

Request for Approval of Procurement Approach and Amendment to Purchase Order Number 6045739 for Owner Controlled External Legal Services Associated with the West Gardiner Expressway Rehabilitation Contracts

Date: December 20, 2021

To: Infrastructure and Environmental Committee

From: Chief Engineer and Executive Director, Engineering and Construction Services and Chief Procurement Officer, Purchasing and Materials Management

Wards: Ward 3 (Etobicoke-Lakeshore), Ward 4 (Parkdale-High Park) and Ward 10 (Spadina-Fort York)

REASON FOR CONFIDENTIAL INFORMATION

The attachment to this report involves the security of property belonging to the City of Toronto; and, this report contains commercial and financial information that belongs to the City of Toronto and has monetary value or potential monetary value.

SUMMARY

The purpose of this report is to recommend to Council the use of a proposal and break fee mechanism in the procurement for the Gardiner Expressway Rehabilitation Contract 2: Dufferin Street to Strachan Avenue, and Contract 3: Highway 427 to Humber River. It is proposed that Contracts 2 and 3 be procured as Design-Build so as to shift the design risk from the City to the proponent, which would be contracted to provide both design and construction services. In order to evaluate the design element of prospective proposals, proponents will be required to do significant design work (up to 30%) to develop a proposal which can be evaluated by the City. Based on market soundings and recent experience with other major public infrastructure projects, qualified bidders capable of undertaking such projects would expect proposal fees to partially compensate unsuccessful proponents for the effort expended on their proposal preparation. Similarly, a pro-rated break fee would also be included in the process in the

unlikely event that City Council chose to cancel the procurement at some stage prior to contract award.

The up-front cost to the City of such fees is compensated by the benefits of shifting the design risk from the City to the proponent, in terms of schedule and avoiding additional costs to the project from change orders arising due to constructability and design related issues with a City-provided design.

This report also requests authority to amend an existing Purchase Order issued to Blake, Cassels and Graydon LLP for expert legal advice for the preparation of procurement documents, contractual agreements and litigation services to support the rehabilitation of the Gardiner Expressway. The total value of the amendment to Purchase Order Number 6045739 issued to Blake, Cassels & Graydon LLP, being requested is \$3,800,000 net of all taxes and charges (\$3,866,880 net of HST recoveries), revising the current purchase order value from \$1,500,000 net of all taxes and charges (\$1,526,400 net of HST recoveries) to \$5,300,000 net of all taxes and charges (\$5,393,280 net of HST recoveries).

RECOMMENDATIONS

The Chief Engineer and Executive Director, Engineering and Construction Services and the Chief Procurement Officer, Purchasing and Materials Management recommend that:

1. City Council authorize the Chief Engineer and Executive Director, Engineering and Construction Services and the Chief Procurement Officer, Purchasing and Materials Management to apply Proposal Fees and Break Fees to the Design-Build procurements for the Gardiner Expressway Rehabilitation Contracts 2 and 3, respectively, based on the conditions set out in Appendix A and Confidential Attachment 1.
2. City Council direct the Chief Procurement Officer to consider creating a Proposal Fee and Break Fee Policy for large scale construction projects, after the completion of the procurement process for Gardiner Expressway Rehabilitation Contract 3 and report back to Council through the General Government and Licensing Committee.
3. City Council direct that the confidential information contained in Confidential Attachment 1 remain confidential in its entirety, until the procurement processes for all sections of the Gardiner Expressway Rehabilitation Project are complete.
4. The Infrastructure and Environment Committee, in accordance with Section 71-11.1.C of the City of Toronto Municipal Code Chapter 71 (Financial Control By-Law), grant authority to amend Purchase Order Number 6045739 with Blake, Cassels & Graydon LLP, for the continued provision of expert external legal advice and litigation support, as necessary, for the execution and administration of the required agreements in respect of the on-going Gardiner Expressway Rehabilitation Project in the amount of \$3,800,000 net of all taxes and charges (\$3,866,880 net of HST recoveries), recommended by the City Solicitor as appropriate for the scope of services required,

revising the current value from \$1,500,000 net of all taxes and charges (\$1,526,400 net of HST recoveries) to \$5,300,000 net of all taxes and charges (\$5,393,280 net of HST recoveries).

