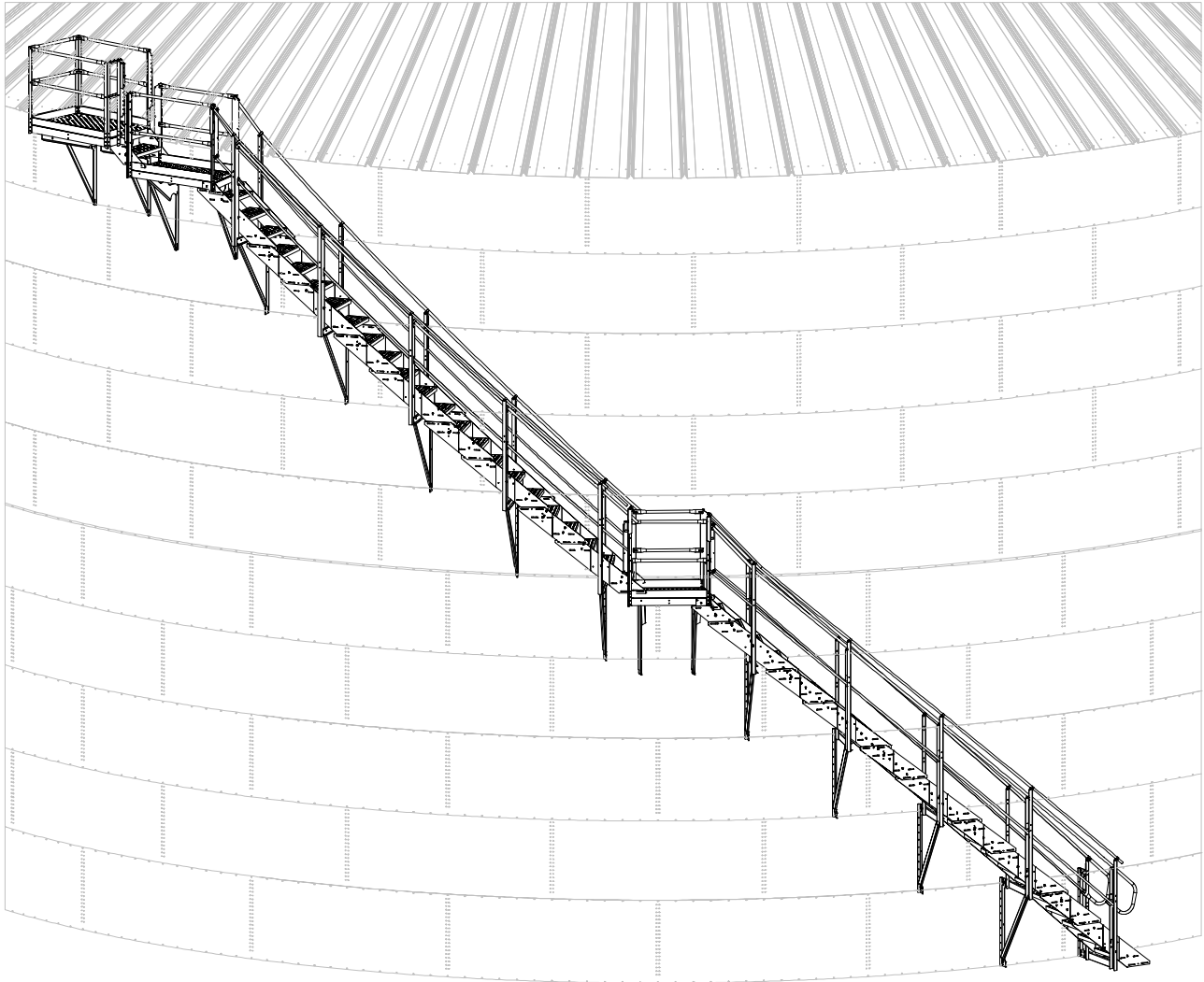


CC4400

44" C-Series Commercial Sidewall Stairs Assembly Instructions

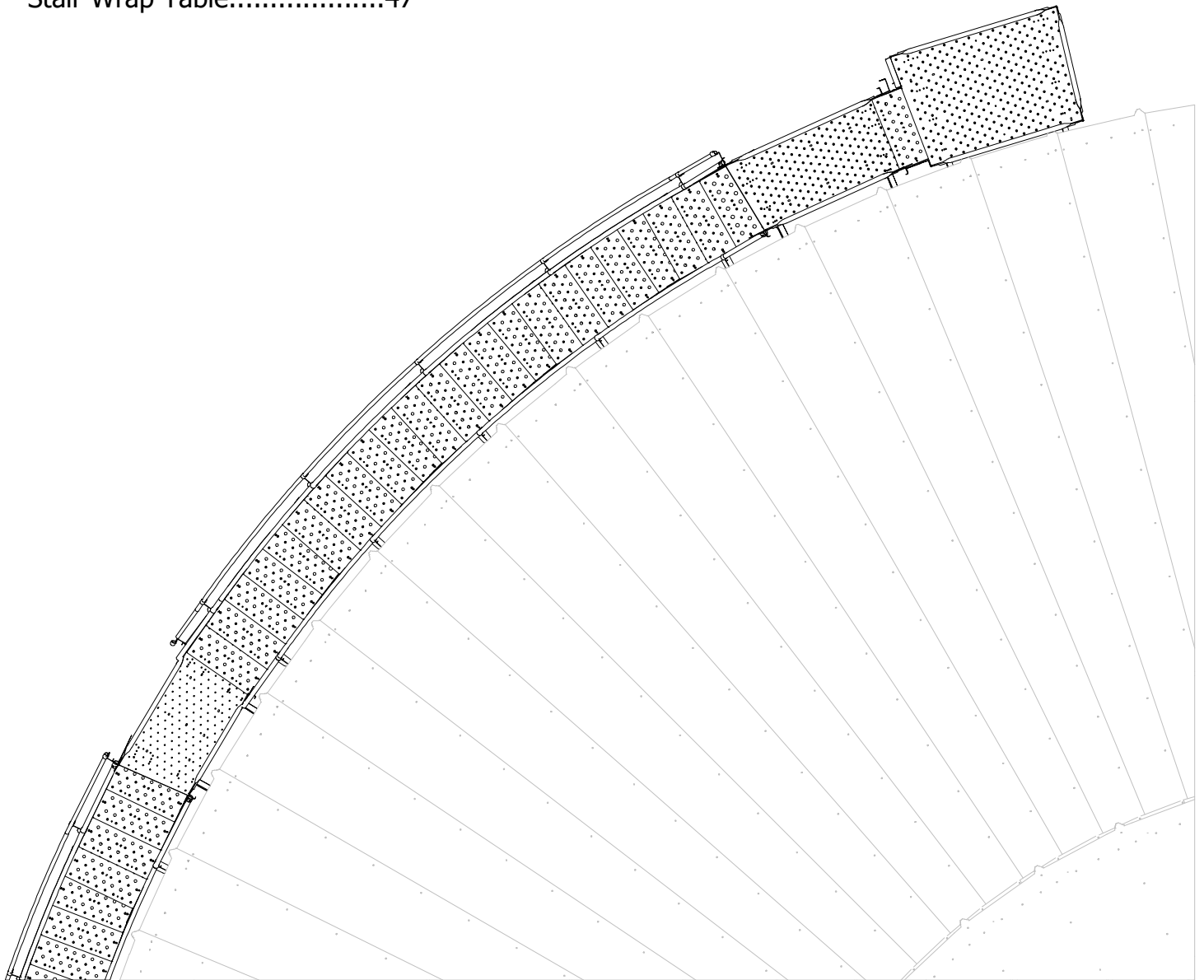


GREENE
GALVANIZED STAIRS

C-Series Commercial Duty Sidewall Stairs

Document Guide

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4-panel Roof Start.....	6
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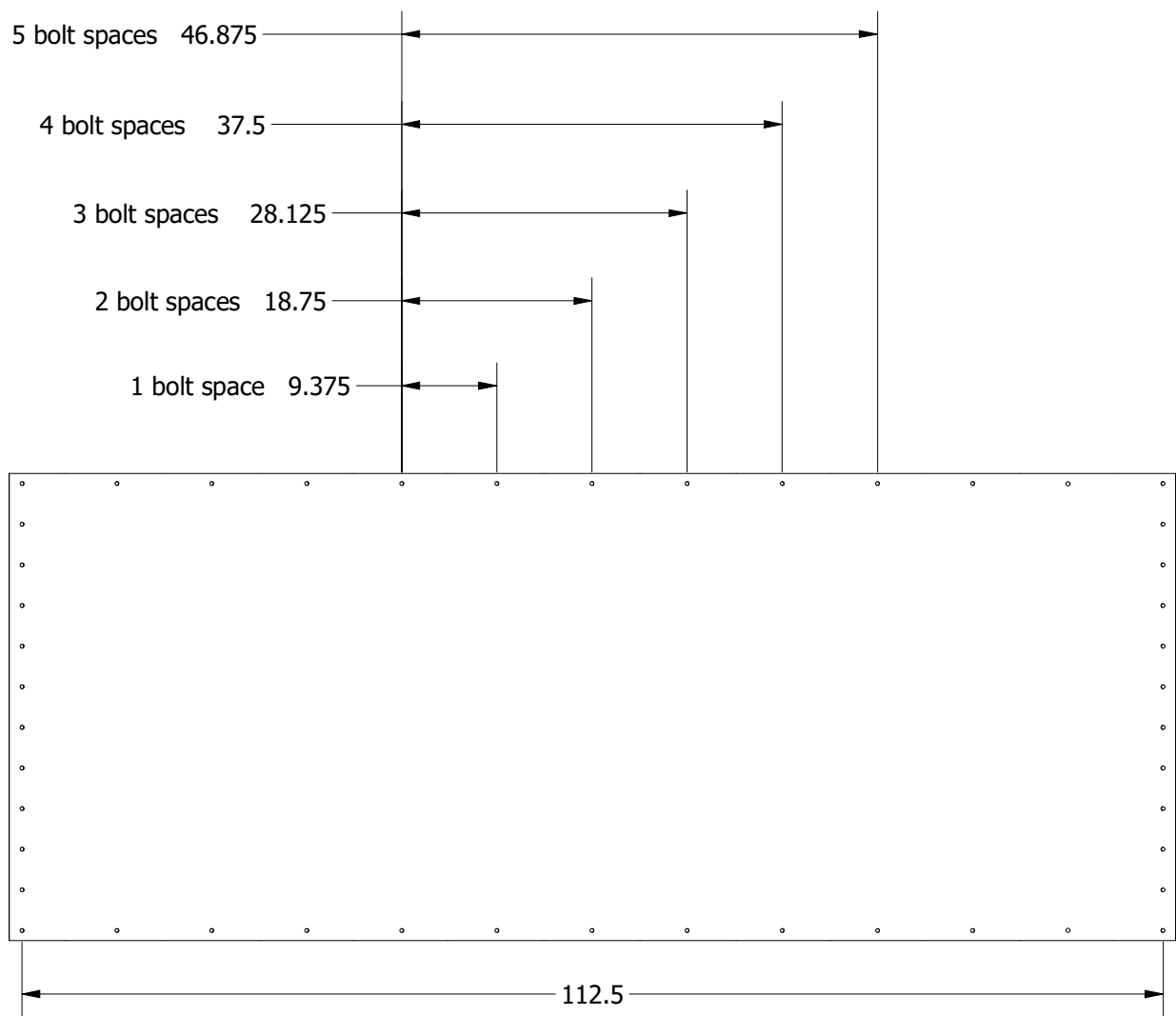


44" Bin Sheet Bolt Spacing

A standard 44" bin sheet is shown below. Wall bracket placement is marked by "Bolt Spaces" throughout these instructions. On a 44" sheet, a bolt space is equal to 9.375 inches. (Double punched sheets have 24 bolt holes, the spacing should be counted every other bolt space on double-punched sheets)

Use this page to convert distances given in bolt spaces to inches. Example: 5 SPC = 46.875"
Correct spacing between wall brackets is crucial for proper stair assembly.

NOTE: C-Series Commercial stairs are approved for installation on storage structures of other types, such as non-corrugated steel plating or slip-form concrete. These structures may not have a typical "bolt space" layout to follow. In these cases, always refer to the actual dimension value provided in inches regarding wall bracket placement.



44" Bin Sheet
(1 Sheet = 12 bolt spaces)

Securing Stairs to Structure

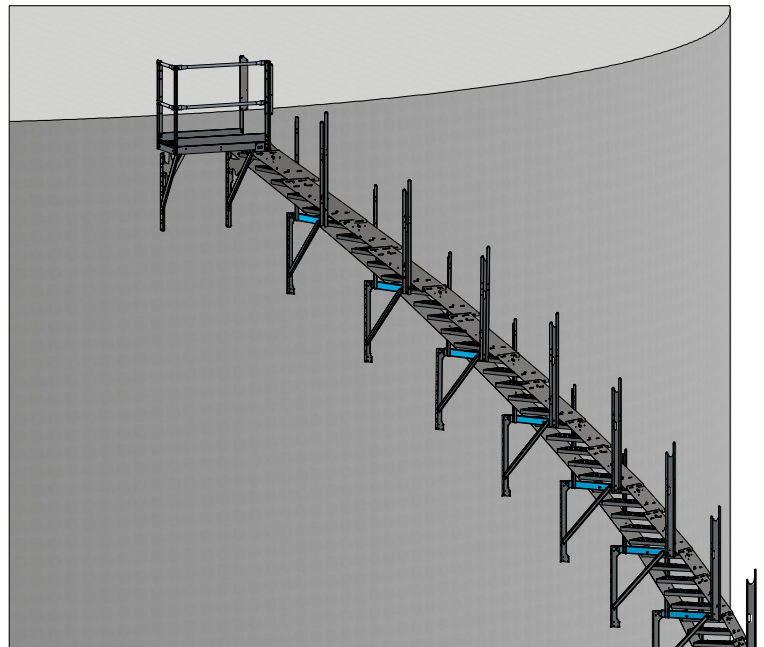
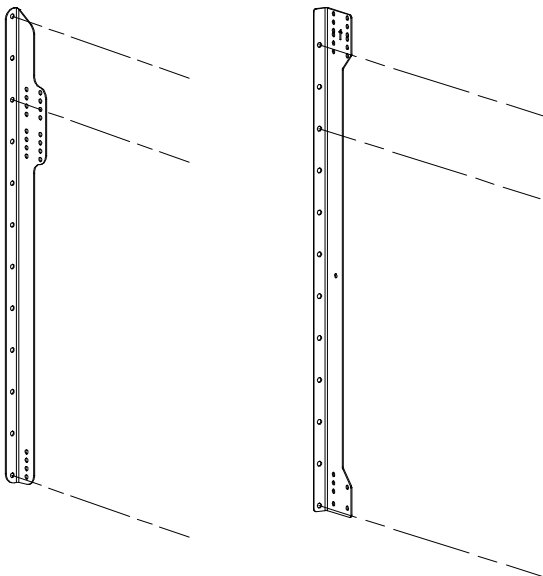
Typical steel grain silo with corrugated panels. 44" vertical seams align with top and bottom holes of bracket.



Other Mounting Options

Stairs can be installed on a concrete silo with continuous wall surface: We approve the use of the Hilti 3/8" x 3-3/4" zinc plated KWIK Bolt 1 Wedge Anchor (#2231456) for C-Series Commercial.

Use a minimum of three (3) anchors per wall bracket. One at the top, one at the bottom and at least one other between the middle and top of the wall mounting bracket. All anchor nuts torqued as specified by Hilti.



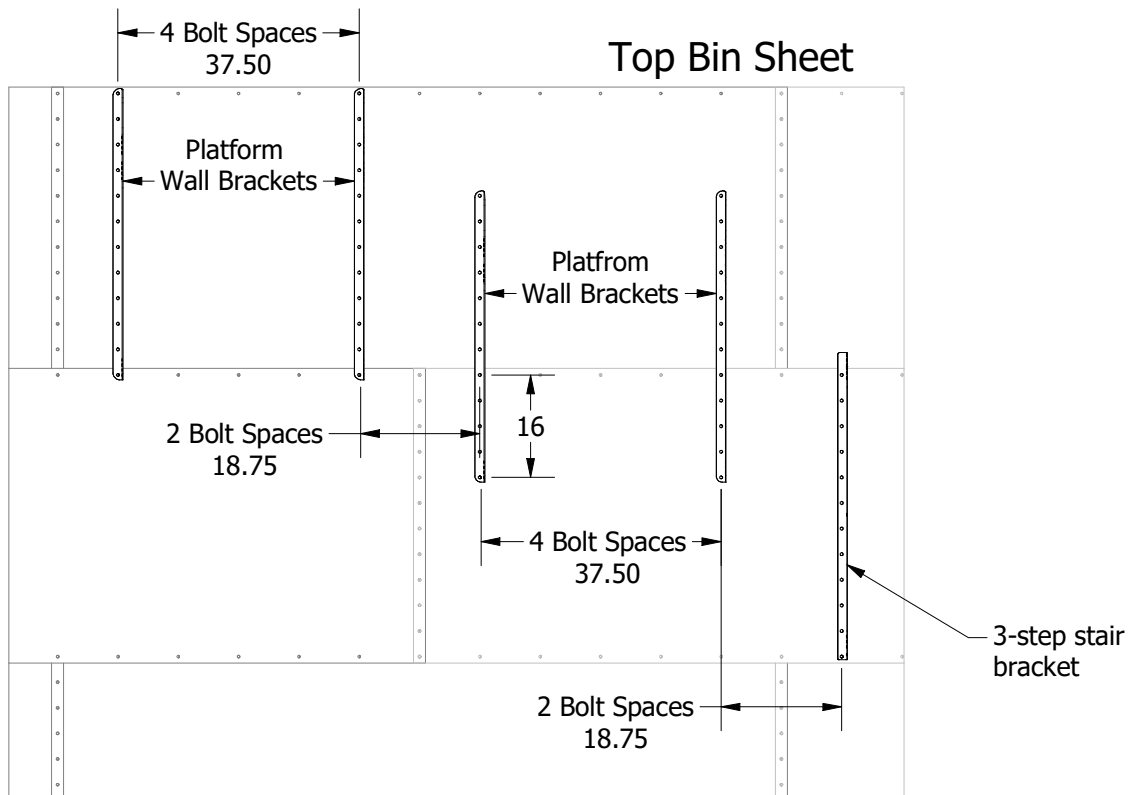
Bin sheets = Total bolt spaces/12

Platform Wall Bracket Horizontal Bolt Spacing, 4-Panel Roof

Align the platform wall brackets with the roof panels as shown. There should be an empty panel between the roof stair and manhole access.

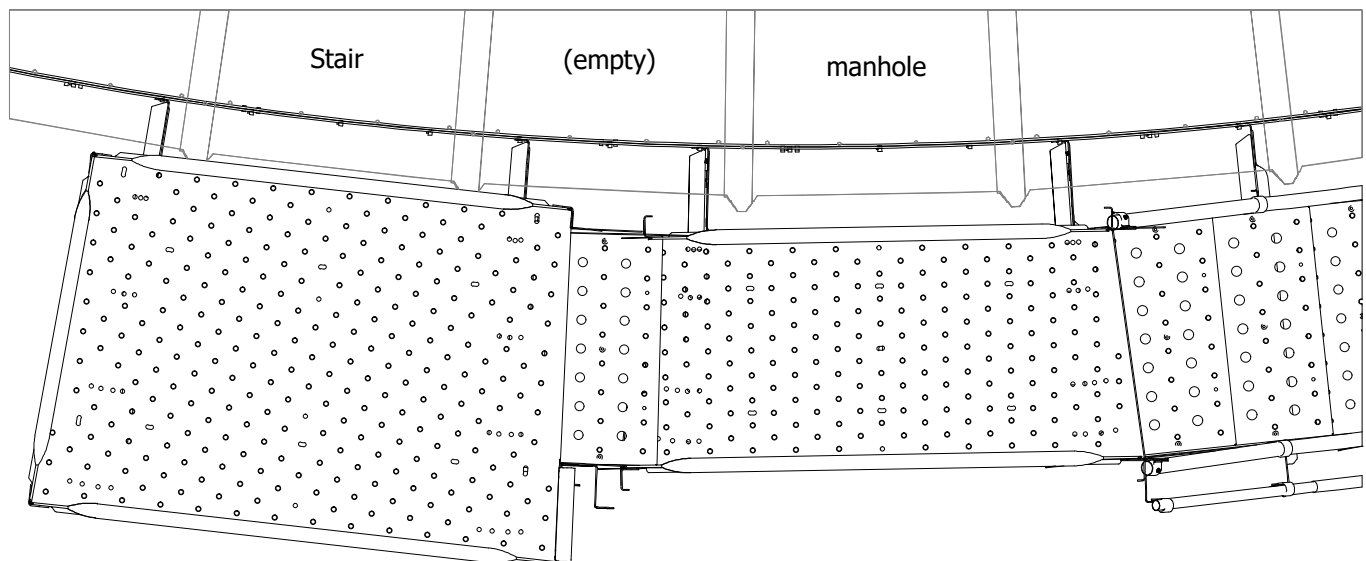
The horizontal spacing between the long eave platform wall brackets is 4 bolt spaces (37.50")

The horizontal spacing from the platform wall bracket to the 3-step stair wall bracket is 2 bolt spaces (18.75")

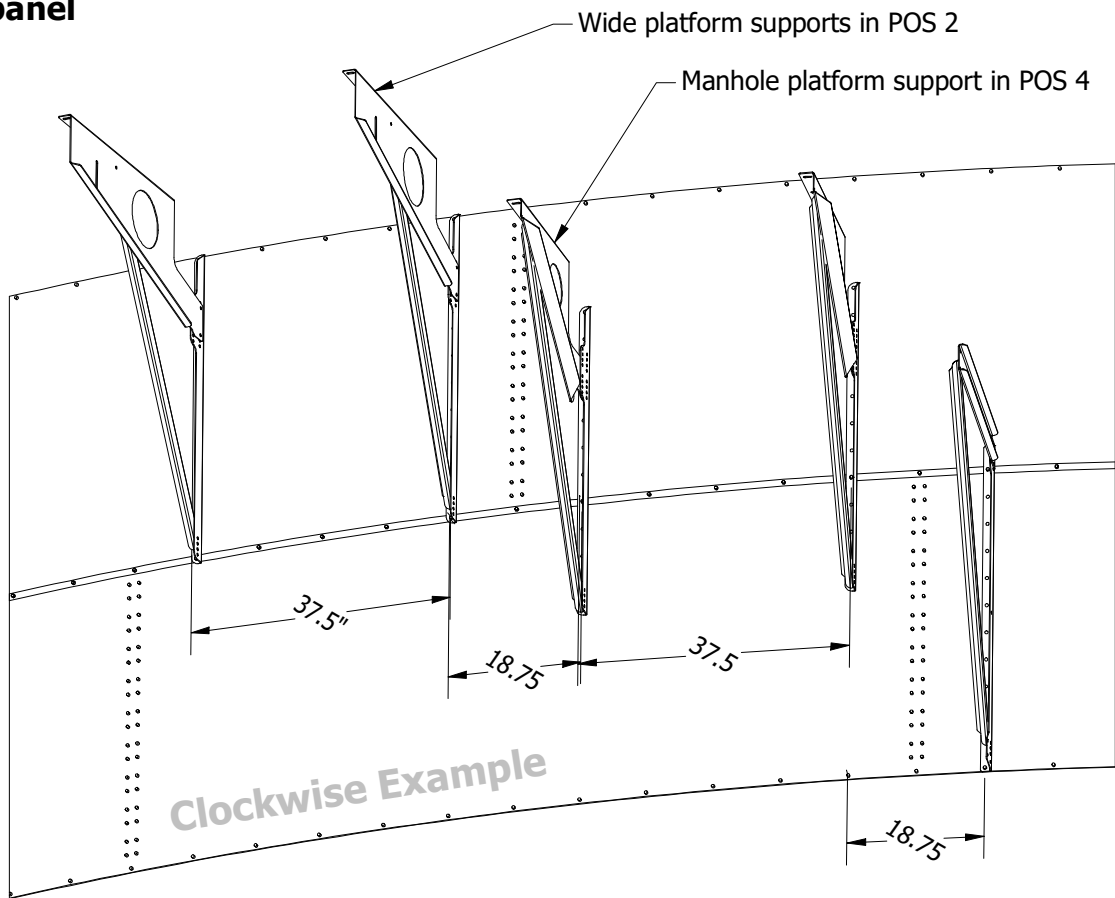


4-panel roof (Ideal layout)

Empty panel between roof stair and manhole,
single step between platforms



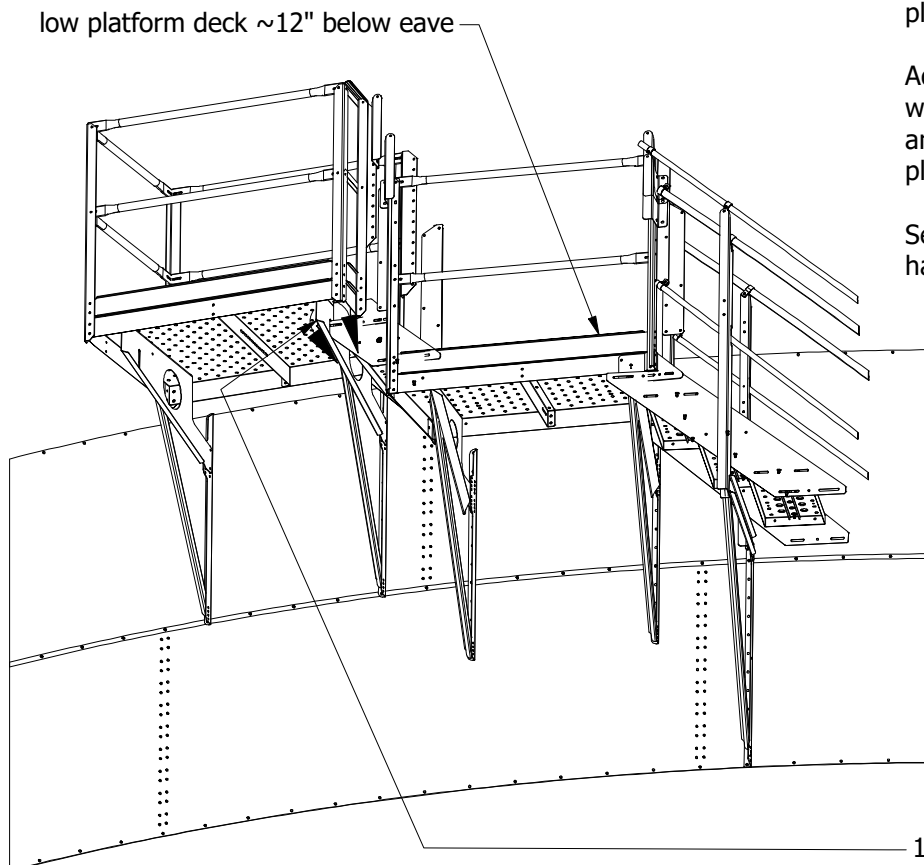
Top Platforms 4-panel



Secure the assembled platforms to the supports with 5/16" hardware by angling the supports to line up with the holes in the platform surface.

Add the CC4404P stair sections as shown, with the single step between the platforms and the 3-step section after the manhole platform.

