

REPORT TO COUNTY COUNCIL

Contract Award – 2024 Road Resurfacing

- To: Warden and Members of County Council
- From: Director of Public Works

RECOMMENDATIONS

- 1. That Oxford County Council award a contract to the low bidder, Brantco Construction, in the amount of \$4,501,576 (excluding HST), for 2024 Road Resurfacing;
- 2. And further, that Oxford County Council authorize the Chief Administrative Officer and Director of Public Works to sign all documents related thereto.

REPORT HIGHLIGHTS

- The purpose of this report is to obtain County Council approval to award the above-noted project to Brantco Construction, in accordance with the County's Purchasing Policy.
- This project includes cold-in-place (CIP) road recycling and hot-mix asphalt (HMA) resurfacing on Oxford Road 2 (5.7 km from Highway 401 to Oxford Road 22) and Oxford Road 24 (7.7 km from east limit of Tavistock to Oxford Road 5). Full-depth asphalt removal and HMA resurfacing along Oxford Road 20 North Street West, Tillsonburg (1.08 km from west limit of Tillsonburg to Broadway Avenue) will also be completed.
- Proposed road rehabilitation in this project will help maintain and improve the County's overall road network condition, extend road service life and restore the respective road section condition index levels. This work ensures that the County-owned road assets are in a good state of repair in alignment with the County's 2022 Asset Management Plan and 2024 Transportation Master Plan.
- By using the CIP road recycling technology, the planned road resurfacing is anticipated to avoid greenhouse gas emissions by at least 50% (up to 829 tonnes CO2e) compared to conventional mill and pave technology.
- This project is anticipated to begin in May 2024 and is targeted for completion in October 2024.



IMPLEMENTATION POINTS

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

CIP road recycling and asphalt resurfacing work on Oxford Road 2 (Highway 401 to Oxford Road 22) and Oxford Road 24 (east limit of Tavistock to Oxford Road 5) will be completed under lane restriction conditions, reducing traffic flow down to a single lane while work is underway with the use of a pace vehicle to help control the flow and speed of one-way traffic through the mobile work zone, allowing maintained access for local residents, businesses, waste collection services, emergency services and other motorists during this work.

Full-depth asphalt removal and HMA resurfacing along Oxford Road 20 – North Street West, Tillsonburg (west limit of Tillsonburg to Broadway Avenue) will require a road closure and detour route, including localized lane restrictions throughout the work. A planned detour route has been established and will be implemented during the road closure as shown in Attachment 1. Access for local residents, businesses and emergency services will be accommodated as required, with some restrictions taking place during the work. Due to the planned road closures, waste collection services will be interrupted and the contractor will manage and transfer any curbside garbage and recycling on any regular-scheduled collection day to a designated temporary collection depot area, where the County's waste management contractor can then collect.

Regulatory authorities, bus services, waste collection services and emergency services will receive advanced notice of the lane restrictions, road closure and detour routes from Oxford County staff through *Municipal 511* notifications. Construction notices to local residents and property owners will be distributed ahead of construction beginning on each section and stage of the work.

The road resurfacing sections proposed in this project can be seen in Attachment 1.

Financial Impact

The approved 2024 budget including all accounts to complete this project is \$5,712,000 (including non-refundable HST). The construction costs, other associated cost and capital accounts for this project are summarized in Table 1 below.

Oxford Road 20 (North Street West, Tillsonburg) and Oxford Road 2 resurfacing work has been included for a portion of the available Canadian Community Building Funding (CCBF). CIP road recycling and asphalt resurfacing work on Oxford Road 24 (east limit of Tavistock to Oxford Road 5) is being cost shared (50/50) with the neighbouring municipality – County of Perth. The approximate total amount of cost recovery from the County of Perth is \$952,274 (excluding HST).

2024 Capital Budget Summary Account/Description	2024 Budget	Bid Amount (excluding HST)
930099 – Rehab & Resurfacing (Total approved budget: \$6,890,000) (Less other projects & lines: \$1,290,000)	\$5,600,000	\$4,410,688
930198 – Urban Storm Sewer (Total approved budget: \$200,000) (Less other projects & lines: \$140,000)	60,000	53,821
930199 – Rural Storm Sewer (Total approved budget: \$3,350,000) (Less other projects & lines: \$3,330,000)	20,000	12,720
950229 – Sanitary Tillsonburg (Total approved budget: \$17,000)	17,000	13,095
960247 – Water Tillsonburg (Total approved budget: \$15,000)	15,000	11,252
Sub-Total	\$5,712,000	\$4,501,576
Contract Admin; Inspection & Materials Testing; Project Signage		98,000
Non-Refundable HST (1.76%)		80,953
Total Estimated Construction Expenditures		\$4,680,529

Table 1: Funding Summary for 2024 Road Resurfacing

Based on the information provided in the Table 1, there is available approved funding in the 2024 Business Plan & Budget to award this contract to the recommended contractor.

Communications

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

Communication with the public (affected property owners and business owners) will begin when the project approaches the initiation stages in the form of typical construction notices in the newspaper and resident updates delivered by mail and or hand delivery. Advanced notice of construction and road closure signage will be installed at the construction limits in advance to alert the general public of upcoming road closures.

