

**To:** Warden and Members of County Council

**From:** Director of Public Works

## **Contract Award – 2021 Road Resurfacing Improvements and Culvert Replacements**

### **RECOMMENDATIONS**

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1. That Oxford County Council award a contract to the low bidder, Coco Paving Inc., in the amount of \$3,968,000 (excluding HST), for the 2021 Road Resurfacing Improvements and Culvert Replacements;
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**

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- The purpose of this report is to obtain County Council approval to award the above-noted project for road resurfacing improvements and culvert replacements on various County Roads to Coco Paving Inc., in accordance with the County Purchasing Policy.
- The recommended rehabilitation strategies will help maintain and improve the overall County road network condition rating, renew pavement condition indexes and restore service levels. This work ensures that the County-owned road assets are in a good state of repair in alignment with the County's *2017 Asset Management Plan*.
- The improvements that are proposed to enhance pedestrian safety and mobility at controlled pedestrian crossings will help promote active transportation within the County's road network, in alignment with the County's *2019 Transportation Master Plan*.
- The storm assets proposed for replacement are required in order to maintain proper drainage function and safety within the road network, as well as to help ensure that unanticipated failures are prevented in the future.
- This project is anticipated to begin in May 2021 and is targeted for completion in October 2021.

### **Implementation Points**

Upon County Council approval, the Chief Administrative Officer and the Director of Public Works will execute a contract with the low bidder, Coco Paving Inc. in the amount of \$3,968,000 (excluding HST). With an executed contract in place, the Contractor and County staff will begin to implement a plan and schedule to complete the proposed scope of work. It is anticipated that the scope of work to be undertaken as part of this project will begin in May 2021 and be completed by October 2021.

Proposed culvert replacements along Oxford Road 2 between (Oxford Road 22 and the west limit of Princeton) are within a shared section of road with the County of Brant. The County of Brant has been provided with tender results related to the above culvert replacements and have agreed to cost share the associated work which is being undertaken by the County.

## **Financial Impact**

Road resurfacing and culverts replacements will be funded from the 2021 Business Plan and Budget. Culvert replacements along Oxford Road 2 (from Oxford Road 22 to the west limit of Princeton) are being 50/50 cost shared with the neighbouring municipality, the County of Brant, and the approximate amount of cost recovery from the County of Brant is \$70,000. Additionally, a section of Oxford Road 29 within the Ministry of Transportation Highway 401 corridor is being undertaken as part of this project. The expenditures for this work will be cost recoverable once completed in the approximate amount of \$235,769.

A summary of the financial impact of this contract on the following approved Capital budgets are presented in Table 1 below.

**Table 1: Funding Summary for 2021 Road Resurfacing and Culvert Replacements**

<b>2021 Capital Budget Account / Description</b>	<b>Available 2021 Budget</b>	<b>2021 Expenditures (excluding HST)</b>
<b>930099 – Rehab &amp; Resurfacing</b> (Approved Budget: \$4,905,000) (Less other projects: \$1,100,000)	\$3,805,000	\$2,983,638
<b>930199 – Rural Storm Sewer</b> (Approved Budget: \$1,770,000) (Less other projects: \$470,000)	\$1,300,000	\$965,009
<b>960406 – Water</b> (Approved Budget: \$6,000)	\$6,000	\$5,531
<b>950450 – Sanitary</b> (Approved Budget: \$65,000) (Less other projects: \$50,000)	\$15,000	\$13,822
<b>Subtotal</b>	<b>\$5,126,000</b>	<b>\$3,968,000</b>
<b>Non-Refundable HST (1.76%)</b>		<b>\$69,837</b>
	<b>2021 Total</b>	<b>\$4,037,837</b>

## **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 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.

Communication with the public (affected property owners and business owners) will begin when the project approaches initiation stages in the form of typical construction notices delivered by mail and/or hand delivery, when required. Communication will continue throughout the duration of the project as required to keep the affected parties informed and updated on the project's progress. Additionally, further outreach and promotion of construction activities will include advertisement on the County website and social media campaigns when required.







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 schedules and possible incorporation of work and infrastructure replacements. Furthermore, communication with the Ministry of Transportation took place regarding proposed work along Oxford Road 29 at the Highway 401 overpass; a Specific Road Service Agreement was executed in which work within Highway 401 right-of-way will be undertaken by the County on behalf of the Ministry of Transportation.

Proposed culvert replacements along Oxford Road 2 between (Oxford Road 22 and the west limit of Princeton) are within a shared section of road with the County of Brant. Communication took place during the planning stages of this project with Brant County staff regarding the proposed scope of work and estimated cost. The County of Brant agreed in principal with the proposed work and cost share to complete the required culvert replacements. After the tendering process was completed and bid pricing was known, Brant County staff were informed of the low bidder and bid pricing submitted for the associated works.

