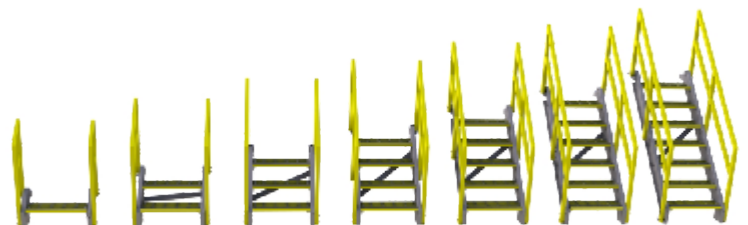
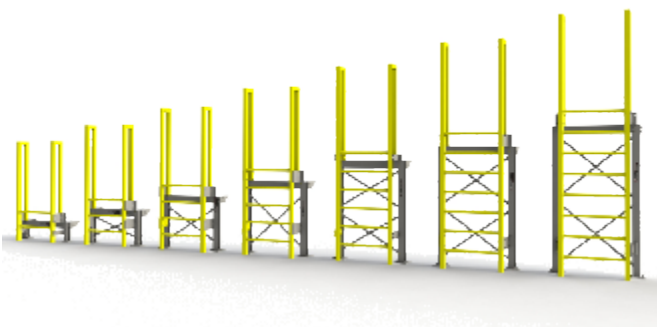
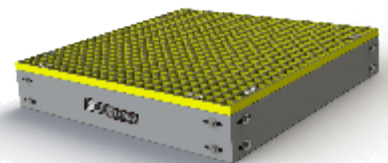




# MODULAR COMPOSITE PLATFORM SYSTEM OWNER'S MANUAL





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THIS OWNER'S MANUAL IS PROVIDED FOR:

(INSERT CUSTOMER LABEL HERE)



# INTRODUCTION

FiberStrong modular platform system is pre-engineered and designed for multiple configurations. The universal modular design allows for a nearly unlimited set of configurations to solve access needs over and around obstructions such as conveyors, equipment, walls, piping, etc.

Only the highest quality fiberglass reinforced polymer (also commonly referred to as FRP) is used in the construction of this system. All material is produced in the USA under stringent quality control procedures by a leader in the FRP industry, and is backed up by rigorous testing and usage data. FRP is lightweight, corrosion resistant, and pound-for-pound stronger than steel.

It is critical that all installation instructions and guidelines are followed. Design limitations can exist with respect to the required supports, proper footings and anchoring, and the end user's specific application.

# OSHA REGULATIONS DESIGNED TO:

## 1910.23(b)(1)

Ladder rungs, steps, and cleats are parallel, level, and uniformly spaced when the ladder is in position for use.

## 1910.23(b)(2)

Ladder rungs, steps, and cleats are spaced not less than 10 inches (25 cm) and not more than 14 inches (36 cm) apart, as measured between the centerlines of the rungs, cleats, and steps.

## 1910.23(b)(4)

Ladder rungs, steps, and cleats have a minimum clear width of 11.5 inches (29 cm) on portable ladders and 16 inches (41 cm) (measured before installation of ladder safety systems) for fixed ladders.

## 1910.23(d)(2)

The minimum perpendicular distance from the centerline of the steps or rungs, or grab bars, or both, to the nearest permanent object in back of the ladder is 7 inches (18 cm).

## 1910.23(d)(4)

The side rails of through or sidestep ladders extend 42 inches (1.1 m) above the top of the access level or landing platform served by the ladder.

## 1910.23(d)(7)

Grab bars extend 42 inches (1.1 m) above the access level or landing platforms served by the ladder.

## 1910.23(d)(12)

The step-across distance from the centerline of the rungs or steps is:

### 1910.23(d)(12)(i)

For through ladders, not less than 7 inches (18 cm) and not more than 12 inches (30 cm) to the nearest edge of the structure, building, or equipment accessed from the ladders.

## 1910.25(b)(1)

Handrails, stair rail systems, and guardrail systems are provided in accordance with § 1910.28;

### 1926.1052(c)(3)(i)

Stair rails installed after March 15, 1991, shall be not less than 36 inches (91.5 cm) from the upper surface of the stair rail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

### 1926.1052(c)(4)(i)

Midrails, when used, shall be located at a height midway between the top edge of the stair rail system and the stairway steps.

### 1926.1052(c)(5)

Handrails and the top rails of stair rail systems shall be capable of withstanding, without failure, a force of at least 200 pounds (890 n) applied within 2 inches (5 cm) of the top edge, in any downward or outward direction, at any point along the top edge.

### 1926.1052(c)(7)

When the top edge of a stair rail system also serves as a handrail, the height of the top edge shall be not more than 37 inches (94 cm) nor less than 36 inches (91.5 cm) from the upper surface of the stair rail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

## 1910.25(b)(4)

Stairway landings and platforms are at least the width of the stair and at least 30 inches (76 cm) in depth, as measured in the direction of travel.

## 1910.25(b)(6)

Each stair can support at least five times the normal anticipated live load, but never less than a concentrated load of 1,000 pounds (454 kg) applied at any point.

(CONTINUED NEXT PAGE)

# OSHA REGULATIONS DESIGNED TO:

1910.25(c)

*Standard stairs.* In addition to paragraph (b) of this section, the employer must ensure standard stairs:

1910.25(c)(1)

Are installed at angles between 30 to 50 degrees from the horizontal;

1910.25(c)(2)

Have a maximum riser height of 9.5 inches (24 cm);

1910.25(c)(3)

Have a minimum tread depth of 9.5 inches (24 cm); and

1910.25(c)(4)

Have a minimum width of 22 inches (56 cm) between vertical barriers (see Figure D-8 of this section).

1910.25(c)(5)

*Exception to paragraphs (c)(2) and (3) of this section.* The requirements of paragraphs (c)(2) and (3) do not apply to standard stairs installed prior to January 17, 2017. OSHA will deem those stairs in compliance if they meet the dimension requirements specified in Table D-1 of this section or they use a combination that achieves the angle requirements of paragraph (c)(1) of this section.

