



INSTALLATION GUIDE

NOTE

- When attaching to vinyl siding with wall attachments and vinyl decks.
- Pre-drill holes
- Fill holes in plate with silicone then drive screw in

MAINTENANCE

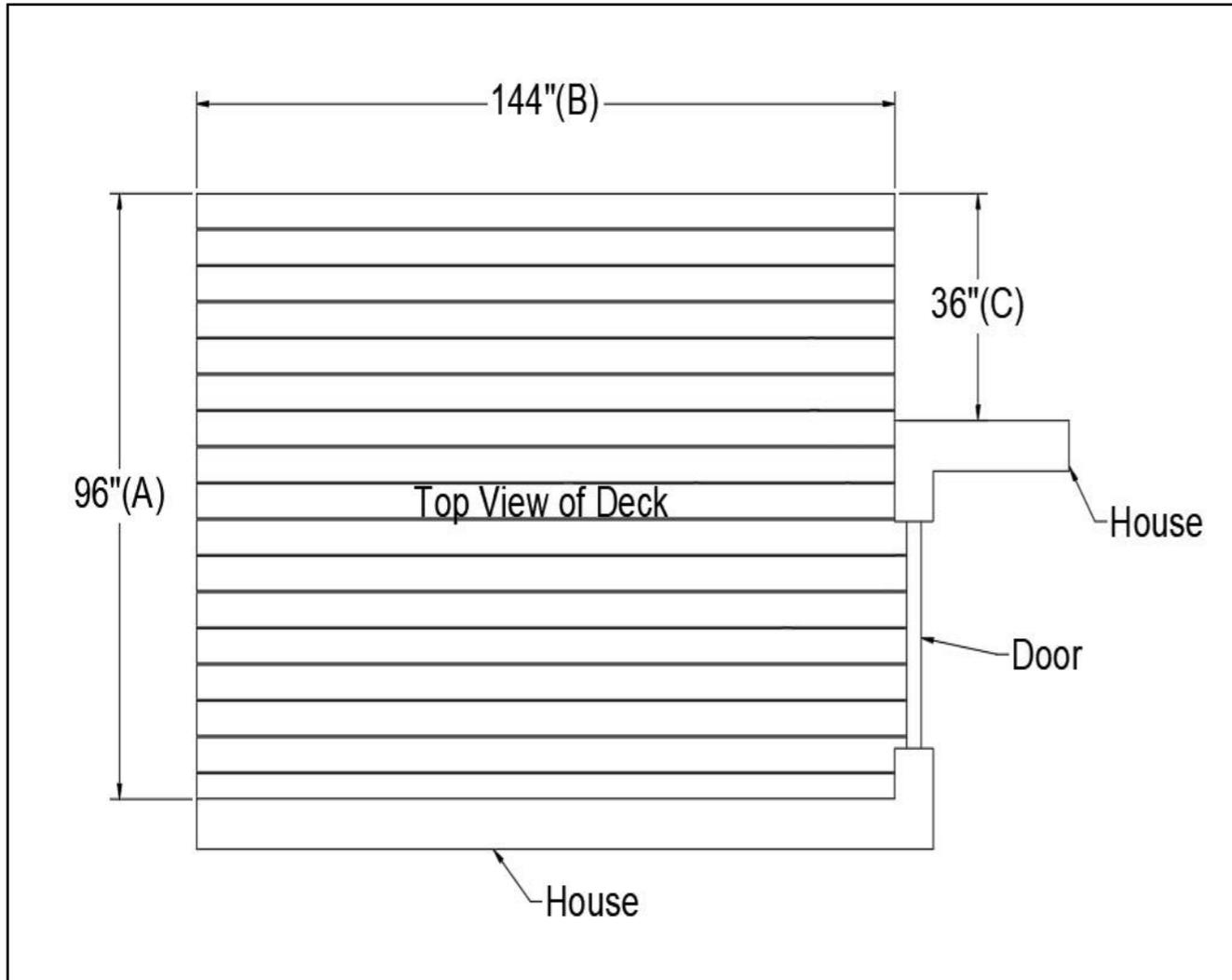
- Silicone around screws need to be checked every two years
- Reapplied as necessary

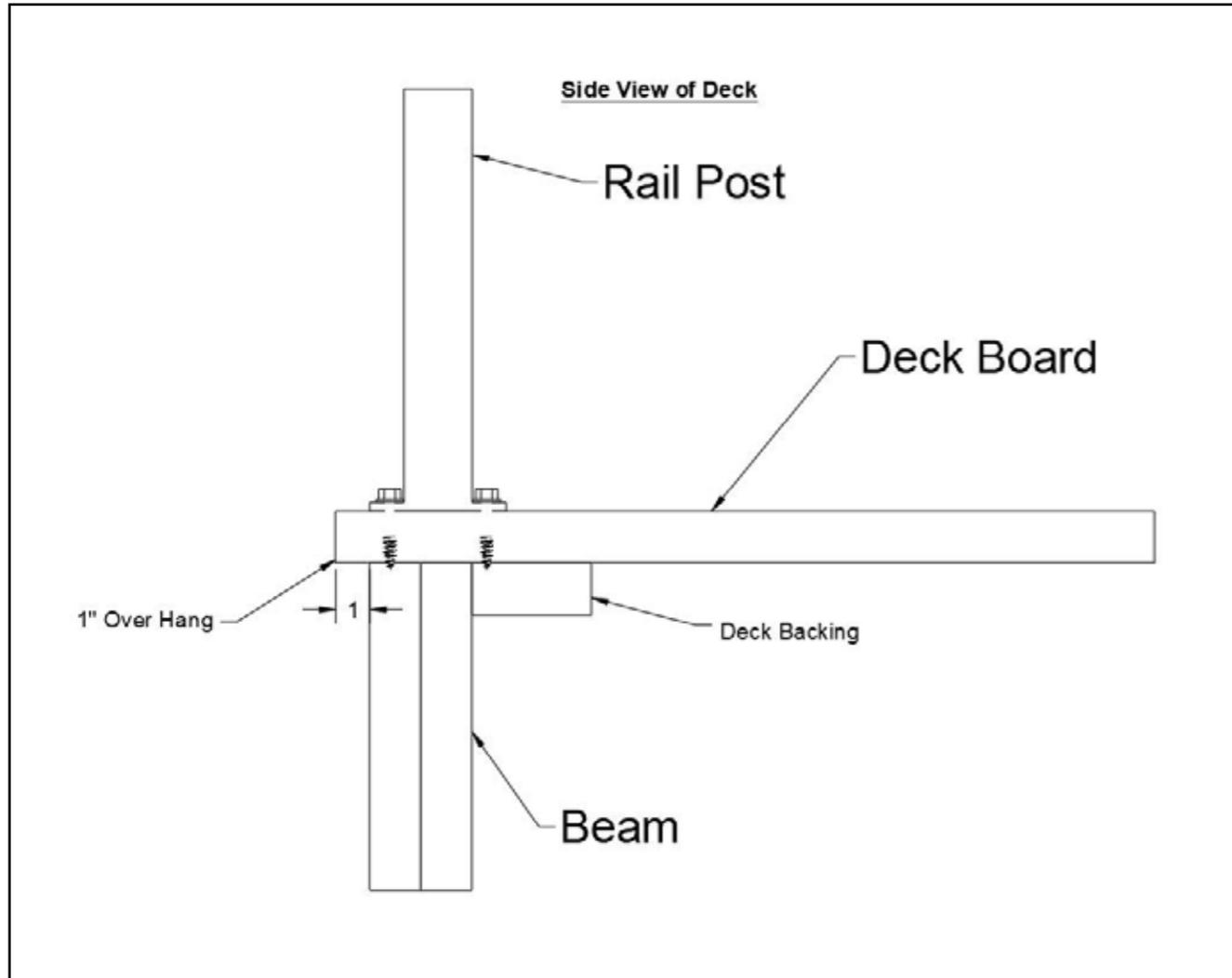
INSTALLATION GUIDE

STANDARD PICKET RAILING

1 MEASURING THE DECK

- Measure overall length of deck
- This will be used to develop the cut sheet
- Recommend using inches



