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PROJECT FILE REPORT BRIDGE BR-125 REPLACEMENT

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT – SCHEDULE B –



Prepared For:
The Municipality of Meaford
21 Trowbridge Street West
Meaford, Ontario, N4L 1N2



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TRANSMITTAL

Date: May 7, 2026
File: 24-023

Re: Project File Report
MCEA Schedule B
Bridge BR-125 Replacement

Attention: Joel Saunders
Project Manager
Municipality of Meaford

Centex Engineering and Development Inc. (Centex) is pleased to submit the enclosed Project File Report as part of the Municipal Class Environmental Assessment – Schedule B, for the replacement of Bridge BR-125, located within the Municipality of Meaford.

Should you have any questions or require clarification on any aspect of the enclosed, please do not hesitate to contact the undersigned.

Best Regards,

A handwritten signature in blue ink, appearing to read "BK", followed by a horizontal flourish.

Brendan Kaus, P.Eng.
Engineering Project Manager

REVISION

Revision	Date of Issue	Description
1.0	May 7, 2026	Project File Report – Final
0.0	May 4, 2026	Project File Report – Draft for Municipal review

DISTRIBUTION

No. of Hard Copies	PDF	Delivery Method	Recipient Organization
0	Yes	Email	The Municipality of Meaford

SIGNATURES

Report approved by:



Brendan Kaus, P.Eng.
Engineering Project Manager

Report prepared by:



Brian Smith
Project Coordinator

SUMMARY OF KEY DATES

The following is a summary of key dates with descriptions of significant events that occurred throughout the bridge BR-125 replacement planning phase. Event entries have been provided in chronological order.

Date	Description of Events
July 19, 2023	Bridge BR-125 is determined through regular biennial inspections to be in an advanced state of deterioration and in need of replacement within two years.
May 17, 2024	The BR-125 replacement design contract was awarded to Centex Engineering and Development Inc. (Centex) through Request for Proposal (RFP) TS-2024-08. It was assumed at time of award that BR-125 replacement will be exempt (formerly Schedule A and A+) from the Municipal Class Environmental Assessment (MCEA) process.
August 2, 2024	The Municipal Bridges, Criteria for Evaluating Potential for Cultural Heritage Resources (rev. April 27, 2023) checklist was completed by Centex. The checklist indicated that BR-125 may possess cultural heritage potential and recommended that a Cultural Heritage Evaluation Report (CHER) be undertaken. Centex recommended to the Municipality that Archaeological Services Inc. (ASI) be retained to complete a CHER to determine if cultural heritage value existed.
September 9, 2024	Centex completed a Technical Memo detailing a summary of pre-engineering work to date and provided replacement options.
October 10, 2024	ASI completed a draft CHER and determined that BR-125 contained cultural heritage value at the local level. ASI recommended completing a Heritage Impact Assessment (HIA) report to review the impacts of the replacement options.
January 31, 2025	ASI completed a draft HIA report and provided recommendations to retain, preserve, or commemorate the cultural heritage of BR-125.
December 3, 2026	Project was formally re-scheduled from exempt to Schedule B.
January 29, 2026	A combined Notice of Study Commencement and Public Information Centre (PIC) was issued.
February 17, 2026	A PIC was held to present the project to the public and to solicit feedback.
March 11, 2026	A presentation on the project was given to the Meaford Heritage Advisory Committee. The Committee does not have jurisdiction over the project site. However, consultation was sought proactively.

Date	Description of Events
March 20, 2026	Centex updated the Technical Memo detailing a summary of pre-engineering work to date and provided replacement options.
March 22, 2026	First public commentary period closed.
April 10, 2026	ASI published the final CHER and HIA reports.
May 4, 2026	Project File Report was issued in draft for review by the Municipality
May 7, 2026	Notice of Study Completion was issued and Project File Report was issued for public record.
June 6, 2026	Second public commentary period to be closed.

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1.0 PROJECT BACKGROUND

Centex Engineering and Development Inc. (Centex) was retained by the Municipality of Meaford (Municipality) to provide consulting engineering services for the replacement or relocation of Bridge BR-125 within the Municipality. This assignment has included to date: **a)** review of existing site conditions; **b)** investigation of potential replacement or relocation design options; **c)** review of site hydraulics; **d)** cultural heritage investigation; and **e)** completion of a Schedule B – Municipal Class Environmental Assessment (EA Schedule B).

Following completion of the EA Schedule B process, Centex will proceed with: **i)** the detailed design of the selected replacement or relocation option; **ii)** construction contract tendering assistance; **iii)** contract administration; and **iv)** site inspection. The enclosed Project File Report aims to summarize the work undertaken by Centex to date and present the decision-making process employed while selecting a feasible replacement or relocation option. For conciseness, this Report will generally refer to the proposed work as rehabilitation, unless a replacement or relocation option is specifically under discussion.

1.1 Project Location

BR-125 is located within the Municipality of Meaford, Ontario, along the western extent of the Georgian trail. It is located approximately 12.00 m north of Edwin Street ([44°36'05.5"N 80°35'13.6"W](#)). The Georgian Trail follows the original alignment of the previously decommissioned Grand Trunk Railway, with BR-125 located at Mile 113.99 of the original line. See the structure location map in **Figure 1** below.



Figure 1 - Structure location

1.2 Bridge BR-125 and Surrounding Site

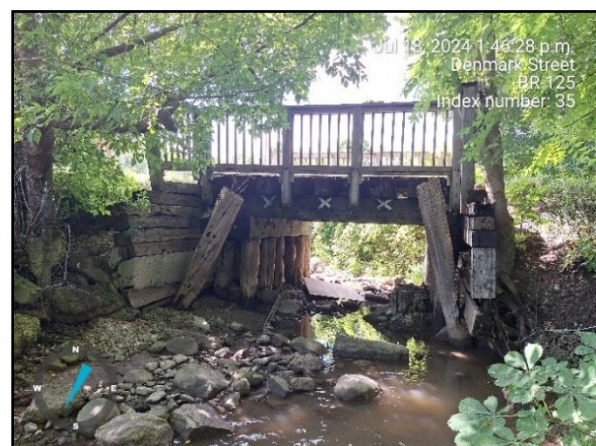
The existing structure is a timber trestle bridge that crosses Meaford Creek in a single span of 3.50 m. The bridge runs northwest to southeast, has a total deck length of 4.50 m and travel width of 4.00 m between the guardrails. No existing drawings of the structure were available. The bridge

was originally constructed in 1901 as part of the Grand Trunk Railway and has since been converted to a pedestrian bridge following the decommissioning of the railway line.

Based on a visual inspection, the guardrails and deck appear to be newer than the rest of the structure which is consistent with the bridge's conversion from railway to pedestrian bridge. The bridge was visually inspected by Centex on July 18, 2024. Select photos from this inspection can be found in **Images 1 and 2** below for general reference. The observations and findings of this inspection were found to be consistent with the findings presented in the most recent OSIM inspection report dated July 19, 2023, prepared by RJ Burnside. The bridge was identified as a candidate for replacement by RJ Burnside with replacement recommended within two (2) years. Critical to the recommendation that the bridge be replaced is the presence of severe deterioration of the timber piles at the waterline. This deterioration has significantly reduced the total cross-sectional area of the piles, with a corresponding reduction in load carrying capacity.

The wood guardrails are built using SPF lumber assemblies comprised of 2"x6" handrails, 6"x6" posts, 2"x2" spindles, and 2"x4" top rails. The guardrail posts are bolted to timber stringers (railway ties) with two (2) steel L-angles per post. The deck assembly is comprised of 2"x8" SPF lumber floorboards which sit on nine (9) 10"x10" timber stringers (railway ties), which are supported by ten (10) 16"x10" timber deck beams. Under each end of the deck beams are 14"x14" timber pile caps which sit on top of wood piles. Each end of the structure has ballast/wingwalls comprised of 12"x12" timber members.

Gabion baskets were observed on the structure embankments. Some loss of gabion basket material was noted. The gabion baskets will likely need to be rehabilitated as part of the overall work. On the northwest side of the bridge, several of the piles have been destroyed and disconnected from the structure. Overall, the substructure of the bridge has deteriorated significantly over time, with several timber members missing from the wingwalls. Photos from the inspection can be found in **Appendix A**.



Images 1 and 2 – View of BR-125 along Georgian Trail, looking north (left); View of BR-125 from Meaford Creek, looking west (right)

2.0 THE PROBLEM AND OPPORTUNITY

Bridge BR-125 has been found to be in an advanced state of deterioration, which has an impact on the bridges structural capacity. It is noted that the reason the bridge does not constitute an immediate concern for public safety is in the fact that the bridge was originally designed and built to support railway loading and that the loading likely to be imposed on the bridge have been significantly reduced through its conversion from a railway bridge to a pedestrian bridge. Regardless, the current condition of the bridge must be addressed in order to protect public safety and to ensure continued use of the Georgian Trail at the site location.

In addressing the structural concerns present at BR-125, an opportunity exists within this project to find a solution that adds value to the Georgian Trail and the surrounding community. Value may be found through several avenues, which may include: **a)** improved trail conditions at the site; **b)** reduced immediate capital expenses; **c)** reduced long-term maintenance or lifecycle expenses; and **d)** retention of cultural heritage value.

3.0 REPLACEMENT ALTERNATIVES

Upon completion of the pre-design phase of the project, Centex prepared four (4) bridge rehabilitation conceptual design options which were presented to the Municipality in a Technical Memo, dated September 9, 2024. The original Technical Memo can be found in **Appendix A**. These options were prepared within the context of the Municipality's direction, budgetary considerations, and relevant cultural heritage value considerations. The following sections describe these various options and provide a summary of the pros and cons for each.

It is noted that additional replacement options were reviewed by Centex at the conceptual level but were determined not to be feasible and were not considered further. These additional options included: **a)** replacement with a precast concrete box culvert; and **b)** replacement with a Corrugated Steel Pipe (CSP) culvert.

3.1 Option 1: Do Nothing

This conceptual design option proposes performing minor maintenance to the existing structure and creating a bridge monitoring program to prolong the closure of the bridge. The scope of this option includes minor maintenance procedures to address immediate structural concerns and the development of a monitoring program to observe and assess the existing bridge over 1-2 years. When the monitoring program determines that the existing bridge is no longer usable, signage and barriers would be erected to close and redirect the Georgian Trail.

This design option is not recommended as it is not viewed as a viable long-term rehabilitation option. If this option is selected, it would extend the decision period for selecting a rehabilitation option, however the structure would remain a public safety risk, and the cost of construction will only rise in the future.

3.2 Option 2: Bridge Removal with Trail Realignment

This conceptual design option proposes to address the poor bridge condition by simply removing the bridge and redirecting the Georgian trail to the crossing on Edwin St. The scope of this option

includes improvements to the watercourse embankments, installation of new precast retaining structures at the existing wingwall/abutment locations, installing guardrails/signage at the watercourse crossing, and minor grading for the new trail location and pathway.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is recommended due to the cost savings that are associated with removing the bridge and no longer having to maintain a structure in the future. This is also the community's preferred design option based on the results of the PIC held on February 17, 2026.

3.3 Option 3: Replacement with a Steel Truss Bridge

This conceptual design option proposes a complete replacement of the bridge. The scope of this option also includes improvements to the watercourse embankments. The replacement bridge would aim to maintain the existing hydraulic capacity of the watercourse by keeping the bridge deck elevation and clear span the same as the existing structure.

The existing bridge substructure would be replaced with cast-in place (CIP) concrete abutments. The superstructure would be a prefabricated steel truss pedestrian bridge, which would span across the watercourse in a single span of approximately 10.00 m. The structure will have an interior travel width between the railings of 3.00 m and will be designed to carry the load of a winter maintenance vehicle. The potential requirement for helical piles, caissons, or micro pile foundations due to maintenance vehicle loading will be assessed pending the final report from the geotechnical consultant. For the sake of estimation, it was assumed that a deep foundation will be required.

This option would also incorporate ancillary features such as anti-slip weathering steel deck planks, vertical weathering steel guardrail pickets, and stainless-steel handrails. This design option would be fully compliant with all accessibility standards for pedestrian bridges and MUTs.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is not recommended due to the loss of heritage value and high replacement cost. Additionally, there is a lack of community interest in pursuing replacing the structure as per the results of the PIC held on February 17, 2026.

3.4 Option 4: Replacement with a Timber Bridge

This conceptual design option proposes a similar rehabilitation procedure presented in Option 3 however the superstructure would utilize timber, with a sympathetic design to the existing structure. All other design criteria from Option 3 would be included in this conceptual option.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is not recommended as it is the most expensive option. The loss of heritage value would be mitigated with a sympathetic replacement however, it presents the highest initial and lifecycle costs, as maintaining a timber structure is much more rigorous than other construction materials.

4.0 OTHER STUDIES

Various other studies were completed by firms specializing in relevant scopes of work through the pre-design stage of the project. A description of these studies and their impacts on the project are provided in the sections below.

4.1 Surveying and SUE

Topographical survey and legal survey have been completed for the site by Callon Dietz Inc. (File. No. 24-26509). The results of the topographical survey were used by Centex to confirm existing site geometry, elevations, to develop watercourse cross sections used to review site hydraulics, and to support preliminary design efforts for the rehabilitation structure. Based on the results of the legal survey, it appears that the existing Right-of-Way (ROW) for the Georgian Trail and Edward Street incorporate the portion of land just west of the existing bridge where it has been proposed to relocate the trail. At this time there are no indications that land acquisitions will be required in the event that trail relocation is selected.

4.2 Geotechnical Investigation

Geotechnical investigation services were provided by MTE Consultants (MTE) with results of analysis and recommendations provided in their report (File. No. 55657-100), dated September 12, 2024 (draft) and May 7, 2026 (final). The investigation included the advancement of three (3) boreholes to a depth varying between 3.00 m and 6.00 m and the installation of one (1) groundwater monitoring well. The draft report indicates that competent soils were encountered at the founding elevation for the proposed soil retaining structures and that shallow foundations should be appropriate for use on all the conceptual structure rehabilitation options under consideration.

4.3 Screening for Cultural Heritage Potential

The Municipal Bridges, Criteria for Evaluating Potential for Cultural Heritage Resources (rev. April 27, 2023) checklist was completed by Centex. The checklist indicated that BR-125 may possess cultural heritage potential and recommended that a Cultural Heritage Evaluation Report (CHER) be undertaken. Centex recommended to the Municipality that Archaeological Services Inc. (ASI) be retained to complete a CHER to determine if cultural heritage value existed. The complete checklist can be found in **Appendix B**.

4.4 Cultural Heritage Value Investigation

A cultural heritage value investigation was required based on the results found in the “Criteria for Evaluating Potential for Cultural Heritage Resources” checklist. The results of the checklist outlined the potential for cultural heritage impacts on the bridge structure and required the hiring of a qualified person(s) to perform a Cultural Heritage Evaluation Report (CHER) for the existing structure. Cultural heritage investigation services were provided by Archaeological Services Inc. (ASI) with results presented in their CHER (File. No. 24CH-069), dated October 2024 (draft) and April 2026 (final). The CHER determined that the existing structure met the criteria outlined in Ontario Regulation 9/06 of the Ontario Heritage Act and therefore contained cultural heritage at a local level as a representative example of an early timber trestle bridge. ASI recommended that a Heritage Impact assessment (HIA) be completed to aid in identifying design alternatives and mitigation options to avoid or lessen the impacts of the cultural heritage attributes of the existing structure. The complete CHER can be found in **Appendix C**.

4.5 Heritage Impact Assessment

Following completion of the CHER, ASI proceeded with the completion of an HIA report with results presented in their HIA (File. No. 25CH-013), dated January 2025 (draft) and April 2026 (final). The complete HIA report can be found in **Appendix D**.

5.0 CONSULTATION

Following confirmation that BR-125 possessed cultural heritage value at the local level, the project was formally moved from an MCEA Exempt project to a Schedule B. As such, the project team moved to adopt a public consultation strategy in keeping with the requirements of the MCEA process.

5.1 Notices

Public notices regarding the EA Schedule B were issued in accordance with the notice to the public requirements set out in the MCEA process. This included an initial Notice of Study Commencement and Public Information Centre (PIC) issued on January 29, 2026, and a second Notice of Study Commencement issued on May 7, 2026.

A record of published project notices can be found in **Appendix E**.

5.2 Public Information Centre

An in-person Public Information Centre (PIC) was held on February 17, 2026, to present the project to the public and to solicit feedback. The PIC was attended by members of the project team both from the Municipality and Centex. During the PIC the project team fielded questions from interested members of the public and collected feedback forms.

The project team received verbal feedback from many of the attendees of the PIC that financial considerations were a high priority. Many attendees verbally stated that their preferred rehabilitation option was Option 2: Bridge removal and trail realignment, because this option

offered a lower initial capital investment that the bridge replacement option along with a significant reduction in overall lifecycle costs.

5.3 Public Feedback and Correspondence

A complete list of all notified agencies and other organizations, along with a compilation of all received correspondence from members of the public and interested agencies/organizations can be found in **Appendix F**. Public correspondence includes submitted feedback forms received during the PIC and email correspondence. Please note that the personal identifying information of private citizens has been redacted. Unredacted correspondence will be held by the project team and may be provided upon request to appropriate agencies or through freedom of information request.

It is noted that no agency or indigenous group has provided comment regarding this project.

6.0 PREFERRED REPLACEMENT OPTION

Following detailed review of the various rehabilitation options and through public consultation, the Municipality has selected to proceed with Option 2: Bridge removal with trail realignment. This option presents an opportunity to address the needs of the site at a lower initial capital cost when compared to a bridge replacement and a significant reduction in the maintenance and lifecycle costs related to this site. Option 2 also presents the opportunity to improving trail conditions and stabilize the embankments of Meaford Creek following removal of the existing bridge.

APPENDIX A: TECHNICAL MEMO



Centex Engineering and Development Inc.

7-265 Hanlon Creek Boulevard
Guelph, Ontario, N1C 0A1

Date: May 4, 2026

File: 24-023 (TS-2024-08)

Re: Technical Memo (Rev. 1.0)
Bridge BR-125 Rehabilitation Options

Attention: Joel Saunders
Project Manager
Municipality of Meaford

Centex Engineering and Development Inc. (Centex) is pleased to submit the enclosed Technical Memo detailing conceptual design options for the rehabilitation of Bridge BR-125, located on the Georgian Trail, over Meaford Creek, north of Edwin Street.

Should you have any questions or require clarification on any aspect of the enclosed, please do not hesitate to contact the undersigned.

Best Regards,

Brendan Kaus, P.Eng.
Engineering Project Manager

✉ brendan@centexed.com

☎ 519-630-8824

🌐 centexed.com

1.0 INTRODUCTION

Centex Engineering and Development Inc. (Centex) has been retained by the Municipality of Meaford (Municipality) to provide consulting engineering services for the replacement or relocation of Bridge BR-125 within the Municipality. This assignment includes investigation of potential replacement or relocation design options, review of site hydraulics, cultural heritage investigation, detailed design, contract administration, and site inspection. This Technical Memo aims to summarize the work undertaken by Centex to date and present multiple feasible replacement or relocation options. For conciseness, this Technical Memo shall generally refer to the proposed work as rehabilitation, unless a replacement or relocation option is specifically under discussion.

The existing pedestrian bridge is comprised of wooden decking and railings supported by timber deck beams, floor beams, and piles which span across Meaford Creek. The bridge was originally built in 1901 and is located on the Georgian trail, north of Edwin Street ([Google Maps](#)). The bridge was identified as a candidate for rehabilitation during the Municipality's recently completed biennial structure inspection program which was completed in 2023.

The enclosed Technical Memo details the results of Centex's preliminary investigation into the bridge and the surrounding site, including work undertaken by Centex's subconsultants. It covers four (4) conceptual rehabilitation options. A central consideration for the rehabilitation of the structure is the potential to remove the structure entirely and redirect the Georgian trail to the sidewalk crossing immediately south of the site, on Edwin Street. Regardless of whether the structure is removed or replaced, soil retaining structures will need to be implemented to replace the existing wood cribbing wingwalls/abutments.

2.0 SITE INVESTIGATION

The existing structure is a timber trestle bridge that has a span of 3.50 m that runs Northwest to Southeast. The structure has a total deck length of 4.50 m and travel width of 4.00 m between the guardrails. No existing drawings of the structure were available for review by Centex. The bridge was originally a railway bridge and has been converted to a pedestrian bridge. Based on a visual inspection, the guardrails and deck appear to be newer than the rest of the structure which is consistent with the bridge's conversion from railway to pedestrian bridge. The bridge was found to be in a similar condition to that presented in the most recent OSIM inspection report dated July 12, 2023, prepared by RJ Burnside.

The wood guardrails are built using SPF lumber assemblies comprised of 2"x6" handrails, 6"x6" posts, 2"x2" spindles, and 2"x4"s. The guardrail posts are bolted to timber stringers (railway ties) with two (2) steel L-angles per post. The deck assembly is comprised of 2"x8" SPF lumber floorboards which sit on nine (9) 10"x10" timber stringers (railway ties), which are supported by ten (10) 16"x10" timber deck beams. Under each end of the deck beams are 14"x14" timber pile caps which sit on top of wood piles. Each end of the structure has ballast/wingwalls comprised of 12"x12" timber members.

Gabion baskets were observed on the structure embankments. Some loss of gabion basket material was noted. The gabion baskets will likely need to be rehabilitated as part of the overall work. On the northwest side of the bridge, several of the piles have been destroyed and disconnected from the structure. Overall, the substructure of the bridge has deteriorated significantly over time with several timber members missing from the wingwalls. Photos from the inspection can be found in **Appendix A**.

2.1 Surveying and SUE

Topographical survey and legal survey have been completed for the site by Callon Dietz inc. (File. No. 24-26509). The results of the topographical survey were used by Centex to confirm existing site geometry, elevations, to develop watercourse cross sections used to review site hydraulics, and to support preliminary design efforts for the rehabilitation structure. Based on the results of the legal survey, it appears that the existing Right-of-Way (ROW) for the Georgian Trail and Edward Street incorporate the portion of land just west of the existing bridge where it has been proposed to relocate the trail. At this time there are no indications that land acquisitions will be required in the event that trail relocation is selected.

2.2 Geotechnical Investigation

Geotechnical investigation services were provided by MTE Consultants with results of analysis and recommendations provided in their draft report (File. No. 55657-100), dated September 12, 2024. The investigation included the advancement of three (3) boreholes to a depth varying between 3.00 and 6.00 m and the installation of one (1) groundwater monitoring well. The draft report indicates that competent soils were encountered at the founding elevation for the proposed soil retaining structures and that shallow foundations should be appropriate for use on all the conceptual structure rehabilitation options under consideration.

2.3 Cultural Heritage Value Investigation

A cultural heritage value investigation was required based on the results found in the “Criteria for Evaluating Potential for Cultural Heritage Resources” checklist. The results of the checklist outlined the potential for cultural heritage impacts on the bridge structure and required the hiring of a qualified person(s) to perform a Cultural Heritage Evaluation Report (CHER) for the existing structure. Cultural heritage investigation services were provided by Archaeological Services Inc. (ASI) with results presented in their CHER (File. No. 24CH-069), dated October 2024. The CHER determined that the existing structure met the criteria outlined in Ontario Regulation 9/06 of the Ontario Heritage Act and therefore contained cultural heritage at a local level as a representative example of an early timber trestle bridge. ASI recommended that a Heritage Impact assessment (HIA) be completed to aid in identifying design alternatives and mitigation options to avoid or lessen the impacts of the cultural heritage attributes of the existing structure. The conclusions and mitigation options can be found in the HIA (File. No. 25CH-013), dated January 2025.

3.0 REPLACEMENT OPTIONS

Centex has prepared four (4) bridge rehabilitation conceptual design options. These options have been prepared within the context of the Municipality’s direction, budgetary considerations, and relevant cultural heritage value considerations.

3.1 Option 1: Do Nothing

This conceptual design option proposes performing minor maintenance to the existing structure and creating a bridge monitoring program to prolong the closure of the bridge. The scope of this option includes minor maintenance procedures to address immediate structural concerns and the development of a monitoring program to observe and assess the existing bridge over 1-2 years. When the monitoring program determines that the existing bridge is no longer usable, signage and barriers would be erected to close and redirect the Georgian Trail.

3.2 Option 2: Bridge Removal with Trail Realignment

This conceptual design option proposes to address the poor bridge condition by simply removing the bridge and redirecting the Georgian trail to the crossing on Edwin St. The scope of this option includes improvements to the watercourse embankments, installation of new CIP retaining structures at the existing wingwall/abutment locations, installing guardrails/signage at the watercourse crossing, and minor grading for the new trail location and pathway.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is recommended due to the cost savings that are associated with removing the bridge and no longer having to maintain a structure in the future. This is also the community’s preferred design option based on the results of the PIC held on February 17, 2026.

This design option is not recommended as it is not viewed as a viable long-term rehabilitation option. If this option is selected, it would extend the decision period for selecting a rehabilitation option, however the structure would remain a public safety risk, and the cost of construction will only rise in the future.

3.3 Option 3: Full Replacement with Steel Truss Bridge

This conceptual design option proposes a complete replacement of the bridge. The scope of this option also includes improvements to the watercourse embankments. The replacement bridge would aim to maintain the existing hydraulic capacity of the watercourse by keeping the bridge deck elevation and clear span the same as the existing structure.

The existing bridge substructure would be replaced with cast-in place (CIP) concrete abutments. The superstructure would be a prefabricated steel truss pedestrian bridge which would span across the watercourse in a single span of approximately 10.00 m. The structure will have an interior travel width between the railings of 3.00 m and will be designed to carry the load of a winter maintenance vehicle. The potential requirement for helical piles, caissons, or micro pile foundations due to maintenance vehicle loading will be assessed pending the final report from the geotechnical consultant. For the sake of estimation, it was assumed that a deep foundation will be required.

This option would also incorporate ancillary features such as anti-slip weathering steel deck planks, vertical weathering steel guardrail pickets, and stainless-steel handrails. This design option would be fully compliant with all accessibility standards for pedestrian bridges and MUTs.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is not recommended due to the loss of heritage value and high replacement cost. Additionally, there is a lack of community interest in pursuing replacing the structure as per the results of the PIC held on February 17, 2026.

3.4 Option 4: Full Replacement with a Timber Bridge

This conceptual design option proposes a similar rehabilitation procedure presented in Option 3 however the superstructure would utilize timber, with a sympathetic design to the existing structure. All other design criteria from Option 3 would be included in this conceptual option.

A proposed heritage plaque would be erected along the Georgian Trail adjacent to the site in order to commemorate the cultural heritage that the former structure possessed. Design and information displayed on the plaque are to be determined by the various stakeholders of the bridge.

This design option is not recommended as it is the most expensive option. The loss of heritage value would be mitigated with a sympathetic replacement however it presents the highest initial and lifecycle costs, as maintaining a timber structure is much more rigorous than other construction materials.

4.0 CONSTRUCTION COST ESTIMATES

It is Centex's understanding that the total project budget, inclusive of all engineering, permitting, and construction cost is \$ 297,000 for replacement, as per the capital costs provided in the most recent OSIM report. Centex has prepared preliminary cost estimates based on the conceptual design options presented above with a preliminary breakdown of the anticipated tender items, quantities, and unit rates for each tender item. In summary, the preliminary construction cost estimates for the four (4) conceptual design options rounded to the nearest \$1,000 are \$ 30,000, \$ 225,000, \$ 380,000, and \$ 400,000 for Options 1, 2, 3, and 4 respectively. A detailed breakdown of these cost estimates can be found in **Appendix B**.

Please note that these construction cost estimates are subject to change and should be considered as preliminary, as minimal design work has been completed at this time. To account for this, Centex has set the construction contingency contained within these costs estimates at 20% of the estimated construction cost. It is anticipated that the construction contingency will be reduced to 15% and finally 10% of the estimated construction costs as Centex progresses through detailed design and final design project stages.

5.0 RECOMMENDATIONS

Following the Municipality's review of the contents of this Technical Memo, Centex requests that the Municipality provide a final preferred path for detailed design. For comparison purposes, Centex has prepared a summary of the four conceptual design options presented in **Table 1**.

Table 1 – Summary and side-by-side comparison of each conceptual design option.

	Option 1	Option 2	Option 3	Option 4
Span	3.5 m	n/a	10.0 m	10.0 m
Interior Width	4.0 m	n/a	3.0 m	3.0 m
Superstructure	Existing wood	None	Prefabricated steel truss	Timber bridge
Substructure	Existing wood	Concrete Retaining Walls	Cast-in-place concrete abutment on concrete caissons, helical or micro piles	Cast-in-place concrete abutment on concrete caissons, helical or micro piles
Decking	Existing wood	n/a	Slip resistant weathering steel planks	SPF lumber floorboards
Railing	Existing wood	Stainless Steel Guardrail on Retaining Structure	Stainless steel handrail	Timber handrails
Accessibility	n/a	Partial compliance	Full compliance	Full compliance
Maintenance Vehicle	No	Yes	Yes	Yes
Heritage Plaque	No	Yes	Yes	Yes
Embankment improvements	No	Yes	Yes	Yes
Estimated Service Life in years	< 2	Substructure – 75	Superstructure – 50 Substructure – 75	Superstructure – 30 Substructure – 75
Construction Budget	\$30,000	\$ 225,000	\$ 380,000	\$400,000

APPENDIX A: SITE PHOTOS

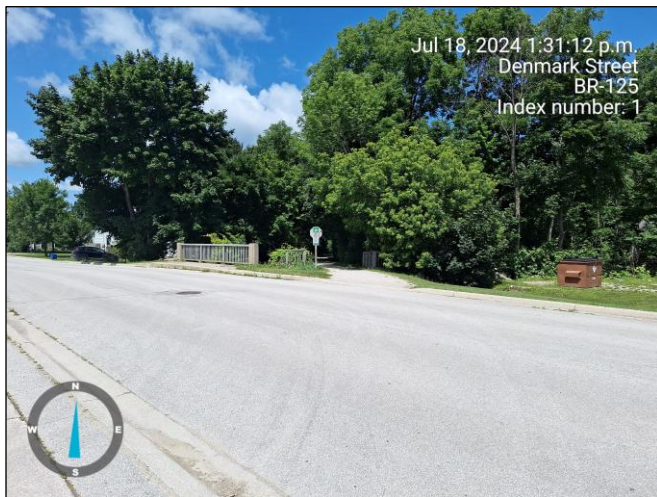


Image A1 – General view of site.



