

## Retreat Installation Guide

Read this guide and review shop drawings and notes before beginning installation.

All packages should be opened and inspected for hidden damage upon receipt. Any missing or damaged components should be noted on the delivery receipt with the carrier before accepting the shipment. All items should be repackaged and stored where protected from moisture, dirt, and excessive heat. Do not wrap material so that heat or moisture can become trapped. Ensure that items are level, fully supported, and have airflow between parts. Damage from improper storage is not considered shipping damage and is not covered by product warranties. Handle materials so as to protect materials, coatings, fabric and finishes during transportation and installation to prevent damage or staining.

It is the responsibility of the installer to meet or exceed all code and safety requirements, and to obtain all required building permits. These instructions are only a guide, and may not address every circumstance. The installer should determine and implement appropriate installation techniques for each situation. Structureworks shall not be held liable for improper or unsafe installations.

### Recommended Tools

The tools required for installation will vary depending on structure configuration and the hardware used. Review shop drawings to confirm drill bit sizes, socket sizes, and other project specific tools.

- Pencil
- 4' Level
- 8' Ladder (2)
- Framing Square
- Drill
- Caulk Gun
- Impact Driver w/ Phillips Bit
- Adjustable Wrench
- Tape Measure
- Socket Wrench w/ Sockets
- Compressed Air
- Hole-Cleaning Brush

### Required Materials

Depending on the configuration of the structure, additional materials such as ledger attachment hardware, silicone caulk, and anchoring epoxy may be needed. Review shop drawings for project specific requirements.

### Cleaning and Maintenance

Use a combination of Simple Green All-Purpose Cleaner and hot water with a soft bristle brush. Clean after installation and on an annual basis. For more difficult to clean marks, a Mr. Clean Magic Eraser can be used. Structural attachments should be inspected annually.

