



Instructions CSA-2.5-AC Accordion Folding Door

1. Install Track per drawing with top of track mount bracket located 6” above bottom of header. It is most important that the track be level so snap a chalk line. Install brackets 24” on center except where door will stack open. At stack area place brackets 6” OC. The standard installation is on the outside face of the building header. Special track and hinge installation steps are necessary if the door is to be installed on the rear surface of the header and column. See Interior track install print.
2. The 6” rubber top seal is installed by placing between track and header. Allow this 1-1/2” of this seal to be below the header.
3. The Rain Cover support brackets can be installed at the same time as the track. Rain cover will be installed after the door is installed.
4. Assembly will be simplified if a gig is built that has 2x4 sides and is the size of the standard panel. This way each panel can be easily squared and bows in the vertical are eliminated.
5. Assemble Door panels. Door will consist of standard width panels and half width outboard brace panel. All standard panels are of the same size and construction. All panels are made up with aluminum verticals, horizontal girts and diagonal brace girts. Each diagonal brace girt makes one bay of the door.
6. Start door assembly with the aluminum verticals face up (the face of the vertical is determined by the “J” trim where the sheeting will be located). The girts will be installed with the seam of the girt on the front of the door, the same side as the “J” trim on the vertical.
7. During door assembly it is important to confirm that each horizontal girt is firmly fitted into the vertical and that each panel is square. Squaring is accomplished by measuring the full diagonal from one corner to the opposite and confirming on the other diagonal – adjust until equal.

8. Assemble panels and lay out in relation to their position when installed. The panels will need to be rotated during assembly and it is important to rotate end to end rather than side to side to insure that the panels remain properly sequenced.
9. The normal installation has the Outboard Brace Panel hinged to the outside face of the building column, see notes if the door is to be installed in the inside face of the header and column.
10. Measure each vertical for the Girt Spacing listed in your print. This spacing is from the top of the door to the top of the next girt, Use the same dimension to mark the top of each girt.
11. Starting at the top of each panel, insert the top girt into the each side vertical and install one 12-14 x 3/4 tek screw close to the top. Visually confirm that the girt is fully inserted into the vertical.
12. Continue to insert each intermediate girt and diagonal brace between at the mark and attach with one screw near the top, again confirm that the girt is fully inserted into the vertical.
13. The diagonal brace girt is installed in each bay. This brace girt is sized to fit without cutting and the but end of the girt will be stronger than having the end cut at an angle. The door must be square for this to fit properly.
14. Insert the bottom girt flush with the bottom of the door and insert one tek screw at each corner close to the top of the girt.
15. Complete same operation on the other vertical of this panel.
16. During the process of assembling the front of each panel, should a gap between the vertical and girt be noticed, remove the tek screw, position the girt fully into the vertical and reposition the tek screw at a new location.
17. Square the door by measuring from one corner to the opposite and equalizing that with the other diagonal.
18. Insert a second tek near the bottom of each girt.
19. After the horizontal girts, tek the diagonal brace girt two places each vertical after the door is squared.
20. Repeat for each standard panel.

21. Assemble the Outboard Brace Panel with the same steps as the standard panel. This brace should not need to be field cut to fit. The brace does not have to fit tightly but will become tight when the tek screws are installed. The diagonal brace needs to allow the panel to be squared. If the brace is too long, the panel can not be squared. After installing all the tek screws into the horizontal girts and squaring this panel, install teks into the diagonal brace. Note: the diagonal brace should be positioned as shown in the print from the outboard hinge the brace should angle up.
22. Hinges are installed in three locations; on the SIDE of the outboard brace panel, on the REAR joint that folds out and on the FRONT of the joint that folds in. The hinge is attached at each location with a ¼-20 Lock Head Tek Screw. Note: the hinge locations are reversed on doors that will be installed with the track on the inside face of the header. Use a 1/16" spacer between the verticals when installing the hinges.

Note: Not all joints are hinged together. On larger doors, the door will operate in 2 or more sections going each way. At joints that are not hinged, an astragal will be supplied to close off any gap. **Only Hinge Two Panels Together At A Time Until The Door Is Hung.**

23. Attach outboard hinges to the side of the Outboard Brace panel with ¼-20 Lock head tek screws locating one hinge at each girt.
24. Turn each panel over top to bottom. DO NOT rotate side to side – this will change the hinge relationship.
25. Insert the trolley support gusset between the top girt, diagonal brace girt and the vertical. With pressure, this gusset can be forced into the vertical. Tek screw in place with screws in the top rail, diagonal brace and thru the vertical except where the hinge will be located.
26. Attach one rear hinge at each girt connecting the Outboard Brace Panel and first standard panel and between the third and fourth standard panel at each girt using ¼ x 20 lock head tek screw. It is recommended that you pre drill during this step using a 1/8" drill bit to insure that the tek is fully into the girt before it starts threading into the vertical.
27. Install Tek screws at the rear of each panel that does not get a rear hinge through the vertical at each girt using two 12-14 x ¾ teks.
28. The front hinges will be installed after the doors are hung on the trolleys.
29. Assemble two single axle trolleys and insert into the track. The trolley assembly has the bolt head near the header and the pendant bolt and nut away from the header.

30. Place remaining trolley wheels only, not assembled, into the track and locate near the center of the opening between the two assembled trolleys.
31. Place a wood spacer on the floor at the building jamb and stand the Outboard brace / first standard panel up. Adjust height to have the top of the door level and approximately one inch below the header and have the outboard brace panel lapping the building column by one and one half inch.
32. Temporally screw one screw into the column at top, center and bottom hinge, this can be a smaller screw than the lag bolts supplied for final attachment.
33. Place shims under the door panel and rotate the two panels, outboard brace and standard panel, open with the standard panel flush against the building column. Half of the standard panel will be inside the building and the panels perpendicular to the opening.
34. Use the trolley hanging in the track to mark the location center line for drilling the hole in the top girt of the first standard panel. Place a Guide Bracket #500887 on the rear of the top rail at the marked center line, tek screw in place and drill a 1/2" hole and oversize somewhat to allow the trolley to move up and down freely.
35. Measure the center line of the trolley in the top rail from the hinge line outside the building. Transfer this dimension to the standard panels not yet hung. Mark the center line for the trolley hole in the top rail of the remaining standard panels using the installed hinge as reference of where to measure from. The trolley will not be centered so take care in locating this hole. Drill the top rails with an oversized 1/2" drill bit using the guide bracket as a drilling guide.
36. The dimension may be different from one side of the opening to the other so repeat this step for each side.
37. Place pendant bolts in top rail of the standard panels.
38. Identify the panel that will have the Primary top lock and Secondary top lock (in doors that have more than one group of panels going each way) and prepare the top and bottom rail girts for the top and bottom lock systems.
39. Install the top lock system and attach the control cable. The control cable needs to be long enough to touch the floor at this point.
40. The lock girt and latch systems will be installed after the door is hung and the location of the exterior sheeting can be determined. The lock needs to be placed on a flat section of the exterior sheeting.

41. Tilt up the second and third panel and attach to the trolleys.
42. Generally no more than four door panels can be operated together at one time. When using guide system #3 with a recessed floor track, three door panels may be the maximum. Larger doors will have panels operated in groups of two or three. This will determine where hinges are installed. Doors assembled and installed in two panel sections may require the hinges to be removed from the rear of one connection so the panels can operate in three panel groups. This can be done after the door is hung or with prior planning. If done prior, a single panel will be hung and attached to a previously hung two panel section. The joint between the panels that are not hinged together will have an astragal attached to close off the gap and a chain snugger is supplied to lock the panels together.
43. Close the door, level by adjusting the trolley nuts to create an even gap between the panel groups and even spacing under the header. Clamp the panels together where the Front Hinges will be installed.
44. Install the Front Hinges with ¼-20 lock head tek screws locating one at each girt. Use a 1/16" spacer between the verticals when attaching the hinges.
45. Repeat on the other side of the opening
46. Remove the temporary column screws from the side hinges.
47. Level the entire door and adjust the gap between the two halves to be equal. Then adjust the door to be centered in the opening. Use a ½" spacer at the center of the door and clamp the center verticals together.
48. The door may not be flat at each hinge joint before the locks are in place so force the hinge joints flat by bracing.
49. Confirm that the Outboard Brace Panel is level with the remainder of the door and screw the hinges to the column. Recommend that two hinges be installed and then the door operated to verify that the Outboard Brace Panel is properly positioned.
50. Binding that does not allow the panels to fully open can be caused by the column hinge location or the trolley location in the first Standard Panel. If this happens: remove the screws from the column hinge and open the door, mark the top of the hinge on the column, close the door and replace the hinge screws. If the hinge screw was in the correct location, check the position of the trolley pendant in the top rail. With the door open and hinge attached to the column, the trolley pendant bolt with the trolley installed in the track

marks the center line for the hole in the top rail. After the door operates smoothly, install the remaining hinge screws.

51. Close the door and place a striker / block of wood or steel angle under the track at each Center Lock Location. This will be located level with the bottom of the header. Drill for the Primary Center Lock Head Bolt. The Secondary top locks will lock into the top track and will not require a separate strike.
52. Install the Primary Center Lock Bottom Cain Bolt and drill a hole in the concrete. (Hole not required with option #3 recessed bottom guide system or with the floor mounted strikes)
53. Install bottom guide / Lock system. See drawings for specifics for each system. Complete door leveling and outboard hinge installation prior to installing bottom guide / lock systems.
 - a. Option #1 includes bottom cane bolts and a floor surface mounted strike system.
 - b. Option #2 includes Manual bottom cane bolts and holes drilled in the floor.
 - c. Option #3 includes Bottom Rollers and a recessed guide channel formed in the floor.
54. Determine where the sheeting will be installed on the panels and mark the location of the flat at the Primary Center Lock and Secondary Lock (if installed). Install the lock girt between two horizontal girts at this location.
55. Attach the interior Latch Lever and route the control cable from the top lock down through the interior latch lever uncut to the bottom cane bolt. Use cable clamps to connect the cable to the top and bottom lock. The exterior lock will be installed after the sheeting is installed.
56. Install the exterior sheeting, bottom seal and rain cover
57. Drill a 5/8" hole for the exterior lock handle and install. If other access to the building is available, the exterior lock is not required and may be omitted.
58. Attach the astragal at the center of the door and at joints between operating groups if the door is operated in more that one group each direction.
59. A chain Snugger latch is supplied for the joint between grouped operating sections not hinged together. This is installed per the directions packaged with the snugger. If the only access to the building is through the Accordion Folding Door, Secondary latches must be installed in the outboard brace panel. On very large doors with three or more operating groups going each way, additional secondary latches will be required. This lock will have the top cane bolt lock into the track and must be positioned so that the lock will be

outside the building with the door open. The chain snugger can not be installed on the door section that will be used to gain access to the building but should be installed on the other side of the opening.

60. Note: Interior track installation notes.

- a. The standard installation is on the outside face of the building header. Special track and hinge installation steps are necessary if the door is to be installed on the rear surface of the header and column. See Interior track install print.
- b. On doors that will have the track installed on the inside face of the header, the door assembly starts with the door face down.
- c. Hinge locations are reversed on doors that will be installed with the track on the inside face of the header.
- d. The hinge between the Outboard Brace Panel and first standard panel is on the front of the door.
- e. The rear hinges will be installed after the doors are hung on doors with the track installed on the inside face of the header.
- f. The outboard hinge is installed towards the front at the "J" trim.

61. Door operation:

- a. Operation varies by panel group quantity and bottom guide system.
- b. On doors with two or more groups moving each direction, unlock the secondary lock closest to the building column.
- c. Begin moving the outboard panels by rotating the panels
- d. On doors with manual foot bolts, only raise the foot bolts for the group of panels to be opened, do not raise all foot bolts at one time.
- e. On doors operated with one group going each way or after the panels with the secondary locks are opened, Unlock primary lock and rotate the remaining panels.
- f. There will be push points that move the door smoothly and others that cause binding. Try various push points until you locate the best position to move the door. Generally, the best place to push the door is at the panel hinge line closest to the building column. The poorest place is the farthest away from the column. As the panels fold to the open position, it may work best to push two panels at a time working closest to the building column.

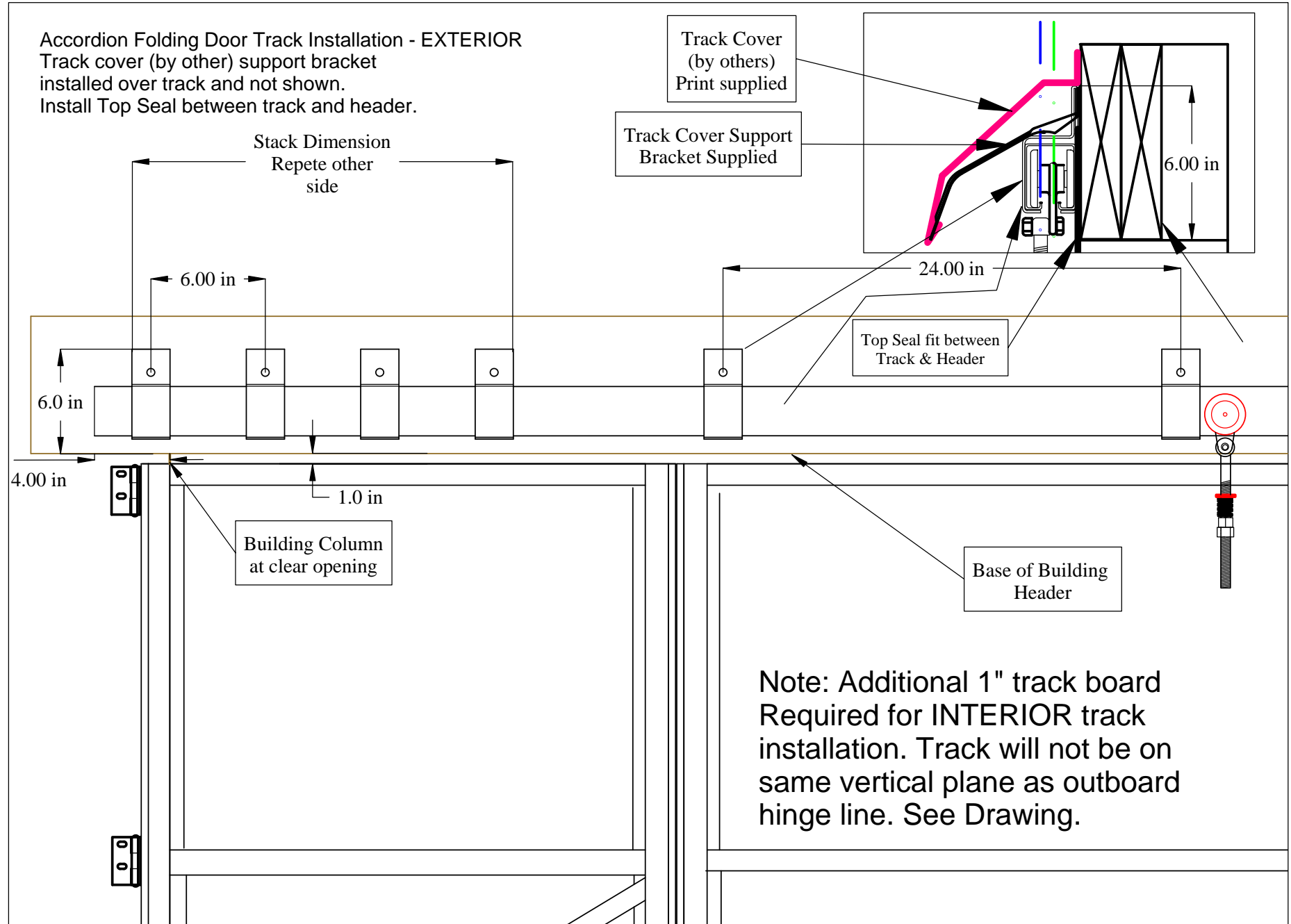
62. Door Maintenance:

- a. Lubricate hinges and locks with dry graphite annually or when needed.
- b. Confirm that all trolley nuts are tight and spring compressed. All trolleys adjusted to give equal support. Equal support generally means that the trolley pendant bolt has the same amount showing below the nuts.
- c. Trolley lubrication is not recommended.