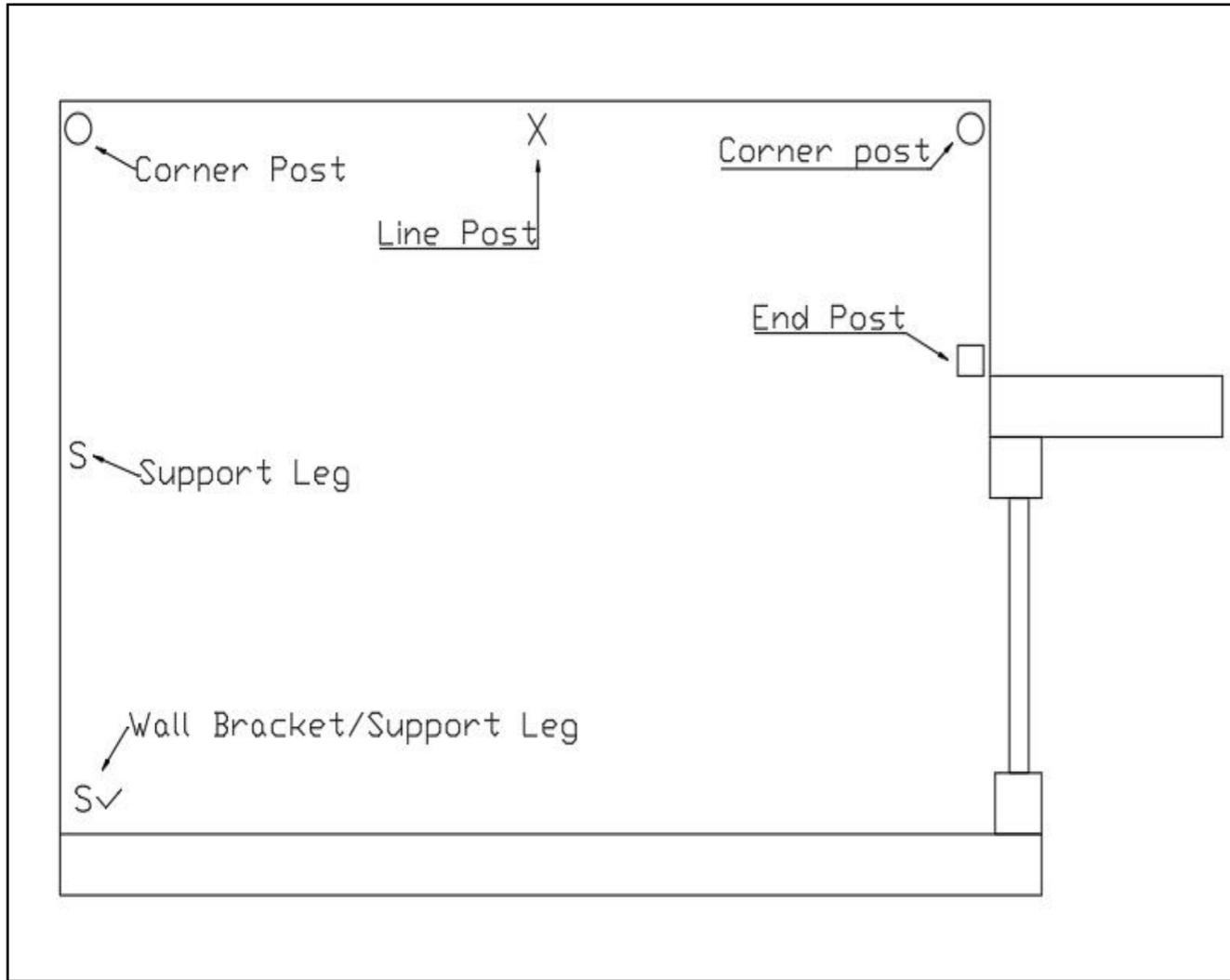


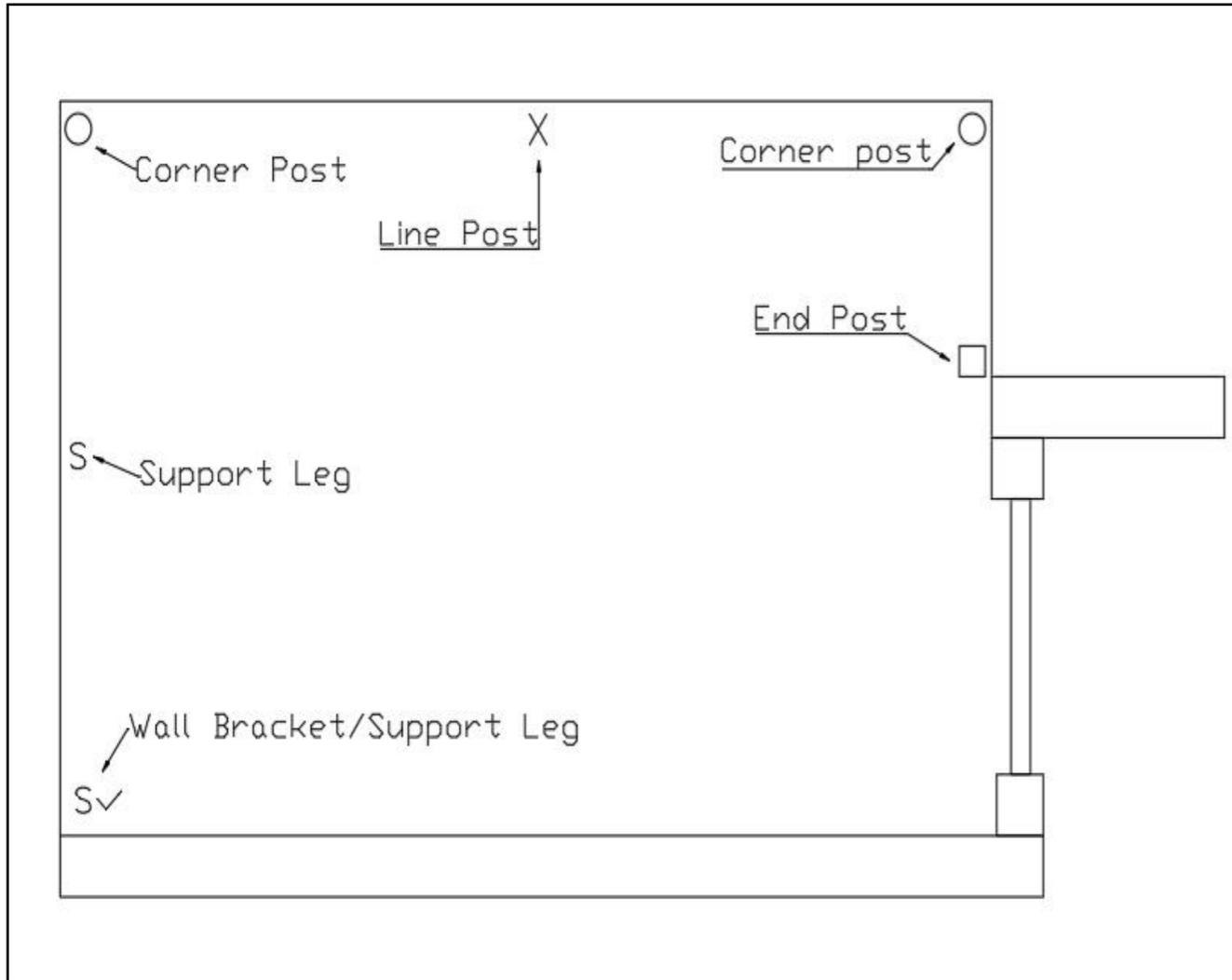
2 CHECK OVER HANG OF DECK BOARDS

- Railing post to be mounted over framing, not the over hang of deck boards
- Measure over hang
- This will be used to develop cut sheet

