

ECLIPSE®

Model 620NH Dock Shelter

Installation Instructions & Owner's Manual

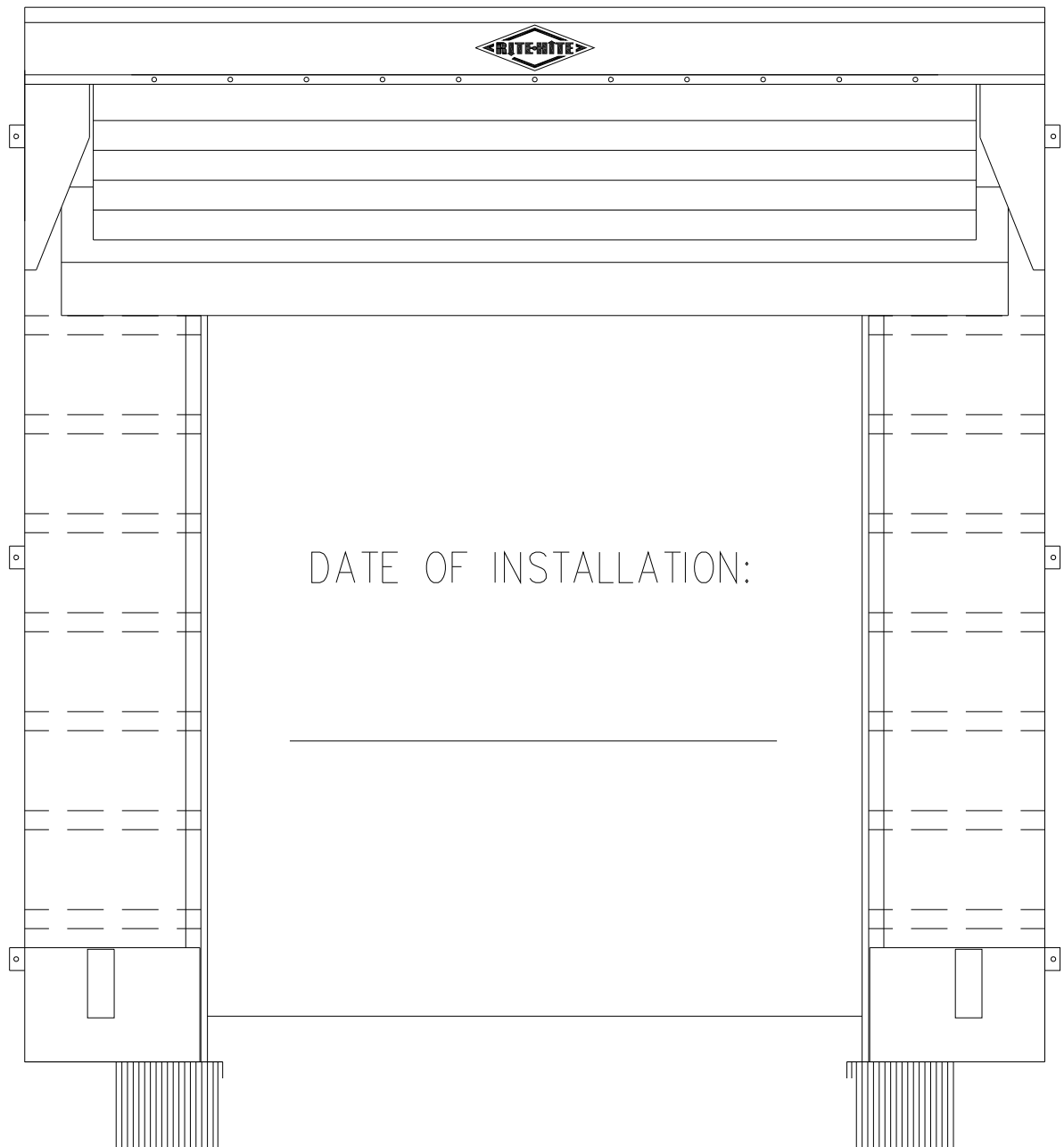




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File Information

Document Name:	620NH001
Date Last Revised:	03/09/2015
Revision:	-

General Precautions

 WARNING	
	Post safety warning and barricade work area, at dock level and ground level to prevent unauthorized use of the dock position while service work is being performed.

Introduction

Thank you for purchasing a Rite-Hite® Dock Shelter. For other applications, please contact your local Rite-Hite Sales Representative.

The following installation instructions are complete for all standard applications of the Eclipse NH Dock Shelter. These instructions assume that the installer is outside the building facing the loading dock position.

Any application of the Eclipse NH Dock Shelter that is outside of the normal application guidelines should be referred to Order Engineering for installation instructions.

Preparation

Remove all of the contents from the containers and check for damage. If any product shows signs of damage, contact Rite-Hite Corporation, or your local sales representative.

Illustrations

Illustrations for this document are contained on drawing #620NH-002

Care & Maintenance

Metal hoods are recommended for protection of seals and shelters against possible damage from rain, snow and ice on docks which do not have building projections and/or canopies.

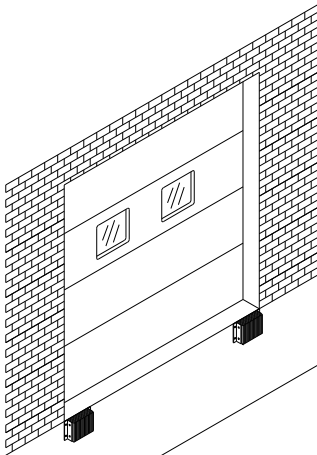
Occasional cleaning of the seal or shelter is recommended. Use a low pressure hose, or damp cloth to wash unit.

All dock seal or shelter headers should be inspected periodically for damage and replaced when appropriate.

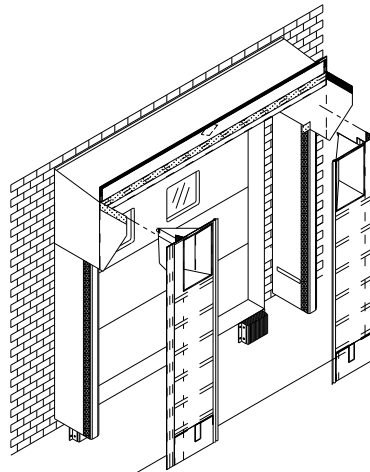
Instructions for Optional Components

Please note that installation instructions for wood blockouts are attached separately if these options/features are ordered with the unit.

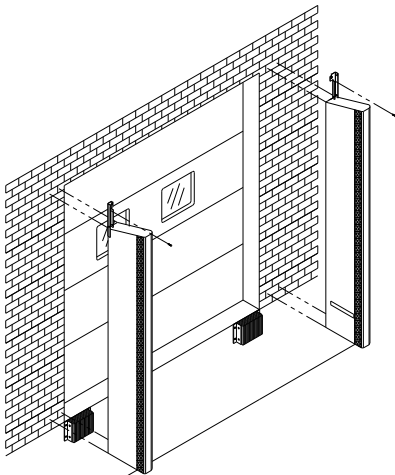
ORDER OF INSTALLATION



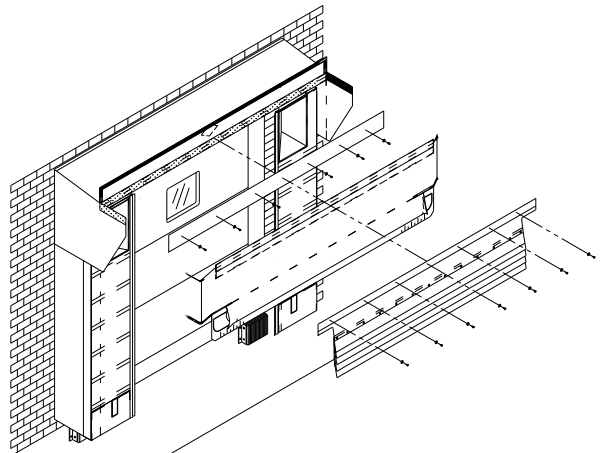
STEP #1
PREPARE UNIT



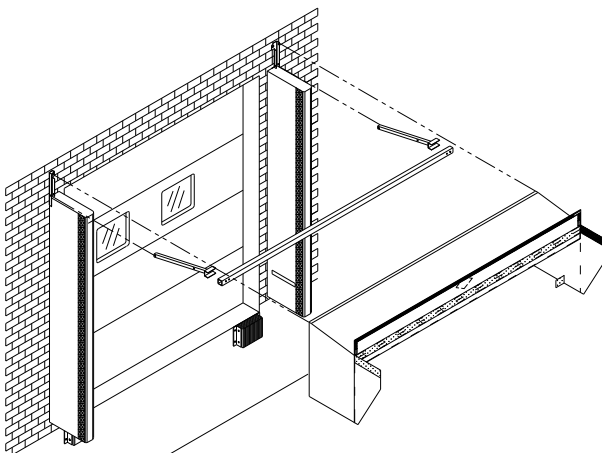
STEP #4
INSTALL SIDE CURTAINS AND
POCKET STRAPS



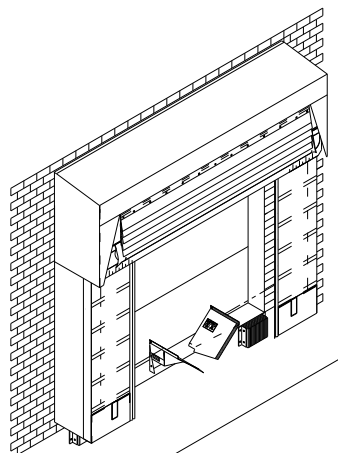
STEP #2
INSTALL SIDE MEMBERS AND
BRACKET ANCHORS



STEP #5
INSTALL GUTTER, ROLLER SEAL,
FRONT PANEL AND THEN
ATTACH STRAPS



STEP #3
INSTALL SIDE ARMS, FRONT
BAR AND CANOPY TOP



STEP #6
INSTALL DRAFT PADS

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SIDE FRAME INSTALLATION

1. Before mounting side members, install the curtain top mounting brackets to side members at the top outside edge of the side members. Holes have been pre-drilled from the factory to locate the brackets. Install the two screws, making sure the brackets are on straight. (See Figure 1)

(Note: These brackets are not part of the over all unit width. Unit width when mounting side members should be measured from outside edge of side members. Brackets will add about 1/4" to over all foot print of unit and this allowance is taken into account on the header installations.)

