
Subject: Cost Sharing Commitment – Regional Road 89 (Glendale Avenue) at QEW Interchange

Report to: Public Works Committee

Report date: Tuesday, June 15, 2021

Recommendations

1. That the commitment to Cost Sharing with the Ministry of Transportation Ontario (MTO) and the Niagara Region, for MTO Design Build 2019-2119 QEW / Glendale Avenue Diverging Diamond Interchange; New Glendale Avenue / York Road Roundabout; New Airport Road Loop Ramp and Connection Road; Central Region in the amount of \$15,521,489.67 (including 13% HST) **BE APPROVED**;
2. That the CAO **BE AUTHORIZED** to sign a cost-sharing agreement with the MTO reflective of the Region's required works;
3. That the Gross Budget for – Regional Road 89 (Glendale Avenue) at QEW: Diverging Diamond Interchange **BE INCREASED** by \$7,095,808 and that the increase **BE FUNDED** as follows:
 - \$5,742,249 – Development Charges – Roads
 - \$1,013,338 – Capital Variance – Levy Project
 - \$340,221 – Municipal Cost Sharing – Town of Niagara-on-the-Lake

Key Facts

- The purpose of this report is to seek Council's commitment to cost sharing the Niagara Region's construction portion of the MTO contract DB 2019-2119, and approval of an increase to the budget for capital project 10RC1554 (Glendale Ave Interchange @ QEW) for the total portion of the Niagara Region's share of the project.
- The project was undertaken by the MTO as a result of a Transportation Environmental Study Report (TESR) completed in 2018 to address the current state of the interchange. As the MTO TESR was addressing the capacity and operational needs within the area, it made sense for the Region to partner with the MTO on the TMP approved initiative to extend Glendale Avenue North to Queenston Road through the existing sensitive habitat/woodlot.

- Timing is critical on this project to ensure alignment with all stakeholders. This interchange is planned to be completed prior to the 2022 Summer Games.
- The project consists of the following major items (responsible partner)
 - Reconstruct the QEW/Glendale Avenue Interchange to a Diverging Diamond Interchange (MTO);
 - Reconstruct the Glendale Avenue/York Road Intersection to a single-lane roundabout with Channelization (Niagara Region);
 - Construct a new Airport Road loop ramp, bridge structure and connection road from Glendale Avenue to York Road/Airport Road Intersection (Niagara Region);
 - Construct a new commuter carpool lot at the northwest quadrant of the Interchange (MTO);
 - Rehabilitate the pavement on the QEW East Bound and West Bound lanes between the east end of Garden City Skyway bridge and QEW/Highway 405 split (~3.0km) (MTO);
 - Extend the right-hand turning lane of Glendale Avenue between Taylor Road and Niagara-on-the-Green Boulevard (Niagara Region).
- As the initial cost estimate was based on the EA Preliminary Design, the project cost increase is due to the advancement of the design components.
- Confidential PW 30-2021 accompanies this report is included in June 15 agenda package.

Financial Considerations

In previous budget cycles, Council approved a budget for 10RC1554 (Glendale Ave Interchange @ QEW) of \$1,000,000 to complete the EA and Preliminary Design. In 2019 and 2020 Budgets, Council further approved an additional \$7,000,000 for Detailed Design and Construction, based on the EA Preliminary Design Estimate.

As the initial cost estimate was based on the EA Preliminary Design, the project cost increase is due to the advancement of the design components. Changes to the RR90 (Airport Road) loop ramp and bridge structure (soils/drainage/layout), utility relocates, property acquisition, traffic signal construction at Regional Road 101 (Mountain Road) and Regional Road 70 (Taylor Road), addition of the right-hand turning lane extension of Regional Road 89 (Glendale Avenue) between RR70 (Taylor Road) and Niagara-on-

the-Green Boulevard, contract administration, inspection, testing, internal staff time (Engineering & Operations), additional work requested by the Town of Niagara-on-the-Lake, and a contingency allowance as the Design-Build is at 30% when awarded to a proponent. Project Cost Allocations during the stages of the Project can be seen in Table 1 – Cost Allocations.

