



Acrow Bridge Provides an Alternative Method of Carrying Utility Pipes in Ontario

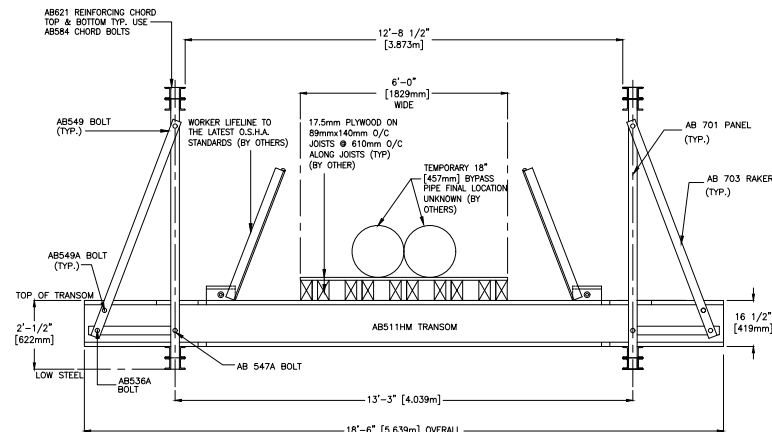
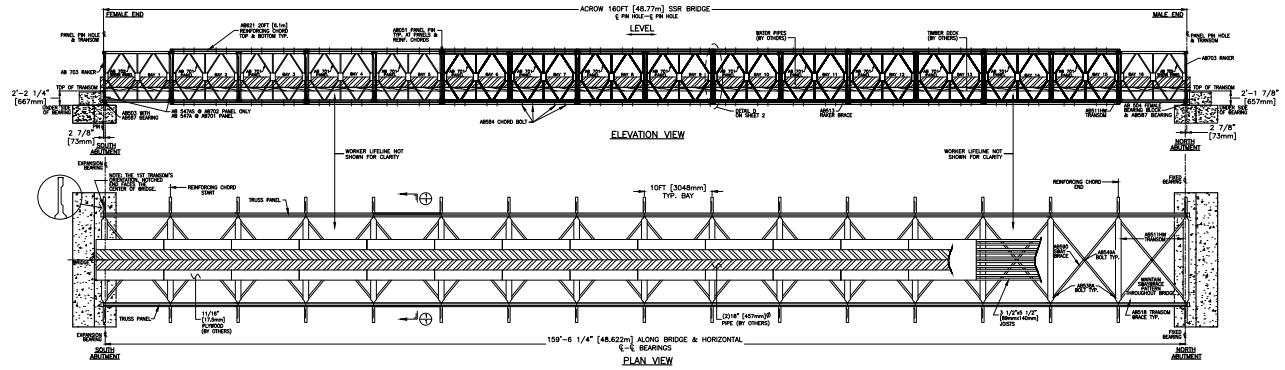
Temporary span affords a fixed-cost solution and more rapid project delivery

As part of an upgrade to a wastewater treatment plant in Ontario, a bridge which supported utility pipes over the Speed River was found to be in need of rehabilitation. The contractor looked at various methods to span the gap during the renovation process. One method was to develop a cable-stayed tower and run the pipes suspended across the river. This is a method often used by pipe utility contractors.

After studying the advantages of using a temporary Acrow bridge, however, the contractor concluded that it was the most efficient method to carry the pipes across the river and had the added bonus of providing workers with safe passage.

The rented structure was 160 feet (48.77m) long and 12 feet (3.67m) wide. The bridge was assembled on rollers and pushed halfway across the river. A crane (needed only for a few hours) was positioned on the far abutment to receive the front edge of the structure and the structure was pushed into place with an excavator. No work was required to be done from or in the water at any time.

Construction of the modular steel bridge began on September 25, 2017, and the assembly and launch of the bridge was completed five days later. The structure was in service for approximately six weeks and its ease and speed of assembly accelerated the delivery of the project.



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Specifications

Bridge length:

160' (48.77m)

Roadway width:

12' (3.67m)

Deck surface:

Timber deck

Bridge erection method:

Crane-assisted launch

Design load:

Two pipes of 17.9" (457mm) diameter,
219.26 lbs/ft (32 kN/m)

Standard Acrow bridge finish:

- All major components galvanized to AASHTO M111-ASTM A123
- All bolts are hot-dip galvanized
- All pins are electrogalvanized

Standard Acrow bridge specification:

- (A) Panel chords, diagonals, verticals, reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Raker braces, transoms, top chord braces, swaybraces, transom braces, diagonal chord braces, decking to AASHTO M223 GD 50
- (C) Panel pins to ASTM A 193 GD B7
- (D) Bolts to AASHTO M164M - A325