

BRIDGE KIT

TOOLS & EQUIPMENT

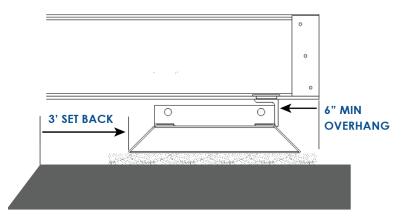
- Equipment
 - Crane, Telehandler, Skid Steer and equipment required to prepare the site and position the I-Beams
- Tools Required
 - o Sockets and Wrenches
 - 15/16"
 - 3/4"
 - 9/16" deep well
 - o 90-degree Angle Drill for Decking
 - Drill Bit- 3/8" 13/32"
 - o ¼" Impact Driver w/ T25 and T30 Bits
 - o ¹/₂" Impact Driver
 - o Drill with ¼ Drill Bit for Railing
 - o Hammer
 - o Sledgehammer



BRIDGE KIT

1. Prepare Site, Square and Level Pans

- a. Measure and prepare the site where the pans will sit.
 - The outside edge of the pans should be between 6 12 inches inset from the end of the I Beams on each side



• The beams will not be able to be secured properly without following this step.

- b. Grade out the approximate area of where the pans will sit either above or below grade. 3/4 Stone with fines is preferred for grading and we recommend up to 6" of fill be used.
- c. Once the area is leveled set the assembled pans and square them within plus or minus one inch.
 - Be sure to verify pans are still set up according to Step a.

2. Set Beams

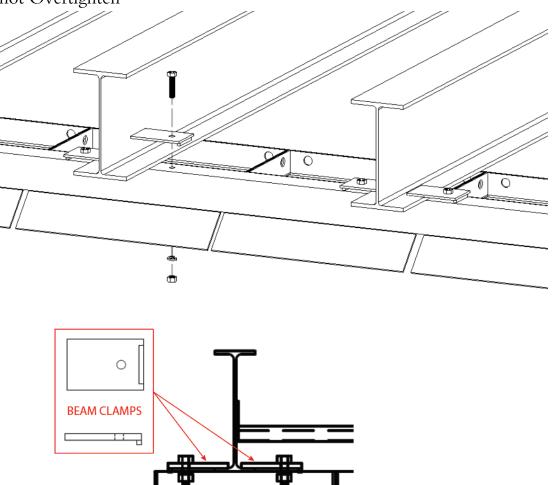
- a. A crane, telehandler or skid-steer is typically used to position the I-Beams. The kit installer is responsible for providing this equipment and its safe use.
- b. Set the beams in place ensuring that the edge of the pan is 6 to 12 inches inset from the end of the I-Beam. Pick **ONE** pan to measure from the Sill angle to the end of the beam per step a. This will ensure the beams are properly located.

• <u>REMEMBER: ALWAYS MEASURE OFF THE SAME PAN.</u>



BRIDGE KIT

c. Once a beam is set secure it by installing the beam clamps finger tight. Do not Overtighten



- Hardware: 5/8" x 2 1/2" HHCS Grade 8 Only finger tight
- SEE HARDWARE DETAIL 1
- d. Set all beams

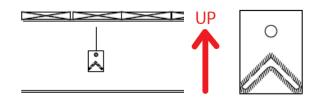
3. Install Frame Ties

- a. Install the frame ties that go in between the beams finger tight. The tab should be up.
 - Hardware: ¹/₂" x 2" Hex Head Bolt. *Only finger tight*

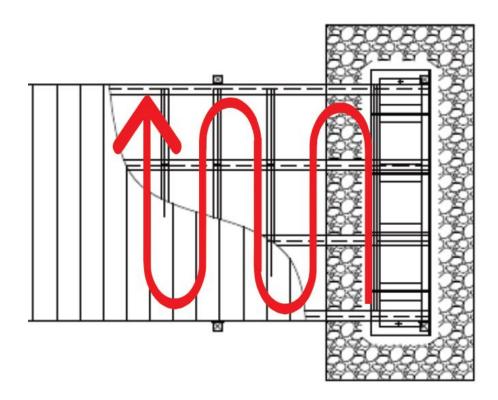


BRIDGE KIT

• SEE HARDWARE DETAIL 2



- 4. Tighten Beams and Frame Ties
 - a. Tighten the frame ties across the width of one end of the bridge, then moving down the length of the bridge continue tightening across the width of the bridge until reaching the end.
 - Tools Required: ¹/₂" Impact with 3/4" Socket & Wrench



• This step is crucial for the overall leveling of the bridge.

