

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON APRIL 24, 2017</b>
<b>FROM:</b>	<b>KELLY SCHERR, P. ENG, MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>CONTRACT AWARD: TENDER NO. 17- 46 WESTERN ROAD / WHARNCLIFFE ROAD NORTH IMPROVEMENTS, PHASE 1 CANADIAN PACIFIC RAILWAY GRADE SEPARATION RECONSTRUCTION</b>
<b>RECOMMENDATION</b>	

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Western Road/Wharncliffe Road North Improvements, Phase 1, Canadian Pacific Railway Grade Separation Reconstruction:

- (a) the bid submitted by McLean Taylor Construction Limited at its submitted tendered price of \$13,036,060.47 (excluding HST) for the said project **BE ACCEPTED**; it being noted that the bid submitted by McLean Taylor Construction Limited was the lowest of four bids received and meets the City's specifications and requirements in all areas;
- (b) AECOM Canada Ltd., **BE AUTHORIZED** to carry out the resident inspection and contract administration of the said project in the amount of \$845,332.10 (excluding HST), in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** in accordance with the "Sources of Financing Report" attached hereto as Appendix A;
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (e) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract for the material to be supplied and the work to be done relating to this project (Tender 17-46); and,
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents including rail-related agreements, if required, to give effect to these recommendations.

## PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – January 5, 2016 – Western Road/Wharnccliffe Road North Widening, Appointment of Consulting Engineer
- Civic Works Committee – October 22, 2015 – Western Road/Wharnccliffe Road North Widening Environmental Study Report
- Civic Works Committee – January 6, 2014 – Western Road/Wharnccliffe Road North Widening from Platts Lane to Oxford Street, Schedule ‘C’ Environmental Assessment
- Civic Works Committee - July 22, 2013 – Reprioritization of Growth Management Implementation Strategy (GMIS) Transportation Projects
- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan

## 2015-19 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of Building a Sustainable City by building new transportation infrastructure as London grows. The widening of the Canadian Pacific Railway (CPR) grade separation will improve the Western Road / Wharnccliffe Road North corridor by removing the long-standing bottleneck at the CPR bridge and enhancing safe and convenient mobility choices for transit, automobiles, pedestrians and cyclists.

