

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

**QEW Interchange** 

**Report to:** Public Works Committee **Report date:** Tuesday, June 15, 2021

## Recommendations

- 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.

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- 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<br>Timeline | Cost Allocation Project Stage   | Ministry of Transportation Contribution – Construction Costs | Niagara Region<br>and NOTL<br>Contribution -<br>Construction<br>Costs | Niagara Region and NOTL Contribution – Other Costs** |
|---------------------|---------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------|
| 2018                | EA / Pre-Design                 | \$20,000,000                                                 | \$6,100,000                                                           |                                                      |
| 2019                | Peer Review /<br>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                                          |

<sup>\*</sup>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,

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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 \_\_\_\_\_\_

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## 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.

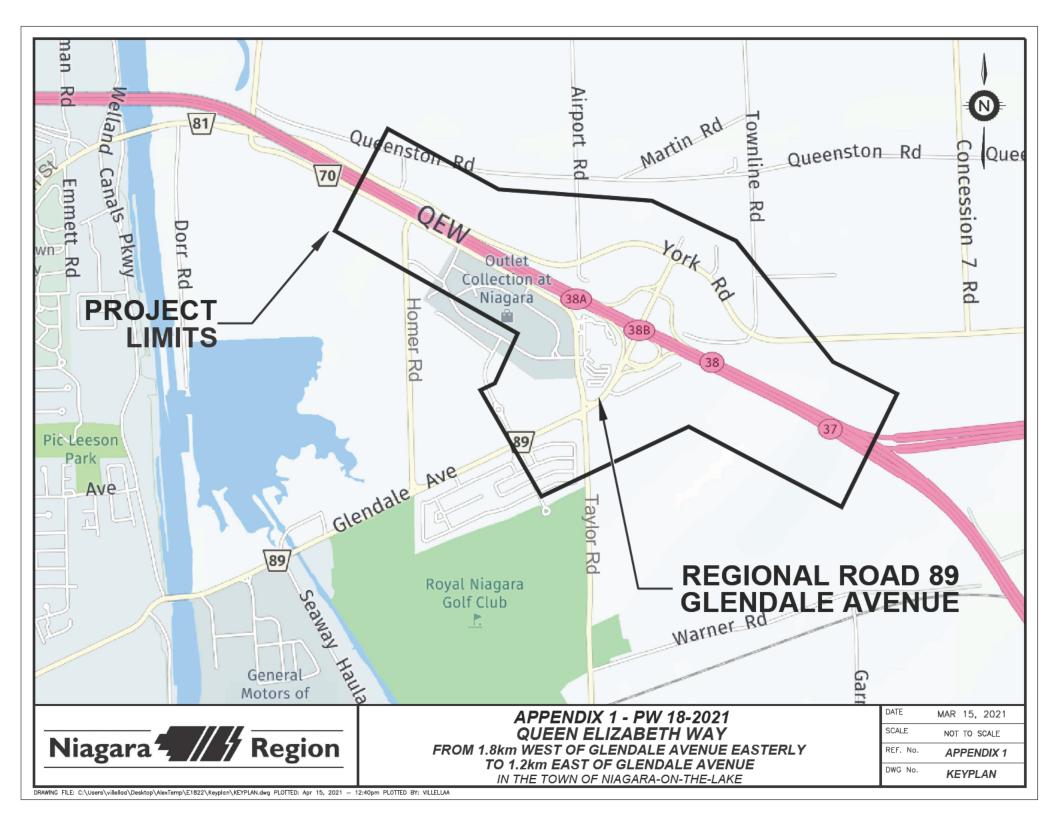
## **Appendices**

Appendix 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)



## PW 18-2021 APPENDIX 2

## Total Estimated Project Cost 30% Design-Build Cost at RFP Award

2019-2119 - Ministry of Transportation - DESIGN-BUILD MAJOR REQUEST FOR PROPOSALS - QEW/Glendale Avenue Diverging Diamond Interchange;
New Glendale Avenue/York Road Roundabout; New Airport Road Loop Ramp and Connection Road - Central Region

