



Report to: Development Services Committee

Date Report Authored: May 31, 2011

SUBJECT: The Award of Tender # 042-T-11, Construction of Rodick Road Phase 3, from Riviera Drive to Alden Road / Esna Park Drive
PREPARED BY: Gabor Szakter, Senior Capital Works Engineer, ext. 4040
Robert Slater, Senior Construction Buyer, ext. 3189

RECOMMENDATION:

- 1) That staff report entitled “The Award of Tender #042-T-11, Construction of Rodick Road Phase 3, from Riviera Drive to Alden Road / Esna Park Drive” be received;
- 2) And that the Tender # 042-T-11, Construction of Rodick Road Phase 3, from Riviera Drive to Alden Road / Esna Park Drive, be awarded to Dagmar Construction Inc., the lowest bidder, in the amount of \$11,160,692.16, inclusive of HST;
- 3) And that a contingency amount of \$558,034.61, inclusive of HST (5.0% of construction cost) be established to cover any additional construction costs, and that the CAO be authorized to approve the expenditure of this contingency amount up to the specified limit;
- 4) And that the Engineering Department Project Management Fee in the amount of \$551,075.43 be funded from Capital Budget account # 083-5350-11064-005 - “Rodick Road Phase 3, from Riviera Drive to Alden Road / Esna Park Drive”;
- 5) And that staff be authorized to increase the Request for Proposal #181-R-07 as approved by Council on March 4, 2008 from \$233,060 (exclusive of taxes) to 398,162.01, inclusive of HST, for AECOM Limited to provide contract administration services, construction inspection, environmental inspections, and material testing as described in this report;
- 6) And that a contingency amount of \$38,115.99, inclusive of HST, be established to cover any additional contract administration services, construction inspection, environmental inspections, and material testing, and that the Director of Engineering be authorized to approve the expenditure of this contingency amount up to the specified limit;
- 7) And that the existing Purchase Order No. D9 36 with Canadian National Railway to provide inspection, engineering review, and flagging operations, be increased from \$155,387.52, inclusive of HST, to \$238,220.16, inclusive of HST, (an increase of \$82,832.64, inclusive of HST) and that the Director of Engineering be authorized to approve the expenditure of this increase in accordance with Purchasing By-Law 2004-341, Part II, Section 7 (1) (b);
- 8) And that the existing Purchase Order No. D9 48 with Canadian National Railway to provide inspection, engineering review, and flagging operations, be increased from \$15,538.75, inclusive of HST, to \$23,822.02, inclusive of HST, (an increase of \$8,283.26, inclusive of HST) to cover any additional work to be carried out by

Canadian National Railway, and that the Director of Engineering be authorized to approve the expenditure of this contingency amount up to the specified limit;

- 9) And that funding for the project “Rodick Road Phase 3, from Riviera Drive to Alden Road / Esna Park Drive” be provided from the approved Capital Budget account # 083-5350-11064-005;
- 10) And that additional compensation for property acquisitions and related legal expenses, and legal expenses arising out of contractor matters be funded from Capital Budget “Rodick Road Extension - Phase 3” accounts 083-5350-11064-005 and 083-5350-9300-005;
- 11) And that the remaining balance in Capital Budget “Rodick Road Extension - Phase 3” accounts 083-5350-11064-005 and 083-5350-9300-005, be returned to the original funding source upon completion of this project including property acquisitions and related legal expenses;
- 12) And that staff be authorized and directed to do all things necessary to give effect to the above resolutions

EXECUTIVE SUMMARY:

The construction of Rodick Road Phase 3, as shown on Figure 1, will complete the north-south link between Highway 7 and Alden Road / Esna Park Drive. It is a vital link to the transportation and transit network supporting the projected travel demands primarily serving the surrounding employment lands.

An Environmental Assessment was completed by the Town to extend Rodick Road from Miller Avenue to Esna Park Drive, as a four lane road with an overpass at the Canadian National Railway (CN) tracks. The Environmental Assessment was completed and approved by Council and the Ministry of Environment in 2003.

The construction of Rodick Road Phase 1 involved extending Rodick Road from York Tech Drive to Miller Avenue, including the construction of an overpass at Highway 407. This section of Rodick Road was constructed and opened to traffic in 2006. Due to issues with the coordination of a pond with adjacent land developers and the ongoing Miller Road Environmental Assessment, the construction of Rodick Road Phase 2, from Miller Avenue to Riviera Drive has been deferred to 2012.

