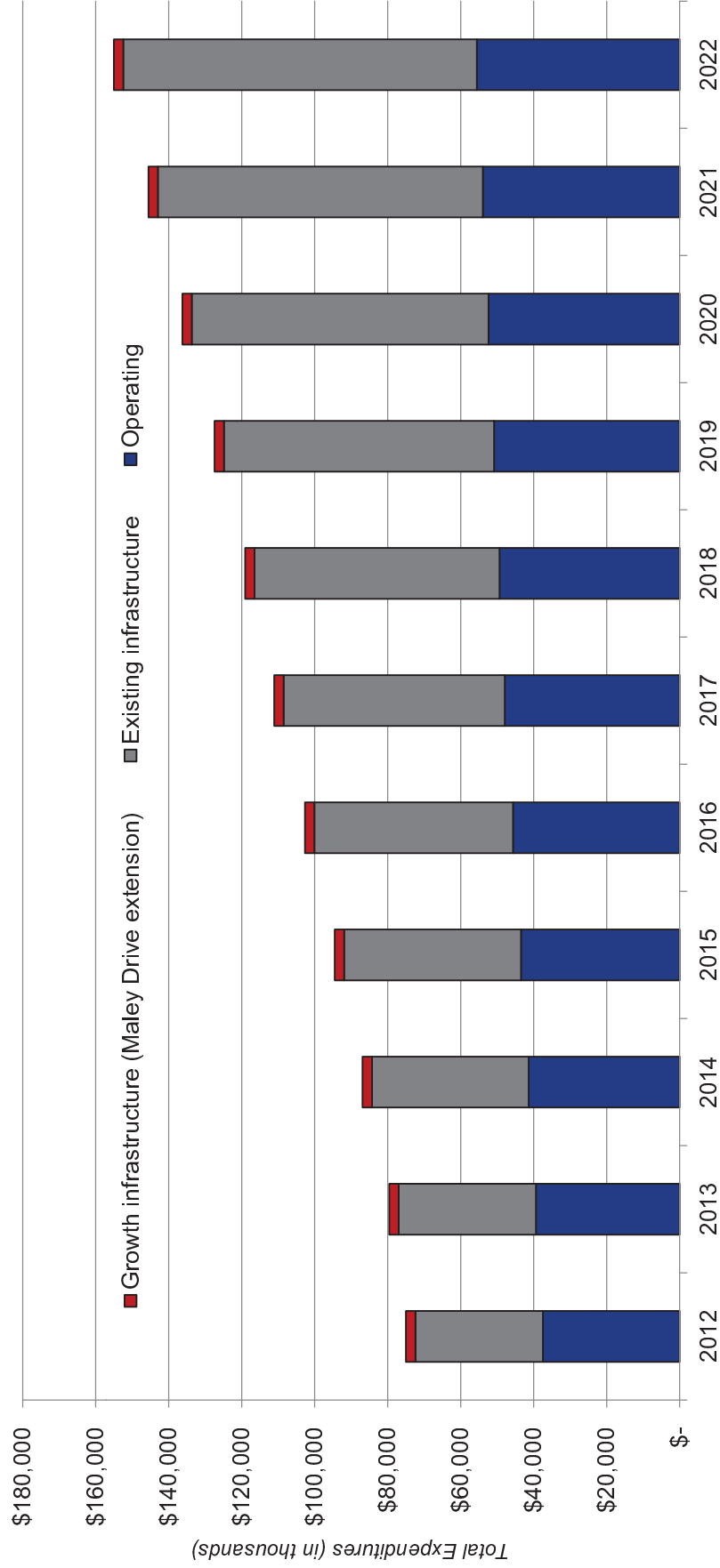
A summary of the financial plan is provided in the following pages, with detailed schedules included as appendices to this report.

Financial Planning for the Municipal Road System

Projected Road Costs – Scenario 1

The financial plan envisions operating costs increasing from \$37 million in 2012 to \$56 million in 2022, reflecting inflation and increases in service levels for summer roads maintenance. Capital spending on existing infrastructure is projected to increase from \$35 million to \$97 million, representing the required level of funding for sustainable capital maintenance. Capital spending for growth infrastructure represent the City's funding for the Maley Drive extension, comprised of debt servicing on the amounts borrowed to fund the City's local share of the project costs.

On an average annual basis, the increase in the overall municipal levy associated with this increase in roads expenditures (operating and capital) is 3.3% over the ten year planning period.

