



**City of Richmond**

**Report to Committee**

*To Public Works + Transportation -  
Mar 23, 2005*

**To:** Public Works and Transportation Committee

**Date:** March 1, 2005

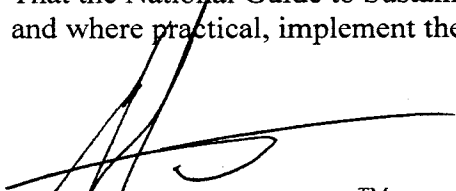
**From:** Greg Scott, P. Eng.  
Director of Operations

**File:** 10-6000-01/2005-Vol 01



**Re:** National Guide to Sustainable Municipal Infrastructure

**Staff Recommendation**

That the National Guide to Sustainable Municipal Infrastructure be supported and staff review and where practical, implement the best practices contained in the Guide.

  
Greg Scott, P. Eng., LEED™ A.P.  
Director of Operations  
(1206)

Att. 1

FOR ORIGINATING DIVISION USE ONLY					
<b>ROUTED TO:</b>		<b>CONCURRENCE</b>		<b>CONCURRENCE OF GENERAL MANAGER</b>	
Engineering .....		Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>		
<b>REVIEWED BY TAG</b>		YES	NO	<b>REVIEWED BY CAO</b>	
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	YES	NO
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## Staff Report

### Origin

This report provides Council with information on the National Guide to Sustainable Municipal Infrastructure, so that the City of Richmond may join the growing group of municipalities demonstrating their leadership and commitment to collaborative infrastructure solutions through formal support for the Guide.

### Background

In 1984, the Federation of Canadian Municipalities carried out a study of infrastructure needs across Canada. The study found that \$12 billion would need to be spent nation-wide to upgrade roads, bridges, water and sewer works to an acceptable condition. A follow-up study done by the Union of B.C. Municipalities in 1985 indicated that, at that time, \$1 billion was required to upgrade municipal infrastructure in B.C. The Federal/Provincial Infrastructure Program has been one of the outcomes as a result of these initiatives.

The study by the Federation of Canadian Municipalities also recommended initiating:

- Intergovernmental partnerships for co-operative efforts in addressing infrastructure solutions,
- Greater interchange of information between Canadian municipal officials through the publication of manuals on management practices, and
- Establishment of service standards to achieve a greater degree of national consistency in levels of infrastructure service.

The study also recognized that setting service standards was a long term effort.

- The idea of a uniform, national approach to the design, construction and rehabilitation of urban infrastructure was proposed at the 1991 International Conference on the Rehabilitation of Infrastructure in Montreal. In 1992, a feasibility study recommended development of national infrastructure standards, and recognized that the National Research Council (NRC) was best suited to develop them. In 1993 and 1994, the NRC conducted consultations on this proposal with infrastructure stakeholders across the country, including the infrastructure industry. The resulting feedback indicated that there was virtually unanimous support for the concept.
- In 1998 two National Workshops were held to further refine and develop the goals, objectives and governance structure of the Guide.
- Through 2001/02 the first round of best practices were developed by technical committees composed of volunteers; and were reviewed and revised by stakeholders prior to publication. (*Attachment 1*).

The Guide is designed to help municipalities identify infrastructure needs, evaluate solutions, extend the service life of existing infrastructure and maximize return on investments. It provides a compendium of best practices, illustrated in two parts:

- Part A provides decision making and investment planning best practices, which also focus on environmental sustainability issues. This section introduces the scope, purpose, limitations, jurisdictions and regulations of each infrastructure issue.
- Part B provides technical best practices that offer information on the best available technologies and methods of each infrastructure issue.

The best practices will be consistently reviewed to ensure they can respond to the demographic, financial and environmental needs of municipalities. Overall, the Guide provides a number of benefits. In the short-term the Guide's state of the art methodologies and technologies for municipal infrastructure will:

- Improve decision making processes, enabling municipalities to perform the right job, at the right time.
- Establish minimum standards for the construction and rehabilitation of infrastructure systems to help ensure that an acceptable level of performance is attained.
- Provide an integrated approach to bring together the best techniques and lessons learned from various public and private organizations.

