



# PROVINCIAL-MUNICIPAL ROADS AND BRIDGES REVIEW

*Steering Committee*

*Final Report*

July 2012



## Preface

In the Provincial-Municipal Fiscal and Service Delivery Review (PMFSDR) consensus report released in 2008, the Province, Association of Municipalities of Ontario and City of Toronto agreed to:

*“launch a joint provincial-municipal process to develop options regarding responsibilities and funding arrangements for roads and bridges. This will be based on established technical and functional criteria grounded in sound asset management principles.”*

The Ontario Ministry of Transportation (MTO) in partnership with the Association of Municipalities of Ontario (AMO) and in collaboration with the City of Toronto began the *Provincial-Municipal Roads and Bridges Review* in early 2010 to look at ways to address municipal road and bridge infrastructure investment needs.

The Review was jointly coordinated by MTO and AMO. A Steering Committee was established to guide the process and provide oversight for three Working Groups, which were co-led by a MTO and an AMO representative. Each working group had a strategic focus that provided a different analytical lens, or framework, that can inform future road and bridge investment decisions:

*Working Group #1 – Role of road and bridge asset management and promotion of its use.*

*Working Group #2 – Develop a road classification framework to identify roads of shared provincial and municipal interest.*

*Working Group #3 – Develop a roads and bridge funding framework that considers municipal fiscal capacity to pay for infrastructure and municipal road and bridge infrastructure needs.*

Participants on the Steering Committee and Working Groups included AMO staff, AMO members from across Ontario, and staff from the City of Toronto, as well as staff from provincial ministries including Transportation, Infrastructure, Municipal Affairs and Housing, Finance, and Northern Development and Mines. Appendix A lists the membership for the Steering Committee and each Working Group.

Review participants met regularly from spring 2010 to June 2011 focusing first on developing a shared understanding of the road and bridge infrastructure challenges facing Ontario municipalities, previous work completed by the PMFSDR Roads and Bridges Subgroup, and municipal experience. This was followed by development of the different analytical frameworks in support of municipal roads and bridges. Working Group analysis and products were completed and endorsed by the Steering Committee in June 2011.

The technical analysis of the three Working Groups was presented at two concurrent sessions at the 2011 AMO Conference in London. The Working Group analysis and the feedback at AMO Conference sessions were considered by the Steering Committee in developing this report.

At the final Steering Committee meeting in March 2012, the draft report and recommendations were reviewed and subsequently revised based on the Steering Committee input. The report represents the consensus of the Steering Committee.

## INTRODUCTION

Ontario's municipal roads and bridges play a vital role in connecting communities, industry, resource and tourism areas across the province. Municipalities are responsible for over 140,000 kilometres of roads and more than 15,000 bridges and large culverts. In comparison, the provincial highway system includes 16,600 kilometres of roads and 4,750 bridges and large culverts.

The Province, AMO and City of Toronto share a common goal: to ensure that Ontario's roads and bridges and other public infrastructure assets are well maintained, renewed and improved to promote job creation, economic prosperity, and the quality of life of communities across the province.

The partners recognize the magnitude of the infrastructure challenge facing Ontario municipalities. In the 2008 PMFSDR report, it was estimated that an additional \$60 billion over ten years was required to close the large municipal infrastructure investment gap. Municipal roads and bridges accounted for \$28 billion, or almost half of the total municipal infrastructure investment gap.

The PMFSDR noted that the future fiscal requirements for infrastructure are much larger than the resources available to meet them and will be an ongoing challenge. While significant infrastructure investments have been made in recent years and the social cost uploads continue, there remains a need for all orders of government to work together to develop long term solutions to sustain roads and bridges and other municipal infrastructure in the years ahead.

A future permanent, predictable infrastructure funding program would enable municipalities to plan, build and renew their roads and bridge over the long term. The Steering Committee recommends that this should be considered in the context of the Municipal Infrastructure Investment Strategy that the Province has committed to developing in its ten year infrastructure plan, *Building Together*.

In view of the current fiscal climate and the large expenditure of one-time infrastructure funds in recent years, all orders of government have less capital funding available in the near term for infrastructure investment. In the absence of any new roads and bridges funding, it remains important to move ahead with developing a sound asset management foundation for any future infrastructure funding program. Sound asset management planning will enable municipalities to make cost effective investment decisions based on their infrastructure needs and priorities and make the best use of their limited resources.

The Roads and Bridges Review makes a number of recommendations for next steps in support of municipal roads and bridges, when provincial funding is made available. Some of the work of this project may contribute to a broader infrastructure funding program that considers other major municipal infrastructure.

## THE ROADS AND BRIDGES INFRASTRUCTURE CHALLENGE

Ontario's highways, roads and bridges, water and wastewater systems, among other critical assets need to be built, maintained, renewed and upgraded or replaced. Municipalities own almost half the public infrastructure stock.

In the PMFSDR analysis, the former Ministry of Energy and Infrastructure (MEI) carried out extensive modelling (PMFSDR Infrastructure Table Working Paper, 2008) to estimate the replacement value and infrastructure investment needs for major municipal infrastructure systems including roads and bridges, water and wastewater, stormwater, transit, conservation areas, and solid waste (public housing was not included).<sup>1</sup>

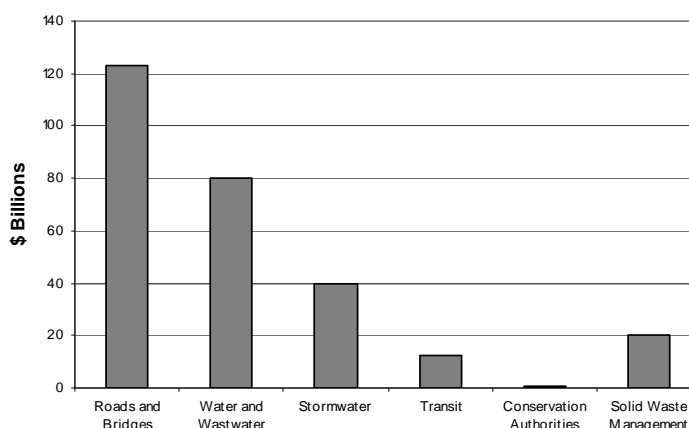
Municipal roads and bridges make up the largest asset group accounting for over \$120 billion, or 45 per cent, of the total municipal infrastructure portfolio replacement value of \$276 billion (in \$2006).

