



Report to: General Committee

Date Report: February 20, 2015

SUBJECT: Award of Tender 213-T-14 West Thornhill – Phase 1B Storm Sewer and Watermain Replacement

PREPARED BY: Prathapan Kumar, Senior Manager, ROW Assets, Ext. 2989
Robert Muir, Manager, Stormwater, Ext. 2984
Tony Casale, Senior Construction Buyer, Ext. 3190

RECOMMENDATIONS:

- 1) THAT the report entitled “Award of Tender 213-T-14 West Thornhill – Phase 1B Storm Sewer and Watermain Replacement” be received;
- 2) AND THAT the contract for Tender 213-T-14 West Thornhill – Phase 1B Storm Sewer and Watermain Replacement be awarded to the lowest priced Bidder, Lancorp Construction Co. Ltd., in the amount of \$6,279,388.22, inclusive of HST;
- 3) AND THAT a 10% contingency in the amount of \$627,938.82, 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 staff be authorized to award the contract administration/ construction inspection, geotechnical inspection, material testing and environmental inspection services to R.V. Anderson Associates Limited. in the amount of \$385,566.60 inclusive of HST, in accordance with the Purchasing By-Law, Part II Section 7 Non Competitive Procurement, item 1 (h);
- 5) AND THAT a 10% contingency in the amount of \$38,556.66, inclusive of HST, be established to cover any additional contract administration/ construction inspection, geotechnical inspection, material testing and environmental inspection services and that authorization to approve expenditures of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy;
- 6) AND THAT Council pre-approve \$600,000 of the total \$4,925,700 from project 053-5350-15301-005 “Watermain Construction and Replacement Program;
- 7) AND THAT the construction and contract administration award in the amount of \$7,331,450.30 be funded from the following capital projects; 1) 058-6150-14271-005 “Flood Control Implementation – West Thornhill (Phase 1B),” 2) 058-6150-15014-005 “West Thornhill Flood Control Construction - Phase 1B” , and 3) 053-5350-15301-005 “Watermain Construction and Replacement Program” (details outlined in the Financial Considerations section);
- 8) AND THAT the Internal Project Management fee be funded from project 058-5350-15609-005 “West Thornhill Flood Control – Internal Project Management” in the amount of \$288,000;

- 9) AND THAT a 5-year moratorium be placed on any major servicing and utility installation along restored areas including Poinsetta Drive (west leg, from Daffodil Ave to 100 metres north of Laureleaf Road), Laureleaf Road (between Bayview Avenue and Daffodil Avenue), Wildrose Crescent (north leg, from Laureleaf Road to 20 metres east of Laureleaf Road) and Multiflora Place (from Laureleaf Road to 25 metres north of Laureleaf Road).
- 10) 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:

- (a) to award the contract for the West Thornhill – Phase 1B Storm Sewer and Watermain Replacement; and
- (b) to award the contract administration/ construction inspection, geotechnical inspection, material testing and environmental inspection services and inspection services.

BACKGROUND:

Stormwater flood remediation was approved by Council in November 2013 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 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
Phase 1A Bayview Glen Area	2014 - 2015
Phase 1B Bayview Glen Area	2015 - 2016
Phase 1C Canadiana Road	2015 - 2016
Phase 2 Grandview Area	2016 - 2019

To support the program, on June 25, 2014 Council approved the structure of the stormwater fee rates in order to meet the annual revenue target for the first five year cycle of the Program. The new stormwater fee is to be introduced in 2015, as a 30 year initiative, to improve storm drainage capacity and limit flooding risks in urban areas. Council approved a \$47 annual fee per residential property effective 2015.

PowerStream is currently upgrading their Customer Information System and are unable to accommodate the City's billing requirements in 2015. Therefore the stormwater fee will be included as a separate fee on the 2015 tax bill as a conduit to initiate the collection of fees for the stormwater project.

Construction provides an opportunity to concurrently replace aged cast iron watermains in these areas and to avoid disturbance of the restored roadway and neighborhood twice. Through detail design, Phase 1 Bayview Glen Area was divided into 3 areas (Phase 1A, 1B, 1C). Phase 1A

was awarded to Lancorp. Construction Co. Ltd. in July 2014 and will be completed by July 2015.

Construction Tender for Phase 1B

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 City of Markham 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)

Advertised	ETN
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 (213-T-14)

Advertised	ETN
Bids closed on	January 20, 2015
Number picking up the Bid document	5
Number responding to the Bid	3*

* Of the three (3) bidders that were pre-qualified but did not submit a bid; all advised that current workload and resources prevented them from bidding.

Price Summary

Bidder	Bid Price (Incl. of HST)
Lancorp Construction Co Ltd.	\$6,279,388.22
Memme Excavation Company Ltd.	\$6,512,640.00
Dagmar Construction Inc.	\$6,884,236.36

OPTIONS/ DISCUSSION:

Watermain Replacement

The existing cast iron watermain on Poinsetta Drive (between Daffodil Ave and Laureleaf Road), and Laureleaf Road (between Bayview Avenue and Daffodil Avenue) 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 affects water quality and causes increased watermain breaks. The new watermain replacement material will be PVC pipe which has the same lifecycle as cast iron watermain (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 \$1,661,709.51 inclusive of 10% contingency and HST.

