

## TVM COLUMN SUPPORTED CANOPY (4"x4" columns without beams) ASSEMBLY AND INSTALLATION INSTRUCTIONS

### STEP 1: Layout Canopy Column Locations and Set the Columns

- A. From the canopy drawings, determine the spacing of the columns and mark their locations on the sidewalk or footings. Pull strings to use in aligning columns. If block outs were used in the concrete, these must be removed before the columns can be set.
- B. For columns in the ground or in block outs, drill a 9/16" hole through the column about 4" up from the bottom of the column. Insert the piece of rebar provided through the holes. Insert the column into the hole in the ground or block out in the sidewalk. Plumb the column and align it with the string. Pour concrete in the hole up to about 2" from the top. For columns with base plates, mark the location of the column fastener holes and drill out the holes to the size and depth indicated on the canopy drawings. Insert the fasteners into the holes. If using epoxy anchors, allow the appropriate time for the epoxy to harden before proceeding. Set the column over the anchors and install the nut and washer. Shim the column if necessary, to make it plumb and then tighten the nuts. For columns with hidden bottom brackets, follow the same procedure as base plated columns except the bracket will be set over the anchors and shimmed if necessary. Install the nuts and washers on the anchors and tighten the nuts. Slide the column over the bottom bracket and fasten to the bracket with #14 x 1 1/4" SS screws (Figure 1). See the canopy drawings for the number of screws required.

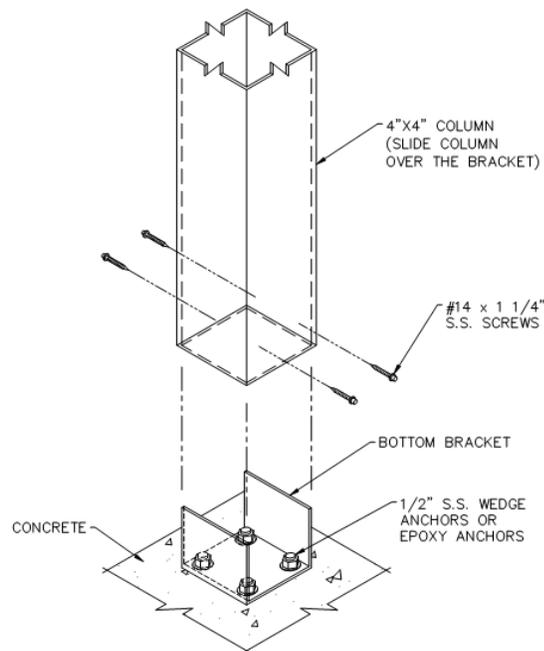
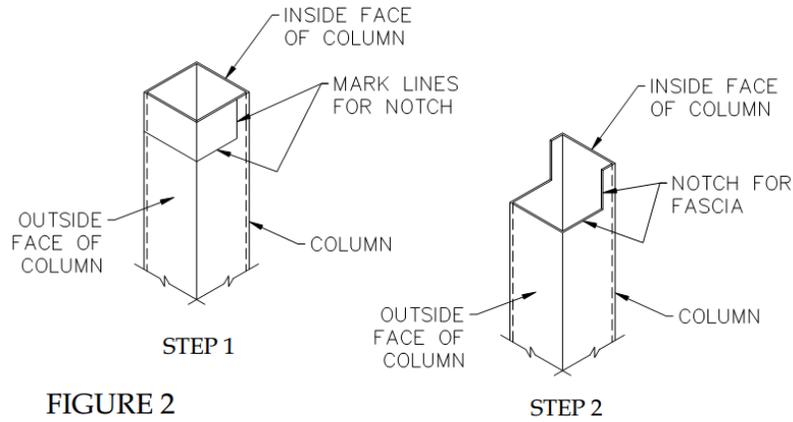
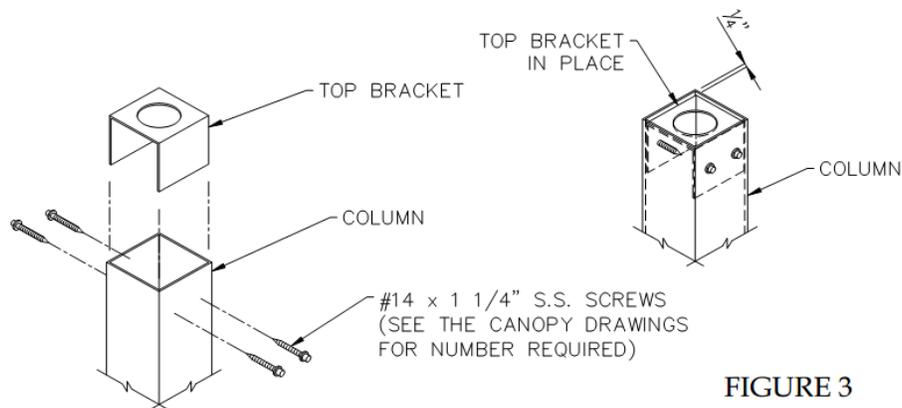


