

To: Warden and Members of County Council

From: Director of Public Works

Contract Award – Oxford Road 45 Bridge Rehabilitation

RECOMMENDATIONS

- 1. That County Council award a contract to the low bidder, Theo Vandenberg Construction Inc., in the amount of \$1,199,081 (excluding HST) for the rehabilitation of Bridge No. 174259 on Oxford Road 45 in the Township of Zorra;**
- 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 Theo Vandenberg Construction Inc., in accordance with the County's Purchasing Policy.
- Oxford Road 45 Bridge No. 174259 is a boundary bridge for County of Oxford and County of Middlesex and, as a result, the maintenance, rehabilitation/replacement and financial responsibilities for this structure are shared (50/50) by both municipalities. Oxford County staff are leading the design and construction duties for this rehabilitation project.
- Major rehabilitation of this structure is planned as per the 2023 Business Plan and Budget and will essentially result in a like-new structure being constructed which will have a useful service life of approximately 45 years.
- A road closure is required for the completion of this work and the planned detour route has been created in consultation with the County of Middlesex, Township of Zorra and Municipality of Thames Centre.
- This project is anticipated to begin in April 2023 and is targeted for completion by November 2023.

Implementation Points

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

Oxford Road 45 will be closed from Road 60 to Hamilton Road during construction in order to accommodate the planned works; however, access for local residents and emergency services will be maintained as required. Construction is anticipated to begin in April 2023 and be completed by November 2023.

Financial Impact

This work was planned for in the 2023 *Business Plan and Budget*, and the low bid amount is within budget. This project is funded from a joint account (930200) for all bridge/culvert rehabilitation projects. The construction costs and funding sources for this project are summarized in Table 1 below.

Table 1: Funding Summary for Rehabilitation of Bridge No. 174259 on OR 45

2023 Budget Summary Account / Description	Available 2023 Budget	Bid Amount (excluding HST)
930200 – Bridge Construction (Approved budget: \$6,330,000) (Less other projects: \$4,330,000)	\$2,000,000	\$1,199,081
Estimated Contract Administration; Inspection & Materials Testing		75,000
Non-Refundable HST (1.76%)		21,104
TOTAL ESTIMATED CONSTRUCTION EXPENDITURES		\$1,295,185

Upon completion of the project and when the actual construction costs are finalized, the County of Middlesex will be invoiced for an amount equivalent to 50% of total construction expenditures (including design costs, staff time for review/contract administration, etc.). The County of Middlesex has agreed to this arrangement based on the above-noted tender amount, and has budgeted for this in 2023.

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.

This is a collaborative joint venture project between Oxford County and County of Middlesex.

Scope of work, detour route (refer to Attachment 1) and planned construction schedule have been and will be mutually established, and further communication is planned prior to, and throughout construction.

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.

Regulatory authorities and emergency services will receive advanced notice of road closures through *Municipal511* notifications circulated by Public Works. Road updates are also posted to the County’s social media channels 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.	3.ii. 3.iii.		5.ii.	

DISCUSSION

Background

Bridge No. 174259 is a two-span 48.77 m (160 ft.) reinforced concrete deck on precast concrete girder bridge. It was originally constructed in 1971 and was rehabilitated with concrete repairs, new expansion joints and a new concrete overlay in 1992.

Bridge No. 174259 is jointly owned by the County of Oxford and County of Middlesex and is located approximately 1.2 km north of Putnam, 220 m south of Road 58 and on the borders of the Township of Zorra/Township of Thames Centre and Oxford/Middlesex Counties. A map identifying the bridge location is included as Attachment 2 to this report.

The County's draft 2022 *Bridge Inspection Report* noted that Bridge No. 174259 had a bridge condition index (BCI) of 63.8 and included a recommendation for major rehabilitation within two years. A detailed deck condition survey report was completed in August 2022.

The results of this report were incorporated into the preliminary design report (PDR) and ultimately, into the final design of the bridge rehabilitation completed by the County's consultant (Doug Dixon and Associates) in October 2022. As such, rehabilitation of this structure generally includes the following scope of work:

- Removal of the existing deck, asphalt, and guiderail;
- Jacking the superstructure;
- Conversion of existing abutments to semi-integral and removal of expansion joints at girder ends;
- Installation of new deck complete with waterproofing and pavement and steel beam guide rails;
- Minor repairs to existing girders, wingwalls, and abutments;
- Widening of approach embankments (approximately 10 m each side);
- Restoration of all disturbed areas including placement of granular material and asphalt placement for road restoration as required;
- Erosion and sediment control measures;
- Installation of bird exclusion netting;
- Construction dewatering; and
- Small structures (fencing, signs, etc.), pavement markings, etc.

Comments

Based on its current asset condition, Bridge No. 174259 was prioritized for rehabilitation in order to extend its useful service life by approximately 45 years as per the 2022 Asset Management Plan. If the bridge rehabilitation is not completed, the condition will continue to deteriorate to the point where the bridge is considered structurally deficient and/or unsafe to use. Failure to complete the structure rehabilitation will increase the risk of structure failure, load restrictions and/or road closure.

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

County staff solicited bids from the eligible pre-qualified Contractors and the project was tendered through a competitive bidding process. Twelve contractors showed interest in the project and County received the following nine bids at tender close on Thursday, February 2, 2023.

Table 2: Summary of Bid Submissions

Contractor	Bid Amount (HST Excluded)
1. Theo Vandenberg Construction Inc.	\$1,199,081
2. Urbanlink Civil Ltd.	\$1,875,000
3. Looby Builders (Dublin) Ltd.	\$1,936,059
4. Sierra Bridge Inc.	\$2,095,897
5. McLean Taylor Construction Ltd.	\$2,199,717
6. Clearwater Structures Inc.	\$2,381,350
7. Finnbilt General Contracting Ltd.	\$2,460,416
8. Aecon Construction and Materials Ltd.	\$2,908,580
9. Facca Incorporated	\$3,639,367

Staff have reviewed the submissions and confirmed that the low bid received from Theo Vandenberg Construction Inc., in the amount of \$1,199,081 (excluding HST), represents good value for the work. Theo Vandenberg Construction has completed several bridge and culvert rehabilitation projects for the County in recent years, including the rehabilitation of Culverts 334301 and 584355 on Oxford Road 119 and Oxford Road 9 respectively, as well as Bridge 292070 on Oxford Road 10, all in 2022. Theo Vandenberg completed this work to staff's satisfaction on budget and without any noted issues.

Should the contract not be awarded and the work does not proceed, the condition of the County's affected asset will continue to deteriorate and the costs to rehabilitate it in the future will rise.

Conclusions

Review of the competitive bid submissions confirms that it is appropriate to award the proposed bridge rehabilitation works on Bridge No. 174259 to the low bidder, Theo Vandenberg Construction Inc.

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
Interim Chief Administrative Officer

ATTACHMENTS

Attachment 1 – Detour Plan, December 2022
Attachment 2 – Key Map, February 2023