FINANCIAL IMPACT

The Purchase Order Amendment request included in this report will increase the total value of the legal services assignment by \$3,800,000 net of all applicable taxes and charges (\$3,866,880 net of HST recoveries).

Funding for the Purchase Order Amendment is available in the 2021-2030 Approved Capital Budget and Plan for Transportation Services.

Funding for the Gardiner Expressway Rehabilitation Contract 2 and Contract 3 is available in the 2021-2030 Approved Capital Budget and Plan for Transportation Services. The Proposal Fees, for the two unsuccessful proponents, or Break Fees for the three proponents (in the event either of the Contracts are cancelled), will be funded through the Transportation Services Operating Budget from a one-time redirection of eligible capital funding (reserve funding) with a corresponding reduction to the capital project (Gardiner Rehabilitation Project).

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On June 12, 2018, by the authority of the Public Works and Infrastructure Committee, Contract Number 18ECS-TI-01GE was awarded to Aecon Construction and Materials Limited for Rehabilitation of the F.G. Gardiner Expressway Rehabilitation Project: Section 1 - Jarvis Street to Cherry Street, in the amount of \$308,531,227 (net of all taxes and charges); and the City amended Purchase Order Number 6045739 with Blake, Cassels and Graydon LLP, by an amount of \$1,000,000 (net of all taxes and charges), revising the original purchase order value from \$500,000 (net of all taxes and charges) to \$1,500,000 (net of all taxes and charges), to allow for the continued provision of legal services as required to provide ongoing advice and litigation support on the execution and administration, including claims, of Contract 18ECS-TI-01GE and the tender process, including preparation of tender documents and agreements, and execution and administration, including claims, of the required agreements in respect of the planned F.G Gardiner Expressway Rehabilitation Project: Sections 2 and 3. A copy of the Public Works and Infrastructure Committee Decision Document can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PW30.3>

On December 13, 2016, by the authority of City Council, the New Implementation Approach for the F.G. Gardiner Expressway Revised Strategic Rehabilitation Plan was adopted. A copy of the City Council Decision Document can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX20.14>

On September 30, 2015, by the authority of City Council, the F.G. Gardiner Expressway Strategic Rehabilitation Plan Procurement Strategy was adopted. A copy of the City Council Decision Document can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.EX8.12>

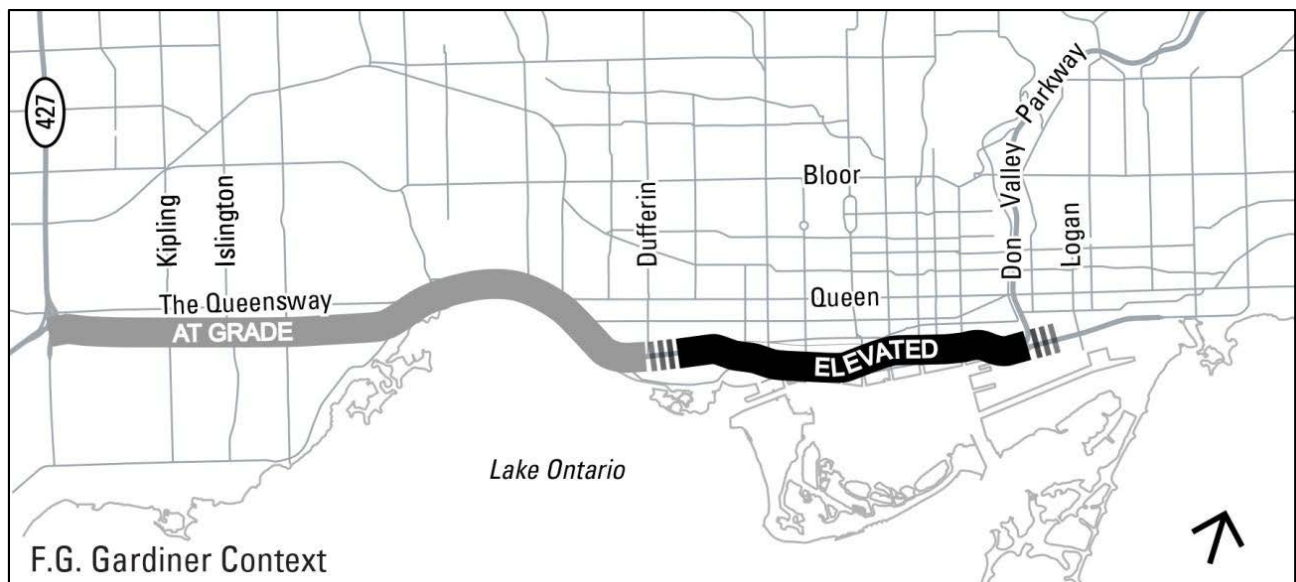
On April 1, 2014, by the authority of City Council, the Strategic Plan for the Rehabilitation of the F.G. Gardiner Expressway was adopted. A copy of the City Council Decision Document can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW29.1>

