Project Completion Memo

TO:	City of Merritt- Flood Mitigation	**REPORT DATE:**	December 19, 2024
PROJECT:	Middlesboro Bridge Replacement	**SITE MANAGER:**	Kyle Jones
LOCATION:	Vought Street, Merritt BC	**WORKFORCE:**	12

1. Project Overview

1.1 *Purpose*: *Outline the project's overall goals, purpose, and importance. Explain how it was undertaken. (Engineer, also; as outlined in Design Memo)*

Phase 2B of the Middlesboro Bridge Replacement included the driving of piles on the north and south approaches, construction of the substructure and superstructure of the bridge. Gravel placement, roadway paving, and embankment filling to strengthen and solidify the surrounding area. This strategic plan includes installing robust riprap placement to safeguard the physical integrity against future environmental incidents. Subsequently the central pier and old abutments from a bridge that was in place prior to the construction of the original Middlesboro Bridge was demolished and removed. Furthermore, an in-depth drainage system was installed, ensuring optimal water management. A multi-use pathway was constructed for pedestrians crossing the bridge. This addition serves to enhance the civic infrastructure, providing a safe and accessible route through the City.

2. Environmental and Cultural Considerations

2.1 Environmental Impact and Mitigation: *Detail identified environmental impacts and mitigation strategies (e.g., fish habitat preservation, downstream impacts) during construction. (Completed by Environmental Focal)*

During the summer months, the river was diverted to allow work access to the north side of the riverbed. During this time fish nets were installed to prevent wildlife from entering the northern pond that was created which guided fish down the mainstream. During the duration of the project, any activity that was deemed to have potential to impact the river had an environmental monitor to watch over and ensure the environment remained unharmed. For example, any concrete work undertaken over the river required the monitor to be onsite. Other mitigation measures utilized include spill kits which were readily available in case of a spill to clean said spill, and spill trays which were used under equipment to contain spills if they occurred.

2.2 Cultural Monitor Reports: *Confirm when a cultural monitor was onsite for required works. Share findings (Completed by Cultural Monitor).*

On February 21, 2024, the archaeology field team conducted a PFR which consisted of a systematic surface inspection and complete review of the proposed development footprint and plans. Two areas of potential were identified for assessment as Subsurface Test Areas (STAs) through an Archaeological Impact Assessment.

On March 18, 2024, the AIA for the Middlesboro Bridge Replacement was conducted by the archaeological field team and consisted of subsurface testing at the identified areas of archaeological potential, which became two subsurface test areas.

2. Environmental and Cultural Considerations

STA1 is located adjacent to the Coldwater River on the right bank (north side) in gently sloping to level terrain. The area is to the west of the existing bridge and an additional older previous bridge abutment in terrain that is less disturbed than other areas of the Project. STA1 consisted of 10 shovel tests, all negative for archaeological material. Stratigraphy varied throughout the STA1 area due to the previous disturbance of the terrain and the inclusion of imported fill for the bridge approach, abutment, and pier. Subsequent flood events including the November 2021 atmospheric river event have scoured and filled drastic areas of terrain adjacent to the river. Further residential and flood mitigation developments over the years within the City of Merritt have led to the heavy disturbance of the entire study area.

STA2 is located adjacent to the Coldwater River on the left bank (south side) in level terrain below and to the west of two previous bridge abutments. The November 2021 atmospheric river event led to scouring and in-filling of this area up to 1.6 metres deep, which was confirmed by four shovel tests and in-field observations such as previous fence posts buried over halfway. All four shovel tests were negative for archaeological material and showed that the area has been heavily disturbed, through similar previous developments as STA1, and fully in-filled with coarse sand, gravels, and cobbles by the November 2021 atmospheric river event.

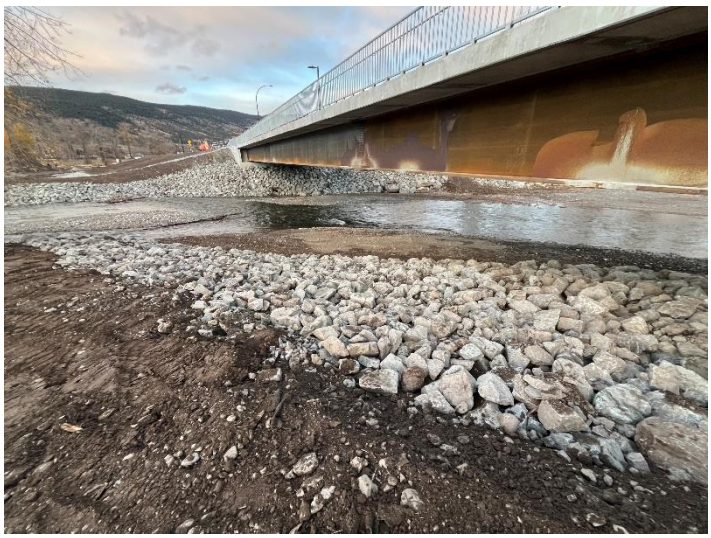
Through the duration of the project, high risk activities such as river isolation removals or rip-rap placement onto banks above and in the river were monitored by an onsite Cultural Monitor. This monitor had no concerns regarding negative impacts to the environment and salmon while the works was conducted.

