



Atlantic Industries Limited

PROJECT PROFILE



December 8, 2022

Super-Cor GRS Bridge provides wider, safer roadway and increased flood resilience in Kelowna replacement

As part of the City of Kelowna's Old Vernon Road Improvement Project, the City needed to replace an aging narrow timber bridge at Mill Creek which was making vehicle, cyclist and pedestrian traffic unsafe. This smaller span was also prone to blockages and flooding.



Project at a glance:

Project Name: Old Vernon Road at Mill Creek Crossing

Location: Kelowna, BC

Owner: City of Kelowna

Consultant: Terratech Solutions Ltd.

Contractor: Bluepoint Construction Ltd.

Sector: Transportation, Urban

Application: Stream Crossing

Product: Super-Cor GRS Bridge with MSE Wire Wall Headwalls

Dimensions: Span 11 m, Rise 3.1 m, Length 12.3 m

Installation Time: Three weeks in total for pre-assembly of arch sections, removal of old bridge, dewatering and water diversion, installation of precast footings, arch and headwalls/backfill



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Wider, safer road surface and increased hydraulic flow

Our Super•Cor GRS Bridge solution delivered improvements on both counts. It offered a wider, safer road surface and an increased span for improved hydraulic flow and more resilience to extreme weather events due to climate change. It also offered the opportunity to use local crews without the need for heavy cranes. These are just a few of the buried metal bridge benefits from AIL.

GRS technology simplifies installation, reduces costs

AIL's Geotextile Reinforced Soil (GRS) Bridges employ a patented technology that uses steel anchor rods to connect the arch to the backfill/geotextile/headwall composite, transferring the loads into the surrounding GRS mass. These fish-friendly crossings are quick and easy to install while maintaining the existing streambed.

Low profile arch was a natural fit with raised roadway

The road improvements included raising the level of the roadway in this flood-prone area. Our low-profile arch on precast concrete footings was a natural fit for this application. And, speaking of natural — AIL's MSE Wire Wall Headwalls seem to blend right in with this setting, don't they?

We worked very closely with all of our project partners to know when the product was needed so we could have it delivered to the site ahead of the required date. The new crossing was installed in early spring during a tight fisheries window and a time-limited road closure. The contractor, Bluepoint Construction Ltd, faced challenges with water levels when a spring freshet came down the creek, causing some delays due to rising water levels and the need to dewater the site.

Even with those water issues, the project still came together very well, and the finished product looks great. The City is very pleased and is looking at more structural plate projects in the future.



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