



Conoco Apex ACM Fascia Premier Image Installation Guide

This product is designed to fit a Conoco 36" or 48" canopy. Please verify that your site meets these specifications. If not, please contact LSI Customer Service at 1-800-231-0129 for installation support.

Read through all of the instructions prior to beginning installation, and verify (using the packing list) that all parts have been received and are in good condition.

Customer Service

Phone No. : 1-800-231-0129

Email:

Thomas Thompson, Field Service

Phone No. : 713-744-4135

Email: Thomas.Thompson@lsicorp.com

Important Notes

- Verify canopy dimensions before starting installation.
- Refer to any site specific layout or rendering.
- Use #12 x 7/8" hex washer hd Tek screws to attach mounting angles to canopy with recommended 12" spacing. Use K-lathe screws to attach ACM panels with recommended 12" spacing. Conditions outside of the norm, including excessive wind/snow load may necessitate special structure and fastening requirements.
- A gap is needed between panels to allow for thermal expansion (varies with temperature).



Conoco Apex Fascia Image

The Apex image is comprised of one main image broken into four parts - the left end, red middle, right end and silver sections.

All graphics for Apex will be shipped pre-applied to the ACM panels. The ACM panels will be received pre-notched and pre-routed in a crate.

All Apex graphics are left hand oriented.



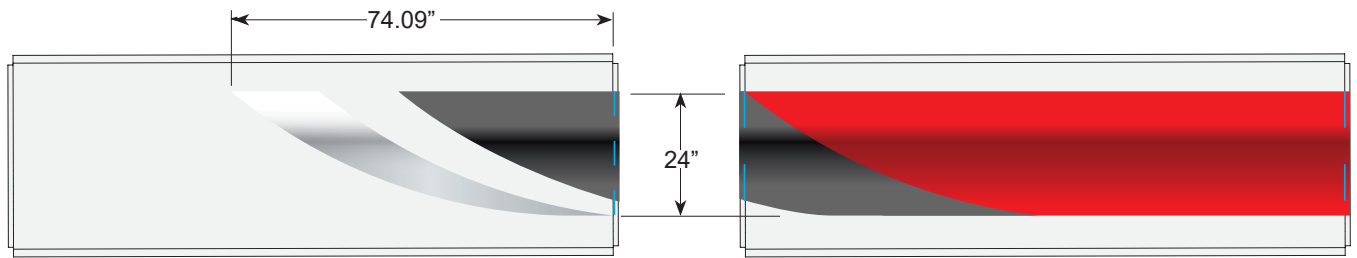
***NOTE* BEFORE CUTTING OR INSTALLING ANY ELEMENTS, FIELD VERIFY DIMENSIONS!**

Verification is VITAL in ensuring all canopy elements are installed properly.