FIGURE 1

- C. Once the columns are in place, mark the tops of the columns using a laser level at the height indicated on the canopy drawings for the bottom of the fascia. Draw a line all the way around the column for 7" or larger fascia. For 5" or 6" fascia, layout lines on the column to create a notch in the column for the fascia (Figure 2).



- D. Using a circular saw, cut each column off along the marked lines. TVM recommends using a saw blade with 24 teeth or more.
- E. Insert the top bracket into the column approximately  $\frac{1}{4}$ " down from the top and fasten to the column with #14 x  $1\frac{1}{4}$ " SS screws (Figure 3). See the canopy drawings for the number of screws required.



### Step 2: Attach Corner Angles and Splices to Fascia

- A. Attach the outside and inside corner angles to the end fascia pieces (Figure 4).

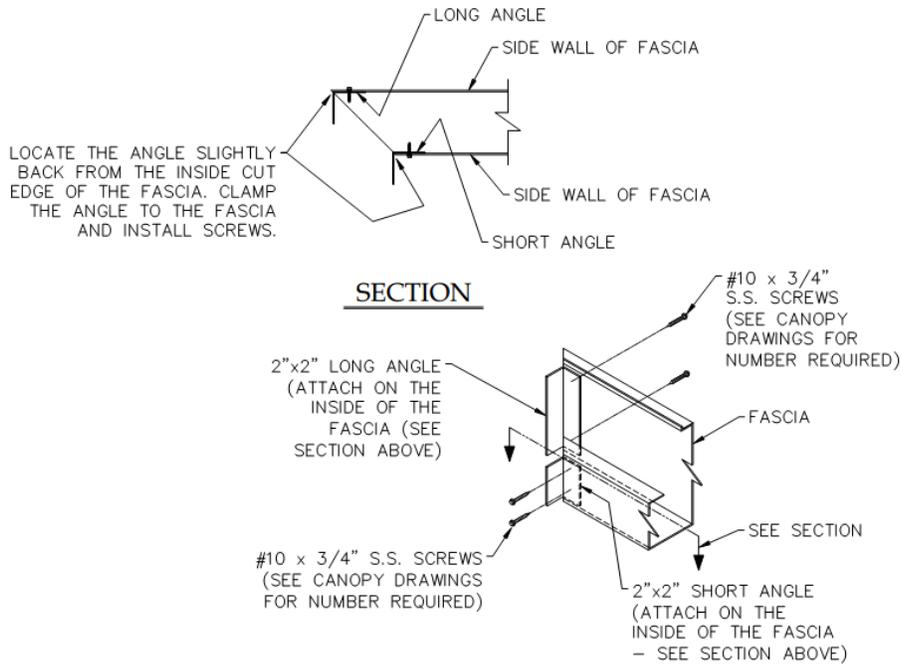


FIGURE 4

- B. If the canopy length requires the fascia to have a splice, attach the splice to one of the pieces of fascia (Figure 5). If the length of the canopy is not too long, attach the other piece of fascia to the splice (Figure 6) before attaching the fascia to the columns or the wall. Seal all around the splice and the screws in the gutter portion of the fascia (Figure 6).

