



**Project File Report
Municipal Class Environmental Assessment
(Schedule B)**

**Blakeney Bridge Replacement
Township of Mississippi Mills
County of Lanark, Ontario**

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Executive Summary

The County of Lanark has undertaken a Municipal Class Environmental Assessment (MCEA) for the review of alternatives the replacement of the Blakeney Bridge. The preferred alternative replacement of the structure with a two-lane modular bridge broken into 3-spans together with new concrete abutments and roadway approaches.

This Project has been classified as a schedule “B” undertaking following the *Municipal Class Environmental Assessment*. This Project File Report was prepared per MCEA guidelines and documents the process of selecting the preferred alternative for the Blakeney Bridge.

Phase 1 and Phase 2 of the MCEA were carried out. Phase 1 requires the identification of the problem, while Phase 2 requires identifying existing conditions and consulting with the public and agencies on the project. Two Public Information Centers (PIC) were hosted on December 1, 2022, and February 29, 2024, respectively. The first PIC was held to introduce the project to the public and present alternative solutions for the public and stakeholders to comment on. All public comment was documented and taken into consideration when presenting replacement options to Lanark County Council. The second PIC was held to present the final design for public comment before issuing a tender for construction.

The Blakeney Bridge has greatly exceeded its anticipated service life. Despite ongoing efforts to maintain the bridge in a serviceable condition, the bridge continues to deteriorate to a condition that warrants replacement. The preferred solution to address the problem statement is the complete replacement of the Blakeney Bridge, widening the existing bridge from one lane to two lanes with a widened shoulder for pedestrian access using prefabricated modular bridges. The technically preferred alternative is a cost-effective solution that enhances pedestrian safety and considers future growth and required capacity. The estimated cost for the replacement of the Blakeney Bridge with a modular bridge is 3.8 million dollars. The proposed bridge design and construction follows current design standards and will result in the temporary closure of Blakeney Road for an estimated construction duration of 24 weeks to facilitate the removal and installation of the new bridge structure.

A notice of Study Completion has been issued along with this Project File Report on the public record which opens a 30-day review period

A request may be made to the Ministry of the Environment, Conservation, and Parks for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g. requiring further studies), only because the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered.

Requests should include the requester's contact information and full name for the ministry. Requests should specify what kind of order is being requested (a request for additional conditions or a request for an individual/comprehensive environmental assessment), prevent, mitigate, or remedy those potential adverse impacts, and any information in support of the statement in the request. This will ensure that the ministry can efficiently begin reviewing the request.

1.0 Introduction and Background

1.1 Bridge Description

Located in Mississippi Mills township overtop of the Mississippi River between Almonte and Pakenham on Blakeney Road, the existing Bridge structure was built in 1915, replacing an 1830s-era timber bridge. The current layout consists of 3 bridges spanning over two islands, two 87 ft bridges, and one 43 ft bridge. The superstructure includes a steel beam floor system with a concrete deck and underlying concrete substructure. The existing bridge deck is 4.9m wide (15 feet) and can accommodate a single traffic lane at a load limit of 12 tonnes.



Figure 1: The study area includes Blakeney Bridge and surrounding property that may be impacted by construction

1.2 Study Area

The study area for this project is shown in Figure 1 and is limited to the existing location of Blakeney Bridge and the associated part of Blakeney Road at both East and West Approaches.

1.3 Boundary Bridge

Although not found on a County Road, the Blakeney Bridge is under the authority of the County of Lanark as it is found on the inter-municipal boundary between Ramsay and Pakenham Townships, and therefore considered a boundary bridge. Based on current records the bridge has been a county asset since at least the 1940's

Boundary bridges were transferred to the upper tiers to gain eligibility for provincial supplementary funding administered by the Ministry of Transportation known as the Boundary Bridge Fund which was available to Counties for rehabilitating or reconstructing Boundary Bridges.

The Blakeney Bridge was to be replaced in 1995 after the completion of an EA assessment and detailed design under the boundary fund subsidy. Bill 26 eliminated Boundary Bridge funding from the province and the construction never took place. Ramsay and Pakenham Townships amalgamated in 1998 along with the Town of Almonte to become Mississippi Mills.

Public Works presented a report on boundary Bridges to the committee at their meeting on Sept 26, 2012. At the time, The County only had 7 boundary bridge locations: Glen Isle, Brightside, Blakeney, Upper Scotch Line culverts (x3), and 3 crossing the Rideau Canal: RF, Kilmarnock, & Andrewsville. Beckwith Township proposed that the County transfer its Boundary Bridges to the respective local Municipalities. At the Nov 7th Meeting, the Committee tasked the director to gather information on the replacement value and capital needs of all Boundary Bridges, including the 2 bridges Beckwith shared with the City of Ottawa.