See the handrail detail page for adding handrail to the platforms.



Eave Layout Platform Adjustment 4-Panel

C-Series Platforms have four elevation positions to provide the correct step rise at different locations in the stair run. This page provides an overview of those positions for reference during the installation.

CC8544 Wide Top Platform.....use position 2

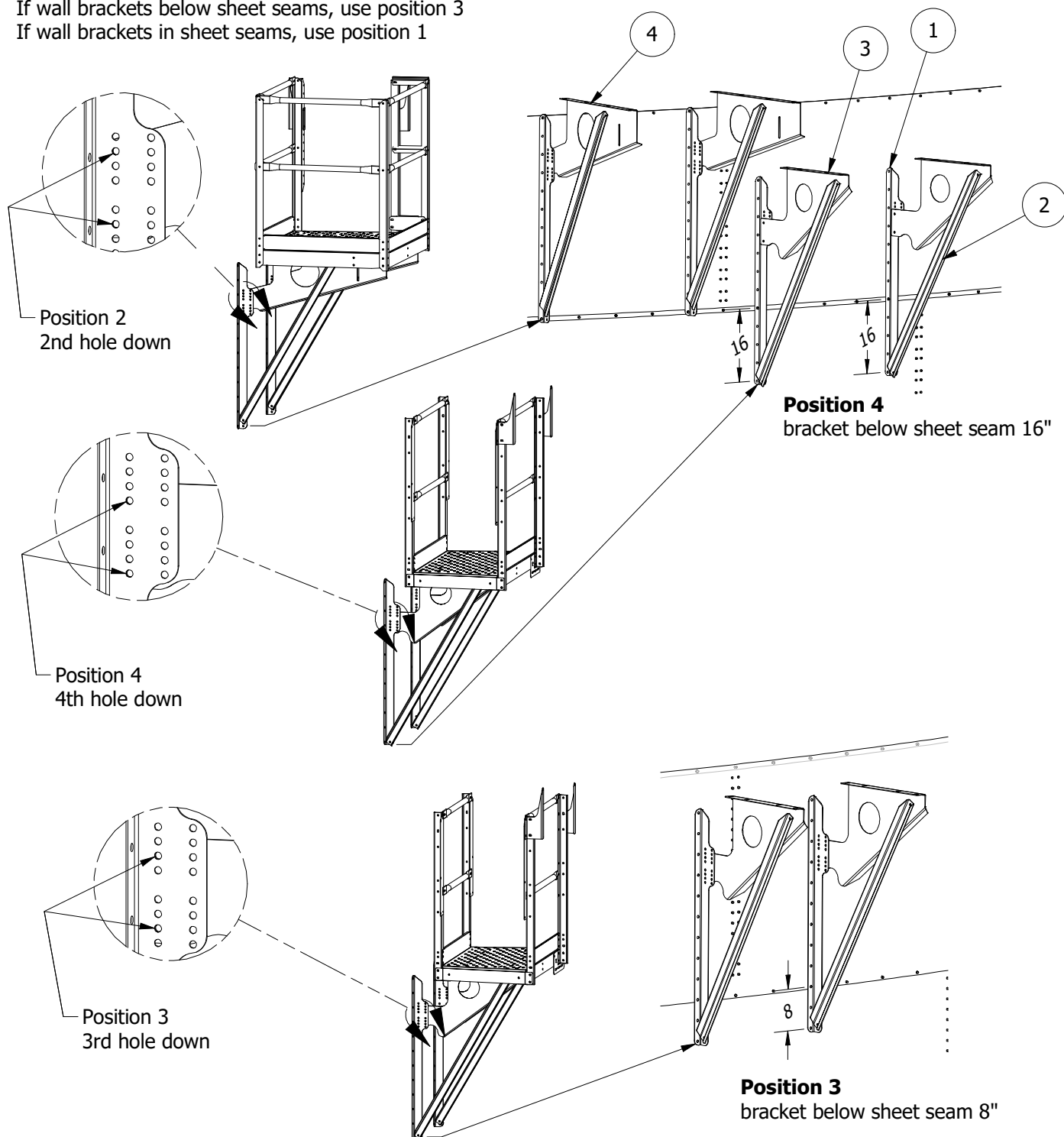
CC3644L Manhole Platform.....use position 4

CC3644S Rest Platform

If wall brackets below sheet seams, use position 3

If wall brackets in sheet seams, use position 1

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	CS-34401	Bracket, Wall, 44 Platform
2	CS-44002	Channel, Brace, 44
3	CS-34402	Brace, Plate, Platform
4	CS-34422	Brace, Plate, Wide Platform
5	CS-44001	Bracket, Wall, 44" Ring
6	CS-44002	Channel, Crossbar



CC4404P

4-step Split Platform Stair Section

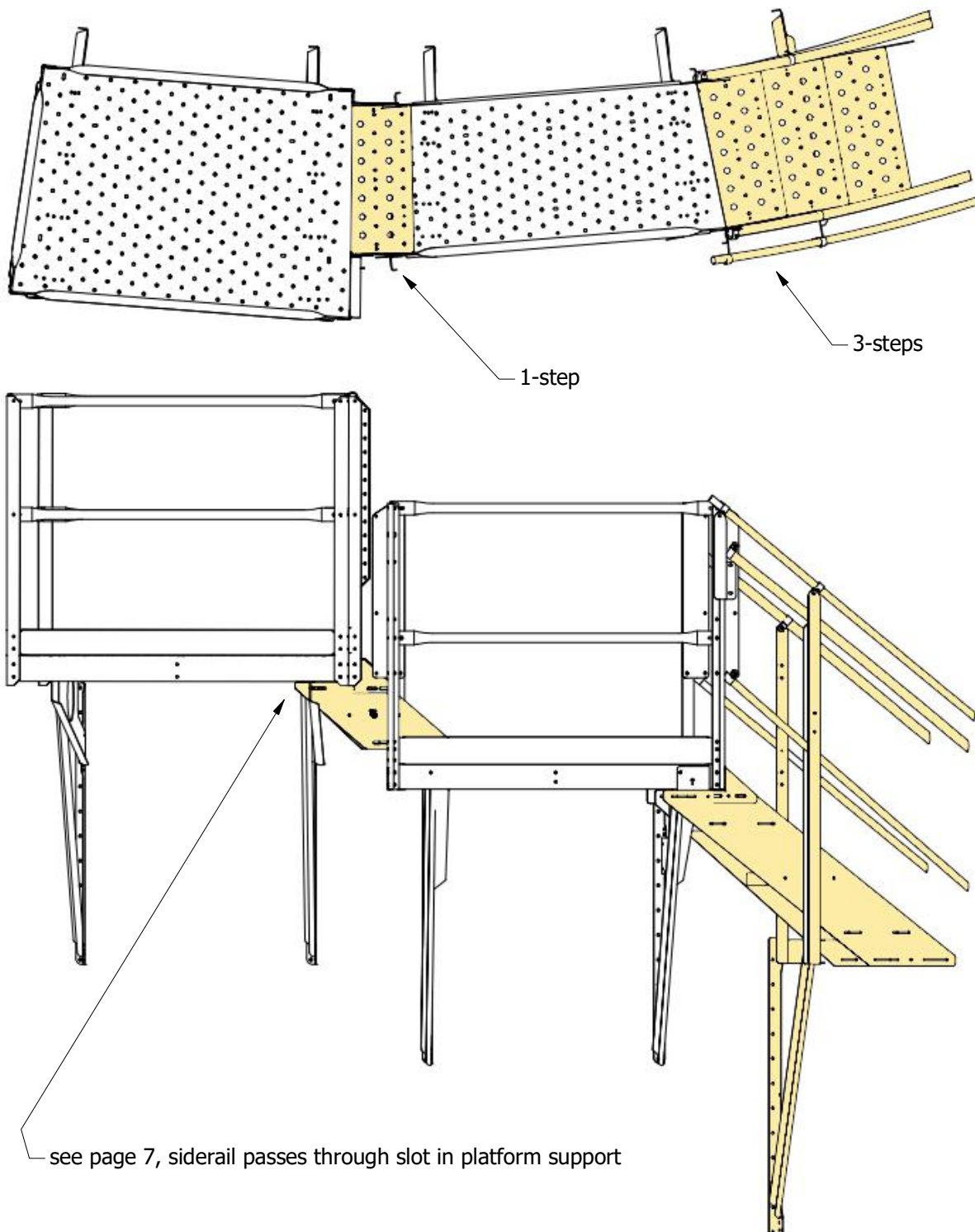
(4-panel roof configuration)

Upper stair sections differ from rest of bin.

When using on a bin with a roof having 4 panels per bin sheet;

the 1-step stair section is used as a step between the platforms

the 3-step stair section is used below the lower platform as a starter before the 5-step sections

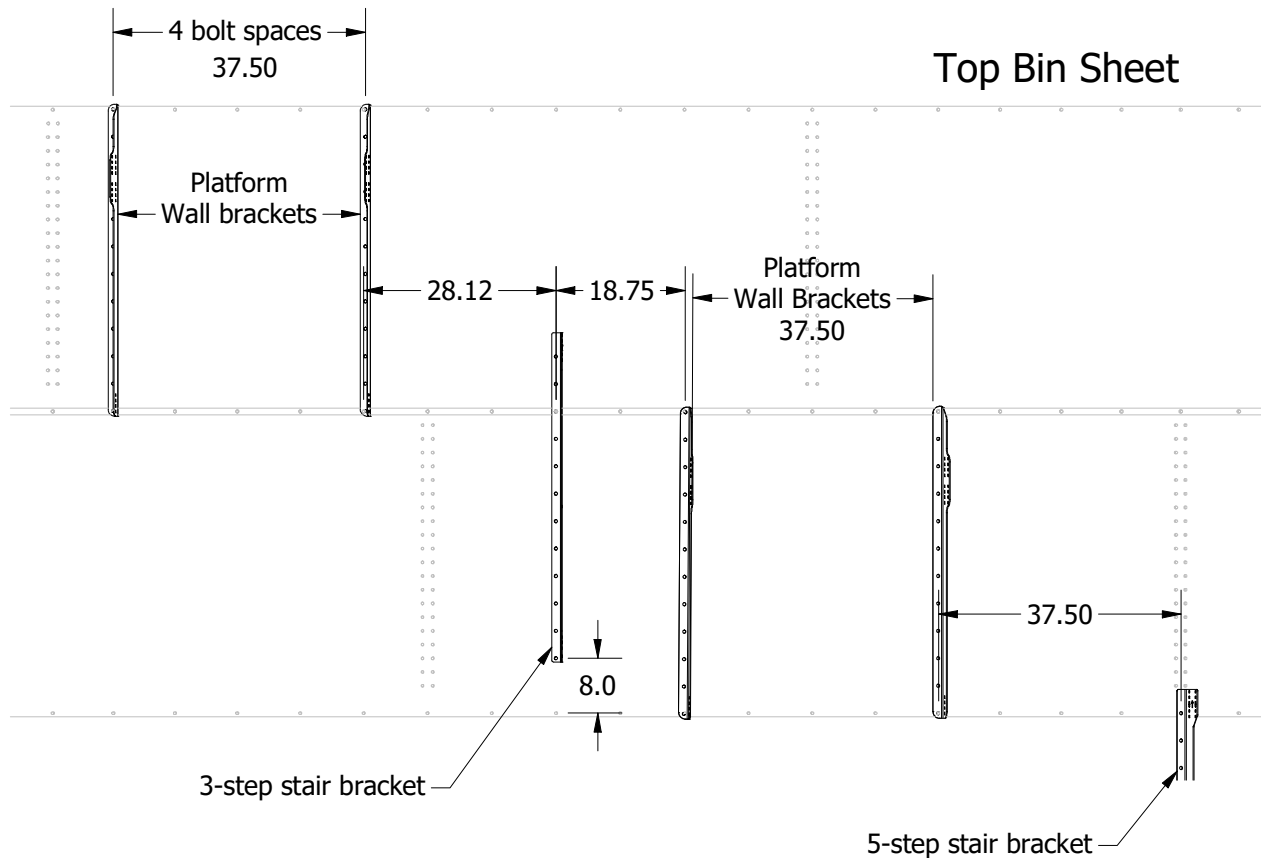


Platform Wall Bracket Horizontal Bolt Spacing, 3-Panel Roof

Align the platform wall brackets with the roof panels as shown. There should be an empty panel between the roof stair and manhole access.

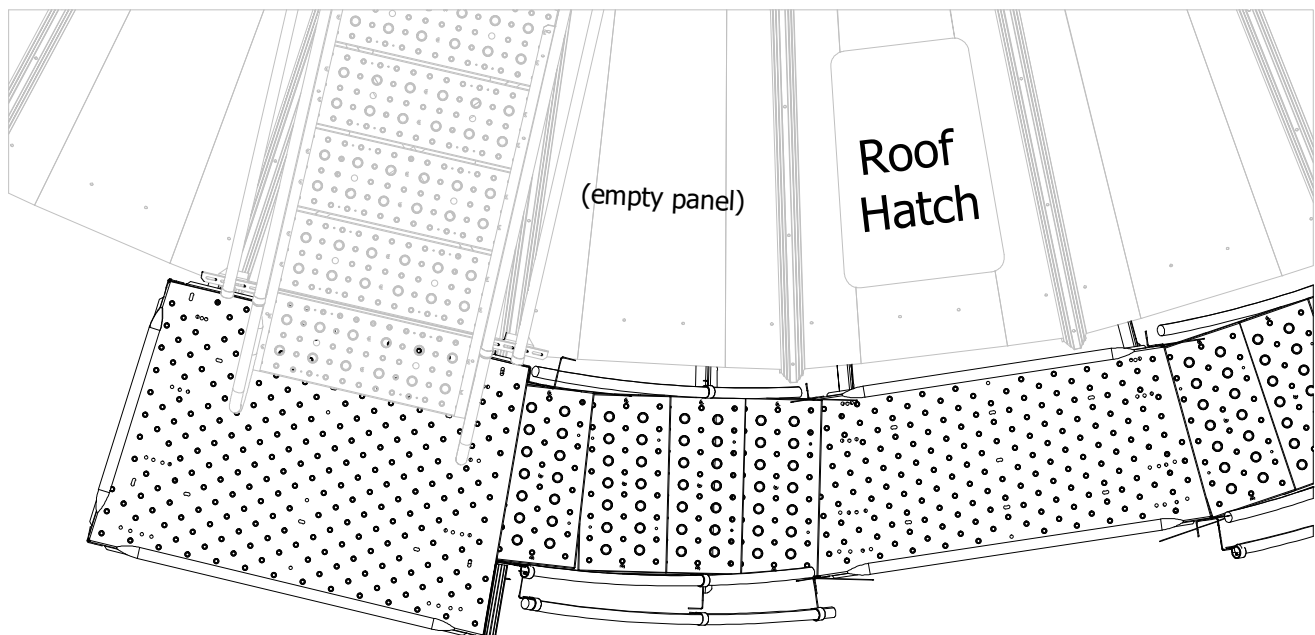
The horizontal spacing between the long eave platform wall brackets is 4 bolt spaces (37.50")

The horizontal spacing from the platform wall bracket to the 3-step stair wall bracket is 2 bolt spaces (18.75")

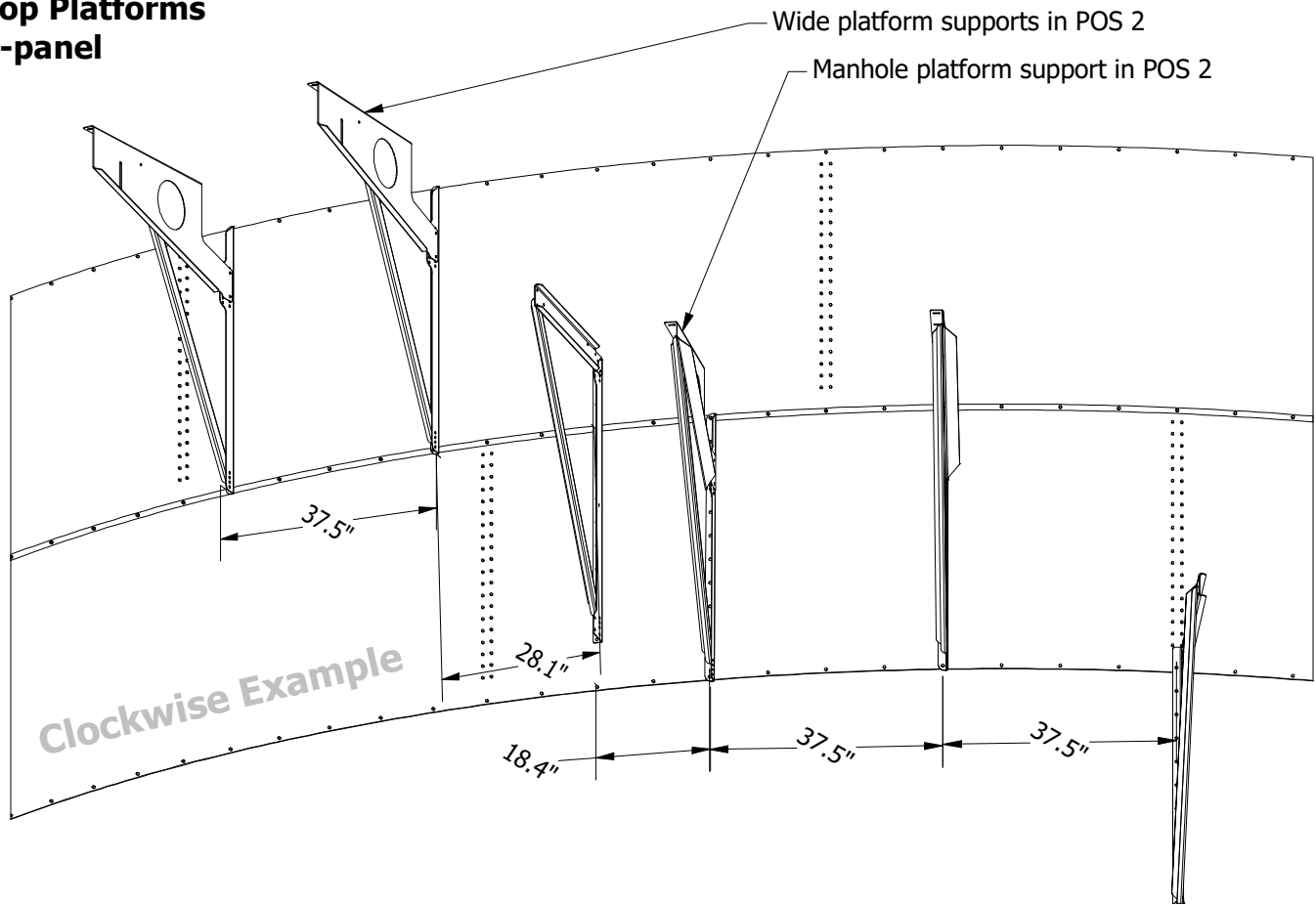


3-panel roof

Empty panel between roof stair and manhole,
four steps between platforms



Top Platforms 3-panel

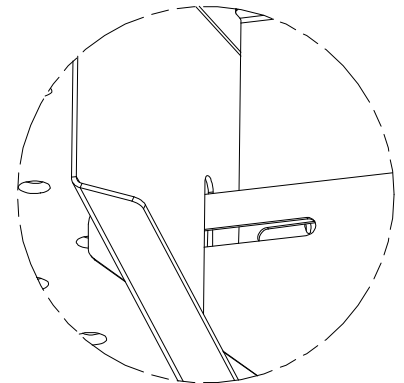
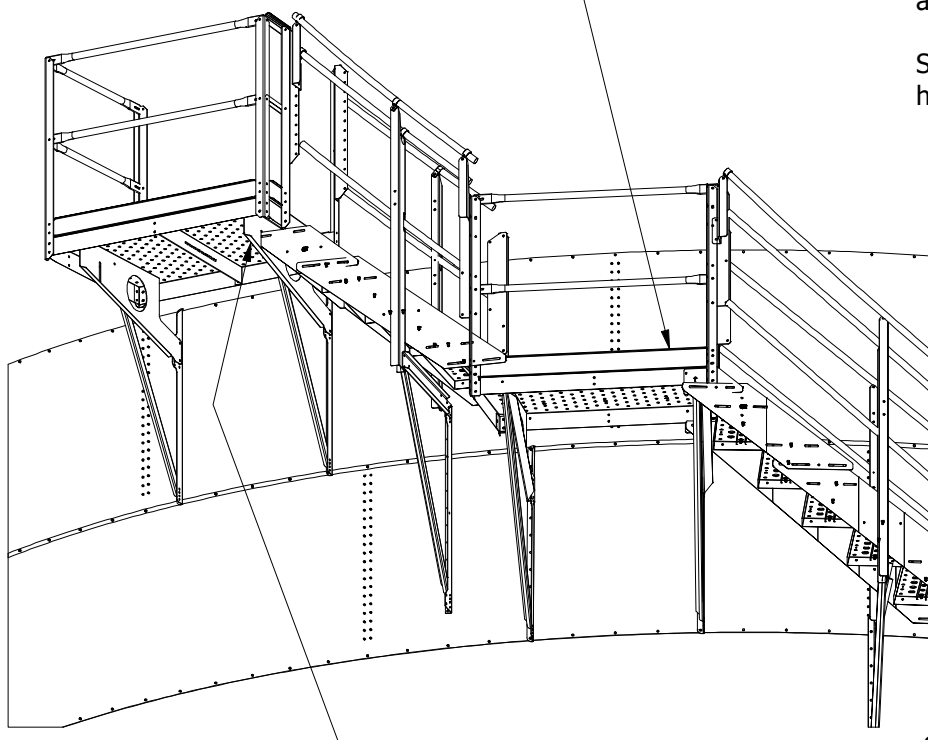


Secure the assembled platforms to the supports with 5/16" hardware by angling the supports to line up with the holes in the platform surface.

Add the CC4404P stair section between the platforms and a CC4400 5-step stair section after the low platform.

See the handrail detail page for adding handrail to the platforms.

low platform deck ~40" below eave



Eave Layout Platform Adjustment 3-Panel

C-Series Platforms have four elevation positions to provide the correct step rise at different locations in the stair run. This page provides an overview of those positions for reference during the installation.

CC8544 Wide Top Platform.....use position 2

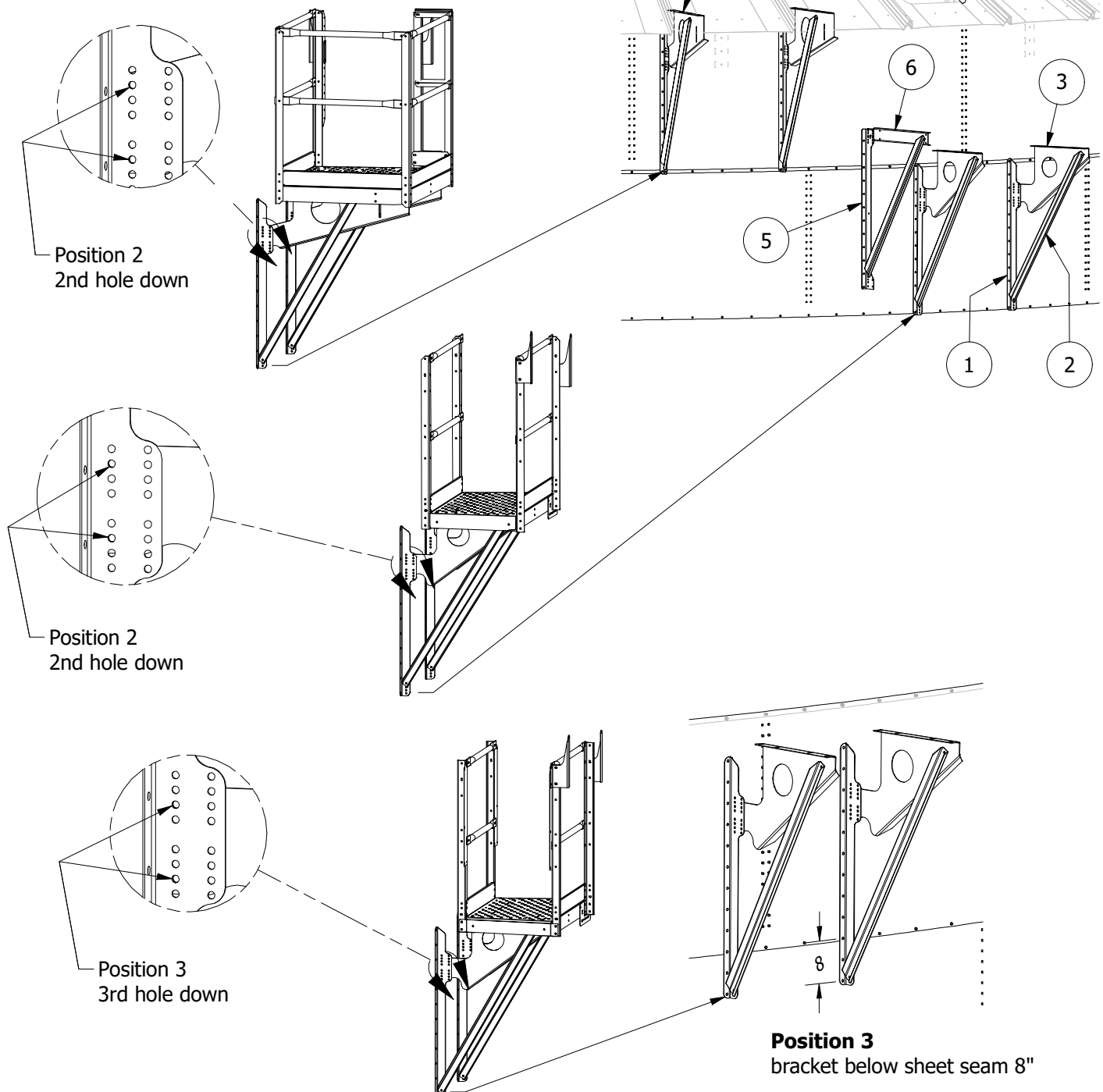
CC3644L Manhole Platform.....use position 2

CC3644S Rest Platform

If wall brackets below sheet seams, use position 3

If wall brackets in sheet seams, use position 1

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	CS-34401	Bracket, Wall, 44 Platform
2	CS-44002	Channel, Brace, 44
3	CS-34402	Brace, Plate, Platform
4	CS-34422	Brace, Plate, Wide Platform
5	CS-44001	Bracket, Wall, 44" Ring
6	CS-44002	Channel, Crossbar



