

Assembly Instructions for Hi-Hog's 5-Row Bleachers and/or 5-Row Bleachers with Stairs (No Skid Frames)



Questions, problems, missing parts?

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

1-800-661-7002

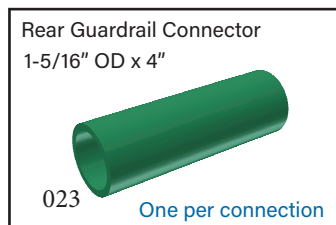
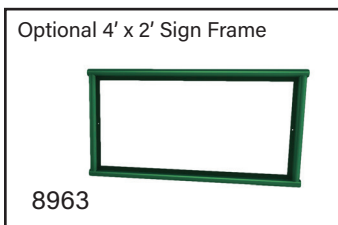
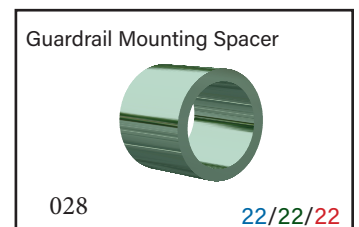
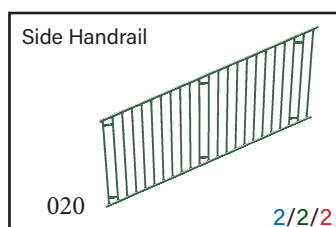
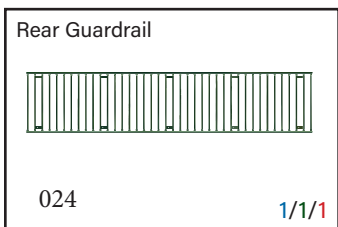
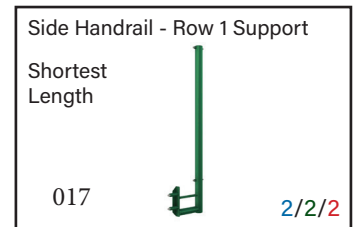
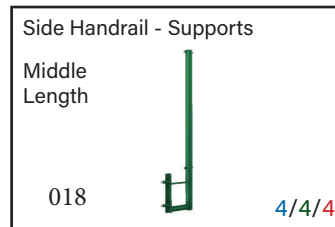
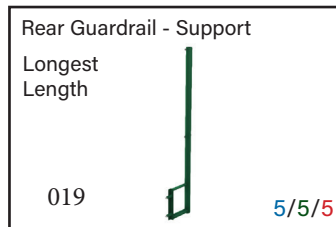
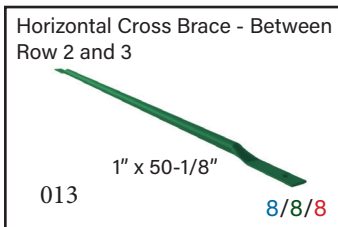
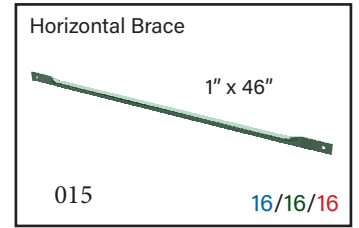
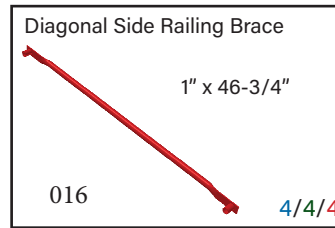
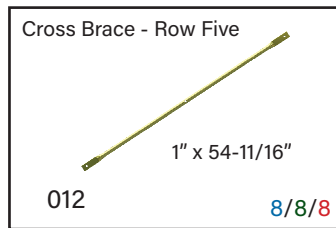
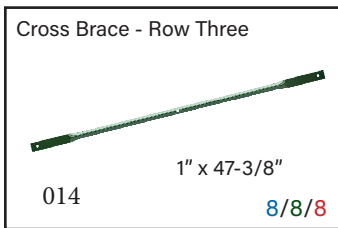
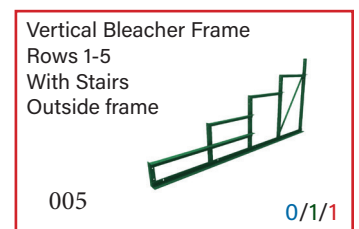
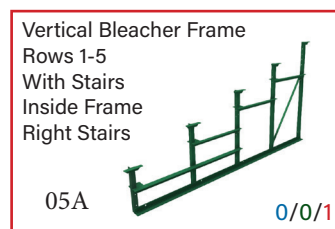
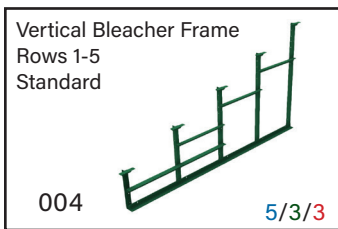
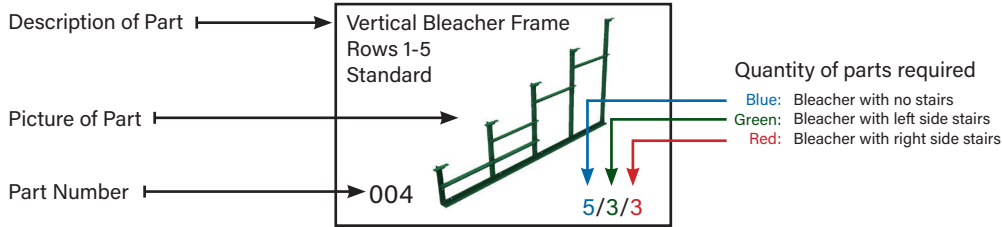
We appreciate the trust and confidence you have placed in Hi-Hog Farm & Ranch Equipment Ltd., through the purchase of your new 5 row bleachers. We strive to continually provide quality products designed for durability and performance. *Last edited October 2023 (c) Hi-Hog Farm & Ranch Equipment*

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.





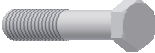
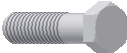
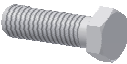



Note: Quantities will reduce if your railing requirements change. For example, if you join two sets of bleachers you will reduce the total number of side rails required.

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



Bleacher Frame Fasteners

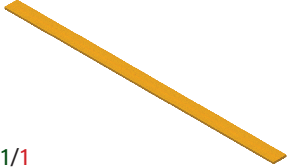
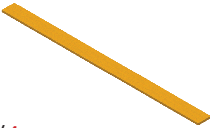
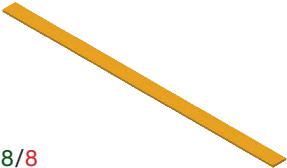
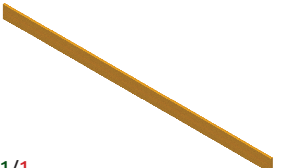
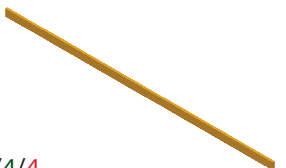
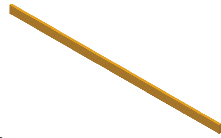
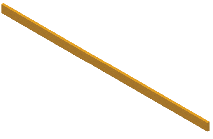
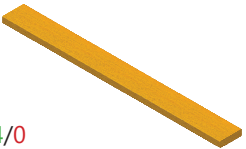
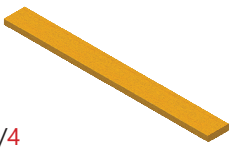




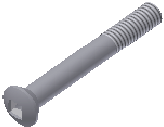

Note: Actual fastener quantities required will vary with the style of bleachers you have purchased as well as the combinations of bleachers that you have selected.

<div>5/16" x 4" HHCS Plated</div> <div></div> <div>22</div>	<div>3/8" x 4" HHCS Plated</div> <div></div> <div>26</div>	<div>3/8" x 3-1/2" HHCS Plated</div> <div></div> <div>4</div>	<div>3/8" x 2-1/2" HHCS Plated</div> <div></div> <div>8</div>
<div>3/8" x 2" HHCS Plated</div> <div></div> <div>8</div>	<div>3/8" x 1-1/2" HHCS Plated</div> <div></div> <div>8</div>	<div>3/8" x 1-1/4" HHCS Plated</div> <div></div> <div>25</div>	
<div>3/8" NC Nylon Locknuts</div> <div></div> <div>79</div>	<div>5/16" NC Nylon Locknuts</div> <div></div> <div>22</div>	<div>1/4" x 1" Hexhead Self Tapping Screw</div> <div></div> <div>6/6/6</div>	

Suggested Tools

Cordless drill, socket set, wrenches, screw driver and drill bits. This job is best performed by two people (min.)

Wood Seating and Fasteners

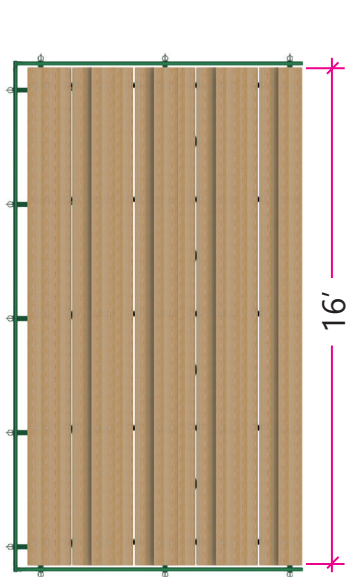
<p>2x10 x 16' seating</p>  <p>5/1/1</p>	<p>2x10 x 12' seating with stair</p>  <p>0/4/4</p>		
<p>2x10 x 16' Tread</p>  <p>8/8/8</p>			
<p>2x10 x 16' Toe Kick</p>  <p>5/1/1</p>	<p>2x6 x 16' Toe Kick - left and right</p>  <p>0/4/4</p>	<p>2x6 x 11'-8" Toe Kick - left</p>  <p>0/4/0</p>	<p>2x6 x 11' 9-1/2" Toe Kick - right</p>  <p>0/0/4</p>
<p>2x6 x 52" Stair Nosing - Left</p>  <p>0/4/0</p>	<p>2x6 x 50.5" Stair Nosing - Right</p>  <p>0/0/4</p>		
<p>2x8 x 36" Transition Stair Deck</p>  <p>0/4/4</p>	<p>2x6 x 36" Transition Stair Deck</p>  <p>0/4/4</p>	<p>2x3" x 36" Transition Stair Nosing</p>  <p>0/4/4</p>	<p>2x3" x 10.5" Transition Stair Side</p>  <p>0/8/8</p>
<p>5/16" x 2.25" Round Head Bolt</p>  <p>177/217/217</p>	<p>5/16" NC Locknuts</p>  <p>177/217/217</p>		

Preparation

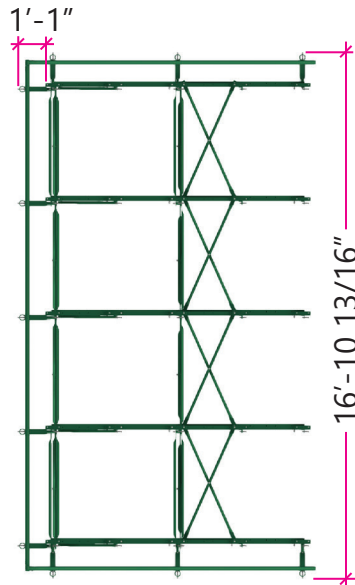
Your bleacher frames are designed for installation on a level, flat and rigid surface such as a concrete slab. If you intent to install your bleachers on a surface that does not match the above description you should add skid frames to the base of your bleacher frames (sold separately).

