

# Sustaining vital traffic links

## Bridging Case Study



### Heatherton Bridge, Nova Scotia, Canada

**Customer:** Nova Scotia Department of Transportation and Infrastructure Renewal

**Solution:** Mabey Compact 200™



## The Challenge

The Heatherton Bridge is located on Trans-Canada Highway 104, Nova Scotia, crossing the Pomquet River. In January 2009, the Nova Scotia Department of Transportation and Infrastructure Renewal announced that, as part of the province's five-year plan to improve highways, roads and bridges, it was embarking on a project to completely remove the existing concrete Heatherton Bridge and construct a new permanent replacement.

The government is committed to strengthening Nova Scotia's communities and ensuring their long-term prosperity. Highway 104 is crucial infrastructure for the people of Nova Scotia, and the replacement of the Heatherton Bridge would enable the government to continue to focus on creating jobs and promoting growth, as well as building strong, prosperous communities across the country.

Serving as a vital link in the Trans-Canada Highway system, it was important that Highway 104 remained open, whilst removal of the old bridge, and construction of the new, took place. A two-lane temporary steel panel detour bridge was specified as a solution.

## The Solution

The project detour was approximately 1km long from start to finish and incorporated a new temporary road as well as the 60.9m long and 8.05m wide temporary Mabey Compact 200™ bridge installed alongside the old structure.

Having purchased the Mabey C200™ modular panel bridge system from Algonquin Bridge just a few years earlier, this was the second deployment of the bridging system that the Nova Scotia Department of Transportation and Infrastructure Renewal had made, deploying it initially for use on a similar major detour project.

Hot dip-galvanized for maximum durability, all Mabey modular panel bridge components are easy to handle and assemble, and are completely reusable. Designs can be configured for a wide range of roadway widths up to three lanes, while driving surfaces can be either steel deck (usually epoxy-aggregate-coated for improved traction) or timber. This makes them ideal for projects such as the Heatherton Bridge detour project where they deliver rapid installation together with required capacity and proven resilience and safety.

For greater safety, it was decided to set the new permanent bridge at a grade 5m higher than the old bridge. The detour bridge was also set at the same higher grade and, after disassembly, the temporary approaches were left in place for use in future highway twinning projects.

Construction of the new Mabey C200™ commenced in June 2014 and will be completed in July 2015. After the new structure and roadway are ready, traffic will be moved back to the old road serviced by the new structure, and the temporary detour will be subsequently disassembled, to be put into storage where it will await its next deployment.

## The Result

The Mabey C200™ bridge system owned by the Nova Scotia Department of Transportation and Infrastructure Renewal is proving its worth as a vital tool in the on-going improvement programme for the country's infrastructure, with the value of the department's investment increasing with every subsequent redeployment.

The temporary bridge at Heatherton was a considerable span and is more than capable of delivering the required capacity. It not only allows traffic to continue unheeded, but will also continue to serve as a crossing point for bridge replacement construction equipment as the infrastructure improvement programme progresses.



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