| Total Estimated Project Cost (10RC1554)* (Glendale Ave Interchange @ QEW) | Council<br>Approved<br>Budget | Budget<br>Increase/<br>Reallocation | Revised<br>Council<br>Approved<br>Budget | Expended & Committed as of March 18, 2021 | Contract<br>Award/<br>Forecast | Budget<br>Remaining   |
|---------------------------------------------------------------------------|-------------------------------|-------------------------------------|------------------------------------------|-------------------------------------------|--------------------------------|-----------------------|
| Column Code                                                               | (A)                           | (B)                                 | (C) = (A)+(B)                            | (D)                                       | (E)                            | (F) = (C)-(D)-<br>(E) |
| (a) Construction**                                                        |                               |                                     |                                          |                                           |                                |                       |
| i. Regional portion**                                                     | 8,000,000                     | 3,017,006                           | 11,017,006                               | -                                         | 11,017,006                     | -                     |
| ii. Cost Sharing - Town of Niagara-on-the-Lake**                          |                               | 309,292                             | 309,292                                  | -                                         | 309,292                        | -                     |
| (b) Project Contingency                                                   |                               | 1,132,630                           | 1,132,630                                | 76,320                                    | 1,056,310                      | -                     |
| (c) Consulting Engineering Services                                       |                               |                                     |                                          |                                           |                                |                       |
| i. EA & Preliminary Design                                                |                               | 250,431                             | 250,431                                  | 891                                       | 249,541                        | -                     |
| ii. 30% Design                                                            |                               | 362,129                             | 362,129                                  | 31,232                                    | 330,897                        | -                     |
| iii. Contract Administration & Inspection                                 |                               |                                     |                                          |                                           |                                |                       |
| a) Regional portion**                                                     |                               | 875,165                             | 875,165                                  | -                                         | 875,165                        | -                     |
| b) Cost Sharing - Town of Niagara-on-the-Lake**                           |                               | 30,929                              | 30,929                                   | -                                         | 30,929                         | -                     |
| (d) Project Management (In-House) and Operations                          |                               | 305,280                             | 305,280                                  | 60,724                                    | 244,556                        | -                     |
| i. Contract Administration & Inspection (In-House)                        |                               | 101,760                             | 101,760                                  | -                                         | 101,760                        | -                     |
| (e) Traffic Signals and Signs                                             |                               | 407,040                             | 407,040                                  | -                                         | 407,040                        | -                     |
| (f) Property Acquisition                                                  |                               | 152,640                             | 152,640                                  | 320                                       | 152,320                        | -                     |
| (g) Utility Relocation                                                    |                               | 151,506                             | 151,506                                  | 125,634                                   | 25,873                         | -                     |
| Total Estimated Project Cost (10RC1554)                                   | 8,000,000                     | 7,095,808                           | 15,095,808                               | 295,121                                   | 14,800,687                     | -                     |
|                                                                           | 1                             |                                     |                                          |                                           |                                |                       |
| Project Funding Sources (Combined)                                        |                               |                                     |                                          |                                           |                                |                       |
| Reserve-Infrastructure Deficit / Capital Levy                             | (1,125,000)                   | (1,013,338)                         |                                          | 1                                         | (1,013,338)                    | -                     |
| Provincial Grants                                                         | (500,000)                     | -                                   | (500,000)                                | -                                         | (500,000)                      | -                     |
| Development Charges - Roads                                               | (6,375,000)                   | (5,742,249)                         | (12,117,249)                             | (116,892)                                 | (12,000,357)                   | -                     |
| Municipal Cost Sharing - Town of Niagara-on-the-Lake                      | -                             | (340,221)                           | (340,221)                                | -                                         | (340,221)                      | -                     |
| Total Estimated Project Funding Sources (10RC1554)                        | (8,000,000)                   | (7,095,808.4)                       | (15,095,808)                             | (1,241,892)                               | (13,853,916)                   | -                     |

<sup>\*</sup> All costs include 1.76% non-refundable HST.

<sup>\*\*</sup> Total Contract Cost includes both Regional and Municipal cost sharing amounts.

## PW 18-2021 Appendix 3



PW 28-2018 July 17, 2018 Page 1

Subject: Glendale Avenue/QEW Proponency with MTO

**Report to:** Public Works Committee **Report date:** Tuesday, July 17, 2018

## Recommendations

- That an agreement with Ministry of Transportation (MTO) regarding the construction process and costs associated with undertaking the Glendale Avenue/QEW interchange BE ENDORSED.
- 2. That the estimated construction cost of \$4,000,000 associated with the Regional loop ramp to Airport Road (Appendix 1 C3 Concept Plan) as part of the interchange Design Build delivery with DC funding from Project #89.4 (Glendale Avenue interchange) and Project #90.1 (Airport Road Niagara Stone Road to York Road) BE REFERRED for consideration as part of the 2019 capital budget deliberations.
- 3. That the estimated construction cost of \$2,100,000 associated with Glendale Avenue/York Road traffic roundabout (Appendix 1 – C2 Concept Plan) as part of the Design Build delivery with DC funding from Project #89.6 (Glendale Avenue Extension to Queenston Road)) BE REFERRED for consideration as part of the 2019 capital budget deliberations.

## **Key Facts**

- The purpose of the report is to seek Council's endorsement for the proposed Ministry of Transportation (MTO) and Niagara Region co-proponency and associated costs to undertake the Environmental Assessment, Preliminary Design, Detailed Design and Construction related to replacement of the existing Glendale Avenue/QEW interchange with a Diverging Diamond Interchange that includes the Regional infrastructure components of loop ramp to Airport Road and traffic roundabout at existing Glendale Avenue/York Road intersection.
- The proposed Diverging Diamond Interchange and loop ramp to Airport Road design and Glendale Avenue/York Road traffic roundabout has received positive response from the public at a Public Information Centre and local business Stakeholder meetings (April 2018) and the Glendale District Plan Visioning Workshop (June 2018).
- Region staff have undertaken a high level review of both the loop ramp and roundabout alternatives and have confirmed that they will adequately address traffic capacity and operational needs in this area consistent with the findings of the 2017 Transportation Master Plan (TMP).

- The Environmental Assessment and Design expenditures to be undertaken during fiscal years 2018/2019 at a cost of \$246,100 with identified funding in project 10RC1554.
- The final Transportation Environment Study Report (TESR) will provide the necessary Environmental approvals for both the MTO and Niagara Region to continue into a Design/Build project that allows for the interchange improvements to be constructed by 2021.
- MTO has indicated that the interchange construction and Regional loop ramp to Airport Road cannot be a staged construction process where the loop ramp is constructed outside the proposed Design/Build Delivery timeframe due to extensive traffic and business disruption, public concern of reconstruction activities at a recently constructed facility, significant costs associated with traffic management/detours associated with staged construction.
- MTO has indicated that EA approval and detailed design for the proposed traffic roundabout at Glendale Avenue/York Road intersection will be delivered as part of the Design/Build Contract but that the traffic roundabout does not have to be constructed as part of the interchange Design/Build delivery construction program pending completion of the Glendale District Plan.

#### **Financial Considerations**

The MTO EA and Preliminary Design work is recommending that the existing interchange configuration be reconstructed as a Diverging Diamond Interchange design with a new bridge structure that addresses the vehicle demands, provides for safe pedestrian and cycle crossing of QEW, provides access to a Park and Ride facility and possibly a relocated Ontario Tourist Information Centre. The estimated cost of the MTO interchange improvements is \$20,000,000, excluding Regional infrastructure costs.

