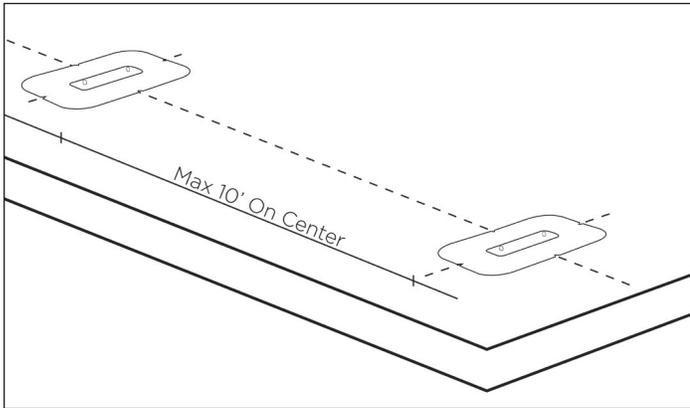




## **INSTALLATION INSTRUCTIONS**

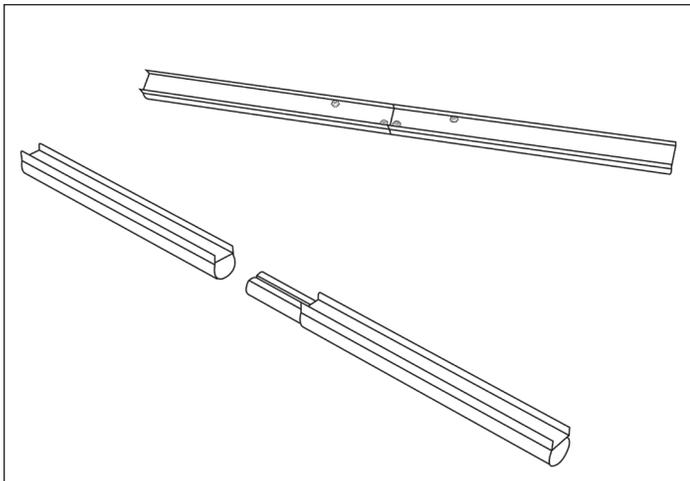


### **STEP 1**

Determine location of the guardrail and direction of the base channel in relation to the post (inside or outside of base).

Mark the center line of the base with a non-staining chalk line.

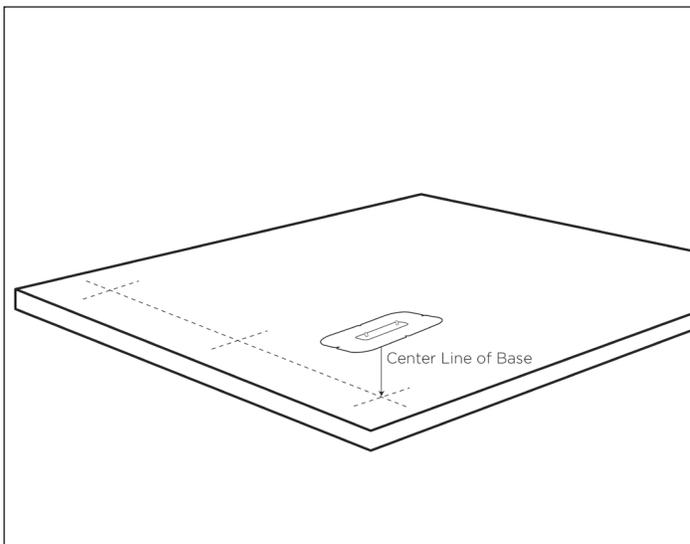
Note: Guardrail should NEVER overhang any end post or corner more than 12".



### **STEP 2**

Layout the U-Anchors™, handrails, knee rails and post components as per the project-specific design. Ensure splice joints will not be installed directly over the posts.

