

To: Warden and Members of County Council

From: Director of Public Works

Contract Award – Trans Canada Trail Pedestrian Bridge Replacement

RECOMMENDATIONS

1. That County Council award a contract to the low bidder, 2220742 Ontario Ltd. (Bronte Construction), in the amount of \$2,165,086 (excluding HST) for the replacement of Bridge No. 20115 on the Trans Canada Trail in the Town of Tillsonburg;
2. And further, that County Council authorize the Chief Administrative Officer and Director of Public Works to sign all documents related hereto.

REPORT HIGHLIGHTS

- The purpose of this report is to obtain County Council approval to award the above-noted project to Bronte Construction, in accordance with the County's Purchasing Policy.
- Bridge No. 20115 in the Town of Tillsonburg is planned for replacement as per the 2023 *Business Plan and Budget* and will result in an accessible connection between the Fourth to North and Trans Canada trails, while maintaining the existing railway corridor, and extending the useful service life of the bridge and culvert structures by 75 years.
- This project will involve removal of the existing bridge superstructure (including existing bridge deck, central pier and culvert), site grading, ramp interconnection between upper and lower trails, construction of an open channel to convey creek flows, and installation of a new grade-separated timber pedestrian bridge for a variety of trail uses (hikers, cyclists, horseback riders, etc.).
- Associated trail closures to the Fourth to North and Trans Canada trails are required for the duration of the project and notifications have been developed in consultation with the Town.
- This project is anticipated to begin April 2023 and targeted for completion by December 2023.

Implementation Points

Upon County Council approval, a contract will be executed with the low bidder, Bronte Construction, prior to proceeding with the work.

The Fourth to North lower trail (owned by the Town of Tillsonburg, spanning north-south) will be closed from Oxford Road 20 (North Street East) to Fourth Street for the duration of the project. Access at the North Street East and Fourth Street entrances to the trail are to be closed with fencing and signage.

The upper trail (Trans Canada Trail, spanning east-west) will be closed from Oxford Road 53 (Tillson Ave) to approximately 400m east of Oxford Road 19 (Broadway Street) for the duration of the project. Access at the Tillson Ave (Oxford Road 53) entrance to the trail and 400m east of Broadway Street (Oxford Road 19) is to be closed with fencing and signage.

Construction is anticipated to begin in April 2023 and be completed by December 2023.

Financial Impact

This work was planned for in the 2023 *Business Plan and Budget*. While the total estimated construction expenditures is slightly above the approved 2023 budget line item for this project, this project is funded from a joint account (930200) for all bridge/culvert rehabilitation projects.

Budget savings from the contract award for the rehabilitation of Bridge No. 174259 on Oxford Road 45, approved by Council in Report No. [PW 2023-13](#) on March 8, 2023, are proposed to be used to fund the additional costs required for this project in the amount of \$78,192. The construction costs and funding sources for this project are summarized in Table 1.

Table 1: Funding Summary for Replacement of Bridge No. 20115

2023 Budget Summary Account / Description	Available 2023 Budget	Bid Amount (excluding HST)
930200 – Bridge Construction (Approved budget: \$6,330,000) (Less other projects: \$4,130,000)	\$2,200,000	\$2,165,086
Estimated Contract Administration; Inspection & Materials Testing		75,000
Non-Refundable HST (1.76%)		38,106
TOTAL ESTIMATED CONSTRUCTION EXPENDITURES		\$2,278,192

Communications

The communication strategy for this construction project will be similar to other County projects. The Contractor's project manager and the County's project manager will form an open channel of communication and will include other members of the project team as needed. These communications will commence upon approval of this report and will continue for the duration of the project.

Trail closure and a planned construction schedule have been and will continue to be mutually established with the Town of Tillsonburg, and further communication is planned prior to and throughout construction. A detour route is planned to bypass the closed section of the Trans Canada Trail during construction.







The existing railway corridor beneath the bridge is operated by Ontario Southland Railway (OSR). OSR was made aware of the project in the early stages of design and have continued to be included throughout. Costs for coordination and flagging within the OSR corridor are included in this contract. OSR will be invited to attend the pre-construction meeting with the Contractor and continue to be involved in project communications.

A Notice of Construction letter will be delivered to nearby property owners, along with posting of construction signage at the project location in advance to alert the general public. The Notice of Construction will also be posted to the Oxford County website.

No road closures are anticipated for this project, but should any be required for unanticipated reasons, regulatory authorities and emergency services will receive advanced notice of any road closures through *Municipal511* notifications circulated by Public Works. Road updates are also posted to the County's social media channels and on *Speak Up, Oxford*. Additional advertising and media updates will be considered as required.

Staff will continue to work with affected stakeholders during the execution of this project as required to ensure the appropriate level of communication and outreach is maintained, and further ensuring all parties involved are updated on project status and outcomes as needed.

Strategic Plan (2020-2022)

					
WORKS WELL TOGETHER	WELL CONNECTED	SHAPES THE FUTURE	INFORMS & ENGAGES	PERFORMS & DELIVERS	POSITIVE IMPACT
1.ii.	2.i. 2.ii.	3.ii. 3.iii.		5.ii.	

DISCUSSION

Background

Bridge No. 20115 was originally built in approximately 1878. It is suspected that the bridge superstructure of the eastern span was replaced around 1902 when the western span was added along with the addition of the central concrete structure (including the cast-in-place culvert that supports the central pier). The bridge was acquired as part of the County's purchase of the former CASO railway corridor through the Town of Tillsonburg. The bridge is located within the Town of Tillsonburg, approximately 250m south of North Street East (Oxford Road 20) and 450m west of Tillson Avenue (Oxford Road 53).