The MEI modelling indicated that to eliminate the entire municipal infrastructure deficit over 10 years while meeting ongoing lifecycle and growth needs would require an additional investment of \$60 billion, over 2006-16.

The municipal roads and bridges infrastructure gap of \$28 billion accounts for 47 per cent of the total infrastructure deficit over the modelled 10 year period. This equates to \$2.8 billion annually above average annual municipal road and bridge expenditures (2001-2006).

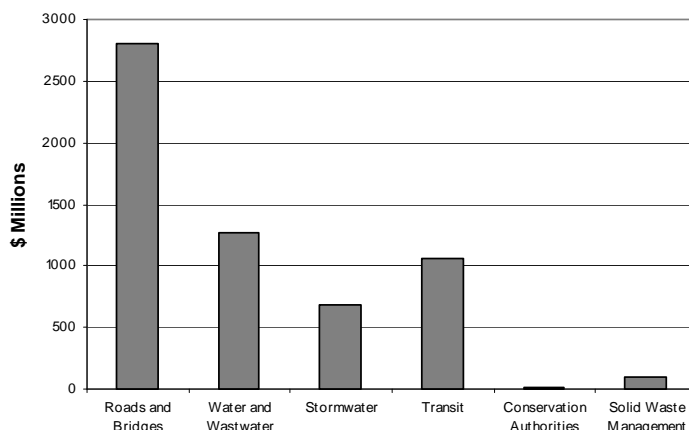
<sup>1</sup> Ontario's social housing infrastructure gap is estimated to be \$1.2 billion (Social Housing Services Corporation, 2009).

**Replacement Value of Municipal Infrastructure by Sector**



Source: PMFSDR Estimates based on MEI modelling

**Municipal Infrastructure Investment Gap Annual 2006-2016**



Source: PMFSDR Estimates based on MEI modelling

The PMFSDR analysis indicates that the road and bridge infrastructure investment gap varies considerably across Ontario municipalities by region and between urban and rural areas both in terms of total needs and per capita needs.

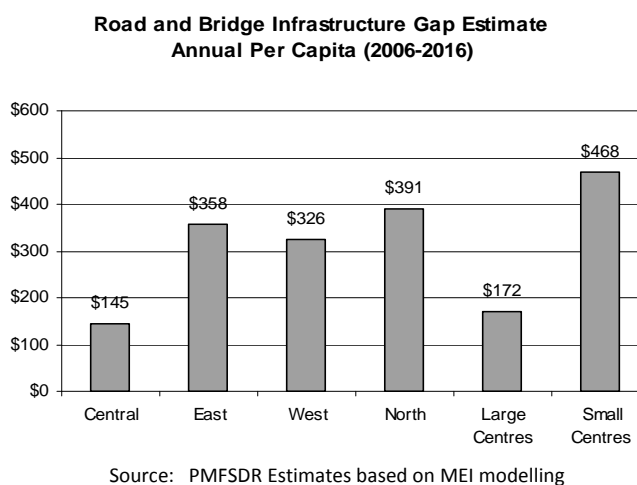
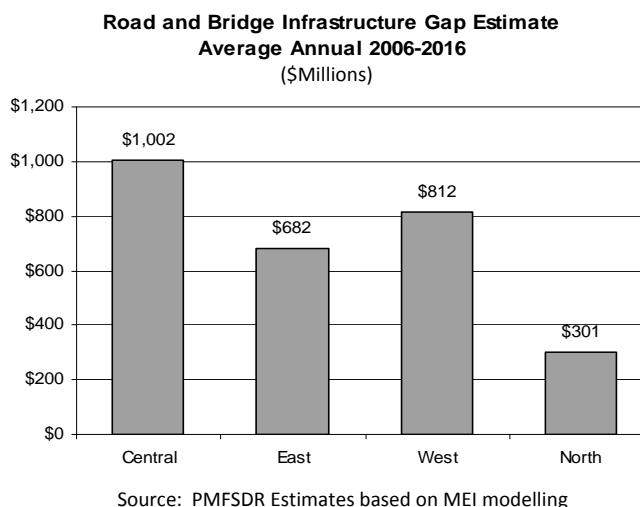
Central Ontario accounts for \$1 billion annually or 36% of the road and bridge investment gap. In contrast, the road and bridge investment gap in northern Ontario is \$301 million annually representing 10% of the investment gap.

However, measuring on a *per capita* basis reveals investment needs are greater in smaller communities located in rural and northern areas of Ontario.

The PMFSDR modelling by MEI indicated that the road and bridge infrastructure gap for the east, west and north regions of the province is more than double that of central Ontario on a *per capita* basis. This reflects the fact that many rural and northern Ontario municipalities can have a significant amount of road kilometres and bridges serving a much less densely populated area than in major urban areas.

For municipalities with large population centres (over 100,000 population), the annual per capita road and bridge infrastructure gap is \$172. Major urban centres have a greater population and diversified tax base to pay for its infrastructure. In contrast, municipalities without these major urban centres, have an annual investment gap of \$468 per capita. This illustrates the fiscal challenges in small, rural and northern Ontario municipalities in paying for their roads and bridges, as well as other municipal infrastructure and services.

While substantial investment has been made in recent years to improving the state of infrastructure, the challenge continues to be large. Measuring the state of the road and bridge assets through asset management plans will help refine the gap analysis given the existing investments.



## BUILDING THE FOUNDATION FOR A NEW ROADS AND BRIDGES FRAMEWORK

The Steering Committee established several principles to guide the Roads and Bridges Review process and development of recommendations. These were adopted from the previous PMFSDR guiding principles for the specific purposes of the Roads and Bridges Review.

1. **Strategic and Forward-Looking** – Create a new provincial-municipal relationship for roads and bridges in Ontario.
2. **Affordable** – Recognize the fiscal realities of both the province and the municipal sector.
3. **Flexible** – Acknowledge the diversity of Ontario’s municipalities e.g., urban and rural.
4. **Accountable** – Avoid duplication and overlap between province and municipal sector.
5. **Transparent** – Recommendations should be consistently applied and not complicated by ad hoc adjustments.
6. **Good Public and Fiscal Policy** – Any changes in the provincial-municipal relationship for roads and bridges in Ontario must be driven by a clear public policy purpose and in the interest of the public and municipal property taxpayers.
7. **Fair and Equitable** – Be fair and equitable for the province, the municipal sector, and for taxpayers.
8. **Responsive** – Ensure that high quality roads and bridges are provided to all Ontarians.
9. **Sustainable** – Be sustainable for both the province and the municipal sector over the long term.