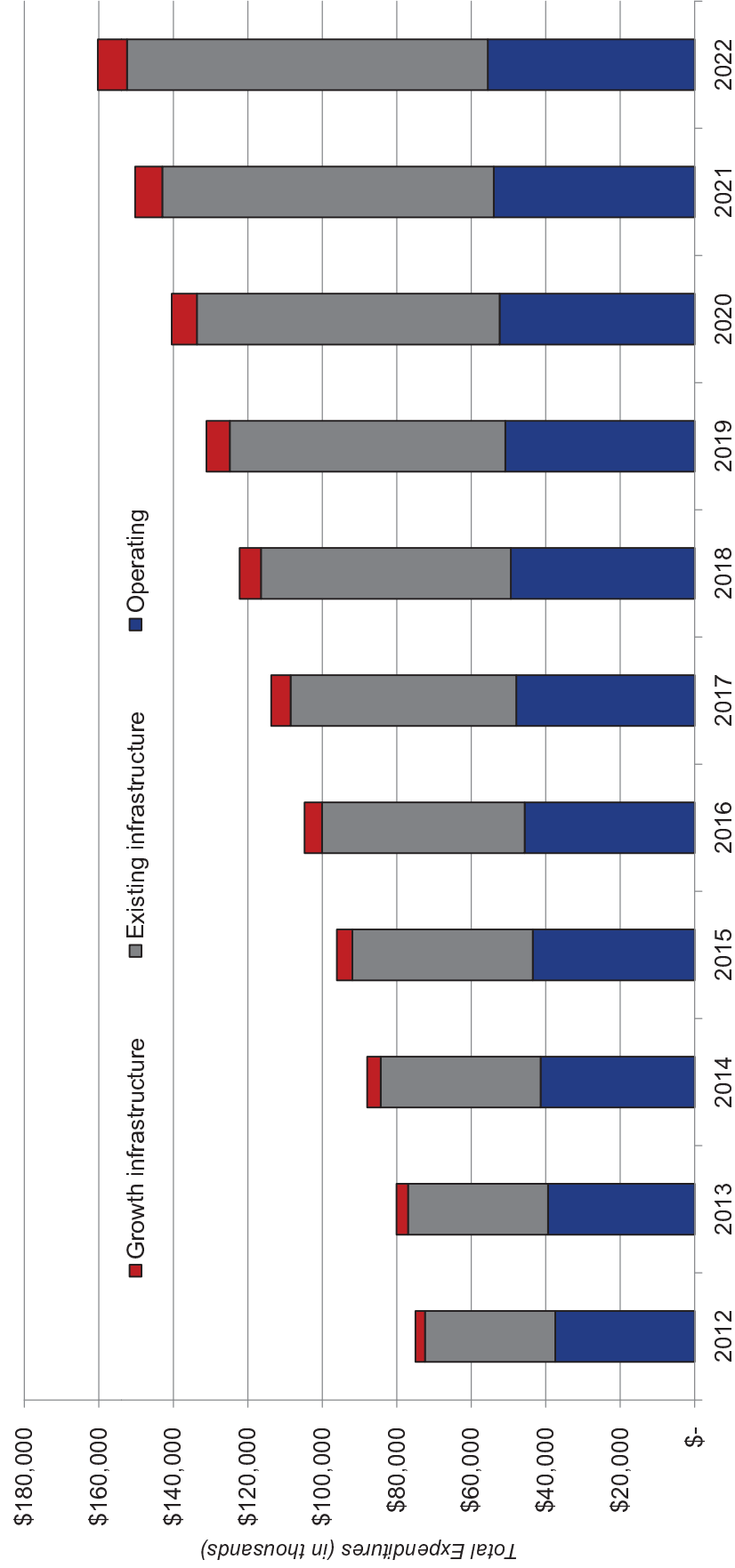


Financial Planning for the Municipal Road System

Projected Road Costs – Scenario 2

The second scenario reflects a higher level of funding for growth infrastructure, with additional growth-related projects undertaken during the planning period at a total cost of \$147 million. For the purposes of the financial model, it is assumed that the City's share of these project costs (i.e. total costs less grants received) will be funded through debt, with the City required to fund ongoing debt servicing costs.

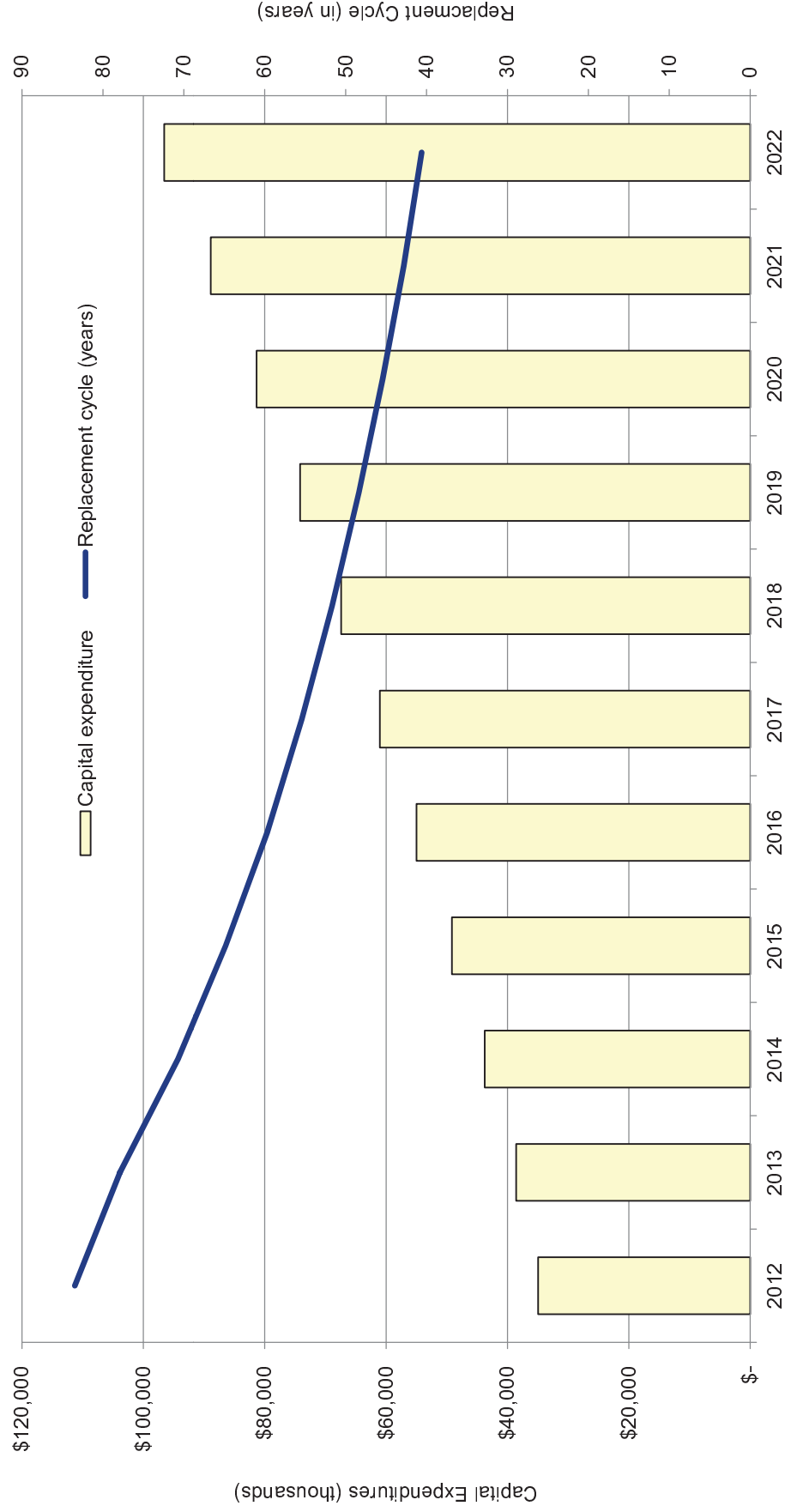
With the increased level of growth-related capital spending, the increase in the overall municipal levy associated with this scenario is 3.5% over the 10 year planning period, which is slightly higher than the forecasted increases in taxes under the first scenario (3.5%).



