

Staff Report



To	City Council
Service Area	Infrastructure, Development and Enterprise Services
Date	Monday, May 4, 2020
Subject	Emma Street to Earl Street Pedestrian Bridge Schedule B Municipal Environmental Assessment

Recommendation

1. That staff be authorized to complete the Schedule B Municipal Class Environmental Assessment process for the Emma Street to Earl Street Pedestrian Bridge and issue a notice of completion to place the Project File on the public record for the mandatory 30 day public review period and proceed with the implementation of the preferred alternative as outlined in report 2020-121.
 2. That Council direct staff to initiate a site-specific Official Plan Amendment to implement the preferred alternative for the Emma Street to Earl Street Pedestrian Bridge.
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Executive Summary

Purpose of Report

The purpose of this report is to advise Council of the completion of the Emma Street to Earl Street Pedestrian Bridge Municipal Class Environmental Assessment (EA), Schedule B, provide an overview of the report findings and present the preferred alternative.

Key Findings

As directed by [Council on July 20 2015](#), City of Guelph (City) staff completed a Schedule B EA for a pedestrian bridge across the Speed River from the west end of Emma Street to the east end of Earl Street.

The Municipal Class EA opportunity statement for the Emma Street to Earl Street pedestrian bridge is as follows:

The Emma Street to Earl Street bridge shall ultimately be designed as a pedestrian and cycling bridge, that provides a car free route for cyclists and pedestrians traveling between downtown and the north-east corner of the City of Guelph, with the least impact on the natural environment within the Speed River Corridor.

Five alternatives were evaluated as part of the Municipal Class EA:

1. Do Nothing or Null Alternative.

2. Alternative 1 – Single Span Bridge, which would involve a single span cable-stayed bridge over the entire Speed River valley.
3. Alternative 2a – Two-Span Bridge (Overhead Hydro Relocation), which would involve a two-span truss bridge with one support pier and hydro pole relocation within the left overbank area of the valley.
4. Alternative 2b – Two-Span Bridge (Hydro within Structure), which would also involve a two-span truss bridge with one support pier within the left overbank area of the valley.
5. Alternative 3 – Three-Span Bridge, which would involve a three-span truss bridge with two support piers within the valley.

Two Public Information Centres (PIC) were held for this project. The first occurred on October 25, 2016 and was attended by fifty-five persons, and the second occurred on June 7, 2017 and was attended by thirty-three persons. Both were held at the Evergreen Seniors Community Centre at 683 Woolwich Street, which is located approximately one km from the proposed bridge location.

The evaluation process identified Alternative 2b – Two-Span Bridge (Hydro within Structure) as the preferred solution that balances tradeoffs between cost / complexity and environmental impacts. Construction of the preferred alternative for the pedestrian bridge requires a site-specific Official Plan Amendment (OPA) to address a technical inconsistency between the objectives and intent of the NHS and a permitted use.

Financial Implications

The estimated cost to design and construct the preferred solution for the Emma Street to Earl Street Pedestrian Bridge is \$1.68 million excluding taxes. The costs to design and construct the pedestrian bridge will be incorporated into the City's Capital budget forecast beginning in 2021. The long term maintenance costs will be incorporated into future operating budgets after the bridge is designed and constructed (estimated to be 2024-2025).

Report

Introduction and Project History

In June 2015, the City of Guelph (City) brought a report (Attachment-4) to City Council (Council) summarizing the results of the Speedvale Avenue road design improvements from Manhattan Court to Woolwich Street including bridge replacement over the Speed River (Attachment-4). As part of the Speedvale Avenue road design project, a detailed analysis of design alternatives was considered. The results of the analysis identified that bike lanes would not be part of the preferred road design alternative for the full length of reconstruction due to various constraints. It was identified in the Speedvale Avenue report that this direction was in contradiction to the City's 2009 bike policy and 2013 Cycling Master Plan. As a result, Council passed a [resolution on July 20 2015](#) directing staff that:

- An exemption from the 2009 Bike Policy and 2013 Cycling Master Plan be provided to permit the reconstruction of Speedvale Avenue East from Manhattan

Court to Woolwich Street without bicycle lanes, as outlined in the report to Council

- Staff be directed to commence an Environmental Assessment for a pedestrian bridge across the Speed River from the west end of Emma Street to the east end of Earl Street.

Based on Council's direction, City staff initiated a Schedule B Class Environmental Assessment (EA) study to investigate opportunities to provide a pedestrian connection between Emma Street and Earl Street. The goal of the EA was to strike a balance between public transportation needs, safety, and impacts to the natural environment by evaluating alternatives for a pedestrian bridge that could connect Emma Street to Earl Street and the TransCanada Trail over the Speed River. A key purpose for the bridge is to provide a car-free route for cyclists and pedestrians traveling between downtown and the northeast corner of the city. For historical context, this potential connection was first identified in the Guelph Trail Master Plan (2005) and is further identified as a connection in the Official Plan under Schedule 6: Open Space System Trail Network.