At the request of Niagara Region, the MTO EA process evaluated alternatives that would relieve the existing and future congestion at the Glendale Avenue / York Road intersection as well as provide alternatives to the Region constructing a future Glendale Avenue extension from York Road to Queenston Road. The Glendale Avenue extension was recommended in the Transportation Master Plan and the DC Bylaw included Project #89.6 – Glendale Avenue Extension with a cost of \$13,700,000. The MTO EA study indicated that the Diverging Diamond interchange with a loop ramp to Airport Road and a traffic roundabout at the Glendale Avenue/York Road intersection will address future traffic demands and that there would not be a requirement for the Glendale Avenue extension and the associated capital cost of approximately \$13,700,000. As a result of the proposed design changes, the budget required for this project will be reduced by \$7,600,000 (Table 1) from original budget forecast.

## <u>Table 1 – Budget Savings</u>

|                                   | Original Forecasted | Proposed 2019 | Budget Expense |
|-----------------------------------|---------------------|---------------|----------------|
|                                   | Budget              | Budget        | (Savings)      |
| Glendale Ave Extension            | 13,700,000          |               | (13,700,000)   |
| Loop Ramp to Airport Road         |                     | 4,000,000     | 4,000,000      |
| Glendale Ave/York Road Roundabout |                     | 2,100,000     | 2,100,000      |
|                                   | 13,700,000          | 6,100,000     | (7,600,000)    |

The MTO EA study has indicated that the loop ramp to Airport Road must be constructed as part of the interchange Design/Build contract as they will not consider the staging of constructing of the loop ramp to a time beyond the 2021 construction time frame.

The financial risk to Niagara Region of not including the loop ramp to Airport Road as part of the MTO interchange Design/Build contract includes:

- Construction of the loop ramp to Airport Road outside of the MTO Design/Build contract will result significant costs over the current construction cost estimate of \$4,000,000 due to construction staging, traffic detours and business disruption; or,
- Requirement that the Region construct the Glendale Avenue extension to Queenston Road at a significant cost (approximately \$14,000,000) in the longer term.

## **Analysis**

The MTO EA study included the following list of key considerations in the development and evaluation of possible interchange designs:

- Traffic demands and operations
- Traffic queues along QEW corridor
- Active Transportation opportunities
- Commuter lot provision and Ontario Travel Information Centre (OTIC) relocation
- Environmental and Social Impacts
- Gateway enhancement opportunities
- Cost and maintenance considerations of interchange design

The interchange evaluation process recommended the Diverging Diamond Interchange design as the preferred design as this design best meets the following objectives:

- Eliminates left-turn queuing and conflict points for QEW Toronto bound movements
- Reduces vehicle conflict points within interchange from 26 to 14
- Results in a very good operating Level of Service at QEW off-ramps

- Accommodates safe passage of cyclist and pedestrian traffic through the interchange
- Accommodates the relocation of the OTIC relocation
- Provides access to proposed carpool lot
- Provides a gateway and improved access to Niagara on the Lake
- Maintains good spacing for QEW traffic between the Glendale Avenue and Highway 405 interchanges

The Diverging Diamond Interchange with a loop ramp to Airport Road and a traffic roundabout at Glendale Avenue/York Road can be accommodated as part of the design and construction process to address future traffic demands and delay and possibly defer the long term need for the proposed Glendale Avenue extension to Queenston Road.

#### **Alternatives Reviewed**

The MTO EA Study identified the following alternatives as part of the Interchange evaluation process:

- Construct Diverging Diamond Interchange without improvements to Glendale Avenue/York Road intersection – Concept C1
- Construct Diverging Diamond Interchange with traffic roundabout at intersection of Glendale Avenue/York Road intersection – Concept C2
- Construct Diverging Diamond Interchange with loop ramp connecting to Airport Road

  — Concept C3
- Construct Diverging Diamond Interchange with loop ramp connecting to Airport Road

  — Concept C3 and traffic roundabout at intersection of Glendale Avenue/York Road intersection — Concept C2

The alternative review and assessment process indicated that the best value to Niagara Region is to:

- Undertake a joint EA proponency to obtain EA approvals for both the loop ramp to Airport Road and the Glendale Avenue/York Road traffic roundabout;
- Prepare preliminary and detailed designs for both Regional infrastructure components; and
- Construct loop ramp to Airport Road and Glendale Avenue/York Road traffic roundabout as part of the MTO contract

The analysis also included a review of possible staging of construction of MTO and Regional infrastructure projects including constructability, public acceptance, traffic detours impacts and costs.

This analysis indicated that the loop ramp to Airport Road must be constructed as part of the interchange Design/Build contract. However the traffic roundabout could be

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constructed as a separate project from the interchange design project beyond the 2021 timeframe if it is not included in the MTO construction contract.

## **Relationship to Council Strategic Priorities**

The proposed construction of the Glendale Avenue/QEW Diverging Diamond Interchange and the associated Niagara Region improvements for a loop ramp to Airport Road and a traffic roundabout at Glendale Avenue/York Road intersection will address the transportation infrastructure requirements to address existing traffic operational issues, provide improved pedestrian and cycling access across the QEW, provide infrastructure capacity to accommodate planned residential and employment growth being considered as part of Glendale District Plan and provide a Gateway to Niagara-on-the-Lake.

This initiative is tied to Council's Strategic Priorities 1, 2 and 5, 'Moving People and Goods', 'Fostering Innovation, Investment and Entrepreneurship' and 'Doing Business Differently'.

