

# Completely USA Made Acrow Permanent Bridge Provides Safe Passage in the Keahua Arboretum in Hawaii

New structure replaces old roadway prone to regular flooding after heavy rains or flash floods



The Keahua Arboretum in the Keahua State Forest in Kauai, Hawaii, is home to native plants and vegetation introduced by the University of Hawaii, and is enjoyed by locals and tourists for picnicking, swimming, hiking, biking and horseback riding.

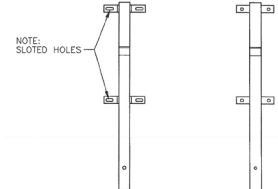
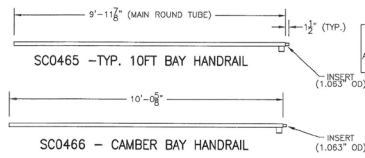
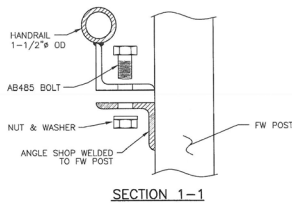
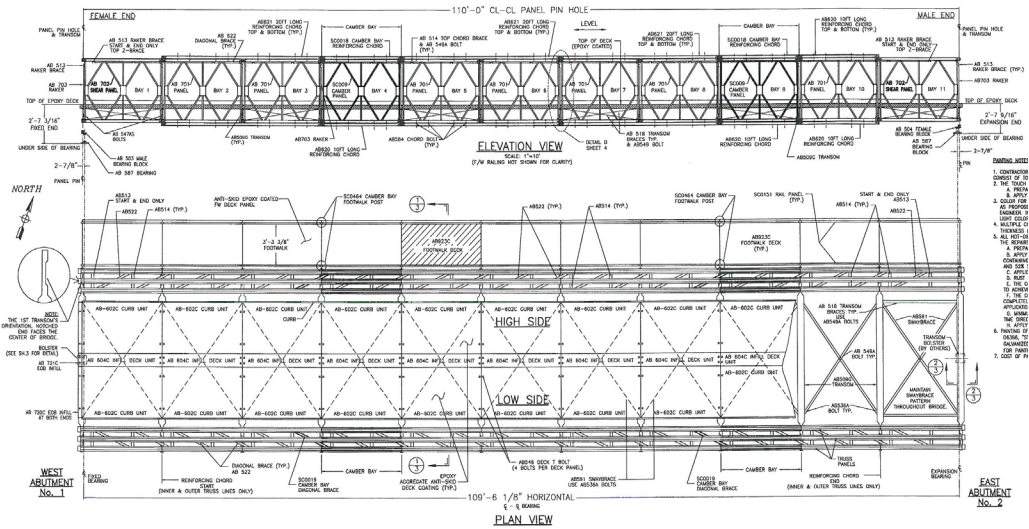
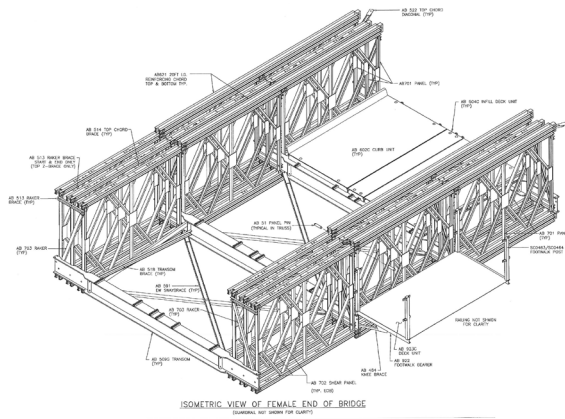
The original route in and out, a concrete roadway, had sunk over time and flooded after heavy rains. Safe passage over the Keahua Stream was not always possible in this remote but highly traveled area. The decision was made to construct a permanent bridge at the site, along with new roadway alignment and a drainage culvert with inlet and outlet.

The decision to use an Acrow structure for the crossing made sense for the tight construction zone, where Acrow modular components can be installed more easily than most other styles of bridges in

constrained build areas. The 110-foot-long by extra-wide single lane bridge has a coated deck and a special one-meter-wide sidewalk that was specified by the Hawaii Department of Land and Natural Resources (DLNR). As with all Acrow products, the bridge will be virtually maintenance-free with a lifespan of 75 years or more.

The bridge, provided to Mocon Construction, opened in April 2017. It is owned by Hawaii DLNR, and the design engineer was Kai Hawaii, Inc.

“It is gratifying that our bridge is being utilized to provide safe crossing for visitors to this amazing recreation area,” said Bill Killeen, President and CEO of Acrow Bridge. “Our maintenance-free, easily assembled steel bridges are completely USA made, with the highest quality construction standards and materials.”



## Specifications

### Bridge length:

110 feet

### Bridge width:

EW

### Bridge load:

HL-93

### Deck surface:

Epoxy aggregate

### Bridge finish:

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

### Bridge erection:

Built in place

### Bridge design:

- Panel chords, diagonals, verticals, panel reinforcing chords, rakers to AASHTO M223 GD 65
- Raker brace, transom, top chord brace, swaybrace, transom brace, diagonal chord brace to AASHTO GD 50
- Panel pins to ASTM A 193 GD b7
- Bolts to AASHTO M164M – A325

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