In order to develop a long term roads and bridges funding framework, the Steering Committee formed three Working Groups to examine different analytical frameworks, or “lenses” to provide insight and advice to the Steering Committee.

Working Group 1 focused on the role of municipal asset management as the basis for municipalities to identify their road and bridge needs, priorities, and investment strategies. All working groups concur that municipal asset management is a fundamental basis for any future roads and bridges funding program.

Working Group 2 developed a strategic road classification methodology consistent with the recommendations of the previous Roads and Bridges Sub-group. The road classification was applied to both the provincial and municipal road networks to identify highways and roads of provincial, or shared provincial-municipal interest.

Working Group 3 developed a roads and bridges funding framework that considers municipal fiscal ability to pay for infrastructure and municipal road and bridge infrastructure needs. The proposed methodology was applied to a sample of municipalities to identify municipal fiscal capacity and road and bridge expenditure needs.

## WORKING GROUP FINDINGS

### Municipal Road and Bridge Asset Management

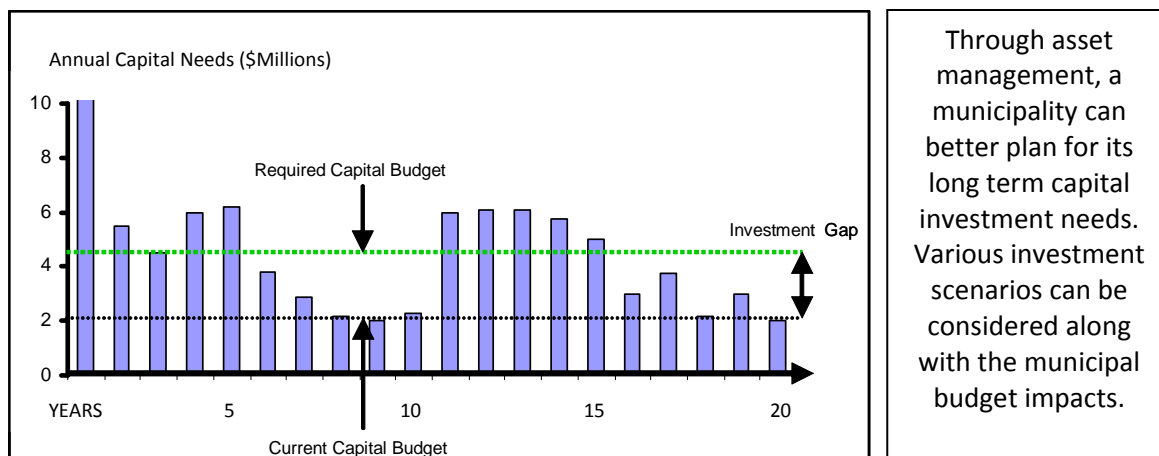
Asset management is a strategic, long-term approach to managing infrastructure on a lifecycle basis. It requires integrating planning, engineering, and financial best practices to cost-effectively manage existing and new infrastructure. Through asset management planning, municipalities can make cost-effective investments based on their infrastructure needs and priorities and make the best use of their limited financial resources in a more sustainable way.

Many municipalities are proactive and forward looking. They realize that the failure to plan today for tomorrow's infrastructure needs means they will face a growing back-log of capital improvements and, if these necessary repairs are delayed, they will face more costly replacements in the future. Moreover, poorly maintained infrastructure means lower quality of service and possibly an increase in health and safety risks for the public.

In the Roads and Bridges Review, it was recognized that many large municipalities carry out asset management as regular business. However, small, rural and northern municipalities may often lack the technical expertise and financial capacity to develop asset management plans which include capital financing approaches. Working Group 1 was tasked with looking at ways to promote asset management for roads and bridges in small municipalities. The Working Group prepared two asset management documents to assist municipalities to develop road and bridge asset management plans.

A key component of the asset management planning process is the identification of the municipality's infrastructure investment needs and the assessment of different capital investment scenarios and delivery strategies to address the investment backlog and future renewal needs over the long term (25-30 years). A conceptual example for a municipality is shown below for illustrative purposes. Through this process, municipalities can demonstrate their efforts to invest in their roads and bridges, along with other infrastructure, and illustrate the extent of the municipality's infrastructure gap and the fiscal impacts to the municipal tax payer. This should be undertaken as part of the municipality's ongoing capital planning process.