The replacement value and capital needs were presented to the Committee on Jan 9th, 2013, with the following options:

- Option 1: Do Nothing
- Option 2: Transfer all existing county boundary bridges to the local Municipalities.
- Option 3: Option 2 excluding the three bridges over the Rideau Canal
- Option 4: Assume responsibility for the two Beckwith-City of Ottawa Bridges

The PW Committee and County Council decided Option 5 to assume the 2 boundary bridges in Beckwith.

1.4 Class EA Planning Process

Lanark County has completed the Class EA in accordance with the purpose of the Environmental Assessment Act (EAA):

“...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment. R.S.O. 1990, c. E.18, s. 2.”

The MCEA planning process was developed by the MEA as an alternative method to individual EAs for recurring municipal projects that are similar in nature, usually limited in scale and with a predictable range of environmental effects that would be expected to respond to mitigating measures.

The MCEA planning process does not require an application for additional approvals under the EAA, provided the proponent has complied with the necessary requirements and procedures. These requirements and procedures include a full description of the project, consideration of alternatives, and identification of the impacts resulting from their implementation and continuance. The MCEA process also requires the proponent to inform and consult with relevant agencies. A flowchart of the planning and design process requirements is included as Figure 2.

The main elements of the MCEA planning process are incorporated into five (5) phases. The Schedule designation determines which phases are required to be followed for a particular project. The phases are summarized as follows:

- Phase 1 – Identify the problem (deficiency) or opportunity.
- Phase 2 – Identify alternative solutions to address the problem or opportunity by taking into consideration the existing environment and establish the preferred solution considering public and review agency input. At this point, determine the appropriate Schedule for the undertaking and document decisions in a Project File for Schedule B projects, or proceed through to the following Phases for Schedule C projects.
- Phase 3 – Examine alternative methods of implementing the preferred solution, based upon the existing environment, public and review agency input, anticipated environmental effects and methods of minimizing negative effects and maximizing positive effects. Project File Report Rapids Bridge Replacement Municipality of Tweed Page 2 August 2019
- Phase 4 – Document, in an Environmental Study Report, a summary of the rationale, and the planning, design and consultation process of the project as established through the above Phases and make such documentation available for scrutiny by review agencies and the public.
- Phase 5 – Complete contract drawings and documents and proceed to construction and operation; monitor construction for adherence to environmental provisions and commitments. Where special conditions dictate, also monitor the operation of the completed facilities.

This project has been undertaken and was confirmed by the regulatory authority, as a Schedule “B” Class EA undertaking, and thereby follows Phases 1 and 2 of the MCEA planning process (Appendix A). Phase 5 would be completed following the completion of the MCEA process, and approval from relevant authorities as required. The results of the MCEA are documented in this Project File Report.

Upon review of this report and its contents, if concerns regarding this project cannot be resolved in discussions with the Proponent, a person or party may request that the MECP make an order for the project to comply with Part II of the EAA (referred to as a Part II Order). which addresses individual environmental assessments. Requests must be received by the Minister at the address below within 30 calendar days of the Notice of Study Completion. Should discussions proceed beyond the 30-day review period and such discussions are unsuccessful at resolving the concerns, a Part II Order request may be submitted a further seven (7) calendar days following the end of discussions.

