

111 Street Pedestrian Bridge

Environmental Impact Assessment

Recommendation

That Executive Committee recommend to City Council:

That the Environmental Impact Assessment for the 111 Street and Blackmud Creek Pedestrian Bridge replacement project, as outlined in Attachment 1 of the March 22, 2021, Integrated Infrastructure Services report IIS00246, be approved.

Executive Summary

This report requests City Council's approval of the 111 Street and Blackmud Creek Pedestrian Bridge replacement project (the Project) Environmental Impact Assessment included in Attachment 1.

The Environmental Impact Assessment for this Project concludes that any potential adverse effects of the project can be avoided, reduced, or mitigated by applying appropriate measures during project design and construction. Any residual impacts in either the construction or post-construction stage will be neutral or positive relative to current baseline conditions.

Approval of this report demonstrates the City's commitment to environmental project reviews, environmental permitting, achieving an environmentally sound design, and ensuring that the City's environmental stewardship outcome of ensuring the City of Edmonton's environmental objectives are met during the construction of this project.

Report

The Blackmud Creek pedestrian bridge (B128) east of 111 Street is located in the Blackmud Creek Ravine within the boundaries of the City of Edmonton's North Saskatchewan River Valley Area Redevelopment Plan (Bylaw 7188), as shown on page 61 of Attachment 1. This bridge is an extension of Running Creek Road and is no longer used for vehicular traffic. It now provides pedestrian access across Blackmud Creek at the end of the Running Creek Road, which runs nearly parallel to 111 Street on its east side.

The pedestrian bridge was constructed in 1971 and was historically used as a vehicle bridge before it was repurposed as a pedestrian bridge in 1994. The existing bridge is

a 30 metre long, three-span concrete deck bridge supported by a treated timber substructure. The bridge has deteriorated progressively to the point where replacement is required. Following the condition assessment, a preliminary design was completed in 2020. Detailed design is underway, with construction anticipated to begin in Spring 2021.

The bridge will be replaced by repurposing a section of the Connors Road Pedestrian bridge, which was removed from the Southeast Valley Line LRT construction.

In accordance with section 3.4.3 of the North Saskatchewan River Valley Area Redevelopment Plan, the Project is subject to an Environmental Impact Assessment (EIA) that outlines current conditions in the project area, and evaluates potential risks, and identifies adverse impacts that must be eliminated, minimized or mitigated through design, landscaping and construction measures.

A Site Location Study is not required because the replacement bridge will occupy the same or less footprint as the existing bridge. The location of the bridge is provided on page 61 of Attachment 1.

The EIA contains a summary of potential impacts (Attachment 1, Section 5) on the physical and biological environment resulting from the implementation of the project elements referenced in the report. The EIA provides mitigation measures to ensure the project will not result in any significant adverse impacts on the environment.

As summarized in the EIA, some of the potential impacts and mitigations include:

- Mobilization of Sediments - In-water construction activities:
 - In-stream construction activities should be isolated from the waterbody flowing waters to prevent the mobilization of the sediments into the watercourse and prevent other deleterious substances from entering the waterbody.
- Creek Bank Slope Stability - Removal of the existing pedestrian bridge:
 - Class 1 rip rap is proposed to be installed as part of the new bridge construction to prevent erosion of the creek bank slopes and contribute to bank stability.
- Vegetation - Loss or Alteration to Native Plant Communities:
 - To lessen the potential impact on native plant communities during proposed construction, equipment storage, maintenance and refuelling in areas that support native plant communities will be prohibited.

The EIA also highlighted several positive aspects of the projects:

- The repurposed and longer Connors Road truss being used to replace the old bridge will have a larger opening over Blackmud Creek compared to the existing bridge. In addition, the existing two in-stream piers will be removed, further improving flow through the hydraulic opening;
- The width of the new bridge (approximately 4 metres) will be narrower than the existing bridge (approximately 13 metres), which may create more favourable passage conditions for some wildlife and associated improved sightlines to the other side of the bridge; and
- The new bridge will include a recycled/refurbished structure, new surface and new railings that will meet current safety requirements. The impacts to recreation safety are expected to be positive leading to a more positive recreation experience for users and extend the service life of the structure.