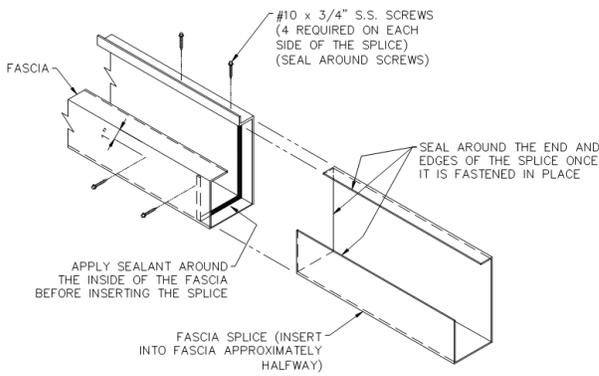


FIGURE 5

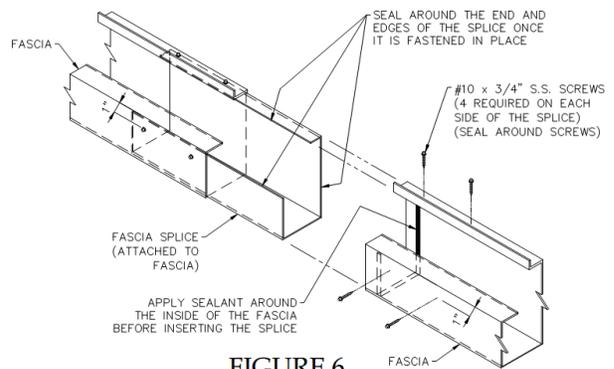


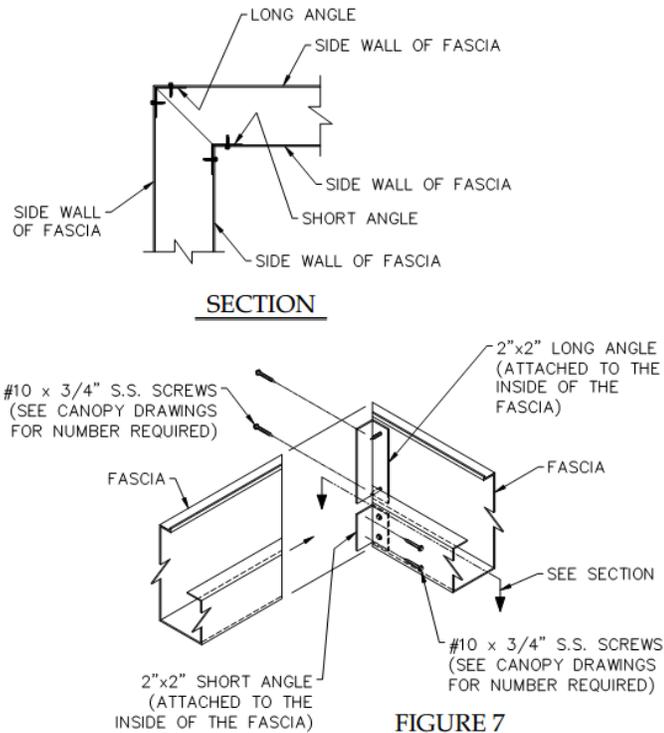
FIGURE 6

- C. If the canopy length requires more than one splice, attach a splice (Figure 5) to the same end of each piece of fascia except the last piece which finishes out the canopy length.

