

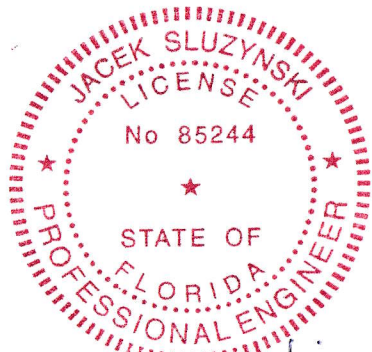


# **MoistureShield®**

**MOISTURESHIELD COMPASS  
ALUMINUM RAILING SYSTEM  
IBC 2021 AND IRC 2021**

**3/21/2023**

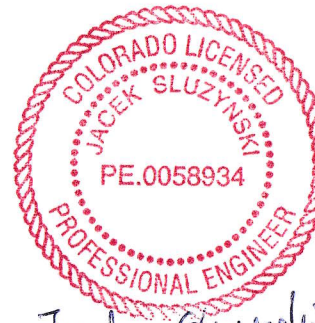
**JACEK SLUZYNSKI, P.E.  
BARRETTE OUTDOOR LIVING  
2401 CORPORATE BLVD • BROOKSVILLE, FL 34604  
(352) 754-8555**



Jacek Sluzynski  
3/21/2023



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3/21/2023



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3/21/2023



Jacek Sluzynski  
3/21/2023

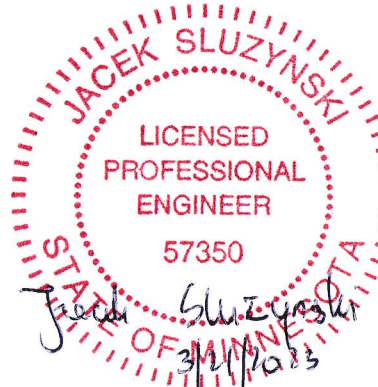


Jacek Sluzynski  
3/21/2023

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 54659 Expiration Date: 7/11/2023