3 POST LAYOUT

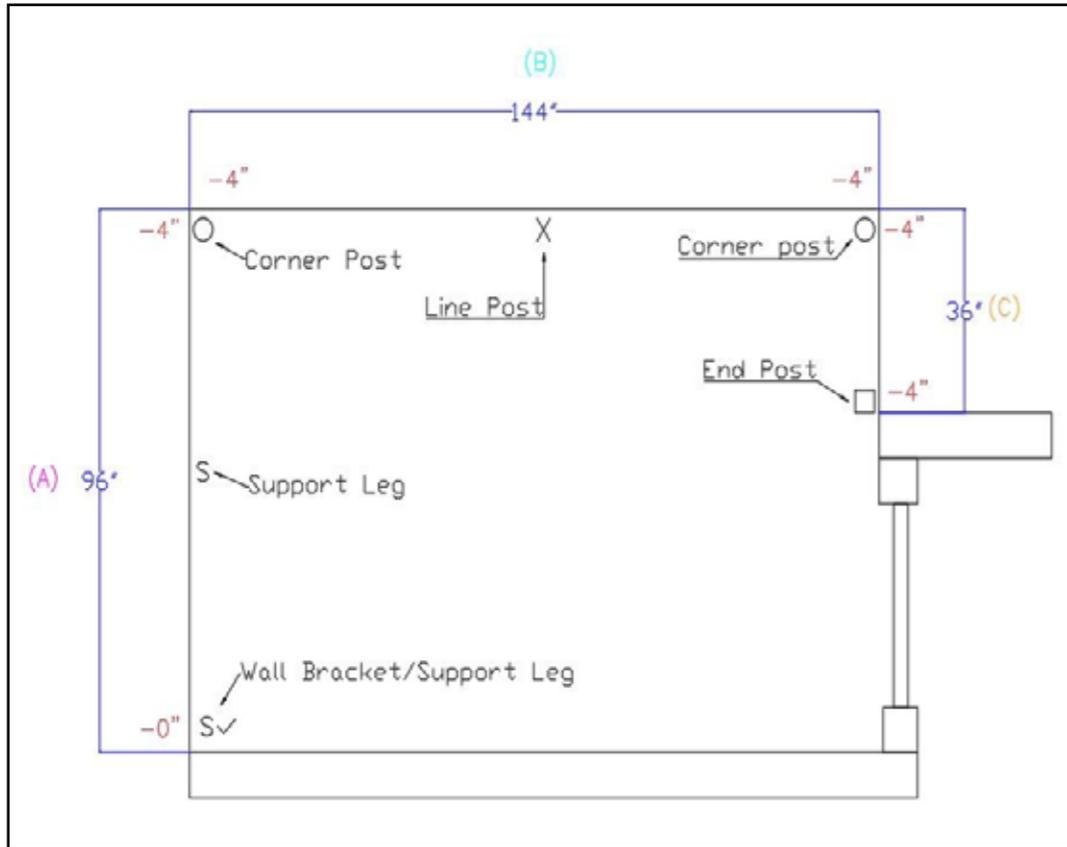
- Know what posts go where
- Posts will effect the cut sheet





4 POST DIMENSIONS

- Post dimensions effects cut sheet
- McLean posts are 2"x2" square posts
- McLean corner posts are 4"x4" base plate
- McLean End and Line posts have 4"x6" base plate
- Bottom rail is cut to the inside of each stated post
- Bottom rail cut is 3" less for every post. Plus whatever the over hang is on the deck boards



Note: Measurement for cut sheet is for bottom rail cut sheet

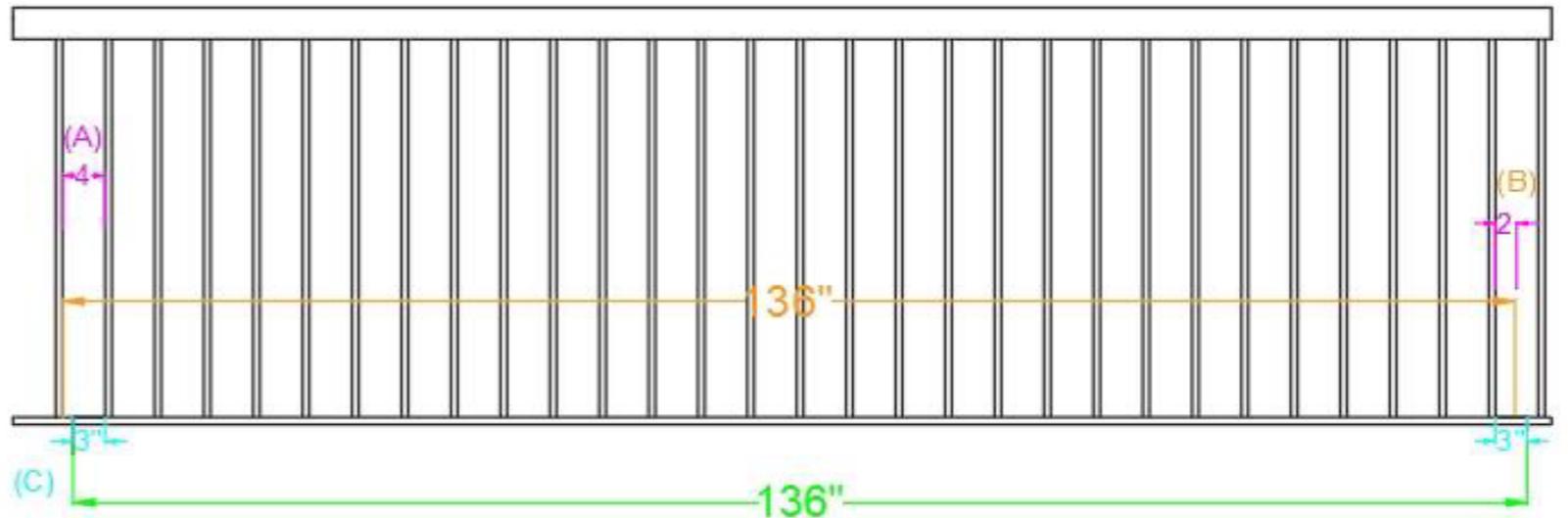
(A) 92" (B) 136" (C) 28"