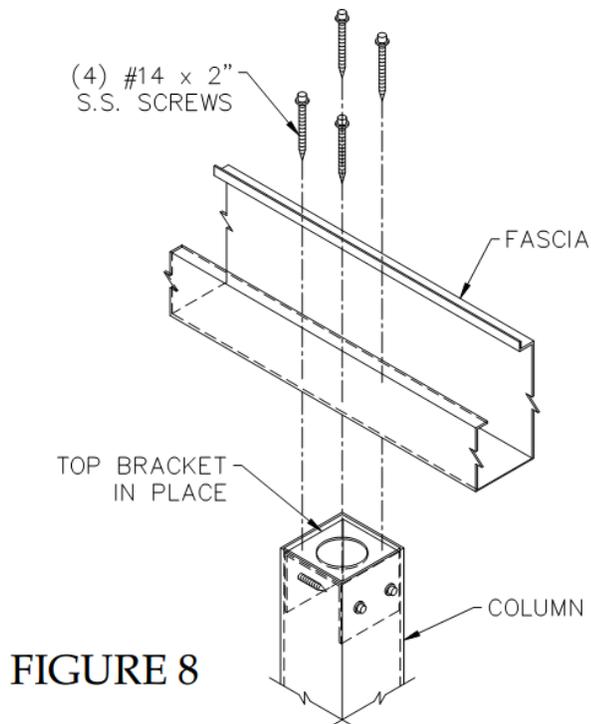
### STEP 3: Attach the Fascia to the Columns and Wall(s) (If Required)

- A. If the canopy has fascia that attaches to wall, install this fascia first. (Note: if the canopy is freestanding, skip to part E of the section.) From the canopy drawings, determine the starting point of the canopy and make a mark on the wall.

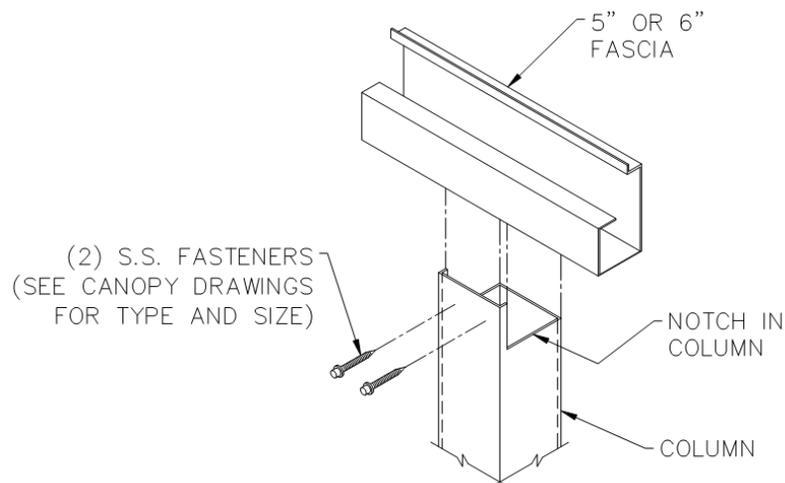
- B. From the canopy drawings, determine the height of the top of the fascia and mark the wall the length of the canopy.
- C. Mark and drill all necessary holes in the wall for fasteners to match fascia. See canopy drawings for required fasteners.
- D. Using the fasteners provided, attach the fascia piece(s) to the wall at the previously marked location per the canopy drawings. If splices are required, attach the fascia together at the splice(s) as it is being attached to the wall (Figure 6). If the fascia attaches to the wall in a corner of the building, attach the two pieces of fascia together in the corner (Figure 7).



- E. From the canopy drawings, determine the starting point of the canopy off the column and make a mark on the bottom of the fascia that represents the face of the first column making sure that the fascia aligns with the end of the fascia running parallel to it.
- F. Set the fascia on top of the columns aligning the mark with the face of the first column, once again making sure that the fascia aligns with the end of the fascia running parallel to it.
- G. Attach the fascia to each column using (4) #14 x 2" SS screws (Figure 8). If splices are required, attach the fascia together at the splice(s) as it is being attached to the columns (Figure 6).



