

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering and Transportation Division

To: Mayor and Members of Council

From: Eric Gerrard, P.Eng.
Engineering Technologist

Date: May 19, 2021

Subject: Tender Award: Contract T20-179 – McDougall Line and Queen’s Line Intersection Realignment, Community of Tilbury-East.

Recommendations

It is recommended that:

1. The tender in the amount of \$337,870.00 (including HST) for the work associated with Contract T20-179 - McDougall Line and Queen’s Line Intersection Realignment, Community of Tilbury-East, be awarded to Clarke Construction Inc. of Blenheim, Ontario.
2. The Mayor and Clerk be authorized to enter into the recommended agreements.

Background

The road realignment and intersection improvement project is related to the replacement of the McDougall Line Bridge over Government Drain #1, which is located at the intersection of McDougall Line and Merlin Road.

At the September 9, 2019, Council meeting regarding the McDougall Line Bridge over Government Drain #1, many deputations were made by local landowners and public that voiced concerns about the safety issues at the existing McDougall Line / Queen’s Line intersection attributed to the acute angles and poor sight lines. The issues raised were regarding inadequate turning movements for large vehicles, especially large agricultural vehicles and trucks with trailers. At this meeting, Council directed administration to move forward with the replacement of the McDougall Line Bridge.

In December 2019, a Consulting Engineering firm was retained to complete the design and contract administration for the McDougall Line Bridge replacement. The proposed timeline for the bridge replacement is in 2022 or 2023.

Comments

During the replacement of the McDougall Line Bridge over Government Drain #1, access from Merlin Road onto McDougall Line will be closed, resulting in the Queen's Line intersection being the main point of access to the properties on McDougall Line.

Therefore, the recommended tender in this report is for the construction of a new section of McDougall Line and a new intersection of McDougall Line and Queens Line. This new intersection will provide wider turning radii, which will improve turning movements in both directions, improved visibility and sight lines, and overall safety of vehicles entering or exiting McDougall Line at Queens Line.

The proposed work is needed to improve the geometrics for transport traffic and the overall safety of the local landowners that use the existing intersection. There have been 16 vehicle incidents at this location between 2009 and 2018. The majority of these incidents were single motor vehicle incidents typically caused by excessive speeding, loss of control, following too close and road conditions. The new intersection improves geometrics on McDougall Line by providing a wider turning radius, and improved sight lines for larger vehicles by increasing the approach angle for motorists exiting McDougall Line onto Queen's Line.

Due to conflicts with the proposed McDougall Line road alignment and existing Hydro One utility poles along the north side of Queen's Line, a number of hydro poles and overhead wires will need to be relocated before the proposed road alignment and intersection improvements can commence. The hydro relocation work is to be completed by June 2021.

This contract consists of the following work:

- Removal and replacement of the road crossing pipe at the Baert Road intersection, including an improved turning radius and erosion protection.
- Stripping and stockpiling of topsoil material along the new road alignment for reuse to restore the surrounding area within the work area.
- Installation of the new road realignment of McDougall Line and intersection onto Queens Line.
- Filling and shaping new roadside drainage ditches and swales to improve surface drainage into the McDougall Drain.
- Installation of rip-rap erosion protection.
- Abandonment and surface restoration of the existing portion of McDougall Line where it currently intersects with Queens Line.



Figure 1. Proposed location and alignment of new McDougall Line road section and intersection, from Queen's Line

