

# **Amendment to Purchase Order Number 6049196 with EBC Incorporated, for the Replacement of Albion Road Culvert over Albion Creek and Islington Avenue Culvert over Berry Creek and the Rehabilitation of Redwater Drive Culvert over Berry Creek and Toledo Road Culvert over Elmcrest Creek**

**Date:** March 9, 2021

**To:** Infrastructure and Environment Committee

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

**Wards:** 1 (Etobicoke North), 2 (Etobicoke Centre)

## **SUMMARY**

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The purpose of this report is to request authority to amend Purchase Order Number 6049196 issued to EBC Incorporated for the replacement of Albion Road Culvert over Albion Creek and Islington Avenue Culvert over Berry Creek, and the rehabilitation of Redwater Drive Culvert over Berry Creek and Toledo Road Culvert over Elmcrest Creek Culvert. This amendment is required to address the extra costs associated with the construction delays and additional work required to temporarily support unexpected Bell Canada and Toronto Hydro utilities at multiple culvert locations.

The total Purchase Order Amendment requested is for an additional amount of \$822,729 net of all taxes and charges (\$837,209 net of HST recoveries), revising the current purchase order value from \$7,471,647 to \$8,294,376 net of all taxes and charges (\$8,440,357 net of HST recoveries).

## **RECOMMENDATIONS**

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

1. 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),

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grant authority to amend Purchase Order Number 6049196 with EBC Incorporated, for the provision of construction services for the replacement of the Albion Road Culvert over Albion Creek and the Islington Avenue Culvert over Berry Creek, and the rehabilitation of the Redwater Drive Culvert over Berry Creek and the Toledo Road Culvert over Elmcrest Creek, in the amount of \$822,729 net of all taxes and charges (\$837,209 net of HST recoveries) revising the current purchase order value from \$7,471,647 (\$7,603,148 net of HST recoveries) to \$8,294,376 net of taxes and charges (\$8,440,357 net of HST recoveries).

## **FINANCIAL IMPACT**

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Funding for the Purchase Order amendment is available in the 2021 Approved Capital Budget for Transportation Services (City Bridge Rehabilitation Program) as summarized in Table 1 below (net of HST recoveries).

**Table 1: Financial Impact Summary for Purchase Order Number 6049196**

<b>Year</b>	<b>CTP515-01-156</b>
2021	\$837,209
<b>Total</b>	<b>\$837,209</b>

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

## **DECISION HISTORY**

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At its meeting on November 1, 2017, by authority of the Bid Award Panel, the City retained WSP Canada Group Limited, for the provision of professional engineering services associated with Request for Proposal Number 9117-17-5057 for the design, contract administration and post construction services for the Rehabilitation of Culverts at Various Locations. Two purchase orders were subsequently issued to WSP Canada Group Limited, under this assignment: Purchase Order Number 6046349 for engineering design services in the amount of \$2,582,500 (net of all taxes); and Purchase Order Number 6049309 for contract administration services in the amount of \$2,353,000 (net of all taxes). A copy of the Bid Award Panel Decision Document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BA48.1>

On June 26, 2019, by authority of the Bid Award Panel, Contract Number 19ECS-TI-12BE (Tender Call Number 123-2019), for Albion Road over Albion Creek and Islington Avenue over Berry Creek Culvert Replacements, and Toledo Road over Elmcrest Creek and Redwater Drive over Berry Creek Culvert Rehabilitations, was awarded to EBC Incorporated, in the amount of \$7,273,750 (net of all taxes and charges). A copy of the

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Bid Award Panel Decision Document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.BA31.6>

On December 24, 2020, by authority of the Chief Engineer and Executive Director of Engineering and Construction Services, the City amended Purchase Order Number 6049196 with EBC Incorporated for the Albion Road over Albion Creek and Islington Avenue over Berry Creek Culvert Replacements, and Toledo Road over Elmcrest Creek and Redwater Drive over Berry Creek Culvert Rehabilitations in the amount of \$197,897 (net of all taxes and charges), revising the original purchase order value from \$7,273,750 (net of all taxes and charges) to \$7,471,647 (net of all taxes and charges).

## **COMMENTS**

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The Albion Road Culvert over Albion Creek, built in 1964, is located under Albion Road west of Toddbrook Drive, and carries four lanes of traffic (two eastbound and two westbound) as well as sidewalks on each side. The original culvert structure was a corrugated steel plate arch with a diameter of approximately 5 meters.

The Islington Avenue Culvert over Berry Creek, built in 1956, is located under Islington Avenue north of Torbolton Drive, and carries four lanes of traffic (two northbound and two southbound) as well as sidewalks on each side. The culvert structure is a concrete frame with a single span of 5 meters.

The Toledo Road Culvert over Elmcrest Creek, built in 1960, is located under Toledo Road west of Renforth Drive, and carries two lanes of traffic (one eastbound and one westbound) as well as sidewalks on each side. The culvert structure is a concrete frame with a single span of 4.3 meters.

The Redwater Drive Culvert over Berry Creek, built in 1950, is located under Redwater Drive south of Elmhurst Drive, and carries two lanes of traffic (one northbound and one southbound) as well as sidewalks on each side. The culvert structure is a concrete frame with a single span of 3.6 meters.

In November 2017, the City retained WSP Canada Group Limited, for professional engineering services through a Request for Proposal for the rehabilitation of culverts at twenty locations from 2019 to 2021. Services provided include preliminary design, detailed design, contract administration and post construction services.

