

**Municipality of Chatham-Kent**  
**Infrastructure and Engineering Services**  
**Engineering and Transportation Division**

**To:** Mayor and Members of Council

**From:** Brendan Falkner, P.Eng., MEM  
Manager, Engineering (Roads & Bridges)

**Date:** April 6, 2021

**Subject:** Tender Award, Contract # T21-105C, Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material

---

**Recommendations**

It is recommended that:

1. The 2021 Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material Program be approved.
2. The tender in the amount of \$3,359,384.23 including HST for Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material be awarded to Huron Construction Company, a division of Brennan Paving and Construction Ltd.
3. The Mayor and Clerk be authorized to sign the necessary agreement.

**Background**

The Engineering and Transportation staff have reviewed various road sections to be rehabilitated in the 2021 Cold In-Place Recycling with Expanded Asphalt Material (CIREAM) and Full Depth Reclamation (FDR) Program, based on the Pavement Condition Index (PCI). This data, collected by StreetScan in early 2020, was used for the purpose of identifying candidates for a multi-year Cold In-Place Recycling Program, including the road sections identified for this year's program.

To confirm that the roads identified by Engineering staff were appropriate candidates, further geotechnical investigations were required and completed. In the fall of 2019 (Front Line) and the winter of 2021 (Communication Road and Middle Line) MTE Consultants Inc. were commissioned to complete the investigations and provide a technical report for each of these road sections. The investigations consisted of a visual inspection as well as core sampling of the existing asphalt pavement to determine the pavement and subbase structure.

The road sections identified in this year's CIREAM contract (Communication Road, Front Line and Middle Line) were recognized as appropriate candidates for the Cold In-Place Recycling and Full Depth Reclamation.

Communication Road and Middle Line will be rehabilitated with Cold In-Place Recycling with Expanded Asphalt Material (CIREAM). In this process, the existing hot-mix asphalt is reclaimed, sized, treated with the desired binder, relayed and compacted in one stage. Once the new base layer has properly cured, determined by testing base samples, an asphalt overlay is placed on this layer.

Front Line between Ridge Line and Kent Bridge Road is experiencing degradation due to its stratigraphy, which includes granular base fill material sandwiched between the existing surface asphalt and a layer of buried asphalt below. This composition traps ground water within the granular base, as well as promotes slippage between the layers. A typical mill and pave or overlay operation would not eliminate the issues and therefore alternative paving solutions were explored.

Front Line will be rehabilitated with Full Depth Reclamation (FDR) with Cold In-Place Recycling with Expanded Asphalt Material (CIREAM). This process is an engineered rehabilitation technique in which the full thickness of the asphalt pavement and a predetermined portion of the underlying materials (base, subbase and/or subgrade) is uniformly pulverized and blended to provide an upgraded, homogeneous material. The reclaimed materials are then improved and strengthened by using the desired Mechanical, Chemical or Bituminous stabilization. Once the new base layer has properly cured, determined by testing base samples, an asphalt overlay is placed on this layer.

Full Depth Reclamation combined with Cold In-Place Recycling, provides a number of benefits over other reconstruction methods. The process can rehabilitate pavement exhibiting age, thermal, fatigue and reduce reflective cracking. It also has been found to be cost effective by recycling 100% of the existing road. There are also environmental benefits by eliminating the hauling of new materials and re-using the existing asphalt pavement. The Full Depth Reclamation process combined with Cold In-Place Recycling, provides a service life of up to 15 years with significantly less cost than other reconstruction techniques.

### **Comments**

The 2021 Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material contract provides for the rehabilitation of Communication Road from South of the Highway 401 Interchange to Drury Line (4.2 km), Front Line from 2,100 m West of Kent Bridge Road to Mull Road (2.0 km) and Middle Line from the West limit of Merlin to Valetta Road (8.2 km). A location map for the 2021 Cold In-Place Recycling (Appendix A) has been attached to assist Council in identifying these locations.

Review for future bridge rehabilitations, required culvert replacements and watermain replacement projects have been completed. Due to the significant impact to the Ridge Landfill Haul Route on Communication Road, Engineering staff have met with staff from Waste Connections of Canada to review the upcoming project and create an alternate route for the Ridge Landfill truck traffic.

Tenders were called and received by the Purchasing Officer on Thursday, March 18, 2021.

Two (2) contractors submitted tenders for the project and bidding was an open competitive process.

The results are as follows:

Bidder	Location	Bid (including HST)
Huron Construction Company	Chatham, ON	\$ 3,359,384.23
Coco Paving Inc.	Tecumseh, ON	\$ 4,112,954.23

The Engineering and Transportation Division has reviewed the tenders and found them to be complete in all respects.

It is the recommendation herein that the contract be awarded to Huron Construction Company, a division of Brennan Paving and Construction Ltd. who submitted the lowest acceptable tender bid.

### **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 the Engineering and Transportation Division.

### **Financial Implications**

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

Financial Implications  
Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material  
Project Costs

Recommended Tender (Including HST)	\$ 3,359,384.23
Less HST Rebate 11.24%	-\$ 334,154.68
<b>Total Current Project Costs</b>	<b>\$ 3,025,229.55</b>
<b>Project Funding – 2021 Lifecycle Road Budget</b>	<b>\$ 3,025,229.55</b>

The total current project costs listed above will be funded from the 2021 Roads Lifecycle Reserve, which includes funds under the Association of Municipalities of Ontario (AMO) Federal Transfers of Federal Gas Tax Funding Agreement.

The low tender bid submitted by Huron Construction Company was within the budget estimate.

Prepared by:

---

Paul Tippin, A.Sc.T.  
Engineering Technologist  
Engineering and Transportation

Reviewed by:

---

Brendan Falkner, P.Eng., MEM  
Manager, Engineering (Roads & Bridges)  
Engineering and Transportation Division

Reviewed by:

---

Chris Thibert, P.Eng.  
Director, Engineering  
Engineering and Transportation

Reviewed by:

---

Thomas Kelly, P.Eng., MBA  
General Manager  
Infrastructure and Engineering Services

Consulted and confirmed the content of the consultation section of the report by:

---

Jennifer Scherle  
Purchasing Officer

Attachments: Appendix A – Location Plan

(RTC:\Infrastructure & Engineering\I&ES\2021\4371 – Tender Award Contract T21-105C (Cold In-Place Recycling and Full Depth Reclamation with Expanded Asphalt Material)