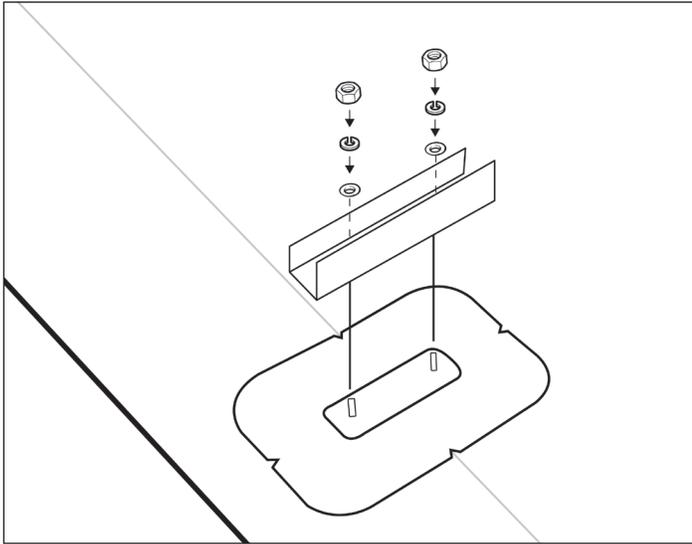
Insert the handrail and kneerail splice joints halfway in to the respective rails. Fasten the splice joint with (4)  $\frac{3}{4}$ " fasteners per splice, (2) into each side of the splice. Ensure that the handrails are tight together before fastening the final two screws.



### **STEP 3**

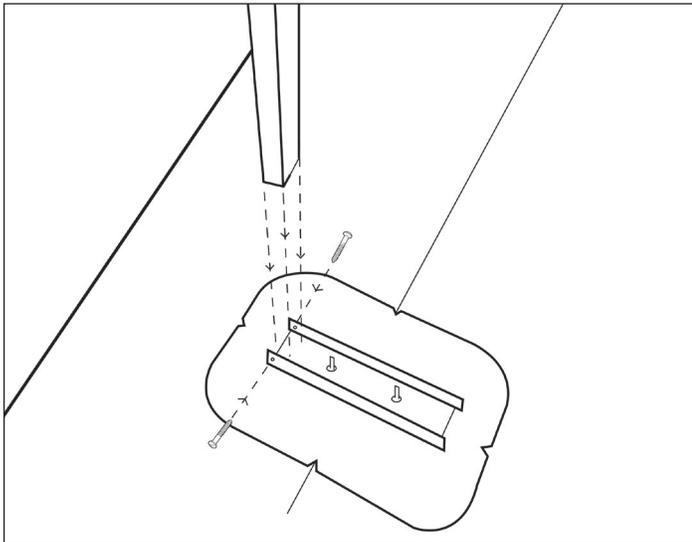
Install the 1st U-Anchor, according to the U-Anchor installation instructions, of the run centered on the chalk line using the notches cut in the skirt on the U-Anchor.

U-Anchor spacing can not exceed 10' on center.



#### STEP 4

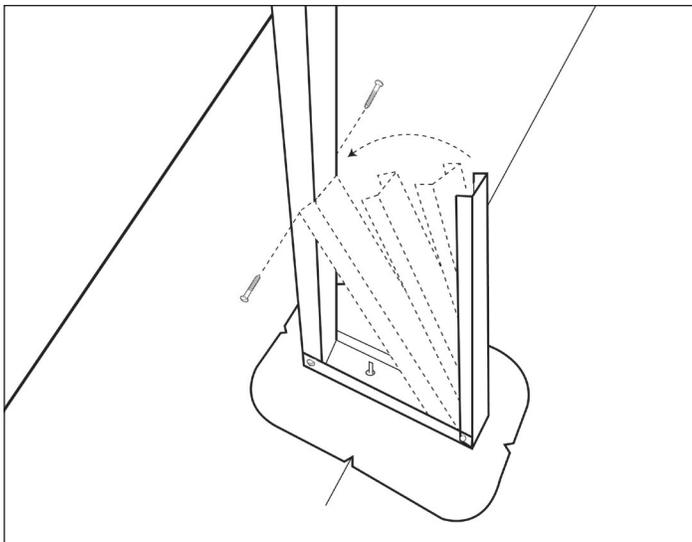
Install 12" base channels by lining up factory drilled holes with the bolts on the U-Anchors. Place channel flat onto the U-Anchor. Then attach each base channel to the U-Anchor using the included hardware.



#### STEP 5

Attach the post (tube) to the base with (2)  $\frac{3}{4}$ " fasteners. One on each side.