EXHIBIT A.2. MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the MCEA

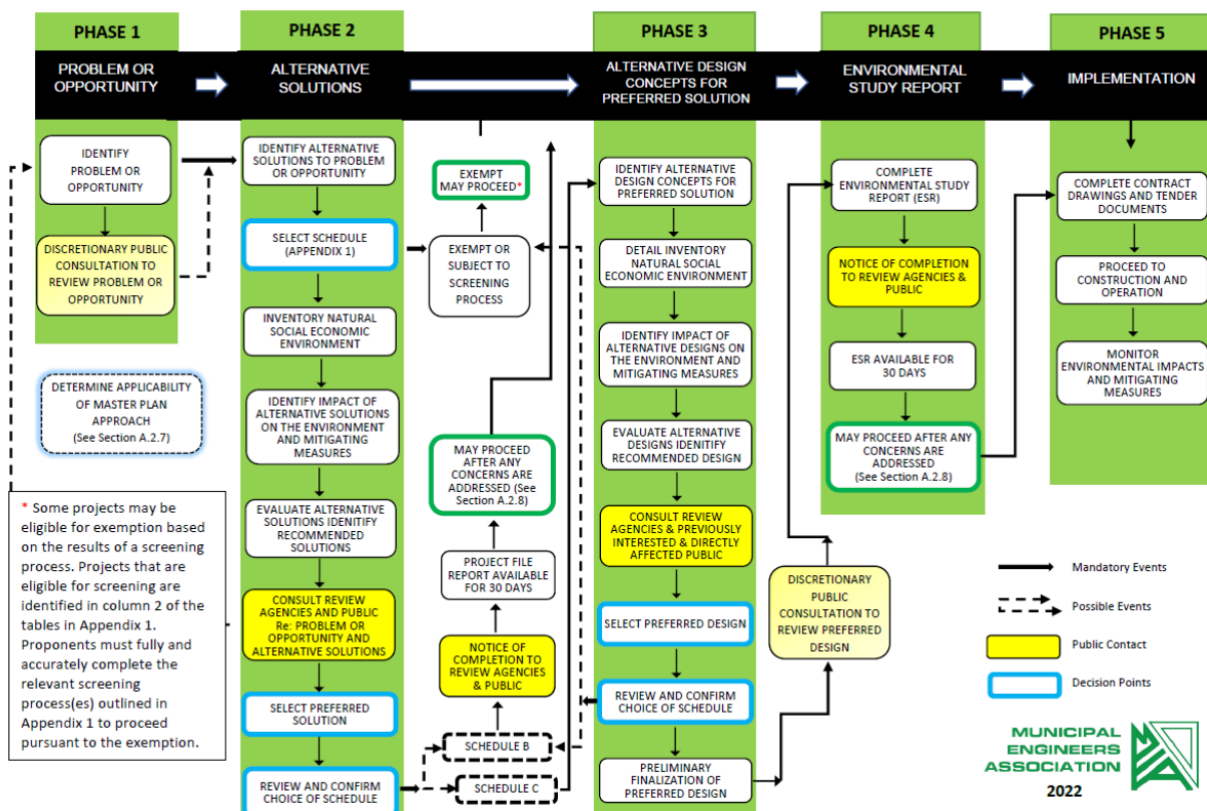


Figure 2: The MCEA planning and design process flowchart

1.5 Past Rehabilitations

1975: exposed concrete deck replacement

1993: emergency abutment repairs

2000: deck and girder repairs; substructure repairs; new railings-> designed to provide service life extension of 20-25 years.

2007: emergency repairs to the abutments were completed, resulting in a temporary load posting of 3 tonnes.

2019: corrosion perforated girder repaired

2022: perforated girders and concrete deck repairs. Resulted in a temporary load posting of 5 tonnes.

1.6 Recent Events

2017: Enhanced bridge master inspection and a structural design report completed

2018: Regular Bi-Annual inspection did not identify any need for repairs.

2019: Follow up on concrete testing of the abutments revise the 2017 report and recommend replacing the bridge soon.

2021: Regular Bi-Annual inspection noted stringers requiring strengthening and large-scale delamination of the concrete deck.

April 2022: Keystone Bridge Management services (completed the last 2 bi-annual inspections) prepared a memo to PW in March 2022 regarding the deteriorating condition of the Blakeney Bridge detailing the risk and remaining service life with recommendations to move forward.

Report PW-12-2022 (Appendix B) was presented to the PW Committee in April to renew the dialogue regarding the future of Blakeney Bridge with options.

It was decided to complete an Enhanced Inspection on the bridge and undergo an EA assessment in 2023.

September 2022: Enhanced inspection completed during low flow.

The report recommended reducing load posting to 5 tonnes and replacing the bridge as soon as possible.

October 2022: Report was presented to the PW Committee with a recommendation to move forward with a replacement "Like-for-Like" structure.

County council decided to proceed with repair work to keep the 12-tonne load posting and host a PIC to gather input from the public.

December 01, 2022: Public Information Center (PIC) was held in Almonte to gather public opinion on replacement options presented.

December 14, 2022: Council unanimously voted to continue with a two-lane 7.3m wide replacement modular panel bridge.

January 2023: Bridge Replacement deferral recommended at council meeting.

January 2023: Design alternatives report advertised and closed on January 31, 2023. Jewell Engineering was the successful bidder and provided an alternatives report.

January 2023: Draft Cultural Heritage evaluation and Heritage Impact Assessment was submitted. As well as Stage 1 and Stage 2 Archaeological assessment.

March 2023: Public works proceeded with advertising an RFP for the detailed design of Blakeney Bridge.

May 2023: Mississippi Mills Council passed a resolution to contribute \$180,000 to widen the bridge to 7.9m to accommodate pedestrians and eliminate the standalone cantilevered pedestrian crossing

September 2023: Keystone Bridge Management Corp was the successful bidder for the detailed design RFP.

December 2023: The Tender for the supply of the Modular Bridge was advertised on November 2, 2023, and closed on December 5, 2023. Two bidders ACROW Ltd and Algonquin Bridge with bids of \$1,238,004 and \$1,399,750 respectively.