Municipal Capital Investment Needs - An Example

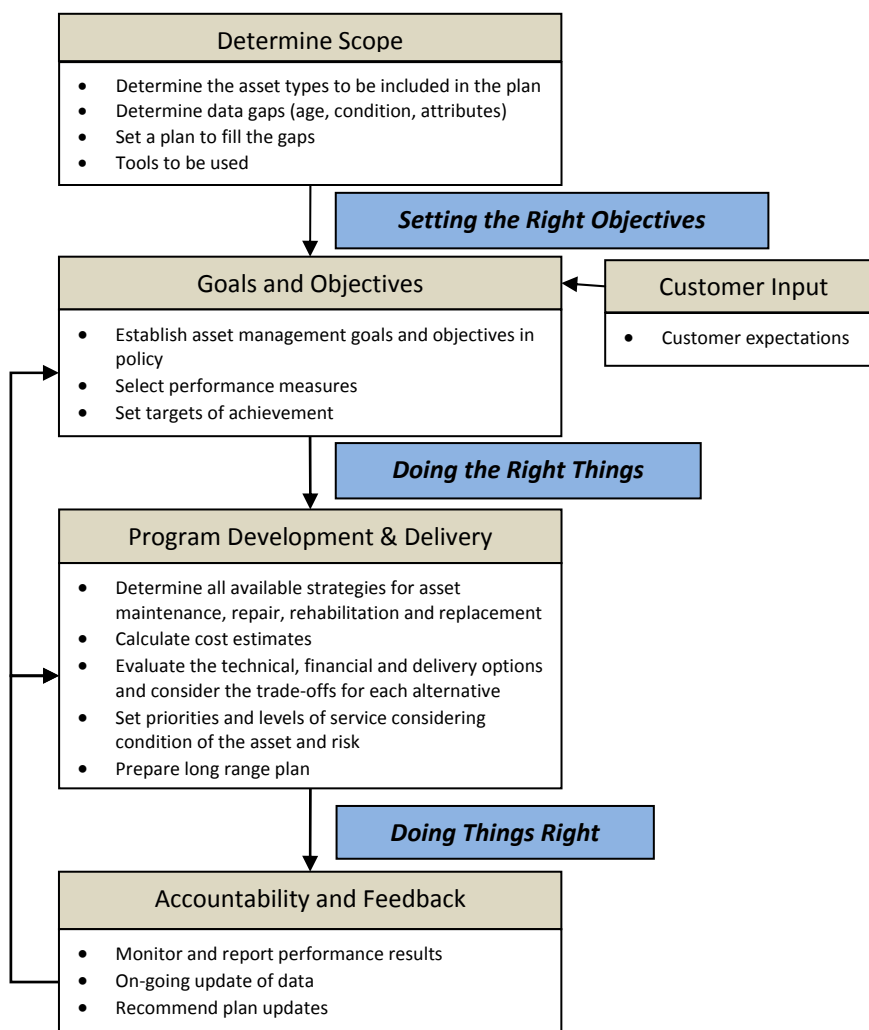




The asset management documents provide guidance, including a step-by-step approach that recognizes that some small municipalities may need to “start small,” for example by simply developing an inventory of their road and bridge assets and their condition. Up-to-date, accurate and comprehensive information on the physical extent, age and condition of infrastructure is critical for the development of an asset management plan. The OGRA’s Municipal DataWorks system provides assistance to small municipalities in their asset management and capital planning. There are a range of other asset management tools available and a number of consultants that provide asset management and capital planning support services.

The *Framework for Roads and Bridges Asset Management Plans*, illustrated below, developed by Working Group 1 is comprehensive. This process could be applied to other infrastructure types, but there will be a need for detailed guidelines to help municipalities implement the process for the other asset types. In addition some municipalities may require training, technical and funding support or other assistance to carry out the full asset management process.

### Framework for Roads and Bridges Asset Management Plans



Source: A Guide for Developing Asset Management Plans

## Municipal Bridges

Municipalities own and manage over 15,000 bridge structures, which include both bridges and large culverts. Many of these structures are approaching the time for major rehabilitation or replacement.

Bridges built after the 1970's are designed to last 75 years, while older bridges were designed to last 60 years. Increased traffic volumes, heavier and increased truck volumes, along with exposure to salt from winter maintenance and freeze-thaw cycles reduce the life of a bridge.

OGRA has developed its Municipal DataWorks system to assist municipalities with asset management and provide a repository for municipal infrastructure data. At the current time, Municipal DataWorks includes bridge data from over 340 participating municipalities. While not all municipalities have input their data, this bridge asset age and condition data can be used to provide a snapshot of bridge infrastructure in Ontario.

The bridge age information shown at right can be considered generally representative of municipal bridges across Ontario.

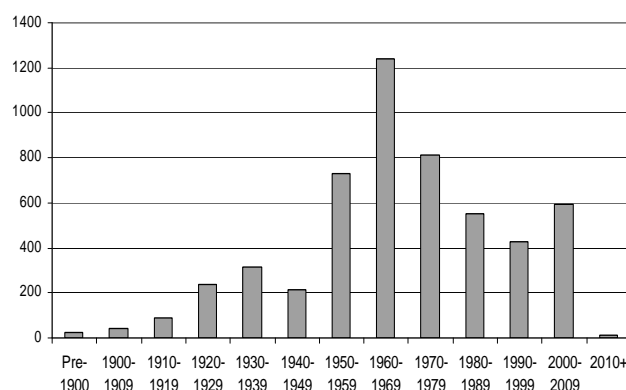
This data indicates that 17% of municipal bridges were built before 1950 and 55% were constructed before 1970. Many of these bridges will require rehabilitation or replacement over the next 10-20 years.

It is recognized that many small, rural and northern Ontario municipalities struggle to rehabilitate and replace their bridge structures due to their limited financial resources.

The Municipal DataWorks data indicate that 41% of the bridge and culvert structures are in municipalities that have a population under 20,000. It should be noted, however, that some large municipalities are not represented in Municipal DataWorks.

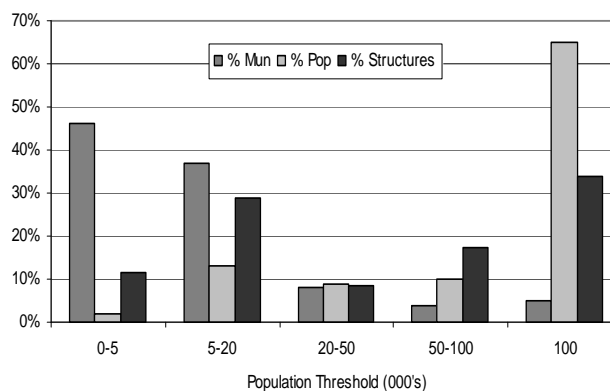
In major urban centres, structures are often large and complex and very costly to rehabilitate or replace and this is reflected in the \$1 billion road and bridge investment deficit for Central Ontario.

**Bridges by Year of Construction**  
MDW Reporting Municipalities



Source: Municipal DataWorks

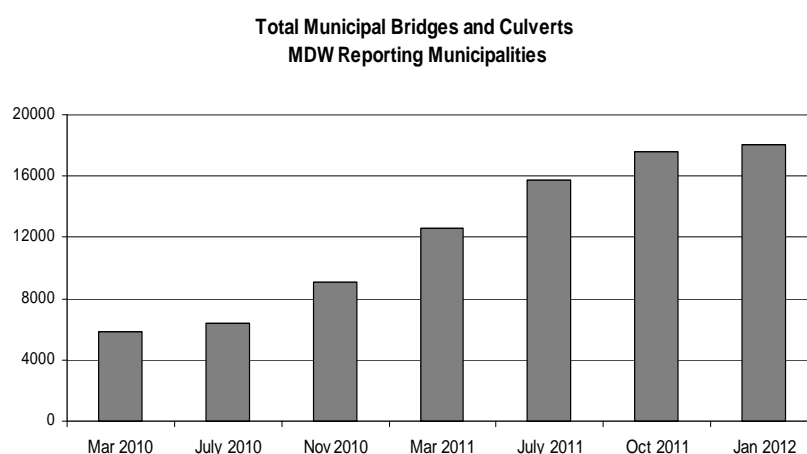
**Bridges and Culverts by Municipality Size**



Source: Municipal DataWorks

The importance of municipal bridge inspections and maintenance was recognized in the Ontario Auditor General 2009 Annual Report (December 2009). The report recommended that MTO work with municipal stakeholders to promote good asset management, ensure that all bridges and large culverts are inspected, and that funding is effective in sustaining the proper maintenance and rehabilitation of bridges.

