

PW-A7-1

DATE: November 5, 2010

REPORT TITLE: **CONSULTING SERVICES FOR DETAILED DESIGN AND CONTRACT ADMINISTRATION AND SUPERVISION FOR REGIONAL ROAD 1 (MISSISSAUGA ROAD) WIDENING CONSTRUCTION ADDITIONAL SCOPE OF WORK CAPITAL PROJECTS 06-4025, 02-4090, 07-2225, 08-1210, 08-1107, 07-1147 AND 08-4275 DOCUMENT 2007-152P CITY OF BRAMPTON, WARD 6**

FROM: Dan Labrecque, Commissioner of Public Works

RECOMMENDATION

That the contract (Document 2007-152P) for the detailed design, contract administration and construction supervision services for Regional Road 1 (Mississauga Road) widening and underground servicing, between the Region of Peel and The Municipal Infrastructure Group Limited, be extended to provide for additional consulting engineering services in the estimated amount of \$1,633,175 (excluding applicable taxes), under Capital Projects 06-4025 (\$901,270), 02-4090 (\$118,378), 07-2225 (\$106,690), 08-1210 (\$287,197), 08-1107 (\$11,330), 07-1147 (\$75,240) and 08-4275 (\$133,070) for a total commitment of \$4,328,109 (excluding applicable taxes), in accordance with Purchasing By-law 63-2008.

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AND SUPERVISION FOR REGIONAL ROAD 1 (MISSISSAUGA ROAD) WIDENING
CONSTRUCTION**

ADDITIONAL SCOPE OF WORK

**CAPITAL PROJECTS 06-4025, 02-4090, 07-2225, 08-1210, 08-1107, 07-1147 AND 08-4275
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REPORT HIGHLIGHTS

- The Region of Peel retained The Municipal Infrastructure Group Limited (TMIG) in 2008, under Council Resolution 2008-146 to provide engineering and consulting services for the widening of Mississauga Road from Queen Street West to Bovaird Drive including all underground infrastructure services within the project limits.
- Staff recommends phasing of the project into three contracts to meet servicing timelines for the Royal West Commercial Development, Springbrook Subdivision, Mount Pleasant Subdivision and the commissioning requirements of the West Brampton Reservoir. The staging strategies for each contract will facilitate construction works that meets stakeholder expectations.
- The scope of work increase includes addition of detailed design works for the Mississauga Road and Queen Street intersection, James Potter intersection on Bovaird Drive, extension of watermains north of Bovaird Drive, design coordination with Springbrook development, added studies for conservation authorities, splitting tender contracts and the extension of contract administration and inspection services.
- The increase in detailed design, contract administration and inspection services is estimated at \$1,633,175 for a total commitment of \$4,328,109 (excluding applicable taxes).

DISCUSSION

1. Background

The Municipal Infrastructure Group Limited was retained in early 2008, under Council Resolution 2008-146, to provide engineering, contract administration and inspection services under the following Capital Projects:

- 06-4025 – Widening of Mississauga Road from two lanes to five lanes from north of Queen Street to north of Bovaird Drive, including intersection improvements on Mississauga Road at Bovaird Drive and at Ostrander Boulevard. The widening includes upgrade of road storm water management systems, streetscaping and multi use paths;
- 02-4090 – Widening of Bovaird Drive from Mississauga Road to 500 metres easterly;
- 07-2225 – Construction of the Huttonville Sanitary Trunk sewer from Queen Street to approximately 50 m north of Bovaird Drive intersection;
- 08-1210 – Construction of the Alloa water transmission main from the West Brampton Reservoir to Bovaird Drive;
- 08-1107 – Construction of the Brampton Zone 6 watermain from the West Brampton Reservoir to the future Williams Parkway.