Your bleacher frames should be assembled where you plan to use them. If you intend to move your bleachers after they have been assembled you should add skids to the base of your bleachers (sold separately).

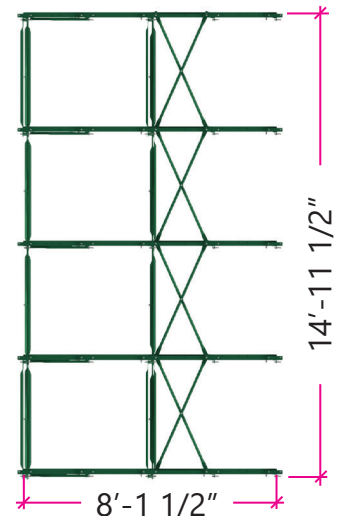
Before you begin, take a moment to consider where your completed bleachers will be located. Does the front, side or back of the finished bleacher need to be located in a specific location relative to any existing site conditions? The finished bleachers frames will be heavy and may be difficult to move. For this reason we recommend you assemble your bleacher frames where you want them to be located. Please use the drawings below as a guide for locating your frames.



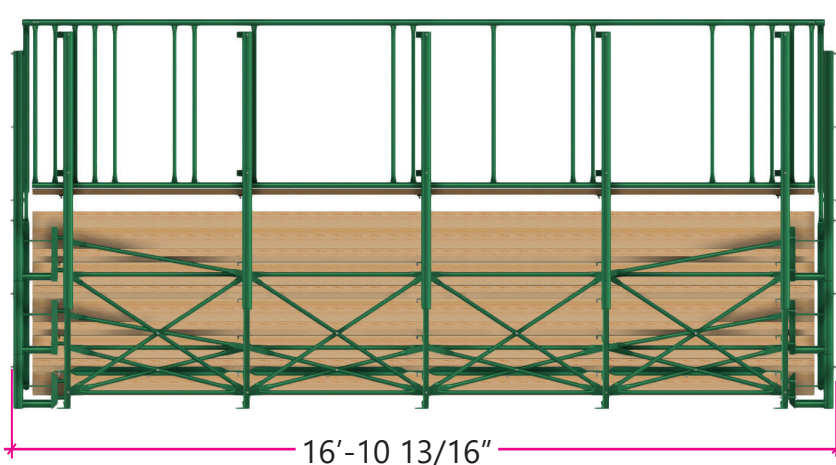
Plan View - with wood & railings



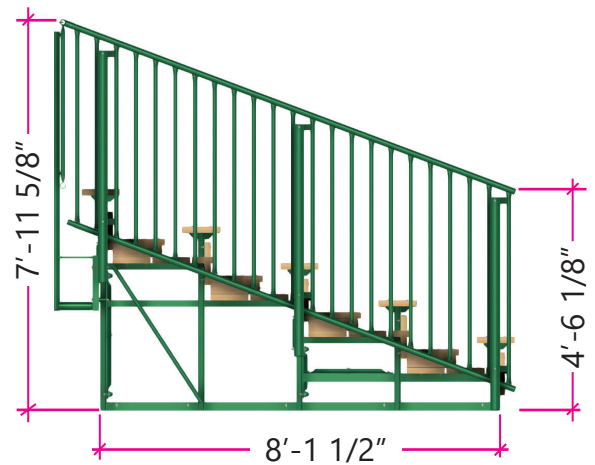
Plan View - frames with railings



Plan View - frames no railings



Back Elevation



Side Elevation

Select the correct frames for your bleacher needs

The three drawings on your right identify the vertical seat frames that you require for the following assemblies:

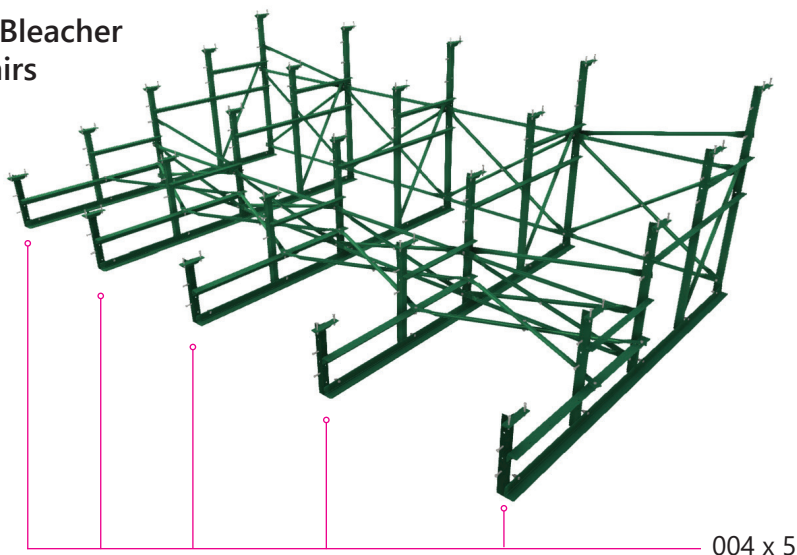
- Standard 5 row bleacher - no stairs
- 5 row bleacher with right hand stairs
- 5 row bleacher with left hand stairs

Standard Bleachers

In a bleacher assembly with no stairs you will require the following bleacher frames:

5 x item 004

5 row Bleacher
No stairs

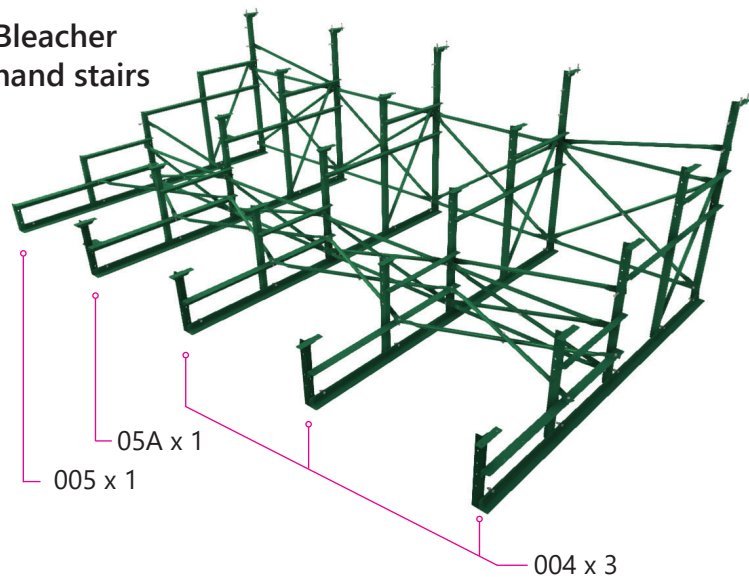


Right Hand Stair Bleachers

In a bleacher with right hand stairs (from the perspective of someone seated in the bleacher) you will require the following vertical bleacher frames.

3	x	item	004
1	x	item	005
1 x item 05A			

5 row Bleacher
Right-hand stairs

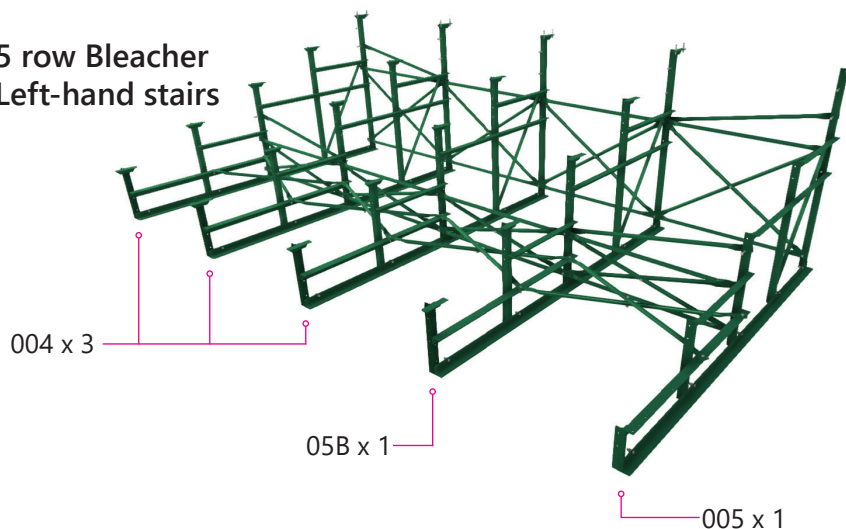


Left Hand Stair Bleachers

In a bleacher with left hand stairs (from the perspective of someone seated in the bleacher) you will require the following vertical bleacher frames.

