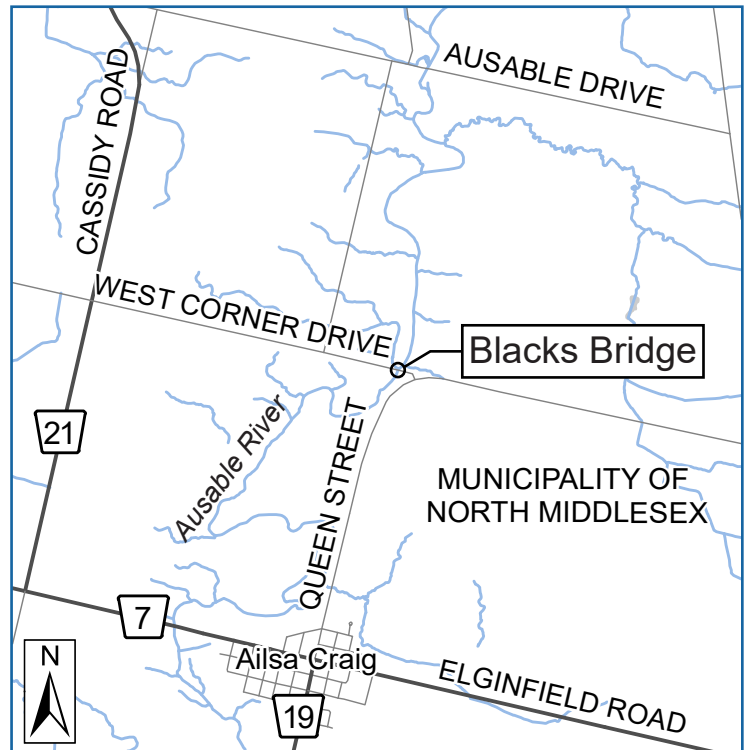


March 10, 2022

## Background

The County of Middlesex is completing a Municipal Class Environmental Assessment (EA) study for Blacks Bridge, which carries West Corner Drive over the Ausable River in North Middlesex (see map to the right). The bridge has been closed since September 2019 due to structural deficiencies.

As presented at the virtual Public Information Centre on May 19, 2021, the preferred solution is to replace Blacks Bridge with a new bridge. This newsletter is being distributed to provide an update and seek input on the evaluation of alternative design options for the replacement bridge.



## Evaluation of Design Options

The following design options were developed for the replacement bridge, all of which would be located on the same alignment as the existing 35 m single span truss bridge:

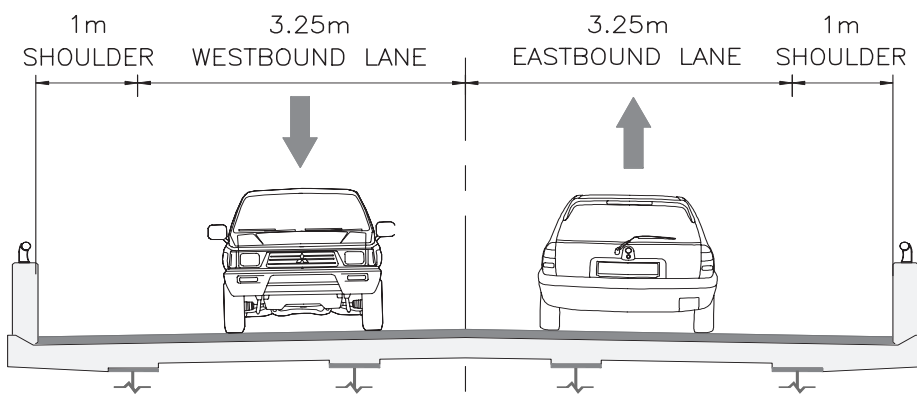
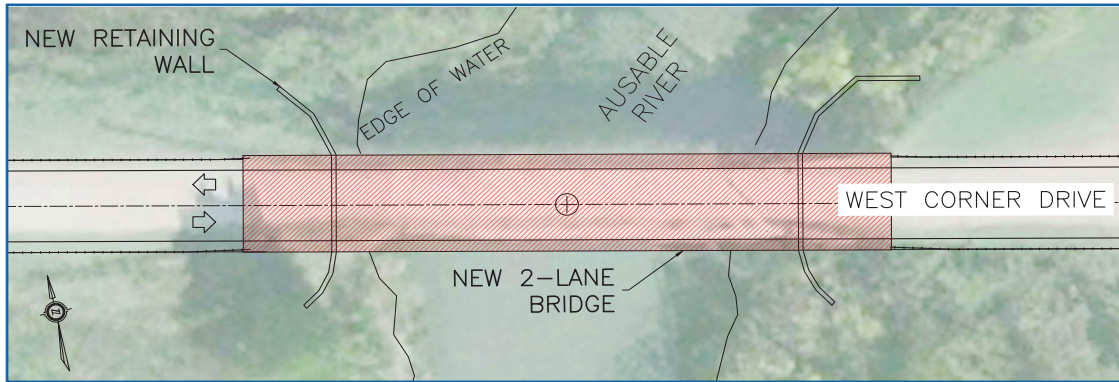
- Option 1 is a 52 m single span bridge with sloped embankments (open abutments)
- Option 2 is a 41 m single span bridge with vertical closed abutments and retaining walls
- Option 2A is a 44 m single span bridge with vertical closed abutments and retaining walls
- Option 3 is a 51 m 3-span bridge with sloped embankments (open abutments)

Through a comparative evaluation, as summarized in the table below, **Option 2A** has been identified as the preferred design option. This option crosses the Ausable River with a single span and includes vertical abutment and retaining wall elements similar to the existing bridge configuration. Option 2A avoids in-water work, while providing acceptable watercourse hydraulic performance and reducing the complexity, duration, and cost of construction.

Criteria	Option 1	Option 2	Option 2A	Option 3
<b>Heritage Considerations</b>	↓ Less preferred	-	↑ More preferred	↓↓ Least preferred
<b>Watercourse Hydraulics</b>	↑↑ Most preferred	Not acceptable	↑ More preferred	↑↑ Most preferred
<b>Environmental Impacts</b>	↑ More preferred	-	↑ More preferred	↓↓ Least preferred
<b>Construction Complexity</b>	↓ Less preferred	-	↑ More preferred	↓↓ Least preferred
<b>Construction Duration</b>	↑ More preferred	-	↑ More preferred	↓ Less preferred
<b>Raising Road &amp; Property Impacts</b>	↓↓ Least preferred	-	↓ Less preferred	↑ More preferred
<b>Construction Cost</b>	↓ Less preferred	-	↑ More preferred	↓↓ Least preferred
<b>Summary</b>	Less preferred	Not carried forward	Preferred	Least preferred

# Preferred Design Option

A conceptual design of Option 2A is provided below. The conceptual design provides two lanes of vehicular traffic and is suitable for all types of vehicles, including agricultural equipment. More detailed Preliminary Design drawings will be included in the Environmental Study Report (ESR) that will be published at the end of the study. The ESR will also include an assessment of potential impacts to the natural, cultural, and socio-economic environments, recommended measures to avoid or mitigate impacts, and commitments for future studies.



This study is following the planning and design process for Schedule 'C' projects under the *Municipal Class EA* (2000, as amended). Upon completion of the study, an ESR documenting the study process and recommendations will be available for public comment for a period of at least 30 calendar days.

## Next Steps

- 1 **Complete impact assessment for preferred design option**
- 2 **Publish ESR for 30-day public review**
- 3 **Detailed Design and construction** (timing to be determined; subject to funding and approvals)



Your input is important to the outcome of this project. Please provide any comments/questions to either of the project team members listed below by **March 24, 2022**.

### Contact Information

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Information collected will be used in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.