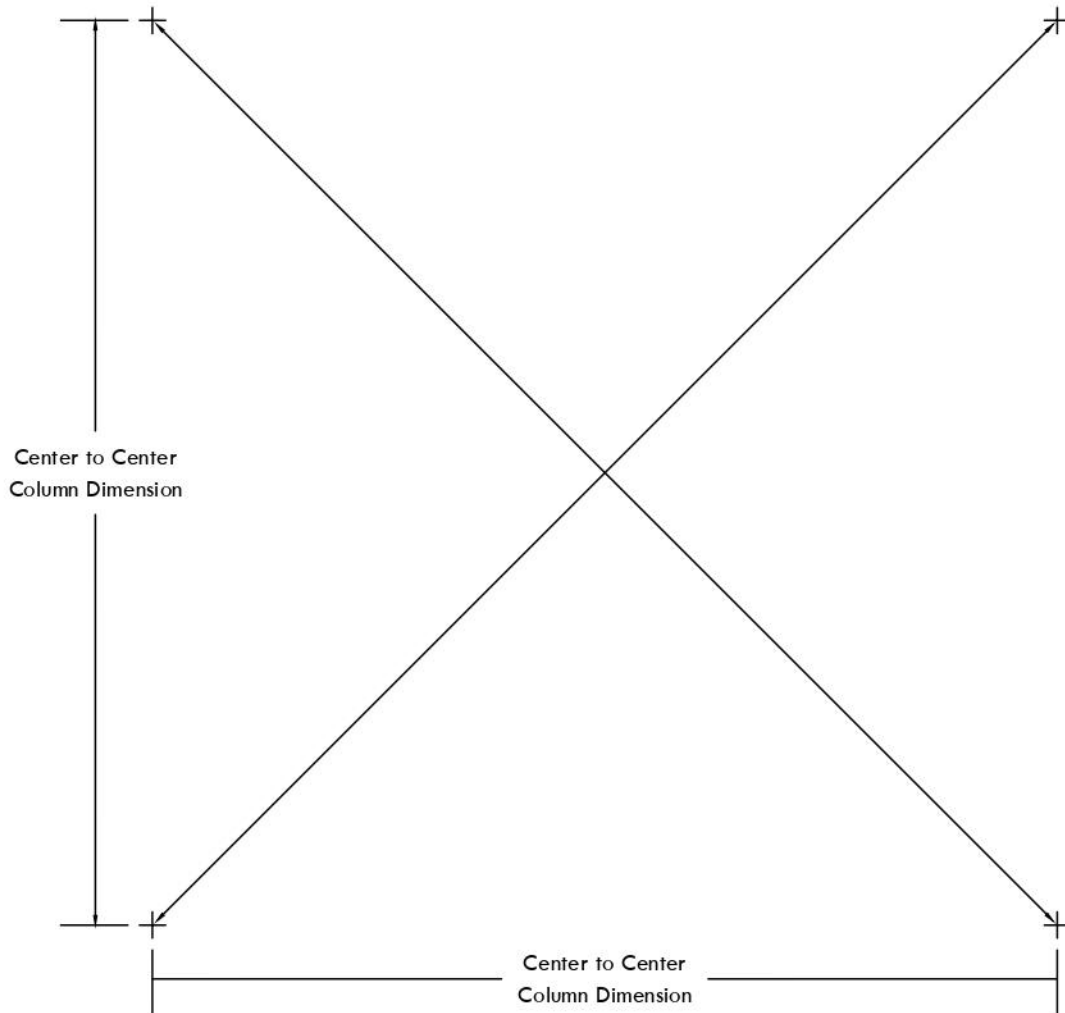
## Installation Sequence

This installation guide provides a step by step sequence for the installation of the structure. This guide covers only the structure, separate installation guides are provided for accessories and other products used in the installation of the structure. Ensure that you have all required installation guides before beginning the installation.

All structures are made to order and are provided with shop drawings. Shop drawings may contain additional information, details, or job specific instructions. Shop drawings take precedence over this installation guide.

## Layout

Layout all columns according to the shop drawings. Columns must be located precisely and variations in the height of the mounting surface must be accounted for by leveling each column. The structure will not install correctly if the columns are installed out of square or out of level from one another.



## Prepare for Column Installation - Concrete Mounting Surfaces

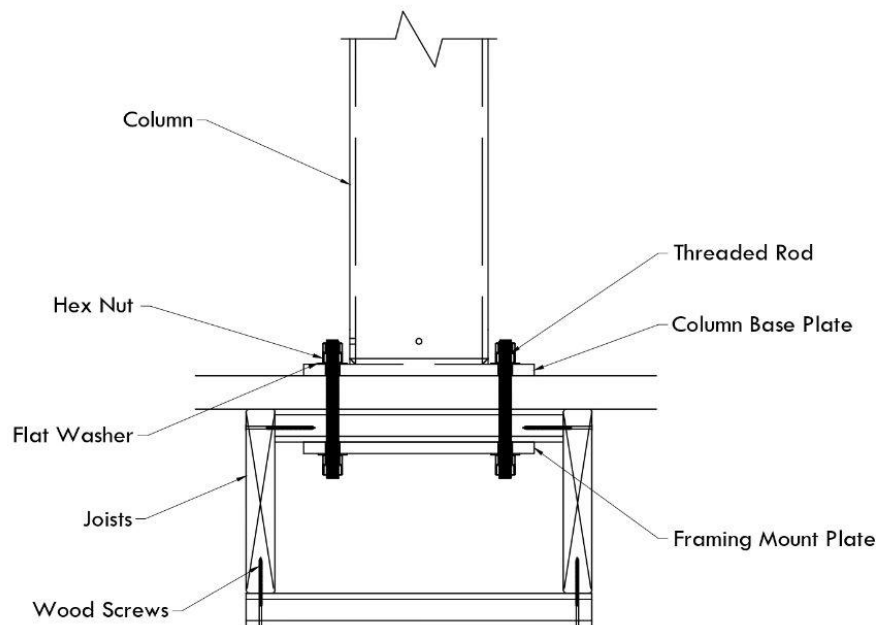
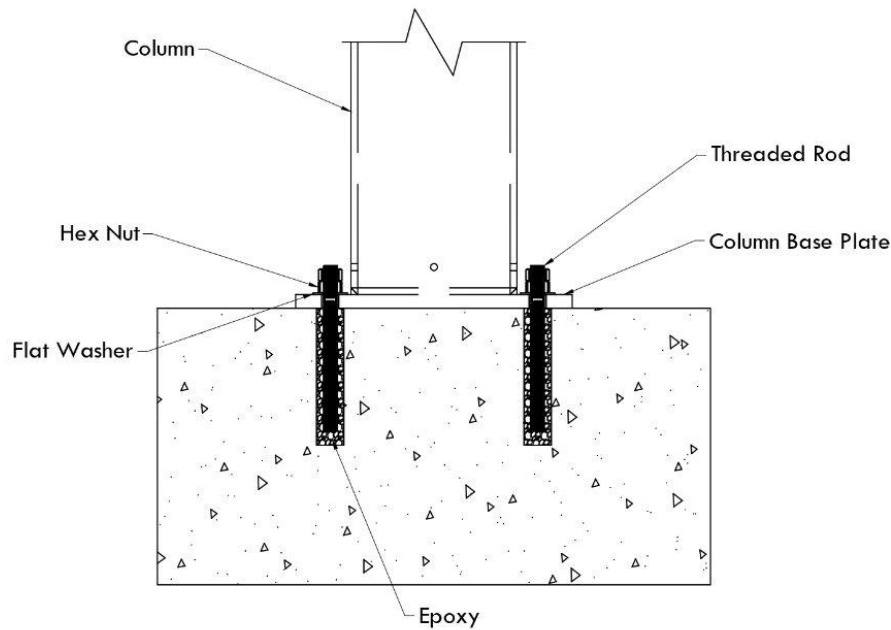
Drill the holes for the threaded rods and epoxy. The holes should be sized larger than the threaded rod diameter per the epoxy manufacturer's instructions. Clean the hole thoroughly.