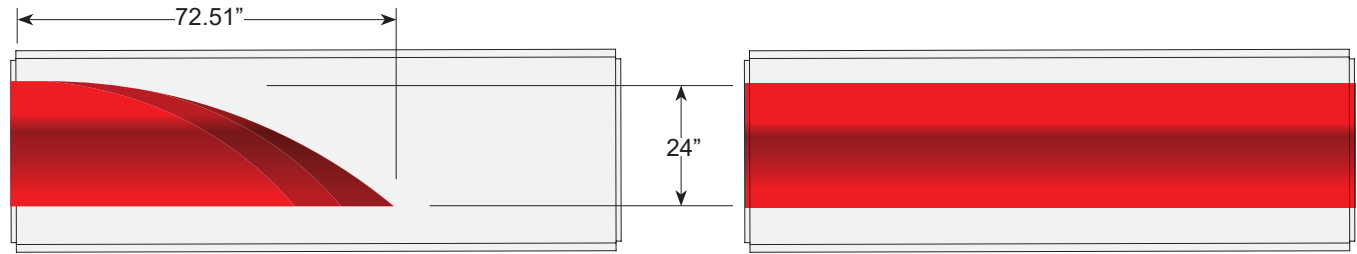
PLEASE REFER TO RENDERINGS FOR GUIDANCE



Parts List
36" H Fascia

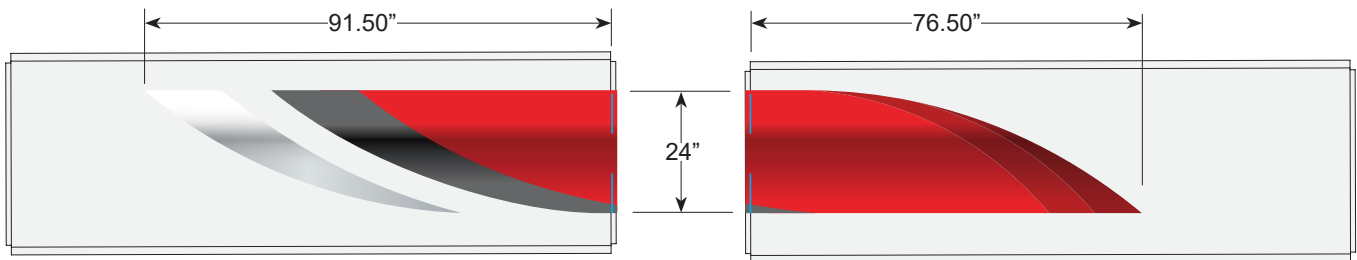


PN 856140 - FASCIA ACM 36X116 SET, LEFT END PANELS

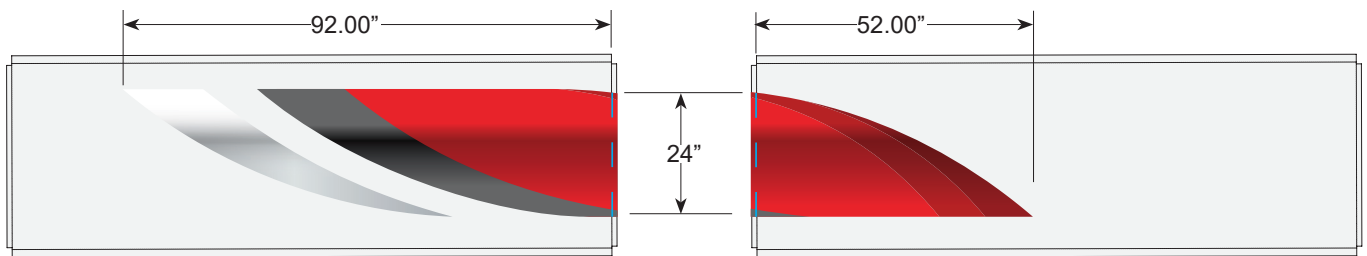


PN 856143 - FASCIA ACM 36X116, RIGHT END PANEL

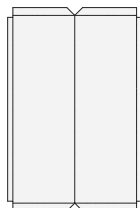
PN 856144 - FASCIA ACM 36X116, RED CENTER PANEL