2. Measure the dock door opening. Divide this measurement in half and mark the centerline of the opening at dock level. (See Figure 2)
3. Measure the head member overall width and divide this measurement in half.
4. Measure from the door centerline half of the head member dimension and mark the outside wall at the bottom of the door opening or at dock level. This mark is for the outside edge of the side member. (See Figure 2)
5. Measure from the mark for the outside edge of the side member across the door opening the full specified unit width (at dock level). Mark this measurement for the outside edge of the second side member. (See Figure 2). Using carpenter's level, plumb up the wall the height of the side member and mark the outside edge of the side member on the wall at top. Measure full width, etc. Using a plumb bob or carpenter's level make sure that the outside wall is plumb from the highest point on the side member location to dock level. Shim the side members as required.
6. See "Bracketing Details" section of these installation instructions for details on how to install the brackets that will be shipped with the side members.
7. Attach one side of the side member to the building wall first. Make sure this member is mounted correctly and plumb. Refer to "Fastening Methods" section of these instructions for the correct fastening method for the building style the side members are being installed on. Attach the second side member, using the first member and the marks on the wall as a reference. When finalizing the side members unit width, as noted in Step 1, make sure that the distance between the inside faces of the mounting brackets are least +1/8" wider than unit width but no more than 1/4" for ease of installation.

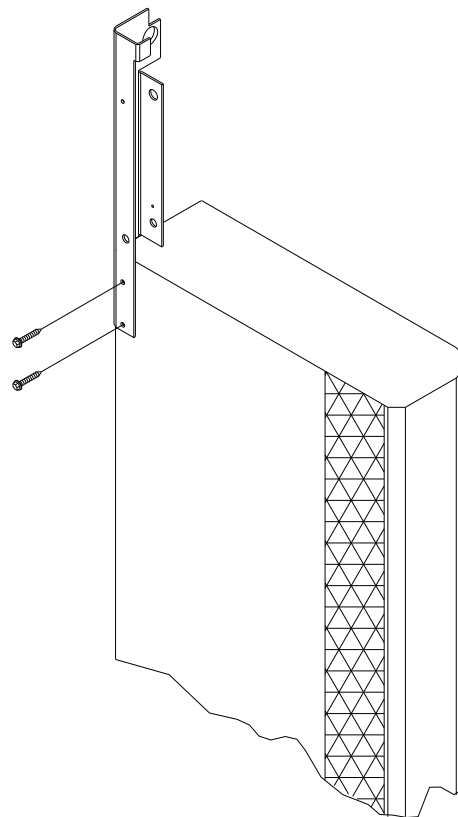


FIGURE 1

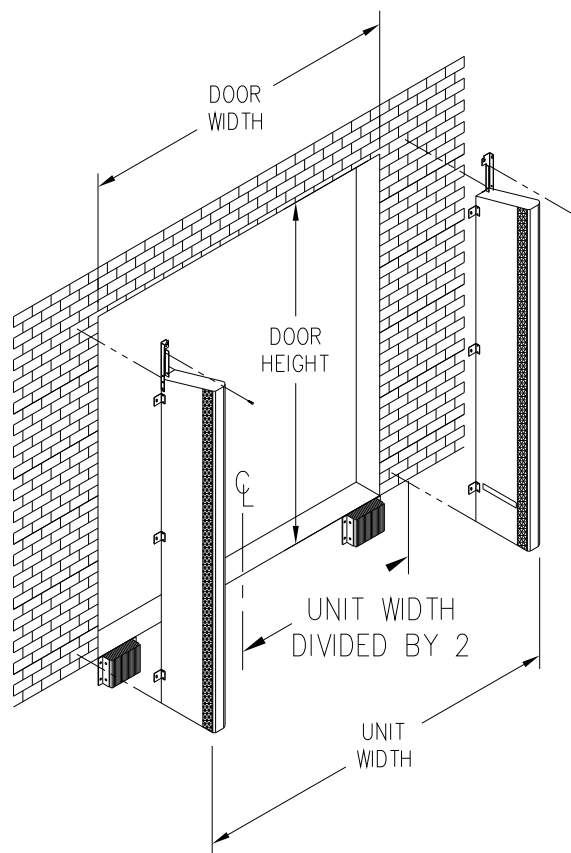


FIGURE 2

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Unit widths outside this range may be adjusted after by loosening side member clip brackets and header anchors. For best results, keep the unit width of the mounting brackets as close to above specifications. (See Figure 3)

8. Install a 3/8" anchor into both canopy mounting brackets as shown in Figure 3. There is a predrilled hole and the anchor will land just below the wood mounting board. These extra anchors are critical in supporting the header frame during the rest of the unit installation.

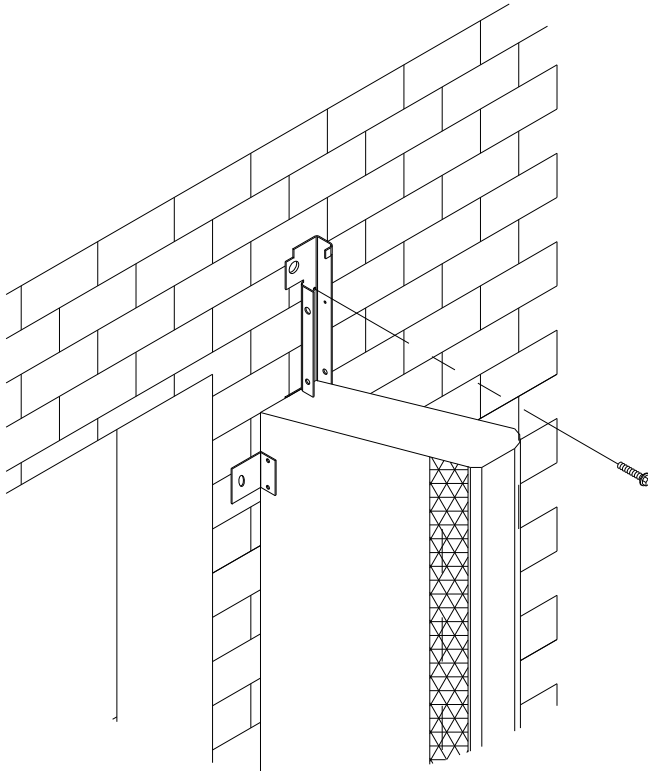




FIGURE 3

Bracketing Details

The side members are furnished with brackets to suit the application. (See Figure 5)

1. Position the side members on their marks.
2. Mark the side member for bracket installation. The brackets should be positioned 12" - 15" from the top and bottom, and also centered on the side member. (See Figure 4) For example, line up the mounting hole on the bracket with a mortar joint on the wall and attach the mounting bracket to the side member backer board.
3. Attach the brackets to the side member backer. Use the supplied 1/4" x 1 1/4" wood screws for wood backers, or self piercing screws for steel backers.

 WARNING	
	These two anchors must be installed through the bracket. Failing to do so, could cause injury and failure of the unit to function properly.

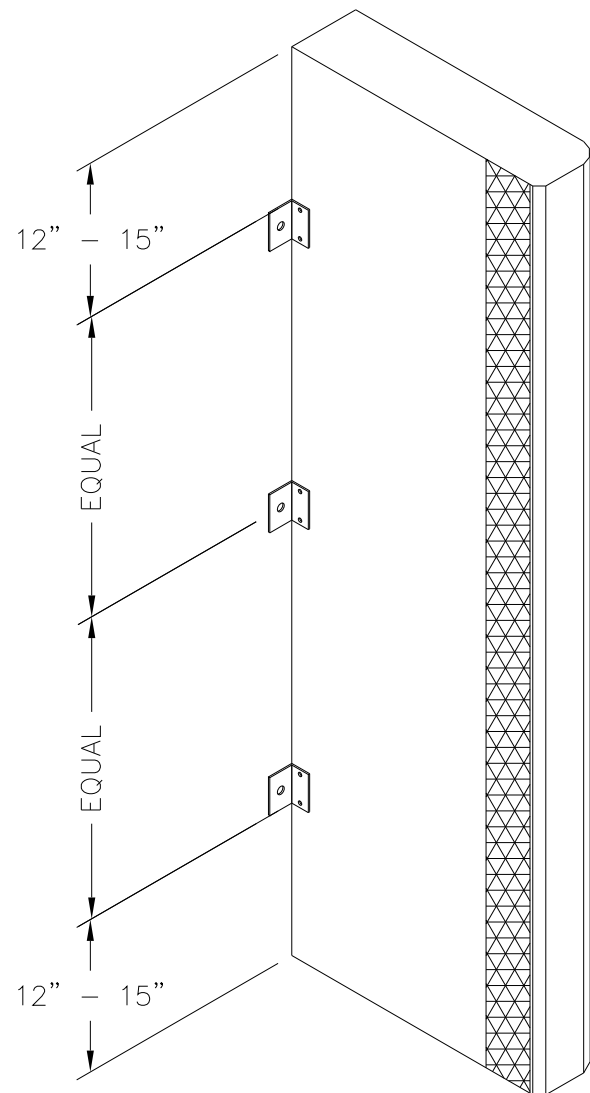
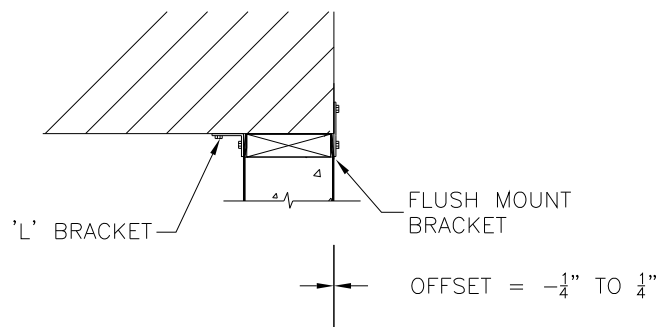
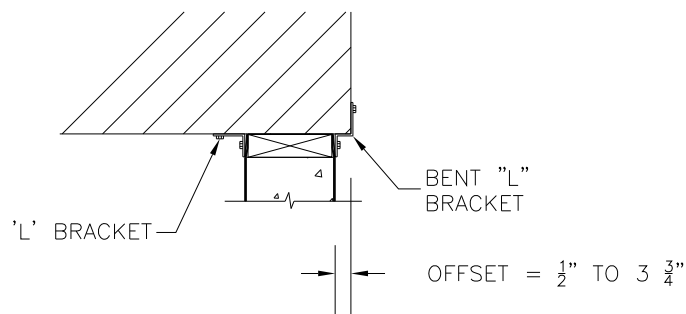