- b. Tightly secure the beam clamps starting at one end, preferably the one measured from in step 1-a
 - Tools Required: 1/2" Impact with 15/16" Socket & Wrench



BRIDGE KIT

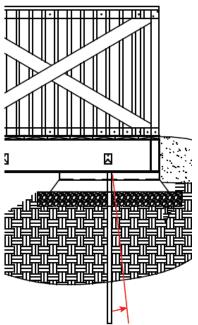
Note: Look at the overall shape and location of the bridge and decide if it is at desired location and properly leveled. Any step after this it is too late to make any changes.

5. Backfill the pans

a. Backfill the pans with dirt or fill to prevent erosion. Backfill until flush with pan or slightly below top.

6. Drive Galvanized Post

- a. Drive the 2" galvanized post in the holes in the sill pans with a sledgehammer. Leave about 1' of the post above the pan.
 - Drive posts vertical or at a slight angle towards bridge approach



7. Deck Bridge

a. Start at the same end from step 1-a.



BRIDGE KIT

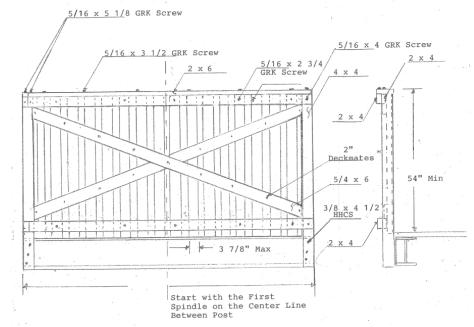
- b. Set board in desired location and predrill through the holes in the top of the I-Beam.
 - Tool Required: 90 Degree Angle Drill
- c. Install Carriage Bolt & Tighten nut to secure into position
 - Tools Required: ¼" Impact with 9/16" Socket & Wrench
 - SEE HARDWARE DETAIL 3
- d. Every 10 15 boards, Measure back to the end of the bridge to ensure everything is straight. If necessary, rip deck board to bring back to straight.

8. Attach Railing Post

- a. Attach Railing post to the post brackets located on the outside of the beams.
 - The X on the 4 x 4 should be put facing in towards the brackets.
 - Tools Required: ¼" Impact with 9/16" Socket & Wrench, Drill, Impact Driver
 - SEE HARDWARE DETAIL 5
- b. Level post before tightening.

9. Assemble Railing

- a. The railing needs to be custom fit and custom cut
 - See Railing Detail drawing included in package



b. Predrill ends of railing before securing. Use ¹/₄" drill bit for pilot hole.



BRIDGE KIT

10. Finish Detail

a. Use touch up stain to stain any cut ends.



BRIDGE KIT

Hardware Details

- 1. **Beam Clamp Hardware** 5/8" x 2 ½" Grade 8 Hex Head Cap Screw with 5/8" grade 8 nut and lock washer ----- 15/16 socket
- Red Iron Frame Ties ½" x 2" Zinc Hex Head Cap Screw with ½" zinc nut and lock washer ----- ¾" socket
- 3. Deck Carriage Bolt Galvanized- 3/8" x 2-1/2" with 3/8" nut no washer. ----9/16 Deep well socket ---
- 4. Galvanized Pipe 2" x 5' schedule 40 galvanized pipe
- 5. Railing Hex Head Bolt 3/8" x 4 ½" Hex Head Bolt 3/8" Flat washer 3/8" nut Bolt through 4x4 with washer nut on inside Galvanized Components 9/16" socket
- 6. Top Railing Cap to Post 5/16" x 4" GRK Screw T30 Bit ¼" Pilot Hole
- Top Railing Cap to Top Railing 5/16" x 4" GRK Screw T30 Bit ¼" Pilot Hole
- 8. Railing to Post 5/16" x 4' GRK Screw T30 Bit ¼" Pilot Hole