Rodick Road Phase 3 from Riviera Drive to Alden Road / Esna Park Drive involves the construction of a four lane road with 1.5m bike lanes and an overpass structure at the CN tracks. The scope of the project includes realigning Esna Park Drive and Alden Road at the intersection with Rodick Road, resulting in a four-way intersection with upgraded traffic signals. At Riviera Drive, the intersection will be signalized to accommodate the increase in vehicular volumes.

Council in November, 2010 approved the advancement of utility relocations required ahead of the road construction of Rodick Road Phase 3. The utility relocations have commenced and are anticipated to be completed by the end of Spring, 2011.

As part of the detailed design of Rodick Road Phase 3, the Town funded the costs associated with CN's review of the overpass structure, the relocation of a CN signal bridge to address sight line issues, and CN site flagging operations required during the construction of the overpass.

Contractors bidding for this project were required to go through a prequalification process in order to ensure that they have the necessary qualifications, experience and resources to construct a bridge structure over the CN tracks in accordance with Town of Markham and CN requirements and specifications.

Construction is anticipated to start in July 2011, subject to Council approval. As part of constructing the overpass at the CN tracks, CN requires flagging protection. The flagging will be required by August 1, 2011, at which time the structural work will commence within CN's right-of-way. The structural work at the north and south approaches will continue until late 2011. The intersection works at Alden Road / Esna Park Drive and at Riviera Drive will be carried out between the Spring and Fall of 2012. All works are scheduled to be completed and opened to the public by December 31, 2012.

PURPOSE:

The purpose of this report is:

- To award the contract for the construction of Rodick Road Phase 3 from Riviera Drive to Alden Road / Esna Park Drive, including construction of the CN overpass structure.
- To retain a consultant to provide construction inspection, contract administration, environmental inspection and materials testing services for this project.
- To increase the Purchase Orders in the amount of \$91,115.90 (including HST) to CN for site inspection, engineering review and CN flagging required for the construction of the grade separation.
- To advise Council as to the status of approvals from regulatory agencies related to the risk of the tender award.

OPTIONS/ DISCUSSION:

1. Canadian National Railway

Prior to the construction of the proposed grade separation, the Town is required to sign a CN rail crossing agreement with CN Rail. Included in the principles of this agreement is that the Town will fund CN's site inspection, engineering review and flagging operations required for the construction of the proposed overpass structure. The Council resolution of March 24, 2010 has authorized the Mayor and Clerk to sign the CN Agreement in a

form satisfactory to the Chief Administrative Officer and the Town Solicitor. The Town's Legal Department and CN's legal counsel have reviewed the CN agreement and have agreed on the final form. The agreement is expected to be executed by the end of May, 2011.

On January 8, 2009, CN was authorized to relocate their communication signals east of the proposed overpass to address sight-line issues with the presence of this overpass. A Purchase Order (D9 36) was given to CN to carry out the relocation. In order to provide site inspection, engineering review and flagging operations by CN during the construction of the overpass, the Town needs to increase the existing Purchase Order (D9 36) by \$82,832.64 (inclusive of HST). In addition, staff is also recommending that a contingency amount of \$8,283.26 (inclusive of HST) be added to the existing Purchase Order (D9 48) which was originally set up for contingency work by CN, should the need arise.

2. Relocation of Existing Utilities

To facilitate the road construction at Alden Road / Esna Park Drive and at Riviera Drive, the existing utility facilities owned by Bell, Rogers, and Powerstream require relocation at identified locations, where they are in conflict with the proposed road works.

In order to advance the utilities relocations work ahead of the Rodick Road Phase 3 construction, Council on March 24, 2010 and November 24, 2010 authorized staff to proceed with the utilities relocations and issue purchase orders up to a total value of \$1,300,000, exclusive of HST, for the utility relocations. It is expected that the utility relocations will be completed by Summer 2011.

3. Prequalification

Due to the complexity of the project the Town carried out a prequalification process to ensure that all bidders would have the qualifications, experience and resources to complete the works of this scope and magnitude in accordance with Town of Markham and CN's requirements.

The prequalification was issued in accordance with the Purchasing By-law 2004-341. The Town set out criteria for evaluation and only bidders that score a minimum of seventy-five points based on these criteria were considered eligible for prequalification.

