



Report to: General Committee

Meeting Date: February 19, 2019

SUBJECT: Award of Construction Tender 134-T-18 West Thornhill – Phase 2D Storm Sewer and Watermain Replacement

PREPARED BY: Prathapan Kumar, Senior Manager, Environmental Services, Ext. 2989
Flora Chan, Senior Buyer, Ext. 3189

RECOMMENDATIONS:

- 1) THAT the report entitled “Award of Construction Tender 134-T-18 West Thornhill – Phase 2D Storm Sewer and Watermain Replacement” be received;
- 2) AND THAT the contract for Tender 134-T-18 West Thornhill – Phase 2D Storm Sewer and Watermain Replacement be awarded to the lowest priced Bidder, KAPP Infrastructure Inc. in the amount of \$7,579,708.08, inclusive of HST;
- 3) AND THAT a 10% contingency in the amount of \$757,970.81 inclusive of HST, be established to cover any additional construction costs and that authorization to approve expenditures of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy;
- 4) AND THAT the construction award in the amount of \$8,337,678.89 (\$7,579,708.08 + \$757,970.81) be funded from the following capital projects:
 - (a) 058-6150-19239-005 “West Thornhill Flood Control Implementation - Phase 2D Construction”; and
 - (b) 053-5350-19245-005 “Cast Iron Watermain Replacement – West Thornhill Phase 2D” as outlined under the financial considerations section in this report;
- 5) AND THAT the remaining funds in project #19239 “West Thornhill Flood Control Implementation - Phase 2D Construction” in the amount \$1,734,931.67 will not be required from the Stormwater Fee Reserve and the budget remaining in project #19245 “Cast Iron Watermain Replacement – West Thornhill Phase 2D” in the amount of \$1,266,495.44 will be returned to the original funding source;
- 6) AND THAT a 5-year moratorium be placed on any major servicing and utility installation along restored areas including Grandview Avenue (Jewell St to Henderson Ave), Highland Park Blvd – North/ South leg (from Grandview Ave to Highland Park Blvd), Henderson Avenue (from Grandview Ave to Dalmeny Rd) and Dalmeny Road (from Henderson Ave Cul-de-sac)
- 7) AND 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 2D 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 \$234M - \$288M (2014 dollars). The first phase (1A, 1B & 1C) of the remediation includes storm sewer capacity upgrades in the Bayview Glen neighbourhood and the second phase (2A, 2B, 2C & 2D) includes the Grandview area. Phase 1 and 2 was proposed to be completed in a 5-year period by 2019 as outlined in the table below:

Area	Proposed Implementation Schedule	Status
Phase 1A: Bayview Glen Area	2014 - 2015	Total Completion as of Nov 2016; 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	Anticipated Substantial Completion – Oct 2019;
Phase 2D: Grandview Area (This Award)	2019 - 2020	Construction Commencement April 2019
Phase 3: Clark Ave/ Henderson Area	2020 - 2023	
Phase 4: Royal Orchard Area	2021 & 2023 - 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 is a 30-year initiative, to improve storm drainage capacity and limit flooding risks in urban areas.

On June 24, 2014 Council approved a \$47 annual fee per residential property commencing 2015 and on September 28, 2015 Council approved \$29 annual fee per \$100,000 of current value assessment (CVA) for non-residential properties commencing 2016. Stormwater Fee will be re-assessed again in 2020.

Construction Tender for Phase 2D

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 279-P-13 was issued in accordance with the Purchasing By-law 2004-341.

Pre-Qualification Information (279-P-13)

Prequalification closed on	October 29, 2013
Number of Contractors picking up the Pre-qualification document	16
Number of Contractors responding to the Pre-qualification	12
Number of Contractors Pre-qualified	6

Construction Tender Information (134-T-18)

Bids closed on	January 25 2019
Number picking up the Bid document	4
Number responding to the Bid	4

Note: two (2) bidders that were pre-qualified did not pick up the bid document or submit a bid.

Price Summary

Bidder	Bid Price (Incl. of HST)	
KAPP Infrastructure Inc.	\$	7,579,708.08
Lancorp Construction Co Ltd.	\$	8,632,636.02
Memme Excavation Company Limited	\$	10,666,142.00
Dagmar Construction Inc.	\$	11,119,367.83

OPTIONS/ DISCUSSION:Watermain Replacement

The existing cast iron watermain on Grandview Avenue, Highland Park Boulevard, Dalmeny Road and Delair Crescent 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 \$2,834,910.56 inclusive of 10% contingency and HST impact.

Public Input

A Public Information Committee (PIC) meeting will be scheduled in February/ March 2019, 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 be providing regular updates to the affected stakeholders as well as providing early notification for any disruptions to driveway access or municipal services. The City's website will also be updated as required to provide up-to-date information on the status of the project.

Construction Moratorium

In early 2018, Environmental Services staff advised all utility companies (e.g. Alectra Utilities Enbridge, Rogers and Bell Canada) that all upgrades to their infrastructure be completed prior to permanent restoration of roads in 2020.

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.

- Grandview Avenue (Jewell St to Henderson Ave),
- Highland Park Blvd – North/ South leg (from Grandview Ave to Highland Park Blvd),
- Henderson Avenue (from Grandview Ave to Dalmeny Rd),
- Dalmeny Road (from Henderson Ave Cul-de-sac)

Project Schedule for Phase 2D:

- Mid March 2019 - Issue of Purchase Order
- Early April 2019 - Commencement of work
- December 20, 2019 - Completion of 70% work to base asphalt
- January to Spring 2020 - Winter Shutdown
- Spring 2020 to Summer 2020 - Complete remaining 30% work, top asphalt, restoration etc.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

The following table summarizes the financial considerations for Phase 2D:

	Storm	Water	
Budget Allocation	\$7,836,900.00	-	058-6150-19239-005 "West Thornhill Flood Control Implementation - Phase 2D Construction" (Pre-Approved)
	-	\$4,454,000.00	053-6150-19245-005 "Cast Iron Watermain Replacement – West Thornhill Phase 2D" (Pre-Approved)
Budget Available for this Project (A)	\$7,237,700.00	-	058-6150-19239-005
	-	\$4,101,406.00	053-6150-19245-005
Less: Construction Cost (B)	\$5,002,516.67	\$2,577,191.42	} Awarded to KAPP Infrastructure Inc. Ltd. (134-T-18)
Less: Construction Contingency (10%) (C)	\$ 500,251.67	\$257,719.14	
Total Cost (D) = (B) + (C)	\$5,502,768.33	\$2,834,910.56	
Budget Remaining (E) = (A) – (D)	\$1,734,931.67	\$1,266,495.44	*

*The remaining funds in project #19239 "West Thornhill Flood Control Implementation - Phase 2D Construction" in the amount \$1,734,931.67 will not be required from the Stormwater Fee Reserve. The remaining funds in project #19245 "Cast Iron Watermain Replacement – West Thornhill Phase 2D" in the amount of \$1,266,495.44 will be returned to the original funding source.

OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT

The constructed stormwater pipes and associated infrastructure is estimated to last 100 years and PVC watermain service life is estimated to be 90 years. As such, there is no incremental impact to the Life Cycle Reserve Study over the next 25 years. There is no incremental operating budget impact.

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:

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

RECOMMENDED BY:

2019-02-08

2019-02-08

X 

X 

Phoebe Fu
 Director, Environmental Services
 Signed by: cxa

Brenda Librecz
 Commissioner, Fire a& Community Services
 Signed by: cxa

ATTACHMENTS:

[Attachment "A" - Location Map](#)

[Attachment "B" - West Thornhill Flood Control Implementation Phases](#)