

1. Introduction:

- 1.1 This report has been prepared by Doug Evans BES BArch AAGradDipl.
- 1.2 This report has been prepared at the request of the Committee (phone call EC to DE on 10 Sept 2020) to review and summarise the matter stated on the Agenda for the 22 June 2020 Brockton Heritage Committee meeting, Agenda item 11.1.

2. Summary of GM BluePlan Engineering Ltd (GMBP) letter dated 8 June 2020 requesting review and comment:

- 2.1 GMBP have initiated a Municipal Class Environmental Assessment (EA) process to address the deteriorating condition of Greenock Bridge No.002 on Bridge Street in Riversdale.
- 2.2 In a letter emailed and dated 8 June 2020, GMBP have requested that the Brockton Heritage and Library Committee review and provide comment on the Cultural Heritage Evaluation Report and Preliminary Heritage Impact Assessment dated 25 Aug 2018 prepared by Scarlett Janusas Archaeology Inc which was prepared as part of the background documentation for the EA process.
- 2.3 GMBP have requested the Brockton Heritage and Library Committee to confirm the following:
 - 1. That the Brockton Heritage and Library Committee has reviewed the CHER/HIA (revised August 2018).
 - 2. The Brockton Heritage and Library Committee supports (or otherwise) the conclusions with respect to the cultural heritage value assigned to the Riversdale Bridge.
 - 3. The Brockton Municipal Heritage Committee supports (or otherwise) the removal and/or replacement of the Riversdale Bridge.
 - 4. The Brockton Municipal Heritage Committee supports (or otherwise) the mitigation measures proposed in the CHER/HIA (summarized below) for the alternative(s) being considered at this time.
- 2.4 The GMBP letter includes a summary and findings of the Janusas heritage evaluation and impact assessment report and requests that the Brockton Heritage and Library Committee review these findings and “provide concurrence or other commentary”.
- 2.5 The letter refers to mitigation options and alternatives in “Ontario Heritage Bridge Guidelines Conservation Options”. This guidance document is no longer publicly available and therefore can’t be consulted.

- 2.6 The letter offers an opinion that rehabilitation is not be a viable option for the bridge, due to “the significant cost, marginal increase in life span, and the low traffic volume on this road”. The letter does not include any detail on how this opinion was arrived at.
- 2.7 GMBP does not specifically state but appears to be recommending that the bridge should be removed and replaced, and without providing any detail of how this was arrived at.
- 2.8 The GMBP letter then concludes by listing several “proposed mitigation measures” and requests that the Brockton Heritage and Library Committee consider these mitigation measures and “provide concurrence or other commentary”. The proposed mitigation measures are:
- Commemoration with plaque,
 - Archival of CHER/ HIA report and other documentation with Walkerton Library and County Museum,
 - Salvage of bridge elements for incorporation or display.

3. Summary of Janusas Archaeology’s Cultural Heritage Evaluation Report and Preliminary Heritage Impact Assessment dated 25 Aug 2018

- 3.1 The Cultural Heritage Evaluation Report and Preliminary Heritage Impact Assessment (CHER/HIA) dated 25 Aug 2018 by Scarlett Janusas Archaeology Inc is a 90-page report with maps, diagrams, photos, tables and a number of appendices. The report is arranged in sections as follows:
- Project description (the Janusas report)
 - Historical background
 - Archaeological assessment
 - Cultural heritage landscape description
 - Built heritage description
 - Cultural heritage resource evaluation
 - Cultural heritage impact assessment
 - Appendices
- 3.2 Janusas project involvement:
- The Janusas report is presented as “preliminary” to inform stakeholders in the Environmental Assessment (EA) process.
 - Janusas Archaeology have been engaged by GMBP to carry out a cultural heritage evaluation and preliminary heritage impact assessment on remediation proposals for Riversdale Bridge.

- The Riversdale Bridge is an 8-panel rivet-connected Pratt through truss fixed bridge with one span probably built in 1905.
- A note at the conclusion of this section notes that “community engagement and public consultation will be completed as part of the EA process” but does not say when or by whom.