PREQUALIFICATION INFORMATION

Advertised, place and date	March 17, 2010 (ETN)
Prequalification closed on	April 9, 2010
Number of Contractors submitting proposals	11
Number of Contractors prequalified	8

4. Construction Tender

The construction tender #105-T-10 was issued in accordance with the Purchasing By-law 2004-311. Engineering and Purchasing staff and the consultant have reviewed the bid documents and are satisfied that all items, conditions, bid prices and specifications comply with the Town's requirements. The tender results are summarized in the following table:

BID INFORMATION

Tender Release	April 12, 2011
Bids closed on	May 5, 2011
Number of Contractors picking up bid documents	8
Number of Bids Received	8

Detailed pricing information as submitted is as follows;

Contractor	Tender Price (Exclusive of all taxes)	Corrected Tender Price (Exclusive of all taxes)	Tender Price (Inclusive of HST)*
Dagmar Construction Inc.	\$ 10,967,661.32	\$ 10,967,661.32	\$ 11,160,692.15
Soncin Construction	\$ 11,445,640.16	\$ 11,444,290.16**	\$ 11,645,709.67
Dufferin Construction Co.	\$ 11,674,019.25	\$ 11,673,019.25**	\$ 11,878,464.39
Graham Bros	\$ 11,686,882.54	\$ 11,686,882.54	\$ 11,892,558.93
Brennan Paving	\$ 11,865,288.85	\$ 11,834,096.85**	\$ 12,042,376.95
AECON construction	\$ 12,091,138.85	\$ 12,091,138.85	\$ 12,303,942.89
Belor Construction Ltd.	\$ 12,623,959.49	\$ 12,599,987.34**	\$ 12,821,747.12
Toronto Zenith Contracting	\$ 12,732,595.87	\$ 12,732,595.87	\$ 12,956,689.56

*Prices have been increased by 1.76% to reflect the impact of HST

**The bids were verified for accuracy and compliance with the tender terms and conditions. There were mathematical errors by Soncin Construction, Dufferin Construction Co, Brennan Paving, and Belor Construction Ltd., however, the corrected tender prices do not affect Dagmar's lowest tender standing.

Town staff has reviewed the tender submitted by Dagmar Construction and are satisfied that all terms, conditions, bid prices and specifications comply with the Town's requirements. Dagmar Construction provided evidence of company's past experience in this type of project and references were checked as part of the prequalification process.

5. Detailed Design, Contract Administration, and Site Inspection Services

On March 4, 2008 Council approved contract 181-R-07 for detailed design, contract administration services, construction inspection, environmental inspections, and material testing for the Rodick Road widening/expansion to the highest ranked/lowest priced bidder, UMA Engineering Ltd (now known as AECOM) in the amount of \$233,060 (excluding taxes). The provision for contract administration services, construction inspection, environmental inspections, and material testing was subject to the satisfactory completion of the design phase of the project.

The Request for Proposal (RFP #181-R-07) in 2007 indicated that construction would commence in 2009 but could not be achieved due to issues around land acquisition and the Town required expropriation of two properties. Since construction was deferred to 2011, the Town's Purchasing Department negotiated a revised price to proceed with the contract administration services, construction inspection, environmental inspections, and material testing under RFP #181-R-07 in the amount of \$398,162.01 (inclusive of HST). This amount represents approximately 3.6% of the construction cost and is considered a reasonable rate for projects of this magnitude and complexity. Details regarding fees for these services are included in the Financial Consideration section of this report.

Given AECOM's satisfactory completion of the detailed design phase of the project, staff is recommending that a purchase order be given to AECOM in the amount of \$398,162.01 (inclusive of HST) to proceed with the contract administration services, construction inspection, environmental inspections, and material testing for this project under RFP #181-R-07. Staff is also recommending that a contingency fee of \$38,115.99, (inclusive of HST) be allocated for additional contract administration and inspection efforts, to cover unforeseen situations.

6. Streetscape

A landscape plan had been prepared and has been reviewed by the Town's Urban Design Group and is part of the construction of Rodick Road Phase 3. The landscape plan includes the selection of tree species and the number of trees in accordance with the Town's "Trees for Tomorrow" Streetscape Manual. As part of the landscape plan, over 400 new trees will be placed along the Rodick Road corridor from Riviera Drive to Alden Road / Esna Park Drive, as well as a storm water management pond facility at the northwest corner of Rodick Road and Esna Park Drive. In addition to the landscape plan, the construction of Rodick Road Phase 3 will include concrete sidewalks, bike lanes and street illumination, which are proposed on both sides of Rodick Road.