Financial Planning for Municipal Road System

Projected Capital Financing and Replacement Cycle

As the City's capital funding for its existing roads infrastructure increases by \$7 million per year, the replacement cycle is expected to decrease accordingly. Currently, the City's capital funding is sufficient to reconstruct/rehabilitate a road once every 80 years. At the end of the financial planning period, the reconstruct/rehabilitate cycle for roads is expected to approximate 40 years, which is reflective of the average useful life of a road.



Financial Planning for the Municipal Road System

Concluding Comments

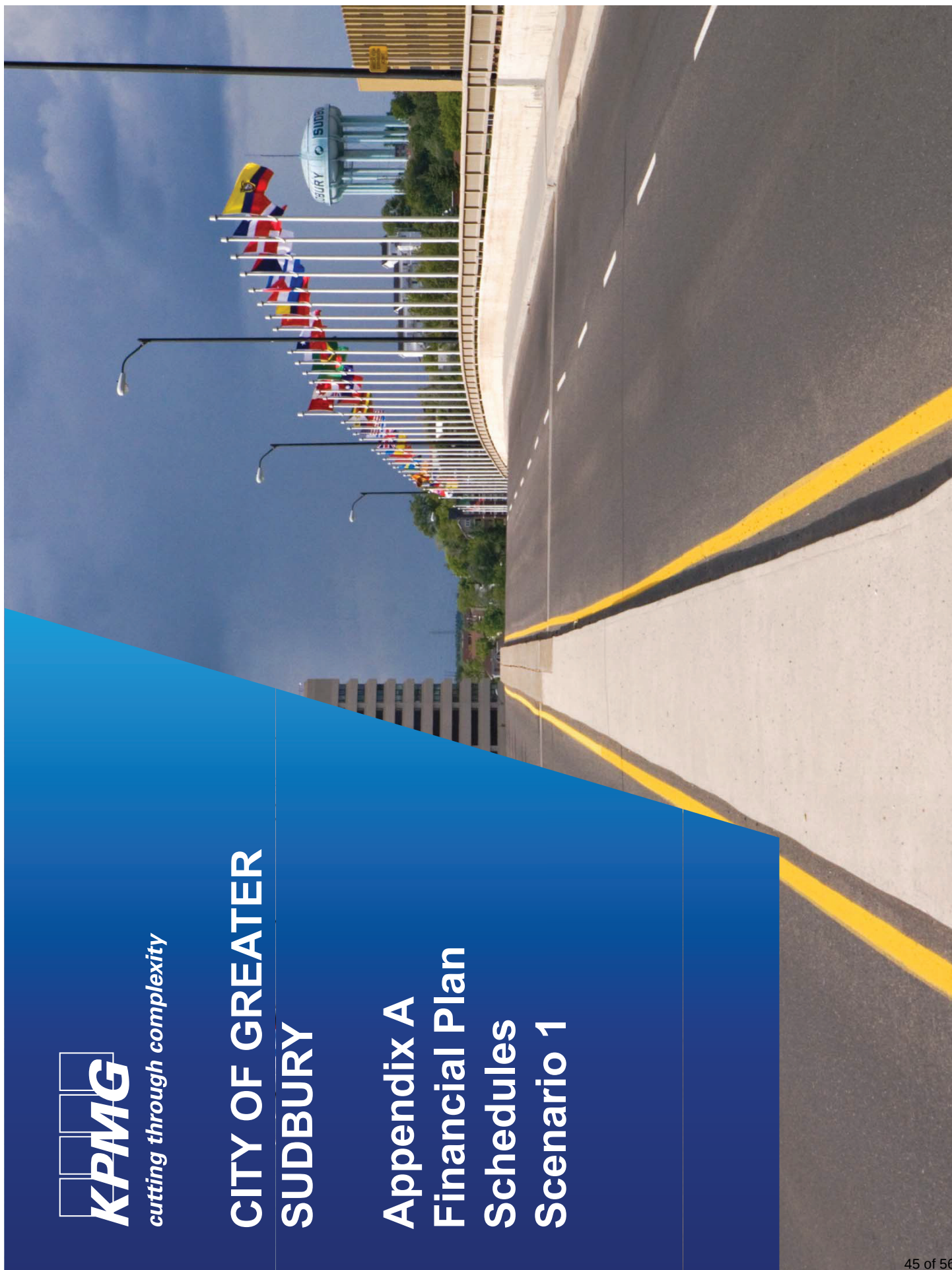
- Based on guidance from the Ontario Good Roads Association, the current infrastructure deficit for roads is estimated to be \$700 million, with an additional \$480 million to be invested within the next five years and a further \$90 million within the next 10 years.
- Achieving a sustainable level of capital investment would require the City to increase its annual capital expenditures from the currently level of \$35 million to \$75 million. Based on a ten-year phase-in period and after considering the effects of inflation, the City would be required to increase its annual capital funding by \$6.2 million per year in each of the next ten years to achieve this level of capital reinvestment.
- From an operating perspective, attaining the recommended standard of summer roads maintenance would require an additional investment of \$4 million in the City's roads budget.
- The City intends to pursue funding from senior levels of government to finance the cost of its roads infrastructure requirement. In the absence of other sources of funding, the City would be required to increase the municipal levy by 3.3% to 3.5% each year over the next 10 years to meet the financial requirements outlined in the financial plan. The range of levy increases reflects different assumptions concerning the City's investment in growth infrastructure.



cutting through complexity

CITY OF GREATER SUDBURY

Appendix A Financial Plan Schedules Scenario 1



Statement of Projected Roads Financial Requirement
For the Years Ending December 31
(in thousands)