PN 856145 - FASCIA ACM 36X116 SET, 14 FT GRAPHIC PANELS



PN 856146 - FASCIA ACM 36X116 SET, 12 FT GRAPHIC PANELS



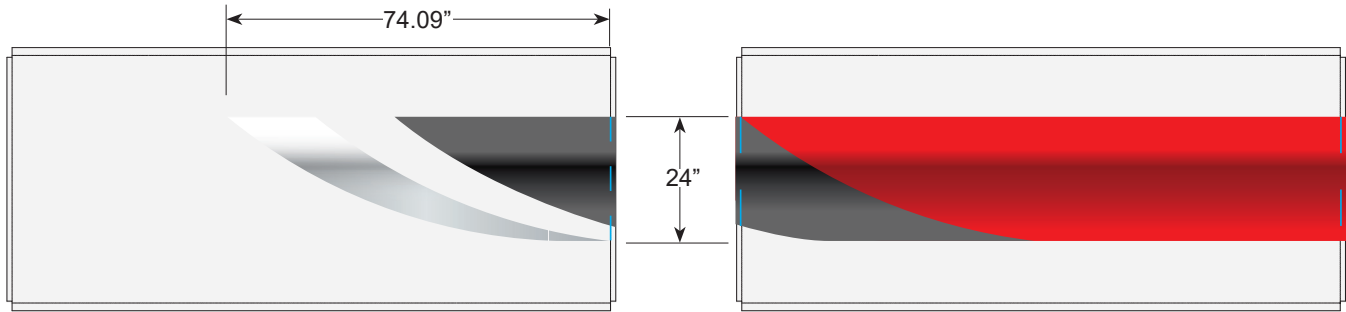
PN 657397 - FASCIA ACM CORNER
 36X11.86X11.86 SILVER



