

MODELS:

All Standard Equipment Screen Models

V2xx, V4xx, V6xx

General Notes

1. These instructions are for installation of a framing system to a flat roof to support louvered equipment screens designed and manufactured by Architectural Louvers. Any other use of this framing system is at the sole discretion of the user.
2. The framing system provided is designed for 30 lbs per square foot wind load (unless otherwise noted for your project). The framing requires support from the roof to create the overall structural integrity. Consult a design engineer regarding the capability of the roof to sustain the additional gravity and wind loads imposed by the framing and louvers. In some cases, additional support may be required to meet the load requirements.
3. Some flashing, cant strips, roofing material, fasteners, shims, and installation hardware may be required and supplied by the installing contractor. The details shown herewithin are recommendations only. Consult project submittal drawings for specific instructions about the installation for your project.
4. Prior to installation of any base supports, review the roof system manufacturer's recommendations for roofing material, flashing, and fasteners required at roof penetrations. Follow the roof manufacturer's instructions for patching roof material and flashing at base supports and penetrations.
4. Read the entire installation instructions and review the project submittal drawings prior to proceeding with installation.

General Installation Requirements

1. Accurate location of the base supports is critical to reducing the overall installation time for the framing system and louvers. Care should be taken to locate base supports per the drawings provided for your project.
2. Once installed, the top surface of all base supports must be level, and level with each other. Since the base supports are typically a large distance apart, a laser level is recommended.
3. 1/4" fasteners are required at the attachment of base supports to the roof (by others). The fastener selection is dependent on the roof substrate and the forces imposed by the equipment screen.

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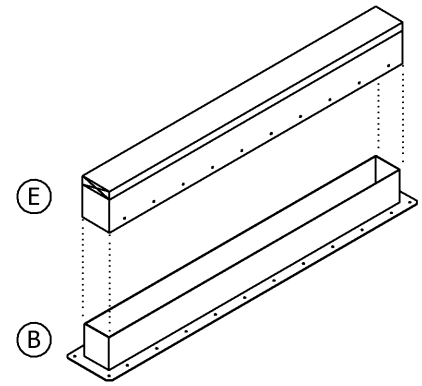
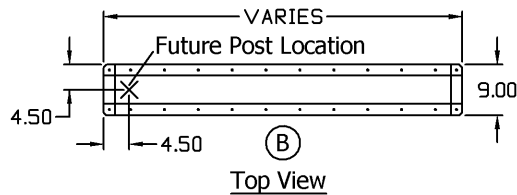
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10	Attach Racking Brace to the Girts
11	At Corners, Attach Additional Corner Clip Angles
12	Attach Equipment Screen Mounting Clips

Install Base Supports to Roof

Parts list:

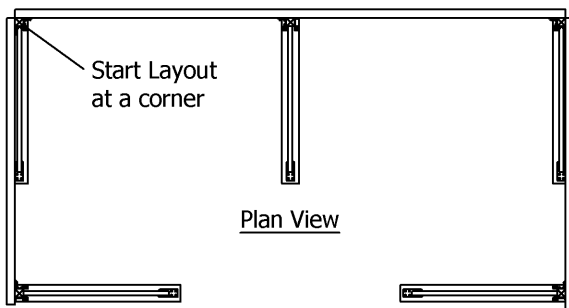
B - Base Support Foot
E - Base Support Extension with Wood Nailer

#14 Self-Drilling Sheet Metal Screws

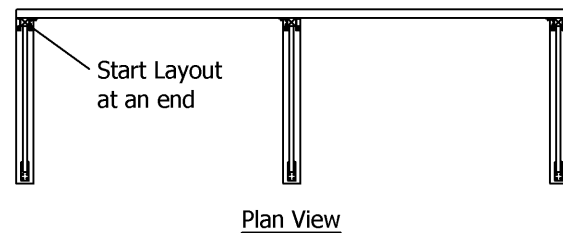


Locate Base Support feet:

1. Per the project drawings provided, locate a corner post (if applicable) and place one base support in the location and orientation shown on the drawings. If your project has no corners, start at one end.



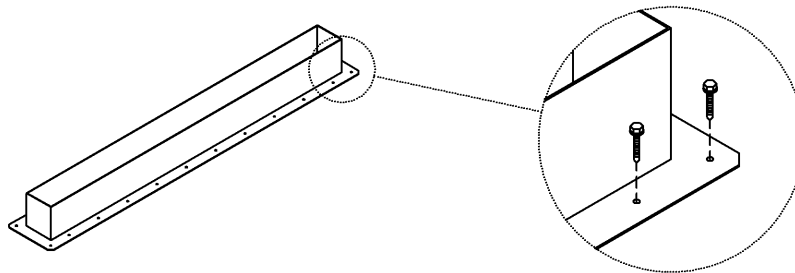
OR



2. Locate and place the remaining base support feet on the roof. Double-check to be sure the locations match the dimensions on the project drawings.

3. Depending on the construction of the roof and roofing material utilized, you may need to cut the roofing membrane (or asphalt) and remove the cut portion. If this is necessary, follow the roofing manufacturer's instructions for making a roof penetration. Use the outer flange of the base support as a guide.

4. Locate the base support foot and fasten it to the roof using 1/4" or #14 fasteners (by others) through ALL of the pre-punched holes in the mounting flange of the base (every 6" maximum).

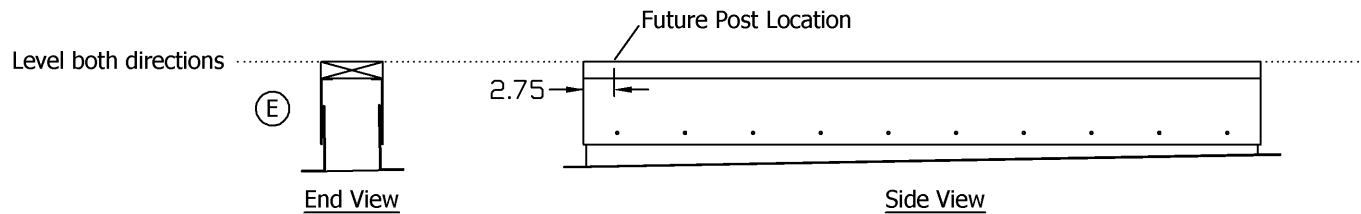


5. Repeat steps 4 and 5 for all remaining base support feet. Measure as needed to insure each rail base is accurately located.