Reference	Budgeted 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
(A) Operating expenditures											
Road maintenance and operating costs	37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566
	37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566
(B) Capital expenditures and allocations											
Existing infrastructure	34,949	37,598	42,914	48,448	54,415	60,578	67,103	74,005	81,300	89,005	96,877
Malley Drive expansion	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585
Other growth projects	-	-	-	-	-	-	-	-	-	-	-
	37,534	40,183	45,499	51,033	57,000	63,163	69,688	76,590	83,885	91,590	99,462
(C) TOTAL EXPENDITURES (A) + (B)	74,992	79,566	86,887	94,513	102,661	111,096	119,058	127,441	136,262	145,539	155,028
(D) Non-taxation operating revenue											
Grant revenue	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)
User fees and other charges	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)
Contributions from reserves and reserve funds	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)
	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)
(E) Capital grant revenue											
Existing infrastructure	(7,859)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)
Malley Drive expansion	-	-	-	-	-	-	-	-	-	-	-
Other growth projects	-	-	-	-	-	-	-	-	-	-	-
	(7,859)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)
(F) Other capital revenues											
Future year financing	(700)	350	200	150	-	-	-	-	-	-	-
Contribution from reserves	(3,800)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
	(4,500)	(1,650)	(1,800)	(1,850)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
(G) TOTAL NON-TAXATION REVENUE (D) + (E) + (F)	(13,310)	(10,386)	(10,536)	(10,586)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)
ROADS FUNDING FROM MUNICIPAL LEVY (C) - (G)	61,682	69,180	76,351	83,927	91,925	100,360	108,322	116,705	125,526	134,803	144,292
Total increase in roads funding from municipal levy											
- Operating	1,925	1,925	2,005	2,092	2,181	2,272	1,437	1,481	1,526	1,572	1,617
- Capital	5,573	5,573	5,166	5,484	5,817	6,163	6,525	6,902	7,295	7,705	8,172
	7,498	7,498	7,171	7,576	7,998	8,435	7,962	8,383	8,821	9,277	9,789
Percentage increase in roads funding from municipal levy:											
- Operating	3.1%	2.9%	2.7%	2.7%	2.6%	2.5%	1.4%	1.4%	1.3%	1.3%	1.2%
- Capital	9.0%	7.5%	7.2%	7.2%	6.9%	6.7%	6.5%	6.4%	6.3%	6.1%	5.8%
	12.2%	10.4%	9.9%	9.9%	9.5%	9.2%	7.9%	7.7%	7.6%	7.4%	7.0%
Percentage increase in municipal levy:											
- Operating	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.6%	0.6%	0.6%	0.6%	0.6%
- Capital	2.6%	2.3%	2.3%	2.4%	2.5%	2.5%	2.6%	2.6%	2.7%	2.8%	2.7%
	3.5%	3.2%	3.2%	3.3%	3.4%	3.5%	3.2%	3.2%	3.3%	3.3%	3.3%
Average annual tax increase											3.3%

Notes:

- (1) Represents contributions to capital for Malley Drive project costs and debt servicing costs.
- (2) Under this scenario, no growth projects other than Malley Drive have been considered.
- (3) Malley Drive and other growth projects are reflected on a net basis, with the cost of the projects netted against grant revenues and debt proceeds. Accordingly, the financial model reflects the debt servicing cost as associated with growth-related borrowings.

CITY OF GREATER SUDBURY

Schedule 2

Statement of Projected Roads Operating Costs
For the Years Ending December 31
(In thousands)

Reference	Budget 2012	2013	2014	Projected							
				2015	2016	2017	2018	2019	2020	2021	2022
Administration (note 1)	\$ 462	476	480	505	520	536	552	569	586	604	622
Summer maintenance (note 1)	13,926	14,344	14,774	15,217	15,674	16,144	16,628	17,127	17,641	18,170	18,715
Winter maintenance (note 1)	15,283	15,741	16,213	16,699	17,200	17,716	18,247	18,794	19,358	19,939	20,537
Streetslighting (note 1)	2,363	2,434	2,507	2,582	2,659	2,739	2,821	2,906	2,993	3,083	3,175
Engineering (note 1)	4,966	5,115	5,268	5,426	5,589	5,757	5,930	6,108	6,291	6,480	6,674
Other (note 1)	458	472	486	501	516	531	547	563	580	597	615
Operating costs before undemoted items	37,458	38,582	39,738	40,930	42,158	43,423	44,725	46,067	47,449	48,873	50,338
Service level increases for summer roads maintenance (note 2) :											
Cumulative annual increase, beginning of year	-	-	801	1,650	2,550	3,503	4,510	4,645	4,784	4,928	5,076
Inflationary increase on prior year's cumulative increase	-	-	24	50	77	105	135	139	144	152	158
Current year's increase	-	801	825	850	876	902	928	-	-	-	-
Cumulative annual increase, end of year	-	801	1,650	2,550	3,503	4,510	4,645	4,784	4,928	5,076	5,228
Total projected roads operating costs	\$ 37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566

Notes:

- (1) Based on the approved 2012 budget levels, adjusted for inflation at a rate of 3% per year. Amounts included all operating costs except for transfer to capital fund.
- (2) Represents the incremental summer maintenance costs required as per the City's zero-based budget analysis. For the purpose of our analysis, we have assumed a five-year phase-in period.

CITY OF GREATER SUDBURY

Statement of Projected Roads Capital Financing Requirement
For the Years Ending December 31
(in thousands)