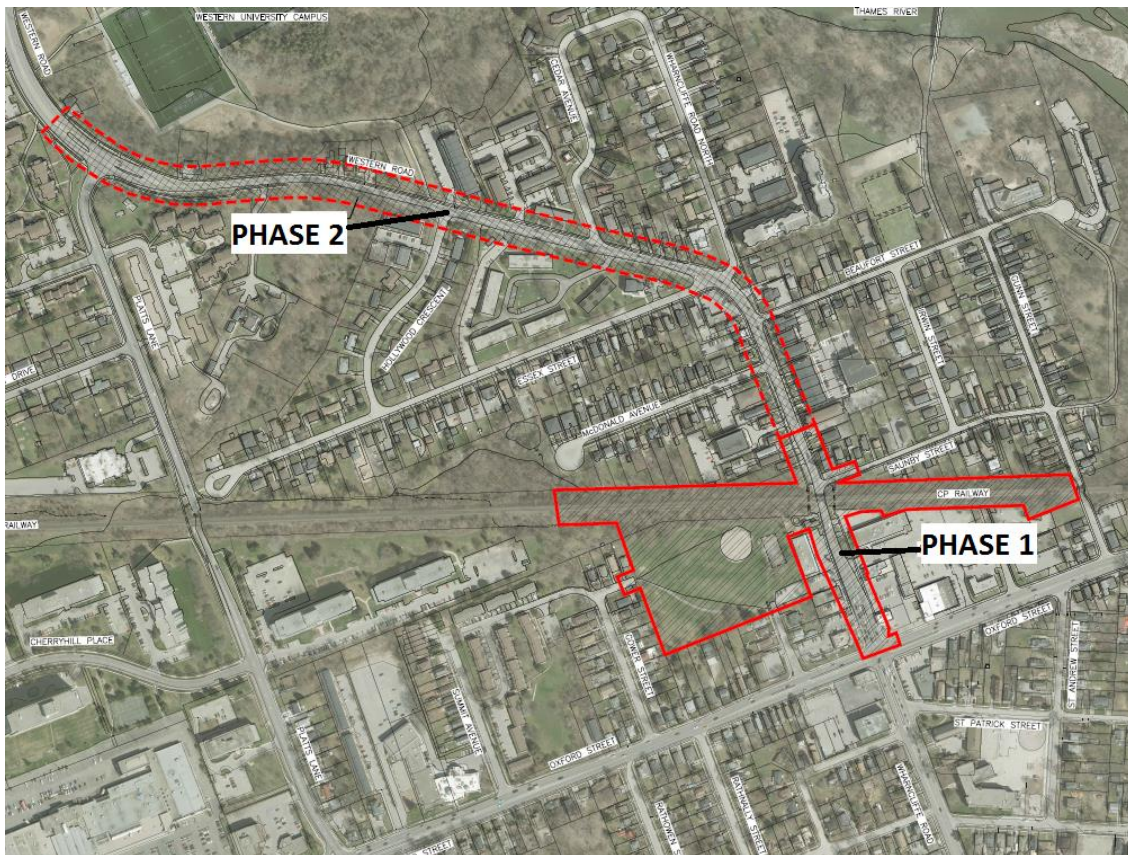
## BACKGROUND

### Purpose

This report recommends the award of a construction tender to a contractor and the continuation of engineering consulting for Phase 1 of the Western Road / Wharnccliffe Road North Improvements project as displayed in Figure 1.

The timing for the construction of the corridor from north of Oxford Street West to Platts Lane is scheduled to occur in two construction contracts with overlapping timeframes from 2017 through 2019. The first contract, or Phase 1 of the project is scheduled to commence the summer of 2017 and includes the Wharnccliffe Road North corridor from north of Oxford Street to Saunby Street, focusing on the CPR rail diversion and bridge replacement. Phase 2 includes the balance of the Wharnccliffe Road North / Western Road corridor through to the northern limit of the project at Platts Lane. The construction of Phase 2 is tentatively scheduled to commence the spring of 2018.

**Figure 1: Western Road/Wharncliffe Road North Project Limits**



## Context

Western Road/Wharncliffe Rd North was identified as a priority in the 2030 Transportation Master Plan (TMP) and as part of a reprioritization of transportation projects in the Growth Management Implementation Strategy (GMIS). The Development Charge Background Study also identifies the project.

Western Road/Wharncliffe Road North is a major transportation corridor designed to carry high volumes of traffic. The improvements will accommodate the high volumes of pedestrian, bicycle and motor vehicle traffic in a safe and efficient manner and improve mobility.

The Western Road/Wharncliffe Road North Widening design recognizes and incorporates the significant planning, engineering and public consultation work completed to date. The selected design minimizes impacts to adjacent properties, minimizes impacts to the natural heritage system and is consistent with engineering and Official Plan standards.

## DISCUSSION

### Background

The City of London is responsible for a transportation system that promotes the movement of goods and services to strengthen our economic growth and provides for sustainable transportation mobility choices for residents that improve our quality of life.

Western Road and Wharncliffe Road North are currently congested in the peak hours. Long traffic queues occur on these roads. Under future conditions, growth is expected

to continue and will further deteriorate traffic operations. Despite the close proximity to Western University and demands for improved active transportation facilities, Western Road and Wharncliffe Road North do not currently have bicycle lanes and the sidewalks are narrow.

The CPR structure is the primary constraint that has prevented the implementation of road capacity increases consistent with the existing four lane road improvements to the north and south. The existing CPR subway structure cannot accommodate the proposed increased cross-section of Wharncliffe Road North and will be replaced with a wider structure in the Phase 1 contract.

The widening of Western Road/Wharncliffe Road North will address existing operational and safety concerns and accommodate forecasted traffic volumes. The widening also offers the opportunity to:

- reconstruct the roadway pavement structure to provide improved durability and rideability;
- correct geometric deficiencies as much as possible that will enhance both the safety and rideability;
- provide pedestrian and bicycle facilities, including continuous sidewalks and on-street bicycle lanes on both sides of the roadway, consistent with the City's master plan;
- improve stormwater management and drainage along the corridor;
- upgrade watermains and wastewater sewers;
- coordinate the relocation and upgrading of utility services; and,
- provide streetscape elements for community enhancements.

### **Construction Considerations**

The City of London is making a significant investment to improve the Western Road/Wharncliffe Road North corridor. In an effort to maintain schedule and ensure certainty of the project moving forward, and to not adversely impact other planned projects, the scope of the current project has been divided in to two (2) phases:

Phase 1 – North of Oxford Street to Saunby Street (June 2017 – Spring 2019)

- Construction of rail diversion and temporary bridge to allow for rail operations to be maintained while CP subway/bridge is replaced;
- Replacement of existing CP subway/bridge; and,
- Replacement and reconstruction of sewers and roads from north of Oxford Street to the Saunby Street intersection.