CC4404P

4-step Platform Stair Section

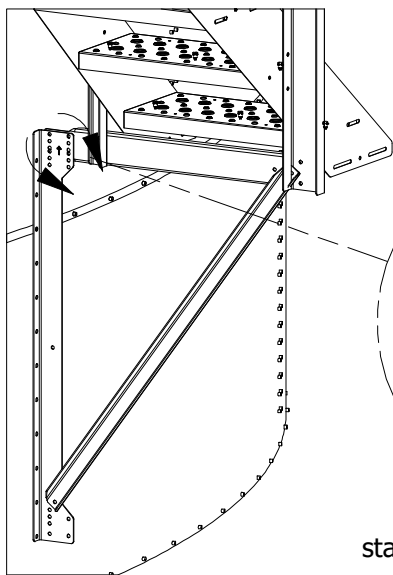
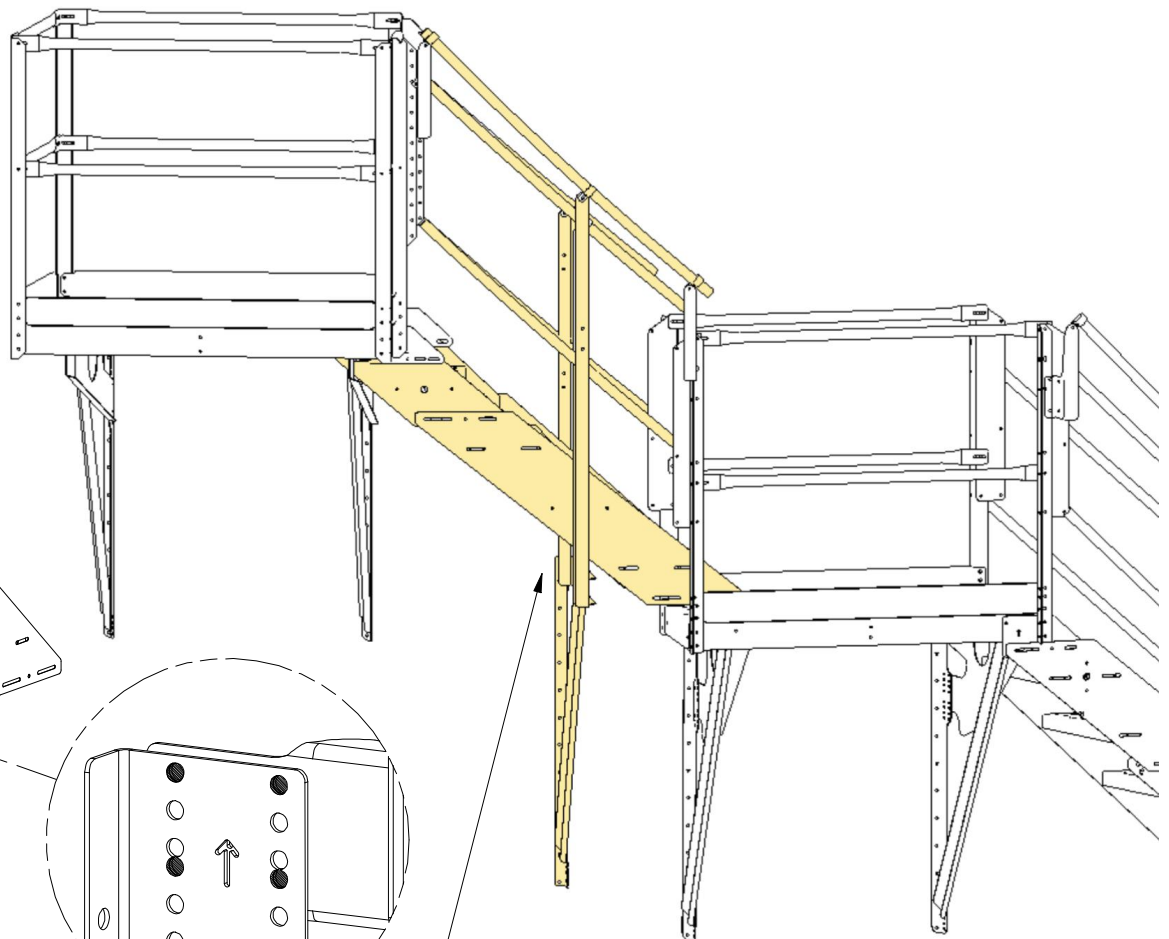
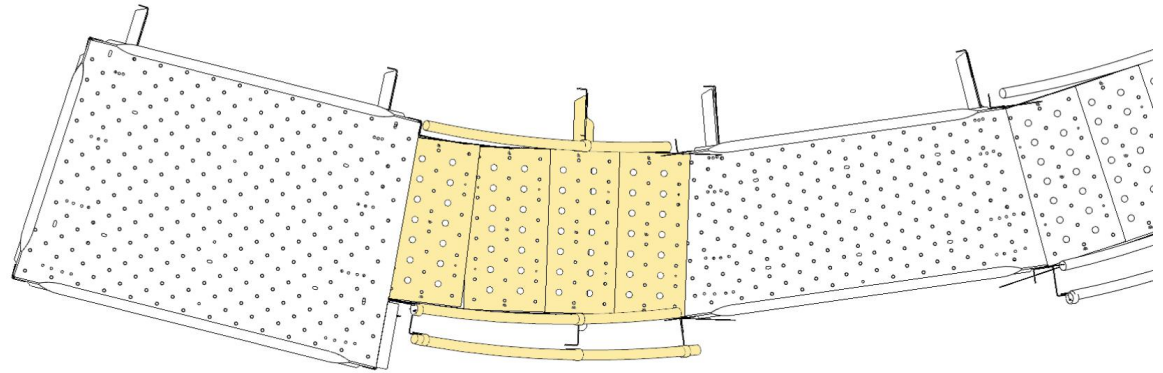
(3-panel roof configuration)

Upper stair sections differ from rest of bin.

When using on a bin with a roof having 3 panels per bin sheet;

Combine the stair components to form a 4-step stair section with the posts at the second step

Attach the low platform after the stair and continue with 5-step sections below the platform



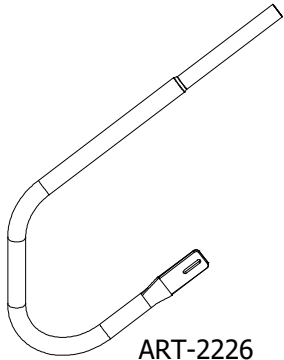
stair crossbar in upper position

CC8544

Wide Platform, Single Entry

(CCW entry shown)

Platform package includes these components for finishing stair (see pages 45-46)



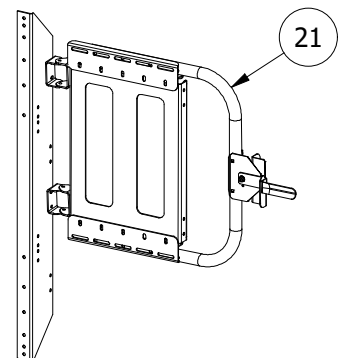
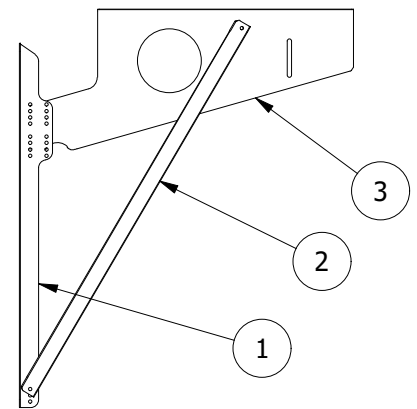
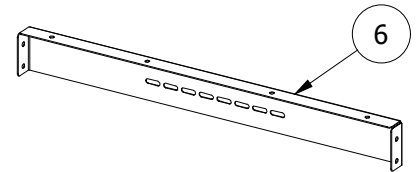
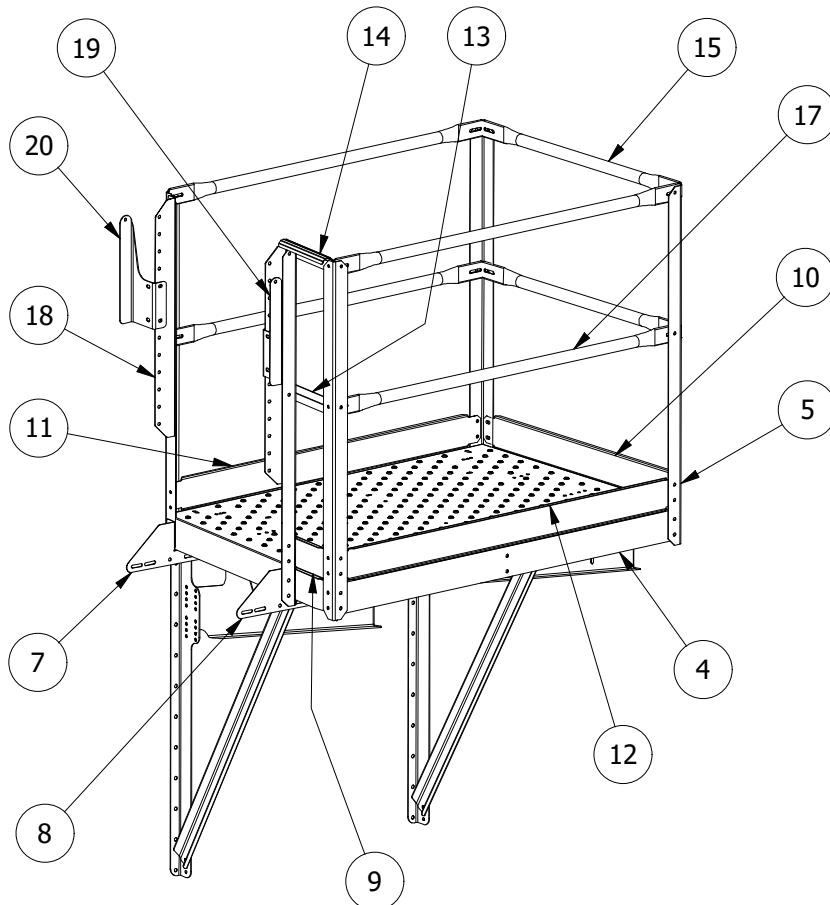
ART-2226



AS-40004

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-44002	Channel, Brace, 44
3	2	CS-34422	Brace, Plate, Wide Platform
4	1	CS-F30003	Tread, Platform, wide 55" x 37"
5	5	ARD-0024	Angle, Post, Platform Corner
6	1	CS-30029	Wide Platform center brace
7	1	CS-40421	Siderail Extension, wide platform, left
8	1	CS-40422	Siderail Extension, wide platform, right
9	1	ES-8516	Channel, Kickboard, 10"
10	1	ES-8513	Channel, Kickboard, 37"
11	1	ES-3504	Channel, Kickboard, 50"
12	1	CS-34454	Channel, Kickboard, 54"
13	1	ES-8515	Platform Entry Int Rail
14	1	CS-34412	Angle, Rounded Handrail, Platform Entry
15	2	TRS1503700	37" 1.5 in tube railing slotted end tabs
16	2	TRS1505000	50" 1.5 in tube railing slotted end tabs
17	2	TRS1505500	55" 1.5 in tube railing slotted end tabs
18	2	CS-30020	Bracket, Platform Handrail Mount
19	1	ART-0007	Entry Guardrail Post Right
20	1	ART-0008	Entry Guardrail Post Left
21	1	ASG100	Self-closing Gate

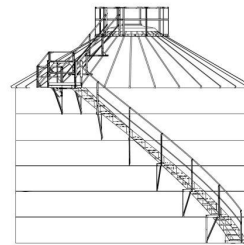


Single Entry Platform, Clockwise entry shown

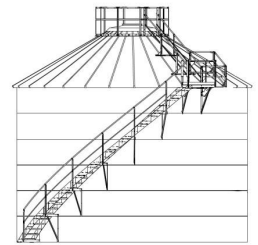
(for stairs wrapping clockwise from bottom to top)

Step 1: Attach posts to platform skin

Platform assembly uses 3/8" hardware
except where noted otherwise



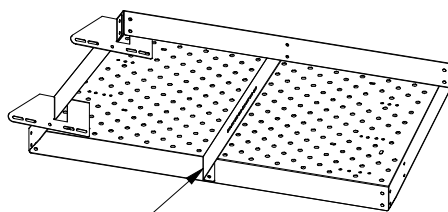
Clockwise wrap



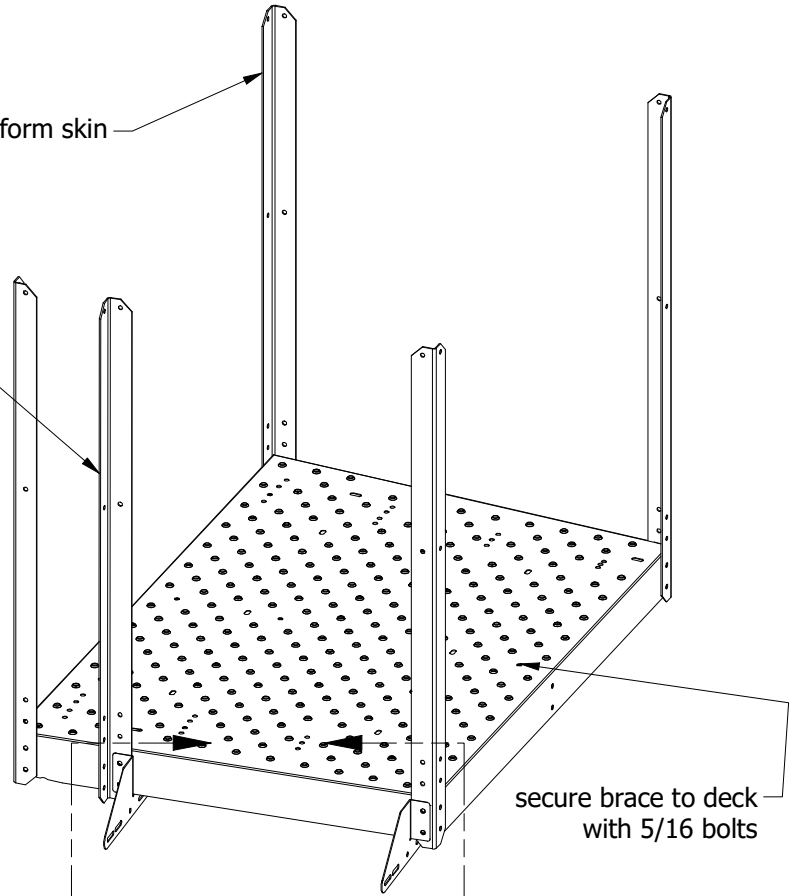
Counter-clockwise wrap

plumb posts in both directions and tighten bolts to platform skin

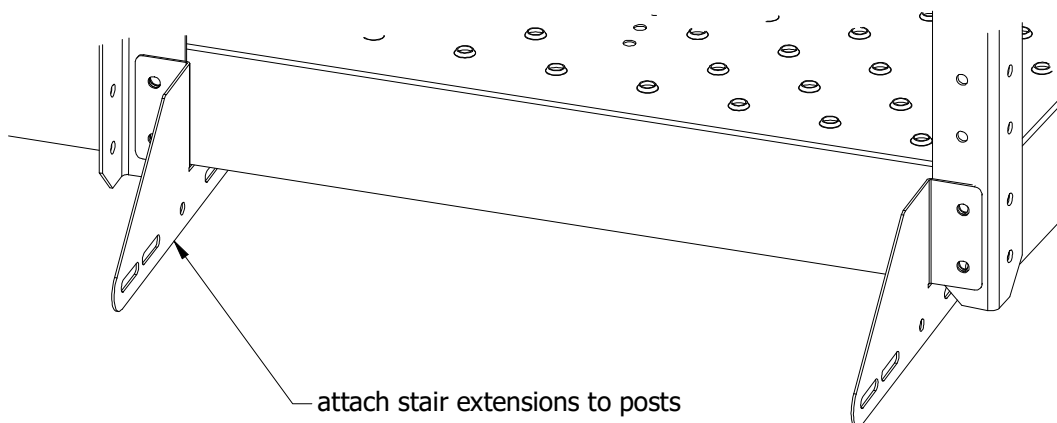
Attach corner posts and entry post
as shown. Entry post is oriented
with flange towards wider end
of platform (outside).



Attach middle brace to inside
of platform with 3/8" bolts



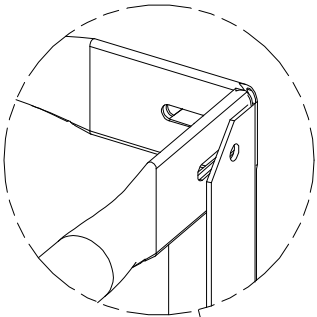
secure brace to deck
with 5/16 bolts



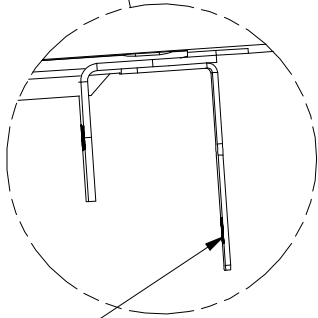
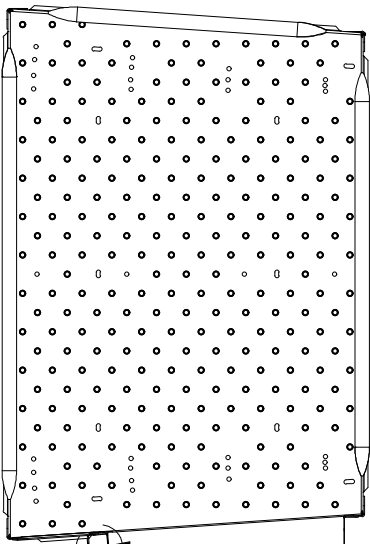
attach stair extensions to posts

Step 2: Attach the guarding rails and handrail brackets to posts

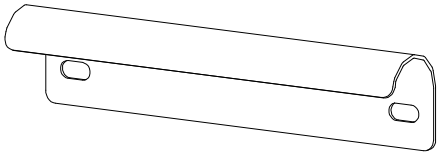
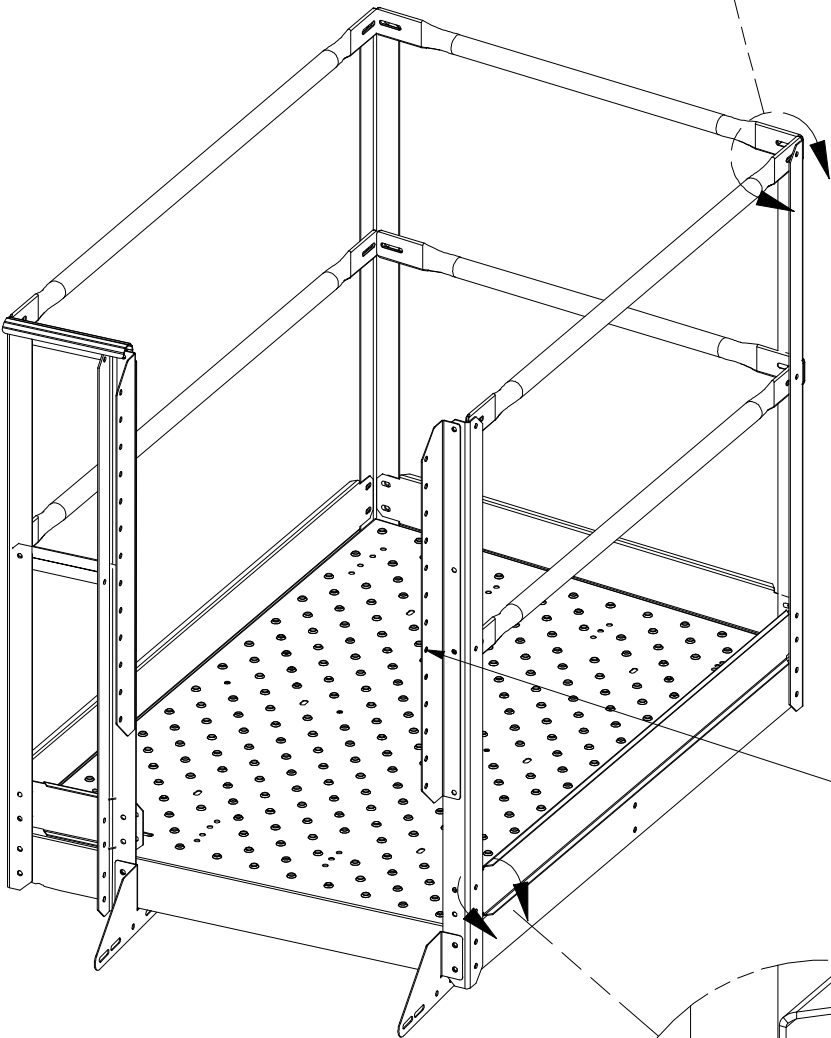
Handrail mounts to inside faces of post, plug bolts out. Weep holes down for drainage.



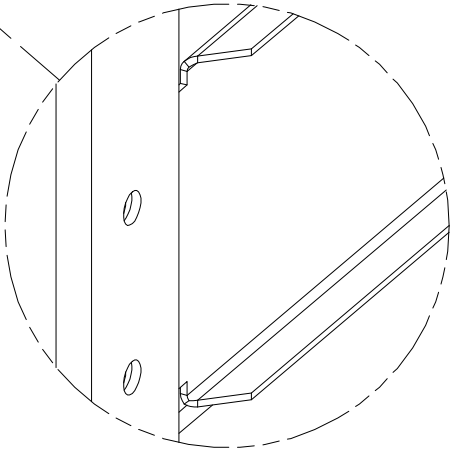
Top view



CS-30020 handrail bracket

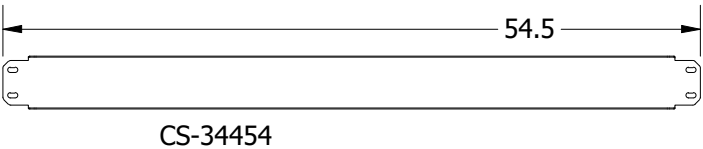
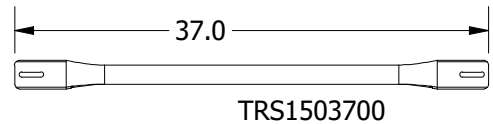
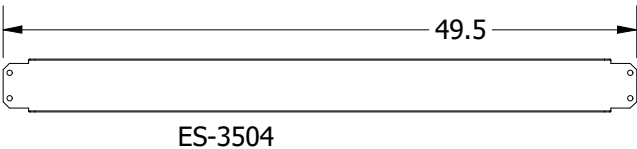
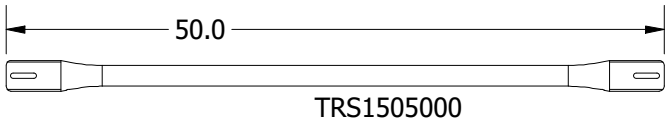
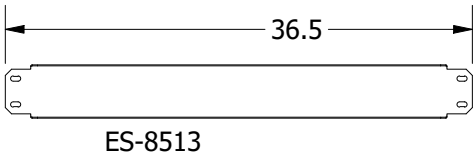
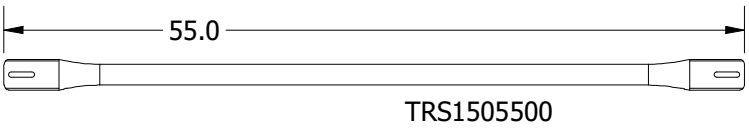
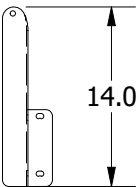
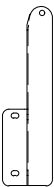
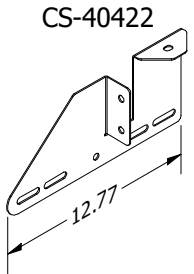
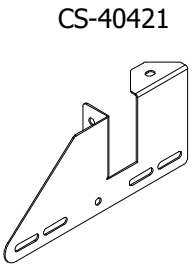
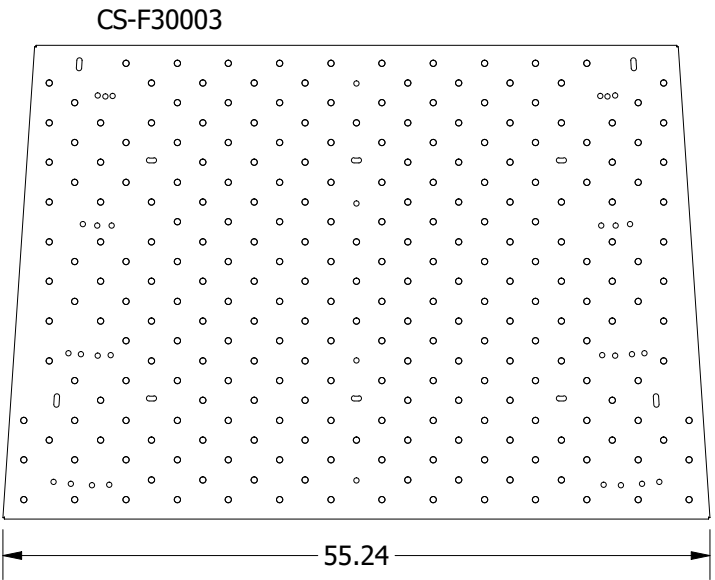
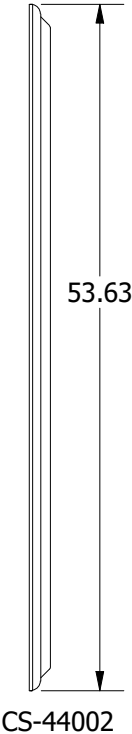
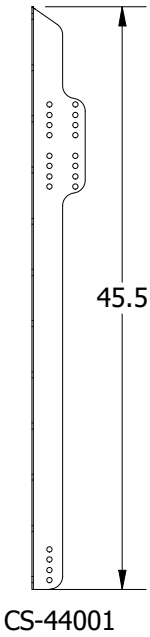
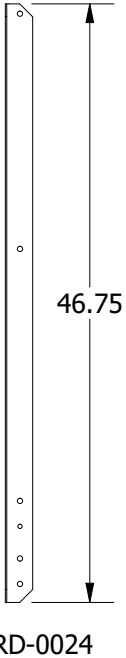
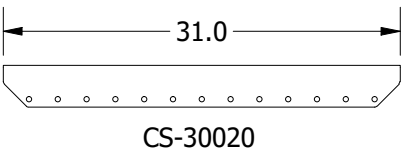
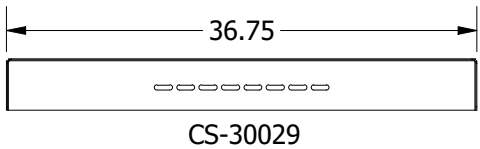
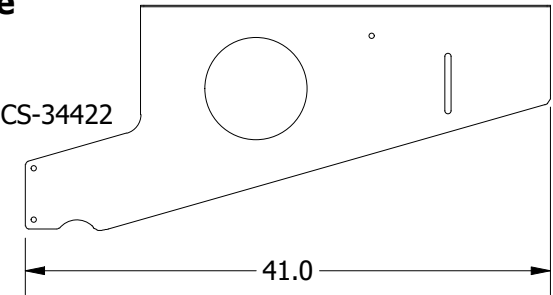
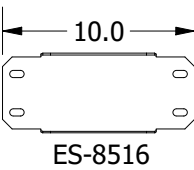
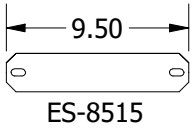
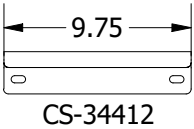


Short top handrail
(curve towards outside)



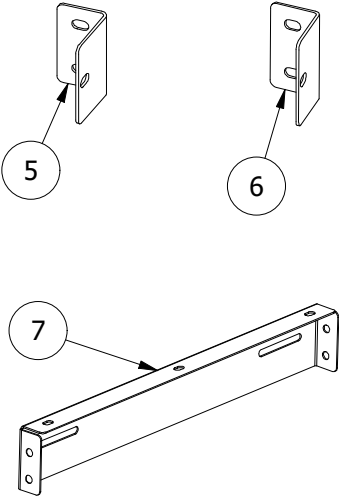
Kickboards bolt on inside faces of post with flanges pointing out