Staff will continue to work with key internal stakeholders (County Management staff, Transportation staff, Waste Management staff, and Water/Wastewater staff) and external 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.

Parts of Oxford Road 29 resurfacing have been included for a portion of available Federal Gas Tax funding. As part of the requirements of this type of funding, mandatory communication activities and promotion are required to help the public recognize the importance of infrastructure funding and its impact to their community; this includes project-appropriate information signs be installed within the project sites, additional advertisement on the County website and social media campaigns.

## Strategic Plan (2020-2022)

					
<b>WORKS WELL TOGETHER</b>	<b>WELL CONNECTED</b>	<b>SHAPES THE FUTURE</b>	<b>INFORMS &amp; ENGAGES</b>	<b>PERFORMS &amp; DELIVERS</b>	<b>POSITIVE IMPACT</b>
1.i. 1.ii.	2.i.	3.iii.	4.ii.	5.i. 5.ii.	

## DISCUSSION

### Background

Various County road segments have been selected for the 2021 resurfacing program based on the review of the 2015 *Road Needs Study*, *Asset Management Plan*, inspection/evaluation of the existing pavement distresses and conditions, and from the input and coordination from both Engineering Services and Transportation Management staff regarding operational issues and field observations.

A number of storm culvert replacements have also been included in 2021 as part of this project. Culvert replacements were identified by completing an inspection and condition assessment of the existing infrastructure along with input and recommendation from Transportation staff. Culverts identified along the selected road segments that were in a poor state of condition or determined to be beyond their useful service life were included for replacement.

A County map identifying the road resurfacing locations and culvert replacements has been included as Attachment 1 to this report. A description and background of the included scope of work within this project is provided below.

### Oxford Road 29 (West & East of Drumbo)

The resurfacing of Oxford Road 29 between Highway 401 to Drumbo and Drumbo to Oxford Road 36 have been included in this project. These road sections are a rural road cross-section within the County road network and act as an east/west transportation corridor. These road segments are exhibiting signs of pavement distresses and deterioration, thus providing a lower level of service and carrying an increased cost in maintenance. In addition, traffic counts in recent years have shown a significant traffic volume increase along this road network.

In order to renew the pavement condition and lifecycle of this asset, a recycling and resurfacing rehabilitation strategy has been selected. The existing pavement structure will be cold recycled in place, along with recycled asphalt or corrective aggregates as required to increase pavement structure followed by the placement of a new hot-mix asphalt wearing surface. This is the preferred method of renewing the pavement condition rating for rural road networks within the County and is a sustainable approach to a more resilient pavement structure. This strategy has been successfully used on many other high-volume County roads over the past decade. As part of the recycling and resurfacing strategy to renew the pavement condition, other improvements are being incorporated into the scope of work, including asphalt platform

widening and increased paved shoulder widths to help increase roadside safety and promote safe active transportation throughout the County's road network in alignment with the *Transportation Master Plan*.

### **Oxford Road 59 (Stover Street North, Norwich)**

Oxford Road 59 (Stover Street North) in Norwich has also been identified for resurfacing in 2021. This section of road is considered to be an urban road cross-section through the village of Norwich and acts as a main north/south corridor within the County's road network. In 2020, the underground infrastructure (sanitary and storm sewers) underwent repairs and replacements based on investigations from closed-circuit television (CCTV) video inspections. These repairs were completed in advance of and in preparation for planned road resurfacing scheduled for 2021.

This section of Oxford Road 59 (Stover Street North) is exhibiting signs of pavement distress and deterioration, indicating continued reduction in the level of service and an increased level of maintenance and cost if rehabilitation is not completed. In order to renew the pavement condition, asset lifecycle and level of service, a resurfacing rehabilitation strategy has been selected. The preferred method and resurfacing program selected for this stretch of urban roadway will include the partial depth cold-milling of existing asphalt pavement structure followed by the placement of a new hot-mix asphalt wearing surface.

In addition to resurfacing this stretch of road and renewing the pavement condition, other improvements are being incorporated as part of this work. This includes the replacement of concrete curb and sidewalk sections, new ladder-style pavement markings at intersections for controlled pedestrian crossings and compliant sidewalk crossing ramps with tactile plates and accessible curb and gutter drops at the intersection of Main Street and Stover Street.

### **Oxford Road 119 & 16 Intersection (Kintore)**

The intersection at Oxford Road 119 and Oxford Road 16 in the village of Kintore has also been included for resurfacing under this project. The existing asphalt at this intersection is experiencing significant rutting deficiencies in the north and south bound lanes along Oxford Road 119. Contributing factors for this pavement distress is related to this intersection being a major transportation route for north and south bound vehicles, including a large volume of heavy truck traffic and the continued start/stop condition of these heavy trucks at the intersection. In addition, traffic counts in the past five to seven years along Oxford Road 119 north and south of the intersection have shown a steady increase in traffic volumes.