Fill the holes with epoxy per the manufacturer's instructions. Insert the threaded rods in a twisting motion to ensure epoxy flows into the threads of the rods. Ensure that the rods are inserted to the proper depth and are plumb.

## Prepare for Column Installation - Wood Mounting Surfaces

Install pressure treated wood blocking between the joists against the underside of the decking. Blocking should be a nominal thickness of 2" and wider than the framing mount plate.

Drill the holes for the threaded rods through the deck and wood blocking.



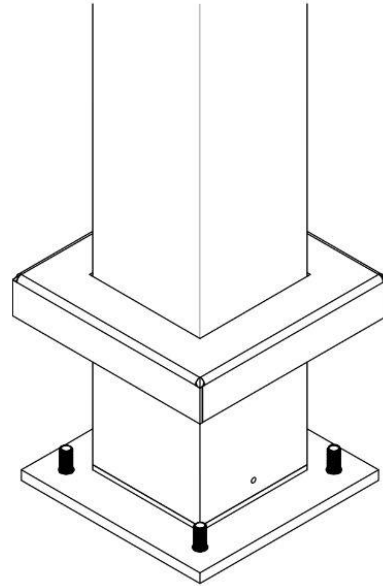
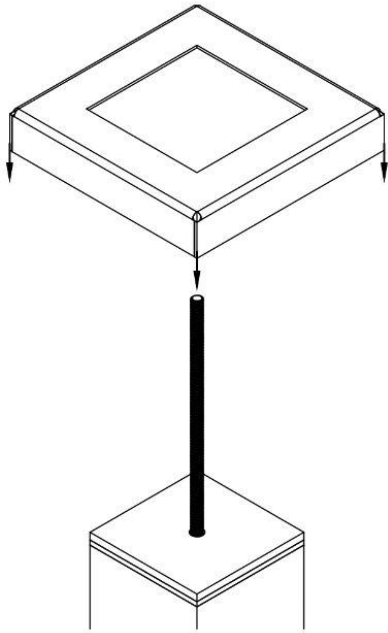
## Install Columns

Install the threaded rod into the top of the column. Ensure that 11" of the threaded rod remains above the top of the column.

Place the base plate cover over the top of the column and lower it to the ground.

If the structure includes any integrations such as lighting or wiring for fans or heaters, be sure to make any connections or chase any wires and test the connections.