FIGURE 4

FLUSH MOUNTING



OFFSET MOUNTING



OFFSET MOUNTING

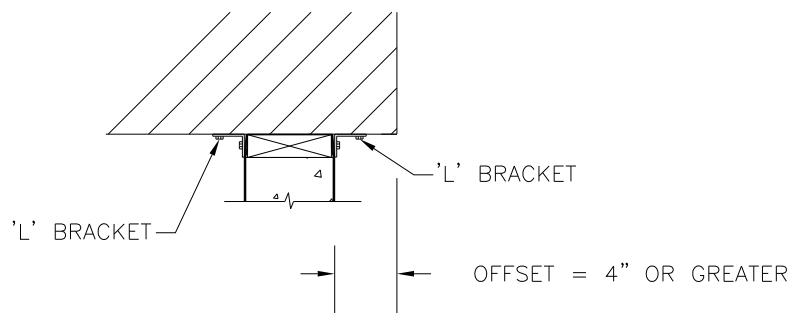


FIGURE 5

STANDARD PITCH CANOPY HEADER INSTALLATION

1. Attach the side arms to the front bar. Make sure the orientation of the side arms is correct before inserting the attachment bolt, etc. (See Figure 6)
2. Lift the side arm/front bar assembly together and locate across the already installed side frames and mounting brackets. Position it on top so as the side arms on the top frame are facing the wall and land between the mounting brackets on side frames. (See Figure 7)
3. Insert the clevis pin in from outside until it comes through the inside of the bracket. Install the supplied bridge pin so it cannot slide back out. Do this for both sides. (See Figure 8)
4. Install the installation chains on both sides of the canopy frame. First attach "Quick Link" side of the chains to the inside legs of the canopy mounting brackets. (See Figure 9) Next, lift up canopy front bar and attach the "S" hook side of the chains to holes on the inside face of the side arms. The chains hold the front bar up so the canopy cover can be attached.
5. Unroll and then lift and lay the canopy cover, with wood backer attached, on top of the side arms at the wall. Lift up and slowly position the wood backer board behind the tabs on the header mounting brackets. (See Figure 10) Insert one side first, then the other. Make sure the covered end of backer board faces downward and goes into bracket first. Then seat both completely. The backer bar should rest on flange part on the mounting bracket. (See Figure 11) Make sure the canopy cover and endcaps, at the corners where the canopy top and endcap meet, are laying correctly over the edge of the mounting bracket.
6. Install a minimum of (6) anchors into the wall that the header is to be mounted to. (Refer to "Fastening Methods" section for correct anchors and attachment methods for the building style the curtain is being installed on.) Two of the (6) anchors need to be mounted on the ends of the backer board. (See Figure 12) These holes are pre drilled at the factory for correct location. These anchors provide load bearing for the backer board and they also anchor the mounting brackets to wall. Install four more anchors into the backer board in the middle area of the unit. Install (2) just off center into the backer board based on the unit width, the other two can be centered in the spaces left between each end anchor and the center anchors. The four

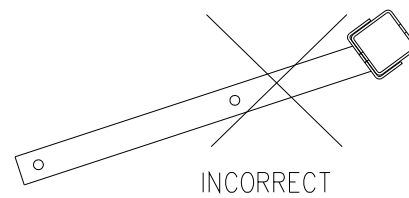
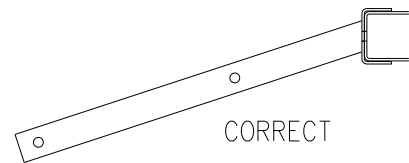
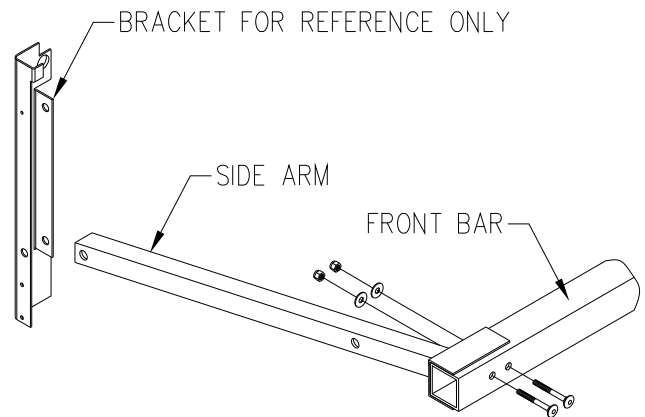


FIGURE 6

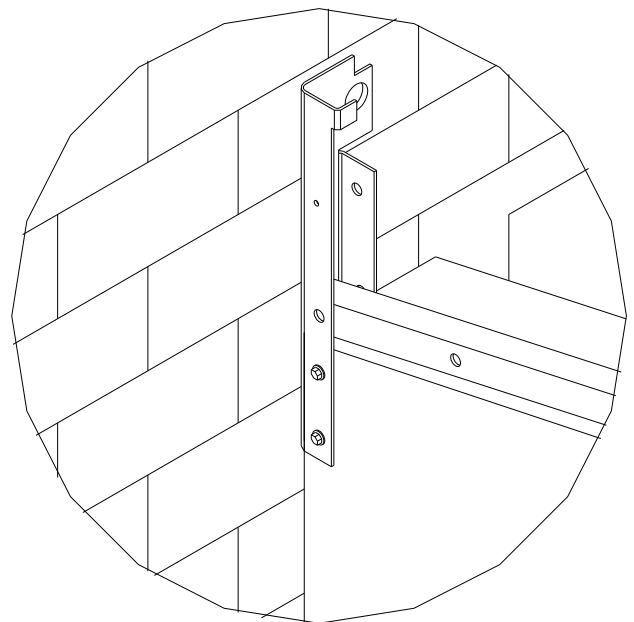


FIGURE 7

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anchor locations between the mounting brackets can vary in location by ± 2 " max.

7. Once all the anchors are in place, the canopy cover can be attached to the front bar. Drape the cover over the front bar (the 2 1/2" square tubing) along with making sure the side lay correctly over the mounting brackets, the side arms and down the sides of the side frame. Make sure the cover at the front corners also lay correctly over the corners of the front bar.
8. Wrap the canopy cover front bar pocket with the poly strip inside, down and around the bottom of the front bar. The pocket/poly will wrap back up the back inside face of the front bar and tuck behind the steel angle welded at back. The pocket is notched to fit around the side arm bracket and the edge of the pocket should line up with the edge of the steel angle on both ends about 1/2" away from the side arm bracket. Make sure that the pocket/poly strip combination gets seated all the way down in the space between angle and front bar. (See Figure 13)
9. Once all the anchors are installed. Go back and release the safety chain at the "S" hook locations. Release the load on the front bar to the mounting brackets slowly.

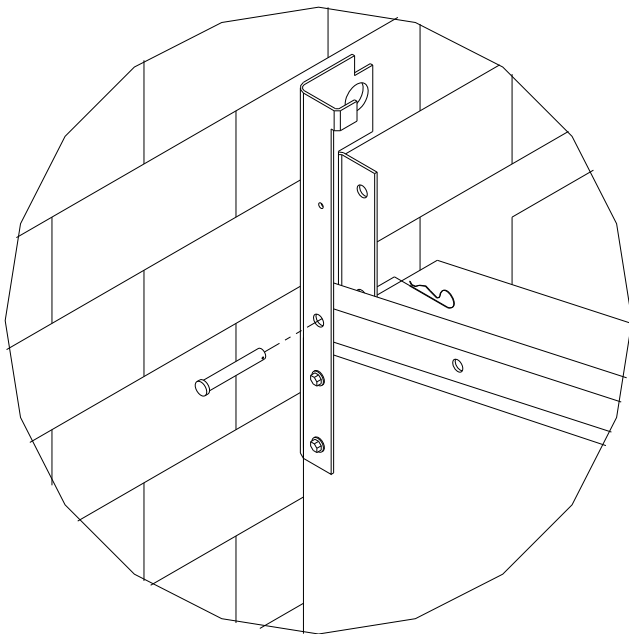


FIGURE 8



WARNING



The canopy header is a self supporting unit and installing less than the recommended amount of (6) anchors, changing the anchoring locations and/or insufficient anchor installation methods will be dangerous, and have possible unit failure. Note: Metal sided buildings require special and increased mounting support considerations.