A critical first step to undertake asset management is for municipalities to collect bridge condition data. To assist municipalities, the Province provided a total of \$1.1 million to the Ontario Good Roads Association (OGRA) in 2010 and 2011 to administer grants to assist municipalities to collect and input their bridge asset and condition data into the Municipal DataWorks system. This has proven to be very successful. There are currently over 340 municipalities reporting on approximately 18,000 bridges and culverts in the database, including 15,000 bridges and large culverts (span of greater than three metres).



Source: Municipal DataWorks

Working Group 1 found that the provincial funding was a major incentive for small municipalities that lack the technical or fiscal resources to collect bridge data and input into Municipal DataWorks. Any future provincial funding to assist municipalities with asset management should include consideration of support for data collection.

The Province and municipalities share a responsibility in ensuring that Ontario's bridges are safe and well maintained over the long term. The development of bridge asset management plans should be a priority for all municipalities. These plans should be based on current inspection data to determine bridge condition and critical needs. Bridge preservation and repair strategies should be examined before considering costly rehabilitation or replacement.

Through municipal asset management planning, long term bridge renewal needs can be established and critical municipal bridge investment needs identified. This information is critical to ensure that future capital funding is directed to municipal bridge infrastructure priorities. In the future, this data could be used to create a Ontario Roads and Bridges Status Report, perhaps as part of the State of Ontario's Infrastructure Report as committed in *Building Together*.

## Municipal Roads

Provincial highways and municipal roads play a critical role in moving people and goods within Ontario and to our provincial and U.S. trade partners. The long term sustainability of municipal roads is therefore vital to the provincial economy as well the economic prosperity and quality of life of communities across Ontario.

Municipalities are responsible for an extensive road network of over 140,000 kilometres including a variety of roadway types from expressways to gravel roads. They serve different purposes – some are high volume commuter routes, some are important seasonal tourism routes, while others are low volume routes serving small communities and resource industries in rural areas and northern Ontario. In the 1990's, the Province transferred 5,000 kilometres of highways and over 600 bridges to municipalities. Many of these highways and bridges were in small, rural municipalities which have limited fiscal ability to pay for their roads and bridges.

In the previous work by the PMFSDR Infrastructure Working Group's Roads and Bridges Subgroup, the consensus was that the Province should assist municipalities to maintain those roads and bridges where the Province shares an interest, and where the municipal capacity for capital improvements is insufficient.

The determination of roads of shared provincial and municipal interest is challenging – many roadways serve long distance traffic as well as provide local access in communities. There is no existing policy or best practice by which the provincial, or municipal interest, or degree of shared interest can be determined. There are significant data limitations. There is a need to develop objective, defensible criteria that can be applied province-wide, while recognizing the diversity of Ontario's municipalities.

These challenges were recognized in work by the PMFSDR Roads and Bridges Subgroup which concluded that an appropriate process to systematically evaluate Ontario's road and bridge network must go beyond the functional road classification (e.g., arterial/collector) and consider access to population centres, economic centres, tourism areas, border crossings, etc.

The Roads and Bridges Review, Working Group 2, considered the previous Subgroup analysis, examined criteria used to classify the National Highway Systems in Canada and the United States, assessed data availability issues, and discussed shared experience in municipal functional classification. Consultant support was retained to carry out the required technical analysis and test the proposed classification methodology.

The Working Group developed a methodology to classify provincial and municipal roads on the basis of their connectivity to population centres, major border crossings, airports, marine ports, and road-rail intermodal facilities. The approach was presented at the 2011 AMO Conference and the presentation is available on the AMO website at [www.amo.on.ca](http://www.amo.on.ca).

There was Working Group support for the classification of municipal roads accessing major transportation centres including: key airports, marine ports, intermodal rail facilities and international and interprovincial crossings. In addition there was recognition of the shared provincial-municipal interest in municipal Connecting Links as they link provincial highways through urban centres across Ontario and to border crossings.

The Working Group, however, concluded that there were significant challenges in developing a road classification framework for rural, urban and northern Ontario municipalities. The lack of sufficient data for the forestry, mining and tourism sectors limited the ability to identify roads in rural and northern Ontario municipalities that were of a provincial-municipal shared interest.

A second concern was the selection of appropriate population centres. Analysis of different thresholds had different impacts and on its own did not prove to be a reasonable approach and introduced limitations in its application.

In view of this analysis, it was the working group consensus that:

- Municipal access routes to key transportation centres and major population centres, along with Connecting Links should be considered as shared provincial-municipal interest, but more work is required to address the identified road classification limitations.
- A road classification approach should not be used as the exclusive means to determine future provincial roads and bridges funding support.
- Road classification criteria and thresholds should recognize the diversity of Ontario's municipalities i.e. not "one size fits all."
- Municipal bridges should be considered a public safety priority regardless of the road classification and their criticality should be determined through municipal asset management plans.

### **Municipal Fiscal Capacity to Pay for Roads and Bridges**

The previous PMFSDR initiative considered a number of fiscal health indicators that could provide insight into a municipality's ability to fund its responsibilities including infrastructure. Various indicators were examined including property taxes, assessment base, municipal costs, demographics, economic and finance factors.

In the PMFSDR analysis, almost one-third of the northern municipalities were ranked as having relatively low fiscal capacity. In comparison, over 60 per cent of urban municipalities within the Greater Toronto Area had relatively good fiscal health. It was noted, however, that the overall health of a region or municipality and the taxpayer's capacity to pay for infrastructure should consider the municipality's future infrastructure needs, as well as its fiscal health. This is because a municipality could have a relatively high fiscal health rating but a very significant infrastructure gap.

The Roads and Bridges Review Working Group 3 recognized that some municipalities have a limited residential or commercial property tax base which constrain the municipality's ability to invest in infrastructure, while other municipalities have a large road and bridge inventory and significant infrastructure needs, but greater fiscal capacity because of a more diversified property tax base. The Working Group sought to develop a fiscal ability framework that took into consideration both municipal fiscal capacity and its road and bridge infrastructure needs.

The Working Group proposed that any future measure of fiscal capacity should include consideration of a municipality's ability to raise revenues and the impacts of provincial support received including the existing Ontario Municipal Partnership Fund (OMPF) and its four grant components and the ongoing, annual social assistance uploads.