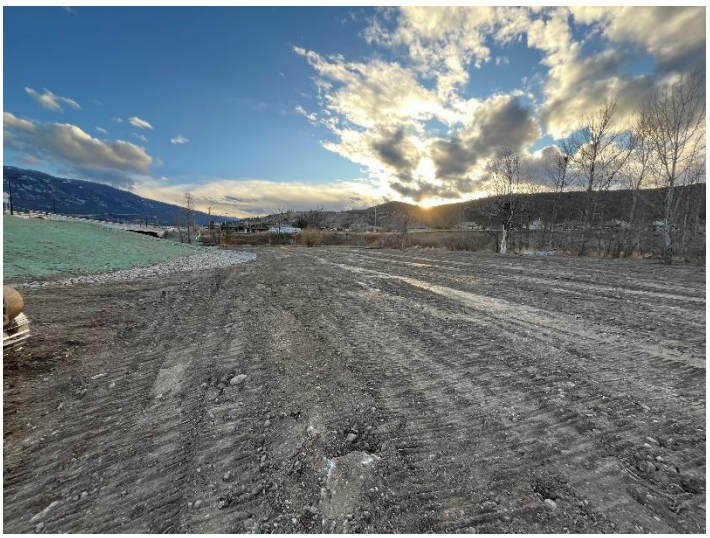
3. Reporting and Documentation

3.1 Construction Progress Updates: *Include previous IEP memos and progress reports (Completed by City of Merritt)*

Refer to the attached Monthly Construction Memos for construction progress updates

4. **Project Photos**- Attach photos of the completed project to showcase results.





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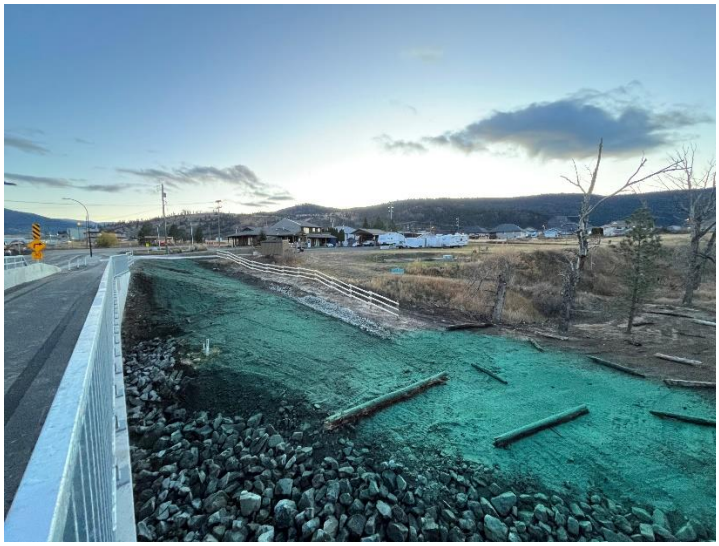

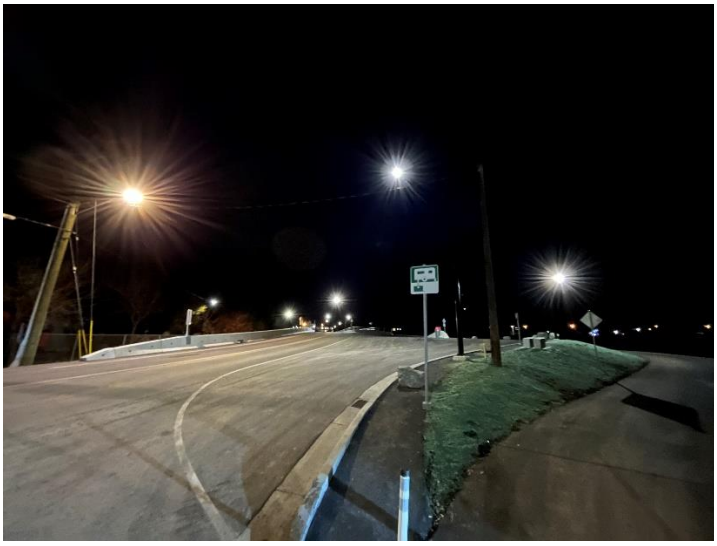

5. Project Contacts:

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City of Merritt
Flood Mitigation Department
Flood Mitigation Website
Contact Us

CA Signature	Name:		Date:	
CONTRACTOR DISTRIBUTION:	☒	Site Manager	☒	Indigenous Engagement Manager (IEM)
	☒	Design Team	☒	Internal Files
MERRITT FLOOD MITIGATION DISTRIBUTION:	☒	Indigenous Bands (IEM)	☒	Website/Social Media (CE)
	☒	Community Engagement (CE)	☒	Flood Mitigation Files