



March 11, 2016

## Algonquin Bridge rolls in historic “knuckle” vehicular truss bridge replacement in Tay Township, ON

**“Sometimes, in tight situations, you just have to roll with it.”**

That’s what the Algonquin Bridge team and project partners were saying on a recent replacement project in Waubaushene, Tay Township, ON. The site was too limited to accommodate a suitable crane to place the 62.5 m structure, so we devised a method to launch it into place on a system of rollers.



### Project at a glance:

**Project Name:** Duck Bay Road Bridge Replacement

**Location/Owner:** Tay Township, ON (Waubaushene)

**Engineer:** C.C. Tatham & Associates Ltd.

**Contractor:** Owen King Ltd.

**Product:** Custom Vehicular Truss Bridge

**Application:** Lake Crossing

**Dimensions:** Length 65.2 m (three spans 19.8 m, 22.8 m, 22.6 m) x Width 5.3 m

**Installation Time:** Two weeks, including field welding

## Custom prefabricated bridge very similar to century-old predecessor

The old steel bridge had certainly withstood the test of time, having been installed in 1927 using re-purposed spans from another bridge location thought to date back to the early 1900s. Due to the required approach grades and marine clearances, the new Duck Bay Road Bridge had to maintain a similar “knuckle” design — with two angled truss sections flanking a horizontal centre section. We prefabricated and shipped the single-lane bridge in three sections. These were splice-connection welded on-site by Algonquin-certified welders — ready to roll onto refurbished piers and abutments with the push of a local excavator.

## New vehicular bridge loading provides better community access

The old bridge was only rated for eight tonnes since the Ministry of Transport Ontario (MTO) weight restrictions were placed on it in 1987. Heavier vehicles like firetrucks and school buses have been re-routed on Highway 400 since then.

## Fire-truck crossing heralds beginning of new Algonquin Bridge era

Algonquin engineers were on-site at important junctures throughout this project to give support to the contractor. The bridge was completed within an aggressive schedule and Tay Township Mayor, Scott Warnock, joined Councillors and invited guests at a ribbon-cutting ceremony. A Fire and Emergency Services tanker truck made the first official crossing, marking the end of 28 years of restricted access.

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