

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JANUARY 8, 2019
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	ADELAIDE STREET NORTH / CANADIAN PACIFIC RAILWAY GRADE SEPARATION DETAILED DESIGN & TENDERING APPOINTMENT OF CONSULTING ENGINEER

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineer for the Adelaide Street North at Canadian Pacific Rail Grade Separation from McMahan Street to Central Avenue:

- (a) WSP Group **BE APPOINTED** Consulting Engineers for the detailed design and tendering at an upset amount of \$2,439,814 (excluding HST) in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;
- (b) the financing for this appointment **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix A;
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this appointment;
- (d) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work; and,
- (e) 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
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- Environment and Transportation Committee – November 28, 2005 – Priority Setting Factors for Future Rail / Road Grade Separations
- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Civic Works Committee – October 28, 2013 – Adelaide Street North / Canadian Pacific Railway Grade Separation Report
- Strategic Priorities and Policy Committee – June 23, 2014 – Approval of 2014 Development Charges By-Law and DC Background Study
- Civic Works Committee – January 5, 2016 – Environmental Assessment Appointment of Consulting Engineer
- Civic Works Committee – December 12, 2016 – Environmental Assessment Update
- Civic Works Committee – September 26, 2017 – Transport Canada Grade Crossing Regulations and Railway Funding Application

- Civic Works Committee – May 28, 2018 – Railway Rationalization
- Civic Works Committee – August 13, 2018 – Environmental Study Report

2015-19 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of *Building a Sustainable City* by implementing and enhancing safe and convenient mobility choices for transit, automobile users, pedestrians, and cyclists. A new road-rail grade separation on Adelaide Street North at the Canadian Pacific Railway (CPR) tracks will increase roadway safety by removing the potential for conflict between pedestrians, cyclists, drivers and CPR operations, improve traffic flow / operations by managing congestion and provide route reliability for emergency services and local transit. The grade separation provides an opportunity to improve active transportation choices / facilities and linkages. The implementation of the grade separation a strategic component of London's comprehensive program of transportation improvements. is one of a strategic program of transportation network improvements.

BACKGROUND

Purpose

This report seeks the approval of the Municipal Council to retain an engineering consultant to complete the detailed design and tendering for the Adelaide Street North at CPR Grade Separation from McMahan Street to Central Avenue.