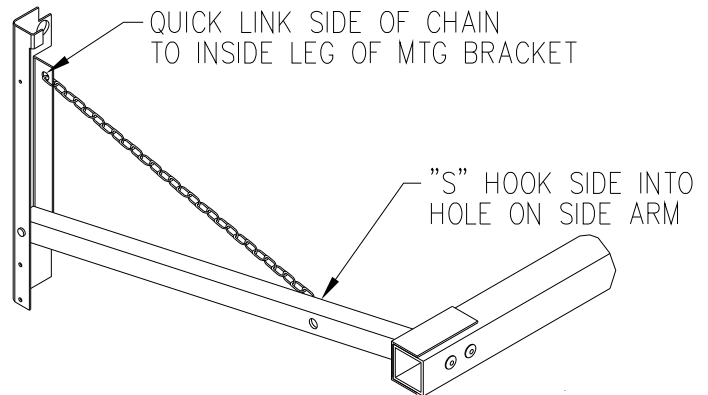


FIGURE 9

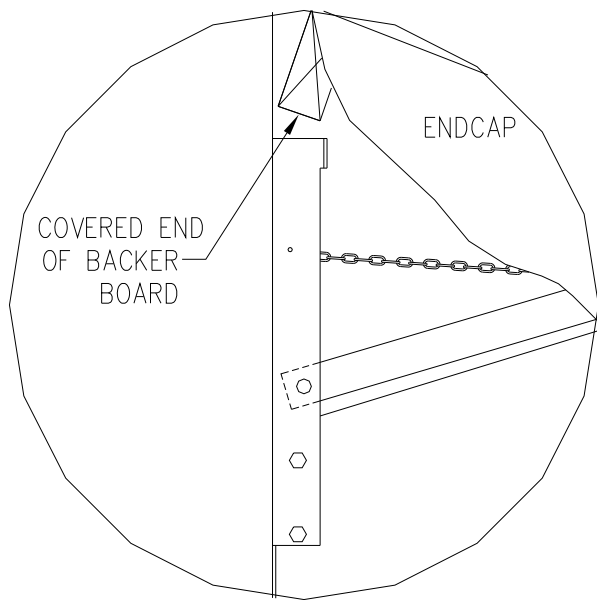


FIGURE 10

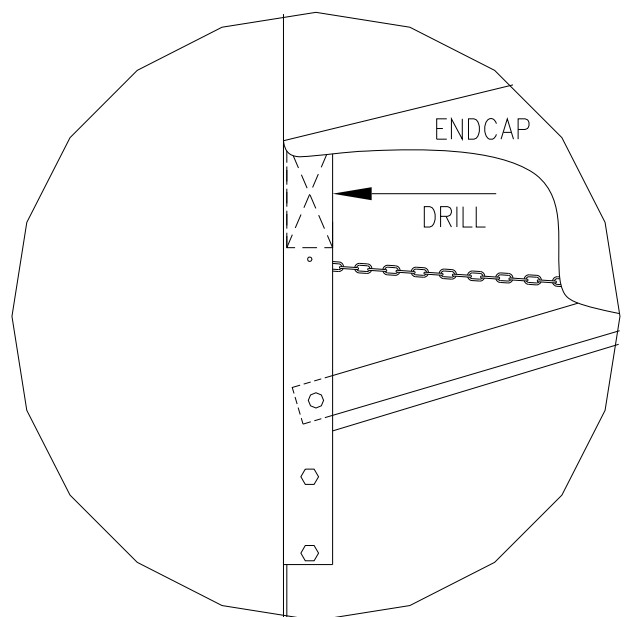


FIGURE 12

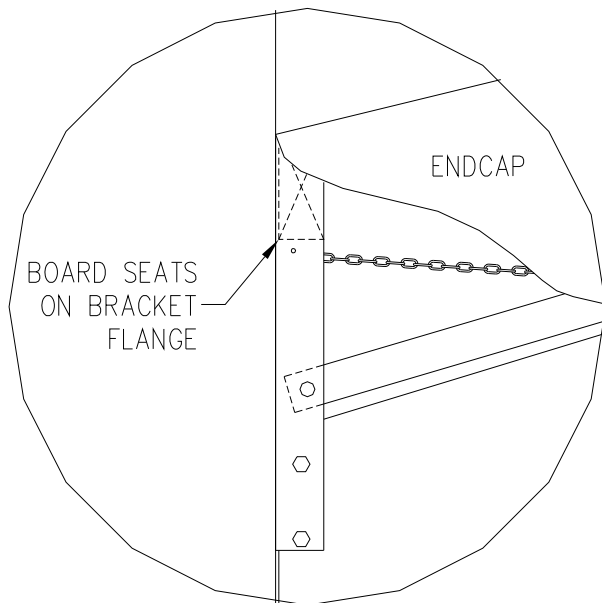


FIGURE 11

10. Once the front bar is self supporting, check the locations of the curtain corners. Make sure there are no hang ups of fabric. The header is self supporting and heavy loads can be seen, it is important that the corners fit properly. Once, the corners are correct, bounce the header up and down slightly. This will help pull the fabric in the pocket around the front bar. Do this by pushing up on the front bar a maximum of about 1/2".
11. Caulk along the entire edge of the canopy top at the building wall, making sure the ends are covered. Use a good grade of flexible caulk.

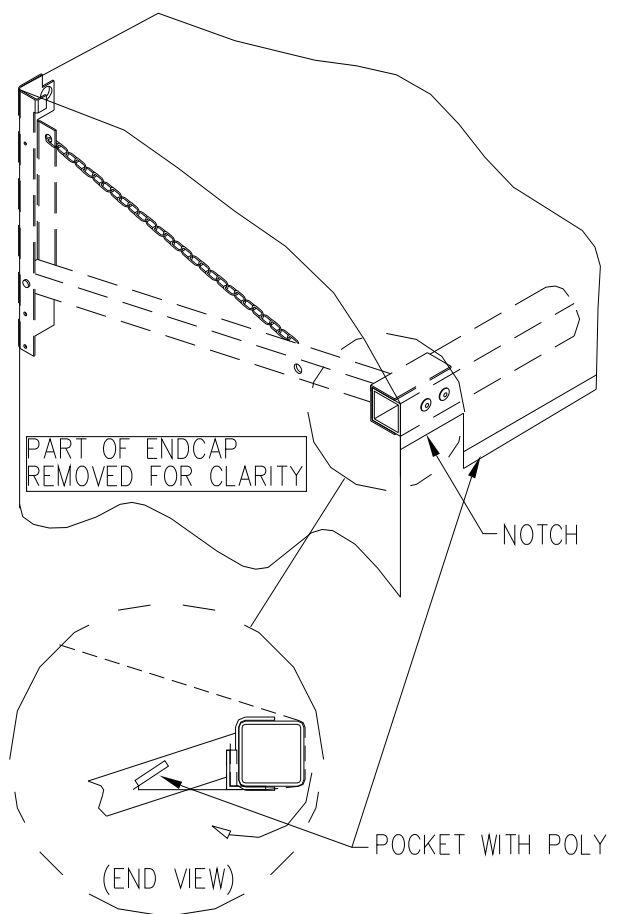


FIGURE 13

12. Pull the end caps, located at each end, down to cover the side frame. Attach the end cap to the side frame backer using one of screws holding on the mounting bracket. Attach the velcro on the inside of the mounting bracket. Attach the velcro on the inside of the endcap, at the bottom, to the velcro attachment for the side frame and the side curtain velcro. Pull the velcros apart and insert endcap velcro tab between them. Make sure velcro tab is not pulling too hard and the endcap lays flat and unwrinkled.
13. Finally, temporarily wrap the end caps front flaps onto the front bar velcro. (See Figure 14)

INTEGRAL HOOD HEADER INSTALLATION

The instructions for a integral hood are the same as for a standard pitch. The major difference is the header mounting bracket which is made longer to achieve the greater pitch.

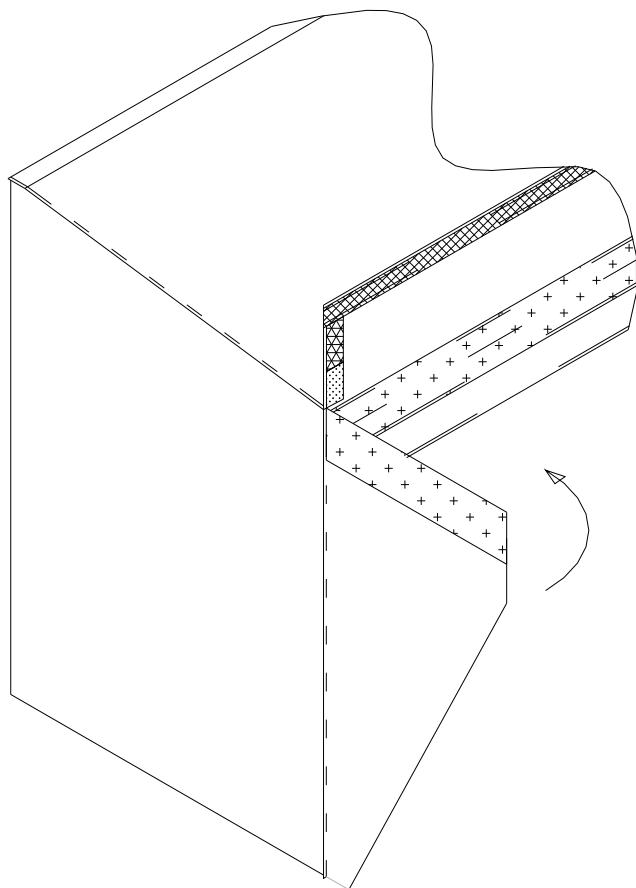


FIGURE 14

SIDE CURTAIN INSTALLATION

1. Align top edge of side curtain, 1/4 - 1/2" above the top edge of side frame at the same time aligning the velcro flap on the outside of the side curtain to the velcro on the outside of the side frame. (See Figure 15). (**Important Note**: The top 6"-7" of the side frame's construction does not have the HMWPE poly panels in it, just foam. So when attaching velcro at the top, please take care and not let the weight of the side curtain pull down on the side frame fabric cover. Attach velcro at top and hold up side curtain's weight until at least 24" of the side curtain outside velcro is attached.)
2. Make sure that the velcro flap on the outside of the side curtain completely covers, and is properly aligned with, the velcro on the side frame.
3. Continue to align the velcro flap to the outside of the side frame velcro and continue working downward to the bottom of the side frame. Keep continuous downward pressure on side curtain to avoid wrinkles in fabric.
4. Starting at the top, repeat Steps 1 & 2, to the inside velcro flap on the side curtain. However, due to variations, the velcro flap on the side curtain may not always cover the velcro on the inside face of the side perfectly. It is important to make sure the side curtain is perpendicular to the side frame when inished. (**Note: Always align outside velcro flap first.**) (See Figure 16)
5. Finally, attach the side curtain pocket to the canopy installation chain (See Figure 17). First, run the "S" link part of the chain through the loop on the pocket

located at the top, backside of the side curtain. Run the chain coming in the loop from the top. Pull the chain just short of putting tension on the pocket. Take the "S" hook link and hook the remainder of the chain back onto the chain itself coming down. Make sure chain is not tangled. "S" link does not have to be closed, but can be if desired. Do this for both sides.