The EA has followed Phases 1 and 2 of the planning and design process, with Phase 5 (Implementation) to follow. The EA study was undertaken by Aquafor Beech Limited, in association with Lura Consulting and ASI, to determine if a pedestrian bridge is warranted and, if so, to select the preferred bridge type and configuration. The study area is shown in Figure 1. The study involved ecological inventories, geomorphic assessment, hydraulic analysis, archaeological assessment, hydrogeological review, generation and evaluation of alternatives, public consultation, and selection of the preferred solution. Key stakeholders were identified through an Engagement and Communications Plan:

- City of Guelph River Systems Advisory Committee
- City of Guelph Environmental Advisory Committee
- Heritage Guelph
- North Riverside Neighbourhood Group
- Exhibition Park Neighbourhood Group
- Guelph Coalition for Active Transportation
- Speed River Cycling Club
- Guelph Off Road Bicycling Association
- Guelph Hiking Trail Club
- Friends of Homewood Grounds
- Trout Unlimited Canada
- Izaak Walton Fly Fishing Club

Provincial Agencies

- Grand River Conservation Authority
- Ministry of Natural Resources and Forestry
- Ministry of the Environment and Climate Change
- Ministry of Aboriginal Affairs
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of Tourism and Culture
- Ministry of Transportation

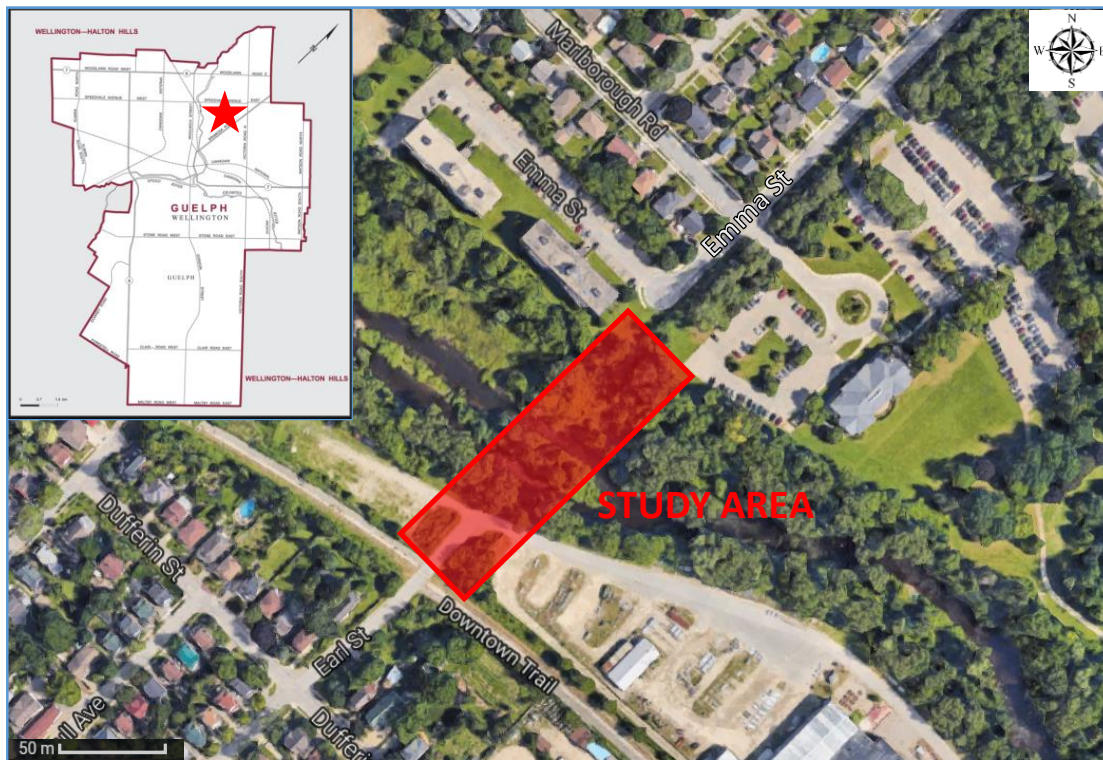
Federal Agencies

- Canadian Environmental Assessment Agency
- Department of Fisheries and Oceans
- Environment Canada
- Indian and Northern Affairs

Utilities

- Enbridge Pipelines
- Union Gas
- Hydro One

Figure 1 Study Area



Existing Conditions

Topographic Survey, Infrastructure, and Utilities

A detailed total station survey was undertaken to accurately define the topographic conditions of the developed lands at the edges of Emma Street and Earl Street, with a focus on the Speed River valley setting where the bridge would need to cross. This survey highlighted that the Speed River valley has an approximate width of 90m with mature vegetation on the slopes.

Emma Street maintains a rounded court with mixed density residential properties to the north and Homewood Health Centre to the south. A sidewalk extends along the northerly side of Emma Street, and Earl Street ends at the Speed River without a curb, and provides access to the Armtech industrial facility to the south, and an additional Armtech storage area to the north. No sidewalks extend along Earl Street.

The TransCanada Trail crosses Earl Street, running parallel to the railway line.

Storm sewers outlet near the toe of slope at both Emma Street and Earl Street, with both sewers providing tertiary treatment (i.e. Oil Grit Separators) prior to outletting into the river.

A watermain extends under the river, which was open cut, and concrete encased. Chamber 29 along with a drain valve and manhole are located approximately 3m away from the left bank and an aboveground hydro line extends across the river, with one hydro pole and footing within the left overbank area.

Hydraulic Analysis

A Hydraulic Model of the Speed River was obtained from the Grand River Conservation Authority (GRCA) and refined to more accurately represent the conditions within the study area.

The hydraulic results confirm that all flows up to and including the Regional flood are confined within the Speed River valley walls, and do not spill beyond the top of slope. Any pedestrian bridge proposed to span the corridor will require confirmation of 'no negative impacts to flooding'. Furthermore, channel and overbank shear values within the study area are relatively low indicating that scouring around pier supports would be unlikely.

Geomorphic and Stream System Assessment

A geomorphic assessment of the study area was undertaken to define the existing conditions of the Speed River at the proposed bridge location. This assessment was used to provide recommendations regarding span, erosion hazard risks, abutment offsets, and orientation of the bridge to maximize the longevity of the bridge and minimize impacts to the river and/or future maintenance works.