- H. For canopies using 5" or 6" fascia, a top bracket will not be used. Instead, attach the fascia to the column using (2) SS fasteners (Figure 9). See canopy drawings for required fasteners.



- I. Once the side runs of fascia are in place, attach the end pieces of fascia by sliding the corner angles that are attached into the side runs of fascia and attach with #10 x 3/4" SS screws (Figure 7). See the canopy drawings for the required number of screws.

- J. Once all the fascia pieces are together, seal all around the corner angles, the screws and the edges where the two pieces of fascia touch (Figure 10) at each corner location. Also, seal all around the splices and the screws (Figure 6).

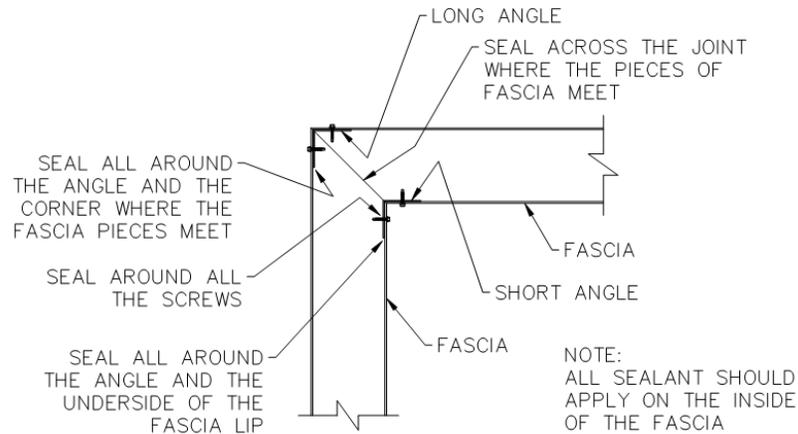


FIGURE 10

#### STEP 4: Cutting in Drains and Installing Deflector Plates

- A. Using a 2" hole saw, drill a hole in the fascia over each column that drains (Figure 11).

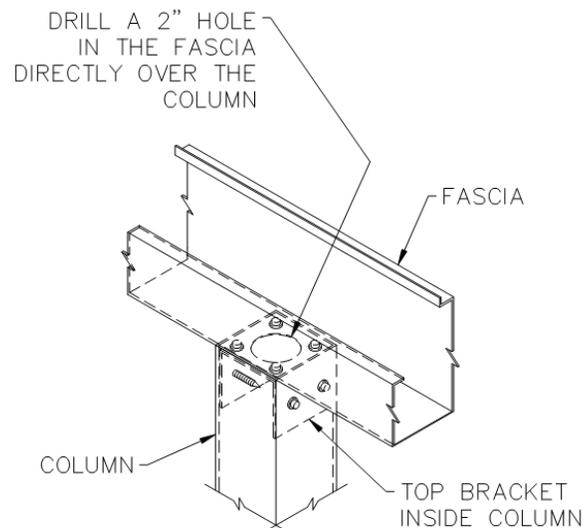


FIGURE 11

- B. At the bottom of each drain column (see canopy drawings for locations), layout the drain hole so that it is on the outside face of the column draining away from the canopy. The drain hole should be located approximately 4" from the ground or top of concrete depending on which one is lower (Figure 12).

