

**Assembly Instructions
for Hi-Hog's
10-Row Bleachers on skid frame
and/or
10-Row Bleachers with Stairs on skid frame**



No Stairs



Left Hand Stair



Right Hand Stair

Questions, problems, missing parts?

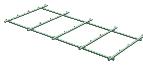
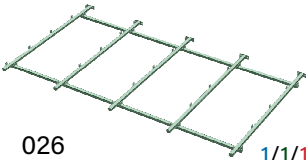
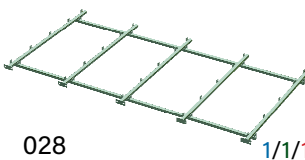
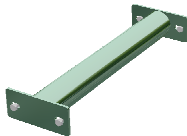
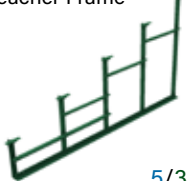
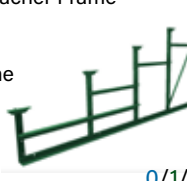
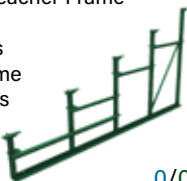





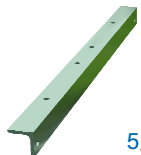
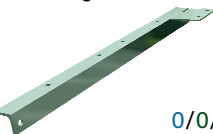

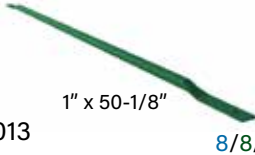
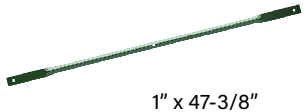
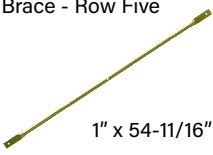
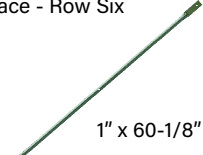
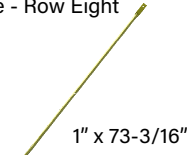

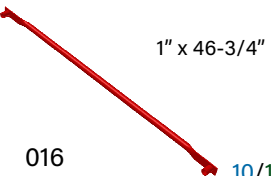
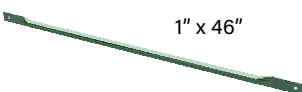
Before returning call customer service
8:00 am - 4:00 pm, MST, Monday - Friday

1-800-661-7002

We appreciate the trust and confidence you have placed in Hi-Hog Farm & Ranch Equipment Ltd., through the purchase of your new 10 row bleachers with skid frames. We strive to continually provide quality products designed for durability and performance. *Last edited October 2023*

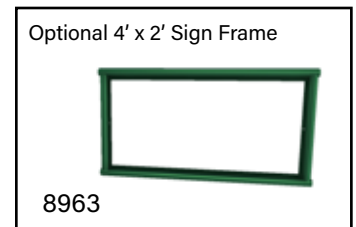
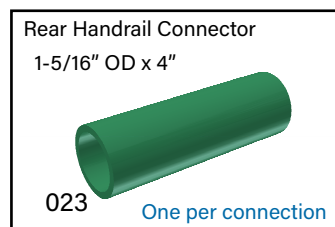
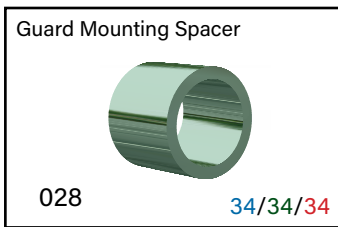
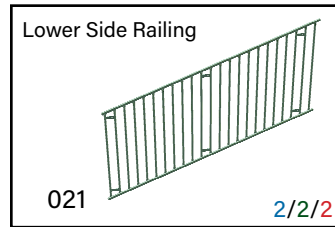
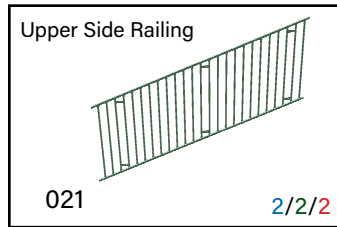
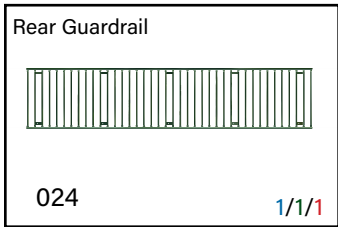
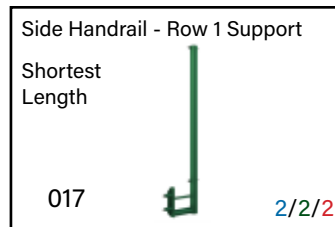
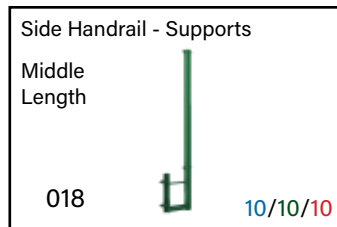
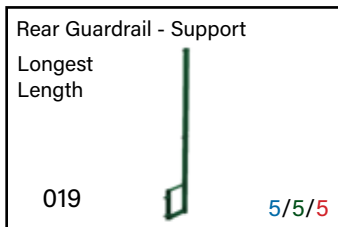
Parts

Note: Actual part quantities required will vary with the style of bleachers you have purchased as well as the combinations of bleachers that you have selected. Quantities for one 16' 10-Row Bleacher on Skids are shown in blue. Quantities of parts for one 16' 10-Row Bleacher on Skids with stairs are shown in green for left hand stairs and red for right hand stairs.

Description of Part	Front Skid Frame	Quantity of parts required
Picture of Part		Blue: Bleacher with no stairs Green: Bleacher with left side stairs Red: Bleacher with right side stairs
Part Number	026	1/1/1
Front Skid Frame		026 1/1/1
Rear Skid Frame		028 1/1/1
Skid Connector		025 5/5/5
Vertical Bleacher Frame Rows 1-5 Standard		004 5/3/3
Vertical Bleacher Frame Rows 1-5 With Stairs Inside Frame Left Stairs		006 0/1/0
Vertical Bleacher Frame Rows 1-5 With Stairs Inside Frame Right Stairs		06a 0/0/1
Vertical Bleacher Frame Rows 1-5 With Stairs Outside frame		005 0/1/1
Vertical Bleacher Frame Rows 6-10 Standard		001 5/3/3
Vertical Bleacher Frame Rows 6-10 With Stairs Inside Frame Left Stairs		003 0/1/0
Vertical Bleacher Frame Rows 6-10 With Stairs Inside Frame Right Stairs		03a 0/0/1
Vertical Bleacher Frame Rows 6-10 With Stairs Outside Frame		002 0/1/1
Tread Connector Angle Connects row 5 to row 6 Standard		007 5/3/3
Tread Connector Angle - Stairs Connects row 5 to row 6 Inside frame on right hand stairs only		08a 0/0/1
Tread Connector Angle - Stairs Connects row 5 to row 6 -Outside Stair Frame -Inside frame on left hand stairs only		008 0/2/1
Horizontal Cross Brace - Between Row 2 and 3		013 1" x 50-1/8" 8/8/8
Cross Brace - Row Three		014 1" x 47-3/8" 8/8/8
Cross Brace - Row Five		012 1" x 54-11/16" 8/8/8
Cross Brace - Row Six		011 1" x 60-1/8" 8/8/8
Cross Brace - Row Eight		010 1" x 73-3/16" 8/8/8
Cross Brace - Row Ten		009 1" x 88-1/16" 8/8/8
Diagonal Side Railing Brace		016 1" x 46-3/4" 10/10/10
Horizontal Brace		015 1" x 46" 20/20/20

Note: Quantities will reduce if your railing requirements change. For example, if you join two sets of bleachers you will reduce the total number of side rails required.

Note: unless the bleachers are installed and anchored against a wall (with no gap larger than 4") then you are required to include the railings to meet code.

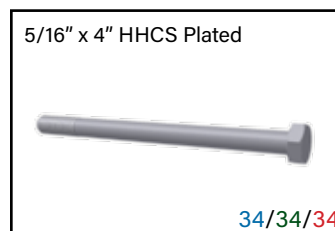
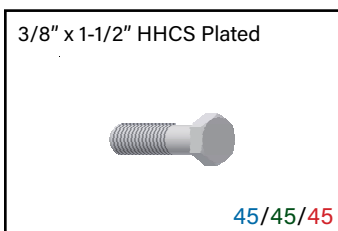
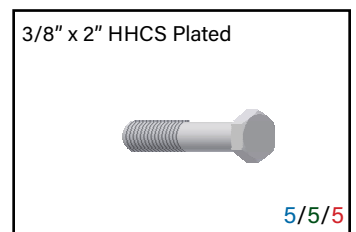
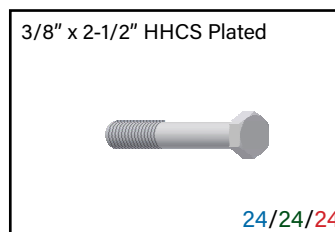
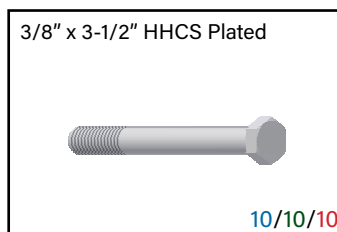
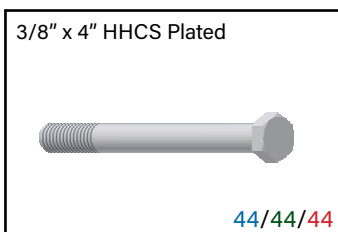


Bleacher Frame Fasteners

Note: Actual fastener quantities required will vary with the style of bleachers you have purchased as well as the combinations of bleachers that you have selected. Quantities for one 16' 10-Row Bleacher on Skids are shown in blue. Quantities for one 16' 10-Row Bleacher on Skids with Left Hand stairs are shown in green. Quantities for one 16' 10-Row Bleacher with Right Hand stairs are shown in red.

Note: Quantities will reduce if your railing requirements change. For example, if you join two sets of bleachers you will reduce the total number of side rails required.

Note: unless the bleachers are installed and anchored against a wall (with no gap larger than 4") then you are required to include the railings to meet code.

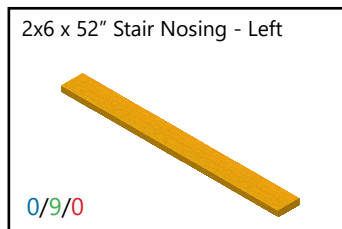
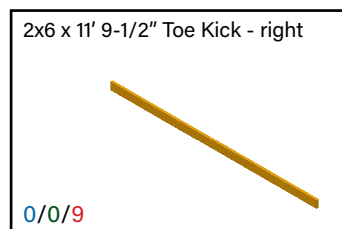
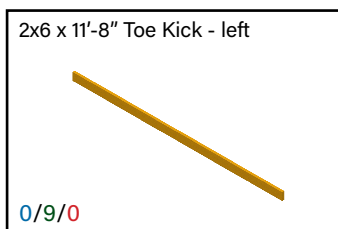
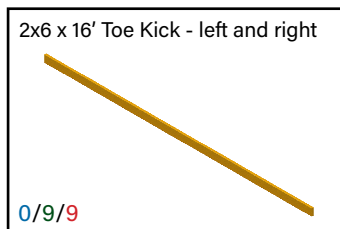
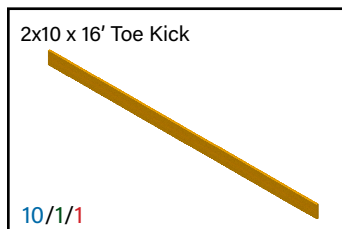
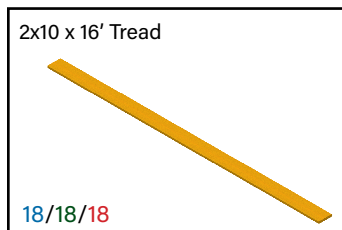
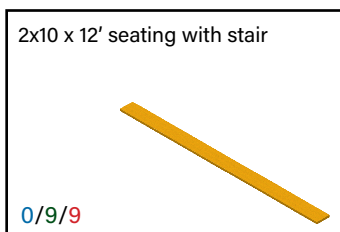
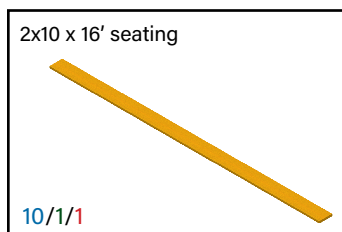


Suggested Tools: cordless drill, socket set, wrenches, screw driver and drill bits

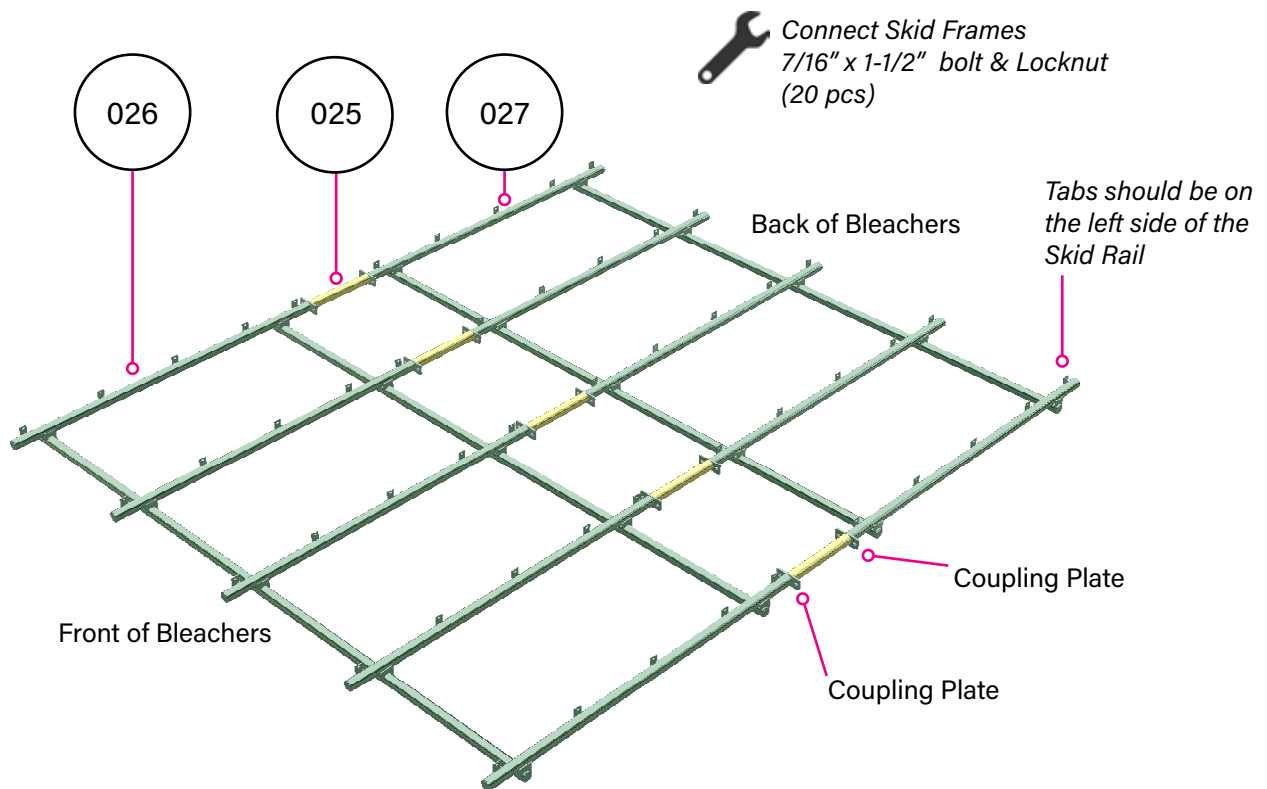
Wood Seating and Fasteners

Note: The following wood seating package is recommended to complete the bleacher installation. These items are not included in the bleacher package.