**Table D-1 -- Stairway Rise and Tread Dimensions**

Angle to horizontal	Rise (in inches)	Tread run (in inches)
30 deg. 35'	6-1/2	11
32 deg. 08'	6- 3/4	10-3/4
33 deg. 41'	7	10-1/2
35 deg. 16'	7-1/4	10-1/4
36 deg. 52'	7-1/2	10
38 deg. 29'	7-3/4	9-3/4
40 deg. 08'	8	9-1/2
41 deg. 44'	8-1/4	9-1/4
43 deg. 22'	8-1/2	9
45 deg. 00'	8-3/4	8-3/4
46 deg. 38'	9	8-1/2
48 deg. 16'	9-1/4	8-1/4
49 deg. 54'	9-1/2	8

**Minimum tread width 22 IN (56 CM), Minimum Tread Depth 9.5 IN (24 CM), Maximum Riser Height 9.5 IN (24 CM).**

1926.451(f)(16)

Platforms shall not deflect more than 1/60 of the span when loaded.

1910.144(a)(3)

*Yellow.* Yellow shall be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and "caught in between."

# WARNING!

Before beginning assembly of your unit, first determine and layout anchor bolt positions for all components, as shown in the example on the next page. See the included component specification sheets in this document for dimensions of the anchoring holes.

It is important that the unit is built and assembled "ground-up"- i.e., anchoring the tower and stair units first, and attaching the platforms between these components afterward. If the unit is assembled first and then placed into position, this can cause permanent deflection not accounted for in the design parameters.

Ensure layout dimensions are correct! Failing to anchor the unit properly with the correct dimensions can cause product damage or safety issues, and any damages caused will not be covered under warranty. This system is not designed to be self-supporting and must be used with anchored connections.

Drill or wet-set anchor bolts in the correct locations prior to assembly. Follow any procedures recommended by the concrete or anchor fastener suppliers.

For the best results, use a level foundation or slab for anchoring the unit for optimal contact. Leveling anchors and shims are not recommended.

All connections between components (platforms, stairs, towers, etc) must be epoxied as well as bolted for maximum strength. If epoxy cannot be used due to build requirements (such as occasional tear-down or rail removal), the user must be sure the unit is frequently inspected for any damage or signs of failure and all bolted connections are secure.

Additional epoxy kits are available for purchase from FiberStrong.

**Platform hardware MUST be used on all 4 platform sides! If for any reason a component is not attached to any platform side, install the platform hardware centered in the slots and tighten per specifications.**

**DO NOT EXCEED THE MAXIMUM CLEAR SPAN DISTANCE OR OMIT ANY REQUIRED SUPPORTS. FIBERSTRONG SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE, INJURY, OR WARRANTY CLAIMS IF ANY EXTERNAL SUPPORT STRUCTURES NOT PROVIDED BY FIBERSTRONG ARE USED TO SUPPORT THE UNIT.**

## ASSEMBLY NOTES:

Torque values for CMP platform system connections:

7/16" fasteners= 58 ft/lbs., 10,650 resultant clamping force

3/8" fasteners= 33 ft/lbs., 6,975 resultant clamp force

It is recommended that the end users verify the correct torque values, and re-check all fasteners after a period of 2-3 months to ensure that all connections remain secure.



## SAMPLE ANCHOR BOLT LAYOUT TEMPLATE

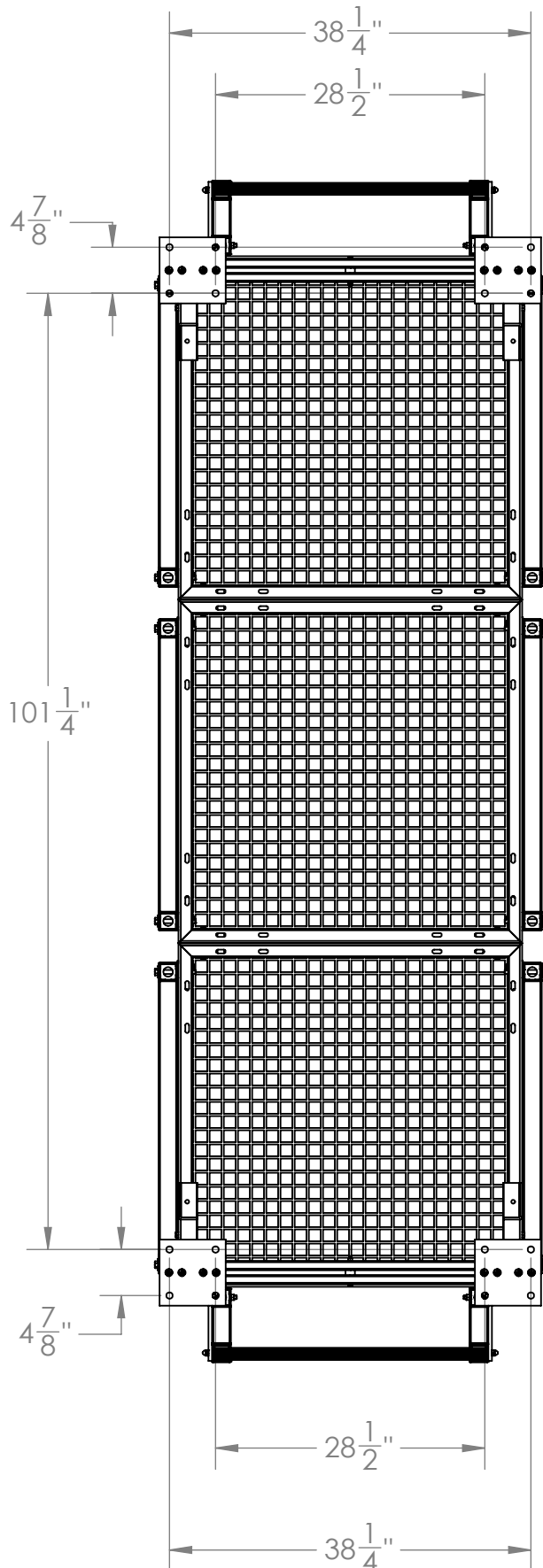
Layout area and anchor bolt locations. Keep anchor lines square and parallel as shown.

Drill or wet-set anchor bolts in the correct locations prior to assembly. Follow any procedures recommended by the concrete or anchor fastener suppliers.

