

To:	Warden Milne and Members of Grey County Council
Committee Date:	February 9 th , 2023
Subject / Report No:	TR-CW-02-23
Title:	Holland Sydenham Townline Bridge (Structure 22)
Prepared by:	Pat Hoy, Director of Transportation Services
Reviewed by:	Randy Scherzer Deputy CAO
Lower Tiers Affected:	Municipality of Meaford & Township of Chatsworth
Status:	Recommendation adopted by Committee as presented per Resolution CW32-23; Endorsed by County Council February 23, 2023, per Resolution CC19-23.

Recommendation

1. That report TR-CW-02-23, regarding Holland Sydenham Townline Bridge (Structure 22), be received for information.

Executive Summary

Structures 21 and 22 are located in the Municipality of Meaford on a deviation of the Holland Sydenham Townline Road north of Walters Falls. Due to identified structural deficiencies, the Municipality of Meaford has closed the structures since 2016. There has been ongoing interest by local residents and businesses to have the road reopened.

Grey County staff have completed some investigations in accordance with the questions posed in Report TR-CW-20-21. This report provides an update on the investigations to date which can be discussed further with County Council, Meaford Council and Chatsworth on what options, if any, can be considered.

No legal obligation of the County in respect of Structure 22 has been identified. If Structure 22 were deemed to be under the authority of the County, then County staff would recommend that Structure 22 be closed and removed based on the preferred recommendation identified in the Municipal Class Environmental Assessment (EA). The County currently owns and maintains a total of 206 bridge and culvert structures spanning more than 3 metres (140 being bridges and 66 structural culverts). The 206 bridge and culvert structures have a total replacement cost of \$338 million and approximately ½ of the structures have a rating between fair and poor to very poor with approximately \$5.4 million estimated backlog as per the 2021 Asset Management Strategy. Many of these structures are on County roads and therefore support a significant portion of the movement of people and goods throughout the County and therefore would be considered a higher priority than Structure 22.

Background and Discussion

On September 23, 2021, Grey County Transportation took report TR-CW-20-21 to the Committee of the Whole. The report recommended that some investigation be completed to gain insight into the structures. As part of the investigations, staff also reviewed the previous municipal staff reports that were presented to the Municipality of Meaford Council and the Township of Chatsworth Council regarding these two bridge structures including the municipal class environmental assessment (EA) completed for these two structures as well as a preliminary design report completed by RJ Burnside and Associates.

The following link will give an overview of some of the key timelines and decisions that have been made regarding these structures over the past few years:

[Key Timelines and Decisions Associated with Structures 21 and 22 - Holland Sydenham Townline](#)

The following is a response to questions contemplated in County Staff Report TR-CW-20-21 based on the research conducted by staff:

1. History of the structure, including when it was built, who built the structure, and who paid for the original construction and ongoing maintenance of these structures.
Transportation Services would work with Grey Roots Archives staff to search for any potential historical records.

The County has investigated historical by-laws and has discovered no previous County role in the building, maintaining, or inspecting either of the structures.

2. What are the liabilities/risks associated with this structure in its current state?

The current structure represents a potential liability as pedestrians and all-terrain vehicles are still using the structures even though they are closed. Grey County has previously removed similar closed structures as local users will typically move any barricades installed. There are currently no railings on the structure.

3. Confirming what the costs would be to replace Structure 22.

The 2020 OSIM report states a replacement value of \$945,000. The [Municipal Class EA prepared by PlanMac](#) in 2017 estimated the construction cost to replace both structures would be between \$750,000 to \$4,053,600 depending on the structure width (i.e. single lane bridge versus two lane bridge) and depending on the construction type (i.e. steel plate culvert, cast in place concrete culvert, or precast concrete culvert). A [Preliminary Design Report](#) for replacement options for Bridges 21 and 22 was completed by RJ Burnside and Associates in 2020. Nine different bridge types were evaluated by RJ Burnside including both one-lane and two-lane options. The construction cost ranges to replace both structures vary from approximately \$900,000 to just over \$2,000,000 according to the Preliminary Design Report. The RJ Burnside report did note that each bridge type has constraints that could result in some of the bridge construction options not being viable. The viable options could result in costs anywhere within the identified range, and on the higher end if the structures are replaced with a two-lane bridge.

The costs estimates do not contemplate any improvements that would be required to be made to the road if the bridges were to be replaced with a two-lane structure as currently the road platform has been designed primarily in line with the single lane bridge structures that exist

there today. The costs to upgrade the road platform would be the sole responsibility of the Township of Chatsworth and the Municipality of Meaford.

The cost estimates provided by RJ Burnside are approximately 2 to 3 years old and given the increase in construction costs over the past couple of years, County staff anticipates that the replacement costs would be higher than the estimates. The non-residential building construction price index based on the preceding twelve-month period ending September 30th, 2022 was 15.6%. In 2021, this was 11.7%. Applying the construction price index experienced over the past two years to the construction price estimates for replacing Bridges 21 and 22 would see the range increase to between \$1.15 million and \$2.7 million.

