



Atlantic Industries Limited

# PROJECT PROFILE



April 3, 2021

## AIL speeds up Yukon Bolt-A-Plate culvert with efficient Grid-Strip-reinforced Bolt-A-Plate headwalls

As part of a major upgrade to Klondike Highway #2, the Yukon Department of Highways and Public Works needed a quick solution for a stream crossing at Meadow Creek, near Dawson City.

Together with their contractor, Cobalt Construction, they were looking for a Buried metal bridge solution with steel-faced headwall that could be designed, manufactured and installed quickly to align with Yukon's short construction season.

### Bolt-A-Plate used for both culvert and headwalls

The AIL team proposed a flat-sheet Bolt-A-Plate Headwalls system anchored with AIL's easy-to-install Grid-Strip Soil Reinforcement System.

### Project at a glance:

**Name:** Meadow Creek Stream Crossing

**Location:** Klondike Highway #2 (near Dawson City, Yukon)

**Owner:** Yukon Department of Highways and Public Works

**Contractor:** Cobalt Construction Inc.

**Sector:** Northern, Transportation

**Application:** Stream Crossing

**Culvert Product:** Bolt-A-Plate Horizontal Ellipse

**Culvert Dimensions:** Length 26.8 m, Span 4.8 m, Rise 3.4 m

**Headwall Product:** Bolt-A-Plate Sheets with Grid-Strip Soil Reinforcement

**Headwall Dimensions:** Maximum height 4.5 m



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Up until this project, Yukon’s steel headwalls were traditionally installed with sheet piling with wailers on the exterior wall face that were tied back to dead man anchors in the backfill zone. Our solution saved time and money by eliminating the steel piling, wailers and dead man anchors.

### Grid-Strip MSE Reinforcement System saves time and money

AIL’s Grid-Strip System features a simple bolted connection to the walls. Plus, the innovative reinforcement strips can be articulated horizontally to accommodate obstructions. Overall, it’s a simple, easy installation.

Bolt-A-Plate Headwall also included surface drainage ports

This project was truly a collaborative effort with the Department’s engineers designing the culvert and wall and AIL’s engineers designing the soil reinforcement.

All components were delivered on one B-train load, ready for assembly. A virtual pre-construction meeting has held by the AIL Technical Sales Representative due to travel restrictions, to support the installation. The Cobalt Construction team were pleased with our all-Bolt-A-Plate solution and how easily everything went together.

With a very short building season, on-time deliveries and faster construction solutions are very important to the Yukon Department of Highways and Public Works. We were very pleased to be able to offer this accelerated alternative to align with their schedule.

*“Due to our short construction season in the North, installing structures that can be designed, fabricated and shipped to site in short order are an important factor in our contracts in order to provide contractors the ability to successfully complete projects on time.”*

— Luke Wadey P.Eng., Regional Program Manager  
Yukon Department of Highways and Public Works

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Grid-Strip Soil Reinforcement System: easy to install



Bolt-A-Plate Headwall also included surface drainage ports



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