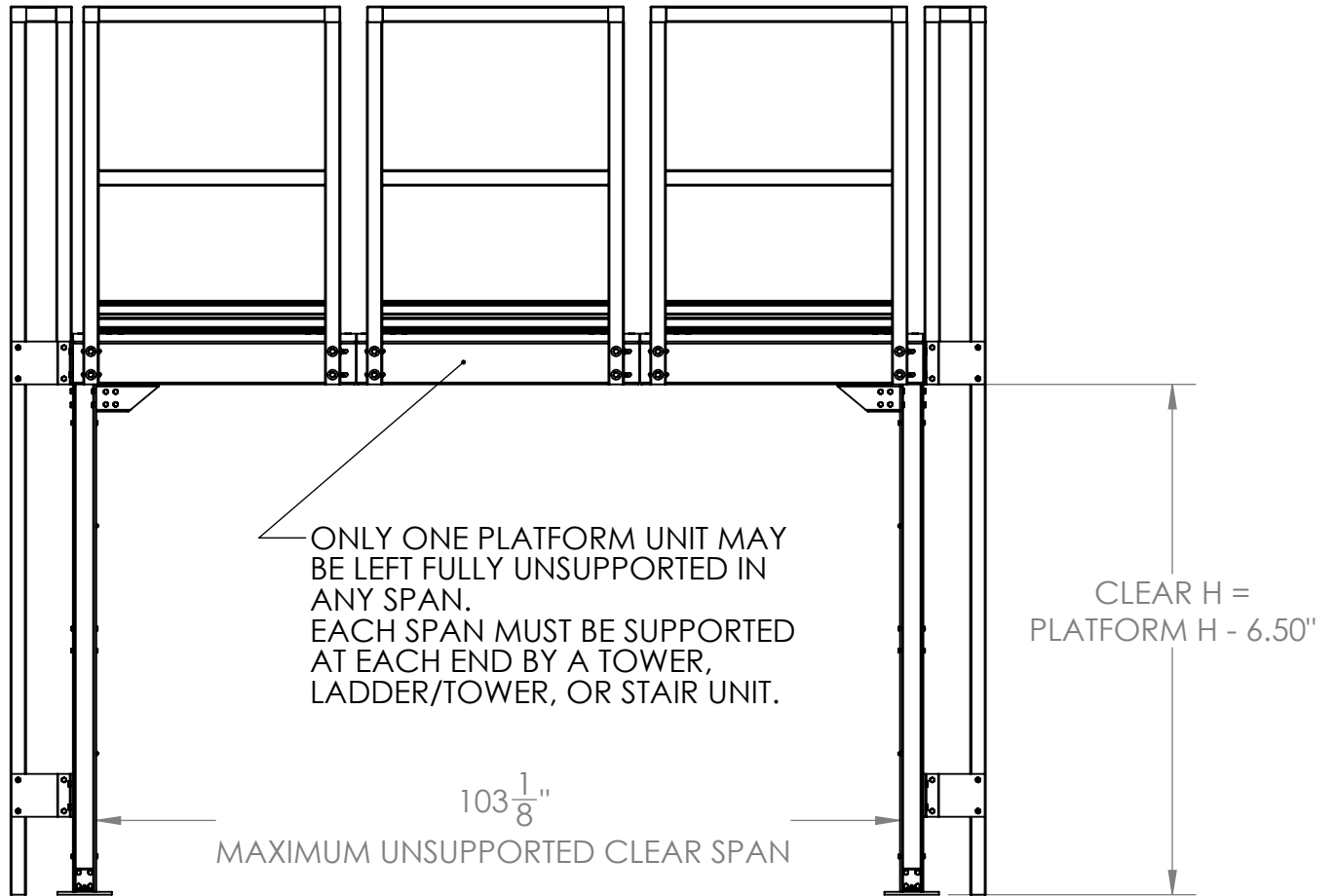
For the best results, use a level foundation or slab for anchoring the unit for optimal contact. Leveling anchors and shims are not recommended.

Once the pad is completed, assemble units on anchor bolts starting with stairs, towers, and ladders (or external supports if used). Once these units are fully anchored then proceed with attaching platforms and rails between these parts.

**DO NOT ASSEMBLE THE UNITS AND THEN PLACE ON ANCHOR BOLTS! ANY DAMAGE CAUSED BY THIS METHOD OF ASSEMBLY WILL NOT BE COVERED UNDER WARRANTY.**