COMMENTS

Background

Transportation Services owns and operates the F.G. Gardiner Expressway, a major arterial roadway that runs parallel to the Lake Ontario shoreline in the downtown core. The Expressway is 18 kilometres long, comprising of an “at grade” section that is 11 kilometres long and an “elevated” section that is 7 kilometres long. A map of the Expressway is provided in Figure 1.

Figure 1: Map Showing the F.G. Gardiner Expressway



The Expressway was constructed over an 11-year period from 1955 to 1966, and has been in service for over 60 years. The effects of weathering, salt, and increasing traffic loads have had an impact, and the concrete deck for the elevated section of the Expressway is approaching the end of its original design life. Details about the Expressway are presented in Table 2.

Table 2: Features of the "At Grade" and "Elevated" Sections of the F.G. Gardiner Expressway

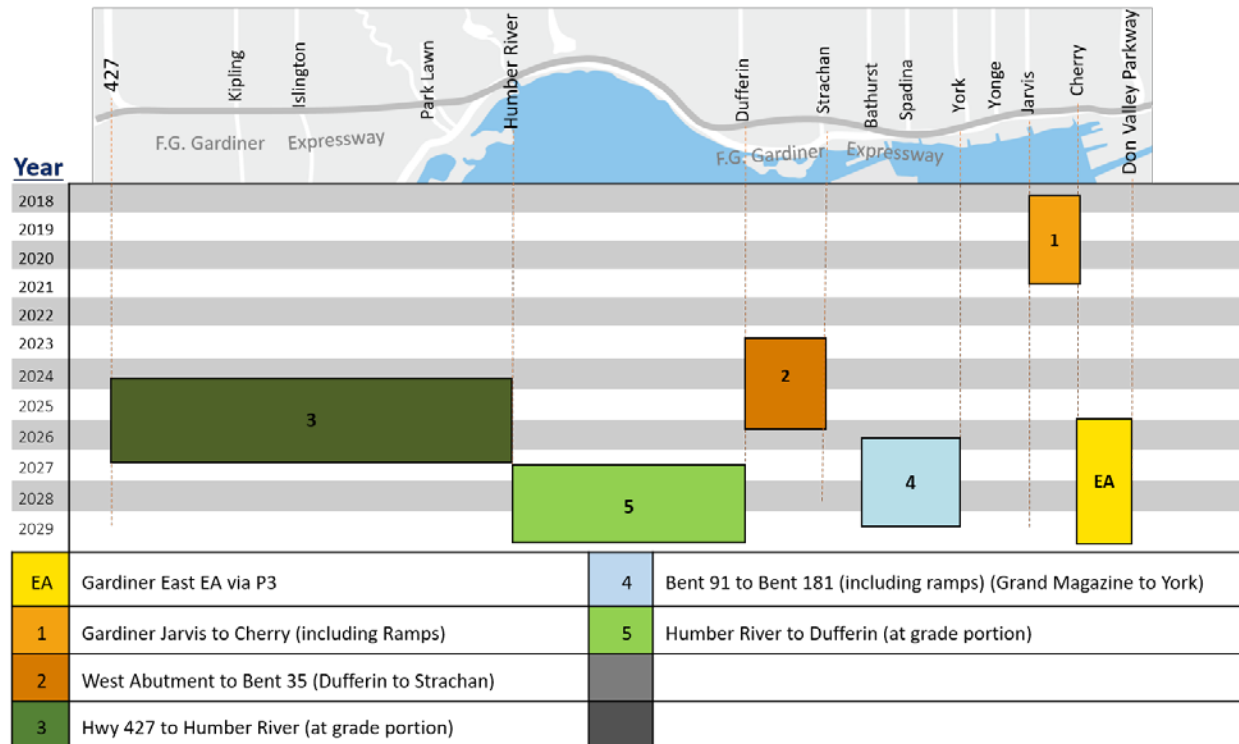
Feature	At Grade Section	Elevated Section
Length and Location	11 kilometres long; Highway 427 to east of Dufferin Street	7 kilometres long; east of Dufferin Street to Don Valley Parkway
Structures	32 structures (e.g., bridges and culverts)	335 bridge spans
Driving Lanes	6 to 10 lanes west of Humber River; 6 lanes east of Humber River	6 to 8 lanes and 17 ramps
Total Surface Area of Paved Traffic Lanes	Approximately 370,000 square metres	Approximately 300,000 square metres
Posted Speed Limit	100 km/h west of Humber River; 90 km/h east of Humber River	90 km/h

