

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Contract Price Increase: Infrastructure Renewal Program

Date: March 21, 2023

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the English Street and Lorne Avenue Reconstruction project; and the Churchill Avenue and Manitoba Street Reconstruction project:

- a) Lorne Avenue Reconstruction (Tender RFT21-16) consulting contract value with AECOM Canada Ltd. **BE INCREASED** by \$90,000.00 to \$479,141.50 (excluding HST) in accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy;
- b) Churchill Avenue and Manitoba Street (Tender RFT21-130) construction contract value with Elgin construction Company Limited **BE INCREASED** by \$180,000 to \$4,266,261.95 (excluding HST) in accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy;
- c) Churchill Avenue and Manitoba Street (Tender RFT21-130) consulting contract value with JL Richards **BE INCREASED** by \$41,000 to \$395,596.00 (excluding HST) in accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy;
- d) the financing for these projects **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendices 'A.'
- e) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these projects; and,
- f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

The Renew London Infrastructure Construction Program manages the sustainability of city infrastructure through a combination of road, bridge, bicycle, sewer, water, sidewalk, and intersection improvements. The program addresses existing lifecycle needs, system improvements, and growth-related priorities. Overall, 2022 was a successful construction season with the reconstruction of 60 lane kilometres of road, 134 kilometres of sanitary and storm sewers, and 7.5 kilometres of watermains. Staff managed a portfolio of Council-approved projects totalling approximately \$190 million.

The combined value of these contract increase requests reflects an overall budget variance of 0.2%, compared to the estimated 6.1% in net returned contingency overall.

The English Street and Lorne Avenue Reconstruction project consultant contract requires an amendment to address extended contract administration services related to additional groundwater found on English Street, prolonging the construction schedule.

The Churchill Avenue and Manitoba Street Reconstruction project contractor and consultant contracts require amendments to address underestimated quantities in the original tender.

The City's Procurement of Goods and Services Policy requires Council approval for these contract amendments.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus areas of Building a Sustainable City, Growing Our Economy and Leading in Public Service by helping to manage the infrastructure gap, improving our water, wastewater and stormwater infrastructure and services, and enhancing safety for all road users.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Works Committee – March 30, 2021 – Contract Award: Tender RFT21-16 – 2021 Infrastructure Renewal Program – English Street and Lorne Avenue Reconstruction

Civic Works Committee – June 1, 2021 – Appointment of Consulting Engineers for the Infrastructure Renewal Program

Civic Works Committee – March 29, 2022 – Contract Price Increase: 2021 Water/Wastewater Infrastructure Renewal Report

2.0 Discussion and Considerations

2.1 Discussion

English Street and Lorne Avenue

In April 2021, the City began construction on English Street and Lorne Street to replace sewers and watermain, along with surface works including sidewalk, curb, and asphalt replacement. Original hydrogeological studies completed in advance of construction indicated that the amount of underground water that needed to be removed from the necessary excavations was minimal. During the first year of construction, the project encountered significant unforeseen underground water requiring a dewatering permit and extending the construction timeline.

In April of 2022, Council approved additional funding of \$675,000 to increase the City's construction contract with CH Excavating. At this time additional funding was not requested for our consultant, AECOM.

The duration of work in 2022 was greater than anticipated, with construction closing out in late 2022. While AECOM worked diligently to minimize their additional costs, they incurred additional expenses beyond the budget of their original contract contingency. An additional \$90,000 in consulting fees is required to close out construction administration of the English Street contract.

Churchill Avenue and Manitoba Street

In April 2022, the City began construction on Churchill Avenue and Manitoba Street to replace sewers and watermain, along with surface works including sidewalk, curb, and asphalt replacement. During construction, it was determined that quantities were underestimated for some items in the tender document.

Early in the project, it was decided to use a granular road base material to backfill sewer and watermain trenches versus native material due to soil conditions. This approach will ensure the longevity and performance of the upgraded infrastructure. This change reduced the available contingency by almost \$200,000. When it came time to rebuild the road, more soil needed to be excavated to address the subgrade issues, increasing the cost of both excavation and the granular base used to fill the larger trenches.

The contractor also encountered multiple driveways in poor condition, requiring higher material quantities. Existing infrastructure required modification to the design and location of several private drain connections (PDC's), resulting in additional quantities of both storm and sanitary PDC's.