The Speed River, between Speedvale Avenue and Eramosa Road, is relatively natural, with limited channel hardening or anthropogenic influences. The river corridor is relatively wide (90m), with steep banks, that provide sufficient space for natural migration of the river. Within the extents of the study area, there is a large permanent island that has formed in the center of the channel, splitting the river into two branches. The majority of the flow is contained to the south side of the island, where the channel has an approximate bankfull width of 13m. The bankfull width along the northern side of the island is approximately 14m. There was no excessive scour or erosion within the study area. The mature vegetation along the banks suggests that this section of the Speed River is stable, and not undergoing any significant lateral channel migration.

Natural Heritage Assessment

The Speed River corridor is part of the City of Guelph's natural heritage system (NHS), and includes areas of significant woodland, significant valleyland, locally significant wetlands, significant wildlife habitat and fish habitat.

A total of 9 vegetation units were identified within the study area, including 8 distinct community types.

A total of 118 species of vascular plants were catalogued during three-season botanical inventories, vegetation community classification surveys, and wetland evaluations within the study area. Of the 107 species identified to the species level, 76 (64%) are native to Ontario and 42 (36%) are introduced species, which is reflective of the disturbed nature of the vegetation communities within the valley

corridor. None of the species recorded during surveys are of global, national, or provincial significance. Two species recorded during surveys are considered rare in Guelph: Cut-leaved Coneflower and Riverbank Wild Rye. These species are growing on an island in the Speed River.

A total of 91 trees equal to or greater than 100mm DBH were surveyed within the study area. These trees are mostly in fair (29%) condition or dead (26%), and most living trees are mid-aged to mature. Manitoba Maple and Black Locust are the dominant species, making up 29% and 26% of the surveyed trees, respectively. No endangered species were identified in the study area during the tree surveys. The Arborist assessment concluded that only 14% of the trees in the study area are of high preservation priority.

Fisheries information solicited from the Ministry of Natural Resources and Forestry (MNR) indicates that the Speed River is listed as a cool-water system. A Department of Fisheries and Oceans (DFO) review should be completed as part of detailed design.

Wildlife

Breeding bird surveys, calling amphibian surveys, and active hand searches for snakes were conducted within the study area. Incidental wildlife observations were documented on all site visits. No snakes were found on the site and low numbers of mainly common and widespread bird and amphibian species were documented during surveys.

Species at risk have not been previously recorded within the study area; however, the area could support or contain Endangered bat species and/or several species of conservation concern. An Information Gathering Form should be completed and submitted to the Ministry of Environment, Conservation and Parks (MECP) as part of any future bridge detailed design work due to potential impacts to bat habitat trees.

Archeological Assessment

The property inspection determined that parts of the study area retain archaeological potential and require Stage 2 archaeological assessment by test pit survey prior to any development.

Two previously registered archaeological sites are located within one kilometre of the study area.

A Stage 2 archaeological assessment should be completed as part of any future bridge detailed design work due to potential impacts to archaeological resources.

Hydrogeology

Groundwater in the study area has been classified as vulnerable and there is a municipal well approximately 400m from the study area. The surficial geology has been identified as mainly sand-based and bedrock elevation is close to the surface elevation.

Evaluation of Alternatives

The City conducted an evaluation of several alternatives to address the following EA opportunity statement:

The Emma Street to Earl Street bridge shall ultimately be designed as a pedestrian and cycling bridge, that provides a car free route for cyclists and pedestrians

traveling between downtown and the north-east corner of the City of Guelph, with the least impact on the natural environment within the Speed River Corridor.

The alternatives evaluated included:

1. Do Nothing or Null Alternative.
2. Alternative 1 – Single Span Bridge, which would involve a single span cable-stayed bridge over the entire Speed River valley.
3. Alternative 2a – Two-Span Bridge (Overhead Hydro Relocation), which would involve a two-span truss bridge with one support pier and hydro pole relocation within the left overbank area of the valley.
4. Alternative 2b – Two-Span Bridge (Hydro within Structure), which would also involve a two-span truss bridge with one support pier within the left overbank area of the valley.
5. Alternative 3 – Three-Span Bridge, which would involve a three-span truss bridge with two support piers within the valley.

The evaluation considered several items including, but not limited to, City policies, public feedback, technical considerations, environmental considerations, and financial considerations. The following subsections provide:

- a summary of the public consultation process
- a brief commentary for each alternative
- a detailed evaluation matrix

A more detailed summary of the evaluation is contained in the EA Summary report presented in Attachment-2.

Public Consultation

Two Public Information Centres (PIC) were held for this project. The first occurred on October 25, 2016 and was attended by fifty-five persons, and the second occurred on June 7, 2017 and was attended by thirty-three persons. Both were held at the Evergreen Seniors Community Centre at 683 Woolwich Street, which is located approximately one km from the proposed bridge location.

On June 7th, 2017 a second PIC was held to present four alternatives for a proposed pedestrian bridge connecting Emma Street to Earl Street over the Speed River, as well as seek community feedback on the evaluation of alternatives for the bridge and the preferred alternative.

Twenty-four participants provided feedback on the preferred alternative. Half of the participants supported the preferred alternative. Participants in support of the preferred alternative stated that they supported the choice because:

- there is a significant need for cycling and pedestrian access between east and west neighbourhoods (alternative to Speedvale) and expanding the active transportation network in Guelph;
- it allows for the lowest impact on the surrounding environment; and
- any bridge is better than no bridge.