3	x	item	004
1	x	item	005
1 x item 05B			


5 row Bleacher
Left-hand stairs



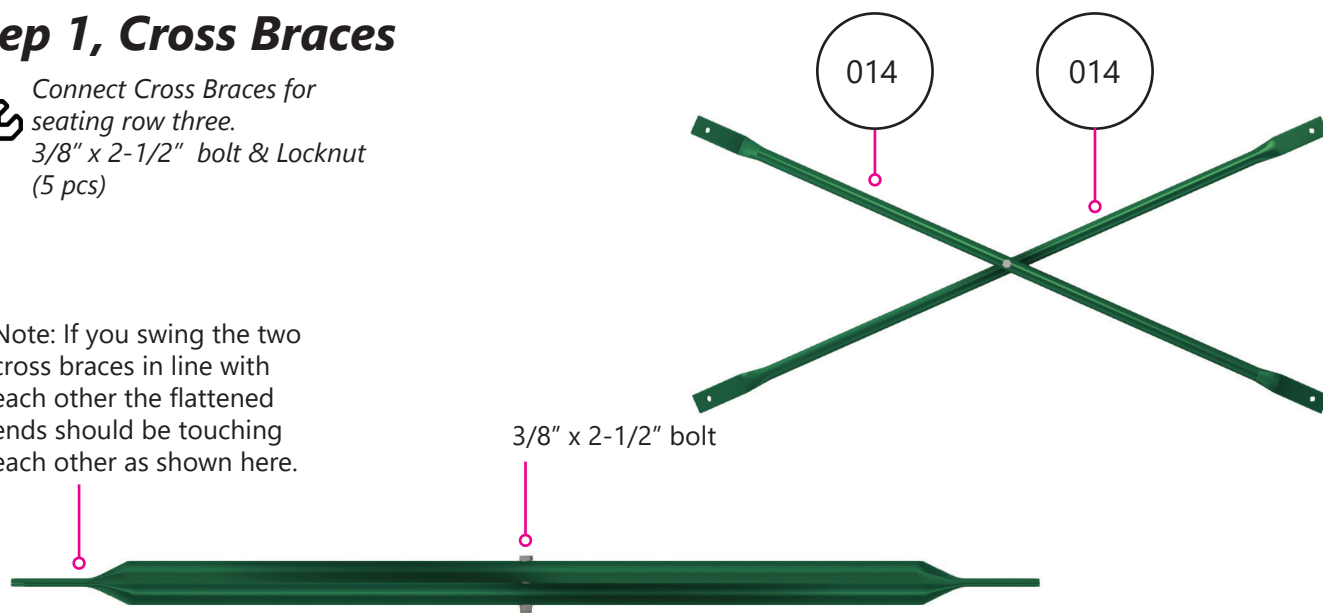
Assembly of frames for the front 5 rows

Start with the two outside left or outside right seat frames. If your bleachers need to be in a precise location we suggest you begin with the vertical seating frames that are closest to this location. These outside frames could be standard frames or the frames required for stairs. To confirm the parts you need, see the frame drawings on the previous page. For the purpose of this guide we will begin with our standard vertical frames.

Step 1, 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 2, Secure frames with bracing at row 3

In this step you will loosely fasten the braces required to stabilize the frame at row three of your bleacher frames.

You require the four sets of cross braces for row 3 (item 014) that you assembled in the previous step. You will also need a pair of diagonal braces (item 016) for the end frames and eight horizontal braces (item 015).

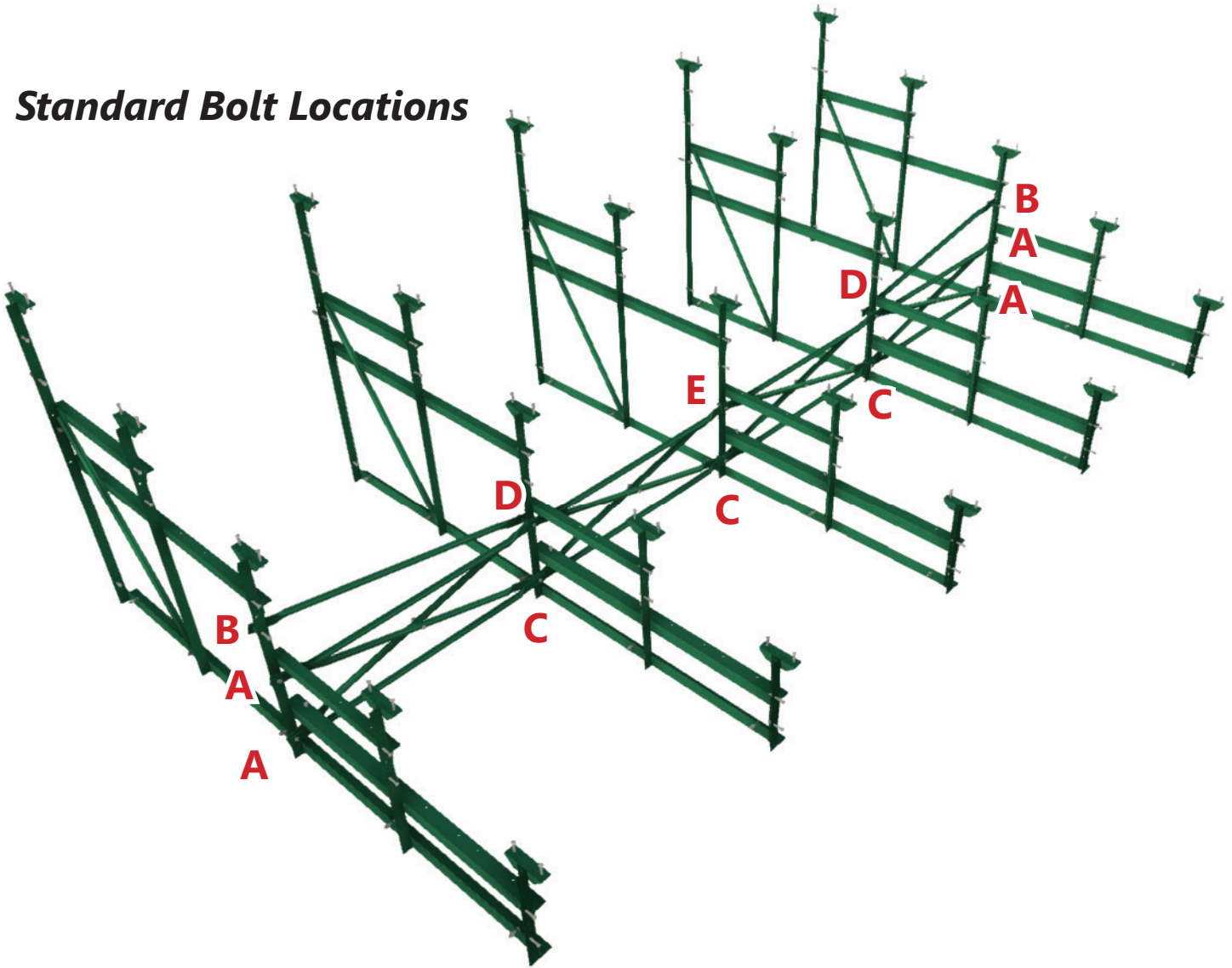
Several of the braces are fastened with an individual fastener. The drawing at the top of the next page shows the location of the various fasteners that you will require. The location of the braces is shown at the bottom of the next page. You will find a more detailed description on the following page.

Have a helper support the seating frames while you install the first set of braces. Do not tighten nuts securely until the entire bleacher frame has been assembled.



