



INFRASTRUCTURE SERVICES *Staff Report*

REPORT NO: IS-2024-20

TO: Council

SUBMITTED BY: Jeff Molenhuis, P.Eng., Director of Infrastructure Services

PREPARED BY: Mark Jeffery, C.E.T., Senior Engineering Technologist

REVIEWED BY: Sharon Chambers, Chief Administrative Officer

DATE: 2024-07-29

SUBJECT: Bridge #34/B-T9, Bridge Street - Emergency Slope Repair

RECOMMENDATION:

That Report No. IS-2024-20, Bridge #34/B-T9, Bridge Street – Emergency Slope Repair be received for information.

SUMMARY:

This report provides background information on emergency works undertaken by the Township and its contractor, on site due to a slope failure that occurred at the southwest quadrant of Bridge #34/B-T9, located on Bridge Street, the measures taken by staff to undertake the slope reinstatement, and the financial implications of the emergency works performed.

BACKGROUND:

Bridge #34/B-T9, located on Bridge Street, just east of Tye Road, was recently reconstructed over the course of two years and was substantially complete in September of 2023. On February 5, 2024, the Township became aware of a slope failure on the southwest embankment of this bridge structure that occurred during a freeze thaw cycle coinciding with a significant rainfall event in late January that resulted in elevated water levels within the Nith River watershed destabilizing the vegetated embankment ultimately causing the slope failure.

As the slope failure occurred during these coincidental extreme weather events, the slope failure is not considered to be warranty work and determined not to be the fault of the contractor as the required vegetation had not had an opportunity to fully establish.

Once informed of the issue, staff immediately reached out to the consulting engineer originally contracted for the bridge replacement project as well as a geotechnical engineer to assist in the slope rehabilitation plan and to determine the best course of action going forward. The slope failure was investigated by the engineering consultants and solutions were presented to Township staff with the preferred solution being to restore the slope with large rip-rap stone material to prevent further sloughing as opposed to the vegetated slope that was originally constructed in this location.

The slope failure did not cause a disruption to the travelled portion of the roadway, as such Bridge Street did remain open to traffic. However, Bridge Street between Tye Road and Puddicombe Road was closed to traffic for one week during the slope reinstatement work in May.

REPORT:

In mid-March, staff reached out to the original contractor who undertook the replacement of Bridge #34/B-T9, and after a brief discussion regarding the scope of work to undertake the preferred solution required to reinstate the slope, a schedule of items and unit prices was forwarded to the contractor to provide the Township with a price quote to complete the work. Staff approached the original contractor as there is an existing contractual relationship currently. This was done to maintain compliance with Procurement ByLaw 2021-43 Provision 71 which states:

71. The Purchasing Agent may under the following conditions negotiate directly with one or more Bidders and in such cases the requirement for inviting tenders or quotations is waived:

c) Where the extension or reinstatement of an existing contract or continuation with an existing vendor, with CAO and Treasurer approval, would be more cost effective or beneficial to the Township;

In early April, the contractor forwarded their quote to the Township, which was higher than staff anticipated, and staff subsequently asked the contractor to revisit their quote. The contractor revisited their quote however the revised quote was still higher than staff would have expected for a similar type of repair and therefore was rejected.

Staff then contacted a second contractor who is currently under contract with the Township for projects on Wilmot Line and Greenwood Drive and requested they provide a quote for this work. The bid package was forwarded to the second contractor in late April with the Township receiving their quote shortly afterwards. The quote received from the second contractor was found to be

considerably less than the original contractor's quote and in line with staffs estimate to complete this work.

The repaired was deemed an emergency expenditure as staff it was necessary to expedite the repair process of this slope failure as this area is within a flood prone area adjacent to the Nith River, and staff were concerned with the possibility of additional erosion that could compromise the structural integrity of the road in the newly reconstructed area, should the repairs not be completed in a timely fashion. As such, Bylaw 2021-43 Provision 65 was utilized to proceed:

SPECIAL PROVISIONS (EMERGENCIES, PHASED-ACQUISITIONS, NEGOTIATIONS AND AUCTIONS)

65. When an emergency occurs, the Treasurer has the authority to authorize a direct purchase, upon receiving written or verbal request from a Purchasing Agent, for the goods and services required.

After review of submitted information received, the Director of Corporate Services/Treasurer provided approval to proceed with the emergency repairs to the sloped embankment at Bridge #34/B-T9.

The second contractor was notified in early May that their price quote to complete this work was approved by the Township and shortly after a work plan was developed with the work scheduled to take place the week of May 27. The emergency slope reinstatement commenced as scheduled on Monday, May 27 and was completed Friday May 31. The slope reinstatement was completed as intended although through the course of project, it was decided that a concrete curb and gutter system to direct storm runoff away from the top of slope, would be beneficial and the concrete curb and gutter was subsequently installed by the contractor.

Township staff assisted in this project, and to help offset additional costs by setting up the road closure and detour route while the emergency work was being completed.

The GRCA was contacted prior to the work taking place, and a discussion ensued regarding the need to secure permits to undertake this work. GRCA staff concluded that this work could proceed under the original GRCA permit to reconstruct the bridge and not additional permitting was required.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

This initiative supports the goals and strategies of enhancing:

Responsible Governance through Fiscal Responsibility, and Infrastructure Investments.

Quality of Life through Accessibility and Inclusivity, Active Transportation and Transit.

FINANCIAL CONSIDERATIONS:

All project costs have been received from the contractor for the emergency slope reinstatement including the concrete curb and gutter system at Bridge #34/B-T9. The final invoice received from the contractor was in the amount of \$49,760.64, net HST. As such, the overall costs for the Bridge Replacement Project - Bridge #34/B-T9, will remain within the approved budget for this capital program and therefore no additional funding was required to undertake this emergency work.

ATTACHMENTS:

None.