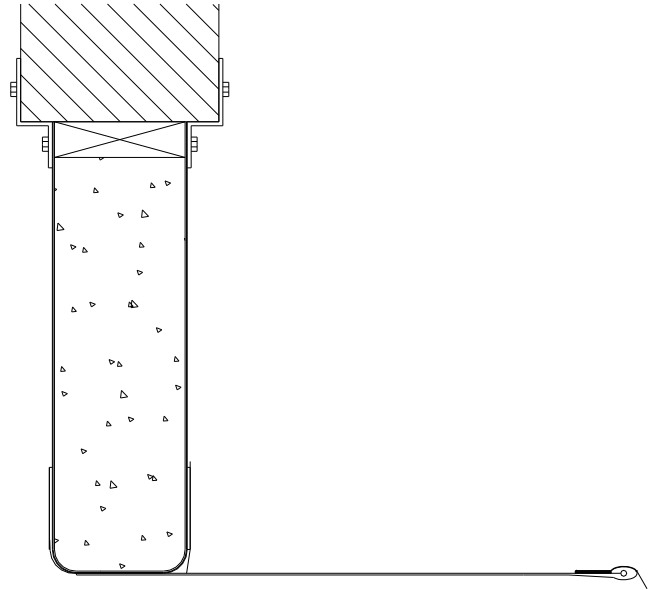


FIGURE 16

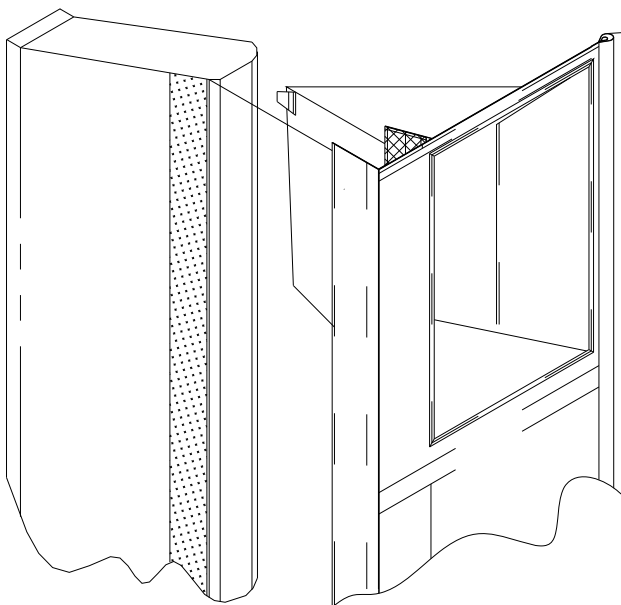


FIGURE 15

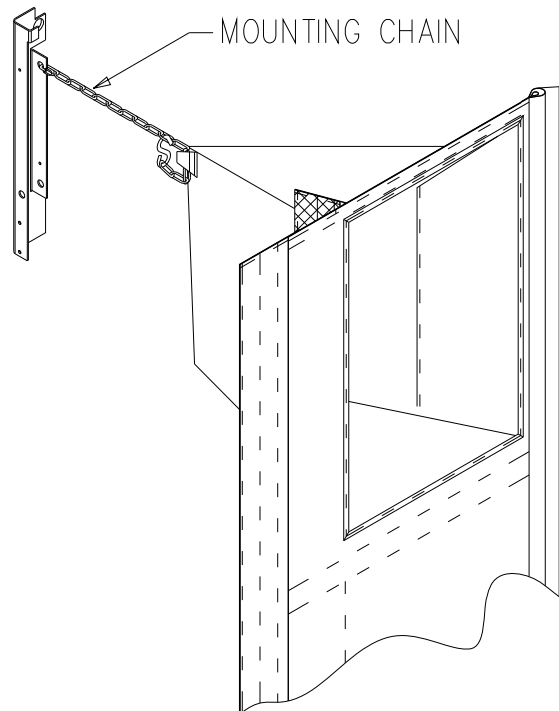


FIGURE 17

GUTTER, WEIGHTED SEAL AND IMPACT PLATES INSTALLATION

1. Unwrap the end cap front flaps and let them hang.
2. Install the weighted seal assembly. This attaches by matching the velcro on the back of the weighted seal assembly to the velcro on the canopy face. Locate the weighted seal assembly center tab with the canopy center tab and the weighted seal assembly velcro top edge to the canopy velcro top edge. Align the top edges to each other as you work out in both directions from center across the face of the canopy. Apply firm pressure when attaching the two velcros together. Tuck both ends of the weighted seal assembly fabric with straps underneath the endcaps at the canopy ends. (See Figure 18) Do not attach with fasteners yet.
- 3) Insert the HMWPE gutter panels into the pocket located on the newly attached weighted seal

assembly. Make sure panels are seated in pocket all the way down. Individually, slide one panel to the left until it stops at the left pocket edge and slide the other panel to the right until it stops at the right pocket edge. This separation is what makes the full width gutter for the canopy assembly. The pocket will receive both the gutter and non-gutter versions of the panels. The gutter version projects approximately 2" above canopy front bar, while the non-gutter version is basically flush with the front bar top edge. (See Figure 19)

4. Next, attach the gutter assembly to the front bar in (6) locations using the self drill/tapping screws provided. Start 12" from center in both directions, approximately 3/4" down from velcro edge on pocket. The screws should land just above the middle of the front bar. Install a total of (3) screws in each direction. There are small fabric tabs located above the velcro edge on the gutter pocket, indicating the fastener locations. Do not install a screw at the center location. (See Figures 19 & 21)