CC8544 Wide Platform
Parts ID Reference

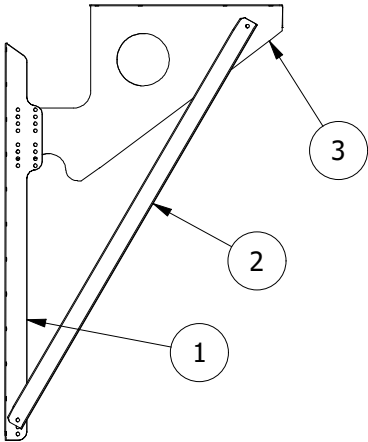
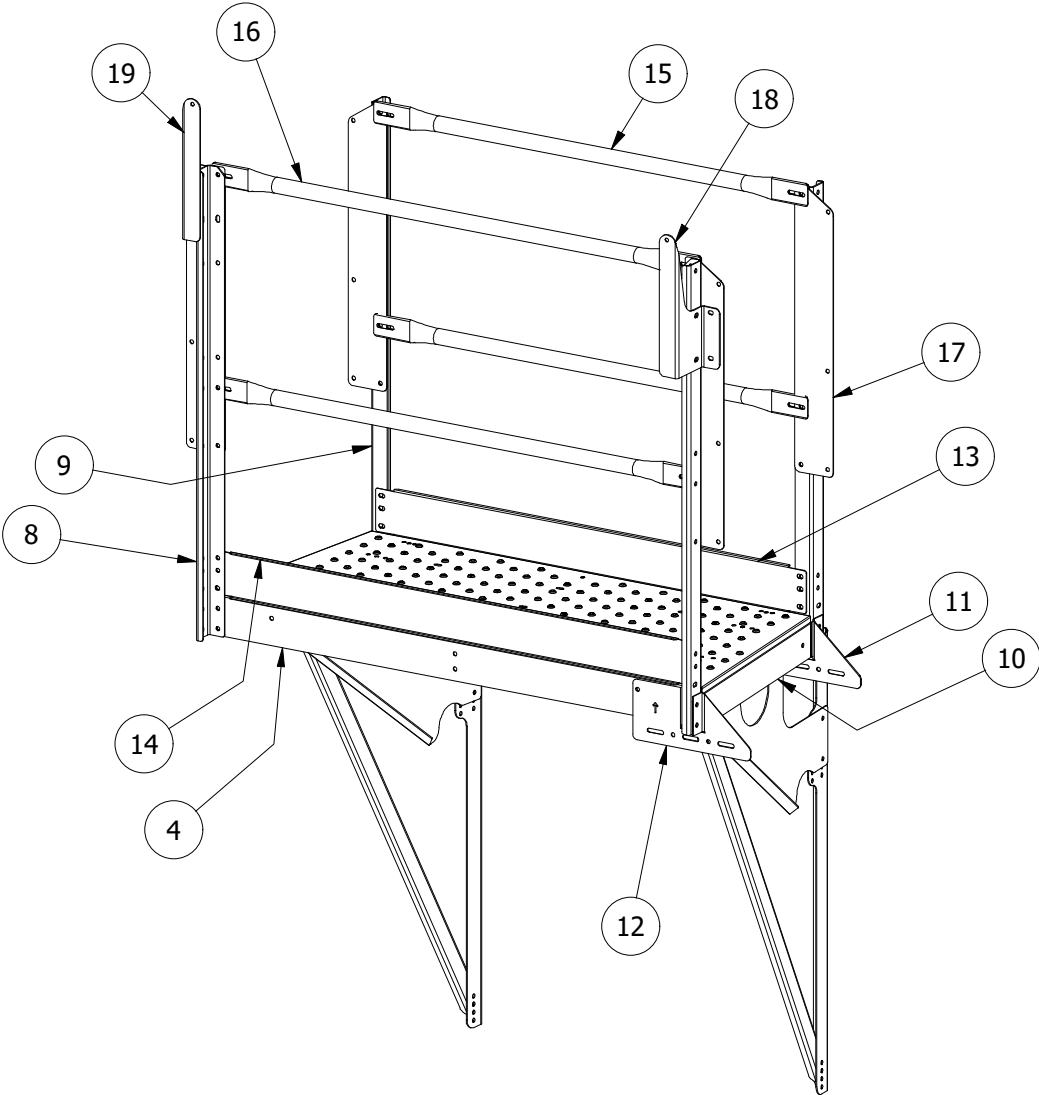


CC3644L
C-Series Commercial 44"
Long Platform

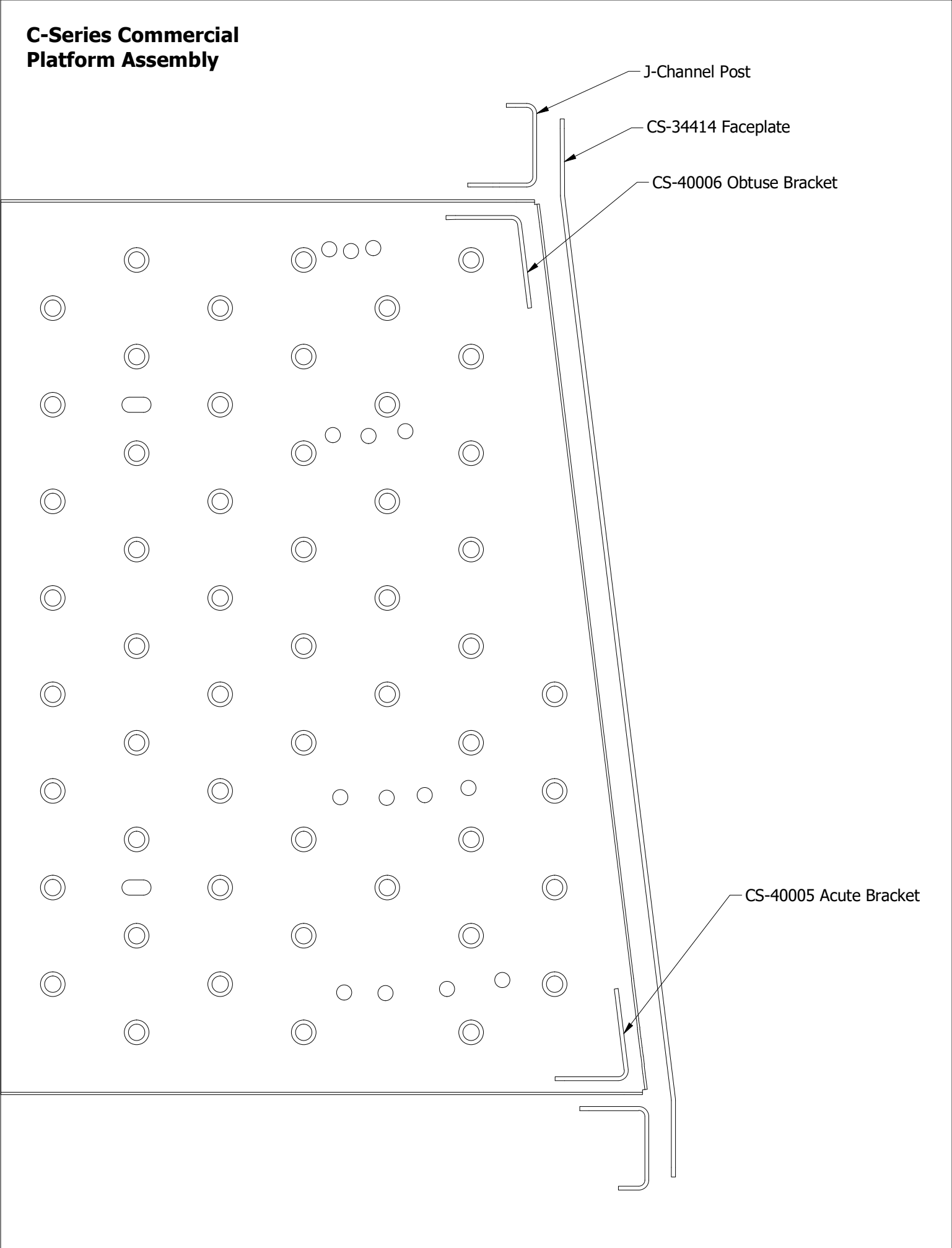
Low Eave Platform



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-44002	Channel, Brace, 44
3	2	CS-34402	Brace, Plate, Platform
4	1	CS-F30001	Tread, Platform, Long, Trapezoid 55x24
5	2	CS-40005	Bracket, Brace, Acute
6	2	CS-40006	Bracket, Brace, Obtuse
7	1	CS-3009	Bracket, Support, Platform
8	2	CS-34500	Angle, Post, J-channel, Right
9	2	CS-34501	Angle, Post, J-channel, Left
10	2	CS-34414	Bracket, Faceplate
11	1	CS-40410	Lower Stringer Extension, Right 44
12	1	CS-40411	Lower Stringer Extension, Left 44
13	1	CS-34407	Channel, Kickboard, Inside Long
14	1	CS-34406	Channel, Kickboard, Outside Long
15	2	TRS1504800	48 Long 1.5 in tube railing slotted end tabs
16	2	TRS1505400	54" long 1.5 in tube railing slotted end tabs
17	4	CS-30010	Bracket, Plate, Handrail
18	1	ART-0007	Entry Guardrail Post Right
19	1	ART-0008	Entry Guardrail Post Left

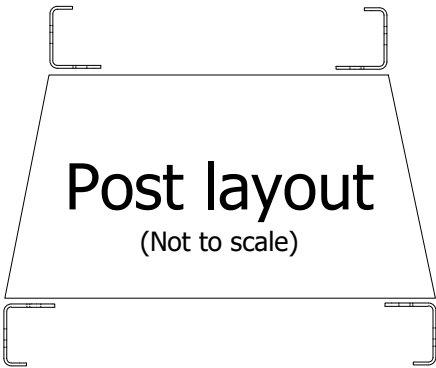


**C-Series Commercial
Platform Assembly**

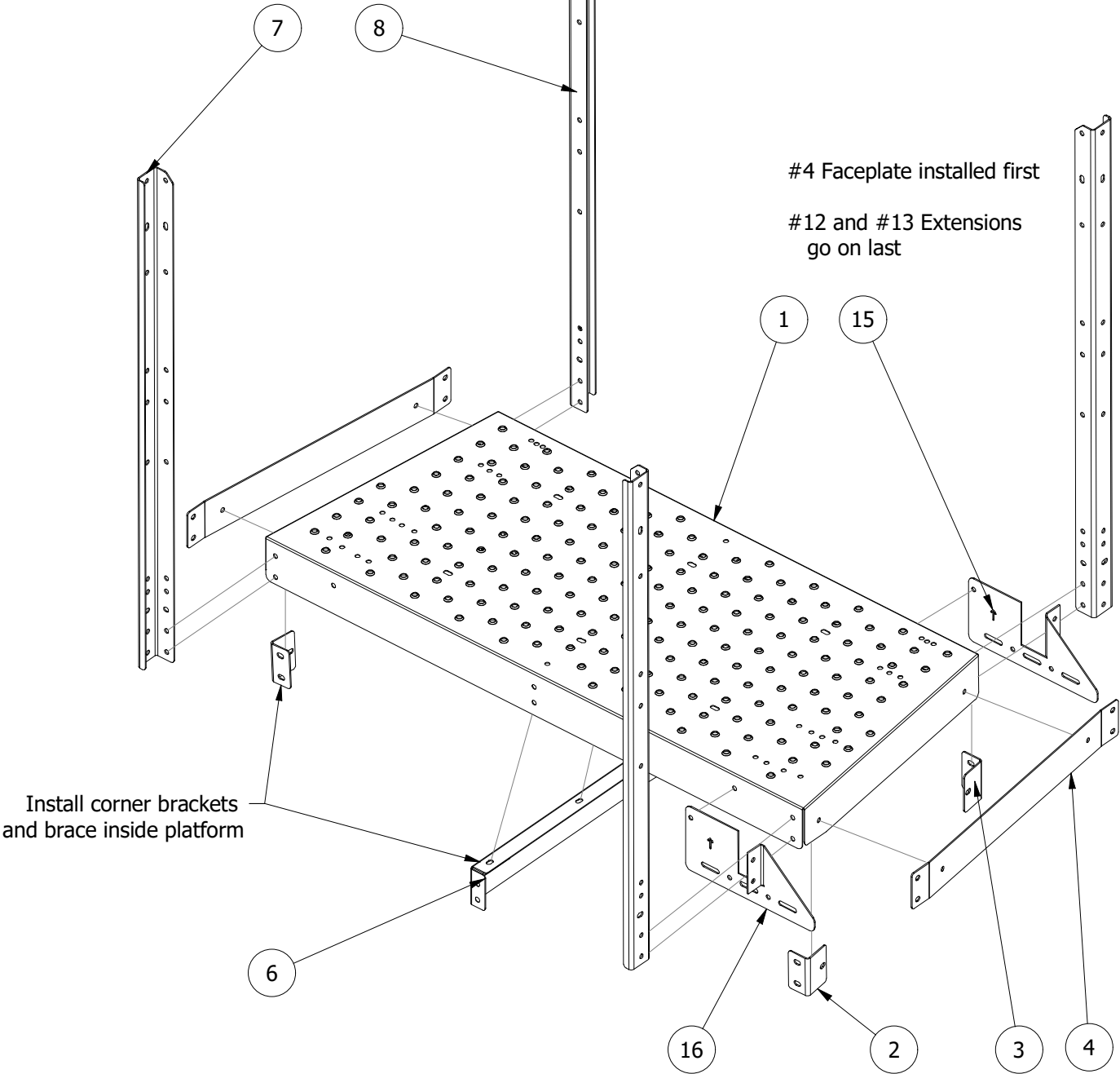


**C-Series Commercial
Platform Assembly**
3644 Posts & Brackets

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-F30001	Tread, Platform, Trapezoid 55x24
2	2	CS-40005	Bracket, Brace, Angle, Acute
3	2	CS-40006	Bracket, Brace, Angle, Obtuse
4	2	CS-34414	Bracket, Faceplate
6	1	CS-3009	Bracket, Support, Platform
7	2	CS-34500	Angle, Post, J-channel, Right
8	2	CS-34501	Angle, Post, J-channel, Left
15	1	CS-40410	Lower Stringer Extension, Right
16	1	CS-40411	Lower Stringer Extension, Left



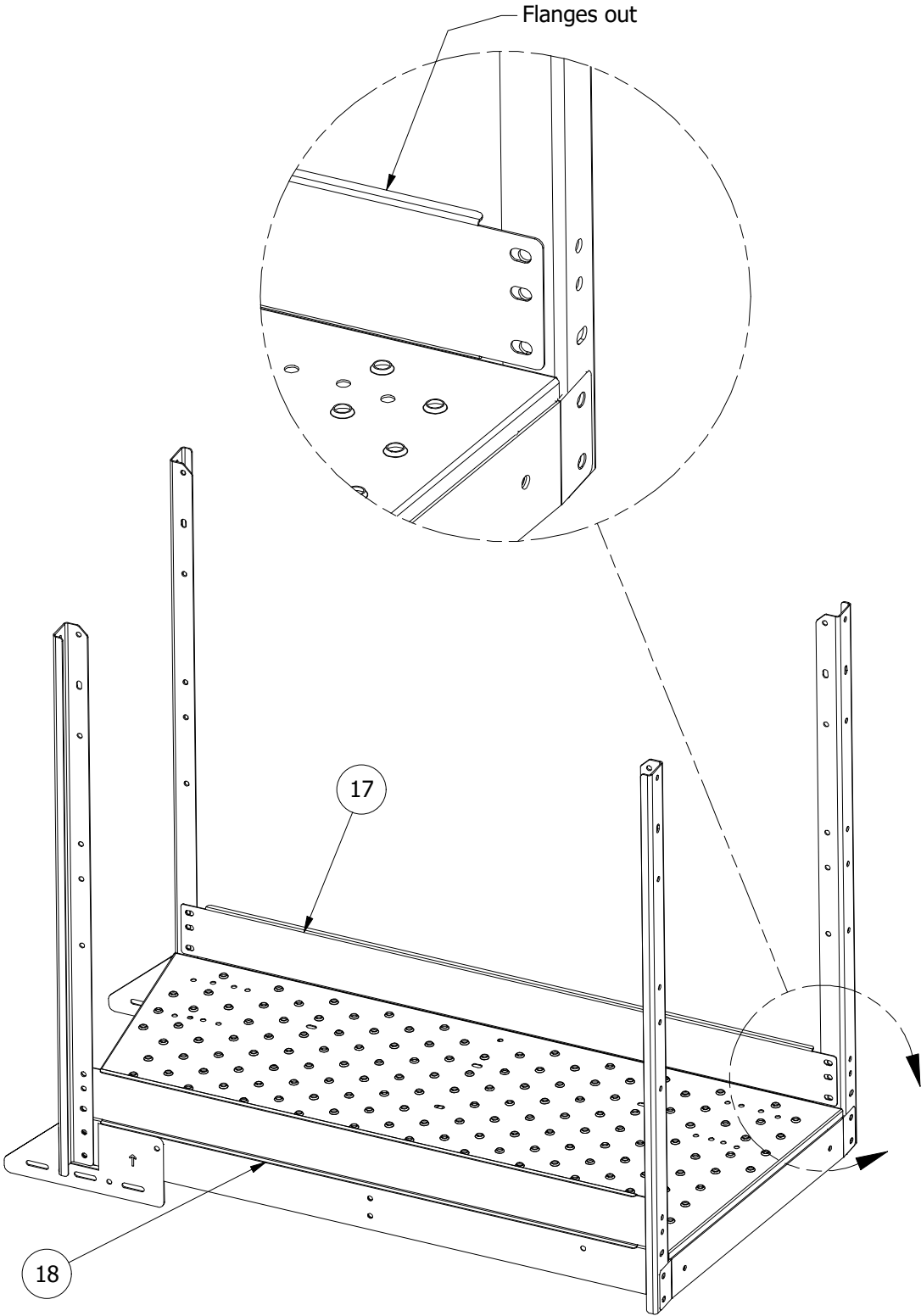
**Clockwise configuration is
depicted: mirror assembly
for Counter-Clockwise stairs**



C-Series Commercial
Platform Assembly
3644 Kickboards

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
17	1	CS-34406	Channel, Kickboard, Outside Long
18	1	CS-34407	Channel, Kickboard, Inside, Long

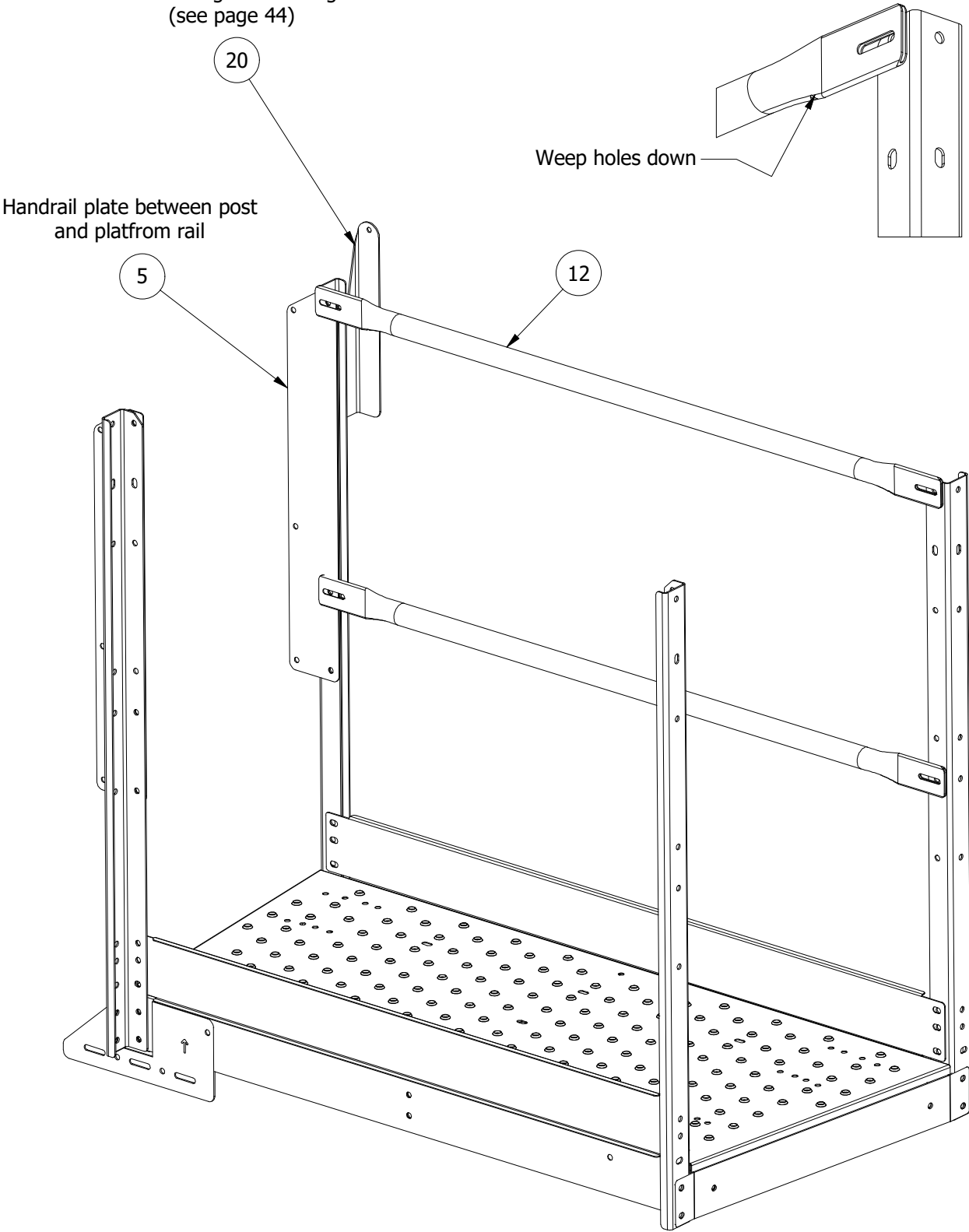
Note:
On manhole platform and rest landings, there is no end kickboard
Additionally, the top bolts should be left out of the side kickboards
to allow clearance of incoming siderails



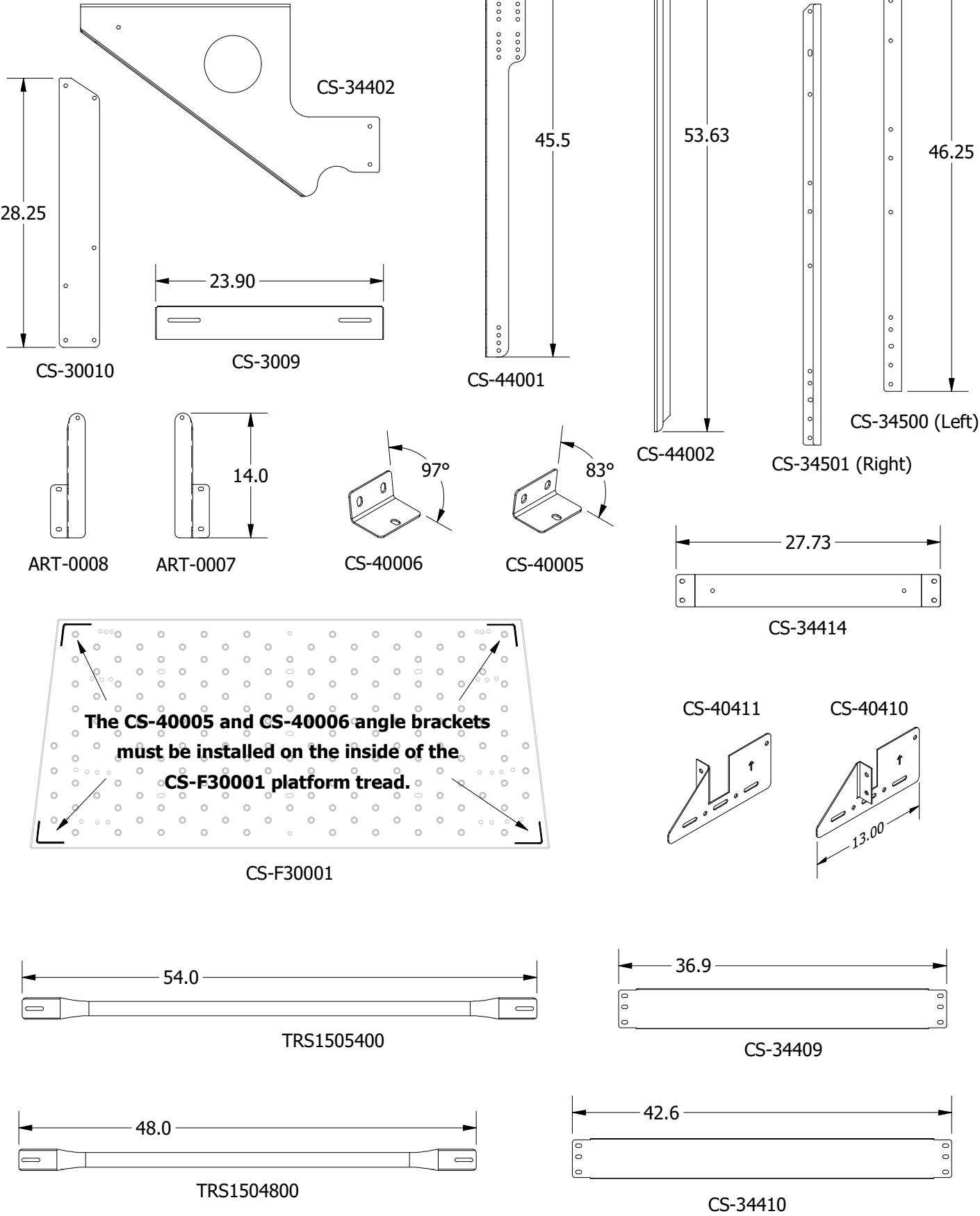
C-Series Commercial
Platform Assembly
3644 Railing

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
5	2	CS-30010	Bracket, Plate, Handrail
12	2	TRS1505400	54" long 1.5 in tube railing slotted end tabs
20	1	ART-0007	Entry Guardrail Post Right

ART-0007 and ART-0008 entry posts
may be field-drilled to set
the correct guardrail height
(see page 44)



CC3644L Long Platform
Parts ID Reference

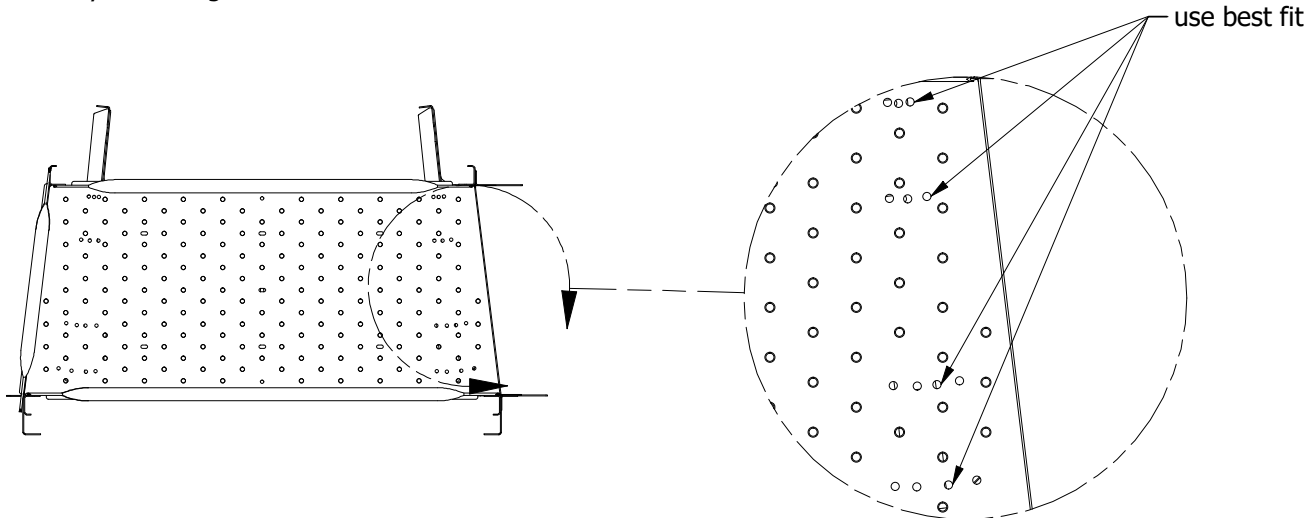


C-Series Commercial Platform Assembly

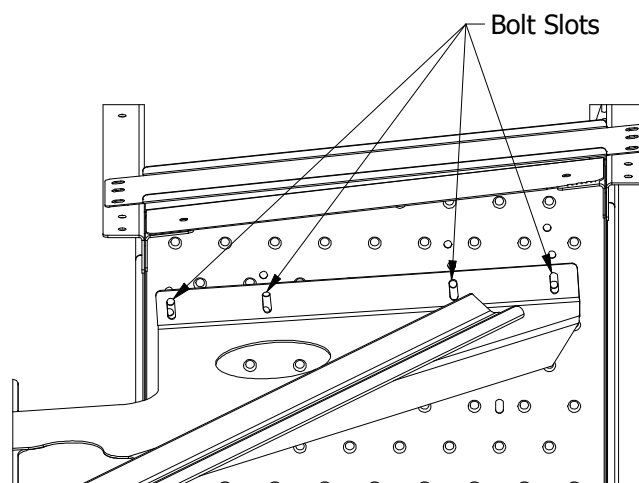
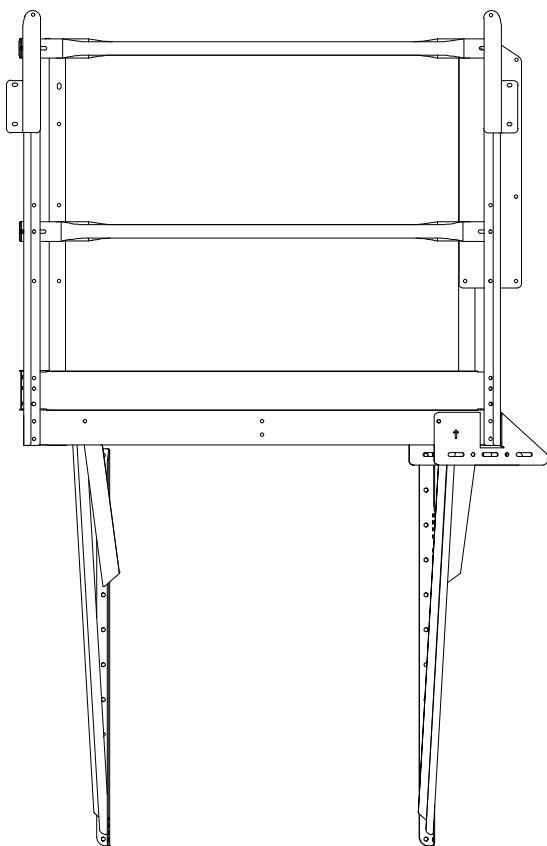
Center the platform assembly on top of the A-frame wall mounts.