Based on detailed investigations and available condition assessment data for both the "at-grade" and "elevated" sections, a Strategic Rehabilitation Plan for the F.G. Gardiner Expressway was developed. The implementation approach for the Plan was adopted by Council in December 2016 and is based on segregating work on the Expressway east and west of Cherry Street. The implementation Plan divides the Expressway west of Cherry Street into multiple sections and includes the use of Accelerated Bridge Construction in order to reduce the overall time required to complete the superstructure replacement on the elevated portion. The work is being phased based on a prioritization of the rehabilitation needs with a view to minimizing traffic and transit disruption.

Figure 2 illustrates the planned timing of construction work along the length of the Expressway. To date, construction has been completed on the Gardiner Expressway Section 1 - Jarvis to Cherry (including 3 ramp structures), referred to as Contract 1. As shown in Figure 2, given the deteriorated state of the concrete deck and barriers on the elevated portion of the Expressway between Dufferin Street and Strachan Avenue, Contract 2 is directed at the rehabilitation of this section, with construction planned for 2023 to 2026. Contract 3 includes reconstruction of the at-grade portion of the Expressway from Highway 427 to the Humber River, including rehabilitation of the

bridges that cross-over the Expressway (Kipling Avenue, Islington Avenue, Royal York Road, and Grand Avenue); as well has bridges that carry the Expressway along this portion (over The East Mall, Wickman Road and Rail, Mimico Creek, Park Lawn Road, and Lakeshore Boulevard West). Contract 3 construction is planned from 2024 to 2027.

Figure 2: Implementation Schedule for the F.G. Gardiner Expressway Revised Strategic Rehabilitation Plan (2018-2029)



Procurement Options for Large and Complex Construction Projects

The Engineering and Construction Services Division traditionally delivers its capital projects using a Design-Bid-Build model. Using this model, engineering design and construction services are procured separately, in a sequential manner. Typically, the services of a consulting engineering firm are procured first, to develop a detailed engineering design and construction tender package (drawings and specifications) for the project. Contractors then bid on the tender package and the construction of the project is awarded to a qualified construction company with the lowest priced bid. In the Design-Bid-Build model the City assumes many of the risks associated with the engineering design. These risks increase with the project size and complexity as well as other factors such as unknown subsurface conditions, proximity of other projects, conflicts with site constraints, and constructability issues which may have been overlooked in the design.

