

The Corporation of the City of Kawartha Lakes
Council Report

Report Number ENG2019-011

Date: June 18, 2019
Time: 2:00 p.m.
Place: Council Chambers

Ward Community Identifier: Ward 6

Title: Environmental Assessment Project Report for Mill Pond Bridge

Author and Title: Martin Sadowski, Senior Engineering Technician

Recommendation(s):

That Report ENG2019-011, **Environmental Assessment Project Report for Mill Pond Bridge**, be received; and

THAT Council endorses the preferred solution and preferred design, identified as Option 3 (Reconstruct and maintain two-way (single lane) traffic flow and add a separate pedestrian walkway) as developed by D.M. Wills in the April 2019 Environmental Assessment Project Report for Mill Pond Bridge.

Department Head: _____

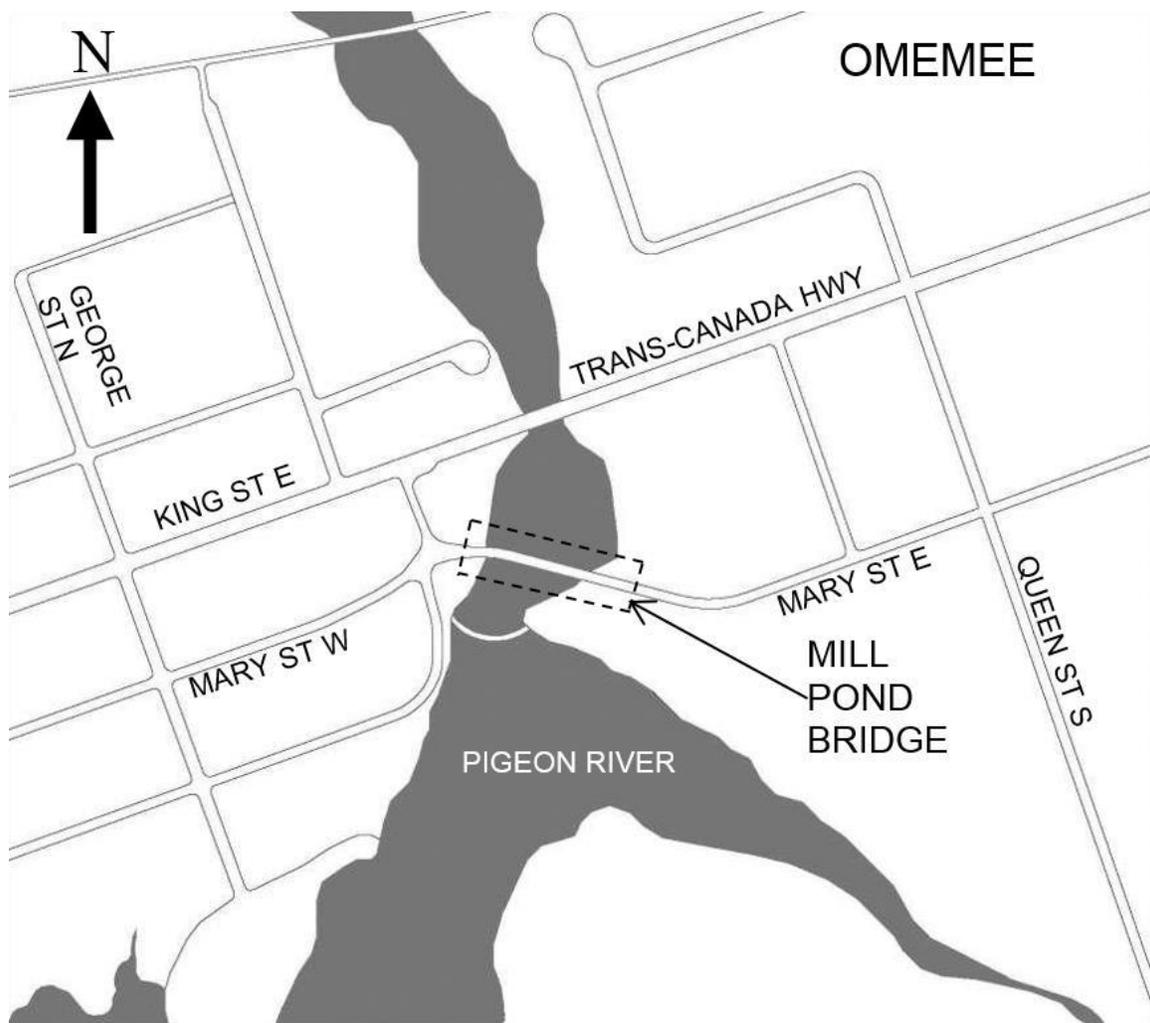
Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

The City of Kawartha Lakes (CKL, City) has retained D.M. Wills Associates Ltd. (Wills) to complete an Environmental Assessment in accordance with the Municipal Class Environmental Assessment (MCEA, EA) for the proposed rehabilitation / replacement of Mill Pond Bridge #100018 (Mill Pond Bridge) in Omeme, ON.

Mill Pond Bridge is located on Mary Street East in Omeme, ON, and conveys single lane east-west traffic over the Pigeon River. The bridge is located approximately 0.1 km south of the Highway 7 (King Street East) river crossing.



Land use in the area surrounding Mill Pond Bridge is primarily composed of Residential and Commercial lands, with small areas of Provincially Significant Wetlands (MNR) located immediately downstream of the bridge crossing at the east shore of the Pigeon River.