Use 4 bolts to attach each wall mount plate to the platform.

Use the bolt holes in the platform that best align with the A-frame mounts, this will vary according to the bin diameter.



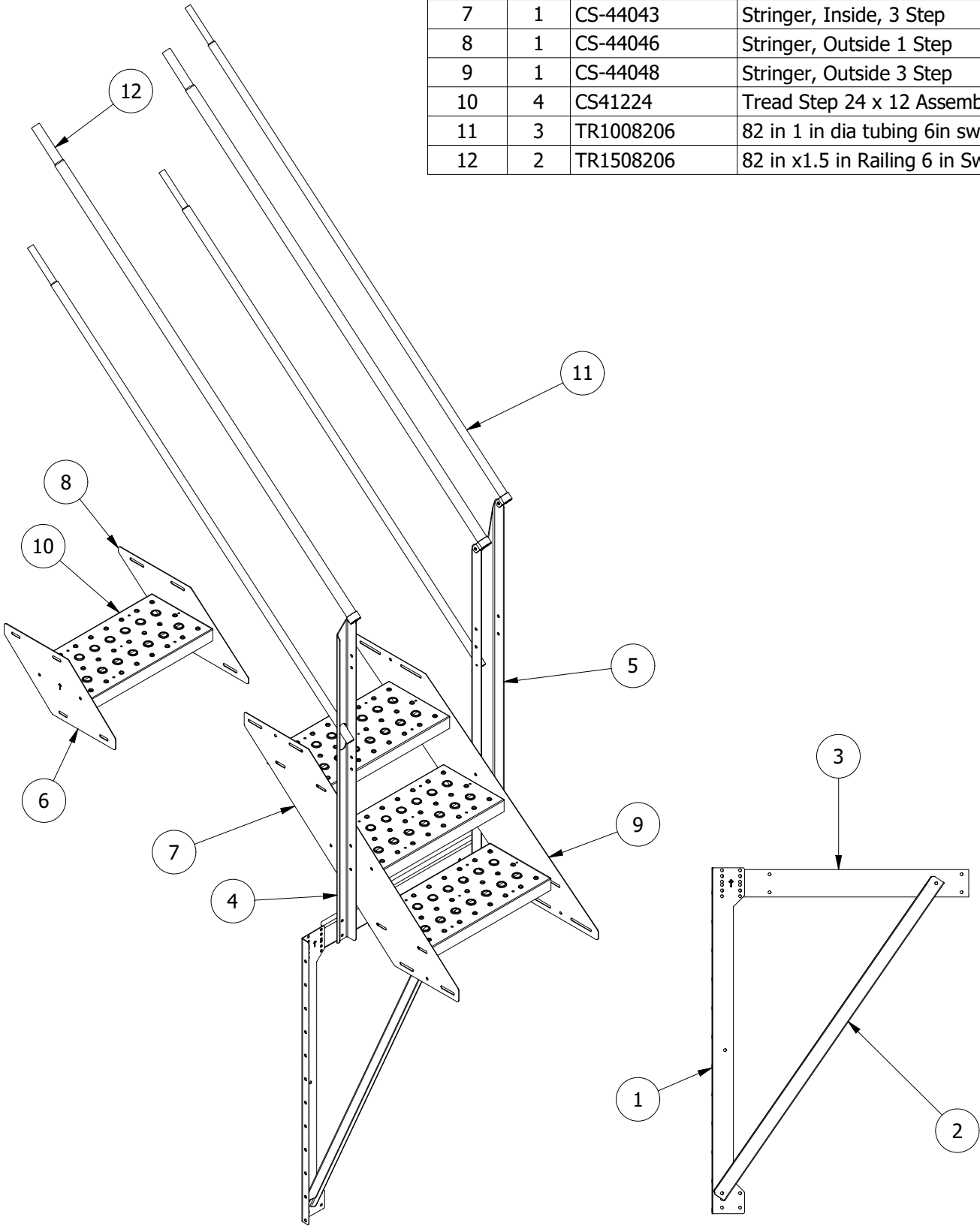
Bolt detail



Underside View of
Platform Attachment

CC4404P
C-Series Commercial 44"
1+3 Step Stair Section

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44041	Stringer, Inside, 1 Step
7	1	CS-44043	Stringer, Inside, 3 Step
8	1	CS-44046	Stringer, Outside 1 Step
9	1	CS-44048	Stringer, Outside 3 Step
10	4	CS41224	Tread Step 24 x 12 Assembly
11	3	TR1008206	82 in 1 in dia tubing 6in swage
12	2	TR1508206	82 in x1.5 in Railing 6 in Swage

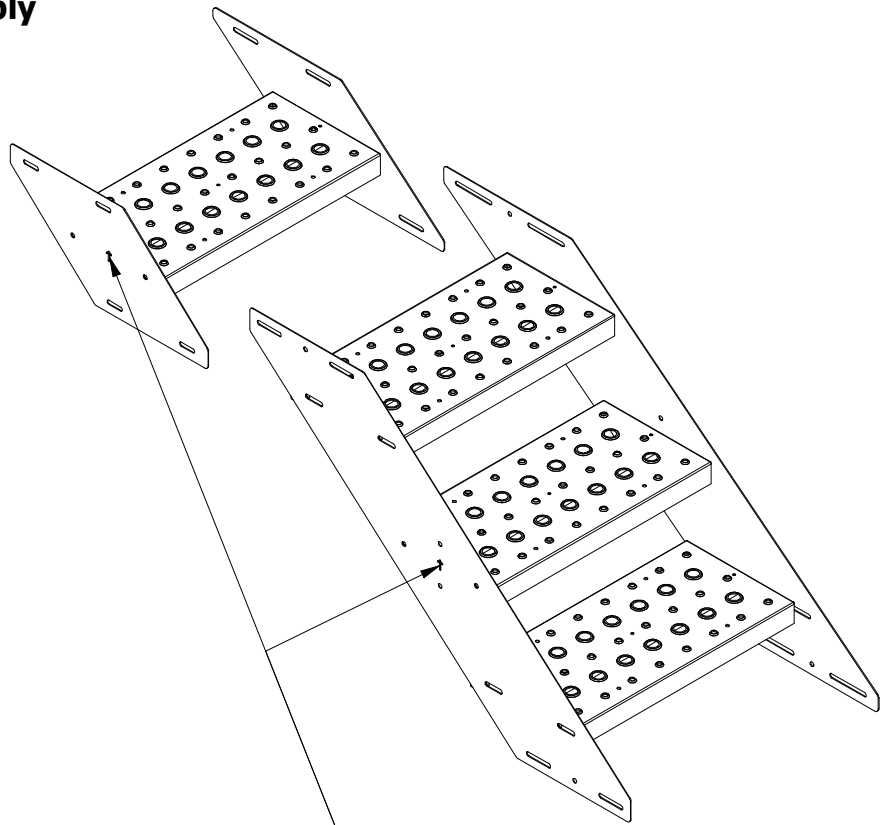


CC4404P overview of stair assembly

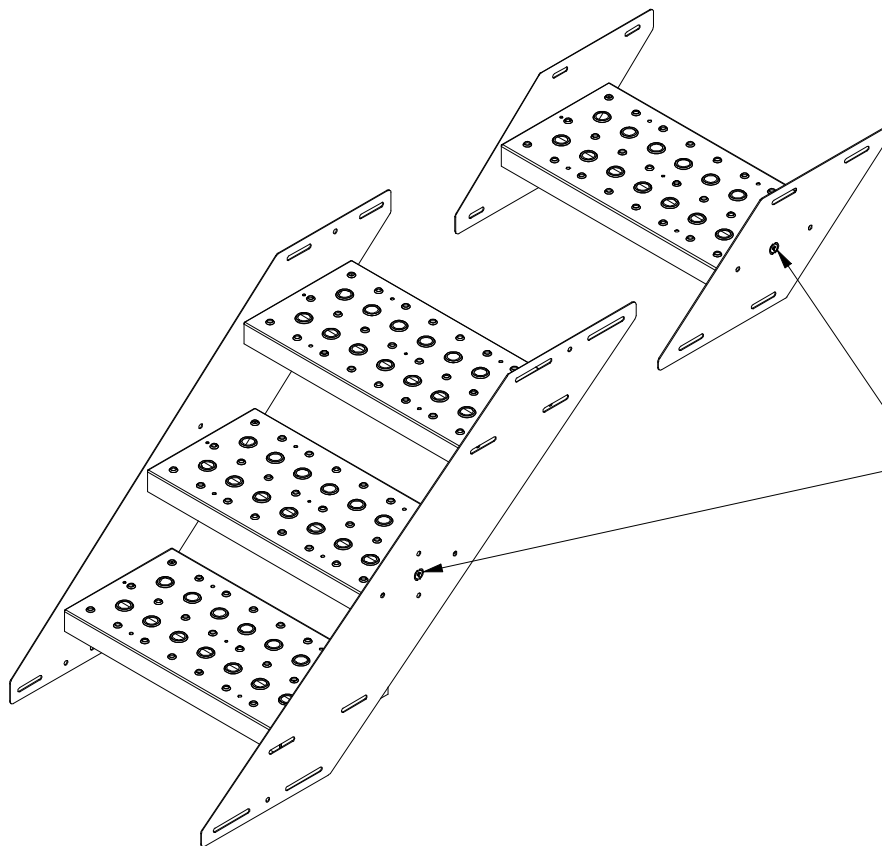
In the CC4404P stair section,
The lower 3-step uses a single siderail
inside and outside.
the upper section is also a single
siderail inside and outside.

Refer to pages 6-9 for 4-panel roof;
assemble as separate sections

Refer to pages 10-13 for 3-panel roof;
assemble as single section



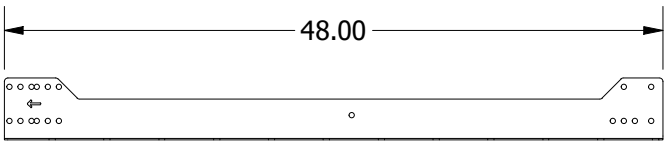
Arrow on Inside Siderails
Arrows Always Face UP



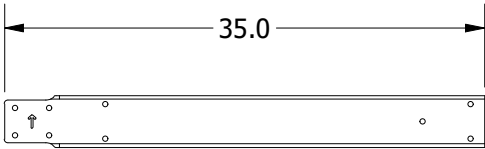
Arrow & Circle on Outside Siderails
Arrows Always Face UP



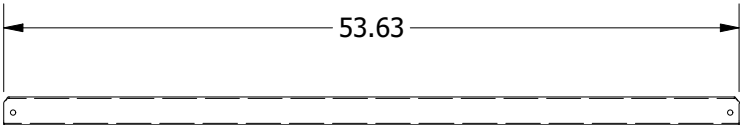
CC4404P Parts ID



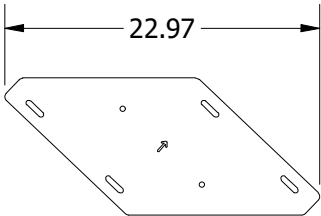
CS-44001



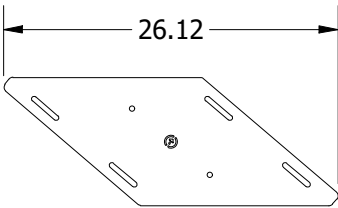
CS-40002



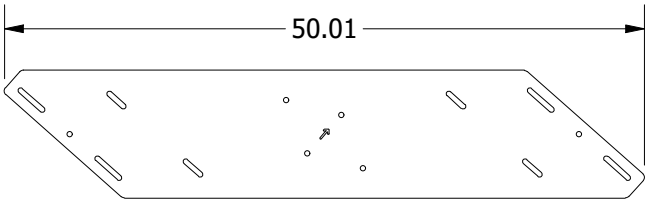
CS-44002



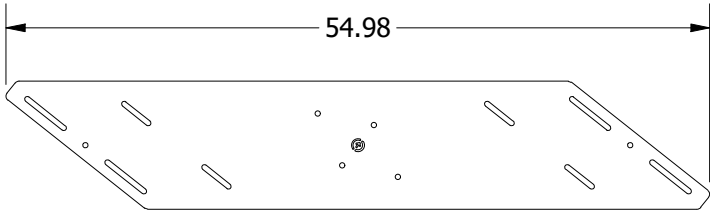
CS-44041



CS-44046



CS-44043

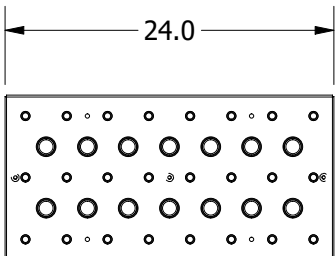


CS-44048

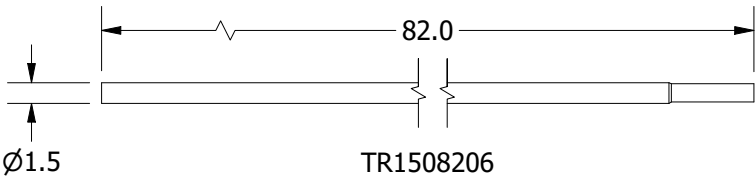


CS-40001

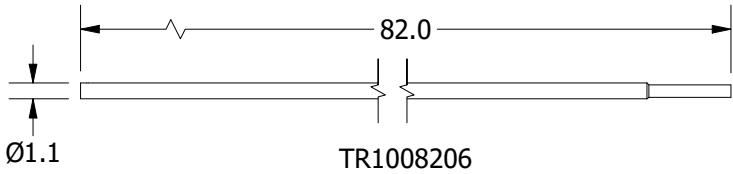
CS-40011



CS41224



TR1508206

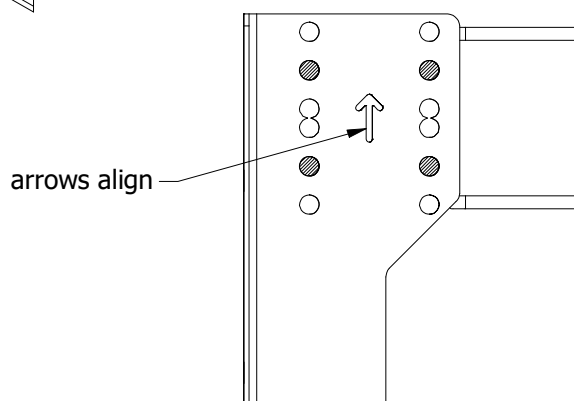
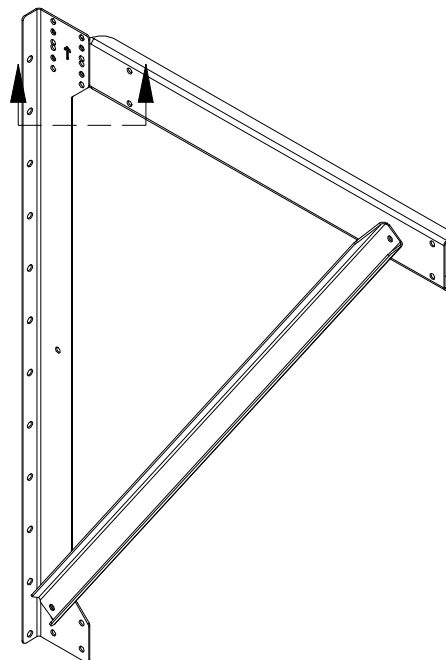
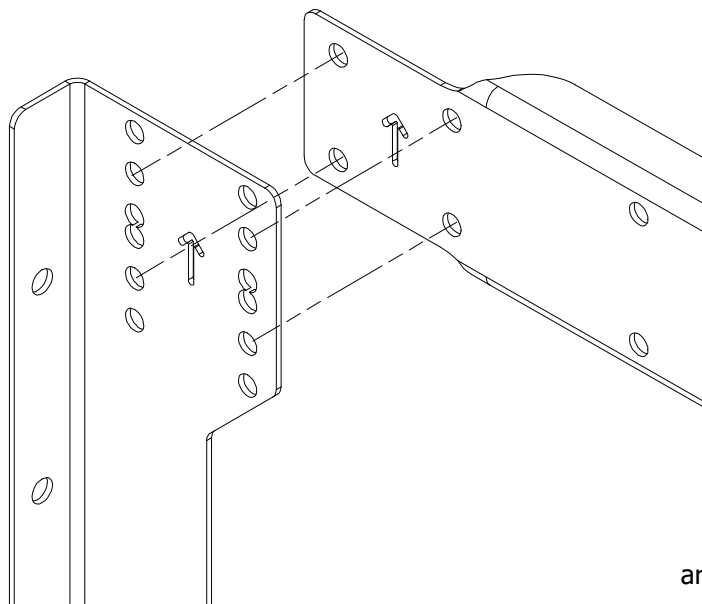


TR1008206

Stair Wall Bracket

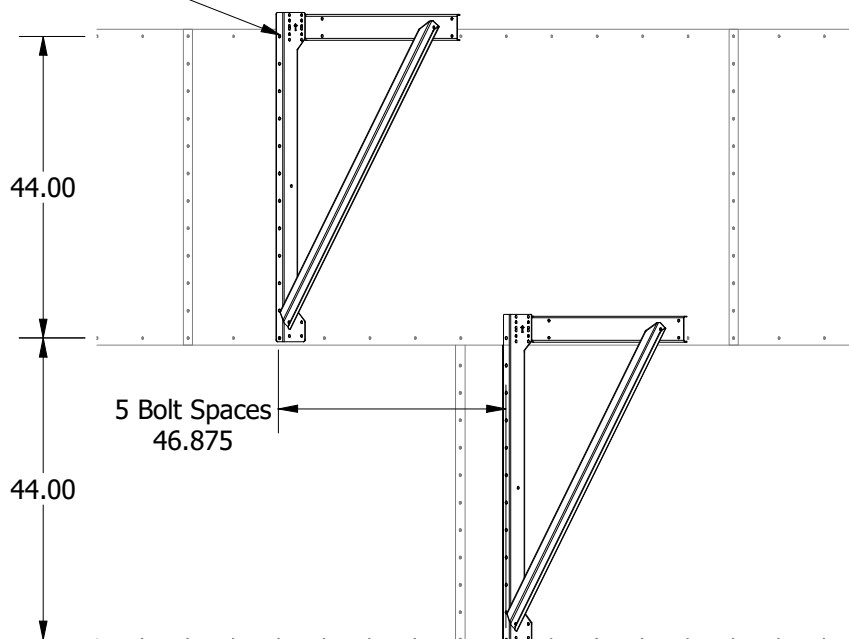
Default Position and Wall Spacing

Like the platform wall brackets, the stair wall brackets provide elevation adjustments for different stair configurations. The standard seam-to-seam placement is shown below, with the crossbar attaching to the center set of bolt holes. Use 3/8" hardware and level the crossbar before tightening down the bolts.



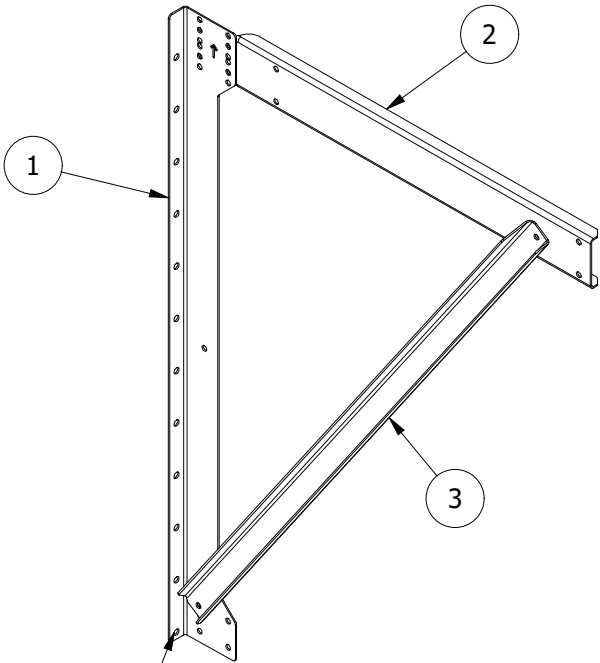
Top and Bottom Holes of
Stair Wall Bracket in the
Horizontal Seam

The horizontal spacing between the long eave platform wall brackets is 5 bolt spaces (46.875"), and is consistent the remainder of the way down the bin, unless using a rest landing.