The starting contingency for this project was \$401,000. In December of 2022, as per section 20.3 (d) of the Procurement of Goods and Services Policy, an administrative increase of 3% or \$119,000 was authorized to be added to the contract with Elgin Construction. In addition to this increase it has been determined that an additional \$180,000 will be required to complete this contract in 2023. Carry-over work to be completed in 2023 includes top asphalt and pavement markings.

It should be noted that while the estimated quantities for these tender items were exceeded, the necessary added scope was implemented through the contract and the contractor, Elgin Construction, honoured their competitive unit prices. In other words, the cost of this added scope is very similar to the theoretical bid price had the tender included these quantities. The City has not been disadvantaged by adding these additional quantities after tender close.

The increase in tender quantities extended both the scope and duration of the project. As a result, an additional \$41,000 is required for the consultant, J.L. Richards and Associates Limited, to complete the construction administration and inspection services on this project.

3.0 Financial Impact/Considerations

English Street and Lorne Avenue Reconstruction Consulting Contract

An additional \$90,000 in consulting fees for AECOM is required to cover the additional costs for extending the project into 2022 due to the additional dewatering requirements. This funding is available in the approved water, sanitary, and stormwater capital budgets per the Source of Financing attached as Appendix 'A'.

Churchill Avenue and Manitoba Street Construction and Consulting Contracts

An additional \$180,000 for our contract with Elgin Construction is required to complete the project contract, due to errors in the tender quantities. An additional \$41,000 is required for our consultant, JL Richards, to complete the inspection services on this project due to the extended project duration. This funding is available in the approved water, sanitary, and stormwater capital budgets per the Source of Financing attached as Appendix 'A'.

Conclusion

In accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy, it is recommended that the contract value be amended for English Street and Lorne Avenue Reconstruction project consulting contract and the Churchill Avenue and Manitoba Street Reconstruction project construction and consulting contracts.

Prepared by: **Ugo DeCandido, P.Eng., Division Manager, Construction Administration**

Submitted by: **Jennie Dann, P.Eng., Director, Construction and Infrastructure Services**

Recommended by: **Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

Attach: Appendix 'A' – Sources of Financing:

- English Street and Lorne Avenue Reconstruction (RFT21-16)
- Churchill Avenue and Manitoba Street Reconstruction (RFT21-130)

cc: Aaron Rozentals, Division Manager, Water Engineering
Kyle Chambers, Division Manager, Sewer Engineering
Gary McDonald, Budget Analyst, Finance & Corporate Services

Appendix "A"

#23059

March 21, 2023
(Contract Increase)

Chair and Members
Civic Works Committee

RE: Contract Price Increase: Infrastructure Renewal Program

(Subledger WS21C00A) - Lorne Ave.

(Subledger WS22C00C) - Churchill and Manitoba

Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers

Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment

Capital Project ES254022 - Infrastructure Renewal Program - Stormwater Sewers and Treatment

Capital Project EW376522 - Infrastructure Renewal Program - Watermains

Capital Project TS301422 - Road Network Improvements (Local and Rural)

AECOM Canada Ltd. - \$90,000.00 (excluding HST) - Lorne Avenue Reconstruction - RFT21-16

Elgin Construction Company Limited - \$180,000.00 (excluding HST) - Churchill Avenue and Manitoba Street - RFT21-130

JL Richards - \$41,000.00 (excluding HST) - Churchill Avenue and Manitoba Street - RFT21-130