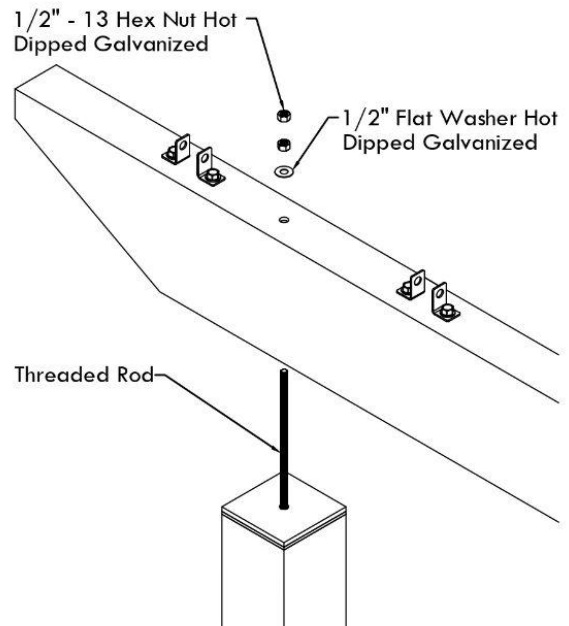
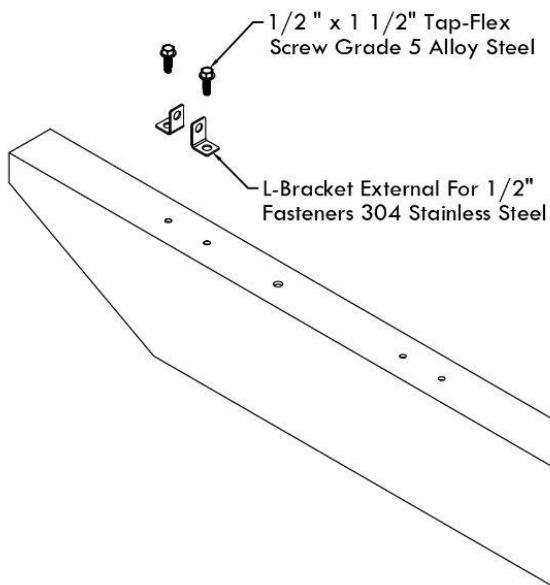
If the mounting surface is uneven, flat washers or non-shrink grout can be used to shim and level the surface. Wait to install flat washers and nuts to secure the threaded rods.



## Install Brackets and Beams

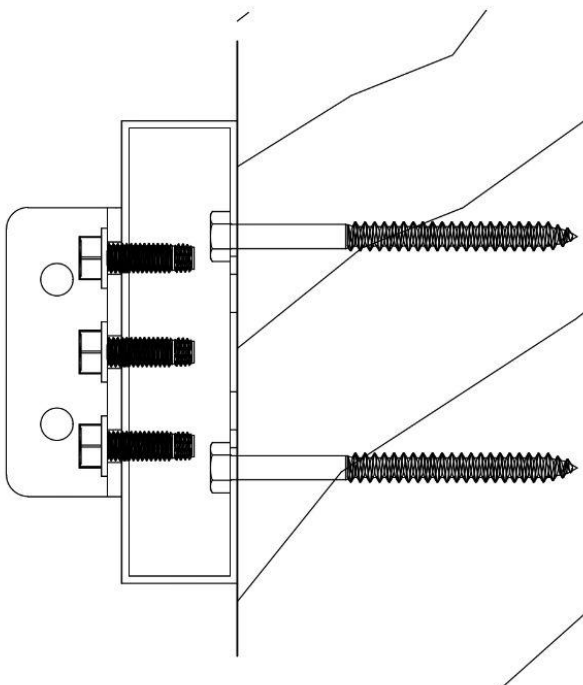
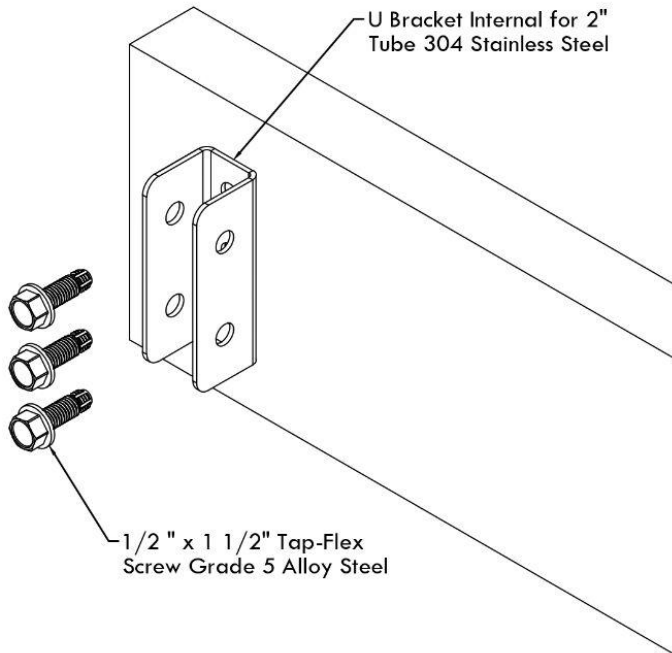
Install rafter brackets with bolts.