## **Other Pertinent Reports**

https://www.niagararegion.ca/2041/transportation-master-plan/default.aspx

PW 18-2018, April 3, 2018 – EA and Preliminary Design – QEW/Glendale Avenue Interchange

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Prepared by:

Carolyn Ryall Director, Transportation Services Division Public Works Department Recommended by:

Ron Tripp, P.Eng. Commissioner Public Works Department

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Submitted by:

Carmelo D'Angelo, BSc, MPA Chief Administrative Officer

This report was prepared in consultation with Jack Thompson, Transportation Lead Strategic Initiatives & Project, Beth Brens, Manager Program Financial Support

## **Appendices**

Appendix 1 MTO Preliminary / Draft Conceptual Alternatives – Diverging Diamond Interchange with York Road Roundabout (DWG C2)

MTO Preliminary / Draft Conceptual Alternatives – Diverging Diamond Interchange with Airport Road Connection (DWG C3)

Appendix 2 MTO Presentation – April 3, 2018 EA and preliminary Design – QEW/Glendale Avenue Interchange



Operations Telephone (905) 468-3266 Facsimile (905) 468-2959 Niagara-On-The-Lake

1593 Four Mike Creek Road P.O. Box 190 Virgil, Ontario L0S 1T0

Report: OPS-20-014 Committee Date:

Due in Council: April 14, 2020

Report To: Lord Mayor and Council

Subject: Regional Streetscape Enhancements - Glendale Avenue and York Road

#### 1. RECOMMENDATION

It is respectfully recommended that:

- 1.1 Council approve the recommendation to move forward with the proposed Regional Road enhancements of Glendale Avenue and York Road area tentatively scheduled from 2020 to 2023 and advise the Region accordingly;
- 1.2 Council approve the recommendation that the Director of Corporate Services prepare a subsequent report on a funding model that debentures the expected costs, estimated at \$334,336.75 (plus applicable taxes), without impact to the current capital budget program.

## 2. PURPOSE / PROPOSAL

To secure Councils approval to fund proposed enhancements of Glendale Avenue (Regional Road 89) and York Road (Regional Road 81) area.

#### 3. BACKGROUND

The Region of Niagara is proposing to reconstruct the intersection of Glendale Avenue and York Road in co-ordination with the MTO replacement of the Glendale overpass between 2020 and 2023.

The Town received the attached funding request letter and updated and corrected estimate on March 24 and 27, 2020 respectively showing the proposed enhancements being proposed and the cost sharing required by the Town.

Also find attached preliminary design drawings showing a general view of the Regional intersection and typical picture of the proposed enhanced street light being proposed.

#### 4. DISCUSSION / ANALYSIS

While completing these enhancements will certainly be visually appealing, they come at a significant cost to the Town on a right of way that the Town does not own.

The assets that the Town currently owns and would become Regionally owned and

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maintained in the future would be the street lights, which the Town would be paying for to provide the required enhancements (decorative black poles and bases).

The new assets that the Town would own and be required to maintain would be the landscaping and irrigation features.

#### 5. STRATEGIC PLAN

N/A

#### 6. OPTIONS

- 1. Council approve the recommendation of all proposed enhancements;
- 2. Council not approve any of the proposed enhancements;
- 3. Council approve certain portions of the enhancements.

#### 7. FINANCIAL IMPLICATIONS

In discussions with the Director of Corporate Services, none of the Towns current capital budgets or reserves can support this type of request.

The Director of Corporate Services has recommended that if these enhancements are completed, they would have to be debentured over several years.

Working with the Regions estimates provided, the Town has broken the proposed work to be completed into (2) categories with an estimated total cost of each as shown;

| Landscaping & Irrigation Enhancements - | \$73,147.25 (plus applicable taxes)  |
|-----------------------------------------|--------------------------------------|
| Street Lighting Enhancements -          | \$261,189.50 (plus applicable taxes) |

## **Total -** \$334,336.50 (plus applicable taxes)

Any proposed debentures could be supported and paid through the following areas based on the above cost breakdowns;

**Landscaping and Irrigation Enhancements:** raise sections of the current parks and recreation operating budget annually.

**Street lighting:** raise the current annual street lighting base rate for all residents.

In addition, the operating costs to maintain the landscaping enhancements added in this project will exceed the current budget resources allocated in the 2020 Operating budget.

Parks and Recreation staff will propose an increase required to maintain plantings and irrigation system for consideration to the Audit committee in the year of installation.

The Region currently has a Public Realm Investment Program (PRIP) that offers grants to municipalities for enhanced features such as these.

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This grant program has a maximum of limit of \$100,000 for a municipal project a year with a matching municipal amount required.

Applications are submitted in the spring of the year the project is completed, therefore confirmation of maximum grant allowance cannot be guaranteed at this time and as such the Town will need to approve recommendations of the full required amounts at this time.

#### 8. COMMUNICATIONS

Upon approval of this report, the Region will be advised of Councils recommendations.

#### 9. CONCLUSION

Working with the Region to complete these enhancements in the Glendale area will create a visually enhanced streetscape, but will come at significant cost and increase in various budgets to finance the proposed debentures over several years.

Respectfully submitted,

Jeffrey Vyse, C.S.T.

**Manager of Public Works** 

Kevin Turcotte
Director of Operations (A)/

Manager of Parks & Recreation

Sheldon Randall
Chief Administrative Officer (I)

**ATTACHMENTS** 

2020-03-24 30.Region.Let.Cost.sharing.NOTL.pdf 2020-03-27.Region.Estimate.Updated.Cost.Sharing.NOTL.pdf

Contract Drawings (General-Regional Portion) - 30%-Nov.22.2019.pdf

Powdercoated post arm and decorative collar.pdf

Report: OPS-20-014 Page 3



#### **Public Works**

Transportation

1815 Sir Isaac Brock Way, PO Box 1042, Thorold, ON L2V 4T7 Telephone: 905-980-6000 Toll-free: 1-800-263-7215 Fax: 905-685-0013

www.niagararegion.ca

March 24, 2020

Mr. Kevin Turcotte
Acting Director of Operations
Town of Niagara-on-the-Lake
1593 Four Mile Creek Road, PO Box 100
Virgil, ON LOS 1T0

Dear Mr. Turcotte:

Cost Sharing for 2019-2119 MTO Project Design-Build RFP QEW/Glendale Avenue Diverging Diamond Interchange – 30% Design In the Town of Niagara-on-the-Lake

Our File: O.01.05 77 089 1822

The Design-Build RFP for 2019-2119 MTO project, which the Niagara Region is in partnership with the MTO is currently out for procurement in order to solicit a successful Design-Build Contractor, and closes April 16, 2020. The design is presently at 30%, and includes the construction of a Diverging Diamond Interchange, roundabout, loop ramp, illumination, multi-use pathway and landscaping. The estimate provided thus far is reflective of the works requested by the Town of Niagara-on-the-Lake to the preliminary design stage.