Step 2, Install Braces at row 3, continued

Standard Bolt Locations

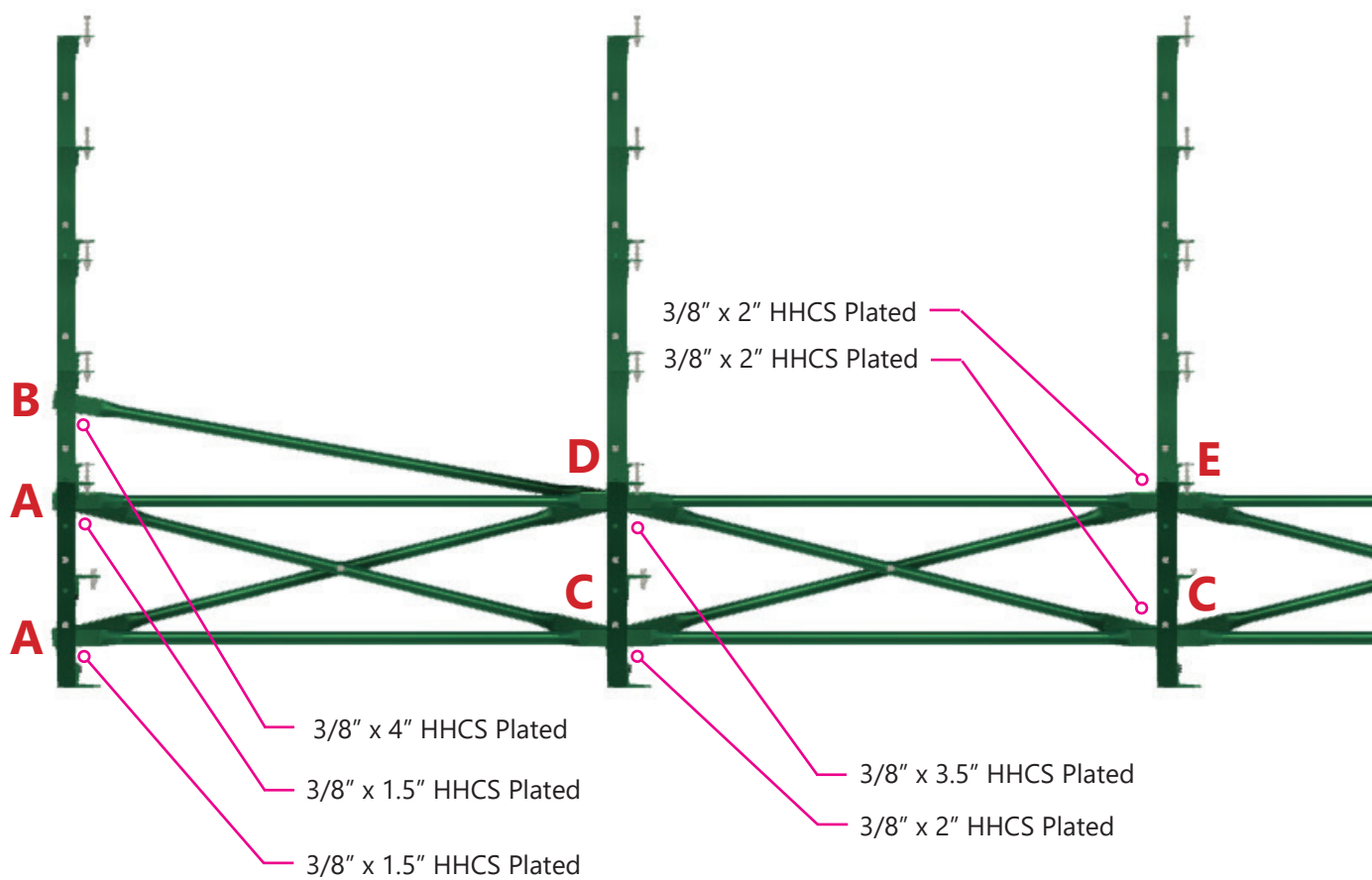
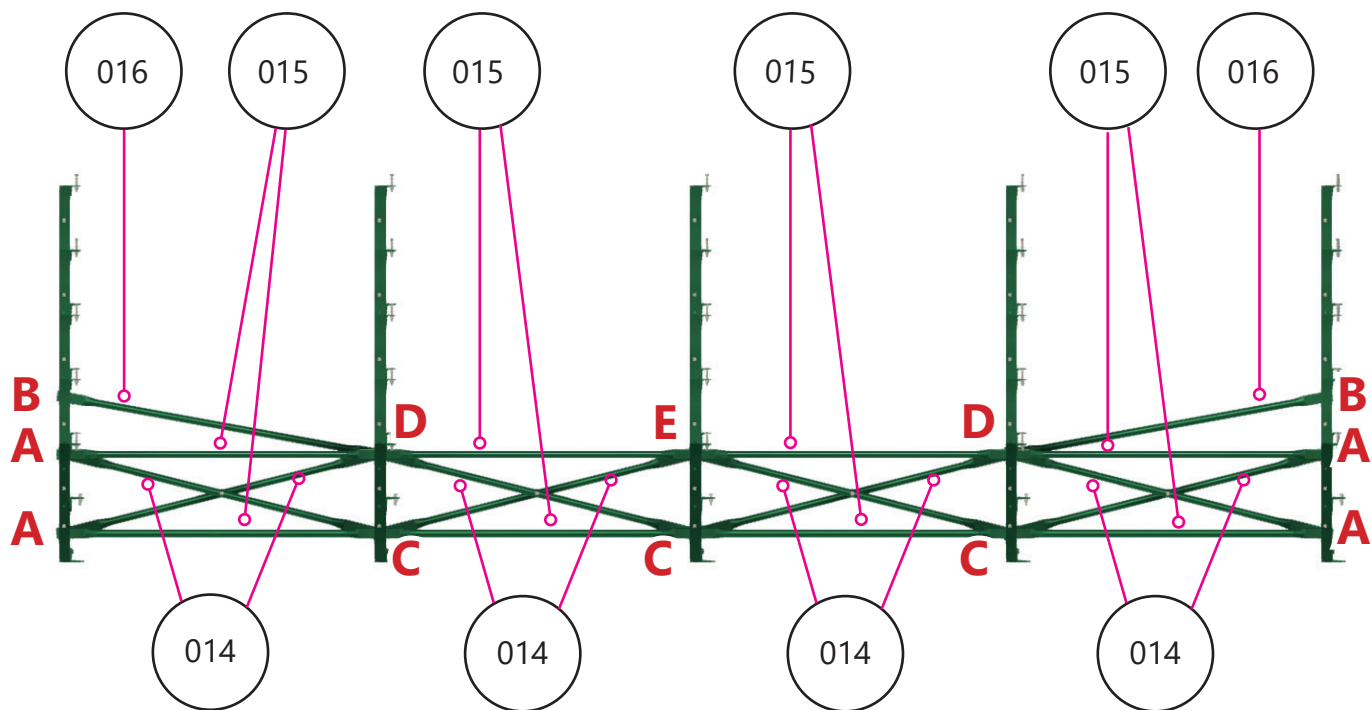


Step 2a, Cross Braces fastener instructions

Start installing the cross braces at either the left or right end. The recommended order for installation is shown below. Note: several braces are often attached with a single fastener.

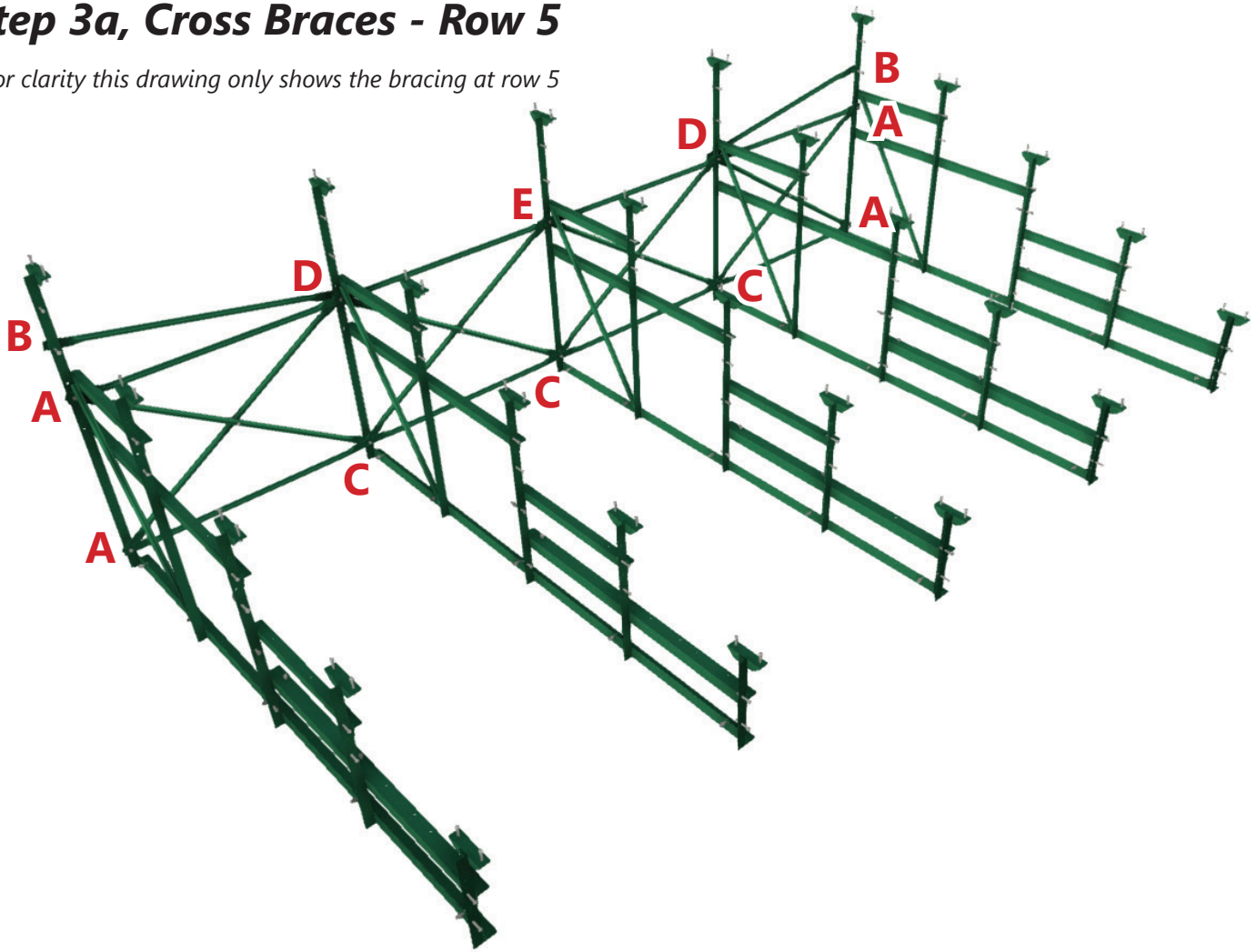
- A}** fasten one cross brace (014) and one horizontal brace (015) with a 3/8" x 1.5" bolt and locknut
- B}** fasten one diagonal brace (016) with a 3/8" x 4" bolt and locknut. Note: the diagonal brace includes a 1" OD extension piece at each end. Diagonal Brace mounts on back side of frame.
- C}** fasten two cross braces (014), and two horizontal braces (015) with a 3/8" x 2" bolt and locknut
- D}** fasten two cross braces (014), two horizontal braces (015) and one diagonal brace (016) with a 3/8" x 3.5" bolt and locknut.
- E}** fasten two diagonal 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 **B** will need to be removed and re-installed after the wood toe kick has been installed.



Step 3a, Cross Braces - Row 5

For clarity this drawing only shows the bracing at row 5



Follow the same method shown in step 2a to install the remaining cross braces (012), horizontal braces (015), and last diagonal brace (016).

A) fasten one cross brace (012) and one horizontal braces (015) with a 3/8" x 1.5" bolt and locknut

B) fasten one diagonal brace (016) with a 3/8" x 4" bolt and locknut. Note: the diagonal brace includes a 1" OD extension piece at each end. Diagonal Brace mounts on back side of frame.

