

COUNCIL REPORT

Report Date:March 4, 2025Contact:Alexander RalphContact No.:604.829.2092RTS No.:17844VanRIMS No.:08-2000-20Meeting Date:April 2, 2025Submit comments to Council

TO: Standing Committee on Policy and Strategic Priorities

- FROM: General Manager of the Engineering Services Department and Chief Procurement Officer
- SUBJECT: Approval of Change Orders to Professional Services Agreement No. PS20220048-ENG-RFP Consultant for Trenchless Sewer Design and Contract Administration

Recommendations

- A. THAT Council authorize City staff to negotiate to the satisfaction of the City's General Manager of Engineering Services, City's Director of Legal Services, and the Chief Procurement Officer, change orders to add scope to Professional Services Agreement No. PS20220048-ENG-RFP Consultant for Trenchless Sewer Design and Contract Administration with GHD Limited for the Victoria Broadway Area Renewal project. The additional scope of the recommended change orders would increase the term of the agreement by approximately four (4) years, and add an incremental value of \$4,900,000.00 (including contingency and contract administration services), for an estimated total contract value of \$6,700,000.00 and total term of nine (9) years. Funding for the Trenchless Sewer Design is included in the approved Multiyear Capital Program Budget for the 2023-2026 Sewer Main Grandview Catchment Area Program (CES-00101).
- B. THAT Council delegate its authority to execute the Change Orders to the City's Director of Legal Services, Chief Procurement Officer, and General Manager of Engineering Services.
- C. THAT no legal rights or obligations will be created by Council's approval of Recommendations A and B unless and until the City executes and delivers the Agreement.

Purpose and Executive Summary

The City issued Request for Proposals (RFP) No. PS20220048-ENG-RFP Consultant for Trenchless Sewer Design and Contract Administration on September 29, 2022, for engineering design and contract administration services for the Victoria Broadway Area Renewal project. The City advertised the RFP on the City of Vancouver website in accordance with the City's Procurement Policy (ADMIN-008). GHD Limited was awarded the contract for consulting engineering services in February 2023 for an initial contract price of \$1,800,000.

It was later determined that a second design package (Victoria Dr.) in addition to the original scope (E. Broadway) is required for the project. Supply Chain Management and Engineering Services staff have reviewed the design consulting resources required to complete the additional sewer design scope. This is a recommendation to negotiate the changes to the additional scope. The change order describes the increase to the contract values that are identified within this recommendation with an additional value of \$4,900,000, bringing the total contract value to \$6,700,000.

Council Authority/Previous Decisions

The City's Procurement Policy (ADMIN-008) requires Council approve contracts with a total value greater \$3,000,000 following review and recommendations by the City's Bid Committee. The Bid Committee has considered the additional costs described in this report and recommends proceeding with issuing the change order to GHD Limited.

City Manager's Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

The Victoria Broadway Area Renewal (VBAR) project was initiated to renew and separate combined sewer mains in the southern sub-catchment of the Grandview-Woodland neighborhood. The project scope primarily extends along E. Broadway, Victoria Drive, and E. 6th, with the inclusion of a few nearby local streets. To minimize potential impacts on local communities and maximize cost savings, this project will follow the "Dig Once" strategy, supported by multiple engineering branches that have identified opportunities to coordinate the delivery of their respective scopes within this area.

Most sewer infrastructure along E. Broadway and Victoria Drive consists of large-diameter combined trunks installed early in the 20th century to collect regional lateral flows. Many of these trunks have exceeded the typical life expectancy of 100 years. Separating these sewer mains will reduce the risk of overflow, extend the existing separated sewer network, and enhance the system's overall capacity to meet the City's growth needs. This work will also contribute to meeting Metro Vancouver's Integrated Liquid Waste and Resource Management Plan (ILWRMP) regulatory requirements to separate 1% of combined sewers annually and eliminate combined sewage overflows (CSO) by 2050.

Given the depth of the proposed trunks (up to ~11 meters) and the challenges posed by traffic management along the arterial streets, as well as the significant surface impacts, including the removal of mature trees for deep open-cut excavations, trenchless construction is recommended

for most of the sewer main installation. Trenchless construction is a technique that creates underground tunnels that are slightly larger than the pipe to be installed. The pipeline is then placed within these tunnels, leaving the surface relatively unaffected without having to dig continuous trenches to minimize impact in the community such as traffic disruptions or removal of trees.