Schedule 3

References	Budget										Projected	
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Sustainable capital investment requirement, beginning of year	(note 1)	\$ 69,966	72,086	74,249	76,476	78,770	81,133	83,567	86,074	88,656	91,316	94,055
Inflationary adjustment	(note 2)	2,100	2,163	2,227	2,294	2,363	2,434	2,507	2,582	2,660	2,739	2,822
Sustainable capital investment requirement, end of year		72,066	74,249	76,476	78,770	81,133	83,567	86,074	88,656	91,316	94,055	96,877
Less:												
Provision for Federal and Provincial gas tax grants	Schedule 1	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)
Contributions from reserves and other non-taxation capital revenue	Schedule 1	(3,806)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)
Net local requirement for roads capital before phases-in provisions		60,391	64,374	66,591	68,895	71,248	73,692	76,199	78,771	81,431	84,170	86,992
Phase-in percentage	(note 3)	37.3%	43.6%	49.9%	56.2%	62.5%	68.8%	75.1%	81.4%	87.7%	94.0%	100.0%
Net roads capital spending before debt		22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,992
Less: Debt financing	(note 4)	-	-	-	-	-	-	-	-	-	-	-
Contribution to capital fund		\$ 22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,992
Estimated replacement value of roads infrastructure, prior year												
Land	(note 5)	11,411	11,753	12,106	12,469	12,843	13,228	13,625	14,034	14,455	14,889	15,336
Drains	(note 5)	22,658	23,338	24,038	24,759	25,502	26,267	27,055	27,867	28,703	29,564	30,451
Streetlighting	(note 5)	17,613	18,141	18,685	19,246	19,823	20,418	21,031	21,662	22,312	22,981	23,670
Bridges and culverts	(note 5)	252,909	260,496	268,311	276,360	284,651	293,191	301,987	311,047	320,378	329,889	339,589
Gravel roads	(note 5)	163,601	168,509	173,564	178,771	184,134	189,658	195,348	201,209	207,244	213,461	219,865
At-grade roads (urban and rural)	(note 5)	623,652	642,362	661,653	681,462	701,926	723,984	746,674	769,014	791,024	813,725	836,137
Collector roads (urban and rural)	(note 5)	360,235	367,542	375,042	382,871	391,038	399,559	408,431	417,664	427,264	437,234	447,575
Arterial roads (urban and rural)	(note 5)	1,342,341	1,360,255	1,378,642	1,397,511	1,416,865	1,436,714	1,457,067	1,477,924	1,499,285	1,521,152	1,543,525
Traffic signals and signs	(note 5)	22,866	23,552	24,258	24,986	25,737	26,508	27,301	28,119	28,963	29,832	30,727
Inflationary increase		2,854,773	2,940,416	3,028,628	3,119,487	3,213,072	3,309,464	3,408,748	3,511,010	3,616,340	3,724,830	3,836,575
Estimated replacement value of roads infrastructure, current year		85,643	88,212	90,859	93,585	96,392	99,284	102,262	105,330	108,490	111,745	115,097
Contribution to capital fund		2,940,416	3,028,628	3,119,487	3,213,072	3,309,464	3,408,748	3,511,010	3,616,340	3,724,830	3,836,575	3,951,672
Utility area financing	Schedule 1	22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,992
Other non-taxation capital revenue	Schedule 1	3,806	(2,006)	(2,006)	(1,500)	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Federal and Provincial gas tax grants	Schedule 1	7,869	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Total capital financing		\$ 34,949	37,558	42,914	48,418	54,415	60,578	67,103	74,005	81,300	89,005	96,977
Capital financing as a percentage of replacement value		1.2%	1.2%	1.4%	1.5%	1.6%	1.8%	1.9%	2.0%	2.2%	2.3%	2.5%
Projected replacement cycle (in years)		84	81	73	66	61	56	52	49	46	43	41

Notes:

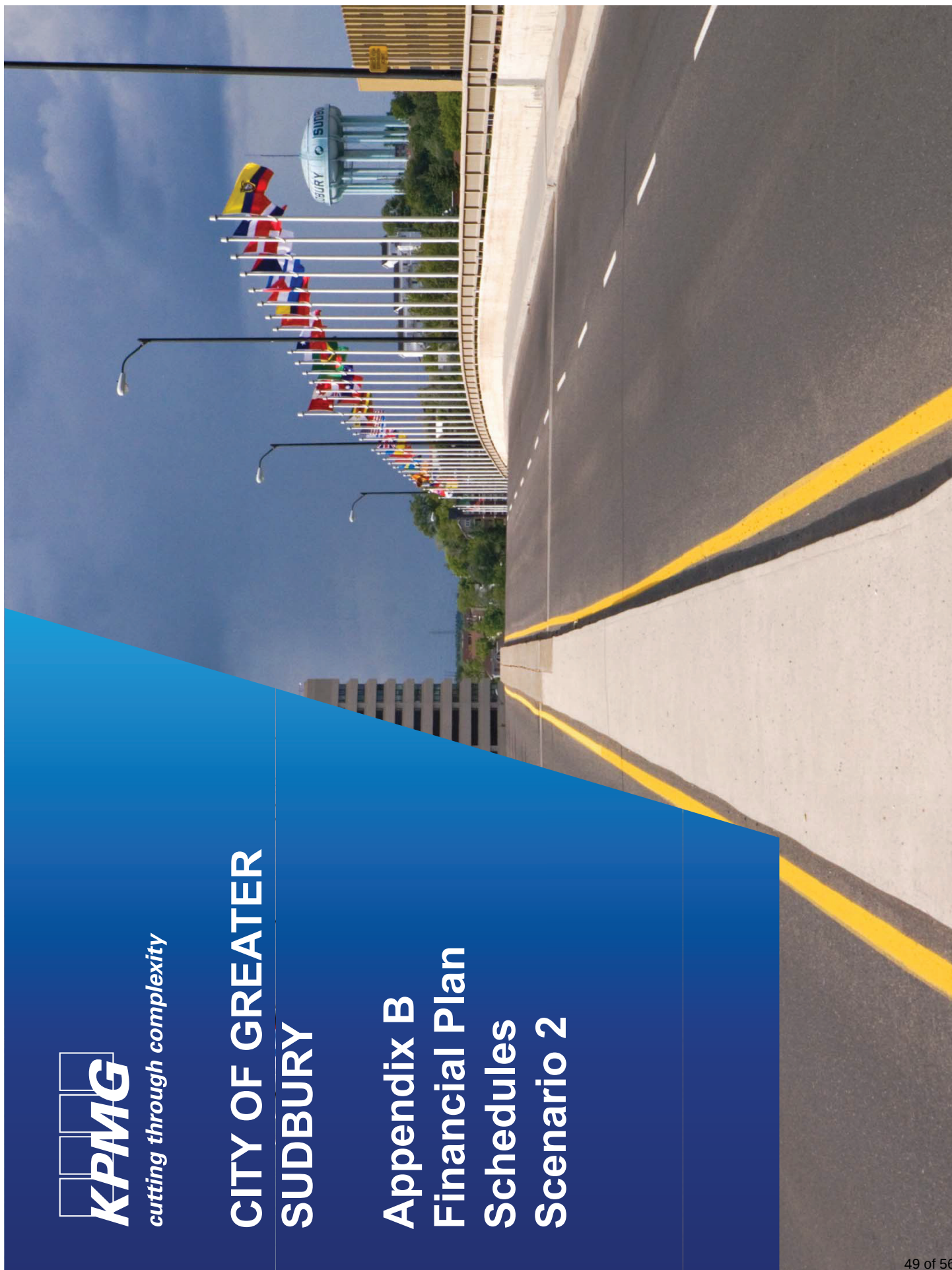
- (1) KPMG calculation based on estimated replacement value and useful lives of municipal road infrastructure.
- (2) Assumes a 10-year capital phase-in period.
- (3) Assumes a 10-year capital phase-in period.
- (4) For the purposes of our analysis, no debt financing has been considered for capital expenditures relating to existing infrastructure.
- (5) Based on tangible capital asset information provided by the City.