In addition to the construction cost estimates, there would also be costs to complete an EA addendum and there would also be on-going maintenance costs for the two structures.

4. Confirming the plans/intentions of the Municipality of Meaford and the Township of Chatsworth respecting Structure 21, e.g., if Structure 22 were to be replaced, would the Municipality of Meaford and Township of Chatsworth commit to replacing and maintaining Structure 21?

Chatsworth has indicated that they are awaiting the result of the Grey County report to determine the best course of action; however to date the Township of Chatsworth Council has supported the original EA recommendation to close and remove Bridge 21 and Bridge 22. Meaford has indicated that if Grey were to replace Structure 22, they would anticipate that Meaford and Chatsworth could split the costs on Structure 21. As noted above, there would also be the costs to improve the road platform to the west and east of these structures and this would be on top of the construction estimates that have been provided to date and would be the sole responsibility of the local municipalities.

5. Is there a more cost-effective solution for all parties, e.g., replacing the two structures with one and sharing the cost three ways?

Grey County has received correspondence from the Grey Sauble Conservation Authority regarding the feasibility of combining the structures into one rather than two. Generally, stream realignments are to be avoided. There are many challenges regarding the project, including:

- a. Completion of correspondence with the Department of Fisheries and Oceans.
- b. Completion of correspondence with the Niagara Escarpment Commission.
- c. Detailed topographic survey and conceptual site plan.
- d. Detailed engineering plans.
- e. Completion of an environmental impact study by a qualified biologist/ecologist to assess any significant natural heritage features or ecological functions
- f. Assessments of flows and capacity completed by a qualified engineer (likely a hydrogeomorphologist)
- g. Structural drawings and design.

The above-noted work represents a significant investment in costs and time with no guarantees that the studies and investigations will conclude that this is a viable option. It is not currently in the budget or ten-year capital for Grey County, as Structure 22 has not been identified as a Grey County asset.

If Structure 22 was under the authority of the County, then County staff would recommend that Structure 22 be closed and removed based on the preferred recommendation identified in the Municipal Class EA. The County currently owns and maintains a total of 206 bridge and culvert structures spanning more than 3 metres (140 being bridges and 66 structural culverts). The 206 bridge and culvert structures have a total replacement cost of \$338 million based on 2021 estimates and approximately 42% of the structures have a rating of fair, poor or very poor. The 2021 Asset Management Strategy estimated a bridge and culvert backlog of \$5.4 million due to structures functioning beyond their expected lifespans that will likely need to be replaced in the next few years. Many of the 206 bridge and culvert structures are on County roads and therefore support a significant portion of the movement of people and goods throughout the County. The majority of these structures would be considered a high priority asset in comparison to Structure 22.

Should the respective council's wish to explore other options beyond what is recommended in the Municipal Class EA, it is recommended that prior to exploring further options that the Municipal Class EA be updated first to see if a preferred alternative recommendation can even be considered. Following the Municipal Class EA update, if a preferred alternative recommendation is provided, then it would be recommended that a preliminary design report be updated to explore all viable options and to provide updated cost estimates, including the estimated costs to upgrade the road both east and west of the structures, so that the respective council's have all the updated information they need to explore any potential alternative options.

6. Are there other options that the Municipality of Meaford and the Township of Chatsworth could consider that the County could assist with (e.g., leasing the road/structures to landowners/farmers in the area that would benefit from keeping this access open? Making this road a private road (which would include the structures) and transferring ownership to landowners/farmers through a road association that would own and maintain the road/structures?).
7. Other legislation and legal considerations may need to be explored further.

Such options for the structures and the road may be feasible, but Grey County does not have experience with such approaches and cannot advise on what may be recommendable. Any such option will very likely involve legal considerations and both Meaford and Chatsworth are encouraged to obtain legal advice on them.

Another option for consideration may be to close the road, designate the land as a trail, and build a lower standard one-lane crossing. This option would need further investigation by the Township of Chatsworth and the Municipality of Meaford if there was interest.

Figure 1: Map Showing Location of Structures 21 and 22



Legal and Legislated Requirements

After a review of County By-laws 737 (1909) and 1102 (1928) amending it, the relevant provincial law, the location of the Structure 22 and the road crossing it, and the history of its maintenance and control, no legal obligation of the County with respect to Structure 22 has been identified.

Financial and Resource Implications

Grey County Transportation Services does not currently have any resources budgeted to carry out future designs of Structure 22.

Relevant Consultation

- Internal – CAO, Deputy CAO, Legal, Clerks
- External - Discussions with Meaford, Chatsworth and local area residents

Appendices and Attachments

[Meaford Structure 21 and 22 Environmental Assessment \(Pages 10 to 46\)](#)

[RJ Burnside Preliminary Design Report - Bridges 21 and 22Townline Bridge By-law 1102](#)

[Meaford Report INF2021-08 Structures 21 and 22 Legal review June 2021](#)

[Comments from Grey Sauble Conservation Authority](#)

[TR-CW-20-21 Holland Sydenham Townline Bridges 21 and 22](#)

