

Project Profile



November 21, 2017

Multi-span Modular Bridge/Piers Package provides year-round road access to Northern Ontario First Nation

A new Algonquin Modular Panel Bridge has provided vital yearround road access to a Northern Ontario First Nation community that had previously relied on either air transport or a 42 km ice road for its basic needs. With a changing environment, the ice roads have been open for as few as 28 days in recent years — a significant reduction from 77 days only a decade ago.

The North Caribou Lake First Nation (also known as Weagamow or Round Lake) lies about 900 km north of Thunder Bay. The new bridge connects the community to Ontario's highway system via an industrial road known as the Northern Ontario Resource Trail, or the North Road.

Algonquin Bridge package features Bolt-A-Plate piers from AIL Group

As an Algonquin Bridge System, this packaged solution included two pier structures made from Bolt-A-Plate Custom Ellipses from our AIL Group sister company, Atlantic Industries Limited.

Project at a glance:

Project Name: Waegamow Lake Narrows Bridge

Location: Waegamow Lake, Ontario

Owner: North Caribou Lake First Nation

Engineer: WSP, Thunder Bay

Contractor: Sigfusson Northern

Product: Algonquin Modular Panel Bridge with Bolt-A-Plate Piers

Application: Lake Crossing

Overall Dimensions: Length 113 m, Width 4.2 m (clear, between rails)

Installation Time: One week



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Modular Panel Bridge required innovative pier solution

The Bolt-A-Plate structures were assembled on shore. Then, with the aid of a construction barge and a floating turbidity curtain, clear granular stone levelling pads were prepared at the pier locations. The barge excavator lowered the caissons into place. They were filled with compacted clear stone backfill, balanced with protective stone on the exterior. Third-party precast concrete sills were placed on top.

The bridge is comprised of five sections: a centre span of 51.8 m; two spans of 27.4 m; and two approach ramps of 3 m. Once the site was ready with the piers and abutments in place, the bridge was installed from one side of the narrows using a cantilevered launch sequence.

In the Oji-Cree dialect, the bridge name, Wa Pii Che Wa Noong, loosely translates to white current. Most of the locals just refer to it as The Narrows. Either way, it was officially opened with a multigenerational ribbon-cutting ceremony attended by leadership and members of both the North Caribou Lake First Nation and the broader, regional Nishnawbe Aski Nation.

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