An alternate delivery model, referred to as Design-Build, is often utilized on large and complex construction projects in order to reduce the amount of risk carried by the project owner. Design-Build projects can also reduce the overall project cost and leads

to a decrease in the overall project duration from design to construction completion. In a Design-Build delivery model, the owner typically pre-qualifies three (3) Design-Build Teams of contractors and consulting engineers based on the Teams' experience, expertise, and demonstrated ability to deliver projects of a similar scale. Each of the Design-Build Teams work to prepare a preliminary design (typically at the 30% level) with an associated construction schedule and cost. Due to the competitiveness of the bidding process, each of the three Design-Build Teams incorporate design and construction innovation into their proposals to reduce the overall construction schedule and project cost. For projects involving the rehabilitation of the Gardiner Expressway, where traffic impacts are significant, the proposed construction schedules and lane closure durations will be weighted heavily in the overall evaluation of the proposals received.

This approach provides for a reduction in the overall project schedule, because the engineering design and construction is the responsibility of a single Design-Build Team and, therefore, construction can begin in advance of having all the engineering design work completed; and because of the competitiveness in the bidding process, innovations in design and construction techniques can further reduce the construction schedule.

Lessons Learned with Contract 1: Jarvis Street to Cherry Street

The Gardiner Expressway Strategic Rehabilitation Plan's Contract 1 consisted of the rehabilitation of the 1.2 kilometre elevated section and three (3) ramps between Jarvis Street and Cherry Street, utilizing an accelerated bridge construction approach to replace the concrete deck and girders. This involved saw cutting, hoisting and removing sections of the Expressway, and replacing them with over 400 unique prefabricated concrete deck and steel girder sections. While this approach represented an estimated 40% reduction in construction schedule, in comparison to the past practice of cast-in-place construction, it presented a number of unique design and construction challenges.

In using conventional Design-Bid-Build for Contract 1, the City assumed most of the design risk. Design errors and constructability conflicts, which had not been contemplated by the design team, surfaced during construction, resulting in design changes and extra costs. In order to mitigate design risk, a strategic decision was made to utilize a Design-Build delivery model for the rehabilitation of the next elevated section: Contract 2 - Dufferin Street to Strachan Avenue; and the at-grade section: Contract 3 - Highway 427 to the Humber River. This approach transfers most of the design risk to the Design-Build Team, and for the reasons cited above, reduces the overall project schedule.

Proposal Fees on Design-Build Procurements

During the procurement phase of a large-scale Design-Build project, each pre-qualified Design-Build Team works for approximately eight (8) to twelve (12) months to prepare a proposal submission in response to the Request for Proposal (RFP). The City intends to pre-qualify three (3) Design-Build Teams to participate in the procurement processes for the Gardiner Expressway Rehabilitation Contract 2 and Contract 3, respectively. The

Request for Approval of Procurement Approach and Amendment to PO No. 6045739 for Owner Controlled External Legal Services for West Gardiner Expressway Rehabilitation Contracts

consulting engineers on each pre-qualified team will spend thousands of hours completing structural analyses and calculations, preparing engineering drawings, developing staging and traffic management plans, as well as working with experts on the means and methods for construction. Engineers and constructability experts will work to develop innovative solutions to reduce the construction schedule and bid price. The Design-Build Teams also participate in a series of commercially confidential and design presentation meetings with the City while the RFP is out in the marketplace.

Given the level of effort and costs expended by the Design-Build Teams in the preparation of their bid submissions, Proposal Fees are now an industry standard to attract top-tier Design-Build Teams to participate in this type of procurement process for large scale projects. Proposal Fees are offered to partially offset the cost of competing on the project and are paid to each unsuccessful Design-Build Team upon confirmation of their compliant technical proposal submission. Proposal fees are typically offered as a percentage of the estimated capital construction cost, depending on market conditions at the time of procurement. Confidential Attachment 1 provides a summary of the Proposal Fees estimated to be paid to the unsuccessful proponents on the Gardiner Rehabilitation Contract 2 and Contract 3, respectively.