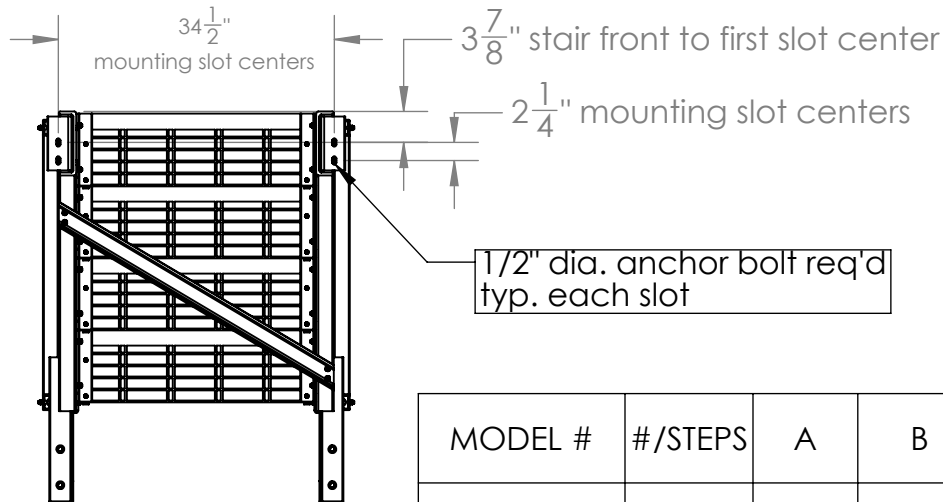
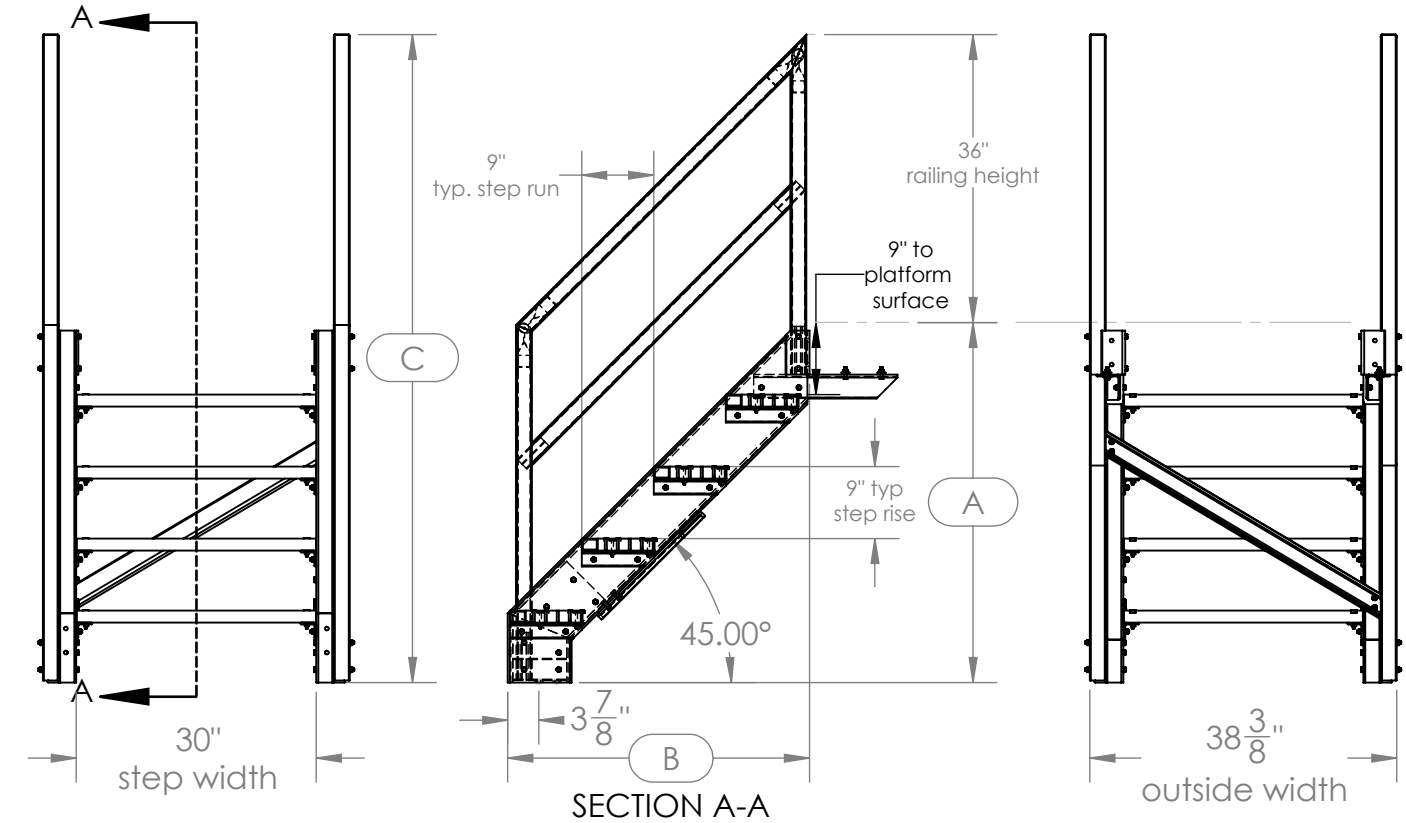
## TYPICAL CROSSOVER DETAILS/ CLEARANCES