Jacek Sluzynski  
3/21/2023



Jacek Sluzynski  
3/21/2023

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Jacek Sluzynski

Typed or Printed Name: JACEK SLUZYNSKI

Date: 3/21/2023 License Number: 57350



Jacek Sluzynski  
3/21/2023



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3/21/2023



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3/21/2023



Jacek Sluzynski  
3/21/2023



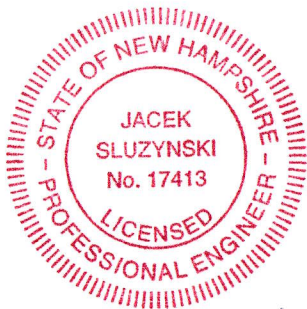
Jacek Sluzynski  
3/21/2023



Jacek Sluzynski  
3/21/2023



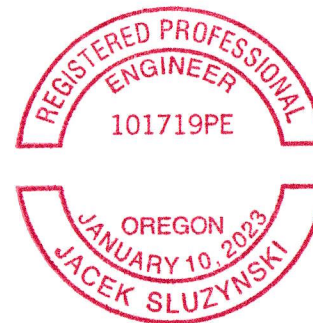
Jacek Sluzynski  
3/21/2023



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3/21/2023



Jacek Sluzynski  
3/21/2023



EXPIRES: 06/30/2024

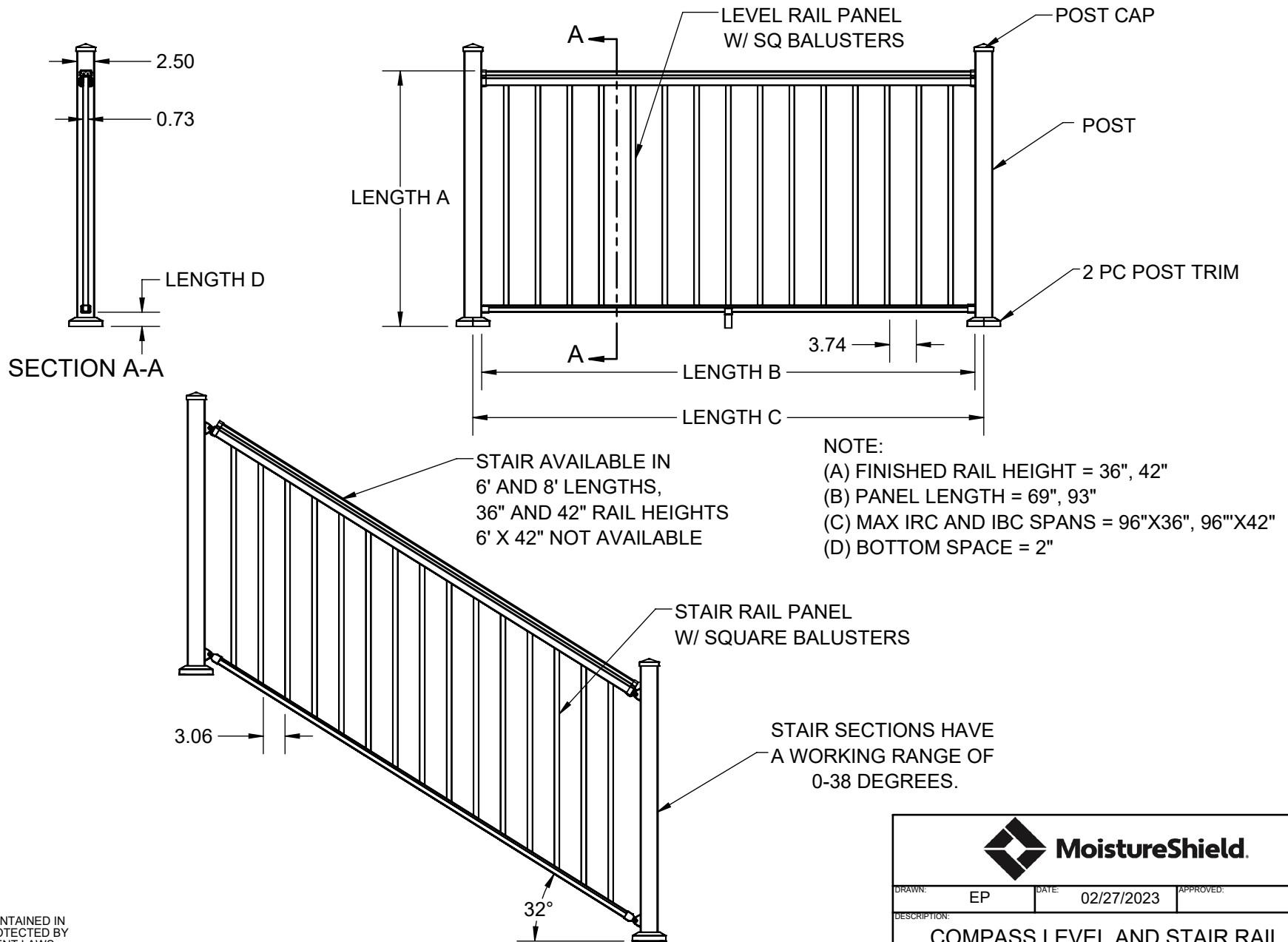
Jacek Sluzynski  
3/21/2023

## **GENERAL NOTES**



1. The "Compass Railing" (*guard*) meets or exceeds the 2021 International Building Code (IBC) section 1607.8. and R301.5. 2021 International Residential Code (IRC).
2. Loads:
  - 2.1. The top railing of the *guard* is capable of transferring to the anchoring connection a point load of 200 pounds (Residential applications) and 200 pounds or 50 pounds per linear foot (Commercial applications) applied in any direction.
  - 2.2. The infill (pickets, glass slats, DSP panels, cables) are capable of transferring to the anchoring connection a horizontally applied normal load of 50 pounds exerted over 1 square foot.
3. The professional engineer (PE) is responsible for the design of the *guard* to the bottom of the base plate, to the bottom of the post, and to the mounting surface of the upper and lower railing wall brackets. The PE is not responsible for the design of the anchoring substrate, such as, concrete or wood. Except for the fasteners specified, the PE is not responsible for the selection or location of the anchoring fasteners.
4. The use of this specification indemnifies and saves harmless the PE from all cost and damages including legal fees and appellate fees resulting from material and part fabrication, manufacturing, assembly, system design and erection, construction practices, and MoistureShield warranties. Neither the PE nor MoistureShield shall be held responsible or liable in any way for the use of this product in applications other than shown on this drawing.
5. Materials and manufacturing of the guard shall be in accordance with the Aluminum Association's 2015 "Aluminum Design Manual".
6. All *guard* extrusions shall be aluminum 6005-T5 except pickets which shall be 6063-T52.
7. All *guard* fasteners are 410 stainless steel.
8. MoistureShield manufacturing tolerances for the guard are equal to or tighter than allowed by the IBC and IRC. Contact MoistureShield for specific tolerances.
9. All concrete shall be uncracked only, with a minimum compressive strength of 3000psi and shall be minimum 1.5X thicker than any anchor embedment. All epoxy and grout shall meet or exceed compressive strength of the concrete and shall be iron-free, non-shrink and non -reactive. Concrete footers shall contain min 0.1% fiber mesh admixture per CY.
10. All wood shall be pressure treated No. 2 Southern Yellow Pine with minimum specific gravity,  $G=0.55$

11. Surrounding soil to be compacted to 98% optimum density, 2500 psf minimum and
12. Insulate aluminum from dissimilar metals to prevent electrolysis. Insure all bare metal is protected from corrosive environments such as installation near the ocean.
13. Neither the PE nor MoistureShield is responsible for construction tolerances, field dimensions, or installation of the *guard*.
14. No changes are allowed without written authorization from the engineer.
15. Copies of this drawing without an original signature and seal of the engineer are invalid.
16. No inspection was made at this jobsite and the design depicted herein is based upon data supplied by the contractor. This engineer is to not be held liable or in any way responsible for the use of any inaccurate information supplied by others. The contractor shall field verify all measurements and information used in this design before any changes are made to field condition, fabrication and the installation of the materials.

# MOISTURESHIELD COMPASS ALUMINUM LEVEL AND STAIR RAIL DETAILS

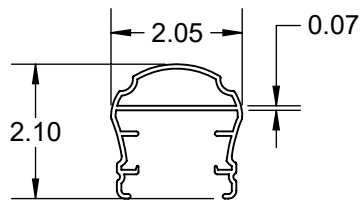


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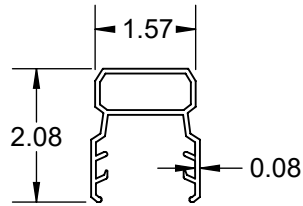
 <b>MoistureShield.</b>		
DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b>COMPASS LEVEL AND STAIR RAIL</b>		
SHEET 1 OF 12	REVISION	PART NUMBER
SCALE 1:20		<b>N/A</b>
WEIGHT: N/A		



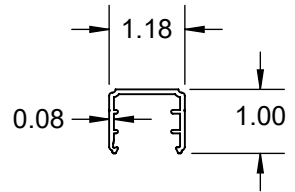
## TOP AND BOTTOM RAIL



CAMBRIDGE TOP RAIL



CLASSIC TOP RAIL

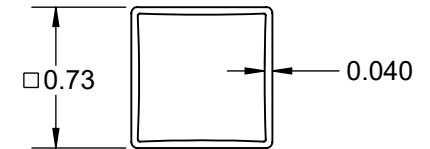


TOP & BOTTOM RAIL

### NOTE:

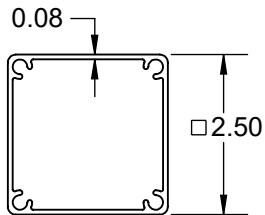
1. BRACKET COVERS ARE INCLUDED WITH TOP RAIL.
2. FANCY TOP RAIL FITS OVER SMALL TOP RAIL.

## BALUSTERS

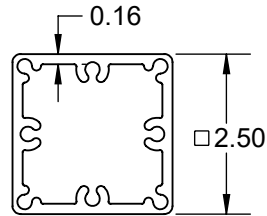


3/4" SQ. BALUSTER

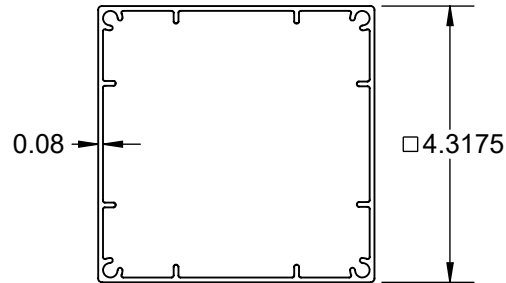
## POSTS



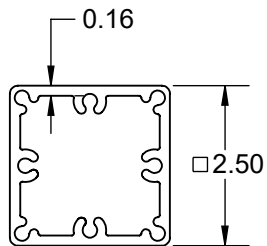
COMPASS POST  
RESIDENTIAL/CABLE LINE  
RESIDENTIAL



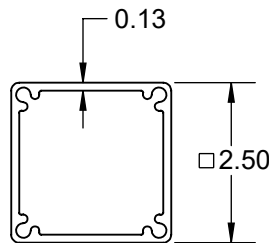
HD COMMERCIAL  
& FASCIA POST



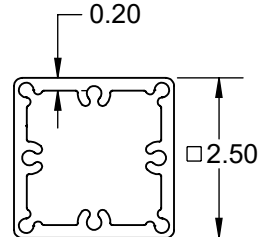
4.25" AR POST



COMPASS HD POST/  
CABLE RAILING LINE POST



CORNER POST  
FOR CABLE RAILING



END POST  
FOR CABLE RAILING

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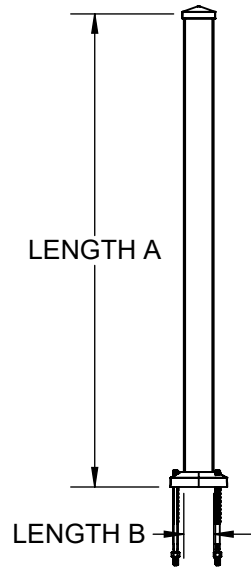


**MoistureShield.**

DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: <u>COMPASS PROFILES</u>		
SHEET 2 OF 12	REVISION	PART NUMBER
SCALE 1:3	0	N/A
WEIGHT: N/A		

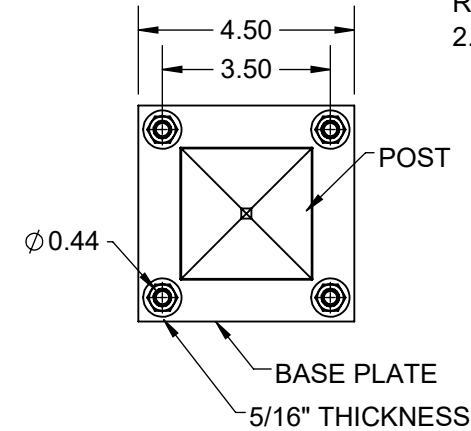
## COMPASS POST AND SURFACE MOUNT DETAILS

NOTE: IMAGES ONLY  
REFERENCE 2" AND  
2.5" POSTS.