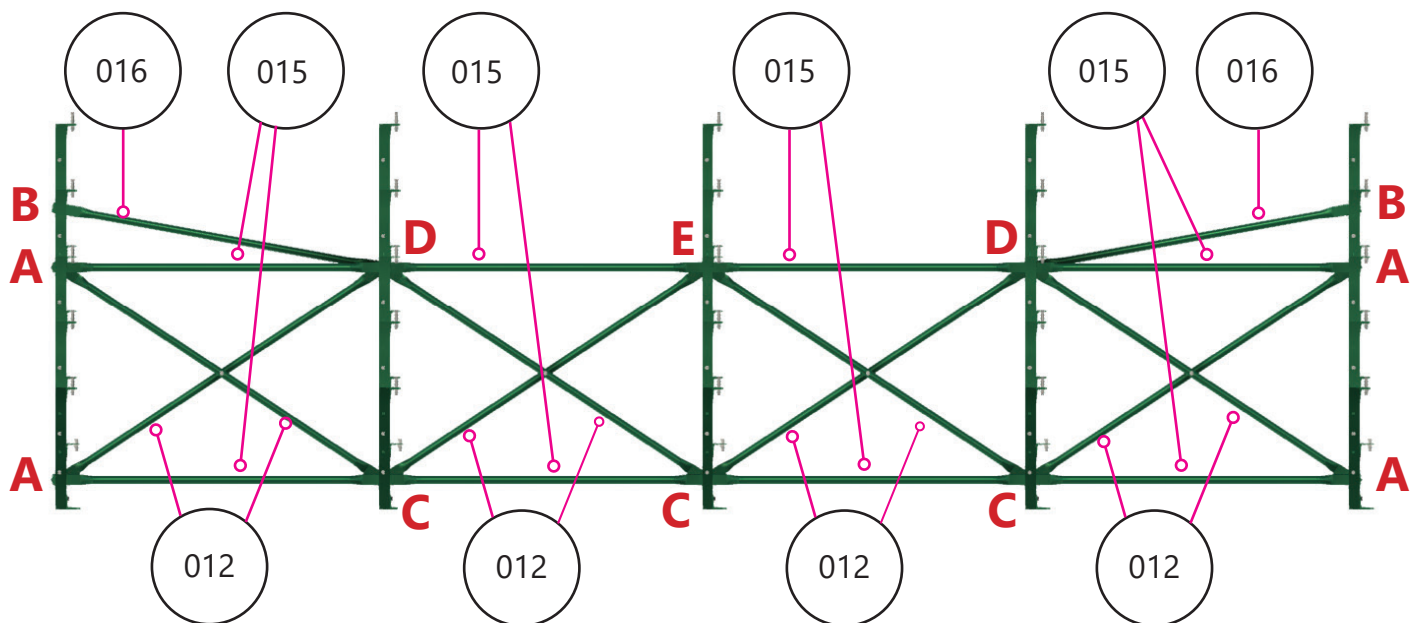
C) fasten two cross braces (012), and two horizontal braces (015) with a 3/8" x 2" bolt and locknut

D) fasten two cross braces (012), two horizontal braces (015) and one diagonal brace (016) with a 3/8" x 3.5" bolt and locknut.

E) fasten two diagonal braces (012) 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 B will need to be removed and re-installed after the wood toe kick has been installed.



Step 4, Horizontal Cross Braces - Row 2-3



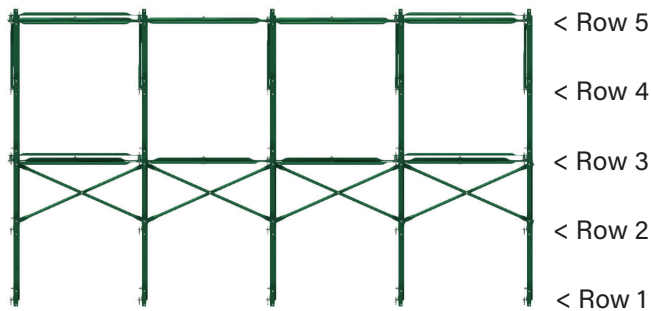
Connect 2 Horizontal Braces together to create four brace sets.
3/8" x 2-1/2" bolt & Locknut (see step 4A)
(4 pcs)



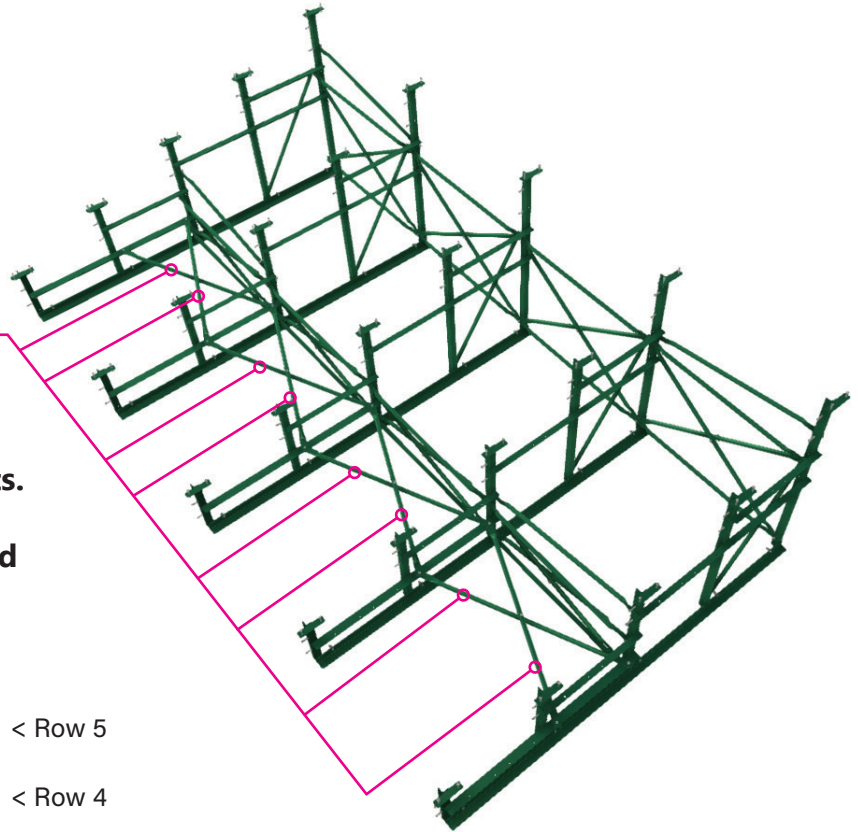
Connect the four Horizontal Brace sets to Seating Frames between row 2 and 3
3/8" x 1-1/2" bolt & Locknut
(10 pcs)

013

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



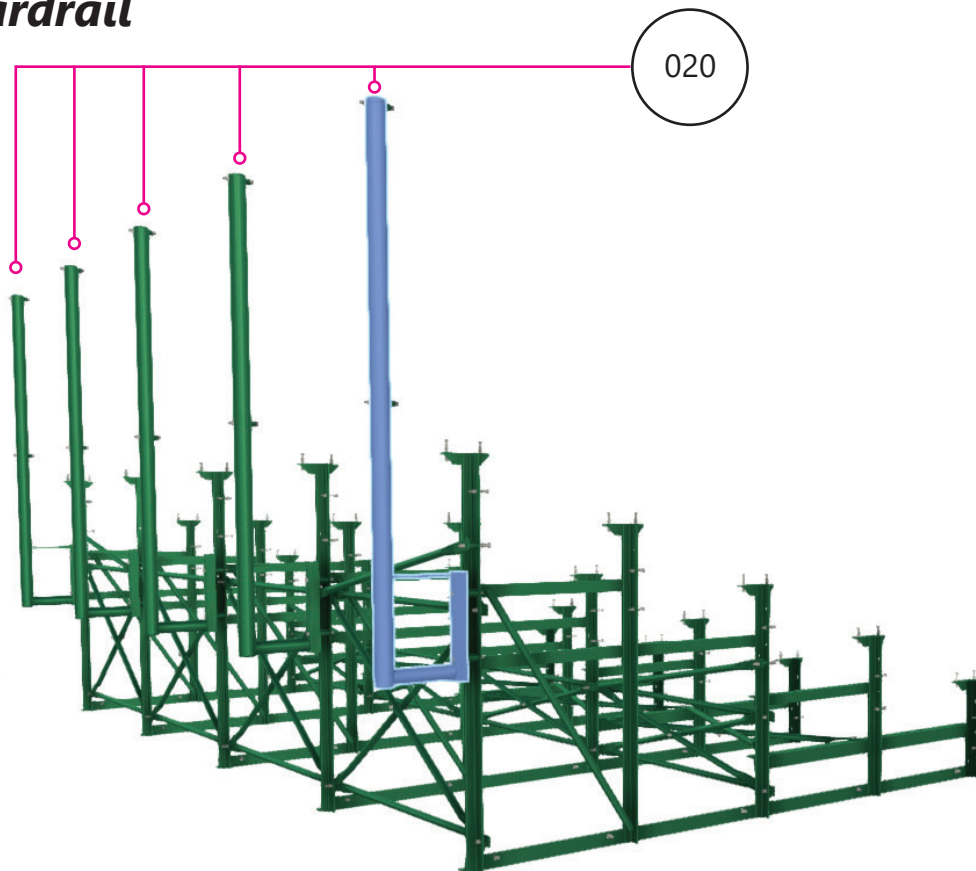
Plan View of Bleachers



Step 5a, Rear Guardrail



Connect Rear Guardrail Supports
to rear of bleacher frames
3/8" x 4" bolt & Locknut
(10 pcs)

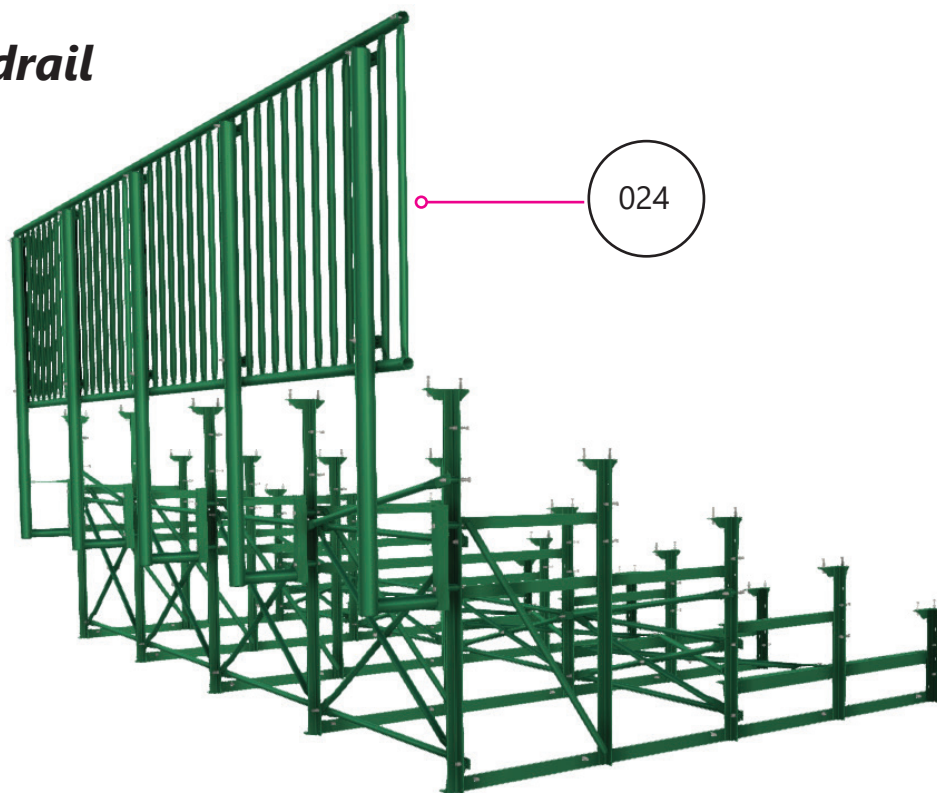


Attach the rear guardrail supports (020). These vertical supports are 68 1/4" long. Fasten with 3/8" x 4" bolt and locknut (hand tight).