3.3 Historical background:

- The village of Riversdale was being settled by 1850 and was first surveyed in 1885. A steam saw and grist mill was built by George Cromar in 1857. The Presbyterian church was dedicated in 1880.
- A bridge across the Teeswater River in the location of the current bridge is noted on the plan prepared by George Cromar dated 1856; it was probably a wooden bridge though precise details are not known.
- The 1880 Illustrated Historical Atlas shows a crossing over the Teeswater River in the location of the current bridge.
- Janusas includes a short history of bridge building in Ontario and a history of truss bridges including the Pratt truss.
- In the 19th century most bridges in southern Ontario were built of timber. A few iron truss bridges were built in the 1870s and 1880s. Less expensive steel trusses came into use in the 1890s.
- Due to the demand for steel trusses in the 1890s several specialised local bridge companies were established including the Hunter Bridge and Boiler Company of Kincardine.
- The Riversdale Bridge is a fixed 8-panel rivet-connected Pratt through truss, and a type of bridge constructed between 1844 into the 20th century.
- The December 1892 minutes of the Bruce County Road and Bridge Committee note a structure known as “Cromar’s Bridge” at a length of 124 ft, and located just south of the land owned by George Cromar, the location of the current bridge.
- A tender for a “riveted Pratt steel truss bridge” was submitted by the Hunter Bridge and Boiler Company to build the “Riversdale North Bridge” in 1905; this is thought to be the current bridge.
- The Hunter company was established in Kincardine in 1887 by the brothers Alexander and Robert Hunter who came from Brantford.

3.4 Archaeological assessment

- There are no registered archaeological sites within 1 km of the bridge site.
- An archaeological survey was made on site in May 2017 by Scarlett Janusas. No archaeological sites were noted during the survey and no further archaeological assessment was recommended.

3.5 Cultural heritage landscape description

- The geographical context of the bridge is described in relation to the Teeswater River, the village of Riversdale, the Municipality of Brockton and Bruce County.
- The Teeswater River is not on the list of Canadian Heritage Rivers (App.E)

3.6 Built heritage description

- The report quotes the online resource historicbridges.org. The website is a survey of all North American bridges built before 1970 and of heritage value.
- Riversdale Bridge is included in the historicbridges.org survey and is described as an 8-panel rivet-connected Pratt through truss fixed, and of “fairly light weight” construction.
- The physical attributes of the bridge are described including the approaches, the concrete abutments, dimensions, the steel trusses, and the wooden bridge deck.
- The Janusas report quotes a bridge inspection carried out in July 2014 (Palmay 2015) which is not included in the report (the inspection report noted in the contents as being Appendix A).
- Janusas quotes the inspection noting that “the structure appears to be in overall fair to poor condition”, that the “steel superstructure ... appears to be in overall fair condition and structurally adequate”, and the “concrete substructure appears to be in overall poor condition”.
- The Janusas report also notes that “there appears to be no major modifications made to the bridge” and that “the majority of bridge retains historic integrity of both materials and design”.
- As of the date of the report there were only 40 rivet-connected Pratt truss bridges remaining in Ontario, including 5 in Bruce County.
- Since the report was written in 2018 another rivet-connected Pratt through truss has been lost in Bruce County (Big Irwin Bridge, Brant-Elderslie Townline). There are now only four bridges of this type remaining in the county.
- There are only eight 8-panel Pratt rivet-connected trusses remaining in Ontario, and Riversdale Bridge is the only one of this specific bridge type in Bruce County.
- The report fails to note that no other bridges built by Hunter’s of Kincardine are known to survive anywhere in the province.

3.7 Cultural heritage resource evaluation

- Janusas applies the criteria for determining cultural heritage value or interest in accordance with Ontario Regulation 9/06 and determines that Riversdale Bridge has design and physical value, historical and associative value, and contextual value.