The existing bridge superstructure consists of three spans which convey an east-west portion of the Trans Canada Trail over an intersecting north-south multi-use trail ('Fourth to North Trail' owned by Town of Tillsonburg), a creek passage and an existing grade separated low-volume rail line corridor owned by Canadian Pacific Railway (CPR) and operated by Ontario Southland Railway (OSR). Lisgar Creek is conveyed through a cast-in-place concrete culvert that passes through the central pier that supports the large overhead structure. The approximate project location has been identified in the key map included as Attachment 1.

The County's 2022 *Bridge Inspection Report* noted that Bridge No. 20115 had a bridge condition index (BCI) of 56.7 and included a recommendation to forego rehabilitation and replace the structure within one year. The cast-in-place concrete culvert that supports the bridge structure and conveys the creek has also been identified as being in poor condition and showing signs of ongoing deterioration.

Oxford County completed the Trans Canada Trail Bridge Tillsonburg Municipal Class Environmental Assessment (EA) Study in 2020 to determine the preferred alternative for improvements to Bridge No. 20115. The preferred alternative to meet the study objectives was to replace the structure with a new grade-separated pedestrian bridge and establish an open creek channel as replacement of the existing culvert to convey flows within Lisgar Creek. As part of the design, a new, fully accessible (AODA-compliant) ramp was included to connect the upper and lower trails to better community connectivity and promote active transportation.

Staff received approval from County Council to proceed with the preferred alternative on July 8, 2020 as per Report No. [PW 2020-28](#). The results of the Class EA Study were incorporated into the final design of the bridge replacement completed by the County's consultant (RJ Burnside and Associates) in February 2023.

The replacement of the structure includes the following scope of work:

- Removal of the existing superstructure, central pier, and concrete culvert;
- Construction of a new open creek channel to convey creek flows (lower trail to remain);
- Installation of a new 25.0m span, 3.0m width timber pedestrian bridge (pre-engineered, supplied and assembled by a preferred bridge manufacturer);
- Construction of new, fully accessible (AODA-compliant), 130m-long ramp with separate staircase on north east quadrant to connect the upper and lower trails;
- Restoration of all disturbed areas including placement of granular material and asphalt placement for path restoration as required;
- Minor repairs to existing abutments;
- Erosion and sediment control measures;
- Construction dewatering and creek water way control; and
- Small structures (fencing, signs, etc.), pavement markings, and traffic (pedestrian) control.

The Trail Plan shown in Attachment 2 details the trail closures and detour route that will be required during construction. The planned detour route for the Trans Canada Trail will pass through a County owned corridor (containing an existing paved pathway) which is located approximately 400m east of Broadway Street (Oxford Road 19) to North Street East (Oxford Road 20), east to Tillson Ave (Oxford Road 53) and then south on Tillson Avenue back to the Trans Canada Trail.

North Street East (Oxford Road 20) contains bike lanes and sidewalks on both sides of the street while Tillson Avenue (Oxford Road 53) contains bike lanes and sidewalk connectivity on the east side of the street. These sections of Tillson Avenue and North Street East both form part of the County's Primary Cycling Network.

Comments

Based on its current asset condition, Bridge No. 20115 was prioritized for replacement in order to extend its useful service life by 75 years as per the 2022 *Asset Management Plan*. If this project is not undertaken, the condition of the bridge and its associated culvert will continue to deteriorate to the point where the bridge superstructure will be considered structurally deficient and/or unsafe to use. Further, if the culvert fails, the risk of failure of the central bridge pier will increase and the existing railway corridor may be adversely impacted from flooding and then risk the ballast beneath the tracks being washed out.

In order to address and mitigate the above risk, this project was brought forward for construction as part of the 2023 budget. County staff solicited bids from eligible pre-qualified Contractors and the project was tendered through a competitive bidding process. Seven contractors showed interest in the project and the County received the following three bids at tender close on Thursday, March 16 at 2 p.m.

Table 2: Summary of Bid Submissions

Contractor	Bid Amount (HST Excluded)
1. 2220742 Ontario Ltd. (Bronte Construction)	\$2,165,086
2. Sierra Bridge Inc.	\$2,216,526
3. Clearwater Structures Inc.	\$2,523,990

As this project has the possible risks that would be associated with any construction project of this scale and scope, the successful Contractor was also required to secure construction bonds and insurance to mitigate risks related to the exposure of financial loss.

Staff have reviewed the submissions and confirmed that the low bid received from Bronte Construction, in the amount of \$2,165,086 (excluding HST), represents good value for the work. Bronte Construction was pre-qualified and has recent experience completing projects of this magnitude.

Conclusions

The new timber pedestrian bridge and ramp, unlike any other pedestrian bridge in Oxford County, will connect two well travelled and existing trails within the Tillsonburg trail system for a variety of trail users (hikers, cyclists, horse back riders, etc.).

Review of the competitive bid submissions confirms that it is appropriate to award the proposed works for the replacement of Trans Canada Trail bridge (No. 20115) and construction of an open creek channelization to the low bidder, 2220742 Ontario Ltd. (Bronte Construction).

SIGNATURES

Report Author:

Original signed by

Ryan Vink, P. Eng.
Project Engineer

Departmental Approval:

Original signed by

David Simpson, P. Eng., PMP
Director of Public Works

Approved for submission:

Original signed by

Benjamin R. Addley
Chief Administrative Officer

ATTACHMENTS

Attachment 1 – Key Map, March 2023
Attachment 2 – Trail Plan, March 2023