



Atlantic Industries Limited

PROJECT PROFILE



February 21, 2020

Large NL TCH culvert replacement takes just four days with pre-assembled Bolt-A-Plate solution

Project required the complete shutdown of the four-lane Trans Canada Highway

This high-profile culvert replacement project required the complete shutdown of the four-lane Trans Canada Highway just outside of St. John's by the Avondale Interchange. The project was held to a tight timeline of excavating and removing the existing culverts, installing and backfilling the new AIL Bolt-A-Plate culvert and re-opening the highway, all in one extended four-day weekend. The excavation started on Friday evening and traffic was flowing back over the culvert again by Tuesday morning.

Optional coating extends service life to over 75 years

Due to the aggressive soil conditions at this site, the new culvert was specified with Best•Kote Polymer Coating on the bottom half of the round culvert to protect against corrosion, abrasion and inorganic acid, salts or alkali (diluted).

Project at a glance:

Name: Nine Island Pond South Culvert Replacement

Location: TCH near Avondale Interchange, NL

Owner: NL Department of Transportation and Works

Contractor: Bursery Excavating & Development Inc.

Product: Bolt-A-Plate Round (56R)

Dimensions: Diameter 4.3 m, Length 83 m

Application: Culvert replacement

Sector: Transportation

Installation Time: Four days



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83 m culvert pre-assembled in four sections

The tight construction schedule meant this culvert could not be assembled in place, after excavation was completed and bedding prepared. Nor, because of the length of the pipe, could it be transported in one piece. So the pipe had to be pre-assembled in four sections at an adjacent laydown area in order to be ready for the weekend project when the sections were moved to the prepared site and spliced together.

AIL worked very closely with the contractor's project management team and provided technical support from start to finish. We supplied them with weekly updates and collaborated closely with them by providing on-site assistance for the assembly and installation of the Bolt-A-Plate culvert.

Our 4.3 m round culvert replaced two smaller (2.7 and 3.0 m) culverts that had deteriorated in the aggressive soil conditions. The new culvert increased the total end area by 13% for the improved hydraulic flow capacity the client had requested.

[See all Project Profiles on ail.ca](http://ail.ca)



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