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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON NOVEMBER 3, 2014
FROM:	JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	GORE ROAD AREA PROJECT BRAESYDE & DENGATE INFRASTRUCTURE REPLACEMENT DETAILED DESIGN & TENDERING APPOINTMENT OF CONSULTANT ENGINEER

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the appointment of a Consultant for the Gore Road Area Project Braesyde & Dengate Infrastructure Replacement:

- (a) Dillon Consulting Limited, **BE APPOINTED** Consulting Engineers to complete the detailed design and tendering for the Gore Road Area Project Braesyde & Dengate Infrastructure Replacement, at an upset amount \$204,803.50 including contingency, excluding HST, in accordance with the estimate on file, based upon the Fee Guideline for Professional Engineering Services, recommended by the Ontario Society of Professional Engineers; and in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy; it being noted that this consultant shall obtain approval to proceed with subsequent phases of engineering for this project subject to satisfying all financial, reporting and other conditions contained within this Policy.
- (b) the financing for this work **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix "A";
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work;
- (d) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work; and
- (e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- Civic Works Committee – July 17, 2012 – Appointment of Consulting Engineers, Meadowlily Bridge (4-FB-02) Rehabilitation, Schedule 'B' Environmental Assessment & Detailed Design and Gore Road Bridge (4-BR-15) Replacement, Schedule 'B' Environmental Assessment.
- Civic Works Committee – July 22, 2013 – Gore Road Bridge Replacement, Environmental Assessment
- Civic Works Committee – August 19, 2013 - Gore Road Bridge Replacement, Detailed Design & Tendering, Appointment of Consultant Engineer
- Civic Works Committee – April 14, 2014 – Gore Road Bridge Replacement, Tender 14-28

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BACKGROUND

Purpose

This report seeks the approval of Municipal Council to retain an engineering consultant to complete the detailed design and tendering for the reconstruction of a portion of Braesyde Avenue and Dengate Crescent in the Gore Road Area. The project is adjacent to the Gore Road Bridge Replacement Project currently underway and was triggered by the discovery of a problem with piers supporting a sanitary pipe bridge over Pottersburg Creek.

CONTEXT

During the construction of the Gore Road Bridge Replacement Project (currently underway), observations were made regarding the state of a sanitary sewer which hangs on bridge supports and spans over Pottersburg Creek. This sanitary sewer provides a sanitary outlet to about 70 homes in the Braesyde and Dengate Street Area (Location Map, Appendix 'B').

To facilitate construction and staging areas for the replacement of the Gore Road Bridge Project, trees and bush were cleared in the vicinity of the pipe bridge. At that time, the pipe bridge carrying the 200mm diameter sanitary sewer line across Pottersburg Creek was observed to be at risk of failure. The support, located near the south edge of the creek, had tilted out of position approximately 250 mm at the top.



The City and the engineering consultant (Dillon Consulting Limited) for the Gore Road Bridge project took immediate action by having a technical memo prepared by a structural engineer to report on observations, options, costs and risks to the City.

DISCUSSION

The existing pipe bridge was constructed in 1959 and supports a 200 mm diameter insulated sanitary sewer. The original sewer was a corrugated iron pipe; however the pipe was replaced some time ago with a plastic pipe. The existing pipe bridge consists of a pair of structural steel beams, with the sewer running between them. The superstructure is supported on concrete piers and foundations on either side of the creek.

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Based on the technical memo, it was determined that generally the pipe bridge superstructure is in good condition, however, the south pier is hazardous, appearing to have shifted, leaving the underside of the bearing plate exposed. The north pier appeared in good condition. Erosion of the south creek bank had also exposed much of the south pier foundation leaving little erosion and frost projection to the structure.

The following alternatives for addressing the problem were reviewed:

- Do nothing
- Install temporary supports at top of pier (fasten the pipe bridge to the pier as a temporary stabilization measure)
- Replace the pipe and pipe bridge
- Reroute the sanitary through the subdivision and eliminate pipe, pipe bridge and piers.

To mitigate risk of failure and consequences to public and environment, the recommended long term solution to this problem is the elimination of this pipe and pipe structure and rerouting the sanitary sewer through the subdivision. The team also recommended installation of temporary lateral supports at the top of the south pier as part the current Gore Road Bridge Project in order to mitigate risk for the short term (12 to 24 months). This work has been completed so the risk of failure has been temporarily alleviated.

This report seeks permission to complete the servicing design for rerouting of the sanitary sewer pipe network and associated works and to prepare a tender package for Phase I construction in 2015, which includes the removal of the existing sanitary sewer pipe bridge and reconstructing parts of Dengate Crescent and Braesyde Avenue. Phase II construction can be deferred years out.

Phase I construction will also include the replacement of watermain and the installation of new storm sewer, as well as full road reconstruction in areas disturbed by the construction activity.

Dillon Consulting Limited (Dillon) has a long history of successful Infrastructure projects within the City of London and surrounding area and has a strong structural engineering staff to support their underground infrastructure team. Based on their previous work in the area, Dillon has completed much of the preliminary design work. Storm sewer area plans were completed as part of the Gore Road Bridge Replacement project.

In accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy, Civic Administration is recommending that Dillon Consulting Limited be appointed as the consulting engineering for the detailed design and tendering of the project for a fee estimate of \$204,803.50. The continued use of Dillon Consulting Limited on this project is of financial advantage to the City due to the fact that the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

CONCLUSION

The recommendation of this report is to appoint Dillon Consulting Limited to undertake the detailed design and tendering for the Gore Road Area Braesyde and Dengate Infrastructure Replacement Project, it being noted that this consultant shall obtain the approval to proceed with subsequent phases of engineering for this project subject to satisfying all financial, reporting and other conditions.

Dillon has shown a good understanding of the project and has the technical expertise to complete the assignment. The proposal represents good value for the City and within the approved budget. With construction planned for 2015, it is necessary to commence the design and approvals phase of this project immediately.

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Acknowledgements:

This report was prepared by a team consisting of Ugo DeCandido, P.ENG., and Doug Harron C.E.T., from the Wastewater and Drainage Engineering Division.

PREPARED BY:	REVIEWED AND CONCURRED BY:
TOM COPELAND, P. ENG. DIVISION MANAGER, WASTEWATER AND DRAINAGE ENGINEERING	JOHN LUCAS, P. ENG. DIRECTOR, WATER AND WASTEWATER
RECOMMENDED BY:	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER	

October 28, 2014

Attach: Appendix "A" – Sources of Financing
Appendix "B" – Location Map

Cc: John Freeman – Manager, Purchasing and Supply
Pat Shack – Budget Analyst
Dillon

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APPENDIX 'B'

LOCATION MAP