Image A2 – BR-125 on Georgian Trail.

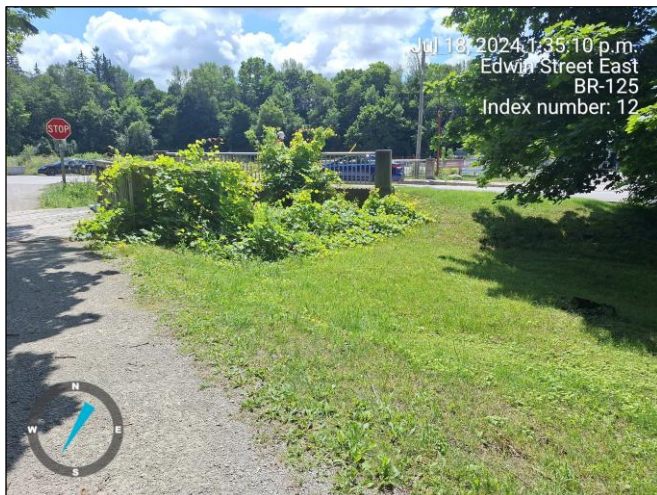


Image A3 – Alternative trail alignment on right.



Image A4 – East elevation.

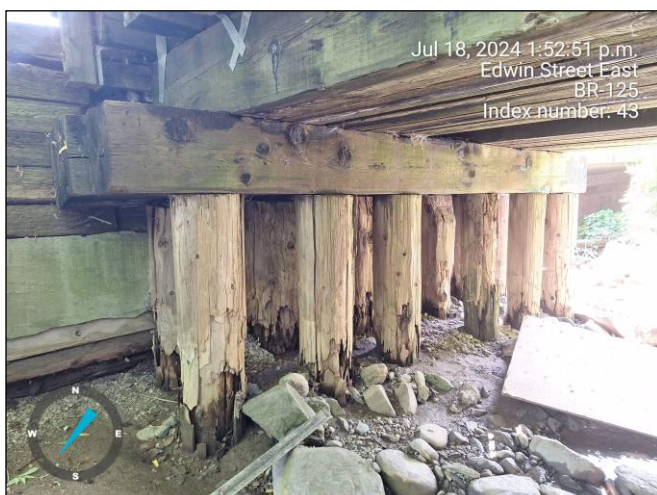


Image A5 – South abutment and piles.



Image A6 – Gabion baskets at southwest corner.

APPENDIX B: CONSTRUCTION COST ESTIMATES

30% Cost Estimate - Option 1: Do Nothing

Item No.	Description	Applicable Specs	Estimated Quantity	Units of Measure	Unit Price	Extended Price
T-01	Maintenance to Existing Structure	SP	1.0	L.S.	\$ 15,000.00	\$ 15,000.00
T-02	Bridge Monitoring Program	SP	1.0	L.S.	\$ 15,000.00	\$ 15,000.00
Total						\$ 30,000.00
Tax (13%)						\$ 3,900.00
Grand Total						\$ 33,900.00

30% Cost Estimate - Option 2: Bridge Removal with Trail Realignment

Item No.	Description	Applicable Specs	Estimated Quantity	Units of Measure	Unit Price	Extended Price
T-01	Mobilization, Demobilization, and Miscellaneous	SP	1.0	L.S.	\$ 8,500.00	\$ 8,500.00
T-02	Bonding and Insurance	SP	1.0	L.S.	\$ 5,000.00	\$ 5,000.00
T-03	Contractor Layout	SP	1.0	L.S.	\$ 3,500.00	\$ 3,500.00
T-04	Tree Removal	OPSS.MUNI 201	6.0	ea.	\$ 750.00	\$ 4,500.00
T-05	Grubbing	OPSS.MUNI 201	40.0	m ²	\$ 50.00	\$ 2,000.00
T-06	Removal of Bridge Structure	OPSS.MUNI 510	1.0	L.S.	\$ 25,000.00	\$ 25,000.00
T-07	Removal of Gabions	OPSS.MUNI 510	24.0	m ³	\$ 250.00	\$ 6,000.00
T-08	Small signs, Relocation	OPSS.MUNI 510	2.0	ea.	\$ 150.00	\$ 300.00
T-09	R-50 Rip-Rap (embankments)	OPSS.MUNI 511	40.0	m ²	\$ 50.00	\$ 2,000.00
T-10	Dewatering and Temporary Flow Bypass	OPSS.MUNI 517	1.0	L.S.	\$ 8,000.00	\$ 8,000.00
T-11	Barrier for Tree Protection	OPSS.MUNI 801	40.0	m	\$ 25.00	\$ 1,000.00
T-12	Heavy-Duty Silt Fence Barriers	OPSS.MUNI 805	40.0	m	\$ 50.00	\$ 2,000.00
T-13	Straw Bale Flow Check Dams	OPSS.MUNI 805	4.0	ea.	\$ 250.00	\$ 1,000.00
T-14	Filter Bags	OPSS.MUNI 805	2.0	ea.	\$ 500.00	\$ 1,000.00
T-15	Cofferdams	OPSS.MUNI 805	2.0	ea.	\$ 5,000.00	\$ 10,000.00
T-16	Supply and Place Bedding Material	OPSS.MUNI 902	20.0	tonne	\$ 35.00	\$ 700.00
T-17	Granular 'B' Backfill to Structure	OPSS.MUNI 902	500.0	tonne	\$ 25.00	\$ 12,500.00
T-18	Precast Concrete Retaining Walls	OPSS.MUNI 904	40.0	m ³	\$ 1,250.00	\$ 50,000.00
T-19	Pedestrian Railing	OPSS.MUNI 908	12.0	m	\$ 1,250.00	\$ 15,000.00
T-20	Trail Path / Modifications	SP	40.0	m ²	\$ 200.00	\$ 8,000.00
T-21	Grading	SP	1.0	L.S.	\$ 10,000.00	\$ 10,000.00
T-22	Site Restoration	SP	1.0	L.S.	\$ 7,500.00	\$ 7,500.00
T-23	Material Testing Allowance	SP	1.0	L.S.	\$ 5,000.00	\$ 5,000.00
T-24	Contingency (20%)	SP	1.0	L.S.	\$ 36,500.00	\$ 36,500.00
Total						\$ 225,000.00
Tax (13%)						\$ 29,250.00
Grand Total						\$ 254,250.00

30% Cost Estimate - Option 3: Full Replacement with a Steel Truss Bridge

Item No.	Description	Applicable Specs	Estimated Quantity	Units of Measure	Unit Price	Extended Price
T-01	Mobilization, Demobilization, and Miscellaneous	SP	1.0	L.S.	\$ 14,500.00	\$ 14,500.00
T-02	Bonding and Insurance	SP	1.0	L.S.	\$ 8,500.00	\$ 8,500.00
T-03	Contractor Layout	SP	1.0	L.S.	\$ 3,500.00	\$ 3,500.00
T-04	Tree Removal	OPSS.MUNI 201	6.0	ea.	\$ 750.00	\$ 4,500.00
T-05	Grubbing	OPSS.MUNI 201	40.0	m ²	\$ 50.00	\$ 2,000.00
T-06	Removal of Bridge Structure	OPSS.MUNI 510	1.0	L.S.	\$ 25,000.00	\$ 25,000.00
T-07	Removal of Gabions	OPSS.MUNI 510	24.0	m ³	\$ 250.00	\$ 6,000.00
T-08	Small signs, Relocation	OPSS.MUNI 510	2.0	ea.	\$ 150.00	\$ 300.00
T-09	R-50 Rip-Rap (embankments)	OPSS.MUNI 511	40.0	m ²	\$ 50.00	\$ 2,000.00
T-10	Dewatering and Temporary Flow Bypass	OPSS.MUNI 517	1.0	L.S.	\$ 8,000.00	\$ 8,000.00
T-11	Barrier for Tree Protection	OPSS.MUNI 801	40	m	\$ 25.00	\$ 1,000.00
T-12	Heavy-Duty Silt Fence Barriers	OPSS.MUNI 805	40.0	m	\$ 50.00	\$ 2,000.00
T-13	Straw Bale Flow Check Dams	OPSS.MUNI 805	4.0	ea.	\$ 250.00	\$ 1,000.00
T-14	Filter Bags	OPSS.MUNI 805	2.0	ea.	\$ 500.00	\$ 1,000.00
T-15	Cofferdams	OPSS.MUNI 805	2.0	ea.	\$ 5,000.00	\$ 10,000.00
T-16	Earth Excavation for Structure	OPSS.MUNI 902	200.0	m ³	\$ 50.00	\$ 10,000.00
T-17	Supply and Place Bedding Material	OPSS.MUNI 902	20.0	tonne	\$ 35.00	\$ 700.00
T-18	Granular 'B' Backfill to Structure	OPSS.MUNI 902	600.0	tonne	\$ 25.00	\$ 15,000.00
T-19	Precast Concrete Retaining Walls	OPSS.MUNI 904	40.0	m ³	\$ 1,250.00	\$ 50,000.00
T-20	Caison, helical or micro pile foundation	OPSS.MUNI 904	1.0	L.S.	\$ 25,000.00	\$ 25,000.00
T-21	Cast in Place Concrete Abutments	OPSS.MUNI 904	10.0	m ³	\$ 1,500.00	\$ 15,000.00
T-22	Reinforcing Steel Bars	OPSS.MUNI 905	2.0	tonne	\$ 4,500.00	\$ 9,000.00
T-23	Fabrication, Delivery, and Installation of Structural Steel	OPSS.MUNI 906	1.0	L.S.	\$ 75,000.00	\$ 75,000.00
T-24	Grading	SP	1.0	L.S.	\$ 7,500.00	\$ 7,500.00
T-25	Trail Path / Modifications	SP	20.0	m ²	\$ 200.00	\$ 4,000.00
T-26	Site Restoration	SP	1.0	L.S.	\$ 10,000.00	\$ 10,000.00
T-27	Material Testing Allowance	SP	1.0	L.S.	\$ 7,500.00	\$ 7,500.00
T-28	Contingency (20%)	SP	1.0	L.S.	\$ 62,000.00	\$ 62,000.00
Total						\$ 380,000.00
Tax (13%)						\$ 49,400.00
Grand Total						\$ 429,400.00

30% Cost Estimate - Option 4: Full Replacement with a Timber Bridge

Item No.	Description	Applicable Specs	Estimated Quantity	Units of Measure	Unit Price	Extended Price
T-01	Mobilization, Demobilization, and Miscellaneous	SP	1.0	L.S.	\$ 15,000.00	\$ 15,000.00
T-02	Bonding and Insurance	SP	1.0	L.S.	\$ 9,000.00	\$ 9,000.00
T-03	Contractor Layout	SP	1.0	L.S.	\$ 3,500.00	\$ 3,500.00
T-04	Tree Removal	OPSS.MUNI 201	6.0	ea.	\$ 750.00	\$ 4,500.00
T-05	Grubbing	OPSS.MUNI 201	40.0	m ²	\$ 50.00	\$ 2,000.00
T-06	Removal of Bridge Structure	OPSS.MUNI 510	1.0	L.S.	\$ 25,000.00	\$ 25,000.00
T-07	Removal of Gabions	OPSS.MUNI 510	24.0	m ³	\$ 250.00	\$ 6,000.00
T-08	Small signs, Relocation	OPSS.MUNI 510	2.0	ea.	\$ 150.00	\$ 300.00
T-09	R-50 Rip-Rap (embankments)	OPSS.MUNI 511	40.0	m ²	\$ 50.00	\$ 2,000.00
T-10	Dewatering and Temporary Flow Bypass	OPSS.MUNI 517	1.0	L.S.	\$ 8,000.00	\$ 8,000.00
T-11	Barrier for Tree Protection	OPSS.MUNI 801	40.0	m	\$ 25.00	\$ 1,000.00
T-12	Heavy-Duty Silt Fence Barriers	OPSS.MUNI 805	40.0	m	\$ 50.00	\$ 2,000.00
T-13	Straw Bale Flow Check Dams	OPSS.MUNI 805	4.0	ea.	\$ 250.00	\$ 1,000.00
T-14	Filter Bags	OPSS.MUNI 805	2.0	ea.	\$ 500.00	\$ 1,000.00
T-15	Cofferdams	OPSS.MUNI 805	2.0	ea.	\$ 5,000.00	\$ 10,000.00
T-16	Earth Excavation for Structure	OPSS.MUNI 902	200.0	m ³	\$ 50.00	\$ 10,000.00
T-17	Supply and Place Bedding Material	OPSS.MUNI 902	20.0	tonne	\$ 35.00	\$ 700.00
T-18	Granular 'B' Backfill to Structure	OPSS.MUNI 902	600.0	tonne	\$ 25.00	\$ 15,000.00
T-19	Precast Concrete Retaining Walls	OPSS.MUNI 904	40.0	m ³	\$ 1,250.00	\$ 50,000.00
T-20	Caison, helical or micro pile foundation	OPSS.MUNI 904	1.0	L.S.	\$ 25,000.00	\$ 25,000.00
T-21	Cast in Place Concrete Abutments	OPSS.MUNI 904	10.0	m ³	\$ 1,500.00	\$ 15,000.00
T-22	Reinforcing Steel Bars	OPSS.MUNI 905	2.0	tonne	\$ 4,500.00	\$ 9,000.00
T-23	Fabrication, Delivery, and Installation of Timber Superstructure	SP	1.0	L.S.	\$ 90,000.00	\$ 90,000.00
T-24	Grading	SP	1.0	L.S.	\$ 7,500.00	\$ 7,500.00
T-25	Trail Path / Modifications	SP	20.0	m ²	\$ 200.00	\$ 4,000.00
T-26	Site Restoration	SP	1.0	L.S.	\$ 10,000.00	\$ 10,000.00
T-27	Material Testing Allowance	SP	1.0	L.S.	\$ 7,500.00	\$ 7,500.00
T-28	Contingency (20%)	SP	1.0	L.S.	\$ 65,500.00	\$ 65,500.00
Total						\$ 399,500.00
Tax (13%)						\$ 51,935.00
Grand Total						\$ 451,435.00

APPENDIX B: MUNICIPAL BRIDGES CHECKLIST

Municipal Bridges

Criteria for Evaluating Potential for Cultural Heritage Resources

(revised April 27, 2023)

This checklist was prepared by the Municipal Engineers Association in consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries (MCM) to assist with undertaking cultural heritage due diligence as per the requirements of the Municipal Class Environmental Assessment.

Project Name: BR-125, Georgian Trail over Meaford Creek Pedestrian Bridge

Location: Georgian Trail, 12 m north of Edwin Street

Municipality: Municipality of Meaford, Ontario

Project Engineer: Brendan Kaus, P.Eng.

Checklist completed by: James Smith

Date: August, 2024

NOTE: Complete all sections of Checklist. Both Built Heritage Resources/Cultural Heritage Landscapes (B) and Archaeological (C) Sections must be satisfied before proceeding.

Questions apply to the entire study area including temporary storage or work areas as well as temporary roads/detours, except as otherwise stated.

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
 - the municipal addresses of all properties within the project area
 - the lot(s), concession(s), and parcel number(s) of all properties within a project area
- Answer each question in succession and follow the instructions in blue. Continue until all questions are answered or a definitive conclusion is reached.

Refer to the Appendix for additional details and resources to assist in answering select questions.

Font Colour

Green – MEA's Advice

Blue - Instructions

PART A – MUNICIPAL CLASS EA ACTIVITY SELECTION

Which of the following describes the proposed project?	MCEA Schedule	Selection
1. Normal or emergency operation and maintenance of linear paved facilities, cycling lanes/facilities & multi-purpose paths, sidewalks, parking lots and related facilities located within or outside existing rights- of-way <i>Related facilities include bridges.</i> Maintenance means work that extends the life of the structure or keeps the structure safe for intended use. Repairs means work that fixes or replaces components of the structure to return the structure to its original condition	Schedule A Complete Part C of this checklist to determine whether an archaeological assessment is required.	☐
24a Retirement of existing roads and road related facilities. <i>Related facilities include bridges</i> <i>Proponents should consider cultural heritage value in accordance with MEA's Municipal Heritage Bridge Checklist developed with the Ministry of Citizenship and Multiculturalism (MCM) and posted on the MEA website. Completion of the checklist does not mean approval or permission from MCM to remove a bridge with potential heritage value</i> RETIREMENT Means the taking out of operation, abandonment, removal, demolition or disposal of a road, bridge, sewage, stormwater management or water facility for which approval under the EAA would have been necessary for its	Exempt – Schedule A+ Complete Parts B of this checklist if the bridge is > 40 years old and C of this checklist if the project involves excavation activities to determine whether any technical cultural heritage studies are required prior to removal of the bridge	☐

establishment and includes sale, lease, or other transfer of the facility for purposes of taking out of operation, abandonment, removal, demolition or disposal.		
25b Construction or removal of sidewalks, multi-purpose paths or cycling facilities including water crossings outside existing right-of-way and/or in a utility or rail corridor	Schedule A+ if <\$4.1m Schedule B if >\$4.1m Schedule C if >\$12m <i>This clause does not include qualifiers such as property requirements or proximity to sensitive features. Instead cost of project triggers classification</i>	☐
30. Reconstruction of a water crossing where the reconstructed facility will be for the same purpose, use, capacity and at the same location • Capacity refers to either hydraulic or road capacity but does not include alterations to include or remove facilities for cycling, pedestrians or to support utilities • This includes ferry docks BRIDGE CAPACITY Means the number of through travel lanes for vehicles on the bridge. Adjusting lane width to current standards that do not increase the number of travel lanes and cycling, parking or turning lanes are not through travel lanes. Increasing the width of a narrow bridge (one lane with two way traffic) to the current standard to accommodate two way traffic (two lane) is not considered an increase in capacity. OPERATION Means use, maintenance, repair, and management of a municipal facility where the purpose, use, capacity and location remain the same. Same purpose, use, capacity and location refers to the replacement or upgrading of a structure or facility or its	Item 30 applies to bridges <40 yrs old. Exempt – Schedule A+ If the project involves excavation, complete Part C of this checklist to determine whether an archaeological assessment is required. <i>Hydraulic capacity of a bridge is controlled by the openings between abutment walls and piers. The bridge elevation needs to be set a minimum clearance above high-water elevations. Further adjusting the elevation of the bridge to match road grades will not change the hydraulic characteristics. However, if the hydraulic capacity of the bridge is part of the flood control system for the water course and the openings between abutment walls and piers is changing then item 63 “Modify existing water crossings for the purposes of flood control” from the Water/Wastewater table applies and the project is Schedule B.</i> Substantial Change - Within the existing road allowance or utility corridor, a substantial change could be considered a change of more than approximately >10%.	☐

performance, where the objective and application remain unchanged, and the volume, size and capability do not exceed the minimum municipal standard (defined above), or the existing rated capacity (defined above), and there is no substantial change in location	<i>For example, a road allowance 20m wide and 1 km long has an area of 20,000 m² and a change of < 2000m² would be <10%</i> Property Acquisition – No EA process is required for property purchase. If the proponent acquires property through separate process (negotiation with owner or planning policies for minimum width of road allowances) such that the proponent owns the property required for a project before the Notice of Completion then no property acquisition is required for the project. For many project types, this could mean the project would be classified as Schedule A or A+ (exempt). If there is dispute about the property acquisition then a Schedule B process should be followed to support the acquisition (expropriation). Utility Corridor – A utility corridor may include property that is non-linear, for example a rectangular area for a Stormwater Management Pond.	
31a Reconstruction of, or alteration to a structure or the grading adjacent to it, when the structure is over 40 years old and has been found not to have cultural heritage value or interest <i>To determine whether a bridge has “cultural heritage value” refer to the MEA’s municipal heritage bridge checklist developed with the Ministry of Citizenship and Multiculturalism and posted on the MEA website</i>	Item 31 applies to bridges >40 yrs old. Exempt – Schedule A+ Complete Parts B and C of this checklist to determine whether any technical cultural heritage studies are required.	



31b Reconstruction of, or alteration to a structure or the grading adjacent to it when the structure is over 40 years old, the structure is found to have cultural heritage value or interest, and the heritage attributes will be conserved in accordance with the recommendations of a Heritage Impact Assessment <i>To determine whether a bridge has “cultural heritage value”, refer to the MEA’s municipal heritage bridge checklist developed with the Ministry of Citizenship and Multiculturalism and posted on the MEA website</i>	Exempt - Schedule A+ after completing Archaeological Screening Process (ASP) and provided the heritage attributes will be conserved in accordance with the recommendations of a Heritage Impact Assessment Complete Parts B and C of this checklist to determine whether any technical cultural heritage studies are required.	☐
31c Reconstruction of, or alteration to a structure or the grading adjacent to it, when the structure is over 40 years old the structure is found to have cultural heritage value or interest, but heritage attributes will not be conserved in accordance with the recommendations of a Heritage Impact Assessment <i>To determine whether a bridge has “cultural heritage value”, refer to the MEA’s municipal heritage bridge checklist developed with the Ministry of Citizenship and Multiculturalism and posted on the MEA website</i>	Schedule B Proponents should always strive to conserve/recognize cultural heritage attributes.	☒
32a. Construction of underpasses or overpasses for pedestrian, cycling, recreational or agricultural use	Schedule A+ if <\$3.0m No qualifiers	☐



32b Construction of underpasses or overpasses for pedestrian, cycling, recreational or agricultural use, and where the underpass or overpass would not be located in or adjacent to an environmentally sensitive natural area, potential built heritage resource or cultural heritage landscape or other sensitive land use, or on lands with archaeological potential • <i>To determine whether there is “archaeological potential” refer to MCM’s Criteria for Evaluating Archaeological Potential checklist</i> <i>Refer to new definition of “environmentally sensitive natural area” in the Glossary</i>	Applies to projects >\$3M Schedule A+ after completing Archaeological Screening Process (ASP). Otherwise Schedule B A1-2 Archaeological Screening Process (ASP) The projects that are identified as eligible for screening, subject to the archaeological screening process (identified as “ASP”) may be exempt from the requirements of the EAA as determined by the archaeological screening process set out below. In order to proceed with a project that is identified as eligible for screening, a proponent must either; (i) carry out the process for a Schedule B/C project; or (ii) complete the archaeological screening process and follow the directions set out in the screening process. If the outcome of the screening process is that the project is exempt from the requirements of the EAA, the proponent may proceed with the undertaking/project without further application of the EAA to the project	
32c Construction of underpasses or overpasses for pedestrian, cycling, recreational or agricultural use, and where the underpass or overpass would be located in or adjacent to an environmentally sensitive natural area, potential built heritage resource or cultural heritage landscape or other sensitive land use, or on lands with archaeological potential • <i>To determine whether there is “archaeological potential” refer to MCM’s</i>	Applies to projects >\$3M Schedule B	

<i>Criteria for Evaluating Archaeological Potential checklist</i> <i>Refer to new definition for “environmentally sensitive natural area” in the Glossary</i>		
35 Reconstruction of a water crossing where the reconstructed facility will not be for the same purpose, use, capacity or at the same location • <i>Capacity refers to either hydraulic or road capacity but does not include alterations to include or remove facilities for cycling, pedestrians or to support utilities</i> • <i>This includes ferry docks</i>	Schedule B Applies to all bridges with an increase to travel lanes.	☐
36a Reconstruction of, or alteration to a structure or the grading adjacent to it when the structure is over 40 years old and has cultural heritage value or interest and the heritage attributes will not be conserved in accordance with the recommendations of a Heritage Impact Assessment • <i>To determine whether a bridge has “cultural heritage value”, refer to the MEA’s municipal heritage bridge checklist developed with the Ministry of Citizenship and Multiculturalism and posted on the MEA website</i>	Schedule B Proponents should always strive to conserve/recognize cultural heritage attributes	☐
36b Reconstruction of, or alteration to a structure or the grading adjacent to it when the structure is over 40 years old and is not found to have cultural heritage value or interest or is found to have cultural heritage value or interest but the heritage attributes will be conserved in accordance with the recommendations of a Heritage Impact Assessment • <i>To determine whether a bridge has “cultural heritage value”, refer to the MEA’s municipal heritage bridge checklist developed with the Ministry</i>	Schedule B The heading for this group of projects is “RECOONSTNRUCTION OF BRIDGES WITH INCREASE TO TRAVEL LANES”. The increase to travel lanes triggers Schedule B	☐

<i>of Citizenship and Multiculturalism and posted on the MEA website</i>		
37. Construction of new water crossings • This includes ferry docks • This does not apply to culverts. See Projects # 8 and 20.	Schedule B	☐
38. Construction of new grade separations and interchanges	Schedule B	☐

PART B – SCREENING FOR BUILT HERITAGE RESOURCES AND CULTURAL HERITAGE LANDSCAPES

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person to undertake technical cultural heritage studies as identified at the end of Part B.

Screening Questions	Response	
Part B1: Screening for Recognized Cultural Heritage Value or Interest		
1. Is the proposed undertaking consistent with an approved conservation plan, if one exists?	Yes ☐	No ☒
If you answered YES , then it is not necessary to complete the remaining questions in the checklist. The proponent will include this information in the project file and follow the recommendations of the conservation plan during project planning and implementation.		
If you answered NO , continue to question 2.		
2. Has the bridge and the study area been evaluated before and found not be of cultural heritage value or interest (CHVI)?	Yes ☐	No ☒
If you answered YES , it is not necessary to complete the remaining questions in the Part B. The proponent will summarize the previous evaluation and add this checklist to the project file, with appropriate documentation demonstrating that a cultural heritage evaluation was undertaken. Proceed to Part C: Screening for Archaeological Resources.		
If you answered NO , continue to question 3.		
3. Is the bridge, or a parcel of land in the study area:		
a. designated under the <i>Ontario Heritage Act</i> ?	Yes ☐	No ☒

b. subject to an agreement, covenant or easement entered into under Parts II or IV of the <i>Ontario Heritage Act</i> ?	Yes ☐	No ☒
c. included on a register or inventory of heritage properties maintained by the municipality?	Yes ☐	No ☒
d. subject to a notice of - intention to designate (under Part IV of the <i>Ontario Heritage Act</i>)? - a Heritage Conservation District study area by-law (under Part V of the <i>Ontario Heritage Act</i>)?	Yes ☐	No ☒
e. included in MCM's list of provincial heritage properties?	Yes ☐	No ☒
f. designated under the <i>Heritage Railway Stations Protection Act</i> ?	Yes ☐	No ☒
g. designated under the <i>Heritage Lighthouse Protection Act</i> ?	Yes ☐	No ☒
h. identified as a Federal Heritage Building by Federal Heritage Buildings Review Office?	Yes ☐	No ☒
i. a National Historic Site or part of one?	Yes ☐	No ☒
j. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	Yes ☐	No ☒
If you answered YES to any of the questions 3a through 3h, a Heritage Impact Assessment is necessary. Proceed to Part C.		
If you answered YES to either of questions 3i or 3j, follow the direction in the conservation and management documents for the National Historic Site or UNESCO World Heritage Site. Proceed to Part C.		
If you answered NO to all of the above questions, continue to Part B2		

Part B2: Screening for potential Cultural Heritage Value or Interest		
4. Will the proposed project involve a bridge structure that was:	Yes	No
a) constructed less than 40 years ago?	☐	☒
b) constructed after 1956 with a plain concrete substructure, and the superstructure construction is with common steel and/or concrete products involving one of the following four bridge types?	Yes	No
- Rigid Frame	☐	☒
- Precast Girders with Concrete Deck		

- Culvert or Simple Span - Steel Girders/Concrete Deck		
If you answered YES to 4 (a) or (b), continue this Part.		
If you answered NO to both 4 (a) and (b), the bridge has potential CHVI. Proceed to Part B3 to screen for potential impacts.		
5. Will the project involve replacement of a bridge's substructure, or any alteration of adjacent lands?	Yes ☐	No ☐
If you answered YES , continue this Part to screen for potential CHVI of the property/location.		
If you answered NO , proceed to Part C.		

