



Report to: General Committee

Meeting Date: April 6, 2020

SUBJECT: Award of Construction Tender 003-T-21 West Thornhill –
Phase 3B Storm Sewer and Watermain Replacement

PREPARED BY: Rob Grech, Acting Senior Manager, Infrastructure, Ext. 2357
Flora Chan, Senior Buyer, Ext. 3189

RECOMMENDATION:

- 1) That the report entitled “Award of Construction Tender 003-T-21 West Thornhill – Phase 3B Storm Sewer and Watermain Replacement” be received; and,
- 2) That the contract for Tender 003-T-21 West Thornhill – Phase 3B Storm Sewer and Watermain Replacement be awarded to the lowest priced Bidder, Direct Underground Inc. in the amount of \$4,263,945.97, inclusive of HST impact; and,
- 3) That a 10% contingency in the amount of \$426,394.60 inclusive of HST, be established to cover any additional construction costs and that authorization to approve expending of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy; and,
- 4) That the construction award in the amount of \$4,690,340.57 (\$4,263,945.97 + \$426,394.60) be funded from the following capital projects:
 - (a) 058-6150-21164-005 “West Thornhill Flood Control Implementation - Phase 3B Construction”; and,
 - (b) 053-6150-21170-005 “Cast Iron Watermain Replacement – West Thornhill Phase 3B” as outlined under the financial considerations section in this report; and,
- 5) That the remaining funds in project #21164 “West Thornhill Flood Control Implementation - Phase 3B Construction” in the amount \$1,816,921.34 from the Stormwater Fee Reserve and the budget remaining in project #21170 “Cast Iron Watermain Replacement – West Thornhill Phase 3B” from the Waterworks Reserve in the amount of \$1,065,105.09 will be returned to the original funding source; and,
- 6) That a 5-year moratorium be placed on any major servicing and utility installation along restored areas including Johnston Street, Dove Lane, Ida Street, Wiarton Court, St. Andrews Court; and further,
- 7) That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to obtain Council approval to award the contract for the West Thornhill – Phase 3B Storm Sewer and Watermain Replacement.

BACKGROUND:

The stormwater flood control implementation strategy was approved by Council on November 8, 2011 for the West Thornhill area in accordance with the City's November 2010 Class EA Study. The City-wide Flood Control Program is a 30-year program with an estimated cost of \$367M - \$382M (2018 dollars). The first phase (1A, 1B & 1C) of the remediation included storm sewer capacity upgrades in the Bayview Glen neighbourhood, second phase (2A, 2B, 2C & 2D) includes the Grandview area and Phase 3 includes Clark Ave./ Henderson area. Implementation schedule is outlined in the table below:

Area	Proposed Implementation Schedule	Status
Phase 1A: Bayview Glen Area	2014 - 2015	Substantially completed as of Nov 2015; Maintenance completion Nov 2017
Phase 1B: Bayview Glen Area	2015 - 2016	Substantially completed as of Aug 2016; Maintenance completion Aug 2018
Phase 1C: Canadiana Road	2016	Substantially completed as of Dec 2016; Maintenance completion Dec 2018;
Phase 2A: Grandview Area	2016 - 2017	Substantially completed as of Dec 2016; Maintenance completion Dec 2018
Phase 2B: Grandview Area (Park & Proctor Ave)	2017 - 2018	Substantially completed as of Dec 2017; Maintenance completion Dec 2019
Phase 2C: Grandview Area	2018 - 2019	Substantially completed as of Nov 2019; Maintenance completion Nov 2021
Phase 2D: Grandview Area	2019 - 2020	Substantially completed as of Nov 2019; Maintenance completion Nov 2021
Phase 3A: Clark Ave./ Henderson Area	2020 - 2021	Scheduled Substantially completed Oct 2021 Scheduled Maintenance completion Oct 2023
Phase 3B: Johnson Street Area (This Award)	2021	Construction Commencement April 2021
Phase 3C: Clark Ave./ Henderson Area	2022 - 2023	
Phase 4A: Royal Orchard/Kirk Drive	2021 – 2022	Construction Commencement May 2021
Phase 4B: Romfeld Circuit	2023 - 2024	
Phase 4C: Royal Orchard/Silver Aspen	2024 – 2025	
Phase 4D: Baythorn/Inverlochy	2025 - 2026	

To support the program, on June 24, 2014, Council approved the structure of the stormwater fee rates in order to meet the annual revenue target for the first 5-year cycle of

the Program. The new stormwater fee supports the 30-year initiative, to improve storm drainage capacity and limit flooding risks in urban areas.

On April 16, 2019, Council approved a \$50 annual fee per residential property for 2020 and further increase of \$1 per year up to 2024 and an increase of 2% per \$100,000 of current value assessment (CVA) and 2% annual increase thereafter for non-residential properties. Stormwater fees will be re-assessed in 2025.