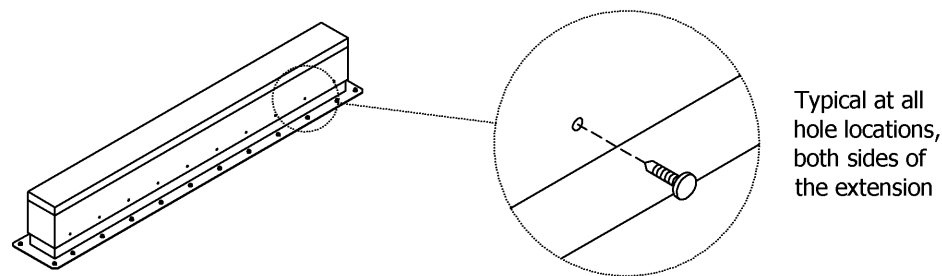
Install Base Supports to Roof (continued)

Mount and Level Base Support Extensions:

1. Starting at the highest elevation on your roof, mount one Base Support Extension over the base. Allow the extension to fully seat over the base.
2. Level the extension in both directions.

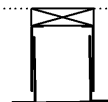
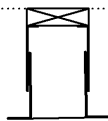


3. Fasten the extension to the base with #14 self-drilling sheet metal screws through the pre-punched holes in the extension.



4. At the next nearest Base Support Foot, mount another Base Support Extension over the base. Elevate the extension until the top is level with the previous base support extension (from Step #3).

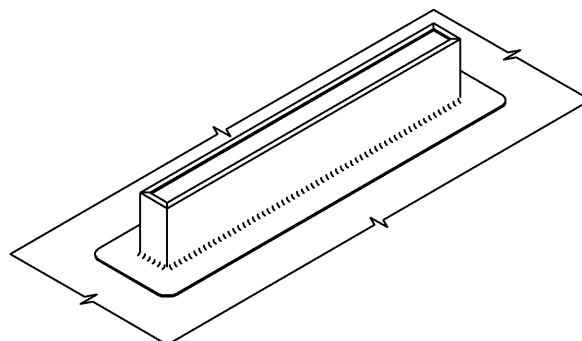
Level tops of all
Base Supports



5. Level the Base Support Extension in both directions. Fasten the extension to the base with #14 pan head screws through the pre-punched holes in the extension.
6. Repeat steps 4 and 5 until all the extensions are mounted to the bases.

Seal Roofing Material to Base Supports:

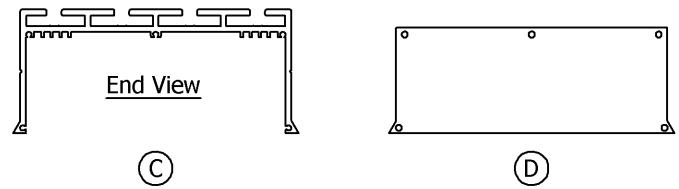
1. Use cant strips, flashing, and additional roofing material (by others) as required to seal the roofing material to each base support. Follow original roofing material manufacturer instructions.



Attach Caps to Base Supports

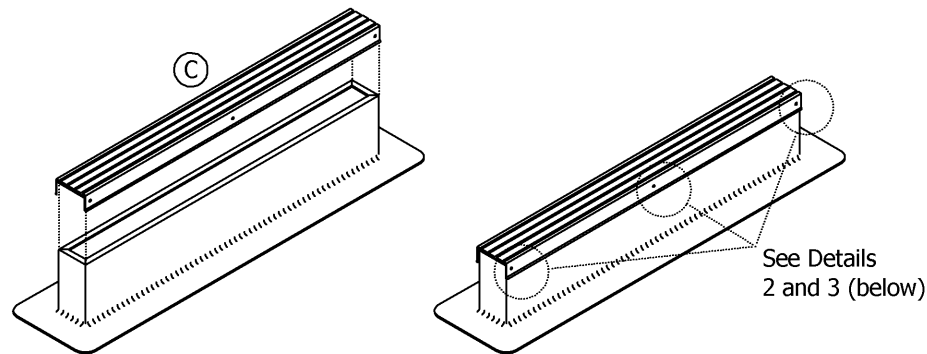
Parts list:

C - Base Support Cap - 6" x 2-3/4" aluminum extrusion
D - End Plate - 6" x 2-3/8" stamped aluminum plate
3/8" diameter x 2-1/2" deep lag bolts
#6 x 3/4" self-drilling screws



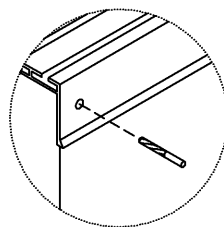
Attach Cap to Base Support:

1. Center and seat the Base Support Cap over the Base Support. Apply pressure to the top of the cap to eliminate any gaps between the cap and the base support.

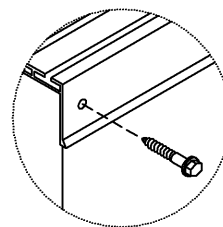


2. Through each pre-drilled hole in the base support cap, drill pilot holes into the wood nailer 15/64" diameter x 2-1/2" deep (see Detail 2).

3. Fasten the base support cap to the base support with 3/8" x 2-1/2" lag bolts (provided - see Detail 3).



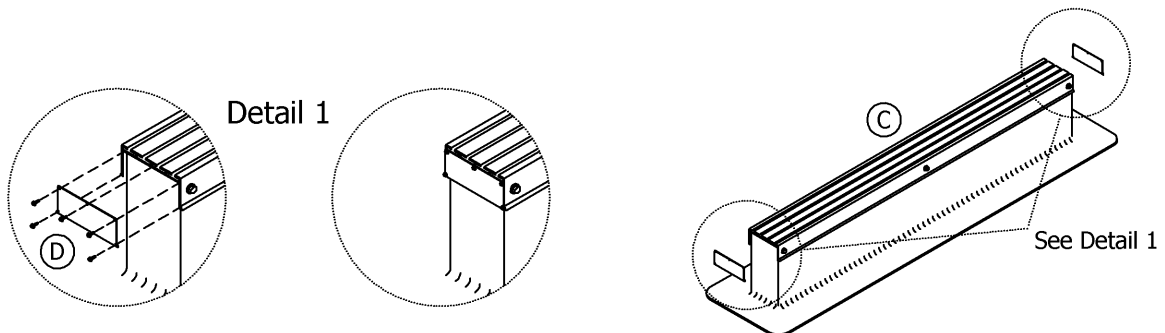
Detail 2



Detail 3

Attach End Plates to Base Support Caps:

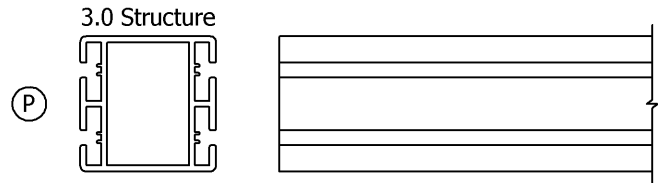
1. Align and fasten End Plates to the Base Support Cap with 5 each #6 x 3/4" self-drilling screws.