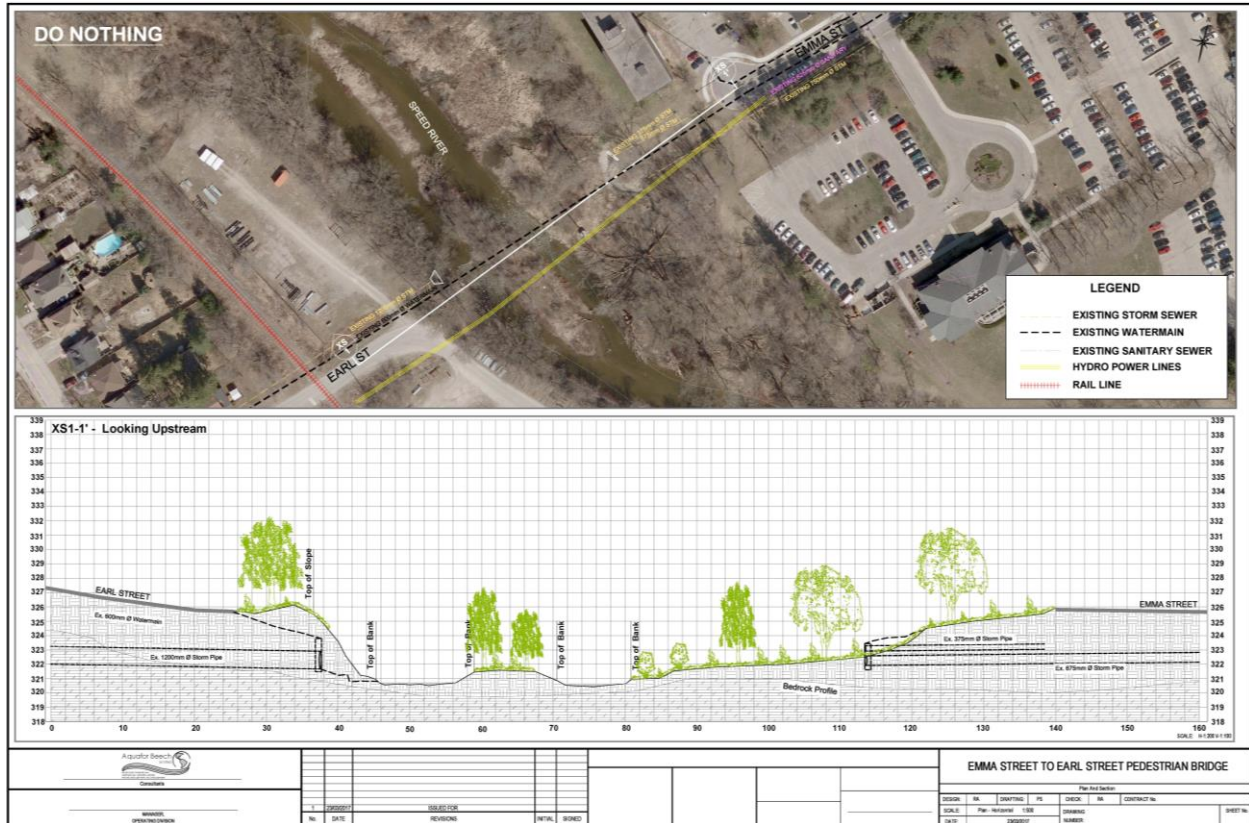
The other half of the participants expressed their disapproval of the preferred alternative and provided concerns related to cost, environmental impact, safety concerns with the Armtec Plant and potential for increased crime. Dissenting

comments were also received due to a perceived lack of need and prioritization of this project over other city needs.

The proposed preferred alternative incorporates feedback from PIC 2 and provides a more economical and more environmentally-appropriate solution. Safety and aesthetic concerns will continue to be reviewed through the detailed design stage.

Nothing or Null Alternative

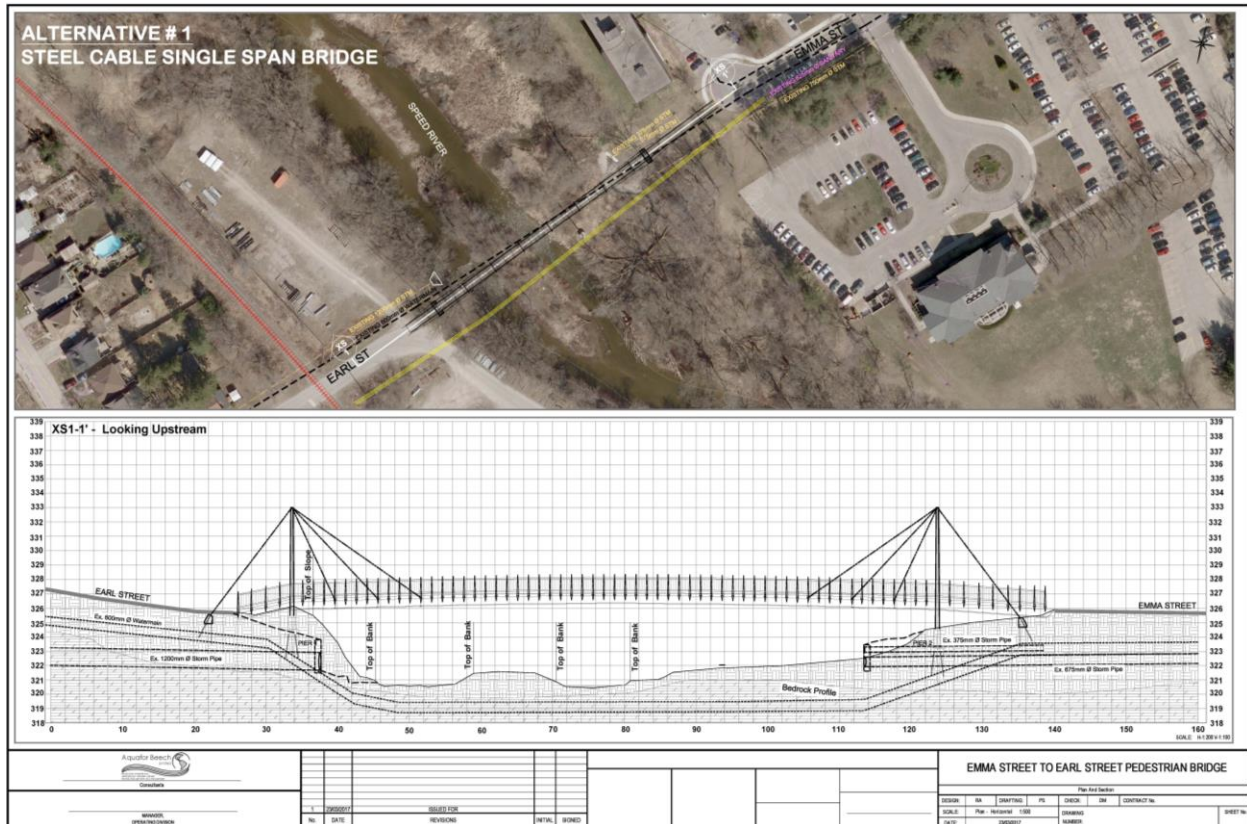
Figure 2 Do Nothing Alternative or Null Alternative