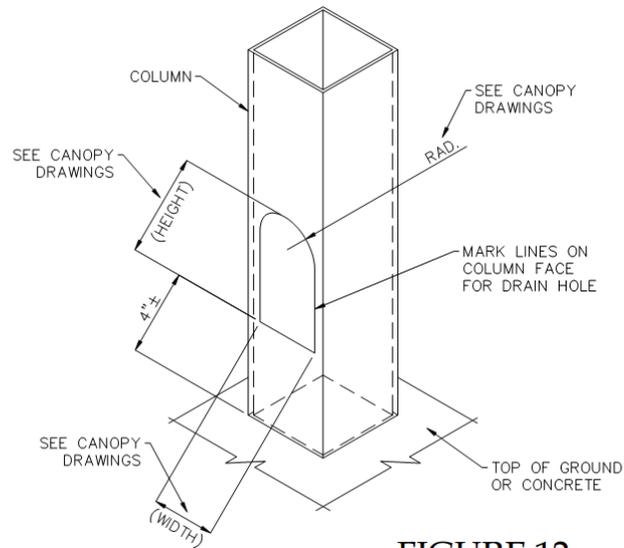


FIGURE 12

- C. Using a hole saw of the size indicated on the canopy drawings, drill a hole in the face of the column at the marked location. After the hole is cut, cut the sides of the drain hole following the marked lines using a reciprocating saw. Once the sides are cut, use a pair of channel lock pliers to bend the piece of aluminum that is left back and forth until it breaks off.
- D. Insert the deflector plate into the hole with the lip projecting out of the hole. With the deflector plate pressed against the bottom of the hole, bend the plate over to where it touches the back inside wall of the column and the lip touches the outside face of the column. Fasten the lip of the deflector plate to the face of the column with (1) #10 x  $\frac{3}{4}$ " SS screw. Seal along all the edges of the deflector plate on the inside of the column (Figure 13).

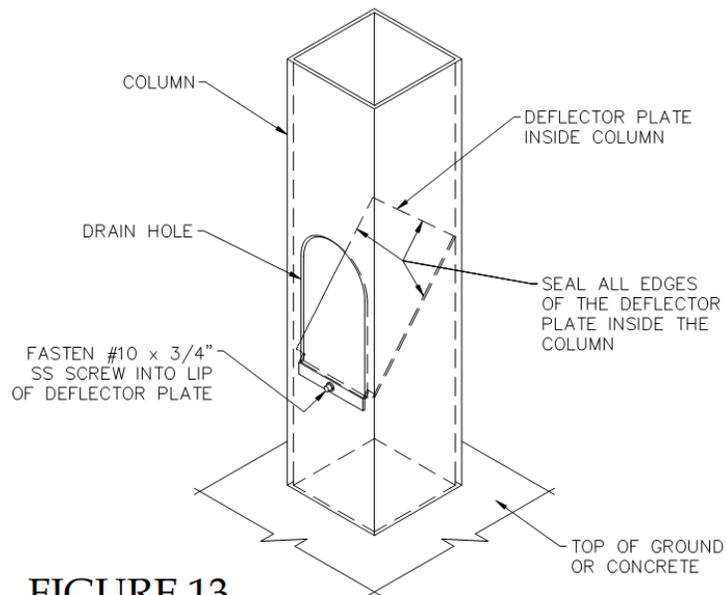


FIGURE 13

## STEP 5: Install Roof Pans

- A. Layout a starting point for the first pan to ensure that the support struts will fall inside the pans. This will vary depending on the style roof pan that is being used. Attach the first pan with SS screws with neoprene washers (Figure 14) to the fascia lip. See the canopy drawings for the size and number of screws to use.