- The report finds that Riversdale Bridge has design value and physical value because it is “a rare, unique, representative or early example of a style, type, expression, material or construction method”.
- However, Janusas is **not of the opinion** that the bridge “displays a high degree of craftsmanship or artistic merit”, or “demonstrates a high degree of technical or scientific achievement”.
- The report finds that the bridge has historical value and associative value because it has “direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community”, and “yields, or has the potential to yield, information that contributes to an understanding of a community or culture, and “demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community”.
- The report finds that the bridge has contextual value because it is “important in defining, maintaining or supporting the character of an area” and is “physically, functionally, visually or historically linked to its surroundings”,
- However, Janusas is **not of the opinion** that the bridge is a landmark.
- The section includes a “**Statement of Cultural Heritage Value**”. Statements of cultural heritage value or interest are used by municipalities to identify and protect places in their communities that have cultural heritage value, and to describe why a property should be designated. Statements of cultural heritage value or interest should convey why a property is important and merits designation, explaining cultural meanings, associations and connections a property holds for the community. The Statement included in the Janusas report does all of these, and more.
- The section concludes by reiterating that Riversdale Bridge is “considered to be of cultural heritage value or interest” and is therefore “worthy of consideration” by the municipality for registering the bridge on a municipal heritage register or to designate the bridge under Part IV of the Ontario Heritage Act.

3.8 Cultural heritage impact assessment

This section examines in detail the impact on the cultural value or interest of Riversdale Bridge of 9 remediation alternatives for addressing the continuing deterioration of the bridge:

- Retaining the existing bridge with no major modifications would have **no impact**.
- Repairing the existing bridge by restoring missing or deteriorated elements would have **no impact**.
- Repairing the existing bridge with sympathetic alterations would have **no impact**.
- Retaining the existing bridge beside a new bridge would have **no impact** on the design and physical value, or the historical and associative value, but would have **some impact** on the contextual value.

- Retention of the bridge for pedestrian and bicycle traffic only and for scenic viewing would have **minor impact** on the design and physical value, **no impact** on the historical and associative value, and **some impact** on the contextual value.
- Retention of the bridge as a “heritage monument” for viewing purposes only would have **no impact** on the design and physical value, or the historical and associative value, but would have **some impact** on the contextual value.
- Relocation of the bridge for adaptive re-use to another site would have **considerable impact** on the design and physical value, the historical and associative value, and the contextual value.
- Demolition and replacement of the bridge with salvage of elements for reuse in a new structure would have **considerable impact** on the design and physical value, the historical and associative value, and the contextual value.
- Demolition and replacement of the bridge with full recording and documentation of the structure would have **considerable impact** on the design and physical value, the historical and associative value, and the contextual value.

3.9 Appendices

- The structural inspection report referred to in the report Contents is not included.
- Appendix A is a Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Checklist used by the Municipal Engineers Association. The checklist was completed by Scarlett Janusas in March 2018 and is based on the standard MEA checklist from 2014 which has since been superseded by a revised standard MEA checklist in June 2020.
- Appendix B is a standard bridge survey form by Janusas.
- Appendices C through H include the results of record searches. Riversdale Bridge is not on any lists, either municipal, provincial or federal, as being of cultural heritage value or interest. The Teeswater River is not on the list of Canadian Heritage Rivers.
- Appendix I includes Scarlet Janusas’ professional CV.

4.0 Recommendations

4.1 GMBP have requested the Brockton Heritage and Library Committee to confirm the following:

1. That the Brockton Heritage and Library Committee has reviewed the CHER/HIA (revised August 2018).
2. The Brockton Heritage and Library Committee supports (or otherwise) the conclusions with respect to the cultural heritage value assigned to the Riversdale Bridge.

3. The Brockton Municipal Heritage Committee supports (or otherwise) the removal and/or replacement of the Riversdale Bridge.
4. The Brockton Municipal Heritage Committee supports (or otherwise) the mitigation measures proposed in the CHER/HIA (summarized below) for the alternative(s) being considered at this time.

GMBP have asked the Committee to “provide concurrence or other commentary”. We have considered each of these four requests and give our recommendations below.