Bleacher with No Stairs, Left Hand Stairs or Right Hand Stairs



Step 1, Skid Frame Assembly



Before you begin to assemble your new bleachers ensure the ground has been leveled and prepared to provide uniform support. Rotate the skid frames so that the coupling plates face towards the middle. Attach the two skid frames using the skid connector and 7/16" x 1-1/2" bolt and locknuts. Fully tighten the locknuts only after all five of the connectors are installed.

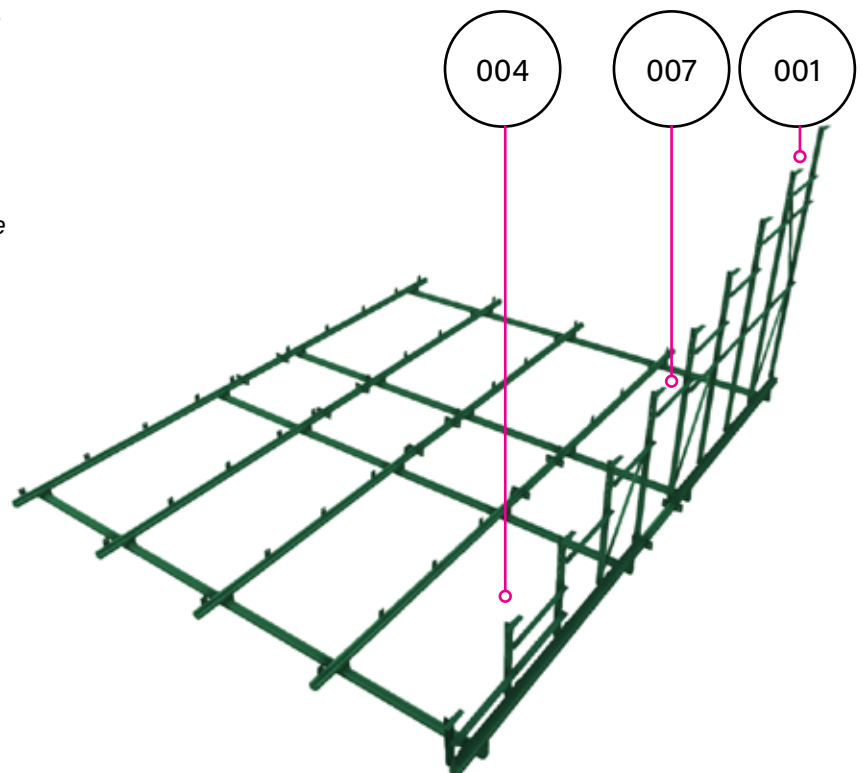
Step 2a, Seating Frames



Connect End Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(10 pcs)



Connect End Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(2 pcs)





Note: for bleachers with stairs
go to step 3b for **left** hand stairs
or step 3d for **right** hand stairs.

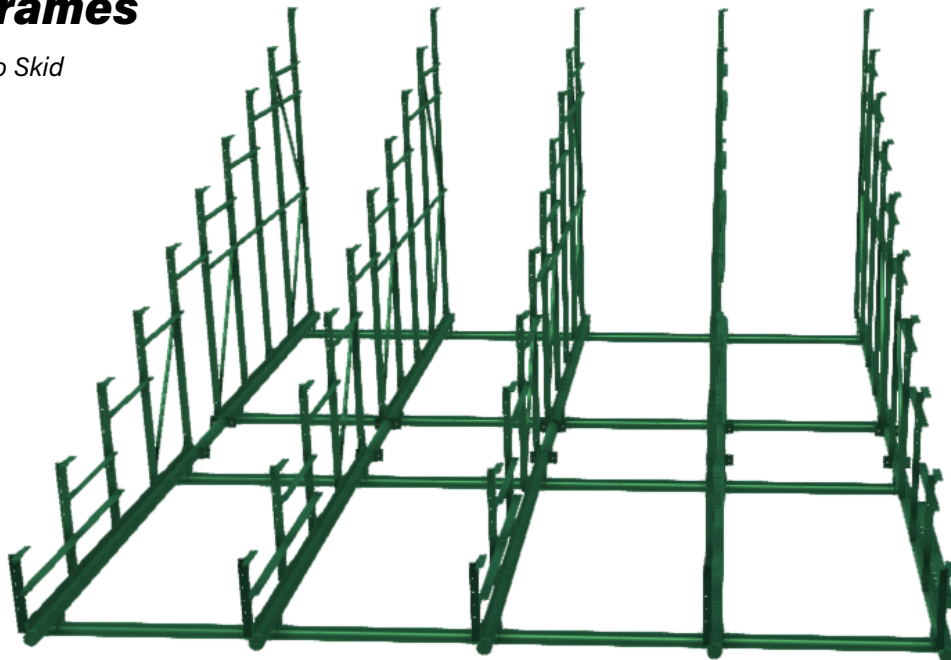
If your bleacher requires stairs go to Step 3 - Vertical Frames for Stair Assemblies.

For a standard 10 row bleacher assembly attach the front frame (004) and the rear frame (001) to the tabs on the skid frame using 3/8" x 1-1/4" bolts and locknuts. Do not tighten locknuts fully. Attach the two frames together with the tread connector angle (007) using 3/8" x 1-1/4" bolts and locknuts. This angle will support your treads so ensure it is installed with the angle facing the same way as the angle on the vertical frames.

Step 2b, Seating Frames

 Connect Remaining Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(40 pcs)


 Connect remaining Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(8 pcs)




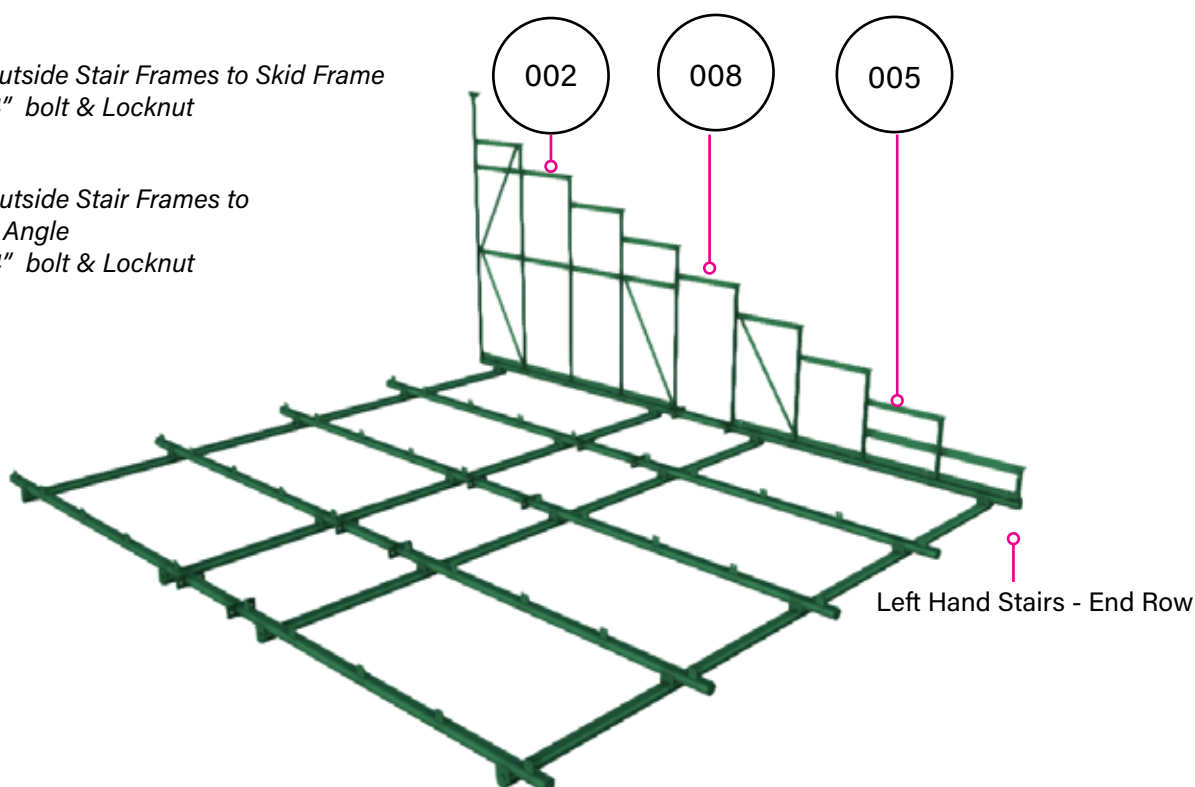
Repeat Step 2a until all the vertical frames are in place. When complete go to step 4.

Step 3a, Frames for Left Hand Stair Assemblies

The illustration below shows the assembly for left hand stairs.


 Connect Outside Stair Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(10 pcs)


 Connect Outside Stair Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(2 pcs)



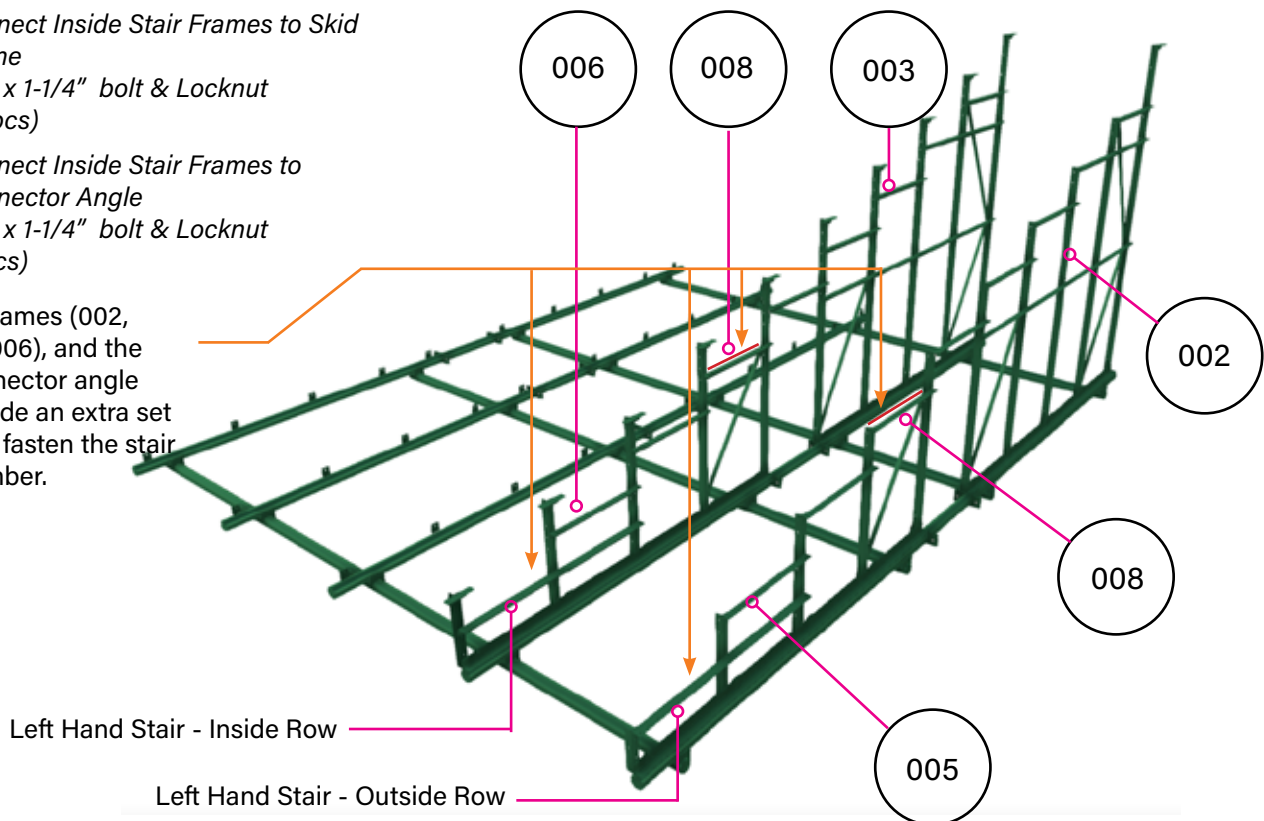
Attach the front Outside Stair frame (005) and the rear Outside Stair frame (002) to the tabs on the skid frame using 3/8" x 1-1/4" bolts and locknuts. For left hand stairs (stairs on your left when sitting in the bleachers) install the frames on the end row as shown above). **For bleachers with right hand stairs install these frames on the right end row and proceed to step 3d.** Do not tighten locknuts fully. Attach the two frames together with the frame connector angle for stairs (008). This angle will support your Row 6 stair treads.

Step 3b, Frames for **Left Hand Stair Assemblies**

 Connect Inside Stair Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(10 pcs)


 Connect Inside Stair Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(2 pcs)


The stair frames (002, 003, 005, 006), and the frame connector angle (008) include an extra set of holes to fasten the stair nosing lumber.



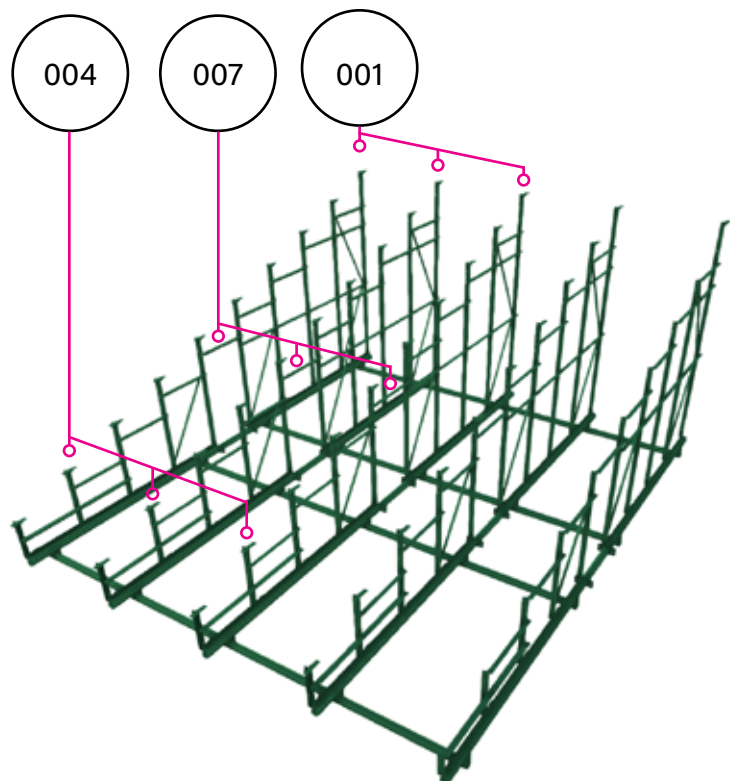
Attach the front Inside Stair frame (006) and the rear Inside Stair frame (003) to the tabs on the inside row of the skid frame using 3/8" x 1-1/4" bolts and locknuts. Do not tighten locknuts fully. (For right hand stair assemblies go to step 3d). Attach the two frames together with the frame connector angle for stairs (008). This angle will support your row-6 stair treads.

