

Staff Report

Presented By: Ruhul Amin, Manager Engineering Services

Meeting Date: July 7, 2025

Subject: Kolb Bridge Design

Attachment(s): Pearson Design Alternative presentation

Recommendation

That Council receive the Kolb Bridge Design Report for information.

Report Summary

Pearson Engineering Ltd. has submitted their final design recommendation for the Kolb Bridge replacement. This report provides Council with the design proposal for the Kolb Bridge project for information.

Background/Analysis

The Kolb Bridge has been subject to regular inspections since 2012. A 2020 assessment conducted by GM BluePlan Engineering rated the structure's condition as fair to poor and recommended its closure by the end of 2020. Consequently, the bridge is currently closed to vehicular traffic.

In 2022, the Town of Saugeen Shores engaged Planmac Engineering to carry out a Municipal Class Environmental Assessment (EA) and develop concept designs. Six alternatives were evaluated, with Alternative 4 - replacing the bridge with a single-lane structure - identified as the preferred solution. This option was endorsed by Town Council on March 14, 2022.

In 2025, Pearson Engineering Ltd. was retained to complete the detailed design and prepare for construction scheduled in 2027.

Recommended Design

The proposed design features a prefabricated steel panel truss bridge with a steel deck panel topped by an asphalt surface. Components will be fabricated off-site and installed using a "roll-out" method, minimizing on-site construction time. The bridge will incorporate hot-dip galvanized steel elements and waterproofing beneath the asphalt layer to enhance durability. While

alternative deck materials, such as wood or concrete, are feasible, they may result in increased costs.

The design maintains a single-span configuration with double truss panels on each side. This approach leads to a slight reduction in vertical clearance (approximately 0.2 meters) and a 3.7% decrease in hydraulic capacity. Importantly, the design closely mirrors the original 1931 bridge, thereby preserving its cultural heritage value. The estimated Service-Life is 75 to 90 years.

Consultant's engineer Jesse Borges is attending the meeting to present these recommendations and to answer any questions Council may have.

Summary

Pearson recommended that the Town proceed with the design option featuring a prefabricated steel panel bridge with an asphalt wearing surface. While construction is currently planned for 2027 under the Town's 10-year capital plan (Estimated Construction Cost: \$2,800,000 (+ HST)).

Linkages

- Strategic Plan Alignment: Pillar 1: Meeting the Needs of a Growing Community
- Business Plan Alignment: Development Services Capital Highlight

Financial Impacts/Source of Funding

Cost associated with this program are contained within the existing budget.

Prepared By: Ruhul Amin, Manager, Engineering Services

Reviewed By: Mark Paoli, Director, Development Services

Approved By: Kara Van Myall, Chief Administrative Officer