The value paid by way of Proposal Fees is expected to provide a return on investment in terms of expected overall project cost savings and a shortened construction schedule. The latter is a significant consideration given that the Gardiner Expressway contributes an estimated \$1 billion to Canada's GDP annually (see Staff Report "F.G. Gardiner Expressway Strategic Rehabilitation Plan Procurement Strategy", 2015) and lane reductions associated with construction of the Gardiner rehabilitation represent a daily loss of productivity for users estimated at \$1 million per day (see Staff Report "Strategic Plan for the Rehabilitation of the F.G. Gardiner Expressway", 2014).

Further, City staff conducted a market sounding for the Gardiner Expressway Rehabilitation Contract 2 in June, 2021. Participants included eight (8) prominent construction companies with a track record of delivering large scale construction projects in the region. Proposal Fees were identified by the majority of the companies as an important determining factor when making a decision to participate in a Design-Build procurement process. In particular, the construction companies indicated that top tier consulting engineering companies will not join a Design-Build Team to participate in the procurement process without a portion of their effort being compensated through Proposal Fees. Current market conditions further exacerbate the issue as the volume of available work in the region associated with Provincial Transit Expansion has grown exponentially. Top tier consulting engineers have ample choice regarding which major projects they choose to pursue. In addition, the Infrastructure Investment and Jobs Act recently passed by the United States Government will further impact the market competitiveness for top tier Design-Build Teams. A significant investment of \$110 billion (USD) to rebuild roads and bridges across the United States will utilize resources from consulting engineering companies practicing across North America, including those considering bidding on the Gardiner Rehabilitation Contracts. Many of the large Provincial and United States projects are expected to follow a Design-Build model, and the use of Proposal Fees is anticipated to be standard practice in these procurements.

Examples of recent projects in the region that have utilized a Design-Build procurement model, with Proposal Fees, are presented in Table 3.

Table 3: Examples of Regional Large Scale Projects which included Proposal Fees in a Design-Build Procurement Model

Project	Approximate Value
GO Rail Expansion - Davenport Diamond Rail Grade Separation	\$175 million
GO Rail Expansion - Kipling Bus Terminal	\$73 million
Region of Waterloo Light Rail Transit System	Not available
York Viva Bus Rapid Transit Expansion	Not available
Scarborough Subway Extension	Not available
Cortellucci Vaughan Hospital (formerly Mackenzie Vaughan Hospital)	\$1.3 billion
Sheridan College Hazel McCallion Campus Expansion	\$67 million
Highway 427 Expansion	\$616 million
QEW/Credit River Improvement Project	\$314 million
Finch West Light Rail Transit	\$2.5 billion

Break Fees on Design-Build Procurements

If a Design-Build project is cancelled during the procurement process, the pre-qualified Design-Build Teams will have expended a significant level of effort but may not have reached the proposal submission stage that would qualify them for a Proposal Fee payment. In these scenarios, each of the participating Design-Build Teams are offered Break Fees to partially offset their incurred costs. Break Fees are typically of similar value to the Proposal Fees and payment is pro-rated depending on the timing of the cancellation. Design-Build Teams would be paid either a Proposal Fee or Break Fee, but not both. Break Fees are a newer concept than Proposal Fees, but recent high-profile cancellations of Design-Build projects including the Halton Courthouse and the Hamilton Light Rail Transit projects have increased the market demand for Break Fees and they are now considered an industry standard. Given the political nature of the Gardiner Rehabilitation project, top-tier Design-Build teams may choose not to participate in the procurement processes if Break Fees are not offered. Confidential Attachment 1 provides a summary of the Break Fees estimated to be paid to the proponents in the event that Gardiner Rehabilitation Contract 2 or Contract 3 is cancelled during the procurement process.

Procurement Timing for Gardiner Expressway Rehabilitation Contract 2

The elevated portion of the Gardiner Expressway between Dufferin Street and Strachan Avenue has reached the end of its service life. Advancing the deck replacement as quickly as possible on this portion of the Expressway is essential to ensuring continued public safety and to avoid the cost of interim repairs.