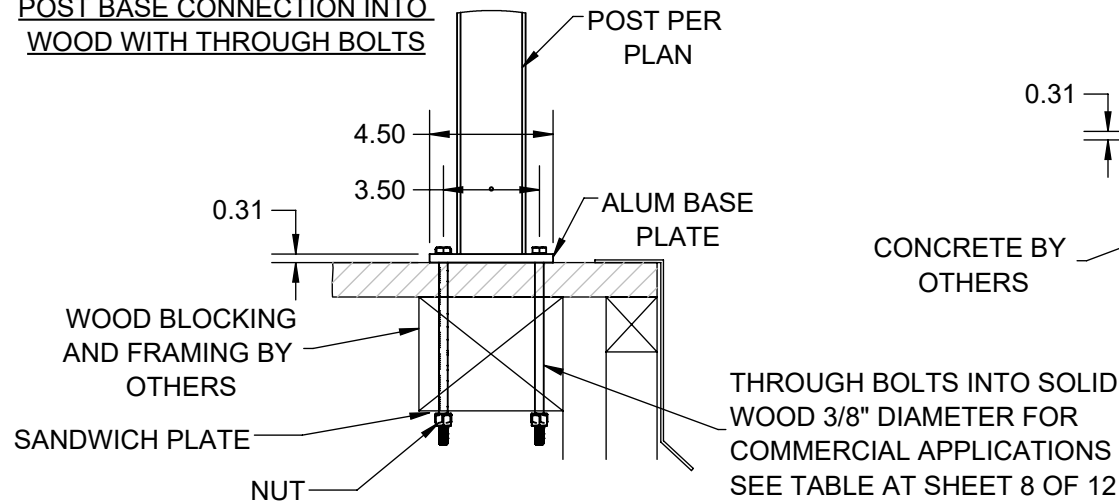
POSTS	LENGTH A	LENGTH B
STD. POST	39"	2.50"
STD. POST	45"	2.50"
STD. POST EXTENSION	65"	2.50"
HD. POST	45"	2.50"
HD. POST	60"	2.50"
FASCIA POST	45"	2.50"
FASCIA POST	52"	2.50"
4.25" AR. POST	39"	4.32"
4.25" AR. POST	45"	4.32"
4.25" AR. POST	108"	4.32"

NOTE:  
2.5" POSTS INCLUDE FACTORY MOUNTED BASE PLATE,  
TWO PICE TRIM, POST CAP, AND LEVELING SHIMS.  
4.3125" POST SOLD SEPARATELY AS COMPONENTS.

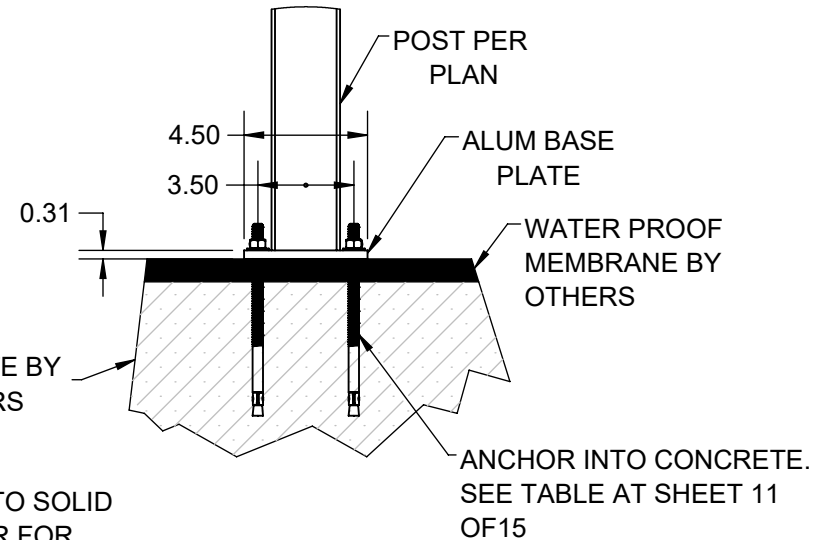


POST BASE CONNECTION INTO  
CONCRETE WITH WEDGE ANCHORS

POST BASE CONNECTION INTO  
WOOD WITH THROUGH BOLTS



NOTE:  
1. COMMERCIAL APPLICATIONS ARE ALWAYS BOLTED,  
USE 3/8" DIAMETER A307 THROUGH BOLTS INTO SOLID WOOD BLOCKING.  
2. WOOD BLOCKING BY OTHERS.  
3. BLOCKING MUST BE DESIGNED TO WITHSTAND PROPER LOADING.

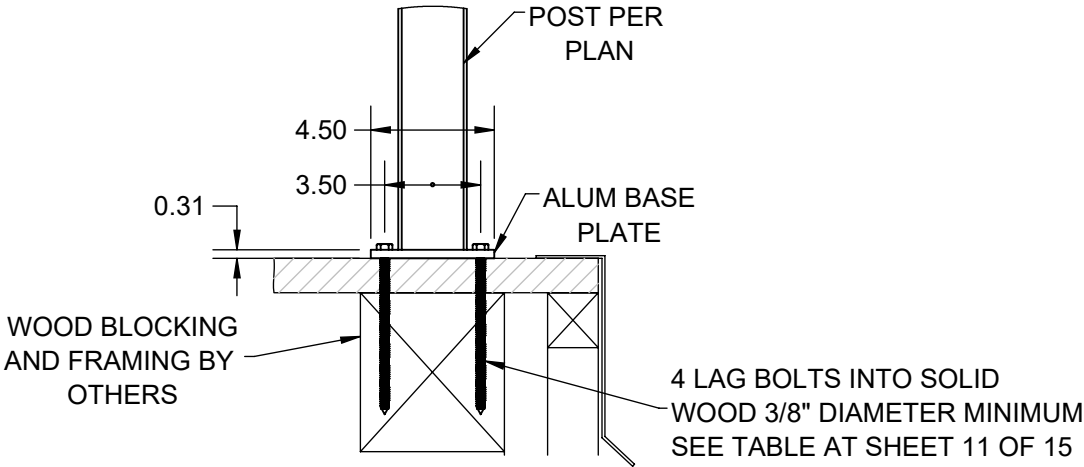


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DRAWN: EP	DATE: 02/27/2023
APPROVED:	
<b>COMPASS POST AND SURFACE MOUNT DETAIL</b>	
SHEET 3 OF 12	REVISION PART NUMBER
SCALE 1:16	0
WEIGHT: N/A	N/A