In the past, shallow partial depth cold-milling and hot-mix asphalt paving with standard hot-mix asphalt types have been deployed to correct recurring rutting issues at this intersection. This strategy has corrected the issues but has had shorter than expected lifecycle outcomes. A more robust and intensive rehabilitation strategy has been investigated and selected in order to combat recurring pavement deformation and rutting issues. Moreover, it is also anticipated that this approach will yield a longer lifecycle between rehabilitations and/or reconstruction at this intersection.

The resurfacing strategy selected for this intersection is similar to previous methods; however, partial depth cold-milling of existing asphalts will be increased in depth, along with the use of

heavy duty hot-mix binder asphalts and premium hot-mix surface asphalts. Performance graded asphalt cement ranges used in the production of hot-mix asphalts have also been increased in grade in order to help with the effects of the heavy trucks starting and stopping at the intersection. Additionally, the use of asphalt reinforcement grid between new base and surface asphalt has been proposed to help add strength and load distribution between new hot-mix layers.

In addition to correcting the asphalt rutting deficiencies at this intersection, other improvements are being incorporated as part of this work, including replacement of existing concrete curb and gutter with accessible curb and gutter drops, compliant sidewalk crossing ramps with tactile plates and the addition of new ladder-style pavement markings at the intersection for controlled pedestrian crossings.

### **Storm Infrastructure, Culvert Replacements (Various Locations)**

As part of this contract, a combined total of 31 storm culvert replacements were included along various County road segments including Oxford Roads 27, 2, 29 and 59. Oxford Road 27 has a total of fifteen proposed culvert replacements to be completed, while Oxford Road 2 (shared section with County of Brant) has a total of three proposed culvert replacements, and County Road 29 has a combined total of three culvert replacements.

As mentioned previously, culvert replacements were identified and selected after evaluation of the current culvert conditions were considered, in addition to recommendations from Engineering and Transportation staff. Most of the culvert locations proposed for replacement in 2021 are along road segments that have been selected for upcoming road resurfacing plans in the coming year(s), while a total of eight culverts located along County Road 59 (between County Road 8 and County Road 34) and two culverts on County Road 2 (Eastwood – between Highway 401 and County Road 55) were included to address recent concerns regarding existing conditions.

Replacement of underground infrastructure in the years leading up to and ahead of planned road resurfacing programs is the preferred method for culvert replacements and has proven to be beneficial to overall project outcomes. This method also helps with making sure any possible settlement concerns are addressed and corrected the following year prior to road resurfacing work. Furthermore, this process reduces the overall duration at each location and overall impact to road users each year, as the length of disruption is shortened and instead spread out over multiple years.

## Comments

A prequalification process was completed ahead of the tendering stages of this project in December 2020. Staff reviewed the prequalification submissions and recommended that nine Contractors be pre-qualified for invitation to submit bids on this tender opportunity. The evaluation of submissions were based on a number of factors including Contractors' previous project experience with similar projects of scope and size, overall management team background and experience managing projects of this scale.

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.

After the prequalification process was completed and the Contractors that were eligible to move forward were selected, the project was tendered through a competitive bidding process, which opened on February 25, 2021. The tendering process closed on March 17, 2021 at 2:00 p.m. and the following three bids were received, with bid amounts outlined in Table 2 below.

**Table 2: Summary of Bid Submissions**

<b>General Contractor</b>	<b>Bid Amount (excluding HST)</b>
1. Coco Paving Inc.	\$3,968,000
2. Permanent Paving Ltd.	\$4,327,959
3. J-AAR Excavation Ltd.	\$4,848,645

Staff reviewed the bid submissions and have confirmed that the low bid received from Coco Paving Inc., in the amount of \$3,968,000 (excluding HST), represents great value for the work.



## **Conclusions**

After review of the bid submissions, it is recommended that the 2021 Road Resurfacing Contract be awarded to the low bidder, Coco Paving Inc. Award of this Contract will allow important rehabilitation and improvement needs to the County's rural and urban road network to proceed, including replacement of deteriorated storm culvert infrastructure along various County roads ahead of future road resurfacing programs.

## **SIGNATURES**

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### **Report Author:**

Original signed by:

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Alex Brown, C. Tech  
Coordinator of Construction

### **Departmental Approval:**

Original signed by:

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

### **Approved for submission:**

Original signed by:

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Michael Duben, B.A., LL.B.  
Chief Administrative Officer

## **ATTACHMENT**

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Attachment 1: 2021 Road Resurfacing and Culvert Replacement Map