

SITE ACCESS SOLUTIONS LONG SPAN BRIDGE INSTALLATION



LONG SPAN BRIDGES

ENGINEERED FOR HEAVY-DUTY PERFORMANCE AND VERSATILE DEPLOYMENT

Designed for demanding site access needs, Mustang Extreme's Long Span Bridges are available in 80', 90' and 100' options and engineered to accommodate spans from 64' to 96'. Constructed in six sections with railings and timber decking included, these bridges are built for efficient transport and rapid assembly, whether for temporary or permanent installation. Engineered to withstand repeated use across multiple sites, they deliver reliable performance under heavy loads, including HL93-rated capacity with no speed restrictions.

Installation can typically be completed in two to three days using standard excavating equipment and a crew of four plus operators. Eighty-foot bridges deliver on three legal transport loads, while 90' and 100' bridges deliver on four, making mobilization straightforward and cost-efficient. Whether you need durable site access for construction, environmental projects, or other off-road applications, Mustang's Long Span Bridges provide strength, stability and flexibility.



SAFETY PROTOCOL

- Always use proper PPE: Steel-toes boots, hard hat, gloves and safety vest
- Be aware and make note of unstable ground conditions and slip hazards
- Always be aware of personnel and equipment location and movement
- Locate overhead power lines, trees, and other potential obstacles or obstructions
- Establish communication protocols with the crew
- Be aware of other contractors' equipment and personnel at the site



ABUTMENT REQUIREMENTS

Long Span Bridges may be installed on a variety of abutments. The native soil conditions, clear span distance, and project duration are typical determining factors in selecting your abutments.

SOME COMMON ABUTMENT OPTIONS

Inverse t-footer concrete poured abutments:

This is the most common abutment recommendation for Long Span Bridges. By digging and pouring inverse t-footers, Long Span Bridges can go down to a minimum of 2' abutment support under each side (4' total supported).

- Max clear span distance will be total bridge length, minus 4'.
- Inverse t-footer concrete abutments are also the most common because this allows customers to "key in" a bridge. By digging down to where the concrete footers tops are 3.5' lower than level ground, the installed permanent bridge would be flush with existing roadway.

12" thick wood crane mats:

Suggested abutment support with wood crane mats is 8' footers under each side of the bridge (16' total supported).

Max clear span distance will be total bridge length, minus 16'.

On extremely compact soil or gravel subgrade, some jobsites can use 4' footers of 12" wood crane mats under each side (8' total supported). Mustang typically recommends the full 16' support but can help review geotechnical analysis in determining the minimum support required.

Precast concrete blocks:

Depending on the subgrade soil underneath, total abutment support would range from same 16' total as wood crane mats, down to 8' total.

LOGISTICS

When planning the install, it is important to consider the space, equipment and crew that will be available at the staging site. Using the information in the chart below, determine whether your crew will have sufficient space to offload all sections with loaders or excavators.

Option 1:

Offload the bridge sections with excavators or loaders. Splice and crib the sections in preparation for lifting into place over the span. In this option, the crane will be needed for 1 day.

Option 2:

If the site is tight or equipment will not be available to offload the sections, plan to have the crane available to handle the offload and the placement of the sections over the span.

Both approaches will require 3 days for installation.

BRIDGE SIZE	TRANSPORT	BRIDGE SECTION DIMENSIONS	PICK WEIGHT	CRANE LIFT
80'	3 Legal Transport Loads	Six Sections: Three sections 6'x 30' and three sections 6'x 50'	29,000 lbs for a combined 30' and 50' section	6' x 80' x 29,000 lbs
90'	4 Legal Transport Loads	Six Sections: Three sections 6'x 40' and three sections 6'x 50'	36,000 lbs for a combined 30' and 50' section	6' x 90' x 236,000 lbs
100'	4 Legal Transport Loads	Six Sections: Three sections 6'x 45' and three sections 6'x 55'	45,000 Lbs for a combined 45' and 55' section	6' x 100' x 29,000 lbs



PHASE 1 – OFFLOADING, SPLICING AND CRIBBING – 1 ½ TO 2 DAYS

Both bridge sizes consist of six sections. If space permits, offload the sections using two loaders or excavators to lift it off the truck and set it on the ground. For all three sizes, one short and one long section are aligned end-to-end in the staging area, which is ideally at the approach to the roadway. Slice and crib the sections using a series of bolted plates to create the full-length sections. Schedule the crane for the next day .

NOTE:

If the site does allow space for equipment and staging the sections, schedule a crane for the entire install. In this scenerio, the sections are offloaded with the crane, spliced, cribed and one section at a time. The joined sections are lifted into place as they are completed.



Offloading partial-length section with loader/excavator



Six [two-beam] partial-length sections offloaded and awaiting splicing



Splicing [bolting] two partial-length sections together



Splicing [bolting] two partial-length sections

PHASE 2 – SETTING THE BRIDGE – ½ DAY

The spliced sections are placed over the crossing using a crane. Consult with a crane operator to determine the best size crane for your project. Once all three full-length sections are set in place they are aligned and bolted together.



Carrying full-length section from staging area to crossing with two loaders



Setting first full-length section



Bolting first and second full-length sections together

PHASE 3: DECKING AND RAILING INSTALLATION – 1 DAY

The timber deck is pre-assembled in panels each nominally 3.5' long x 16' wide that are set in place following the steel erection and secured to the steel structure utilizing a series of bolted “retainer” angles.

Lastly, the rail is bolted to the guardrail posts.

RAMPING:

Typically, the ends of the bridge are “keyed in” and dug 3.5’ into the stream banks, so ramping is not needed. If the bridge is set on the ground, matting and gravel can be used. From the bottom flange to top of bridge deck is 3.5’ high.



Installing timber deck



Completed Installation

INSTALLATION TIME

PHASE	CRANE ONLY	EQUIPMENT + CRANE
Unload, crib and splice 6 bridge sections	2 full days with crane	1.5-2 days unload, crib and splice (heavy equipment)
Bridge Placement	2 full days with crane	1/2 day placement (crane)
Rail and Decking Install	1 day (light equipment)	1 day (light equipment)

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