# **COMPASS POST AND SURFACE MOUNT DETAILS**





**POST BASE CONNECTION INTO  
WOOD WITH LAG BOLTS**

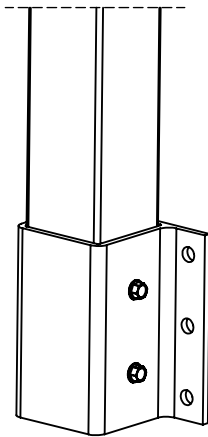
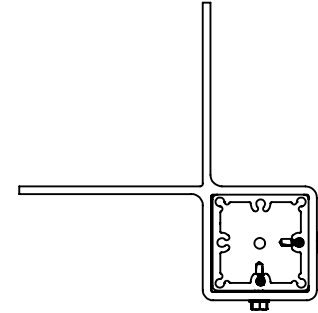
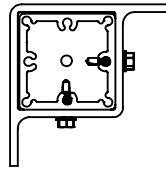
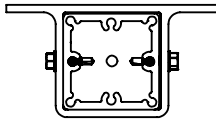
**NOTE:**

1. WOOD BLOCKING BY OTHERS.
2. BLOCKING MUST BE DESIGNED TO WITHSTAND PROPER LOADING.

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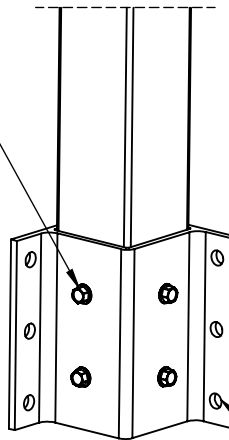
 <b>MoistureShield.</b>		
DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b><u>COMPASS POST AND SURFACE MOUNT DETAIL</u></b>		
SHEET 4 OF 12	REVISION	PART NUMBER
SCALE 1:16		N/A
WEIGHT: N/A		

## FASCIA MOUNT DETAILS



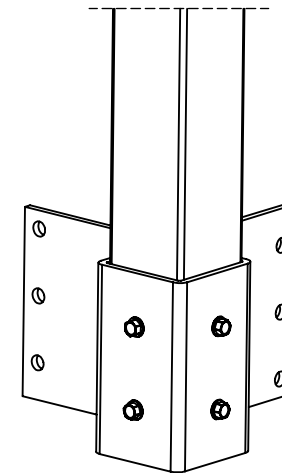
LINE POST / END POST  
BRACKET

4X #14 SCREW



INSIDE CORNER POST  
BRACKET

SEE TABLE AT  
SHEET 11 OF 15  
FOR ANCHOR  
SCHEDULE




OUTSIDE CORNER POST  
BRACKET

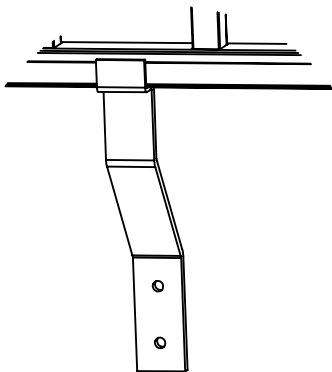
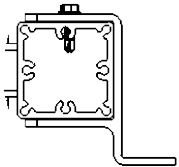
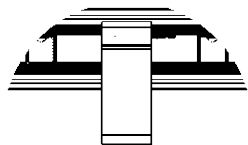
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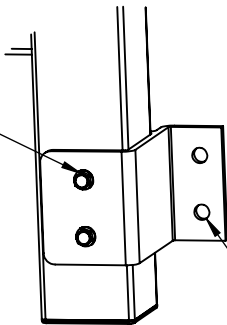
**MoistureShield.**

DRAWN:	EP	DATE:	02/27/2023	APPROVED:	
DESCRIPTION:					
FASCIA MOUNT DETAIL					
SHEET 5 OF 12		REVISION	PART NUMBER		
SCALE 1:5			N/A		
WEIGHT: N/A					

**FASCIA MOUNT - JULIET DETAIL**



2X #14 SCREWS





SEE TABLE AT  
SHEET 11 OF 15  
FOR ANCHOR  
SCHEDULE

FASCIA MOUNT JULIET  
SUPPORT FOOT

FASCIA MOUNT  
JULIET BRACKET

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 <b>MoistureShield.</b>		
DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b>FASCIA MOUNT - JULIET DETAIL</b>		
SHEET 6 OF 12	REVISION	PART NUMBER
SCALE 1:5		N/A
WEIGHT: N/A		

## MOUNTING SCHEDULE

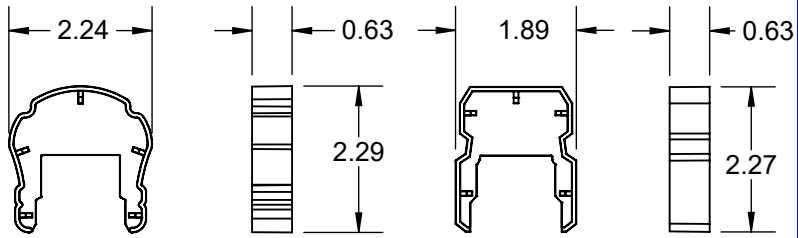
FOR RESIDENTIAL APPLICATIONS 36" HIGH					
PANEL WIDTH	LOAD	RECOMMENDED BOLT APPLICATION	FOR LAG BOLT APPLICATION 3/8" DIA. SCREW. MINIMUM EMBEDDED SCREW THREAD LENGTH REQUIRED	FOR THROUGH BOLT APPLICATION	FOR CONCRETE ANCHOR APPLICATION 3/8" TITAN HD ANCHOR MINIMUM REQUIRED LENGTH (MINIMUM DISTANCE OF 4" FORM EDGE REQUIRED)
8FT	200LBS	LAG BOLT -OR- THROUGH BOLT -OR- CONCRETE ANCHOR	3.5IN	3/8" HEX BOLT 3/8" FLAT WASHER 3/8" LOCK WASHER 3/8" NUT	4IN
6FT			3IN		3IN
4FT			2.5IN		3IN

FOR COMMERCIAL APPLICATIONS 42" HIGH					
PANEL WIDTH	LOAD	RECOMMENDED BOLT APPLICATION	FOR LAG BOLT APPLICATION 3/8" DIA. SCREW. MINIMUM EMBEDDED SCREW THREAD LENGTH REQUIRED	FOR THROUGH BOLT APPLICATION	FOR CONCRETE ANCHOR APPLICATION 3/8" TITAN HD ANCHOR MINIMUM REQUIRED LENGTH (MINIMUM DISTANCE OF 4" FORM EDGE REQUIRED)
8FT	400LBS	THROUGH BOLT -OR- CONCRETE ANCHOR	3.5IN	3/8" HEX BOLT 3/8" FLAT WASHER 3/8" LOCK WASHER 3/8" NUT	4IN
6FT	300LBS	LAG BOLT -OR- THROUGH BOLT -OR- CONCRETE ANCHOR	3IN		3IN
4FT	200LBS		2.5IN		3IN

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 <b>MoistureShield.</b>			
DRAWN:	EP	DATE:	02/27/2023
APPROVED:			
DESCRIPTION:			
<b>MOUNTING SCHEDULE</b>			
SHEET 7 OF 12		REVISION	PART NUMBER
SCALE 1:16			N/A
WEIGHT: N/A			