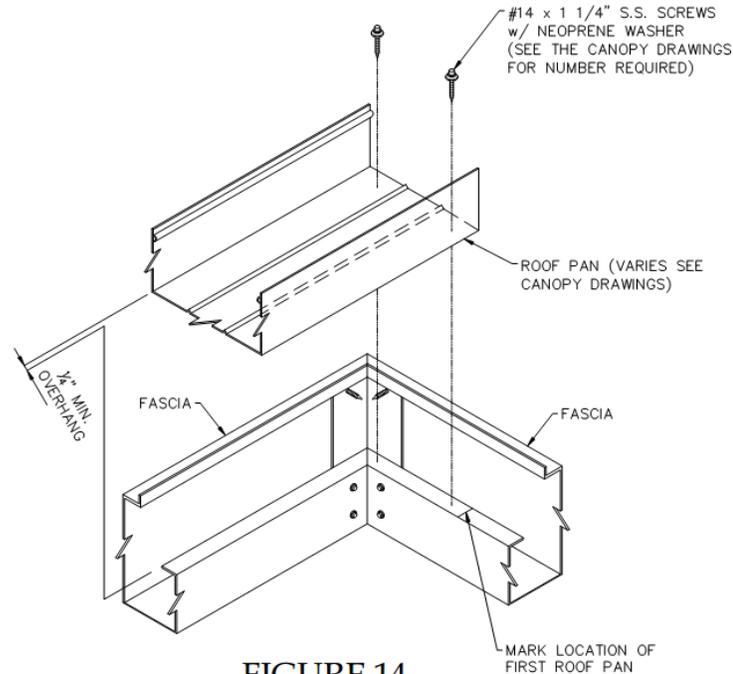


FIGURE 14

- B. Install the remaining roof pans. If pan and cap decking is being used, the caps will need to be fastened to the pans at the lock on each end with (2) #10 x 3/4" SS screws (Figure 15). If the projection of the canopy is greater than 6'-0", then additional #10 x 3/4" SS screws will need to be added in the pan lock at spacings no greater than 4'-0" o.c.

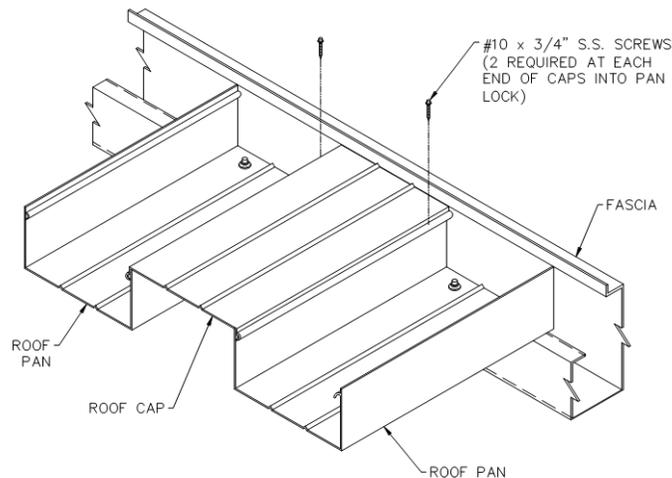


FIGURE 15

## STEP 6: Install the Flashing

- A. Run a continuous bead of colored sealant along the top lip of the fascia where it intersects the building wall. Neatly wipe the sealant in to ensure that it bonds to the wall and the top lip of the fascia leaving no gaps.
- B. Install the flashing by fastening it to the wall using the required fasteners and spacing shown on the canopy drawings.
- C. Run a continuous bead of clear sealant along the caulk tray of the flashing where it intersects the building wall (Figure 16). Neatly wipe the sealant in to ensure that it bonds to the wall and the caulk tray of the flashing leaving no gaps. The use of tape on the wall may be required to ensure a neat and clean appearance.
- D. If pan and cap roof decking is used, a bead of sealant is required between the top of each cap and the bottom of the flashing to prevent capillary action on the cap (Figure 16).