Place the beam(s) on top of the columns and secure with hardware.



## Install Brackets and Ledger - Attached Structures Only

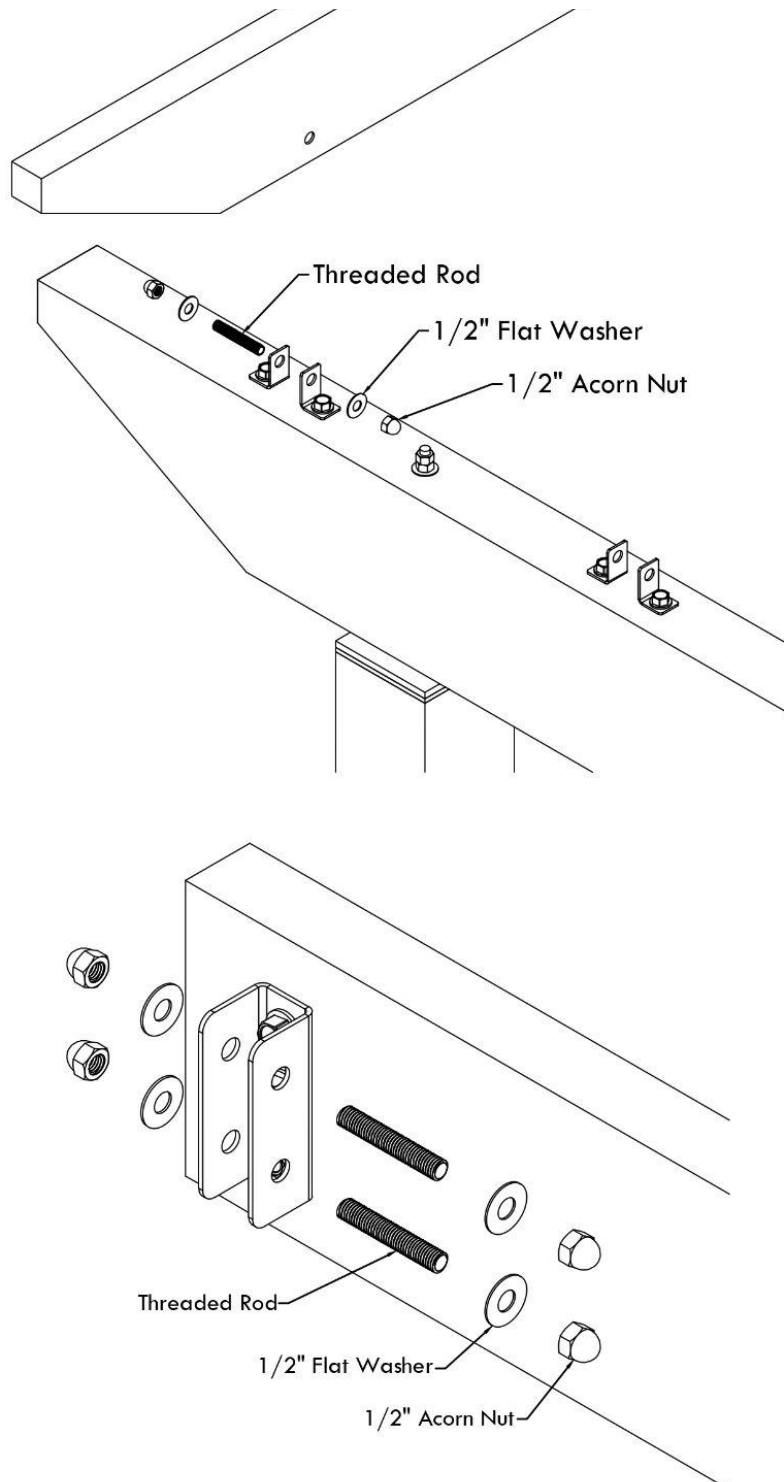
Install the internal brackets for the rafters on the ledger with bolts. Mount the ledger to the host structure. Ensure that the ledger is mounted to structural components that can support the loads of the structure. Hardware for ledger attachment is not provided and will vary depending on mounting conditions.