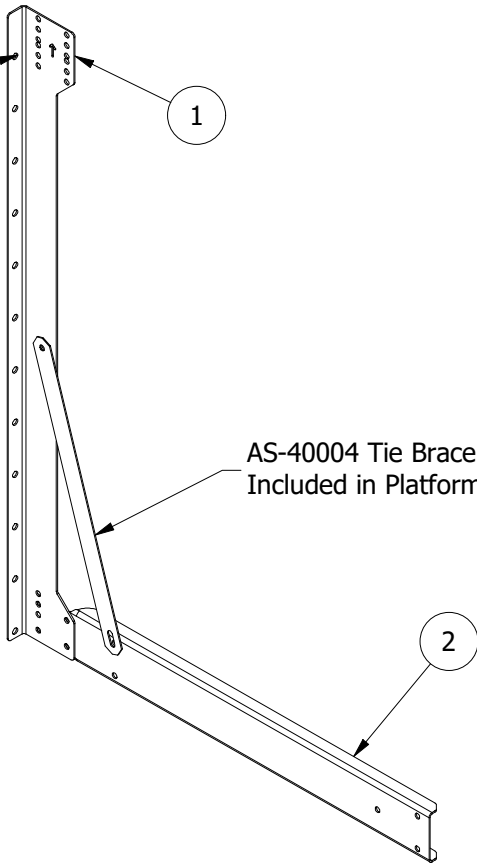
A-Frame Layouts

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-40002	Channel, Crossbar
3	1	CS-44002	Channel, Brace



Stair Run Section

Always include seal between bracket and bin sheet

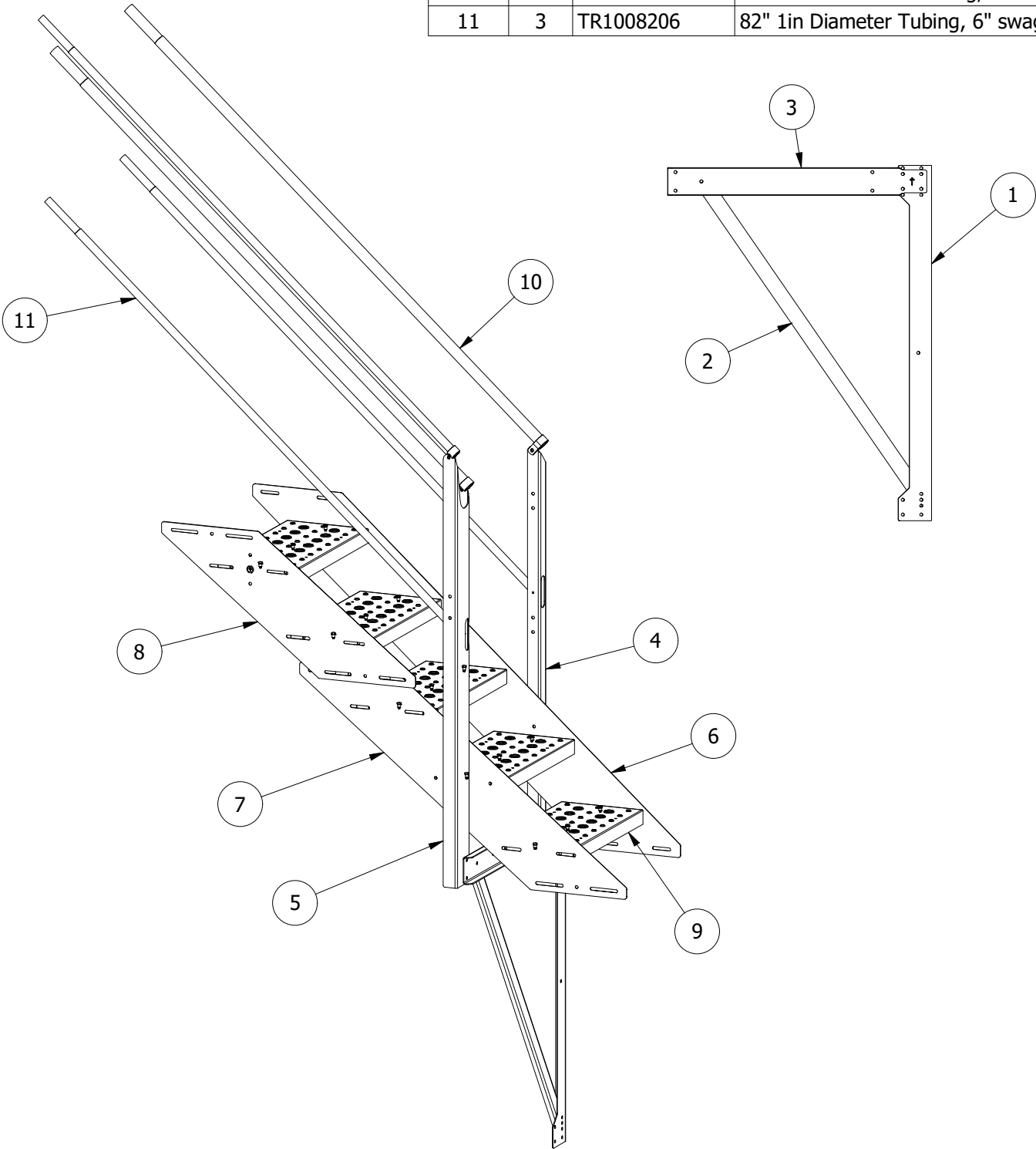


AS-40004 Tie Brace Bracket
Included in Platform Package

Bottom Stair Section
See page 45

CC4400
C-Series Commercial 44"
5-Step Stair Section

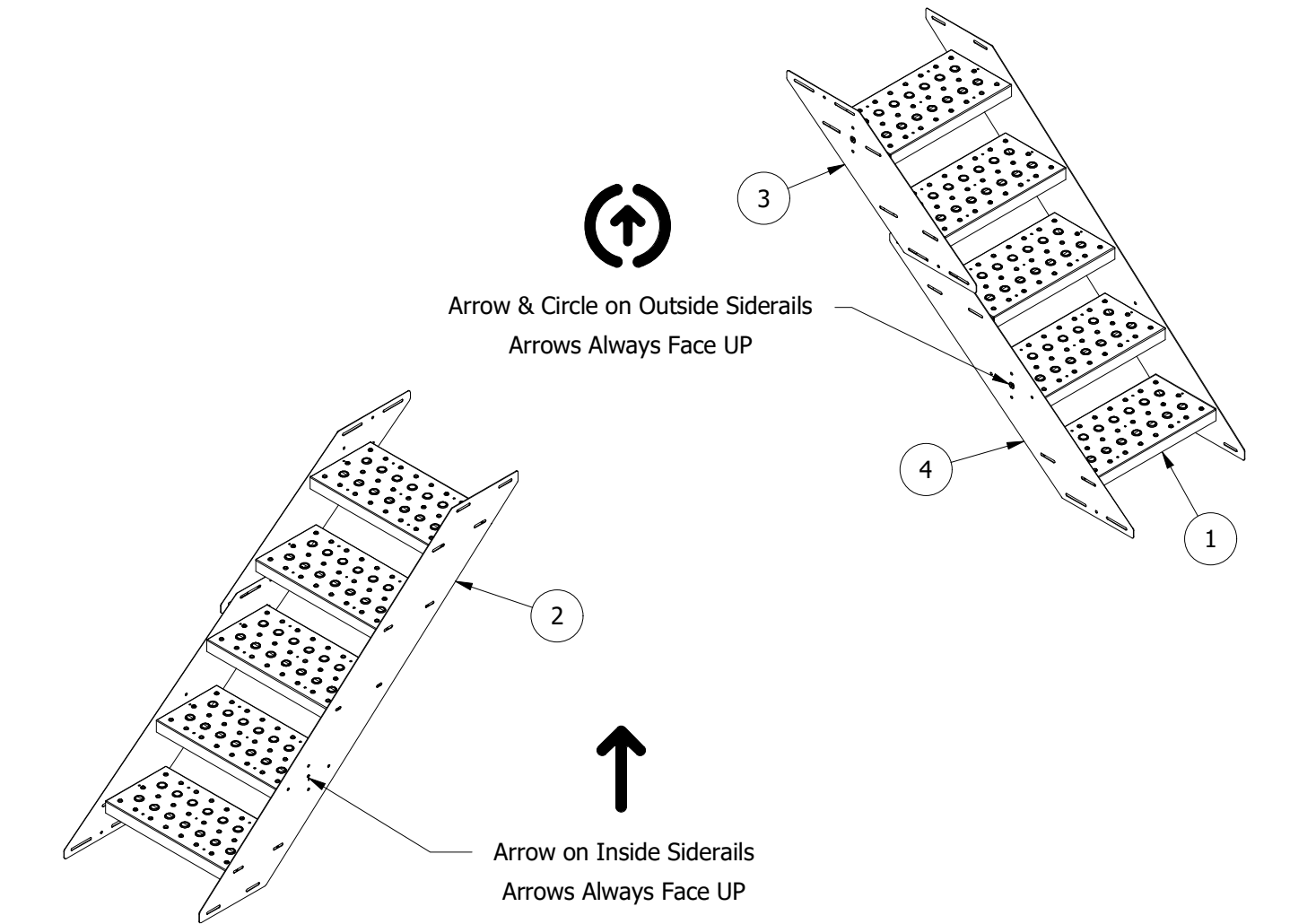
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44045	Stringer, Inside 5 Step 18-156
7	1	CS-44048 CW	Stringer, Outside 3 Step 18-105
8	1	CS-44047 CW	Stringer, Outside 2 Step 18-105
9	5	CS41224	Tread Step 24 x 12 Assembly
10	2	TR1508206	82" 1.5in Diameter Tubing, 6" swage
11	3	TR1008206	82" 1in Diameter Tubing, 6" swage



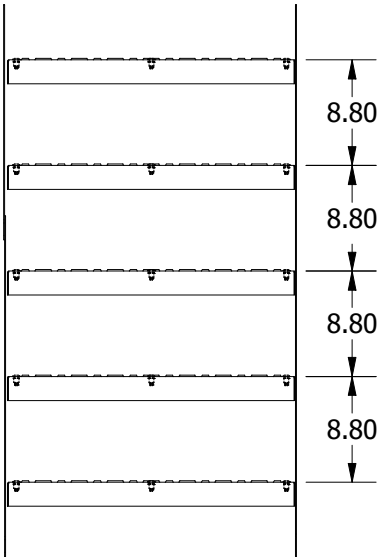
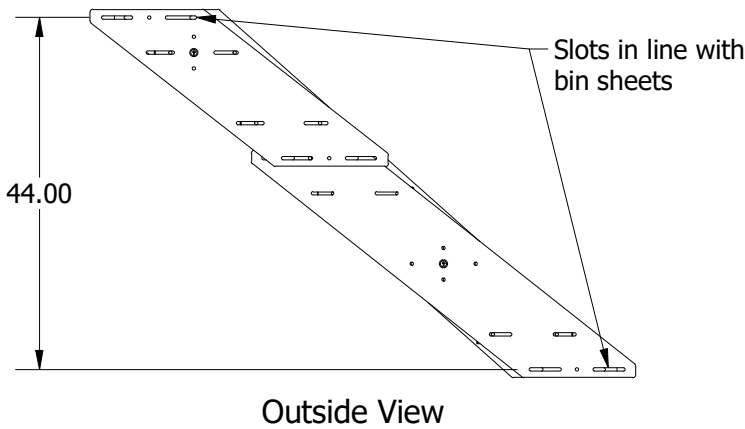
CC4400 **Commercial 44"** **5-Step Stair Section**

On the CC4400 stair section, the inside siderail is a one piece 5-step, the outside siderail is a two piece, 3-step and 2-step.

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	5	CS41224	Tread Step 24 x 12 Assemble
2	1	CS-44045	Siderail, Inside, 5 Step
3	1	CS-44047	Siderail, Outside, 2 Step
4	1	CS-44048	Siderail, Outside, 3 Step



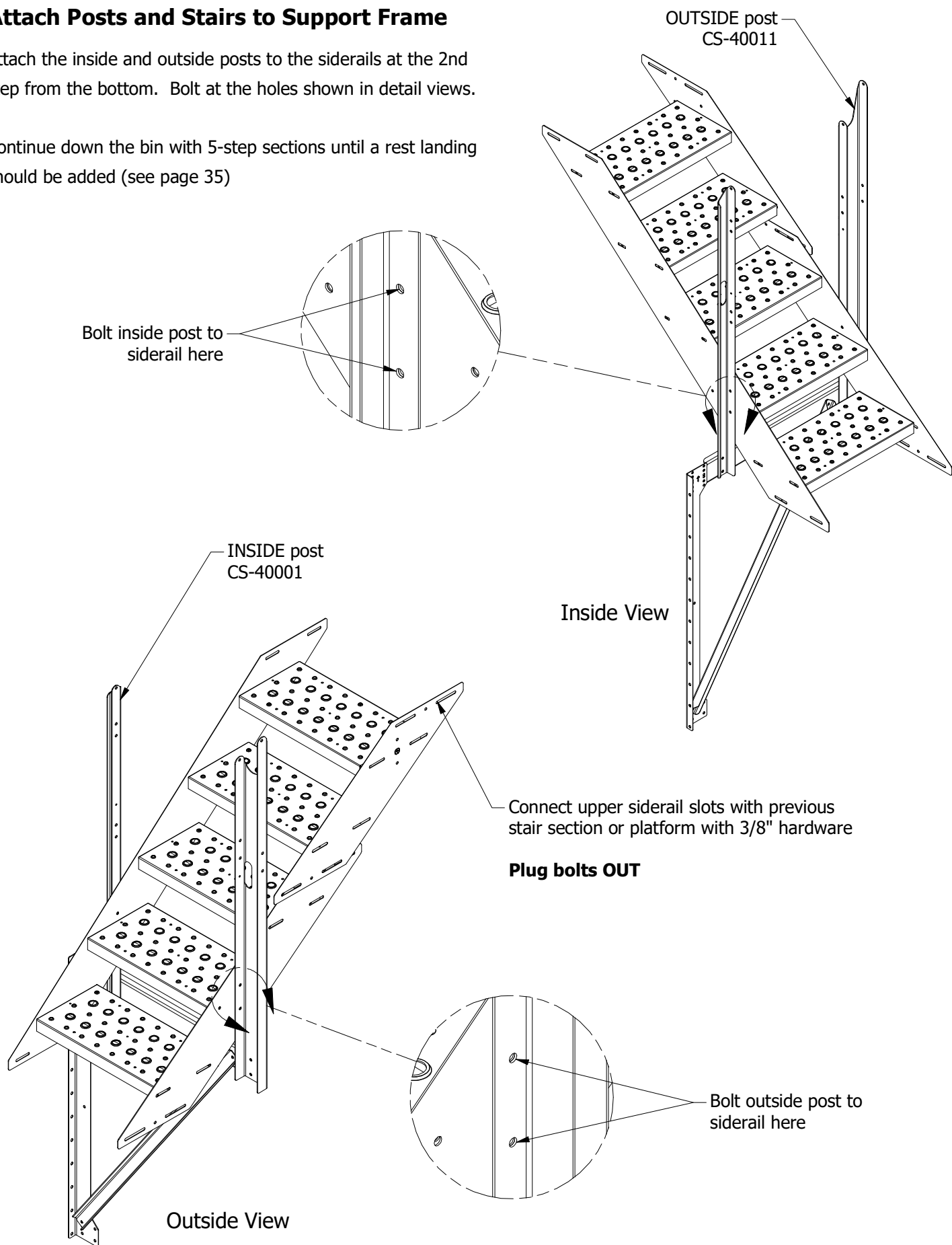
The step rise is 8.8".
 The top and bottom slots of the siderails should stay in line with the seams of the 44" bin sheets.



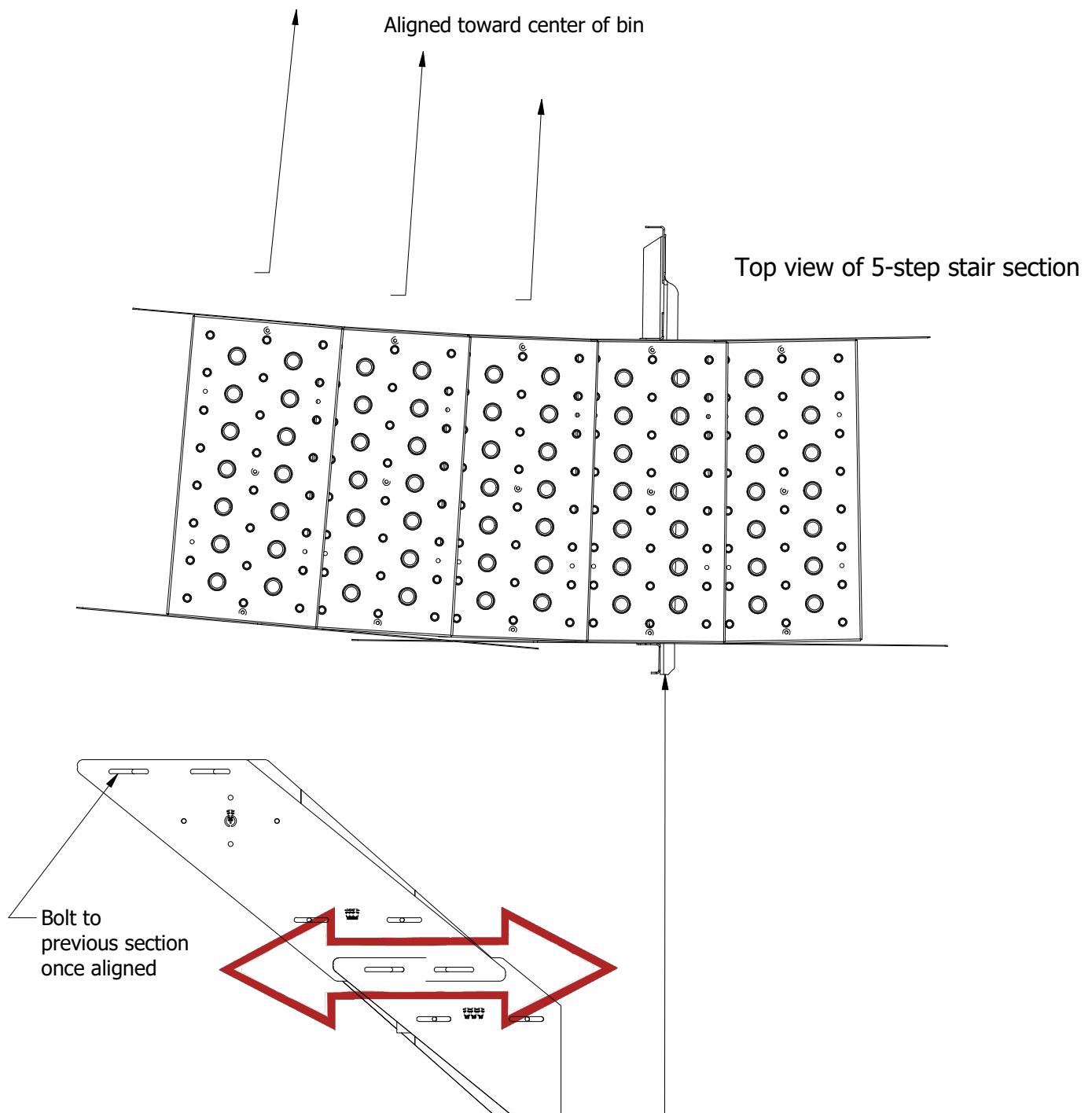
Attach Posts and Stairs to Support Frame

Attach the inside and outside posts to the siderails at the 2nd step from the bottom. Bolt at the holes shown in detail views.

Continue down the bin with 5-step sections until a rest landing should be added (see page 35)



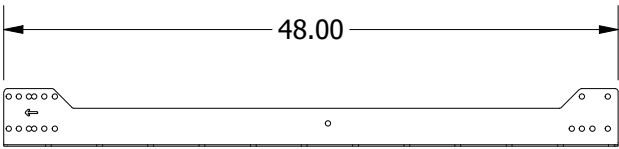
Correct Alignment of Stair Components



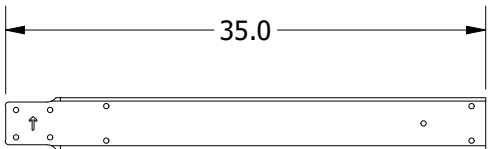
The Slotted Siderail system is designed to fit a range of bin diameters.

Before the stair section bolts are tightened all the way, some adjustment should be made to "fan" the steps and align the A-frames along the radial from the bin center.

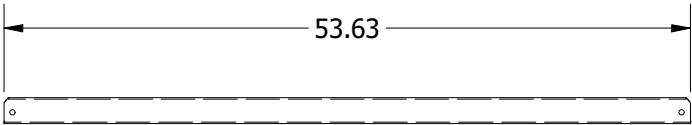
CC4400 Parts ID



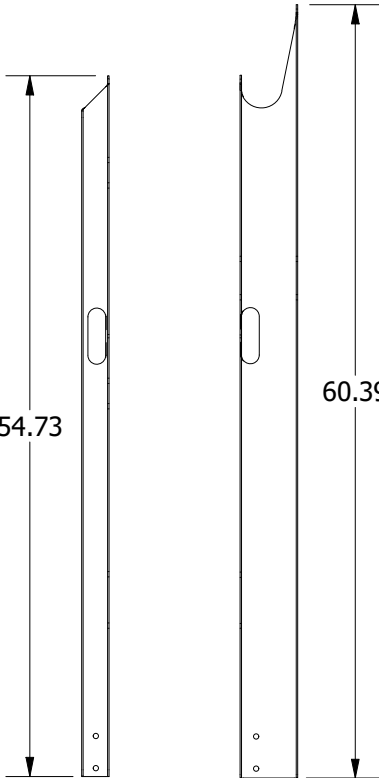
CS-44001



CS-40002

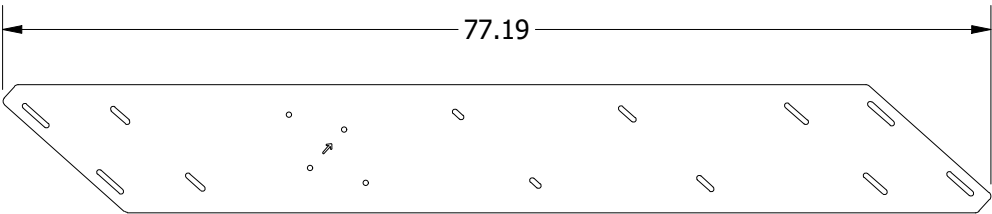


CS-44002

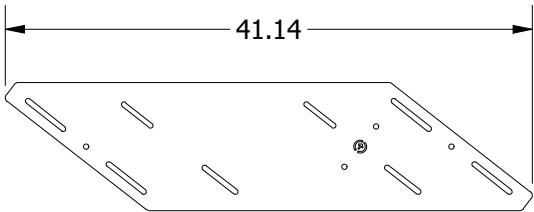


CS-40001

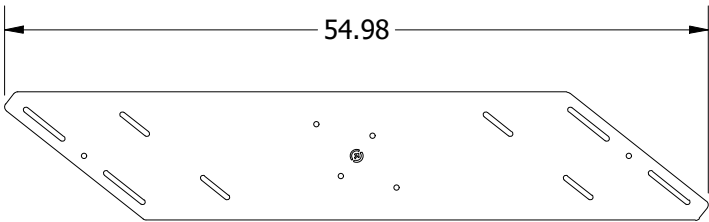
CS-40011



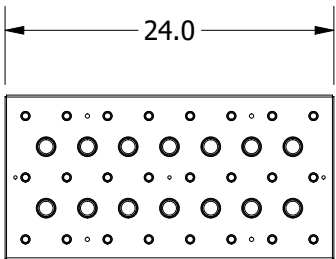
CS-44045



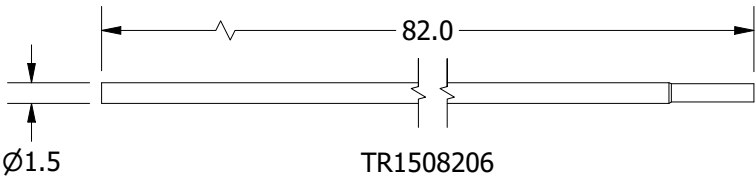
CS-44047



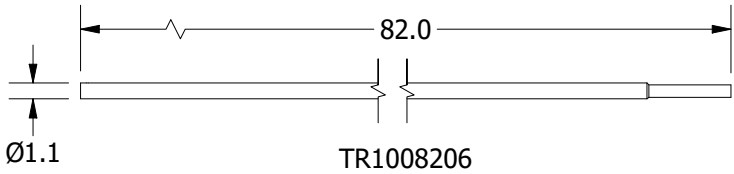
CS-44048



CS41224



TR1508206



TR1008206

Wall Bracket Bolt Spacing

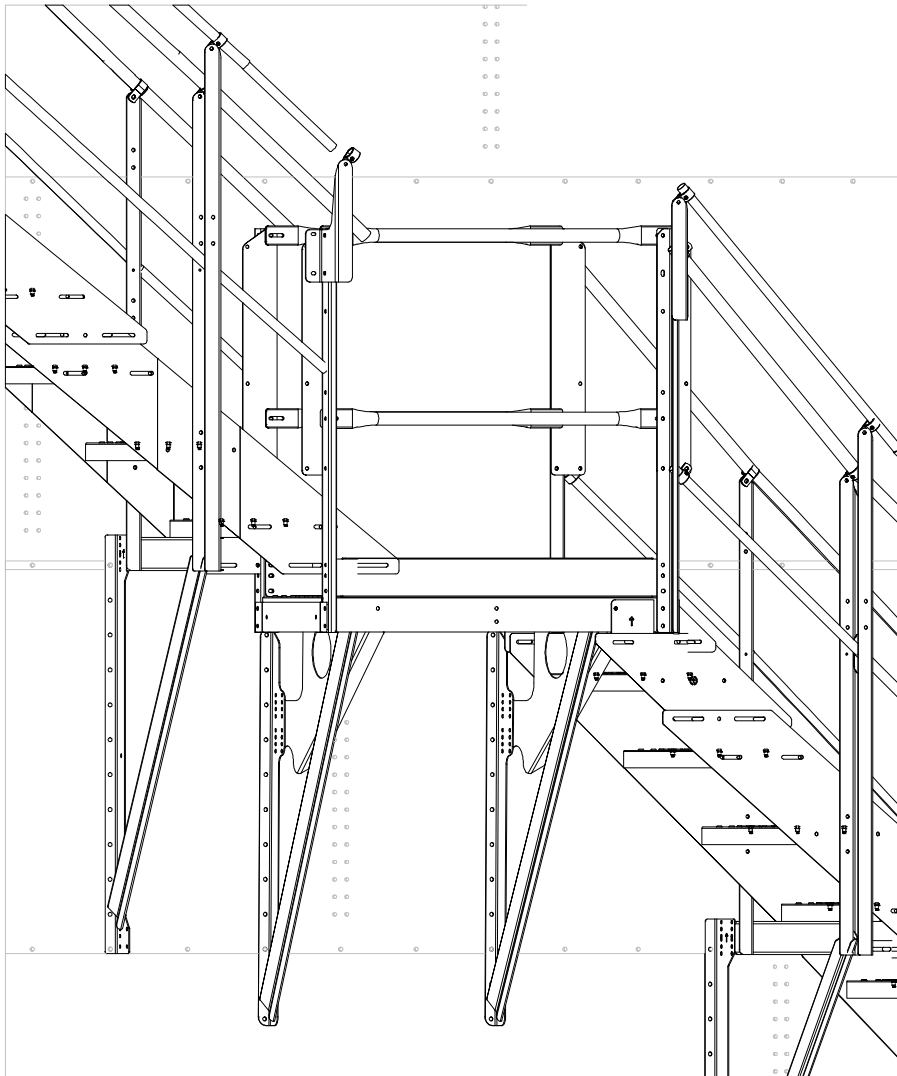
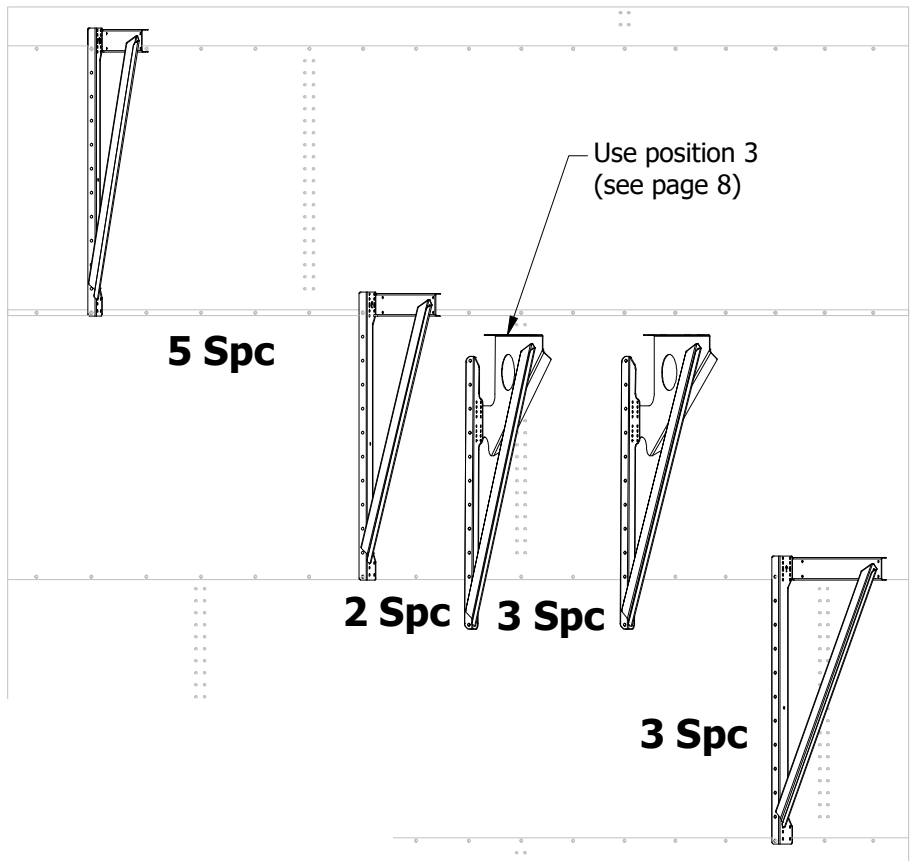
CC3644S Short Rest Landing Platform

For the brackets supporting a rest landing CC3644S (shown below), there is a progression of 5 spaces, 2 spaces, 3 spaces, 3 spaces. The layout then returns to 5 bolt spaces between each wall bracket.