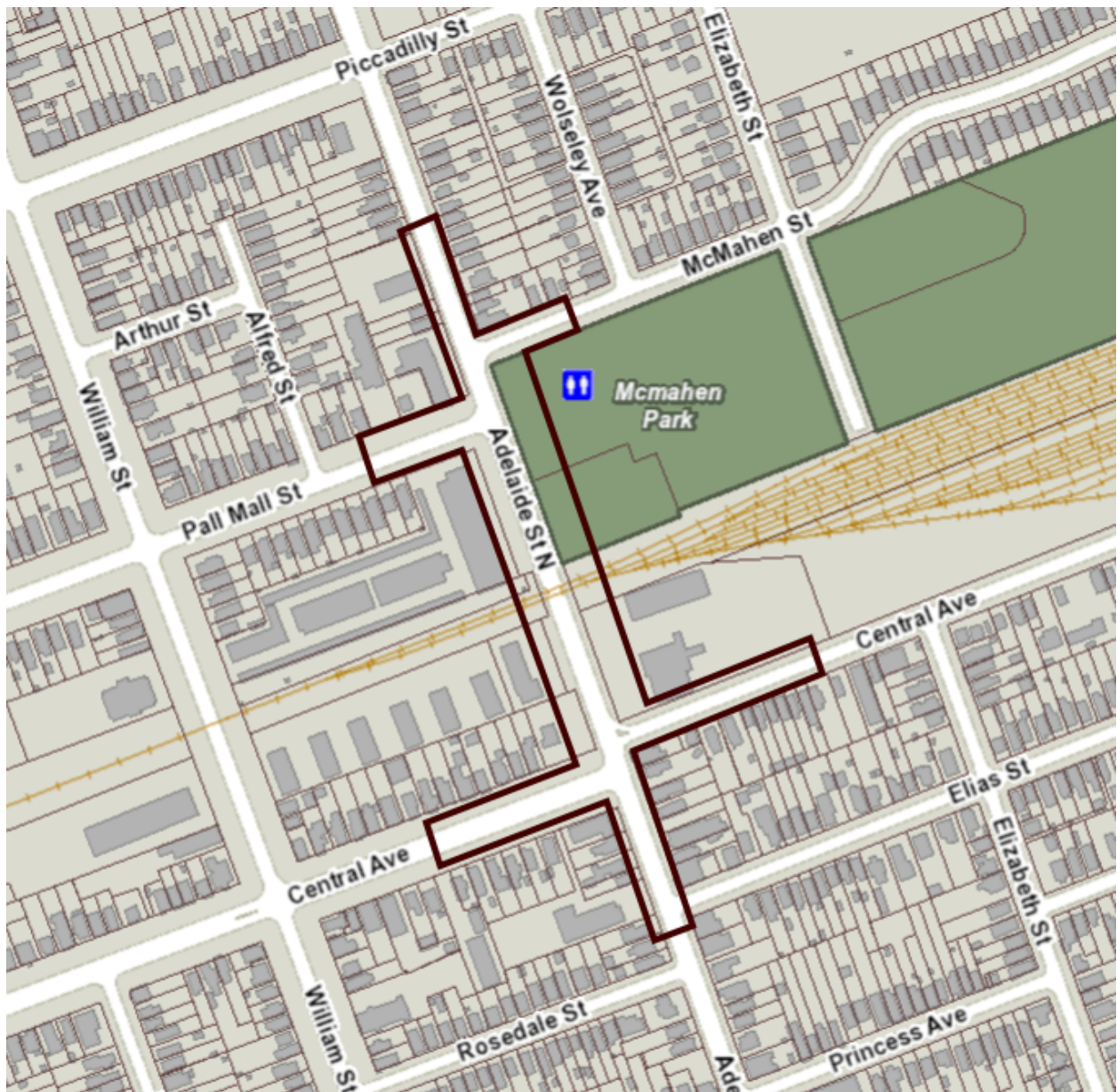
Context

Adelaide Street is a major transportation corridor designed to carry high volumes of traffic. Improvements to the subject section will accommodate pedestrians, cyclists and vehicular traffic in a safe and efficient manner and improve mobility within the surrounding community.

An Environmental Study Report (ESR), the result of a comprehensive environmental Assessment (EA) for Adelaide Street North at CPR was completed in October 2018. The CPR crossing of Adelaide Street North has previously been identified as the City's highest priority candidate for a new rail-road grade separation. The crossing, located on Mile 113.73 of CPR's Galt Subdivision, comprises two tracks across Adelaide Street North, which reduces to a single-track west of Adelaide Street North. The Galt Subdivision is a critical route for CPR's service to Canada and US customers, including local customers in the London area. CPR's rail yard operates to the east of Adelaide Street North and functions as a primary train assembly point (including shunting operations) and crew hub.

The Adelaide Street North / CPR Grade Separation project was identified in the 2014 Transportation Development Charges Background Study with a recommendation for construction in 2031. Due to the area's strategic location, the Smart Moves 2030 Transportation Master Plan (TMP) also identifies the need for traffic capacity optimization and transit priority on this corridor. The project timing was subsequently adjusted in the 2018 capital budget update for near-term implementation. The amendment considered the fastest possible project implementation with construction beginning as early as 2021, subject to EA clearance, utility relocations, property acquisition and railway concurrence.

See below for a map illustrating the project limits.



Adelaide Street North – CPR Grade Separation Project Limits

DISCUSSION

Project Description

This is a large complex project involving numerous property acquisitions, utility relocations and approvals. The proximity of the grade separation to CPR yard and the hydrogeological site characteristics provide unique challenges for both design and construction of this project. The cost for the the Adelaide Street North at CPR Grade Separation from McMahon Street to Central Avenue is estimated at approximately \$58.3 Million. The cost estimate includes roadway construction, the railway grade separation, storm water management and pumping station, street lighting and signalization, utility relocation, landscaping, traffic control, sanitary sewers, watermain, staging and property acquisitions. Cost sharing is anticipated with Canadian Pacific Railway at 15% of the total project cost. The cost estimate is within the approved 2018 capital budget amendment case.

A two lane temporary road detour is proposed on this project to reduce the social impacts and maintain north-south traffic, including emergency services during construction, with the exception of short-term road closures. The details of the road

detour are subject to further review with CPR during the detailed design phase with consideration of encroachment into the yard and viability of rail yard infrastructure.

The Municipal Class EA process includes an appeal provision to change the status of a project from being subject to the Municipal Class EA process to being subject to an Individual Environmental Assessment as per Part II of the Ontario Environmental Assessment Act. A Part II Order request requires submission of a written request to the Minister of the Environment and Climate Change outlining the unresolved issue and requesting the Minister to review the matter. No Part II Orders were received during the 30 day review period.

The project schedule envisions the CPR bridge construction commencing in 2021 with early works such as utility relocations being completed as early as 2020. The award of the design at this time aims to maintain this project schedule.

The primary deliverables from this detailed design assignment include field investigations, design, approvals, contract preparation, property acquisition support, supporting studies and traffic assessment. Particular focus areas for the assignment include:

- Detail Design
 - CPR underpass structure and road design
 - pumping station
 - stormwater/groundwater management and underground stormwater detention facility
 - sanitary sewer, storm sewers and watermain relocations/improvements
 - street lighting and signalization upgrades
 - streetscaping
 - traffic management, road detour and staging plan
 - prequalification of contract
 - cost estimates
 - community engagement/communications plan
- Design Co-ordination
 - Utility Coordinating Committee (UCC) liaison
 - Agency approvals including CPR
- Geotechnical/Hydrogeological Assessment
- Property acquisition support
- Preparation of the complete tender package, including advertisement, review of the submitted tenders for completeness, and contractor recommendation.