Step 5b, Rear Guardrail



Connect Rear Guardrail Panel to
rear Guardrail supports
5/16" x 4-1/2" bolt & Locknut
(20 pcs)



Attach the rear guardrail panel (024). Fasten with 5/16" x 4-1/2" bolt and locknut (hand tight). When the guardrail is fully installed you can tighten the locknuts on the guardrail supports. Note: if you are adding optional sign frames (8963), review the instructions on page 21 before doing this step.

Step 6a, Side Handrails - Left Side



Insert corner coupler (022) in top rail of rear guardrail panel. Do not tighten.



022

Row 05

018

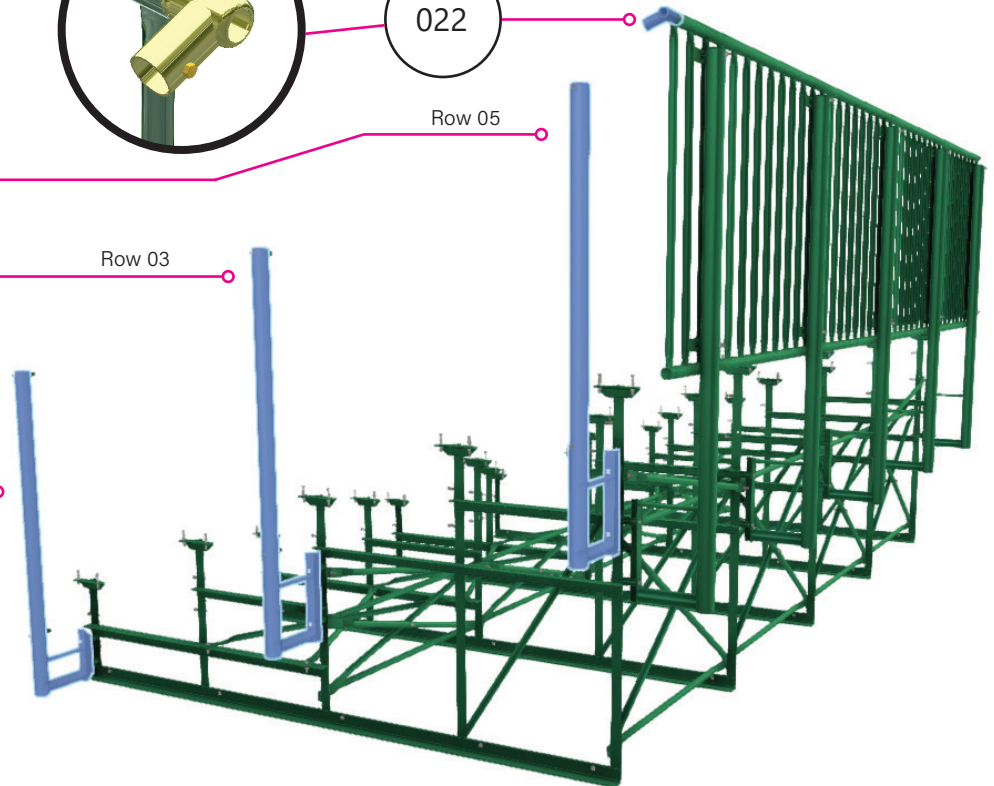
Row 03

017

Row 01

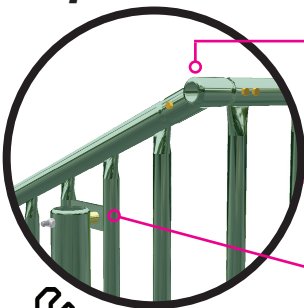


Fasten Side Handrail Supports (018 and 017) to left side of bleacher frames
3/8" x 4" bolt & Locknut
(6 pcs)



Attach the side handrail verticals (017 and 018) to the left side bleacher frames. Fasten with 3/8" x 4" bolt and locknut (hand tight). Please note that vertical 018 attaches to the first row of the bleacher frame.

Step 6b, Side Handrails - Left Side



022

028

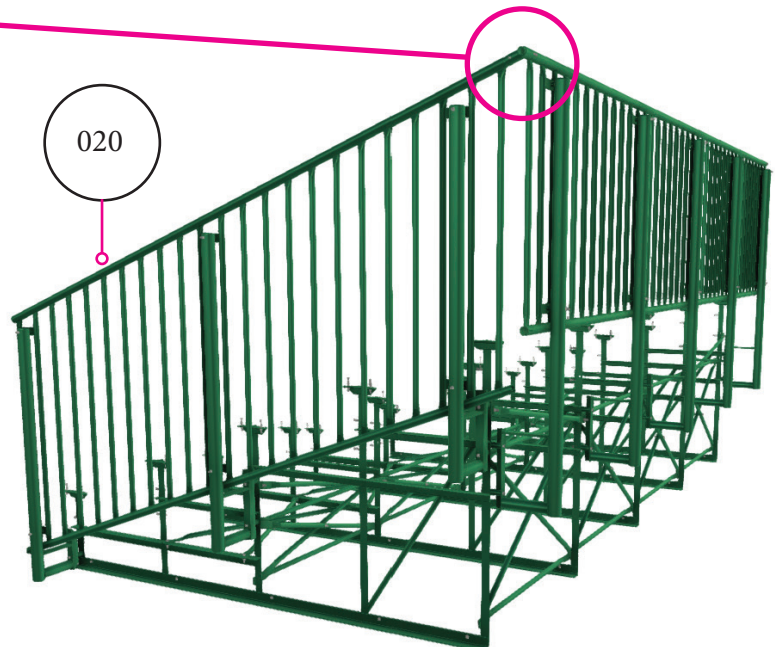


When the Side Handrail (020) has been inserted into the corner coupler (022) and lined up with the side support posts, you can secure the corner coupler with the 1/4" x 1" Hex head self tapping screws (3 pcs)



Connect Side Handrail (020) to the Left side vertical Support Posts using 5/16" x 4" bolt & Locknut (6 pcs). Ensure the Mounting Spacer (028) is inserted in between the handrail panel and the support post. After all bolts are installed you can tighten the nuts.

020



Step 7a, Side Handrails - Right Side

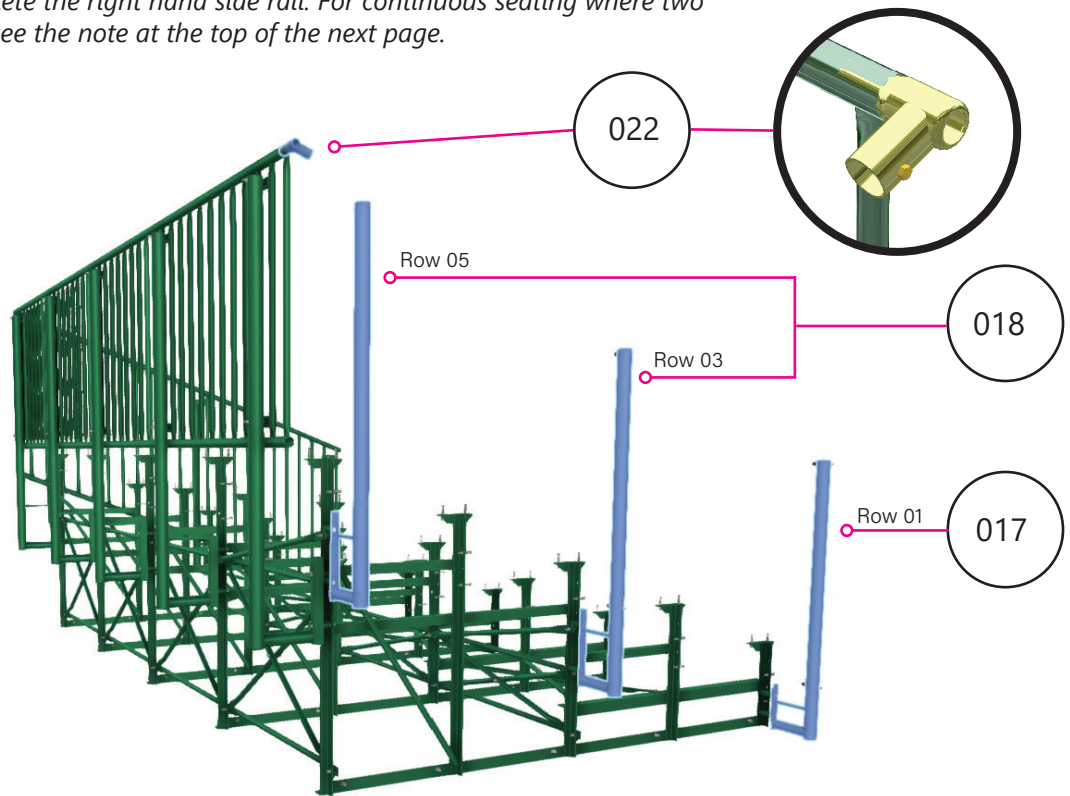
Repeat Steps 6a and 6b to complete the right hand side rail. For continuous seating where two or more bleachers are attached see the note at the top of the next page.



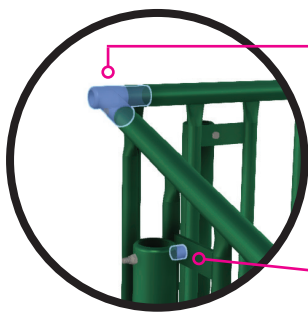
Insert corner coupler (022) in top rail of rear guardrail. Do not tighten.