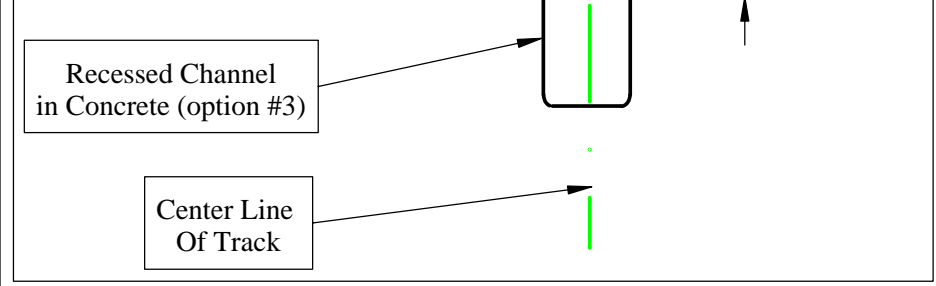
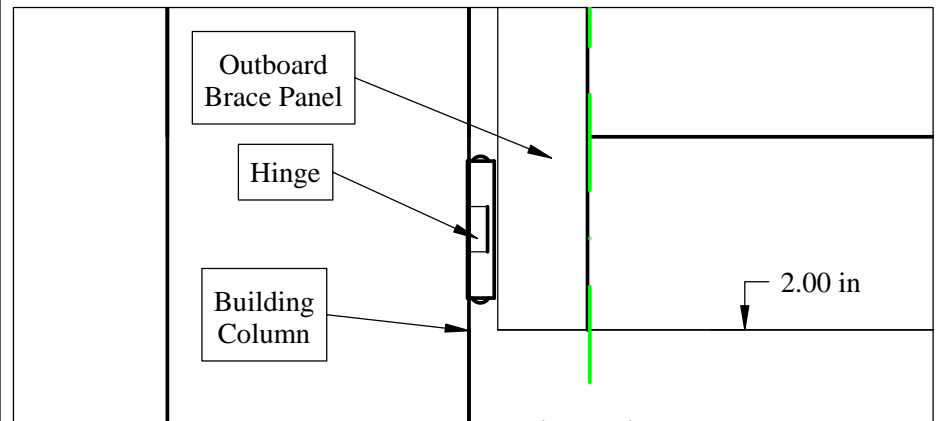
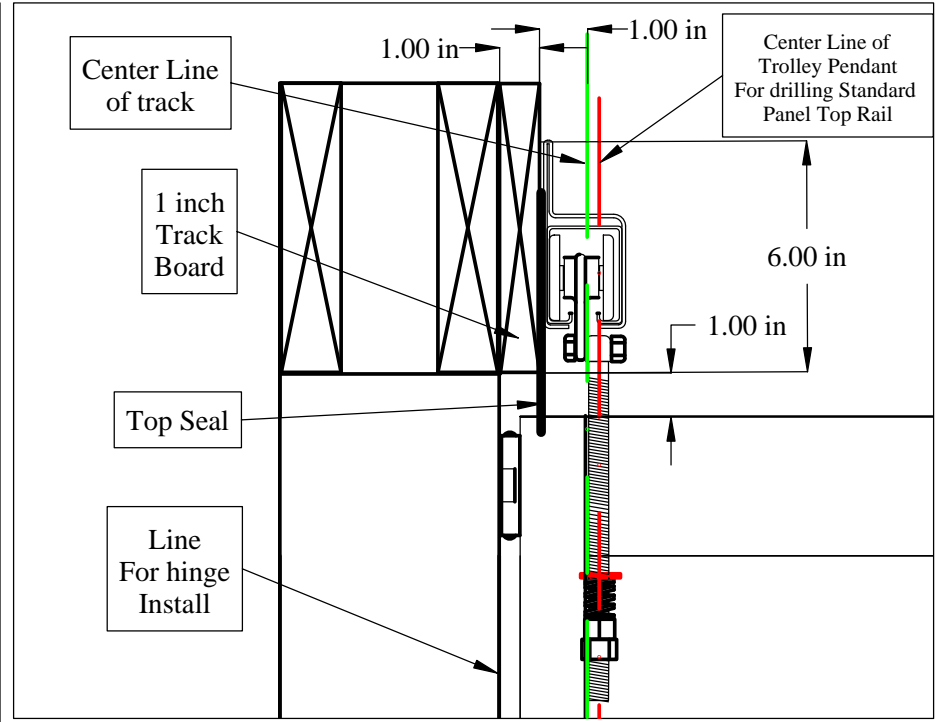
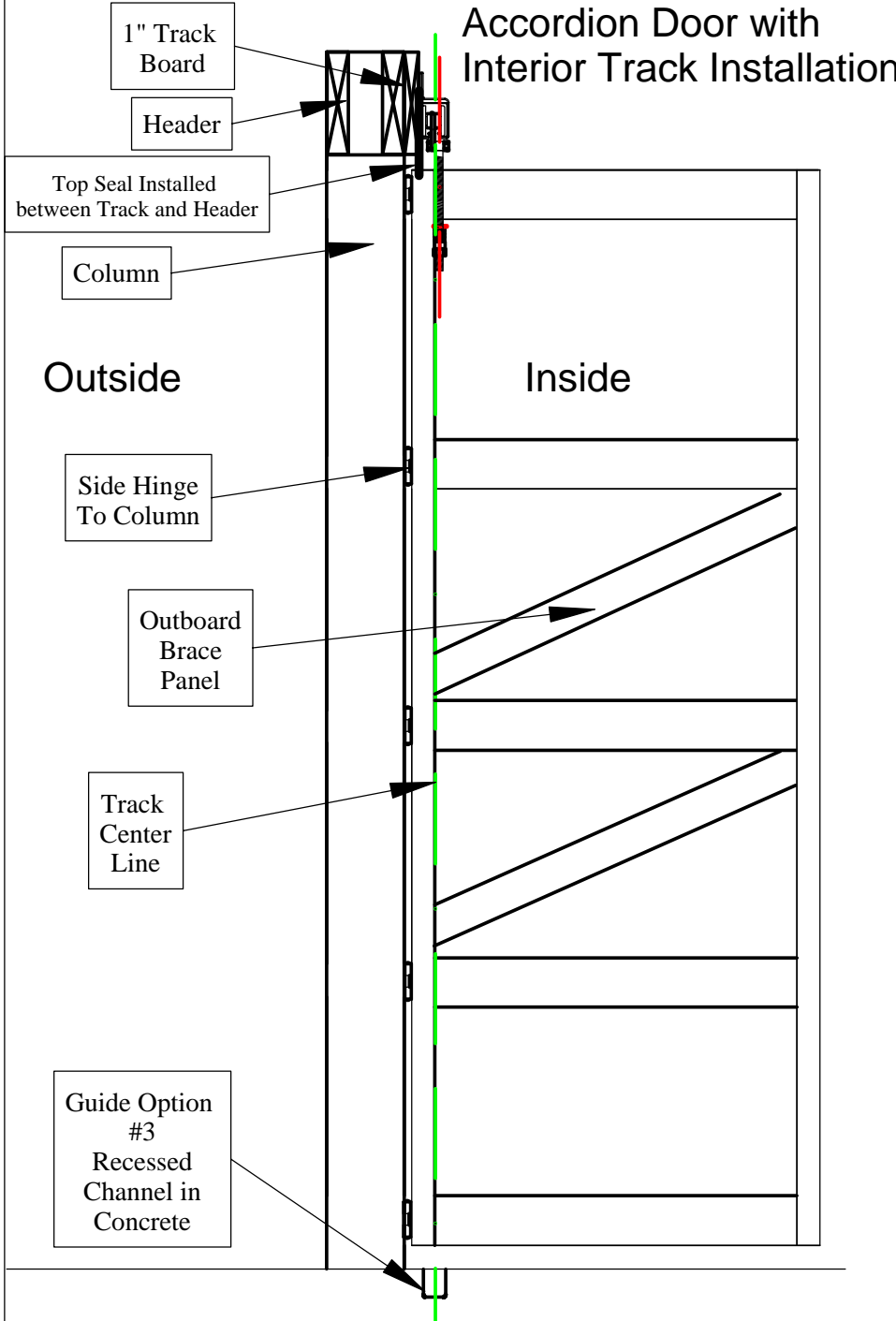
- d. Confirm that all locks move smoothly and fit into strike hole minimum 1”.
- e. Confirm that all hinge tek screws are tight.
- f. Check bottom lock systems periodically. Confirm the drilled holes in the concrete are clear of debris, Confirm that the floor mounted strikes are tightly attached. Confirm that the bottom rollers are turning and are tightly installed in the bottom rail.
- g. Lubrication of the upturned legs of track (where the trolley can rub) at the stack area and for the next four feet approximately will smooth the initial closing and final opening of the door.

Accordion Folding Door Track Installation - EXTERIOR

Track cover (by other) support bracket installed over track and not shown.
Install Top Seal between track and header.



Accordion Door with Interior Track Installation



Cool-Air Accordion
Folding Door System
Open installed on
Steel Building
One half of a 8 panel
System shown CSA-2.5
Duplicate on opposite Side

Outside

9.0" stack
Dimension

Column insert
(by others)

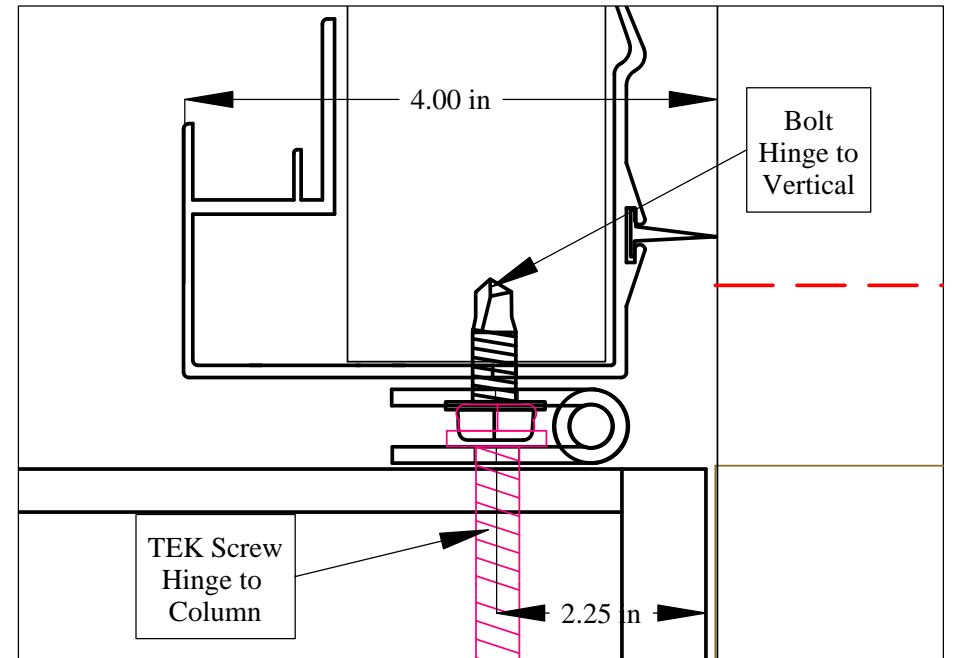
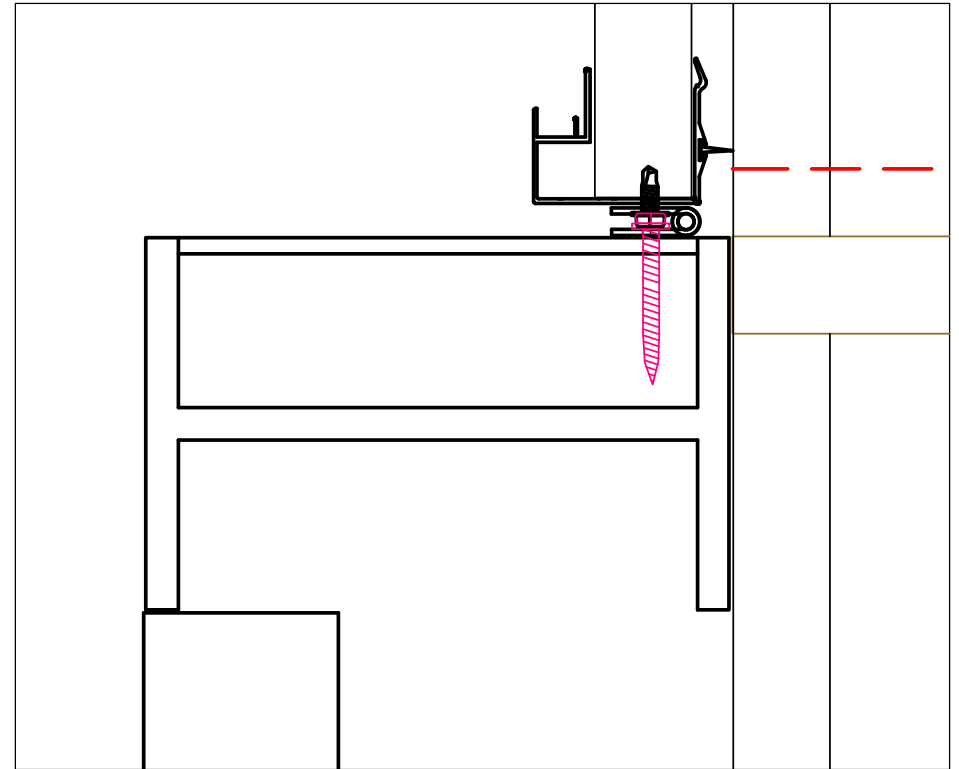
Top
and
Bottom
Track
C/L

Side Wall
Girt

1.00 in

Header
(by others)

Inside



Cool-Air Accordion
Folding Door System
Top view Open installed
on a Wood Building
One half of a 8 panel
System shown CSA-2.5
Duplicate on opposite Side

Outside

9.0" stack
Dimension

Top
and
Bottom
Track
C/L

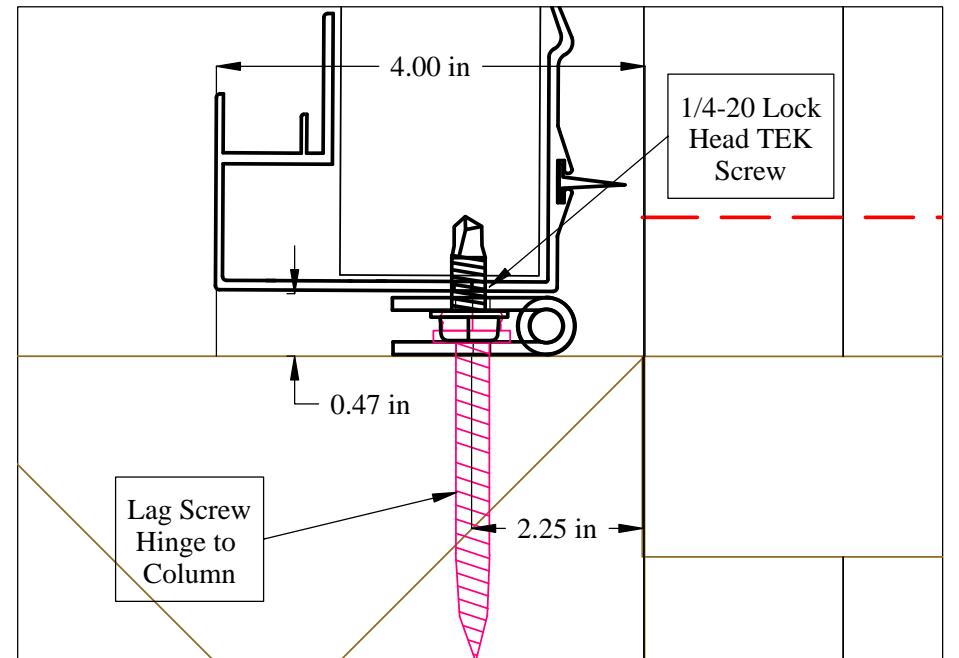
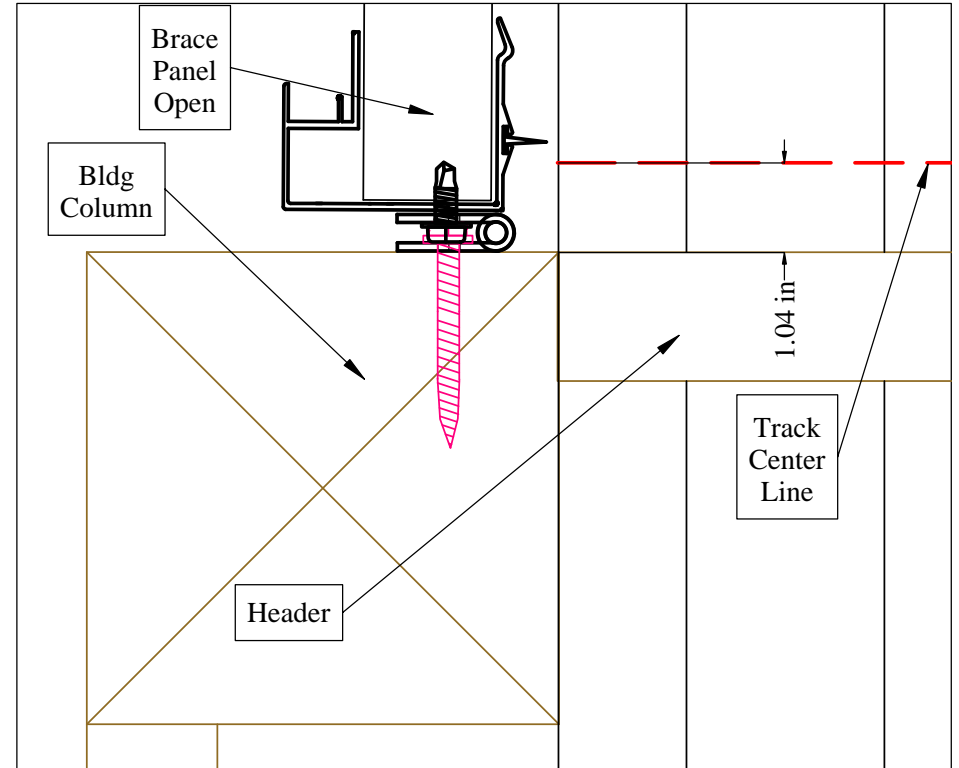
Column
(by others)