cutting through complexity

CITY OF GREATER SUDBURY

Appendix B Financial Plan Schedules Scenario 2



CITY OF GREATER SUDBURY

Schedule 1

Statement of Projected Roads Financial Requirement
For the Years Ending December 31
(in thousands)

Reference	Budgeted 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
(A) Operating expenditures											
Road maintenance and operating costs	37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566
	37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566
(B) Capital expenditures and allocations											
Existing infrastructure	34,949	37,598	42,914	48,448	54,415	60,578	67,103	74,005	81,300	89,005	96,877
Malley Drive expansion	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585	2,585
Other growth projects	524	524	1,048	1,572	2,096	2,620	3,144	3,668	4,192	4,716	5,242
	37,534	40,707	46,547	52,605	59,096	65,763	72,832	80,258	88,077	96,306	104,704
(C) TOTAL EXPENDITURES (A) + (B)	74,992	80,090	87,935	96,085	104,757	113,716	122,202	131,109	140,454	150,255	160,270
(D) Non-taxation operating revenue											
Grant revenue	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)
User fees and other charges	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)	(751)
Contributions from reserves and reserve funds	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)	(60)
	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)	(851)
(E) Capital grant revenue											
Existing infrastructure	(7,859)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)
Malley Drive expansion	-	-	-	-	-	-	-	-	-	-	-
Other growth projects	-	-	-	-	-	-	-	-	-	-	-
	(7,859)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)	(7,885)
(F) Other capital revenues											
Future year financing	(700)	350	200	150	-	-	-	-	-	-	-
Contribution from reserves	(3,800)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
	(4,500)	(1,650)	(1,800)	(1,850)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
(G) TOTAL NON-TAXATION REVENUE (D) + (E) + (F)	(13,310)	(10,386)	(10,536)	(10,586)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)	(10,736)
ROADS FUNDING FROM MUNICIPAL LEVY (C) - (G)	61,682	69,704	77,389	85,489	94,021	102,980	111,466	120,373	129,718	139,519	149,534
Total increase in roads funding from municipal levy											
- Operating	1,925	2,005	2,092	2,092	2,181	2,272	1,437	1,481	1,526	1,572	1,617
- Capital	6,097	5,690	6,341	6,008	6,341	6,687	7,049	7,426	7,819	8,229	8,398
	8,022	7,695	8,100	8,100	8,522	8,959	8,486	8,907	9,345	9,801	10,015
Percentage increase in roads funding from municipal levy:											
- Operating	3.1%	2.9%	2.7%	2.7%	2.6%	2.4%	1.4%	1.3%	1.3%	1.2%	1.2%
- Capital	9.9%	8.2%	7.8%	7.4%	7.4%	7.1%	6.8%	6.7%	6.5%	6.3%	6.0%
	13.0%	11.0%	10.5%	10.1%	10.0%	9.5%	8.2%	8.0%	7.8%	7.6%	7.2%
Percentage increase in municipal levy:											
- Operating	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.6%	0.6%	0.6%	0.6%	0.6%
- Capital	2.9%	2.6%	2.7%	2.6%	2.7%	2.7%	2.8%	2.8%	2.9%	2.9%	2.9%
	3.8%	3.5%	3.6%	3.5%	3.6%	3.6%	3.4%	3.4%	3.4%	3.5%	3.4%
Average annual tax increase											3.5%

Notes:

- (1) Represents contributions to capital for Malley Drive project costs and debt servicing costs.
- (2) Under this scenario, growth projects totaling \$247 million are anticipated to be undertaken during the financial planning period.
- (3) Malley Drive and other growth projects are reflected on a net basis, with the cost of the projects netted against grant revenues and debt proceeds. Accordingly, the financial model reflects the debt servicing cost as associated with growth-related borrowings.

CITY OF GREATER SUDBURY

Schedule 2

Statement of Projected Roads Operating Costs
For the Years Ending December 31
(In thousands)

Reference	Budget 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Administration (note 1)	\$ 462	476	490	505	520	536	552	569	586	604	622
Summer maintenance (note 1)	13,926	14,344	14,774	15,217	15,674	16,144	16,628	17,127	17,641	18,170	18,715
Winter maintenance (note 1)	15,283	15,741	16,213	16,699	17,200	17,716	18,247	18,794	19,358	19,939	20,537
Streetslighting (note 1)	2,363	2,434	2,507	2,582	2,659	2,739	2,821	2,906	2,993	3,083	3,175
Engineering (note 1)	4,966	5,115	5,268	5,426	5,589	5,757	5,930	6,108	6,291	6,480	6,674
Other (note 1)	453	472	486	501	516	531	547	563	580	597	615
Operating costs before undemoted items	37,458	38,582	39,738	40,930	42,158	43,423	44,725	46,067	47,449	48,873	50,338
Service level increases for summer roads maintenance (note 2) :											
Cumulative annual increase, beginning of year	-	-	801	1,650	2,550	3,503	4,510	4,645	4,784	4,928	5,078
Inflationary increase on prior year's cumulative increase	-	-	24	105	77	105	135	139	144	148	152
Current year's increase	-	801	825	850	876	902	928	954	980	1,006	1,032
Cumulative annual increase, end of year	-	801	1,650	2,550	3,503	4,510	4,645	4,784	4,928	5,078	5,228
Total projected roads operating costs	\$ 37,458	39,383	41,388	43,480	45,661	47,933	49,370	50,851	52,377	53,949	55,566

Notes:

- (1) Based on the approved 2012 budget levels, adjusted for inflation at a rate of 3% per year. Amounts included all operating costs except for transfer to capital fund.
- (2) Represents the incremental summer maintenance costs required as per the City's zero-based budget analysis. For the purpose of our analysis, we have assumed a five-year phase-in period.