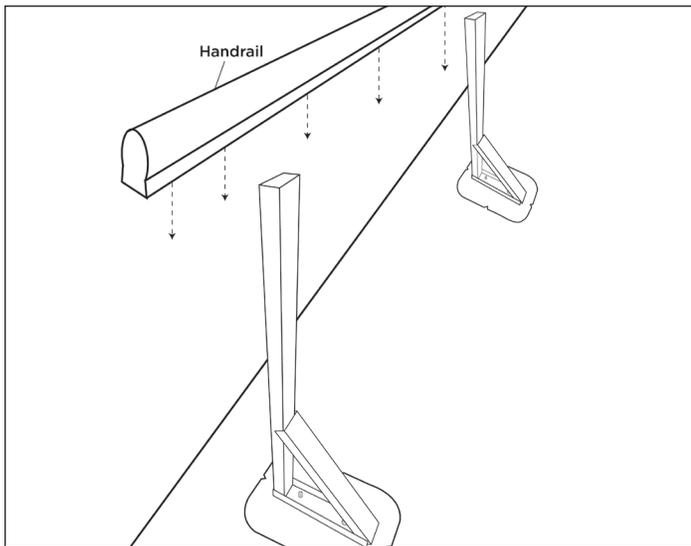
Note: Location of the Post (inside or outside of the base) is determined by contractor or engineer and can be installed either direction.



#### STEP 6

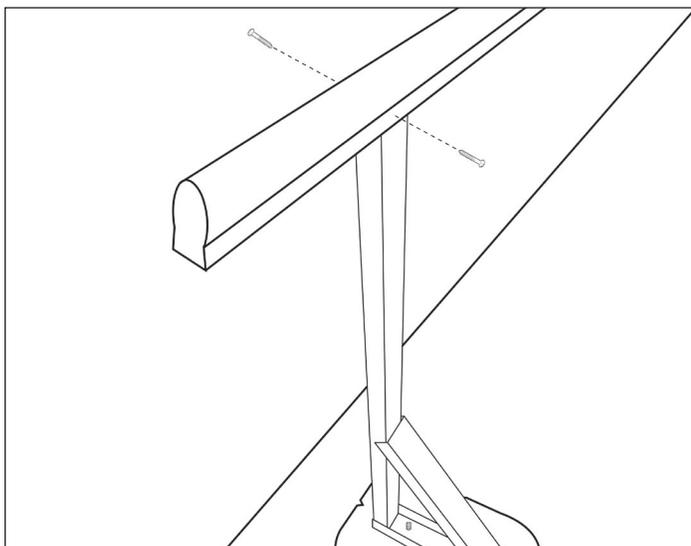
Attach the 18" support channel from the post to the opposite side of the base channel with (2)  $\frac{3}{4}$ " fasteners. One on each side.

Level post to ensure consistency and strength. Attach support channel to the post with (2)  $\frac{3}{4}$ " fasteners. One on each side.



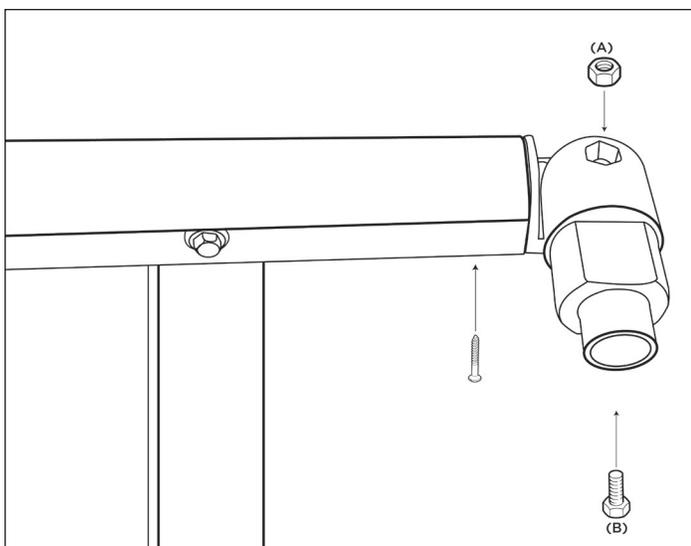
### STEP 7

Place handrail on top of posts. Ensure that the splice joint is NOT directly over the post.



### STEP 8

Fasten handrail to post with (2)  $\frac{3}{4}$ " fasteners. One self-tapping screw on each side. Use the groove on the handrail for fastener placement.