Step 3c, Vertical Frames for **Left Hand Stair Assemblies** *continued*

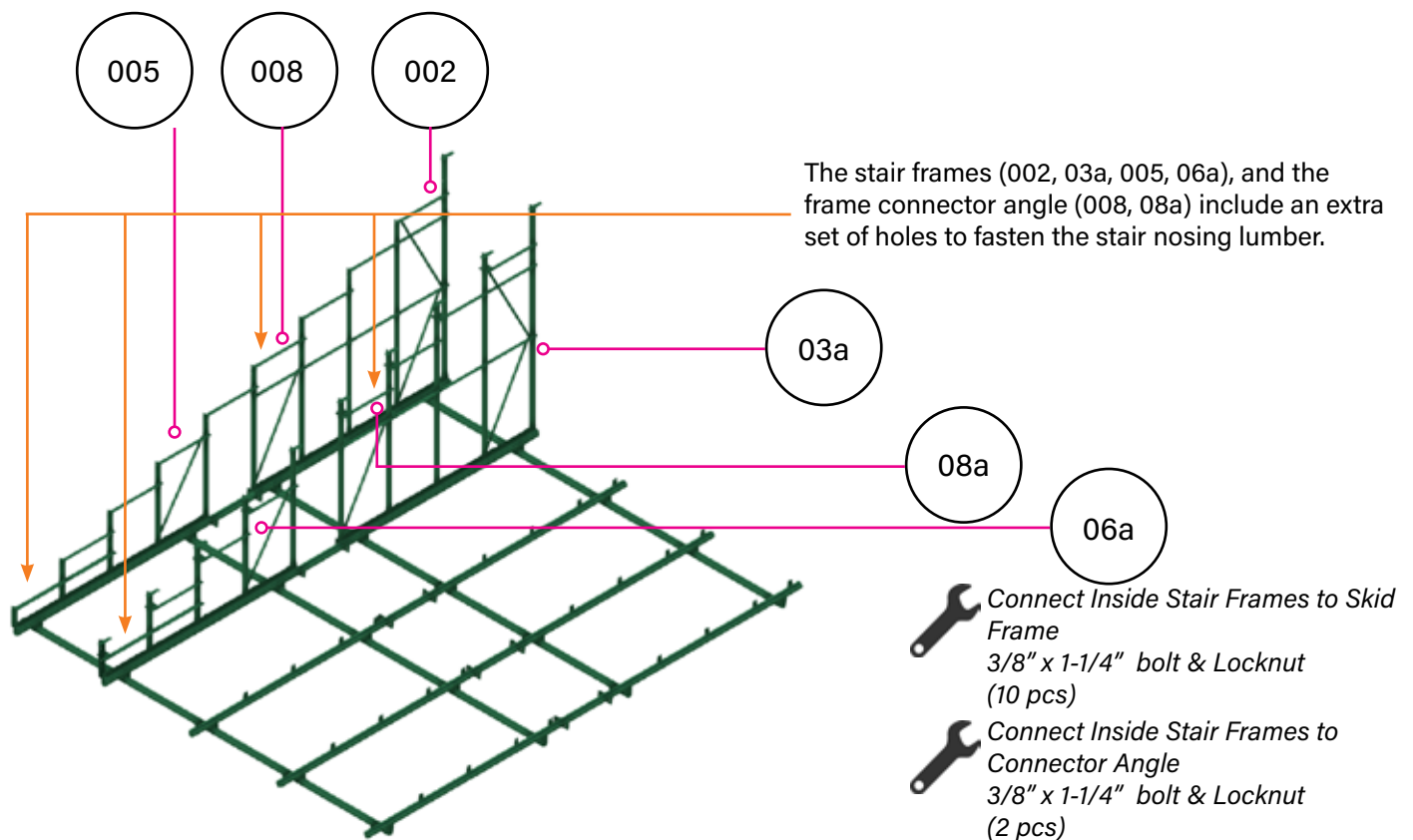
 Connect Standard Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(30 pcs)

 Connect Standard Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(6 pcs)

Attach the standard seating frames for the front (004) and the rear (001) to the remaining rows using 3/8" x 1-1/4" bolts and locknuts. Do not tighten locknuts fully. Attach the two frames together with the standard frame connector angle (007). This angle will support your treads.



Step 3d, Frames for **Right Hand** Stair Assemblies

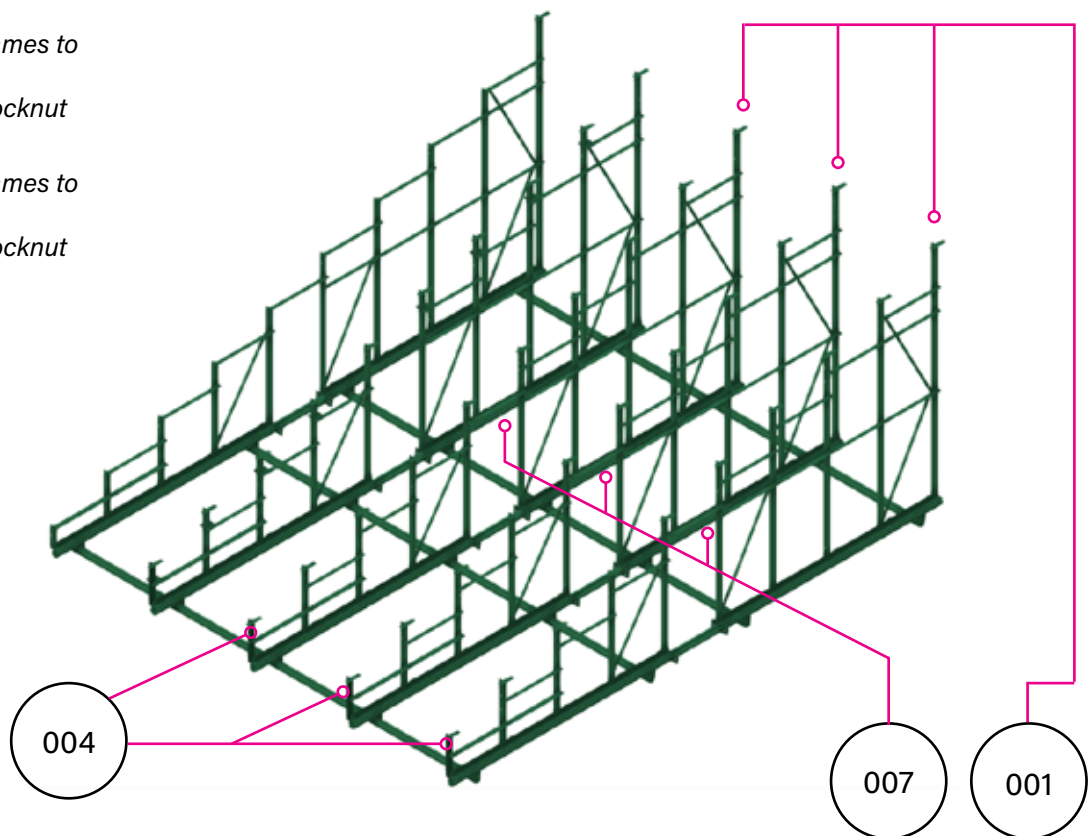


Attach the front Inside Stair frame (06a) and the rear Inside Stair frame (03a) to the tabs on the inside row of the skid frame using 3/8" x 1-1/4" bolts and locknuts. Do not tighten locknuts fully. Attach the two frames together with the frame connector angle for right hand stairs (08a). This angle will support your Row-6 stair treads.

Step 3e, Vertical Frames for Right Hand Stair Assemblies

- Connect Standard Frames to Skid Frame
3/8" x 1-1/4" bolt & Locknut
(30 pcs)
- Connect Standard Frames to Connector Angle
3/8" x 1-1/4" bolt & Locknut
(6 pcs)

Attach the standard seating frames for the front (004) and the rear (001) to the remaining rows using 3/8" x 1-1/4" bolts and locknuts. Do not tighten locknuts fully. Attach the two frames together with the standard frame connector angle (007). This angle will support your Row-6 treads.

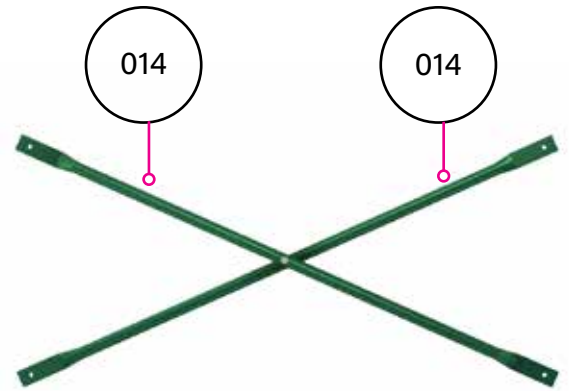
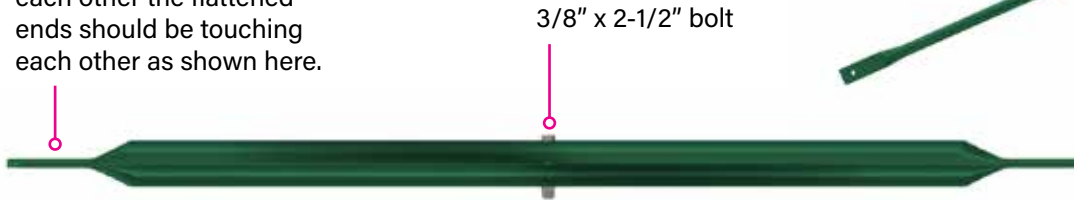


Step 4a, Cross Braces



Connect Cross Braces for seating row three.
3/8" x 2-1/2" bolt & Locknut
(5 pcs)

Note: If you swing the two cross braces in line with each other the flattened ends should be touching each other as shown here.



Assemble cross braces for Row 3 of the bleachers. Take two cross braces (014) and bolt them together as shown above with a 3/8" x 2.5" Bolt and a 3/8" locknut. Make sure the braces are positioned so that the flattened ends rest against one another.

Step 4b, Cross Braces - Fasteners

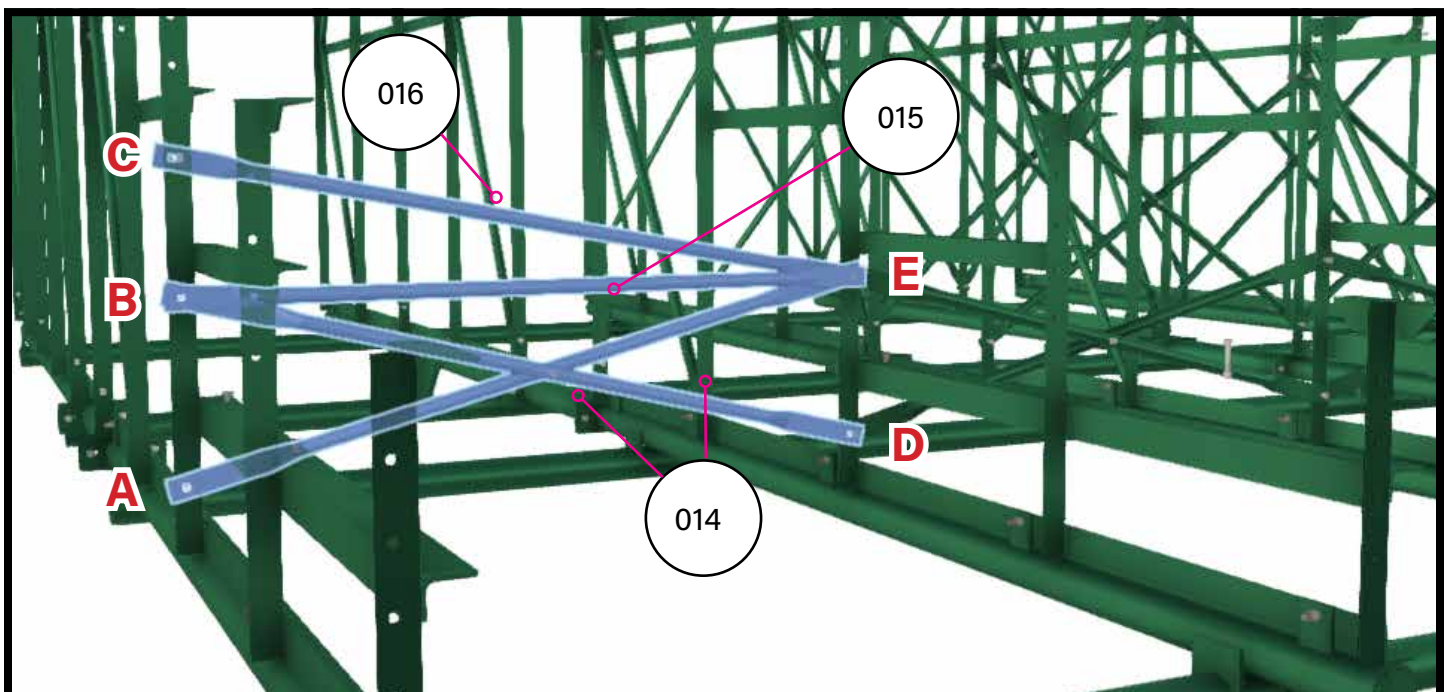
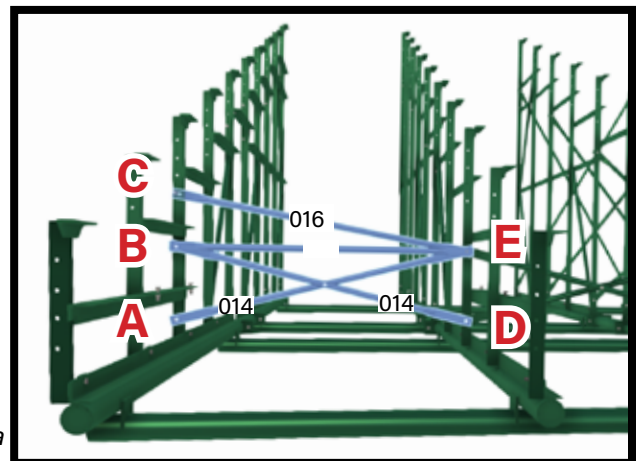
Start installing the cross braces at the left or right end. The recommended order for installation is shown below.