**WARNING!**  
**DISTRIBUTED LOAD ACROSS ANY UNSUPPORTED SPAN IS**  
**NOT TO EXCEED 500 LBS.**



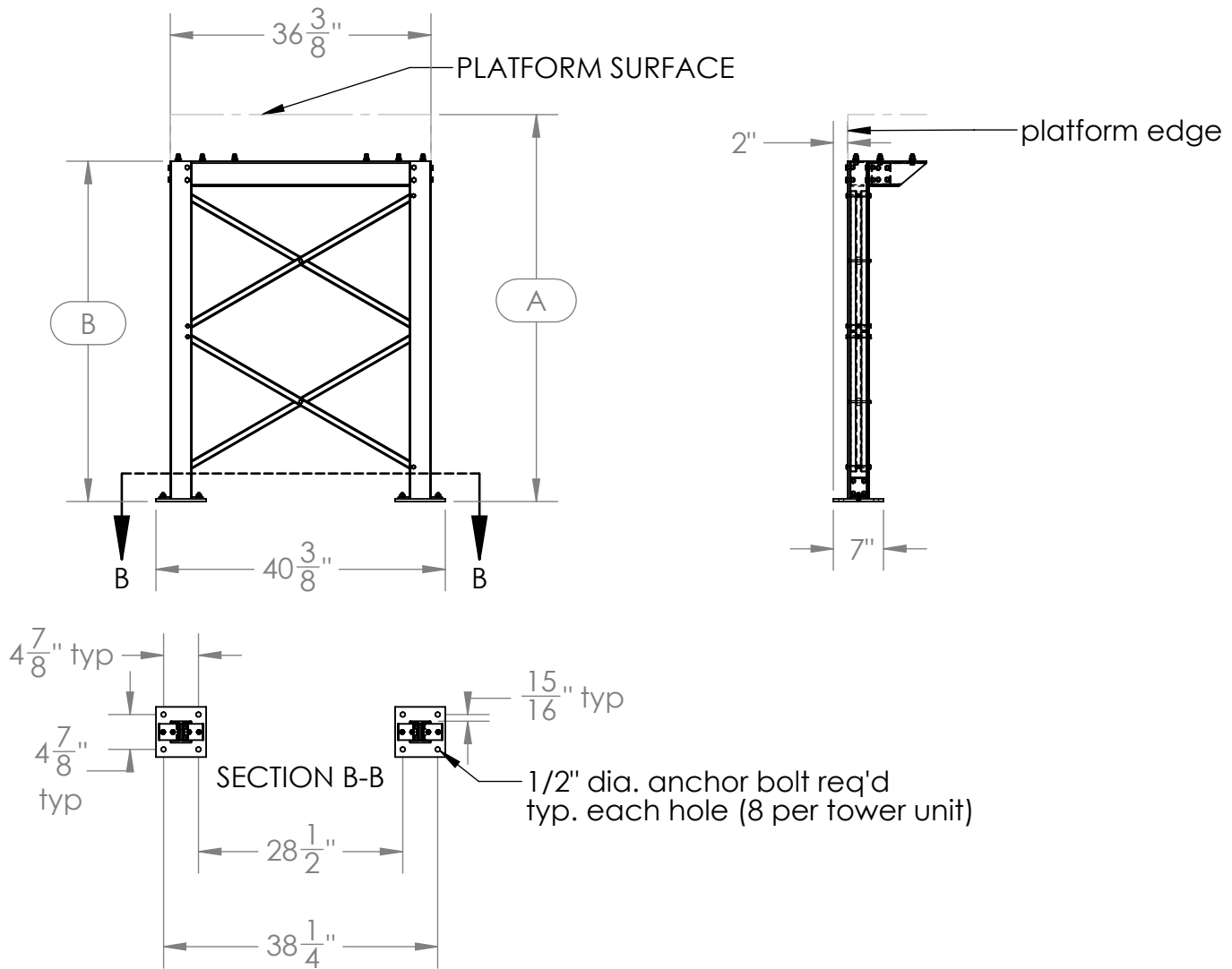
## SPECIFICATIONS- STAIRWAYS



BOTTOM VIEW

MODEL #	#/STEPS	A	B	C	APPROX. WEIGHT (LBS)
CMP-S-3618	1 STEP	18"	10-3/4"	54"	48
CMP-S-3627	2 STEPS	27"	19-3/4"	63"	67
CMP-S-3636	3 STEPS	36"	28-3/4"	72"	87
CMP-S-3645	4 STEPS	45"	37-3/4"	81"	105
CMP-S-3654	5 STEPS	54"	46-3/4"	90"	133
CMP-S-3663	6 STEPS	63"	55-3/4"	99"	154
CMP-S-3672	7 STEPS	72"	64-3/4"	108"	173

## SPECIFICATIONS- TOWERS



MODEL#	A	B	APPROX. WEIGHT (LBS)
CMP-L-3618	18"	11-1/2"	11
CMP-L-3627	27"	20-1/2"	15
CMP-L-3636	36"	29-1/2"	18
CMP-L-3645	45"	38-1/2"	22.5
CMP-L-3654	54"	47-1/2"	25
CMP-L-3663	63"	56-1/2"	27.5
CMP-L-3672	72"	65-1/2"	30

## SPECIFICATIONS- LADDERS

**Front View Dimensions:**

- Overall width:  $36\frac{3}{8}"$
- Overall height:  $B$
- Platform surface height:  $42"$
- Distance from platform surface to rung centerline:  $7\frac{1}{8}"$
- Rung width:  $25\frac{1}{4}"$
- Overall base width:  $40\frac{3}{8}"$
- Section line D-D

**Section D-D (Side View):**

- Platform surface
- LADDERS SHIP WITH TOWER INCLUDED
- Base width:  $8"$

**Section E-E (Detail View):**

- Anchor bolt spacing (typical):  $4\frac{7}{8}"$
- Anchor bolt diameter:  $\frac{1}{2}"$  dia. anchor bolt req'd typ. each hole (8 per ladder/tower unit)
- Section line E-E
- Distance between anchor bolts:  $28\frac{1}{2}"$
- Overall width:  $38\frac{1}{4}"$
- Typical dimension:  $\frac{15}{16}"$  typ.

MODEL#	A	B	APPROX. WEIGHT (LBS)
CMP-AL-3618	18"	60"	35
CMP-AL-3627	27"	69"	43
CMP-AL-3636	36"	78"	48
CMP-AL-3645	45"	87"	53
CMP-AL-3654	54"	96"	57
CMP-AL-3663	63"	105"	64
CMP-AL-3672	72"	114"	69

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## SPECIFICATIONS- LADDERS

**Front View:** Shows a ladder with a total width of  $36\frac{3}{8}"$ . The distance between the vertical rails is  $25\frac{1}{4}"$ , labeled as "rung width". The total height is dimensioned as  $B$ . The distance from the base to the top of the ladder frame is dimensioned as  $A$ . The base is labeled  $E$ . A section line  $D-D$  is indicated.

**Side View:** Shows the ladder's profile with a height of  $42"$ . The distance from the base to the first rung is  $7\frac{1}{8}"$ , labeled "to rung centerline". The base is labeled  $8"$ . The top of the ladder is labeled "platform surface". A note indicates "LADDERS SHIP WITH TOWER INCLUDED".

**SECTION D-D:** A cross-section view of the ladder frame.

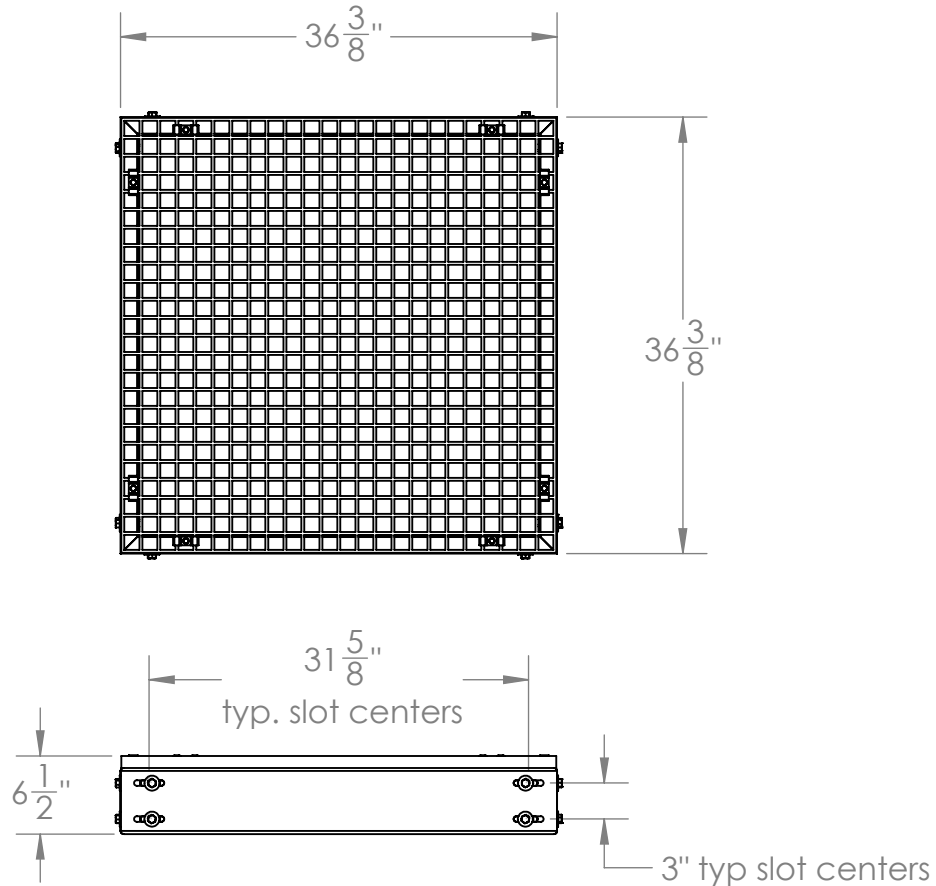
**SECTION E-E:** A detail view of the base connection. It shows a  $1/2"$  dia. anchor bolt required, with 8 per ladder/tower unit. The distance between the base plates is  $28\frac{1}{2}"$ , and the total width is  $38\frac{1}{4}"$ . The height of the base plate is  $4\frac{7}{8}"$  typ. The distance from the base plate to the ladder frame is  $15\frac{1}{16}"$  typ.