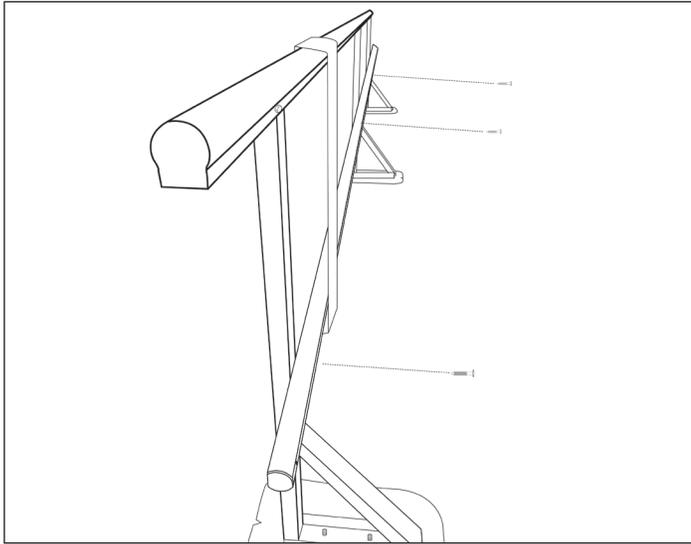
### STEP 9

Insert handrail adjustable elbows and rotate to correct angle required. (This elbow is universal for corners or pitch changes on the roof).

Secure the adjustable elbows on the underside with (2)  $\frac{3}{4}$ " fasteners. One fastener on each elbow connection. Center fasteners on the underside of the handrail.

**NOTE:** Complete the installation of the handrail including the corners and transitions prior to installing the knee rail and its corresponding corners and transitions.

Nut (A) and Bolt (B) connect through the hinge (refer to the image on the left)



### STEP 10

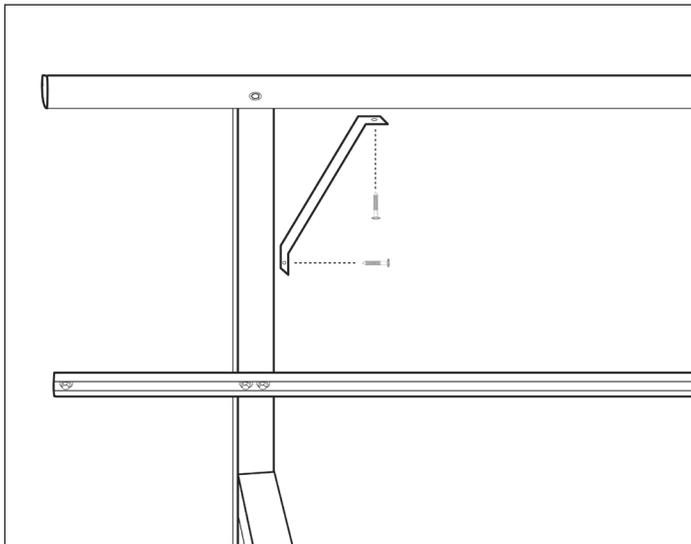
Use provided knee rail installation brackets to install the knee rails to ensure consistent spacing.

Start knee rail installation from the corner post or end post to ensure proper alignment.

Kneerail **MUST** be on the inside with the flat edge against the post.

Square up kneerail and then fasten to the post with (2) 2" fasteners into upright post.

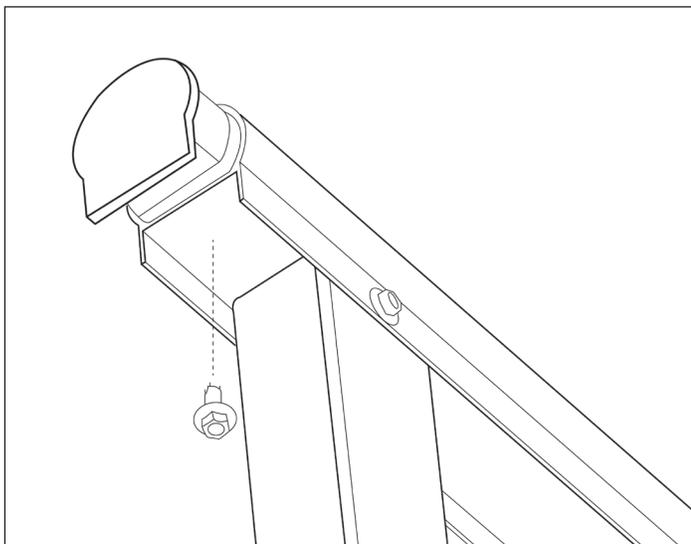
Remember: USE THE KNEERAIL INSTALLATION BRACKETS TO ENSURE UNIFORMITY



### STEP 11

Install brace at all corner and end terminations between handrail and upright. Fasten with (2)  $\frac{3}{4}$ " fasteners.

BRACES MUST BE INSTALLED FOR SYSTEM TO PERFORM AS DESIGNED.



### STEP 12

Insert and secure handrail and knee rail endcaps. Secure each cap with (1)  $\frac{3}{4}$ " fastener.

Go back and confirm tightness of all hardware.