Phase 2 – Saunby Street to Platts Lane (Spring 2018 – Spring 2019)

- Replacement and reconstruction of watermains, sewers and roads from Saunby Street intersection to Platts Lane;
- Installation of new pedestrian crossing at Beaufort Street, new traffic signals at Platts Lane, and new street lighting throughout; and,
- Final restoration Spring 2019

Phase 1 construction of this project is complex and requires rail traffic to be maintained at all times. The grade separation bridge construction was subject to extensive input and approval of CPR. A 500 metre long temporary rail diversion and bridge carrying the

existing rail track will be required across Wharncliffe Road North, just south of the existing bridge. Rail traffic will be diverted to the temporary rail diversion while the existing bridge is demolished and the new longer bridge is constructed in place.

This is a large scale project and the general area may experience construction related impacts due to the existing constrained corridor. Due to the size and scope of the improvements, Phase 1 construction is anticipated to begin in June 2017, and is expected to be substantially completed by November 2018 with minor works and surface asphalt being placed in 2019. Two lanes of traffic will be maintained throughout most of the construction project. However, the construction and removal of bridges will require a minimum of four Wharncliffe Road closures to facilitate girder erection and other overhead work. The duration of these closures will be several days and attempts will be made to schedule over weekends. Some work nearby intersections or at service crossing points may require weekend work, night work, consecutive shifts and the use of police services to control traffic.

This project is one of the major capital projects identified in the 2017 Renew London Infrastructure Construction Program report to Civic Works Committee on January 10, 2017. Every effort is being made to ensure Londoners are aware of construction zones and traffic detours resulting from road work. Daily updates are provided through the City's website, [www.london.ca/construction](http://www.london.ca/construction) with information about road closures, ongoing and upcoming projects on city streets. Special efforts will be made to provide advance notice of the Wharncliffe Road closures required for this project.

### **CPR Negotiations**

The project team has communicated with CPR throughout the EA and detail design to deal with technical approvals and to establish a cost sharing agreement for the grade separation reconstruction.

The cost sharing discussions have been guided by the Canadian Transportation Agency (CTA) document Guidelines on Apportionment of Costs of Grade Separations. The CTA is an independent administrative tribunal of the Government of Canada regulated by the Canada Transportation Act. The CTA Guidelines define the cost apportionment ratios and scope of works that are subject to cost sharing for railway projects.

The Guidelines state that for projects such as this, which are due primarily to road development, the costs are to be shared 85% road authority / 15% railway company. Since this project was initiated by the City based on road capacity needs, and no additional rail facilities are proposed, this ratio is appropriate for the project.

The scope of cost-shared works is limited to what the Guidelines define as the basic grade separation. The basic grade separation includes the construction of the temporary rail diversion, removal of the existing bridge, construction of a new bridge, and removal of temporary rail diversion and satisfying present day needs such as additional lanes, turn lane, sidewalks and bike lanes.

The combination of apportionment ratio and scope of shared works results in an estimated contribution from CPR of \$1,700,000 excluding HST, based on tender values. The final value is to be based on the actual costs following construction.

The crossing and maintenance agreement, has already been reviewed by the City's Legal Department and executed by the Mayor and City Clerk's office. The Crossing and Maintenance agreement for the new structure forms a new board order based on the

cost apportionment of the project (i.e. 85%/15%) and the old board orders are superseded by this new agreement.

The agreement insurance requirements and liquidated damages liabilities associated with construction of the grade separation have been transferred to the contractor through provisions in the contract.

CPR is required to conduct specific components of the project. CPR forces are required to place the final ballast, tracks and rail signals for the temporary diversion and new structure. CPR flagging is also required to oversee construction activities in the area of the live rail line for safety reasons and the railway requires their own engineering oversight. CPR commitments for these activities have been obtained pursuant to the discussions and reviews throughout the design phase. A purchase order for CPR services in the value of \$2,942,257.79 excluding HST has been issued.

### **Shift Project Coordination**

The environmental assessment for this project included the Oxford Street intersection. However, the project limits for this contract were previously established north of Oxford Street with no work in the intersection based on the proposed rapid transit routings in the Shift Environmental Assessment. Intersection work at Oxford Street was deferred for future rapid transit project. Therefore, the limits of this Phase 1 contract are relatively short and primarily focused on the rail crossing.