The cost estimate calculated was based on recent tender pricing submitted on other Regional tenders:

\$334,336.75 nes throughout

This cost-sharing breakdown is based on estimated quantities, and will be reviewed at key milestones throughout the project with the Town. The final cost-sharing breakdown will be provided at the completion of the project using actual contract quantities, including any additional works requested by the Town during construction. A copy of the cost sharing breakdown based on the 30% design is attached. The Region will be invoicing the Town of Niagara-on-the-Lake at the end of the project completion which is anticipated to be in December 2023.

At present we are only seeking a commitment from the Town in order to proceed with the proposed streetscaping initiatives; upgraded decorative illumination and traffic signals; upgrades to the roundabout including, plantings, irrigation and electrical. Please review the attached information and confirm the Town's commitment, in writing, by April 3<sup>rd</sup>, 2020, prior to closure of the DB RFP. Should you have any questions or require further information, please contact the undersigned.

Yours truly,

Stephanie Huppunen, C.E.T.

Project Manager - Transportation Engineering

#### Attachments

c. Brian McMahon, Program Financial Analyst; Carolyn Ryall, Director Transportation Services Division; Sheldon Randall, Interim Chief Administrative Officer; Jeff Vyse, Manager of Public Works; Mike Komljenovic, Supervisor of Engineering; Betty Disero, Lord Mayor \\Nrfswrkgrp\pw\_trs\Engineering\Regional Road 89 (NOTL)\E1822 Glendale Avenue Interchange at QEW\Cost Sharing\2020-03-03 30percent design Costshring agreement NOTL.docx

The Region of Niagara

#### MTO Contract 2019-2119

#### DB RFP QEW/Glendale Avenue DDI - In the Town of Niagara-on-the-Lake

CONTRACTOR: Addendums Issued

30% Design

Tender Close -

Unofficial Stephanie Huppunen March 27 2020

| ITEM     | SPEC       | DESCRIPTION                                                   | 1        |                  |      |            | Qua      | ntities  | Perce  | entage   | Amou       | nt / Budget    |             |
|----------|------------|---------------------------------------------------------------|----------|------------------|------|------------|----------|----------|--------|----------|------------|----------------|-------------|
|          | NO.        |                                                               | QUAN     | TENDER AMOUNT    | UNIT | UNIT PRICE | NOTL     | TOTAL    | NOTL   | TOTAL    | NOTL       | TOTAL          | checking    |
|          |            |                                                               |          |                  |      |            |          |          | 100%   | 100%     |            | \$0.00         |             |
|          |            |                                                               |          |                  |      |            |          |          |        |          | I 10RC1554 | account number |             |
|          |            | Excavation                                                    |          |                  |      |            |          |          |        |          | i          |                |             |
|          |            | a) For Irrigation Sevice                                      | 117      | <b>#4.005.00</b> | 9    | #05.00     | 447.00   | 447      | 4 0000 | 4 0000   | 04.005.00  | A4 005 00      |             |
|          |            | Granular Materials                                            | 117      | \$4,095.00       | m³   | \$35.00    | 117.00   | 117      | 1.0000 | 1.0000   | \$4,095.00 | \$4,095.00     |             |
|          |            | a) Granular 'A' (for irrigation service)                      |          |                  |      |            |          |          |        |          | !          |                |             |
|          |            | 3                                                             | 269.1    | \$6,727.50       | t    | \$25.00    | 269.10   | 269      | 1.0000 | 1.0000   | \$6,727.50 | \$6,727.50     |             |
|          |            |                                                               | 200.1    | ψο,727.00        | -    | ψ20.00     | 1 200.10 | 200      | 1.0000 | ,        | ψο,727.00  | , 40,727.00    |             |
|          |            | TOTAL SECTION B                                               | - ROADS: | \$10,822.50      |      |            |          |          |        |          |            |                | \$10,822.50 |
| OF OT IC | WAT        | EDMANIA                                                       |          |                  |      |            |          |          |        |          |            |                |             |
| SECTION  | ON D - WAT | ERMAINS                                                       |          |                  |      |            |          |          |        |          | <b>¦</b>   |                |             |
|          |            | Supply and Installation of a 25mm Service for Irrigation      |          |                  |      |            |          |          |        |          | į.         |                |             |
|          |            | (Provisional)                                                 | 1        | \$7,500.00       | m    | \$7,500.00 | 1.00     | 1        | 1.0000 | 1.0000   | \$7,500.00 | \$7,500.00     |             |
|          |            | Including Mainstop, curbstop and box, anode, 25mm dia         |          |                  |      |            |          |          |        |          | Ī          |                |             |
|          |            | copper, and all connections required to complete the work and |          |                  |      |            |          |          |        |          | i          |                |             |
|          |            | installation of Town supplied Meter and Meterpit              |          |                  |      |            | L        | <u> </u> | L      | <u> </u> | I          |                |             |
|          |            | TOTAL SECTION D WATE                                          | RMAINS:  | \$7,500.00       |      |            |          |          |        |          |            |                | \$7,500.00  |