Note: several braces are often attached with a single fastener.

- A) fasten one cross brace (014) with a 3/8" x 1.5" bolt and locknut
- B) fasten one cross brace (014) and one horizontal brace (015) with a 3/8" x 1.5" bolt and locknut
- C) fasten one diagonal brace (016) with a 3/8" x 4" bolt and locknut. Note that the diagonal brace includes a 1" OD extension piece at each end. Attaches to rear side of frame.
- D) fasten two cross braces (014), with a 3/8" x 2" bolt and locknut.
- E) fasten two cross braces (014), two horizontal braces (015) and one diagonal brace (016) with a 3/8" x 3.5" bolt and locknut
- F) fasten two cross braces (014), and two horizontal braces (015) with a 3/8" x 2" bolt and locknut (see next page for details)

Do not tighten fasteners fully at this time as you may need to make some small adjustments to align the frame.

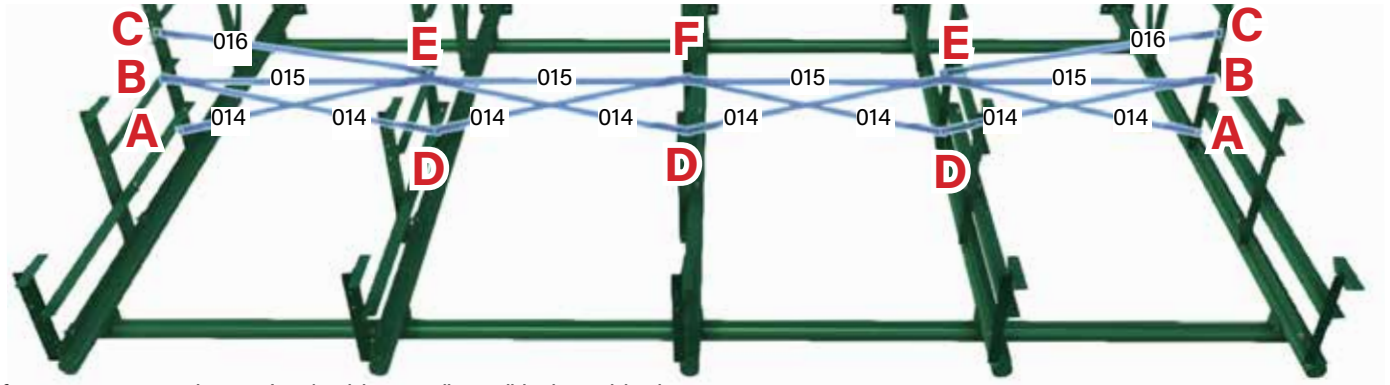
Note: the fastener at Location C will need to be removed and re-installed after the wood toe kick has been installed.



Note: the diagonal brace (016) is only required to support the end frame that will include a side handrail. If you are joining two or more bleacher sets together you only require the diagonal bracing at the end of each set to support the outside frame with a handrail.

Step 4c, Cross Braces - Row 3

For clarity this drawing only shows the first five rows of the bleachers



A} fasten one cross brace (014) with a 3/8" x 1.5" bolt and locknut

B} fasten one cross brace (014) and one horizontal brace (015) with a 3/8" x 1.5" bolt and locknut

C} fasten one diagonal brace (016) with a 3/8" x 4" bolt and locknut. Note that the diagonal brace includes a 1" OD extension piece at each end. Attaches to rear side of frame.

D} fasten two cross braces (014), with a 3/8" x 2" bolt and locknut.

E} fasten two cross braces (014), two horizontal braces (015) and one diagonal brace (016) with a 3/8" x 3.5" bolt and locknut

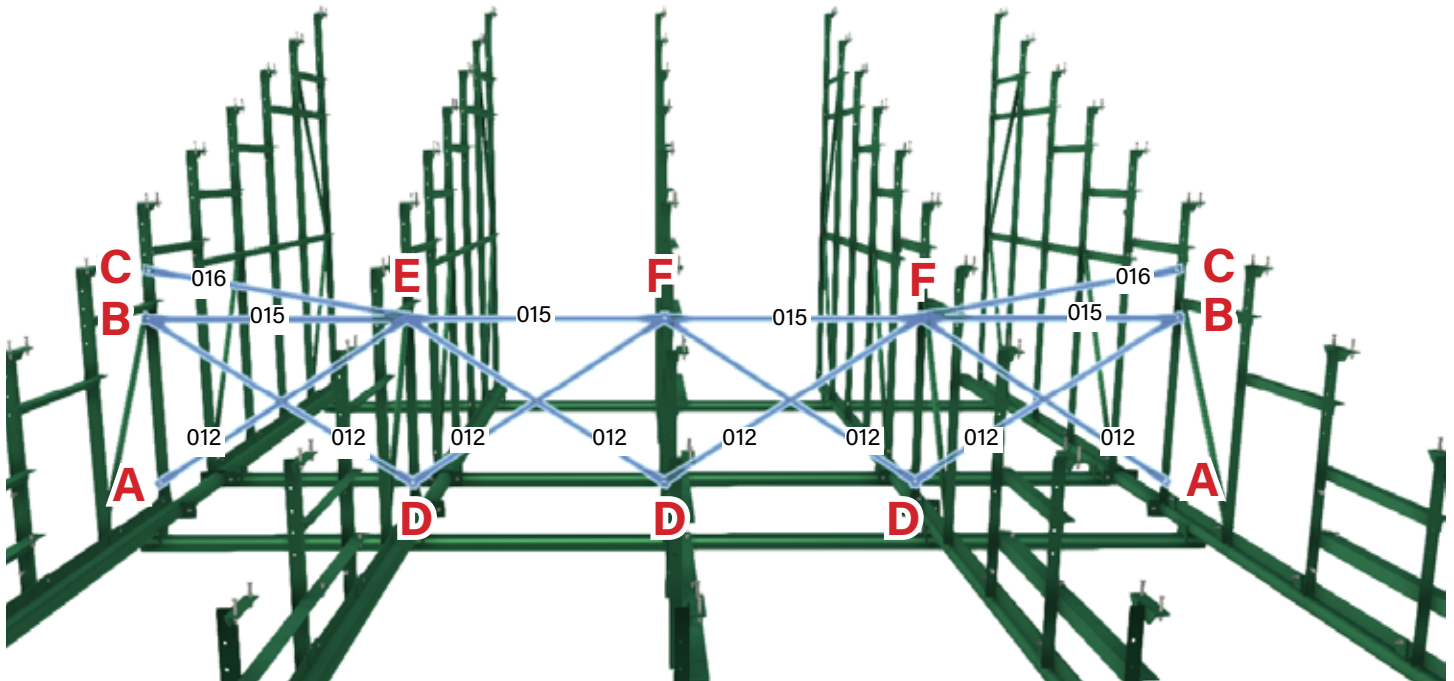
F} fasten two cross braces (014), and two horizontal braces (015) with a 3/8" x 2" bolt and locknut

Do not tighten fasteners fully at this time as you may need to make some small adjustments to align the frame.

Note: the fastener at Location C will need to be removed and re-installed after the wood toe kick has been installed.

Step 4d, Cross Braces - Row 5

Follow the same steps as in 4a, 4b and 4c using the Row 5 Cross Brace (012)

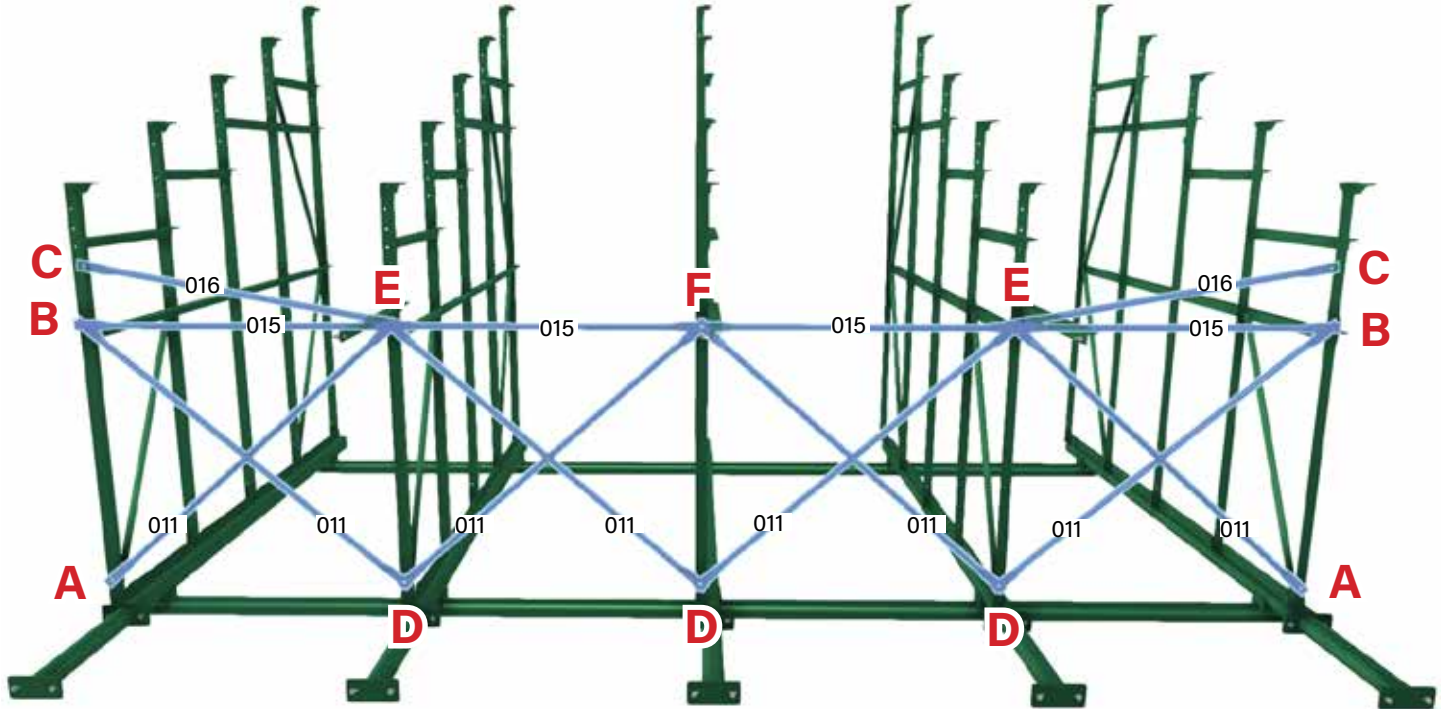


Note: the diagonal brace (016) is only required to support the end frame that will include a side handrail. If you are joining two or more bleacher sets together you only require the diagonal bracing at the end of each set to support the outside frame with a handrail.

Step 4e, Cross Braces - Row 6

For clarity this drawing only shows the back five rows of the bleachers

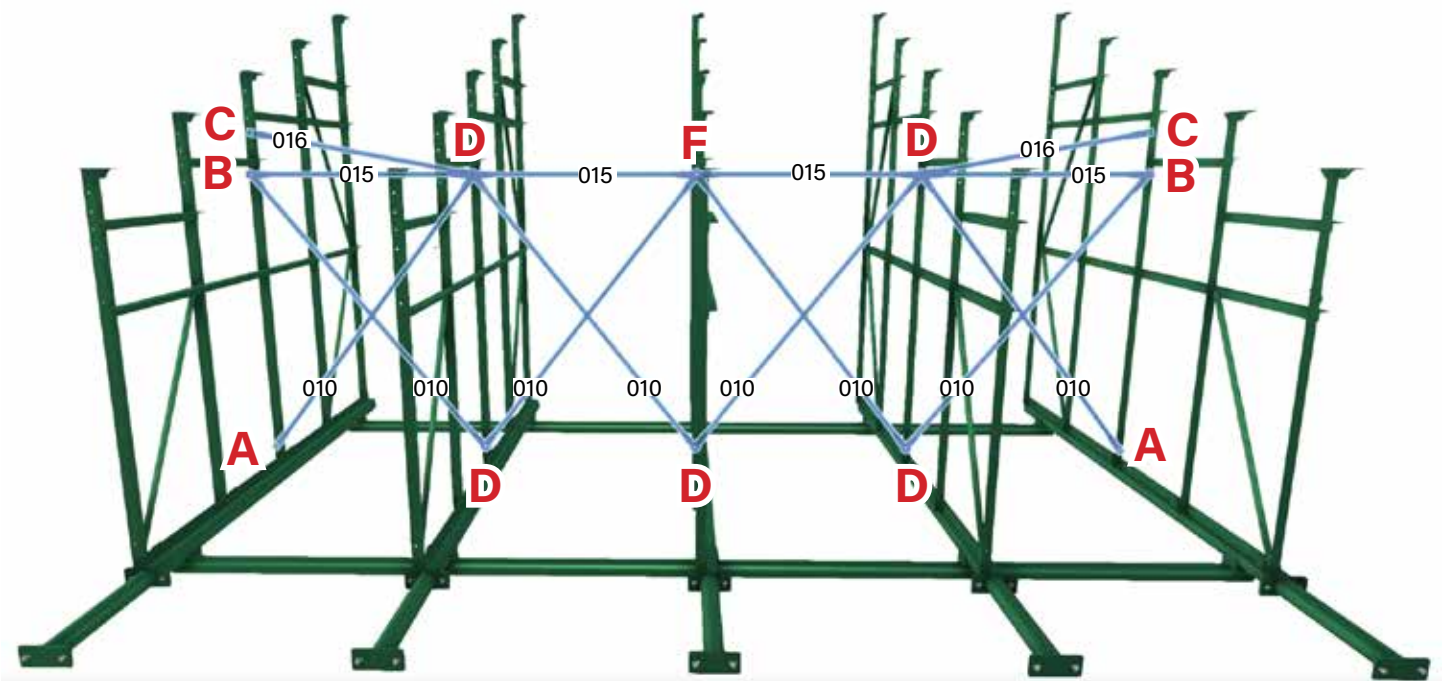
Follow the same steps as in 4a, 4b and 4c using the Row 6 Cross Brace (011)