While several of the PMFSDR fiscal health indicators are useful, it was agreed that a municipality's assessment base is critical to determining a municipality's fiscal capacity to pay for its infrastructure.

The Working Group concluded that *weighted assessment* should be used as it reflects the total taxable assessment for a municipality weighted by the tax ratio for each class of property plus an implied payments-in-lieu of property taxes (PILS). A *modified weighted assessment* was recommended to account for revenues derived from OMPF grants and any fiscal room that the upload provides which may affect a municipality's overall fiscal health.

This approach was presented at the 2011 AMO Conference and may be reviewed on the AMO website at [www.amo.on.ca](http://www.amo.on.ca).

Working Group 3 recognized that use of a municipal assessment based fiscal indicator is not without its challenges. Members noted issues with respect to urban and rural contexts, full time residency and seasonal residency, and growing versus low growth municipalities.

### Road and Bridge Expenditure Needs

In developing its fiscal capacity lens, Working Group 3 concluded that municipalities should identify their short and long term road and bridge *expenditure needs* as part of their asset management planning process.

The Working Group proposed that road and bridge expenditure needs be determined on the basis of a consistent methodology using common level of service performance measures. This would avoid problems associated with municipalities that under or over fund due to higher or lower service standards or a lack of fiscal capacity to sustain their roads and bridges.

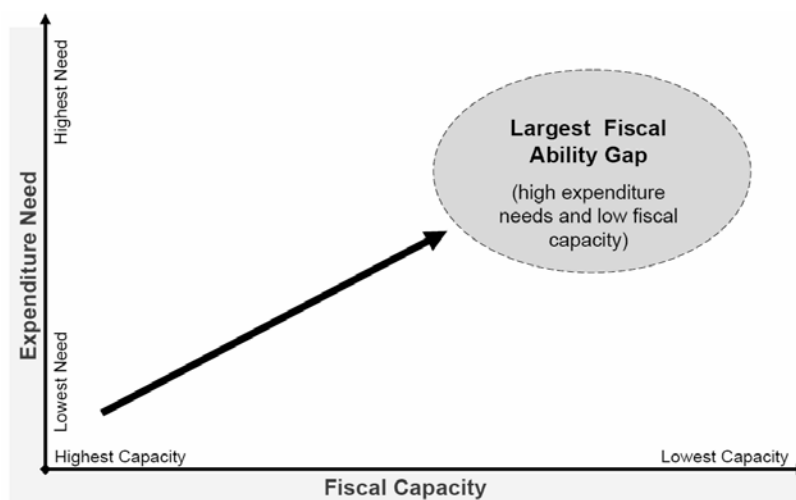
These service standards could be based on a minimum road and bridge condition level, or other benchmark that reflects an adequate level of service. However, the Working Group cautioned that the approach should not be "one size fits all" – standard lifecycle costs per unit should be developed using a range of factors that influence spending on roads and bridges e.g., road and bridge classification or type, geography, climate, traffic level, or other factor.

These standard costs could then be applied to each municipality's inventory of roads and bridges to determine a municipality's total road and bridge expenditure needs. Working Group 3 recommended that future work be undertaken to develop the standard costs approach and appropriate level of service performance measures.

## Future Road and Bridge Funding Framework

The Working Group 3 consensus was that any future roads and bridges funding program should recognize that Ontario municipalities have different road and bridge infrastructure expenditure needs and varying fiscal capacity to pay for their infrastructure, based on modified weighted assessment.

Future road and bridge funding could be prioritized based on municipal expenditure needs, fiscal capacity, or the “largest fiscal ability gap,” as conceptually illustrated below. This approach may have some applicability for other municipal infrastructure, but this was beyond the mandate for the Working Group.



Source: Municipal Fiscal Ability to Pay Framework, Roads and Bridges Review Presentation, 2011 AMO Conference

To test this proposed framework, the consultant for Working Group 3 used data for a sample set of municipalities from across Ontario. Municipalities were nominally ranked from lower to higher in terms of their fiscal capacity using the modified weighted assessment methodology. A proxy method was used to estimate road and bridge infrastructure expenditures and a similar lower to higher ranking was established. The rankings were then compared to determine those having a significant “fiscal ability gap.” The results indicated that a number of small and northern Ontario municipalities had the largest fiscal ability gap.

Working Group 3 concurred with the other working groups that all municipalities should complete road and bridge asset management plans. Through asset management, municipalities will identify their road and bridge infrastructure needs, priorities and investment strategies. While this fiscal ability framework may prove feasible and useful in the long term, it will be impacted by the available annual roads and bridges funding in the near term. When funds are constrained, any available funding must be focused on the most critical municipal infrastructure needs and priorities. This emphasizes the importance of comprehensive asset management plans for roads and bridges and other infrastructure assets.

It was also recognized that asset management planning should be linked to long term financial management planning to ensure that municipal capital needs and revenue sources are both considered. A long term financial plan should consider all available financial tools including development charges, property taxes, fees and user charges, loans, and ongoing grants, as well as alternative financing and procurement models.

Municipal asset management and financial planning should be an integrated and ongoing, process in support of a municipality's annual, 5 and 10 year capital planning. This should be based on a long term, 30 year view of the transportation systems. Various investment scenarios and strategies should be considered to deliver the municipality's long term infrastructure renewal priorities. Through this process, municipalities will be able to identify their critical road and bridge infrastructure investment needs and their fiscal ability to make the necessary investments, as well as demonstrate their case for provincial funding assistance.

This information will provide a sound, consistent and transparent basis for consideration in any future roads and bridges, or broader infrastructure program. Funding eligibility criteria could be created related to these infrastructure needs, along with provincial-municipal interest and/or municipality fiscal capacity criteria as tested in the Roads and Bridges Review.

## **CONCLUSIONS**

The three analytical frameworks, or "lenses", provide insight on ways to direct future infrastructure funding to critical municipal road and bridge investment needs. In looking through these lenses, the Working Groups examined the different approaches and noted that each could have a role to play as the basis for a new road and bridge funding program. The Steering Committee recognized, however, that they cannot be simply integrated into one overall funding model as each approach was seen to have different implications for municipalities.

Secondly, the Review only considered roads and bridges. There are other major municipal infrastructure systems, such as water and sewer that also hold a need for long term, consistent funding approach. Lastly, a sustainable funding approach has to consider greater infrastructure investment by all orders of government - federal, provincial and municipal, over the long term. A comprehensive, coordinated approach is required and should be considered within the context of the Province's Municipal Infrastructure Investment Strategy.