The current reconsideration of rapid transit routes has been considered with respect to this contract award. The primary purpose of the Phase 1 contract is the reconstruction and expansion of the CPR grade separation. A new grade separation would be required to accommodate either future road use scenario. The new bridge as designed in this contract can accommodate a bus rapid transit corridor as currently being assessed in the Shift alternative review (two general purpose and two BRT lanes). A change in proposed rapid transit routing would only require revisions to the surface road design. The road work is scheduled for the latter stages of the contract and a modified design would be implemented if necessary. Given the large amount of 3<sup>rd</sup> party coordination in place and the necessity of the new rail bridge regardless of future use, award of the Phase 1 contract is recommended.

The Phase 2 contract will implement most of the road works in the corridor and will not be awarded until the finalization of the Rapid Transit Master Plan, which will approve a preferred corridor.

### **Tender Summary**

Tenders for the Sarnia Road Project were opened on Wednesday, March 31, 2017. Four (4) contractors submitted tender prices as listed below (excluding HST).

	<b>CONTRACTOR</b>	<b>SUBMITTED TENDER PRICE (\$)</b>	<b>CORRECTED TENDER PRICE (\$)</b>
1.	McLean Taylor Construction Limited	13,036,060.47	---
2.	J-AAR Excavating Limited	13,850,874.77	---
3.	Facca Incorporated	13,877,159.70	---
4.	Dufferin Construction Company	14,012,566.26	---



All tenders have been checked by AECOM Canada Ltd and the Environmental and Engineering Services Department. The results of the tendering process indicates a competitive process. Adequate funds for this award of tender are identified in the capital budget. The tender estimate prior to tender opening was \$13,025,023 (excluding HST).

### **Consulting Services**

The city previously procured AECOM Canada Ltd. for the project environmental assessment with a competitive two stage consultant acquisition process for this complex project in accordance with the Procurement of Goods and Services Policy. The process, which included a publicly advertised Request for Qualifications (RFQ) and a Request for Proposal (RFP), identified the selected consultant from a list of five engineering consultants based on evaluations from an inclusive City project team. AECOM also completed the detailed design which continued the coordination process with stakeholders including CPR.

Due to the consultant's knowledge and positive performance on the project, the consultant was invited to submit a proposal to carry out the contract administration and resident supervision. Staff have reviewed the fee submission in detail considering the hourly rates provided by each of the Consultant's staff members. City staff have confirmed that hourly rates are consistent with those submitted through competitive processes. City Staff also reviewed the time allocated to each project related task. The amount of time allocated to each project task is consistent with prior projects of a similar nature that have been awarded through a competitive process.

The continued use of AECOM Canada Ltd on this project for construction administration is of financial advantage to the City due to the fact that the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected. The continued coordination of railway works that AECOM began during the design phase is important.

The City's requirement for the creation of record drawings following construction necessitates the reviewing engineer seal them on the basis of field verification and ongoing involvement. This requirement triggers consultant accountability for the design. Consequently, the continued use of AECOM Canada Ltd who created and sealed the design drawings is required in order maintain this accountability process. The approval of this work will bring the value of the overall consulting assignment to \$2,000,090.10 (excluding HST).

In accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy, Civic Administration is recommending that AECOM Canada Ltd. be authorized to carry out the remainder of engineering services as construction administrators to complete this project for a fee estimate of \$845,332.10 (excluding HST). These fees are associated with the inspection services necessary to ensure the City receives the construction product specified and coordination with CPR is maintained.

<b>CONCLUSION</b>
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Civic Administration has reviewed the tender bids and recommends McLean Taylor Construction Limited be awarded the contract for the Western Road/Wharnccliffe Road North Improvements project.

AECOM Canada Ltd. has demonstrated an understanding of the City requirements for this project and it is recommended that this firm continue as the consulting engineer for the purpose of 2017 contract administration and inspection services as it is in the best financial and technical interests of the City.

Anticipated additional annual operating costs to budgets in 2018 and subsequent years associated with the additional road infrastructure is \$2,200, new sewer infrastructure is \$200.

### **Acknowledgements**

This report was prepared with assistance from Max Kireev C.E.T., Technologist II and Ted Koza, P. Eng., Transportation Design Engineer in the Transportation Planning & Design Division.

<b>PREPARED BY:</b>	<b>REVIEWED AND CONCURRED BY:</b>
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<b>RECOMMENDED BY:</b>	
<b>KELLY SCHERR, P. ENG, MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES &amp; CITY ENGINEER</b>	

Attach: Appendix A – Sources of Financing

c: Peter McAllister, P.Eng. PMP; AECOM Canada  
Jennifer Benedict, Canadian Pacific Railway