In addition, road closures and lane restriction information will be available on the Oxford County website, posted to social media, and posted on *Municipal 511* in advance of each project location's starting. Communication will continue throughout the duration of the project as required to keep the affected parties informed and updated on project progress.

Communication and engagement with affected area municipalities took place during the planning stages of this project in which various aspects of this project were discussed, such as proposed detour routes for road closures, upcoming work plans and proposed schedules. Ongoing communication is planned with area municipalities prior to and throughout the construction period. Outreach and discussions with the Town of Tillsonburg, Township of South West-Oxford and the Ministry of Transportation regarding the Oxford Road 20 (North Street West) closure and proposed detour route took place as the detour route will utilize sections of their road network.

Staff will continue to work with key internal stakeholders (County Management staff, Transportation staff and Waste Management staff), as well as external stakeholders during the execution of this project as required to ensure the appropriate level of communication and outreach is maintained, further ensuring all parties involved are updated on project status and outcomes.

As part of the CCBF requirements for resurfacing work on Oxford Road 20 and Oxford Road 2, communication activities and promotion are required to help the public recognize the importance of infrastructure funding and its impact to their community. This includes the installation of project-appropriate information signs within each project's site limits as well as additional posts on the County website and social media, as needed.

2023-2026 STRATEGIC PLAN

Oxford County Council approved the 2023-2026 Strategic Plan on September 13, 2023. The Plan outlines 39 goals across three strategic pillars that advance Council's vision of "Working together for a healthy, vibrant, and sustainable future." These pillars are: (1) Promoting community vitality, (2) Enhancing environmental sustainability, and (3) Fostering progressive government.

The recommendations in this report supports the following Strategic Plan pillars and goals:

Promoting community vitality	Enhancing environmental sustainability	Fostering progressive government
Goal 1.2 – Sustainable infrastructure and development Goal 1.4 – Connected people and places	Goal 2.2 – Preserve and enhance our natural environment	Goal 3.1 – Continuous improvement and results- driven solutions Goal 3.2 – Collaborate with our partners and communities Goal 3.4 – Financial sustainability

See: Oxford County 2023-2026 Strategic Plan

DISCUSSION

Background

A total of three County road segments have been selected and included into the 2024 Road Resurfacing project. Oxford Road 24 (Tavistock to Oxford Road 5), Oxford Road 2 (Highway 401 to Oxford Road 22) and Oxford Road 20 – North Street West, Tillsonburg (west Town limits to Broadway Avenue). Between the three, a total of approximately 14.5 km of road resurfacing and asphalt replacement will be completed under this project.

The road segments included in this year's 2024 Road Resurfacing project were based on inspection and evaluation of the existing pavement distresses and overall conditions, as well as the input and coordination from both Engineering Services and Transportation staff regarding operational maintenance issues, existing roadway deficiencies and field observations.

A more comprehensive summary of each road section and included scope of work in the 2024 Road Resurfacing project is provide below.

Oxford Road 24 (west limit of Tavistock to Oxford Road 5)

The 2024 Road Resurfacing project involves the resurfacing of Oxford Road 24 (east limit of Tavistock to Oxford Road 5) totalling approximately 7.7 kilometers. This stretch of Oxford Road 24 is considered a rural road cross-section and acts as a primary east/west transportation corridor within the County road network. Segments of this road asset are exhibiting signs of pavement deterioration, thus providing a lower level of service and carrying an increased maintenance cost. This section of Oxford Road 24 is a shared asset with the neighbouring municipality, the County of Perth.

To renew the pavement condition and extend the roads lifecycle, a two-stage pavement recycling and resurfacing rehabilitation approach will be utilized. The existing pavement structure will undergo a CIP road recycling process and then receive the placement of a new HMA wearing surface on top of the recycled road base.

The recycling and resurfacing is a multi-step procedure with an interval between operations to afford time for the CIP recycled mat to cure and undergo acceptance of quality assurance testing. This interval can vary depending on the type of added emulsions used during recycling, weather and contractor schedules (typically about two weeks or more). This is the preferred method of renewing the pavement condition rating for high-medium volume rural County road networks which offers a more sustainable and resilient pavement structure.

As part of the recycling and resurfacing strategy to renew the pavement condition and service level provided, other improvements are being incorporated into the scope of work, including new granular road side shoulders and new pavement markings.

Oxford Road 2 (Highway 401 to Oxford Road 22)

Also included in the 2024 Road Resurfacing project is the resurfacing of Oxford Road 2 (Highway 401 to Oxford Road 22) totalling approximately 5.7 kilometers. Oxford Road 2 is considered a rural road cross-section and acts as a primary east/west transportation corridor within the County road network. Segments of this road asset are exhibiting signs of pavement deterioration, thus providing a lower level of service and carrying an increased maintenance cost.

Similar to Oxford Road 24, a two-stage pavement recycling (CIP) and resurfacing rehabilitation approach (HMA) will be utilized to renew the pavement condition and extend the lifecycle of the road. Other improvements are also being incorporated into the resurfacing scope of work, including new granular road side shoulders and new pavement markings.