The Roads and Bridges Review Steering Committee recognizes the importance of the Province and municipalities working together to move forward on asset management in order to ensure that our respective limited financial resources are directed to the most critical road and bridge needs of municipalities. The committee agreed that that all municipalities should undertake long range asset management planning and acknowledged that some municipalities may need assistance – guidelines, training, funding or other support to develop their asset management plans.



It was acknowledged that road and bridge infrastructure needs should be considered in the context of the Municipal Infrastructure Investment Strategy that was committed in the Province's ten year infrastructure plan, *Building Together*. Municipal asset management should be a key component of this Municipal Infrastructure Investment Strategy.

*Building Together* states that the province will consult with its public sector partners on developing asset management plans that would build on and consolidate existing requirements. These plans, which would be phased in over time, would be required of organizations seeking significant provincial capital funds. The Steering Committee recommends that the Province explore a range of approaches to implementing this policy and to providing support to assist municipalities in the preparation of asset management plans.

Asset management should not be "one-size-fits all" as larger Ontario municipalities may have already undertaken comprehensive asset management, while some smaller municipalities may have different infrastructure priorities e.g., municipal bridges or water systems as they embark on asset management. It could take some municipalities considerable time to develop a comprehensive asset management plan for all their infrastructure assets.

The Municipal Infrastructure Investment Strategy should acknowledge that municipal road and bridge infrastructure needs account for almost half the total municipal infrastructure investment gap. The strategy should also recognize that some municipalities require provincial support where they lack the technical and fiscal ability to undertake asset management and financial planning. Further, both the Province and municipalities need to advocate for federal funding for municipal infrastructure in Ontario. Information from asset management plans would help advocacy efforts.

Looking at asset management more closely, the Steering Committee noted that there is an overlap with long term financial planning. This financial planning process is a multi-faceted process with its own challenges. It takes into consideration a municipality's financial capacity, potential revenue generation options, and municipal corporate objectives. The Steering Committee recognized the need for funding support to assist those municipalities that lack required expertise or financial resources to carry out both long term asset management and financial planning.

The Steering Committee also observed, within the proposed asset management framework, that there is a need to evaluate cost-effective technical, financial and delivery options to implement an asset management plan. It was agreed that best practices would be beneficial to help municipalities identify and assess alternative delivery options such as debt financing, municipal partnerships, alternative financing and procurement approaches, etc.

Municipalities could also benefit from guidance on new, innovative ways to preserve, rehabilitate and build roads and bridges. These strategies need to be considered within the municipal capital planning process to reduce road and bridge costs, where possible. For bridges, this could mean new bridge preservation methods to defer costly bridge rehabilitation or bridge prefabrication to reduce bridge replacement costs and traffic impacts. The Steering Committee concurred that best practices should be developed to assist municipalities.

The Steering Committee supports the Working Group 2 conclusion that the road classification criteria developed are not yet sufficient to be used for municipal roads with shared provincial-municipal interest. However, there was a strong consensus that municipal Connecting Links and roads to major transportation hubs – airports, marine ports, intermodal rail terminals and border crossings are of shared provincial-municipal interest. Further, that municipal bridges should be considered a public safety priority regardless of the road classification.

The Steering Committee also supports the Working Group 3 conclusion that any future roads and bridges funding should take into consideration both long term municipal road and bridge infrastructure needs and a municipality's fiscal ability to pay for their roads and bridges. Working Group 3 determined that the fiscal capacity of a municipality can be represented by modified weighted assessment. It was recognized that this fiscal indicator needed to be further tested using the most recent municipal assessment data.

## RECOMMENDATIONS

The Steering Committee makes the following recommendations:

1. There is a need for a new provincial-municipal framework to sustain municipal road and bridge infrastructure in Ontario. When the fiscal situation permits, a permanent and predictable provincial infrastructure funding program supported by the federal government would help enable municipalities to maintain, build and renew their road and bridge infrastructure over the long term. Municipal capital investments will be necessary to augment funding from other orders of government to ensure appropriate resources are committed to address municipal infrastructure investment priorities. This should be considered in the context of the Municipal Infrastructure Investment Strategy that the Province has committed to developing in *Building Together*.
2. The Province and municipalities understand the need to continue to invest in municipal road and bridge infrastructure as it accounts for almost half of the municipal infrastructure deficit. All orders of government need to look at ways to increase and maximize their investment to address their long term infrastructure priorities. Critical road and bridge projects should be a priority.
3. Any future road and bridge program, or broader infrastructure funding program for municipalities, should consider a municipality's long term road and bridge infrastructure renewal needs, critical infrastructure priorities, and the fiscal capacity of both the Province and municipalities to pay for infrastructure.
4. To provide for the best prioritization for critical infrastructure needs, municipal asset management plans should be the basis for any future provincial road and bridge capital funding.
5. The federal government has an important role to play in supporting municipal infrastructure in Ontario. Municipal roads and bridges should be a priority for any future federal-provincial-municipal infrastructure funding initiative.

6. Some Ontario municipalities will require provincial support where they lack the technical and fiscal ability to carry out long range asset management and financial planning. This may include funding for the collection of road and bridge data, input of data into Municipal DataWorks, guidelines, tools and training, and other options to assist municipalities in development of their road and bridge asset management and financial plans.
7. Municipal bridges should be considered a priority to ensure public safety is maintained and long term bridge renewal needs are appropriately planned for. Municipalities should report on bridge inspection status and bridge condition as part of their asset management plans.
8. Roads and bridges, including municipal Connecting Links, should be considered as part of municipal asset management and in any future roads and bridge funding, or broader infrastructure funding program.
9. If they do not do so already, municipalities could work together as appropriate to develop integrated road and bridge asset management plans to share expertise and experience, establish service standards, and share data.
10. Municipal road and bridge asset management and financial plans should be based on best practices, but, a “one size fits all” approach is not appropriate, nor practical, given the diversity of Ontario’s municipalities. Provincial best practices could help to develop consistency in asset management and financial plans across municipalities.
11. Once all municipalities have completed asset management plans, the information could be used to create a Ontario Roads and Bridges Status Report, perhaps as part of the State of Ontario’s Infrastructure Report as committed in *Building Together*.
12. Municipalities should consider utilizing the full range of available infrastructure financing tools, where possible (e.g., debt financing, alternative financing and procurement models, municipal partnerships, project bundling, etc.) as well as innovative approaches to repair, replace, expand and maintain roads and bridges to minimize long term infrastructure costs . The development of best practices could be of assistance to municipalities.