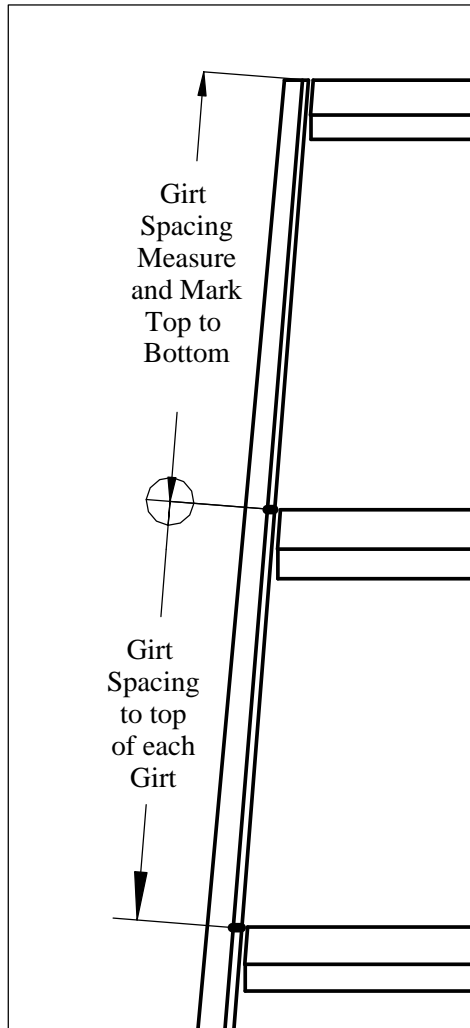
Side Wall
Girt

Header
(by others)

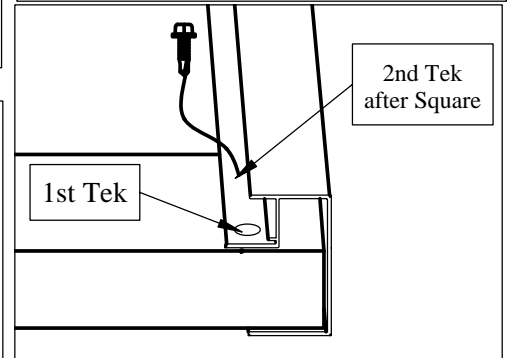
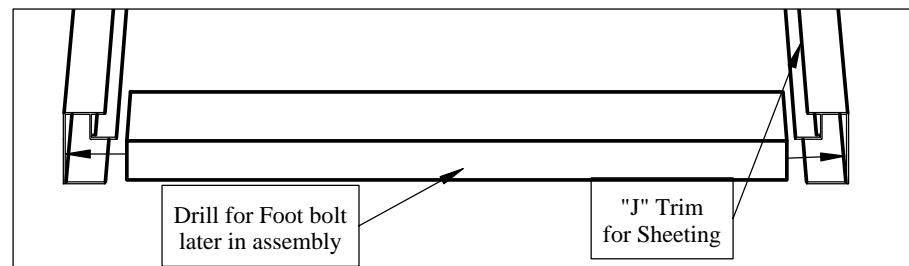
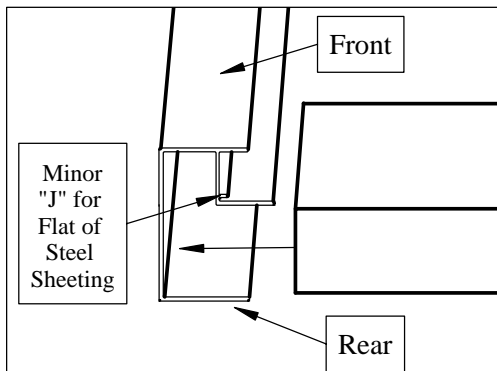
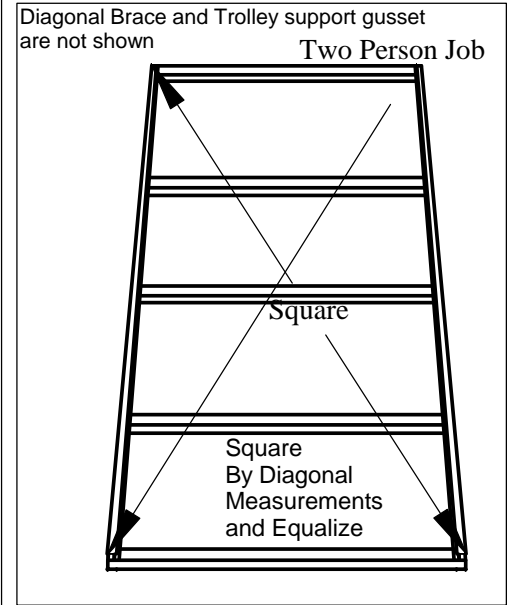
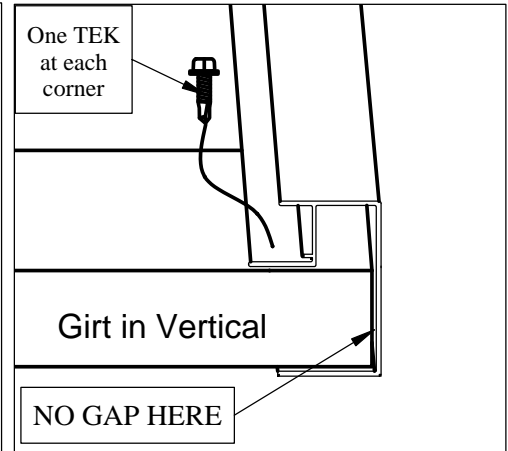
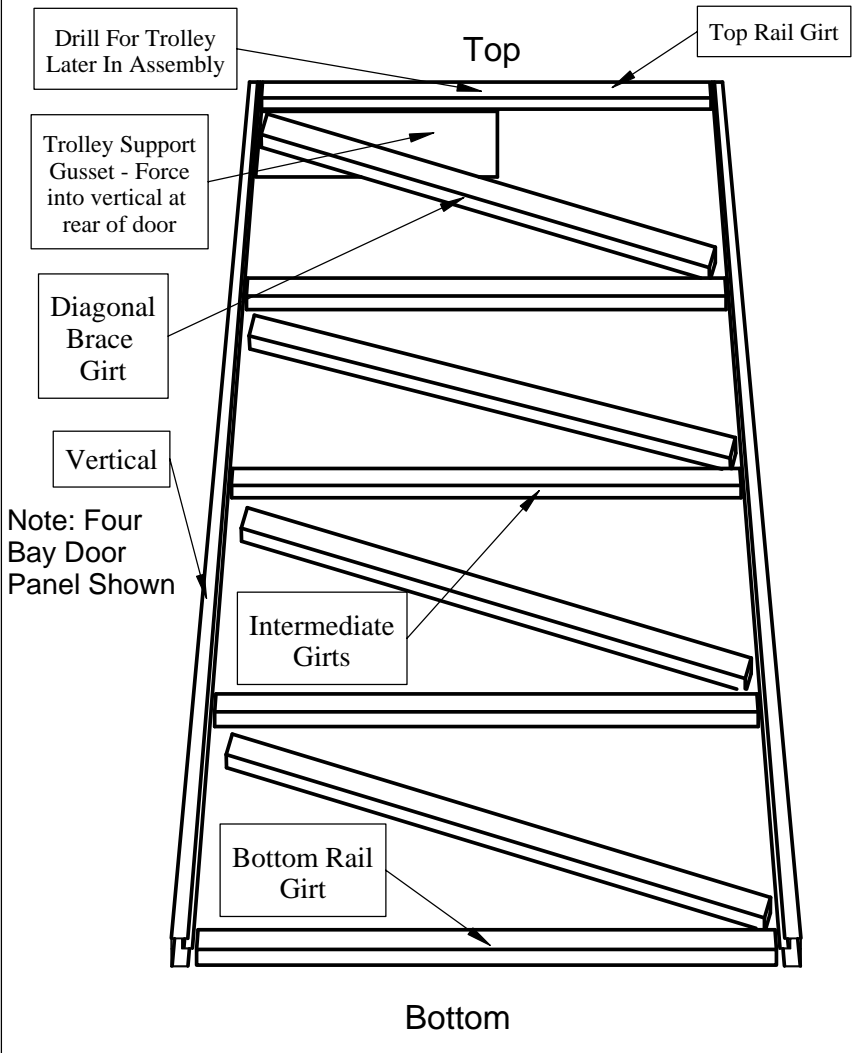
Inside

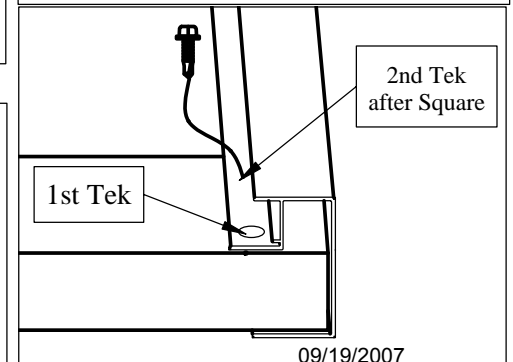
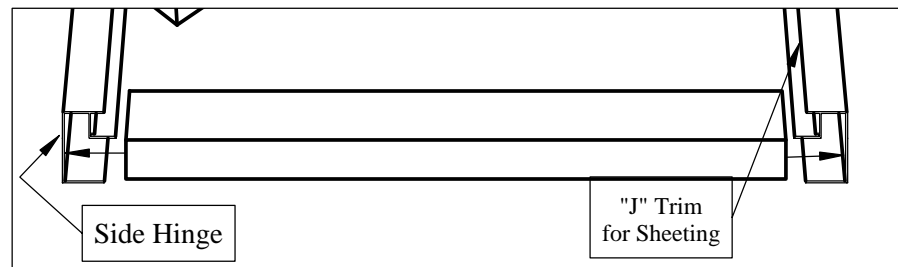
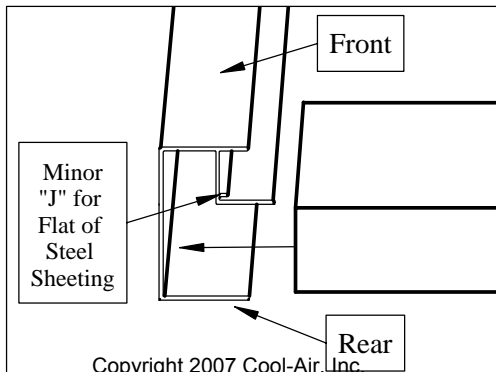
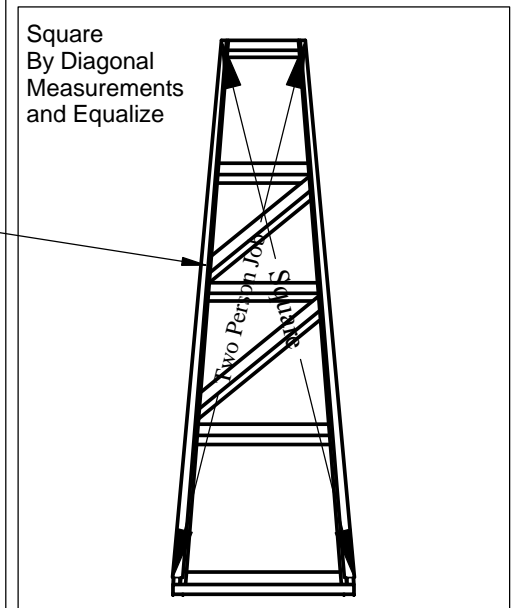
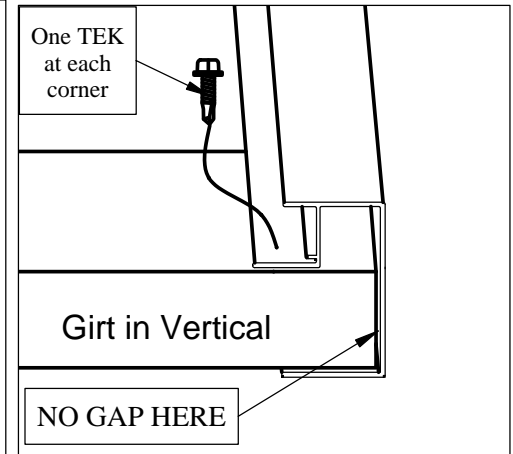
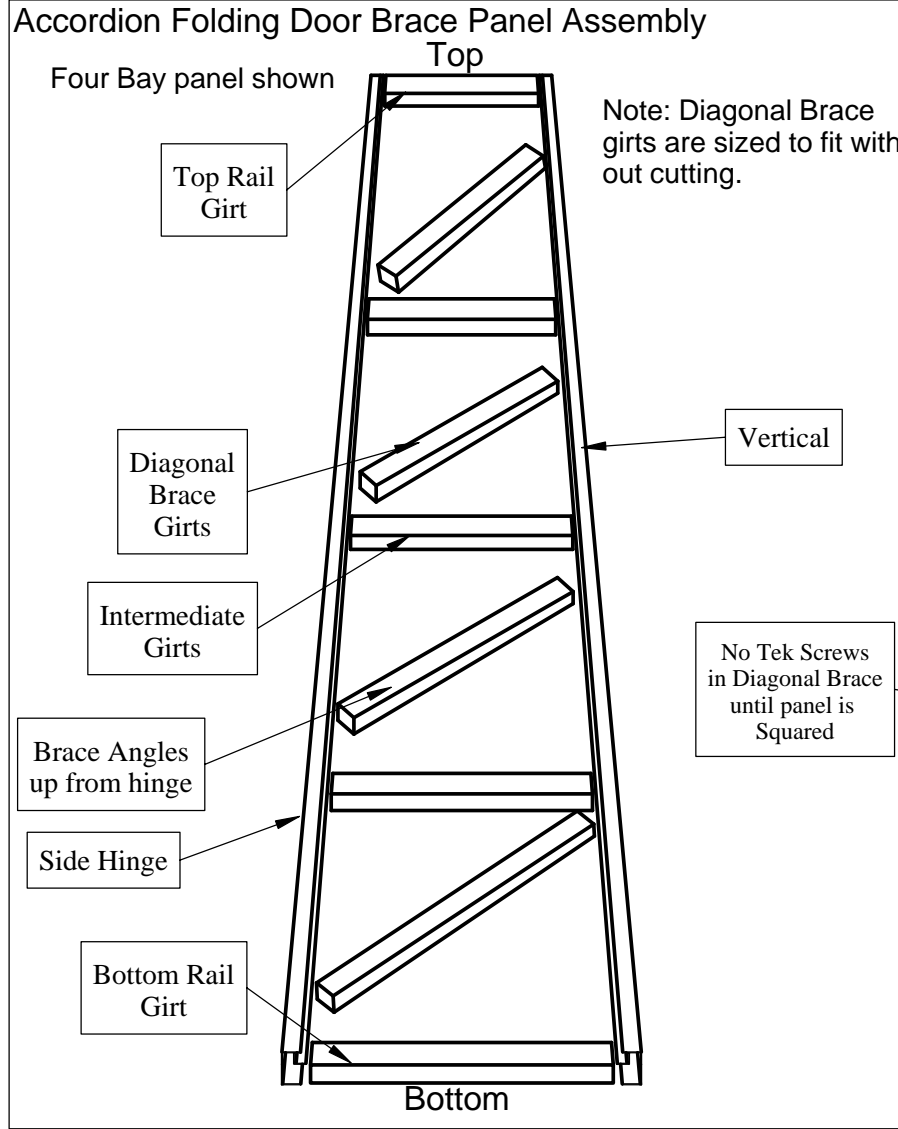
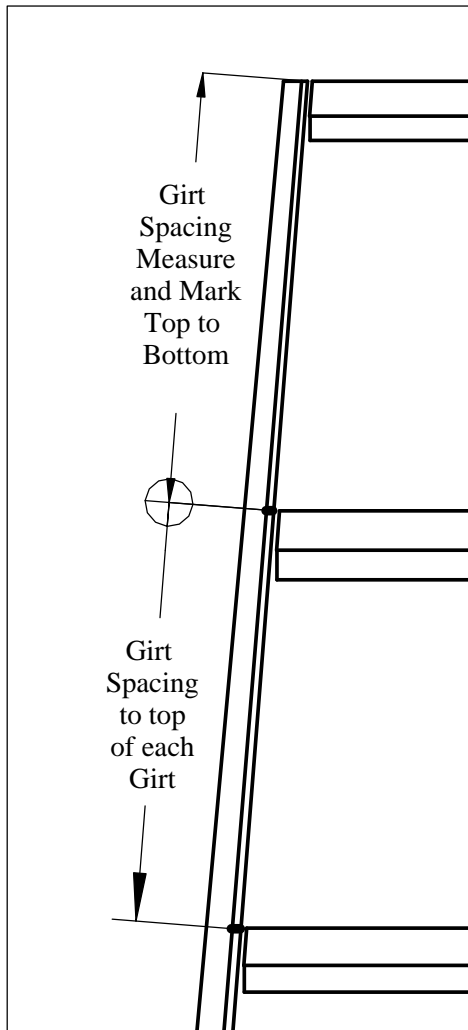
Open
Panel
Stack