MODEL#	A	B	APPROX. WEIGHT (LBS)
CMP-AL-3618	18"	60"	35
CMP-AL-3627	27"	69"	43
CMP-AL-3636	36"	78"	48
CMP-AL-3645	45"	87"	53
CMP-AL-3654	54"	96"	57
CMP-AL-3663	63"	105"	64
CMP-AL-3672	72"	114"	69

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## SPECIFICATIONS- PLATFORMS



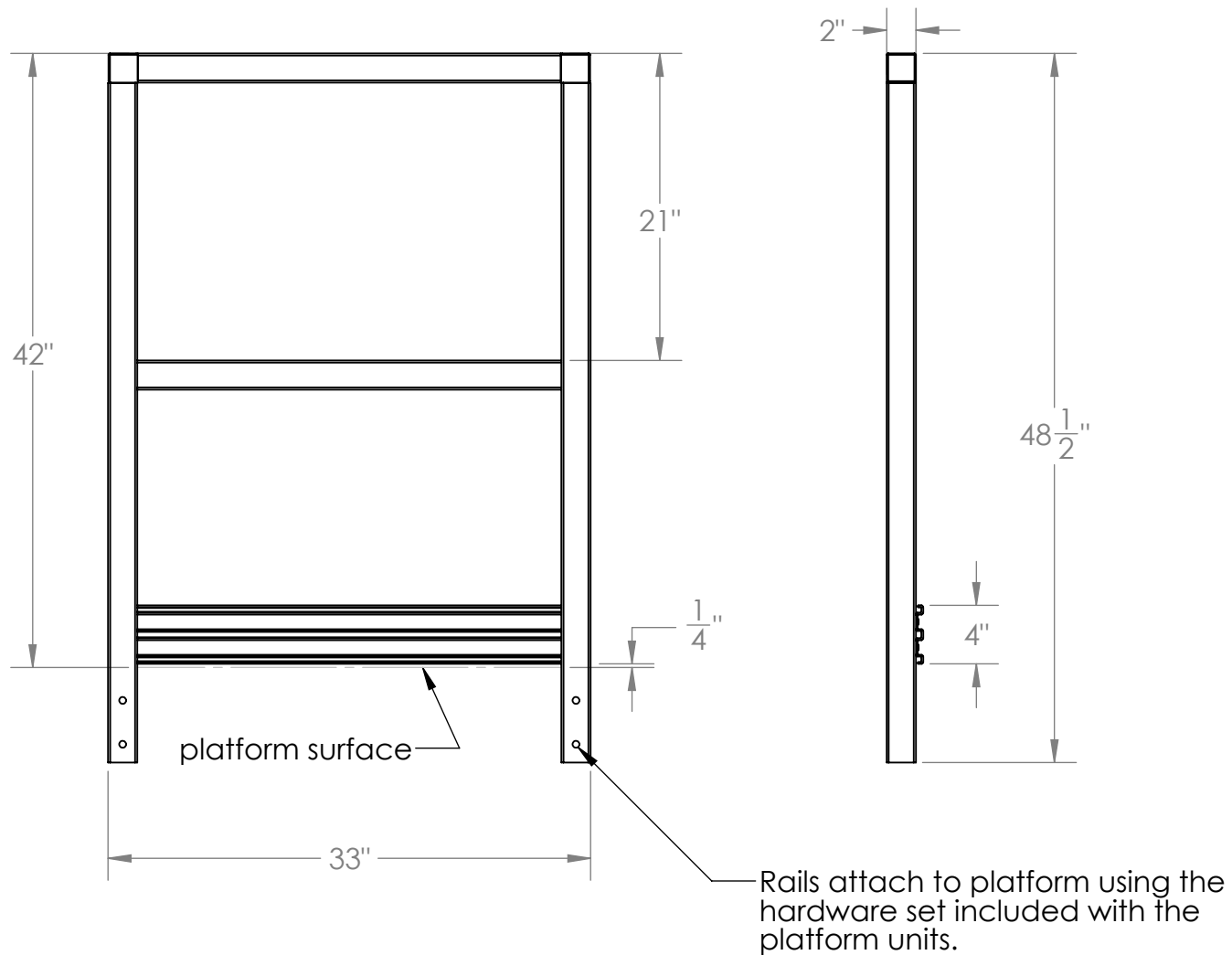
MODEL #	APPROX. WEIGHT (LBS)
CMP-P-3636	36

### **IMPORTANT!**

**PLATFORM HARDWARE MUST BE USED ON ALL 4 PLATFORM SIDES! IF FOR ANY REASON A COMPONENT IS NOT ATTACHED TO ANY PLATFORM SIDE, INSTALL THE PLATFORM HARDWARE CENTERED IN THE SLOTS AND TIGHTEN PER SPECIFICATIONS.**

