

Subject: Merritt Road Rehabilitation between Line Avenue and Rice Road

Recommendation:

BE IT RESOLVED THAT Council receive Report #2024-0142, Merritt Road Rehabilitation between Line Avenue and Rice Road, for information;

AND THAT Council APPROVE the award of the capital repairs to Merritt Road between Line Ave and Rice Road to Circle P Paving in the amount of \$107,415.00 (plus applicable taxes);

AND THAT Council direct staff to fund the capital repairs to Merritt Road using \$107,415 from the general contingency for the Quaker Road Reconstruction project RD 09-24 (cost centre # 300683).

Background:

In 2021, Niagara Region undertook a Schedule 'C' Municipal Class Environmental Assessment, including a detailed transportation assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in Pelham, Thorold, and Welland.

The proposed new regional road is an unopened road allowance on Merritt Road between Rice Road and Cataract Road. In March of 2024, the Environmental Assessment and detailed Transportation Assessment for Merritt Road and Rice Road was completed. Based on the results of the Municipal Class EA completed by Niagara Region the Town has plans to make improvements to Merritt Road between Pelham Street and Rice Road. It is anticipated that the design for this section will be completed in the next 2-3 years with construction planned for 2028/2029.

In the Fall of 2023, the Region tendered the Quaker Road Sanitary Sewer Project and awarded it to Peter's Excavating. This project includes the installation of a sanitary trunk main between Pelham Street and Rice Road. The project was initiated as a result of the most recent 2016 Wastewater Master Servicing Plan which found Pelham as an area of significant growth. To support existing and future flows and system connectivity associated with growth, more trunk sewer capacity was recommended along Quaker Road. This project also includes the full urbanization of Quaker Road between Pelham Street and Line Ave. This project was approved by Council as part of the 2024 capital budget under project RD 09-24.

Merritt Road between Line Avenue and Rice Road is a local collector road that runs East-West. Merritt Road has a current Pavement Condition Rating of 48 and has seen a significant increase in traffic over the years due to development in the area. This section of road was originally planned to be included in the 2023 Road Rehabilitation Program; however, due to the Region's Merritt Road Municipal Class EA, the rehabilitation was deferred until the preferred solution was identified.

Recently, due to the commencement of the Quaker Road Sanitary Sewer Installation project and due to the closure of Quaker Road, Merritt Road has seen a significant increase in local traffic as well as construction traffic using it as a detour to gain access to Rice Road from Pelham Street.

Analysis:

The average PCI of the Town's Road network is 65 out of 100. A decrease from the 2019 average PCI of 69. The 2023 Pavement Condition Study completed by ARA recommended that to maintain the average PCI at its current level an annual investment into the road network of \$8 million per year is required. Without this level of spending the average PCI of the network will continue to decrease over time.

Based on the 2023 Pavement Condition Index (PCI) Study and road patrols, the section of Merritt Road between Line Ave and Rice Road is failing.

Over the years, Town staff have consistently conducted patching operations using both cold patch products and hot mix to minimize the risk to the public. Nevertheless, with the amount of traffic the road is currently experiencing the shoulders are starting to fail and it is anticipated that without an emergency intervention in the immediate future the entire road will be lost.

It is anticipated that Merritt Road extension between Rice Road and Cataract Road will be completed in the next 5 to 6 years by Niagara Region. In addition, Town staff are planning for the reconstruction of Merritt Road between Pelham Street and Rice Road in 2028/2029. Staff are concerned that the section of Merritt Road between Line Avenue and Rice Road will not hold up to the traffic it is experiencing before the reconstruction project can be completed.

The Town has experienced increased operational maintenance costs as a result of the poor condition of the road network. In addition, staff are receiving public service requests (PSRs) at an increasing rate related to road conditions specifically regarding potholes. Maintaining minimum maintenance standards is becoming more difficult, which ultimately places the corporation at risk. In the spring of 2024, Town staff awarded Circle P Paving the road base and surface repair program (RD06-24). In addition, staff tendered the 2024 road rehab program in the spring of 2024. The project was awarded to Walker Construction.