6. Is the bridge or project area described by an on-site municipal, provincial or federal commemorative or interpretive plaque?	Yes ☐	No ☐
7. Does the project area contain a parcel of land that has or is adjacent to a known burial site or cemetery?	Yes ☐	No ☐
8. Does the proposed project involve a crossing of a Canadian Heritage River?	Yes ☐	No ☐
9. Is there local or Indigenous knowledge or accessible documentation suggesting that the property (or project area) is situated on a parcel of land that:		
a. Is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? (For example: buildings or landscape features accessible to the public or readily noticeable and widely known, complexes of buildings, monuments, ruins)	Yes ☐	No ☐
b. Has a special association with a community, person or historical event? (For example: Indigenous sacred site, traditional-use area, battlefield, birthplace of an individual of importance to the community, etc.)	Yes ☐	No ☐
c. Contains or is part of a cultural heritage landscape (for example, an Indigenous trail, historic road or rail corridor, park, designed garden, unique landform, or any other area in which multiple features are valued together for their interrelationship, meaning or association)?	Yes ☐	No ☐
If you answered YES to one or more of questions 6, 7, 8 or 9, there is potential for built heritage resources and/or cultural heritage landscapes in the study area. Continue to Part B3 to screen for potential impacts.		
If you answered NO , there is a low potential for built heritage resources and/or cultural heritage landscapes to be impacted. Proceed to Part C.		

B3 Screening for potential Cultural Heritage Impacts to the Bridge Structure		
10. a) Will the proposed project leave the substructure of the bridge unchanged?	Yes ☐	No ☒
b) Is the substructure of the bridge constructed with plain concrete with no untypical elements?	Yes ☐	No ☒
If you answered YES to either 10 (a) or (b), proceed to question 11.		
If you answered NO to both 10 (a) and (b), there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Continue to Part C.		
11. a) Is the superstructure of the bridge constructed with common steel and/or concrete products involving one of the following four bridge types? - Rigid Frame - Precast with Concrete Deck - Culvert or Simple Span - Steel Girders/Concrete Deck	Yes ☐	No ☐
b) Will the finished product replicate the existing superstructure?	Yes ☐	No ☐
If you answered YES to both 11 (a) and (b), continue to 12.		
If you answered NO to either 11 (a) or (b), there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Proceed to Part C.		
12. a) Is work proposed on the parapet walls/railings of the bridge?	Yes ☐	No ☐
b) If YES to (a), are the parapet walls/railings contain materials other than plain concrete and steel, or any untypical elements?	Yes ☐	No ☐
If you answered YES to both 12 (a) and (b), continue to question 12 (c).		
If you answered NO to either 12 (a) or (b), there is low potential for cultural heritage impacts on the bridge structure. Proceed to Part C.		
c) Is the purpose of the work being done on the parapet walls/railings to upgrade them to meet current crash test standards?	Yes ☐	No ☐
If you answered YES , proceed with reconstructing the parapet walls/railings to a sympathetic design ; see guidance in the Appendix. Hire a qualified person(s) to undertake a CHER if this is not practicable. Proceed to Part C.		
If you answered NO , there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Continue to Part C: Screening for Archaeological Resources.		

PART C – SCREENING FOR ARCHAEOLOGICAL RESOURCES

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a licensed archaeologist to undertake an archaeological assessment. See description of this process in the Appendix.

Screening Questions	Response	
1. Will the proposed project involve disturbance to the bed of a waterbody, including a river or creek?	Yes ☐	No ☒
If you answered YES , complete MCM's Criteria for Evaluating Marine Archaeological Potential to determine whether it is necessary to complete a marine archaeological assessment. Continue with this Part to determine whether it is necessary to complete a terrestrial archaeological assessment.		
If you answered NO , continue to 2.		
2. Has an archaeological assessment been prepared for this proposed study area that recommends that there are no further concerns about impacts and that has been entered into the Ontario Public Register of Archaeological Reports maintained by MCM?	Yes ☐	No ☒
If you answered YES , then it is not necessary to complete the remaining questions in the checklist. The proponent will summarize this conclusion and include this checklist with the appropriate documentation (e.g. MCM letter indicating that the report has been entered into the Register) to the project file. The summary and appropriate documentation will be maintained by the proponent.		
If you answered NO , continue to question 3.		
3. Are there known archaeological sites within 300 metres of the proposed project?	Yes ☐	No ☒
If you answered YES , an archaeological assessment is required. It is not necessary to complete the remaining questions in the checklist		
If you answered NO , continue to question 4. Include the information used to answer question 3 (e.g. a response from MCM or the municipality to an inquiry on this topic) with EA documentation.		
4. Will the proposed project, decision or activity result in significant ground disturbance?	Yes ☒	No ☐
If you answered YES , continue to question 5. Documentation to support an answer of YES is not required.		
If you answered NO , an archaeological assessment is NOT required and it is not necessary to fill out the remainder of the checklist. The proponent will summarize this conclusion and include appropriate documentation demonstrating that no ground disturbance will take place to the project file.		
5. Have all areas to be impacted by ground disturbing activities been subjected to recent extensive and intensive disturbances and to depths greater than the depths of the proposed activities?	Yes ☒	No ☐
If you answered YES , an archaeological assessment is NOT required. The checklist and any supporting documentation demonstrating that no activities will go deeper than past ground disturbances or will occur in previously undisturbed lands is to be included in the summary.		
If you answered NO , then there is potential for archaeological resources and an archaeological assessment is required.		

Appendix: Additional instructions, information sources, and definitions to assist in answering checklist questions

Part A	
1	Maintenance means work that extends the life of the structure or keeps the structure safe for intended use. Repairs means work that fixes or replaces components of the structure to return the structure to its original condition.
2	Rehabilitation means a modification, alteration, or improvement of the condition of a structure or bridge subsystem that is designed to correct deficiencies in order to achieve a particular design life and live load level. Vehicle capacity means the number of through travel lanes for vehicles on the bridge. Adjusting lane width to current standards does not increase the number of travel lanes and cycling, parking, or turning lanes are not through travel lanes. Increasing the width of a narrow bridge (one lane with two-way traffic) to the current standard to accommodate two-way traffic (two lane) is not considered an increase in capacity.
Part B	
1	Municipal heritage staff and municipal heritage committees can help determine whether an approved conservation plan, or previous cultural heritage evaluation, exist.
2	A previous evaluation might have been carried out by: • A heritage consultant, in a CHER prepared for a previous consultant/applicant • The Municipal Heritage Committee, in considering the property for inclusion on the municipality's Heritage Register • The municipality, in a Bridge Infrastructure Master Plan Evaluations should use the criteria in Ontario Regulation 9/06. Re-evaluation is necessary if new information is available or there is evidence that heritage attributes have changed.
3	Where to find information: a) For OHA-designated properties contact the municipal clerk, or search the Ontario Heritage Trust (OHT) Register at https://www.heritagetrust.on.ca/en/pages/tools/ontario-heritage-act-register b) - For municipal easements, contact the municipal clerk - For OHT easements, contact the OHT Provincial Heritage Registrar at registrar@heritagetrust.on.ca or see https://www.heritagetrust.on.ca/en/property-types/easement-properties - Easements can also be identified through the local land registry (title search) c) For listed or inventoried properties, contact the municipal clerk or heritage staff

	d) For properties subject to a notice of intention to designate or notice of Heritage Conservation District Study, contact the municipal clerk or heritage staff e) For provincial heritage properties, contact the MCM Registrar at registrar@ontario.ca f) For all federal designations, search the Directory of Federal Heritage Designations at https://www.pc.gc.ca/apps/dfhd/default_eng.aspx g) See (f) above h) See (f) above i) See (f) above j) For UNESCO World Heritage Sites see the UNESCO website: http://whc.unesco.org/en/statesparties/CA (note: as of 2020, Ontario's only UNESCO World Heritage Sites are the Rideau Canal and Pimachiowin Aki)
6	Plaque locations can be found from the following sources: • Municipal heritage committees or local heritage organizations • Ontario Heritage Trust: https://www.heritagetrust.on.ca/en/online-plaque-guide • Historic Sites and Monuments Board of Canada: http://www.pc.gc.ca/apps/dfhd/default_eng.aspx
7	Cemeteries can be located through the Bereavement Authority of Ontario's Public Register of licensed cemeteries: https://licensees.bereavementauthorityontario.ca/public-register If cemetery limits are unclear, an Investigation Authorization issued by the Bereavement Authority of Ontario may be required. In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.
8	A list of the Canadian Heritage Rivers in Ontario can be found at http://chrs.ca/the-rivers-ontario/.
9	For information, contact: • Elders in Indigenous Communities or community researchers who may have information on potential cultural heritage resources. Please note that Indigenous traditional knowledge may be considered sensitive. • municipal heritage committees or local heritage organizations • Ontario Historical Society's "Heritage Directory" - for a list of historical societies and heritage organizations in the province: https://ontariohistoricalsociety.ca/directory-and-map/ Information specific to trails may be obtained through Ontario Trails at https://www.ontariotrails.on.ca/index.php?url=trails
10	If the checklist indicates the need to hire a qualified person to undertake a Cultural Heritage Evaluation Report (CHER), do this during the EA study and follow its recommendations, which may include completing a Heritage Impact Assessment (HIA) if the structure or property is found to have cultural heritage value or interest (CHVI) and may be impacted by the project. Both the CHER and the HIA should be included in EA documentation and inform the decision-making in the EA process.
11	
12	

12 (c)	To develop a sympathetic design for railings, the proponent should first consider retaining the existing railing. If the existing railing is tall enough for pedestrian safety, consider providing a new barrier wall between road and sidewalk if adequate space and bridge capacity is available, and snow clearing operations can continue. If inadequate space and structural capacity exists, or snow clearing cannot be accommodated, or pedestrian Ontario Building Code (OBC) safety requirements are not met, then the existing railings should be removed and replaced with a new Canadian Highway Bridge Design Code- and OBC- (if applicable) compliant barrier with a design that, as much as possible, uses the same materials and elements (e.g. vertical steel posts) as the original railing.												
Part C													
If this Part indicates the need for an archaeological assessment, you will need to hire an archaeologist licensed under the Ontario Heritage Act. This licensee will follow the archaeological assessment process laid out in the <i>Standards and Guidelines for Consultant Archaeologists</i> and submit archaeological assessment reports directly to MCM for technical review. Archaeological assessment follows a phased approach that begins with evaluation of archaeological potential and proceeds as necessary to a field survey, an assessment of any sites identified, and mitigation measures such as excavation, with each phase resulting in recommendations as to whether the next is necessary. MCM will inform the client/proponent when review of and any necessary revisions to archaeological assessment reports have been completed. Archaeological assessment reports should be included in EA documentation. You can find information on archaeological assessments, and a list of licensed Archaeologists in Ontario, on MCM's website at http://www.mtc.gov.on.ca/en/archaeology/archaeology_assessments.shtml and http://www.mtc.gov.on.ca/en/archaeology/licensed_archaeologists.shtml.													
2	Information can be obtained from MCM by emailing archaeology@ontario.ca .												
3	The municipality may be able to answer Question 3 if it has a data sharing agreement with MCM.												
4	Significant ground disturbance means to interfere with or alter the existing condition of the ground, whether it is above or below water, through human actions that have potential to affect cultural heritage resources, and includes, but not limited to: <table border="0"> <tr> <td>altering the existing grade of land</td><td>compacting, excavating or removing topsoil</td></tr> <tr> <td>power spraying</td><td>dredging</td></tr> <tr> <td>placing or dumping fill</td><td>removing vegetation</td></tr> <tr> <td>allowing heavy vehicle traffic</td><td>trenching (e.g. for services)</td></tr> <tr> <td>drainage ditch construction</td><td>trail construction</td></tr> <tr> <td>scarification and soil mechanics studies</td><td></td></tr> </table> A ground disturbance does <u>not</u> include: normal, regular farming practices such as ploughing or tilling or gardening	altering the existing grade of land	compacting, excavating or removing topsoil	power spraying	dredging	placing or dumping fill	removing vegetation	allowing heavy vehicle traffic	trenching (e.g. for services)	drainage ditch construction	trail construction	scarification and soil mechanics studies	
altering the existing grade of land	compacting, excavating or removing topsoil												
power spraying	dredging												
placing or dumping fill	removing vegetation												
allowing heavy vehicle traffic	trenching (e.g. for services)												
drainage ditch construction	trail construction												
scarification and soil mechanics studies													
5	Recent means since 1960. Extensive means over all or most of the area. Intensive means thorough or complete disturbance.												

APPENDIX C:

CULTURAL HERITAGE EVALUATION REPORT

Cultural Heritage Evaluation Report

Meaford Bridge No. 125

Municipality of Meaford, Ontario

Final Report

Prepared for:

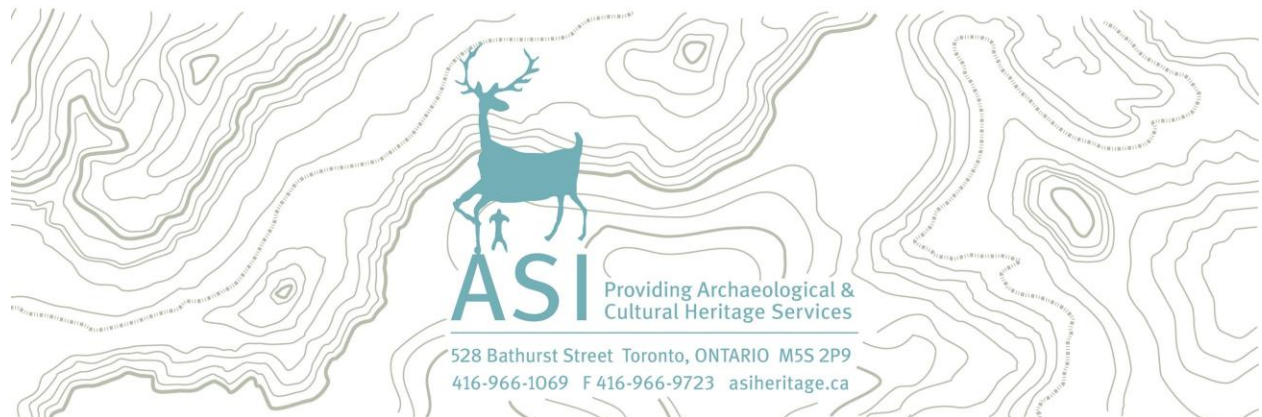
Centex Engineering and Development Inc.

7-265 Hanlon Creek Blvd.

Guelph, ON N1C 0A1

Archaeological Services Inc. File: 24CH-069

October 2024 (Finalized April 2026)



Executive Summary

Archaeological Services Inc. (A.S.I.) was contracted by Centex Engineering and Development Inc. on behalf of the Municipality of Meaford to conduct a Cultural Heritage Evaluation Report (C.H.E.R.) for Meaford Bridge No. 125 (BR-125) in the Municipality of Meaford, Ontario. The C.H.E.R. is being undertaken as part of the Rehabilitation or Reconstruction of Meaford Bridge No. 125 Municipal Class Environmental Assessment (M.C.E.A.). The structure is a single-span timber trestle railway bridge constructed in 1901 at Mile 113.99 of the Grand Trunk Railway (G.T.R.) Line. The bridge is currently used as a pedestrian bridge that carries the Georgian Trail recreational trail over Meaford Creek, north of Edwin Street East. As the subject bridge was constructed before 1956, it requires a C.H.E.R. to determine cultural heritage value or interest as part of this Environmental Assessment (Municipal Engineers Association, 2023). The Municipal Bridges Criteria for Evaluating Potential for Cultural Heritage Resources for the subject bridge is included in Appendix A.

This report includes an evaluation of the cultural heritage value or interest of the structure as determined by the criteria in Ontario Regulation 9/06 of the *Ontario Heritage Act*. This evaluation determined that the bridge has design and physical value and contextual value in the local context. In particular, the subject bridge is considered to be a good representative example of an early timber trestle railway bridge in the local context. The structure is believed to be the first bridge at the crossing, constructed in 1901 by the G.T.R., and continues to be used as a crossing on the rail corridor which has been converted to a recreational trail, thus preserving the bridge's visual and historical links with its surroundings.

Based on the results of the assessment, the following recommendations have been developed:

1. A Heritage Impact Assessment (H.I.A.) should be completed for Meaford Bridge No. 125 as early as possible during the detailed design phase. The H.I.A. will help to identify alternatives as well as mitigation and monitoring



commitments to avoid or lessen impacts on the heritage attributes of the bridge, based on the proposed Statement of Cultural Heritage Value or Interest. This assessment should be completed by a qualified person who has relevant and recent experience in the conservation of rail bridges (see Section 3.0 of the *Standards and Guidelines for Conservation of Provincial Heritage Properties* [Ministry of Citizenship and Multiculturalism, 2014] as a guide for best practice) and submitted to heritage staff at the Municipality of Meaford for review and approval and to the Ministry of Citizenship and Multiculturalism (M.C.M.) for review.

2. The proponent should submit this report for review and comment to planning staff at the Municipality of Meaford, the M.C.M. and to any other relevant stakeholder that has an interest in the heritage of the subject bridge. Any feedback will be incorporated into this report prior to finalization. The final report should be submitted to the Meaford Museum for archival purposes.



Report Accessibility Features

This report has been formatted to meet the Information and Communications Standards under the *Accessibility for Ontarians with Disabilities Act, 2005* (A.O.D.A.). Features of this report which enhance accessibility include: headings, font size and colour, alternative text provided for images, and the use of periods within acronyms. Given this is a technical report, there may be instances where additional accommodation is required in order for readers to access the report's information. If additional accommodation is required, please contact Annie Veilleux, Manager of the Cultural Heritage Division at Archaeological Services Incorporated, by email at aveilleux@asiheritage.ca or by phone 416-966-1069 ext. 255.



Project Personnel

- **Senior Project Manager:** Lindsay Graves, M.A., C.A.H.P., Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division
- **Project Coordinator:** Jessica Bisson, B.F.A. (Hon), Cultural Heritage Technician, Division Coordinator – Cultural Heritage Division
- **Project Manager:** John Sleath, M.A., Cultural Heritage Specialist, Project Manager - Cultural Heritage Division
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- **Report Production:** Leora Bebko
- **Graphics Production:** Carolyn Nettleton, B.A., Archaeologist, Geomatics Technician – Operations Division
- **Report Reviewer(s):** Lindsay Graves, M.A., C.A.H.P., Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division and John Sleath.



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1.0 Introduction

Archaeological Services Inc. (A.S.I.) was contracted by Centex Engineering and Development Inc. on behalf of the Municipality of Meaford to conduct a Cultural Heritage Evaluation Report (C.H.E.R.) for Meaford Bridge No. 125 (BR-125) in the Municipality of Meaford, Ontario (Figure 1). The C.H.E.R. is being undertaken as part of the Rehabilitation or Reconstruction of Meaford Bridge No. 125 Municipal Class Environmental Assessment (M.C.E.A.). The structure is a single-span timber trestle bridge constructed in 1901 as a rail bridge for the Grand Trunk Railway (G.T.R.). The bridge is currently used as a pedestrian bridge that carries the Georgian Trail recreational trail over Meaford Creek, north of Edwin Street East in the Municipality of Meaford.

1.1 Project Overview

The Rehabilitation or Reconstruction of Meaford Bridge No. 125 M.C.E.A. is being completed to address structural deficiencies in the bridge and to determine a preferred alternative for the structure. The 2023 Ontario Structural Inspection Manual (O.S.I.M.) report evaluated the bridge as being in generally poor condition with a Bridge Condition Index (B.C.I.) score of 44.5 and recommended replacement of the subject bridge within two years (R. J. Burnside & Associates Limited, 2023).

The subject bridge is not identified as a built heritage resource by the municipality and is not included on the *Ontario Heritage Bridge List* (Ministry of Transportation, 2010). As the subject bridge was constructed before 1956, it requires a C.H.E.R. to determine cultural heritage value or interest as part of this Environmental Assessment (Municipal Engineers Association, 2023). The Municipal Bridges Criteria for Evaluating Potential for Cultural Heritage Resources for the subject bridge is included in Appendix A. Research was completed to investigate, document, and evaluate the cultural heritage value of the subject bridge. The C.H.E.R. was conducted by Leora Bebko, Cultural Heritage Technician, under the project management of John Sleath, Cultural Heritage Specialist, and



senior project management of Lindsay Graves, Senior Project Manager, of the Cultural Heritage Division, A.S.I.

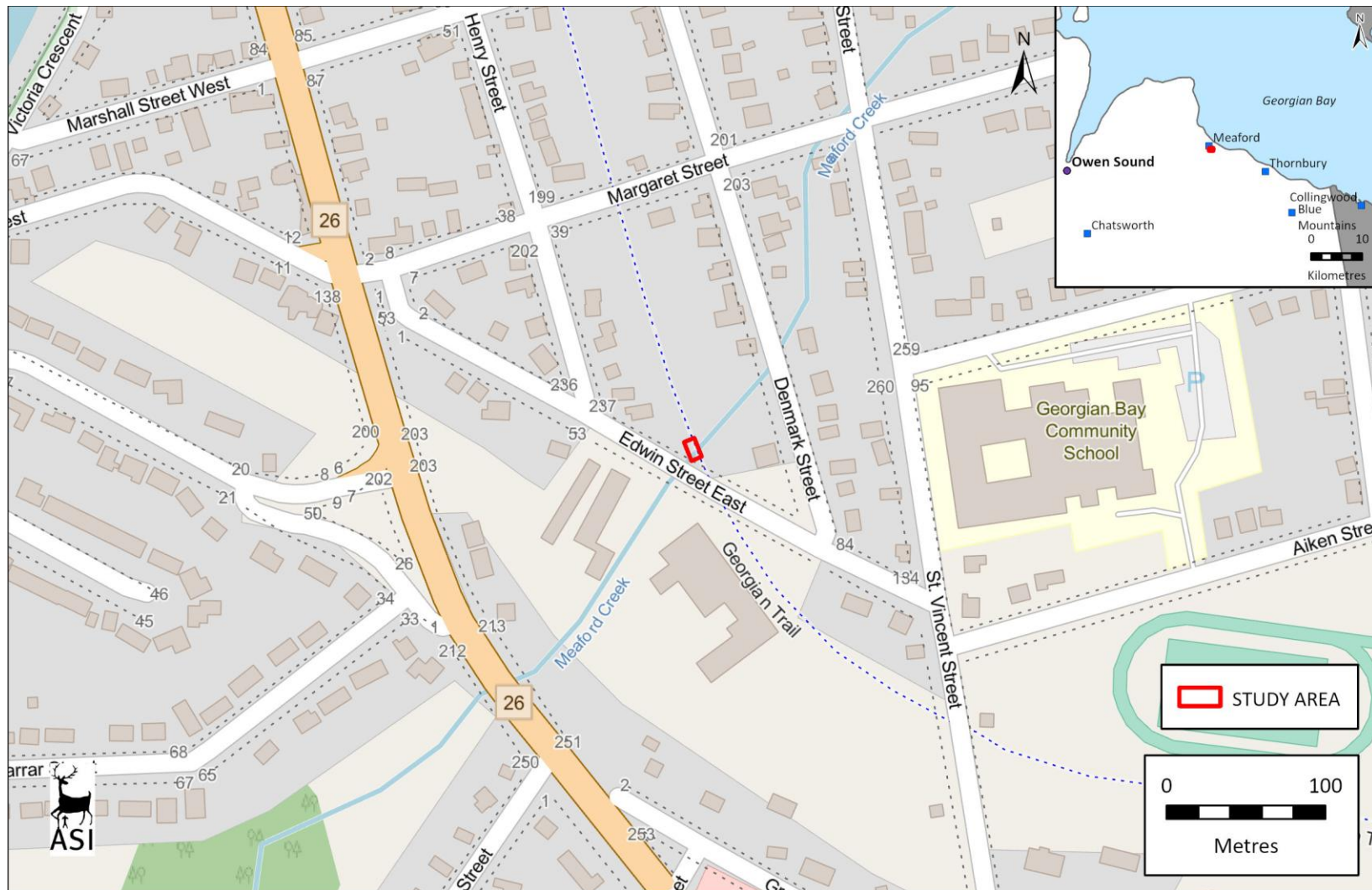


Figure 1: Location of Meaford Bridge No. 125 on the north side of Edwin Street East in the Municipality of Meaford. Source: (c) Open Street Map contributors, Creative Commons n.d.

1.2 Legislation and Policy Context

Pursuant to the *Environmental Assessment Act* (Ministry of the Environment 1990), applicable infrastructure projects are subject to heritage assessment and/or evaluation to identify built heritage resources and cultural heritage landscapes and to determine related impacts on identified heritage properties (Ministry of Transportation, 2007). Infrastructure projects have the potential to impact built heritage resources and cultural heritage landscapes in a variety of ways such as loss or displacement of resources through removal or demolition and the disruption of resources by introducing physical, visual, audible, or atmospheric elements that are not in keeping with the resources and/or their setting.

The analysis used throughout the cultural heritage evaluation process addresses cultural heritage resources under other various pieces of legislation and their supporting guidelines. These policies form the broad context which frame this assessment, and are included as relevant to this undertaking based on professional opinion and with regard for best practices:

- *Environmental Assessment Act* (Ministry of the Environment 1990);
- *Ontario Heritage Act* (Ontario Heritage Act, R.S.O. c. O.18, [as Amended in 2023], 1990);
- *Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006);
- *Ontario Heritage Bridge Guidelines* (Ministry of Culture and Ministry of Transportation, 2008);
- *Municipal Bridges Criteria for Evaluating Potential for Cultural Heritage Resources* (Municipal Engineers Association, 2023); and
- *Ontario Regulation 160/02, Standards for Bridges* (Public Transportation and Highway Improvement Act, R.S.O. 1990, c.P.50, 2002).

1.3 Approach to Cultural Heritage Evaluation Reports

The scope of a C.H.E.R. is guided by the *Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006).

Generally, C.H.E.R.s include the following components:

- A general description of the history of the study areas as well as detailed historical summaries of property ownership and building(s) development;
- A description of the cultural heritage landscapes and built heritage resources that are under evaluation in this report;
- Representative photographs of the exterior and interior of a building or structure, and character-defining architectural details;
- A cultural heritage resource evaluation guided by the *Ontario Heritage Act* criteria;
- A summary of heritage attributes;
- Historical mapping, photographs; and
- A location plan.

Using background information and data collected during the site visits, the property is evaluated using criteria contained within Ontario Regulations 9/06 of the *Ontario Heritage Act*. The criteria require a full understanding, given the resources available, of the history, design and associations of all cultural heritage resources of the property in the community context. If a property meets one criterion in Ontario Regulation 9/06, it is eligible for inclusion on a municipal heritage register as a non-designated, listed property. If a property meets two or more criteria, then it is eligible for designation under the *Ontario Heritage Act* (Ontario Heritage Act, R.S.O. c. O.18, [as Amended in 2023], 1990).



2.0 Community Engagement

The following section outlines the community consultation that was undertaken to gather and review information about the subject bridge.

2.1 Relevant Agencies/Stakeholders Engaged and/or Consulted

The following stakeholders were contacted with inquiries regarding the heritage status and for information concerning the subject bridge and any additional adjacent built heritage resources or cultural heritage landscapes:

- Denise McCarl, Acting Director of Development Services, Municipality of Meaford (email communications 17, 18, and 20 September 2024). Email sent requesting confirmation that the subject bridge did not have any heritage recognition and that there are no recognized heritage properties adjacent to the bridge. Follow-up email requested any information regarding the reasoning for the construction date given for the subject bridge in the Town's structural inventory (1920) and requesting any available documents relating to the construction of the subject bridge or the similar timber bridges in the Municipality. A response indicated that the Planning Department did not have any information relating to the construction date and that the request for information had been passed on to the Meaford Museum. A follow-up response indicated that the Planning Department had conferred with the museum and were unable to locate any documents pertaining to the construction of the subject bridge or similar bridges.
- The Ministry of Citizenship and Multiculturalism (M.C.M.) (email communication 23 September 2024). Email correspondence confirmed that to date no properties within or adjacent to the study area have been designated by the Minister and that the Ministry is not aware of any provincial heritage properties within or adjacent to the study area at this time.



- The Ontario Heritage Trust (email communication 24 September 2024). A response indicated that there are no conservation easements or Trust-owned properties within the study area and that there are no heritage plaques within the study area.
- Karin Noble, Archivist, Grey Roots Museum and Archives (email communication 24 September 2024). Email sent requesting information on a collection of documents in the archive relating to the construction of the Grand Trunk Railway line to Meaford Harbour. Response included two design plan drawings for the “Grand Trunk Railway Proposed Line to Harbour at Meaford”, one of the plans was date 1899 and the other was undated.

2.2 Agency Review

The draft report was submitted to the M.C.M and the Municipality of Meaford for review and comment. Feedback received from M.C.M. on 27 May 2025 was considered and incorporated into the final report as appropriate. The final cultural heritage evaluation report will be submitted to the M.C.M., Meaford Museum, and the Municipality of Meaford for their information.

2.3 Indigenous Nations Engagement

The Notice of Study Commencement and information on a Public Information Centre (P.I.C.) was sent by Centex Engineering and Development Inc. by email to the following Indigenous groups and communities:

- Aamjiwnaang First Nation
- Alderville First Nation
- Aundec Omni Kaning First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Kettle and Stoney Point First Nation
- Chippewas of Nawash First Nation
- Chippewas of Rama First Nation
- Beausoleil First Nation



- Metis Nation of Ontario

No response to email communication was received from any group, and so follow-up telephone communication was completed (Centex Engineering and Development Inc. email communication 8 April 2026). No concerns or additional information regarding cultural heritage resources were provided at the time of report finalization.

3.0 Description of the Structure and Crossing

The following section provides a description of the subject bridge and crossing.