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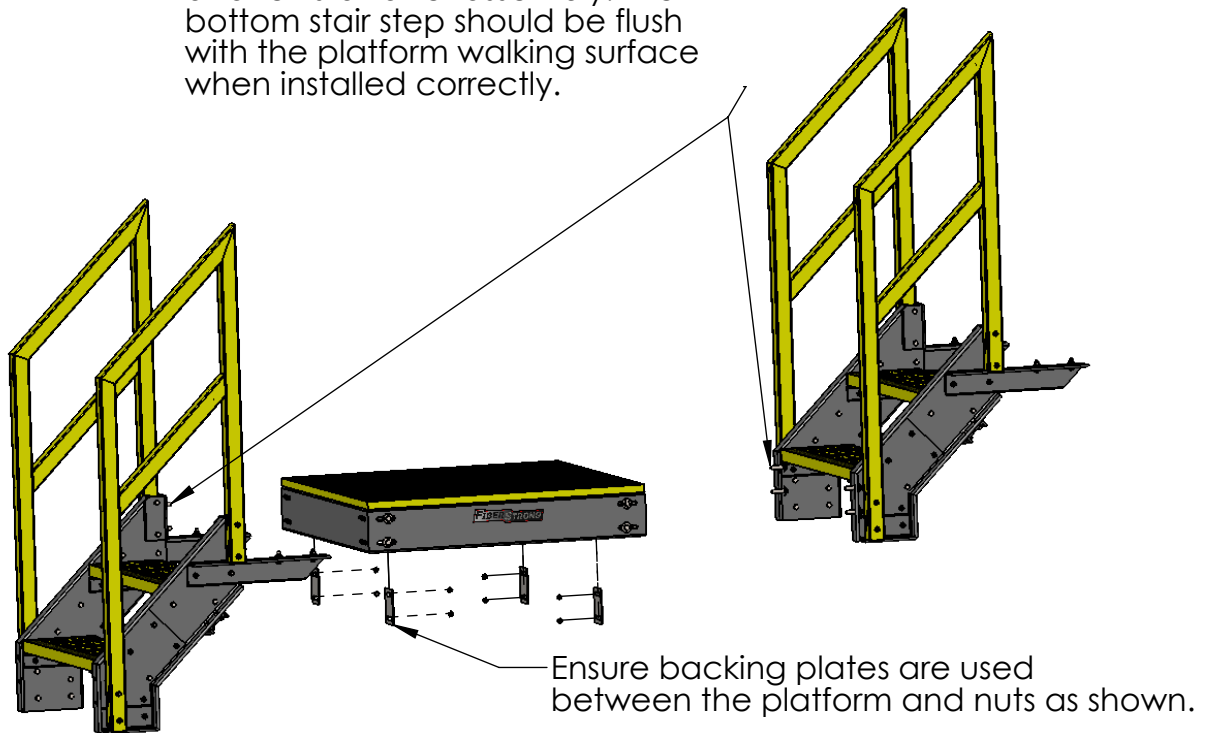
SPECIFICATIONS- GUARD RAILS



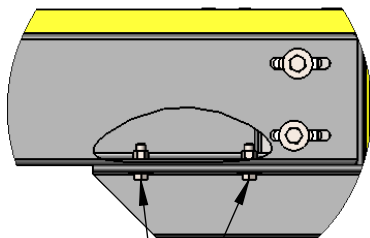
MODEL #	APPROX. WEIGHT (LBS)
CMP-R-36	15

## DETAIL- STAIR ATTACHMENT TO PLATFORM

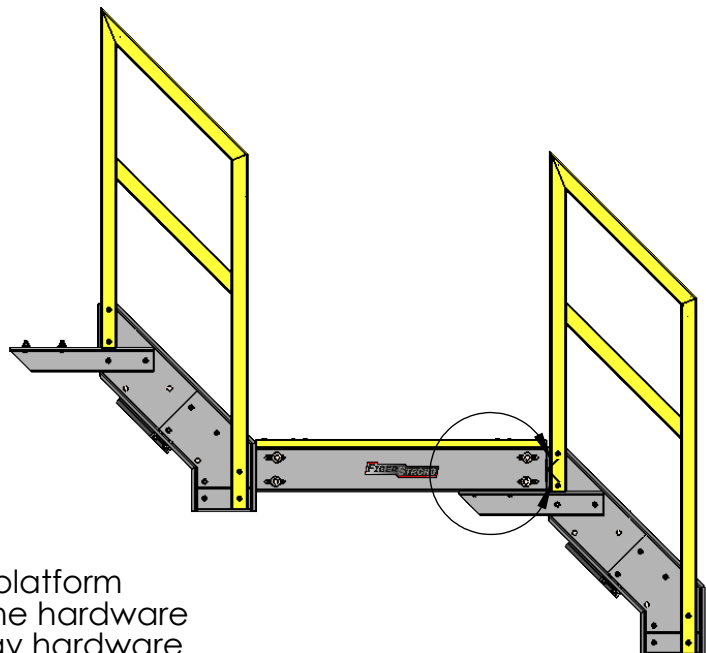
Bolt stairs to platform here with the hardware included in the platform hardware package. Remove handrails if needed for clearance and reinstall after assembly. The bottom stair step should be flush with the platform walking surface when installed correctly.