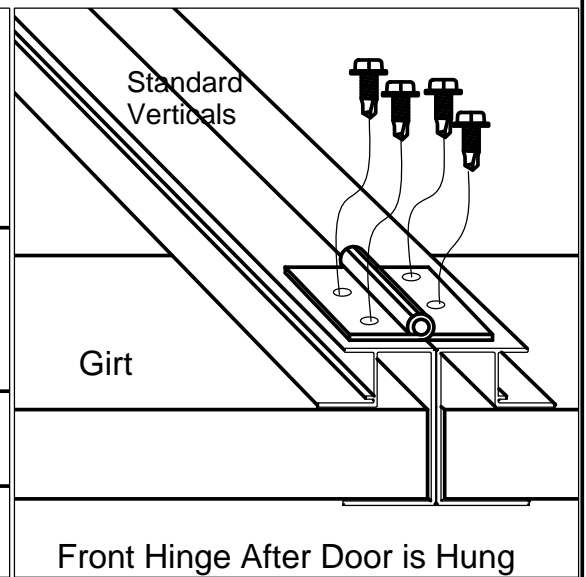
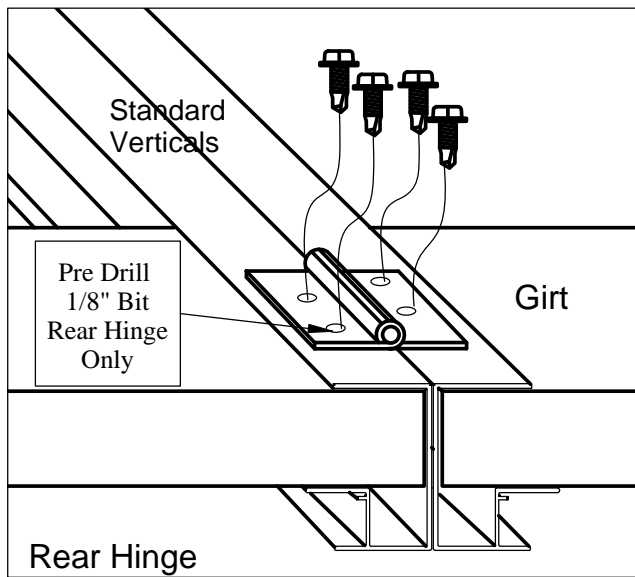
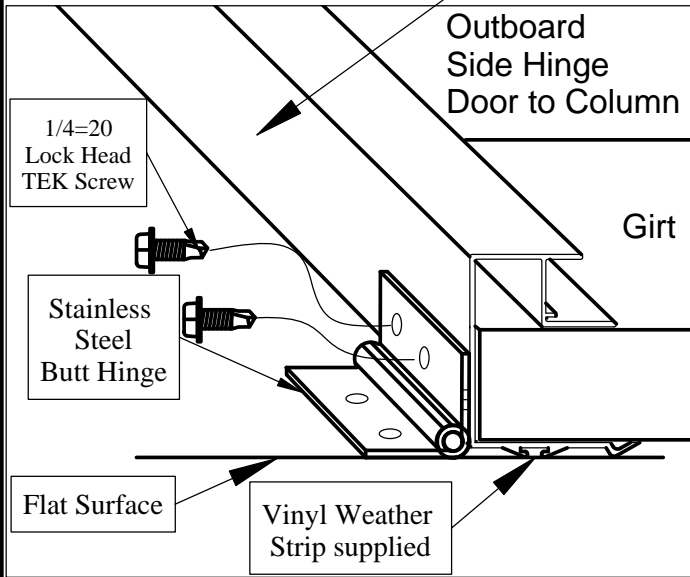
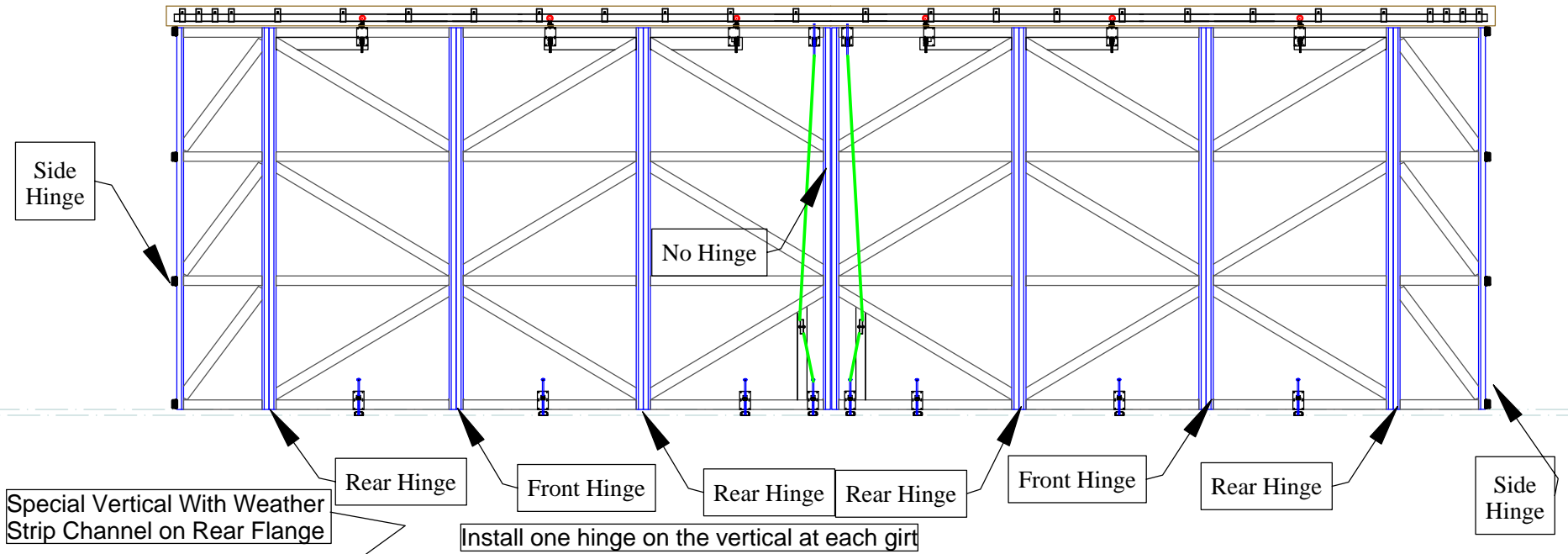
Accordion Folding Door Standard Panel Assembly with bay diagonal brace girt in each bay and trolley support gusset at top rail girt only.





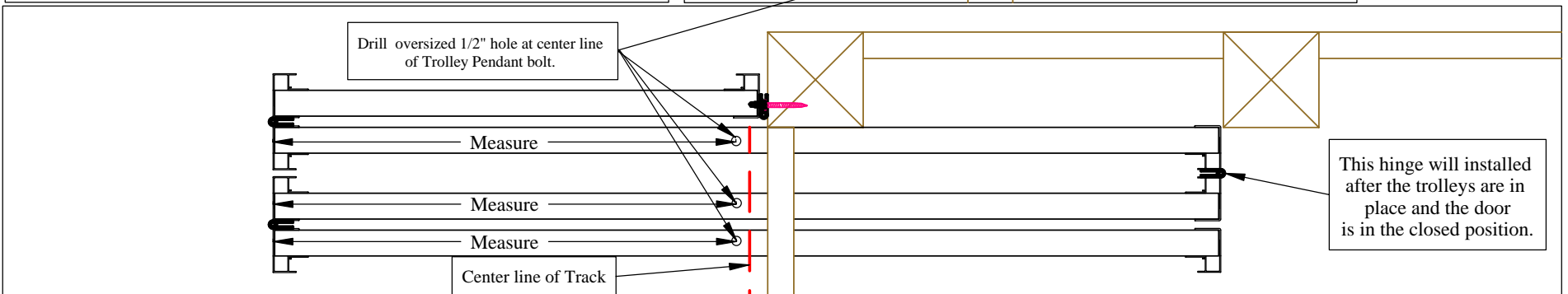
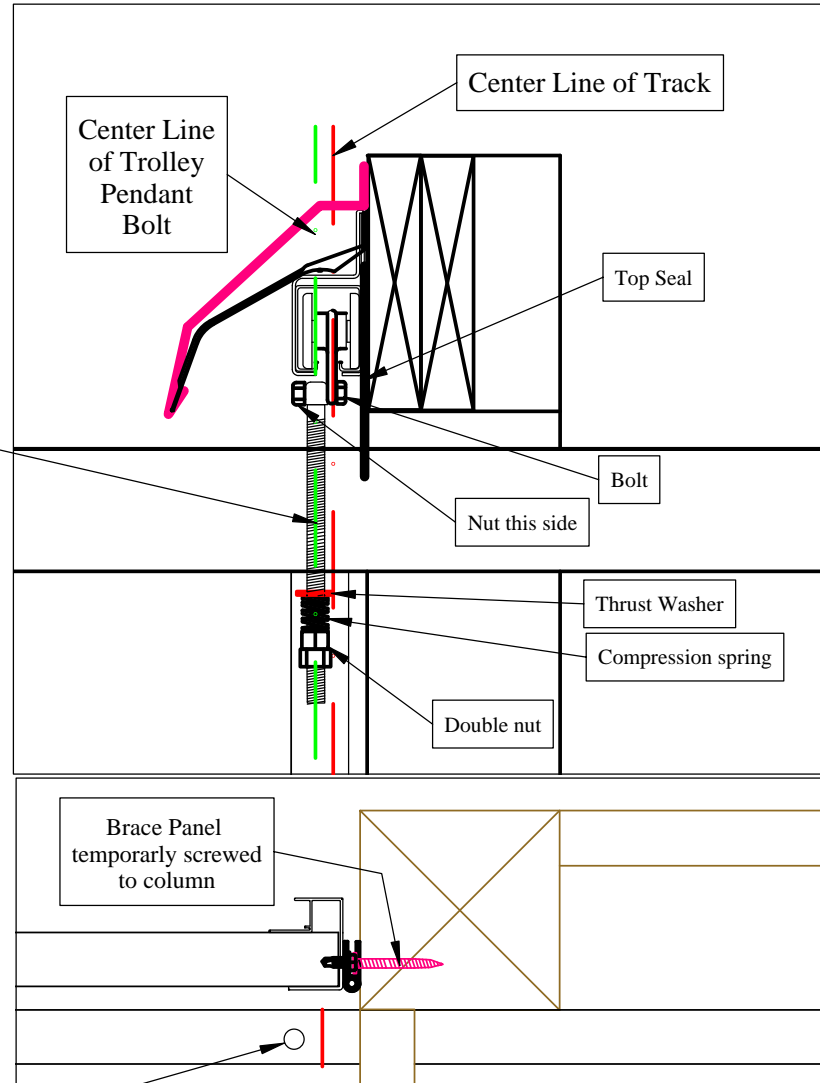
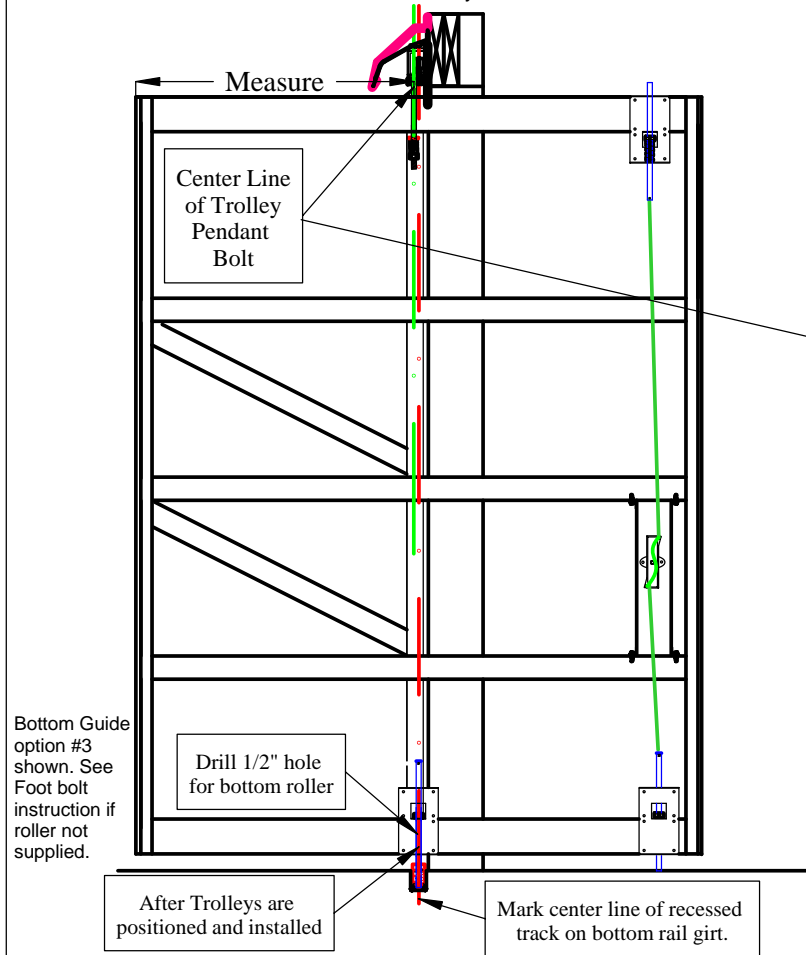
Hinge installation on the Accordion Folding Door System
Standard installation with Outboard Brace Panel installed
on the outside face of the building column.

