



Atlantic Industries Limited

PROJECT PROFILE



Double Dur-A-Span Culverts readied quickly for NB highway washout

Twin Dur•A•Span Structural Aluminum Plate culverts were recently expedited through our Dorchester, NB facility to repair a washout from flooding on Highway 144 near Edmundston. With the road closed and a detour in place, the New Brunswick Department of Transportation and Infrastructure (NBDTI) and their consultant decided to go with a Dur•A•Span solution for the replacement, as we were able to work with them through the initial design phase and meet their tight deadlines.

RAPID RESPONSE EMERGENCY SOLUTIONS



Project at a glance:

Name: Smyth Brook Culvert Replacement

Location: Saint-Basile, NB

Owner: NBDTI

Engineer: Roy Consultants

Contractor: Conrad Lavoie et Fils Ltée

Sector: Transportation

Application: Stream Crossing Culvert Replacement

Product: Dur•A•Span Structural Aluminum Plate - Round

Dimensions: Diameter 4.1 m, Length 60.4 m



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NBDTI awarded the contract and the materials needed to be on the job site by August 28. We expedited raw material sourcing and delivery to our Dorchester plant while construction drawings were quickly developed and approved. Production of the step-beveled-end structures took only three weeks and the finished components were delivered on time.

Custom seam strengthening for extreme dead load

Lightweight and strong Dur•A•Span Aluminum was selected for this project due to the aggressive nature of the site's soil. These structures had an 8 m cover height so a special seam strength design was required to handle the extreme dead load forces. The AIL Engineering Team developed a three-bolts-per-crest-and-valley seam-strengthening solution to accommodate the deep cover.



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Optimized interim cover depth for construction crane live load

As the project backfill was underway, a 200-ton construction crane was needed to cross the new culverts to remove the temporary steel sheet piling. AIL Engineering quickly analyzed a complex load diagram of the crawler track footprints supplied by the consultant and contractor to determine that the optimum height of cover would be 3 m for this. The extraction was carried out without issue.

This is another good example of the Provincial Government calling on local engineering, manufacturing and construction partners to achieve their infrastructure replacement needs.

Ready when you need us most

With locations across the country, available inventories and in-house engineering expertise, AIL is Canada's single source to fast track a wide variety of permanent or temporary structures including: Corrugated Pipe, Modular Panel Bridges, Structural Plate Bridges, Abutments and Retaining Wall Systems.

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