Step 4f, Cross Braces - Row 8

For clarity this drawing only shows the back five rows of the bleachers

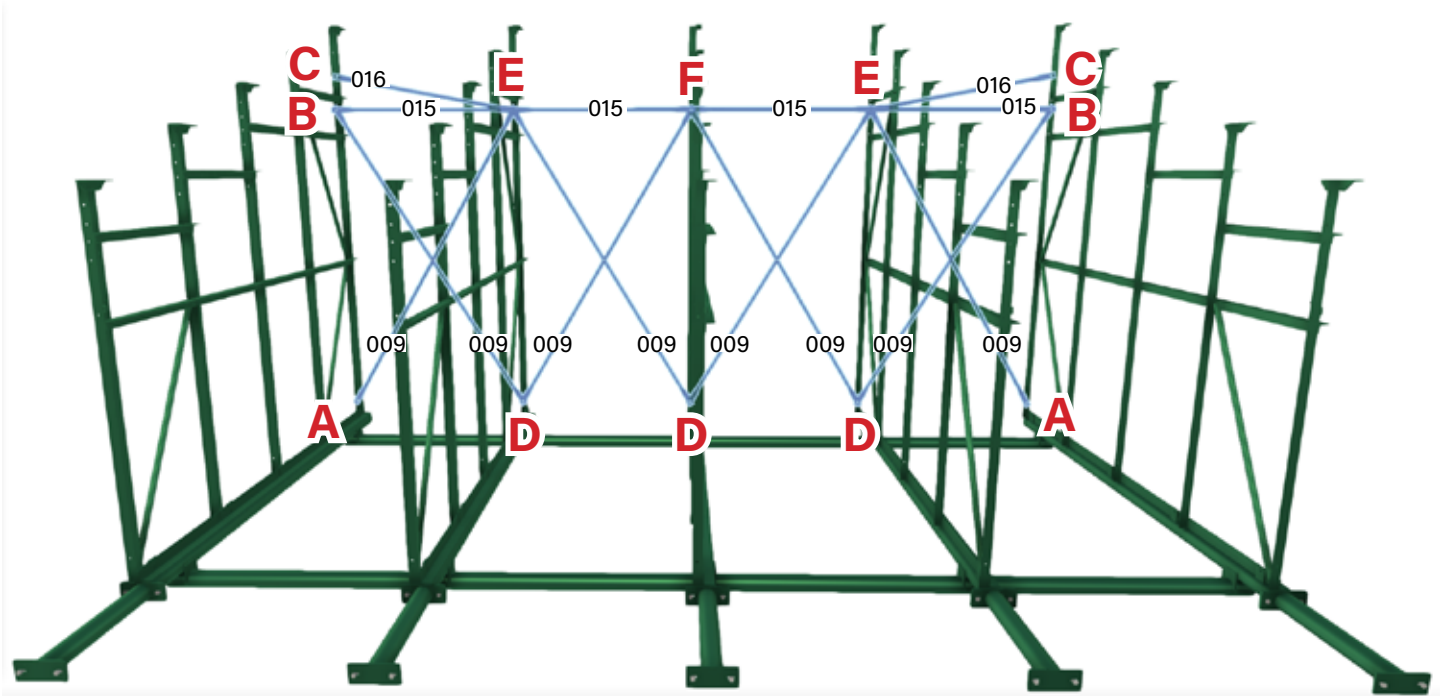
Follow the same steps as in 4a, 4b and 4c using the Row 8 Cross Brace (010)



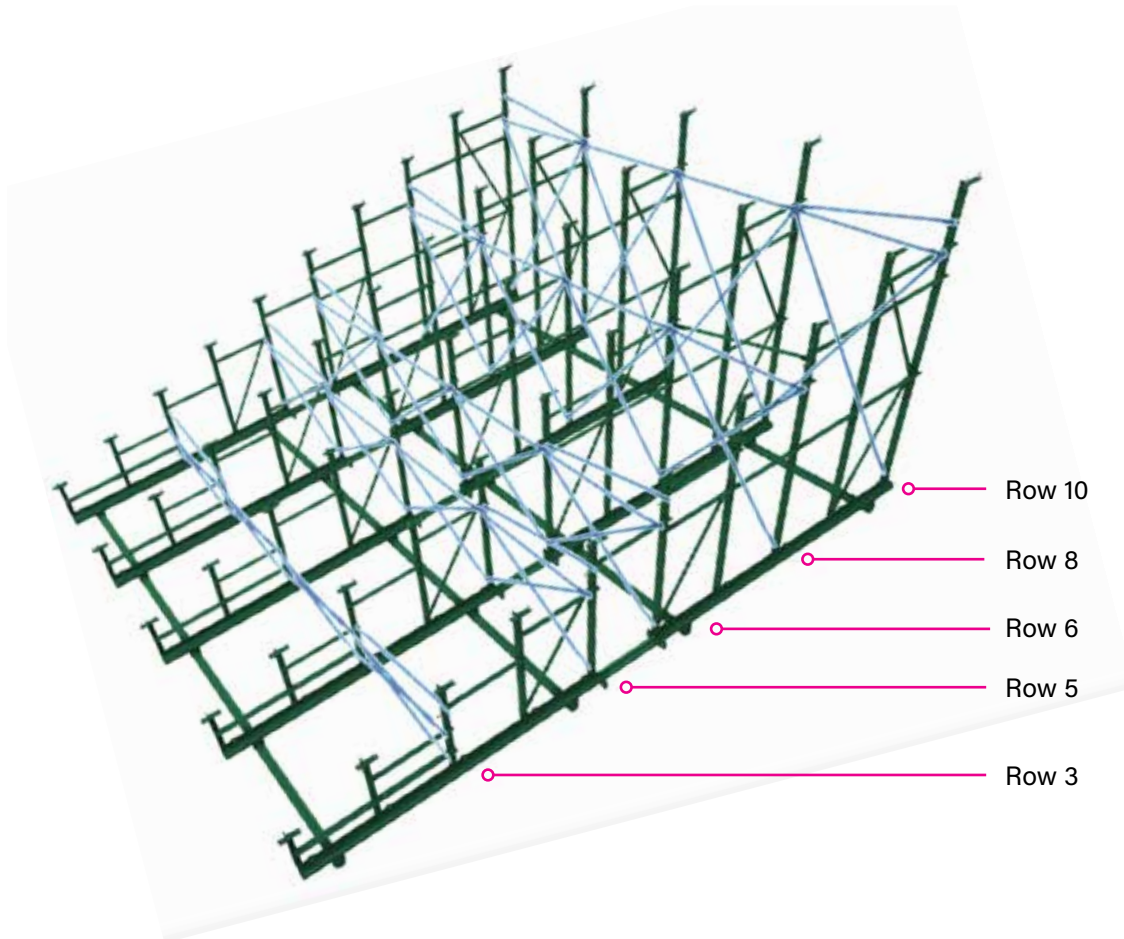
Step 4g, Cross Braces - Row 10

For clarity this drawing only shows the back five rows of the bleachers

Follow the same steps as in 4a, 4b and 4c using the Row 10 Cross Brace (009)



When all the braces have been attached you can tighten the locknuts. Leave the locknuts at D hand tight until after you have secured the wood toe-kick (step 8).



Step 4h, Horizontal Cross Braces - Row 2-3

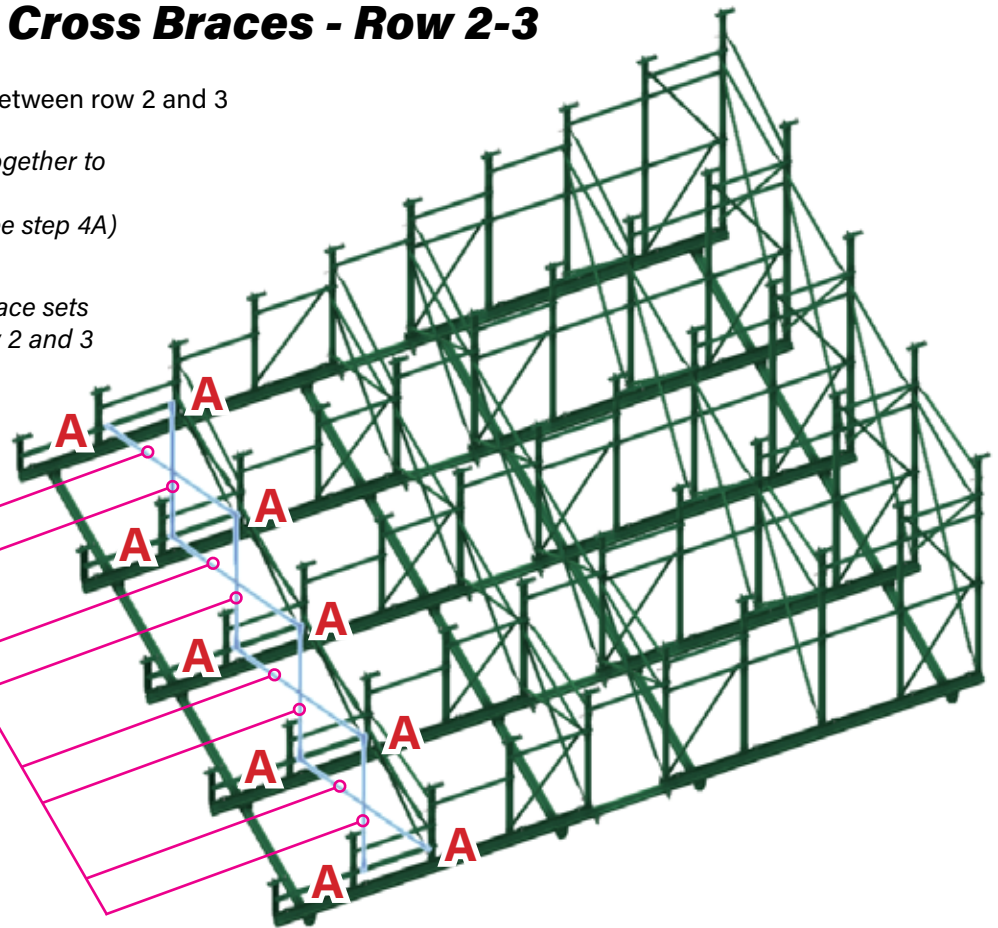
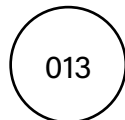
Install Horizontal Cross Braces (013) between row 2 and 3



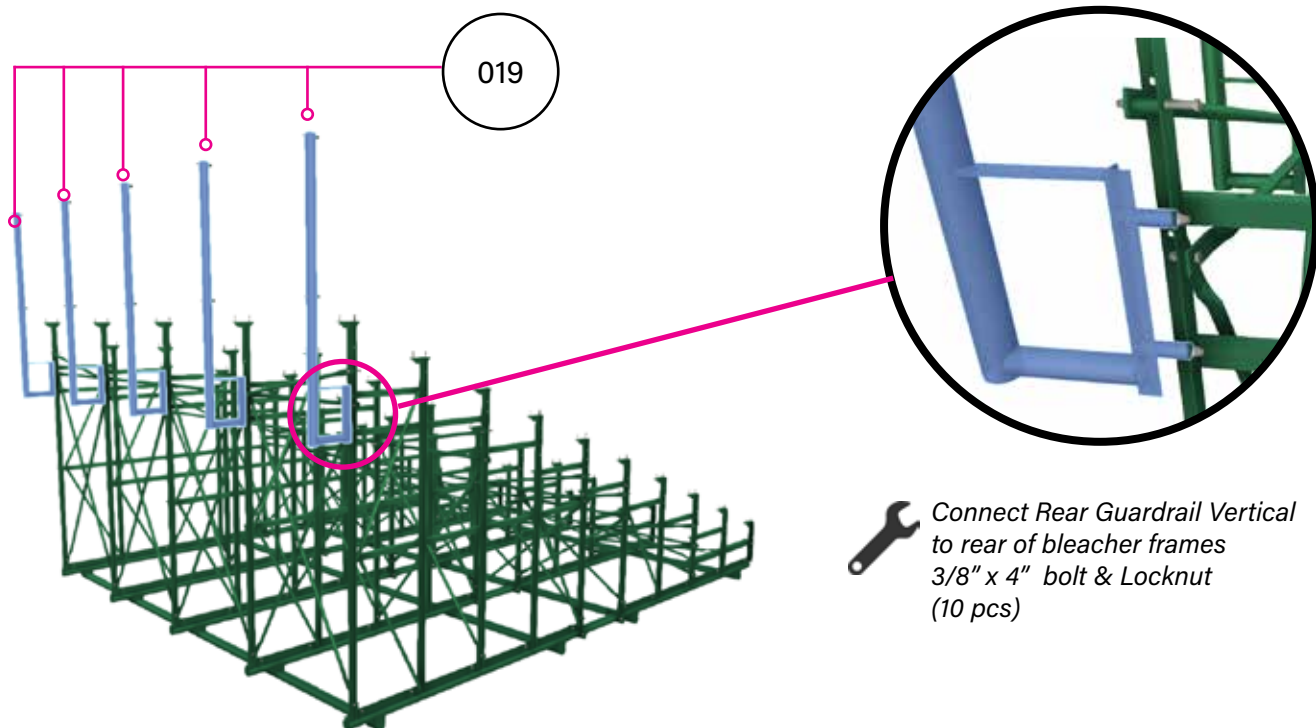
Connect 2 Horizontal Braces together to create four brace sets.
3/8" x 2-1/2" bolt & Locknut (see step 4A)
(4 pcs)



Connect the four Horizontal Brace sets to Seating Frames between row 2 and 3
3/8" x 1-1/2" bolt & Locknut
(10 pcs)



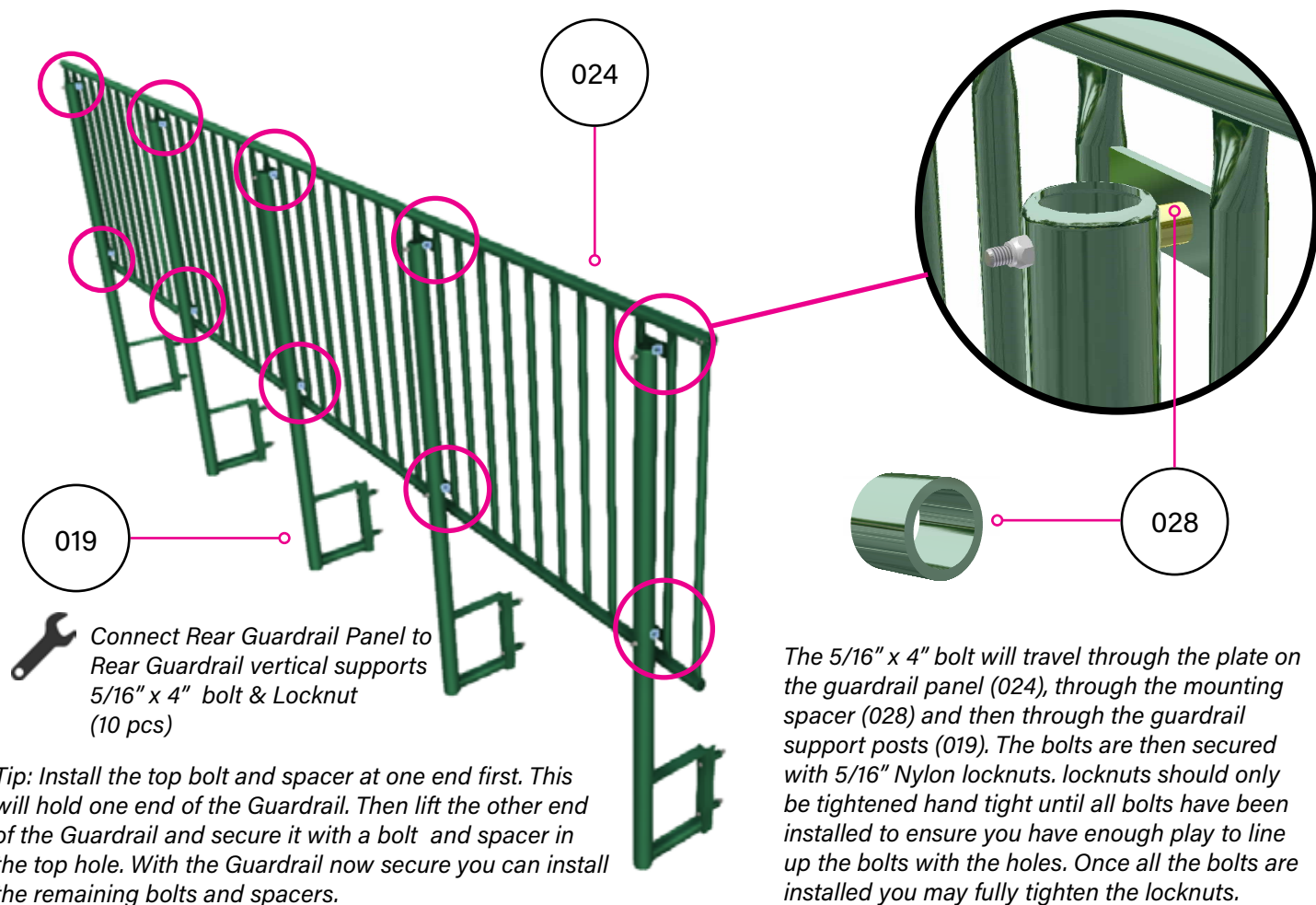
Step 5a, Install Rear Guardrail Supports



Attach the Rear Guardrail vertical supports (019). These vertical supports are 68 1/4" tall.