Fasten Side Handrail Verticals (018 and 017) to right side of bleacher frames 3/8" x 4" bolt & Locknut (6 pcs)



Step 7b, Side Handrails - Right Side



022

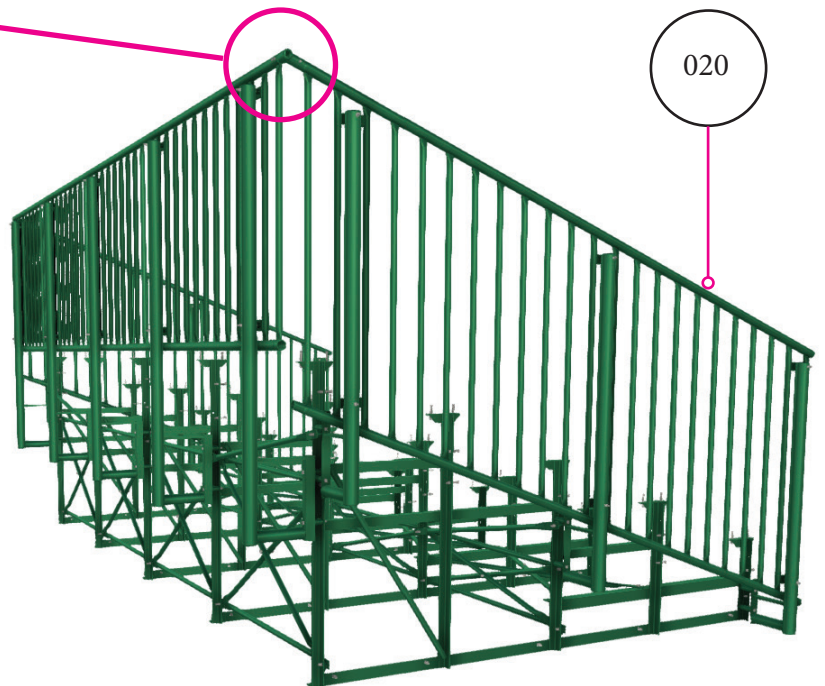
028



When the Side Handrail (020) 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" Hex head self tapping screws (3 pcs)



Connect the Side Handrail (020), to the Left side vertical Support Posts using 5/16" x 4" bolt & Locknut (6 pcs). Ensure the Mounting Spacer (028) is inserted in between the handrail panel and the support post.

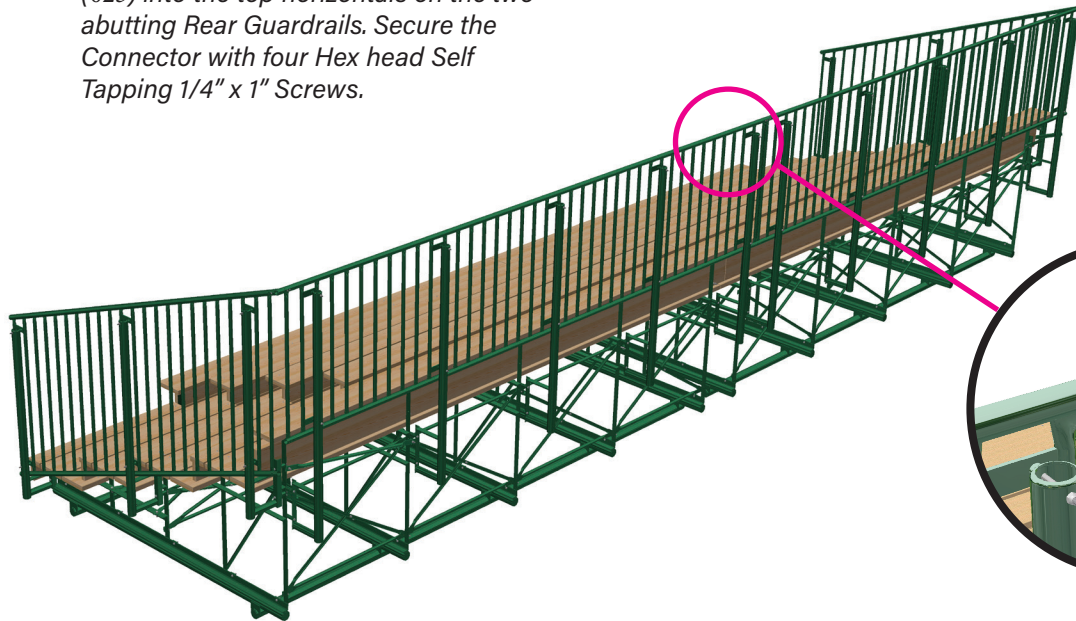


020

Note for those requiring a Continuous Rear Guardrail
For installation of side by side bleachers, replace the corner coupler (022) with a Rear Guardrail Connector (023).



When installing 5 Row bleachers side by side, insert the Rear Guardrail Connector (023) into the top horizontals on the two abutting Rear Guardrails. Secure the Connector with four Hex head Self Tapping 1/4" x 1" Screws.



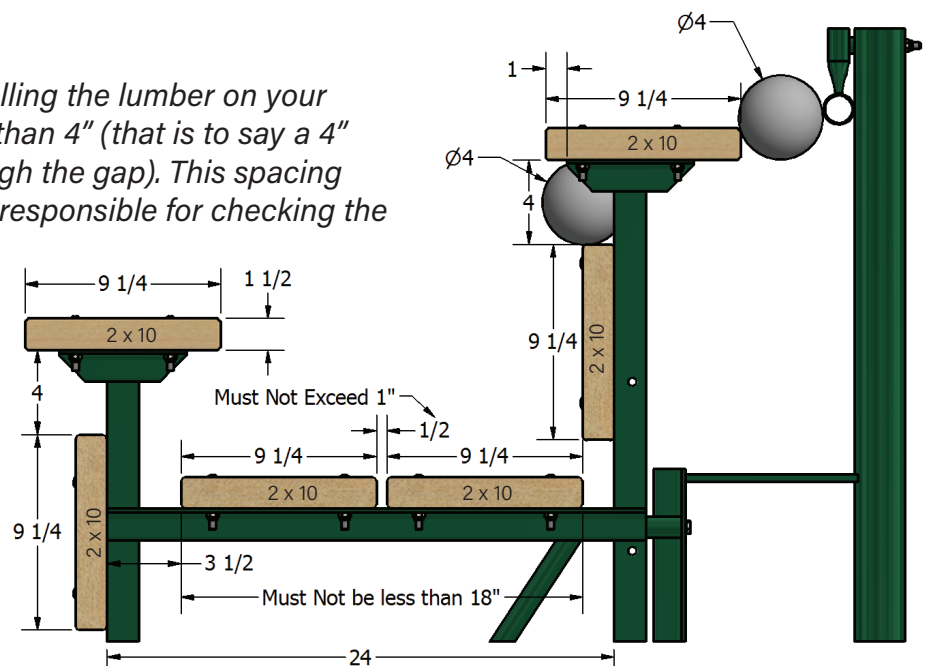
Rear Guardrail Connector (023)

Before installing seating check that all locknuts are tight (accept for those that will be removed to install the toe kicks; see connection 'E' on pages 9-10)

Step 8, 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.

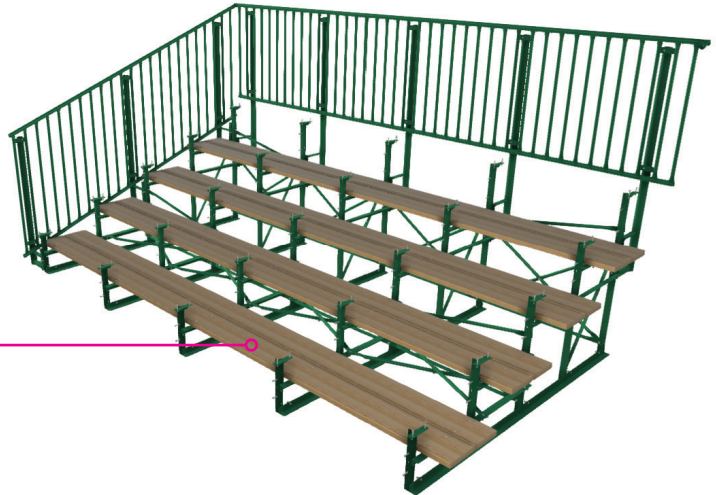


The following pages describe the installation of wood for treads, kick boards, and seating. The materials required for this portion of the installation are not included in this package. For bleachers sets with stairs proceed to step 8d

Step 8a, Standard Bleacher - Wood Installation - Treads

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 8d.

Tread 2x10 x 16' , 2 pieces



Step 8b, Standard Bleacher - Wood Installation - Toe kick

The 2x10 x 16' toe kicks mount to the vertical face of the seat support frames. Fasten the toe kicks using the same method used in 8a.