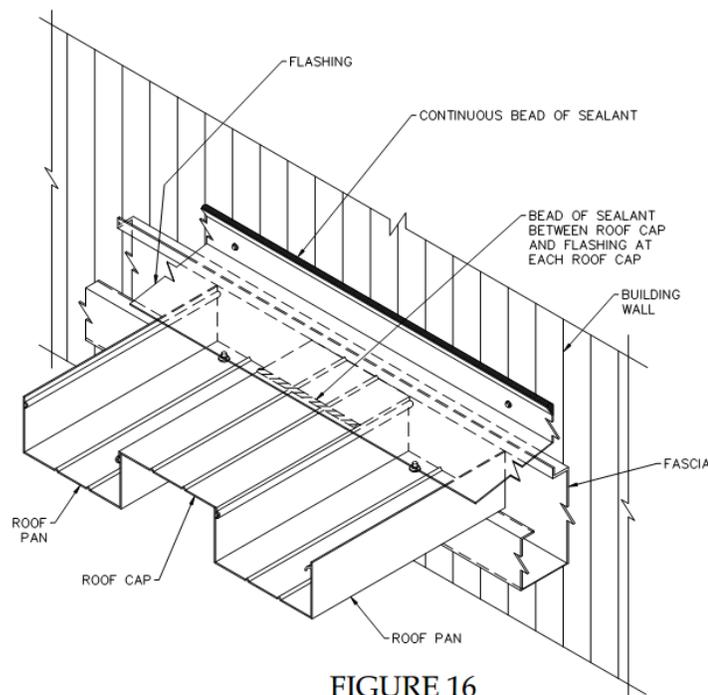


FIGURE 16

## STEP 7: Install the Scupper(s) (If Required)

- A. If scuppers are used instead of column drains, cut a slot in the center of the bottom of the fascia (Figure 17) at the location(s) of the scupper(s) as shown on the canopy drawings.

- B. Attach the scupper(s) to the bottom of the fascia using (2) #10 x 3/4" SS screws (Figure 17).

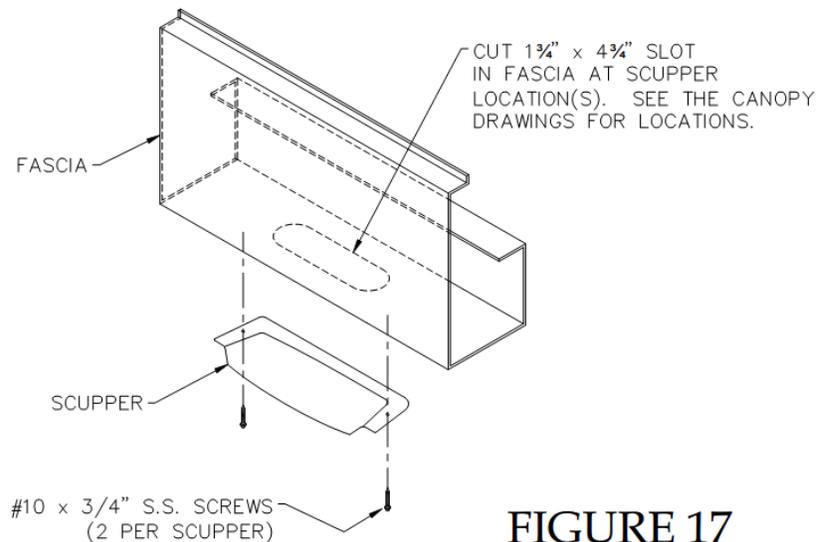


FIGURE 17

#### STEP 8: Topping Off Canopy Column Holes

- A. If columns were installed in the ground, fill in around the columns on top of the concrete column footing using the dirt from the holes. Fill in the dirt so that it is smooth around the column. Remove any excess dirt and/or concrete from the premises.
- B. If the columns were installed in block outs, fill in the 2" void with concrete and broom finish to match the sidewalk. Take extra care not get excess concrete on the sidewalk around the columns.

#### STEP 9: Clean the Canopy

- C. Wipe off any finger prints and dirt that may be on the canopy. Clean around the base of the columns to remove any concrete splatter and/or dirt that may be on the columns.
- D. Touch up any scratches with an artist brush. DO NOT SPRAY PAINT OVER SCRATCHES.

## TENNESSEE VALLEY METALS

190 INDUSTRIAL PARK ROAD  
OFFICE (205) 274-9500

P.O. Box 1100  
(800) 551-2579

ONEONTA, AL 35121  
FAX (205)274-9501

[WWW.TVMETALS.COM](http://WWW.TVMETALS.COM)