Fasten the end braces with 3/8" x 1.5" bolt and locknut, and interior supports with 3/8" x 2" bolt and locknut. (hand tight)

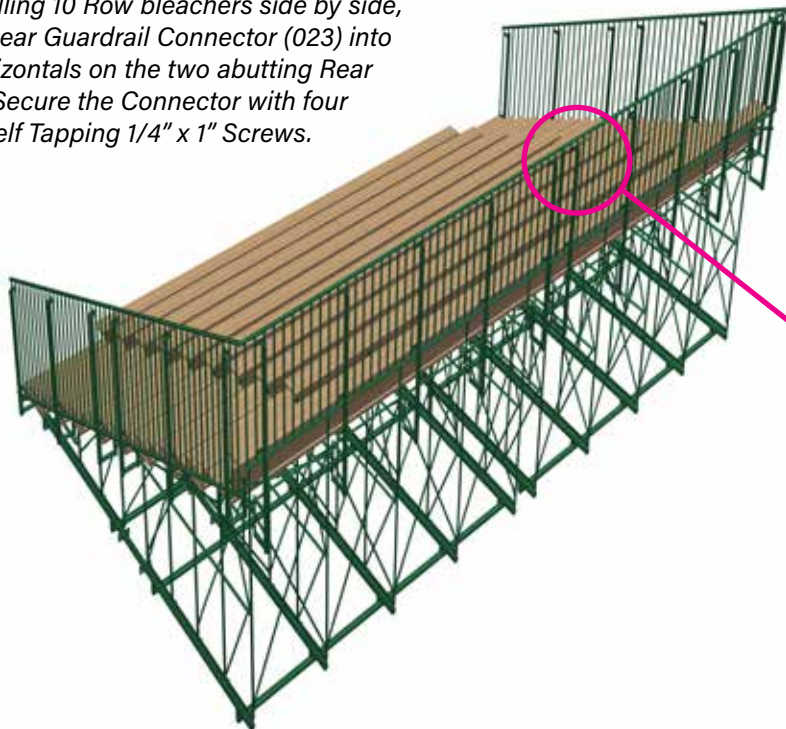
Step 5b, Attach the Rear Guardrail Panel to the support posts



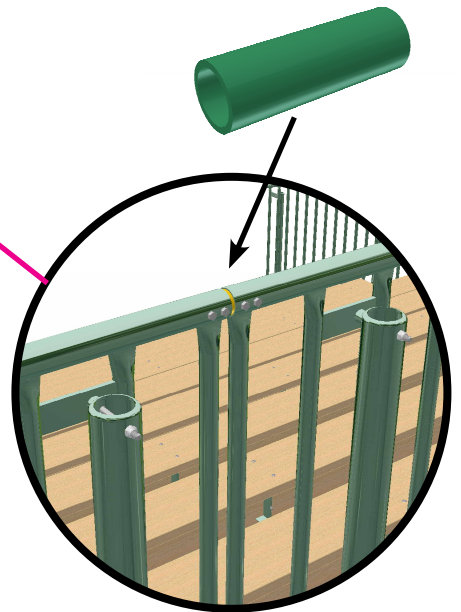
Step 6 (optional) Continuous Back Handrail



When installing 10 Row bleachers side by side, insert the Rear Guardrail Connector (023) into the top horizontals on the two abutting Rear Handrails. Secure the Connector with four Hexhead Self Tapping 1/4" x 1" Screws.

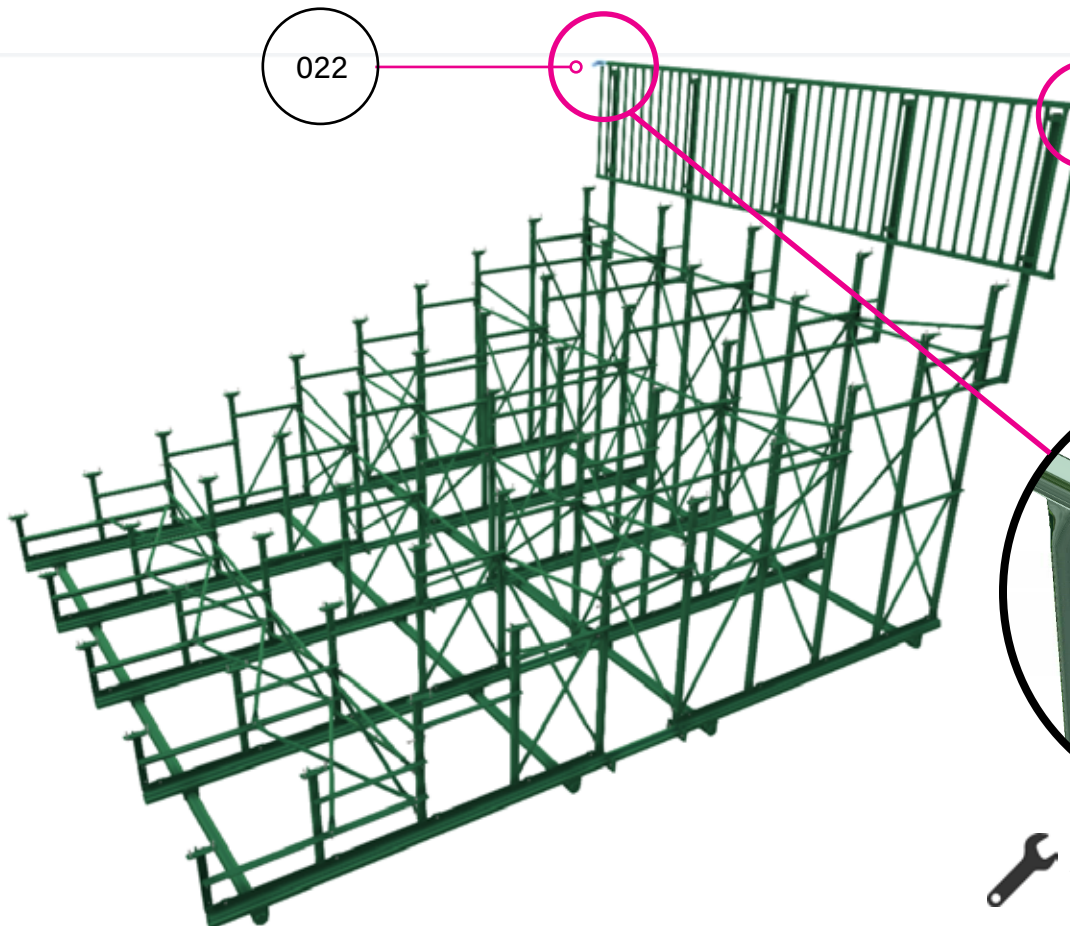


Rear Guardrail Connector (023)

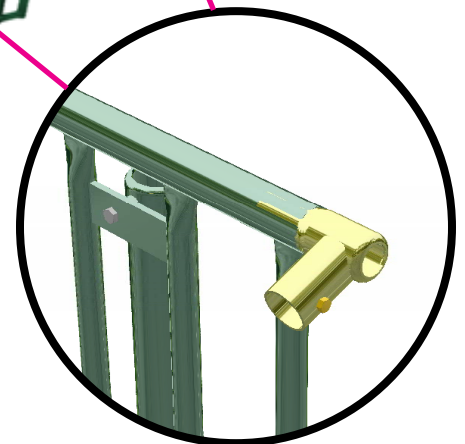


Step 7 Guardrail Corner Coupler

022



022

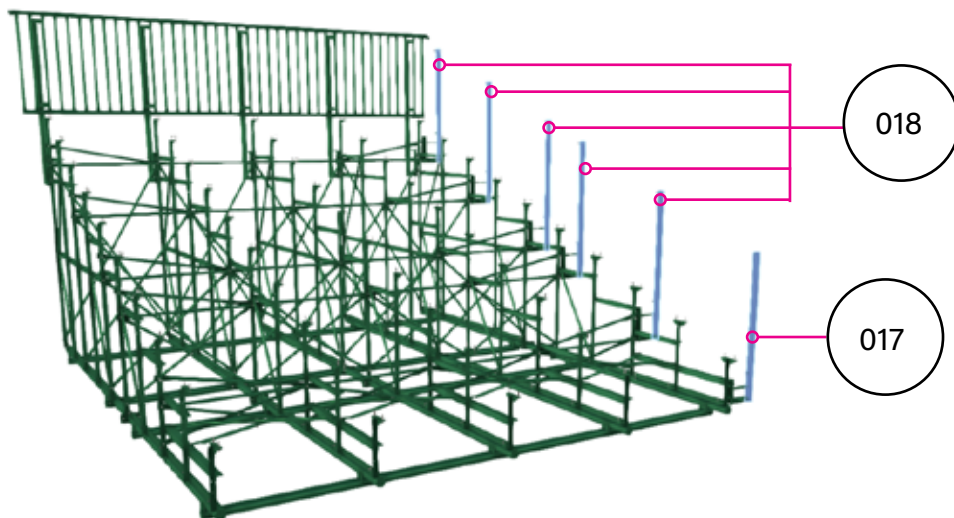


Insert corner coupler (022) in top rail of rear guardrail. Do not tighten. Proceed to step 8.

Step 8a, Install Left Handrail Support Posts

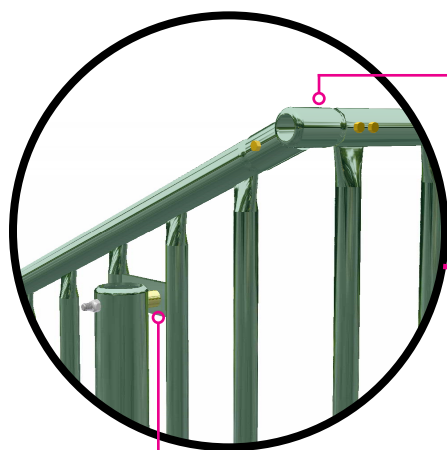


Connect Side Handrail Verticals (018 and 017) to left side bleacher frames 3/8" x 4" bolt & Locknut (12 pcs)



Connect Left Side Rail support posts to end frame. Note that the support post at Row One is 52" tall (017). The remaining side support posts are 56 3/4" tall (018).

Step 8b, Install Left Handrails



022



When the Upper Side Handrail Panel (021) has been inserted into the corner coupler (022) and lined up with the side support posts you can secure the corner coupler with the 1/4" x 1" Hexhead self tapping screws (3 pcs)