This alternative would not address the bridge crossing identified in the Guelph Trail Master Plan, Official Plan and Cycling Master Plan and would result in reduced connectivity for pedestrians and cyclists between downtown and the northeast. This alternative eliminates any impact (positive or negative) on the NHS and its features and functions. There would be no capital cost to the City.

Alternative 1 – Single Span Bridge

Figure 3 Alternative 1 Steel Cable Single Span Bridge



This alternative is a single span cable-stayed bridge with a span of approximately 90m. The bridge deck would be supported by steel cables running directly between two girders located beyond the top of slope but within the limits of the NHS.

Alternative 1 has higher capital costs but requires less permitting by restricting construction within the valley as well as avoiding in-water works.

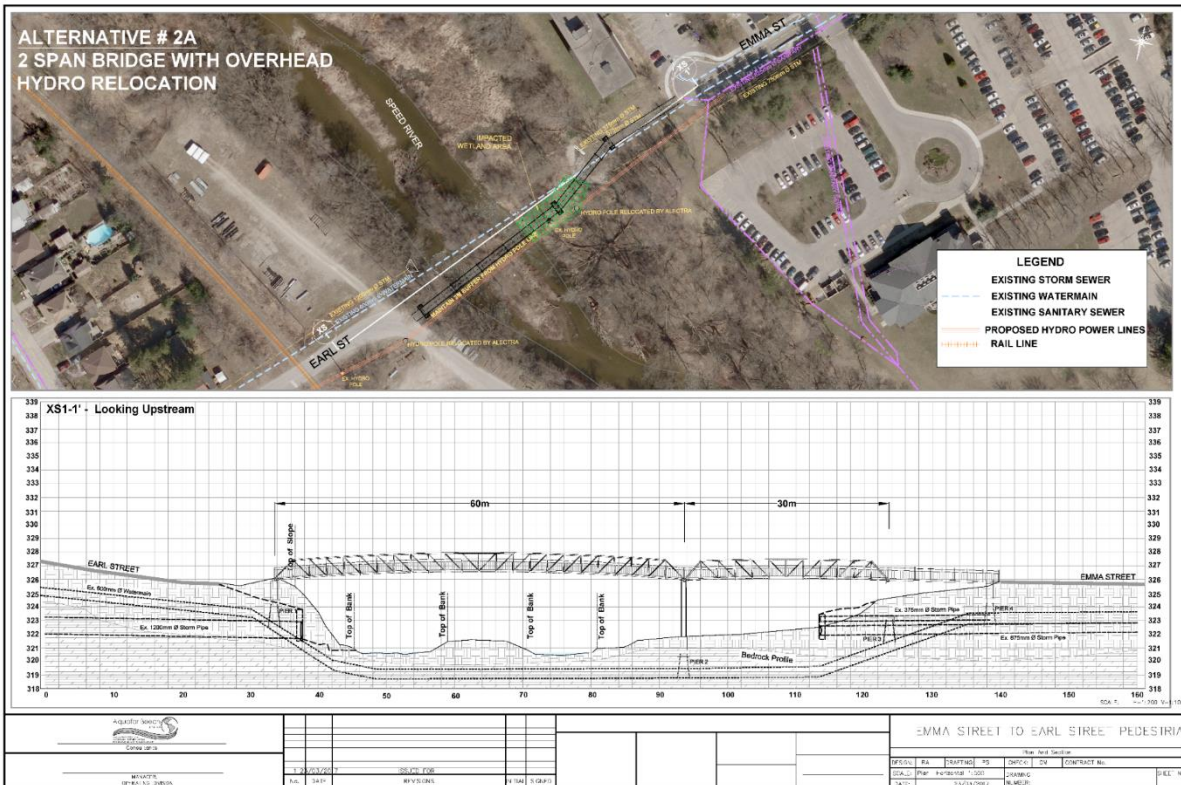
This alternative would require a site-specific OPA to list essential transportation infrastructure as a permitted use in significant woodlands, significant wetlands, significant wildlife habitat and their buffers.