3.1 Existing Conditions

Meaford Bridge No. 125 is a single-span timber trestle bridge that was constructed to carry the Grand Trunk Railway (G.T.R.) line extension to its new terminal station at Meaford Harbour in 1901 (Hughes, 2022). The bridge has since been converted to a pedestrian bridge on the Georgian Trail Bay (Figure 2). The structure's single span carries the Georgian Trail over Meaford Creek, a small and generally slow-moving waterway which empties into Georgian Bay approximately 0.75 kilometres northeast of the subject crossing.

The bridge is located on the northeast side of Edwin Street East approximately seven metres from the roadway. Edwin Street East crosses Meaford Creek via a concrete culvert that is adjacent to the subject bridge on the west side. These crossings are located within a mixed industrial and residential context (Figure 3).



Figure 2: South elevation of Meaford Bridge No. 125, looking northeast (A.S.I., 2024)



Figure 3: Aerial image of the subject bridge in the Municipality of Meaford (Google Maps)

3.2 Heritage Recognitions

The subject bridge is not recognized as a known or potential heritage property by the municipality or county.

3.3 Adjacent Lands

The subject bridge is located within a mixed residential and industrial context with late nineteenth and early twentieth century residences to the north, east, and south and industrial structures on the opposite side of Edwin Street East and at the corner of Edwin Street East and Denmark Street. There is a large empty lot southwest of the subject bridge. The area has many mature trees, particularly along the former rail line (now the Georgian Trail recreational trail).

4.0 Research

This section provides: the results of primary and secondary research; a discussion of historical or associative value; a discussion of physical and design value; a discussion of contextual value; and results of comparative analysis.

4.1 List of Key Sources, Report Limitations, and Site Visit Information

The following section describes the sources consulted and research activities undertaken for this report.

4.1.1 Key Sources

Background historical research, which includes consulting primary and secondary source documents, photos, and historic mapping, was undertaken to identify early settlement patterns and broad agents or themes of change in the study area. In addition, online historical research was undertaken through the websites of the following libraries and archives to build upon information

- Heritage Meaford / Architectural Conservancy of Ontario Meaford Chapter (<https://www.heritagemeaford.com/resources.php>);
- Meaford Historical Tidbits (<https://tidbits.site/>);
- Meaford Museum (<https://www.meaford.ca/en/explore-play/meaford-museum.aspx>); and
- Grey Roots Museum and Archives (<https://greyroots.com/collections-and-research>).

Available federal, provincial, and municipal heritage inventories and databases were also consulted to obtain information about the properties. These included:

- Meaford Municipal Heritage Register (Municipality of Meaford, 2023);
- The *Ontario Heritage Act Register* (Ontario Heritage Trust, n.d.b);
- The *Places of Worship Inventory* (Ontario Heritage Trust, n.d.c);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);
- The Ontario Heritage Trust's *An Inventory of Provincial Plaques Across Ontario*: a PDF of Ontario Heritage Trust Plaques and their locations (Ontario Heritage Trust, 2023);
- Parks Canada's *Directory of Federal Heritage Designations*, an online database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses (Parks Canada, n.d.b);
- Parks Canada's *Historic Places* website, an online register that provides information on historic places recognized for their heritage value at all government levels (Parks Canada, n.d.a); and
- Inventory of bridges included at *Historicbridges.com*.

No previous consultant reports associated with potential above-ground cultural heritage resources and archaeological resources within and/or adjacent and/or in the vicinity of the subject bridge in the Municipality of Meaford were available for review as part of this assessment.

A full list of references consulted can be found in Section 8.0 of this document.



4.1.2 Research and Report Limitations

No original design drawings of the subject bridge were available as part of this assessment, which presents a research limitation as the engineer responsible for designing the structure and the date of the design is could not be confirmed.

4.1.3 Site Visit

A site visit to the subject bridge was conducted on 12 September 2024 by Leora Bebko of Archaeological Services Inc. (A.S.I.). The site visit included photographic documentation of the exterior of the structure from the Georgian Trail and Edwin Street West rights-of-way. Permission to Enter was not required for adjacent properties, as all work was conducted from the publicly-accessible right-of-way.

4.2 Discussion of Historical or Associative Value

Historically, the bridge was located on Lot 15, Concession 5 in the Township of St. Vincent, County of Grey. It is now located on the Georgian Trail, approximately seven metres north of Edwin Street East, between Henry Street and Denmark Street in the Municipality of Meaford.

4.2.1 Summary of Early Indigenous History in Southern Ontario

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (B.P.) (Ferris, 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 B.P., the environment had progressively warmed (Edwards & Fritz, 1988) and populations now occupied less extensive territories (Ellis & Deller, 1990).

Between approximately 10,000-5,500 B.P., the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest



evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 B.P.; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 B.P. and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (J. Brown, 1995, p. 13; Ellis et al., 1990, 2009).

Between 3,000-2,500 B.P., populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 B.P. and exchange and interaction networks broaden at this time (Spence et al., 1990, pp. 136, 138) and by approximately 2,000 B.P., evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al., 1990, pp. 155, 164). By 1,500 B.P. there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2,300 B.P. - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch et al., 2021). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers, 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 B.P., lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (C.E.), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990, p. 317). By 1300-1450 C.E., this episodic community disintegration was no longer practised and populations now



communally occupied sites throughout the year (Dodd et al., 1990, p. 343). By the mid-sixteenth century these small villages had coalesced into larger communities (Birch et al., 2021). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By 1600 C.E., the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. By the 1690s however, the Anishinaabeg were the only communities with a permanent presence in southern Ontario. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there was no interruption to Anishinaabeg control and use of southern Ontario.

In Bruce and Grey Counties, archaeological evidence is indicative of some residential stability related to the practice of agriculture (Rankin, 2000). The archaeological evidence of Huron-Wendat/ Tionontaté material culture on Odawa sites, the proximity of contemporary Huron-Wendat and Tionontaté and Odawa sites to each other, and the historically documented alliance between the Odawa and the Neutral Nations are all indicative of cooperation between Algonquian and Iroquoian populations in Bruce and Grey Counties (Fox, 1990).

The Odawa are first described in 1615 when Samuel de Champlain encountered a group of Odawas at the mouth of the French River (Langton & Ganong, 1971). The Odawa were an Algonquian Nation who occupied Bruce County, Grey County and Manitoulin Island. The Odawa subsisted primarily from fishing but also practiced horticulture and were extensively involved in trade. They were known to co-reside with Iroquoian populations (Thwaites, 1896). The oral tradition from Nawash and Saugeen suggests that the ancestors of the Saugeen Ojibway Nation occupied the area as early as 7,500 years ago.



The Tionontaté were closely related to the Huron-Wendat and lived in the area west of Huronia within the current Town of The Blue Mountains, Grey County, Ontario. The seventeenth-century French explorers who encountered these peoples dubbed them the Petun, or “tobacco people,” due to their reputation of growing large amounts of tobacco. They lived in large, palisaded villages (averaging 1.7 ha), temporary hunting and fishing camps, cabin sites, and small hamlets with a material culture characterized by globular-shaped ceramic vessels, ceramic pipes, bone/antler awls and beads, ground and chipped stone tools, and copper objects. The population peaked at approximately 30,000 people during the late 15th century, however by the early sixteenth century Tionontaté territory contracted and the north shore of Lake Ontario was almost abandoned.

The region of Bruce and Grey Counties is not specifically addressed in the contemporary documentary sources; however, the later dispersal of the Haudenosaunee from the region in the late seventeenth century is confirmed by Ojibway oral tradition (Copway, 1850).

The arrival of European trade goods in the sixteenth century, Europeans themselves in the seventeenth century, and increasing settlement efforts in the eighteenth century all significantly impacted traditional ways of life in Southern Ontario. Over time, war and disease contributed to death, dispersion, and displacement of many Indigenous peoples across the region. The Euro-Canadian population grew in both numbers and power through the eighteenth and nineteenth centuries and treaties between colonial administrators and First Nations representatives began to be negotiated.

The subject bridge is located in the traditional territory of the Saugeen Ojibway Nation (S.O.N.) the collective name for the Saugeen Ojibway First Nation and the Chippewas of Nawash Unceded First Nation, known as *Saukiing Anishnaabekiing*. *Saukiing Anishnaabekiing* includes the Saugeen Peninsula (or Bruce Peninsula), the waters and islands of Lake Huron and Georgian Bay surrounding the Saugeen Peninsula, and extends south to include the Maitland River watershed and east to include the Nottawasaga River watershed in part of



Grey, Bruce, Huron, Perth, Wellington, Dufferin, and Simcoe Counties (Saugeen Ojibway Nation, 2011).

The subject bridge is within the Nottawasaga Purchase (Treaty 18), a provisional agreement sometimes called the Lake Simcoe-Nottawasaga Treaty, signed on October 17, 1818, by representatives of the Government of Upper Canada and the Anishinaabe (Ministry of Indigenous Affairs, 2020). Treaty 18 encompassed 1,592,000 acres of land between the District of London in the west, Lake Huron in the north, the west limit of the Penetanguishene Purchase (1815) in the east, and the west shore of Lake Simcoe, Cook's Bay, and the Holland River in the northwest. In exchange for the land, the Crown agreed to pay an annual sum of £1200 in goods at the "Montreal price" (Ministry of Indigenous Affairs, 2020). The Nottawasaga Purchase territory includes the present-day communities of Wasaga, Bradford, and Collingwood.

With the signing of the 1818 Lake Simcoe-Nottawasaga Treaty 18 and the 1836 "Saugeen Tract Agreement" Treaty 45 ½, Ojibway chiefs granted the Crown approximately 1.5 million acres of land south of the Peninsula in an effort to secure a land base on Manitoulin Island along the shores of Lake Huron and southern Georgian Bay (Crown-Indigenous Relations and Northern Affairs, 2016b). In exchange for the land surrendered under Treaty 45 ½, the Crown promised to protect the Saugeen Peninsula forever (Saugeen Ojibway Nation, 2021).

The Saugeen continued using their traditional territory for hunting, medicine gathering, sugaring camps and fish spawning. Euro-Canadian settlement continued to encroach upon the Peninsula and in 1847 Queen Victoria issued a Royal Declaration to support the rights of the Saugeen Ojibway Nation. The Declaration also established strict rules for the purchase and surrender of Indigenous lands in Canada and confirmed that the Bruce Peninsula belonged to the Saugeen Ojibway Nation. Additional acts were passed in 1850 and 1851 to protect lands from squatters and loggers but these documents did little to stem the tide of Euro-Canadian settlement.



In 1994 a claim was submitted to the Crown arguing that Treaty 72 was not valid as the Crown had not fulfilled its duty to the Saugeen Ojibway Nation and Chippewas of Nawash Unceded First Nation to protect them from the effects of colonization and that they were misled by the Crown during negotiations for Treaty 72 (Olthuis Kleer Townshend L.L.P., 2021). In 2003 the Saugeen Ojibway Nation and the Chippewas of Nawash Unceded First nation subsequently filed a joint claim for Aboriginal Title to portions of Lake Huron and Georgian Bay (Olthuis Kleer Townshend L.L.P., 2021). The trial addressing these claims began in 2019 and a decision was reached in 2021 (Olthuis Kleer Townshend L.L.P., 2021). The court rejected S.O.N.'s Aboriginal Title claim but agreed that the Crown breached its honour by failing to uphold its promise to protect the Saugeen Peninsula forever.

4.2.2 Township of St. Vincent

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes continued the use of existing Indigenous trails that typically followed the highlands adjacent to various creeks and rivers (Archaeological Services Inc., 2006). Early European settlements occupied similar locations as Indigenous settlements as they were generally accessible by trail or water routes and would have been in locations with good soil and suitable topography to ensure adequate drainage.

Throughout the period of initial European settlement, Indigenous groups continued to inhabit Southern Ontario, and continued to fish, gather, and hunt within their traditional and treaty territories, albeit often with legal and informal restrictions imposed by colonial authorities and settlers. In many cases, Indigenous peoples acted as guides and teachers, passing on their traditional knowledge to Euro-Canadian settlers, allowing them to sustain themselves in their new homes. Indigenous peoples entered into economic arrangements and



partnerships, and often inter-married with settlers. However, pervasive and systemic oppression and marginalization of Indigenous peoples also characterized Euro-Canadian colonization, with thousands being displaced from their lands, denied access to traditional and treaty hunting, fishing, and collecting grounds, and forced to assimilate with Euro-Canadian culture through mandatory attendance at Day and Residential Schools (Ray, 2005; Rogers & Smith, 1994).

Historically, the property is located in the Township of St. Vincent, County of Grey in Lot 15, Concession 5.

The Township of St. Vincent, in which Meaford is situated, was formally surveyed in 1835 by Charles Rankin. The first Euro-Canadian settlement in what would become the Municipality of Meaford was established in 1838. Meaford was originally named Peggy's Landing for Peggy Miller, wife of the first settler David Miller. The Millers' pioneer cabin served as a stopping place for early travellers. A village was laid out in 1845 and was named for Meaford Hall, the English estate of Admiral Sir John Jervis, Earl of St. Vincent. The township of St. Vincent is also named for the Earl. Early industry in Meaford relied heavily on lumbering, fisheries, and agriculture, facilitated by the ease of transportation afforded by the construction of the North Grey Railway (an extension of the Northern Railway) in 1855. Meaford was incorporated into a town in 1874 nearing a population of 1,000 (Mika & Mika, 1983).

Meaford established itself as an important fishing port on Georgian Bay and the fish, as well as the agricultural and industrial produce of the region, drew many commercial vessels to Meaford's docks in the late nineteenth century. The establishment of fruit orchards after the turn of the century proved to be another draw to the area as ships made stops to pick up fruits for transport throughout the Great Lakes region (White, 2022).

Three noteworthy historical figures once called the Meaford area home. Canadian artist and friend of the Group of Seven, Tom Thomson, spent his childhood growing up in the village of Leith. Tom is buried at the Leith Church,



near his boyhood home (South Georgian Bay Tourism, 2022). Author Margaret Marshall Saunders visited Meaford in 1892 and wrote a novel based on a true story about a local dog who had been rescued from a cruel owner by a local miller. *Beautiful Joe* has since sold over 7 million copies and the famous dog is buried in Beautiful Joe Park (Beautiful Joe Heritage Society, 2021; Dougherty & Binstead, 2015). In 1934, Saunders was granted Canada's highest civilian award at the time, Commander of the Most Excellent Order of the British Empire (Beautiful Joe Heritage Society, 2022). American naturalist and author John Muir moved to Meaford during the American Civil War (1861-1865). When he returned to the United States he helped form the Sierra Club and is credited as the father of the United States National Park system (South Georgian Bay Tourism, 2022).

Meaford was incorporated as a municipality in 2001, when it amalgamated with St. Vincent and Sydenham townships, with a population of 11,100.

4.2.3 North Grey Railway

The North Grey Railway line was built in 1872 to connect Collingwood with Meaford. It was an extension of the line that the Northern Railway already operated between Toronto and Collingwood, which had been built by their predecessor, the Ontario, Simcoe and Huron Union Railroad (O.S.H.U.R.).

The O.S.H.U.R. underwent a name change in 1858, at this point the third of many such changes in their history, becoming the Northern Railway Company of Canada or simply, the Northern Railway. It was under this name that, in 1872, the line east through Thornbury and terminating at Meaford in the west was constructed. Meaford's first train station was located south of the city, in the location of present-day Station Hill Park. In 1888, the Northern Railway and its affiliated companies amalgamated with the Grand Trunk Railway (G.T.R.) Company of Canada with the railway from Allandale to Meaford designated the Meaford Subdivision. In 1901, a new station was built at Meaford Harbour on the west side of Bridge Street and the railway was realigned to angle northwest through the town to the new station the subject bridge is located along this new



alignment. In 1923, the railway company was again amalgamated, this time with the government-owned Canadian National Railway (Cooper, 2009; Hughes, 2022).

The railway track remained operational until 1984. In the late 1980s, the railway corridor was transformed into a recreational pathway known as the Georgian Trail. Completed in 1989, the Georgian Trail covers a 34-kilometre stretch of the former North Grey Railway, albeit with some divergences from the original railway line. Managed by the Georgian Cycle & Ski Trail Association, it is a multi-use recreational trail used by pedestrians, joggers, cyclists, cross country skiers, and snowshoers (Georgian Cycle & Ski Trail Association, 2022).

4.2.4 Grand Trunk Railway

The Grand Trunk Railway Company of Canada (G.T.R.) was incorporated by the Canadian government in 1852 and was planned to connect Toronto to Montreal. It began in 1853 by purchasing five existing railways: the St. Lawrence and Atlantic Railroad Company, the Quebec and Richmond Railroad Company, the Toronto and Guelph Railroad Company, the Grand Junction Railroad Company, and the Grand Trunk Railway Company of Canada East.

In 1853 the G.T.R. merged with the Toronto and Guelph Railroad Company who had already begun construction of their line which was then redirected by the G.T.R. from its original route and extended to Sarnia to be a hub for Chicago bound traffic. By 1856 the line had been built from Montreal to Sarnia via Toronto. The company fell into great debt in 1861 and while it was saved from bankruptcy by the Canadian government, in 1919 the company was bankrupt following its expansion west in an attempt to compete with the Canadian Pacific and Canadian Northern Railways and was taken over by the federal government (Library and Archives Canada, 2005). Many of the G.T.R.'s former lines were nationalized, forming the basis for the Canadian National (C.N.) rail network.



4.2.5 Meaford Creek

The subject bridge carries the Georgian Trail over Meaford Creek. Meaford Creek is a coldwater stream which empties into Georgian Bay approximately 0.75 kilometres northeast of the subject bridge. The creek has a total watershed area of approximately 370 hectares and is part of the Grey Sauble Conservation watershed area (Golder Associates, 2021).

4.2.6 Early Ontario Railway Bridges and Culverts

In the nineteenth century, wooden structures were generally used for short span bridges and culverts, due to the relative ease of reconstruction and the low costs associated. Beginning in the mid-late nineteenth-century, these simple wooden box-culverts and sluices were replaced with more durable stone or concrete arch and box culverts and eventually concrete pipe culverts as supplies of inexpensive quality lumber dwindled, and population growth caused increased traffic on roadways (Ontario Department of Public Works, 1899). By the early twentieth-century, wooden culverts were largely replaced by more durable cast-in-place concrete structures. These cast-in-place concrete culverts were in turn increasingly replaced with precast concrete culverts and corrugated steel pipe culverts in the late twentieth century due to the ease of installation, low cost, and minimal site disturbance (Stesel, 2014).

The first railway bridges to be built in England were stone arch bridges in the eighteenth and nineteenth centuries. The first stone arch bridge in North America was built in 1829 by the Baltimore and Ohio Railroad at Gwynns Falls, Maryland, with a span of 280 m. By the time railway bridges were under construction in Ontario, during the 1850s, iron truss bridges supporting plate girders above had become the preferred railway bridge design as they were stronger and cheaper than stone arch bridges. However, the vast majority of railway bridges built in Ontario in the 1850s were wooden trestle bridges given the lower cost and availability of wood as a raw material (R. Brown, 2013). Despite the popularity of wooden trestle bridges due to their low cost, they were generally less durable than stone structures and would require more frequent rehabilitation and had a shorter use-life than stone structures.



Rail culverts and bridges were generally constructed to a higher technical standard than municipal road structures, with improved durability required due to the increased weight of rail traffic and the necessity for decreased maintenance and disruption to rail services (AREMA (American Railroad Engineering and Maintenance-of-Way Association), 2021). Because of the emphasis on durability and the speed of construction, short span stone arch bridges and both stone arch and stone box culverts persisted in popularity on rail lines into the late nineteenth century, as they required less construction time than cast-in-place concrete structures and afforded greater durability than wooden structures. Further, construction using stone masonry was often more straightforward to complete with unskilled labourers due to the uniform size of the stones, and the ease of transporting the blocks and the machinery required to place the stone blocks on the railway line. While complex arches with keystones were costly in terms of the time to design and the skill to build the structures, simple stone box culverts proliferated in the mid and late nineteenth century on railways in Ontario.

By the 1890s, steel was becoming the material of choice when constructing bridges given that it was less expensive and more durable than its wood and wrought iron predecessors. Steel truss structures were very common by 1900, as were steel girder bridges. The use of concrete in constructing bridges was introduced at the beginning of the twentieth century, and by the 1930s, it was challenging steel as the primary bridge construction material in Ontario.

In Ontario, railway bridges were first built to span natural obstacles, such as rivers and valleys. As the population increased and communities prospered, railway bridges were built to span other railways and to carry roads over, or under, the railroads. In the early twentieth century, many at-grade rail crossings were eliminated through the construction of overhead bridges (A.S.I., 2017b).

4.2.7 Wood and Timber Bridges

Wood has been used as a construction material for bridges since prehistoric times; there is evidence of timber-piles and crude woodwork crossings as early



as 1500 Before Common Era (B.C.E.). The earliest examples of timber bridges in Europe were built in Switzerland by the Roman Empire in the second century Common Era (C.E.). Stone became the preferred bridge-building material throughout the medieval period for its durability, but due to its wide availability and ease of transportation, wood continued to be used throughout this era and well into later centuries. The oldest wooden bridge in Europe is the Kapellbrücke (or Chapel Bridge) in Lucerne Switzerland, built over 650 years ago (*First Bridge - History of Wooden Bridges*, 2022).

In the nineteenth and twentieth centuries, cast iron, steel, and eventually concrete, replaced wood and stone as the preferred materials for bridge-building, however wood continued to be used for short-span bridges throughout this period (Ou & Weller, n.d.). General innovations in bridge engineering, like the patenting of the Howe Truss in 1840 and the Pratt Truss soon after, resulted in a period of bridge-building that often mixed wood with concrete, iron, or steel elements. An example of this is the Sioux Narrows Bridge in Ontario, a box Howe truss bridge with a solid Douglas Fir span built in 1836. The bridge was in service for nearly 70 years and for a time was the world's longest single-span wooden bridge (Bever, 2002; Moses Structural Engineers & Brown & Co. Engineering Ltd, 2017).

The Province of Ontario has a long history of timber bridge-building. The 2017 Ontario Wood Bridge Reference Guide lists 157 timber bridges and culverts in Ontario currently in service with the Ministry of Transportation (M.T.O.) but estimates the total number of wooden bridges in the province to be as high as 250. Counter to mainstream trends, Ontario has continued building timber bridges throughout the twentieth and into the twenty-first centuries, particularly in the northern parts of the province (Moses Structural Engineers & Brown & Co. Engineering Ltd, 2017). Recently, advances in wood treatment and composite wood materials, like glue-laminated timber, combined with an interest in sustainable materials and building practices have led to a renewed interest in the use of wood in modern bridge-building (Moses Structural Engineers & Brown & Co. Engineering Ltd, 2017; Ou & Weller, n.d.)



4.2.8 Historical Chronology and Setting of the Subject Crossing

The following provides a brief overview of the historical chronology of the subject crossing, as provided in available sources, as well as a mapping review. It is based on a variety of primary and secondary source materials, including maps, and archival documents.

The subject bridge was constructed in 1901 by the Grand Trunk Railway (G.T.R.) as part of a new section of track when the former North Grey/Northern Railway line was realigned to meet the new G.T.R. station at Meaford Harbour.

The 1855 Rankin *Map of the Counties of Grey and Bruce* (Rankin, 1855) and the 1880 *Illustrated Historical Atlas of the Counties of Grey and Bruce* (Belden, 1880) were reviewed to determine the historical setting of the subject bridge in the nineteenth century (Figure 4 and Figure 5). It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

The 1855 map (Figure 4) shows little detail of the study area which is shown to be west of the settlement of Meaford. The settlement is depicted as a collection of rectangles on the west side of the Bighead River on the shore of Georgian Bay. The 1880 map (Figure 5) shows the study area to now be just outside the town of Meaford (shaded area) which has expanded considerably since the 1855 map. The land surrounding the study area has been laid out in town lots with streets in a grid pattern. This grid pattern remains extant in the present day. Edwin Street East is depicted in this mapping following its present-day alignment. The roadway is shaded, likely indicating an important thoroughfare. There is a railway in this mapping which passes below the study area, running roughly parallel to Edwin Street East and terminating southwest of the location of the study area.



In addition to nineteenth-century mapping, historical topographic mapping, aerial photographs, and a G.T.R. Structure Inventory from the twentieth century were examined. This report presents maps and aerial photographs from 1945, 1954, and 1999 (Figure 6 to Figure 8), and an excerpt from the 1907 GTR Structure Inventory (GTR, 1907).

The 1945 topographic map shows considerable development in and around the Town of Meaford which has expanded further in all directions. The railway depicted in this mapping follows the present-day alignment of the Georgian Trail. The alignment which ran parallel to Edwin Street East in previous mapping appears to have been rerouted to this new alignment, with the line which previously terminated to the southwest of the study area removed. Individual residential structures and groupings of residences are depicted along the surrounding roadways. There is a group of large structures, likely industrial, on the south side of Edwin Street East, southeast of the subject bridge. While the railway and Meaford Creek are shown in this mapping, no bridge is indicated at the subject crossing though records indicate the bridge was constructed in 1901. The construction of the subject bridge is described in Section 4.2.9.

Little detail is discernable in the 1954 aerial photograph (Figure 7), however the railway and Meaford Creek can be seen clearly following the same alignments as in previous mapping. The 1999 topographic map (Figure 8) no longer shows the railway line. South of Edwin Street East, a dashed line follows the former railway alignment indicating the presence of the trail. North of Edwin Street East, the trail is not marked, and the area is shaded red indicating a higher density of development. The extant industrial structure on the south side of Edwin Road East, southwest of the subject bridge can be seen in this mapping, however the group of industrial buildings to the subject bridge's southeast are no longer shown. Meaford Creek is shown following its present alignment, however no bridge is indicated in this mapping.



Figure 4: The location of the subject bridge overlaid on the Rankin *Map of the Counties of Grey and Bruce* (C. Rankin D.S., 1855).

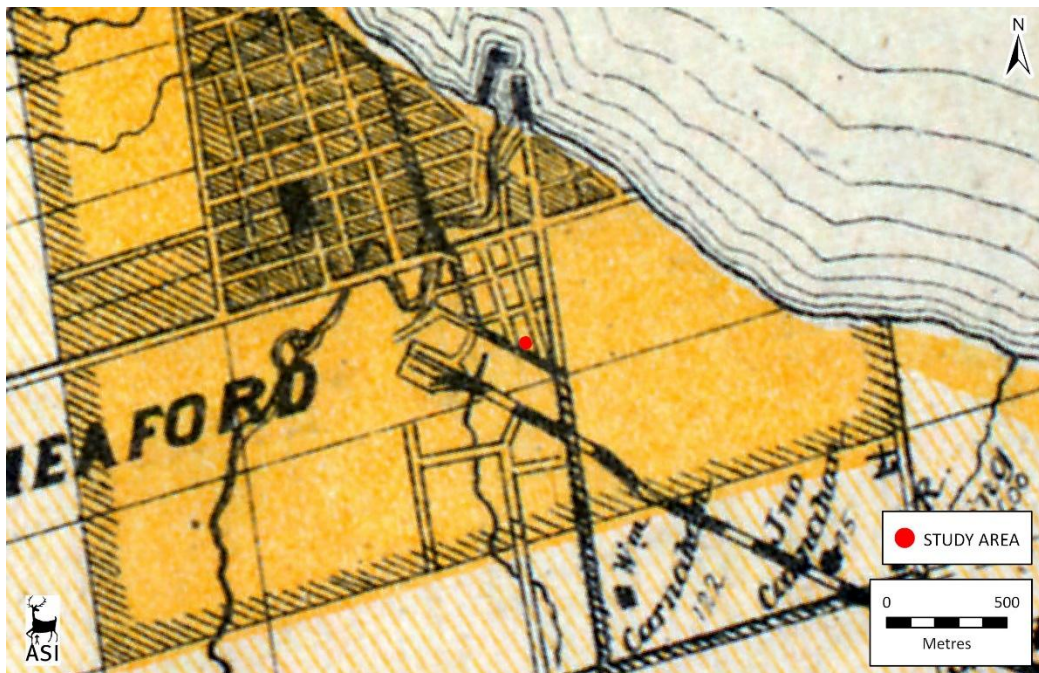


Figure 5: The location of the subject bridge overlaid on the 1880 *Illustrated Historical Atlas of Grey and Bruce* (Belden, 1880).



Figure 6: The location of the subject bridge overlaid on the 1945 topographic map of Owen Sound (Department of National Defence, 1945).



Figure 7: The location of the subject bridge overlaid on the 1954 aerial photograph of Southern Ontario (Hunting Survey Corporation Limited, 1954).