Streetscape Design

Community input was vital to the development of the streetscape concept plan. Input received throughout the EA study and directly from the community associations and Old East Village BIA was important to the process of confirming design objectives, priorities and preferences and developing the concept design.

The streetscape concept was prepared based on the following principles:

- integrate the grade separation visually into the surrounding neighbourhood;
- minimize impacts to buildings, property and businesses;
- create a pedestrian-friendly streetscape; establish and maintain pedestrian and cycling connections between destinations across and along Adelaide Street North;

- frame and enhance the new bridge through aesthetic treatments that provide a visual amenity to the community;
- create opportunities for neighbourhood identity features and reference heritage architectural styles and patterns; and,
- identify opportunities for new and enhanced public spaces.

Schedule

Construction of this project is predominantly planned to take place in 2021/2022 with commencement of the early works such as utility relocations required in 2020 to facilitate the improvements. The project schedule is subject to property acquisition, utility relocations and railway concurrence.

Due to the complexity of the project, the construction duration is expected to be approximately two years. The majority of the underpass construction can be completed while traffic is routed around the construction area via the temporary road detour. Construction timing, duration, staging and traffic management will be fully developed during the detailed design phase. It is anticipated that some construction activities will require short-term periodic lane closures or temporary lane reductions, for example:

- Relocation and installation of utilities and municipal services will involve short-term closures or lane reductions to through-traffic. A number of closures will be required at intersections to complete utility crossings.
- Modifications to rail infrastructure will involve short-term closures of Adelaide Street North (possibly restricted to weekend closures).
- Longer closures / lane reductions to traffic will occur with the lowering of Adelaide Street North to match the underpass road profile. Ideally this work will be planned during a single 4 to 6 week closure period on Adelaide Street North. Local street traffic and walk-in access to businesses can likely continue via local streets during this period.
- Once Adelaide Street North is lowered, it will be reopened to traffic. Local streets will then be lowered to match the new grade.

The design and approvals of the proposed improvement project will include property acquisition requirements, and thorough agency review and coordination such as CPR and Ministry of Environment, Conservation and Parks.

Consultant Selection

WSP was previously awarded the environmental assessment assignment through a competitive process involving proposal submissions received for this complex project from three consultants, in accordance with the City's Procurement of Goods and Services Policy 15.2 (d). The process, which included a Request for Proposal (RFP), identified the selected consultant from a short list of engineering consultants based on evaluations from an inclusive City project team.

Due to the consultant's knowledge, strong railway grade separation expertise and positive performance on the project, the consultant was invited to submit a proposal to carry out the detailed design and tendering. 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 noting the unique complexities of this assignment.

The continued use of WSP on this project for detailed design 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 introduced. The continued coordination of CPR railway works that WSP began during the EA phase is important. The approval of this work will bring the value of the overall consulting assignment to \$2,829,195.50 (excluding HST). The consultant will be considered for future construction administration services subject to successful completion of this project phase.

In accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy, Civic Administration is recommending that WSP be authorized to carry out the detailed design and tendering of this project for a fee estimate \$2,439,814 (excluding HST). This represents approximately 6% of the estimated construction value of the project which is considered appropriate for a project of this complexity and magnitude.

CONCLUSION

Implementation of the City’s highest priority grade separation at Adelaide Street North and CPR is a strategic component of London’s comprehensive program of transportation improvements that will mitigate the impact of rail activity in the City of London.

The EA for the Adelaide Street North at CPR Grade Separation from McMahan Street to Central Avenue was completed by WSP. The EA was prepared with input from residents, external agencies, utilities, emergency service providers, community and other stakeholders, as well as First Nations and property owners in proximity to the study.

It is recommended that WSP be awarded the consulting assignment for the detailed design and tendering of the Adelaide Street North at CPR Grade Separation from McMahan Street to Central Avenue, in the amount of \$2,439,814.00 (excluding HST).

Acknowledgements

This report was prepared with the assistance of Ardian Spahiu, P.Eng, Transportation Design Engineer , Ted Koza, P.Eng, Transportation Design Engineer and Josh Ackworth, C.E.T., Technologist II.

SUBMITTED BY:	RECOMMENDED BY:
DOUG MACRAE, P.ENG., MPA DIRECTOR ROADS AND TRANSPORTATION	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER

Attachment: Appendix A – Source of Financing

- cc. Domenica D’Amico – WSP Group
- Jennifer Benedict – Canadian Pacific Railway