Alternative 1 reduces construction-related impacts within the riparian corridor and fish habitat; however, a new permanent corridor of cleared vegetation would be required to accommodate the bridge alignment, in addition to the existing hydro corridor which would remain in place. This would result in an approximate 18m gap in the tree canopy within the NHS. There would be no opportunity to remove the upstream historic fill to restore riparian wetland conditions.

Alternative 1 would have a negative impact to significant woodlands; would result in a reduction in urban forest canopy cover; and would not meet the objectives or intent of the NHS. Therefore, a site-specific OPA would not be supportable.

Alternative 2a – Two-Span Bridge (Overhead Hydro Relocation)

Figure 4 Alternative 2a Double Span Steel Truss Bridge (Hydro relocated)



Alternative 2a is a two-span truss bridge with one support pier located in the north overbank area of the valley. The bridge structure would consist of one continuous truss approximately 60m in length, and one simple truss approximately 30m in length. This alternative proposes alignment of the bridge within the existing hydro corridor. The two-span truss bridge would require installation of a single pier within the left overbank area of the valley as well as relocation of the northern hydro pole.

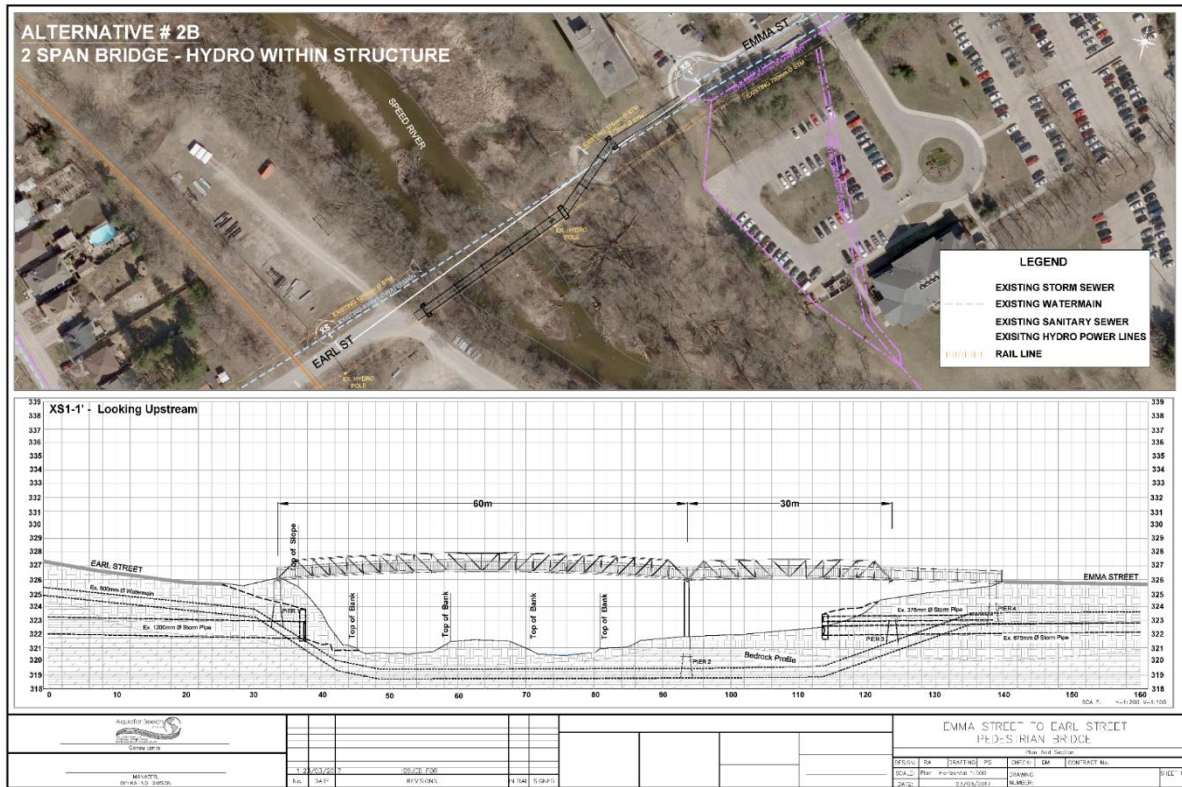
This alternative would require a site-specific OPA to list essential transportation infrastructure as a permitted use in significant woodlands, significant wetlands, significant wildlife habitat and their buffers.

Alternative 2a would result in a second permanent structure in the valley, further impacting the riparian corridor and fish habitat, and would result in an approximate 13m wide gap in the tree canopy within the NHS. Construction of the pier within the valley would provide opportunity for removal of historic fill placed within a riparian wetland upstream of proposed bridge location.

Alternative 2a would have a negative impact to significant woodlands and fish habitat; would result in a reduction in urban forest canopy cover; and would not meet the objectives or intent of the NHS. Therefore, a site-specific OPA would not be supportable.

Alternative 2b – Two-Span Bridge (Hydro within Structure)

Figure 5 Alternative 2b Two-Span Steel Truss Bridge (Hydro within Structure)



Alternative 2b is a two-span truss bridge with one support pier located in the north overbank area of the valley. The bridge structure would consist of one continuous truss approximately 60m in length and one simple truss approximately 30m in length. This alternative proposes aligning the bridge through the existing hydro corridor and incorporating the hydro lines within the structure. This alternative provides a cost-efficient pedestrian bridge design and would result in a positive impact to the NHS (as described below).

This alternative would require a site-specific OPA to list essential transportation infrastructure as a permitted use in significant woodlands, significant wetlands, significant wildlife habitat and their buffers.