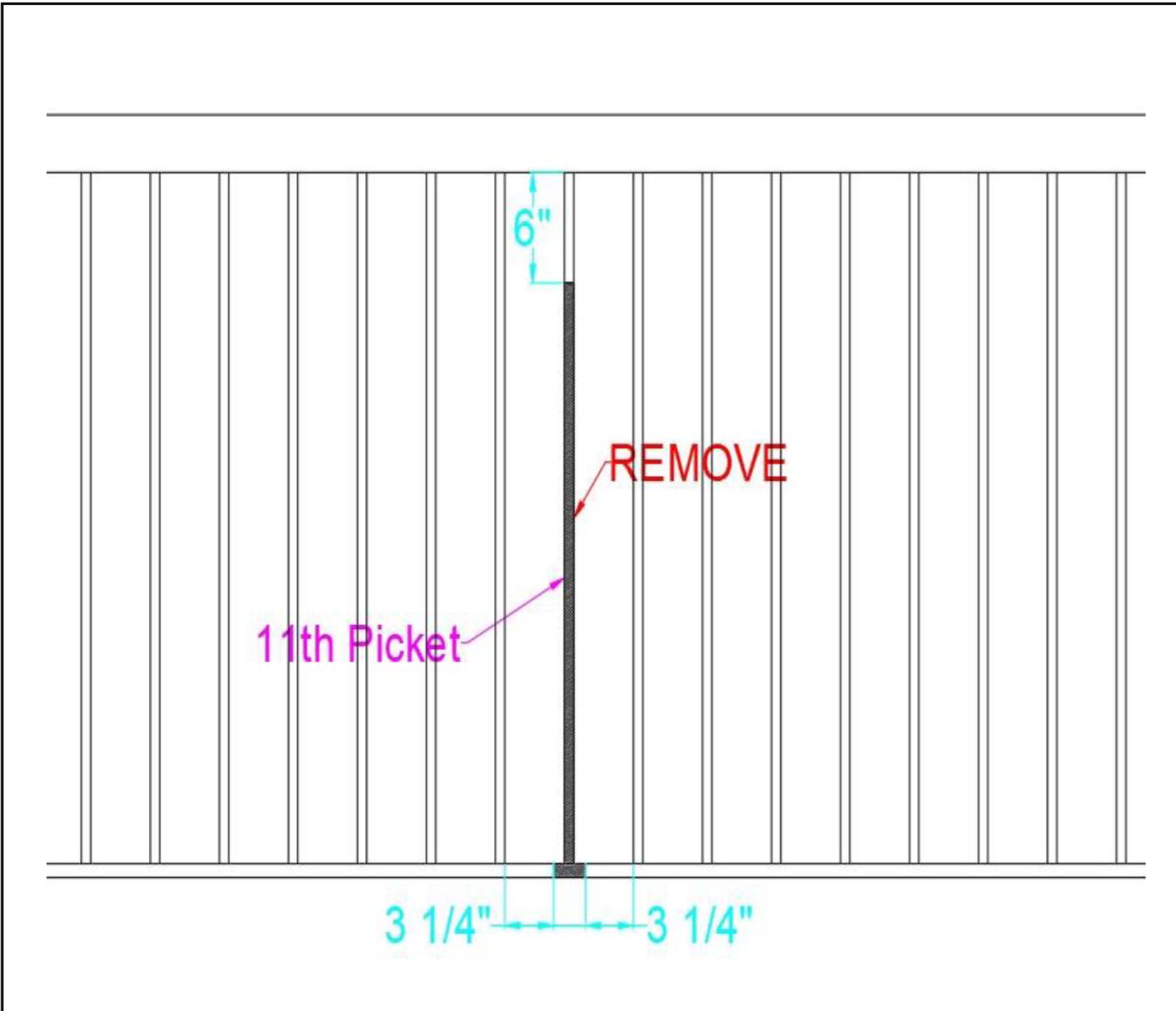
5 CUT SHEET

- Using steps 1 to 4 you can now generate your cut sheet
 - 1) Take the overall measurement
 - 2) Deduct deck board over hang
 - 3) Know what posts are being used for the piece you are cutting
 - 4) Account for deck board over hang
- If there is no over hang, base plate should be 1" away from the edge of deck

6 PICKET SPACING

- Taking the measurements generated from the cut sheet
- Determine picket spacing (corner to corner)
- Picket spacing is 4" (between each picket)
- Goal is to have the same space between post and picket on each side of a single piece of rail
- (A) Always start at a full picket space 4"
- (B) Measure the rail from the start of a picket to the measurement from your cut sheet
- Divide by 2 -> divide the sum of $(A+B)/2=C$
- Now determine (C) is 3" picket space from post to picket on each side of the rail
- Add (A) 4" and (B) 2" together=6





8 CUTTING RAIL FOR LINE POST

- Count the number of pickets in said piece of rail (21)
- Find the middle picket (11) This is the picket line post will replace
- Make one cut 6" from top rail (Cut #1)
- Measure 3 1/4" from each picket on either side of the picket being removed
- Install line post
- Line post has an open slot in the top to slip over the 6" picket you left in the top rail

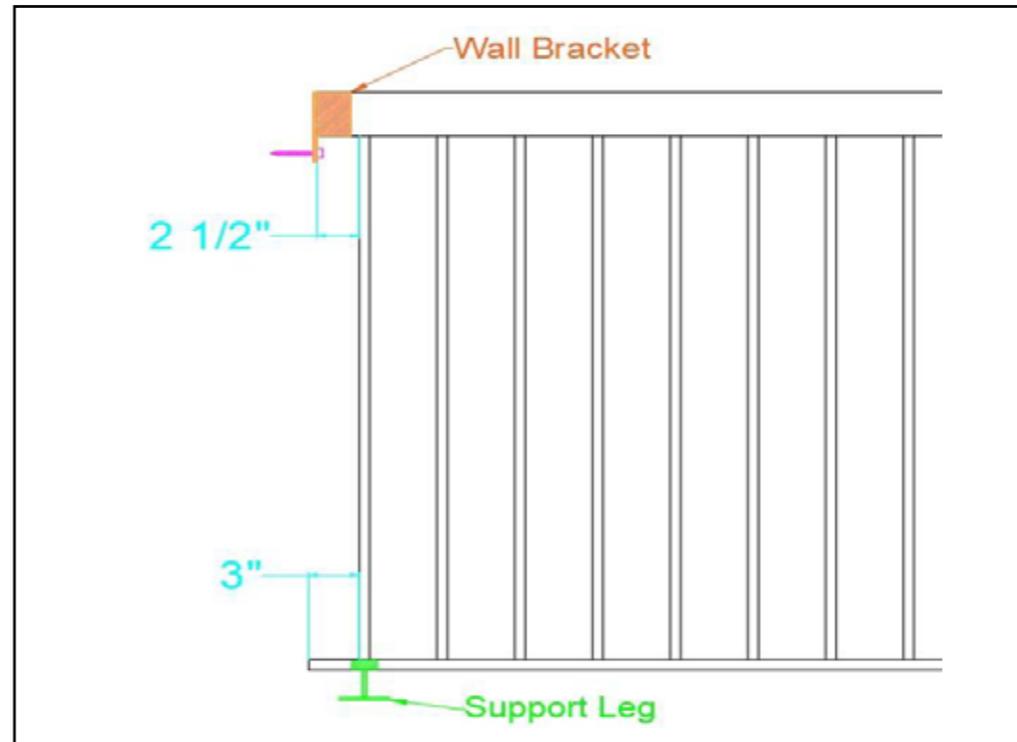
9 CUTTING TOP RAIL WALL BRACKETS

- All rail being cut to go into wall brackets the top rail will be $\frac{1}{2}$ " less than the bottom rail
- This is not the overall measurement but $\frac{1}{2}$ " less from the picket

Note:

- Bottom rail is to be cut square and tight to wall
- Top wall bracket to be screwed flat to surface (not rock)
- Bottom rail is an exposed cut

- Bottom rail to first picket 3" (example)
- Top rail cut to first $2\frac{1}{2}$ " (example)



10 CUTTING TOP RAIL END POST

- For all Rail being cut to go into an end post the top cut will be 3" more than the bottom rail cut
- This is not the overall measurement but 3" more from the first picket
- Bottom rail to first picket 3" (example)
- Top rail cut to first picket 6" (example)

Note:

- Never use a factory end when cutting the rail for an end post
- Factory end of rail: top and bottom equal distance from first picket
- End post requires top rail to be 3" longer than the bottom rail

11 CUTTING TOP RAIL FOR CORNER POST

- For all rail being cut to go into corner post the top cut always be 1" less than the bottom rail cut
- This is not the overall measurement but 1" more from the first picket
- Bottom rail to first picket 3" (example)
- Top rail cut to be 2" first picket (example)

Note:

The top rail cut will always be generated after the bottom rail has been cut and picket spacing has been determined.