028

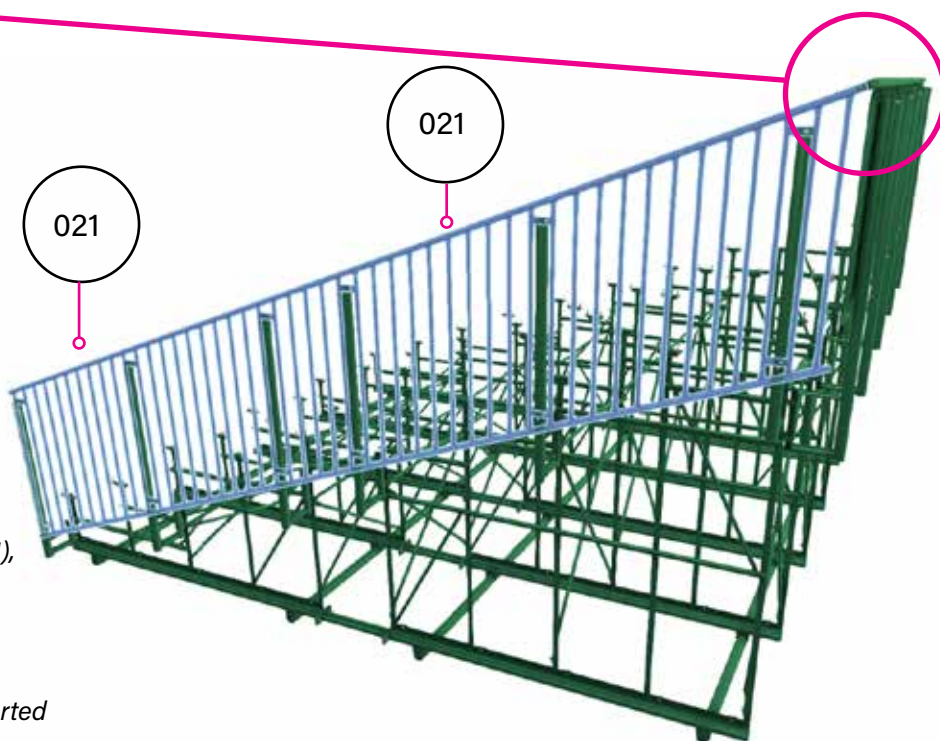
021

021



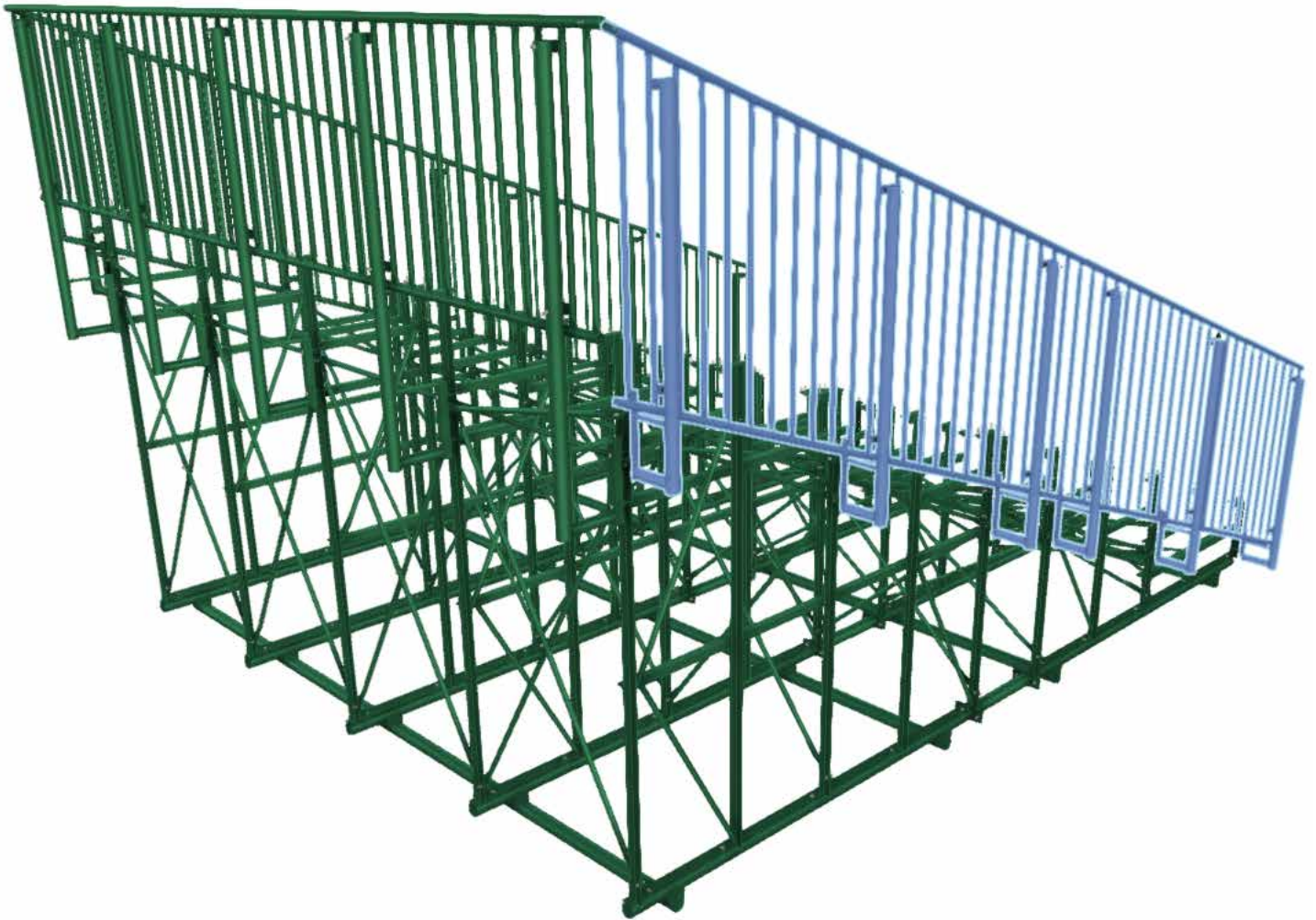
Connect the Upper (021), then Lower (021), Side Handrails to the Left side vertical Support Posts using 5/16" x 4" bolt & Locknut (12 pcs).

Ensure the Mounting Spacer (028) is inserted in between the handrail panel and the support post.



Step 9, Install Right Handrails

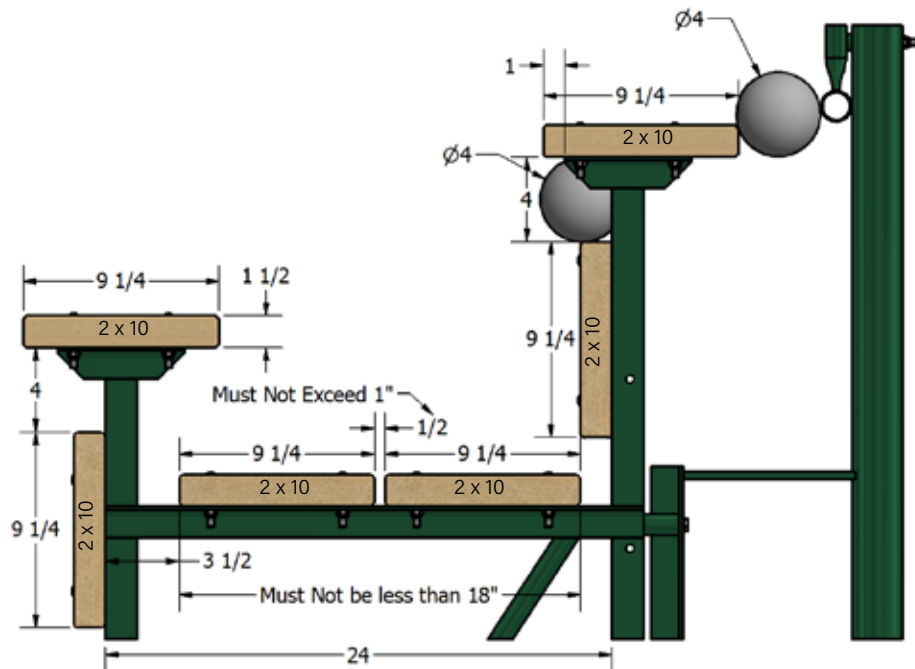
Repeat Steps 7 and 8 to install the Side Handrails on the Right side.



***Before installing seating check that all locknuts are tight
(accept for those that will be removed to install the toe
kicks; see connection 'C' on pages 9-12)***

**The following pages describe the installation of wood for treads, kick boards, and seating.
The materials required for this portion of the installation are not included.**

Step 10, Installation of Wood

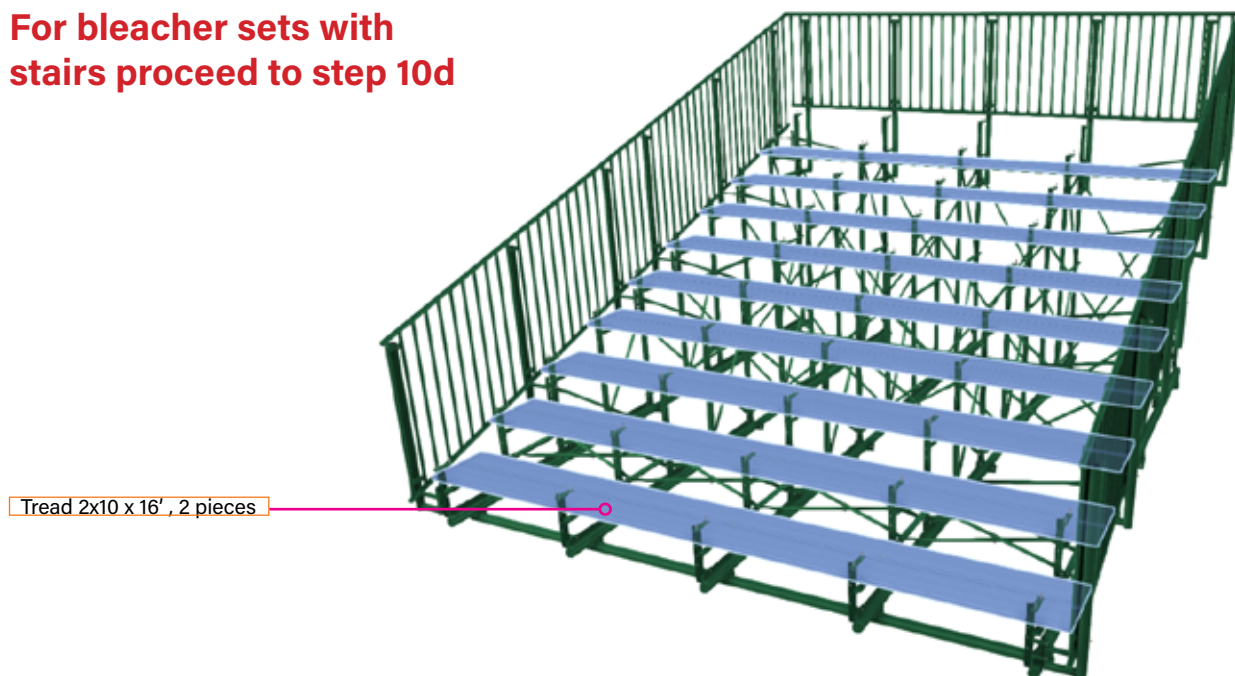


Important Note:

Use this drawing as a guide for installing the lumber on your bleachers. no gap should be larger than 4" (that is to say a 4" diameter ball could not be put through the gap). This spacing meets most building codes. You are responsible for checking the codes in your area.

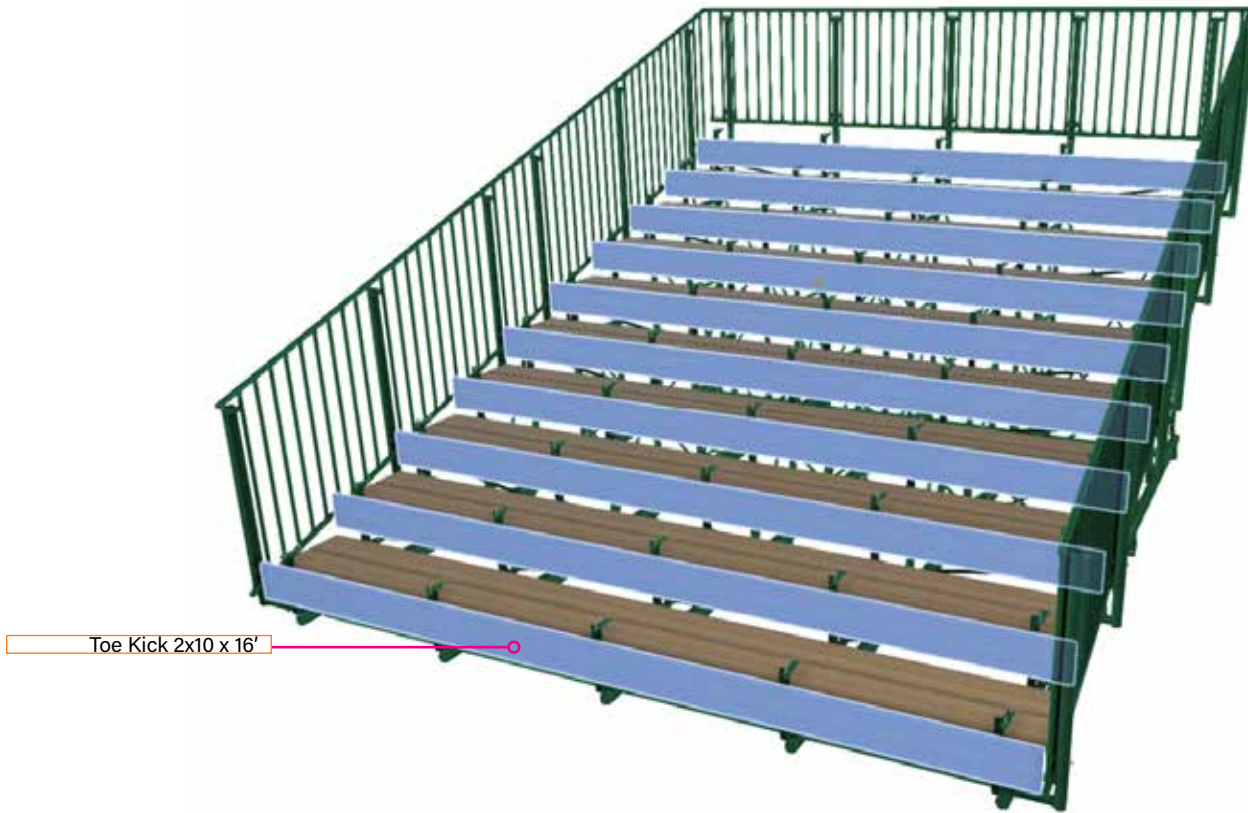
Step 10 a, Standard Bleacher - Wood Installation - Treads

For bleacher sets with stairs proceed to step 10d



Starting at the bottom row, drill a pilot hole up through the holes provided in the angle iron supports and through the 2x10 x 16' lumber. Secure the treads with round headed bolts and locknuts. If your installation requires stairs go to step 10d.

Step 10b, Standard Bleacher - Wood Installation - Toe kick



Toe Kick 2x10 x 16'

The 2x10x 16' toe kicks mount to the vertical face of the seat support frames. Fasten the toe kicks using the same method used in 10a. Ensure the Toe Kick is no more than 4" below the seat. Note: the fastener at Location C will need to be removed and re-installed after the wood toe kick has been installed. See pages 9-12

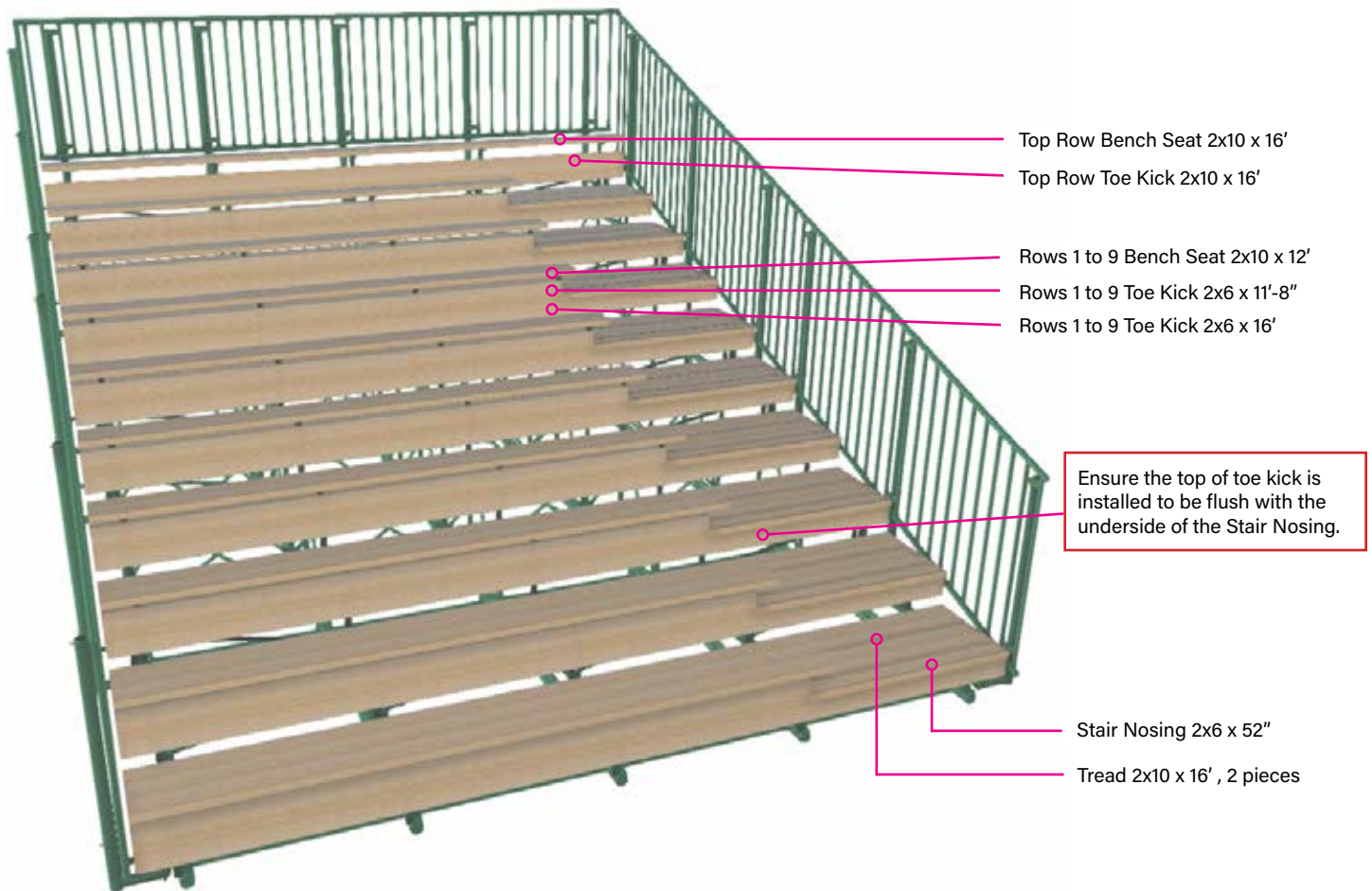
Step 10c, Standard Bleacher - Wood Installation - Seats



Bench Seat 2x10 x 16'

Install the 2x10 seating starting at the top row. Ensure there are no gaps larger than 4" in diameter between the top seat and the rear handrail.