This option would require a single pier within the left overbank area of the valley, creating a permanent footprint where the existing hydro pole and footing is located. Tree removals would be minimized by making use of the existing cleared hydro corridor. Impacts would be minimized further by incorporating hydro lines within the bridge structure. Construction of the pier within the valley would provide opportunity for removal of historic fill placed within a riparian wetland upstream of proposed bridge location, to restore the riparian wetland feature and replace non-indigenous and invasive species with locally-appropriate species to improve ecological functions including flood attenuation, water filtration and wildlife habitat.

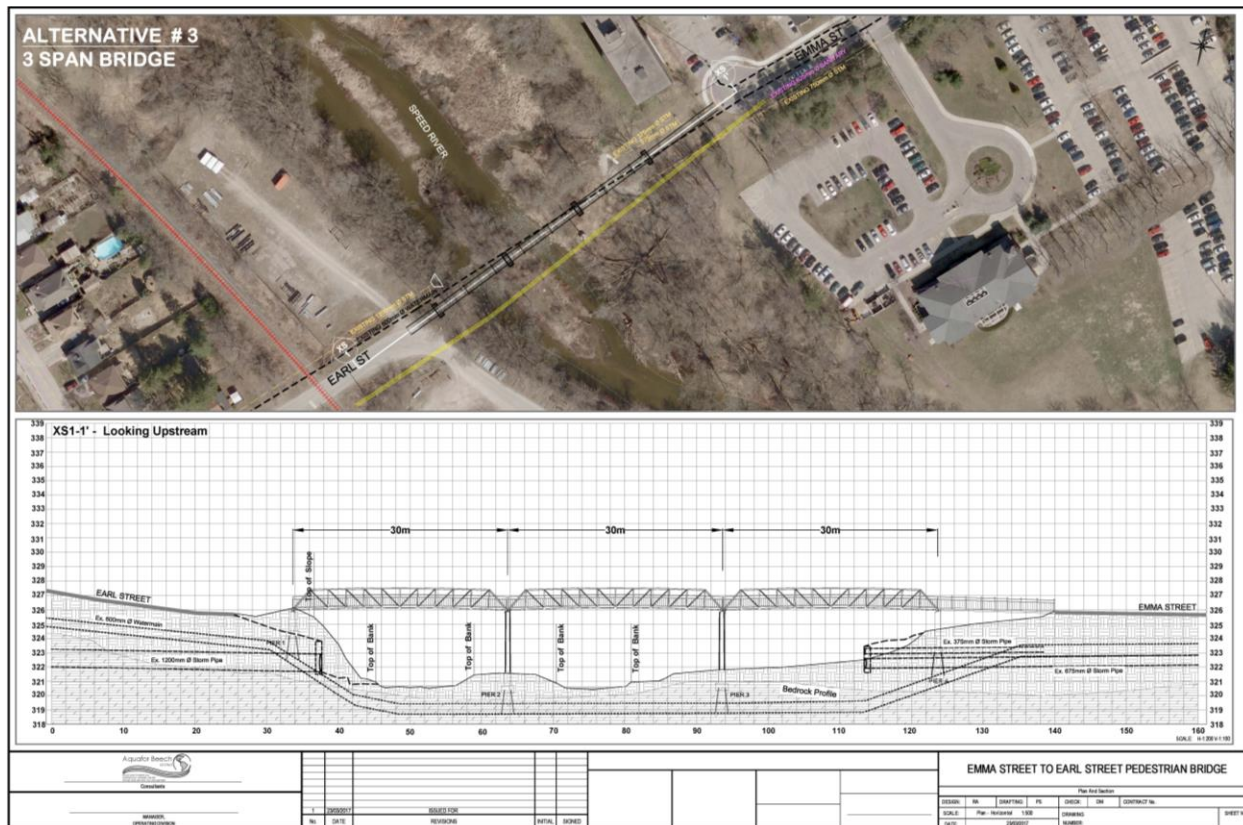
Alternative 2b would result in a positive impact to the NHS (ecological benefit) by using the existing hydro corridor to minimize tree removals, replacing the existing

hydro pole footing with a single pier in the left overbank area of the valley, incorporating hydro within the structure removing the need to relocate the hydro pole/corridor and taking advantage of the opportunity to remove historic fill and restore the upstream riparian wetland. The areas that are anticipated to be disturbed for access, staging, and construction on the north side of the river occur in degraded habitat which would be the subject of extensive restoration. Post-construction grading will emphasize the restoration of the river banks and wetland and a restoration planting plan emphasizing the use of native wetland vegetation will be prepared in keeping with existing habitat along the Speed River.

Alternative 2b would meet the objectives and intent of the NHS. Therefore, a site-specific OPA would be supportable as further described in Attachment-2.

Alternative 3 – Three-Span Bridge

Figure 6 Alternative 3, Triple Span Steel Truss Bridge



Alternative 3 is a three-span truss bridge which would require the installation of two support piers within the valley, one on the river island and the other within the left overbank area of the valley. The bridge structure would consist of three simple trusses spanning over the entire valley.

This alternative would require a site-specific OPA to list essential transportation infrastructure as a permitted use in significant woodlands, significant wetlands, significant wildlife habitat and their buffers.

Alternative 3 would result in two permanent structures in the valley, further impacting riparian wetlands, riparian corridor and fish habitat. Construction of the two support piers would require significant vegetation/tree removal which would result in a corridor of cleared vegetation, crossing the river island.

Alternative 3 would have a negative impact to significant woodlands, significant wetlands and fish habitat; would have a negative impact on hydraulic conveyance due to the insertion of two flow obstructions within the channel and overbank areas; would result in a reduction in urban forest canopy cover; and would not meet the objectives or intent of the NHS. Therefore, a site-specific OPA would not be supportable.

