

Temporary Acrow Bridge Minimizes Work Zone Impact During Construction in Port-au-Prince, Haiti

After two years of service the structure was easily repurposed for a critical detour application



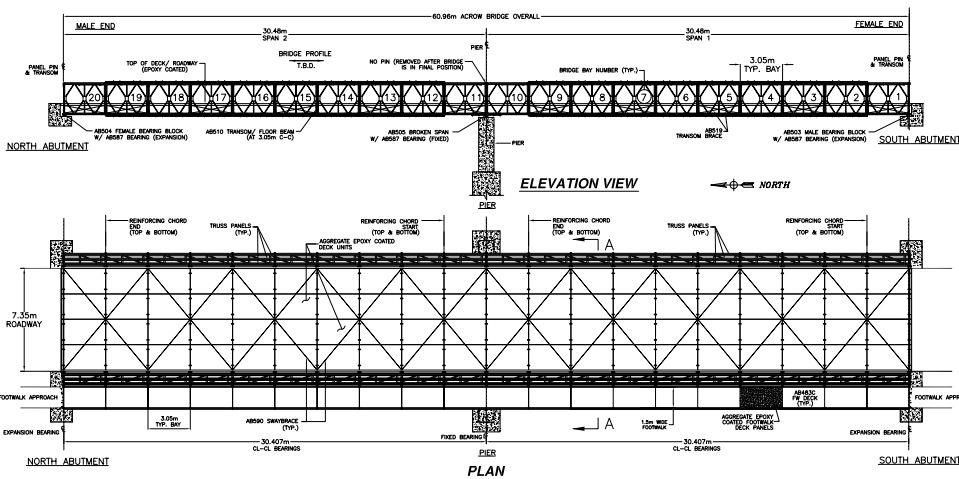
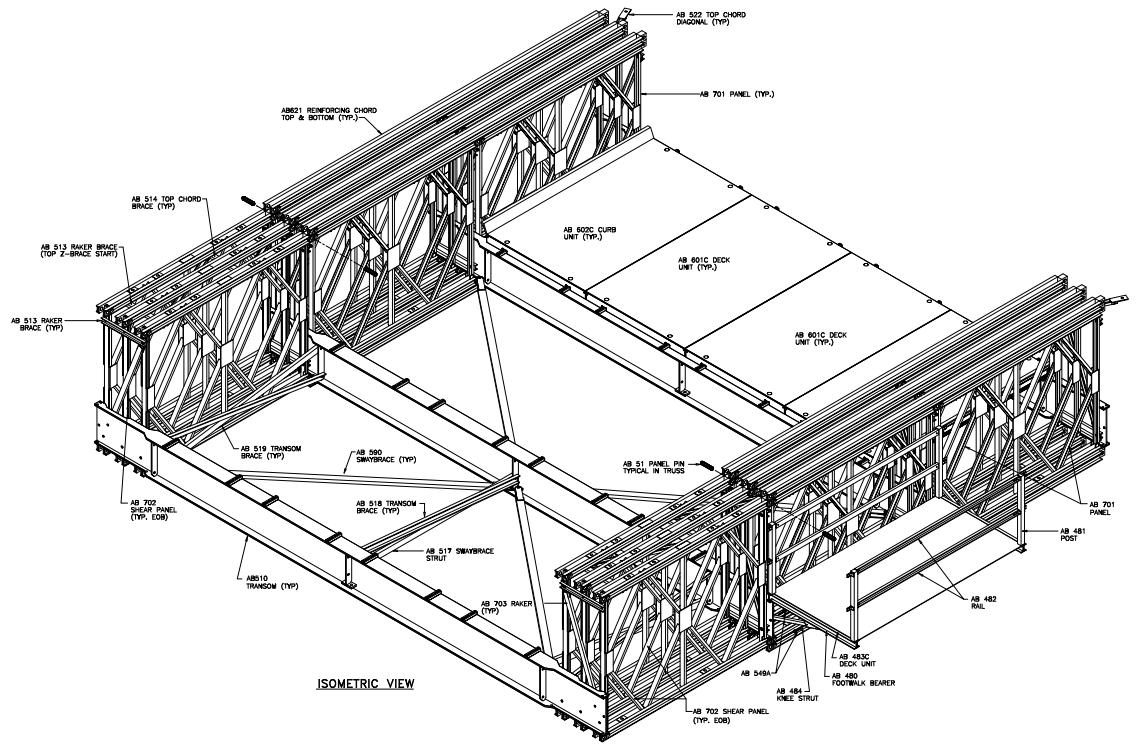
Route Soleil 9 in Port-au-Prince, Haiti, is a vital transportation thoroughfare and one of the most congested in the Port-au-Prince metropolitan area. Average daily traffic is 10,000 vehicles, including heavy commercial truck traffic and emergency responders.

In 2016, Acrow supplied a modular steel bridge for temporary use on the route as construction plans for a permanent concrete bridge were finalized. In 2018, when work on the permanent crossing began, the structure was moved several hundred meters away to serve as a detour during construction.

The two-lane Acrow bridge is 60.96 meters long and 7.35 meters wide. It includes a 1.5 meter footwalk on one side and has a deck surface coated with an anti-skid epoxy aggregate. Acrow's durable steel bridges are manufactured with high strength, high quality U.S. steel from ISO-certified mills and galvanized to protect against corrosion. The structures are virtually maintenance free and are designed to support heavy loads and to withstand severe weather conditions for a service life of 75 years or more.

Acrow's versatile modular bridge was an ideal solution for this project. Prefabricated components allowed for fast installation of the dual-span structure, and when needed in the new location, it was easily disassembled, transported and reassembled. The reusable components can be readily stored for future projects, and flexible launch methods require only minimal equipment to lift or roll the structure into place.

"Designed for fast assembly and disassembly, Acrow's modular bridging system can be used over and over again," said Paul Sullivan, Senior Vice President – International at Acrow Bridge. "The versatility of the structure allowed for the two major spans to be lifted individually by crane and moved to the new location within hours."



Specifications

Bridge length:

60.96 meters (200 feet)

Bridge width:

7.35 meters (24.11 feet)

Live load:

2 lanes of HS25 or
2 lane 60 MT Truck (ASD)
Pedestrian load = 2.87 kPa

Deck surface:

Anti-skid epoxy aggregate

Bridge erection:

Original installation used cantilever launch methodology; due to urgency, second installation executed via crane lift-in methodology

Bridge finish:

- All major components galvanized to AASHTO M111 – ASTM A 123
- All bolts are hot dipped galvanized
- All pins are electro galvanized

Bridge design:

- (A) Panel chords, diagonals, verticals, panel reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Decking, raker brace, transom, diagonal brace, chord brace, swaybrace, transom brace to AASHTO GD 50
- (C) Panel pins to ASTM A 193 GD b7
- (D) Bolts to AASHTO M164M – A325