



September 9, 2019

Two rental detour bridge packages keep Halifax neighbourhoods connected, rail traffic running

As part of CN's multi-year effort to rehabilitate several concrete arch bridges over the rail-cut that runs through peninsular Halifax, we recently designed and supplied two Algonquin Modular Panel Bridge



Temporary detour bridges in use at Marlborough Wood (top) and Belmont on the Arm (bottom)

Project at a glance:

Project Name: Marlborough and Belmont Rental Detour Bridges

Location: Halifax, Nova Scotia

Owner: CN

Engineer: Hatch

Contractor: Harbour Construction Company Limited

Product: Two Algonquin Modular Panel Bridges

Application: Detour Bridges

Sector: Railway

Dimensions: Spans 33.5 m and 36.6 m, Widths 4.2 m (plus 5.5 m footwalks)

Assembly and Installation Times: 2-3 weeks per bridge

packages to be used as temporary detours at the Marlborough Wood and Belmont on the Arm crossings deep in Halifax's toney South End.

Our packaged approach included the design and supply of the bridges, concrete bearing pads and temporary timber backwalls.

Both single-lane bridges were 4.5 m wide with an additional 1.5 m footwalk. The Marlborough span was 36.6 m while the Belmont was 33.5 m. All wearing surfaces were non-slip, epoxy-coated aggregate decking panels.

Quick delivery, challenging installations

The first bridge had to be delivered within five weeks of receiving the order. Two major factors combined to help us meet this tight deadline:

- Our internal Engineering team worked very efficiently and creatively to turn around the necessary design work and drawings.
- We used only stock components to avoid any fabrication delays.

Due to the complexity of the tight sites with sloped approaches, our team also had to custom-design the cantilever launch sequence for each bridge. We also had a technical representative on site for the full duration of each installation.

Both installations rolled out according to plan and the bridges were opened on schedule. Positive feedback from the contractor was relayed to the entire team.

Algonquin Bridge is no stranger to the Halifax rail-cut, having designed and supplied permanent utility bridge solutions at both Tower Road in 2010 and Quinpool Road early in 2019.

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No heavy-lifting equipment: Algonquin Modular Panel Bridge cantilever launches over active rail line