Toe Kick 2x10 x 16'



Step 8c, Standard Bleacher - Wood Installation - Seats

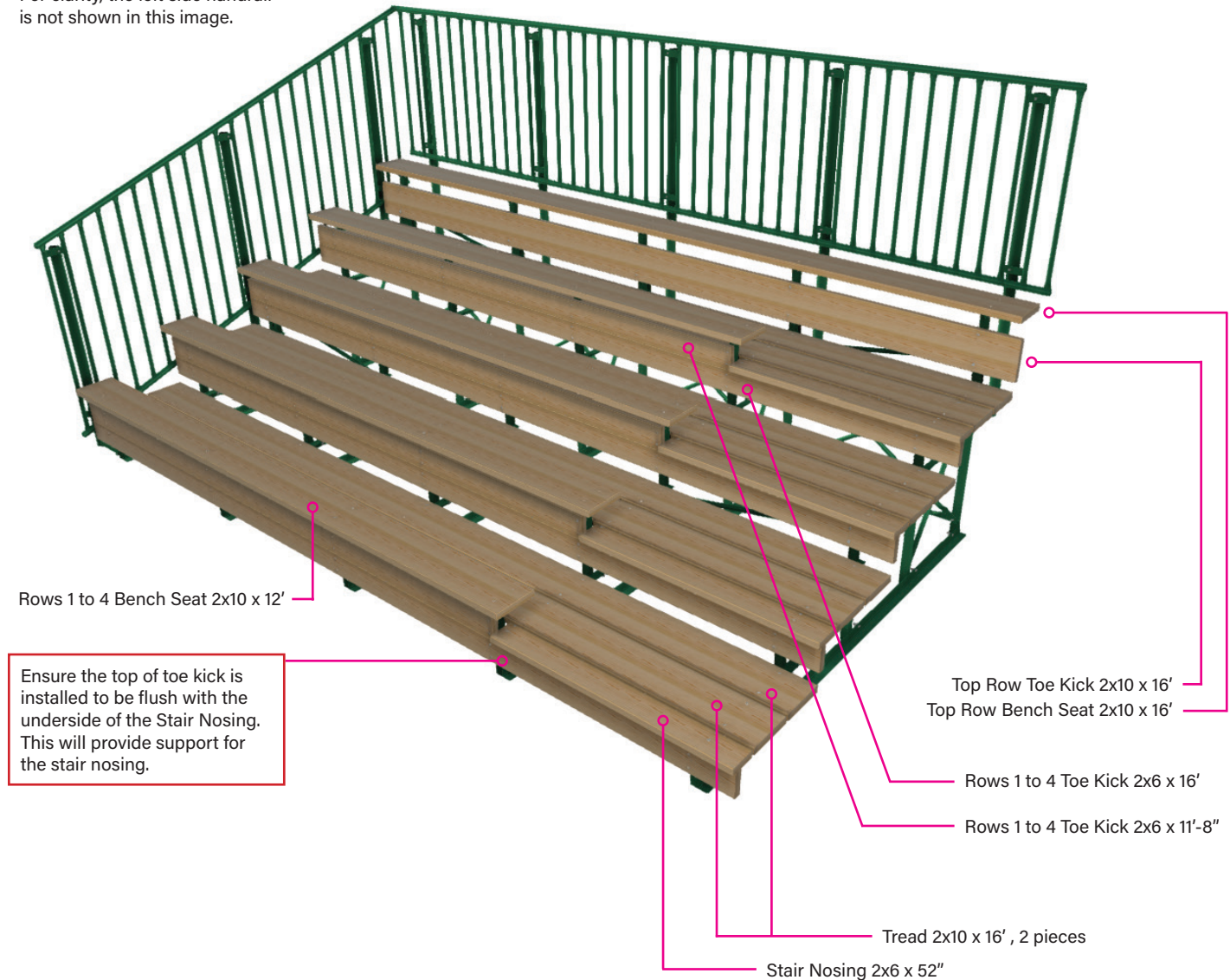
Install the seating starting at the top row.

Bench Seat 2x10 x 16'

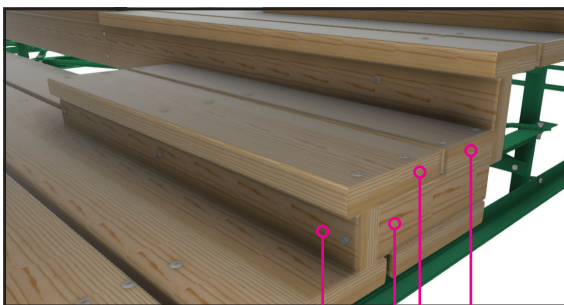


Step 8d, Bleacher with stairs - **Left Side Stairs** - Treads

For clarity, the left side handrail is not shown in this image.



Step 8e, Optional transition stair



Transition Stair Support 2x3" x 36"

2 pcs Transition Stair Support 2x3" x 10.5"

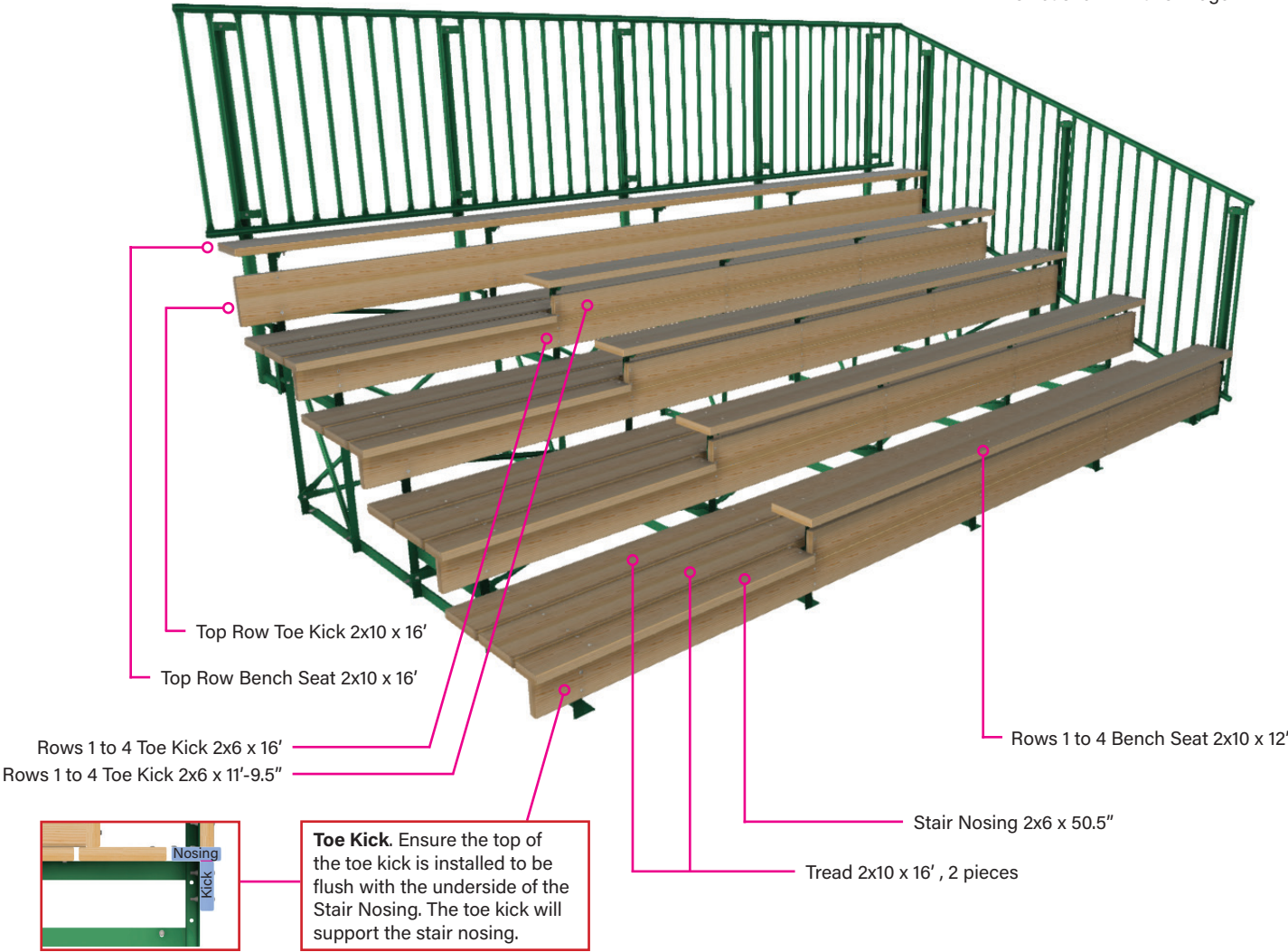
Transition Stair Tread 2x6 x 36"

Transition Stair Tread 2x8 x 36"

Optional Transition Stair

Step 8d, Bleacher with stairs - **Right** Side Stairs - Treads

For clarity, the right side handrail is not shown in this image.



Step 8e, Optional transition stair



Step 9, Adding the optional sign frame

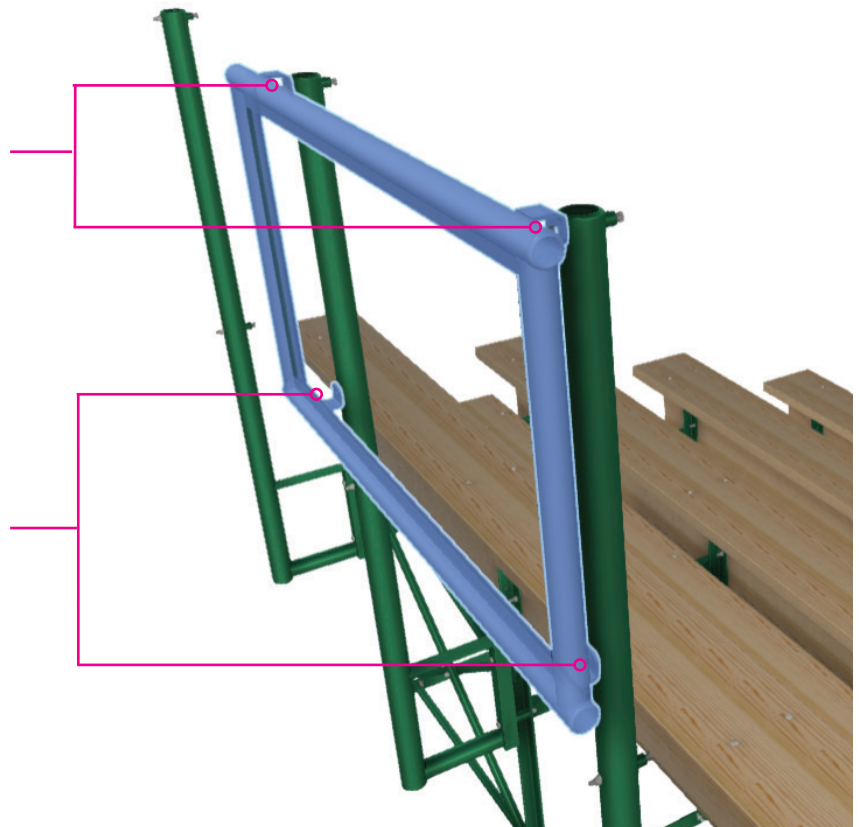
The optional sign frames (8963) can be added to the rear guardrail of the bleachers. The mounting brackets are located so you can use the upper existing bolts used to tie the rear guardrail to the guardrail support posts.

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



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