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

| Estimated Expenditures | Approved Budget | Committed To This Date | This Submission | Balance for Future Work |
|--|-------------------|------------------------|-----------------|-------------------------|
| ES241421 - Infrastructure Renewal Program - Sanitary Sewers | | | | |
| Engineering | 1,930,170 | 1,891,158 | 38,160 | 852 |
| Land Acquisition | 9,133 | 9,133 | 0 | 0 |
| Construction | 18,492,347 | 18,467,314 | 25,033 | 0 |
| City Related Expenses | 8,802 | 8,802 | 0 | 0 |
| ES241421 Total | 20,440,452 | 20,376,407 | 63,193 | 852 |
| ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment | | | | |
| Engineering | 1,544,373 | 1,506,213 | 38,160 | 0 |
| Land Acquisition | 210,537 | 207,167 | 0 | 3,370 |
| Construction | 9,931,780 | 9,460,978 | 0 | 470,802 |
| City Related Expenses | 11,150 | 11,150 | 0 | 0 |
| ES254021 Total | 11,697,840 | 11,185,508 | 38,160 | 474,172 |
| ES254022 - Infrastructure Renewal Program - Stormwater Sewers and Treatment | | | | |
| Engineering | 906,074 | 906,074 | 0 | 0 |
| Construction | 11,962,339 | 11,884,492 | 77,847 | 0 |
| City Related Expenses | 8,562 | 3,168 | 0 | 5,394 |
| ES254022 Total | 12,876,975 | 12,793,734 | 77,847 | 5,394 |
| EW376522 - Infrastructure Renewal Program - Watermains | | | | |
| Engineering | 2,665,658 | 1,448,689 | 15,264 | 1,201,705 |
| Construction | 16,438,350 | 14,498,894 | 67,060 | 1,872,396 |
| City Related Expenses | 395,967 | 395,967 | 0 | 0 |
| EW376522 Total | 19,499,975 | 16,343,550 | 82,324 | 3,074,101 |

Appendix "A"

#23059

March 21, 2023
(Contract Increase)

Chair and Members
Civic Works Committee

RE: Contract Price Increase: Infrastructure Renewal Program
(Subledger WS21C00A) - Lorne Ave.
(Subledger WS22C00C) - Churchill and Manitoba

| Estimated Expenditures continued | Approved Budget | Committed To Date | This Submission | Balance for Future Work |
|---|------------------------|--------------------------|------------------------|--------------------------------|
| TS301422 - Road Network Improvements (Local and Rural) | | | | |
| Construction | 10,857,389 | 9,167,078 | 54,950 | 1,635,361 |
| City Related Expenses | 252,349 | 252,349 | 0 | 0 |
| TS301422 Total | 11,109,738 | 9,419,427 | 54,950 | 1,635,361 |
| Total Expenditures | \$75,624,980 | \$70,118,626 | \$316,474 | \$5,189,880 |

Sources of Financing

ES241421 - Infrastructure Renewal Program - Sanitary Sewers

| | | | | |
|---|-------------------|-------------------|---------------|------------|
| Capital Sewer Rates | 11,282,518 | 11,282,518 | 0 | 0 |
| Drawdown from Sewage Works Renewal Reserve Fund | 6,766,836 | 6,702,791 | 63,193 | 852 |
| Canada Community-Building Fund | 2,250,000 | 2,250,000 | 0 | 0 |
| Other Contributions | 141,098 | 141,098 | 0 | 0 |
| ES241421 Total | 20,440,452 | 20,376,407 | 63,193 | 852 |

ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment

| | | | | |
|---|-------------------|-------------------|---------------|----------------|
| Capital Sewer Rates | 820,480 | 820,480 | 0 | 0 |
| Drawdown from Sewage Works Renewal Reserve Fund | 8,575,865 | 8,063,533 | 38,160 | 474,172 |
| Canada Community-Building Fund | 2,250,000 | 2,250,000 | 0 | 0 |
| Other Contributions | 51,495 | 51,495 | 0 | 0 |
| ES254021 Total | 11,697,840 | 11,185,508 | 38,160 | 474,172 |

ES254022 - Infrastructure Renewal Program - Stormwater Sewers and Treatment

| | | | | |
|---|-------------------|-------------------|---------------|--------------|
| Capital Sewer Rates | 1,269,668 | 1,269,668 | 0 | 0 |
| Drawdown from Sewage Works Renewal Reserve Fund | 9,351,280 | 9,268,039 | 77,847 | 5,394 |
| Canada Community-Building Fund | 2,250,000 | 2,250,000 | 0 | 0 |
| Other Contributions | 6,027 | 6,027 | 0 | 0 |
| ES254022 Total | 12,876,975 | 12,793,734 | 77,847 | 5,394 |

EW376522 - Infrastructure Renewal Program - Watermains

| | | | | |
|--|-------------------|-------------------|---------------|------------------|
| Capital Water Rates | 12,175,544 | 12,175,544 | 0 | 0 |
| Drawdown from Water Works Renewal Reserve Fund | 6,581,005 | 3,424,580 | 82,324 | 3,074,101 |
| Canada Community-Building Fund | 743,426 | 743,426 | 0 | 0 |
| EW376522 Total | 19,499,975 | 16,343,550 | 82,324 | 3,074,101 |

Appendix "A"