In the long term, estimations by the FCM indicate utilization of the Guide's best practices could cut nation wide infrastructure maintenance costs by \$800 million to \$1.5 billion annually. Furthermore, the Guide intends to:

- Lead municipalities to an improved level of inter-provincial and inter-municipal trade.
- Enhance the ability of manufacturers in BC to compete globally and facilitate a better positioning of Canadian industry in North America.
- Lead to an improved quality of life for all Canadians.

The development, composition, and review of the Guide is lead by a Project Steering Committee (PSC) composed of senior managers and elected municipal officials from across Canada. The guide is split into 5 components, each looked after by its own committee.

The total cost for the development of the Guide over the first five years, including direct and in-kind costs, is estimated at \$25,700,000. Direct dollar funding for the Guide has primarily come from two sources: the Infrastructure Canada Program and the National Research Council; in-kind contributions have come from volunteer stakeholders. However as the Guide continues to grow and develop, long-term sustainability will increasingly become an important issue. Thus, project leaders will be turning to the provinces for financial and in-kind support in the near future. Throughout its development, the Guide has been supported by the Canadian and British Columbia Public Works Associations and by Municipal Engineers in the Vancouver region. So far, more than a dozen municipalities across Canada have formally adopted the Guide. For a complete list, please see attachment.

The Guide's best practices provide opportunities to improve the City's decision making processes, maintenance and repair of its infrastructure with Council's support. City staff will review the best practices relative to current work processes, current specifications and current design criteria. Appropriate changes will then be implemented when and where it is necessary to do so with consultation with stakeholders and reporting back to Council as needed.

## **Environmental Implications**

The Guide is intended to help municipal practitioners maintain and improve municipal infrastructure while at the same time protect the environment. Thus, an Environmental Protocols Committee has been established to ensure the Guide's best practices also focus on environmental protocols, which are often adopted by municipalities to protect the health of citizens, the environment and the economy. Representatives from the Environmental Committee also sit on other technical committees to ensure environmental implications are always considered.

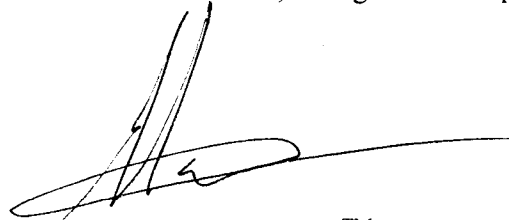
The best practices on environmental protocols help municipalities identify local environmental conditions, challenges and opportunities regarding their infrastructure; and also provide information on the experiences of municipalities across Canada and abroad, that have undertaken environmental action.

## **Financial Impact**

There may be increased costs to the City in the short term from implementing the Guide's decision making and technical best practices. However in the long term, it is expected that costs will be reduced and the overall life expectancy of the City's infrastructure will increase from incorporating the decision making and technical best practices. Staff would report back to Council and consult with the development industry on any changes to specifications and criteria that would have more than minimal cost impacts to implement.

## **Conclusion**

This report provides additional information on the Guide, so that Richmond may join the growing group of municipalities demonstrating their leadership and commitment to collaborative infrastructure solutions, through formal support for the Guide.



Greg Scott, P. Eng., LEED™ A.P.  
Director of Public Works Operations  
(1206)

GS:smj

### **Cities that have Formally Adopted the Guide**

Regina, SK  
Whitehorse, YT  
City of Ottawa, ON  
Town of Morinville, AB  
City of Gatineau, QC  
City of Moncton, NB  
City of Kingston, ON  
City of Burlington, ON  
Municipality of Martinville, QC  
Cape Breton Regional Municipality, NS  
Town of Milk River, AB  
City of Saskatoon, SK  
Corp. of the City of Thorold, ON  
Town of Gander, NF  
City of Cambridge, ON  
City of Kamloops, BC  
Municipality of the District of Lunenburg, NS  
Village of Sayward, BC  
Town of Smithers, BC  
Town of Oakville, ON  
City of Vancouver, BC  
Town of Wolfville, NS