## APPENDIX A

### Steering Committee Members

#### Municipal

Pat Vanini *	Executive Director, Association of Municipalities of Ontario
Craig Reid	Senior Policy Advisor, Association of Municipalities of Ontario
Dan Cowin	Executive Director, Municipal Finance Officers' Association
Tim Dennis	Director of Transportation Services, Region of Halton
Paul Jankowski	Commissioner of Engineering and Public Works, City of Vaughan
Pat Mauro	Manager of Engineering, City of Thunder Bay
John Mende	Director, Transportation Infrastructure Management, City of Toronto
Peter Notaro	Manager, Intergovernmental Relations, City of Toronto
Jim Pine	CAO, County of Hastings
Susan Siopis	Director of Transportation and Field Services, Region of Durham
Joe Tiernay	Executive Director, Ontario Good Roads Association
Joe Torlone	CAO, City of Timmins
Gerry Wolting	General Manager, Corporate Services, Municipality of Chatham-Kent

#### Ontario Ministry

Paul Lecoarer *	Director, Contract Management & Operations Branch, Ministry of Transportation
Bill Rhamey	Roads and Bridges Review Coordinator, Contract Management & Operations Branch, Ministry of Transportation
Trevor Bingler	Director, Municipal Finance Policy Branch, Ministry of Municipal Affairs and Housing
Helen Harper	Director, Provincial Local Initiatives Branch, Ministry of Finance
Jill Hughes	Director, Transportation Policy Branch, Ministry of Transportation
Joe Iannace	Director, Infrastructure Partnerships Branch, Ministry of Infrastructure
Tom Marcolini	Manager, Transportation and Infrastructure, Ministry of Northern Development and Mines

*\* Steering Committee Co-Chairs*

## APPENDIX A

### Working Group #1 – Municipal Asset Management

#### Municipal Members

Joe Tiernay *	Executive Director, Ontario Good Roads Association
Joe Condarcu	Manager, Infrastructure Asset Management and Programming, City of Toronto
Luc Duval	Director of Public Works and Engineering, City of Timmins
Paul Foster	Project Manager, Transportation Infrastructure, Works Department, Region of Durham
Craig Reid	Senior Policy Advisor, Association of Municipalities of Ontario

#### Ontario Ministry Members

Dino Bagnariol *	Director, Investment Strategies Branch, Ministry of Transportation
Gazira Chan	Accountability Specialist, Financing and Reporting Office, Ministry of Municipal Affairs and Housing
Weifang Dong	Senior Policy Advisor, Infrastructure Planning Office, Ministry of Infrastructure
Walter Kenidi	Senior Engineer, Bridge Office, Ministry of Transportation
Tony Masliwec	Policy Advisor, Passenger and Municipal Policy Office, Ministry of Transportation
Bill Rhamey	Roads and Bridges Review Coordinator, Contract Management & Operations Branch, Ministry of Transportation

*\* Working Group Co-leads*

## APPENDIX A

### Working Group #2 – Municipal Road Classification

#### Municipal Members

Jim Pine *	CAO, County of Hastings
Stephen Allan	County Engineer, Lanark County
Chris Bradley	Director of Public Works, County of Peterborough
Joe Condarcuri	Manager, Infrastructure Asset Management and Programming, City of Toronto
Brian Knox	County Engineer, Bruce County
Craig Reid	Senior Policy Advisor, Association of Municipalities of Ontario
Joe Tiernay	Executive Director, Ontario Good Roads Association
John Tofflemire	Director of Community Services, Municipality of Leamington
Chris Traini	County Engineer, County of Middlesex
Clayton Watters	County Engineer, Elgin County

#### Ontario Ministry Members

Robert Hazra *	Manager, Operations Office, Ministry of Transportation
Muhammad Cajee	Policy Analyst, Policy and Stakeholder Relations Unit, Ministry of Finance
Gazira Chan	Accountability Specialist, Financing and Reporting Office, Ministry of Municipal Affairs and Housing
Tom Marcolini	Manager, Transportation and Infrastructure Unit, Ministry of Northern Development and Mines
Dale Marsden	Senior Economist, Economic and Community Infrastructure Office, Ministry of Infrastructure
Tony Masliwec	Policy Advisor, Passenger and Municipal Policy Office, Ministry of Transportation
Bill Rhamey	Roads and Bridges Review Coordinator, Contract Management & Operations Branch, Ministry of Transportation

*\* Working Group Co-Leads*

## APPENDIX A

### Working Group #3 – Municipal Fiscal Ability

#### Municipal Members

Dan Cowin *	Executive Director, Municipal Finance Officers' Association
Gary Asselin	Senior Economist, Finance Department, Region of Durham
Calvin Barrett	Director, Financial Services and Development Financing, Region of Waterloo
Craig Davidson	CAO/Clerk-Treasurer, Municipality of Hastings Highlands
Shelley Eliopoulos	Treasurer/Director of Finance, Municipality of Trent Hills
Robert Hatton	Manager, Business Investment and Intergovernmental Finance, City of Toronto
Craig Reid	Senior Policy Advisor, Association of Municipalities of Ontario
Nigel White	Treasurer, United Counties of Leeds and Grenville
Gerry Wolting	General Manager of Corporate Services, Municipality of Chatham-Kent

#### Ontario Ministries

Steve Naylor *	Director, Contract Management and Operations Branch, Ministry of Transportation
Muhammad Cajee	Policy Analyst, Policy and Stakeholder Relations Unit, Ministry of Finance
Gazira Chan	Accountability Specialist, Financing and Reporting Office, Ministry of Municipal Affairs and Housing
Susan Ghan	Manager, Policy and Stakeholder Relations Unit, Ministry of Finance
Tom Marcolini	Manager, Transportation and Infrastructure Unit, Ministry of Northern Development and Mines
Alan Moore	Team Leader, Passenger and Municipal Policy Office, Ministry of Transportation
Scott Pegg	Manager, Economic and Community Infrastructure Office, Ministry of Infrastructure
Bill Rhamey	Roads and Bridges Review Coordinator, Contract Management & Operations Branch, Ministry of Transportation
Chris Terech	Manager, Financing and Reporting Office, Ministry of Municipal Affairs and Housing

*\* Working Group Co-Leads*