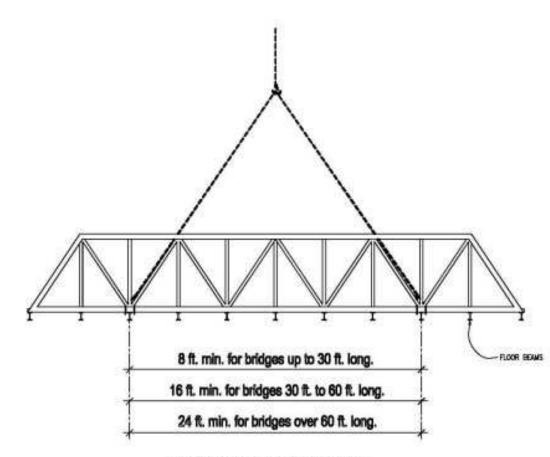


LIST OF TOOLS

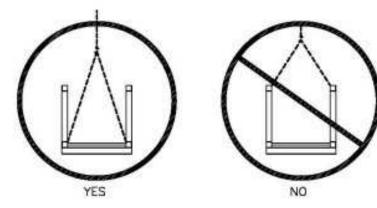
suggested for bridge installation, in addition to the usual rigging.

NOTE! your most important tool is your phone:

- At time of order and during fabrication, the customer should keep Excel abreast of the latest expected installation date. You must call Excel at least two weeks before the delivery date to confirm. Coordination of the delivery is as much the contractors responsibility as it is Excel's. There are variables on both sides like weather, construction problems, right-of-way permits, material shortages, special truck trailer type coordination, over sized shipment permits, shipping curfews, etc. The telephone is your most important installation tool. Call Excel with your questions early and often.
- Excel Shop Drawings that were approved for fabrication. READ the installation instructions and notes on the drawings. If your project has a concrete deck, the re-bar design will be indicated in the notes or on the drawings.
- Wrenches for anchor bolt nuts
- Timbers
- lever bar
- Grease
- If your project has a splice(s), you may need:
- AISC manual which includes turn-of-the-nut method instructions
- Hand winches to pull splices together for spliced bridges
- Large tapered pins, wedges and lever bars
- Paint, crayon or scribe to mark bolt heads for spliced bridges
- Hammer and long chisel to remove nubs sometimes found on bolt holes inside tubes on spliced bridges
- <u>If your project is painted</u>: Straps instead of chains, and brushes etc. for touch up work
- <u>If your project has a wood deck</u>, a few deck planks must sometime be shipped loose at the splice area. To install them you may need: A drill with correct size bits, possibly a counter sink, and possibly a star driver for your drill. Wrenches will be needed for the nuts & bolts on these loose planks. If self tapping bolts are used, pay very close attention to drilling the correct sized holes in the correct order. Warning, if your project has an Ironwood® deck, this hard wood will shear bolts off if over tightened or if the drilled hole is too small.
- <u>If your project comes with a concrete form pan</u>, check the shop drawings for the method of attaching the loose sheets at the splice point, if any.



Rule of thumb - attach strap or chain 1/3 of span length from each end.