Contract Administration and Inspection Services

In 2011, the City issued Request for Proposal (“RFP”) 247-R-11 for consulting engineering services for the West Thornhill Flood Control Implementation Alternative Refinement, Preliminary and Final Design. The consultant was requested to submit a preliminary work program and fee for the contract administration and inspection services based on a construction period of 16 work weeks. Based on the recent submission by R.V. Anderson contract administration will be in the amount of \$283,564.42 inclusive of HST. The estimated construction period of Phase 1B is 32 work weeks and the contract administration fee is being adjusted accordingly.

Also, geotechnical inspections, environmental inspections and materials testing during construction were not included in the original RFP. Based on the recent submission by R.V. Anderson, the geotechnical and environmental inspections including ground settlement monitoring and materials testing will be in the order of \$102,002.19, inclusive of HST.

Based on the above and upon further review of the revised proposal, staff recommends to award the contract administration services to R.V. Anderson in the amount of \$385,566.61 (\$283,564.42 + \$102,002.19) plus 10% contingency of \$38,556.66 inclusive of HST for a total of \$424,123.27). Asset Management and Purchasing staff have reviewed the submitted rates and found them to be comparable to a project of this magnitude and scope. The proposed contract administration and inspection service is 6% of the total construction cost, which is in line with the current market rate.

Public Input

A Public Information Committee (PIC) meeting will be held in spring 2015 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 of Markham’s website will also be updated as required to provide up-to-date information on the status of the project.

Construction Moratorium

In early 2014, Asset Management staff advised all utility companies (e.g. Power Stream, Enbridge, Rogers and Bell Canada) that all upgrades to their infrastructure be completed prior to permanent restoration of roads in 2016.

Asset Management staff are requesting that Council approve a 5-year moratorium on major construction work within the roadway along Poinsetta Drive (west leg, from Daffodil Ave to 100 metres north of Laureleaf Road), Laureleaf Road (between Bayview Avenue and Daffodil Avenue), Wildrose Crescent (north leg, from Laureleaf Road to 20 metres east of Laureleaf

Road) and Multiflora Place (from Laureleaf Road to 25 metres north of Laureleaf Road), which is to be enforced immediately after construction is substantially complete. Minor and emergency repairs would be permitted. The moratorium would not affect any utility projects within the boulevard area.

Project Schedule for Phase 1B:

- March 2015 – Issue of Purchase Order
- May 1, 2015 – Commencement of Work (No through traffic, access to local residents only)
- December 23, 2015 – Completion of Work to base asphalt
- January to Spring 2016 – Winter Shutdown
- Spring 2016 to Summer 2016 – Complete remaining top asphalt, restoration etc

FINANCIAL CONSIDERATIONS AND TEMPLATE:

The following table summarizes the financial considerations for Phase 1B.

	Storm	Water	
Budget Available for this Project	\$ 507,415.00	\$1,073,020.00	058-6150-14271-005 Flood Control Implementation – West Thornhill Phase 1B 058-6150-15014-005 West Thornhill Flood Control Construction – Phase 1B 053-5350-15301-005 Watermain Construction and Replacement program 058-5350-15609-005 West Thornhill Flood Control – Internal Project Management
	\$5,850,733.20	-	
	-	\$ 600,000.00	
	\$ 288,000.00	-	
Total Budget Available for this Project (A)	\$6,646,148.20	\$1,673,020.00	
Less: Construction Cost	\$4,768,743.21	\$ 1,510,645.01	} Awarded to Lancorp Construction Co. Ltd. (213-T-14)
Less: Construction Contingency (10%)	\$ 476,874.32	\$ 151,064.50	
Less: Contract Administration Services	\$ 385,566.60		} Awarded to R.V. Anderson Associates Limited (247-R-11)
Less: Contract Administration Services Contingency (10%)	\$ 38,556.66		
Less: Internal Project Management	\$ 288,000.00		Annual Allocation
Total Cost (B)	\$5,957,740.79	\$1,661,709.51	
Budget Remaining (A – B)	\$ 688,407.41	\$ 11,310.49	

Note: Figures above includes HST impact

The remaining funds in the amount \$688,407.41 and \$11,310.49 are not required from the respective reserves.

Total project award is \$7,619,450.30 and is funded as follows:

Capital Project	\$'s
Project #14271 – Flood Control Implementation – West Thornhill Phase 1B	\$ 1,580,435.00
Project #15014 – West Thornhill Flood Control Construction Phase 1B	\$ 5,162,325.79
Project #15301 – Watermain Construction and Replacement Program	\$ 588,689.51
Project #15609 – West Thornhill Flood Control – Internal Project Management	\$ 288,000.00
Total Project Funding	\$ 7,619,450.30

Staff is requesting that Council pre-approve \$600,000 of the total \$4,925,700 from capital project 053-5350-15301-005 “Watermain Construction and Replacement Program” to fund the watermain portion of Phase 1B.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed flood remediation program is in line 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:

05/03/2015

3/5/2015

X 

X 

Phoebe Fu
Director, Asset Management

Brenda Librecz
Commissioner, Community Fire & Services

05/03/2015

05/03/2015

X 

X 

Joel Lustig
Treasurer

Trinela Cane
Commissioner, Corporate Services

ATTACHMENTS:

- [Attachment A West Thornhill Flood Control Implementation Program Map.pdf](#)
- [Attachment B Phase 1B Area Map.pdf](#)