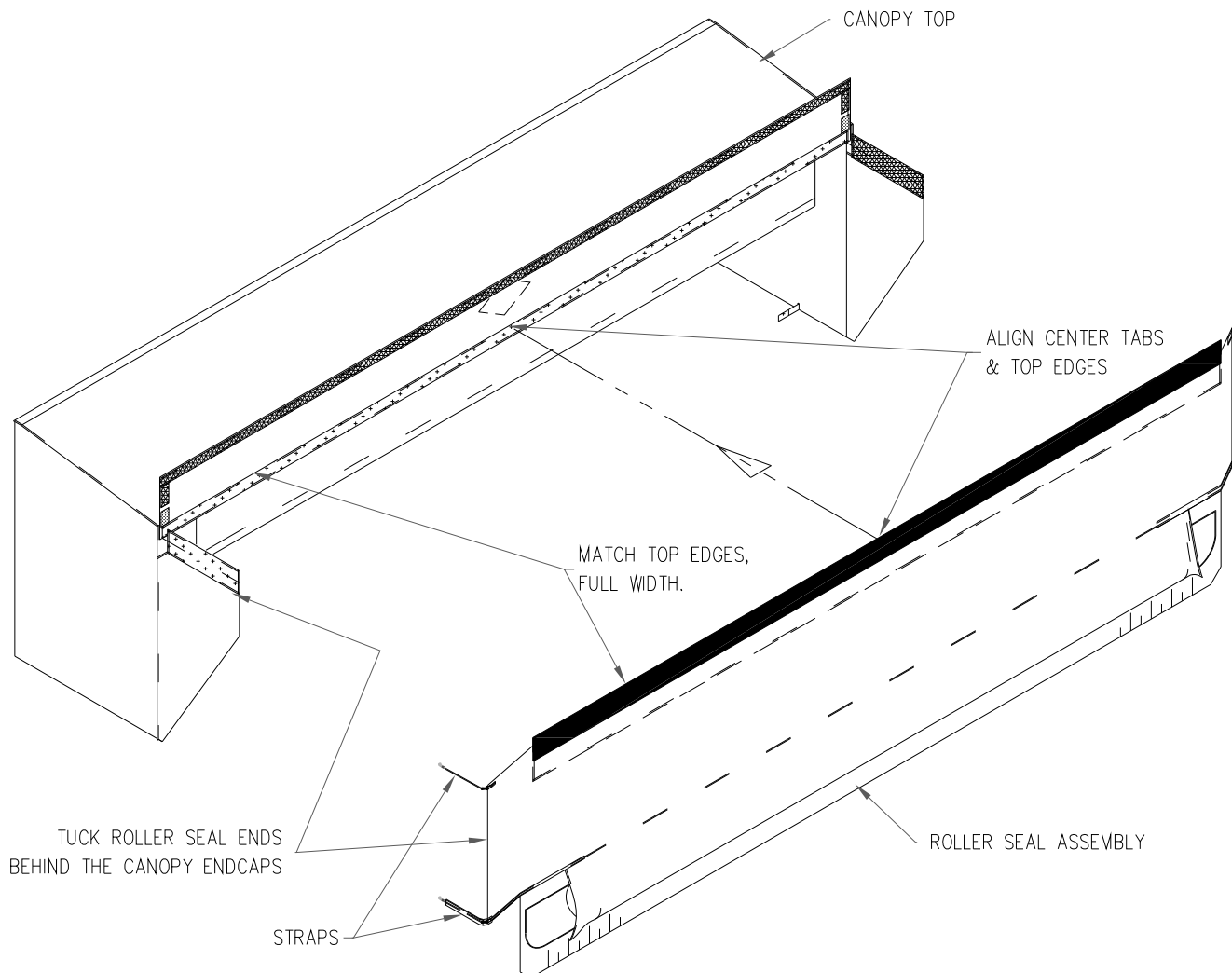


FIGURE 18

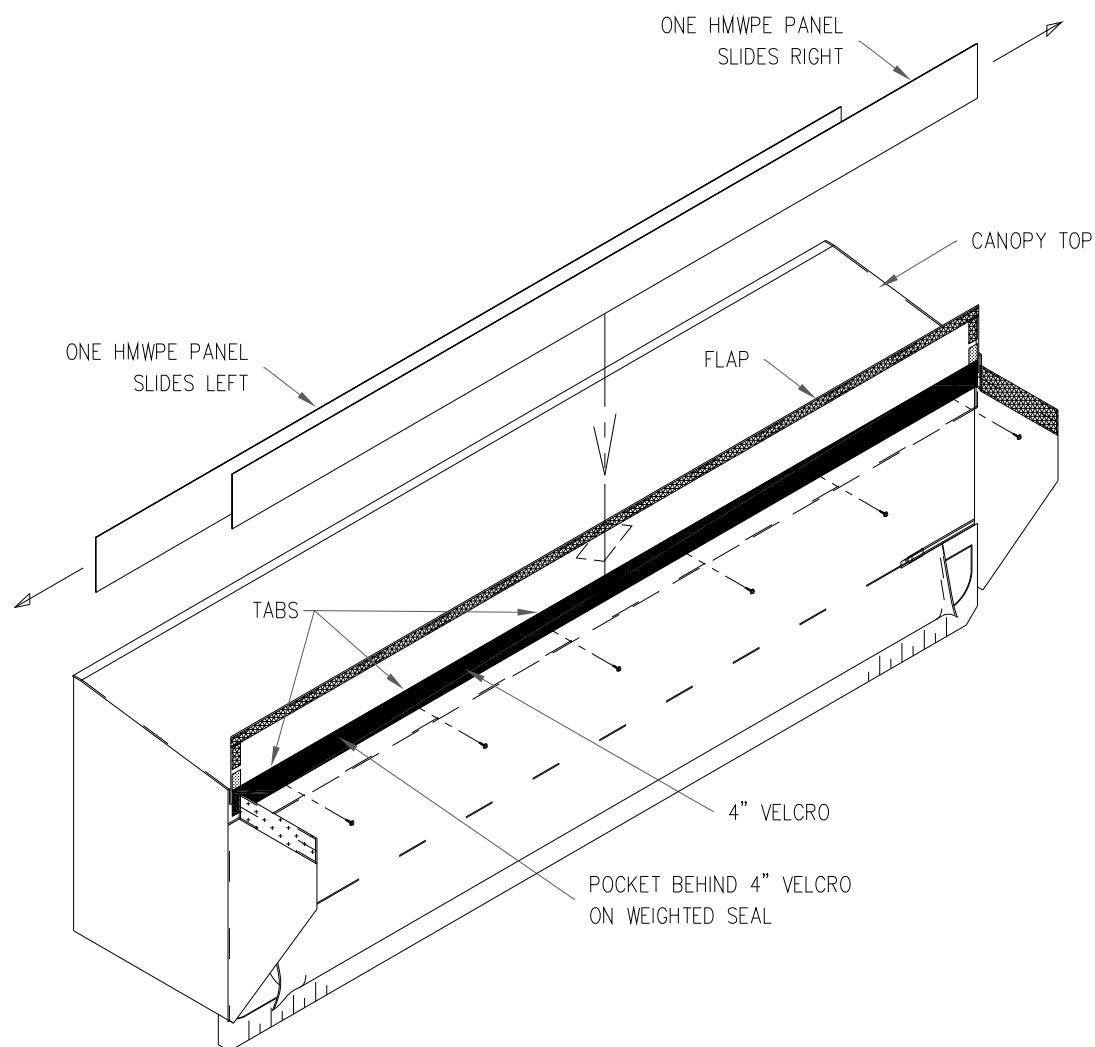


FIGURE 19

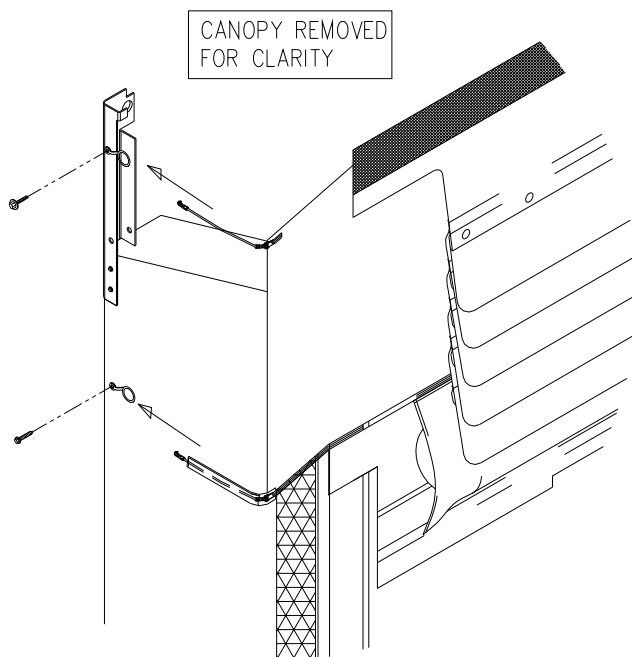


FIGURE 20

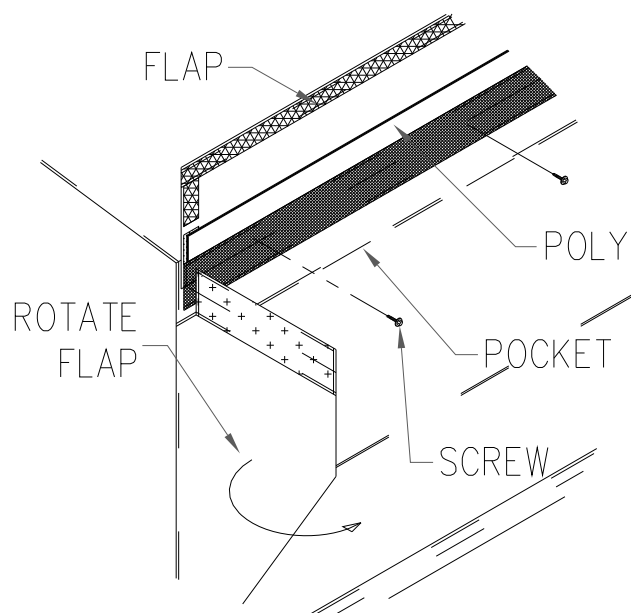


FIGURE 21

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5. Flip the canopy endcaps on top of the canopy itself. Attach the ring and hanger clips. The upper hanger attaches to the canopy mounting bracket itself about 1" below the canopy wood mounting backer located towards the top. The lower hanger attaches to the side member backer straight back from the strap location on the roller seal. (See Figure 20) Pull both cords from the sides of the roller seal assembly and attach to the to the ring/hangers assemblies. Do this for both sides of the unit.
6. Flip the canopy endcaps back down and wrap the endcaps front flaps over the velcro on the weighted seal. Align the velcros top edges. Do not pull end cap around too hard. The outside edge of the front flap should be about 1/2"-1" away from sweep panels after they are installed. Do not attach front flaps at this point. (See Figure 21)
7. Install the impact plate assembly. This attaches in the same method as the weighted seal assembly by using and matching velcros together. Again, start at the center, align the tabs, match the velcros and top edges as you work out in both directions from the center across the face of the weighted seal assembly. **(Note:** The ends of the impact plate assembly velcro will not always align up with the ends of the weighted seal assembly velcro or endcap velcro). Verify the impact plate-mounting height by looking at the bottom of the last plate. The bottom edge should be flush to 1/2" above the center of the weighted seal it is in front of. If it is not, remove the impact plate assembly and re-adjust the attached location, and then re-attach. (See Figures 22 & 24)
8. Attach the impact plate assembly to the front bar in (5) locations using the self drill/tapping screws and panel washers provided. Start at the center, then 24" and 48" in both directions, approximately 3/4" down from velcro edge on pocket. The screws should land just above the middle of the front bar. There are small fabrics tabs located above the velcro edge on the impact plate assembly indicating the fastener locations. (See Figures 23 & 24)
9. Attach the front flap ends to the front bar by using the self drill/tapping screws provided going through the face of the impact panel velcro. (See Figure 25) Attach (1) screw in between the two outside fabric tabs and (1) screw approximately 3"-4" off the outside edge. There is a lot of fabric build, so washers cannot be used. Make sure both screws land on the end cap velcro, adjust location if needed.