Council adopted the motion to award the Bridge supply tender to ACROW LTD

December 2023: Keystone Proposed a 3- Bridge design due to potential constructability issues with launching a single 150ft bridge. The west bridge alignment is kinked to provide an improved bridge approach and a 3-box beam railing will be used to provide additional protection.

February 29, 2024: A Second Public Information Center (PIC) was held to present the final design for public comment.

2.0 Problem Statement

The Blakeney Bridge has far surpassed its expected service life, facing ongoing corrosion and degradation of its concrete deck, abutments, and steel superstructure, which pose a significant risk of localized failures. Moreover, with an anticipated rise in traffic due to residential development in neighboring towns and agricultural equipment transport, replacing the Blakeney Bridge has emerged as a critical priority to address the needs of Lanark County residents. Consequently, the County has initiated the planning process to explore replacement options for the bridge.

This project is planned as a Schedule “B” Municipal Class Environmental Assessment

3.0 Alternative Solutions

1. **Do Nothing:** No repairs to problems identified in recent inspections of Blakeney Bridge. This alternative does not address the problem statement. Bridge would continue to deteriorate until it was determined that it could no longer accommodate traffic. This alternative is required to be considered under the Municipal Class EA planning process as a baseline for the comparison of alternative solutions.
2. **Close Bridge:** This option is not feasible as the bridge would continue to deteriorate and require eventual removal to prevent environmental damage.
3. **Convert to a pedestrian bridge:** This option is not feasible as local traffic would be impeded and would eliminate a connection to local highway 29. Repairs would be required to maintain safe access for pedestrians.
4. **Rehabilitate the Existing Bridge:** This option is not feasible as the service life would only be increased by 15-20 years and cost more than \$1 million dollars. With rising construction costs this would not be a viable option. Rehabilitation would also take longer to complete and impact local traffic long term.
5. **Remove and replace the existing Blakeney Bridge with a new modular bridge structure:** This option is the most feasible and would increase the service life of the crossing a further 75 years. Improvements to appearance and minimal environmental impact of the new bridge structure also new lane and span configurations will allow addressing traffic problems and sight / safety concerns with the existing structure.

Bridge Replacement alternatives were presented at the first Public Information Center (PIC) held on December 1, 2022 (Appendix J). With 3 modular bridge options being presented. Residents of the Blakeney Community preferred the Single Lane option as a traffic calming measure and to accommodate pedestrians and cyclists. The agricultural community preferred a two-lane option that would accommodate larger agricultural equipment such as combines and wide implements.

Evaluation Summary Blakeney Bridge						
Evaluation Criteria		Option 1: Do Nothing	Option 2: Close Bridge	Option 3: Convert to a pedestrian only bridge	Option 4: Rehabilitate Bridge	Option 5: Replace bridge with a modular bridge of new lane and span configuration
	Technical	If structural issues are not addressed the bridge will continue to deteriorate	Bridge would continue to deteriorate and require eventual removal to prevent environmental impact	Existing bridge is capable of supporting pedestrian and cyclist loads	structural rehabilitation would only extend the service life of the structure by 15-20 years	Structural service life would be extended for 75 years
	Socio-Economic	Continued deterioration of the bridge would lead to an eventual decrease in tourist visits to the neighbouring park and decrease local appeal	Closure would negatively impact local vehicle and pedestrian traffic causing other local roadway volumes to increase	Elimination of vehicle traffic would strain the local community and impede access to the local transportation network	Widespread structural repairs would impact traffic and pedestrian crossing and take a long period of time to complete	Opportunity to improve bridge appearance, short-term impact to local traffic due to construction closures safer access for pedestrians and cyclists
	Natural Environment	No Impact to surrounding environmental features	No Impact to surrounding environmental features	Minimal Impact to surrounding environmental features	Widespread structural repairs would produce more debris and waste as a byproduct of construction	Minimal impact to fisheries and aquatic habitat reduced construction time and construction with more recyclable materials
	Cultural Heritage	No impact to heritage cultural or archaeological features	Minimal impact to heritage, cultural or archaeological features. Deteriorated bridge would reduce the appeal of the area	No impact to heritage cultural or archaeological features	Minimal Impact to heritage, cultural or archaeological features	The existing bridge is simple in nature and considered a pragmatic approach to replacement just as the Modular Bridge is with improvements for current growth.
	Cost	Deteriorating bridge structure will result in increased maintenance and repair costs	Deteriorating bridge structure will still require maintenance work and eventual removal due to structural failure	Deteriorating bridge structure will require on-going maintenance and work to remain open to pedestrians	Costs over \$1m would not provide a long-term service life extension and would require further work in 15-20 years	Approximately 4.5m in capital costs. Maintenance costs would be greatly reduced upon completion
		NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED TO BE CARRIED FORWARD

Figure 3: Problem Statement Evaluation summary

4.0 Alternative Designs

Based on preliminary costing estimates for the Blakeney Bridge replacement, it was determined a modular style bridge would be most fitting to this specific location based on current traffic volumes, scheduling and cost of installation. Estimates for a conventional concrete bridge would be in the range of \$5-7 million dollars as opposed to \$3.5-4.5 million dollars for a modular comparison. Coupled with the quick construction timeline of a modular bridge, which can be completed in one season versus multiple with conventional concrete construction. The service life of the crossing will be extended for a further 75 years with minimal amounts of maintenance required.