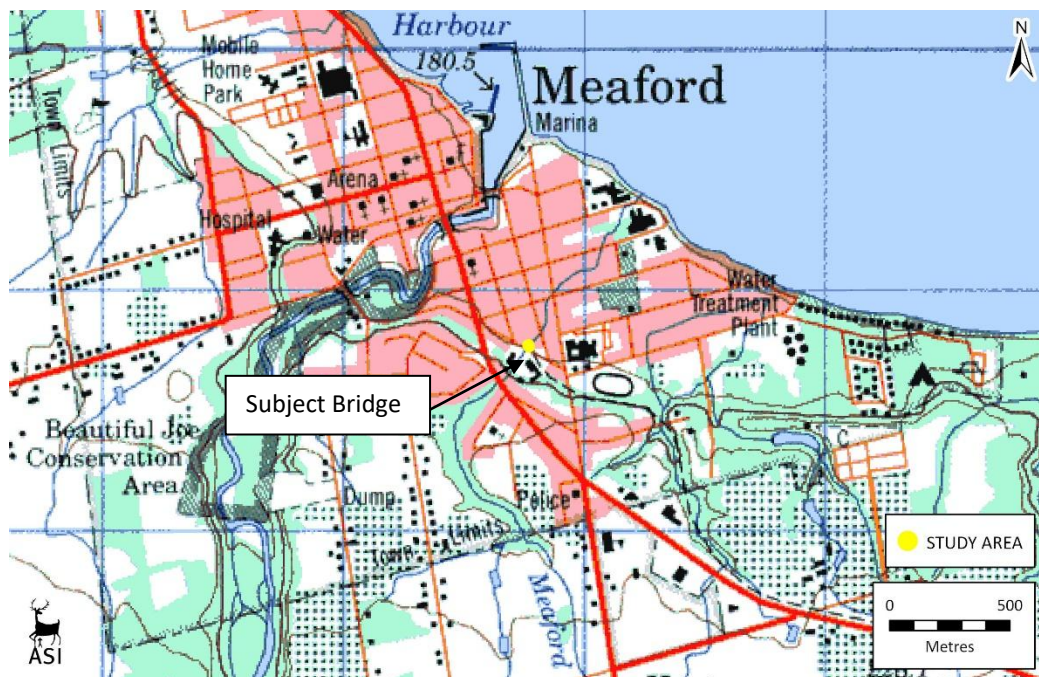


Figure 8: The location of the subject bridge overlaid on the 1999 topographic map of Owen Sound (Natural Resources Canada, 1999).

4.2.9 Bridge Construction, Evolution, and Alterations

The subject bridge was constructed 123 years ago in 1901 by the G.T.R. at Mile 113.99 of the North Grey/Northern Railway line when it was realigned to meet the new G.T.R. station at Meaford Harbour. While the Ontario Structural Inspection Manual (O.S.I.M.) and Meaford Structure Inventory give a construction date of 1920, this date is believed to be an estimated date of construction given by engineers based on the bridge type. No documents or drawings could be found to support construction of the bridge in 1920. The construction date of 1901 is provided in a G.T.R. structure inventory from 1907 which describes a timber trestle bridge with the same approximate location, measurements, and general descriptors at Mile 113.99 from Toronto on the G.T.R. line (Figure 9) (Grand Trunk Railway, 1907). This date also aligns with the construction date of this section of the railway by the G.T.R. in 1901.

While no design plans for the subject bridge specifically were available for review, two plans for the proposed G.T.R. line to Meaford station were reviewed, one of which was dated 1899 while the other was undated. The 1899

plans were attributed to a Henry K. Wicksteed O.L.S. of Cobourg who served as the Chief Engineer of Surveys for the Canadian Northern Railway. The plans have also been signed off on by Joseph Hobson who was the Chief Engineer for the G.T.R. from 1882 to after 1907 (Biographical Dictionary of Architects in Canada, n.d.; Town of Mont Royal, n.d.). The plans are attached in Appendix D.

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Mileage from Toronto	STATIONS, SIDINGS, Kind of Structure	Name and No. of Structure		No. of Spans	Length of Spans and Dimensions of Culverts	Total Length of Structure	Height of Rail above low water	When Built	REMARKS
		NAME	Bridge No.						
					feet.	ft.	ft.		
113.40	Wood -----	Culvert	---	---	4x6	34	6 $\frac{1}{2}$	1889	
113.60	Wood -----	"	---	---	2x2	22	2	1888	
113.75	Wood -----	"	---	---	3x5	31	7	1901	
113.99	Wood strs -----	Bridge	355	1	10	14 $\frac{1}{2}$	7	1901	On tim.walls
114.11	Twin wood -----	Culvert	---	---	4x4	38	9	1901	
114.18	Wood strs -----	Bridge	356	1	10 $\frac{1}{2}$	16	10	1901	On tim.walls
114.20	Twin wood -----	Culvert	---	---	5x5	58	12 $\frac{1}{2}$	1901	
114.30	Wood strs -----	Bridge	357	1	10	15	13 $\frac{1}{2}$	1901	On tim.walls
114.35	Concrete pipe -	Culvert	---	---	1'8	50	12 $\frac{1}{2}$	1901	
114.43	Concrete pipe -	"	---	---	1'8	72	18	1901	
114.48	Twin wood -----	"	---	---	6x7	96	25 $\frac{1}{2}$	1901	
114.52	Concrete pipe -	"	---	---	2	59	15	1901	
114.64	Wood -----	"	---	---	3x3	40	8 $\frac{1}{2}$	1901	
114.74	Wood -----	"	---	---	2x2	40	6	1901	
114.84	Wood strs -----	Bridge	358	1	15	20'8	8	1901	On tim.walls
114.96	Wood -----	Culvert	---	---	1x1'8	26	4 $\frac{1}{2}$	1901	
114.97	Wood -----	"	---	---	1x1'8	26	4 $\frac{1}{2}$	1901	
115.17	Wood -----	"	---	---	4x4	54	13	1901	
115.30	Wood -----	"	---	---	1x2	105	3 $\frac{1}{2}$	1901	
115.60	Wood -----	"	---	---	3x3	44	6 $\frac{1}{2}$	1901	

COLWELL to PENETANG—14th District.

Figure 9: Excerpt from the 1907 G.T.R. Structure Inventory. The subject bridge is outlined in red (Grand Trunk Railway, 1907).

To construct this bridge, the timber piles would have been driven by heavy machinery, and the timber abutments would have been constructed and then

backfilled. Once the substructure was built, the timber girders would have been laid on the substructure to span the river, with the railway ties installed transversely across the girders. The wooden elements were creosoted to prevent deterioration and rotting.

While there is no documentation of any major bridge rehabilitations, it can be assumed that the bridge was altered in 1989 to convert the structure from a rail bridge to a pedestrian bridge with the construction of the Georgian Trail. The current timber deck, railings, and curbs were likely added at this time.

The 2023 O.S.I.M. report determined the bridge to have a Bridge Condition Index (B.C.I.) of 44.5, which is 3.5 points lower than the previous O.S.I.M. report, completed in 2021, showing the rapid deterioration of the structure. The O.S.I.M. report recommended removal and replacement of the structure within two years (R. J. Burnside & Associates Limited, 2023).

4.3 Discussion of Physical and Design Value

No original structural drawings of the bridge were available for review at the time of report production. A field review was undertaken to conduct photographic documentation of the bridge crossing and to collect data relevant for completing a heritage evaluation of the structure. The following description of the structure, including the dates of interventions, and existing conditions is based on a combination of the results of the field review and historical background research on the subject bridge. Photographic documentation of the current conditions of the bridge is provided in Figure 10 to Figure 27. Further, photographs of comparative timber structures in Southern Ontario are also provided in Section 4.5.1.

4.3.1 Physical Characteristics

The subject bridge, Meaford Bridge No. 125, is a single-span timber trestle bridge. The bridge carries the Georgian Trail over Meaford Creek and has a length of 3.5 metres. The subject bridge has an overall length of 4.5 metres and an overall width of 4.3 metres (Figure 10).



The superstructure of the subject bridge consists of timber girders which run the length of the bridge across the creek. Above these beams, running in a perpendicular direction, are creosote-treated timber railroad ties (Figure 11). Every second railroad tie is attached to the timber beams by metal strapping at either end (Figure 12). The beams and ties appear to be good condition with few signs of deterioration.

The substructure of the subject bridge features timber abutments and timber bents. There are two sets of bents on either side of the creek, with one right up against the abutments and another directly in front. Each of these bents are constructed of six piles made of timber piles with a timber crossbeam above forming the pile cap and supporting the girders above (Figure 13). These bents show considerable signs of damage, particularly on the west side of the bridge where the bent closest to the waterway appears to have been completely washed away. All that remains of the bent are the jagged bases of the piles. The central piles of the bent behind along the abutment wall are also severely damaged (Figure 14). The remaining bents are intact, but show considerable damage and deterioration, particularly near the waterline. The cap of the bent at the eastern abutment wall has begun to collapse toward the abutment. The subject bridge's abutment walls are constructed of stacked timbers that extend beyond the width of the superstructure on either side. The abutment walls on both sides of the waterway have begun to collapse inward with considerable erosion to the earth around them (Figure 15). The piles meant to retain the abutment walls have also begun to lean inward (Figure 16). There is significant vegetative overgrowth and incursion throughout the abutment walls including a tree growing directly behind the wall on the north side of the structure on the west side of the waterway which is pushing the wall inward (Figure 17).

The deck of the subject bridge is constructed of timber planks laid diagonally across the width of the structure with curbs on either side created by timber planks laid lengthwise along the sides of the bridge (Figure 18 and Figure 19). There are timber railings on both sides of the bridge which are bolted to the exterior of the superstructure. The timber deck and railing system were likely added when the bridge was converted for pedestrian use in 1989 and seem to



be in good condition (Figure 20). At the northwest portion of the abutment wall, a tree growing along side the wall has wound itself through the railing. The railing and a small portion of the bridge deck are overgrown with ivy at the southwest portion of the abutment wall (Figure 21).

The bridge carries the Georgian Trail over Meaford Creek. Meaford Creek is a small waterway that passes under the bridge in a generally southwest-northeast direction. The creek bed is narrow and rocky near the subject bridge which widens slightly northeast of the bridge. There is a significant amount of debris and detritus in the creek bed (Figure 22 and Figure 23). On the west of the Edwin Street East culvert south of the subject bridge, the waterway passes through another concrete culvert from a concrete channel which runs along the industrial property on the west side of Edwin Street East (Figure 24). The Georgian Trail, which is carried over Meaford Creek by the subject bridge is a recreational trail that connects Meaford to Collingwood along the former North Grey/Grand Trunk Railway line. In the immediate vicinity of the subject bridge the trail has a gravel surface (Figure 25).

The bridge crossing's surrounding context is mixed residential and industrial with late nineteenth and early twentieth century detached residences to the north and east. There are also industrial properties in the immediate vicinity of the crossing on the south side of Edwin Street East and at the corner of Edwin Street East and Denmark Street. Edwin Street East is two lane roadway which also crosses Meaford Creek. The culvert that carries the creek under the roadway is located approximately seven metres to the south of the subject bridge (Figure 26 and Figure 27).



4.3.2 Existing Conditions Photographs



Figure 10: South elevation of the subject bridge, looking northeast (A.S.I., 2024)



Figure 11: The bridge superstructure, the beams and railroad ties are visible beneath the railing (A.S.I., 2024)



Figure 12: Detail view of the strapping connecting railroad ties to beams (A.S.I., 2024)



Figure 13: The bents on the eastern side of the bridge, note the leaning cap on the pier along the ballast wall (A.S.I., 2024)



Figure 14: Detail view of the broken piles and severe deterioration on the western piers (A.S.I., 2024)



Figure 15: The southeastern ballast wall. Note the warping of the wall and vegetation growing through (A.S.I., 2024)



Figure 16: Detail view of the leaning northeastern ballast wall pile (A.S.I., 2024)



Figure 17: Detail view of the northwestern ballast wall. The tree pushing the wall inward is visible through the gap in the wall (A.S.I., 2024)



Figure 18: The timber bridge deck, looking southeast (A.S.I., 2024).



Figure 19: Detail view of the bridge deck and timber curb (A.S.I., 2024).



Figure 20: Detail view of the railing system on the southern elevation. Note the bolts connecting the railing to the superstructure (A.S.I., 2024).



Figure 21: Detail view of the tree growing through the railing at the northwest ballast wall (A.S.I., 2024).



Figure 22: Meaford Creek, looking north from the subject bridge (A.S.I., 2024).



Figure 23: Meaford Creek, looking south from the subject bridge toward the Edwin Street East culvert (A.S.I., 2024).



Figure 24: The culvert on the south side of Edwin Street East, looking south (A.S.I., 2024).



Figure 25: The Georgian Trail over the subject bridge, looking northwest. Edwin Street is on the left (A.S.I., 2024).



Figure 26: Looking northwest from the Edwin Street East culvert. The industrial property on the south side of the street is visible on the left and residential properties are visible in the distance (A.S.I., 2024).



Figure 27: Edwin Street East, looking southeast from the Georgian Trail. The industrial property on Denmark Street is on the left and residential properties are visible in the distance (A.S.I., 2024).

4.4 Discussion of Contextual Value

The following section discusses the contextual value of the subject bridge.

4.4.1 Setting and Character of the Bridge and Surroundings

The subject bridge carries the Georgian Trail in a generally southeast-northwest orientation over Meaford Creek in the Municipality of Meaford. The subject bridge is within a mixed residential and industrial context with both industrial properties and late nineteenth to early twentieth century residential properties in the immediate vicinity. The bridge was constructed as a railway bridge by the G.T.R. in 1901, and in 1989 it was converted for pedestrian use as part of the Georgian Trail which follows the former alignment of the N.G.R./G.T.R. line from Collingwood to Meaford (Figure 28).

The subject bridge was constructed by the G.T.R. in 1901 when Meaford Station was moved to the harbour and the track rerouted from its former alignment constructed by the North Grey Railway (N.G.R). According to the G.T.R. structural inventory from 1907, it is one of several timber bridges built along this route in the same year. The Meaford Structural Inventory (provided to A.S.I. in 2022) also lists four timber trestle bridges remaining on the Georgian Trail within the Municipality. Timber was a common construction material for rail bridges in the early twentieth century, however, as the century progressed and into the twenty first century, timber bridges were often replaced with cement or steel structures or demolished increasing the rarity of extant timber structures from this time.

The mixed residential and industrial context of the area around the subject bridge developed due to the area's location on the edge of town and its direct access to the railway. One such industry was the Knights of Meaford flooring and lumber factory which occupied the now empty lot southeast of the subject bridge and had a set of tracks leading directly to its loading area. While the area around the subject bridge retains some of the mixed residential/industrial context established in the late nineteenth to early twentieth century, this context has been degraded considerably by the complete removal of the railway



and associated infrastructure, the destruction of the Knights of Meaford building by fire in 2017, and the addition of several late twentieth century industrial buildings (Figure 29) (Tidbits Meaford, 2022).



Figure 28: Edwin Street East, looking northwest. The subject bridge and Georgian Trail are visible to the right of the roadway (A.S.I., 2024).



Figure 29: The empty lot formerly occupied by Knights of Meaford is located to the right of the trail marking the former railway alignment (A.S.I., 2024).

4.4.2 Community Landmark

The subject bridge is not considered to be a significant community landmark. The subject bridge is a small bridge with no ornamentation or decoration. The bridge is located on a popular recreational trail and is likely used by a fair number of pedestrians and cyclists daily, particularly in the summer months, however the bridge is not visually distinctive or particularly visible from the trail, nor is it large enough to be considered a notable crossing on the route. The deck and railings of the bridge are also visible from Edwin Street East, however they are also not visually distinctive or notable from the roadway.

4.5 Comparative Analysis

Meaford Bridge No. 125 is a three-span timber trestle bridge that measures approximately 4.5 metres in length and 4.3 metres in width that was

constructed in 1901 to carry the Grand Trunk Railway (G.T.R.) line over Meaford Creek. For the purposes of the comparative analysis, similar timber trestle bridges in the Meaford Structure Inventory (Municipality of Meaford, n.d.), the MTO Bridge Inventory (West Region)(Ministry of Transportation, 2017), and the inventory on *Historicbridges.org* were reviewed. According to this comparative sample, there are three comparable timber trestle bridges in the Municipality of Meaford. It should be noted that these bridges are all listed in the Meaford Structure Inventory as the MTO Bridge Inventory did not list any timber bridges in the West Region, and the inventory on *historicbridges.org* did not list any timber bridges within Grey County.

A copy of the Meaford Structure Inventory and the relevant section of 1907 G.T.R. Structure Inventory used in this comparative analysis is provided in Appendix C.

4.5.1 Comparable Timber Trestle Bridges

The three comparative timber trestle bridges reviewed as part of this analysis all have listed construction dates of 1920, however these dates are believed to be estimates. It should also be noted that the Meaford Structure Inventory also lists the construction date for the subject bridge as 1920, so it can be assumed that all four bridges were constructed around the same time in 1901¹. The subject bridge, therefore, is not significant in terms of age within the comparative sample however its age is significant in general within the local context as these four bridges are the oldest listed in the Meaford Structure Inventory and are likely even older given the assumed construction date of 1901. The subject bridge, constructed in 1901, has been in use at this same crossing for 123 years.

¹ The 1907 Grand Trunk Railroad structure inventory lists four timber bridges constructed in 1901 along the track at Meaford. Measurements and the general location off the subject bridge are consistent with bridge 355 at mile 113.99 which is listed in the 1907 inventory. For comparison purposes, it is assumed that the other three bridges also have a construction date of 1901 and are original structures on the former railway.



One of the comparative bridges, located on the Georgian Trail between Montgomery Street and Swarthmore Drive was examined visually at the time of field review for comparison (Figure 30). This comparable bridge's overall length is considerably longer than the subject bridge. The subject bridge is quite short with a span length of 3.5 metres and an overall length of 4.5 metres. Two of the comparable bridges in the 1907 inventory have similar dimensions to the subject bridge with the bridge at 114.18 miles having a span length of 10.5 feet (3.2 metres) and an overall length of 16 feet (4.88 metres) and the bridge at 114.30 miles having a span length of 10 feet (3.05 metres) and an overall length of 15 feet (4.57 metres). The third comparable bridge in this inventory is longer, with a span length of 15 feet (4.57 metres) and an overall length of 20 feet eight inches (6.3 metres). The subject is therefore likely not significant in terms of its length.

The Georgian Trail bridge between Montgomery Street and Swarthmore Drive also has three spans while the subject bridge is a single-span structure. As a single-span structure it is likely not significant in terms of number of spans within the comparative sample. It is also considerably taller than the subject bridge, which spans a fairly shallow creek bed with a slow-moving waterway and would not have required a high degree of technical expertise or craftsmanship to construct.



Figure 30: The comparable bridge on the Georgian Trail between Montgomery Street and Swarthmore Drive (A.S.I., 2024).

4.5.2 Summary

Based on the inventory of timber trestle bridges above, the subject bridge is one of four comparative timber trestle bridges in this sample. All four structures have similar construction dates, so the subject bridge is not significant in terms of its age within the comparative sample however these four bridges have the earliest construction dates within the Meaford Structure Inventory and the bridge is therefore generally considered to be significant in terms of its age within the Municipality of Meaford.

The subject bridge is short with an overall length of only 4.5 metres. The Georgian Trail bridge between Montgomery Street and Swarthmore Drive is considerably longer and taller than the subject bridge based on a visual inspection. Of the three comparable bridges in the 1907 inventory, one bridge (Mile 114.84) is considerably longer while the other two bridges (mile 114.18 and mile 114.30) are of similar dimensions to the subject bridge. Meaford Bridge No. 125 is a small bridge which is not significant in the local context in terms of its overall length, number of spans, or technical difficulty of construction.

The subject bridge is a good representative example of an early twentieth century timber railroad bridge with a similar method of construction to the Georgian Trail bridge between Montgomery Street and Swarthmore Drive, however as it is utilitarian in construction and does not have any decorative or ornamental features, it is not considered to be exemplary in terms of artistic merit.

5.0 Heritage Evaluation

The evaluation of Meaford Bridge No. 125 using the criteria set out in Ontario Regulation 9/06 is presented in the following section (Section 5.1). The following evaluation has been prepared in consideration of data regarding the design, historical/associative, and contextual values in the Municipality of Meaford and on rail corridors in southern Ontario in general.

5.1 Ontario Regulation 9/06

Evaluation of Meaford Bridge No. 125 using Ontario Regulation 9/06 of the *Ontario Heritage Act*.

1. The property has design value or physical value because it:
 - i. is a rare, unique, representative or early example of a style, type, expression, material or construction method:
 - The subject bridge was constructed in 1901 which makes one of the four earliest bridges within the Meaford Structure Inventory and is therefore significant in terms of age. The bridge is a good representative example of an early timber trestle railway bridge that has been in use at this crossing for 123 years.
 - The subject bridge meets this criterion.
 - ii. displays a high degree of craftsmanship or artistic merit:
 - The subject bridge is a small utilitarian structure with a simple design and no ornamental or decorative features.
 - The subject bridge does not meet this criterion.



iii. demonstrates a high degree of technical or scientific achievement:

- The subject bridge is a short single-span structure constructed over a shallow, slow-moving creek and would not have required a high degree of technical or scientific achievement to construct.
- The subject bridge does not meet this criterion.

2. The property has historical value or associative value because it:

i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community:

- The subject bridge is not known to be associated with a theme, event, belief, person, activity, organization, or institution that is significant to the community.
- The subject bridge does not meet this criterion.

ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture:

- The subject bridge is not currently known to have the potential to yield information that contributes to an understanding of community or culture.
- The subject bridge does not meet this criterion.

iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community:

- The architect or builder of the bridge is unknown and was likely designed by an engineer on staff with the Grand Trunk Railway.
- The subject bridge does not meet this criterion.

3. The property has contextual value because it:

i. is important in defining, maintaining or supporting the character of an area:

- The subject bridge is within a mixed residential and industrial context originally established around the rail line in the late nineteenth to early



- twentieth centuries. While the subject bridge was constructed as part of the railway, is it not a visually distinct feature within the local context nor it does not play an important role in defining, maintaining, or supporting the residential/industrial character of the area.
- The subject bridge does not meet this criterion.
- ii. is physically, functionally, visually or historically linked to its surroundings:
- The subject bridge was constructed in 1901 for the Grand Trunk Railway line and is the original bridge at the crossing. Though the railway itself has been decommissioned and removed, the rail corridor has been maintained and repurposed at the Georgian Trail and has been used as a crossing for 123 years, maintaining the subject bridge's visual and historical links to its surroundings.
 - The subject bridge meets this criterion.
- iii. is a landmark:
- The subject bridge is on the Georgian Trail, which is a popular recreational trail, however the bridge is not visibly distinctive, nor is the crossing or waterway significant. The deck and railings of the bridge are also visible from Edwin Street East, however they are also not visually distinctive, and therefore the bridge is not considered to be a landmark.
 - The subject bridge does not meet this criterion.

Based on available information, it has been determined that Meaford Bridge No. 125 meets the criteria contained in Ontario Regulation 9/06 of the *Ontario Heritage Act* for design and physical value and contextual value.

6.0 Conclusions and Recommendations

This evaluation was prepared in consideration of data regarding the design, historical/associative, and contextual values within the Municipality of Meaford. This evaluation determined that Meaford Bridge No. 125 meets the criteria



outlined in Ontario Regulation 9/06 of the *Ontario Heritage Act*, and therefore has cultural heritage value or interest at the local level.

The following recommendations are proposed:

1. A Heritage Impact Assessment (H.I.A.) should be completed for Meaford Bridge No. 125 as early as possible during the detailed design phase. The H.I.A. will help to identify alternatives as well as mitigation and monitoring commitments to avoid or lessen impacts on the heritage attributes of the bridge, based on the proposed Statement of Cultural Heritage Value or Interest. This assessment should be completed by a qualified person who has relevant and recent experience in the conservation of rail bridges (see Section 3.0 of the *Standards and Guidelines for Conservation of Provincial Heritage Properties* [Ministry of Citizenship and Multiculturalism, 2014] as a guide for best practice) and submitted to heritage staff at the Municipality of Meaford for review and approval and to the Ministry of Citizenship and Multiculturalism (M.C.M.) for review.
2. The proponent should submit this report for review and comment to planning staff at the Municipality of Meaford, the M.C.M. and to any other relevant stakeholder that has an interest in the heritage of the subject bridge. Any feedback will be incorporated into this report prior to finalization. The final report should be submitted to the Meaford Museum for archival purposes.



7.0 Draft Statement of Cultural Heritage Value and Heritage Attributes

Meaford Bridge No. 125 in the Municipality of Meaford meets two out of nine criteria outlined in Ontario Regulation 9/06, which considers the bridge within the local context. As such the subject bridge should be considered to have cultural heritage value or interest at the local level.

This section provides the description of the property, a description of its cultural heritage value or interest, and a list of associated heritage attributes.

7.1 Description of Property

Meaford Bridge No. 125 (BR-125) is a single-span timber trestle bridge resting on four timber bents. The bridge measures 4.5 metres in length with a width of 4.3 metres. The bridge was constructed to carry the Grand Trunk Railway's (G.T.R.) North Grey Railway line over Meaford Creek at Mile 133.99 but now serves as a pedestrian and cycle bridge on the Georgian Trail. The bridge was constructed in 1901 by the G.T.R. and was likely modified for pedestrian use in 1989 when the Georgian Trail was opened as a recreational trail along the former G.T.R. and North Grey Railway (N.G.R.) alignment.

The bridge is located in the Municipality of Meaford, just north of Edwin Street East, on the Georgian Trail.

7.2 Cultural Heritage Value or Interest

Meaford Bridge No. 125 has physical and design value as it was constructed in 1901 making it one of the four oldest bridges in the Municipality of Meaford. These bridges are of similar timber trestle construction and were likely all constructed around the same time. These four bridges are the only extant timber bridges in the Municipality of Meaford. The subject bridge is constructed of four timber bents made of log piles, timber beam girders, and wooden



railroad ties treated with creosote and is a good representative example of an early timber trestle railway bridge.

Meaford Bridge 125 has contextual value as it was constructed in 1901 for the Grand Trunk Railway line and is an original bridge at the crossing. Though the railway itself has been decommissioned and removed, the rail corridor has been maintained and repurposed as the Georgian Trail and continues to be used as crossing on the rail corridor, maintaining the subject bridge's visual and historical links to its surroundings.

7.3 Heritage Attributes

Physical attributes of Meaford Bridge No. 125 that express the design value of the structure include:

- Timber construction
- Single-span structure supported by four bents and timber abutment walls
- Log piles
- Timber beam stringers
- Timber abutment walls
- Wooden, creosote-treated railroad ties

8.0 List of Resources Consulted

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Appendix A: Municipal Bridges Criteria for Evaluating Potential for Cultural Heritage Resources Checklist

Municipal Bridges

Criteria for Evaluating Potential for Cultural Heritage Resources

(revised July 7, 2023)

This checklist was prepared by the Municipal Engineers Association in consultation with the Ministry of Citizenship and Multiculturalism (MCM) to assist with undertaking cultural heritage due diligence as per the requirements of the Municipal Class Environmental Assessment.

Project Name: Reconstruction of Rehabilitation of Meaford Structure 125

Location: Georgian Trail over Meaford Creek, north of Edwin Street East

Municipality: Municipality of Meaford

Project Engineer: Centex Engineering and Development Inc.

Checklist completed by: Leora Bebko, Archaeological Services Inc.

Date: September, 2024

NOTE: Complete all sections of Checklist. Both Built Heritage Resources/Cultural Heritage Landscapes (B) and Archaeological (C) Sections must be satisfied before proceeding.

Questions apply to the entire study area including temporary storage or work areas as well as temporary roads/detours, except as otherwise stated.

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
 - the municipal addresses of all properties within the project area
 - the lot(s), concession(s), and parcel number(s) of all properties within a project area
- Answer each question in succession and follow the instructions in blue. Continue until all questions are answered or a definitive conclusion is reached.

Refer to the Appendix for additional details and resources to assist in answering select questions.

Font Colour

Green – MEA's Advice

Blue - Instructions



PART B – SCREENING FOR BUILT HERITAGE RESOURCES AND CULTURAL HERITAGE LANDSCAPES

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person to undertake technical cultural heritage studies as identified at the end of Part B.

Screening Questions	Response	
Part B1: Screening for Recognized Cultural Heritage Value or Interest		
1. Is the proposed undertaking consistent with an approved conservation plan, if one exists?	Yes ☐	No ☒
If you answered YES , then it is not necessary to complete the remaining questions in the checklist. The proponent will include this information in the project file and follow the recommendations of the conservation plan during project planning and implementation.		
If you answered NO , continue to question 2.		
2. Has the bridge and the study area been evaluated before and found not be of cultural heritage value or interest (CHVI)?	Yes ☐	No ☒
If you answered YES , it is not necessary to complete the remaining questions in the Part B. The proponent will summarize the previous evaluation and add this checklist to the project file, with appropriate documentation demonstrating that a cultural heritage evaluation was undertaken. Proceed to Part C: Screening for Archaeological Resources.		
If you answered NO , continue to question 3.		
3. Is the bridge, or a parcel of land in the study area:		
a. designated under the <i>Ontario Heritage Act</i> ?	Yes ☐	No ☒
b. subject to an agreement, covenant or easement entered into under Parts II or IV of the <i>Ontario Heritage Act</i> ?	Yes ☐	No ☒
c. included on a register or inventory of heritage properties maintained by the municipality?	Yes ☐	No ☒
d. subject to a notice of - intention to designate (under Part IV of the <i>Ontario Heritage Act</i>)? - a Heritage Conservation District study area by-law (under Part V of the <i>Ontario Heritage Act</i>)?	Yes ☐	No ☒

e. included in MCM's list of provincial heritage properties?	Yes ☐	No ☒
f. designated under the <i>Heritage Railway Stations Protection Act</i> ?	Yes ☐	No ☒
g. designated under the <i>Heritage Lighthouse Protection Act</i> ?	Yes ☐	No ☒
h. identified as a Federal Heritage Building by Federal Heritage Buildings Review Office?	Yes ☐	No ☒
i. a National Historic Site or part of one?	Yes ☐	No ☒
j. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	Yes ☐	No ☒
If you answered YES to any of the questions 3a through 3h, a Heritage Impact Assessment is necessary. Proceed to Part C.		
If you answered YES to either of questions 3i or 3j, follow the direction in the conservation and management documents for the National Historic Site or UNESCO World Heritage Site. Proceed to Part C.		
If you answered NO to all of the above questions, continue to Part B2		

Part B2: Screening for potential Cultural Heritage Value or Interest		
4. Will the proposed project involve a bridge structure that was: a) constructed less than 40 years ago?	Yes ☐	No ☒
b) constructed after 1956 with a plain concrete substructure, and the superstructure construction is with common steel and/or concrete products involving one of the following four bridge types? - Rigid Frame - Precast Girders with Concrete Deck - Culvert or Simple Span - Steel Girders/Concrete Deck	Yes ☐	No ☒
If you answered YES to 4 (a) or (b), continue this Part.		
If you answered NO to both 4 (a) and (b), the bridge has potential CHVI. Proceed to Part B3 to screen for potential impacts.		
5. Will the project involve replacement of a bridge's substructure, or any alteration of adjacent lands?	Yes ☐	No ☐
If you answered YES , continue this Part to screen for potential CHVI of the property/location.		
If you answered NO , proceed to Part C.		