This page shows the hinge installation on a eight panel door. Hinge no more than two panels together prior to hanging. On doors with more than eight panels or taller than twelve feet, it is recommended to operate the door in two or more sections going each way. In this installation either a front or rear hinge row will be eliminated.

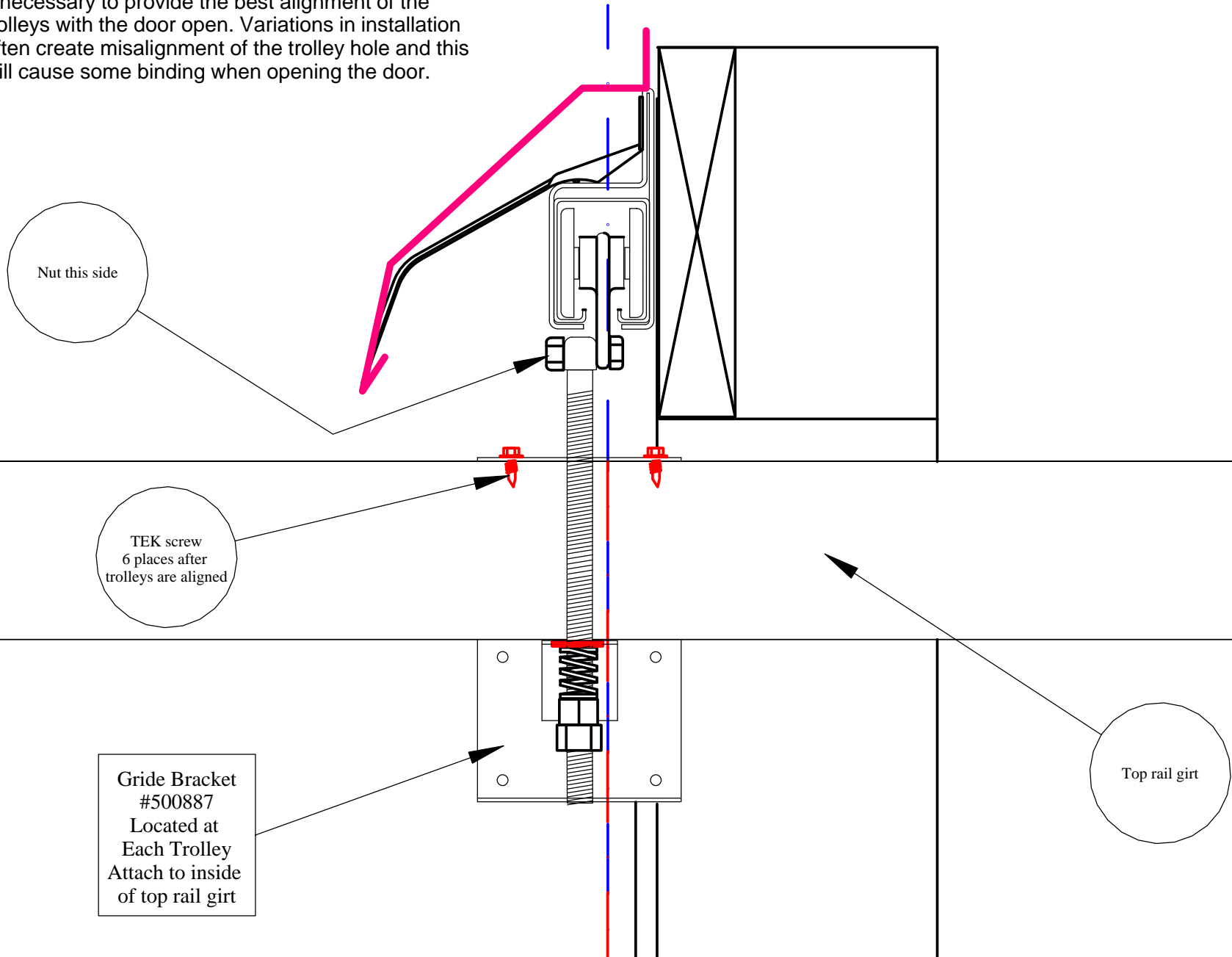


Trolley hole location in top rail.

Set Outboard Brace panel temporarily screwed to column and Standard panel as shown to locate position for hole for trolley. A Guide Bracket #500887 is used at each trolley and is not shown.

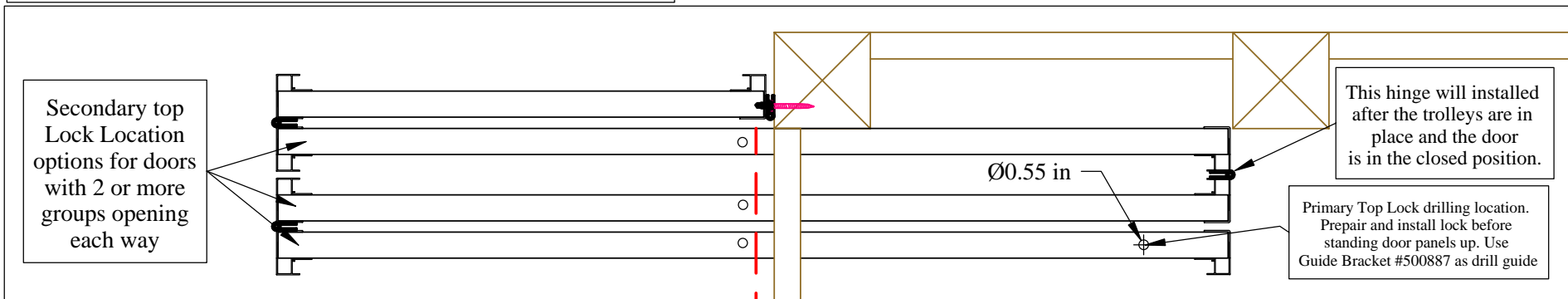
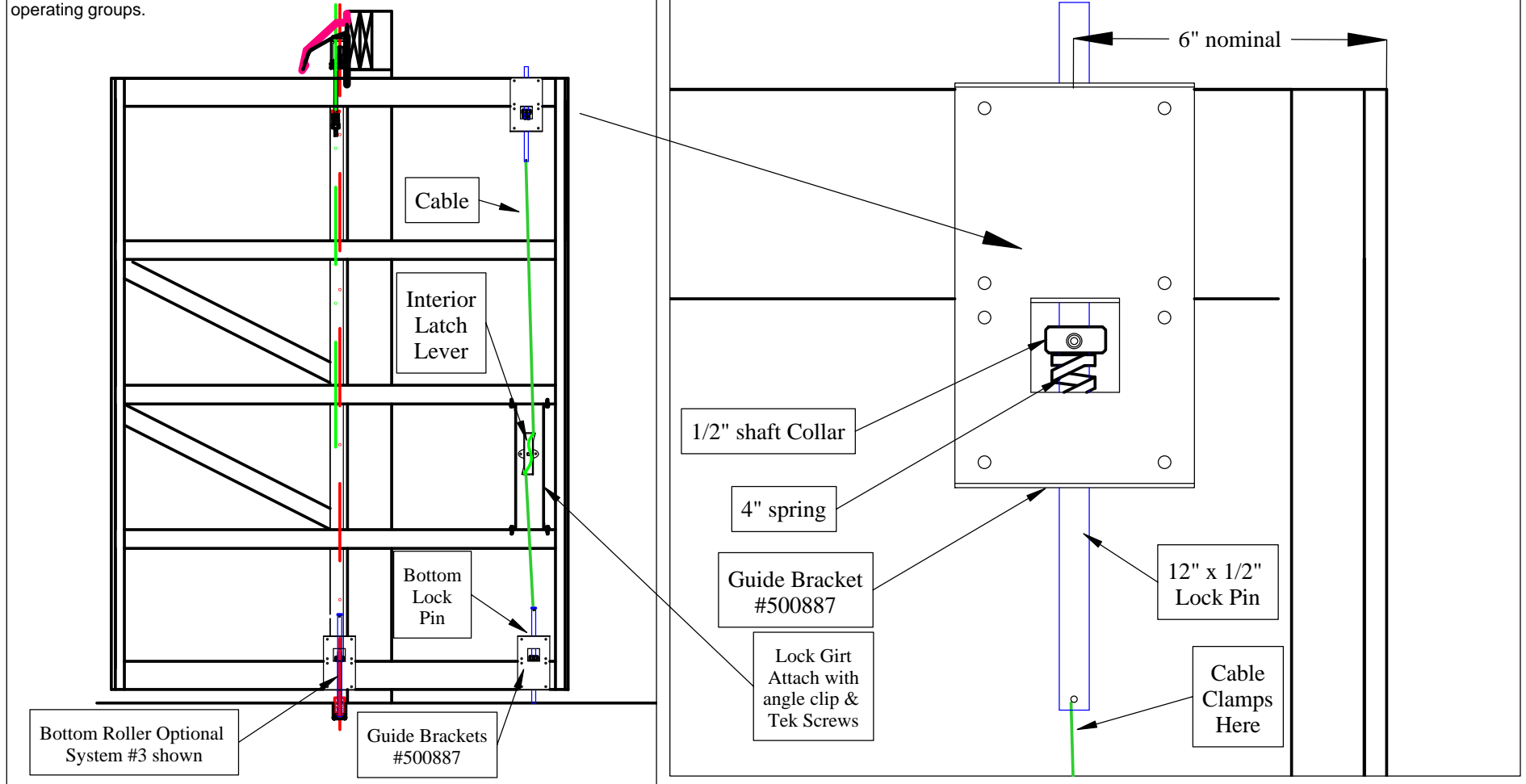


Trolley installation with Guide Bracket #500887
This guide bracket will allow repositioning the trolley if necessary to provide the best alignment of the trolleys with the door open. Variations in installation often create misalignment of the trolley hole and this will cause some binding when opening the door.



Top lock location in top rail.

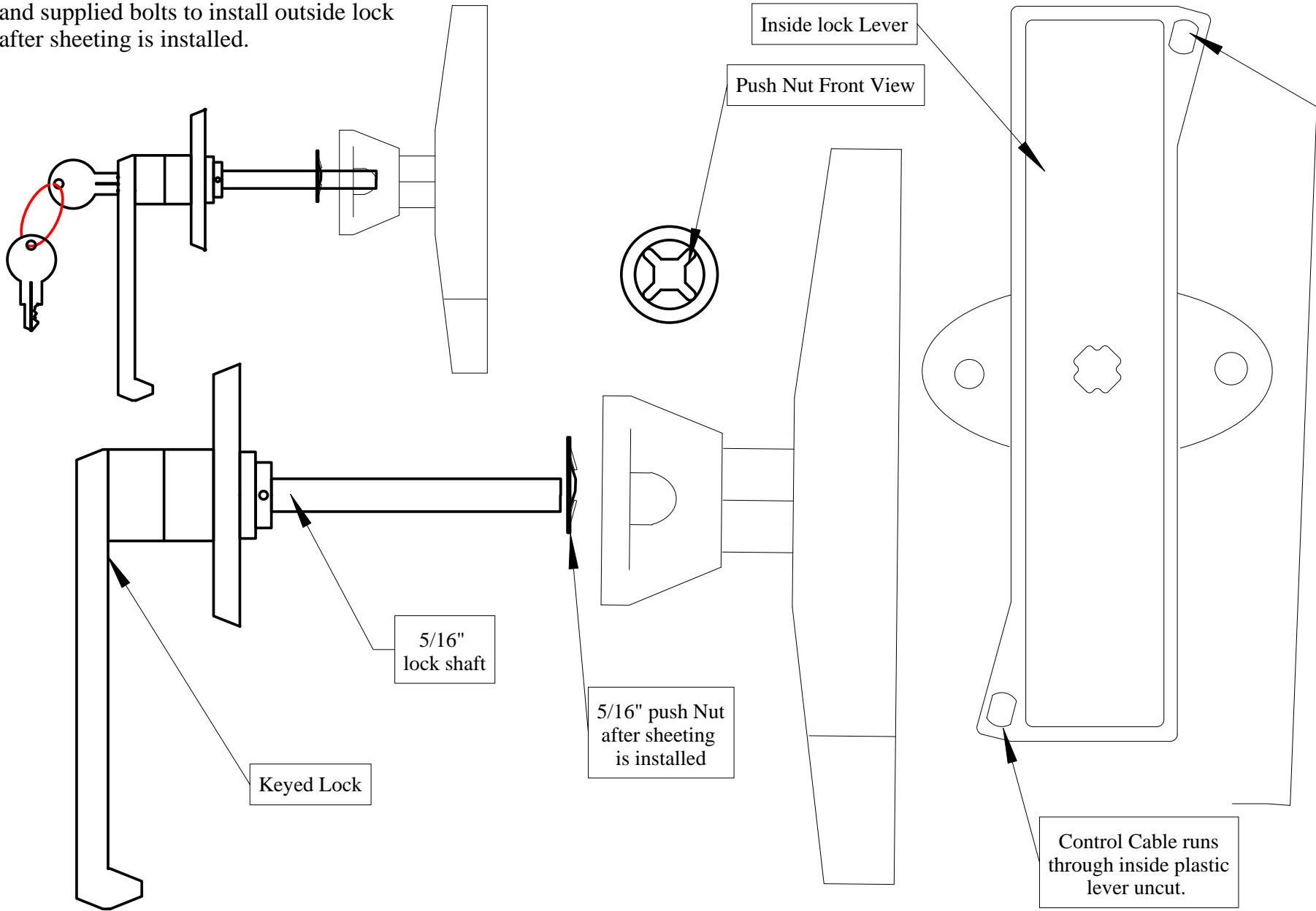
Primary Center lock system including top cane bolt, Bottom cane bolt, Latch system and connecting cable.
 Secondary Lock System required on doors that operate with two or more operating groups.

