

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering and Transportation Division

To: Mayor and Members of Council

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

Date: April 12, 2021

Subject: Single Source Tender Award, Contract # T21-102A Fibre Reinforced Surface Treatment

Recommendations

It is recommended that:

1. The Fibre Reinforced Surface Treatment contract be approved.
2. The tender in the amount of \$758,761.10 (including HST) for the Fibre Reinforced Surface Treatment contract be awarded to Norjohn Contracting and Paving Limited.
3. The Mayor and Clerk be authorized to sign the necessary agreement.

Background

The Engineering and Transportation staff derived a list of road sections based on Pavement Condition Index (PCI) collected by StreetScan in 2020 and through consultation with Public Works. This data was used for the purpose of identifying ideal candidates for innovative Surface Treatment trial sections.

In an effort to support innovative technologies and procedures for surface treated roads, the Engineering and Transportation division invited Norjohn Contracting and Paving Limited in to meet with staff to discuss Fibre Reinforced Surface Treatment and the potential for additional sections to be completed within the Municipality. Based on the condition of previous trial sections, as well as the cost benefit noted in 2019, Engineering staff believe it would be advantageous to continue utilizing this innovative technology.

Fibre Reinforced Surface Treatment combines a special polymer modified asphalt emulsion with chopped fiberglass strands and a special aggregate. This combination is proven to make the mixture highly resilient to reflective and alligator cracking as it bridges and holds the mix together.

Comments

The 2021 Fibre Reinforced Surface Treatment Contract consists of single applications for approximately 6.9 km of roadway. The tables and map outlining the road sections to be completed are shown in Appendix A and B (attached).

Areas for improvement were identified, reviewed and prioritized by the Engineering and Transportation Division and through consultation with the Public Works Division. Road segment selections are based on condition ratings and road usage.

Fiber reinforced surface treatment was used in trial applications in 2013, 2014 and again in 2019 and 2020 throughout Chatham-Kent. Recent visual inspections of these sections clearly indicated that the fibre reinforced surface treatment sections are holding up better than its regular counterpart. Engineering will continue to closely monitor the performance and lifecycle of the existing and new trial road sections in order to obtain results specific to Chatham-Kent. This will assist with consideration for use of fibre reinforced chip seal on future contracts.

Engineering staff have also been in contact with surrounding municipalities that are using this technology. It was noted that these Municipalities seem to be increasing their use of fiber reinforced surface treatment in lieu of regular, non-reinforced chip seal.

Any known conflicts with future bridge, water main, storm sewer or other utility work were identified in the draft stages of the 2021 fibre reinforced surface treatment contract and the list was adjusted accordingly.

The engineering, contract administration and inspection on this project are being carried out by the Engineering and Transportation Division.

Tenders were called and received by the Purchasing Officer on Thursday, March 11, 2021.

One contractor submitted tenders for the project and bidding was an open and competitive process.

The results are as follows:

Bidder	Location	Bid Amount (including HST)
Norjohn Contracting and Paving Limited	Niagara Falls, ON	\$ 758,761.10

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 Norjohn Contracting and Paving Limited who submitted the lowest 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

This project is being funded through the 2021 Lifecycle Roads Budget.

Description	Total
A) Project Costs	
Recommended Tender (Including HST)	\$ 758,761.10
Less HST Rebate (11.24%)	- \$ 75,473.23
Total Project Cost	\$ 683,287.87
B) Project Funding	
Lifecycle Roads Reserve	\$ 683,287.87
Total Project Funding	\$ 683,287.87

The lowest tender bid, submitted by Norjohn Contracting and Paving Limited was within the budget estimate.

Prepared by:

Reviewed by:

Nagendar Reddy, EIT
Engineering Technologist I,
Engineering and Transportation

Brendan Falkner, P.Eng.
Manager, Engineering
Engineering and Transportation

Reviewed by:

Reviewed by:

Chris Thibert, P.Eng.
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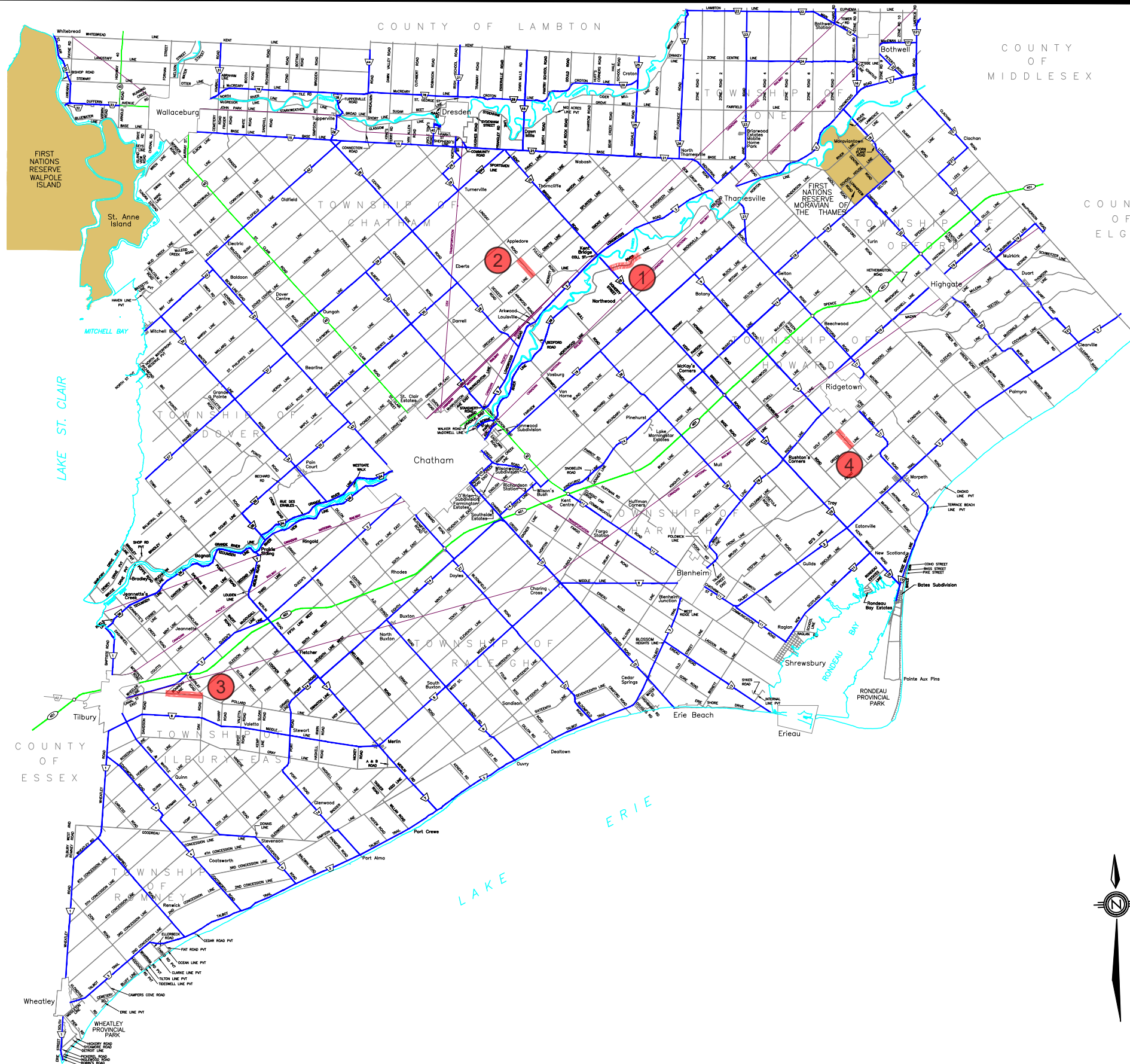
Consulted and confirmed the content of the consultation section of the report by:

Jennifer Scherle
Purchasing Officer
Financial Services

Attachments: Appendix A: Fibre Reinforced Surface Treatment – List
Appendix B: Fibre Reinforced Surface Treatment – Locations

Location Schedule – Approximate Distances and Widths

Municipal Area	Street/Road	Location Description	Length (m)	Width (m)	Treatment Area (m2)	Shoulder Width (m)
Township of Harwich	River Line	Kent Bridge Line to 2220m W of Scane Road	1780	6.6	11,748	1.0
Township of Chatham	Lindsay Road	Darrell Line to Pioneer Line	1412	7.0	9,884	1.0
Township Tilbury-East	Pollard Line	Bonneau Line to McKinlay Road	2320	6.7	15,544	0.3
Township of Howard	Scane Road	Golf Course Line to Green Line	1370	6.5	8,905	1.0



2021 Fibre Reinforced Surface Treatment

RURAL

1. River Line - Kent Bridge Road to 2220m W of Scane Road
2. Lindsay Road - Darrell Line to Pioneer Line
3. Pollard Line - Bonneau Line to McKinlay Road
4. Scane Road - Golf Course Line to Green Line

PLEASE NOTE:

ROADS ARE PRIORITIZED AS WORK PROCEEDS AND MAY BE SUBJECT TO CHANGE DUE TO UNFORESEEN TECHNICAL CIRCUMSTANCES.



MUNICIPALITY OF CHATHAM-KENT
Infrastructure & Engineering Services
Engineering & Transportation Division

APPENDIX B: T21-102A FIBRE REINFORCED SURFACE TREATMENT LOCATIONS

SHEET NO.
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