6. Is the bridge or project area described by an on-site municipal, provincial or federal commemorative or interpretive plaque?	Yes ☐	No ☐
7. Does the project area contain a parcel of land that has or is adjacent to a known burial site or cemetery?	Yes ☐	No ☐
8. Does the proposed project involve a crossing of a Canadian Heritage River?	Yes ☐	No ☐
9. Is there local or Indigenous knowledge or accessible documentation suggesting that the property (or project area) is situated on a parcel of land that:		
a. Is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? (For example: buildings or landscape features accessible to the public or readily noticeable and widely known, complexes of buildings, monuments, ruins)	Yes ☐	No ☐
b. Has a special association with a community, person or historical event? (For example: Indigenous sacred site, traditional-use area, battlefield, birthplace of an individual of importance to the community, etc.)	Yes ☐	No ☐
c. Contains or is part of a cultural heritage landscape (for example, an Indigenous trail, historic road or rail corridor, park, designed garden, unique landform, or any other area in which multiple features are valued together for their interrelationship, meaning or association)?	Yes ☐	No ☐
If you answered YES to one or more of questions 6, 7, 8 or 9, there is potential for built heritage resources and/or cultural heritage landscapes in the study area. Continue to Part B3 to screen for potential impacts.		
If you answered NO , there is a low potential for built heritage resources and/or cultural heritage landscapes to be impacted. Proceed to Part C.		

B3 Screening for potential Cultural Heritage Impacts to the Bridge Structure		
10. a) Will the proposed project leave the substructure of the bridge unchanged?	Yes ☐	No ☒
b) Is the substructure of the bridge constructed with plain concrete with no untypical elements?	Yes ☐	No ☒
If you answered YES to either 10 (a) or (b), proceed to question 11.		
If you answered NO to both 10 (a) and (b), there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Continue to Part C.		
11. a) Is the superstructure of the bridge constructed with common steel and/or concrete products involving one of the following four bridge types? - Rigid Frame - Precast with Concrete Deck - Culvert or Simple Span - Steel Girders/Concrete Deck	Yes ☐	No ☐
b) Will the finished product replicate the existing superstructure?	Yes ☐	No ☐
If you answered YES to both 11 (a) and (b), continue to 12.		
If you answered NO to either 11 (a) or (b), there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Proceed to Part C.		
12. a) Is work proposed on the parapet walls/railings of the bridge?	Yes ☐	No ☐
b) If YES to (a), are the parapet walls/railings contain materials other than plain concrete and steel, or any untypical elements?	Yes ☐	No ☐
If you answered YES to both 12 (a) and (b), continue to question 12 (c).		
If you answered NO to either 12 (a) or (b), there is low potential for cultural heritage impacts on the bridge structure. Proceed to Part C.		
c) Is the purpose of the work being done on the parapet walls/railings to upgrade them to meet current crash test standards?	Yes ☐	No ☐
If you answered YES , proceed with reconstructing the parapet walls/railings to a sympathetic design ; see guidance in the Appendix. Hire a qualified person(s) to undertake a CHER if this is not practicable. Proceed to Part C.		
If you answered NO , there is potential for cultural heritage impacts on the bridge structure. You need to hire a qualified person(s) to undertake a CHER for the existing bridge area. Continue to Part C: Screening for Archaeological Resources.		

Appendix: Additional instructions, information sources, and definitions to assist in answering checklist questions

Part A	
1	Maintenance means work that extends the life of the structure or keeps the structure safe for intended use. Repairs means work that fixes or replaces components of the structure to return the structure to its original condition.
2	Rehabilitation means a modification, alteration, or improvement of the condition of a structure or bridge subsystem that is designed to correct deficiencies in order to achieve a particular design life and live load level. Vehicle capacity means the number of through travel lanes for vehicles on the bridge. Adjusting lane width to current standards does not increase the number of travel lanes and cycling, parking, or turning lanes are not through travel lanes. Increasing the width of a narrow bridge (one lane with two-way traffic) to the current standard to accommodate two-way traffic (two lane) is not considered an increase in capacity.
Part B	
1	Municipal heritage staff and municipal heritage committees can help determine whether an approved conservation plan, or previous cultural heritage evaluation, exist.
2	A previous evaluation might have been carried out by: • A heritage consultant, in a CHER prepared for a previous consultant/applicant • The Municipal Heritage Committee, in considering the property for inclusion on the municipality's Heritage Register • The municipality, in a Bridge Infrastructure Master Plan Evaluations should use the criteria in Ontario Regulation 9/06. Re-evaluation is necessary if new information is available or there is evidence that heritage attributes have changed.
3	Where to find information: a) For OHA-designated properties contact the municipal clerk, or search the Ontario Heritage Trust (OHT) Register at https://www.heritagetrust.on.ca/en/pages/tools/ontario-heritage-act-register b) - For municipal easements, contact the municipal clerk - For OHT easements, contact the OHT Provincial Heritage Registrar at registrar@heritagetrust.on.ca or see https://www.heritagetrust.on.ca/en/property-types/easement-properties - Easements can also be identified through the local land registry (title search) c) For listed or inventoried properties, contact the municipal clerk or heritage staff

	d) For properties subject to a notice of intention to designate or notice of Heritage Conservation District Study, contact the municipal clerk or heritage staff e) For provincial heritage properties, contact the MCM Registrar at registrar@ontario.ca f) For all federal designations, search the Directory of Federal Heritage Designations at https://www.pc.gc.ca/apps/dfhd/default_eng.aspx g) See (f) above h) See (f) above i) See (f) above j) For UNESCO World Heritage Sites see the UNESCO website: http://whc.unesco.org/en/statesparties/CA (note: as of 2020, Ontario's only UNESCO World Heritage Sites are the Rideau Canal and Pimachiowin Aki)
6	Plaque locations can be found from the following sources: • Municipal heritage committees or local heritage organizations • Ontario Heritage Trust: https://www.heritagetrust.on.ca/en/online-plaque-guide • Historic Sites and Monuments Board of Canada: http://www.pc.gc.ca/apps/dfhd/default_eng.aspx
7	Cemeteries can be located through the Bereavement Authority of Ontario's Public Register of licensed cemeteries: https://licensees.bereavementauthorityontario.ca/public-register If cemetery limits are unclear, an Investigation Authorization issued by the Bereavement Authority of Ontario may be required. In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.
8	A list of the Canadian Heritage Rivers in Ontario can be found at http://chrs.ca/the-rivers-ontario/.
9	For information, contact: • Elders in Indigenous Communities or community researchers who may have information on potential cultural heritage resources. Please note that Indigenous traditional knowledge may be considered sensitive. • municipal heritage committees or local heritage organizations • Ontario Historical Society's "Heritage Directory" - for a list of historical societies and heritage organizations in the province: https://ontariohistoricalsociety.ca/directory-and-map/ Information specific to trails may be obtained through Ontario Trails at https://www.ontariotrails.on.ca/index.php?url=trails

10	If the checklist indicates the need to hire a qualified person to undertake a Cultural Heritage Evaluation Report (CHER), do this during the EA study and follow its recommendations, which may include completing a Heritage Impact Assessment (HIA) if the structure or property is found to have cultural heritage value or interest (CHVI) and may be impacted by the project. Both the CHER and the HIA should be included in EA documentation and inform the decision-making in the EA process.
11	
12	
12 (c)	To develop a sympathetic design for railings, the proponent should first consider retaining the existing railing. If the existing railing is tall enough for pedestrian safety, consider providing a new barrier wall between road and sidewalk if adequate space and bridge capacity is available, and snow clearing operations can continue. If inadequate space and structural capacity exists, or snow clearing cannot be accommodated, or pedestrian Ontario Building Code (OBC) safety requirements are not met, then the existing railings should be removed and replaced with a new Canadian Highway Bridge Design Code- and OBC- (if applicable) compliant barrier with a design that, as much as possible, uses the same materials and elements (e.g. vertical steel posts) as the original railing.

Part C													
If this Part indicates the need for an archaeological assessment, you will need to hire an archaeologist licensed under the Ontario Heritage Act. This licensee will follow the archaeological assessment process laid out in the <i>Standards and Guidelines for Consultant Archaeologists</i> and submit archaeological assessment reports directly to MCM for technical review. Archaeological assessment follows a phased approach that begins with evaluation of archaeological potential and proceeds as necessary to a field survey, an assessment of any sites identified, and mitigation measures such as excavation, with each phase resulting in recommendations as to whether the next is necessary. MCM will inform the client/proponent when review of and any necessary revisions to archaeological assessment reports have been completed. Archaeological assessment reports should be included in EA documentation. You can find information on archaeological assessments, and a list of licensed Archaeologists in Ontario, on MCM's website at https://www.ontario.ca/page/archaeological-assessments and https://www.ontario.ca/page/archaeologists-licensed-ontario.													
2	Information can be obtained from MCM by emailing archaeology@ontario.ca .												
3	The municipality may be able to answer Question 3 if it has a data sharing agreement with MCM.												
4	Significant ground disturbance means to interfere with or alter the existing condition of the ground, whether it is above or below water, through human actions that have potential to affect cultural heritage resources, and includes, but not limited to: <table border="0"> <tr> <td>altering the existing grade of land</td><td>compacting, excavating or removing topsoil</td></tr> <tr> <td>power spraying</td><td>dredging</td></tr> <tr> <td>placing or dumping fill</td><td>removing vegetation</td></tr> <tr> <td>allowing heavy vehicle traffic</td><td>trenching (e.g. for services)</td></tr> <tr> <td>drainage ditch construction</td><td>trail construction</td></tr> <tr> <td>scarification and soil mechanics studies</td><td></td></tr> </table> A ground disturbance does <u>not</u> include: normal, regular farming practices such as ploughing or tilling or gardening	altering the existing grade of land	compacting, excavating or removing topsoil	power spraying	dredging	placing or dumping fill	removing vegetation	allowing heavy vehicle traffic	trenching (e.g. for services)	drainage ditch construction	trail construction	scarification and soil mechanics studies	
altering the existing grade of land	compacting, excavating or removing topsoil												
power spraying	dredging												
placing or dumping fill	removing vegetation												
allowing heavy vehicle traffic	trenching (e.g. for services)												
drainage ditch construction	trail construction												
scarification and soil mechanics studies													
5	Recent means since 1960. Extensive means over all or most of the area. Intensive means thorough or complete disturbance.												

Appendix B: Qualified Persons Involved in the Project

Lindsay Graves, M.A., C.A.H.P.

Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage

The Senior Project Manager for this Cultural Heritage Evaluation Report is **Lindsay Graves** (M.A., Heritage Conservation), Senior Cultural Heritage Specialist and Assistant Manager for the Cultural Heritage Division. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Lindsay is academically trained in the fields of heritage conservation, cultural anthropology, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the assessment, evaluation, and protection of above ground cultural heritage resources. Lindsay has extensive experience undertaking archival research, heritage survey work, heritage evaluation and heritage impact assessment. She has also contributed to cultural heritage landscape studies and heritage conservation plans, led heritage commemoration and interpretive programs, and worked collaboratively with multidisciplinary teams to sensitively plan interventions at historic sites/places. In addition, she is a leader in the completion of heritage studies required to fulfill Class Environmental Assessment processes and has served as Project Manager for over 100 heritage assessments during her time at Archaeological Services Incorporated (A.S.I.). Lindsay is a member of the Canadian Association of Heritage Professionals.

John Sleath, M.A.

Cultural Heritage Specialist, Project Manager - Cultural Heritage Division

The Project Manager for this Cultural Heritage Evaluation Report is **John Sleath** (M.A.), who is a Cultural Heritage Specialist and Project Manager within the Cultural Heritage Division with A.S.I. He was responsible for the day-to-day



management activities, including scoping of research activities and site surveys and drafting of study findings and recommendations. John has worked in a variety of contexts within the field of cultural heritage resource management for the past 14 years, as an archaeologist and as a cultural heritage professional. An exposure to both land-based and underwater archaeology and above ground cultural heritage assessments has provided John with a holistic understanding of heritage in a variety of contexts. In 2015 John began working in the Cultural Heritage Division researching and preparing a multitude of cultural heritage assessment reports and for which he was responsible for a variety of tasks including: completing archival research, investigating built heritage and cultural heritage landscapes, report preparation, historical map regression, and municipal consultation. Since 2018 John has been a project manager responsible for a variety of tasks required for successful project completion. This work has allowed John to engage with stakeholders from the public and private sector, as well as representatives from local municipal planning departments, government agencies, and museums. John has conducted hundreds of cultural heritage assessments across Ontario, with a focus on transit and rail corridor infrastructure including bridges and culverts.

Leora Bebko, M.M.St.

Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division

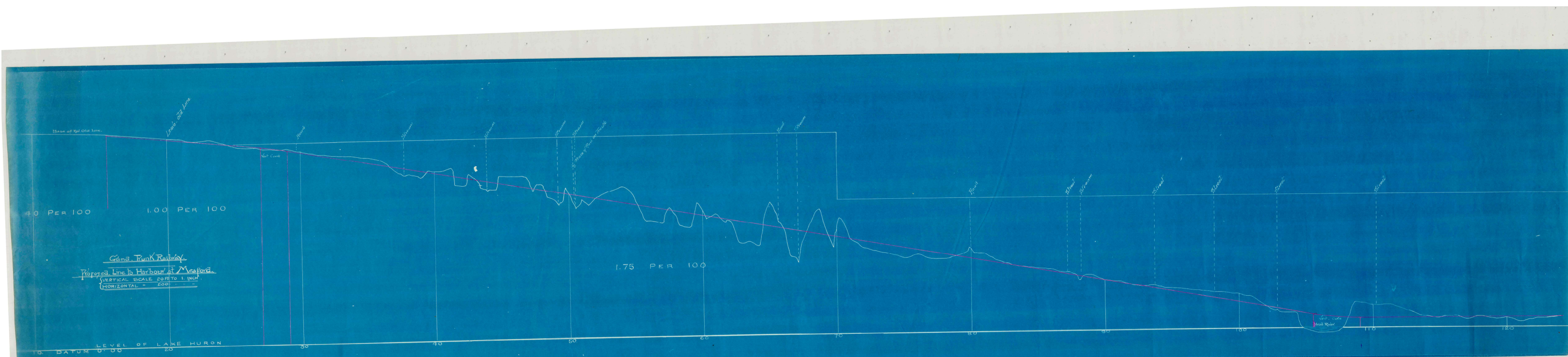
The Cultural Heritage Technician for this Cultural Heritage Evaluation Report is **Leora Bebko** (M.M.St.), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division. She was responsible for preparing and contributing research and technical reporting. In Leora's career as a cultural heritage and museum professional she has worked extensively in public programming and education within built heritage spaces. Leora is particularly interested in the ways in which our heritage landscapes can be used to facilitate public engagement and interest in our region's diverse histories. While completing her Master of Museum Studies she was able to combine her interest in heritage architecture and museums by focusing on the historic house museum and the accessibility challenges they face. As a thesis

project, Leora co-curated the award-winning exhibit *Lost & Found: Rediscovering Fragments of Old Toronto* on the grounds of Campbell House Museum. Since completing her degree she has worked as a historical interpreter in a variety of heritage spaces, learning a range of traditional trades and has spent considerable time researching heritage foodways and baking in historic kitchens. In 2022, she joined A.S.I.'s Cultural Heritage team as a Cultural Heritage Technician.

Appendix C: Municipality of Meaford Bridge Inventory

Structure Number	Structure Name	Road Name	Structure Type	Year Construction
1	Bridge No. 1 (Cornfield's Bridge)	Sideroad 21	CSP Multi-Plate Arch Culvert(s)	2003
2	Bridge No. 2 (Prosje's Bridge)	Sideroad 24	Cast-In-Place Concrete T-Beam	1925
3	Bridge No. 3 (Price's Bridge)	Concession 6	Precast Concrete Box Culvert	1985
4	Bridge No. 4 (MacQueen's Bridge)	Sideroad 24	Steel I-Girder (Concrete Deck)	2002
5	Bridge No. 5 (Cupsky's Bridge)	2nd Concession	Cast-In-Place Conc. Rigid Frame	1945
6	Bridge No. 6 (Duggin's Gulley)	Sideroad 27	CSP Multi-Plate Ellipse Culvert(s)	1975
7	Bridge No. 7 (MacJohnson's Bridge)	Sideroad 30	Steel I-Girder (Concrete Deck)	1925
8	Bridge No.8 (Fettes' Bridge)	Lakeshore Drive	Cast-In-Place Conc. Rigid Frame	1982
9	Bridge No.9 (Struyk's Bridge)	Lakeshore Drive	Steel I-Girder (Concrete Deck)	
10	Bridge No. 10 (Fraser's Bridge)	Concession B	Cast-In-Place Concrete T-Beam	1925
11	Bridge No. 11 (Waterton Bridge)	Sideroad 8	Cast-In-Place Conc. Rigid Frame	1981
12	Bridge No. 12 (Bognor Bridge)	Sideroad 6	Cast-In-Place Conc. Rigid Frame	2009
13	Bridge No.13 - Reid's Bridge	Sideroad 6	Cast-In-Place Conc. Rigid Frame	1960
14	Bridge No.14 (Thomson Bridge)	Sideroad 6	Cast-In-Place Conc. Rigid Frame	1987
15	Bridge No. 15 (Gialles' Bridge)	Sideroad 3	Cast-In-Place Conc. Rigid Frame	1940
16	Bridge No. 16 – 5th Line Bridge	4th Concession South	Arch (Concrete)	1960
17	Bridge No.17 – Shields Bridge	1st Concession	Precast Concrete Box Girder	1970
18	Bridge No. 18 (Medley's Bridge)	Lakeshore Drive	CSP Multi-Plate Ellipse Culvert(s)	1983
19	Bridge No. 19	Sideroad 24	CSP Arch Culvert(s)	1983
21	Bridge No. 21 (Twin Bridges)	Holland-Sydenham Townline	Concrete Arch Culvert	1975
22	Bridge No. 22 (Twin Bridges)	Holland-Sydenham Townline	Concrete Arch Culvert	1975
25	Bridge No. 25	2nd Concession North	Cast-In-Place Conc. Rigid Frame	1968
27	Bridge No. 27 (Wood's Bridge)	Sideroad 24	Cast-In-Place Conc. Rigid Frame	1945
28	Bridge No. 28 (Palmer's Driveway Bridge)	Woodford Crescent	Steel I-Girder (Timber Deck)	1965
30	Bridge No. 30 (Bakeshop Bridge)	Edwin Street	Precast Concrete I-Girder	1981
31	Bridge No. 31 (Trowbridge St. Bridge)	Trowbrige Street	Concrete Rigid Frame	1958
32	Bridge No. 32 (Cementary Road Bridge)	Graham Street	Cast-In-Place Conc. Rigid Frame	1965
35	Bridge No. 35	Lake Shore Road South	Cast-In-Place Conc. Rigid Frame	1946
37	Bridge No. 37	Sykes Street	Cast in Place Concrete Box Culvert	1975
38	Bridge No. 38	Sykes Street	Slab on Precast Girder	1965
38	Bridge No. 38	Sykes Street	Precast Concrete I-Girder	1965
39	Bridge No. 39	7th Line South	Cast-In-Place Conc. Rigid Frame	1964
40	Bridge No. 40	Marshall street East	Cast-In-Place Conc. Rigid Frame	
41	Bridge No. 41	7th Line	Cast-In-Place Conc. Rigid Frame	1960
42	Bridge No. 42	Sideroad 10	Cast-In-Place Conc. Rigid Frame	1940
43	Bridge No. 43	7th Line	Cast-In-Place Conc. Rigid Frame	2020
44	Bridge No. 44	Sideroad 10	Cast-In-Place Conc. Rigid Frame	1965
45	Bridge No. 45	Sideroad 13	Precast Concrete I-Girder	1965
46	Bridge No. 46	Sideroad 13	Precast Concrete I-Girder	1970
47	Bridge No. 47 (Ambercrombie #1)	Sideroad 13	Cast-In-Place Conc. Rigid Frame	1960
48	Bridge No. 48 (Ambercrombie #2)	Sideroad 13	Cast-In-Place Conc. Rigid Frame	1975
49	Bridge No. 49	Sideroad 13	Precast Concrete Box Culvert	1960
50	Bridge No. 50 (Bullsink's Bridge)	11th Line	Cast-In-Place Conc. Rigid Frame	1975
51	Bridge No. 51 (Doherty Bridge)	11th Line	Cast-In-Place Conc. Rigid Frame	1973
53	Bridge No. 53	Sideroad 10	Cast-In-Place Conc. Rigid Frame	1965
52/67	Bridge No. 52/67	11th Line	Cast-In-Place Conc. Rigid Frame	1943
54	Bridge No. 54	10th Sideroad	Cast-In-Place Conc. Rigid Frame	1970
58	Bridge No. 58	11th Line South	Cast-In-Place Conc. Box Culvert	1973
59	Bridge No. 59	Sideroad 4	Conc. Rigid Frame/T-beam	1960
62	Bridge No. 62	St. Vincent-Sydenham Townline	Conc. Rigid Frame Culvert	
64	Bridge No. 64	10th Sideroad	Cast-In-Place Conc. Rigid Frame	1973
65	Bridge No. 65 (Sewell Bridge)	Sideroad 10	Cast-In-Place Conc. Rigid Frame	1966
66	Bridge No. 66	Sideroad 10	Cast-In-Place Conc. Rigid Frame	1960
69	Bridge No. 69	7th Line	Cast-In-Place Conc. Rigid Frame	
70	Bridge No. 70	Sideroad 4	Steel I-Girder (Timber Deck)	1960
74	Bridge No. 74	Sideroad 4	Cast-In-Place Conc. Rigid Frame	1960
75	Bridge No. 75	Sideroad 4	Cast-In-Place Conc. Rigid Frame	1960
80	Bridge No. 80	3rd line	Cast-In-Place Conc. Rigid Frame	1950
81	Bridge No. 81	3rd line	CSP Multi-Plate Arch	1980
82	Bridge No. 82	3rd line	CSP Multi-Plate Arch	1980
109	Bridge No. 109	Ridge Creek Drive	Cast in Place Concrete Box Culvert	1990
110	Bridge No. 110	Meadow Lane	Cast in Place Concrete Box Culvert	1990
111	Bridge No. 111	Ridge Road	Cast in Place Concrete Box Culvert	1990
112	Bridge No. 112	Thompson Street	Cast-In-Place Conc. Rigid Frame	1975
113	Bridge No. 113	Boucher Street	Cast-In-Place Conc. Rigid Frame	1985
114	Bridge No. 114	St. Vincent Street	Cast in Place Concrete Box Culvert	2000
115	Bridge No. 115	Denmark Street	CSP Multi-Plate Arch	1985
116	Bridge No. 116	Edwin Street	Cast in Place Concrete Box Culvert	1963
118	Bridge No. 118	Sykes Street	Cast in Place Concrete Box Culvert	1966
120	Bridge No. 120	Sideroad 13	Twin CSP Multi-Plate Arch Culvert	1980
125	Bridge No. 125	Georgian Trail	Timber Trestle	1920
127	Bridge No. 127	Georgian Trail	Timber Trestle	1920
129	Bridge No. 129	Georgian Trail	Cast in Place Concrete Box Culvert	1923
131	Bridge No. 131	Stewart Street	Precast Concrete Box Culvert	1995
132	Bridge No. 132	Susan Street	Cast-In-Place Conc. Rigid Frame	1995
133	Bridge No. 133	Sideroad 8	Cast-In-Place Conc. Rigid Frame	
134	Bridge No. 134	Georgian Trail	Timber Trestle	1920
135	Bridge No. 135	Georgian Trail	Timber Trestle	1920
145	Bridge No. 145	Euphrasia - St Vincent Townline	Concrete Rigid Frame	

Appendix D: Design Drawings for Proposed Grand Trunk Railway Line to Meaford Harbour (circa 1899)

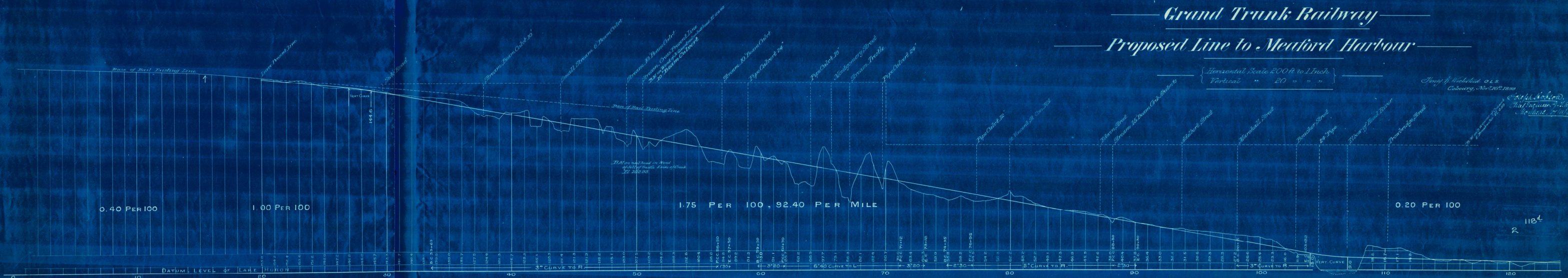


Grand Trunk Railway
Proposed Line to Meatford Harbour

Horizontal Scale 200 ft. to 1 Inch
Vertical " 20 " " "

Survey of 1884, 812
Cobourg, Nov. 1884

W. H. A. Smith, Esq.
Superintendent of the
Grand Trunk Railway



APPENDIX D: HERITAGE IMPACT ASSESSMENT

Heritage Impact Assessment

Meaford Bridge No. 125

Municipality of Meaford, Ontario

Final Report

Prepared for:

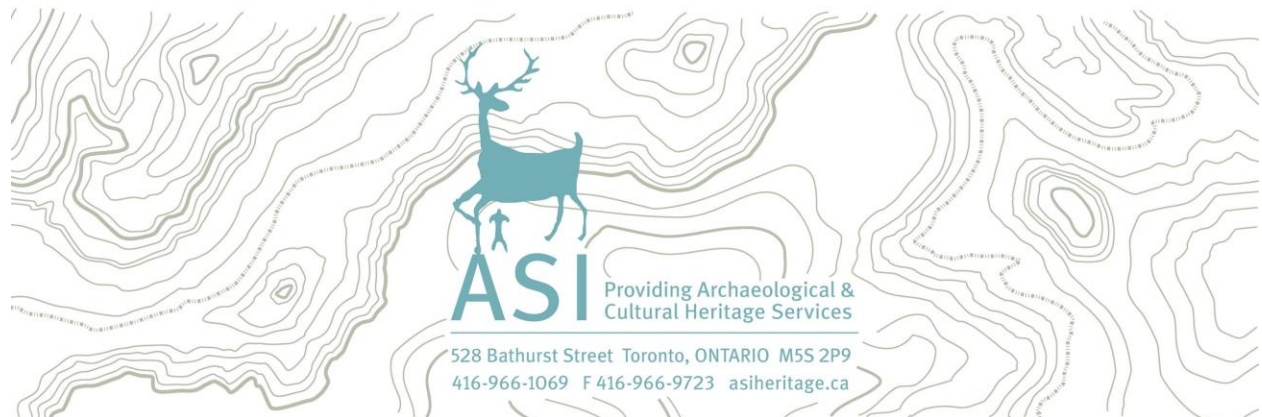
Centex Engineering and Development Inc.

7-265 Hanlon Creek Blvd.

Guelph, ON N1C 0A1

Archaeological Services Inc. File: 25CH-013

January 2025 (Finalized April 2026)



Executive Summary

Archaeological Services Inc. (A.S.I.) was contracted by Centex Engineering and Development Inc. on behalf of the Municipality of Meaford, to conduct a Heritage Impact Assessment (H.I.A.) for the Meaford Bridge No. 125 (BR-125) in the Municipality of Meaford, Ontario. The structure is a single-span timber trestle railway bridge constructed in 1901 at Mile 113.99 of the Grand Trunk Railway (G.T.R.) Line. The bridge is currently used as a pedestrian bridge that carries the Georgian Trail recreational trail over Meaford Creek, north of Edwin Street East. The bridge is owned and maintained by the Municipality of Meaford.