## BRACKETS & ACCESSORIES

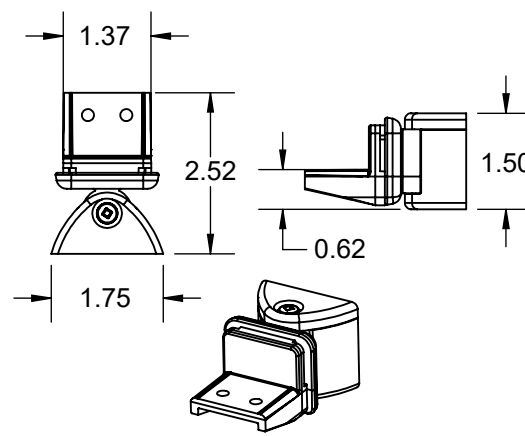


CAMBRIDGE  
TOP COVER

CLASSIC  
TOP COVER

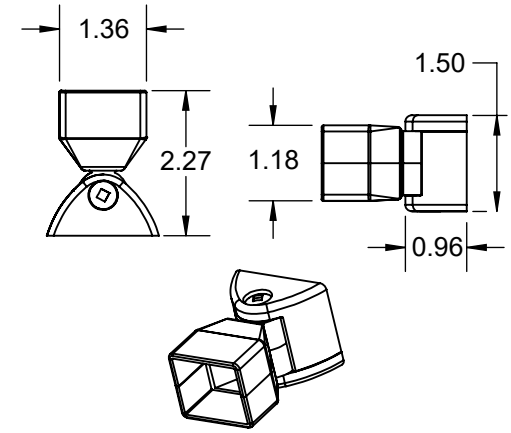


BOTTOM COVER



TOP BRACKET

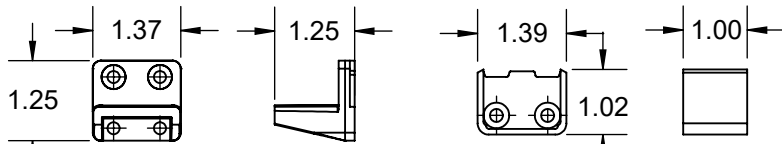
\*TOP COVER IS THE SAME AS LEVEL BRACKET



BOTTOM BRACKET

### LEVEL ANGLE BRACKETS

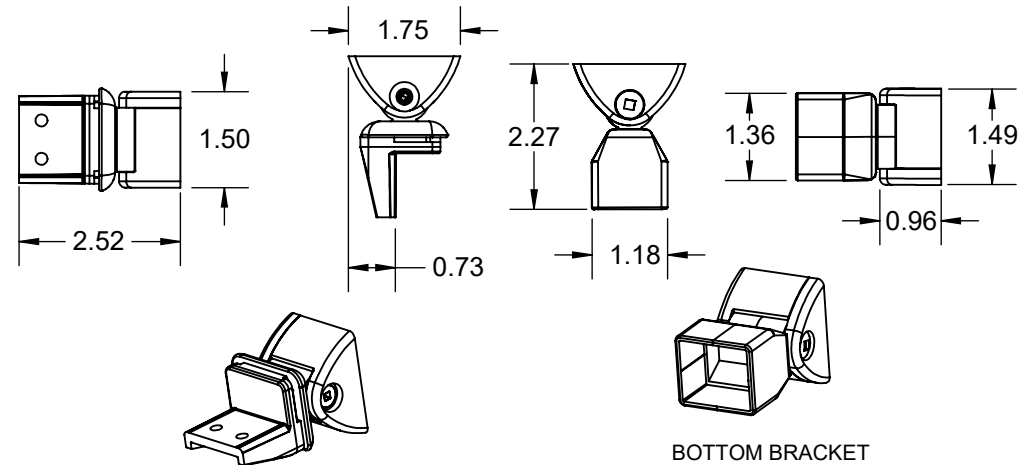
### STAIR BRACKETS



TOP BRACKET

BOTTOM BRACKET

### LEVEL BRACKETS



TOP BRACKET

\*TOP COVER IS THE SAME AS LEVEL BRACKET

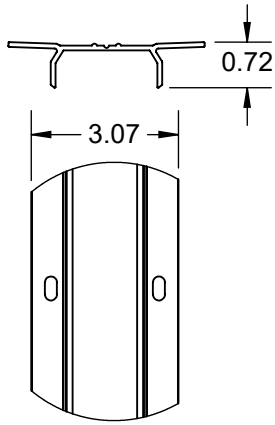
BOTTOM BRACKET



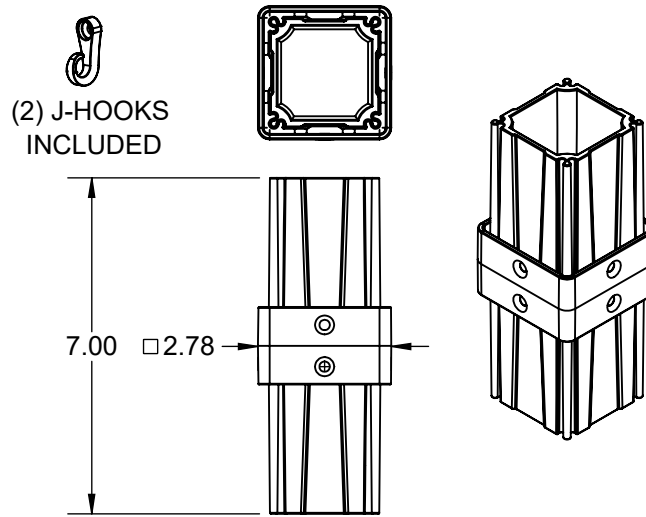
**MoistureShield.**

DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: COMPASS ACCESSORIES		
SHEET 8 OF 12	REVISION	PART NUMBER
SCALE 1:3	0	N/A
WEIGHT: N/A		

## ACCESSORIES

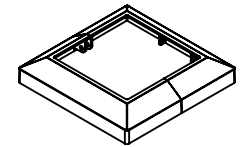
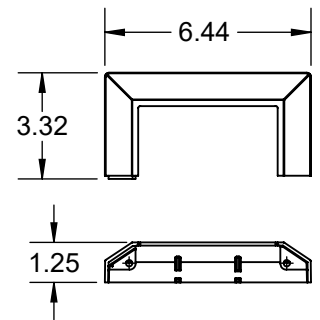