INSTALLATION GUIDE

GLASS RAILING

- Follow all the same steps for measuring for picket rail

- For Glass Rail the overall idea is the same as picket

1) Measure the Deck

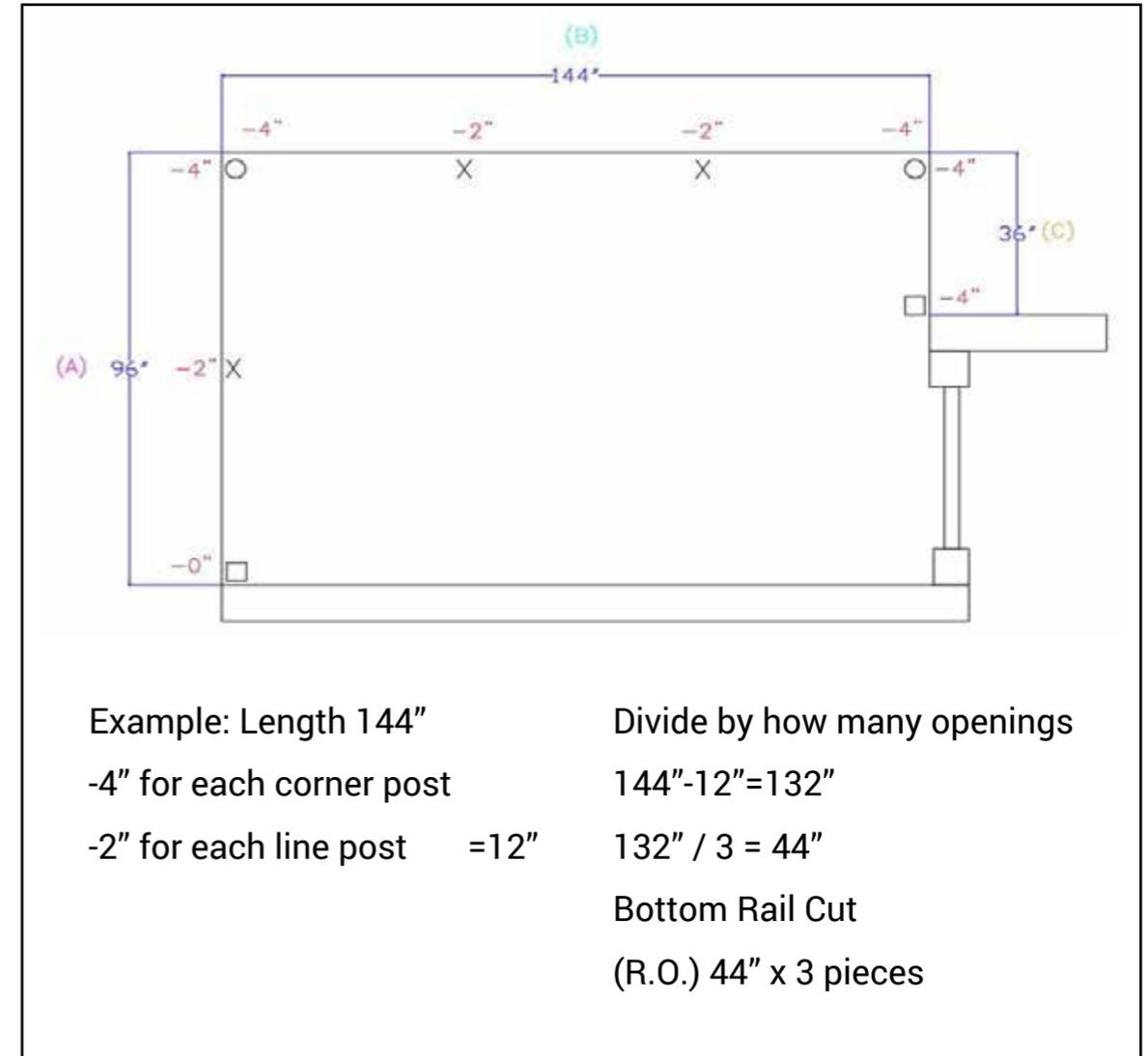
2) Know what posts go where

3) Develop a cut sheet

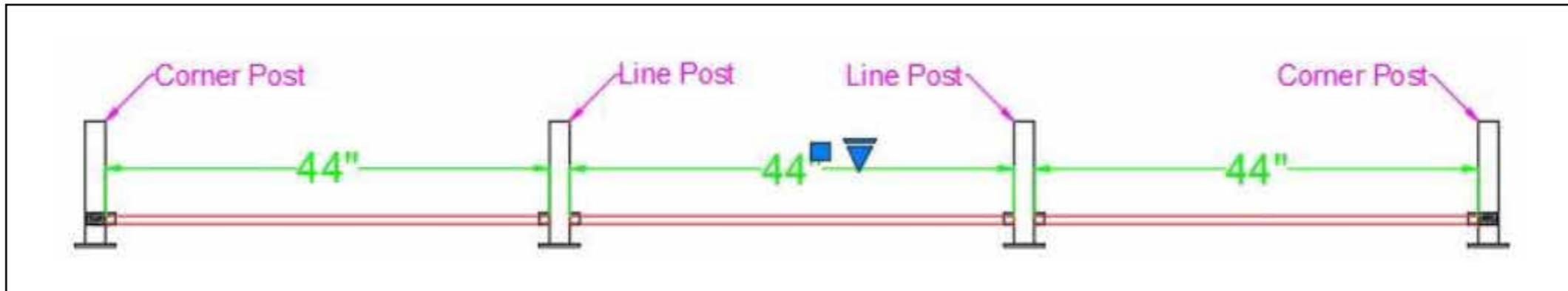
4) Build the rail in a full square piece

5) Install on Deck

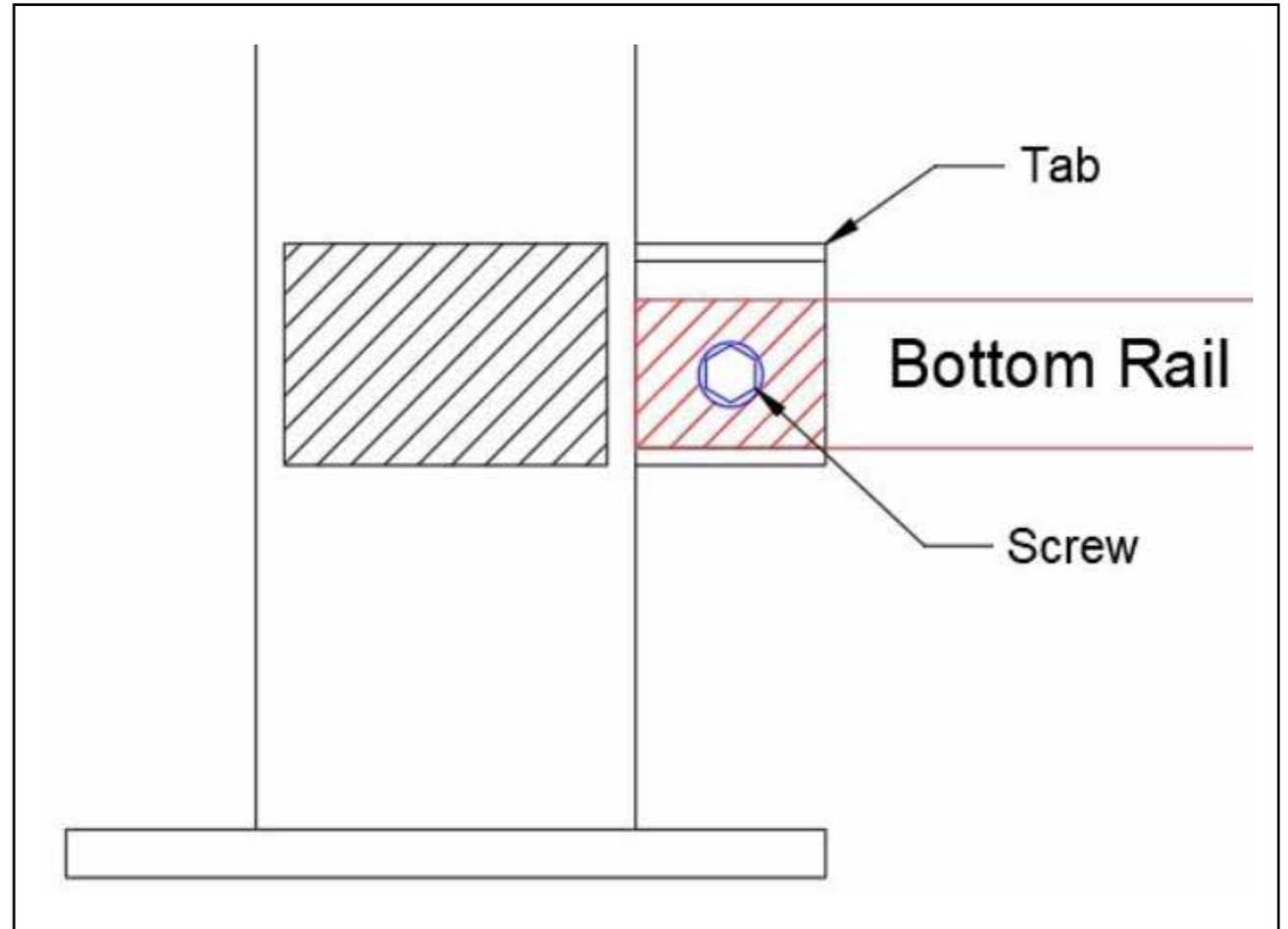
- Where Glass Rail differs is developing your cut sheet
- You still are getting the bottom rail cut first but the bottom rail will be cut to the R.O. (rough opening) pieces
- Then pieced together create the full length of railing



- Cut the bottom rail pieces at 44"
- On a flat level surface slide each bottom rail into the posts
- Make sure the bottom rail is all the way into the tab slot on the post (If it's not it will effect the overall length on the rail)
- Screw in all the bottom rail
- Ensure the bottom rail is resting on the bottom of the Tab