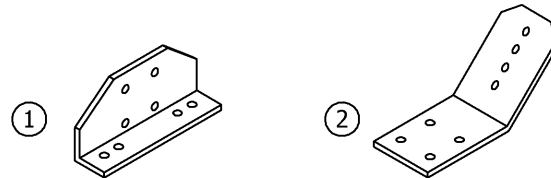
Mount Post Framing to Base Support Caps

Parts list:

- P - Post material slotted (3" x 3" modular frame)
- K - Kicker Brace slotted (1.5" x 1.5" modular frame)
- S - Cross Brace slotted (if required)

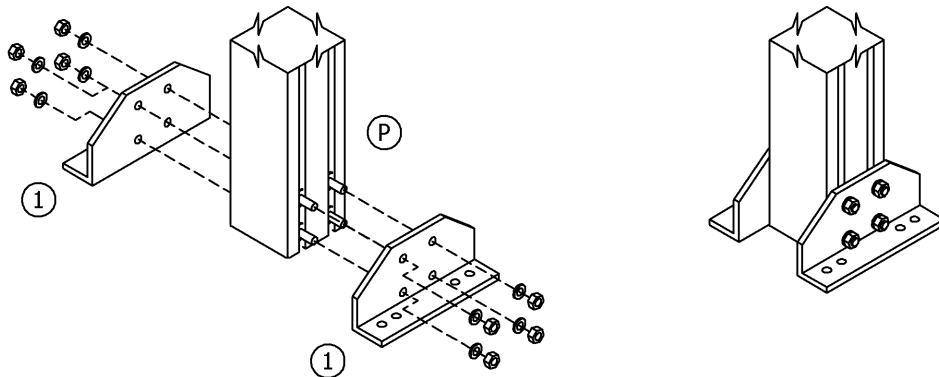


- 1 - Post Bracket
- 2 - 45 degree Kicker Bracket
- 5/16" carriage bolts, nuts, and lock washers
- 5/16" x 1" self-drilling screws

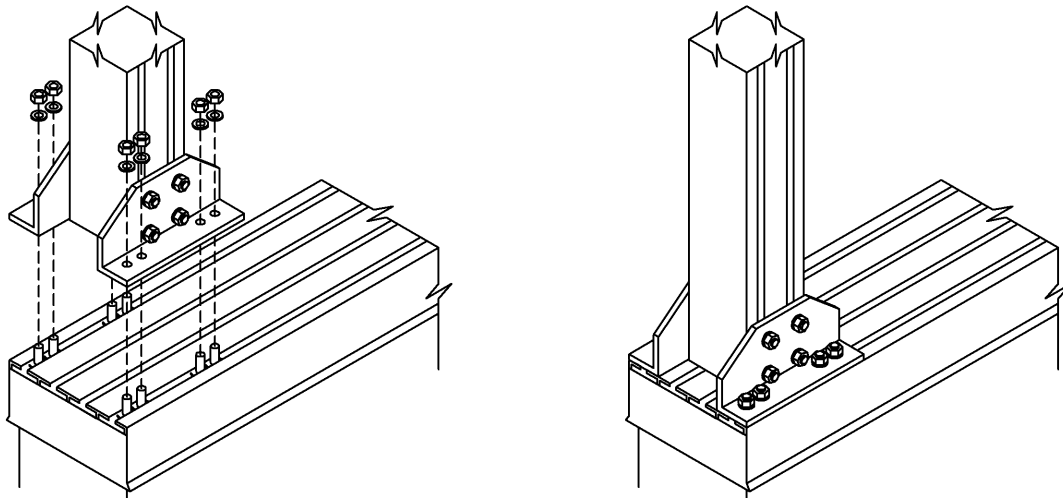


Fasten Post to Base Support Cap:

1. Slide 2 carriage bolts into each slot at the end of the Post. Attach 2 Post Brackets to the end of each Post with 8 each 5/16" carriage bolts, nuts, and washers. Finger tighten nuts.



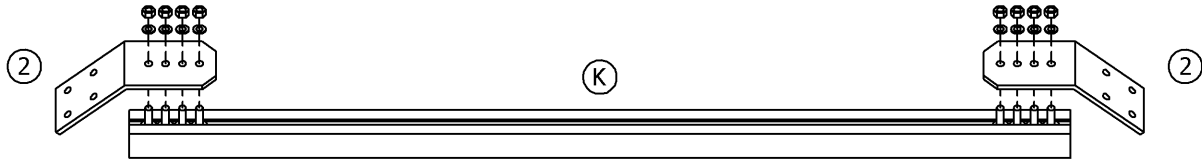
2. Slide 4 carriage bolts into each of the outermost slots of the Base Support Cap. Attach the Post and Post Bracket to the Base Support Cap with 8 each carriage bolts, nuts, and washers. The Post Bracket should be flush with the end of the Base Support Cap. Level and plumb the post. Tighten all 16 nuts with a ratchet or box end wrench.



Mount Post Framing to Base Support Caps (continued)

Attach Kicker Brace:

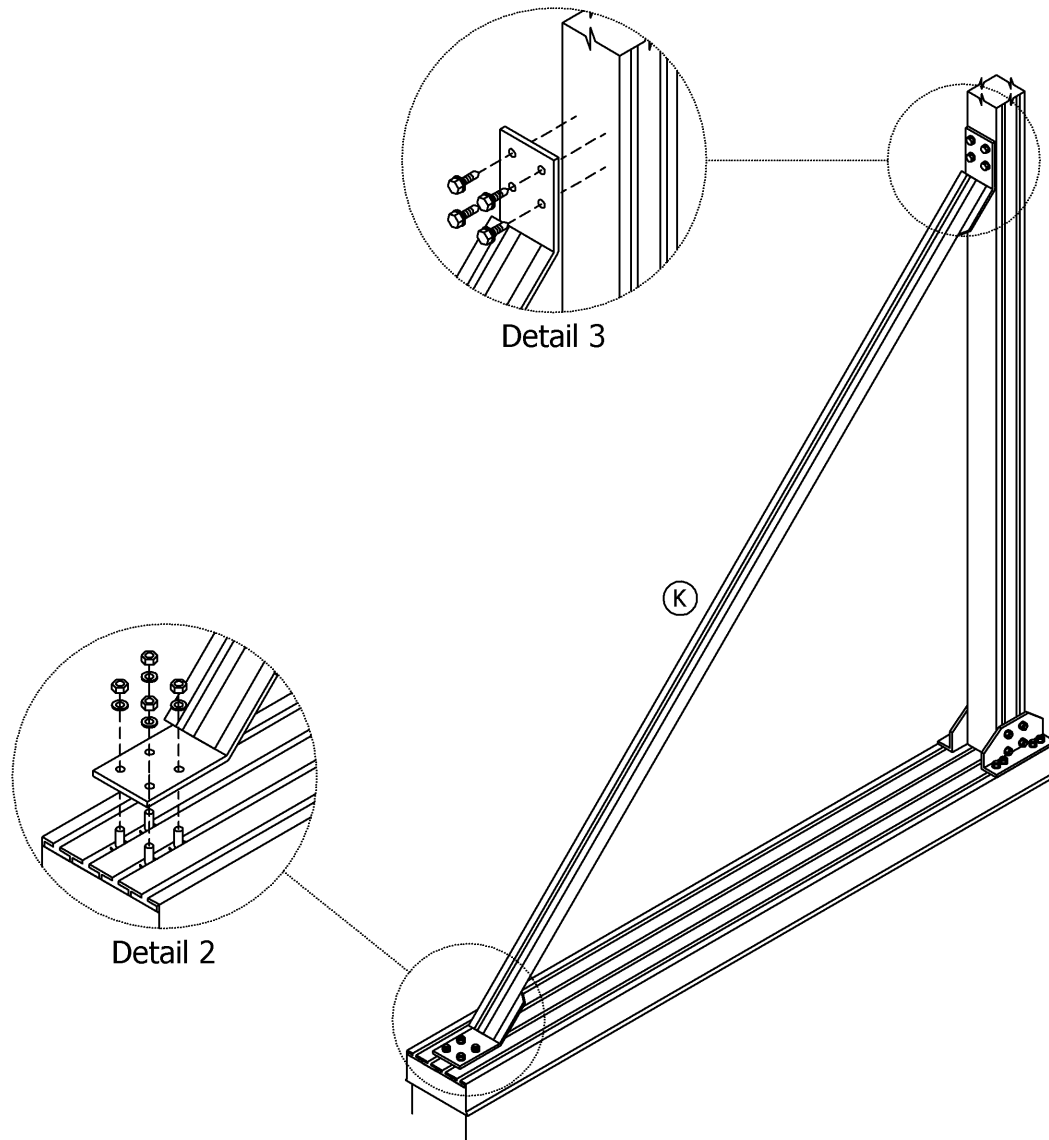
1. Slide 4 carriage bolts into the slot at the end of the Kicker Brace. Attach a Kicker Bracket to both ends of the Kicker Brace with 8 each 5/16" carriage bolts, nuts, and washers. Tighten nuts.



2. Slide 4 carriage bolts into the base support cap. Align one end of the kicker brace (see Detail 2) over the bolts and apply 4 washers and nuts. Finger tighten.

3. Fasten the opposite end of the kicker brace using 4 Ea. 5/16" x 1" self-drilling screws (see Detail 3).

4. Plumb the post and tighten all nuts with a ratchet or box end wrench.



Mount Post Framing to Base Support Caps (continued)

Additional Parts list (if Cross Brace is required):

S - Cross Brace

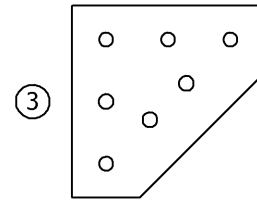
2 - 45 degree Kicker Bracket

3 - 90 degree Kicker Bracket (Bracket ESD)

5/16" carriage bolts, nuts, and lock washers

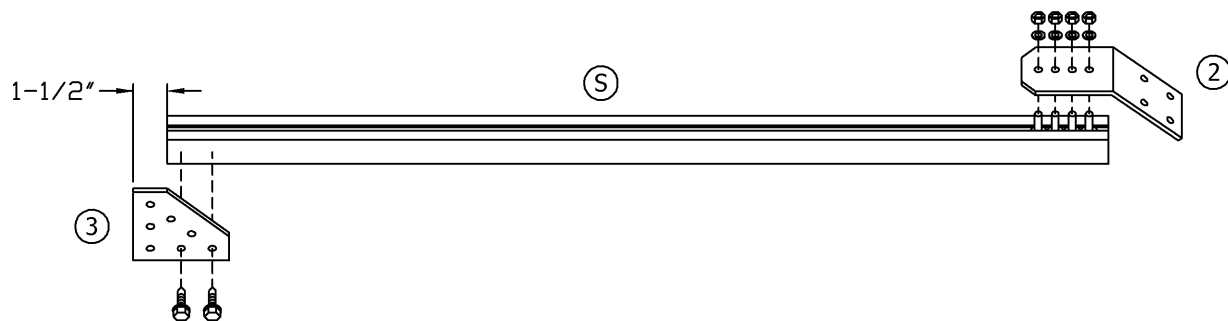
5/16" x 1" self-drilling screws

Bracket ESD


Attach Cross Brace (if required):

1. Slide 4 carriage bolts into the slot at the end of the Cross Brace. Attach a Kicker Bracket to one end of the Cross Brace with 4 each 5/16" carriage bolts, nuts, and washers. Tighten nuts.

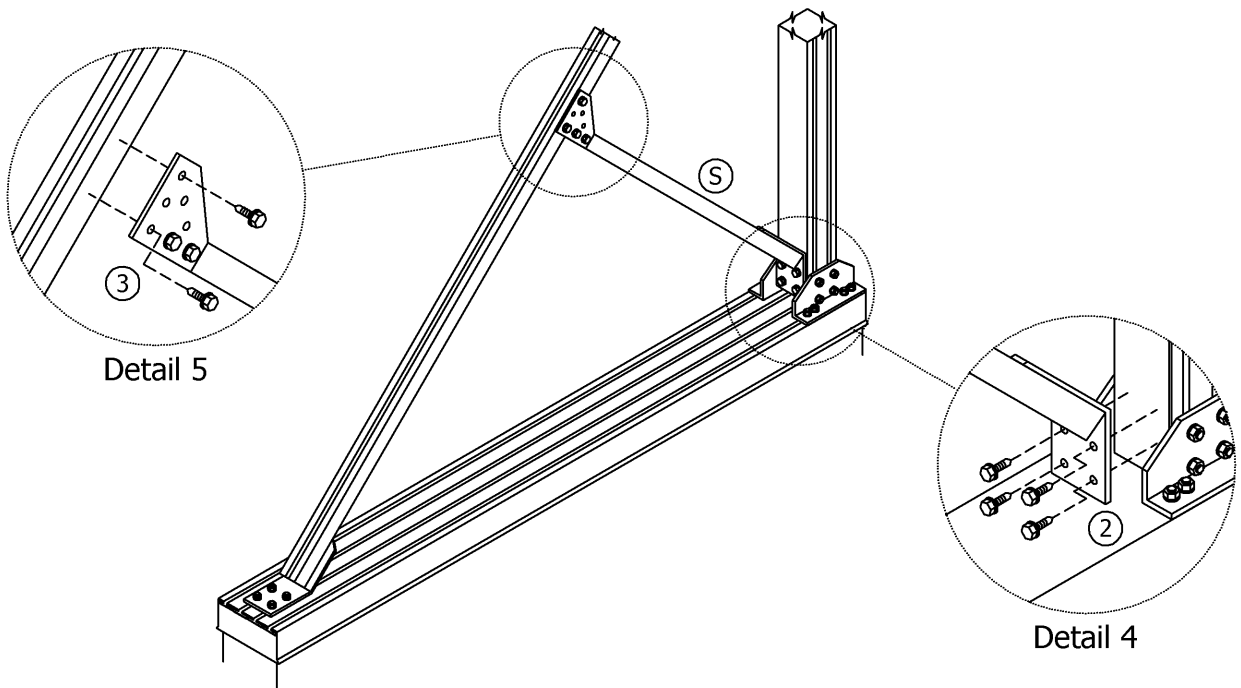
2. Align one 90 degree corner bracket to the opposite end of the Cross Brace as shown and fasten with 2 each 5/16" x 1" self-drilling screws.