Staff recommends phasing of the project into three contracts to meet servicing timelines for the Royal West Commercial Development, the Springbrook Subdivision community, Mount Pleasant Subdivision community and the commissioning of the West Brampton Reservoir. The staging strategies for each contract will facilitate construction works that meets stakeholder expectations:

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- Contract 1 covers the construction the Brampton Zone 6 watermain and was completed in Spring 2010. Completion coincides with the permitting requirements for occupancy of Springbrook community participating properties.

The scope of the contract included upgrading and looping the watermain network at the Huttonville community within the boundaries of River Road and Ostrander Boulevard in anticipation of the commissioning of the West Brampton Reservoir.

- Contract 2 includes intersection improvements/widening at Queen Street and Mississauga Road, widening of Mississauga Road widening from Queen Street to Williams Parkway and the tunneling construction of the Huttonville Sanitary Trunk Sewer from Queen to Bovaird Boulevard.

This contract aims to meet road servicing requirement for the Royal West Commercial Development (Walmart and Home Depot) scheduled to open in mid 2011.

The commissioning of the sanitary trunk sewer will provide the servicing requirements for the Mount Pleasant development. Its completion in late 2012 will meet development timelines.

- Contract 3 completes the road widening of Mississauga Road to Bovaird Drive, Bovaird Drive from Mississauga Road to 500 meters (1640 feet) easterly and the construction of the Aloa transmission main. This contract is targeted for tendering in mid 2012 when the underground servicing is substantially complete, and all properties have been secured for the project.

2. Additional Consulting Engineering Services

The following table summarizes the increased scope of work for engineering design, contract administration and inspection fees. Each item is supported with a memo from the consultant outlining the background information of the original scope, the needs and justification of the additional scope of work and time task schedules. Staff reviewed each proposal and finds the fees acceptable.

Description	Cost
<p>Detailed Design of Queen Street and Mississauga Road intersection (Project 06-4025) (See Sketch - Appendix I) The Queen Street widening including the intersection of Mississauga Road to the future Royal West Drive was part of a separate project under a different consulting assignment.</p> <p>Transferring the Queen intersection to the Mississauga Road project provides a better coordination strategy for relocating utilities, the staging for constructing Royal West Drive intersection (Springbrook entrance on Queen Street), and the platform needed for the sanitary trunk sewer tunnel shaft.</p>	<p>\$473,547</p>

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<p>The Queen Street intersection widening is a necessary part of the Mississauga Road construction for the six-lane cross-section northerly to Ostrander Road.</p> <p>Further, the south limit of the Mississauga Road project has been extended southerly of the Queen Street intersection to improve the road alignment and safety. The Queen Street alignment and profile has been changed as well to improve site distance for road safety.</p> <p>Detailed Design of Bovaird Drive - James Potter intersection including Signalization (Project 08-4275) Extension of Bovaird Drive widening easterly to include the future James Potter intersection. The scope of work includes complete design of a new intersection with signalization.</p>	
<p>Coordination with Springbrook related to the Draft Plan Agreements and Site Plan (Project 06-4025) The Springbrook Draft Plan Agreement was being finalized when the road widening project commenced. The Master Plan and Draft Agreements need to be adjusted to accommodate the road right-of-way property requirements for ultimate six-lanes and accommodate the construction staging strategies.</p> <p>Additional work is required to integrate three new intersections into the road widening design and match the Royal West Commercial development site plan drawings. This involves staging the construction to provide interim access to the commercial development prior to the completion of the construction widening of Mississauga Road. The cost associated with the interim and construction of new entrances will be recovered from the developer.</p> <p>A number of options to deal with the storm water were investigated in order to ensure a cost effective design that addresses the quality/quantity control in a holistic approach. This includes additional work required to investigate opportunity to convey storm drainage from the Mississauga Road into the Springbrook Development Storm Water Management pond. This requires design for the oversizing of pipes through the subdivision and added forebay for water treatment. The cost associated with directing the storm water through the development are offset by the reduced cost for a standalone sewer system along Mississauga Road.</p>	<p>\$243,755</p>