Oxford Road 20 - North Street West, Tillsonburg (West Town Limits to Broadway Avenue)

The 2024 Road Resurfacing project also includes the resurfacing of Oxford Road 20 – North Street West in Tillsonburg (west limits of Tillsonburg to Broadway Avenue) totalling approximately 1.08 kilometers. This section of Oxford Road 20 is made up of an urban road cross-section within the Town of Tillsonburg. This section of road acts as an east/west transportation corridor within the County road network and serves as a collector/arterial corridor within Tillsonburg. Segments of this road asset are exhibiting signs of pavement deterioration, thus providing a lower level of service and carrying an increased maintenance cost.

To renew the pavement structure and extend the road lifecycle a multi-step process will be undertaken on this stretch of road, starting with the full-depth asphalt removal of existing asphalts, fine grading of existing granular base including removal of excess material during regrading, rebuilding maintenance and catchbasin structures, and finally followed by the placement of new HMA base and surface lifts. This will result in renewing and increasing the depth of the entire pavement structure along his stretch of North Street. The full-depth existing asphalt removal process will be completed by means of a milling machine, allowing the County to salvage existing asphalt millings (recycled asphalt product – RAP) for stockpiling at the Salford Landfill Facility for re-use on future County projects.

Along with the full-depth asphalt replacement scope, other improvements are being incorporated into the project, including improvements and repairs to the existing concrete sidewalk pedestrian crossings at Quarter Town Line intersection. This scope will incorporate the removal and replacement of the existing curb and gutter radiuses, sidewalk ramps and the addition of bumped out curb sections at the intersection. These additional improvements will better accommodate pedestrian access and safety at the cross-walk locations at this intersection. New pavement markings will also be installed along the project limits on North Street.

Cold-In-Place Recycling Resurfacing Technology Method

The CIP method is expected to reduce new materials production and transport, as well as existing unrecycled materials disposal, resulting in avoidance of greenhouse gas (GHG) emissions of at least 50% when compared with a conventional mill and pave strategy.

Considering the multiple, project specific, varying factors of influence (region, distance to the site, the efficiency of equipment, etc.), it is estimated that up to 829 tCO2e of GHG emissions can be avoided by utilizing the CIP recycling method (based on 2007 MTO Study assumptions) for the 13.4 km of road resurfacing works versus the conventional mill and pave method.

A County map identifying the proposed road resurfacing locations for each road section has been included with this Council Report as shown in Attachment 1.

Comments

A prequalification process was undertaken and completed prior to the tendering stage of this project in December 2023. Staff reviewed the prequalification submissions and recommended that 10 Contractors be prequalified and invited to submit a bid for this project. The evaluation of submissions was based on a number of factors including Contractors' previous project experience with projects of similar scope, overall management team background as well as experience managing projects of this scale.

Provisional items for paved bike lanes along Oxford Road 24 (from Tavistock to Oxford Road 5), were included in the tender items to obtain pricing from contractors for consideration of implementing of a portion of the cycling primary network identified in the Council approved *2021 Cycle Master Plan* (CMP). However, the provisional cost total for bike lanes were not included into the bid amount as part of the final tender award since alternate funding for bike lanes could not be secured and corresponding project funding was not carried as part of the 2024 Business Plan and Budget.

Failing any reconsideration by Council to fund the bike lane provisional cost portion (~ \$297 K of \$593 K - 50/50 cost share with Perth County) using existing the project budget surplus (~ \$ 1.03 M) and include this provision in the current project award, implementation of this portion of the cycling primary network will then be deferred for approximately 10-15 years until it can be harmonized with the next cycle of road resurfacing at this location.

After the prequalification process was completed and eligible Contractors were invited to the tendering opportunity, the project was tendered through a competitive invite-only bidding process which opened on March 6, 2024. The tendering process closed on March 27, 2024 at 2 p.m. and seven bids were received in total, with bid amounts outlined in Table 2.

General Contractor	Bid Amount (excluding HST)	
1. Brantco Construction	\$4,501,576	
2. GIP Paving Inc.	\$4,652,914	
3. Associated Paving & Materials Ltd.	\$5,099,663	
4. Dufferin Construction Company	\$5,550,698	
5. Cox Construction Limited	\$5,561,080	
6. J-AAR Excavation Ltd.	\$5,611,450	
7. Permanent Paving Ltd.	\$5,821,882	

Table 2: Summary of Bid Submissions

Staff reviewed the qualified bid submissions and have confirmed that the low bid received from Brantco Construction, in the amount of \$4,501,576 (excluding HST), represents good value for the work.

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.

CONCLUSIONS

Review of the competitive bid submissions confirm that it is appropriate to award the 2024 Road Resurfacing project to the low bidder, Brantco Construction of Cambridge, Ontario.

SIGNATURES

Report author:

Original signed by

Alex Brown, C. Tech. Supervisor of Construction

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

ATTACHMENT

Attachment 1 – Map of 2024 Road Resurfacing