#23059

March 21, 2023
(Contract Increase)

Chair and Members
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RE: Contract Price Increase: Infrastructure Renewal Program
(Subledger WS21C00A) - Lorne Ave.
(Subledger WS22C00C) - Churchill and Manitoba

| Sources of Financing continued | Approved Budget | Committed To Date | This Submission | Balance for Future Work |
|---|------------------------|--------------------------|------------------------|--------------------------------|
| TS301422 - Road Network Improvements (Local and Rural) | | | | |
| Capital Levy | 1,088,200 | 1,088,200 | 0 | 0 |
| Drawdown from Capital Infrastructure Gap Reserve Fund | 926,433 | 19,384 | 29,487 | 877,562 |
| Drawdown from Transportation Renewal Reserve Fund | 800,000 | 16,738 | 25,463 | 757,799 |
| Canada Community-Building Fund | 8,295,105 | 8,295,105 | 0 | 0 |
| TS301422 Total | 11,109,738 | 9,419,427 | 54,950 | 1,635,361 |
| Total Financing | \$75,624,980 | \$70,118,626 | \$316,474 | \$5,189,880 |

| Financial Note: (Excluding HST) | ES241421 | ES254021 | ES254022 | EW376522 |
|--|-----------------|-----------------|-----------------|-----------------|
| Listed by Engineering and Construction Awards | | | | |
| AECOM Canada Ltd. - RFT21-16 - Engineering | \$37,500 | \$37,500 | \$0 | \$15,000 |
| Elgin Construction Company Limited - RFT21-130 - Construction | 0 | 0 | 76,500 | 49,500 |
| JL Richards - RFT21-130 - Construction | 24,600 | 0 | 0 | 16,400 |
| Total Per Capital Project | \$62,100 | \$37,500 | \$76,500 | \$80,900 |

| Financial Note: (Excluding and Including HST) | TS301422 | Total Excluding HST | Total Including HST |
|--|-----------------|----------------------------|----------------------------|
| Listed by Engineering and Construction Awards | | | |
| AECOM Canada Ltd. - RFT21-16 - Engineering | \$0 | \$90,000 | \$91,584 |
| Elgin Construction Company Limited - RFT21-130 - Construction | 54,000 | \$180,000 | \$183,168 |
| JL Richards - RFT21-130 - Construction | 0 | \$41,000 | \$41,722 |
| Total Per Capital Project | \$54,000 | \$311,000 | \$316,474 |

| Financial Note: Charges per Capital Project - Engineering | ES241421 | ES254021 | EW376522 | Total |
|--|-----------------|-----------------|-----------------|-----------------|
| Contract Increase | \$37,500 | \$37,500 | \$15,000 | \$90,000 |
| Add: HST @13% | 4,875 | 4,875 | 1,950 | 11,700 |
| Total Contract Price Including Taxes | 42,375 | 42,375 | 16,950 | 101,700 |
| Less: HST Rebate | -4,215 | -4,215 | -1,686 | -10,116 |
| Net Contract Price | \$38,160 | \$38,160 | \$15,264 | \$91,584 |

| Financial Note: Charges per Capital Project - Construction | ES241421 | ES254022 | EW376522 | TS301422 |
|---|-----------------|-----------------|-----------------|-----------------|
| Contract Increase | \$24,600 | \$76,500 | \$65,900 | \$54,000 |
| Add: HST @13% | 3,198 | 9,945 | 8,567 | 7,020 |
| Total Contract Price Including Taxes | 27,798 | 86,445 | 74,467 | 61,020 |
| Less: HST Rebate | -2,765 | -8,598 | -7,407 | -6,070 |
| Net Contract Price | \$25,033 | \$77,847 | \$67,060 | \$54,950 |

Appendix "A"

#23059

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(Contract Increase)

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RE: Contract Price Increase: Infrastructure Renewal Program
(Subledger WS21C00A) - Lorne Ave.
(Subledger WS22C00C) - Churchill and Manitoba

Financial Note: Charges per Capital

| Project - Construction continued | Total |
|---|------------------|
| Contract Increase | \$221,000 |
| Add: HST @13% | \$28,730 |
| Total Contract Price Including Taxes | 249,730 |
| Less: HST Rebate | -\$24,840 |
| Net Contract Price | \$224,890 |
| Total Construction and Engineering | \$316,474 |

Jason Davies
Manager of Financial Planning & Policy

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