Other scope identified for the project includes water main replacement along E. Broadway, transportation improvements along Victoria Drive, street rehabilitation, signal upgrades at several intersections and potential electrical, transit priority, and green infrastructure improvements.



Figure 1. Overview of Project Location

Discussion

Original Contract Scope

GHD Limited and the City executed Professional Services Agreement No. PS20220048-ENG-RFP Consultant for Trenchless Sewer Design and Contract Administration in February 2023. The agreement was executed with an overall value limit of \$1,800,000. Originally, the consultant's scope included the design and construction administration services for the sewer separation and upgrades along E. Broadway from Victoria Dr. to Penticton St. (Broadway Package), with a focus on trenchless installation. In addition, due to challenges with significant sewer depths and the presence of mature elm trees in the area there was an allowance for the design consultant to perform a trenchless feasibility assessment of the Victoria Dr. from E 4th Ave. to E. Broadway and E 6th Ave. from Commercial Dr. to Victoria Dr. (Victoria Package). Below is a table showing the phases and packages included in the original consultant scope:

Original	Consultant	Scope
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- Phase A: Preliminary Design of Broadway Package and Victoria Package Feasibility Assessment
 - Phase B: Detailed Design of Broadway Package
 - Phase C: Construction Administration Services of Broadway Package

Approved Scope Changes to Date

Change orders with a cumulative value of \$1,224,389 have been approved by staff or committee that has the contract award delegated authority. The change orders were initiated as the Victoria Package feasibility study determined that package of sewer separation and upgrades are recommended for trenchless installation. The changes consisted of costs related to obtaining additional geotechnical information, additional technical memorandums, and the addition of the Victoria Package to Phase A of the original scope (Broadway Package).

Recommended Additions to the Original Contract Scope

Staff are recommending adding the Victoria Package scope of work to the remaining phases of the contract (Phases B and C) as it bundles related work, streamlines the construction process, and simplifies the contract administration. Below is the recommended revised consultant scope and phasing. The revision includes changes in methodologies, and other factors based on the outcomes of the Phase A preliminary design.

Revised Consultant Scope			
•	Phase A: Preliminary Design of Broadway and Victoria Packages (Completed)		
•	Phase B: Detailed Design of Broadway and Victoria Packages		
•	Phase C: Construction Administration Services of Broadway and Victoria Packages		

The project team approached GHD Limited., through PS20220048 - Consultant for Trenchless Sewer Design and Construction Administration, to provide revised pricing for the addition of the Victoria Package scope. Below is a table summarizing the original contract value and proposed revised pricing from GHD Limited, factoring in the original contract value, all change orders, and increased contingency. The overall recommended change order is \$4,900,000 and would increase the maximum contract limit for this work to \$6,700,000.

Impact on Contract Value			
Original Contract Value Breakdown			
Phase A Preliminary Design	\$513,042		
Phase B Detailed Design	\$807,562		

Phase C Construction Administration	\$265,860			
Contingency	\$213,536			
Original Maximum Value Approved by Bid Committee	\$1,800,000			
Proposed Revised Contract Value Breakdown				
Phase A - Actual (Incl. Approved Change Orders)	\$1,737,431			
Phase B - Revised Proposal from Consultant	\$2,562,070			
Phase C - Revised Estimate	\$1,560,978			
Revised Contingency (~20% of Phase B+C)	\$839,521			
Revised Contract Value Limit	\$6,700,000			
Resulting Impact on Contract Value				
Original Value Limit	\$1,800,000			
Revised Contract Value Limit	\$6,700,000			
Amount Requested for Approval	\$4,900,000			

Financial Implications

Finance has reviewed and confirmed that the \$4,900,000 change order funding is available through multiple programs. Funding for the Trenchless Sewer Design is included in the approved Multiyear Capital Program Budget for the 2023-2026 Sewer Main - Grandview Catchment Area Program (CES-00101). As a result of the change orders the City can achieve cost certainty for the proposed nine (9) year term.

Legal Implications

The City's Procurement Policy (ADMIN-008) requires the Director of Legal Services to execute all contracts that have been awarded by the Bid Committee and Council.

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