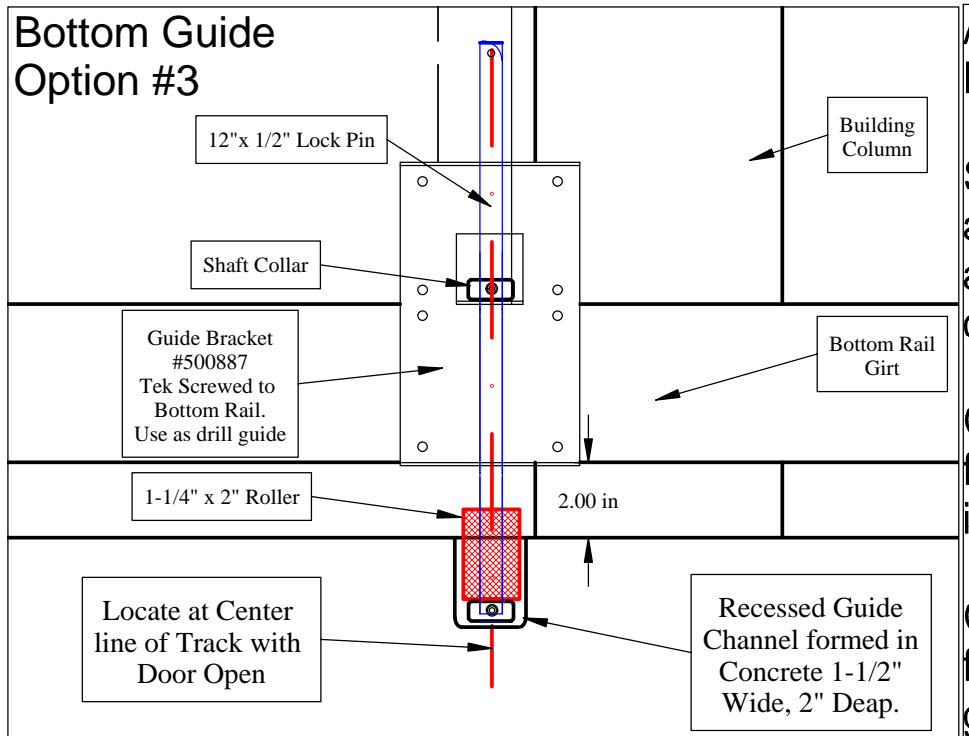
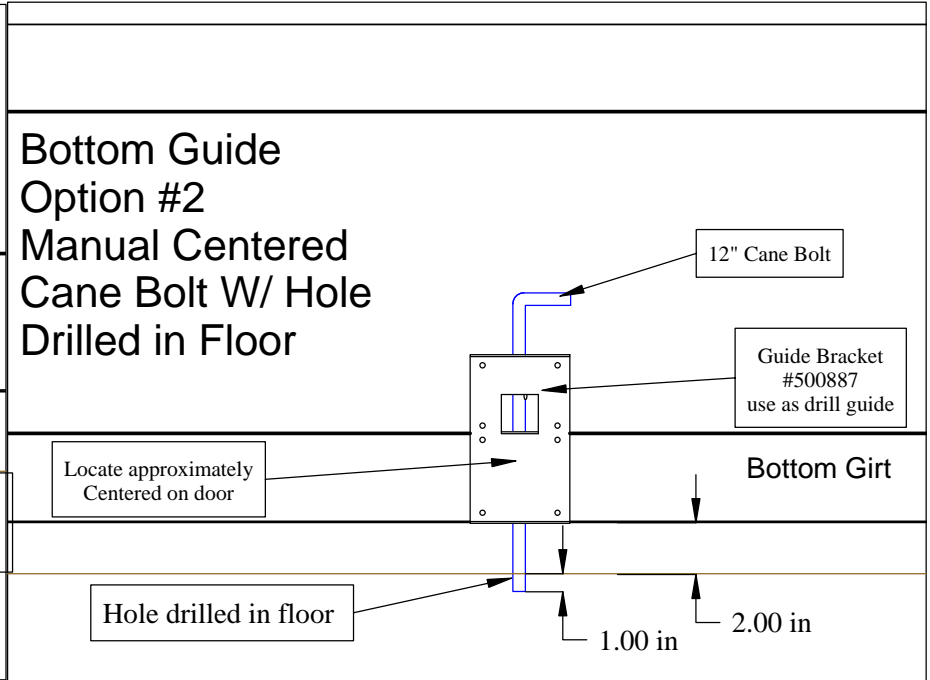
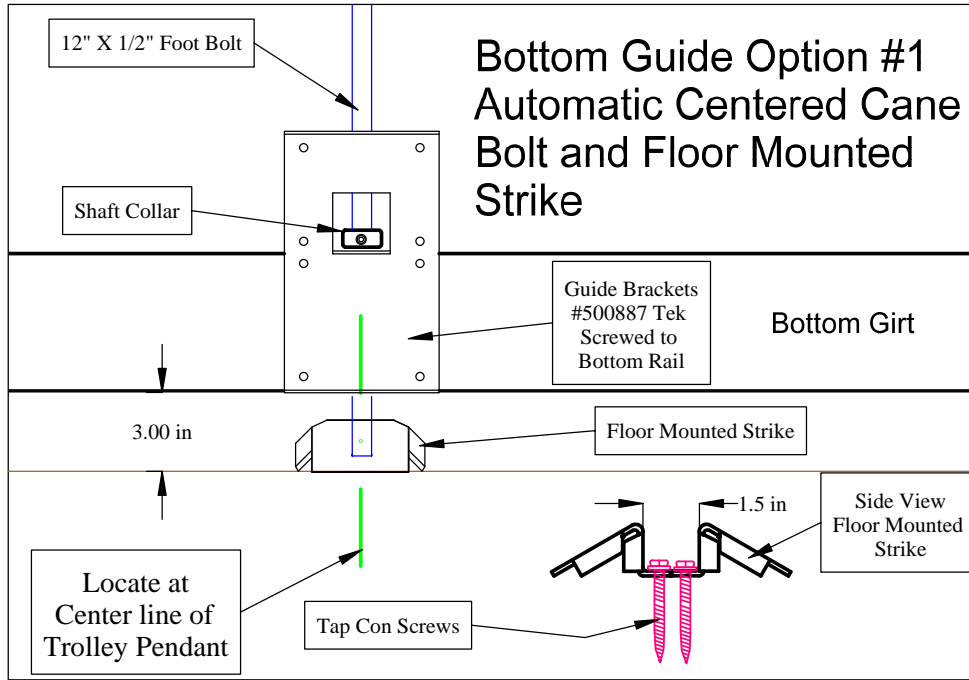


Lock with Interior Lever

Holes will not line up between exterior lock and inside lever.

use tek screws to install interior lever and supplied bolts to install outside lock after sheeting is installed.



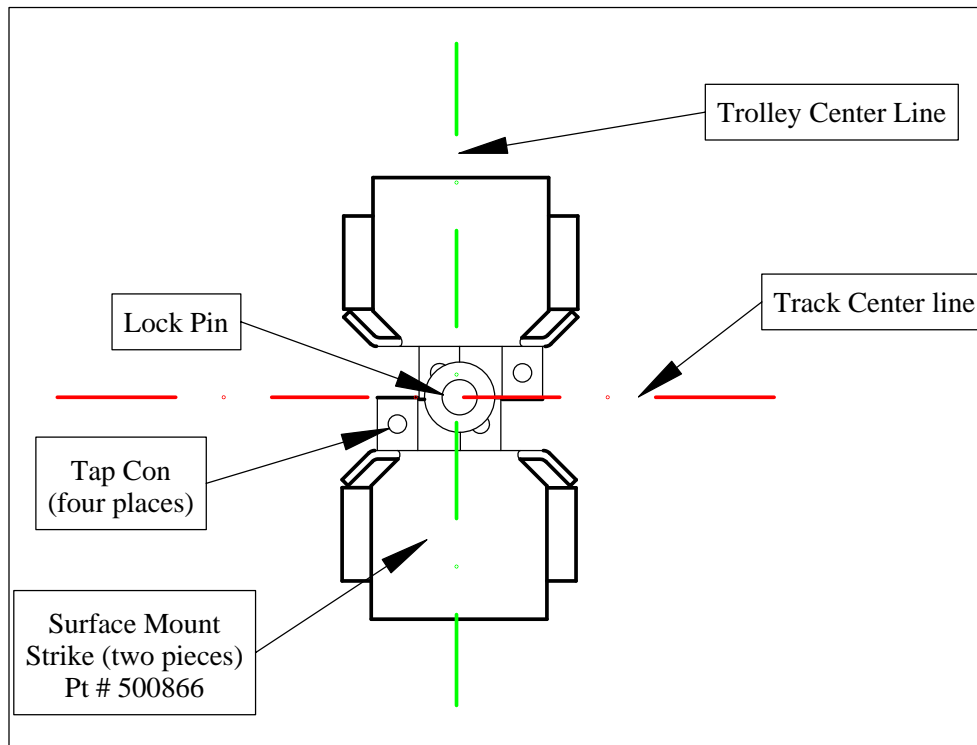
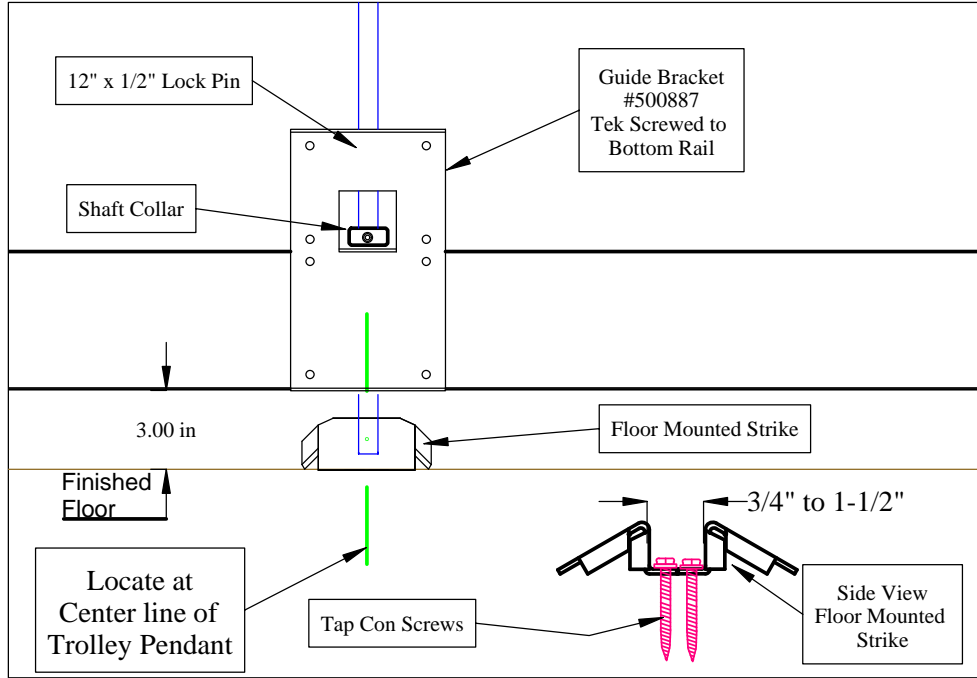


**Accordion Folding Door System
Bottom Guide System Installation**

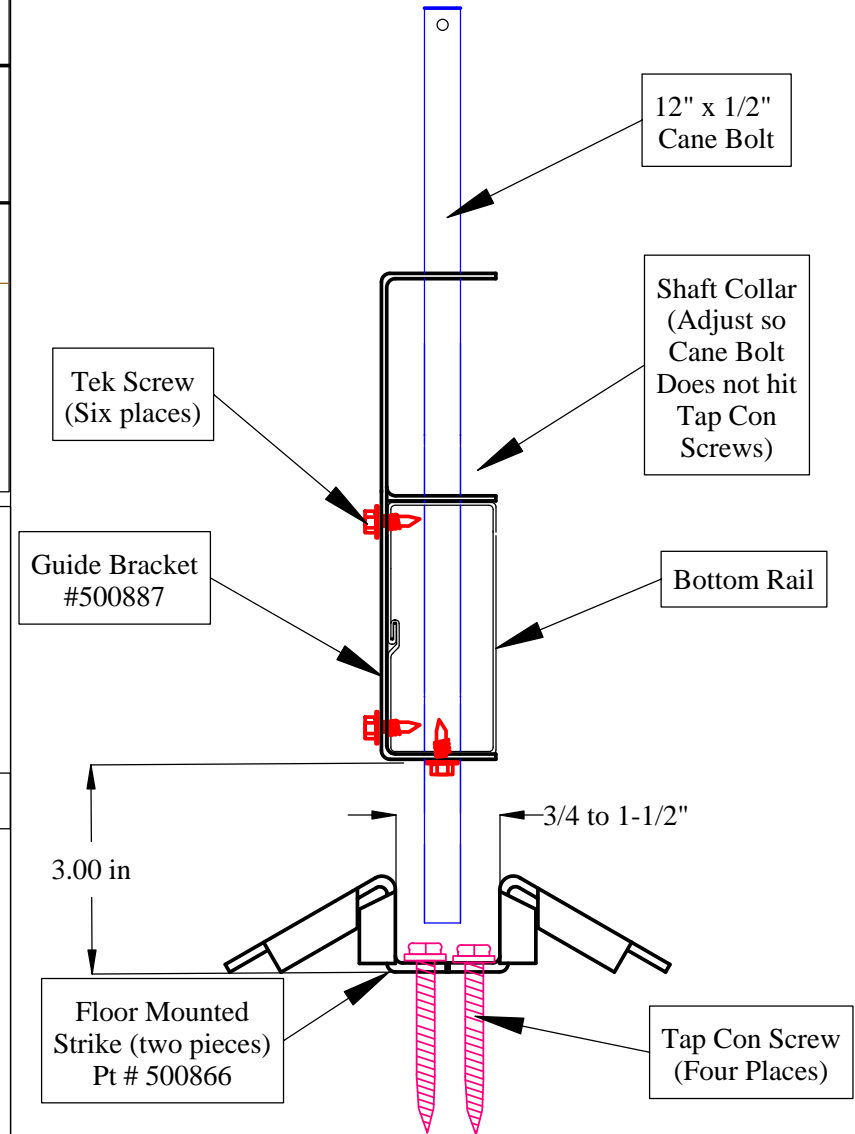
Standard Option #1 includes floor mounted strike with automatically operating cane bolts and is best for snow and ice location. Floor mounted strike must be located directly below trolley.

Option #2 includes Manual Cane Bolts with short girt for attachment. This is best for poor floor condition installations.

