

Report to Council

Report Title:	Riversdale Bridge Environmental Assessment Option 3 Decision		
Prepared By:	Gregg Furtney, Director of Operations		
Department:	Public Works		
Date:	March 23, 2021		
Report Number:	PW2021-07	File Number:	C11PW
Attachments:	GM BluePlan Review Letter and Comparison for Replacement of the Riversdale Bridge		

Recommendation:

That the Council of the Municipality of Brockton hereby receives Report Number PW2021-07 - Riversdale Bridge Environmental Assessment Option 3 Decision, prepared by Gregg Furtney, Director of Operations, and in doing so approves a _____ lane bridge to replace the existing Riversdale Bridge in order to close out the Schedule 'B' Municipal Class Environmental Assessment (EA) Process.

Report:

Background:

The Riversdale Bridge (Greenock Bridge No. 2) is a steel truss, single span bridge supported at each end by concrete abutments. It has a timber deck with a gravel approach from the east and an asphalt approach from the west. It is approximately thirty-seven (37) meters long and approximately four (4) meters wide. The bridge structure has been recommended for replacement since 2014 and has had repair work already done to it in 2003 and 2008, including the replacement of several steel truss members, steel stringers, steel crossbeams, and the timber deck.

On May 12, 2020, Report No. PW2020-13 was brought to Brockton Municipal Council requesting the immediate closure of the Riversdale Bridge. GM Blue Plan provided their recommendation of closure.

On June 23, 2020, Report No. PW2020-17 to Brockton Municipal Council providing Council information regarding correspondence that had been received by staff from residents in the Riversdale area. GM Blue Plan provided their recommendation with regards to Load Restrictions. The possibility of keeping the bridge open but lowering the Load Restrictions, a request by residents, was reviewed. The recommendation was to keep the bridge closed.

On October 13, 2020, Report No. PW2020-29 was brought to Brockton Municipal Council which provided Council with an update on the process.

On November 9, 2020, Municipal Staff and GM BluePlan held a virtual public meeting.

November 23rd, 2020, was the final day for the public to make comments on the Schedule 'B' Municipal Class Environmental Assessment.

On February 9, 2021, Report No. PW2021-02 was brought to Brockton Municipal Council, following a delegation presentation by GM BluePlan, where GM BluePlan and staff outlined all of the options reviewed for and during the Schedule 'B' Environmental Assessment. Municipal staff and staff from GM BluePlan provided Brockton Municipal Council with a recommendation on the "Preferred Solution". Council decided to move forward with replacing the bridge, Option 3 "One or Two Lane Vehicular Bridge". The decision, however, to go with a one or two lane bridge structure was deferred.

Analysis:

The purpose of this report is to provide Brockton Council with further information on the option to replace the existing Riversdale Bridge with either a one-lane or two-lane bridge structure. Once a one-lane or two-lane bridge structure is decided upon, then GM BluePlan can issue the Notice of Project Completion. Once the Notice of Project Completion is advertised, then there is a 30-day Review Period and, for Indigenous Communities, a Part II Order Request Period. Once these steps are completed, then staff can work with GM BluePlan to prepare and issue tender documents. Construction would commence once Council has decided upon a tender winner and after all the necessary permits and approvals are in place.

Staff at GM BluePlan have prepared a "Riversdale Bridge Comparative Assessment of the One-Lane and Two-Lane Bridge Alternatives". They have also submitted a comprehensive letter that outlines the reasoning, in detail, that supports their recommendation.

GM BluePlan's comprehensive letter discusses nine (9) reasons why they believe that a two-lane bridge structure is the preferred solution:

- 1.) Road Design Standards
- 2.) Agricultural Traffic
- 3.) Potential For Impact Damage
- 4.) Emergency Services
- 5.) Detour Route
- 6.) Alternative Winter Route
- 7.) Active Transportation and Recreational Vehicles
- 8.) Natural Environmental
- 9.) Replacement and Maintenance Costs.

Capital Costs will certainly be dependent on whether Council decides upon a one-lane or two-lane structure and also the design alternative (Steel, Cast-In-Place Concrete, or Timber) that is selected. Generally speaking, a two-lane bridge structure is in the range of 15% to 25% more than a one-lane bridge structure. This marginal cost difference, over the 75-year life expectancy of the structure, is anticipated to be relatively minimal.

Figure A.

Structure Cost Comparison For A One-Lane VS Two-Lane Structure								
					Estimated Cost (\$)	Estimated Cost Range (\$)		
Description:								
One-Lane Cast-In-Place Concrete Structure					\$ 1,642,600.00	\$ 1,500,000 to \$ 1,800,000		
One-Lane Prefabricated Steel Structure					\$ 1,652,800.00	\$ 1,500,000 to \$ 1,800,000		
One-Lane Prefabriacted Timber Structure					\$ 1,660,200.00	\$ 1,500,000 to \$ 1,800,000		
Two-Lane Cast-In-Place Concrete Structure					\$ 2,120,900.00	\$ 2,000,000 to \$ 2,300,000		
Two-Lane Prefabricated Steel Structure					Not an Option	Not An Option		
Two-Lane Prefabricated Timber Structure					\$ 2,423,900.00	\$ 2,300,000 to \$ 2,600,000		
* The Timber Structure Prices are not based on a site evaluation as the company is in New Brunswick								

The dollar amounts in Figure A. are purely estimated costs based on GM BluePlan’s experience. They do include estimated engineering costs and a 10% contingency allowance. The true costs of the project will not be known until the results of the tender process have been reviewed.

For this report, the material and style of the bridge superstructure is not as important to the Environmental Assessment Process as is the decision, by Council, to move forward with a one-lane or two-lane bridge structure. Staff can write the tender documents to be inclusive of all structure types and then compare types and dollar amounts with Council at a future meeting.

Staff are seeking Brockton Municipal Council’s decision on whether to replace the existing Riversdale Bridge with a one-lane or two-lane bridge structure in order to complete the Schedule ‘B’ Municipal Class Environmental Assessment related to this project.

Sustainability Checklist:

What aspect of the Brockton Sustainable Strategic Plan does the content/recommendations in this report help advance?

- Do the recommendations help move the Municipality closer to its Vision? Yes
- Do the recommendations contribute to achieving Cultural Vibrancy? Yes
- Do the recommendations contribute to achieving Economic Prosperity? N/A
- Do the recommendations contribute to Environmental Integrity? Yes
- Do the recommendations contribute to the Social Equity? Yes

Financial Impacts/Source of Funding:

- Do the recommendations represent a sound financial investment from a sustainability perspective? N/A

There are no financial impacts associated with this report.

Reviewed By:



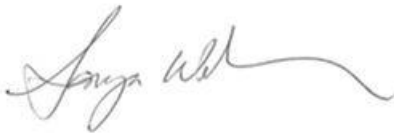
Trish Serratore, Chief Financial Officer

Respectfully Submitted by:



Gregg Furtney, Director of Operations

Reviewed By:



Sonya Watson, Chief Administrative Officer