A bridge alternatives report was prepared by Jewell Engineering in March 2023 to assess alternative span arrangements and associated costing for each. This allowed Lanark County Public Works to make an informed decision regarding the most practical Design arrangement to provide for the design tendering process.

Once Keystone Bridge Management was named the successful bidder for the formal design tender, a design change was proposed that included kinking the western span alignment and altering the overall span arrangement. These recommendations did not bring major construction cost increases and were ultimately decided as the optimal design for this location.

Traditional concrete and steel construction including concrete or steel girders with a concrete deck and piers was not warranted in this application due to the high cost of construction and additional maintenance requirements throughout its service life. Modular style bridges can span further without the need for pier construction and there are fewer opportunities for cost over runs due to their modular nature and reduced amount of onsite construction.

The following Modular Bridge options were chosen and presented both to the public and Lanark County Council.

Option 1: **Two-lane 7.3 m traveled with no pedestrian accommodation.**

This option was not recommended due to the lack of pedestrian access based on the high level of tourist visitors to the adjacent parkland.

Option 2: **Two-lane 7.3 m traveled width with 1.5m cantilever pedestrian walkway.**

This option was not recommended due to the increased cost of the cantilever pedestrian walkway and the associated maintenance costs to maintain it during the winter months.

Option 3: **Single-lane 7.3 m traveled width with traffic signals with an on-deck pedestrian crossing.**

This option was not recommended due to the increased cost of the traffic signals and the associated ongoing maintenance costs for safe operation. Due to increasing traffic volumes and future development concerns, remaining with a single-lane roadway would be unfeasible.

Option 4: Single-lane 7.9 m traveled width offset and delineated with seasonal bollards to accommodate pedestrian crossing.

This option was recommended due to the inclusion of a pedestrian walkway on the bridge deck which was widened to accommodate both bicycle and pedestrian traffic in turn reducing the need for further winter maintenance while maintaining two-lanes of traffic.

With considerations for future development and traffic demand County Council unanimously voted to proceed with a two-lane 7.3m wide replacement modular bridge following the first Public Information Center (PIC). Following further consideration for pedestrian access including the possibility of adding a cantilever pedestrian walkway; Mississippi Mills Council approved contributing \$180K to upgrade the bridge to a 7.9m platform for the accommodation of pedestrians. Pedestrian access on the deck to be delineated by removable plastic bollards during the summer months.

The choice of a modular bridge structure will allow quick construction with reasonable capital costs and minimal operating cost requirements. The updated soffit height will ensure the bridge remains structurally sound in the case of future flood events. The steel bridge structure also produces a smaller carbon footprint as the materials will largely be recyclable and due to the reduced construction timeline, there will be less equipment on-site producing emissions.

From a heritage perspective (Appendix A) the replacement with a modular bridge is appropriate and acceptable. The existing bridge was simply constructed and was a pragmatic approach for a replacement bridge at the time of its construction and previous rehabilitations.

Evaluation Summary Blakeney Bridge					
Evaluation Criteria		Option 1: Two-Lane 7.3m travelled with no pedestrian accomodation	Option 2: Two-Lane 7.3m travelled width with 1.5m cantilever pedestrian walkway	Option 3: Single-Lane 7.3m travelled width with traffic signals with an on deck pedestrian crossing	Option 4: Two-Lane 7.9m travelled width offset and delineated with seasonal bollards to accommodate pedestrian crossing
	Technical	Travel lane does not provide space for pedestrians or cyclists	Requires widening of bridge and approach modifications to accommodate the wider bridge and further widening for pedestrian access adjacent to the bridge	Requires widening of bridge and approach modifications to accommodate the wider bridge single lane doesn't accommodate increasing traffic volume	Requires widening of bridge and approach modifications to accommodate the wider bridge
	Socio-Economic	Short -term impact to local residents and traffic. Does not provide crossing width for pedestrians	Short-term impacts to local residents and traffic during construction road closures	Short-term impacts to local residents and traffic during construction road closures. longer work schedule due to traffic signal installation	Short-term impacts to local residents and traffic during construction road closures
	Natural Environment	Potential removal of small trees and brush to accomdate the bridge widening	Potential removal of small trees and brush to accomdate the bridge widening, Encourages active transportation with the dedicated pedestrian crossing.	Potential removal of small trees and brush to accomdate the bridge widening, Encourages active transportation with the dedicated pedestrian crossing.	Potential removal of small trees and brush to accomdate the bridge widening, Encourages active transportation with the dedicated pedestrian crossing.
	Cultural Heritage	Minor impact to adjacent properties maintains simplisitc design of original bridge	Minor impact to adjacent properties maintains simplisitc design of original bridge addition of pedestrian walkway alters simplistic design	Minor impact to adjacent properties maintains simplisitc design of original bridge	Minor impact to adjacent properties maintains simplisitc design of original bridge
	Cost	Estimated Construction costs of \$4.06 Million dollars	Estimated Construction costs of \$4.41 Million dollars additional winter maintenance required for pedestrian walkway	Estimated Construction costs of \$4.38 Million dollars additional maintenance costs for traffic lights	Estimated Construction costs of \$4.5 Million dollars with minimal maintenance
		NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED

Figure 4: Replacement Options Evaluation summary

5.0 Project Description

The Blakeney Bridge replacement will be comprehensive in nature and provide members of the community and visitors of the local park area with a safe means of travel for future generations. The deteriorating bridge structure will be removed in its entirety and replaced with a new modular-style bridge that is delivered to the site and assembled on the approaches prior to launching into place. The bridge structure was purchased by Lanark County in the fall of 2023 from ACROW Bridge through a public competitive tender process.

The project is scheduled to have an expedited timeline with an estimated completion date of 24 weeks from the time construction starts in July 2024. Through-road access will be eliminated for the duration of the project, this will allow removals and construction to proceed quicker than staged construction, and due to the single-lane nature of the bridge it is necessary to close off access to traffic to conduct work on the existing deck and abutments. The new bridge structure will have improved roadway approaches to improve sightlines and roadway geometry. This will address existing problems associated the West approach. As shown in the figure below, the replacement bridge will have a kinked span on the central island improving visibility of both lanes of traffic as they approach the west abutment.

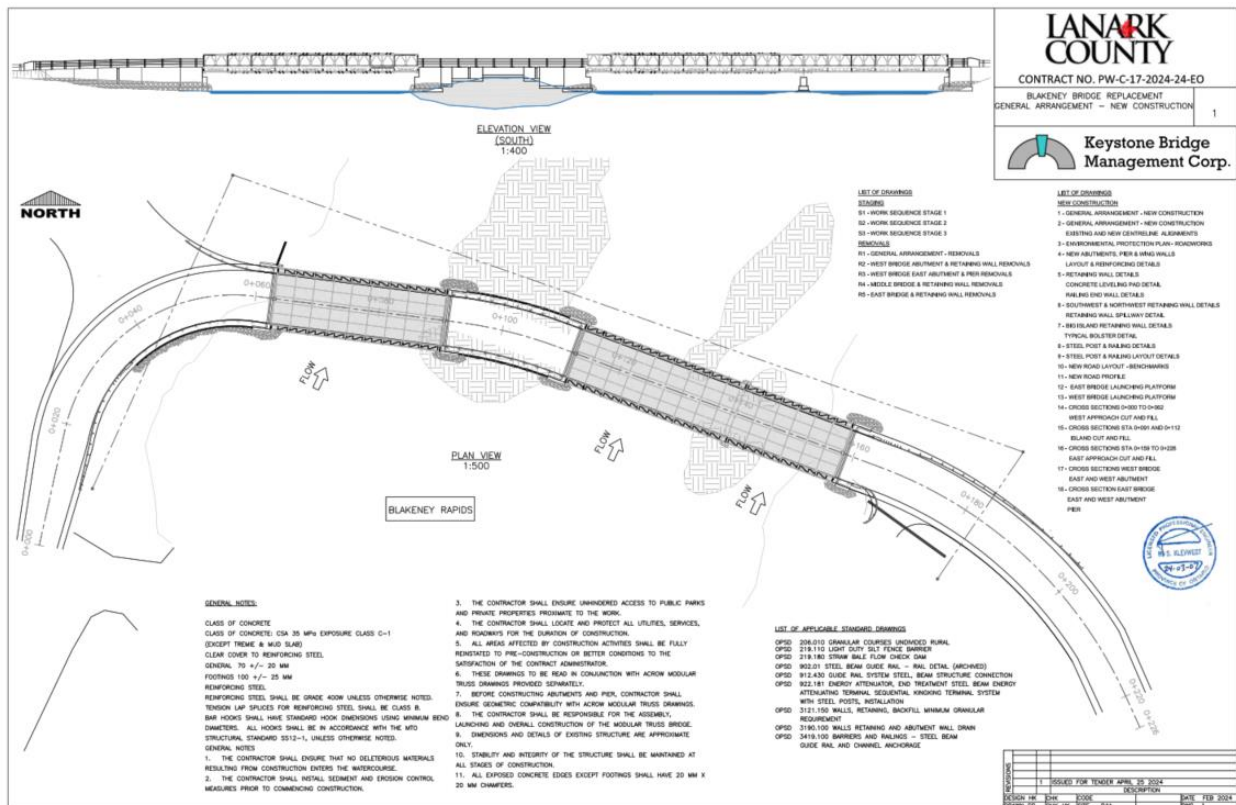


Figure 5: Blakeney Bridge Replacement General Arrangement Appendix H

6.0 Monitoring/Mitigation

Several commitments will be followed by Lanark County throughout the construction process of the Blakeney Bridge Replacement as defined in the CHER/HIA and from related Conservation and governing authorities.

6.1 Cultural Heritage (CHER and HIA) Updated HIA

Contentworks Inc. completed a Cultural Heritage Evaluation Report in fall of 2022 as part of the MCEA process. It was determined a Heritage Impact Assessment was also required as part of the MCEA process.

The CHER included extensive research into local library and Archival records, a field review and participation in a Public Information Center (PIC) with Lanark County Public works to present findings as well as replacement recommendations.

A finalized Heritage Impact Assessment was submitted May 13, 2024, by Matrix Heritage Inc. The Heritage Impact Assessment (HIA) conducted by Matrix Heritage recommended the following mitigation measures to conserve the bridge's heritage value as an historic element in the community. The recommendations recognize that the crossing and its history, more than the bridge itself, is of heritage value. Specifically, the HIA recommends that:

1. A full photographic record of the bridge prior to its dismantling shall be undertaken and deposited with Archives Lanark.
2. All work should be planned to allow full and safe use of Blakeney Park during as much of the construction phase (June – December 2024) as possible.
3. Historic interpretation panels should be added to Blakeney Park to tell the story of Blakeney Bridge. Appendix A