7. Property

In December, 2008, Council authorized staff to acquire the necessary properties to facilitate the construction of Rodick Road. Subsequently, during the detailed design phase, Town staff negotiated the property requirements with the affected landowners. All

property issues have been resolved, including purchases, permanent and temporary easements for grading purposes and reconstruction of driveway entrances.

Two of the properties, 43 Riviera Drive and 10-30 Alden Road required expropriation consequently delaying the construction schedule to 2011. The Town now has possession of both of the expropriated lands but the issue of compensation is subject to ongoing negotiations, and therefore, staff recommends reserving funds in the capital budget.

It is recommended that the acquisition be funded by both “Rodick Road Extension - Phase 3” accounts 083-5350-11064-005 and 083-5350-9300-005.

8. Outstanding Issues – Permits and Approvals

The Certificate of Approval (C. of A.) from the Ministry of Environment (MOE) for the installation of storm sewers and a storm water management pond facility, to treat the quality of storm water run-off at the northwest corner of Esna Park Drive / Rodick Road is pending. The applications have been submitted and approval is expected in June 2011. The pond construction will proceed in July 2011, with the sewer work commencing in August 2011. The MOE’s approval should therefore be in place ahead of the schedule for the sewer construction.

The Town also received clearances from the Ministry of Natural Resources and Toronto Regional Conservation Authority during the design stage.

9. Project Schedule

The construction for Phase 3 of the Rodick Road Extension from Riviera Drive to Esna Park Drive / Alden Road is scheduled to begin in early July 2011. The work within the CN Rail right-of-way can only commence once CN’s flagging is available on August 1, 2011. The current flagging crew utilized on the Town’s Birchmount Phase 2 project will be made available for the Rodick Road Phase 3 flagging operations for August 1, 2011. It is expected that constructing the structure and the retaining walls at the approaches will take approximately 6 months. By the beginning of 2012, it is expected that the road structure will be completed near the approaches.

Following winter shut-down, the intersection work will commence at Esna Park / Alden Road which will involve realigning Esna Park Drive and Alden Road at the intersection with Rodick Road and upgrading the traffic signals. The Riviera Drive intersection will be signalized to accommodate the increase in vehicular volumes. The road work at the two intersections is expected to commence in Spring 2012 and be completed by Fall 2012.

All works are scheduled to be completed by December 31, 2012.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

Staff recommends that tender for the construction of Rodick Road Phase 3 from Riviera Drive to Esna Park Drive / Alden Road be awarded to Dagmar Construction in the amount of \$11,160,692.16, inclusive of HST. The total cost of the construction of this project is summarized below:

TOTAL PROJECT COSTS

Item	Cost (Inclusive of HST)*
Construction Cost	\$ 11,160,692.16
Construction Cost Contingency (5%)	\$ 558,034.61
Construction Inspection, Contract Admin., Environmental Inspection and Materials Testing (AECOM)	\$ 398,162.01
Construction Inspection, Contract Admin., Environmental Inspection and Materials Testing Contingency (AECOM)	\$ 38,115.99
CN Rail Engineering review, administration, and Flagging	
- Increase to Purchase Order D9 36	\$ 82,832.64
CN Rail contingency charges	
- Increase to Purchase Order D9 48	\$ 8,283.26
Property negotiations, including compensation and legal fees.	TBD
Engineering Department Capital Administration Fees @ 4.5% in accordance to the amended fee By-law 2002-276	\$ 551,075.43
Total Project Cost	\$ 12,797,196.10

*Prices have been increased by 1.76% to reflect the impact of HST.

Funding for the project shall be provided from the approved Capital Budget “Rodick Road Extension - Phase 3” account # 083-5350-11064-005 up to the amount of \$12,797,196.10, including HST. The remaining amount of \$704,203.90 is recommended to be returned to the original funding source upon completion of this project including final compensation for land acquisition and related legal expenses.

HUMAN RESOURCES CONSIDERATIONS:

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

The construction of Rodick Road Phase 3 will provide a complete a north-south link between Highway 7 and Esna Park Drive / Alden Road. It is a vital link to the Transportation and Transit network supporting the projected travel demands primarily serving the surrounding employment lands.

BUSINESS UNITS CONSULTED AND AFFECTED:

The Finance and Legal Departments has reviewed and commented on this report.

RECOMMENDED BY:

Alan Brown, C.E.T.
Director of Engineering

Jim Baird, M.C.I.P., R.P.P.
Commissioner, Development

ATTACHMENTS:

Figure 1: Rodick Road Extension, Phase 3 from Riviera Drive to Alden Rd / Esna Park Drive