Evaluation Matrix and Consideration of Public Feedback

PIC #2 offered interested residents an opportunity to provide feedback on the existing conditions, evaluation criteria, preliminary evaluation of alternatives and preferred alternative. The PIC was well attended with over 33 people signed in. Overall, the feedback showed that approximately half of the participants preferred Alternative 1, with the other half conversely not wanting a bridge – supporting the Null Alternative.

Based on feedback from PIC #2, as well as from City of Guelph staff, evaluation criteria and scoring were further updated. For each criterion, an absolute score was applied ranging from 0 to 4, where 0 has the highest negative impact and 4 has no negative impact or highest positive impact.

The alternatives were considered using an average value evaluation matrix with several criteria. The evaluation process considered and scored each alternative (between 0-4) with respect to Physical and Natural Criteria (hydraulics and flooding, aquatic and terrestrial habitat), Social and Cultural Criteria (public safety, landowner impacts, benefit to community (trail access and connectivity, and enjoyment of surrounding lands), cultural and archaeological impacts), Technical and Engineering Criteria (impact on existing infrastructure, lifespan of works, policy conformity) and Economic Criteria (capital costs, operations and maintenance costs).

Table 1 Evaluation of Alternatives for Emma Street to Earl Street Pedestrian Bridge

	Null- Do Nothing	Single Span	Double Span Hydro Relocation	Double Span Hydro within Structure	Triple Span
Physical & Natural Criteria	11	10	7	10	3
Hydraulics and Flooding	4	4	2	3	1
Aquatic Habitat	3	3	3	4	1
Terrestrial Habitat	4	3	2	3	1
Social and Cultural Criteria	6	13	12	12	11
Public Safety	0	4	4	4	4
Landowner Impacts	1	2	2	2	2

	Null- Do Nothing	Single Span	Double Span Hydro Relocation	Double Span Hydro within Structure	Triple Span
Benefits to the Community	1	4	4	4	4
Cultural and Archaeological Impacts	4	3	2	2	1
Technical and Engineering Criteria	10	11	10	10	7
Impact on Existing Infrastructure (local)	4	4	3	3	1
Impact on Existing Infrastructure (external)	0	4	4	4	4
Lifespan of Works	4	3	3	3	2
Policy Conformity	2	0	0	0	0
Economic Criteria	8	2	5	5	5
Capital Costs	4	1	2	2	3
Operations and Maintenance Costs	4	1	3	3	2
Cumulative Score	35	36	34	37	26
Rank	3	2	4	1	5

Cost Estimates

A cost estimate for each alternative is provided in Attachment-1. Capital costs for each alternative are as follows (excluding tax):

- Do Nothing or Null Alternative - \$0
- Alternative 1 - Single Span Bridge - \$3,230,920
- Alternative 2a - Double Span Bridge (Hydro Relocation) - \$1,452,120
- Alternative 2b - Double Span Bridge (Hydro within Structure) - \$1,698,120
- Alternative 3 - Triple Span Bridge - \$1,402,120

Selection of Preferred Alternative

The overall ranking indicates that Alternative 2b – Double Span Bridge (Hydro within Structure) is the preferred alternative with the highest score, followed by Alternative 1 – Single Span Bridge, the Null Alternative, and then Alternative 2a – Double Span Bridge (Hydro Relocation). Alternative 3 – Triple Span Bridge was the least preferred option.

Based on the summarized analysis (scoring and OPA), the preferred alternative is: Alternative 2b – Double Span Bridge (Hydro within Structure) as it provides a cost-

efficient pedestrian bridge design, addresses the connectivity element of the opportunity statement, minimizes short-term environmental impact, and enables a long-term ecological benefit through the removal of historic fill from riparian wetlands and ecological restoration of the Speed River valley.

Financial Implications

The estimated cost to design and construct the preferred solution for the Emma Street to Earl Street Pedestrian Bridge is \$1.68 million excluding taxes. The costs to design and construct the pedestrian bridge will be incorporated into the City's Capital budget forecast beginning in 2021. The long term maintenance costs will be incorporated into future operating budgets after the bridge is designed and constructed (estimated to be 2024-2025).

Consultations

As detailed above, two rounds of public consultation were undertaken with the community to gain feedback related to the pedestrian bridge options.

In addition to public consultation, input was received from the River Systems Advisory Committee and Environmental Advisory Committee. Various meeting and site visits also took place involving affected departments and utility stakeholders.

Strategic Plan Alignment

The Emma Street to Earl Street pedestrian bridge will align with the following strategic plan priorities:

Sustaining our Future: Protecting the green infrastructure provided by woodlands, wetlands, watercourses and other elements of Guelph's NHS.

Navigating Our Future: Improving connections to workplaces in Guelph, investing in and promoting active transportation.

Building Our Future: Continuing working to develop new assets that respond to Guelph's growing and changing social, economic and environmental needs.

Attachments

Attachment-1 Cost Estimates of Alternatives

Attachment-2 Schedule B Class Environmental Assessment Project File Emma Street to Earl Street Pedestrian Bridge

Attachment-3 Schedule B Class Environmental Assessment Appendices Emma Street to Earl Street Pedestrian Bridge

Attachment-4 Staff Report June 2, 2015 Speedvale Ave E from Manhattan Crt to Woolwich St

Attachment-5 Supplementary Staff Report July 7, 2015 Speedvale Ave E from Manhattan Crt to Woolwich St

Attachment-6 Speedvale Avenue East Reconstruction Pavement Marking 90% Design Review

Attachment-7 Planning Recommendation Official Plan Amendment Memo

Attachment-8 Emma Street to Earl Street Pedestrian Bridge Schedule B Class EA COW Presentation, May 4, 2020

Departmental Approval

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