## Install Rafters

Position a rafter onto both beams for a freestanding structure or the ledger/internal bracket and the beam for an attached structure. Ensure that the rafter is level for flat structures or has the correct amount of pitch for sloped structures. Secure the rafter with threaded rod, flat washers, and acorn nuts at beam and ledger connections. Repeat this process for all rafters.

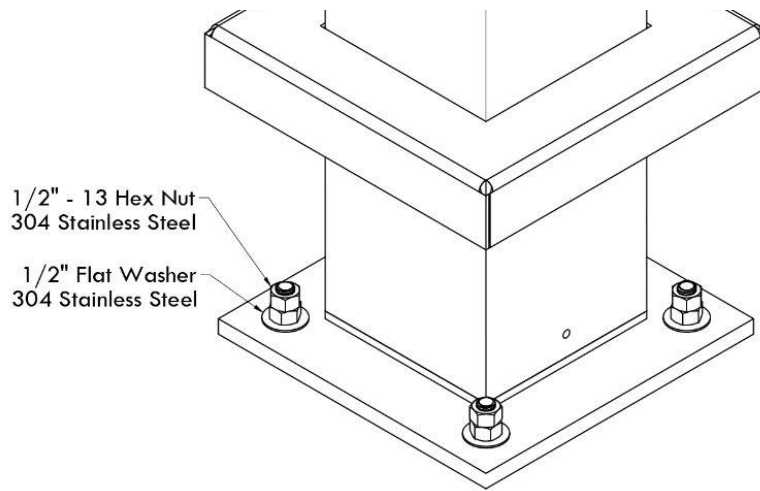
If the structure includes fan or canopy blocks or integrations such as lighting or wiring, install brackets and blocking per the instructions, make connections, chase wires, and test the connections before final installation of the rafters.