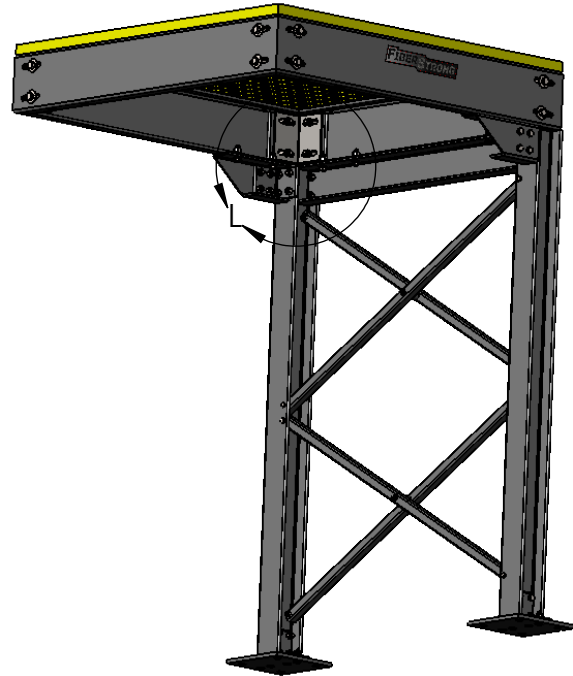
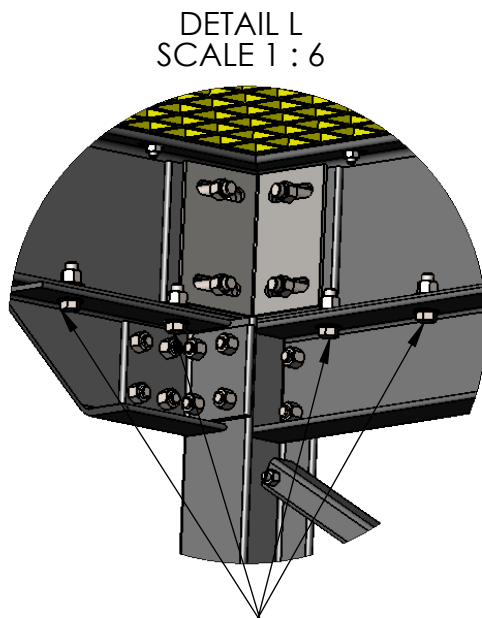
DETAIL K  
SCALE 1 : 8



Attach gussets to the platform underside slots using the hardware included in the stairway hardware package.



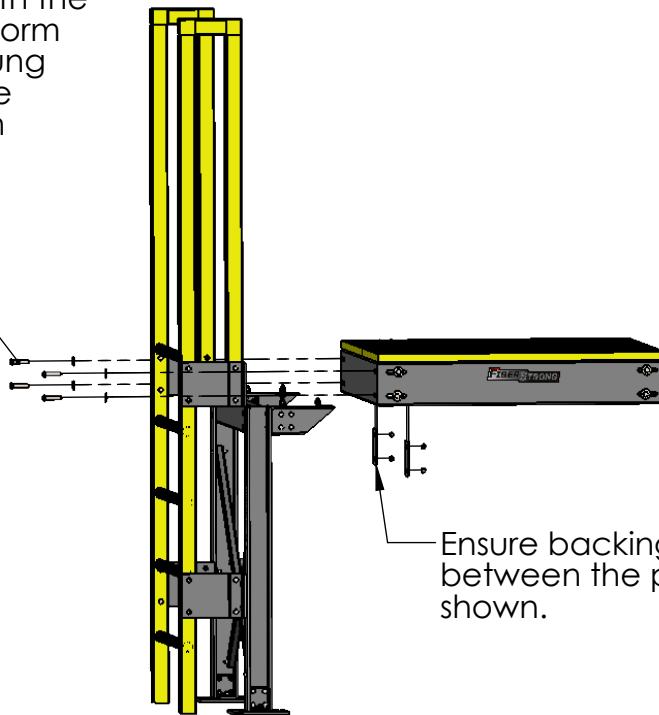
## DETAIL- TOWER ATTACHMENT TO PLATFORM



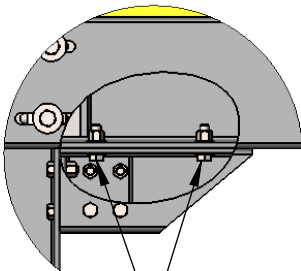
Attach tower to the platform underside slots using the hardware included in the stairway hardware package.

## DETAIL- LADDER AND TOWER ATTACHMENT TO PLATFORM

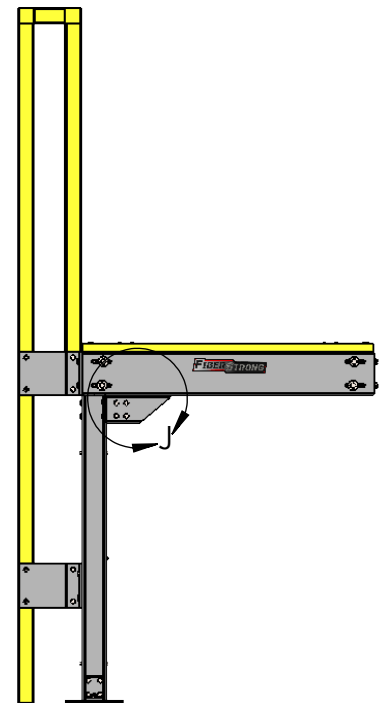
Bolt ladder to platform here with the hardware included in the platform hardware package. The top rung surface should be flush with the platform walking surface when installed correctly.



DETAIL J-cutaway  
SCALE 1 : 8

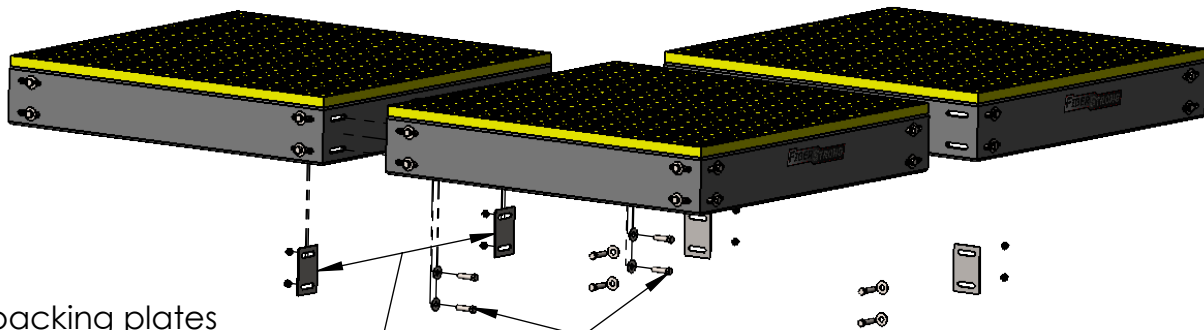


Connect tower to platform underside-  
see tower/ platform connections for  
details.





## DETAIL- PLATFORM CONNECTIONS



Ensure backing plates are used between the platform and nuts as shown.

Join platforms with the hardware included in the platform hardware package. The platform walking surfaces will be flush when installed correctly.

### **IMPORTANT!**

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## DETAIL- RAIL CONNECTIONS

