



Report to: General Committee

Report Date: April 11, 2011

SUBJECT: Award of Tender 024-T-11 for Rehabilitation of Steelcase Road Culverts (C01 & C01a) and Replacement of Apple Creek Blvd Culvert (C05)

PREPARED BY: Hossein Sharif, Senior Project Engineer, Ext. 2382
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RECOMMENDATION:

- 1) THAT the report entitled “Award of Tender 024-T-11 for Rehabilitation of Steelcase Road Culverts (C01 & C01a) and Replacement of Apple Creek Blvd Culvert (C05) be received;
- 2) AND THAT the contract for tender 024-T-11 for Rehabilitation of Steelcase Road Culverts (C01 & C01a) and Replacement of Apple Creek Blvd Culvert (C05) be awarded to the lowest priced bidder, All Services Inc. for the Option 2 in the amount of \$902,209.25 inclusive of HST impact;
- 3) AND THAT a separate purchase order in the amount of \$52,880 inclusive of HST impact be issued for contingency to cover any additional fees (Construction/Consultant) and that the Director of Engineering be authorized to approve expenditure of this contingency amount up to the specified limit in accordance with the Expenditure Control Policy;
- 4) AND THAT the existing purchase order D9 431 with PLANMAC Inc. to provide construction inspection, contract administration services be increased from \$24,000.00 to \$36,633.60 inclusive of HST impact, in accordance to the Town’s Expenditure and Control Policy;
- 5) AND THAT the award be funded from the Asset Management Capital Projects as identified within the financial considerations section;
- 6) AND THAT the shortfall will be funded from 058-6150-8366-005 as identified within the financial considerations section;
- 7) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

Not Applicable

PURPOSE:

The purpose of this report is to obtain Council approval to award the construction tender 024-T-11 for Rehabilitation of Steelcase Road Culverts (C01 & C01a) and Replacement of Apple Creek Blvd Culvert (C05).

BACKGROUND:

In meeting the legislative requirement of The Public Transportation and Highway Act-Regulation 104/97, the Town implements annual structures inspection program to identify the maintenance needs and thus protect and prolong the life of the structures. Since 2004, the Town has undertaken regular inspection of the structures.

Based on the 2008 inspection program, the Steelcase Road Culverts (C01 & C01a) were identified for rehabilitation and the Apple Creek Boulevard Culvert (C05) was identified for replacement. PLANMAC Consulting Engineers carried out detail condition survey, investigated alternative options and provided detailed design.

Rehabilitation of Steelcase Road Culverts (C01 & C01a):

The Steelcase Road culvert consists of 128 metre length of corrugated steel pipe (CO1) and 28 metre length of reinforced concrete culvert (CO1a).

The Town's Consulting Engineer PLANMAC conducted a detail condition survey in 2009 and identified the following deficiencies:

- deterioration of existing concrete liner at the bottom of the corrugated steel pipe culvert causing severe corrosion
- failure of gabion retaining walls on both east inlet and west outlet of the culvert
- major cracks on the soffit and walls of the concrete culvert, some were leaching
- spalling of concrete at several location on the wall causing exposure of reinforcing bars

The rehabilitation work includes deep and shallow concrete repairs to the soffit and walls of the reinforced concrete culvert, construction of a new concrete slab on the floor of the existing corrugated steel pipe culvert, stabilizing the gabion retaining wall at the inlet and outlet of the culvert and constructing a plunge pool at both upstream and downstream ends of the culvert.

A large portion of the culvert is within the private property under a private parking lot. The Town is in the process of acquiring temporary easement from the property owner for construction purpose.

Replacement of the Apple Creek Boulevard Culvert (C05):

The Town's Consulting Engineer PLANMAC conducted a detail condition survey in 2009 and identified the following deficiencies;

- some of the precast units were deflected vertically
- minor and major cracks observed on the soffit and walls and water was penetrating through major cracks
- spalling of concrete at several locations causing exposure of reinforcing steel
- sealants used to join the precast units have deteriorated and a number of joints were leaching.