Table 1 - Cost Allocations*

Project Timeline	Cost Allocation Project Stage	Ministry of Transportation Contribution – Construction Costs	Niagara Region and NOTL Contribution - Construction Costs	Niagara Region and NOTL Contribution – Other Costs**
2018	EA / Pre-Design	\$20,000,000	\$6,100,000	
2019	Peer Review / Pre-30% Design	\$39,125,000	\$8,875,000	
2020	30% Design at DB-RFP Close	\$42,463,900	\$11,130,500	\$3,704,400

*Does not include HST

**Other costs include: Town decorative upgrades; Right-hand Turn Lane extension RR89; Property Acquisitions; Utility Relocates; Contract Administration/Inspection and Construction Testing; Niagara Region Staff Time and Mileage; Project Contingency and Traffic Signal at RR101 and RR70.

Upon completion of the 30% design for the project, the MTO provided a revised cost estimate which reflects changes to the design including the decorative upgrades requested by the Town and the addition of the following works: right hand turn lane on RR89 (Glendale Avenue) as well as, construction of the traffic signal at RR101 (Mountain Road) & RR70 (Taylor Road), utility relocates, property acquisition, contract administration and inspection, construction testing, staff time and project contingency.

With the award of the Design-Build contract led by the MTO, Regional costs including the items listed above have been finalized to an overall project budget to \$15,095,808.43 (including 1.76% non-recoverable HST).

The Town of Niagara-on-the-Lake is a cost sharing partner through the Region on this project and has a total cost sharing contribution of \$340,221.08 (including 1.76% non-recoverable HST).

Staff had forecasted a budget increase for the additional project costs in the 2021 Capital Budget (Regional Construction costs \$12.8M & \$3.4M Regional Other costs); however, the MTO led RFP had not been awarded in time based on internal deadlines for the 2021 Region's budget cycle and as a result the Region's costs could not be confirmed with certainty for inclusion in the budget. It is now before Public Works Committee and Council for approval as MTO's contract has been awarded and the Regional cost share has been confirmed. The Capital Variance – Levy Project currently has an uncommitted balance of approximately \$3,400,000 at May 18, 2021 and the Development Charges – Roads has a projected uncommitted balance of \$27,000,000 at December 31, 2021 before this adjustment.

A full budget breakdown can be found in Appendix 2 Total Estimated Project Cost.

Analysis

- This project is directed towards creating a safe and convenient crossing within the Glendale community that is currently serviced by just one overpass. This aligns with and supports the planning work under the Glendale District Plan.
- This project will address existing capacity, operational, and geometric deficiencies at the QEW and Glendale Ave Interchange and aligning with the Region's needs identified in the Transportation Master Plan (TMP). The implementation of an Active Transportation linkage; identified in the Bikeways Master Plan; will also be part of this project offering connectivity within the Glendale District.
- Through the MTO EA process, the Region's Glendale North extension was evaluated and resulted in another viable option for the Diverging Diamond interchange with a loop ramp to Airport Road and a roundabout at the Glendale Avenue/York Road intersection. (PW 28-2018 Glendale QEW Proponency with MTO)
- Utilizing the MTO's TESR process, MTO created a public Request for Proposal process to complete the design to 30% and prepare documentation for the Design-Build Expression of Interest with the result that the Design Build Request was undertaken by MTO.
- With the MTO electing to complete this project as a Design Build (DB) it subsequently advances the schedule moving the entire project from EA to construction within an approximate 2-3 year time frame. Transportation projects typically do not follow the DB process, and are staged and constructed once the EA,

property, utility relocations and design are 100% complete. The request to increase the construction budget is similar to how Transportation would seek additional funding across multiple Budget Cycles. Both Niagara Region staff and MTO received estimates that indicated that the cost to Niagara Region would exceed previously approved capital budgets. As a matter of timing, although an estimate was included as part of the 2021 internal capital budget process, the final amount needed was unknown when the internal capital budget process closed and as a result wasn't brought forward to Council for approval as part of the process.