Rehabilitation of the Redwater Drive and Toledo Road culverts included concrete repairs, replacement of wing walls, streambed rock protection, drainage improvements, and railing replacements. After initial investigation and study, WSP Canada Group Limited, recommended replacement of the Albion Road corrugated steel plate arch culvert with a larger precast concrete box culvert in order to provide climate resiliency and accommodate increased flood elevations as prescribed by the Toronto Region Conservation Authority. The Islington Avenue culvert was recommended for replacement due to the extent of deterioration of the concrete elements.

The construction contract for the above referenced culverts was tendered in April 2019 and awarded to EBC Incorporated on June 26, 2019. Construction commenced on August 10, 2019, with a planned completion date of January 8, 2020, at Albion Road, Redwater Drive and Toledo Road. The work at the Islington Avenue culvert was more complex and required multiple stages in order to maintain traffic through the work zone. Accordingly, Stage 1 of the Islington Avenue culvert had a planned interim completion date of January 8, 2020, followed by a winter shut down. Stage 2 was scheduled to start on June 17, 2020, with a planned completion date of November 14, 2020.

Following the commencement of construction, unanticipated concrete encased Bell Canada ducts were discovered above the culverts in the Albion Road, Redwater Drive and Islington Avenue right of way. These ducts were not identified by WSP Canada Group Limited, due to insufficient site investigations and attention to detail during the design phase of the project and, as a result, the necessary items to temporarily support these cables were not included in the Tender Documents. The discovery of the Bell Canada conflicts resulted in construction work being stopped at the three sites until a temporary support plan was designed and agreed to by Bell Canada. Subsequently, one of their approved sub-contractors was engaged to temporarily support the Bell Canada ducts. As a result of the Bell Canada delays at the beginning of the work, construction at each site continued past the originally scheduled completion date of January 8, 2020, and through the winter months in order to ensure that all in-water works were completed in accordance with the Toronto Region Conservation Authority and Fisheries and Oceans Canada restriction deadline of March 31, 2020. Unfortunately, inclement weather conditions over the winter months contributed to extending the completion date of the three projects.

Furthermore, in advance of the Stage 2 work at the Islington Avenue culvert, WSP Canada Group Limited, informed the City that Toronto Hydro plant was in conflict with the culvert replacement and the necessary relocation work had not been included in the Tender Documents. The Toronto Hydro plant was not identified by WSP Canada Group Limited, due to insufficient site investigations and attention to detail in preparation of the Tender Documents. Due to the unanticipated Toronto Hydro work, EBC Incorporated was unable to commence Stage 2 until August 12, 2020, which resulted in a delay of 49 calendar days from the planned start date of June 24, 2020. The costs incurred to relocate the Toronto Hydro feeder cables at the Islington Avenue culvert, in advance of Stage 2, resulted in the issuance of a Purchase Order Amendment on December 24, 2020, in an amount of \$197,897 (excluding all taxes).

WSP Canada Group Limited, as part of their contract administration duties, reviewed in detail the impact of the delays on the critical path schedule and recommended that an extension of time be granted to extend the completion date for culverts at Albion Road, Redwater Drive and Stage 1 of Islington Avenue from January 8, 2020, to May 20, 2020. The Stage 2 of the Islington Avenue Culvert replacement warranted a 49 day extension on the expected completion date of November 14, 2020. However, EBC Incorporated was able to accelerate their work and achieved substantial completion by December 1, 2020.

In June, 2020, EBC Incorporated submitted a claim for additional costs incurred due to the Bell Canada and Toronto Hydro utility conflicts and the extended duration of the Contract. The costs are broken down into four (4) categories: direct costs for Bell Canada temporary utility supports, additional costs associated with winter work, standby costs during Toronto Hydro plant relocation work, and extended site office overhead and contract items.

After extensive negotiations with the contractor, the cost for the claims was finalized at \$822,729 (excluding all taxes), and is considered to be fair and reasonable.

Direct costs for the Bell Canada temporary utility supports were related to breaking out of the concrete encasement, temporary supports provided by the Bell approved sub-contractor, reinstatement of the concrete encasement, as well additional effort related to working around the supported Bell cables. Time and resources related to this item were tracked on daily work records and carefully reviewed for accuracy by WSP Canada Group Limited. The total cost associated with this category is \$309,485 (excluding taxes), and is considered to be fair and reasonable.

Additional costs for winter work include loss of productivity due to winter conditions, inefficiency in sequencing the work, and additional equipment costs associated with the extended duration of winter work. The total cost associated with this category is \$268,973 (excluding all taxes).

Standby costs during the Toronto Hydro plant relocation at the Islington Avenue culvert are related to equipment that was maintained on-site during the delay to commencing Stage 2 work. The total cost associated with this category is \$49,271 (excluding all taxes).

Extended site office overheads and contract items include additional costs for supervisory staff, vehicles, site office, traffic control, maintenance of pedestrian hoarding, and dewatering. The total cost associated with this category is \$195,000 (excluding all taxes).

Funding for the claims resolution requires an amendment to Purchase Order Number 6049196 with EBC Incorporated in an amount of \$822,729 (\$837,209 net of HST recoveries). This will result in an increase in the current purchase order value from \$7,471,647 net of all taxes and charges (\$7,603,148 net of HST recoveries) to \$8,294,376 net of all taxes and charges (\$8,440,357 net of HST recoveries).

WSP Canada Group Limited, has been put on notice that the City intends to recover additional costs resulting from the errors and omissions on Contract 19ECS-TI-12BE. WSP Canada Group Limited, failed to properly obtain sufficient sub-surface utility information to the quality expected by the City as part of the terms of the agreement between the City and WSP Canada Group Limited, on this project.

## **CONTACT**

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## **SIGNATURE**

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