Mill Pond Bridge, constructed in 1952, is a four-span (± 24.4 m, ± 9.6 m, ± 9.6 m, ± 9.6 m) reinforced concrete deck on steel I-girder bridge with its longest span reinforced by an additional truss structure. The bridge rests on reinforced concrete piers and abutments. The bridge cross-section provides single lane passage over the Pigeon River with an overall structure width of ± 4.3 m and a roadway width of ± 3.8 m between concrete curbs and steel guide rail.

The most recent OSIM bridge inspection, completed in September of 2017, indicated that the bridge superstructure is in generally poor condition with the substructure described as being good to fair condition. All exposed steel elements are experiencing medium to severe corrosion with some areas of section loss and localized perforation of steel. The bridge deck is generally in good condition with localized areas of deterioration; however, the deck soffit is heavily deteriorated with extensive delamination and spalling with exposed corroded reinforcement.

Subsequent to the 2017 OSIM, a more detailed inspection revealed a critical defect and the bridge was closed to vehicular traffic on May 7, 2019.

As a result of the inspections and severe deterioration of the bridge elements, it was recommended that the superstructure be replaced.

Staff recommends keeping the existing bridge closed until construction of the preferred solution. Should council want to complete a structural analysis it would cost roughly \$15,000.00 to \$20,000.00 and would take 6 to 8 weeks to complete. A cost estimate for repairs could be generated following the inspection. Any repairs would be redundant and throw away money.

Rationale:

This report presents existing conditions, requirements of the Municipal Class EA process, improvement alternatives considered, agency and public consultation, recommended preferred alternative based on current information and results of a public information center.

Three structure rehabilitation alternatives were considered. They were:

1. Do nothing.
2. Close or remove bridge.
3. Replace or rehabilitate bridge.

Option 1, the option to 'Do Nothing', allows for the bridge to remain open for the remainder of its service life. Continued inspection would be conducted and the bridge would remain open until its structural capacity is deemed to be no longer adequate by an engineer. After consideration, the City decided that the option to do nothing was not acceptable and that physical intervention is required.

Option 2 does not address the entirety of the Problem Statement. Closure of the bridge to vehicle traffic repurposes the bridge to be a pedestrian crossing alone, effectively reducing the service load on the bridge and negating the need for structural intervention. Bridge removal or closure to vehicular traffic does not address the need for a secondary vehicular crossing of Pigeon River in Omemee, ON. Vehicular traffic would be restricted to the Highway 7 crossing of the Pigeon River.

Option 3 best addresses the entirety of the Problem Statement as it allows for the continued use of the bridge for both vehicular and pedestrian traffic and therefore maintains a secondary crossing over the Pigeon River.

Recommended Design Alternative: Option 3, rehabilitation/reconstruction of Mill Pond Bridge including a separate pedestrian walkway. Maintain two-way (single lane) traffic flow.

The Notice of Study Commencement was posted and sent to all review agencies and stakeholders on January 23, 2019. The Notice of Study Commencement outlined the project and background information and invited the reader to attend an upcoming Public Information Centre (PIC).

On February 4, 2019, a PIC was held at the Royal Canadian Legion (Branch 497) in Omemee, ON, during which members of the public could provide feedback on the proposed alternative solutions to the problem. The purpose of this PIC was to gain an understanding of the local use of the bridge and obtain feedback on preliminary solutions.

In addition to public consultation, during the EA process the following stakeholders were contacted for input:

- City of Kawartha Lakes (various contacts);
- Kawartha Conservation Authority;
- Kawartha Trans-Canada Trail;
- Ministry of Environment, Conservation and Parks (MECP);
- Ministry of Natural Resources and Forestry (MNR/Peterborough District);
- Ministry of Tourism, Culture, and Sport (MTCS);
- First Nations;
- Trillium Lakelands District School Board;
- Peterborough, Victoria, Northumberland and Clarington Catholic School Board;
- Student Transportation Services of Central Ontario;
- Kawartha Lakes Police Service;
- Kawartha Lakes Paramedic Service;
- Kawartha Lakes Fire Department;

- Member of Provincial Parliament;
- Member of Parliament;
- Utility Service Provider (various); and
- Public and Businesses of Omemee, ON.

The next step in the EA process is to publish a notice of study completion. Following 30 days from the date of publication the City of Kawartha Lakes may go to construction of the preferred alternative.

Other Alternatives Considered:

The alternatives are discussed in this report.

Financial/Operation Impacts:

The estimated construction budget for the proposed structure replacement (Recommended Option 3) is \$1,500,000.00, which includes contingency and construction supervision.

Relationship of Recommendation(s) To The 2016-2019 Strategic Plan:

This report aligns with Goal 1 – A Vibrant and Growing Economy and Goal 2 – An Exceptional Quality of Life.

It also aligns with the Strategic Enablers of “Efficient Infrastructure & Asset Management” and “Responsible Fiscal Resource Management”.

Review of Accessibility Implications of Any Development or Policy:

N/A

Servicing Implications:

N/A

Consultations:

DM Wills

Attachments:

Environmental Assessment Project Report



9213 - Draft EA
Project Report.pdf

Appendix A – Contact and Consultation Records



Appendix
A_Compiled.pdf

Appendix B – Existing Data



Appendix
B_Compiled.pdf

Appendix C – General Arrangement Drawing and Cost Estimate



Appendix
C_Compiled.pdf

Appendix D – Site Photographs



Appendix
D_Compiled.pdf

Appendix E – Cultural Heritage Evaluation Report and Heritage Impact Assessment



Appendix
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Appendix F – Archaeological Assessment



Appendix
F_Compiled.pdf

Appendix G – Aboriginal Consultation



Appendix
G_Compiled.pdf

Notice of Completion



9213 - Mill Pond
Bridge EA - Notice of

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Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: