

Emergency Non-Competitive Contract with Grascaan Construction Limited/Torbridge Construction Limited to Repair F.G. Gardiner Expressway Concrete Bents from Cherry Street to the Don Valley Parkway

Date: April 3, 2023

To: General Government Committee

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

Wards: 10 (Spadina-Fort York)

SUMMARY

The purpose of this report is to advise Toronto City Council, pursuant to Chapter 195 of the Toronto Municipal Code (Purchasing By-Law, Section 195-7.4), of a non-competitive contract with Grascaan Construction Limited/Torbridge Construction Limited, to procure construction services to repair deteriorated F.G. Gardiner Expressway concrete bents from Cherry Street to the Don Valley Parkway, for a total value of \$3,678,065 excluding Harmonized Sales Tax (\$3,742,799 net of Harmonized Sales Tax recoveries).

The issuance of this non-competitive construction contract was as a matter of extreme urgency, as the condition of the concrete bents was significantly deteriorated, and repairs are required to maintain public safety and mitigate further damages.

This repair was deemed an emergency by the former Chief Engineer and Executive Director, Engineering and Construction Services, under Chapter 195-7.1 (G) of the Municipal Code. Reporting back to City Council is required in accordance with Municipal Code Chapter 195, Purchasing, Article 7, Section 195-7.4(B) where a non-competitive contract exceeds \$500,000.

RECOMMENDATIONS

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

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1. City Council receive this report for information.

FINANCIAL IMPACT

The total emergency non-competitive contract (Purchase Order Number 6054363) was issued for \$3,678,065 net of all applicable taxes and charges under the emergency provision of the Purchasing By-Law. The cost to the City is \$3,742,799 net of Harmonized Sales Tax recoveries.

The emergency contract is funded from the 2023-2032 Approved Capital Budget and Plan for Transportation Services (F.G. Gardiner Rehabilitation) as summarized in Table 1 below:

Table 1: Financial Impact Summary

| WBS Element and Description | 2023 | Total (Net of HST Recoveries) |
|--|-------------|-------------------------------|
| CTP122-08-35 F.G. Gardiner Rehabilitation | \$3,742,799 | \$3,742,799 |

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

DECISION HISTORY

On June 26, 2019, by authority of the Bid Award Panel, the City retained Morrison Hershfield Limited for the provision of professional engineering services associated with Request for Proposal Number 9117-19-5002 for the design for interim repair, feasibility report and preliminary design for replacement of F.G. Gardiner Expressway East and Lakeshore Boulevard East reconfiguration from Cherry Street to Don Valley Parkway. The total fee for this professional engineering services assignment is \$9,664,125 (net of all taxes and charges). Blanket Contract Number 47022292 for design services was subsequently issued to Morrison Hershfield Limited under this assignment. A copy of the Bid Award Panel Committee document can be found at: [Agenda Item History - 2019.BA31.1 \(toronto.ca\)](https://www.toronto.ca/agenda-item-history-2019-ba31-1)

COMMENTS

Transportation Services owns and operates the F.G. Gardiner Expressway, a major arterial roadway, from Highway 427 to the Don Valley Parkway. 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. The Expressway is over 60 years old and is a significant component of the city's transportation system (built 1955 to 1966).

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The effects of age, weathering, salt, and increasing traffic has had an impact, and the Expressway needs renewal.

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 Gardiner East Environmental Assessment Study area is a 2.4-kilometre segment of the elevated expressway and Lake Shore Boulevard East, from Jarvis Street to Logan Avenue. In April 2016, City Council approved Hybrid Alternative Design 3 as the preferred alternative for the F.G. Gardiner Expressway and Lake Shore Boulevard Reconfiguration. The Hybrid Alternative Design 3, maintains the link to the Don Valley Parkway, moves the Expressway away from the Keating Channel, and rebuilds it closer to the existing rail corridor.

The F.G. Gardiner Expressway and Lake Shore Boulevard Reconfiguration Environmental Assessment Study received provincial approval in November 2017. The rehabilitation of the section of the F.G. Gardiner Expressway from Jarvis Street to Cherry Street was undertaken from 2018 to 2021, as the first phase of the Environmental Assessment implementation.

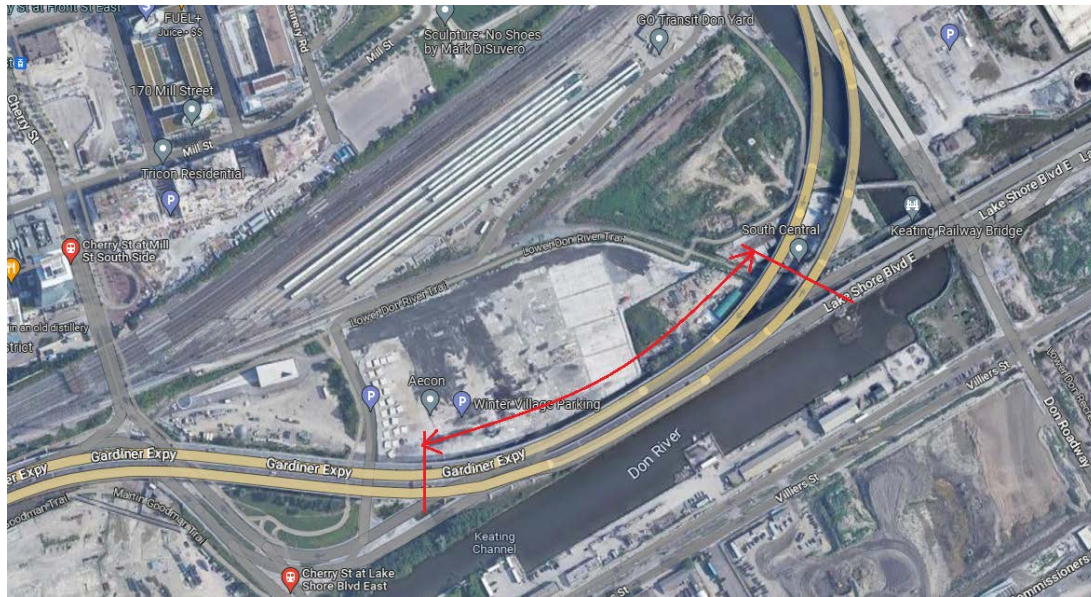
The current planned schedule for the reconstruction of the remaining portion of the Hybrid Alternative Design 3, from Cherry Street to the Don Valley Parkway, is 2026 to 2030. The concrete columns supporting the F.G. Gardiner Expressway between Cherry Street and the Don Valley Parkway are the subject of this Staff Report and Non-Competitive Procurement. Based on the staging of the work, the area of Expressway requiring interim repairs will remain in service until the final phase of the project. Therefore, the interim repairs are required to extend the service life by approximately eight to ten years.

In June 2019, the City retained the services of Morrison Hershfield Limited to undertake the preliminary design for the continued implementation of the Gardiner East Environmental **Assessment** that encompasses realignment and reconstruction of the F.G. Gardiner Expressway and Lakeshore Boulevard East from Cherry Street to the Don Valley Parkway.

As part of the consulting assignment, Morrison Hershfield Limited conducted a detailed visual inspection of the concrete bents (columns and cap beams) as well as the underside (soffit) of the concrete deck from Bent 300 to Bent 330 (between Cherry Street and the Don Valley Parkway). Following the detailed visual inspection, an analysis of previous delamination reports and a structural evaluation based on the observed level of deterioration was completed. This assessment identified a significant volume of interim repair work was required. Since this portion of the Expressway is planned for replacement and realignment, City staff requested the scope of work be re-evaluated (based on the reduced service life) in order to minimize the cost of interim

repairs, while maintaining public safety. The approximate location of the bents requiring interim repairs are identified in Figure 1.

Figure 1 – Location of Gardiner Bents Requiring Interim Repairs



The results of the assessment indicated that concrete deterioration and spalling has resulted in the reinforcing steel being exposed on large areas of the columns. When reinforcing steel becomes detached from the concrete, loss of capacity can occur and compromise the strength of the reinforced concrete elements. In addition, comparisons with previous inspection reports indicate that the concrete deterioration has accelerated significantly, meaning that immediate repair work is required to halt further debonding of the reinforcing steel. Figure 2 and Figure 3 illustrate the typical condition of the concrete columns that require immediate repair.

Figure 2: Condition of Reinforced Concrete Column at Bent 319



Figure 3: Condition of Reinforced Concrete Column at Bent 321



In July 2022, the City received a recommendation from Morrison Hershfield Limited to undertake concrete repairs at seven (7) pier locations within six (6) months. The work is required to maintain public safety and mitigate further damages. Loss of column capacity has the potential to require closure of the Expressway. The F.G. Gardiner Expressway serves as a vital route in the City's transportation network and any closure would impact the movement of goods and services across the entire City.

In addition to the urgent need to complete this work within a short period of time, the Engineering and Construction Services division faced an additional challenge due to the current construction of the Lakeshore Boulevard East Bridge over the Don River. This project has resulted in eastbound Lakeshore Boulevard East being closed in the vicinity of the necessary concrete column repairs and is occupied by EllisDon (Waterfront Toronto's contractor) as they undertake construction of the new Lakeshore Boulevard East Bridge.

To expedite the repairs, the City initially requested a quotation from EllisDon (Waterfront Toronto's contractor) to complete the urgent interim repair work on the Expressway columns. However, the price received was not considered to be fair and reasonable for the scope of work.

The City proceeded to request a second quote to complete the urgent interim repair work. Grasca Construction Limited/Torbridge Construction Limited was selected to provide a quote based on the firm's extensive experience performing similar rehabilitation work on the F.G. Gardiner Expressway under various competitively tendered City Contracts since 2012. City staff reviewed the quotation from Grasca Construction Limited/Torbridge Construction Limited and found it representative of the current market value, previous F.G. Gardiner Expressway repair projects and the City's engineering estimate.

To ensure that the City received the best possible value for the work, staff negotiated with the Contractor and further reduced the price prior to proceeding with the Non-Competitive Procurement for Grascaan Construction Limited/Torbridge Construction Limited to undertake the urgent interim repairs of the concrete bents on the F.G. Gardiner Expressway which began in February 2023, immediately after EllisDon (Waterfront Toronto's contractor) vacated the vicinity.

CONTACT

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SIGNATURE

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