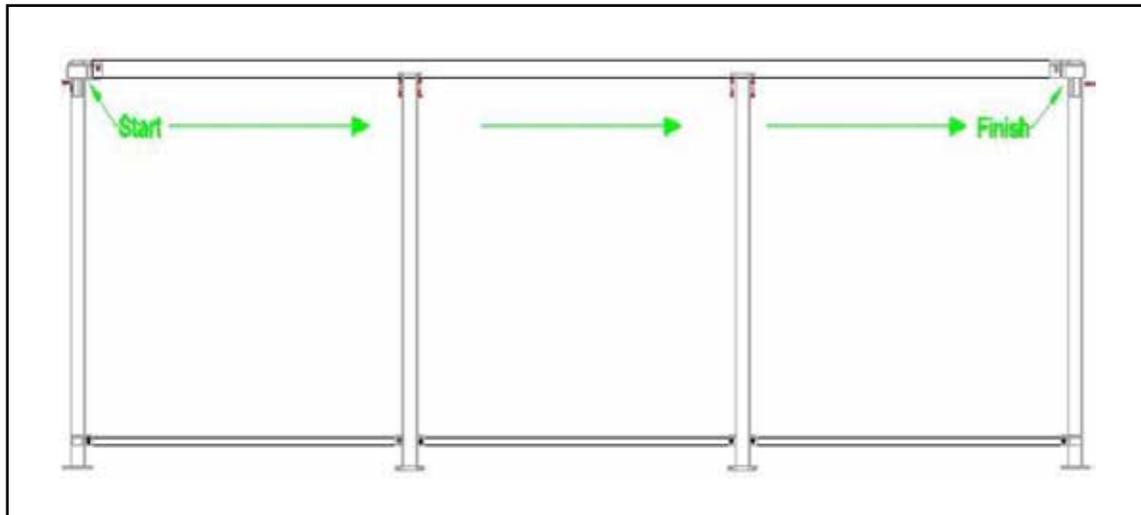


- Once the bottom rail has been fully screwed in, you can measure the top of the rail
- Measure from the inside corner post to the inside of the other corner post (132"-2"=134')
- Minus 1" for each corner top
- Top rail cut will be 134"
- This method gives about 5/8" of play inside the top corner sleeve

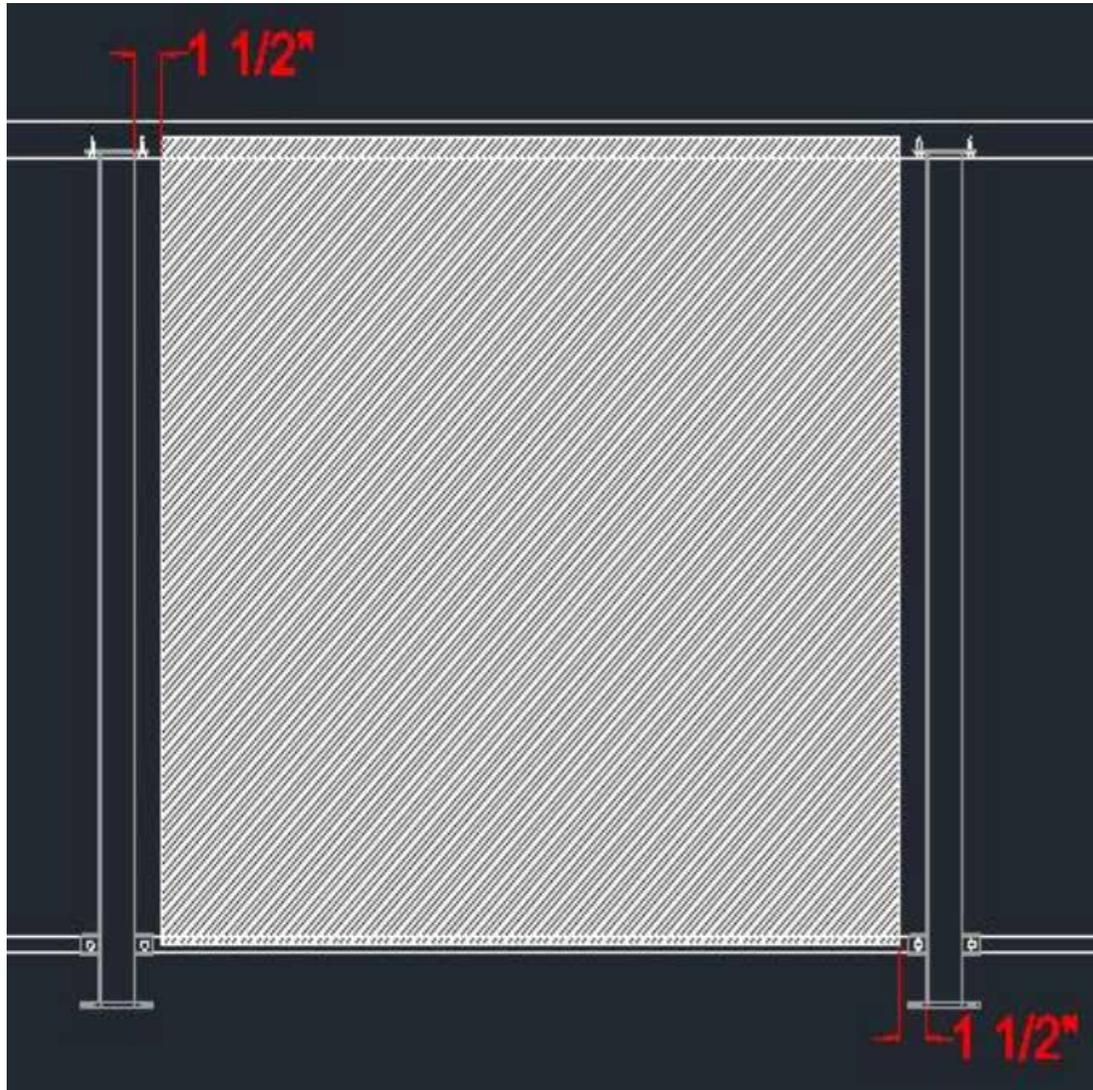


Note

- For end posts the top rail should be cut 3" past the inside of the post $136" + 6" = 142"$
- Install the top rail on your posts
- Start at one side and work your way to the other
- Slide top rail into top corner sleeve (leave $5/8"$ of play in sleeve)
- Screw rail to corner sleeve
- Screw corner sleeve to post
- Measure post to post at the bottom of posts (44")



- Measure from corner post to next line post and make it match the bottom measurement 44" (Square the Rail)
- Screw the four screws in the line post
- Repeat this process moving left to right
- Now you will have a perfectly square piece of rail
- Ready to install on the deck