#### MTO Contract 2019-2119

#### DB RFP QEW/Glendale Avenue DDI - In the Town of Niagara-on-the-Lake

CONTRACTOR: Addendums Issued

30% Design

Tender Close -

Unofficial Stephanie Huppunen March 27 2020

| TEM   | SPEC       | DESCRIPTION                                                                                            | 1        |               |      |                                         | Quai  | ntities | Perce  | ntage  | Amoun        | t / Budget     |          |
|-------|------------|--------------------------------------------------------------------------------------------------------|----------|---------------|------|-----------------------------------------|-------|---------|--------|--------|--------------|----------------|----------|
|       | NO.        |                                                                                                        | QUAN     | TENDER AMOUNT | UNIT | UNIT PRICE                              | NOTL  | TOTAL   | NOTL   | TOTAL  | NOTL         | TOTAL          | checking |
|       |            |                                                                                                        |          |               |      |                                         |       |         | 100%   | 100%   |              | \$0.00         |          |
|       |            |                                                                                                        |          |               |      |                                         |       |         |        |        | 10RC1554     | account number |          |
| ECTIO | N E - ROA  | I<br>DWAY LIGHTING                                                                                     |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | Roadway Lighting                                                                                       |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            |                                                                                                        |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | 1) Suppy and Install Poles Including all Mounting Hardware Black Coated Decorative                     |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | As per NRS 2130, NRS 2440                                                                              |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | a) Sectional Steel Poles (Base Mounted)                                                                |          |               |      |                                         |       |         |        |        | l<br>I       |                |          |
|       |            | i) Type 5 - 8.9m tall (Powder Coating Costs)                                                           | 60       | \$145,740.00  | ea   | \$2,429.00                              | 60.00 | 60      | 1.0000 | 1.0000 | \$145,740.00 | \$145,740.00   |          |
|       |            | ii) Type 6 - 10.5m tall (Powder Coating Costs)                                                         | 6        | \$16,206.00   | ea   | \$2,701.00                              | 6.00  | 6       | 1.0000 | 1.0000 | \$16,206.00  | \$16,206.00    |          |
|       |            | 2) Luminaire Arms Black Voated Decorative                                                              |          | ¥15,25335     |      | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |       |         |        |        |              |                |          |
|       |            | a) Supply and Install Luminaire Arms Install luminiare arm of appropriate length to position luminaire |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | at standard location.                                                                                  |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | i) Street Light Arm, 1.8-3m Length<br>Aluminous # ALS-RE8M                                             | 66       | \$33,000.00   | ea   | \$500.00                                | 66.00 | 66      | 1.0000 | 1.0000 | \$33,000.00  | \$33,000.00    |          |
|       |            | 3) Decorative Pole Bases                                                                               | 66       | \$19,140.00   | ea   | \$290.00                                | 66.00 | 66      | 1.0000 | 1.0000 | \$19,140.00  | \$19,140.00    |          |
|       |            |                                                                                                        | 00       | \$19,140.00   | еа   | \$290.00                                | 66.00 | 00      | 1.0000 | 1.0000 | \$19,140.00  | \$19,140.00    |          |
|       |            | TOTAL SECTION E ROADWAY L                                                                              | IGHTING: | \$214,086.00  |      |                                         | Γ     | T       |        | т      |              | Υ              | \$214,08 |
| ECTIO | N F - TRAI | FFIC SIGNALS                                                                                           |          |               |      |                                         |       |         |        |        | i<br>I       |                |          |
|       |            | Install Poles Including all Mounting Hardware (Black Coated Decorative) Powder Coating Costs           |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | As per NRS 2130, NRS 2440                                                                              |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | a) Sectional Steel Poles (Base Mounted) i) Type 5 - 6.3m tall (signal pole without luminaire/camera)   | 8        | \$13,584.00   | ea   | \$1,698.00                              | 8.00  | 8       | 1.0000 | 1.0000 | \$13,584.00  | \$13,584.00    |          |
|       |            | b) Spun Aluminum Poles - base mounted                                                                  |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | i) Type 1 - 4.0m tall (pedestrian pole)                                                                | 4        | \$3,916.00    | ea   | \$979.00                                | 4.00  | 4       | 1.0000 | 1.0000 | \$3,916.00   | \$3,916.00     |          |
|       |            | c) Sectional Steel Poles (Direct Bury)                                                                 |          |               |      |                                         |       |         |        |        |              |                |          |
|       |            | i) Type 6 - 7.0m (power pole)                                                                          | 1        | \$2,089.00    | ea   | \$2,089.00                              | 1.00  | 1       | 1.0000 | 1.0000 | \$2,089.00   | \$2,089.00     |          |
|       |            | d) Decorative Pole base                                                                                | 13       | \$3,770.00    | ea   | \$290.00                                | 13.00 | 13      | 1.0000 | 1.0000 | \$3,770.00   | \$3,770.00     |          |
|       |            |                                                                                                        |          |               |      |                                         |       |         |        |        |              |                |          |