The first stage of the procurement process for the Gardiner Expressway Rehabilitation Contract 2 requires issuing a Request for Qualifications. Responses to the Request for Qualifications will allow for the City to select the top three (3) Design-Build Teams that will be invited to participate in the procurement process. The Request for Qualifications document should identify the Proposal and Break Fees for the project to ensure that top-tier teams elect to participate in the procurement process. Engineering and Construction Services is planning to issue the Request for Qualifications to commence the procurement process in Q1 of 2022. Appendix A sets out the conditions for the Proposal Fee and Break Fees and how they would be used in the procurement for Contract 2 and Contract 3.

Legal Retainer

Blake, Cassels & Graydon LLP, was originally retained through a competitive "Invitation to Provide Legal Services" procurement, led by Legal Services. This led to a retainer agreement effective June 8, 2017. The lawyers that are providing legal advice have expertise in public procurement law and drafting legal agreements on behalf of owners for major infrastructure projects. Additionally, the law firm is full service and there are other lawyers that are able to provide advice in different specialized areas of law, as may be needed when issues arise on the Gardiner Rehabilitation Project.

Blake, Cassels & Graydon LLP, were retained to provide legal advice and draft the procurement documents necessary for all sections of the project until the Gardiner Rehabilitation is complete. For Contract 1, a design-bid-build procurement model was used. For Contract 2 and some of the subsequent sections of the Gardiner, the City is utilizing a design-build procurement model. For each Contract, the Request for Qualification to prequalify proponents is a custom drafted document as is the Request for Proposals and the Project Agreement. Once a set of procurement documents has been drafted for one Contract, if possible, they will be used as a precedent for any of the subsequent contract areas of the Gardiner Rehabilitation. The legal team from Blake, Cassels & Graydon LLP that is supporting the Gardiner Rehabilitation Project is well positioned to provide advice to the City and guide staff through various procurement-specific processes for the Gardiner Rehabilitation, such as complex Market Sounding meetings; and Commercially Confidential meetings and Design Presentation meetings that take place with individual proponents during the in-market period before Proposals are submitted. There are countless legal issues that arise in preparing for a complex procurement, during the procurement period, and then during the design and/or build stages. The team of lawyers at Blake, Cassels & Graydon LLP that is performing the majority of this work have extensive experience providing similar legal advice for other public service owners at the provincial and municipal levels.

Purchase Order Amendment

The amendment to Purchase Order Number 6045739 with Blake, Cassels & Graydon LLP for the additional external expert legal services required to successfully execute and administer agreements for the F.G. Gardiner Expressway Rehabilitation Project by an amount of \$3,800,000 net of all taxes and charges (\$3,866,880 net of HST recoveries) will revise the Purchase Order value from \$1,500,000 net of all taxes and charges (\$1,526,400 net of HST recoveries) to \$5,300,000 net of all taxes and charges (\$5,393,280 net of HST recoveries).

CONTACT

Jodie Atkins, P.Eng., Director, Bridges and Expressways, Engineering and Construction Services, Telephone: 416-392-9183, Email: Jodie.Atkins@toronto.ca

Sabrina Dipietro, Manager, Infrastructure and Development Services, Purchasing and Materials Management, Telephone: 416-397-4809, Email: Sabrina.Dipietro@toronto.ca

Ward Earle, Director, Municipal Law, Legal Services
Telephone: 416-397-4058, Email: Ward.Earle@toronto.ca

SIGNATURE

Michael D'Andrea, M.E.Sc., P.Eng.
Chief Engineer and Executive Director, Engineering and Construction Services

Michael Pacholok, JD
Chief Procurement Officer, Purchasing and Materials Management

ATTACHMENTS

Appendix A - Proposal Fee and Break Fee Conditions for Gardiner Rehabilitation Contract 2 and Contract 3 Procurements

Confidential Attachment 1 - Proposal Fee and Break Fee Estimated Values for Gardiner Rehabilitation Contract 2 and Contract 3 Procurements

Request for Approval of Procurement Approach and Amendment to PO No. 6045739 for Owner Controlled External Legal Services for West Gardiner Expressway Rehabilitation Contracts