A Cultural Heritage Evaluation Report (C.H.E.R.) completed by A.S.I. in October 2024 (Archaeological Services Inc., 2024) determined that the subject bridge meets two of the criteria outlined in Ontario Regulation 9/06 of the *Ontario Heritage Act*, and therefore has cultural heritage value or interest (C.H.V.I.) at the local level. In particular, the subject bridge is considered to be a good representative example of an early timber trestle railway bridge in the local context. The structure is believed to be the first bridge at the crossing, constructed in 1901 by the G.T.R., and continues to be used as a crossing on the rail corridor which has been converted to a recreational trail, thus preserving the bridge's visual and historical links with its surroundings. As the bridge was determined to have C.H.V.I., the H.I.A. is being completed to provide an assessment of how the proposed work will impact the subject bridge's C.H.V.I.

The proposed work includes the complete removal of the subject bridge and either its replacement with a new structure at the same crossing or the closure of the crossing and rerouting of the Georgian Trail to the neighbouring Edwin Street East bridge. The subject bridge is being assessed as a requirement of the Ministry of Citizenship and Multiculturalism's *Ontario Heritage Toolkit* (Ministry of Culture, 2006), the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada, 2010), the *Municipal Heritage Bridges Cultural, Heritage and Archaeological Assessment Checklist* (Municipal Engineers



Association, 2023), and *Ontario Regulation 160/02, Standards for Bridges* (Public Transportation and Highway Improvement Act, R.S.O. 1990, c.P.50, 2002).

Three alternatives were considered for Meaford Bridge No. 125, Option 1: Do Nothing, Option 2: Trail Realignment, and Option 3: Steel Truss Bridge. Where feasible, the preferred alternative for any bridge with identified C.H.V.I. should involve rehabilitating and retaining the structure in situ to maintain the physical/design, historical/associative, and contextual values of the bridge and crossing, therefore Option 1: Do Nothing is preferred from a cultural heritage perspective as it would retain the bridge at the crossing with minor rehabilitations. However, due to the poor condition of the structure, Option 1 was deemed infeasible because it is not a long-term solution and rehabilitation alone would not address code and service level deficiencies of the existing bridge. As the retention and rehabilitation of the subject bridge was determined to be infeasible, Option 3: Steel Truss Bridge is the second most preferred option from a cultural heritage perspective as it would retain the contextual value of the crossing and continue its historical function as a crossing over Meaford Creek. Option 2: Trail Realignment is the least preferred option as it is the most impactful to the identified C.H.V.I. of the subject bridge and crossing, through the demolition of the existing bridge and the closing of the crossing.

Option 2: Trail Realignment was selected as the preferred project alternative. Option 2 is anticipated to result in direct, permanent, adverse impacts to the cultural heritage attributes of the structure through the complete removal of the original bridge. Mitigation measures outlined in this report have been prepared to further minimize these impacts and should be implemented as appropriate to the extent practicable to ensure impacts to the design, historical/associative and contextual value of the crossing are reduced.

The following recommendations and mitigation measures have been developed and should be implemented:

1. Where feasible, the proposed undertaking should be designed and executed to ensure the fewest direct and permanent, non-reversible



- impacts to the identified heritage attributes of the subject bridge. In this respect, Option 1: Do Nothing is the preferred option from the cultural heritage perspective. However, Option 1 was determined to be infeasible and eliminated from consideration in favour of Option 2: Trail Realignment.
2. To reduce negative impacts to the cultural heritage value of the crossing in Option 2, the development of suitable commemoration should be considered. In this respect, consideration should be given to developing commemorative interpretation at the crossing featuring information relating to the original structure and its use as a rail bridge on the G.T.R. line. Consultation should be completed with the Municipality of Meaford regarding any potential commemorative interpretation.
 3. Prior to removal of the subject bridge, full recording of the structure would ensure proper documentation for archival purposes and ensure suitable material is available for inclusion with a commemoration strategy. The C.H.E.R. (Archaeological Services Inc., 2024) and this H.I.A. are considered to be sufficient documentation.
 4. The proponent should submit this report to heritage staff at the Municipality of Meaford and to the Ministry of Citizenship and Multiculturalism for review. Any feedback will be considered and incorporated into the report, where appropriate. The final report should be submitted to the Municipality of Meaford for future reference.

Report Accessibility Features

This report has been formatted to meet the Information and Communications Standards under the *Accessibility for Ontarians with Disabilities Act, 2005* (A.O.D.A.). Features of this report which enhance accessibility include: headings, font size and colour, alternative text provided for images, and the use of periods within acronyms. Given this is a technical report, there may be instances where additional accommodation is required in order for readers to access the report's information. If additional accommodation is required, please contact Annie Veilleux, Manager of the Cultural Heritage Division at Archaeological Services Inc., by email at aveilleux@asiheritage.ca or by phone 416-966-1069 ext. 255.



Project Personnel

- **Senior Project Manager:** Lindsay Graves, M.A., C.A.H.P., Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division
- **Project Coordinator:** Jessica Bisson, B.F.A. (Hon.), Cultural Heritage Technician, Division Coordinator – Cultural Heritage Division
- **Project Manager:** John Sleath, M.A., Cultural Heritage Specialist, Project Manager - Cultural Heritage Division
- **Field Review:** Leora Bebko, M.M.St., Cultural Heritage Technician, Technical Writer and Researcher – Cultural Heritage Division
- **Report Production:** Leora Bebko
- **Graphics Production:** Carolyn Nettleton, B.A., Archaeologist, Geomatics Technician – Operations Division
- **Report Reviewer(s):** John Sleath and Lindsay Graves



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1.0 Introduction

Archaeological Services Inc. (A.S.I.) was contracted by Centex Engineering and Development Inc. on behalf of the Municipality of Meaford, to conduct a Heritage Impact Assessment (H.I.A.) for the Meaford Bridge No. 125 (BR-125) in the Municipality of Meaford, Ontario. The structure is a single-span timber trestle railway bridge constructed in 1901 at Mile 113.99 of the Grand Trunk Railway (G.T.R.) Line. The bridge is currently used as a pedestrian bridge that carries the Georgian Trail recreational trail over Meaford Creek, north of Edwin Street East. The bridge is owned and maintained by the Municipality of Meaford.

A cultural heritage evaluation report (C.H.E.R.) completed by A.S.I. in October 2024 (Archaeological Services Inc., 2024) determined that the subject bridge meets two of the criteria outlined in Ontario Regulation 9/06 of the *Ontario Heritage Act*, and therefore has cultural heritage value or interest (C.H.V.I.) at the local level. In particular, the subject bridge is a good representative example of an early timber trestle railway bridge in the local context. The structure is believed to be the first bridge at the crossing, constructed in 1901 by the G.T.R., and continues to be used as a crossing on the rail corridor which has been converted to a recreational trail, thus preserving the bridge's visual and historical links with its surroundings. As the bridge was determined to have C.H.V.I., the H.I.A. is being completed to provide an assessment of how the proposed work will impact the subject bridge's C.H.V.I.

The proposed work includes the complete removal of the subject bridge and either its replacement with a new structure at the same crossing or the closure of the crossing and rerouting of the Georgian Trail to the neighbouring Edwin Street East bridge. Retention and rehabilitation of the subject bridge (Option 1: Do Nothing) is the preferred option from the cultural heritage perspective. However, Option 1 was eliminated from consideration as it is not a long-term solution and its failure to address code and service-level deficiencies (Centex Engineering and Development Inc. email communication 13 January 2025).



The subject bridge is being assessed as a requirement of the Ministry of Citizenship and Multiculturalism's *Ontario Heritage Toolkit* (Ministry of Culture, 2006), the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada, 2010), the *Municipal Heritage Bridges Cultural, Heritage and Archaeological Assessment Checklist* (Municipal Engineers Association, 2023), and *Ontario Regulation 160/02, Standards for Bridges* (Public Transportation and Highway Improvement Act, R.S.O. 1990, c.P.50, 2002).

1.1 Description of Structure

Meaford Bridge No. 125 is a single-span timber trestle bridge that was constructed to carry the G.T.R. line extension to its new terminal station at Meaford Harbour in 1901 (Figure 1) (Hughes, 2022). The bridge has since been converted to a pedestrian bridge on the Georgian Trail. The structure's single span carries the Georgian Trail over Meaford Creek, a small and generally slow-moving waterway which empties into Georgian Bay approximately 0.75 kilometres northeast of the subject crossing.



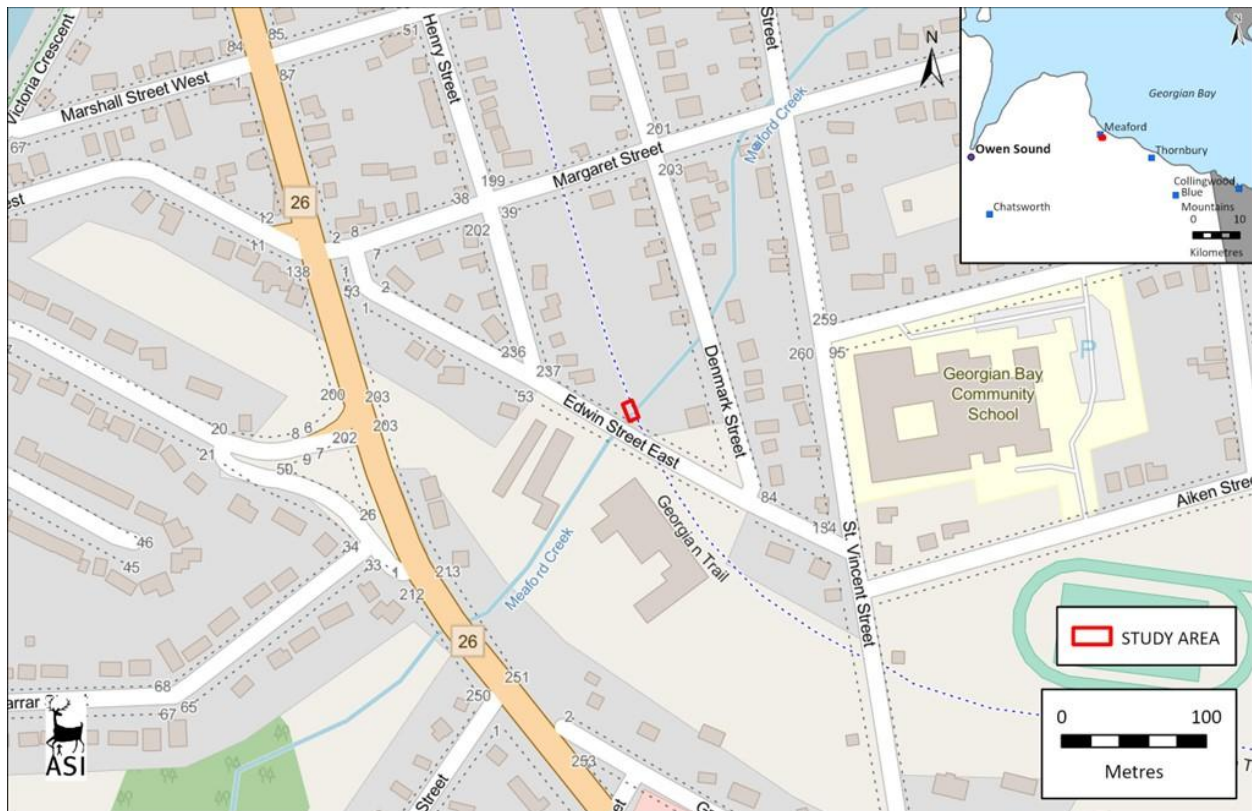


Figure 1: Location of the subject bridge in the Municipality of Meaford (Base Map: ©OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA))

2.0 Draft Statement of Cultural Heritage Value

Meaford Bridge No. 125 in the Municipality of Meaford meets two out of nine criteria outlined in Ontario Regulation 9/06 of the *Ontario Heritage Act*, which considers the bridge within the local context. As such the subject bridge should be considered to have cultural heritage value or interest at the local level.

This section provides the description of the bridge, a description of its cultural heritage value or interest, and a list of associated heritage attributes.

Description of Structure

Meaford Bridge No. 125 (BR-125) is a single-span timber trestle bridge resting on four timber bents. The bridge measures 4.5 metres in length with a width of

4.3 metres. The bridge was constructed to carry the Grand Trunk Railway's (G.T.R.) North Grey Railway line over Meaford Creek at Mile 133.99 but now serves as a pedestrian and cycle bridge on the Georgian Trail. The bridge was constructed in 1901 by the G.T.R. and was likely modified for pedestrian use in 1989 when the Georgian Trail was opened as a recreational trail along the former G.T.R. and North Grey Railway (N.G.R.) alignment.

The bridge is located in the Municipality of Meaford, just north of Edwin Street East, on the Georgian Trail.

Cultural Heritage Value or Interest

Meaford Bridge No. 125 has physical and design value as it was constructed in 1901 making it one of the four oldest bridges in the Municipality of Meaford. These bridges are of similar timber trestle construction and were likely all constructed around the same time. These four bridges are the only extant timber bridges in the Municipality of Meaford. The subject bridge is constructed of four timber bents made of log piles, timber beam girders, and wooden railroad ties treated with creosote and is a good representative example of an early timber trestle railway bridge.

Meaford Bridge 125 has contextual value as it was constructed in 1901 for the Grand Trunk Railway line and is an original bridge at the crossing. Though the railway itself has been decommissioned and removed, the rail corridor has been maintained and repurposed as the Georgian Trail and continues to be used as crossing on the rail corridor, maintaining the subject bridge's visual and historical links to its surroundings.

Heritage Attributes

Physical attributes of Meaford Bridge No. 125 that express the design value of the structure include:

- Timber construction;
- Single-span structure supported by four bents and timber abutment walls;



- Log piles;
- Timber beam stringers;
- Timber abutment walls; and
- Wooden, creosote-treated railroad ties.

3.0 Assessment of Existing Condition

A field review of the study area was undertaken by Leora Bebko of Archaeological Services Inc. (A.S.I.), on 12 September 2024. The site visit included photographic documentation of the exterior of the structure from the Georgian Trail and Edwin Street West rights-of-way. Permission to Enter was not required for adjacent properties, as all work was conducted from the publicly-accessible rights-of-way.

The superstructure of the subject bridge consists of timber girders which run the length of the bridge across Meaford Creek (Figure 2). Above these beams, running in a perpendicular direction, are creosote-treated timber railroad ties (Figure 3). Every second railroad tie is attached to the timber beams by metal strapping at either end (Figure 4). The beams and ties appear to be good condition with few signs of deterioration.

The substructure of the subject bridge features timber abutments and timber bents. There are two sets of bents on either side of the creek. Each of these bents are constructed of six piles made of timber with a timber crossbeam forming the pile cap and supporting the girders above (Figure 5). These bents show considerable signs of damage, particularly on the west side of the bridge where the bent closest to the waterway appears to have been completely washed away. The central piles of the bent behind, along the abutment wall, are also severely damaged (Figure 6). The remaining bents are intact, but show considerable damage and deterioration, particularly near the waterline. The cap of the bent at the eastern abutment has begun to collapse toward the abutment. The subject bridge's ballast walls are constructed of stacked timbers that extend beyond the width of the superstructure on either side. The ballast walls on both sides of the waterway have begun to collapse inward (Figure 7).



The piles meant to retain the ballast walls have also begun to lean inward (Figure 8). There is significant vegetative overgrowth and incursion throughout the ballast walls including a tree growing directly behind the wall on the north side of the structure on the west side of the waterway which is pushing the wall inward (Figure 9).

The deck of the subject bridge is constructed of timber planks laid diagonally across the width of the structure with timber curbs on either side (Figure 10 and Figure 11). There are timber railings which are bolted to the exterior of the superstructure. The timber deck and railing system were likely added when the bridge was converted for pedestrian use in 1989 and seem to be in good condition (Figure 12). At the northwest portion of the ballast wall, a tree growing alongside the wall has wound itself through the railing. The railing and a small portion of the bridge deck are overgrown with ivy at the southwest portion of the ballast wall (Figure 13).



Figure 2: South elevation of the subject bridge, looking northeast (A.S.I., 2024)



Figure 3: The bridge superstructure, the beams and railroad ties are visible beneath the railing (A.S.I., 2024)



Figure 4: Detail view of the strapping connecting railroad ties to beams (A.S.I., 2024)



Figure 5: The bents on the eastern side of the bridge, note the leaning cap on the pier along the ballast wall (A.S.I., 2024)



Figure 6: Detail view of the broken piles and severe deterioration on the western piers (A.S.I., 2024)



Figure 7: The southeastern ballast wall. Note the warping of the wall and vegetation growing through (A.S.I., 2024)



Figure 8: Detail view of the leaning northeastern ballast wall pile (A.S.I., 2024)



Figure 9: Detail view of the northwestern ballast wall. The tree pushing the wall inward is visible through the gap in the wall (A.S.I., 2024)



Figure 10: The timber bridge deck, looking southeast (A.S.I., 2024).



Figure 11: Detail view of the bridge deck and timber curb (A.S.I., 2024).



Figure 12: Detail view of the railing system on the southern elevation. Note the bolts connecting the railing to the superstructure (A.S.I., 2024).



Figure 13: Detail view of the tree growing through the railing at the northwest ballast wall (A.S.I., 2024).

4.0 Description and Purpose of Proposed Activity

The proposed replacement of the subject bridge is being undertaken as part of the Rehabilitation or Reconstruction of Meaford Bridge No. 125 Municipal Class Environmental Assessment (M.C.E.A.).

The 2023 Ontario Structural Inspection Manual (O.S.I.M.) report evaluated the bridge as being in generally poor condition with a Bridge Condition Index (B.C.I.) score of 44.5 and recommended replacement of the subject bridge within two years (R. J. Burnside & Associates Limited, 2023). As rehabilitation of the bridge has been deemed infeasible due to the prohibitive cost and the extent of rehabilitation work required, the proposed work for Meaford Bridge No. 125 will include the demolition of the existing bridge and either its replacement with a new structure at the same crossing or the closure of the crossing and rerouting of the Georgian Trail to the neighbouring Edwin Street East bridge.

5.0 Impact Assessment

The following section includes a description of the approach to impact assessments and an impact assessment analysis for the subject bridge.

5.1 Approach to Impact Assessment

To assess the potential impacts of the proposed works on the cultural heritage value of Meaford Bridge No. 125, the identified heritage attributes outlined in Section 2.0 were considered against a range of possible impacts. The scope of this Heritage Impact Assessment (H.I.A.) is provided by the Ministry of Citizenship and Multiculturalism's *Ontario Heritage Toolkit* (Ministry of Culture, 2006). An H.I.A. is a useful tool to help identify cultural heritage value and provide guidance in supporting environmental assessment work. As part of an H.I.A., proposed site alterations and project alternatives are analysed to identify impacts of the undertaking on the heritage resource and its heritage attributes. The impact of the proposed development on the built heritage resource (B.H.R.) or cultural heritage landscape (C.H.L.) is assessed, with attention paid to identifying potential negative impacts, which may include, but are not limited to:

- Destruction of any, or part of any, significant heritage attributes or features;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;



- A change in land use (such as rezoning a church to a multi-unit residence) where the change in use negates the property's cultural heritage value;
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect a cultural heritage resource, including archaeological resources.

Where negative impacts of the development on the B.H.R. or C.H.L. and/or attributes are identified, mitigative or avoidance measures or alternative development or site alteration approaches are considered. Conservation options are outlined in the *Ontario Heritage Bridge Guidelines* (O.H.B.G.) (Ministry of Culture and Ministry of Transportation, 2008), which is regarded as current best practice for conserving heritage bridges in Ontario. While intended for use in the assessment of provincially-owned structures and not directly applicable to the municipal context, the O.H.B.G. ensures that heritage concerns and appropriate mitigation options are considered.

Indirect adverse impacts are identified where activities on or near the structure may adversely affect its cultural heritage value or interest and/or heritage attributes. Positive impacts may also result where a structure's cultural heritage value or interest and/or heritage attributes is conserved or enhanced. As the subject bridge was determined to have cultural heritage value or interest, the proposed structure replacement should be planned in a manner that is visually, physically, and functionally sympathetic to the original structure at the crossing.

5.2 Impact Assessment Analysis

The results of the impact assessment are based on the information provided in the Technical Memo Bridge-125 Rehabilitation Options (Centex Engineering and Development, 2024) the 2023 Ontario Structure Inspection Manual Inspection (O.S.I.M.) Report (R. J. Burnside & Associates Limited, 2023), and additional email communications with Centrex Engineering and Development Inc. It considers possible direct adverse impacts, indirect adverse impacts, and positive impacts. See Section 2.0 for a description of the cultural heritage attributes identified for the subject bridge.



Option 2: Trail Realignment was selected as the preferred alternative for the project. This option includes removing the subject bridge and stabilizing Meaford Creek embankments at the site. The Georgian Trail would be permanently rerouted onto Edwin Street East immediately southwest of the subject bridge. A commemorative plaque would be installed describing the original 1901 timber bridge.

The proposed alterations to the structure include the complete removal of the 1901 timber railway bridge. The complete removal of the subject bridge is a direct, permanent, adverse impact to the identified cultural heritage value or interest (C.H.V.I.) of the structure. All physical heritage attributes including the bridge's timber construction, single span structure, log piles, timber beam stringers, timber abutment walls, and wooden creosote-treated railroad ties are anticipated to be completely removed. The subject bridge is described as being in poor condition with a Bridge Condition Index (B.C.I.) score of 44.5 in the 2023 O.S.I.M. report (R. J. Burnside & Associates Limited, 2023) which recommended the replacement of the structure within two years. Due to the poor condition of the bridge and a review of the financial and engineering constraints, retention of the bridge in-situ with rehabilitation of the existing structure has been deemed infeasible.

Option 2 would also result in direct permanent adverse impacts to the contextual value of the crossing through the closure of the crossing, which has been in use for nearly 125 years as a rail and pedestrian crossing, and the rerouting of the trail away from the historical alignment of the G.T.R. line.

6.0 Considered Alternatives and Mitigation Measures

Three alternatives were reviewed to address the structural deficiencies in the subject bridge. The three preliminary options outlined in the Public Information Centre Presentation (Appendix B) included:

- Option 1: Do Nothing



- Option 2: Trail Realignment
- Option 3: Steel Truss Bridge

The subject bridge is in poor condition and shows considerable signs of deterioration to elements of the substructure. Due to the poor condition of the structure as described in the 2023 O.S.I.M. report (R. J. Burnside & Associates Limited, 2023), Option 1 was deemed infeasible because of the prohibitive cost associated with the extensive rehabilitation work required. Rehabilitation alone would also not address code and service level deficiencies of the existing bridge. Further, it is not a long-term solution, and would only add a year to the service life of the structure (Appendix B).

Option 2: Trail Realignment includes the removal of the subject bridge and the closing of the crossing. In this alternative, the Georgian Trail would be redirected to the existing crossing at Edwin Street East, just southwest of the subject bridge. The proposed work would include improvements to the watercourse embankments, installation of new cast-in-place concrete retaining structures at the existing abutment/wingwall locations, installing guardrails/signage at the watercourse crossing, and minor grading associated with the new trail alignment onto Edwin Street East (Centex Engineering and Development, 2024). A commemorative plaque would also be installed at the crossing describing the 1901 timber bridge (Appendix B).

Option 3: Steel Truss Bridge involves the removal of the subject bridge and its replacement with a new structure at the same crossing. The new structure would be a pedestrian bridge constructed of cast-in-place concrete abutments with a prefabricated steel truss superstructure. The bridge would be designed to carry the load of a winter maintenance vehicle and would be fully compliant with all accessibility standards for pedestrian bridges and multi-use trails (Centex Engineering and Development, 2024).

Option 3: Steel Truss Bridge is the second most preferred option from a cultural heritage perspective as it would retain the contextual value of the crossing and continue its historical function as a crossing over Meaford Creek which has been in use by trains and pedestrians for nearly 125 years. Should this alternative be



selected, the construction of a sympathetically-designed replacement structure should be considered as a means of reducing the impacts to the physical/design value of the crossing. A sympathetic replacement superstructure should be designed to be compatible with the style and character of the subject bridge, be based on physical and documentary evidence such as photographs and original structural drawings, and be mindful of the context, scale, massing, and material of the original structure (Ministry of Culture and Ministry of Transportation, 2008). In this respect, consideration should be given to replacement with similar single-span structure with glue-laminated timber beams. Further, the replacement structure could replicate the subject bridge's trestle construction or incorporate design elements that evoke the trestle design and incorporate a timber deck and railings. A sympathetically-designed replacement bridge would maintain this historical bridging point over Meaford Creek and maintain the crossing's visual links to its historical use as a railway bridge.

Where feasible, the preferred alternative for any bridge with identified cultural heritage value or interest should involve rehabilitating and retaining the structure in situ to maintain the physical/design, historical/associative, and contextual values of the bridge and crossing. Retention and sympathetic rehabilitation with allowances made for inclusion of modern materials to meet current design and safety codes is the preferred option from a heritage perspective as it would retain the heritage attributes identified in Section 2.0 and retain the physical and design value of the subject bridge. Rehabilitation was eliminated from consideration due to the high cost associated with the extensive rehabilitation work required and its failure to address code and service-level deficiencies (Centex Engineering and Development Inc. email communication 13 January 2025).

Option 2: Trail Realignment was selected as the preferred project alternative (Centex Engineering and Development Inc. email communication 9 April 2026). While Option 2 is the most impactful to the identified C.H.V.I. of the subject bridge and crossing, negative impacts could be lessened with full documentation and the development of a suitable commemoration strategy.



Prior to removal, full recording of the structure would ensure proper documentation for archival purposes and ensure suitable material is available for inclusion with a commemoration strategy. The C.H.E.R. (Archaeological Services Inc., 2024) and this H.I.A. are considered to be sufficient documentation.

To reduce negative impacts to the cultural heritage value of the crossing, the development of suitable commemoration should be considered. In this respect, consideration should be given to developing commemorative interpretation at the crossing featuring information relating to the original structure and its use as a rail bridge on the G.T.R. line. Option 2 will address this mitigation measure through the installation of a plaque at the crossing (Appendix B). Consultation should be completed with the Municipality of Meaford regarding any potential commemorative interpretation.

7.0 Summary of Engagement

Community and agency engagement was completed as part of the Meaford Bridge No. 125 Cultural Heritage Evaluation Report (C.H.E.R.) in October 2024 and included email communications with heritage planning staff and development staff at the Municipality of Meaford, the Ministry of Citizenship and Multiculturalism, the Ontario Heritage Trust, and the Grey Roots Museum and Archives (see Section 2.1 of the C.H.E.R. for a full record of consultation). Community engagement determined that the subject bridge was not listed by the municipality, designated under Part IV of the *Ontario Heritage Act*, or subject to any other level of heritage recognition. Further, no properties directly adjacent to the bridge have any heritage recognition.

The Notice of Study Commencement and information on a Public Information Centre (P.I.C.) was sent by Centex Engineering and Development Inc. by email to the following Indigenous groups and communities:

- Aamjiwnaang First Nation;
- Alderville First Nation;
- Aundec Omni Kaning First Nation;



- Chippewas of Georgina Island First Nation;
- Chippewas of Kettle and Stoney Point First Nation;
- Chippewas of Nawash First Nation;
- Chippewas of Rama First Nation;
- Beausoleil First Nation; and
- Métis Nation of Ontario.

No response to email communication was received from any group, and so follow-up telephone communication was completed (Centex Engineering and Development Inc. email communication 8 April 2026). No concerns or additional information regarding cultural heritage resources were provided at the time of report finalization.

The draft report was submitted to the M.C.M and the Municipality of Meaford for review and comment. Feedback received from M.C.M. on 27 May 2025 was considered and incorporated into the final report as appropriate. The final Heritage Impact Assessment will be submitted to the M.C.M., Meaford Museum, and the Municipality of Meaford for their information.

8.0 Recommendations

The preferred alternative, Option 2: Trail Realignment is anticipated to result in direct, permanent, adverse impacts to the cultural heritage attributes of the structure through the complete removal of the original bridge. Mitigation measures outlined in this report have been prepared to further minimize these impacts and should be implemented as appropriate to the extent practicable to ensure impacts to the cultural heritage value of the crossing are reduced.

The following recommendations and mitigation measures have been developed and should be implemented:

1. Where feasible, the proposed undertaking should be designed and executed to ensure the fewest direct and permanent, non-reversible impacts to the identified heritage attributes of the subject bridge. In this respect, Option 1: Do Nothing is the preferred option from the cultural



heritage perspective. However, Option 1 was determined to be infeasible and eliminated from consideration in favour of Option 2: Trail Realignment.

2. To reduce negative impacts to the cultural heritage value of the crossing in Option 2, the development of suitable commemoration should be considered. In this respect, consideration should be given to developing commemorative interpretation at the crossing featuring information relating to the original structure and its use as a rail bridge on the G.T.R. line. Consultation should be completed with the Municipality of Meaford regarding any potential commemorative interpretation.
3. Prior to removal of the subject bridge, full recording of the structure would ensure proper documentation for archival purposes and ensure suitable material is available for inclusion with a commemoration strategy. The cultural heritage evaluation report (C.H.E.R.) (Archaeological Services Inc., 2024) and this heritage impact assessment (H.I.A.) are considered to be sufficient documentation.
4. The proponent should submit this report to heritage staff at the Municipality of Meaford and to the Ministry of Citizenship and Multiculturalism for review. Any feedback will be considered and incorporated into the report, where appropriate. The final report should be submitted to the Municipality of Meaford for future reference.