**DECK TOP ADAPTER**  
6' AND 8' LENGTHS  
HOLES EVERY 1'

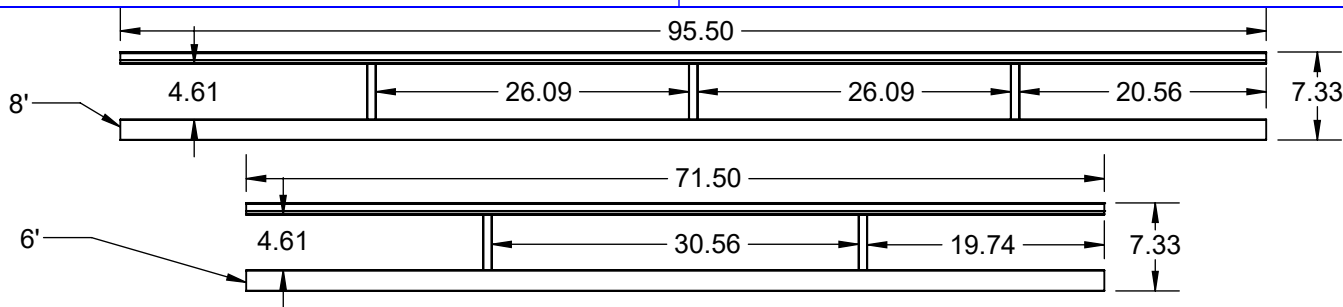


(2) J-HOOKS  
INCLUDED

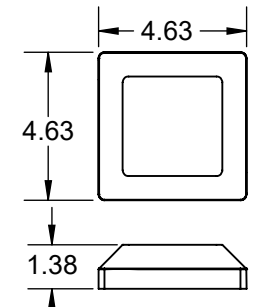
**POST EXTENSION**



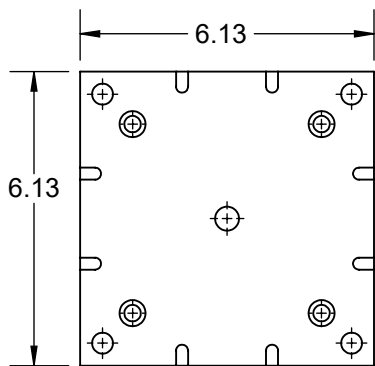
**4.25" TRIM RING**



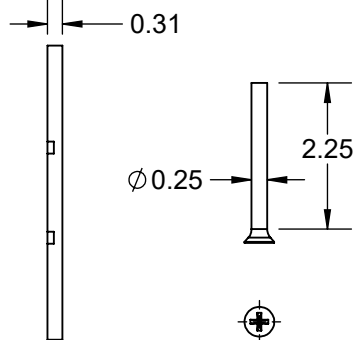
**2 - TO - 3 RAIL ADAPTER**



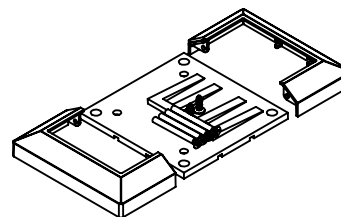
**4.25" FLAT POST CAP**



**4.25" MOUNTING KIT**



108" POST SLEEVE CAN BE USED AS A STRUCTURAL POST  
(REQUIRES 2 MOUNTING KITS)



MOUNTING KIT COMES WITH TRIM RING



DRAWN: EP DATE: 02/27/2023 APPROVED:

DESCRIPTION:

**COMPASS ACCESSORIES**

SHEET 9 OF 12

SCALE 1:4

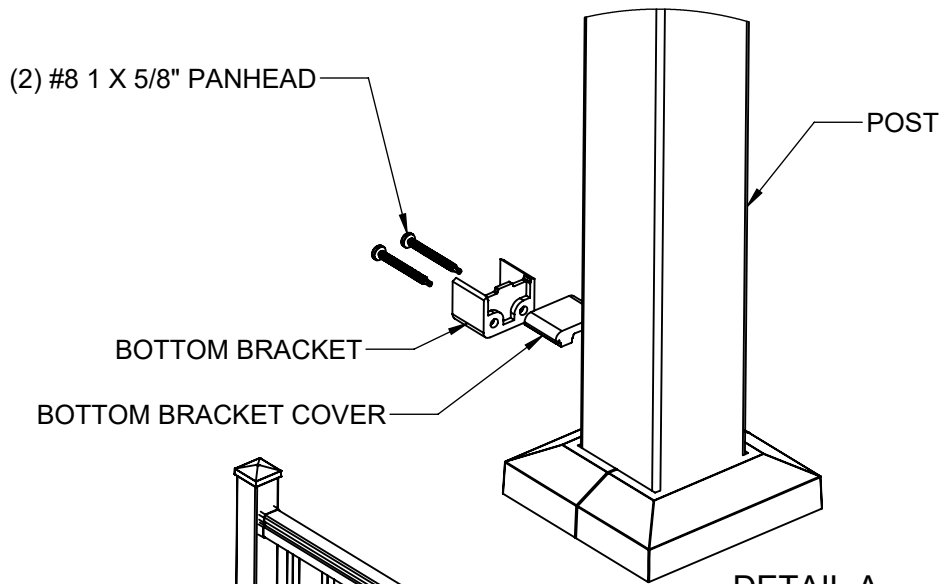
WEIGHT: N/A

REVISION PART NUMBER

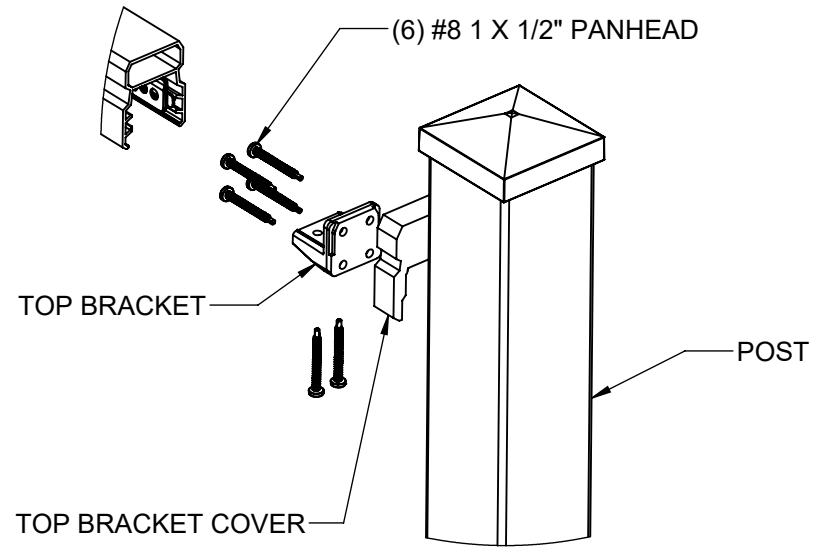


N/A

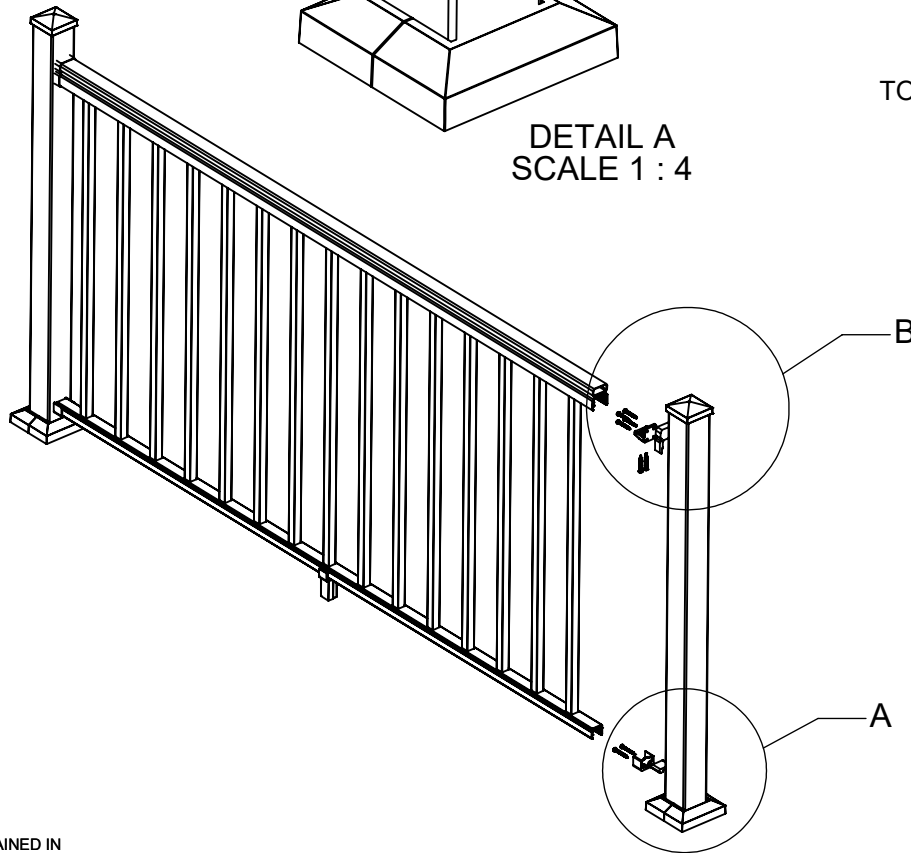






DETAIL A  
SCALE 1 : 4

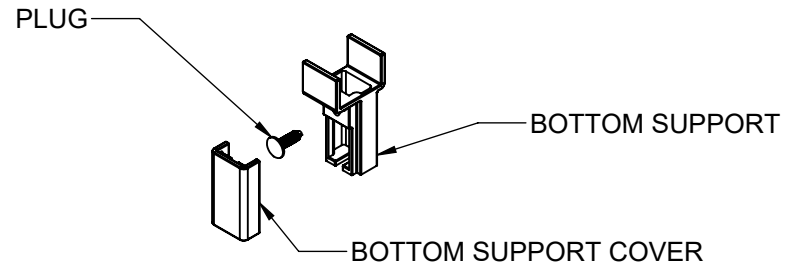


DETAIL B  
SCALE 1 : 4

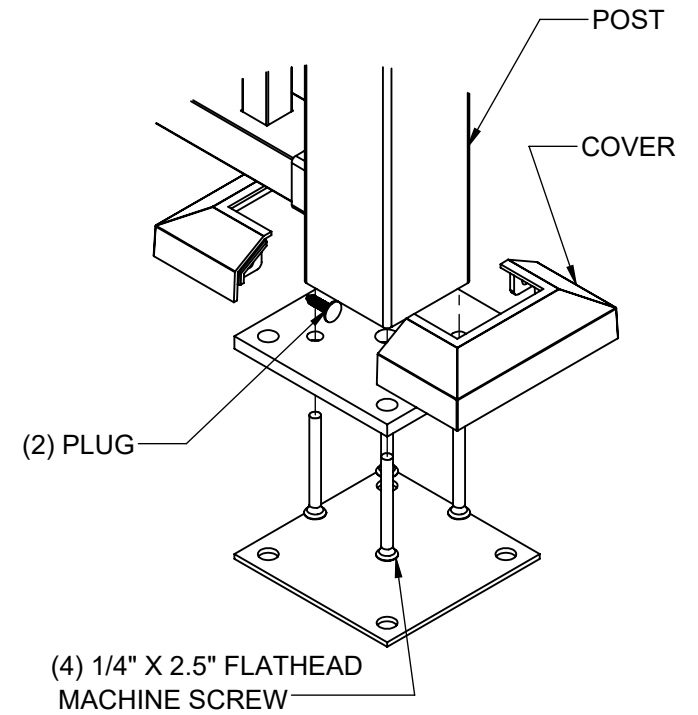
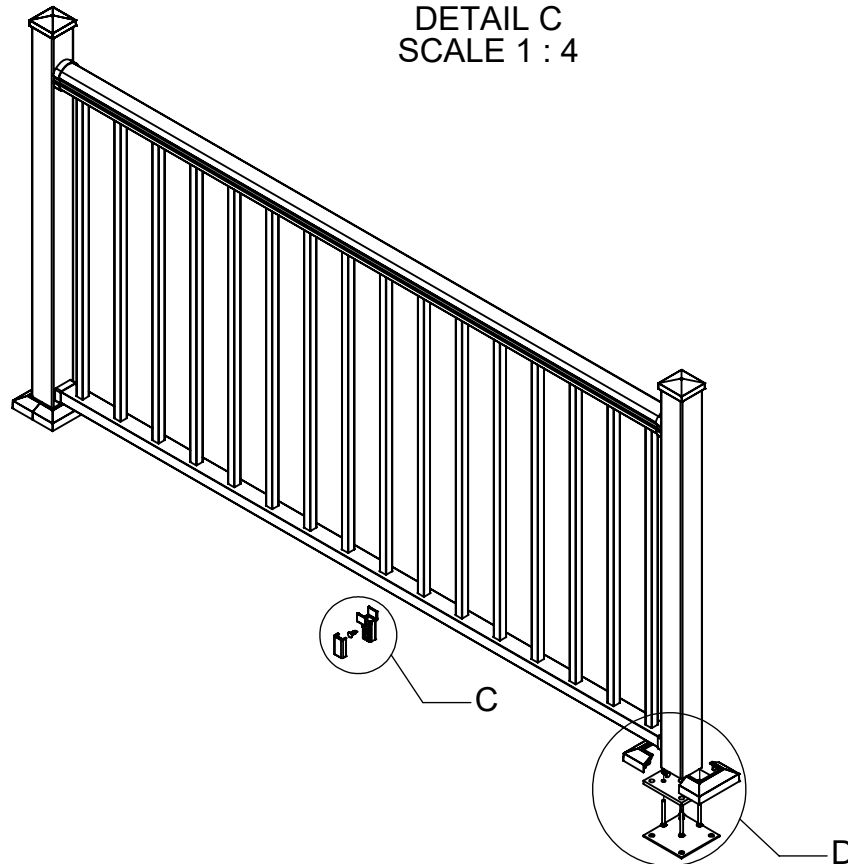


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 <b>MoistureShield.</b>			
DRAWN: EP		DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b>COMPASS FASTENER DETAIL</b>			
SHEET 10 OF 12		REVISION	PART NUMBER
SCALE 1:16			N/A
WEIGHT: N/A			