Environmental mitigation strategies will form part of the contractual requirements for the construction of the 111 Street and Blackmud Creek Pedestrian Bridge project. Many of the mitigation strategies outlined in the EIA align with existing City policies such as the Envisio ISO 14001 standard and the Corporate Tree Management Policy (C456C). In addition, the construction Contractor will be required to develop and maintain an Environmental Construction Operations (ECO) plan for the duration of the work and to implement additional mitigation strategies outlined in the assessment that are not part of current City policies. Some of the mitigation measures include:

- Immediately stabilize banks disturbed by any activity associated with the project to prevent erosion and/or sedimentation, preferably through revegetation with native species suitable for the site;
- Ensure that an erosion and sediment control plan is developed, implemented and maintained for the duration of the project construction, and
- Ensure that equipment used within 100 metres of the watercourse is equipped with environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.

The Environmental Impact Assessment also notes Historical Resources as a consideration for the project. To limit the risk of impacting any heritage resources, construction will be limited to the road right-of-way, which has been previously disturbed. Palaeontological monitoring also will be conducted during construction.

Budget/Financial Implications

Funding for this project was approved under the Transportation: Bridge & Auxiliary Structures - Renewal capital profile (CM-24-0000) as part of the 2019-2022 Capital Budget. The current project cost is estimated to be \$1.2 million.

Legal Implications

Section 3.4.3 of the North Saskatchewan River Valley Area Redevelopment Plan - Bylaw 7188 requires that the location of the 111 Street and Blackmud Creek Pedestrian Bridge Environmental Impact Assessment be approved by City Council before the proposed development can proceed to construction.

Public Engagement

Public engagement was not required to support this project based on the nature of the work. The project was considered primarily technical in nature and centred around the functional replacement of the bridge.

Although public engagement was not carried out for this project, communications and information sharing will bring awareness about the work. An online public information session will be held prior to construction, which is currently anticipated to take place in early 2021. This project will take an information-sharing approach through the use of a pre-construction public information session. Key highlights of the information that will be shared include:

- To inform nearby residents of the 111 Street and Blackmud Creek Pedestrian Bridge Replacement Project construction details; and
- To share the expected construction activities and trail closures that will be affecting the public, including how trail traffic will be managed or redirected throughout construction.

Communication activities and advertisements for the pre-construction information session are in development. The communication and information sharing activities will take into consideration COVID-19 pandemic public gathering restrictions. Additional information will also be available on the City of Edmonton’s website.

Corporate Outcomes and Performance Management

Corporate Outcome: The City of Edmonton has sustainable and accessible infrastructure			
Outcome	Measure	Result	Target
The City of Edmonton has sustainable and accessible infrastructure	Infrastructure Density (city’s population divided by the total kilometres of infrastructure)	56.5 (2017)	Increase over previous year

Risk Assessment

Risk Element	Risk Description	Likelihood	Impact	Risk Score (with current mitigations)	Current Mitigations	Potential Future Mitigations
Environmental assessment is denied or delayed	Bridge improvements will not be implemented The bridge may need to be closed to protect public safety	Unlikely - 2	Major - 3	Low - 6	EIA study is completed; Plans in place to ensure minimal project impacts.	None
Environmental regulatory requirements are not met	Environmental Permits will not be obtained in a timely manner	Unlikely - 2	Moderate - 2	Low - 4	Environmental Permit applications have been submitted and received approvals to date. No foreseeable hold-ups are present on regulatory items.	Tender the project in a timely manner and work with the Contractor to submit the remaining requirements early in the Contract.
Environmental	Potential impacts as identified in the Environmental Impact Assessment become realized	Unlikely - 2	Minor - 1	Low - 2	Recommendations regarding mitigation of environmental impacts in the Environmental Impact Assessment have been reviewed by Administration to ensure completeness.	Mitigation measures will be implemented by the Contractor during the construction of the project. Typical mitigation measures are well understood during construction.

Attachment

1. 111 Street and Blackmud Creek Pedestrian Bridge Project - Environmental Impact Assessment. Final Report.

Others Reviewing this Report

- G. Cebryk, Deputy City Manager, City Operations
- S. McCabe, Deputy City Manager, Urban Form and Corporate Strategic Development
- C. Owen, Deputy City Manager, Communications and Engagement

- R. Smyth, Deputy City Manager, Citizen Services
- K. Fallis-Howell, Acting City Solicitor