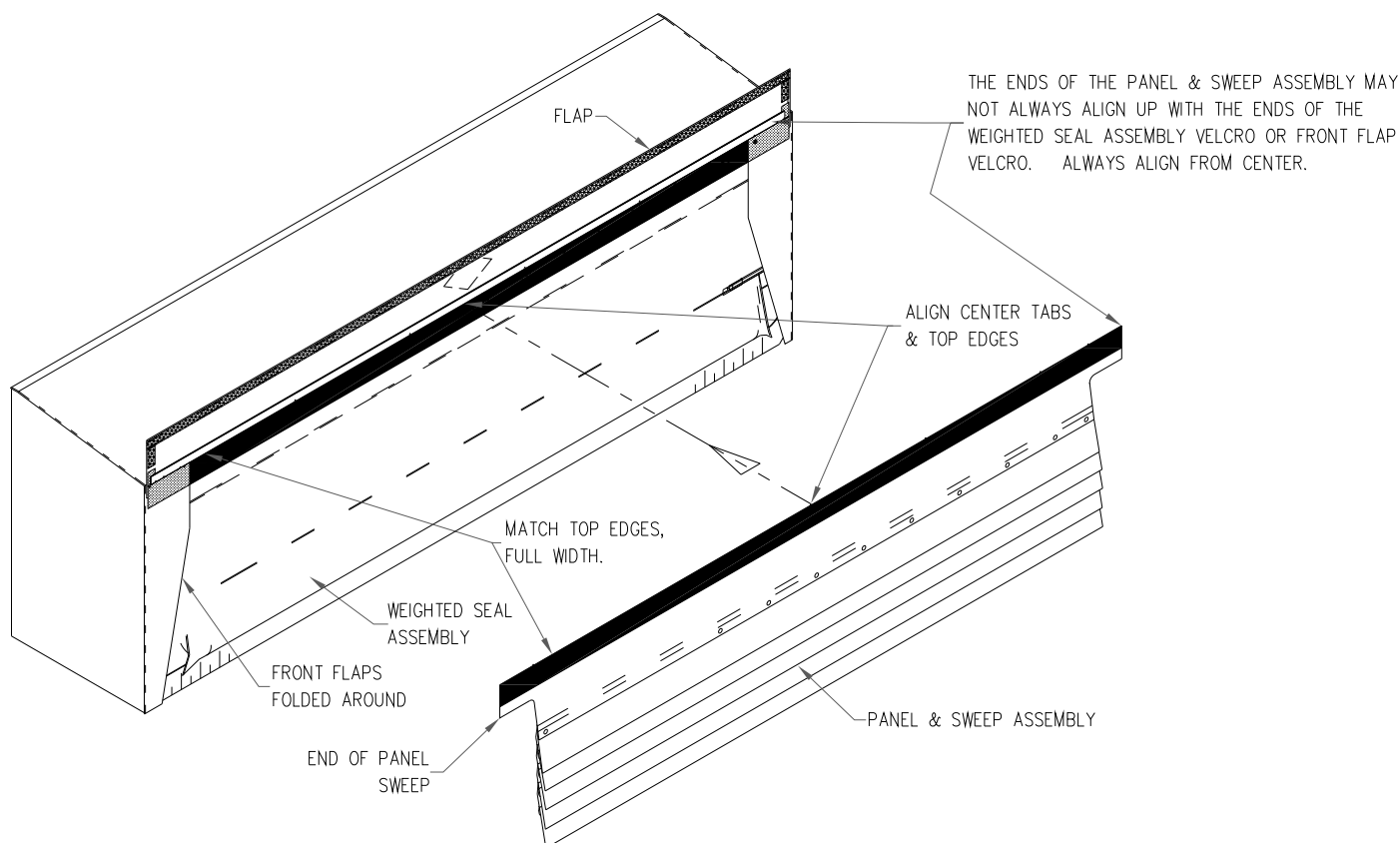


FIGURE 22

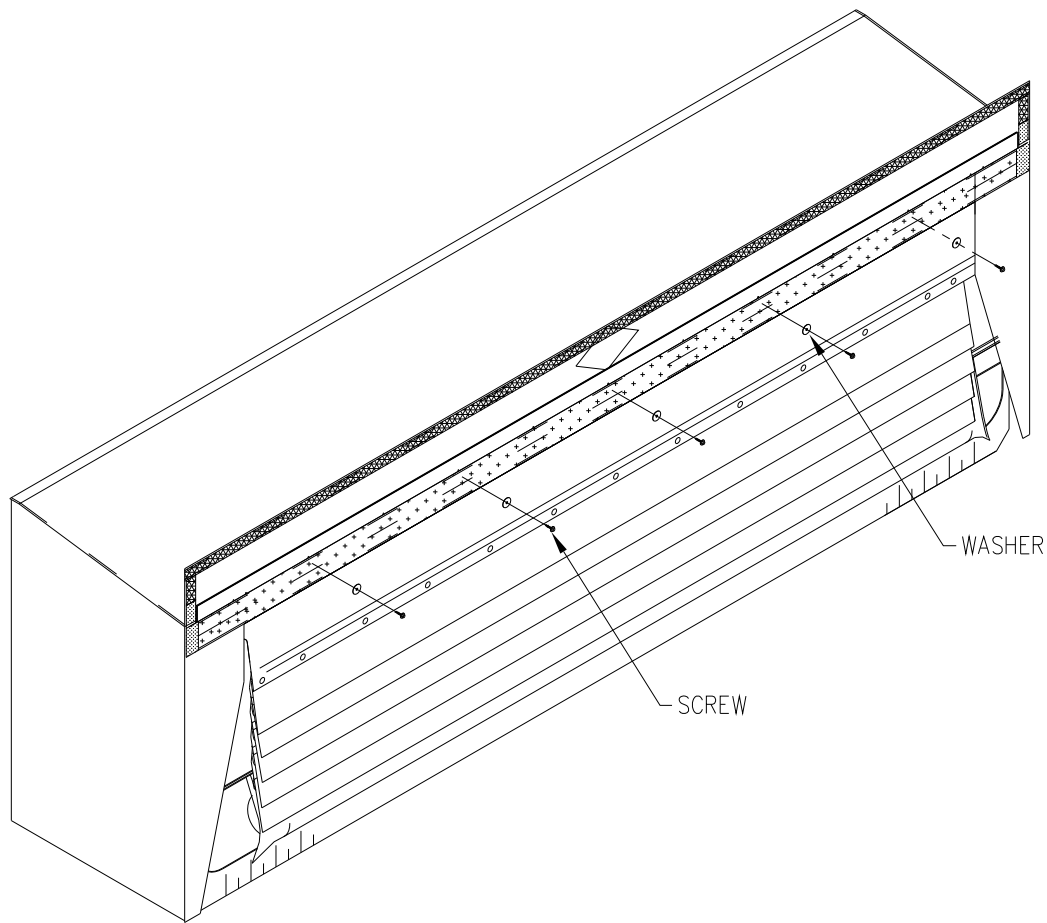


FIGURE 23

9. Flip down the gutter flap and attach by matching the velcros. The velcro bottom edge on the gutter flap should align with the bottom velcro edge on the front flap and on the impact plate assembly that runs across the face. Adjust as needed to make sure the flap looks horizontal. Finally, attach the endcaps to the side members. Remove (1) screw from the side member mounting bracket located behind the endcap and re-install it going thru endcap fabric to hold it down. (See Figure 25)

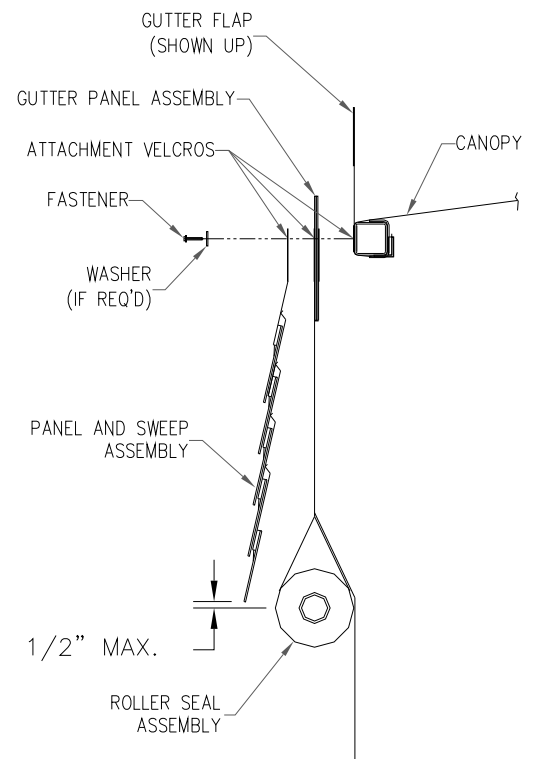


FIGURE 24

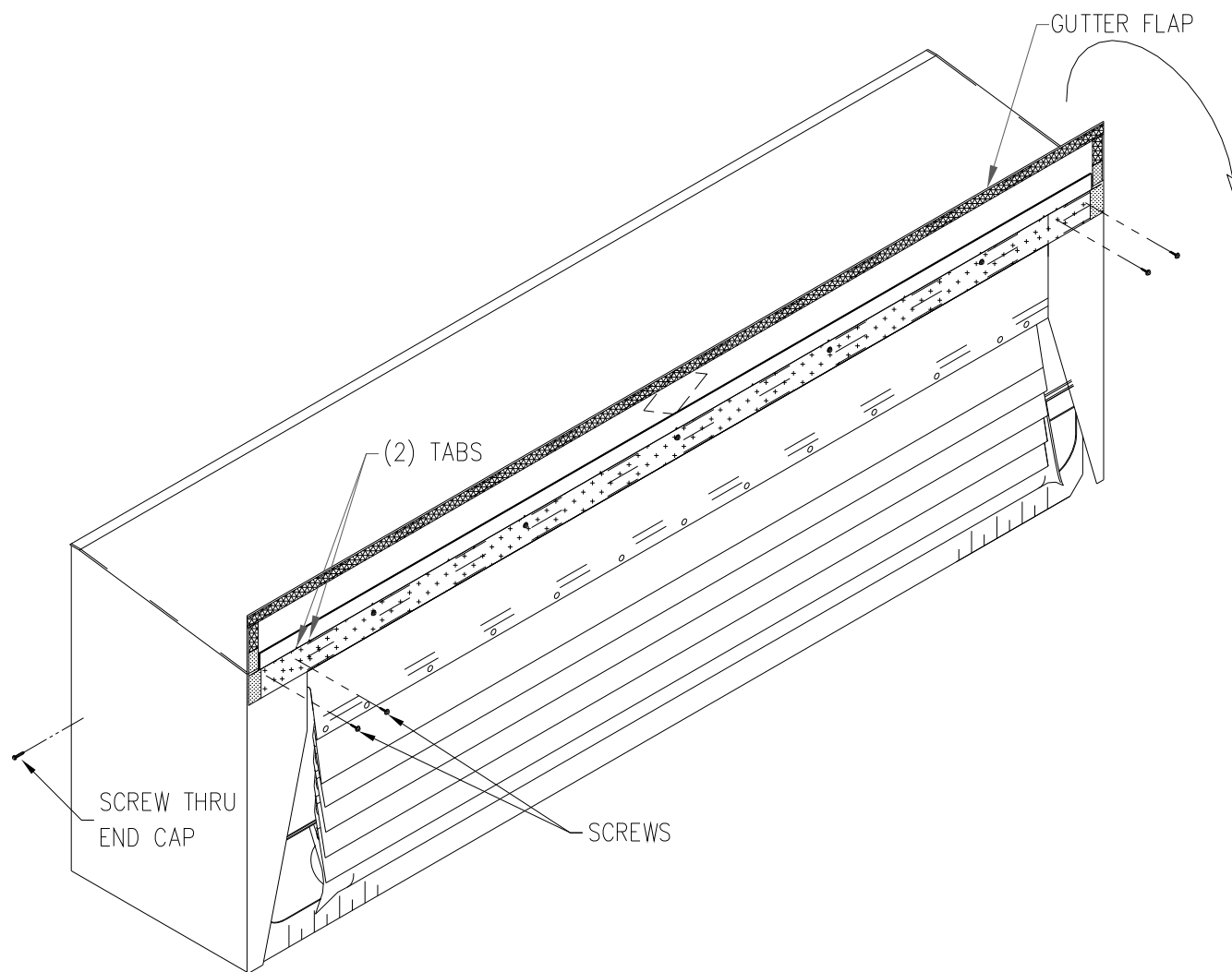


FIGURE 25

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620 SERIES BUMPER INSTALLATION

1. Bumpers should be mounted to the foundation wall.
2. Position bumpers so that they are centered with the side frames, and located 1" - 2" below dock level. (See Figure 26)
3. Fasten the bumpers to the building's foundation wall using a minimum of (4), 1/2" fasteners per bumper.
4. Install one bumper per side frame.