#### MTO Contract 2019-2119

#### DB RFP QEW/Glendale Avenue DDI - In the Town of Niagara-on-the-Lake

CONTRACTOR: Addendums Issued

30% Design

Tender Close -Unofficial

Stephanie Huppunen

March 27 2020

| TEM   | SPEC       | DESCRIPTION                                                                                                                                                                        |      |               |      |             | Quai   | ntities | Perce  | ntage    | Amoui       | nt / Budget  |
|-------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|------|-------------|--------|---------|--------|----------|-------------|--------------|
|       | NO.        |                                                                                                                                                                                    | QUAN | TENDER AMOUNT | UNIT | UNIT PRICE  | NOTL   | TOTAL   | NOTL   | TOTAL    | NOTL        | TOTAL        |
|       |            |                                                                                                                                                                                    |      |               |      |             |        |         | 100%   | 100%     |             | \$0.00       |
|       |            |                                                                                                                                                                                    |      |               |      |             |        |         | 100,0  | 100,0    | 10RC1554    | account numb |
| ECTIO | ON G - LAN | DSCAPING                                                                                                                                                                           |      |               |      |             |        |         |        |          |             |              |
| 1     | SSP 45     | 1) Landscaping                                                                                                                                                                     |      |               |      |             |        |         |        |          |             |              |
|       |            | Supply and install all plant unit prices as per drawings, details and specifications, and include required planting soil and mulch. Sizes as indicated. b) Plantings at Roundabout |      |               |      |             |        |         |        |          |             |              |
|       |            | i) Picea pungens 'Hoopsii' (200cm W.B.)                                                                                                                                            | 5    | \$3,625.00    | ea   | \$725.00    | 5.00   | 5       | 1.0000 | 1.0000   | \$3,625.00  | \$3,625.00   |
|       |            | ii) Ilex verticillata 'Red Sprite' (#3Cont)                                                                                                                                        | 60   | \$2,700.00    | ea   | \$45.00     | 60.00  | 60      | 1.0000 | 1.0000   | \$2,700.00  | \$2,700.00   |
|       |            | iii) Ilex verticillata 'Jim Dandy' (#3Cont)                                                                                                                                        | 12   | \$540.00      | ea   | \$45.00     | 12.00  | 12      | 1.0000 | 1.0000   | \$540.00    | \$540.00     |
|       |            | iv) Helictotrichon sempervirens (#1Cont)                                                                                                                                           | 372  | \$9,300.00    | ea   | \$25.00     | 372.00 | 372     | 1.0000 | 1.0000   | \$9,300.00  | \$9,300.00   |
|       |            | v) OSC Mini Mow Ecological Lawn Seed Mixture 8335<br>2) Irrigation                                                                                                                 | 324  | \$4,860.00    | m²   | \$15.00     | 324.00 | 324     | 1.0000 | 1.0000   | \$4,860.00  | \$4,860.00   |
|       |            | a) Supply and Install Irrigation                                                                                                                                                   |      |               |      |             |        |         |        |          |             |              |
|       |            | i) Roundabout                                                                                                                                                                      | 1    | \$12,000.00   | LS   | \$12,000.00 | 1.00   | 1       | 1.0000 | 1.0000   | \$12,000.00 | \$12,000.00  |
|       |            | b) Irrigation Plan                                                                                                                                                                 | '    | \$12,000.00   | LO   | \$12,000.00 | 1.00   | •       | 1.0000 | 1.0000   | ψ12,000.00  | \$12,000.00  |
|       |            | i) Roundabout                                                                                                                                                                      | 1    | \$1,100.00    | LS   | \$1,100.00  | 1.00   | 1       | 1.0000 | 1.0000   | \$1,100.00  | \$1,100.00   |
|       |            | 3) Electrical for future decorative lighting c) At Roundabout                                                                                                                      | '    | \$1,100.00    | 23   | \$1,100.00  | 1.00   | •       | 1.0000 | 1.0000   | \$1,100.00  | \$1,100.00   |
|       |            | i) Upgrade Hydro Service (panel, base, meter, permit and inspection)                                                                                                               | 1    | \$0.00        | LS   | \$2,500.00  | 1.00   | 1       | 1.0000 | 1.0000 I | \$0.00      | \$0.00       |
|       |            | ii) 2-50mm Conduit including wiring for 1 duct                                                                                                                                     | 40   | \$50.00       | m    | \$50.00     | 40.00  | 40      | 1.0000 | 1.0000   | \$50.00     | \$50.00      |
|       |            | iii) Outdoor locking recepatcle including required connections                                                                                                                     | 1    | \$14,000.00   | ea   | \$350.00    | 1.00   | 1       | 1.0000 | 1.0000   | \$14,000.00 | \$14,000.00  |

\$48,175.00

checking

The Region of Niagara

#### MTO Contract 2019-2119

#### DB RFP QEW/Glendale Avenue DDI - In the Town of Niagara-on-the-Lake

CONTRACTOR: Addendums Issued

30% Design

Tender Close -

Unofficial Stephanie Huppunen March 27 2020

| ITEM | SPEC<br>NO. | DESCRIPTION | QUAN | TENDER AMOUNT | UNIT | UNIT PRICE |  |
|------|-------------|-------------|------|---------------|------|------------|--|
|------|-------------|-------------|------|---------------|------|------------|--|

| Quar | ntities | Perce | ntage | Amoun    | t / Budget     |
|------|---------|-------|-------|----------|----------------|
| NOTL | TOTAL   | NOTL  | TOTAL | NOTL     | TOTAL          |
|      |         | 100%  | 100%  |          | \$0.00         |
|      |         |       |       | 10RC1554 | account number |

1.0176

\$303,942.50

checking

check

**Total Estimated Price** 

\$303,942.50

**Actual Construction Cost** 

Total Tender Price Excluding Materials (for signal work)

\$303,942.50 \$5,349.39 \$303,942.50

\$303,942.50

rable HST of 1.76%

1.0176

\$309,291.89

**Cost Sharing (WL Portion)** \$303,942.50

Engineering CA & Inspection 10% 10% \$30.394.25 \$334,336.75 TOTAL COST SHARING LAM PORTION

> Non recoverable HST of 1.76% 1.0176

\$340,221.08

TOTAL PROJECT including non recoverable HST \$340,221.08

> SUB-TOTAL PROJECT \$303,942.50 **Full HST** 1.13 \$39,512.53

\$343,455.03 TOTAL PROJECT INCLUDING FULL HST

CONSTRUCTION \$303,942.50 \$303,942.50 Non recoverable HST of 1.76% \$5,349.39 \$5,349.39 \$309,291.89 \$309,291.89 as a Percentage of Total 100%