Lanark County has agreed to follow these mitigation measures and has contracted Matrix Heritage to complete the work. No further action was requested as part of the CHER/HIA.

6.2 Archaeological Assessment (Stage 1 and 2)

Matrix Heritage was contracted in fall 2022 to conduct an Archaeological Assessment of the Blakeney Bridge site and proposed area that may be affected by construction work during the bridge replacement process.

Stage 1 of the archaeological assessment included architectural site databases, historical literature, census data, maps land information and may have presence of indigenous archeological potential.

Stage 2 of the archaeological assessment included shovel testing and upon commencement of field work, it was determined the site was of low archaeological potential due to the exposed bedrock and steeply sloped shoreline areas within the research area close to the bridge structure. All historically constructed buildings that were in the proximity of the bridge have been removed and are also not within the area which will be affected by the bridge replacement.

No items of archaeological significance were found during stage 2 of the assessment despite the potential for archaeological significance.

6.3 Species at risk (SAR impact assessment and Mitigation Plan, MNR project registration)

Stringers Environmental Services was contracted in 2023 to complete a comprehensive SAR impact assessment and mitigation plan report for the Blakeney Bridge replacement site. This included a historical records assessment and site visit to determine species present in the area.

Correspondence between Lanark County and the Ministry of Environment, Conservation and Parks, as well as a thorough review of available background information (notably information available from the Natural Heritage Information Center) confirmed that there is the potential for species at risk (SAR) that are listed as endangered (END) or threatened (THR) to be found on or in the proximity of the site.

These species include Rapids Clubtail (THR), Red-headed Woodpecker (END), Black Ash (END), Eastern Meadowlark (THR), and Bobolink (THR). The screening also identified that 6 other species that are listed in the Endangered Species Act (ESA) as Species of Concern, may be present within the general area – Snapping Turtle, River Redhorse, Grasshopper Sparrow, Eastern Wood-pewee, Yellow-banded Bumble Bee, and Eastern Musk Turtle. Special Concern species and their habitat are not provided protection under the ESA

The successful contractor must follow all wildlife protective measures outlined to prevent any injury or harm to existing wildlife. Including, following in-water work timing windows and completing daily site surveys for the presence of SAR. Appendix D

This project was registered with the Ministry of Natural Resources and Forestry in May 2024 as part of Ecosystem Protection O. Reg 242/08 s.23.11. This registration made note of the presence of any SAR identified in the SAR impact assessment and mitigation report. Specifically, the Rapids ClubTail (*Gomphus quadricolor*). Appendix E