3. Align the Cross Brace at a 45 degree angle between the Post and the Kicker Brace.

4. Attach the Kicker Bracket to the Post with 4 each 5/16" x 1" self-drilling screws (see Detail 4).

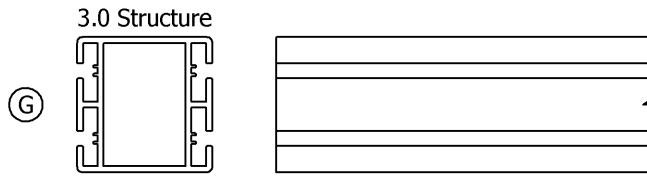
5. Attach the 90 degree corner bracket to the Kicker Brace with 2 each 5/16" x 1" self-drilling screws (see Detail 5).



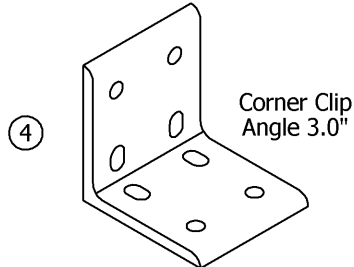
Mount Girts to the Posts

Parts list:

G – Girt structural member (3" x 3" modular frame)

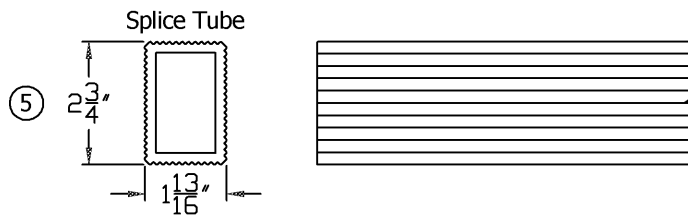


4 – Corner clip angle 3"



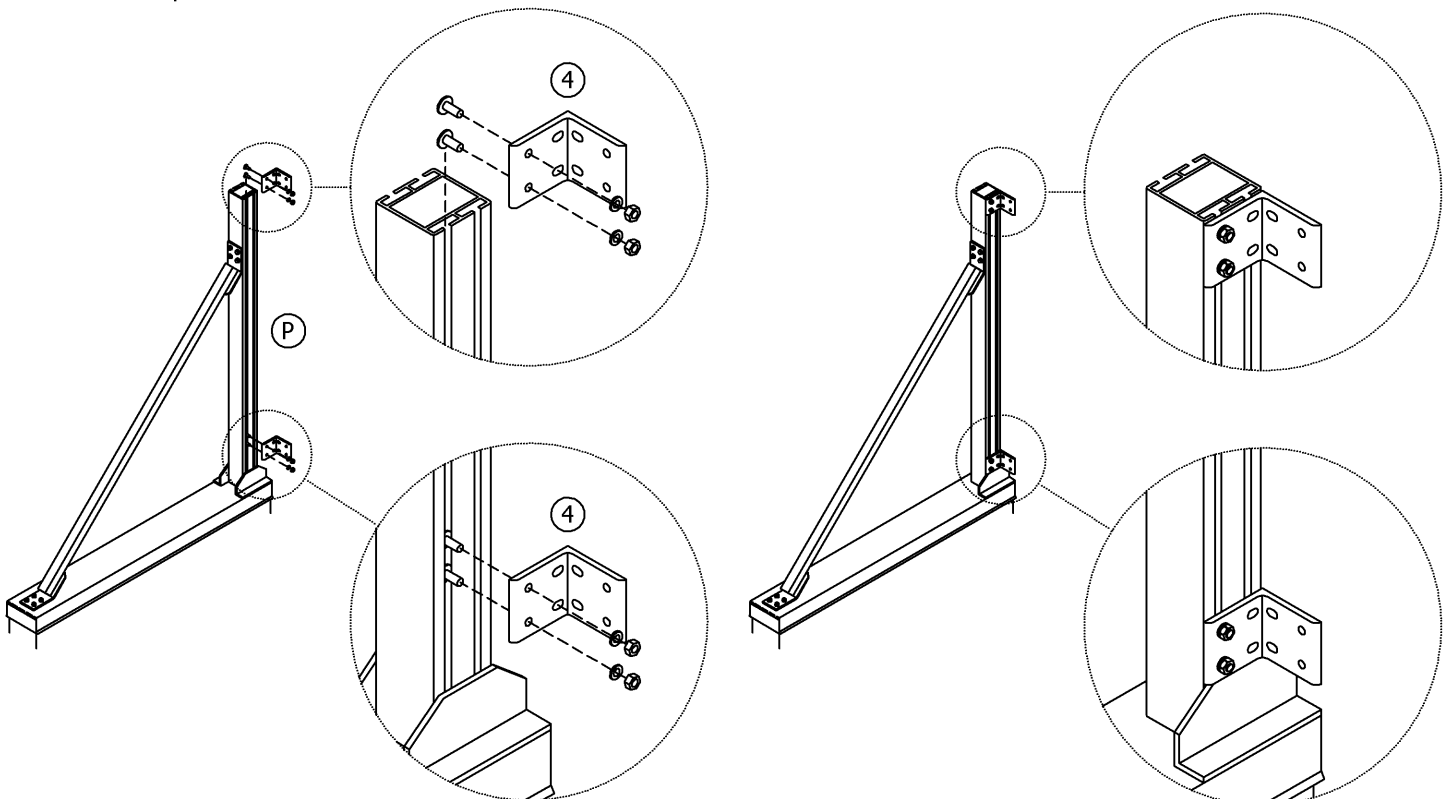
5 - Splice tube

5/16" carriage bolts, nuts, and lock washers
5/16" x 1" tek screws



Attach Corner Clip Angles to the Posts:

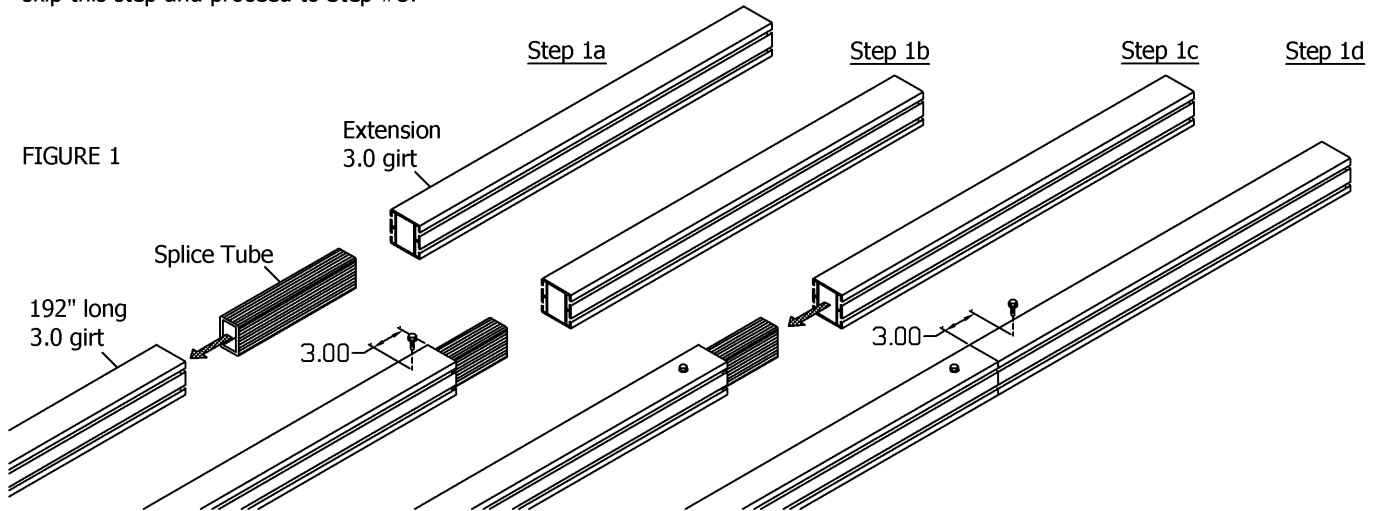
1. Attach 2 Corner Clip Angles to the each Post using 4 carriage bolts, nuts, and washers. Mount the corner clip angle at the heights shown on the project drawings. Finger tighten. NOTE: Most configurations have 2 corner clip angles at each post. However, taller screen heights (over 80") require 3 corner clips angles per post. Consult project specific drawings for quantity and locations required.



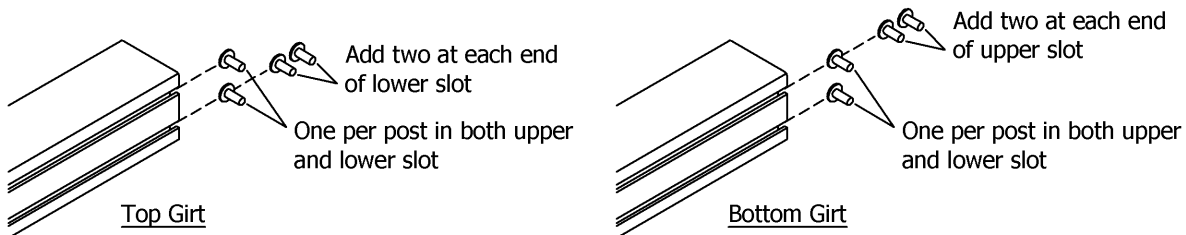
Mount Girts to the Posts (continued)

Attach the Girts to the Corner Clip Angles:

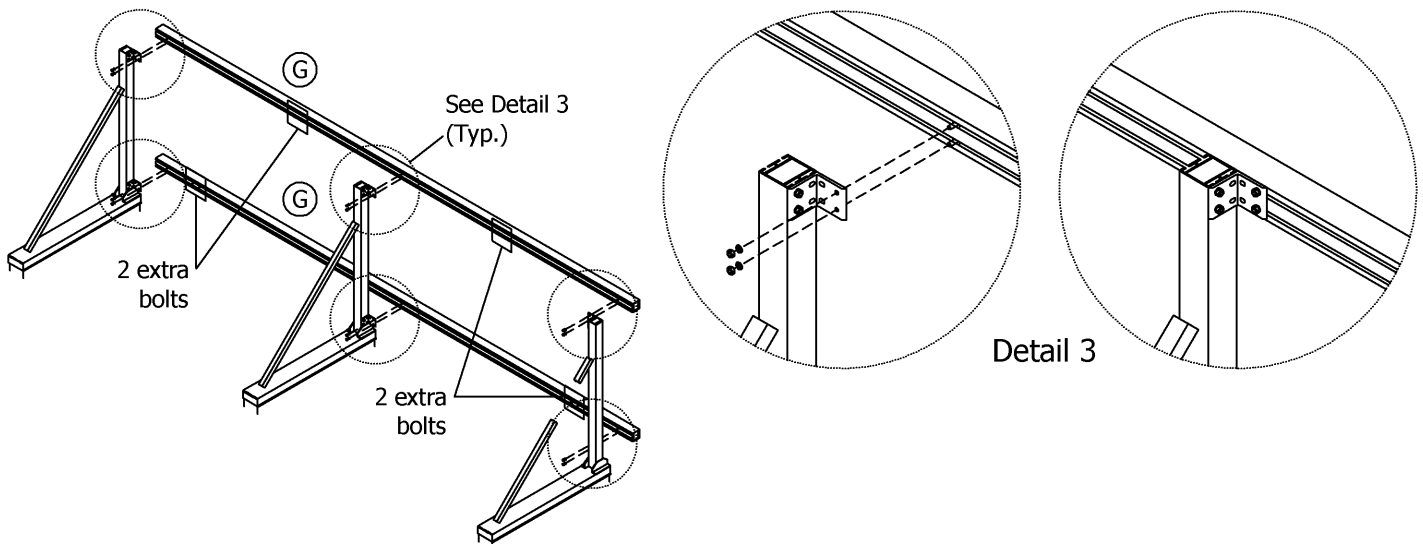
1. If your girts are longer than 192", a splice will be necessary to achieve the overall dimensions required. The splice tube is inserted 6" into each girt and fastened with 2 each 5/16" x 1" long Tek Screws (see figure 2). If you do not have any girt splices, skip this step and proceed to Step #3.



