

October 23, 2013

Ontario bridge rehab needs new approach: study

KELLY LAPOINTE

staff writer

With many Ontario bridges over 50 years old, municipalities should be encouraged to develop asset management plans and consider new ways of delivering infrastructure, found a newly released study.

“It’s a partnership approach, we just can’t say to municipalities ‘it’s all your responsibility’. They have to work with the private sector and the province and try to keep our infrastructure in a good state of repair,” said Residential and Civil Construction Alliance of Ontario (RCCAO) executive director Andy Manahan.

The County of Wellington Bridge Study commissioned by the RCCAO and the Ontario Good Roads Association (OGRA) points out that Alternative Financing and Procurement (AFP) is worth exploring to maintain the province’s bridges and culverts.

It forecasts that addressing the bridge infrastructure needs in Wellington County and constituent municipalities will require approximately \$132 million (2011 dollars) by 2020, or \$19 million annually (2011 dollars).

Manahan noted that Wellington County is just one example of several municipalities throughout the province that has not been able to keep up with infrastructure rehabilitation.

When appropriate, the study says municipalities should look at bundling bridge rehabilitation work geographically, potentially with several adjoining municipalities and over time to increase the size of contracts and give contractors the flexibility to standardize operations and apply innovation.

Based on the analysis of 635 structures in the County of Wellington and its lower tier municipalities, it was found that using AFP contracts could save 13 to 20 per cent of the cost over a traditional contract.

“If you want to do AFP, you have to have efficiencies and economies of scale. We thought that was one way to do it. It doesn’t necessarily have to be within one county for example, it could be within neighbouring municipalities,” said Manahan.

The study noted that a design-build contract needs to be a sufficient size, at least \$50 to \$100 million, to be viable with the assumption of risk and to justify the investment in the bid process.

“Although it might be challenging to bring together several municipalities with varying infrastructure priorities, fiscal capacities, and technical resources, the potential benefits are worth the effort,” said the report.

For instance, the State of Missouri launched a program with a goal to have 802 of the state’s bridge rehabilitated or replaced. A design-build contractor was selected in May 2009 for the \$685- million Safe & Sound Bridge Improvement Program.

The program closed on Nov. 8, 2012 with all 802 bridges completed in just slightly more than 3.5 years, instead of the expected five years.

There has to be a concerted effort by the province and municipalities to improve the quality of bridge inventory data, recommended the study. It included only 60 per cent of the lower-tier municipal inventory due to missing data that was required for the needs assessment.

Municipalities will require assistance from the province to develop AFP strategies to tackle infrastructure management challenges, pointed out the study. It also recommended that the province should continue to fund programs to help municipalities with infrastructure asset management plans.

Manahan said there has to be more asset management education within municipalities.

“Smaller and more rural municipalities don’t have a lot of in-house staff,” he explained.

“There are (provincial) programs right now that have to do with asset management, so I think the province is helping in that regard, but the next step...is how do we get municipalities to try it.”

OGRA president Joanne Vanderheyden said the study is a first step in the right direction to explore the potential of alternative delivery approaches.

“This collaborative study proves that an asset management solution, such as Municipal DataWorks (MDW), is imperative. OGRA has the database to document Ontario Structural Manual reports and with the MDW’s recent growth, this study supports the notion for a centralized repository for infrastructure data,” she said in a statement.

Manahan noted that the report clearly demonstrated that small but timely renewal investments save money.

It showed the example of one structure that was left to deteriorate and then had to be replaced after 30 years for a cost of \$60 million. The smart asset management route shows making timely investments throughout the lifespan of the structure would cost about \$40 million and would last more than 65 years.

“That really shows there are significant savings if you do ongoing maintenance as opposed to letting it get down to structurally unsafe conditions.”

The study also recommended that the province consider opportunities to explore AFP delivery options for municipal bridge infrastructure projects and champion a demonstration project with a willing municipality. Such a project will allow municipalities to better determine the financial viability and value for money of using AFP methods.