



Acrow Bridges Empowers Wind Across The Prairie

14 temporary structures facilitate access to a large wind farm in Missouri

During the construction of the Missouri wind farm, several of the existing state, county, and local bridges were not rated to accommodate the special permit heavy-haul trucks contracted to transport the extensive, heavy-duty windmill components to the site.

The installation of a series of rented modular bridges over the existing structures enabled the construction traffic to resume. In total, 14 bridges were temporarily constructed by the end of 2020 to facilitate the site development, ranging in length from 40 feet (12.2m) up to 214 feet (65.23m) with an extra-wide single roadway width.

Manufactured with high-strength high-quality steel sourced from ISO-certified mills, Acrow's solutions are

hot-dip galvanized with a service life of 75 to 100 years, making them virtually maintenance-free.

Designed to meet the unique demands of rugged offroad vehicles, machinery and construction equipment, and supplied with options for deck surfaces, guide rail systems, cambering, and drainage systems, Acrow bridges are ideal for use on heavy industrial and building construction sites. They are also easily transported by standard truck or ocean shipping container, and quickly disassembled, stored and reassembled for use in different locations, offering maximum versatility, dramatically reduced installation times and significant cost savings through Accelerated Bridge Construction.

Specifications

Bridge lengths and roadway widths:

In total 14 bridges were supplied with the following dimensions:

Bridge reference	Length	Width
1	177' (53.95m)	17.2' (5.24m)
2	51' (15.55m)	17.2' (5.24m)
3	73' (22.25m)	17.2' (5.24m)
4	73' (22.25m)	17.2' (5.24m)
5	73' (22.25m)	17.2' (5.24m)
6	214' (65.23m)	17.2' (5.24m)
10	51' (15.55m)	17.2' (5.24m)
11	81' (24.69m)	17.2' (5.24m)
12	118' (35.97m)	17.2' (5.24m)
13	73' (22.25m)	17.2' (5.24m)
14	40' (12.19m)	17' (5.18m)

Deck surface:

Checker plate deck

Bridge erection method:

Full cantilever launch with crane assistance

Design load:

HS25 with allowance for several multi-axle permit load vehicles

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