WARNING



Post safety warning and barricade work area, at dock level and ground level to prevent unauthorized use of the dock position while service work is being performed.

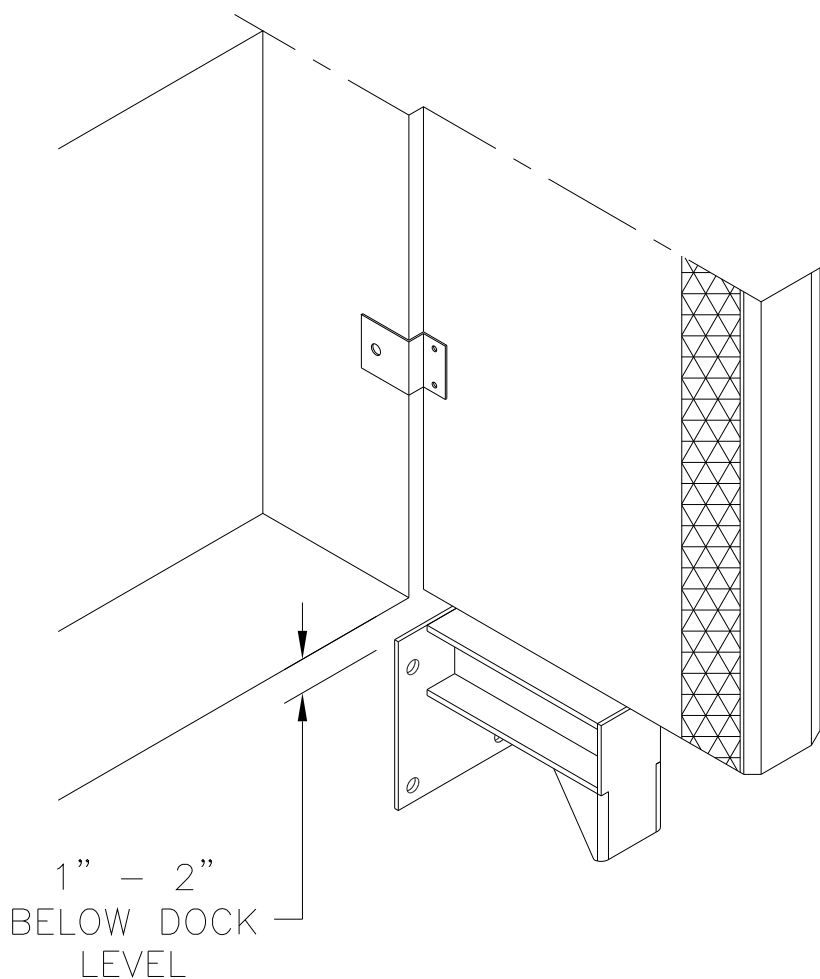


FIGURE 26

DRAFT PAD INSTALLATION

1) Align the draft pad main body velcro top edge to the inside of the side member velcro attachment flap. The velcro flap on the side member lays over the velcro on the draft pad. The draft pad should fit exactly between the building wall and the back side of the side curtain. Next, lay the velcro flap on the back side of the side curtain over the large velcro flap on the draft pad. Finally, install the two fasteners through the grommets into the backer board on the side member as shown. (See Figure 27)



WARNING



Post safety warning and barricade work area, at dock level and ground level to prevent unauthorized use of the dock position while service work is being performed.

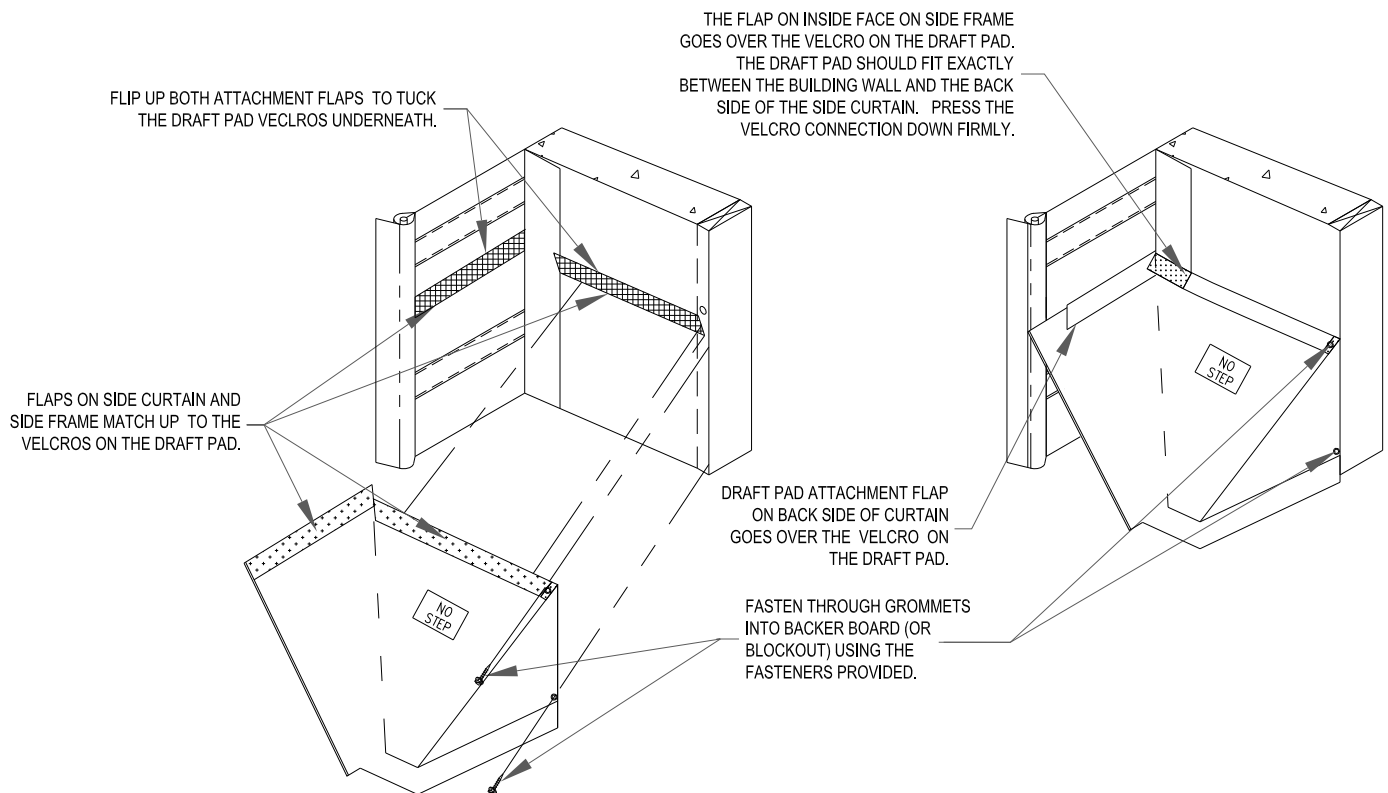


FIGURE 27

Fastening Methods

Concrete Block or Brick Wall

1. Install fastener into mortar joint if possible. Use 3/8" x 4" lag screw with expansion shields, 3/8" x 4" one piece anchor with expansion collar, or equivalent fastener.
2. Through bolt fastening is required if the mortar joint will not support the members. Bore a hole through the building wall. Use a 3/8" dia. threaded rod with a washer, nut and jam nut on each end - it may be necessary to install a back-up plate - steel or wood - when the wall will not support the bolt.
3. Use a minimum of 6 brackets on each side member assembly.

Concrete Tilt-Up Walls (Precast)

1. Use a 3/8" x 4" lag bolt with expansion shields, 3/8" x 4" one piece anchor bolts with expansion collar, or equivalent fastener. If building wall is too thin to effectively hold the lag bolt or anchor bolt, the through bolt method of attachment is required.

Metal Side Building

1. Through bolt method of attachment is required for this building style. It will be necessary to install a back-up plate that is fastened directly to structural members when it is not possible to fasten directly to structural building members. Use a 3/8" diameter bolt with a washer and lock nut to fasten the unit to the structural members of the building or to the back-up plates. If necessary, use a 3/8" diameter threaded rod with a washer and lock nut on each end.

EXPLODED VIEW

This unit shown in the exploded view is a standard Eclipse® shelter. Your unit may have options which are not shown in the exploded view, depending on options chosen, and application of unit.

1. Weighted Foam Cylinder
2. Left Bottom Pad
3. Side Curtain Scotch-Ply Stay
4. Scotch-Ply Stay Vinyl Cap
5. 3/16" Fiberglass Rod
6. Left Side Curtain
7. Left Side Frame Cover
8. HMWPE Sheets
9. Side Frame Foam
10. "L" Brackets
11. Roofing Nails
12. 2X6 Side Frame Lumber
13. Left Header Mounting Bracket
14. Left Side Arm
15. 3/8"-7/16" Bridge Pin Clip
16. 3/8" Nut,
17. 3/8" Flat Washer
18. 5/16" Top Seal Strap
19. 5/16" Bottom Seal Strap
20. Weight Seal Cover
21. Impact Plates Assembly
22. 2X4 Header Lumber
23. Canopy Cover
24. Gutter Panel Assembly
25. Pull Rope Guides
26. Installation Chain
27. Offset Bracket
28. Right Header Mounting Bracket
29. 1/2" X 2 1/4" Clevis Pin
30. #14 x 1 1/4" HWHSMS Screw
31. 3/8" Lock Washer
32. Front Bar Assembly
33. 3/8" Carriage Bolt
34. 1/4" x 1" Poly Strip
35. Right Side Arm
36. 1/4 -14 x 1 1/4" HWH Self Drill/Tap Screw
37. 1/4" ID Fender Washer
38. 3/8" Short Fiberglass Rod
39. Right Side Curtain
40. Right Side Frame Cover
41. Right Bottom Pad
42. 3/8" Long Fiberglass Rod