- 4.2 Brockton Heritage and Library Committee review of the Janusas CHER/HIA report dated August 2018:

Recommendation: The Committee should decide amongst themselves that the CHER/HIA report has been reviewed to their satisfaction.

- 4.3 Support (or otherwise) of the conclusions with respect to the cultural heritage value assigned to the Riversdale Bridge: The report appears to have several deficiencies as noted in the commentary below:

Commentary:

- The Committee should take into account the fact that the community engagement and public consultation referred to in the Janusas report section 1.1, has not been completed as part of the EA process.
- The Committee should take into account the fact that since the Janusas report another rivet-connected Pratt through truss has been lost in Bruce County (Big Irwin Bridge, Brant-Elderslie Townline). There are now only four bridges of this type remaining in the county.
- The Committee should take into account the fact that Riversdale Bridge is the only bridge remaining in Ontario known to have been built by the Hunter Bridge and Boiler Company of Kincardine.
- The Committee should take into account the facts that the bridge’s light weight construction and early date (1905) and fabrication by a local company all indicate that the bridge does in fact display a high degree of craftsmanship or artistic merit, and demonstrate a high degree of technical or scientific achievement.
- The Committee should consider whether they agree with the report’s opinion that the bridge is **not a local landmark** by reason of it not being visible from Highway 9, and whether they agree with the narrow and possibly inappropriate definition of “landmark” used in the report.

Recommendation: The Committee should request that community engagement and public consultation should be completed as part of the EA process.

Recommendation: The Committee should request that Scarlett Janusas Archaeology Inc. reconsider the findings in section 6.2 Table 2 of their report in light of the above commentary.

Recommendation: The Committee should request that GMBP reconsider their letter dated 8 June 2020 in light of the above commentary.

4.4 Support (or otherwise) of the proposed removal and/or replacement of the Riversdale Bridge:

Commentary:

- The GMBP letter appears to only propose one alternative for the bridge, removal and replacement.
- The GMBP letter does not go into any detail about what the other alternatives are for dealing with the Riversdale Bridge. By reviewing GMBP reports on other bridges in the region we have noted that likely alternatives can include:
 - Do nothing,
 - Rehabilitate, eg. retain and repair the existing,
 - Remove and replace with new bridge in same location,
 - Do nothing and build a new bridge in the vicinity of the old bridge.
- The documentation provided to Brockton Heritage Committee does not include a bridge structure inspection report.

Recommendation: The Committee should request that GMBP consider all the possible alternatives for remediation of Riversdale Bridge and provide the Committee with details of these for their consideration.

Recommendation: The Committee should request that GMBP provide the Committee with a copy of the inspection report referred to in the Janusas report (Palmay 2015) for its consideration.

4.5 Support (or otherwise) of the mitigation measures proposed in the CHER/HIA for the alternative(s) being considered at this time:

Commentary:

- The GMBP only proposes mitigation measures for the one alternative they have considered, removal and replacement.

Recommendation: The Committee should request that GMBP propose additional mitigation measures for all the possible alternatives for remediation of Riversdale Bridge and provide the Committee with details of these for their consideration.

4.6 Conclusion:

- The Committee should note that there are deficiencies in the GMBP letter dated 8 June 2020.
- The Committee should note that there are deficiencies in the Janusas report dated August 2018.
- The Committee should decide amongst themselves that the CHER/HIA report has been reviewed to their satisfaction.
- The Committee should request that community engagement and public consultation should be completed as part of the EA process.
- The Committee should request that Scarlett Janusas Archaeology Inc. reconsider the findings in section 6.2 Table 2 of their report in light of the above commentary.
- The Committee should request that GMBP reconsider their letter dated 8 June 2020 in light of the above commentary.
- The Committee should request that GMBP consider all the possible alternatives for remediation of Riversdale Bridge and provide the Committee with details of these for their consideration.
- The Committee should request that GMBP provide the Committee with a copy of the inspection report referred to in the Janusas report (Palmay 2015) for its consideration.
- The Committee should request that GMBP propose additional mitigation measures for all the possible alternatives for remediation of Riversdale Bridge and provide the Committee with details of these for their consideration.