Rest landings should be installed every 6th ring, or evenly divided over total rings after top platforms.

Example:
CC422 includes 3 rest landings for 22 rings.
Subtract 1 ring for top platforms and divide by 3.
 $21/3 = 7$ rings

see table on page 47



Completed platform and handrail detail

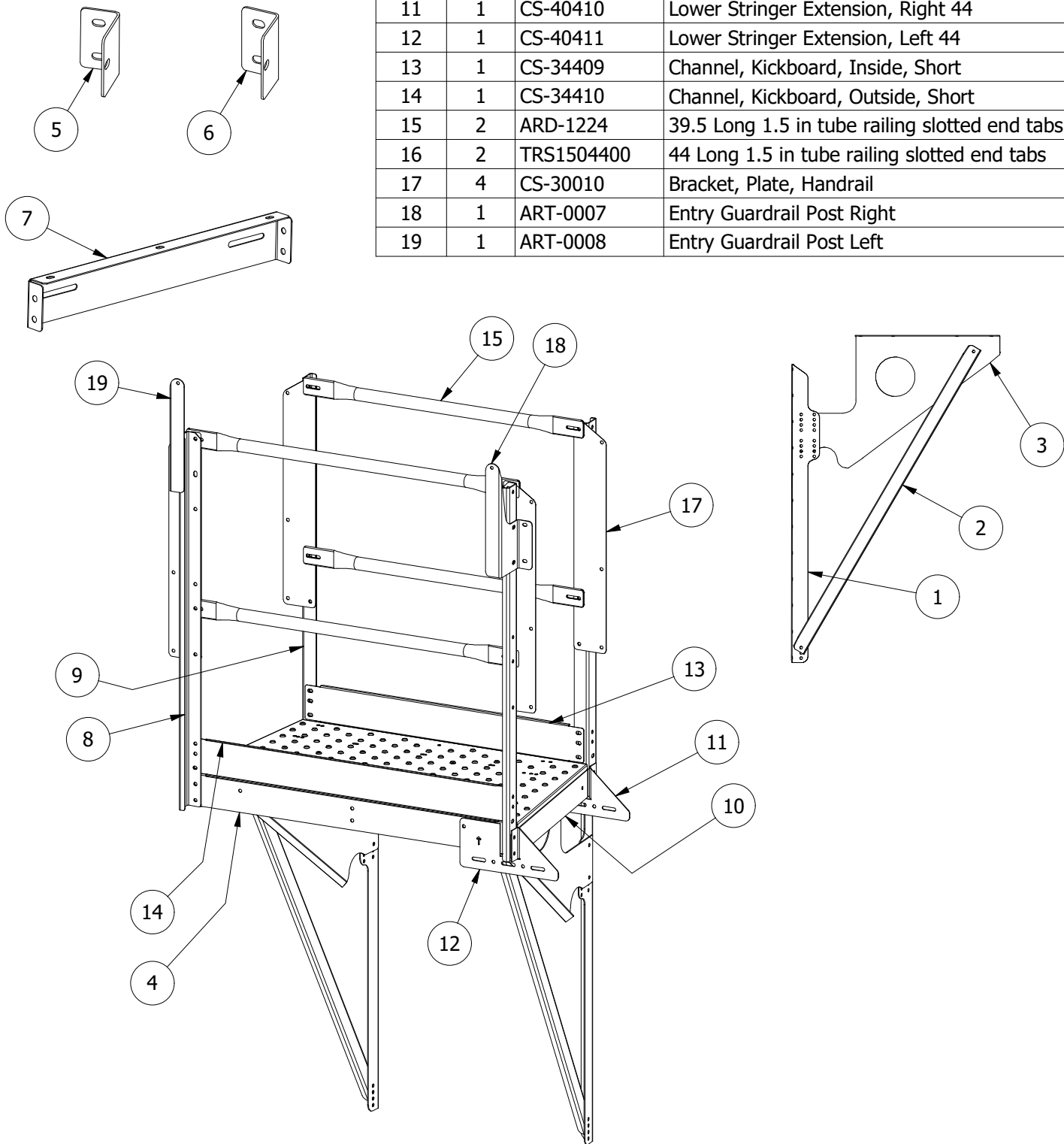
CC3644S
C-Series Commercial 44"
Short Platform

Rest Landing

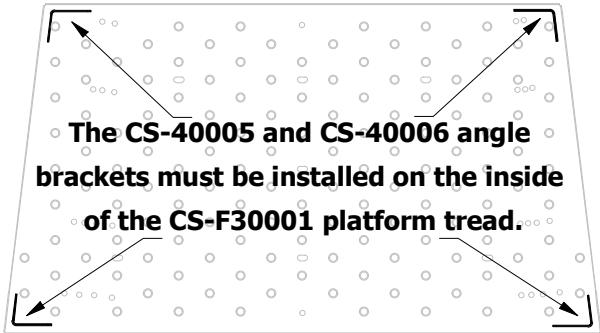
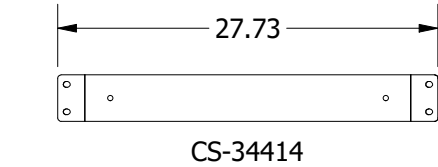
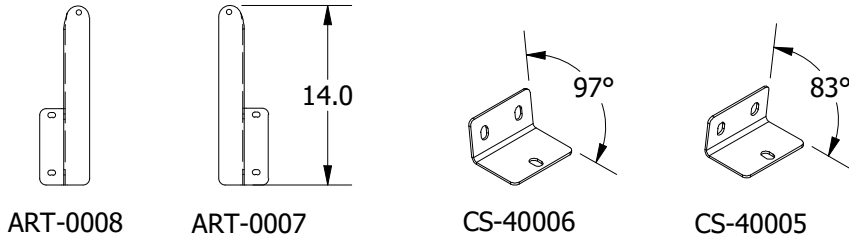
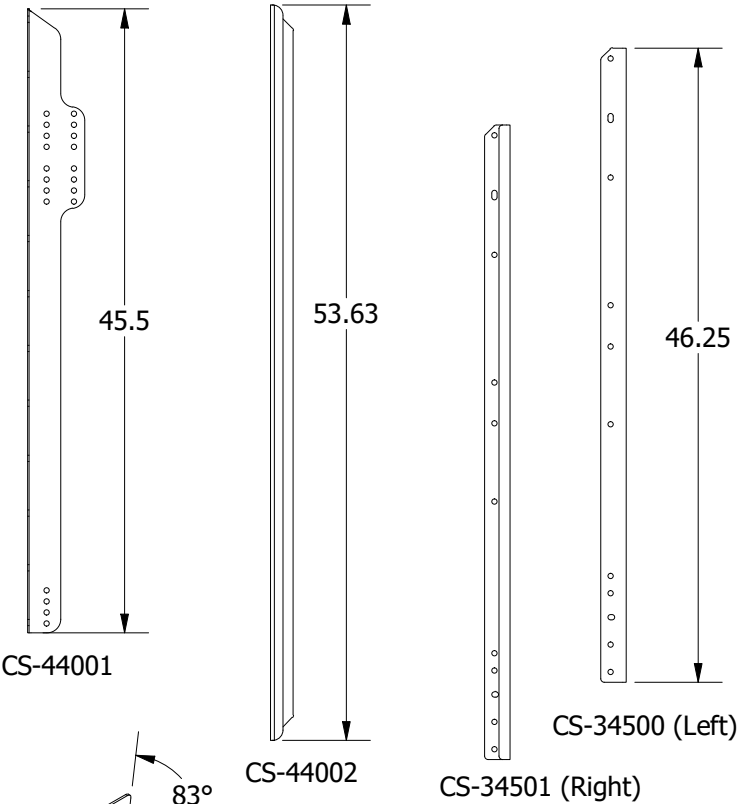
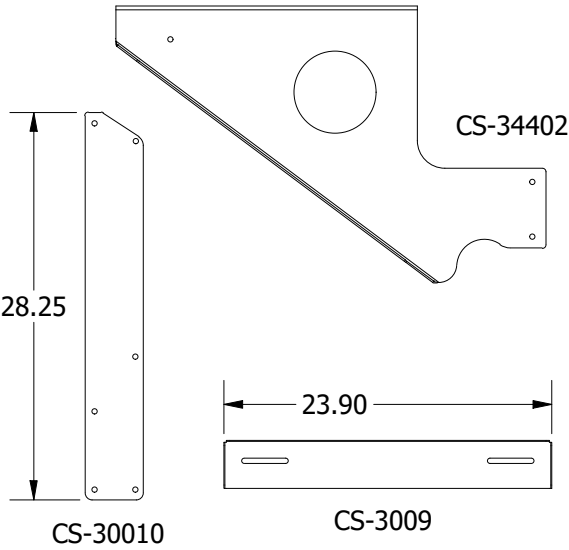
Refer to page 20 and repeat instruction process with these components.

Install a rest landing every 6th ring, or divided evenly among the remaining rings after the top platforms

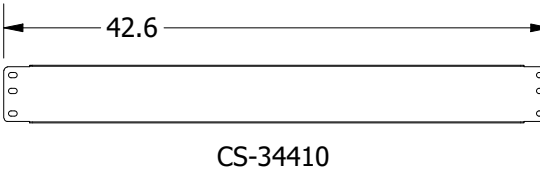
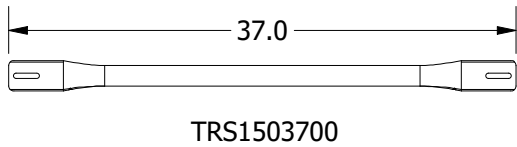
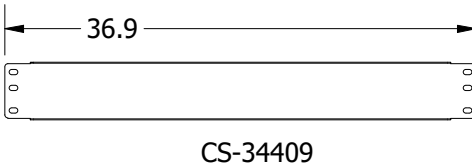
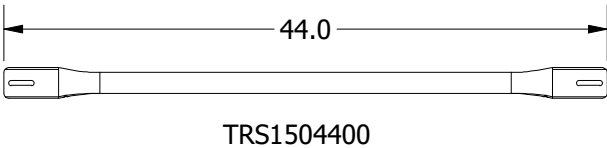
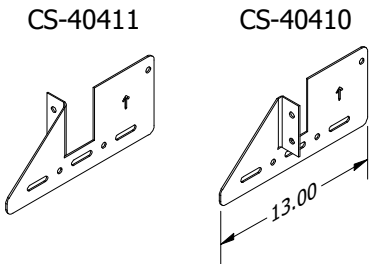
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-34402	Brace, Plate, Platform
3	2	CS-44002	Channel, Brace, 44
4	1	CS-F30002	Tread, platform, Short, Trapezoid 44x24
5	2	CS-40005	Bracket, Brace, Acute
6	2	CS-40006	Bracket, Brace, Obtuse
7	1	CS-3009	Bracket, Support, Platform
8	2	CS-34500	Angle, Post, J-channel, Right
9	2	CS-34501	Angle, Post, J-channel, Left
10	2	CS-34414	Bracket, Faceplate
11	1	CS-40410	Lower Stringer Extension, Right 44
12	1	CS-40411	Lower Stringer Extension, Left 44
13	1	CS-34409	Channel, Kickboard, Inside, Short
14	1	CS-34410	Channel, Kickboard, Outside, Short
15	2	ARD-1224	39.5 Long 1.5 in tube railing slotted end tabs
16	2	TRS1504400	44 Long 1.5 in tube railing slotted end tabs
17	4	CS-30010	Bracket, Plate, Handrail
18	1	ART-0007	Entry Guardrail Post Right
19	1	ART-0008	Entry Guardrail Post Left



CC3644S Short Platform
Parts ID Reference

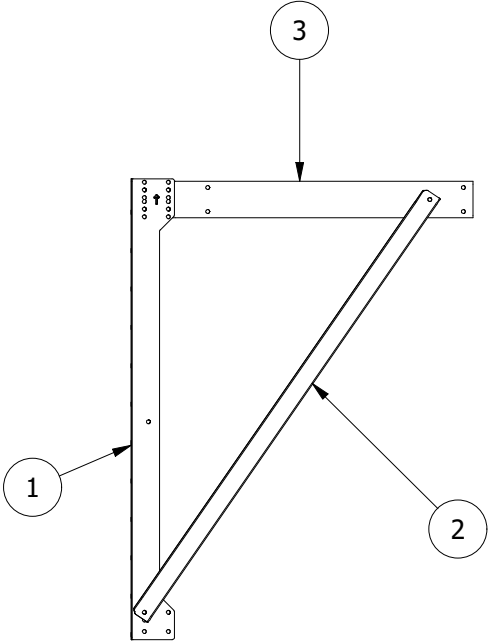
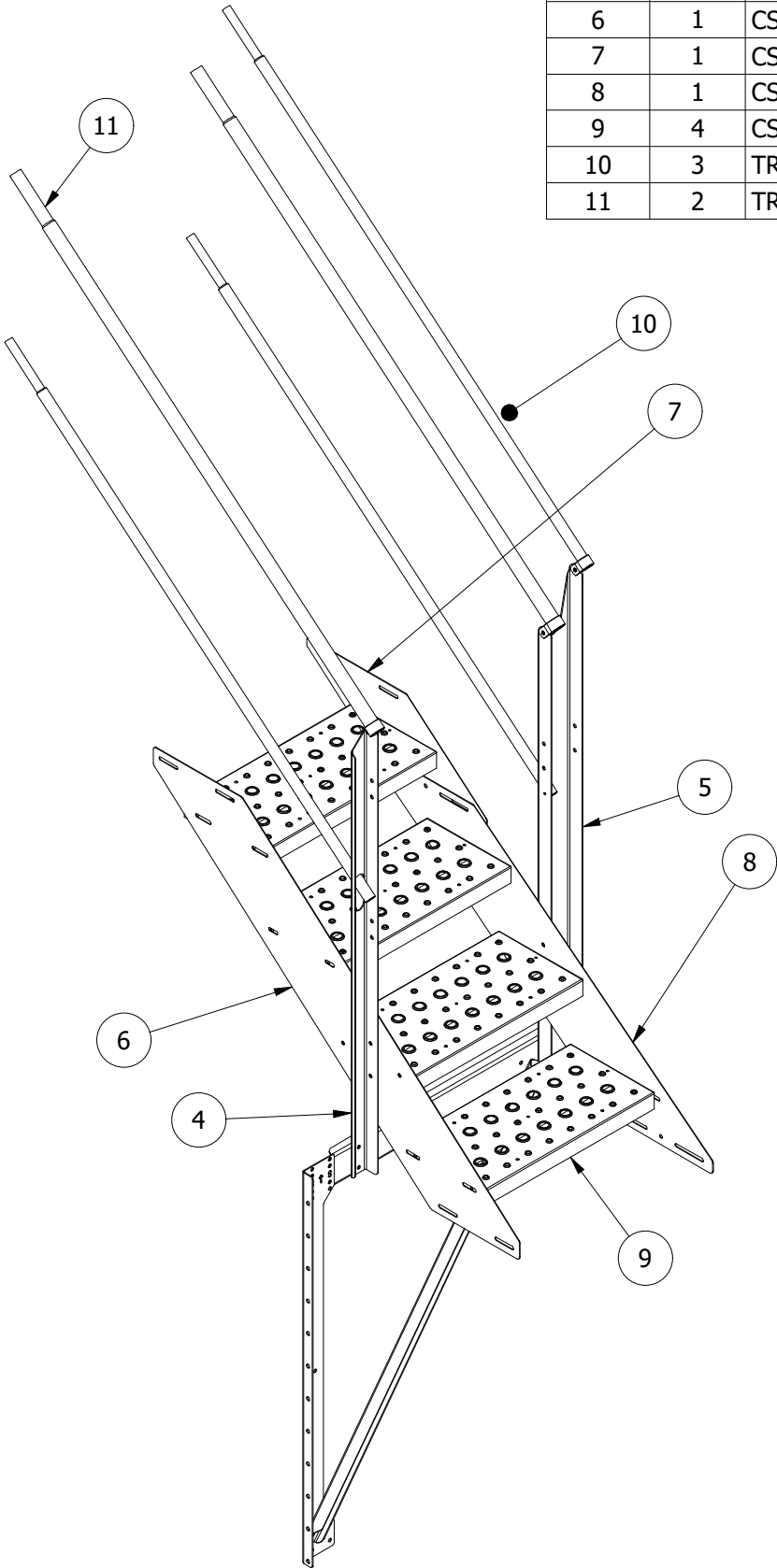


CS-F30002



CC4404
C-Series Commercial 44"
4-Step Stair Section

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44044	Stringer, Inside, 4 Step
7	1	CS-44046	Stringer, Outside 1 Step
8	1	CS-44048	Stringer, Outside 3 Step
9	4	CS41224	Tread Step 24 x 12 Assembly
10	3	TR1006706	67 in 1 in dia tubing 6in swage
11	2	TR1506706	67 in x1.5 in Railing 6 in Swage



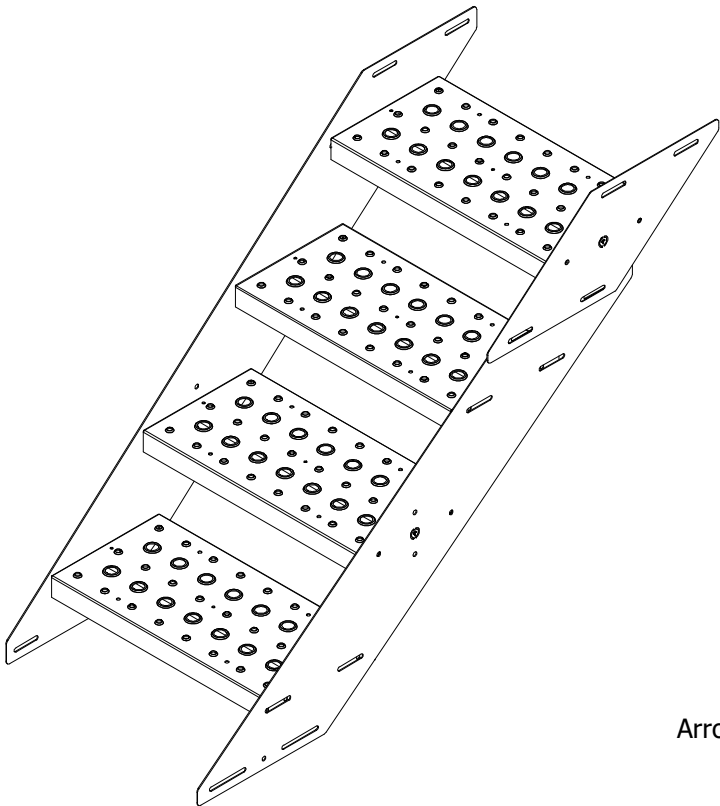
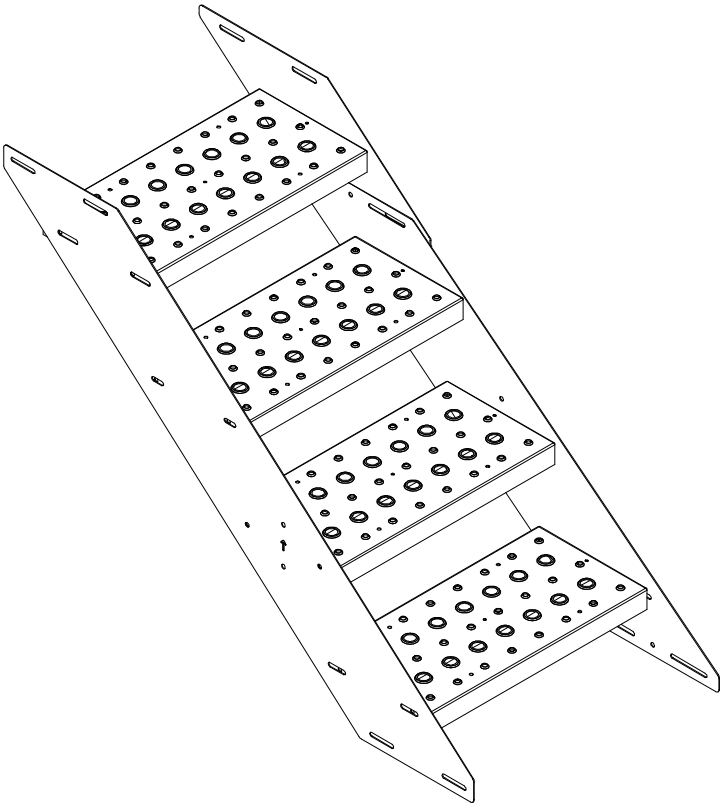
**CC4404 C-Series
Commercial 44"
4 Step Stair Section**

On the CC4404 stair section,
the inside siderail is a one piece 4-step,
the outside siderail is a two piece, 3-step and 1-step.

This section is used with each rest landing,
see page 35

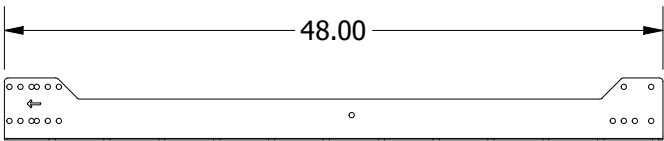


Arrow on Inside Siderails
Arrows Always Face UP

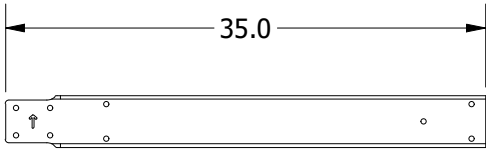


Arrow & Circle on Outside Siderails
Arrows Always Face UP

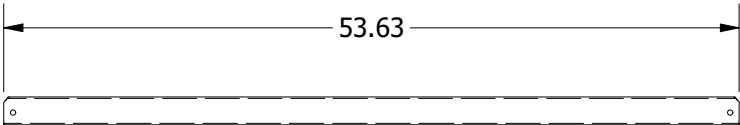
CC4404 Parts ID



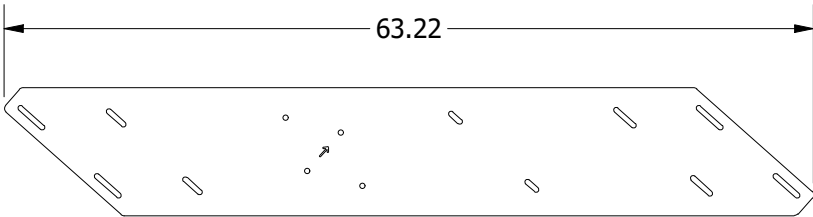
CS-44001



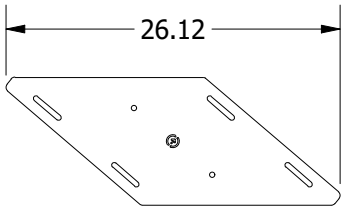
CS-40002



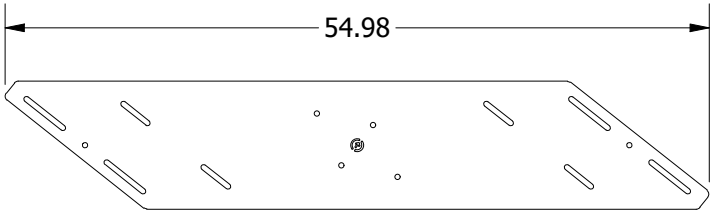
CS-44002



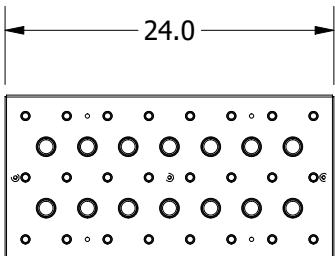
CS-44044



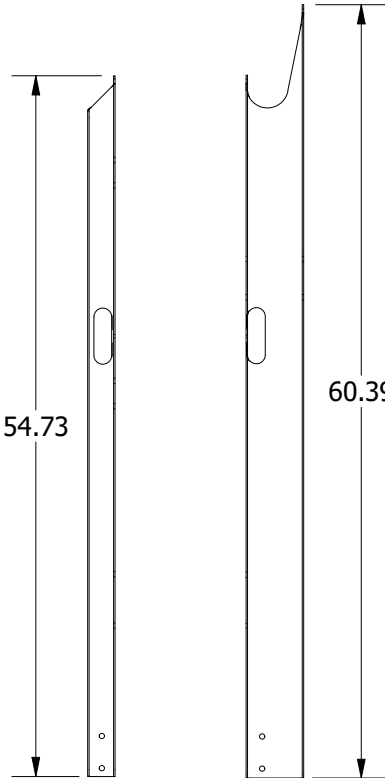
CS-44046



CS-44048

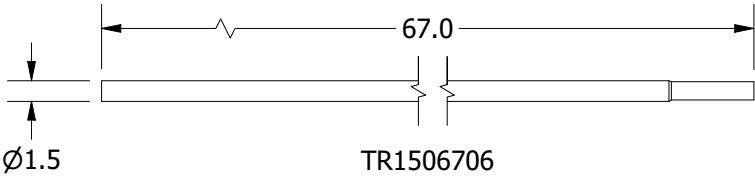


CS41224

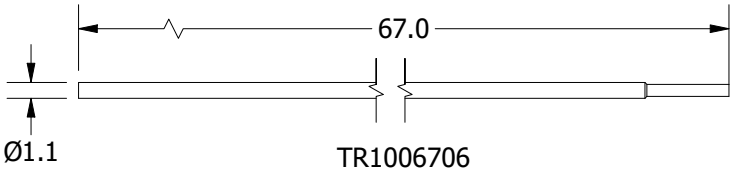


CS-40001

CS-40011



TR1506706



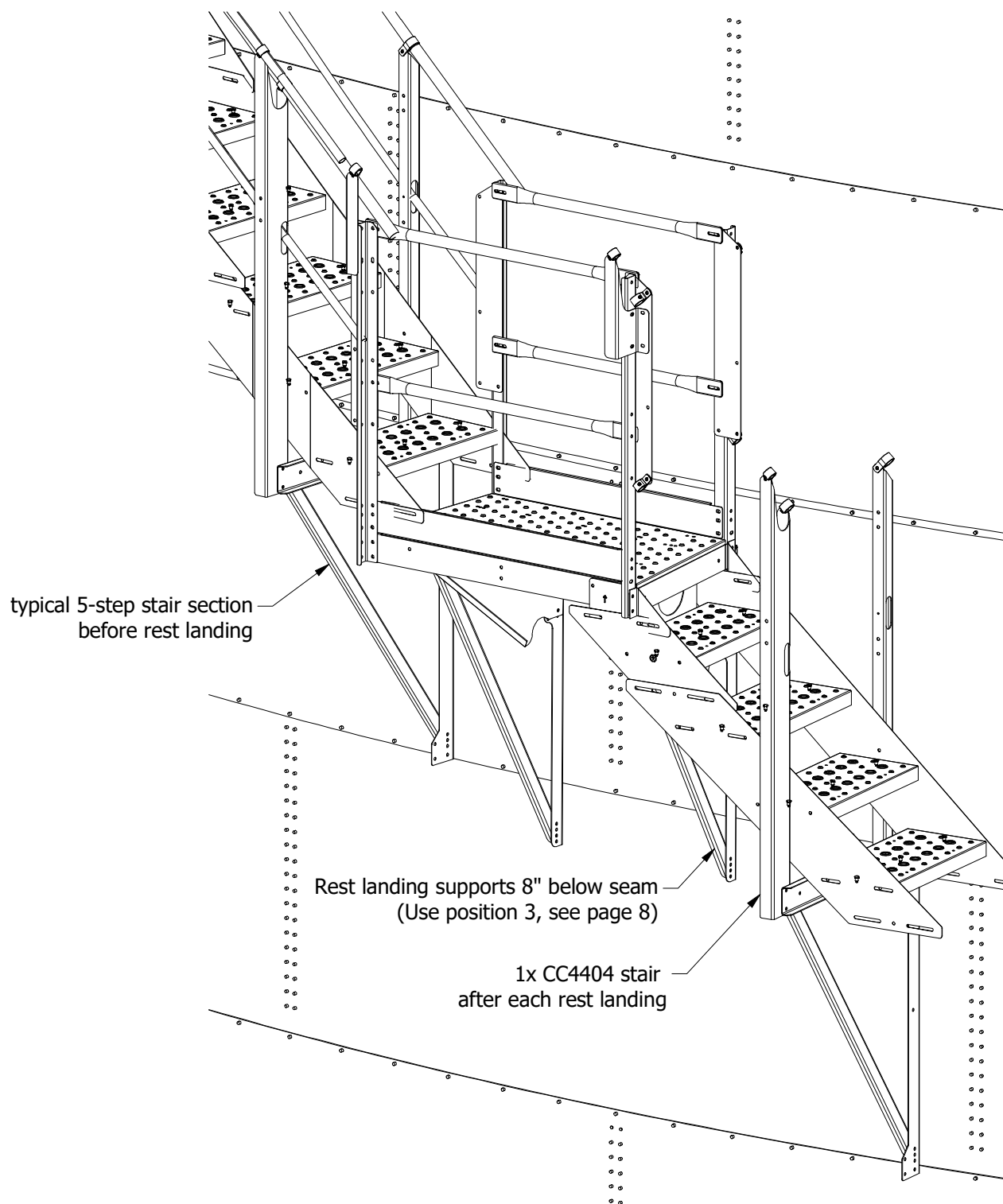
TR1006706

Rest Landing Overview

Once rest landing has been secured to the support frames, add the CC4404 stair section below the platform before continuing with 5-step stair sections. The slotted siderail splices should be in line with the horizontal sheet seams.