Recently Town staff have approached Circle P Paving and Walkers Construction to provide the Town with a quotation to complete remedial repairs to prolong Merritt Road's useful life until the road can be permanently reconstructed in 2028/2029. The contractors submitted proposals to the Town for review. Staff have reviewed the proposals and selected the method Circle P Paving provided. This option proposes to fix the shoulders with Hot Mix Asphalt and apply a Surface Treatment Layer as a wearing course (see Table 1 below). This would increase the service life of the road by approximately 5 to 6 years and increase the PCI in the short term. The total cost for this repair is estimated at \$107,415.00 (plus applicable taxes). The Walker's proposal includes the application of a thin layer of bonded wearing course which will improve the rideability of the road surface but does not strengthen the shoulders of the roadway.

It is staff's recommendation to move forward with the Circle P proposal because this option provides the best technical solution at the most economical cost. The proposed method presented by Circle P Paving is shown in the able below:

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Milling Shoulders	Asphalt Milling of Shoulders, 50mm Depth
Asphalt Shoulders	Supply and place hot mix asphalt, HL8 HS, 50mm thick for road base repair
Single Surface Treatment	 a.) Single layer surface treatment, supply and application of HF150S emulsion b.) Surface Treatment, Supply and Place Class 1 Aggregate

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The Region is managing the Quaker Road Project (between Line Avenue and Pelham Street) for the Town of Pelham. This project was approved by Council in 2024 under Capital Project RD 09-24. This project has a contingency of \$402,560.00 built into the tender price. In addition, value engineering was applied after the design stage and there was a reduction in the thickness of the overall pavement structure from what was originally tendered. This will mean that there will be fewer materials used in the reconstruction of the roadway resulting in less cost to the Town. As a result, it is anticipated that there will be significant savings during the construction stage of this project. At this point, the contractor has not commenced work on the town's portion of the project but in conversation with Region Staff, it is not anticipated that there will be significant extras that would negatively impact the general project contingency.

Town Staff have approached the Region to share in the cost of the remediation of the works on Merritt Road because the roadway is experiencing a significant traffic volume increase due to the construction on Quaker Road. Regional staff have declined the opportunity to share this costs. Staff will continue to have conversations with the Region to try and negotiate a settlement for a portion of the repair cost. Council might consider making a formal request of Niagara Region, or seek support from the Town's representatives on Regional Council.

Staff recommends that Council approves the remediation measures as identified in Table 1 above and funds the work through the general contingency fund approved under capital project RD 09-24 (Quaker Road Reconstruction Project).

Financial Considerations:

Council approved a capital project in 2024 for the reconstruction of Quaker Road (RD 09-24) between Line Ave. and Pelham Street which included a general contingency amount of \$402,560.

The estimated cost to complete the remedial repairs on Merritt Road between Line Ave and Rice Road is estimated at \$107,415 (plus applicable taxes).

It is the staff's recommendation to proceed with the remedial work on Merritt Road between Line Ave. and Rice Road for \$107,415 (plus applicable taxes) and fund the project using \$107,415 from the general contingency of the Quaker Road Project RD 09-24.

Alternatives Reviewed:

Council may decide to not approve the reallocation of the funds. This would increase operational maintenance costs as a result of the poor condition of the road network, an increase in safety concerns, and public service requests (PSRs). Staff is not supportive of this course of action seeing that the annual investment into the Town's road network is considerably lower than the recommended \$8M annual investment (see 2023 Pavement Condition Study).

Strategic Plan Relationship: Infrastructure Investment and Renewal

The Town's infrastructure benefits from the timely replacement of our aging infrastructure and is critical to ensuring the Town maintains a safe and efficient transportation network.

Consultation:

Consultation was undertaken with the Manager of Engineering and Town Treasurer regarding the financial and budgetary considerations for this report.

Other Pertinent Reports/Attachments:

2023-0134 Town of Pelham 2023 Pavement Condition and Road Need Study, June 21,2023.

Appendix A - Town of Pelham 2023 Pavement Condition and Road Need Study

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