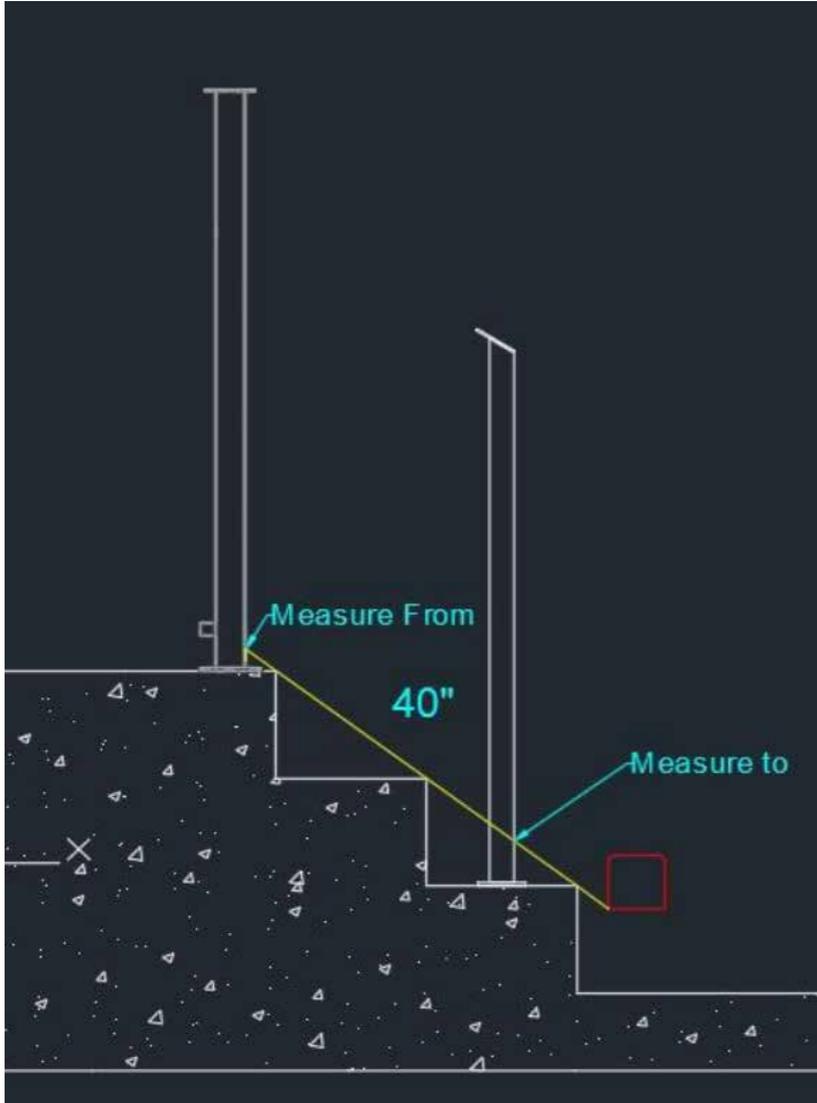


GLASS SIZE

- Your glass panel will be 3" less in width than your R.O. inside of post to inside of post measurement
44" R.O. 41" Glass Size
- Glass panel height is set at a consistent height of 38 1/4" tall
- This gives a 1/2" glass reveal from post to glass on each side of the piece
- To install the glass simply push the panel all the way into the top rail
- Then pull down the glass to rest in the bottom channel

INSTALLATION GUIDE

STAIR RAILING



1 MEASUREMENT

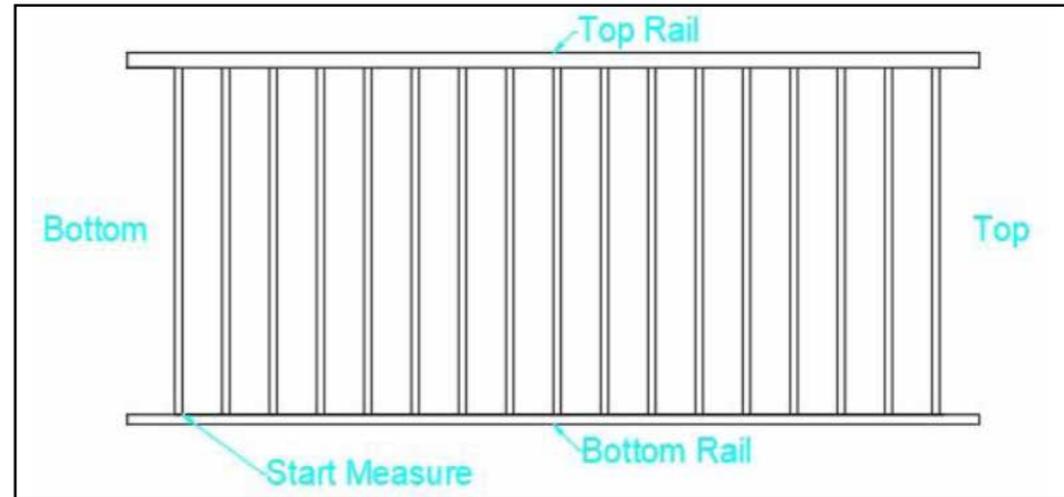
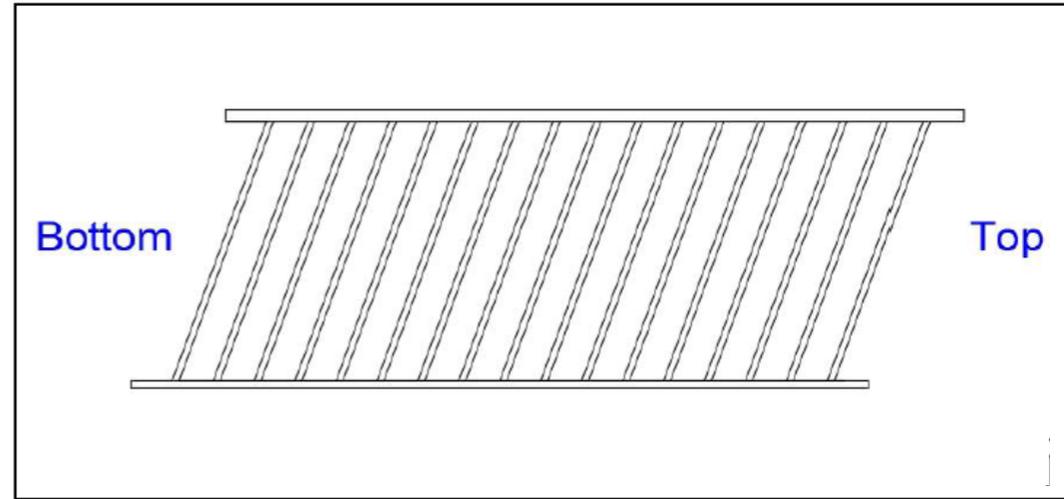
- McLean stair rails come from the factory as a pre-built piece of rail. It features a pivoting picket system that will pivot to the degree you need for your stairs
 - The rail only pivots in one direction
- 1) First install top 2" stair post where you want it and level this post front to back and side to side
 - 2) Install bottom stair post in the middle of the last step level this post front to back and side to side
 - 3) Measure from the front of the top stair post to the back of the bottom stair post (40")

Note: Your tape measure must be touching the stair treads all the way along the steps not lifted up in spot as this will affect your measurement

This 40" is the bottom rail measurement

2 STAIR RAIL (CUTTING)

- Check which way the stair rail pivots. This determines the top of the stair (2" post) and the bottom of the stair (Bottom Stair Post)
- Always measuring the from the bottom of the rail start one picket space in from the factory end



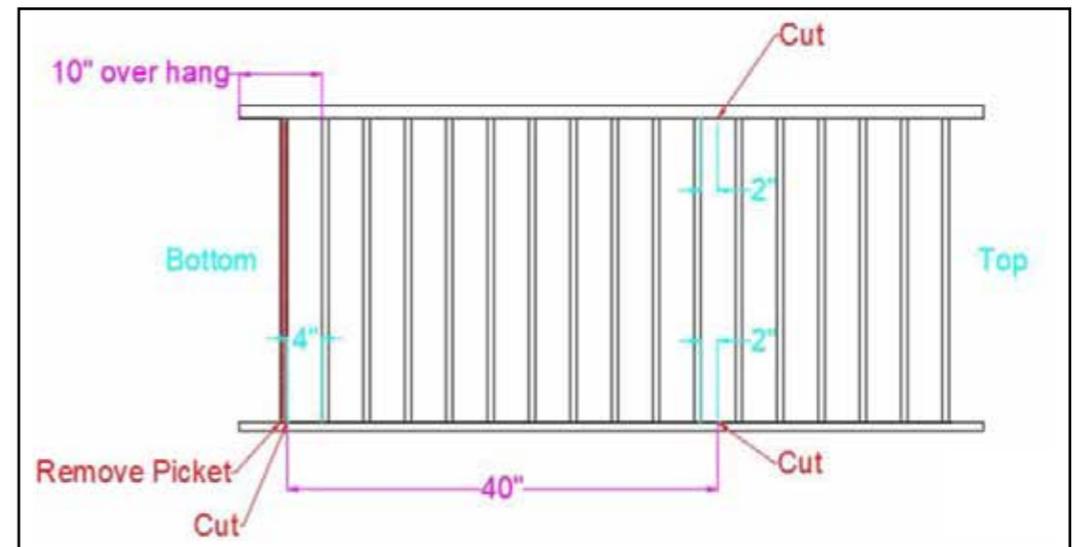
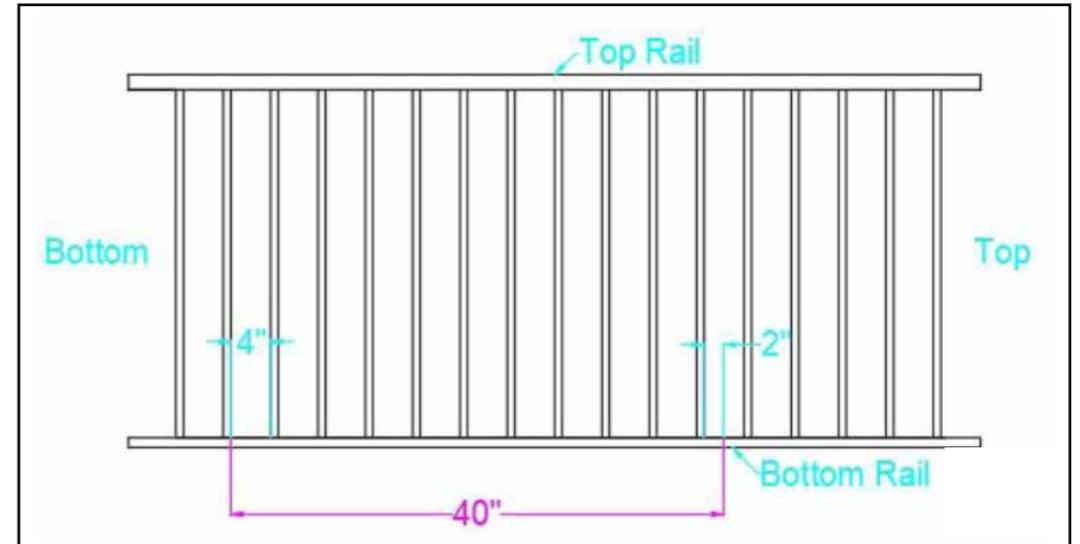
- **Determine Picket Spacing**