9.0 References

Archaeological Services Inc., (A.S.I.). (2024). *Cultural Heritage Evaluation Report Meaford Bridge No. 125* [Cultural Heritage Evaluation Report]. On file with A.S.I.

Centex Engineering and Development. (2024). *Technical Memo Bridge BR-125 Rehabilitation Options* [Technical Memo]. On file with the author.

Hughes, R. (2022, January 3). Meaford Railway Stations. *Ontario Railway Stations*. <https://ontariorailwaystations.wordpress.com/home/grey-county/meaford-railway-stations/>

Ministry of Culture. (2006). *Property Evaluation*.
http://www.mtc.gov.on.ca/en/publications/Heritage_Tool_Kit_HPE_Eng.pdf

Ministry of Culture and Ministry of Transportation. (2008). *Ontario Heritage Bridge Guidelines (OHBG) (Interim – January 11 2008)*.

Municipal Engineers Association. (2023, April 27). *Municipal Bridges Criteria for Evaluating Potential for Cultural Heritage Resources (revised April 27, 2023)*.

Parks Canada. (2010). *Standards and Guidelines for the Conservation of Historic Places in Canada*. Canada's Historic Places.
<https://www.historicplaces.ca/media/18072/81468-parks-s+g-eng-web2.pdf>

Public Transportation and Highway Improvement Act, R.S.O. 1990, c.P.50, Ontario Regulation 160/02, Standards for Bridges. (2002).
<https://www.ontario.ca/laws/regulation/r02160>

R. J. Burnside & Associates Limited. (2023). *Meaford Bridge No. 125 OSIM* [Ontario Structural Inspection Manual (OSIM) Report]. On file with the author.



Appendix A: Qualified Persons Involved in the Project

Lindsay Graves, M.A., C.A.H.P.

Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division

The Senior Project Manager for this Heritage Impact Assessment is **Lindsay Graves** (M.A., Heritage Conservation), Senior Cultural Heritage Specialist and Assistant Manager for the Cultural Heritage Division. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Lindsay is academically trained in the fields of heritage conservation, cultural anthropology, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the assessment, evaluation, and protection of above ground cultural heritage resources. Lindsay has extensive experience undertaking archival research, heritage survey work, heritage evaluation and heritage impact assessment. She has also contributed to cultural heritage landscape studies and heritage conservation plans, led heritage commemoration and interpretive programs, and worked collaboratively with multidisciplinary teams to sensitively plan interventions at historic sites/places. In addition, she is a leader in the completion of heritage studies required to fulfill Class Environmental Assessment processes and has served as Project Manager for over 100 heritage assessments during her time at A.S.I. Lindsay is a member of the Canadian Association of Heritage Professionals.

John Sleath, M.A.

Cultural Heritage Specialist, Project Manager - Cultural Heritage Division

The Project Manager for this Heritage Impact Assessment is **John Sleath** (M.A.), who is a Cultural Heritage Specialist and Project Manager within the Cultural Heritage Division with A.S.I. He was responsible for the day-to-day management



activities, including scoping of research activities and site surveys and drafting of study findings and recommendations. John has worked in a variety of contexts within the field of cultural heritage resource management for the past 13 years, as an archaeologist and as a cultural heritage professional. In 2015 John began working in the Cultural Heritage Division researching and preparing a multitude of cultural heritage assessment reports and for which he was responsible for a variety of tasks including: completing archival research, investigating built heritage and cultural heritage landscapes, report preparation, historical map regression, and municipal consultation. Since 2018 John has been a project manager responsible for a variety of tasks required for successful project completion. This work has allowed John to engage with stakeholders from the public and private sector, as well as representatives from local municipal planning departments, museums, and Indigenous nations and organizations. John has conducted heritage assessments across Ontario, with a focus on transit and rail corridor infrastructure including bridges and culverts.

Leora Bebko, M.M.St.

Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division

The report writer for this for this project is **Leora Bebko** (M.M.St.), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division. She was responsible for preparing and contributing research and technical reporting. In Leora's career as a cultural heritage and museum professional she has worked extensively in public programming and education within built heritage spaces. Leora is particularly interested in the ways in which our heritage landscapes can be used to facilitate public engagement and interest in our region's diverse histories. While completing her Master of Museum Studies she was able to combine her interest in heritage architecture and museums by focusing on the historic house museum and the accessibility challenges they face. As a thesis project, Leora co-curated the award-winning exhibit *Lost & Found: Rediscovering Fragments of Old Toronto* on the grounds of Campbell House Museum. Since completing her degree she has worked as a historical interpreter in a variety of heritage spaces, learning a



range of traditional trades and has spent considerable time researching heritage foodways and baking in historic kitchens. In 2022, she joined A.S.I.'s Cultural Heritage team as a Cultural Heritage Technician.



Appendix B: Public Information Centre Presentation

Public Information Centre

Municipal Class Environmental Assessment – Schedule B

Bridge BR-125 Replacement

Bridge BR-125 Replacement

Presentation Overview

1. Public Information Centre Overview
2. Project Background and Study Area
3. Project Objectives
4. Potential Replacement Solutions
5. Project Status and Next Steps
6. How to Provide Feedback

Bridge BR-125 Replacement

Public Information Centre Overview

The Purpose of this Public Information Centre is to:

- Present the need for the project to the public.
- Describe the study area, project objectives, and project constraints.
- Identify potential replacement options.
- Provide an opportunity for the public to provide feedback.

Bridge BR-125 Replacement

Project Background and Study Area

Study Area:

- BR-125 is located along the Georgian Trail, immediately North of Edwin St.
- BR-125 provides active transportation passage over Meaford Creek.
- The Georgian Trail is 34 km long and runs between Meaford and Collingwood along the decommissioned Grand Trunk Railway line (est. 1872).

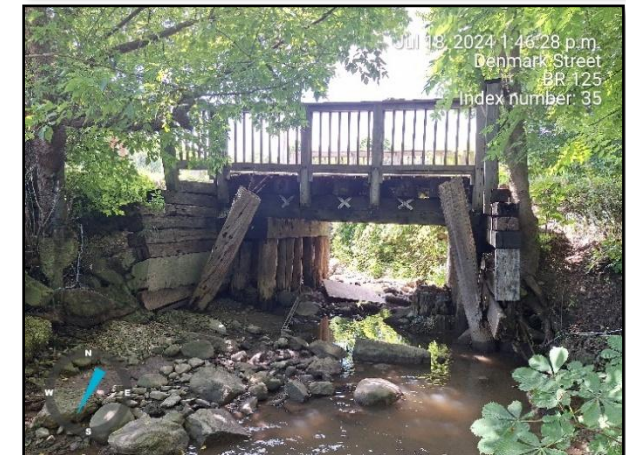


Bridge BR-125 Replacement

Project Background and Study Area

Existing Bridge:

- BR-125 is a single span timber trestle railway bridge which was constructed in 1901. It is supported by timber piles which have seen severe deterioration at the waterline.
- BR-125 was identified as requiring replacement during structural inspections carried out in 2023 by R.J Burnside & Associates Ltd.



Bridge BR-125 Replacement

Project Background and Study Area

Cultural Heritage Evaluation Report:

- BR-125 was identified as meeting two out of nine criteria outlined in the Ontario Heritage Act (O. Reg. 9/06) for having cultural heritage at the local level based on the Cultural Heritage Evaluation Report (CHER) completed by Archaeological Services Inc.
- BR-125 was constructed in 1901 alongside three other similar timber trestle structures, making it one of the four oldest bridges in the Municipality. These four bridges are the only timber bridges in the Municipality.

Bridge BR-125 Replacement

Project Objectives

Project Objectives:

- Replace BR-125 to address public safety concerns due to bridge's advanced age.
- Maintain access along the stretch of the Georgian Trail between Margaret St. and Edwin St. in an economical way.
- Maintain or document BR-125's cultural heritage.
- Identify the communities preferred replacement option.

Bridge BR-125 Replacement

Replacement Option #1 – Do Nothing

Option #1 Overview:

- Perform minor maintenance and regular monitoring of BR-125 to prolong the closure of the structure for one year.
- Permanently close the Trail at BR-125 after one year by erecting signage and barriers. Redirect the Trail onto the surrounding roadways.

Option #1 Timeline:

Jun 2026 to Jul 2026

Option #1 Costs:

\$30,000

Option #1 Lifespan:

1 Year, with Monitoring Program

Pros	Cons
• Extends decision period for future replacement.	• Bridge remains a public safety risk. • Construction costs will rise in the future.

Bridge BR-125 Replacement

Replacement Option #2 – Trail Realignment

Option #2 Overview:

- Remove BR-125 and stabilize Meaford Creek embankments at the site.
- Permanently reroute Georgian Trail on to Edwin St. and construct 15 meters of new trail west of Meaford Creek.
- Commemorative plaque to be installed describing the original bridge.

Option #2 Timeline:

Jun 2026 to Aug 2026

Option #2 Costs:

\$204,000

Option #2 Lifespan:

Infinite, with annual maintenance

Pros	Cons
• Lowest replacement cost. • Lowest long-term maintenance and lifecycle costs.	• Complete loss of heritage value.

Bridge BR-125 Replacement

Replacement Option #3 – Steel Truss Bridge

Option #3 Overview:

- Remove BR-125 and replace it with a prefabricated steel truss pedestrian bridge. Stabilize embankments at site.
- Commemorative plaque to be installed describing the original bridge.

Option #3 Timeline:

Jun 2026 to Sep 2026

Option #3 Costs:

\$380,000

Option #3 Lifespan:

65 Years

Pros	Cons
• Common structure, easy to construct. • Allows trail to retain original route.	• Loss of most heritage value. • Highest replacement and lifecycle cost.

Bridge BR-125 Replacement

Project Status and Next Steps

PHASE 1: Problem or Opportunity

Identify the Problem or
Opportunity

PHASE 2: Alternative Solutions

Identify Alternative Solutions to
Problem or Opportunity

Select Municipal Class EA
Schedule

Complete Cultural Heritage
Evaluation Report

Complete Heritage Impact
Assessment

Public Consultation
WE ARE HERE

Select Preferred Solution

Notice of Completion to Review
Agencies and Public

Consultation Period Open for 30
Days Following Public Information
Centre

Review Public Feedback

PHASE 3: Implementation

Detailed Design

Tender and Select Contractor

Construction

Bridge BR-125 Replacement

How to Provide Feedback

- Submit feedback form provided at this PIC.
- Contact:

Cassandra Cesco

Project Manager, Facilities
Municipality of Meaford
Phone: 519-538-1060 ext. 1316
Email: ccesco@meaford.ca

Brendan Kaus

Engineering Project Manager
Centex Engineering & Development
Phone: 519-630-8824
Email: brendan@centexed.com

Comments must be received within 30 days following this Public Information Centre.

APPENDIX E: NOTICES

Municipality of Meaford

Municipal Class Environmental Assessment Schedule B Replacement of Pedestrian Bridge BR-125



NOTICE OF STUDY COMMENCEMENT & PUBLIC INFORMATION CENTRE

Engineering Department

Public Notice Issued: January 29, 2026

Project Details

The pedestrian bridge identified as BR-125 is approaching the end of its useful service life and must be removed in order to maintain public safety. BR-125 has been determined to contain cultural heritage value within the local context. The Municipality of Meaford is evaluating various replacement or trail relocation options available to maintain access along the Georgian Trail, north of Edwin Street.

This assessment is being undertaken in accordance with the planning and design process for Schedule B projects, as outlined in the Municipal Class Environmental Assessment (2023) document, which is approved under the Ontario Environmental Assessment Act.



Structure: BR-125 – Georgian Trail over Meaford Creek Pedestrian Bridge

Location: Georgian Trail, 12m north of Edwin Street (44°36'05. 5"N 80°35'13.6"W)

Public Information Centre Details

You are invited to attend a Public Information Centre to learn more about this project and to provide feedback. General information regarding replacement alternatives under consideration will be on display in an informal "Open House" setting. Members of the project team will be available to answer questions and discuss issues related to the project.

Date: Tuesday, February 17, 2026 from 4:00 p.m. to 6:00 p.m.

Location: Meaford Hall, Terrace Room,
12 Nelson Street East, Meaford, ON

How To Participate

Public, Indigenous Community, and stakeholder input and comment are invited, for incorporation into the planning and design of this project and will be received until March 22, 2026. Subject to the identification of a preferred plan to replace bridge BR-125, and the receipt of necessary approvals, the Municipality of Meaford intends to proceed with this project and complete all work prior to the end of the 2026 calendar year.

If you have any questions about this project please contact:

Cassandra Cesco
Project Manager, Facilities
Municipality of Meaford
519-538-1060 ext. 1316
ccesco@meaford.ca

Brendan Kaus
Engineering Project Manager
Centex Engineering & Development
519-630-8824
brendan@centexed.com

For more information about this project or the planning process being followed, please scan the QR code or visit: meaford.ca/br125.



Notice of Collection of Personal Information:

Any personal information that is voluntarily provided by members of the public will be collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With the exception of personal information, all comments shall become part of the public record. Questions regarding the collection, use, and storage of personal information should be directed to the Project Manager listed above.

Municipality of Meaford

Municipal Class Environmental Assessment Schedule B Replacement of Pedestrian Bridge BR-125



NOTICE OF STUDY COMPLETION

Engineering Department

Public Notice Issued: May 7, 2026

Study Details:

The Municipality of Meaford has completed the study to identify the preferred replacement option for BR-125. Alternatives were evaluated for feasibility, cost, public and stakeholder input, and cultural heritage. A Notice of Study Commencement and Public Information Centre inviting public input was published on January 29, 2026.

This assessment has been undertaken in accordance with the planning and design process for Schedule B projects, as outlined in the Municipal Class Environmental Assessment (2023) document, which is approved under the Ontario Environmental Assessment Act.



Structure: BR-125 - Georgian Trail over Meaford Creek Pedestrian Bridge

Location: Georgian Trail, 12m north of Edwin Street (44°36'05. 5"N 80°35'13.6"W)

Preferred Alternative:

Through the evaluation of design alternatives and consultation with relevant agencies and the public, a preferred solution has been selected. The preferred solution involves removing the existing structure and rerouting the Georgian Trail onto the sidewalk of Edwin Street East and over Meaford Creek, utilizing the existing road bridge. A heritage plaque is to be erected to document and honour the cultural heritage that BR-125 possessed.

Project File Report:

A Project File Report has been prepared to document the planning and decision-making process completed as part of this study. To Access the Project Report, visit the project webpage at www.meaford.ca/BR125

Consultation and Input

By this notice, the report will be placed on the public record at the location indicated above, and comments will be accepted for a period of 30 days starting May 7, 2026, and ending June 6, 2026. If you have questions or comment regarding the report, please contact one of the Project Team members below.

If you have any questions about this project please contact:

Joel Saunders

Project Manager
Municipality of Meaford
519-538-1060 ext. 1319
jsaunders@meaford.ca

Brendan Kaus

Engineering Project Manager
Centex Engineering & Development
519-630-8824
brendan@centexed.com

For more information about this project or the planning process being followed, please scan the QR code or visit: meaford.ca/br125.



Notice of Collection of Personal Information:

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APPENDIX F: CONSULTATION RECORDS

First Name	Last Name	Title	Address	Town	Postal Code	Telephone	Email
Agencies							
Ms. Kim	Benner	Ontario Ministry of Natural Resources and Forestry, Midhurst District Office, District Planner	Government Complex, 2284 Nursery Rd.	Midhurst, Ontario	L9X 1N8	Ph.: (705) 725-7500 Fax: (705) 725-7584	
Anastasia	Abrazhevich	Ministry of Citizenship and Multiculturalism	56 Wellesley Street West, 14 th Floor	Toronto, Ontario	M7A 2E7	Ph.: (437) 240-2379	anastasia.abrazhevich@ontario.ca
Area Director		Ontario Ministry of Environment and Climate Change, Owen Sound Area Office	101 7th Street E. 3rd Floor	Owen Sound Ontario	M4K 0A5	Toll Free: 1-(800) 265-3783 Ph.: (519) 371-2901	
Mr. Patric	Hoy	Director of Transportation Services, Grey County	Transportation Services Dept. 595 9th Ave East	Owen Sound Ontario	N4K 2E3	Ph.: (519) 372-0219	patric.hoy@grey.ca
Mr. Andy	Sorensen	Grey Sauble Conservation Authority, Environmental Planning Coordinator	237897 Inglis Falls Road RR4	Owen Sound Ontario	N4K 5N6	Ph.: (519) 376-3076 Fax: (519) 371-0437	a.sorensen@greysauble.on.ca
MPP							
Mr. Paul	Vickers	Paul Vickers MPP	345 8th Street East, Suite 105B	Owen Sound Ontario	N4K 1L3	Ph.: (519) 371-2421	paul.vickers@pc.ola.org
EMS-FIRE-POLICE							
Mr. Mike	Muir	Director of Paramedic Services, Grey County , EMS	Paramedic Services, 595 9th Avenue East	Owen Sound Ontario	N4K 3E3	Ph.: (519) 371-5744 ext. 1242 Fax: (519) 376-0967	mike.muir@grey.ca
Chief Mike	Givins	Fire Chief Chatsworth Fire Department	75 McNab Street. P. O. Box 278	Chatsworth, Ontario	N0H 1G0	Ph.: (519) 794-3232 ext. 829	chattyfd@hotmail.com
Chief Carl	Lithorne	Fire Chief - Inter-township Fire Department	180 12th Street West	Owen Sound Ontario	N4K 3V2	Ph.: (519) 376-9933	
		Detachment Commander, Meaford Ontario Provincial Police	390 N Sykes St	Meaford, Ontario	N4L 1J4	Ph.: (519) 538-1220	
		Detachment Commander, Chatsworth Ontario Provincial Police	317057 Hwy 6	Chatsworth, Ontario	N0H 1G0	Ph.: (519) 794-7827	
		Detachment Commander, Markdale Ontario Provincial Police	23 Greenview Lane	Markdale, Ontario	N0C 1H0	Ph.: (519) 986-2211 Fax: (519) 986-2219	
Utilities							
Ms. Julie	Martin	Hydro One Zone Office Georgian Bay Field Business Office	45 Sarjeant Drive, P.O. Box 6700	Barrie, Ontario	L4M 5N5	Ph.: 1-(888) 238 2398 ext. 6507	FBCBarrie@HydroOne.com; julie.martin@hydroone.com
Mr. Greg	Goetz	Bell Canada Planning	Access Network, P.O. Box 400	Owen Sound, Ontario	N4K 5P7	Ph.: (519) 371-5450	greg.goetz@bell.ca
First Nations							
Consultation Unit		Ministry of Indigenous Relations and Reconciliation	160 Bloor St. East, 9th Floor	Toronto, Ontario	M7A 2E6	Ph.: (416) 326-4757	maa.ea.review@ontario.ca
Mr. Aly	Alibhai	Director of Land Resources & Consultation	The Metis Nation of Ontario 500 Old Saint Patrick Street Unit 3	Ottawa, Ontario	K1N 9G4	Ph.: 1-(888) 466-6684 Cell: (613) 798-1488	Stephanie alya@metisnation.org; consultation@meetisnation.org

First Name	Last Name	Title	Address	Town	Postal Code	Telephone	Email
Chief Joanne	Rogers	Aamjiwnaang First Nation	Administration Band Office, 978 Tasmoo Ave.,	Sarnia, Ontario	N7T 7H5	Ph.: (519) 336-8410 Fax: (519) 336-8410	info@cottfn.com
Chief Jim Bob	Marsden	Alderville First Nation	Administration Office P.O. Box 46, 11696 2nd Line	Alderville, Ontario	K0K 2X0	Ph.: (905) 532-2011 Fax: (905) 352-3242	jniles@alderville.ca; afnreception@alderville.ca
Patric	Madahbee	Chief	Aundec Ommi Kaning First Nation Band Office, 13 Hill St., RR1, Box 21	Little Current, Ontario	P0P 1K0	Ph.: (705) 368-2228 Fax: (705) 368-3563	corbierep@aokfn.com
Donna	Big Canoe	Chief	Chippewas of Georgina Island Administration Office RR2 Box N- 13	Sutton West, Ontario	L0E 1R0	Ph.: (705) 427-1337 Fax: (705) 437-4593	jl.porte@georginaisland.com; natasha.charles@georginaisland.com
Tom	Bressette	Chief	Chippewas of Kettle and Stoney Point 6247 Indian Lane	Lambton Shores, Ontario	N0N 1J1	Ph.: (519) 786-2125 Fax: (519) 786-2108	fdesk@kettlepoint.org
Ms. Rose	Lememan	Band Administrator	Chippewas of Nawash First Nation 135 Lakeshore Blvd.	Wiarton, Ontario	N0H 2T0	Ph.: (519) 534-1689	humanresources@nawash.ca
Chief Rodney	Noganosh	Chippewas of Rama First Nation	5884 Rama Road, Suite 200	Rama, Ontario	L3V 6H6	Ph.: (705) 325-3611 Toll Free: 1-(866) 854-2121 Fax: (705) 325-0879	info@orillialakecountry.ca
A Dan	Monague	Beausolleill First Nation, Administrator First Nation	11 0' Gemaa Miikaans	Christian Island, Ontario	L9M 0A9	Ph.: (705) 247-2051 Fax: (705) 247-2239	info@chimnissing.ca
Municipal							
		Mayor & Council	Internal Circulation				
		Municipal Clerk	Internal Circulation				
		City Manager	Internal Circulation				
		Planner	Internal Circulation				
Doran	Ritchie	Land Use Saygeeb Ojibway Nation Environmental Office	25 Maadookii Subdivision	Neyaashiinigmiing, Ontario	N0H 2T0	Ph.: (519) 534-5507 ext. 226 Fax: (519) 534-5525	d.ritchie@saugeenojibwaynation.ca
	Coordinator	Historic Saugeen Metis	204 High Street	Southampton, Ontario	N0H 2L0	Ph.: (519) 483-4000	saugeenmetis@bmts.com
	Director	Great Lakes Metis, Lands, Resources & Consultations	380 9th St E	Owen Sound, Ontario	N4K 1P3	Ph.: (519) 370-0435	
Town of Collingwood						Ph.: (705) 445-1030	service@collingwood.ca

**Municipal Class Environmental Assessment Schedule B
Replacement of Pedestrian Bridge BR-125 – Feedback Form**

**Municipal Class Environmental Assessment Schedule B
Replacement of Pedestrian Bridge BR-125 – Feedback Form**

Name: [REDACTED] Phone: [REDACTED] Email: [REDACTED]

Address: [REDACTED]

Comments:

I prefer option #2. This appears to be a permanent solution at less cost. My concern is the other 3 bridges along the trail. How will we plan to address this now!

Would you like to receive updates regarding this project? Yes ☒ No ☐

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**Municipal Class Environmental Assessment Schedule B
Replacement of Pedestrian Bridge BR-125 – Feedback Form**

Name: [redacted] Phone: [redacted] Email: [redacted]@recloud.com

Address: [redacted]

Comments:

opt #2

Would you like to receive updates regarding this project? Yes ☒ No ☐

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Municipal Class Environmental Assessment Schedule B
Replacement of Pedestrian Bridge BR-125 – Feedback Form

Name: [REDACTED] Phone: [REDACTED] Email: [REDACTED] B.G.
[REDACTED] mail.com
Address: [REDACTED]

Comments:

Option Two Sounds like the best

Would you like to receive updates regarding this project? Yes ☒ No ☐

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Municipal Class Environmental Assessment Schedule B
Replacement of Pedestrian Bridge BR-125 – Feedback Form

Name: [REDACTED] Phone: 519 [REDACTED] Email: [REDACTED] 46

Address: [REDACTED]

Comments:

- Use existing streets instead of trail to avoid bridge
- close trail at Margaret St.

Would you like to receive updates regarding this project? Yes ☒ No ☐

Notice of Collection of Personal Information:

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Brendan Kaus

From: [REDACTED]
Sent: March 11, 2026 12:20 PM
To: Joel Saunders
Subject: Re: Bridge 125 - Aiken

You don't often get email from [REDACTED]. [Learn why this is important](#)

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Thank you for your quick response and details.

I agree that Option 1 is not feasible. Although the bridge survived last weekend's flood waters, the bridge is deteriorating quickly and needs removal.

Hopefully a historic plaque with a photo/engraving of the construction of it?

Option 3 seems an expensive proposition for a small bridge, only because of the availability of Option 2. Option 2, I believe, is most economical and would support the needs of the community for as long as Georgian Trail exists.

At \$204,000, Option 2 is 54% of the cost of Option 3 (\$380,000). Option 2 will be a permanent solution. Trail maintenance for this +/- 100 foot section should be nominal given that we are already maintaining a number of kilometers of Georgian Trail. Option 2 will consist of raising the ground level, compacting and applying gravel. Once done, there should be nominal maintenance. Unless I am missing something, this appears to be, basically, a one time expense.

Yes Option 3 may be a 65 year bridge, but ALL bridges require some maintenance in that time and therefore more money outlay during its life. I also believe Option 2 is more in keeping with the natural trail aspects.

These are my thoughts/opinions.

David

On Mon, 9 Mar 2026 at 09:23, Joel Saunders <jsaunders@meaford.ca> wrote:

Hi [REDACTED]

Thanks for reaching out. I realize we likely missed adding a link to the [project website](#) which includes slides from the Public Information Centre (PIC) that was held in February. I have attached the slides from the PIC for reference as I believe they will answer most of your questions, but I will answer here as well.

1. Option 1 – Do Nothing/Maintain as is = \$30,000 + a monitoring program, structure may need to be closed in about a year.

2. Option 2 – Trail Realignment & removal of old structure = \$204,000, annual maintenance of the trail
3. Option 3 – Steel Truss Bridge Replacement = \$380,000, expected lifespan of 65 years.

We have asked our consultant (Centex) to consider multiple solutions for Option 3, and a steel truss bridge has been recommended as the best replacement option. I can tell you that a steel culvert would have a lower life span (40 years) and that the trail would likely need to be raised to allow the installation of the steel culvert. The proximity to the bridge on Edwin Street is likely a factor as well. Unfortunately, I don't have a cost estimate for the steel culvert option currently.

I hope this helps and please do write us with your final thoughts prior to March 22, 2026, so that they can be captured as part of the Environmental Assessment (EA) process.

Have a great day.

Regards,

Joel Saunders

Project Manager – Infrastructure, Municipality of Meaford

519 538-1060 ext.1319 | jasaunders@meaford.ca

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From: David R [REDACTED]
Sent: March 8, 2026 6:44 PM
To: Cassandra Cesco <ccesco@meaford.ca>; Joel Saunders <jasaunders@meaford.ca>
Cc: Brandon Forder <bforder@meaford.ca>
Subject: Bridge 125 - Aiken

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I have reviewed the information available for the retention/rehabilitation, or replacement of, or rerouting of this bridge/walkway. As a member of the Heritage committee meeting this Wednesday afternoon, I am asking what the costs would be for the 3 options, and perhaps a fourth as outlined below.

I am also wondering if another option, removing the old bridge, erecting a heritage plaque, and installing a steel culvert and filing over it with gravel to continue the same path, has been considered and at what cost.

Hopefully you have some estimates or at least "guesstimates" ?

Thanks

[REDACTED]

[REDACTED]

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Brendan Kaus

From: Cassandra Cesco <ccesco@meaford.ca>
Sent: March 2, 2026 11:25 AM
To: Joel Saunders
Subject: FW: Br 125 Consultation
Attachments: PedestrianExample.png

FYI



Cassandra Cesco, C.E.T
Project Manager, Facilities
Municipality of Meaford
21 Trowbridge Street West, Meaford
519 538-1060 ext.1316 | ccesco@meaford.ca
[Twitter](#) | [Facebook](#) | meaford.ca

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From: [REDACTED]
Sent: Monday, March 2, 2026 10:08 AM
To: Cassandra Cesco <ccesco@meaford.ca>
Subject: Br 125 Consultation

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Good morning Cassandra,

Thank you for your time at the Public Meeting last month regarding Br 125 on the Georgian Trail. As per our discussion at that time, I mentioned a historic bridge that was replaced in East Gwillimbury with a prefabricated metal structure for pedestrian use that is also part of a rail to trail system.

Some ideas:

- full engineering survey of area with elevations
- consult with Meaford Heritage Committee
- tender for design from prefabricated bridge manufacturer (completed construction including delivery and placement) and separately if needed for grading and realignment of trail
- removal of the existing wooden structure and replacement with a prefabricated metal pedestrian bridge as shown in the attached photo from Algonquin Bridge. Width would require maintenance equipment)
- temporarily rerouting the trail from north of Edwin St to north of the proposed new prefabricated metal bridge construction area
- remove existing wooden structure and regrade river embankments
- installing concreted bases north and south sides for prefabricated bridge
- erect commemorative signage
- remove temporary trail detour and regrade trail to original alignment

It will enable the continuous historic alignment and safety concerns of permanently having pedestrians rerouted on a municipal well travelled roadway.

The other bridges that will need replacing can follow the same design that will allow consistency on the trail system.

Costs and expediency for pre-engineered bridges are much less than built in place concrete and are durable.

Pre-engineered bridges are common and have shown to be easy to maintain.

Best regards

██████████
██████████

"May you live all the days of your life" **An Irish Toast**

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