2. Slide one carriage bolt per Post into each slot of the girt (one side only). Each mounting point has one upper and one lower fastener. Extra carriage bolts (see below) must be inserted for attachment of the Racking Brace (next page).



3. Lift the girts into position and align the carriage bolts with the outermost holes in the corner clips angles. Fasten with lock washers and nuts (see Detail 3).



5. Tighten all nuts from steps 3 and 4 with a ratchet or box end wrench.

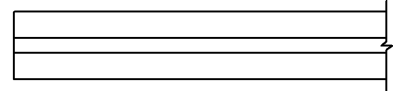
Attach Racking Brace to the Girts

Parts list:

R - Racking Brace slotted (1.5" x 1.5" modular frame)

1.5 Structure

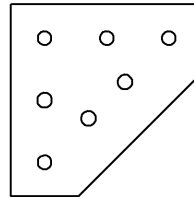
(R)



6 - 45 degree Racking Bracket

Bracket ESD

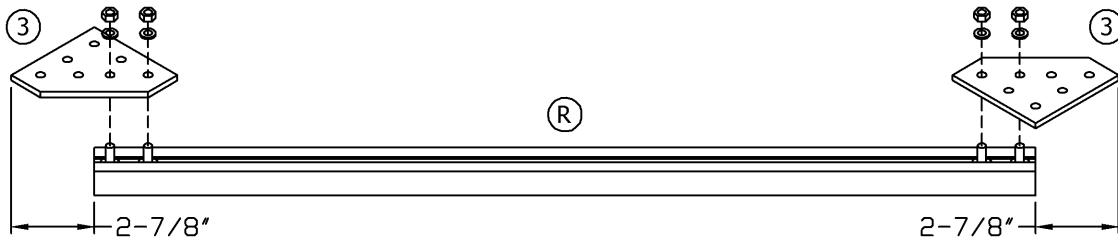
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5/16" carriage bolts, nuts, and lock washers

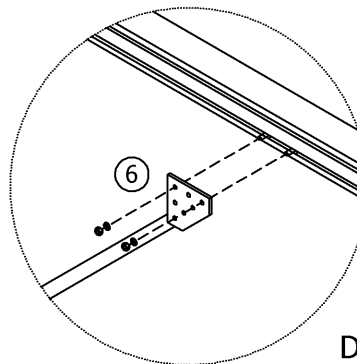
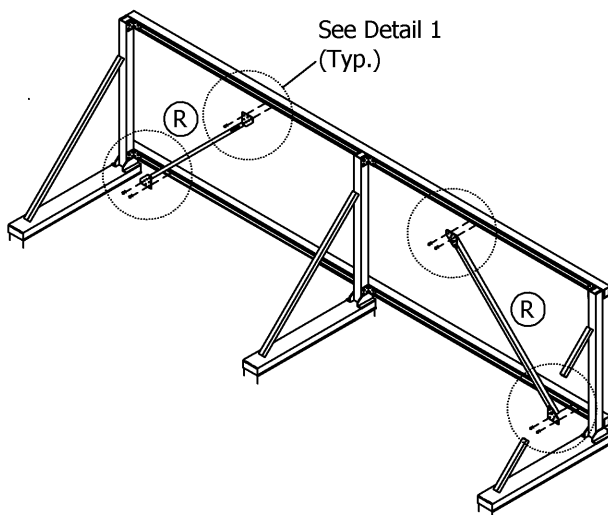
Assemble Racking Brace:

1. Fasten one Racking Bracket to the end of each Racking Brace in the orientation shown below using 5/16" carriage bolts, nuts, and washers. Tighten nuts.

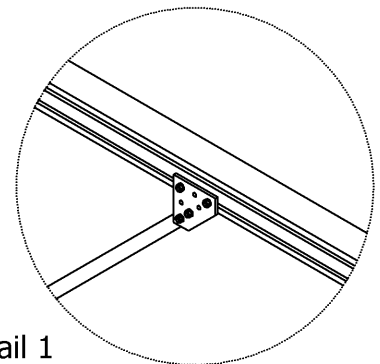


Attach Racking Brace to Girts:

1. At each end of a framing run, attach one racking brace between the upper and lower girts with 5/16" carriage bolts, nuts, and washers (see Detail 1). Tighten nuts.



Detail 1

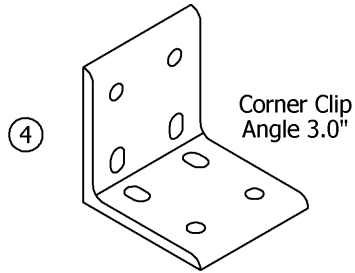


Corners (if required) - Attach Corner Clip Angles

Parts list:

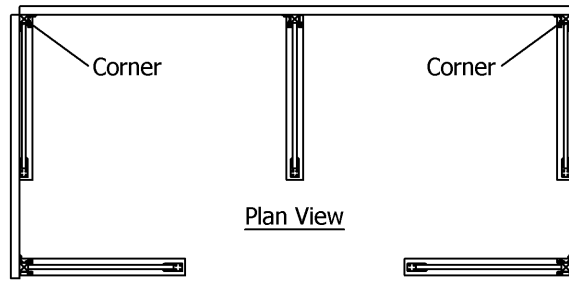
4 – Corner Clip Angle 3"