There is an alternative configuration for installing the rest landing wall brackets in a single sheet. In this configuration, the 4-step stair section must be used above the rest landing.

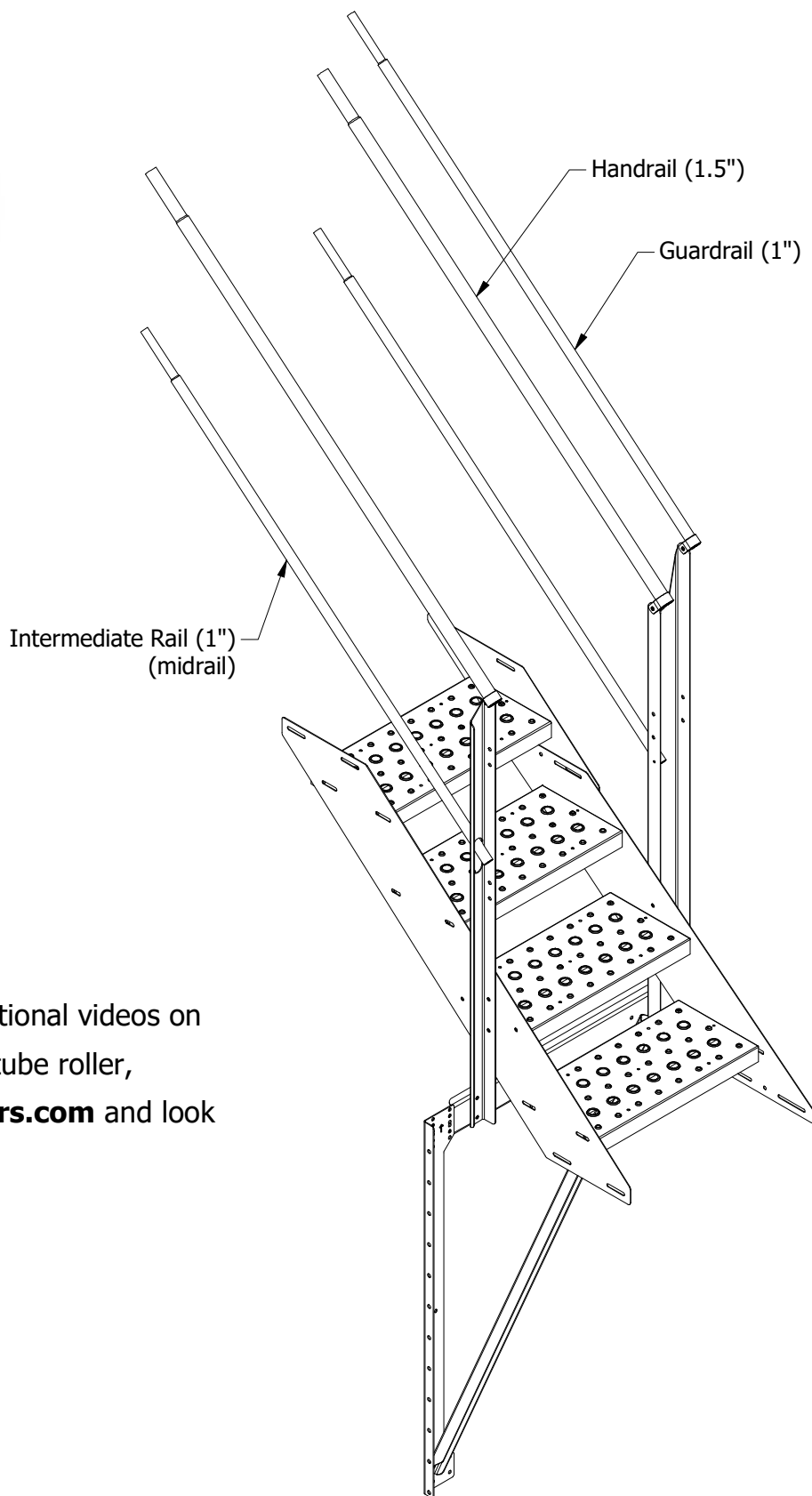
The diagram shows the standard configuration with the rest landing offset below the sheet seam and the 4-step section below the rest landing.




Installing Handrails

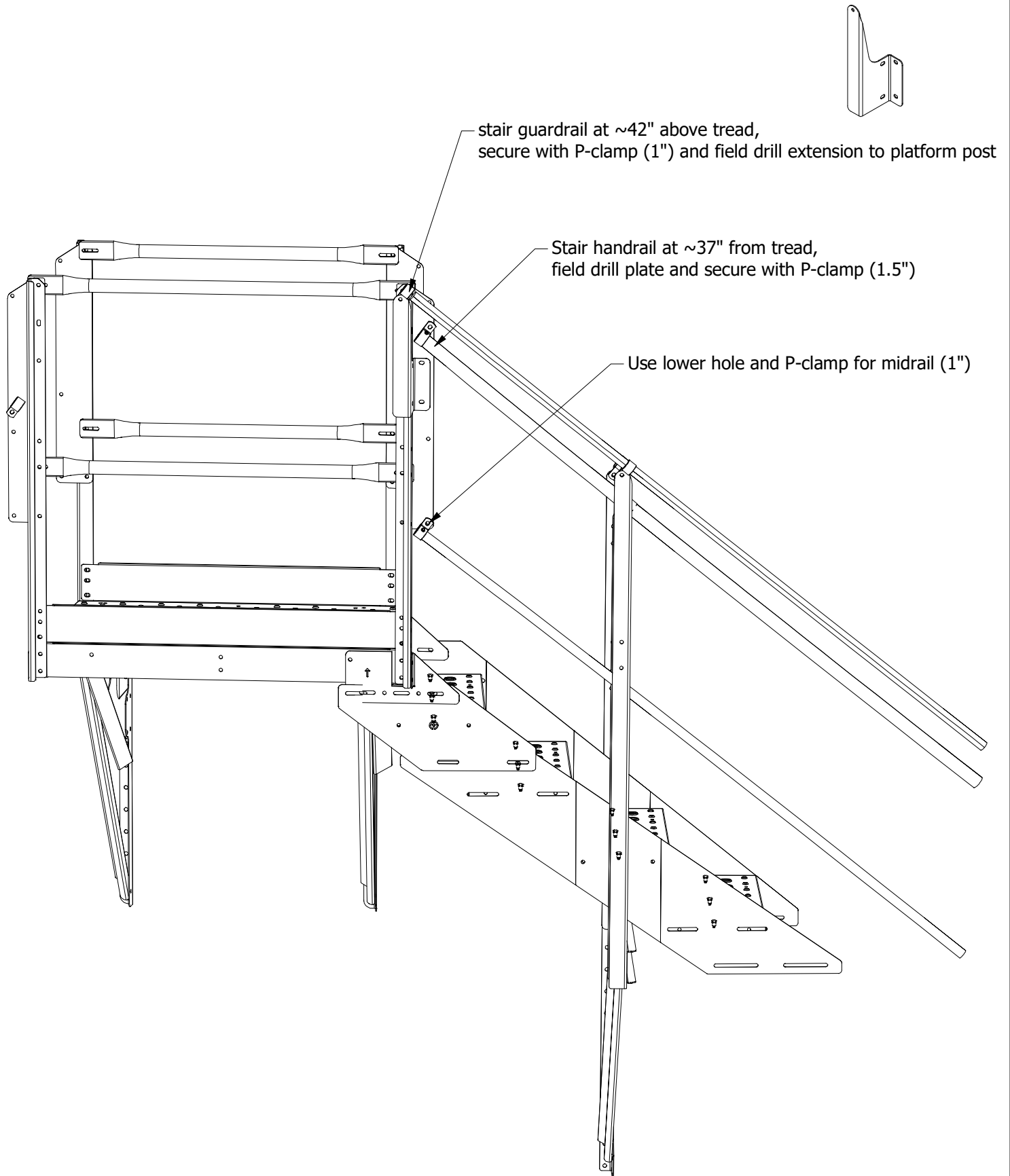
Using a Tube Roller Former as shown in the picture, curve all rails to fit the diameter of the bin.

The swaged ends of the rails should face up the stairs.

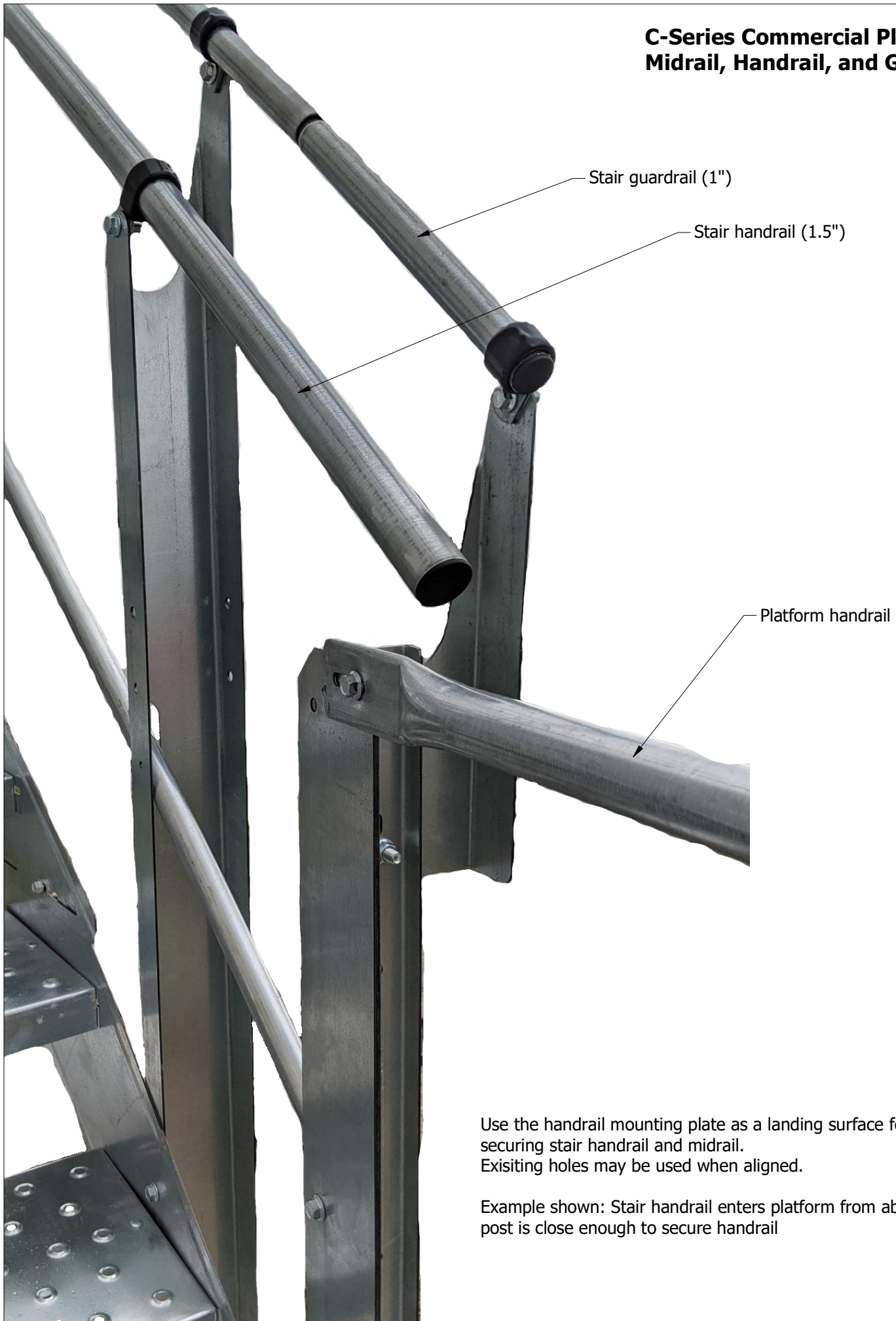


For more information and instructional videos on handrail installation and using a tube roller, go to our website at **greenestairs.com** and look for the  **YouTube** channel link.

C-Series Commercial Platforms Midrail, Handrail, and Guardrail



C-Series Commercial Platforms Midrail, Handrail, and Guardrail



Use the handrail mounting plate as a landing surface for securing stair handrail and midrail. Existing holes may be used when aligned.

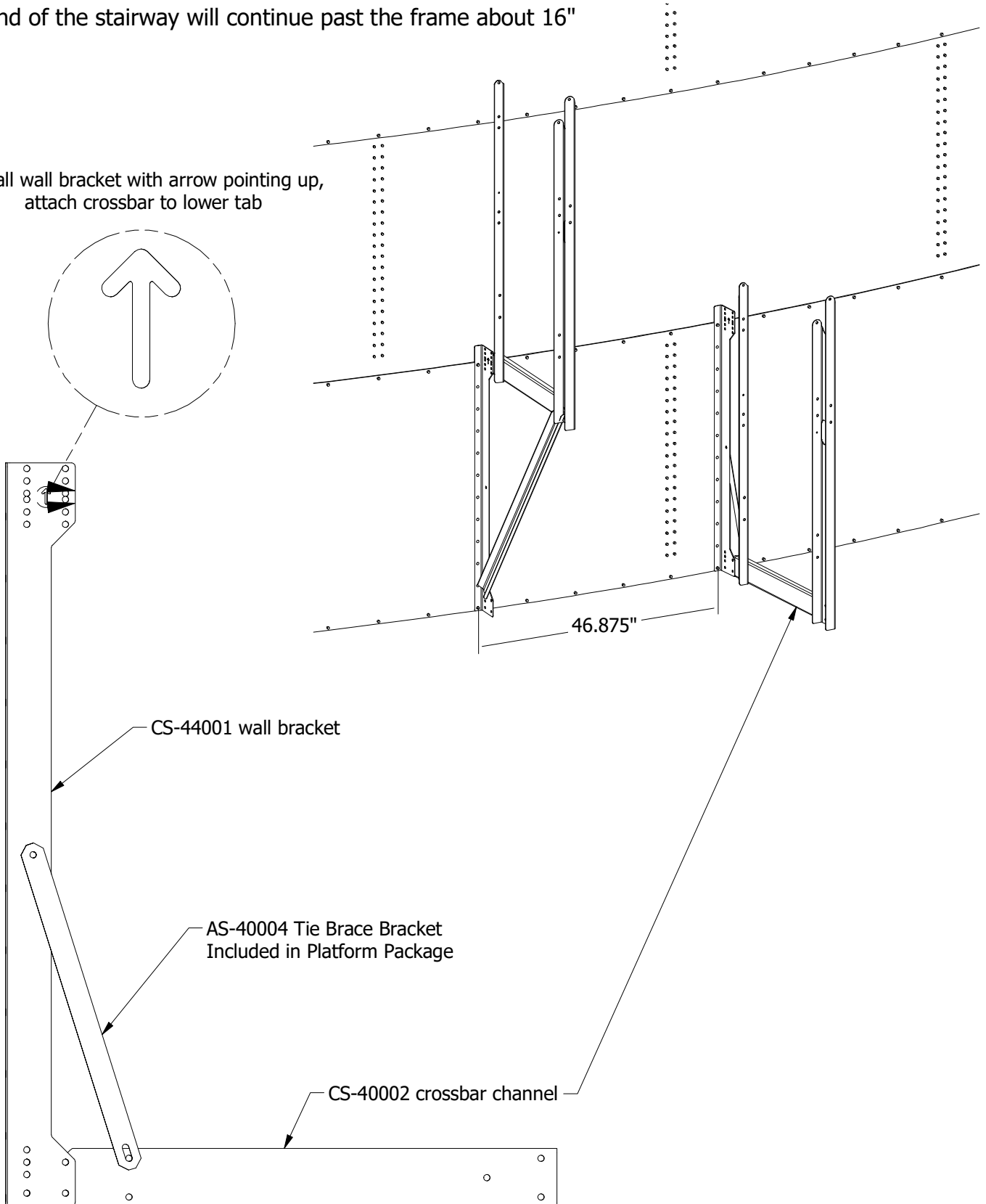
Example shown: Stair handrail enters platform from above, stair post is close enough to secure handrail

Finishing Base of Stair

To finish the stairway the final frame is assembled in the bottom step configuration. The wall bracket is still 5 spaces from the previous frame, but the crossbar is attached at the base of the wall bracket and the kneebrace is not used. Instead, attach the AS-40004 tie brace between the inside post and the crossbar to support the stair section.

The end of the stairway will continue past the frame about 16"

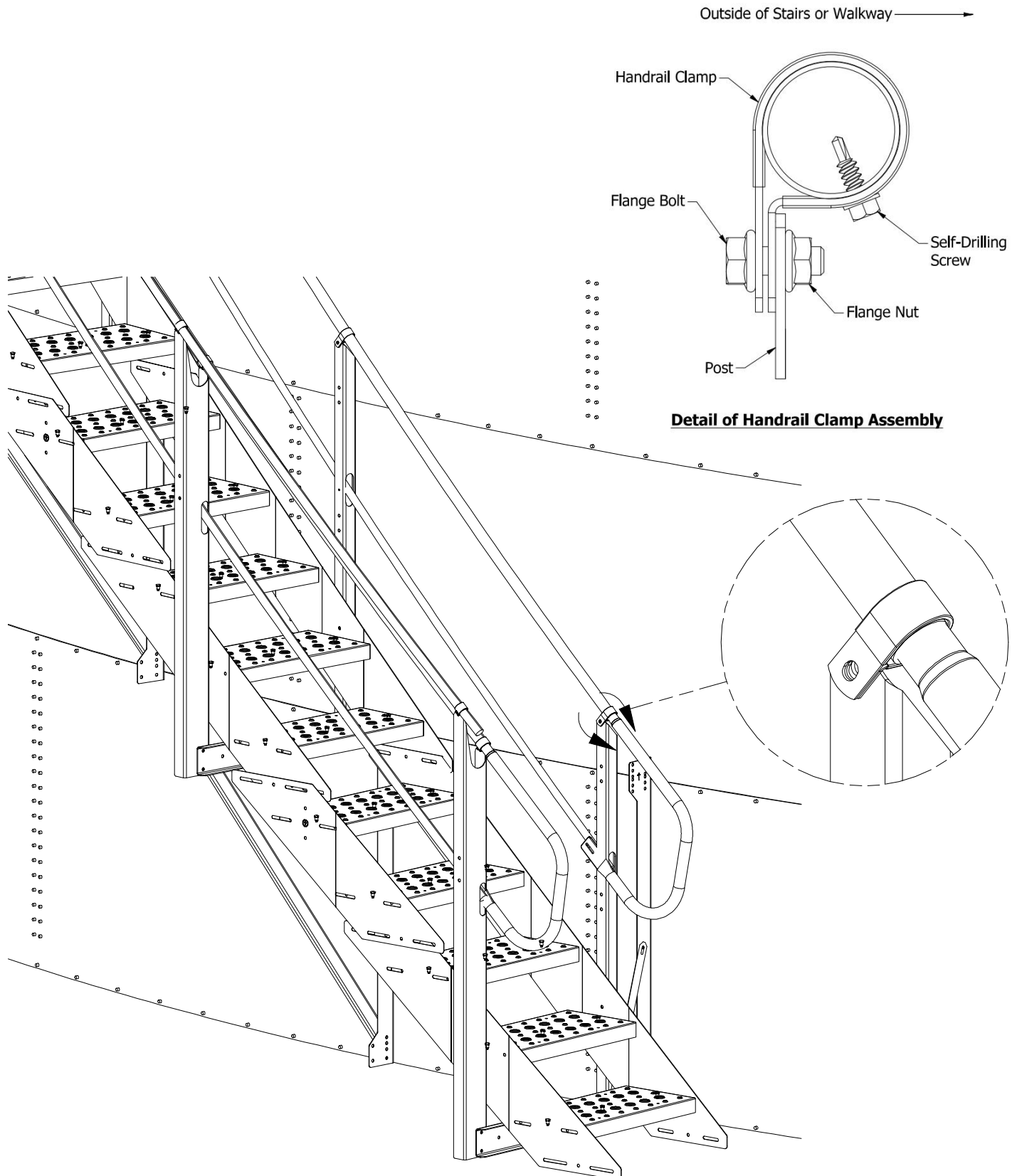
Install wall bracket with arrow pointing up,
attach crossbar to lower tab



Bottom Stair Section Assembly

Install the siderails and treads to finish the stair run. Use the handrail loops from the platform package to terminate the stair handrails and secure the flattened ends to the inside of the posts with self-tapping screws.

Secure the handrail loops with self-tapping screws through the underside of the P-clamps into the sleeved handrails.



Stairway Wrap Table

Reference for amount of stairway wrap around bin in degrees for common bin sizes
(also see bolt space travel formula on page 3)

Bin Diameter	Rings and Eave Height			1st Rest						2nd rest						3rd rest						4th rest					
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	14.7	18.3	22.0	25.7	29.3	33.0	36.7	40.3	44.0	47.7	51.3	55.0	58.7	62.3	66.0	69.7	73.3	77.0	80.7	84.3	88.0	91.7	95.3	99.0	102.7	106.3	110.0
15	180.0	210.0	240.0	288.0	318.0	348.0	378.0	408.0	438.0																		
18	150.0	175.0	200.0	240.0	265.0	290.0	315.0	340.0	365.0																		
21	128.6	150.0	171.4	205.7	227.1	248.6	270.0	291.4	312.9																		
24	112.5	131.3	150.0	180.0	198.8	217.5	236.3	255.0	273.8																		
27	100.0	116.7	133.3	160.0	176.7	193.3	210.0	226.7	243.3																		
30	90.0	105.0	120.0	144.0	159.0	174.0	189.0	204.0	219.0																		
36	75.0	87.5	100.0	120.0	132.5	145.0	157.5	170.0	182.5	202.5	215.0	227.5	240.0	252.5	265.0	285.0	297.5	310.0	322.5	335.0	347.5	367.5	380.0	392.5	405.0	417.5	430.0
42	64.3	75.0	85.7	102.9	113.6	124.3	135.0	145.7	156.4	173.6	184.3	195.0	205.7	216.4	227.1	244.3	255.0	265.7	276.4	287.1	297.9	315.0	325.7	336.4	347.1	357.9	368.6
48	56.3	65.6	75.0	90.0	99.4	108.8	118.1	127.5	136.9	151.9	161.3	170.6	180.0	189.4	198.8	213.8	223.1	232.5	241.9	251.3	260.6	275.6	285.0	294.4	303.8	313.1	322.5
54							105.0	113.3	121.7	135.0	143.3	151.7	160.0	168.3	176.7	190.0	198.3	206.7	215.0	223.3	231.7	245.0	253.3	261.7	270.0	278.3	286.7
60							94.5	102.0	109.5	121.5	129.0	136.5	144.0	151.5	159.0	171.0	178.5	186.0	193.5	201.0	208.5	220.5	228.0	235.5	243.0	250.5	258.0
72							78.8	85.0	91.3	101.3	107.5	113.8	120.0	126.3	132.5	142.5	148.8	155.0	161.3	167.5	173.8	183.8	190.0	196.3	202.5	208.8	215.0
75							75.6	81.6	87.6	97.2	103.2	109.2	115.2	121.2	127.2	136.8	142.8	148.8	154.8	160.8	166.8	176.4	182.4	188.4	194.4	200.4	206.4
78							72.7	78.5	84.2	93.5	99.2	105.0	110.8	116.5	122.3	131.5	137.3	143.1	148.8	154.6	160.4	169.6	175.4	181.2	186.9	192.7	198.5
90							63.0	68.0	73.0	81.0	86.0	91.0	96.0	101.0	106.0	114.0	119.0	124.0	129.0	134.0	139.0	147.0	152.0	157.0	162.0	167.0	172.0
105							54.0	58.3	62.6	69.4	73.7	78.0	82.3	86.6	90.9	97.7	102.0	106.3	110.6	114.9	119.1	126.0	130.3	134.6	138.9	143.1	147.4
135																	79.3	82.7	86.0	89.3	92.7	98.0	101.3	104.7	108.0	111.3	114.7
156																	68.7	71.5	74.4	77.3	80.2	84.8	87.7	90.6	93.5	96.3	99.2
165																	64.9	67.6	70.4	73.1	75.8	80.2	82.9	85.6	88.4	91.1	93.8

HOW TO USE THE TABLE

Select the diameter of the bin from the left-most column and the number of rings from the top row. The number in the corresponding cell for each combination is the degrees of wrap for the CC4400 system.

EXAMPLE

The cover of this manual shows CC4400 on a 72' bin which is 10 rings tall. The cell corresponding to a diameter of 72' and a height of 10 rings shows a travel of 78.8 degrees around the bin.

NOTE

The table only shows commonly available diameters and bin heights, if your bin is in a grey zone it may be a special size. The stairs will still fit on any bins between 18' and 156' diameters.

