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Edmonton pedestrian bridge travels down narrow trail, rolls across old bridge for installation

Edmonton's Mill Creek Ravine is a very popular urban parkway in the middle of the city. Dog walkers, hikers and runners all love the ravine setting with its narrow winding trails through a mature forest. Trail bridge replacement teams? Not so much.

Project showcases versatility of Algonquin prefabricated bridges

When an existing pedestrian bridge was shut down due to its poor condition, the City of Edmonton fast-tracked a design-build project to replace it. Alberco Construction Ltd. and the AIL Group were selected to design, supply and install a new lightweight and versatile



Project at a glance:

Project Name: Mill Creek Ravine Trail Bridge

Location/Owner: City of Edmonton, Alberta

Owner's Consultant: Stantec

Footing Design: GeoMetrix Group Engineering

Contractor: Alberco Construction Ltd.

Product: Pedestrian & Trail Bridges

Sector: Public Works

Application: Recreational Trail Bridges

Dimensions: Length 20.35 m, Width 2.35 m

Installation Time: Two weeks, including demolition/removal of old bridge

span from Algonquin Bridge. The versatility of Algonquin Bridges allowed Alberco to select the optimal splice locations and section weights in order to bring the sections down the narrow, steep path.

Prefabricated trail bridge sections, carried by two small excavators, rolled across old bridge on wheels

The 20.35 m long bridge was delivered in three sections that could be carried along the narrow trail by two small excavators. Once on site, the sections were spliced together and rolled across the existing wooden bridge on a set of wheels under the first section. A third small excavator was on the opposite side to assist with the final setting of the bridge. Kudos to the Alberco team for their ingenuity on this unique rolling installation method.

Prefabricated trail bridge placed on unique spread footings

Alberco contracted GeoMetrix Group Engineering to design a set of galvanized steel spread footings to support the new bridge. The spread footings have slots instead of holes for the anchor bolts at either end, to allow for expansion and placement tolerance.

After the new bridge was installed, the old timber bridge beneath it was carefully cut apart and removed. Temporary approach ramps were fashioned with loose fill in order to open the trail in time for peak holiday use. Gabion backwalls will be installed and the trail work will be completed in the spring of 2021.

The AIL Group had also supplied another recreational trail bridge for Alberco and the City in the Mill Creek Ravine in 2012.

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