5/16" x 1" Tek Screws

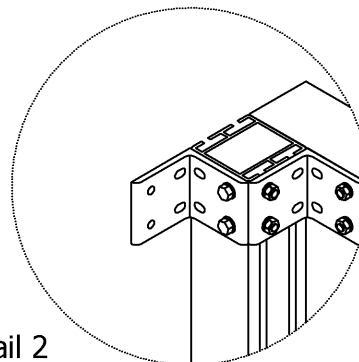
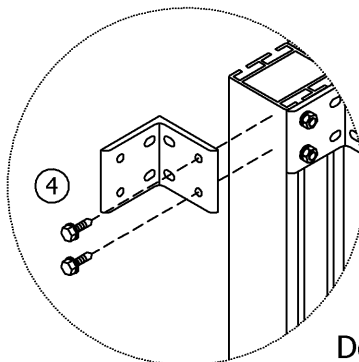
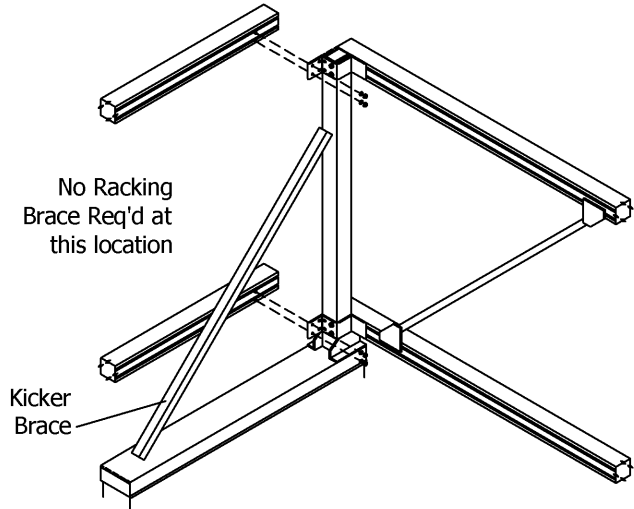
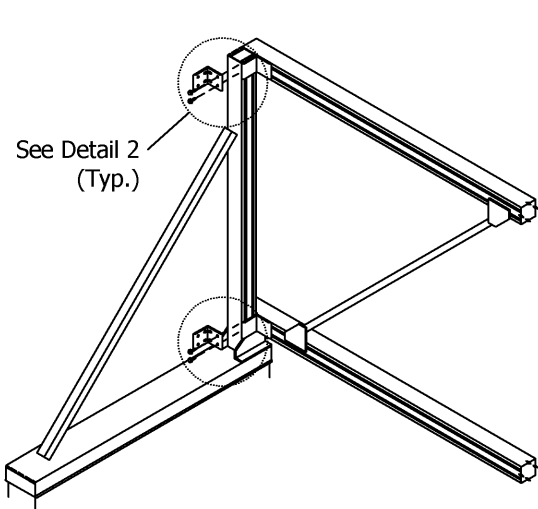


Attach Corner Clip Angles:

1. At all locations where a corner is required, attach an extra Corner Clip Angle for mounting of the Girts



2. Use 5/16" x 1" tek screws to fasten the Corner Clip Angles to the post (see detail 2). Continue installing girts after the corner. No Racking Brace is required after the corner because the Kicker Brace provides racking support at this location.



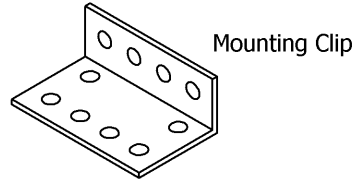
Detail 2

Attach Equipment Screen Mounting Clips

Parts list:

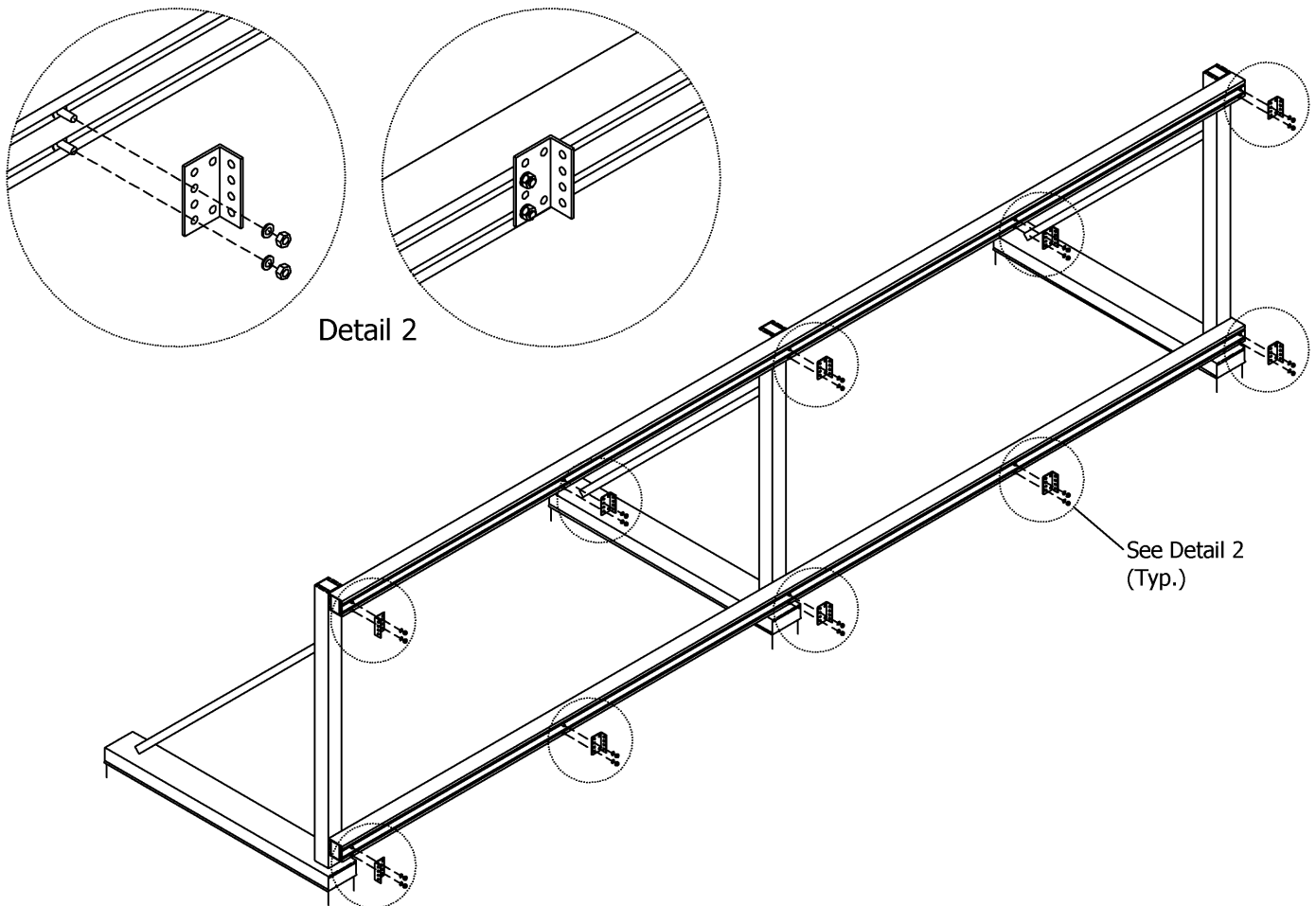
Mounting Clip

5/16" carriage nuts, bolts, and lock washers



Attach Mounting Angles:

1. Refer to project specific drawings for the layout of the louvered equipment screen panels and the spacing of mounting clips.
2. Attach each mounting clip to the girts with 2 each 5/16" carriage bolts, nuts, and washers (see Detail 2). Finger tighten nuts.



3. Refer to the standard equipment screen installation instructions to complete the mounting of louvered equipment screens.
4. Tighten all nuts with a ratchet or box end wrench.