6.4 Department of Fisheries and Oceans Consultation and Review

Department of fisheries and Oceans was contacted by Lanark County in August 2023 for review of proposed works as part of the Blakeney Bridge replacement project. The DFO did not require an authorization under the Fisheries Act and the SAR. Adequate channel widths and depths will remain throughout the work and will not lead to major impacts to aquatic species in the vicinity

of the Blakeney Bridge. Standard mitigation measures to protect fish and their habitat have been included in the construction contract. No aquatic species are to be harmed during the construction phase. Appendix R

6.5 Conservation Authority Permit and Project Review (MVCA)

A pre-consultation meeting was held with Mississippi Valley Conservation Authority (MVCA) in November 2022 to determine the submission requirements for a work permit for the bridge replacement. MVCA concluded their existing flood-modelling was sufficient to confirm there are no current issues with the existing bridge configuration so if the existing channel width and bridge soffit elevation remain unchanged, then a hydraulic assessment for the new structure would not be required. Lanark County proceeded to the detailed design phase under this premise as the preliminary design, which included design information from supplier Acrow, confirmed there were no anticipated issues.

An Request for Tender for the supply of the Modular bridge was advertised on Nov 6, 2023 and closed December 5. Acrow was awarded the project.

Information provided by Acrow on the bridge design details informed the detailed design, which was finalised and advertised for tender on March 19, 2024, closing on May 9, 2024.

Lanark County submitted their permit application to MVCA on March 25, 2024.

MVCA requested additional information regarding the impacts of the new structure on flooding, erosion, and local scouring.

Keystone Bridge Management, the Engineering designer for the Blakeney Bridge provided a letter confirming there will be no erosion or scour upstream and downstream due to the nature of the work which includes concrete poured directly on bedrock and the use of riprap on the embankments.

It was then determined that the new soffit elevation of the bridge would be slightly lower than the existing due to the depth of the transom beams provided, compared to what was anticipated in the pre-liminary design.

Mississippi Valley Conservation Authority (MVCA) generously completed a hydraulic analysis on behalf of Lanark County, of the new structure updating their existing modelling. The analysis considered the improved channel due to the removal of the existing piers in the water course and concluded the new bridge does not impact flood levels.

As a result, MVCA has provided approval in principle to proceed, with requirements for de-watering/ stream diversion plans to be submitted by the successful contractor.

7.0 Public Consultation

Members of the public and Indigenous groups were contacted through outreach and Public Information Centers (PIC). The main goal of the PIC was to gauge public opinion on what replacement options should be considered and carried forward. The final decision was to proceed with a wider 2-lane 7.9m modular bridge includes wider access for agricultural equipment as well as, safer pedestrian access with a dedicated walkway that will be delineated from the lane with the use of flexible bollards during the spring to fall months.

The following Indigenous groups were contacted, and final comments are to be received:

- Algonquins:
 - Algonquins of Ontario (AOO)
 - Algonquins of Pikwakanagan (AOP)
- Williams Treaties First Nations
 - Curve Lake First Nation
 - Alderville First Nation
 - Hiawatha First Nation
 - Mississaugas of Scugog Island First Nation
- Kawartha Nishanawbe

Public comments were taken into consideration and provided valuable information when presented to County Council for final decision. The public consultation period following publishing of the Project file report will provide additional feedback for use while to project is underway. Appendix K and Appendix S contain public comments received from the PIC's hosted by Lanark County in 2022 and 2024 respectively. Further comments for the Project File Report and Indigenous consultation will be made available once received.

Appendices

Appendix “A” Blakeney Bridge Cultural Heritage Evaluation Report and Heritage Impact Assessment

Appendix “B” Blakeney Bridge Heritage Impact Assessment 2024

Appendix “C” Stage 1 and Stage 2 Archaeological Assessment

Appendix “D” Species at Risk Impact Assessment and Mitigation Plan

Appendix “E” DFO Request for Review

Appendix “F” Project confirmation MNRF

Appendix “G” Blakeney Bridge Notice of Study Commencement

Appendix “H” Blakeney Bridge Replacement Options Estimates

Appendix “I” Blakeney Bridge Tender Drawings March 2024

Appendix “J” Geotechnical Investigation Report

Appendix “K” Public Information Center #1 and #2

Appendix “L” April 27, 2022, Council Meeting and Minutes

Appendix “M” October 26, 2022, Council Meeting and Minutes

Appendix “N” December 14, 2022, Council Meeting and Minutes

Appendix “O” January 25, 2023, Council Meeting and Minutes

Appendix “P” March 22, 2023, Council Meeting and Minutes

Appendix “Q” May 24, 2023, Council Meeting and Minutes

Appendix “R” December 13, 2024, Council Meeting and Minutes

Appendix “S” Public Consultation comment summary