- The MTO initiated a Design Build Expression of Interest which utilized the 30% design for this project. This resulted in 3 successful proponents advancing to the Design Build Request for Proposal 2019-2119. The Design Build RFP contract was successfully awarded in August 2020 to Brennan Paving and Construction Ltd., with their design team supporting them on this project being Morrison Hershfield.
- This project is being led by MTO in collaboration with Transportation Services and the Town of Niagara-on-the-Lake.
- The Town of Niagara-On-The-Lake is a cost sharing partner in this project, and have a total contribution of \$340,221.08 (including 1.76% non-recoverable HST) related to the construction of upgraded landscaping within the roundabout at Regional Road 89 (Glendale Avenue) and Regional Road 81 (York Road). The full scope of the Town's work includes the following: planting, electrical and irrigation as well as decorative illumination upgrades on Regional Road 89 from the east leg of the signalized intersection of RR89 (Glendale Avenue) and RR70 (Taylor Road) through the limits of the roundabout at RR81 (York Road) and RR89 (Glendale Avenue), including the new RR90 (Airport Road) loop ramp. This work was approved by Niagara-on-the-Lake Council at their April 14, 2020 meeting. (Report OPS-20-014 Regional Streetscape Enhancements – Glendale Avenue and York Road)
- Cost sharing with the Town of Niagara-on-the-Lake has been agreed to. Staff will prepare the necessary agreement including the estimated cost share amounts and payment schedules.

Alternatives Reviewed

Eliminating all or part of this project is not recommended by Staff. The Glendale Ave Interchange Replacement project is being led by the MTO. At this time, MTO requires a funding commitment from the Region to partner and deliver the Region's Transportation

Master Plan initiatives. (Confidential PW 30-2021 Cost Sharing Commitment – Regional Road 89 (Glendale Avenue) at QEW Interchange).

The Town of Niagara-on-the-Lake is also depending on the Region's partnership to carry cost sharing funds in this contract which are mutually beneficial and contingent on the additional funds being approved.

Delaying the commitment to the work will negatively affect the road condition as deterioration will continue. Capacity issues will increase as volumes increase and connectivity between the project elements will cause a multitude of issues both during construction and after. Per Council direction from PWC 28-2018 and previous budget approvals, Niagara Region has been working with the MTO to advance the design process.

Relationship to Council Strategic Priorities

This recommendation relates to the Responsible Growth and Infrastructure Planning strategic priority since the planned upgrades will ensure reliable and effective transportation modes including an inter-connection of various types of transportation.

Other Pertinent Reports

PW 28-2018 Glendale Avenue/QEW Proponency with MTO.

Confidential PW 30-2021 Cost Sharing Commitment – Regional Road 89 (Glendale Avenue) at QEW Interchange

Prepared by:

Stephanie Huppunen, C.E.T.
Manager, Capital Projects
Transportation Engineering
Public Works Department

Recommended by:

Bruce Zvaniga, P.Eng.
Commissioner of Public Works (Interim)
Public Works Department

Submitted by:

Ron Tripp, P.Eng.

Acting Chief Administrative Officer

This report was prepared in consultation with Frank Tassone, Associate Director Transportation Engineering, Dan Ane Manager, Program Financial Support, Sterling Wood, Legal Counsel and reviewed by Carolyn Ryall, Director Transportation Services.

Appendices

Appendix 1 Key Plan

Appendix 2 Total Estimated Project Cost

Appendix 3 PW 28-2018 Glendale QEW Proponency With MTO

Appendix 4 OPS-20-014 Regional Streetscape Enhancements – Glendale Avenue
and York Road (Niagara-on-the-Lake Report)