The work involves replacing the existing concrete box culvert with new pre-cast reinforced concrete units.

Bid Information:

Construction Tender (024-T-11)

Advertised	ETN
Bids closed on	April 6, 2011
Number picking up bid documents	33
Number responding to bid	5

Detailed Pricing Information:

Company	Prices (including 1.76% HST)
All Services Inc.	\$902,209.25
Dig-Con International	\$1,045,900.47
G.C. Romano Sons	\$1,163,060.83
Anscon Contracting	\$1,166,314.10
Graham Bros	\$1,185,440.48

Detailed Design, Contract Administration, and Site Inspection Services

On January 22, 2009 Staff approved contract 195-R-08 for Consulting Engineering and Project Management Services for Bridge and Culvert Rehabilitation to the highest ranked/lowest priced bidder, PLANMAC Inc. Included in the award report for contract 195-R-08 was a two (2) month estimate for Contract Administration/Construction Inspection based on the estimated construction time to complete rehabilitation of Steelcase Road Culverts (C01 & C01a) and replacement of Apple Creek Blvd Culvert (C05).

Since the award of contract 195-R-08 and completion of the detailed design phase, a revised project schedule was completed which included a construction period of 65 working. Therefore, staff is requesting an additional one (1) month increase of \$12,000 (\$12,211.20 incl. HST impact) to the Contract Administration/ Construction Inspection Purchase Order D9 431.

PLANMAC has agreed to maintain the same monthly fee for Contract Administration/Construction Inspection as identified in the 2009 submission. In addition, Markham will receive five (5) additional days of contract administration/inspection at no additional charge from PLANMAC.

OPTIONS/ DISCUSSION:

There will be no disturbance to traffic during culverts CO1 & CO1a rehabilitation works. The replacement of culvert (C05) at Apple Creek Boulevard will require lane restrictions but two lane traffic will be maintained at all times.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

The following table summarizes the financial considerations for this report.

Construction Cost	\$902,209.25	Awarded to All Services Inc. (024-T-11)
Construction/Consultant Contingency	\$52,880.00	Awarded to All Services Inc. (024-T-11) and PLANMAC (195-R-08)
Contract Administration and Construction Inspection Services	\$12,211.20	Added to PO D9 431 - PLANMAC
Total Construction Cost	\$967,300.45	(A)
Budget Available for this Project	\$704,000.00	058-6150-9227-005 - Culvert Improvement, Steelcase Rd
	\$179,513.60	058-6150-9234-005 - Culvert Improvement, Applecreek Blvd East of Woodbine Avenue
Total Budget	\$883,513.60	(B)
Budget Short Fall	-\$83,786.85	(B) - (A)
Short Fall Funding	\$83,786.85	058-6150-8366-005
Short Fall Remaining	\$0.00	

Budget shortfall of \$83,786.85 will be funded from Structures Detailed Design for 2009 Construction account 058-6150-8366 which has a balance of \$142,288.47. Originally #8366 included for design of three pedestrian bridges (P26, P27 and P28) and various storm sewer outfalls. The savings are due to in-house design of pedestrian bridges and deferral of outfalls rehabilitation works due to incomplete database. The remaining balance is to be returned to the original funding source as identified in the Staff Award (195-R-08)..

HUMAN RESOURCES CONSIDERATIONS:

Not applicable

ALIGNMENT WITH STRATEGIC CONSIDERATIONS:

The proposed Rehabilitation of Steelcase Road Culverts (C01 & C01a) and Replacement of Apple Creek Blvd Culvert (C05) is in line with Town's goal to provide better quality services and safe access to the public.

BUSINESS UNITS CONSULTED AND AFFECTED:

The Finance Department has been consulted, provided input and reviewed this report.

RECOMMENDED

06/05/2011

5/6/2011


X

Gary Adamkowski, P.Eng.
Director, Asset Management


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Brenda Librecz
Commissioner, Community & Fire Services

ATTACHMENTS:

[Attachment "A" - Key Plan](#)