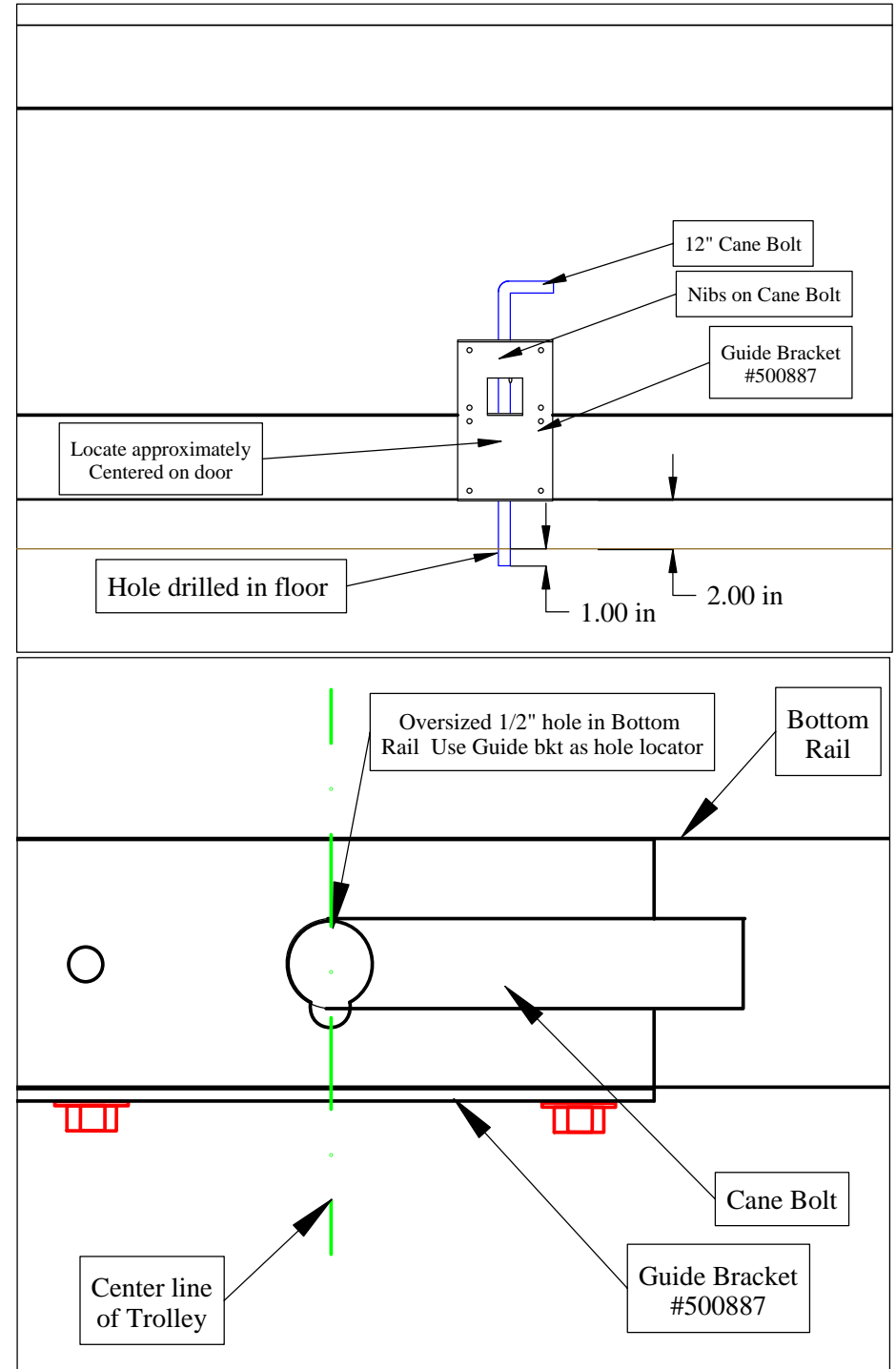
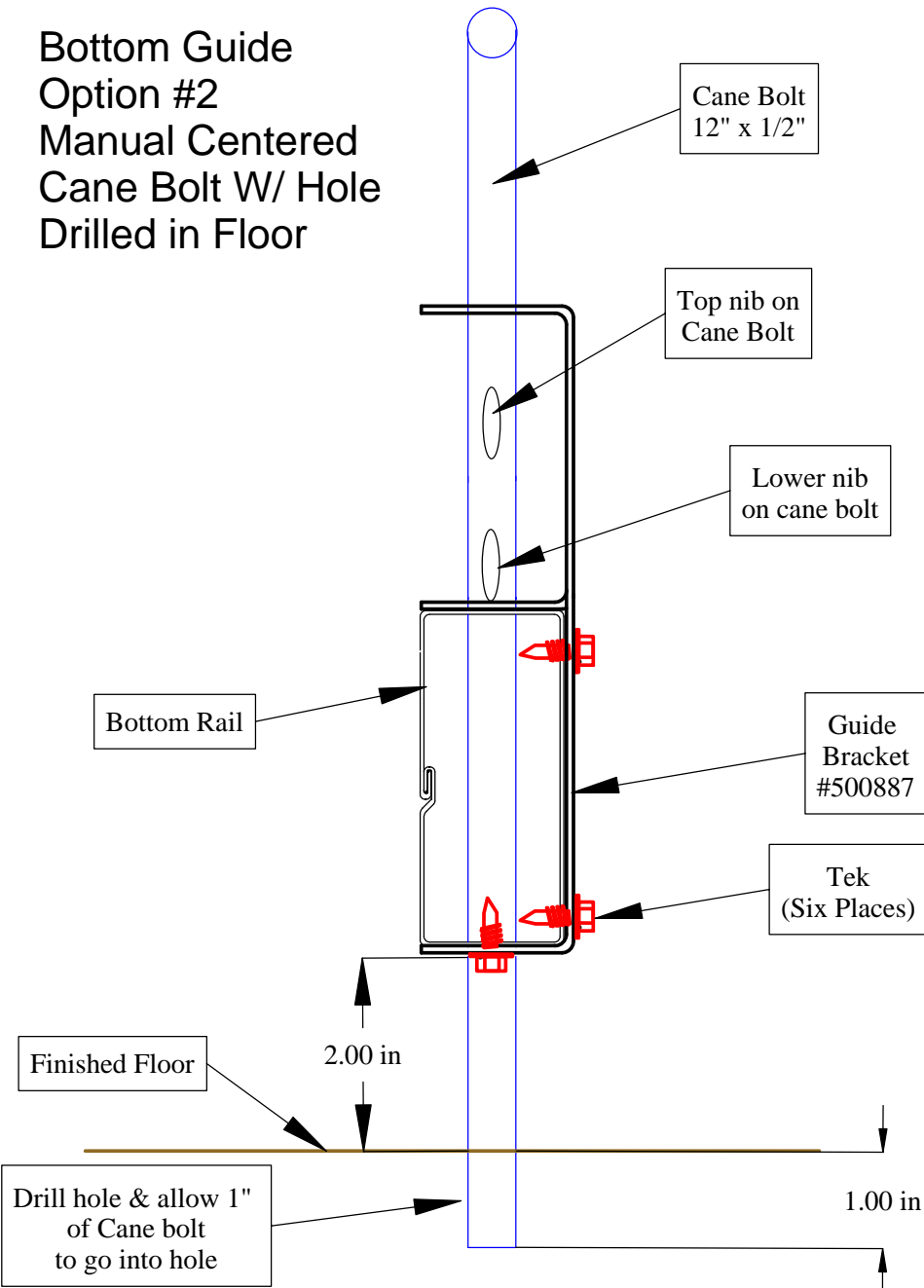
Option #3 includes Cane Bolt and Roller and is best for non-snow / ice locations but provides the best guide and door control.



Bottom Guide Option #1 Automatic Centered Cane Bolt and Floor Mounted Strike.
Also Supplied for Primary and Secondary locks.

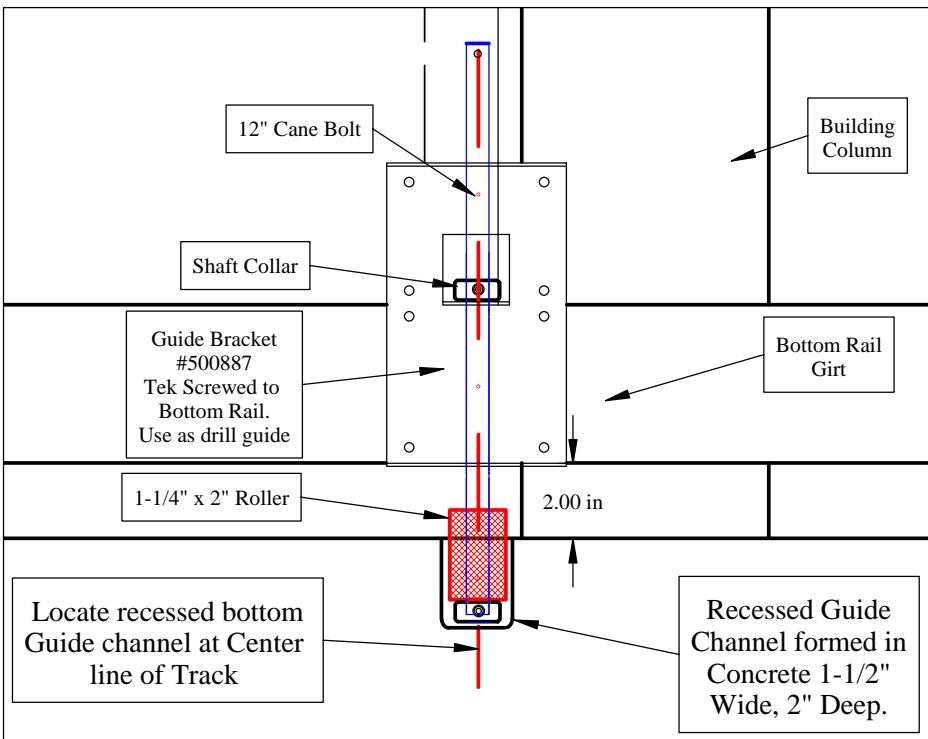


Bottom Guide Option #2 Manual Centered Cane Bolt W/ Hole Drilled in Floor

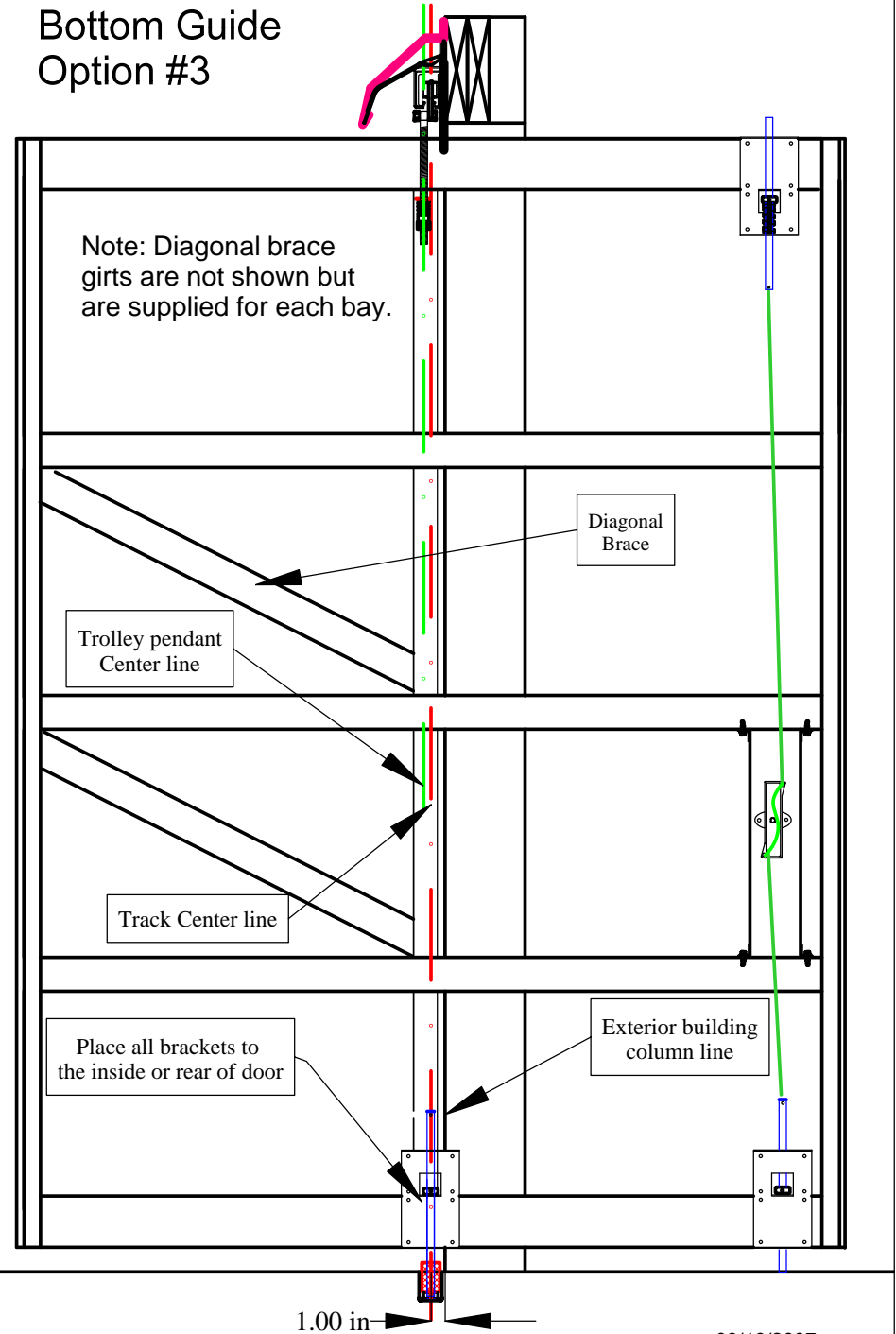


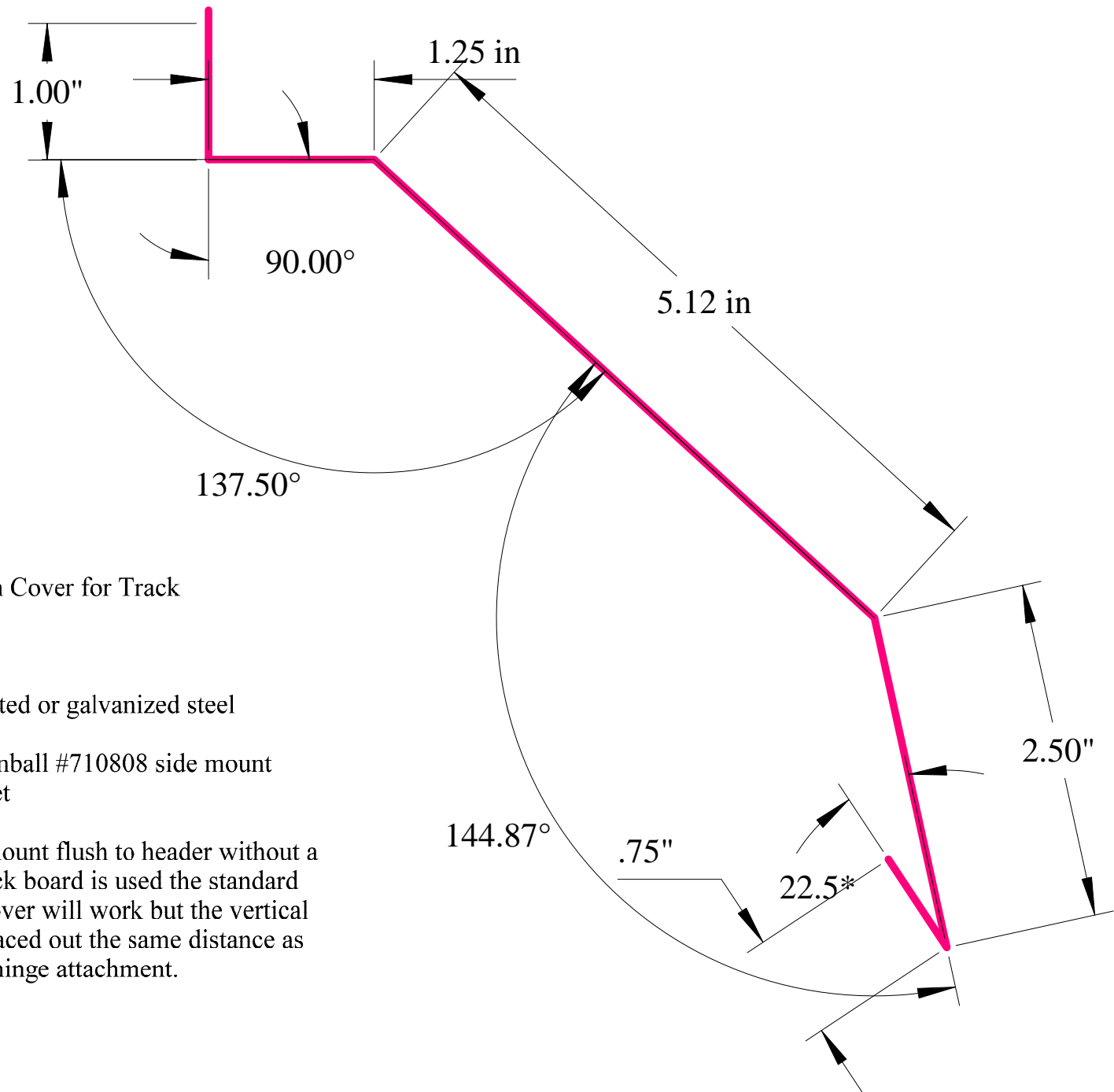
Bottom Guide Option #3 installation steps:

1. Complete the installation of the door including leveling the door, adjusting the trolley bolts and installing the outboard hinge screws.
2. Fully open the door.
3. Mark the center line of the recessed bottom guide channel poured in the concrete on each bottom rail girt.
4. Attach the guide brackets on the inside or rear of the door at this center line mark.
5. Drill an oversized 1/2" hole in each bottom rail using the Guide Bracket as a drill guide.
6. Insert the bottom roller into the bottom rail and secure with shaft collars.
7. Adjust the height of the roller so it does not drag in the recessed channel.
10. Repeat on the each door panel.