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<p>Hazard Limits Mapping, Embankment and Culvert Design at/near Bovaird Drive and Mississauga Road Intersection (Project 02-4090) Credit Valley Conservation required additional work to complete a hydraulic analysis, floodline and hazard limit mapping. As well, additional studies were required to get permits from the Ministry of Natural Resources under the <i>Endangered Species Act</i> (redside dace).</p>	
<p>Additional Watermains at Bovaird Drive West (Projects 08-1210 and 07-1147) The scope of work requires extending the 600mm (24 inch), 900mm (35 inch) and the Aloo watermain beyond the limits of Bovaird Drive intersection.</p> <p>The additional work requires securing a Permit To Take Water exceeding the 50,000 liters/day allowable limit and conducting groundwater well baseline readings to monitor groundwater variations due to construction.</p> <p>Further, additional work is required for detailed topographic survey and subsurface utility investigation</p> <p>Staff added works for the replacement of existing 300mm (12 inch) asbestos concrete and old ductile iron pipes watermain at the location of River Road and Queen Street. The new watermain will provide the necessary redundant feed to the Huttonville community which loops the system through Ostrander and River Road.</p>	<p>\$203,087</p>
<p>Staging of Works into Three Tender Documents The work involves preparing three separate tender contracts that meets development timelines for servicing, preparation of additional drawings for removal, pavement markings, signage, and miscellaneous details of the staging</p>	<p>\$110,410</p>
<p>Contract Administration and Inspection Fees Associated with Scope Changes and Extended Construction Period The construction staging was carried out to facilitate and advance construction of infrastructure that meets servicing timelines of development subdivisions. The construction period will be split into three contracts. The estimated fees are as follows for a total construction period of 41 months: Contract 1 - \$46,840 (Completed) Contract 2 - \$338,521 (Start Construction January 2011) Contract 3 - \$217,015 (Start Construction July 2012)</p>	<p>\$602,376</p>

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FINANCIAL IMPLICATIONS

The proposed increase in the contract (Document 2007-152P) between the Region of Peel and The Municipal Infrastructure Group (TMIG) is as follows. The table below includes the distributed Contract Administration and Inspection fees.

Project No.	Existing Commitment	Proposed Increase	Total Commitment
06-4025	\$1,343,638	\$901,270	\$2,244,908
02-4090	\$190,000	\$118,378	\$308,378
07-2225	\$798,824	\$106,690	\$905,514
08-1210	\$261,972	\$287,197	\$549,169
08-1107	\$100,500	\$11,330	\$111,830
07-1147	\$0	\$75,240	\$75,240
08-4275	\$0	\$133,070	\$133,070
TOTAL	\$2,694,934	\$1,633,175	\$4,328,109

Sufficient funds are available under Capital Projects 06-4025, 02-4090, 07-2225, 08-1210, 08-1107, 07-1147 and 08-4275.

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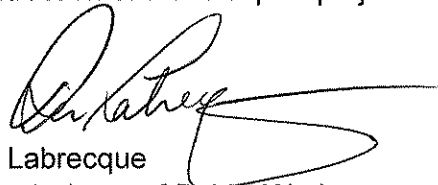
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CONCLUSION

The scope of engineering services for the road widening and construction of underground servicing on Mississauga Road between Queen Street and Bovaird Drive has increased to accommodate additional road and servicing works, splitting the works into 3 tenders to accommodate the schedules and extended inspection and contract administration services. It also includes for working with the conservation authority to mitigate encroachment into hazard lands and protect endangered species on adjacent tributaries.

It is therefore recommended that the existing contract with TMIG be extended in the amount of \$1,633,175, to provide the required additional consulting engineering services to complete the construction of these capital projects. Sufficient funds are available in these projects.


JK

Dan Labrecque
Commissioner of Public Works

Approved for Submission:



D. Szwarc, Chief Administrative Officer

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APPENDIX I

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