DETAIL C  
SCALE 1 : 4

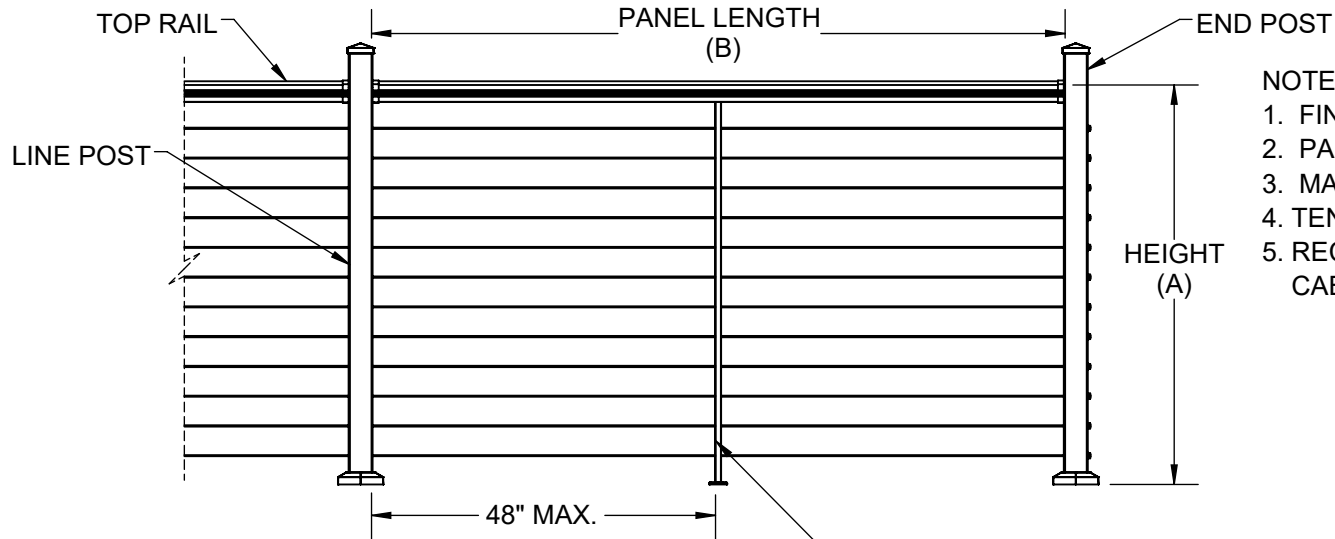


DETAIL D  
SCALE 1 : 4

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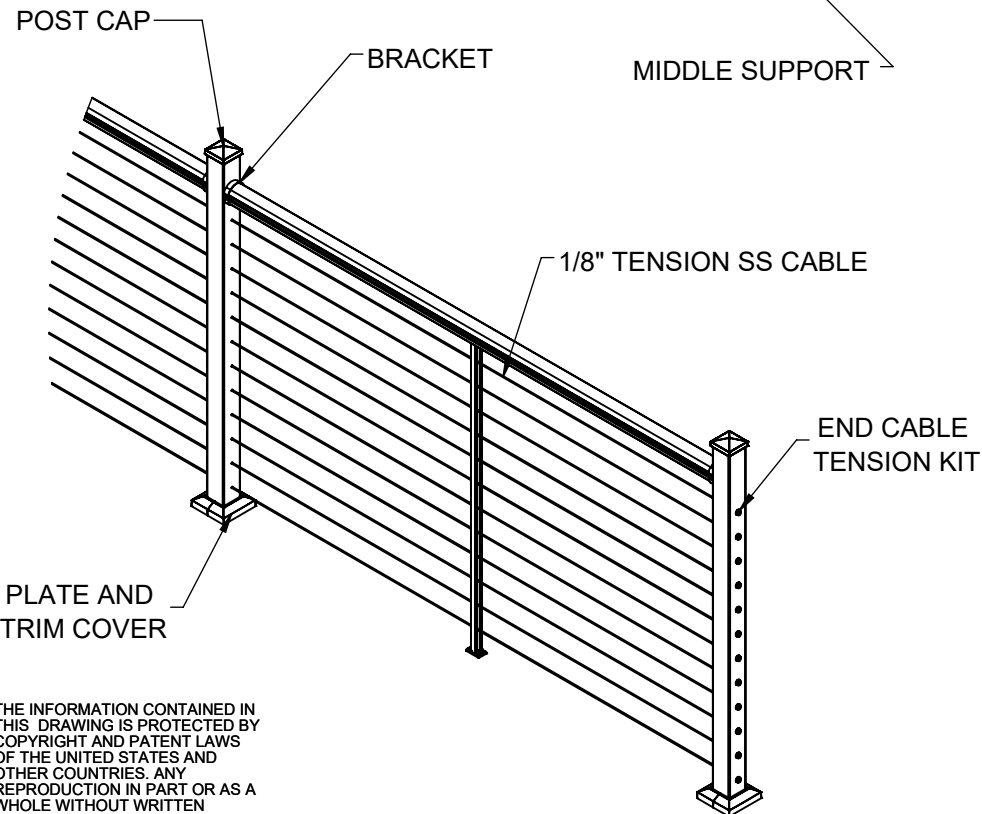
 <b>MoistureShield.</b>			
DRAWN: EP		DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b>COMPASS FASTENER DETAIL</b>			
SHEET 11 OF 12		REVISION	PART NUMBER
SCALE 1:16		0	N/A
WEIGHT: N/A			

## CABLE RAILING PANEL-DETAILS

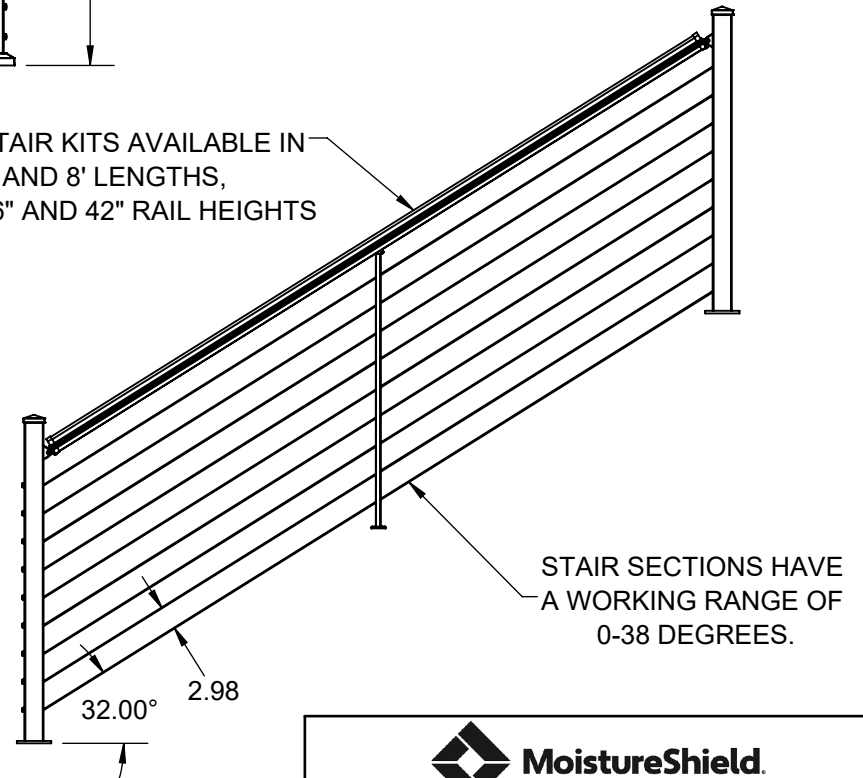


### NOTE:

1. FINISHED RAIL HEIGHT (A) = 36", 42"
2. PANEL LENGTH (B) = 71.5", 95.5"
3. MAX PANEL SIZE = 96X36" IRC, 96X42" IBC
4. TENSION CABLE TO PREVENT PASSING 4" SPHERE.
5. RECOMMENDED PULLING FORCE FROM CABLE MANUFACTURER 225 LBS



STAIR KITS AVAILABLE IN  
6' AND 8' LENGTHS,  
36" AND 42" RAIL HEIGHTS



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DRAWN: EP	DATE: 02/27/2023	APPROVED:
DESCRIPTION: <b>CABLE RAILING - DETAILS</b>		
SHEET 12 OF 12	REVISION	PART NUMBER
SCALE 1:25	0	N/A
WEIGHT: N/A		