100%

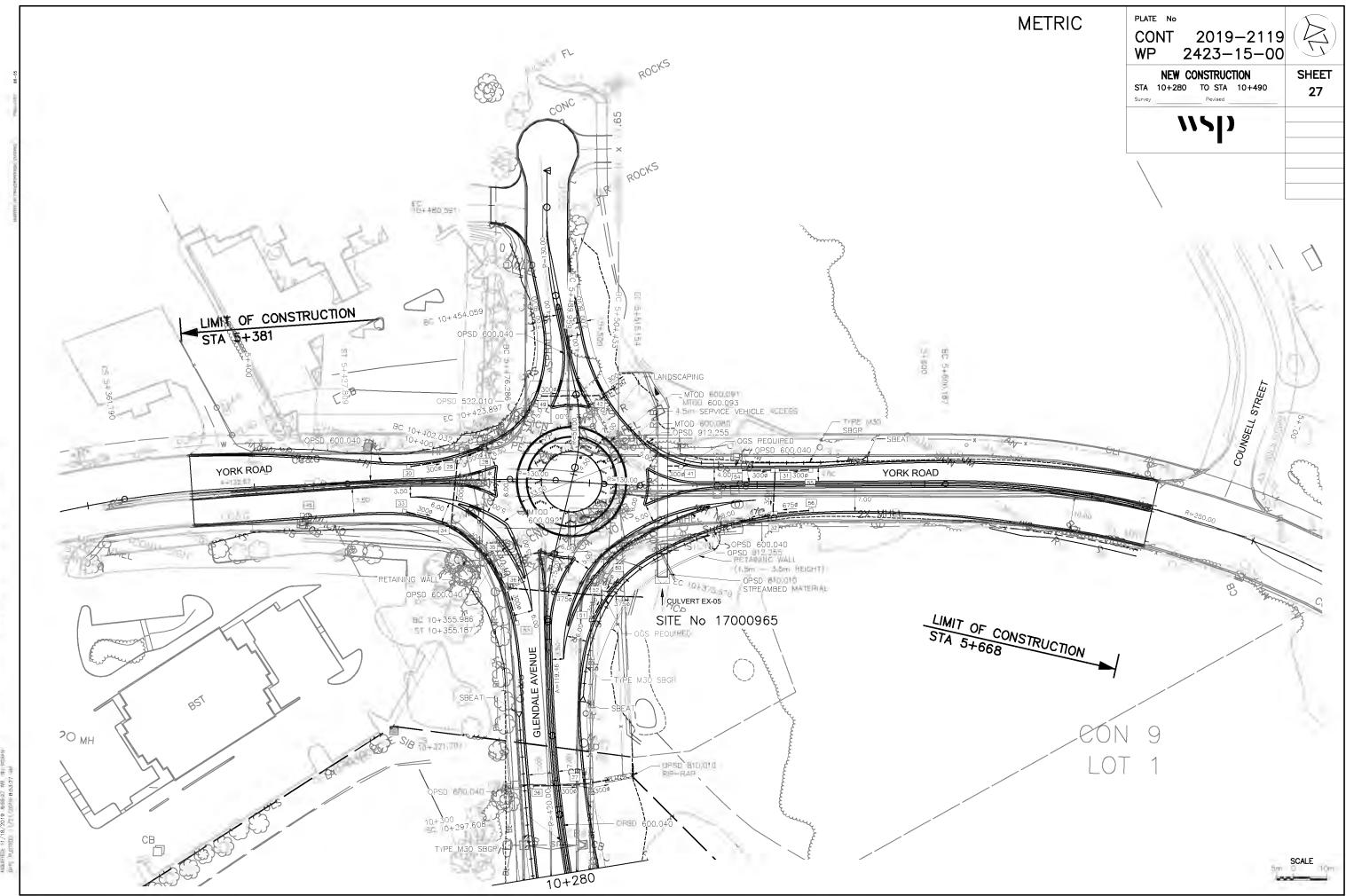
| Hwy No GEW Region CENTRAL  Location FROM 1.8 km WEST OF GLENDALE AVENUE EASTERL  TO 1.2 km EAST OF GLENDALE AVENUE  Length 3.0 km.  Reference Plans  P. E  Date Manager, Engineering, | Work of  | GRADING, DRAINAGE, G | RANULAR BASE, HOT MIX PAVI |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|----------------------------|
| Location FROM 1.8 km WEST OF GLENDALE AVENUE  TO 1.2 km EAST OF GLENDALE AVENUE  Length 3.0 km.  Reference Plans                                                                      | _        | ELECTRICAL, ATMS AND | STRUCTURAL                 |
| TO 1.2 km EAST OF GLENDALE AVENUE  Length 3.0 km.  Reference Plans                                                                                                                    | Hwy No   | QEW                  | Region CENTRAL             |
| Length 3.0 km. Reference Plans                                                                                                                                                        | Location | FROM 1.8 km WEST OF  | GLENDALE AVENUE EASTERLY   |
| Reference Plans                                                                                                                                                                       |          | TO 1.2 km EAST OF G  | LENDALE AVENUE             |
|                                                                                                                                                                                       |          |                      | km.                        |
|                                                                                                                                                                                       |          |                      |                            |
|                                                                                                                                                                                       |          |                      |                            |
|                                                                                                                                                                                       |          |                      |                            |
| Date Manager, Engineering,                                                                                                                                                            |          |                      |                            |
|                                                                                                                                                                                       |          |                      | P. En                      |
|                                                                                                                                                                                       | Date     | Mana                 |                            |

# Ministry of Transportation

Regional Director



B.Sc., M.B.A.



DED FILE LEGETON WAS FRANCE - N. GENTREVERFE, FIRE TO THE DEFINANCE CODES ENGINEEN TEVIEW CONSTRUIDING TO 1 - Les COURTS LEGET FRANCE DE PROPERTIES N. / 18/2019 4-55-27 WILL FIRE N. / 18