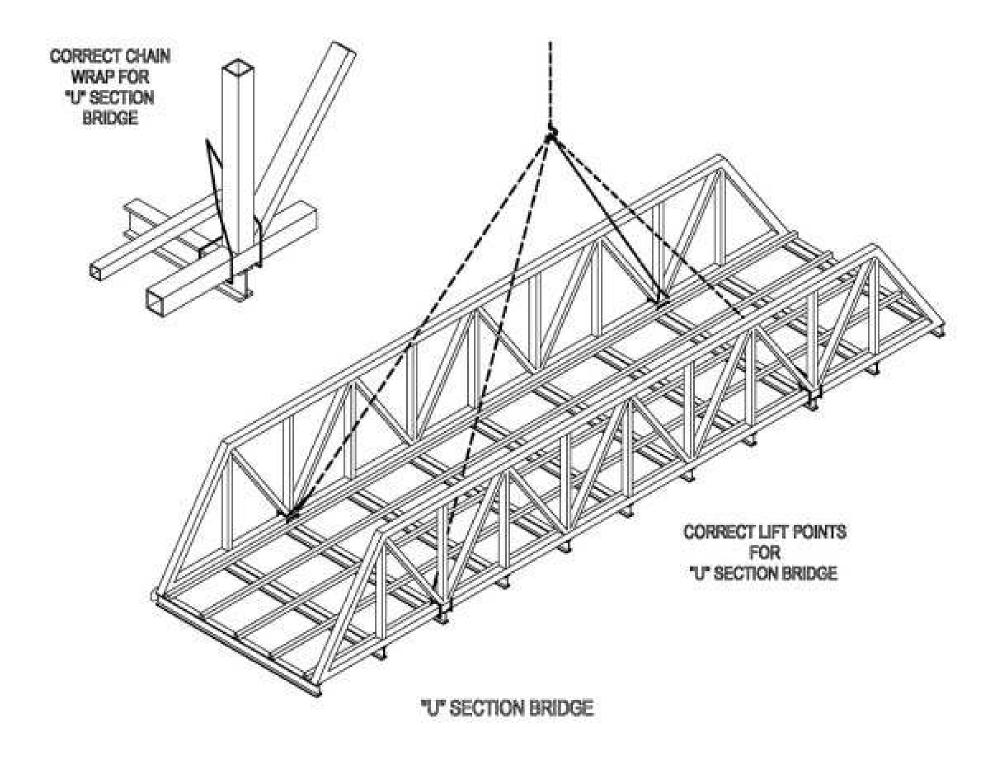


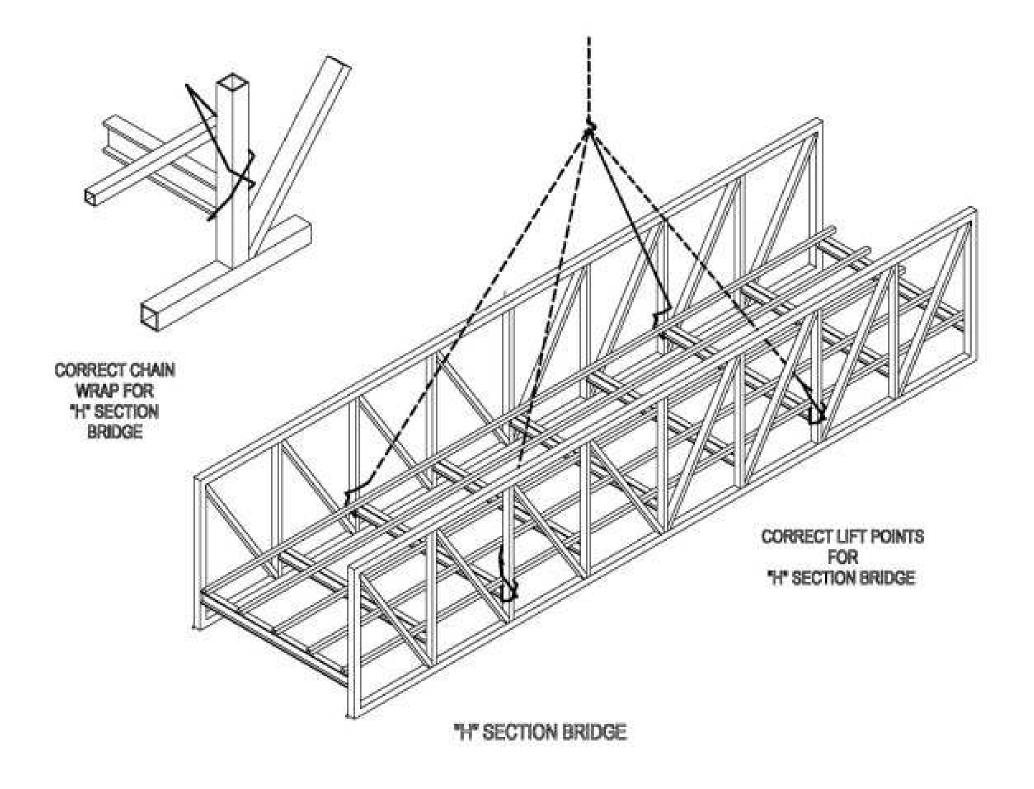
ERECTION PROCEDURE

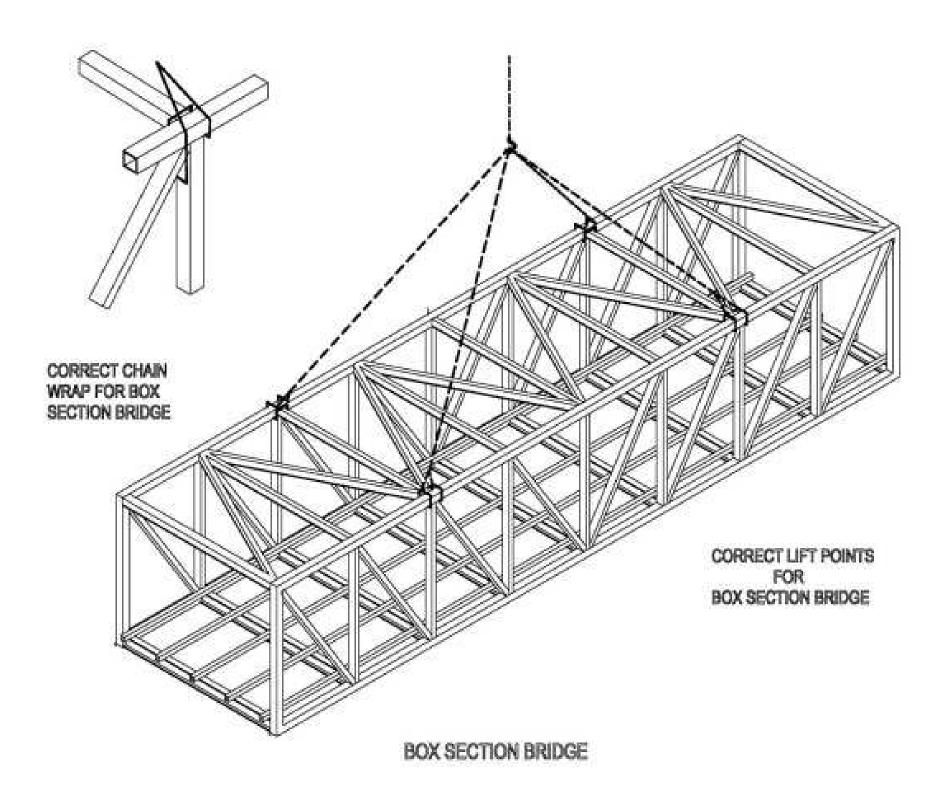
- * Run chain or cable through truss web and around floor beams at no more than 30' from each end. (See sketch matching your bridge type).
- Return chain or cable immediately inside truss and bring to one central point above center of bridge. <u>CAUTION: Chain or cable should not contact</u>

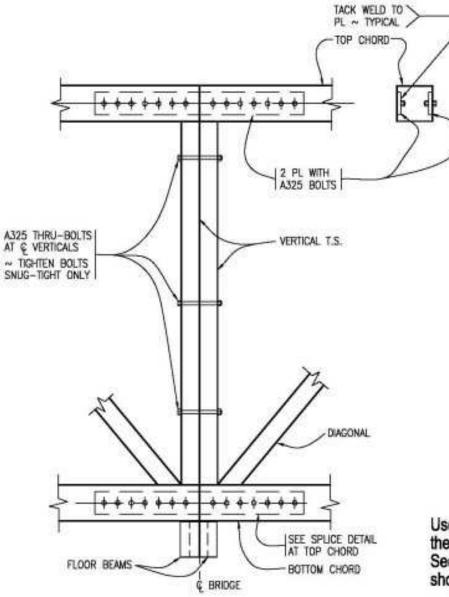
railing system or top chord.

- * Swing bridge into place and stop approximately 6* above bridge seat. *Clip* one mount plate over each comer of bridge.
- Set bridge making sure mount plates slide over anchor bolts.
- Install and tighen nuts on anchor bolts per instructions on your approved drawings.
- * For bridge weight, see approval drawing.
- Depending on crane size, longer bridges may require two cranes.
- Bridge placement is to be performed by qualified crane operators and riggers only. Excel Bridge Mig. is not responsible for damage and/or injury during bridge erection.





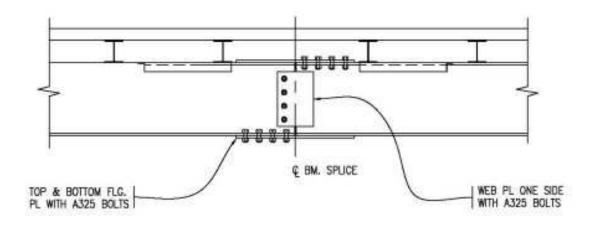




Use the AISC manual following the turn-of-the-nut method. See your Excel "approved" shop drawings for instruction.

TYPICAL SPLICE DETAIL

Use the AISC manual and follow the instructions on your Excel "approved" shop drawings.



TYPICAL FLOOR BEAM - SPLICE

(COMMON ONLY WITH BRIDGE DECKS OVER 14' WIDE)