



Atlantic Industries Limited

# PROJECT PROFILE



May 10, 2022

## Super-Cor Box provides more climate change washout resilience in BC culvert-replacement project

This Super-Cor Box Culvert was part of a larger infrastructure development and roundabout construction near a new high school being built in Lake Country, BC. Needless to say, there was a lot of construction activity in a small area.



### Project at a glance:

**Name:** Bottom Wood Lake Road Culvert Replacement

**Location:** Lake Country, BC

**Owner:** District of Lake Country

**Consultant:** CWMM Consulting Engineers Ltd.

**Contractor:** Bluepoint Construction Ltd.

**Sector:** Public Works, Urban

**Application:** Stream Crossing

**Product:** Super-Cor Box Culvert

**Dimensions:** Span 8 m, Rise 2.2m, Length 22 m

**Installation Time:** About eight days: one day to pre-assemble the three ring sections, less than a day to install and bolt up those sections, one day to torque and five days to backfill



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## **Larger capacity, more resilient culvert replacement required**

The existing CSP pipe arch culvert was assessed by a structural engineer in 2017 as being undersized and was given an Urgency Rating of 4, with 5 being the highest priority. So, replacement was a given — especially in light of BC's recent challenges with infrastructure washouts from extreme weather events due to climate change.

## **Skewed ends help box culvert fit into tight site**

This job site was in a tight spot so we needed to skew the ends of the Box Culvert structure to align with the roadway and property lines. The ends were supported by cast-in-place reinforced concrete collar headwalls that were designed by CWMM Consulting Engineers.

We worked closely with the owner, the District of Lake Country, to ensure we had the product made on time. The project ended up being delayed until the next summer, so we worked with them on the importance of following the CSPI winter storage guideline and they stored the plates properly inside a heated storage building.

## **All parties very happy with new box culvert stream crossing**

Post installation follow-up discussions with the District and the Contractor, Bluepoint Construction, reinforced how pleased they are with the speed of install and the general outcome. We are now working on another Super-Cor with Bluepoint in nearby Kelowna.



Climate change washout resilience: wider span, scour protection and concrete headwalls



Box culvert sections pre-assembled on-site

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### **Head Office:**

32 York Street  
Sackville, New Brunswick  
Canada E4L 4R4  
1-877-245-7473



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[ail.ca](https://ail.ca)