Bottom Guide Option #3





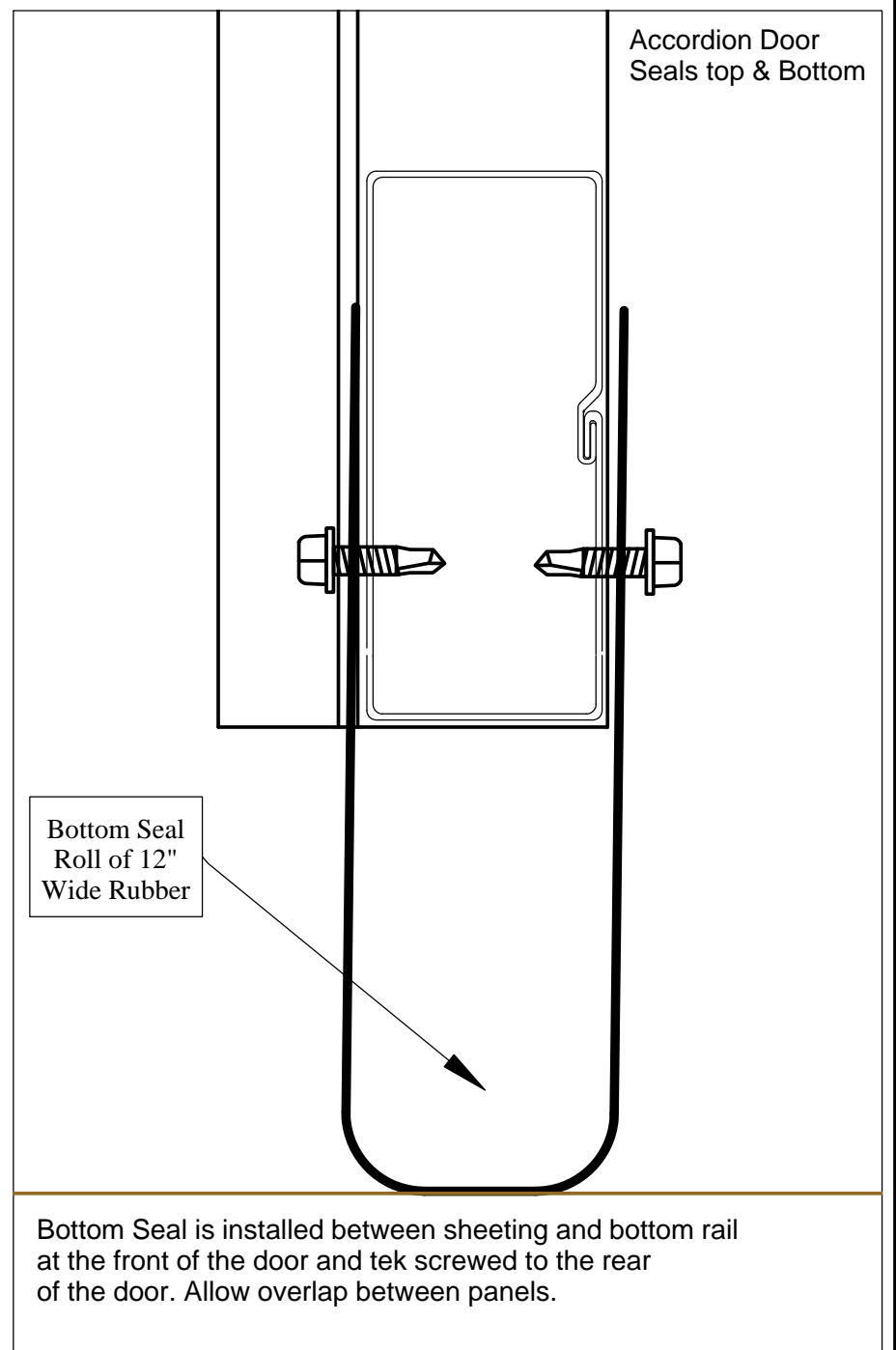
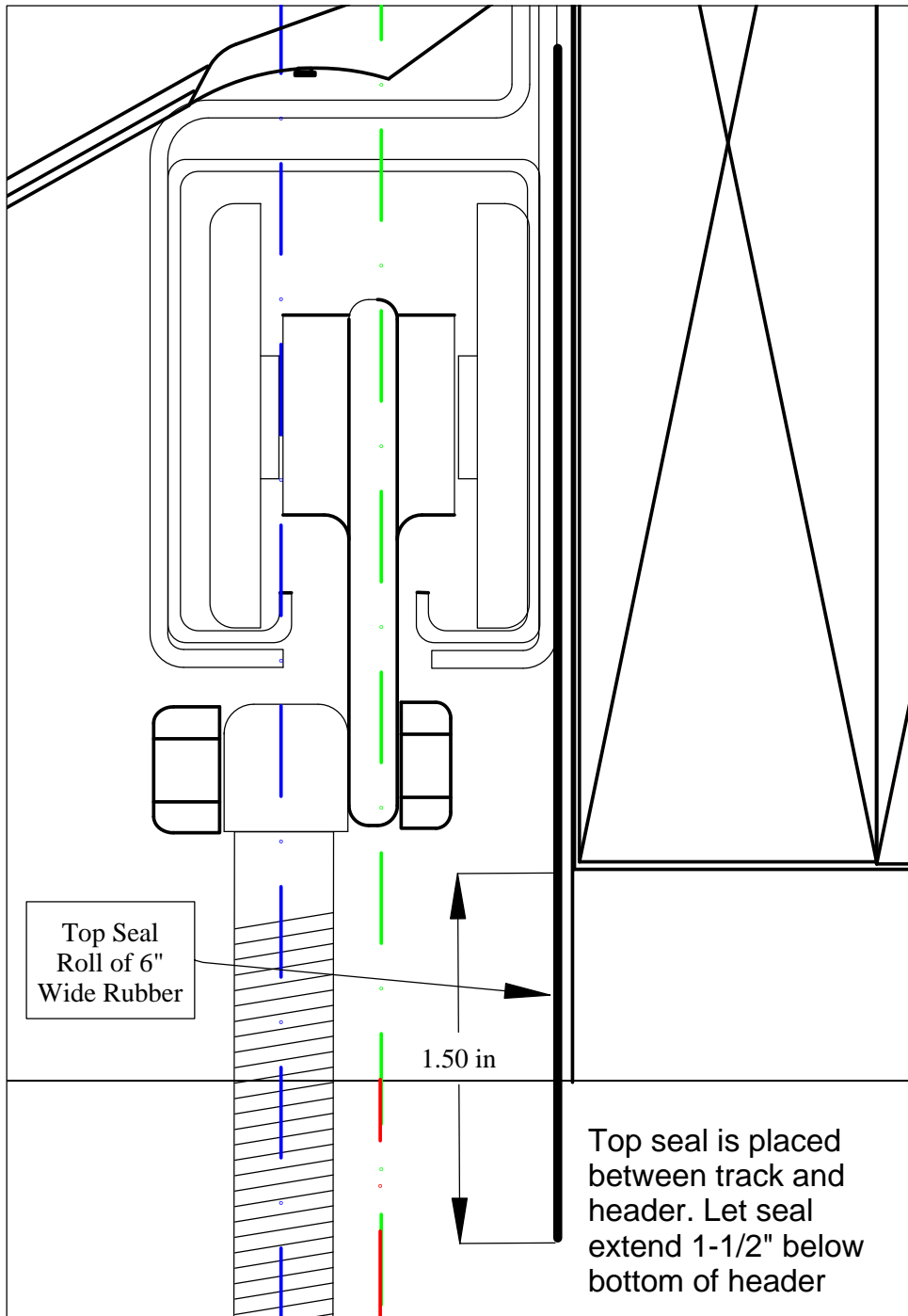
Recommended Rain Cover for Track

Supplied by others

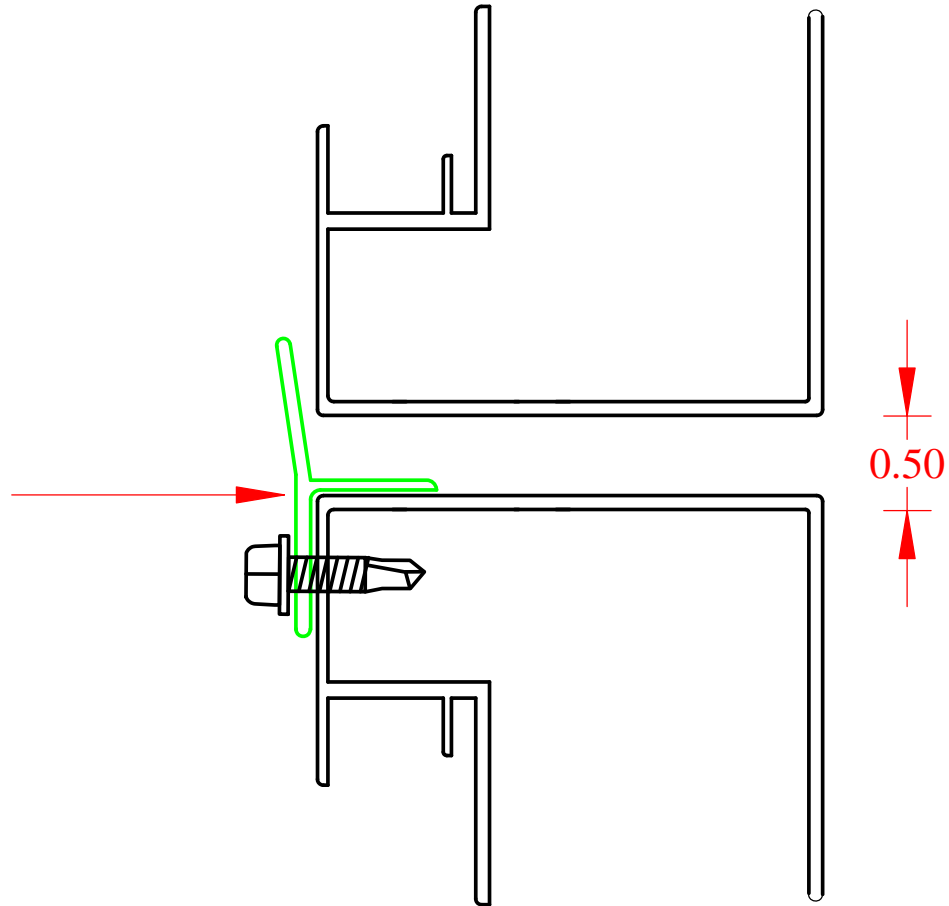
29 or 28 gauge painted or galvanized steel

For use with Cannonball #710808 side mount
Track Cover Bracket

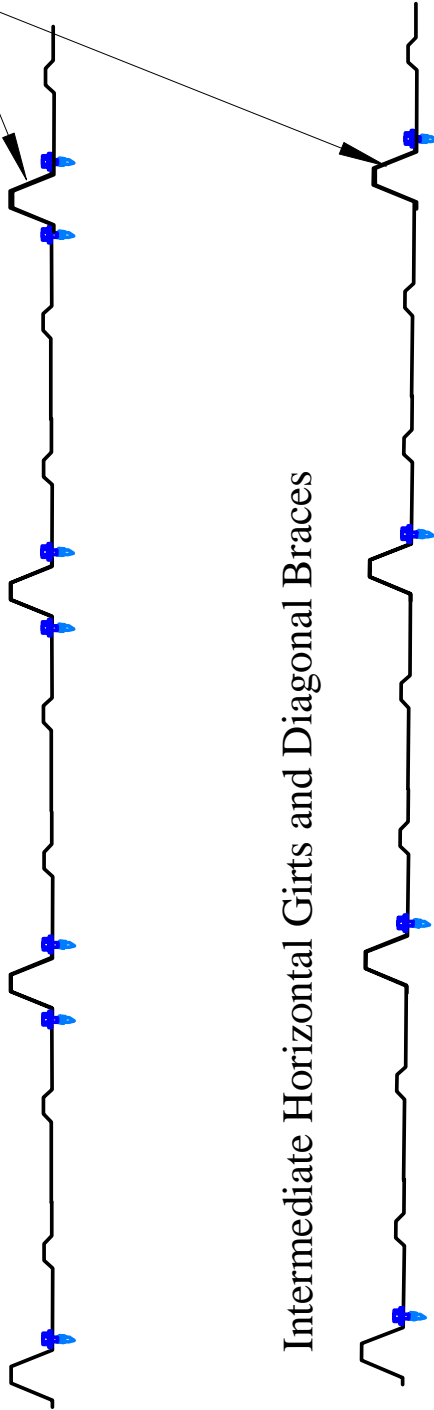
Bracket and track mount flush to header without a
track board. If a track board is used the standard
Cannonball track cover will work but the vertical
Column must be spaced out the same distance as
the track board for hinge attachment.



At Door Center Allow 1/2" between door halves.
Attach Astragal as shown. Do not place screw between door panels, only on front.
On doors with more than one group going each way, Astragal will close off gap between non hinged panels but 1/2" gap is not required.



Door Top Rail Girt and Bottom Rail Screw Pattern

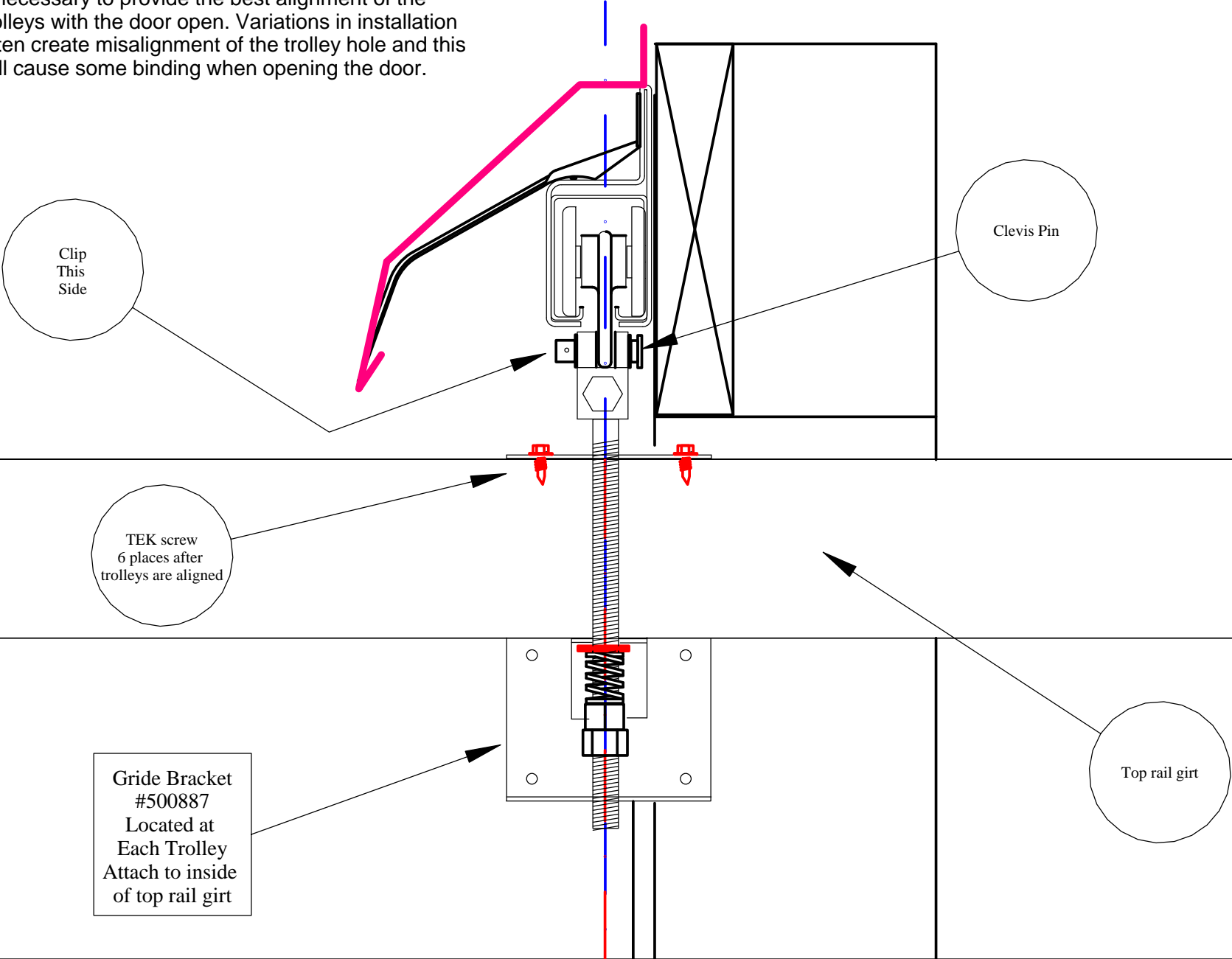


Intermediate Horizontal Girts and Diagonal Braces

Steel Panel Screw Pattern Recommendations.

The top horizontal rail and the bottom rail will have one screw at each side of each major rib. The remaining horizontal girts and diagonal braces will need one screw at one side of each major rib. For other configurations of steel sheeting and other types of sheeting, follow the manufactures recommendations but use at least 80 to 100 screws per square of sheeting.

Trolley installation with Guide Bracket #500887
This guide bracket will allow repositioning the trolley if necessary to provide the best alignment of the trolleys with the door open. Variations in installation often create misalignment of the trolley hole and this will cause some binding when opening the door.



Clip This Side

Clevis Pin

TEK screw
6 places after
trolleys are aligned

Grilde Bracket #500887
Located at Each Trolley
Attach to inside of top rail girt

Top rail girt

Trolley hole location in top rail.

Set Outboard Brace panel temporarily screwed to column and Standard panel as shown to locate position for hole for trolley. A Guide Bracket #500887 is used at each trolley and is not shown.