CITY OF GREATER SUDBURY

Schedule 3

Statement of Projected Roads Capital Financing Requirement
For the Years Ending December 31
(in thousands)

References	Budget		Projected									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Sustainable capital investment requirement, beginning of year	(note 1)	\$ 69,986	72,086	74,249	76,476	78,770	81,133	83,567	86,074	88,656	91,316	94,055
Inflationary adjustment	(note 2)	2,100	2,163	2,227	2,294	2,363	2,434	2,507	2,582	2,660	2,739	2,822
Sustainable capital investment requirement, end of year		72,086	74,249	76,476	78,770	81,133	83,567	86,074	88,656	91,316	94,055	96,877
Less:												
Provision for Federal and Provincial gas tax grants	Schedule 1	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)	(7,869)
Contributions from reserves and other non-taxation capital revenue	Schedule 1	(3,806)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)
Net local requirement for roads capital before phases-in provisions		60,327	64,364	66,591	68,695	71,248	73,692	76,199	78,771	81,431	84,170	86,892
Phase-in percentage	(note 3)	37.3%	43.6%	49.9%	56.2%	62.5%	68.8%	75.1%	81.4%	87.7%	94.0%	100.0%
Net roads capital spending before debt		22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,892
Less: Debt financing	(note 4)	-	-	-	-	-	-	-	-	-	-	-
Contribution to capital fund		\$ 22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,892
Estimated replacement value of roads infrastructure, prior year												
Land	(note 5)	11,411	11,753	12,106	12,469	12,843	13,228	13,625	14,034	14,455	14,889	15,336
Drains	(note 5)	22,658	23,338	24,038	24,759	25,502	26,267	27,055	27,867	28,703	29,564	30,451
Streetlighting	(note 5)	17,613	18,141	18,685	19,246	19,823	20,418	21,031	21,662	22,312	22,981	23,670
Bridges and culverts	(note 5)	252,909	260,496	268,311	276,360	284,651	293,191	301,987	311,047	320,378	329,889	339,589
Gravel roads	(note 5)	165,601	168,509	173,564	178,771	184,134	189,658	195,348	201,209	207,244	213,461	219,865
Arterial roads (urban and rural)	(note 5)	625,652	642,362	661,653	681,462	701,926	723,984	746,674	769,014	791,024	813,725	836,137
Collector roads (urban and rural)	(note 5)	365,335	380,235	397,642	416,571	436,038	456,059	476,631	497,764	519,466	541,744	564,604
Local roads (urban and rural)	(note 5)	1,345,361	1,384,231	1,426,531	1,472,281	1,521,581	1,574,331	1,630,531	1,690,181	1,753,281	1,820,831	1,892,831
Traffic signals and signs	(note 5)	22,866	23,552	24,258	24,986	25,737	26,508	27,301	28,119	28,963	29,833	30,727
Inflationary increase		2,854,773	2,940,416	3,028,628	3,119,487	3,213,072	3,309,464	3,408,748	3,511,010	3,616,340	3,724,830	3,836,575
Estimated replacement value of roads infrastructure, current year		85,643	88,212	90,859	93,585	96,392	99,284	102,262	105,330	108,490	111,745	115,097
Contribution to capital fund	Schedule 1	2,940,416	3,028,628	3,119,487	3,213,072	3,309,464	3,408,748	3,511,010	3,616,340	3,724,830	3,836,575	3,951,672
Utility area financing	(note 6)	22,490	28,063	33,229	38,713	44,530	50,693	57,218	64,120	71,415	79,120	86,892
Other non-taxation capital revenue	Schedule 1	(3,806)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)	(2,006)
Federal and Provincial gas tax grants	Schedule 1	7,869	7,869	7,869	7,869	7,869	7,869	7,869	7,869	7,869	7,869	7,869
Total capital financing		\$ 34,949	37,558	42,914	48,448	54,415	60,578	67,103	74,005	81,300	89,005	96,877
Capital financing as a percentage of replacement value		1.2%	1.2%	1.4%	1.5%	1.6%	1.8%	1.9%	2.0%	2.2%	2.3%	2.5%
Projected replacement cycle (in years)		84	81	73	66	61	56	52	49	46	43	41

Notes:

- (1) KPMG calculation based on estimated replacement value and useful lives of municipal road infrastructure.
- (2) Assumed a 10-year capital phase-in period.
- (3) Assumes a 10-year capital phase-in period.
- (4) For the purposes of our analysis, no debt financing has been considered for capital expenditures relating to existing infrastructure.
- (5) Based on tangible capital asset information provided by the City.

Financial Planning for Roads Restrictions

The financial plan outlined in this report represents a forecast of the financial performance of the City's roads services under a series of assumptions that are documented within the plan. The financial plan does not represent a formal, multi-year budget for roads. The approval of operating and capital budgets for roads is undertaken as part of the City's overall annual budgeting process. Accordingly, the financial performance outlined in this document is subject to change based on future decisions of Council with respect to operating and capital costs, tax increases and unforeseen revenues and expenses. It is the intention of the City to adjust the financial plan on an annual basis to reflect the most recent budgetary decisions made by Council.

The information contained in this report has been compiled from information provided by the City. We have not audited, reviewed or otherwise attempted to verify the accuracy or completeness of such information. Readers are cautioned that this information may not be appropriate for their purposes. We reserve the right (but will be under no obligation) to amend this report and advise accordingly in the event that, in our opinion, new material information comes to our attention that may be contrary to or different from that which is set out in this document. Comments in this report should not be interpreted to be legal advice or opinion.