## Tighten Column Bolts

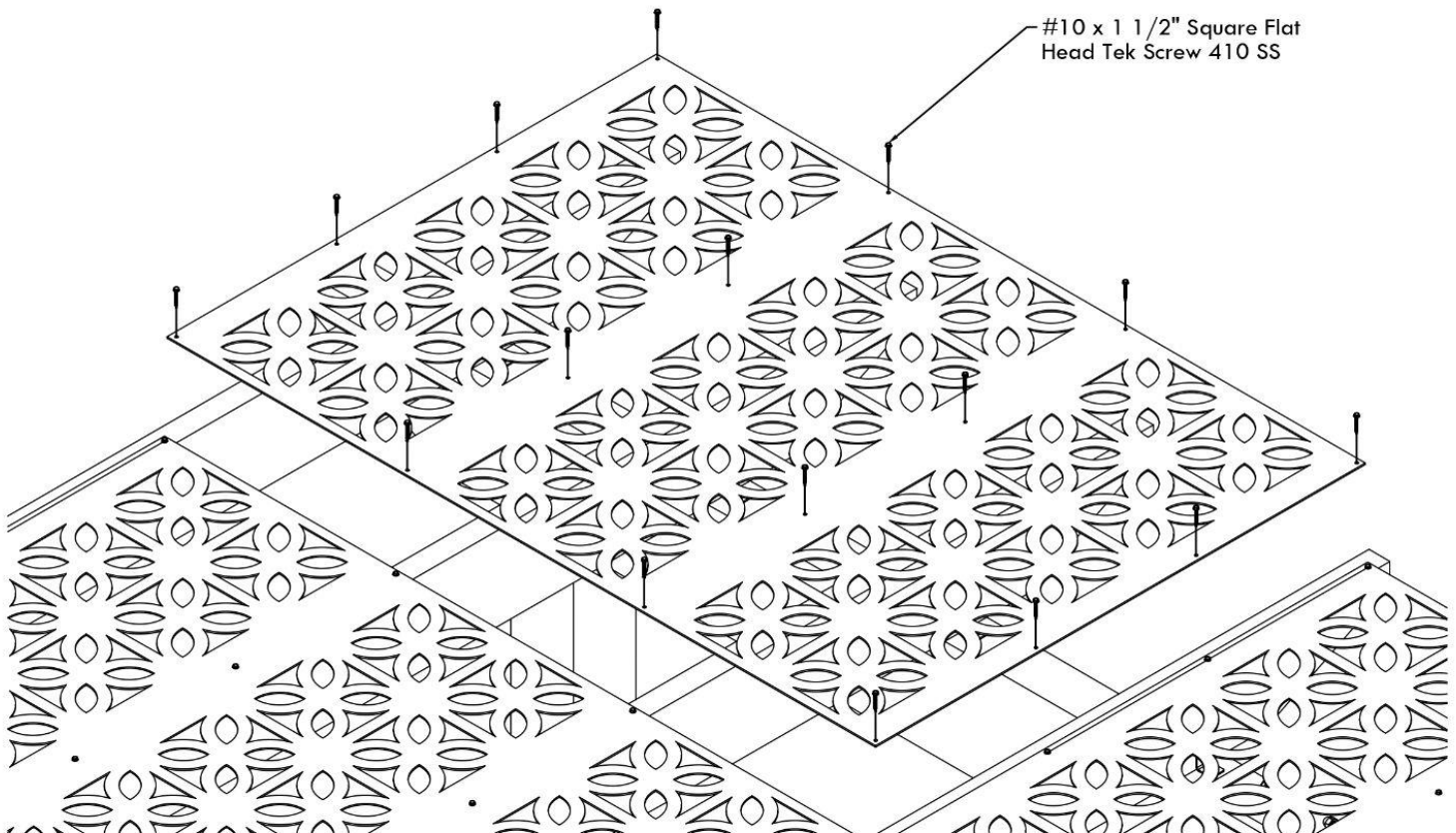
Confirm that the beams, rafters, and stringer supports are installed and bolted, that the beams are level, and that the columns are plumb.

Place flat washers and hex nuts onto the threaded rods at the base of the columns and tighten.



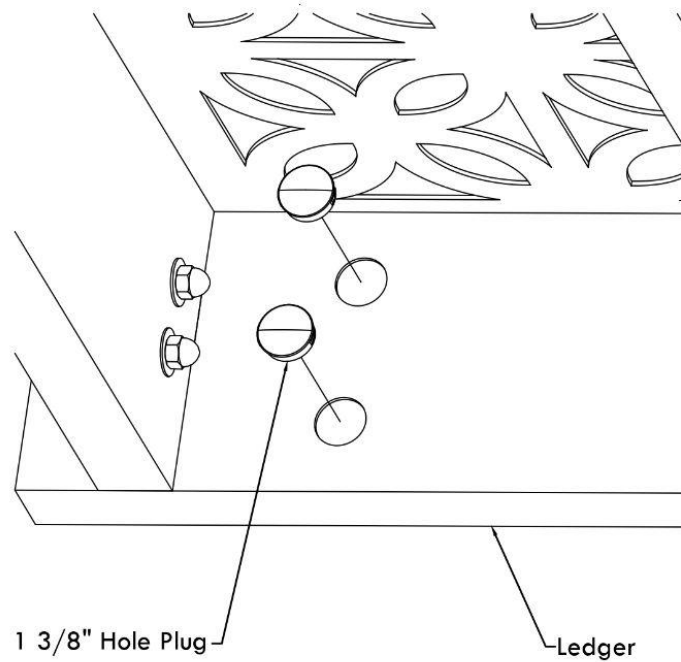
## Install Panels - Optional

Position the panels according to the layout in the shop drawing. Ensure that panels are oriented properly and that the correct side is facing up. Secure panels with screws with EPDM washers. Do not fully tighten the screws, the panels must be allowed to move slightly for expansion/contraction.



## Install Hole Plugs

Install hole plugs into the face of the ledger, for attached structures.



## Paint Touch-Up

All structures will require touch up over time and at completion of construction. Use extreme care when handling components. Touch up paint is provided. In the event of scratching or chipping, touch up the painted surface with the included brush. Apply light coats in order to allow the paint to flow and dry with a smooth finish.