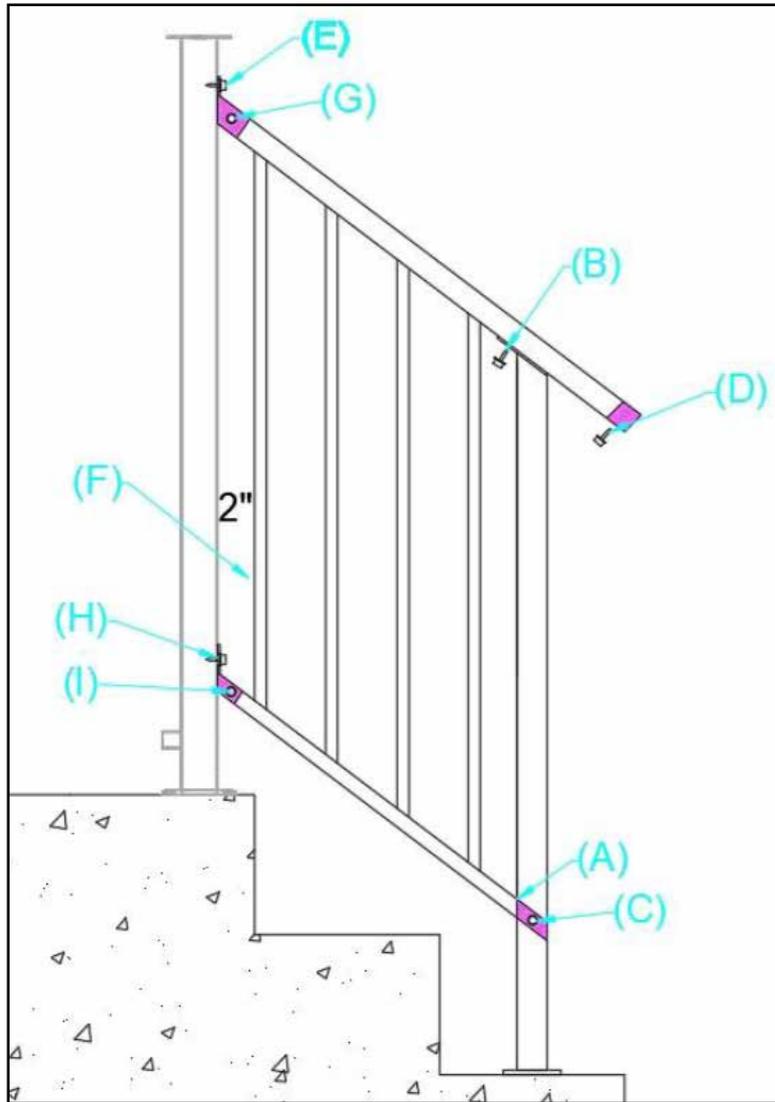
Note: The bottom stair post will deduct 2" from picket spacing

The goal is to have 2" more from the picket at the bottom stair post than at the top stair post

- **Stair rail can now be cut**

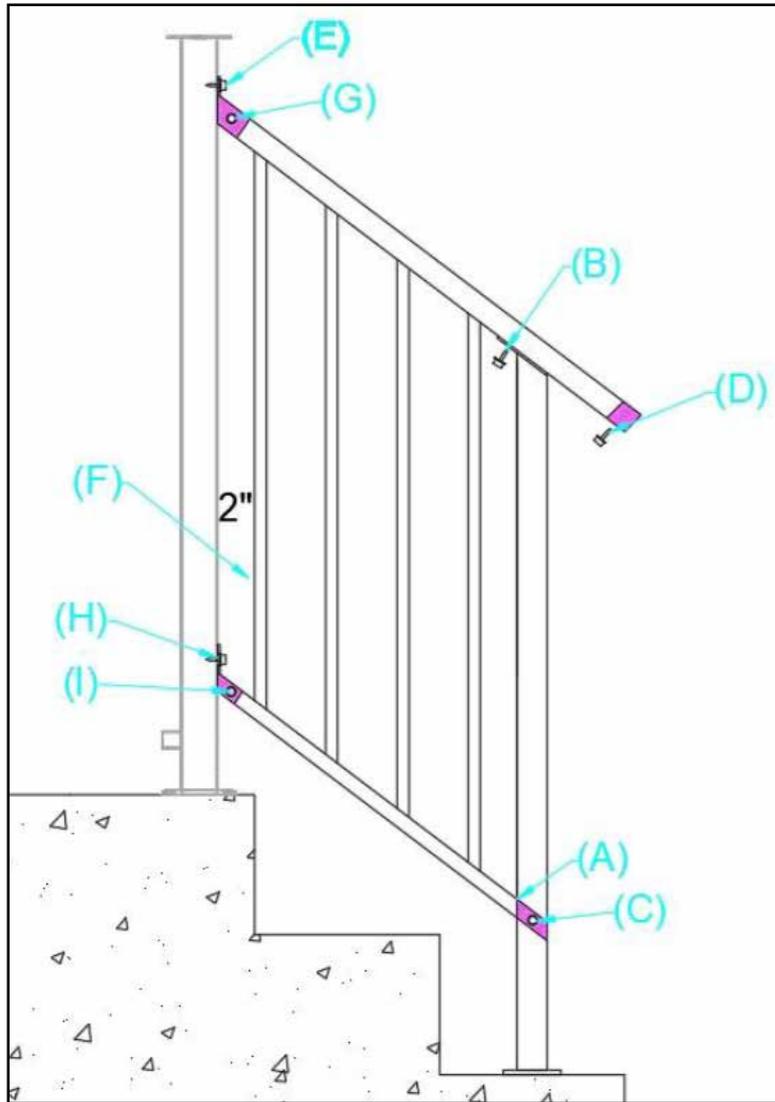
- Make first cut on the bottom rail
- Remove the jacket
- Now measure from the cut line 40" on the bottom rail and cut
- Measure from the picket to the end of the bottom rail should be 2"
- From the same picket measure 2" on the top of the rail and cut





3 INSTALL

- Slide the top and bottom stair bracket on rail (don't screw in)
 - Slide stair rail into bottom stair post
- 1) Pull up on bottom rail until the rail touches the top of the milled hole in the bottom stair post. This will square the picket and the post at the bottom stair post
 - 2) Screw the top rail to the bottom stair post
 - 3) Screw the bottom rail to the bottom stair post
 - 4) Screw on end cap
 - 5) Screw the top stair bracket to the top stair post



6) Make sure you have the same 2" from the picket to the post at the bottom and the top rail

7) Screw rail to top stair bracket

8) Screw bottom stair bracket to top stair post

9) Screw rail to bottom stair bracket

Note: Stair rail must be in between 865mm (34") and 965mm (38") off the nosing of stair to top of stair rail