Construction Tender for Phase 3B

Due to the scope of the project, contractors were prequalified to ensure that they had the necessary qualifications, experience and resources to complete the work in accordance with the City's requirements and within the specified timelines. Prequalification 196-P-20 was issued in accordance with the Purchasing By-law 2017-8.

Pre-Qualification Information (196-P-20)

Prequalification closed on	October 5, 2020
Number of Contractors picking up the Pre-qualification document	40
Number of Contractors responding to the Pre-qualification	31
Number of Contractors Pre-qualified	15

Construction Tender Information (003-T-21)

Bids closed on	February 26, 2021
Number picking up the Bid document	14
Number responding to the Bid	11

Price Summary

Bidder	Bid Price (Inclusive of HST Impact)
Direct Underground Inc.	\$4,263,945.97

OPTIONS/ DISCUSSION:

Watermain Replacement

The existing cast iron watermain on Johnson Street, Dove Lane, Wiarton Crt, Ida St and St. Andrews Crt. are close to the end of their life cycle. Combined replacement of services will minimize disruption to the local community by avoiding replacement of watermain and repair of the roadway at a later date.

The replacement of cast iron watermain is consistent with the City's strategy to upgrade aged and deficient watermain to improve supply capacity and reliability. Replacement of these old cast iron watermain will also offer improved reliability (less risk of breaks) as well as improve water quality and flows for domestic and fire demand. Based on experience, cast iron watermain are susceptible to internal and external corrosion as they age which leads to poor water quality and increased watermain breaks. The new watermain replacement material will be PVC pipe, which has a service life of 90 years and is superior as it is heat resistant, chemical resistant and non-corrosive.

The Tender award includes the replacement of the existing watermain at a cost of \$2,773,794.91 inclusive of 10% contingency and HST impact.

Public Input

A Public Information Committee (PIC) meeting will be scheduled in April 2021, prior to construction, to provide an update to the area residents and businesses, as well as to address any potential issues or concerns that the public may have on the proposed construction.

Traffic Management Plan

The objective of the traffic management plan is to limit the traffic within the construction zone (only local traffic will be allowed) and divert through traffic onto adjacent roadways.

Communications Plan

Staff will provide regular updates to the affected stakeholders as well as early notification for any disruptions to driveway access or municipal services. The City's website will provide up-to-date information, as required, on the status of the project.

Construction Moratorium

Environmental Services staff is requesting that Council approve a 5-year moratorium on major construction work within the following roadway, which is to be enforced immediately after construction is complete. Minor and emergency repairs would be permitted. The moratorium would not affect any utility projects within the boulevard area.

- Johnson Street
- Dove Lane
- Ida Street
- Wiarton Court
- St Andrews Court

Project Schedule for Phase 3B:

- April 2021 - Issue of Purchase Order
- May 2021 - Commencement of work
- September, 2021 – Substantial completion of work
- October, 2021 – Final Restoration

FINANCIAL CONSIDERATIONS

The following table summarizes the financial considerations for Phase 3B:

	Storm Sewer Project #21164	Watermain Project #21170	
Budget Available for Construction component of this Project (A)	\$3,733,467.00	\$3,838,900.00	058-6150-21164-005 053-6150-21170-005
Less: Construction Cost (B)	\$1,742,314.23	\$2,521,631.74	} Awarded to Direct Underground Inc. (003-T- 21)
Less: Construction Contingency (10%) (C)	\$ 174,231.42	\$ 252,163.17	
Total Cost (D) = (B) + (C)	\$1,916,545.66	\$2,773,794.91	

Budget Remaining (E) = (A) – (D)	\$1,816,921.34	\$1,065,105.09	*
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*The remaining funds in project #21164 “West Thornhill Flood Control Implementation - Phase 3B Construction” in the amount \$1,816,921.34 will be returned to the original funding source (Stormwater Fee Reserve). The remaining funds in project #21170 “Cast Iron Watermain Replacement – West Thornhill Phase 3B” in the amount of \$1,065,105.09 will be returned to the original funding source (Waterworks Reserve).

HUMAN RESOURCES CONSIDERATIONS

None

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed flood remediation program is aligned with City’s goal to provide better quality services to the public and is consistent with the Building Markham’s Future Together strategic priority on the “Growth Management” and “Environment” as it considers sustainability on the built environment.

BUSINESS UNITS CONSULTED AND AFFECTED:

The Finance department has been consulted and their comments have been incorporated.

RECOMMENDED BY:

Eddy Wu
Acting Director, Environmental Services

Andy Taylor
CAO

ATTACHMENTS:

Attachment A – Location Map

Attachment B – West Thornhill Flood Control Implementation Phases