



Atlantic Industries Limited

PROJECT PROFILE



March 31, 2026

Geotextile reinforced soil bridge provides efficient stream crossing for Alberta forestry road

This project is located on a heavy-use forestry road over Emerson Creek, northwest of Edson, Alberta. It involved replacing an old round culvert with a new Super-Cor Arch and Wire Walls with Geotextile Reinforced Soil (GRS) technology. The new crossing also has a substantial cover height of about 6.1 m from the top of the arch to the road surface.



Project at a glance:

Project Name: West Fraser Bridge Replacement

Location: Northwest of Edson, AB

Owner: West Fraser - Hinton Wood Products

Consultants: Allnorth, Terratech Consulting Ltd.

Contractor: Landmark Solutions Ltd.

Sector: Forestry

Application: Stream Crossing

Products: Super-Cor Arch, GRS Wire Walls

Arch Dimensions: Span 12.2 m, Rise 5 m, Length 23.7 m



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The near-vertical GRS walls helped to reduce the required length of the steel arch and footing structures while still accommodating the necessary road width at the crossing. This resulted in a more cost-effective solution.

Strong collaboration with our project partners and a positive working relationship with the owner all contributed to a successful outcome. The project was delivered successfully, and the owner was very pleased with the result.

GRS technology lets the dirt do the work

The Super-Cor components were delivered to the job site and the ring sections were assembled in an adjacent lay-down area, ready to be lifted into place on the steel foundations. Once the arch was assembled, the GRS wire walls and engineered backfill could proceed.

How GRS buried arch bridge technology works

AIL's GRS technology is a patented buried arch bridge system originally developed for the forestry and resource industry sectors. It uses steel anchor rods to connect a Super-Cor structural steel plate arch to the backfill/geotextile composite and transfers some of the loads into the surrounding GRS mass.

GRS corrugated metal bridges are a soil-steel-bridge geotextile composite structure. The bridge's dead and live loads are supported by the reinforced soil, structure and natural or improved subgrade soils.



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