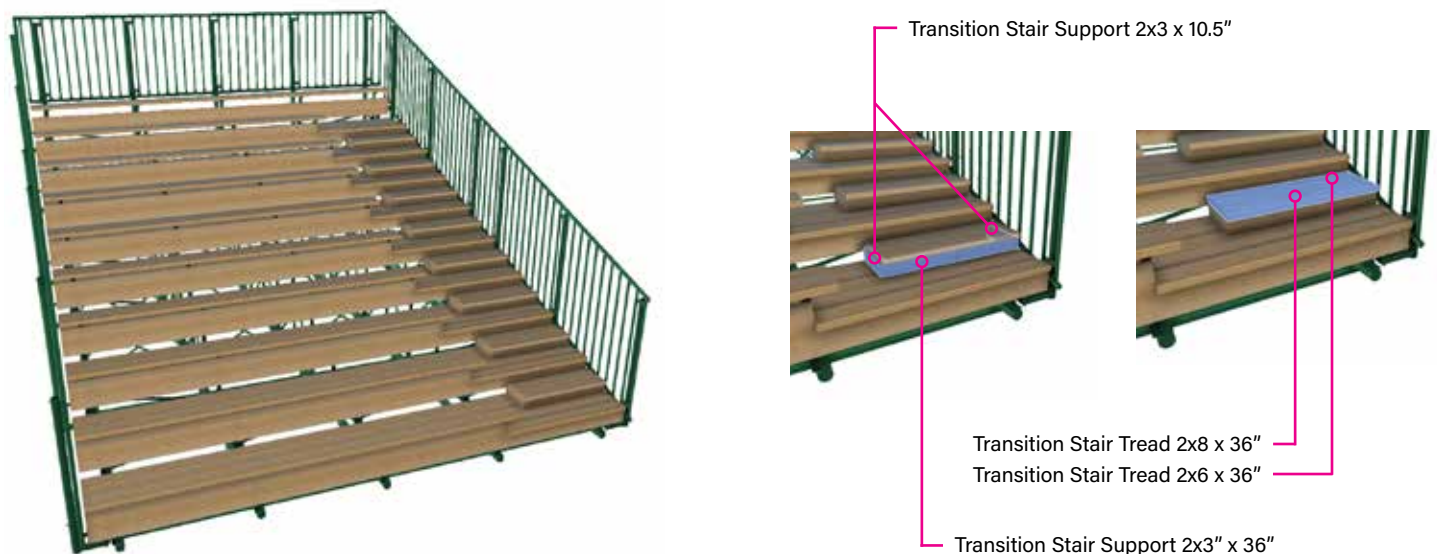
Step 10d, Bleacher with stairs - **Left Side Stairs - Treads**



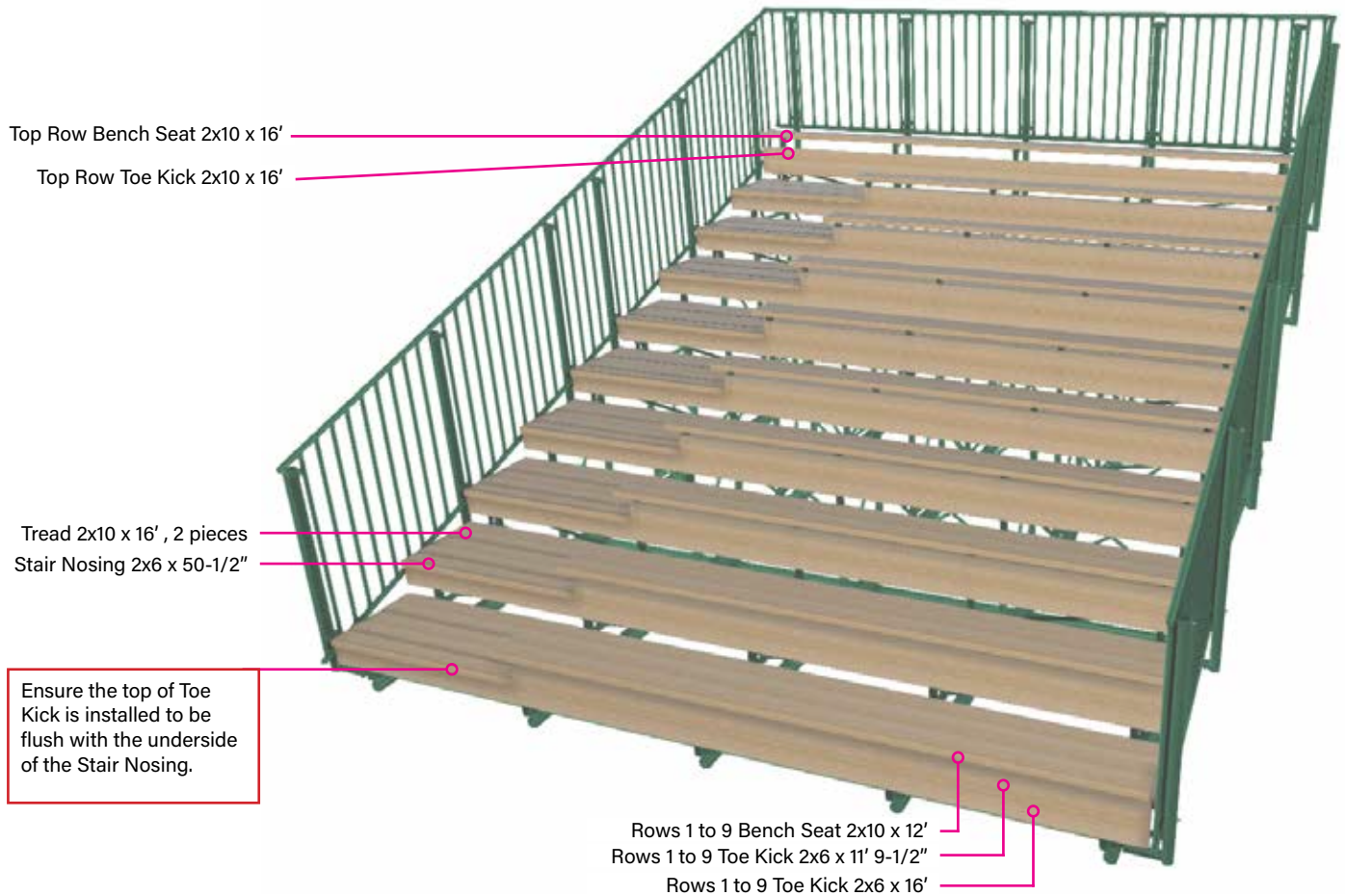
Repeat Steps 10a, 10b and 10c except use the modified lumber sizes and add a nosing piece to the stair section.

Starting at the bottom row, drill a pilot hole up through the holes provided in the angle iron supports and through the lumber. Secure the treads with round headed bolts and locknuts. The frames for the stairs (005, 006, 06a) include extra holes for fastening the nosing tread. The seats for the first 9 rows will only be 12' in length while the top bench seat will remain the full 16' length.

Optional transition step - Left



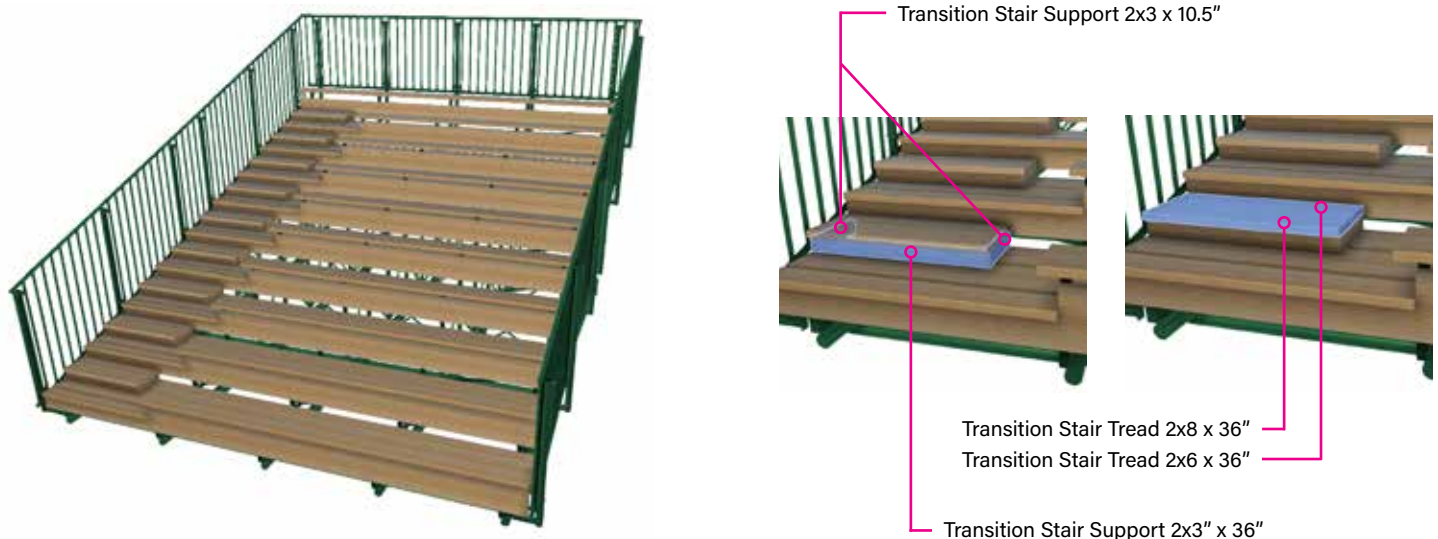
Step 10e, Bleacher with stairs - **Right** Side Stairs - Treads



Repeat Steps 8a, 8b and 8c except use the modified lumber sizes and add a nosing piece to the stair section.

Starting at the bottom row, drill a pilot hole up through the holes provided in the angle iron supports and through the lumber. Secure the treads with round headed bolts and locknuts. The frames for the stairs (005, 006, 06a) include extra holes for fastening the nosing tread. The seats for the first 9 rows will only be 12' in length while the top bench seat will remain the full 16' length.

Optional transition step - **Right**



Step 9, Adding the optional sign frame

The optional sign frames (8963) can be added to the rear guardrail of the bleachers. The mounting brackets are located so you can use the upper existing bolts used to tie the rear guardrail to the guardrail support posts.

Sign frames can be added to the rear guardrail to promote businesses who support your facilities, or to generate additional advertising revenues. Each bleacher set can support two sign frames. The sign frames are designed to hold a 2' x 4' sign. Pre-drilled holes in the sign frame make it easy to securely bolt your sign in place

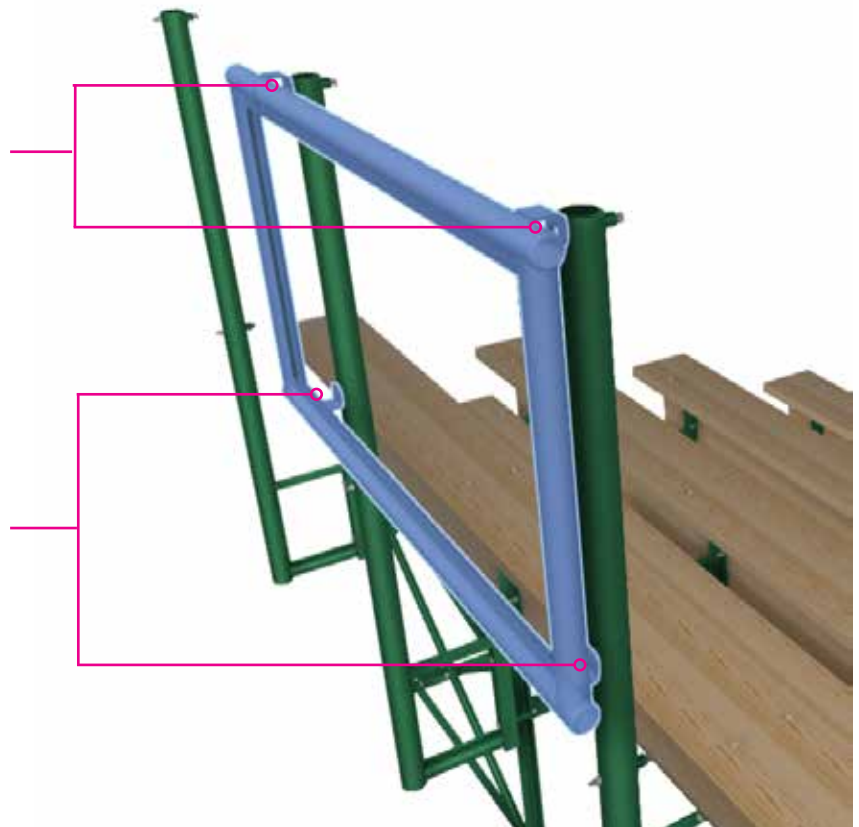
8963

Note: This image shows the sign frame mounted on a 5-row bleacher but the method is the same for mounting on a 10 row bleacher.



For clarity the rear guardrail panel is not shown in the image below

Use existing fasteners to secure the top of the sign frame to the top of the rear guardrail support post.



The guardrail support posts do not come with pre-drilled holes for securing the lower portion of the sign frame. These holes must be drilled on site and the sign can then be secured with two 5/16" x 3.25" bolts