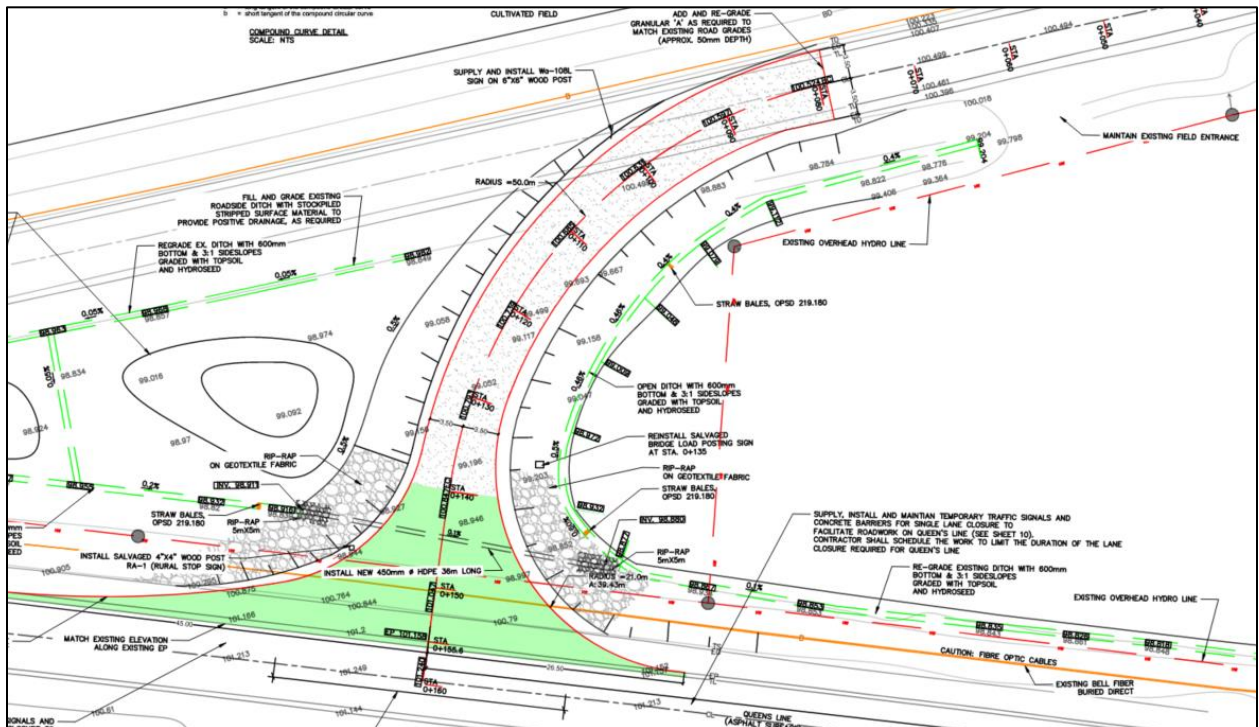


Figure 2. Plan view of the proposed new road section and intersection from the Contract Drawings

Innovation

Starting in 2021, the Ministry of the Environment Conservation and Parks (MECP) is introducing restrictions on the amount of excess fill being removed and disposed of to reduce the impact on landfill sites. In order to abide by these new guidelines, a greater emphasis was put on the stockpiling of reusable material for use in the filling, shaping and restoration of the surrounding land adjacent to the new road alignment. This reduces the costs of hauling excavated material off-site, reduces the costs of importing new topsoil, and reduces the amount of waste material that is hauled to off-site disposal locations.

When abandoning the existing section of McDougall Line, the Contractor will remove the upper granular surface of the road and transport the granular material to the Public Works yard in Tilbury. This granular material can be reused for various Public Works projects, and reduces the costs spent on acquiring granular fill material.

Throughout construction, a single lane of traffic will be maintained along McDougall Line through the work area until the new road section and intersection is completed. Temporary lane restrictions will be required on Queen's Line for a portion of the work by utilizing temporary traffic signals to control traffic along Queen's Line.

In order to save costs, the design and contract administration of this project is being completed by Chatham-Kent Engineering staff.

In order for the new road section and intersection to be in service prior to the replacement of the McDougall Line bridge replacement, construction will commence following the completion of the Hydro One utility relocations in late June 2021, and shall be completed by the end of November 2021.

The Tender was let on April 23, 2021 and the Purchasing Officer received the digitally submitted tenders on May 13, 2021. The following table summarizes the bids received.

Bidder	Location	Bid (including HST)
Clarke Construction Inc.	Blenheim, ON	\$ 337,870.00
Delway Contractors Ltd.	Chatham, ON	\$ 432,112.00

The lowest tender bid submitted by Clarke Construction Inc. was within the budget estimate.

Areas of Strategic Focus and Critical Success Factors

The recommendations in this report support the following areas of strategic focus:

- Economic Prosperity:
Chatham-Kent is an innovative and thriving community with a diversified economy
- A Healthy and Safe Community:
Chatham-Kent is a healthy and safe community with sustainable population growth
- People and Culture:
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community
- Environmental Sustainability:
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendations in this report support the following critical success factors:

- Financial Sustainability:
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Open, Transparent and Effective Governance:
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- Has the potential to support all areas of strategic focus & critical success factors
- Neutral issues (does not support negatively or positively)

Consultation

The Tenders were opened by the Purchasing Officer and reviewed by Chatham-Kent's Engineering and Transportation Division.

Financial Implications

Project fees associated with this contract will be funded as summarized in the following table:

Financial Implications
McDougall Line and Queen's Line Intersection Realignment
Project Costs

Recommended Tender ^A (Including HST)	\$ 337,870.00
Less HST Rebate 11.24%	- \$ 33,607.60
Total Current Project Costs	\$ 304,262.40
Total Current Project Funding	\$ 304,262.40

Note A: Contingency, species at risk mitigation, and material testing and inspection is carried as a total of \$65,000 allowance in the contract and is accounted for in the Recommended Tender.

- Contingency allowance may or may not be expended and is recommended to address any unforeseen issues which present during the course of the project and are not covered by the contract specifications.
- Species at risk mitigation allowance may or may not be expended and is recommended to address potential mitigation work and/or qualified biologist involvement required should there be any species that are encountered prior to and during the course of the project.
- Materials testing and inspection allowance may or may not be expended and is recommended to test and inspect construction materials for compliance with the contract specifications during the course of the project.

As this intersection realignment is directly related to the McDougall Line bridge replacement, the project costs listed above will be funded from Bridge Lifecycle Reserve.

The total current project costs listed above will be funded from the Bridge Lifecycle Reserve, which includes funds under the Association of Municipalities of Ontario (AMO) Federal Transfers of Federal Gas Tax Funding Agreement.

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Attachments: None

(RTC:\Infrastructure & Engineering\I&ES\2021\4391 – Tender Award T20-179
McDougall Line and Queen's Line Intersection Realignment)