The contents of this report reflect our understanding of the facts derived from the examination of documents provided to us. This report includes or makes reference to future oriented financial information. We have not audited or otherwise reviewed the financial information or supporting assumptions and as such, express no opinion as to the reasonableness of the information provided.

The individuals that prepared this report did so to the best of their knowledge, acting independently and objectively. KPMG LLP's compensation is not contingent on any action or event resulting from the use of this report.

This report, including any attached appendices, must be considered in its entirety by the reader.



cutting through complexity

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City of Greater Sudbury Charter

WHEREAS Municipalities are governed by the Ontario Municipal Act, 2001;

AND WHEREAS the City of Greater Sudbury has established Vision, Mission and Values that give direction to staff and City Councillors;

AND WHEREAS City Council and its associated boards are guided by a Code of Ethics, as outlined in Appendix B of the City of Greater Sudbury's Procedure Bylaw, most recently updated in 2011;

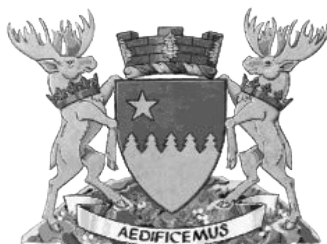
AND WHEREAS the City of Greater Sudbury official motto is "Come, Let Us Build Together," and was chosen to celebrate our city's diversity and inspire collective effort and inclusion;

THEREFORE BE IT RESOLVED THAT Council for the City of Greater Sudbury approves, adopts and signs the following City of Greater Sudbury Charter to complement these guiding principles:

As Members of Council, we hereby acknowledge the privilege to be elected to the City of Greater Sudbury Council for the 2014-2018 term of office. During this time, we pledge to always represent the citizens and to work together always in the interest of the City of Greater Sudbury.

Accordingly, we commit to:

- Perform our roles, as defined in the Ontario Municipal Act (2001), the City's bylaws and City policies;
- Act with transparency, openness, accountability and dedication to our citizens, consistent with the City's Vision, Mission and Values and the City official motto;
- Follow the Code of Ethical Conduct for Members of Council, and all City policies that apply to Members of Council;
- Act today in the interest of tomorrow, by being responsible stewards of the City, including its finances, assets, services, public places, and the natural environment;
- Manage the resources in our trust efficiently, prudently, responsibly and to the best of our ability;
- Build a climate of trust, openness and transparency that sets a standard for all the City's goals and objectives;
- Always act with respect for all Council and for all persons who come before us;
- Ensure citizen engagement is encouraged and promoted;
- Advocate for economic development, encouraging innovation, productivity and job creation;
- Inspire cultural growth by promoting sports, film, the arts, music, theatre and architectural excellence;
- Respect our historical and natural heritage by protecting and preserving important buildings, landmarks, landscapes, lakes and water bodies;
- Promote unity through diversity as a characteristic of Greater Sudbury citizenship;
- Become civic and regional leaders by encouraging the sharing of ideas, knowledge and experience;
- Work towards achieving the best possible quality of life and standard of living for all Greater Sudbury residents;



Charte de la Ville du Grand Sudbury

ATTENDU QUE les municipalités sont régies par la Loi de 2001 sur les municipalités (Ontario);

ATTENDU QUE la Ville du Grand Sudbury a élaboré une vision, une mission et des valeurs qui guident le personnel et les conseillers municipaux;

ATTENDU QUE le Conseil municipal et ses conseils sont guidés par un code d'éthique, comme l'indique l'annexe B du Règlement de procédure de la Ville du Grand Sudbury dont la dernière version date de 2011;

ATTENDU QUE la devise officielle de la Ville du Grand Sudbury, « Ensemble, bâtissons notre avenir », a été choisie afin de célébrer la diversité de notre municipalité ainsi que d'inspirer un effort collectif et l'inclusion;

QU'IL SOIT RÉSOLU QUE le Conseil de la Ville du Grand Sudbury approuve et adopte la charte suivante de la Ville du Grand Sudbury, qui sert de complément à ces principes directeurs, et qu'il y appose sa signature:

À titre de membres du Conseil, nous reconnaissons par la présente le privilège d'être élus au Conseil du Grand Sudbury pour le mandat de 2014-2018. Durant cette période, nous promettons de toujours représenter les citoyens et de travailler ensemble, sans cesse dans l'intérêt de la Ville du Grand Sudbury.

Par conséquent, nous nous engageons à :

- assumer nos rôles tels qu'ils sont définis dans la Loi de 2001 sur les municipalités, les règlements et les politiques de la Ville;
- faire preuve de transparence, d'ouverture, de responsabilité et de dévouement envers les citoyens, conformément à la vision, à la mission et aux valeurs ainsi qu'à la devise officielle de la municipalité;
- suivre le Code d'éthique des membres du Conseil et toutes les politiques de la municipalité qui s'appliquent à eux;
- agir aujourd'hui pour demain en étant des intendants responsables de la municipalité, y compris de ses finances, biens, services, endroits publics et du milieu naturel;
- gérer les ressources qui nous sont confiées de façon efficiente, prudente, responsable et de notre mieux;
- créer un climat de confiance, d'ouverture et de transparence qui établit une norme pour tous les objectifs de la municipalité;
- agir sans cesse en respectant tous les membres du Conseil et les gens se présentant devant eux;
- veiller à ce qu'on encourage et favorise l'engagement des citoyens;
- plaider pour le développement économique, à encourager l'innovation, la productivité et la création d'emplois;
- être une source d'inspiration pour la croissance culturelle en faisant la promotion de l'excellence dans les domaines du sport, du cinéma, des arts, de la musique, du théâtre et de l'architecture;
- respecter notre patrimoine historique et naturel en protégeant et en préservant les édifices, les lieux d'intérêt, les paysages, les lacs et les plans d'eau d'importance;
- favoriser l'unité par la diversité en tant que caractéristique de la citoyenneté au Grand Sudbury;
- devenir des chefs de file municipaux et régionaux en favorisant les échanges d'idées, de connaissances et concernant l'expérience;
- viser l'atteinte de la meilleure qualité et du meilleur niveau de vie possible pour tous les résidents du Grand Sudbury.