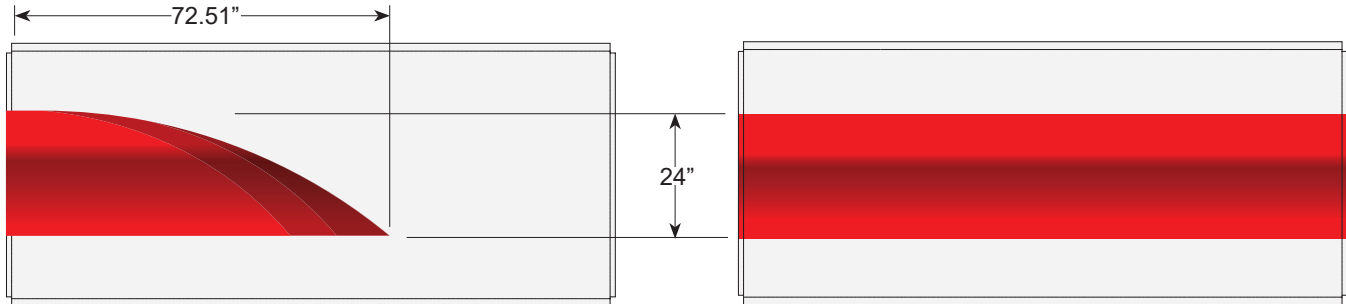
PN 653988 - 36X116 SILVER PANEL



Parts List
48" H Fascia

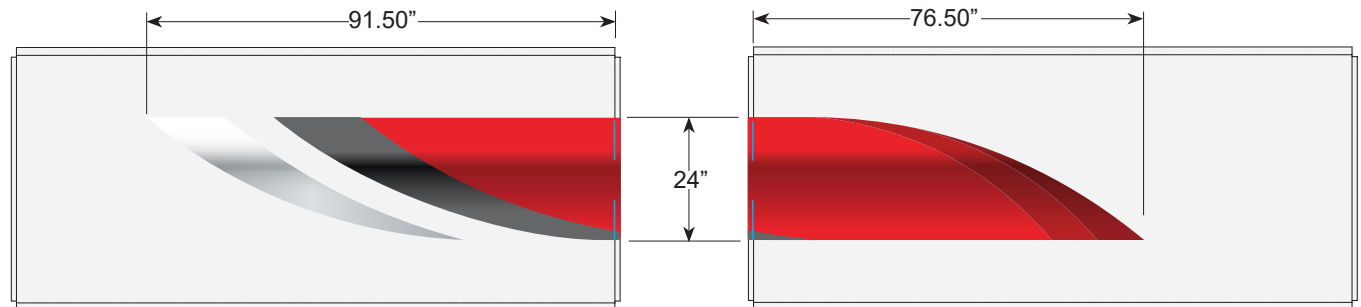


PN 856430 - FASCIA ACM 48X116 SET, LEFT END PANELS

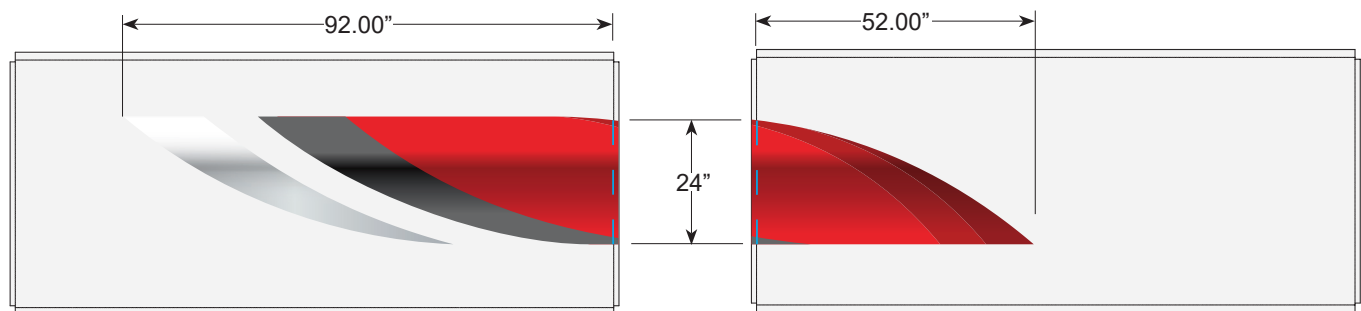


PN 856431 - FASCIA ACM 48X116, RIGHT END PANEL

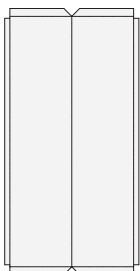
PN 856432 - FASCIA ACM 48X116, RED CENTER PANEL



PN 856433 - FASCIA ACM 48X116 SET, 14 FT GRAPHIC PANELS



PN 856434 - FASCIA ACM 48X116 SET, 12 FT GRAPHIC PANELS



PN 657399 - FASCIA ACM CORNER
 48X11.86X11.86 SILVER



PN 653989 - 48X116 SILVER PANEL



ACM Take-off/Layout

Specifications & Placement Standards

All graphics are 24" in height regardless of canopy height.

36" ACM fascia panels are 39" x 118" O.A. / 36" x 116" V.O.

There is a 1-1/2" flange top and bottom and 1" left and right.

There should be 6" top and bottom of silver showing once the ACM is installed.

48" ACM fascia panels are 51" x 118" O.A. / 48" x 116" V.O.

There is a 1-1/2" flange top and bottom and 1" left and right.

There should be 12" top and bottom of silver showing once the ACM is installed.

Table A - Canopy Element Specifications

Canopy Elements	# of panels	Graphic Dimension (excluding flange)	Silver Dimension (excluding flange)
Left End	2 panels	74-1/8" & 116"	41-15/16"
Red Middle	1 panel	116"	N/A
Right End	1 panel	72-1/2"	43-1/2"
Silver	1 panel	N/A	116"
12' Graphic	2 panels	92" & 52"	24" & 64"
14' Graphic	2 panels	91-1/2" & 76-1/2"	24-1/2" & 39-1/2"

Logos will always be 2' from the edge of the canopy

For 36" fascia with a contained logo, the logo is 33" h x 42" w.

For 36" fascia with a "breaking the plane" logo, the logo is 45" h x 57-3/8" w.

For 48" fascia with a contained logo, the logo is 45" h x 57-3/8" w.

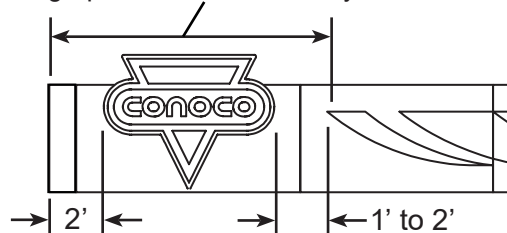
For 48" fascia with a "breaking the plane" logo, the logo is 60" h x 76 -1/8" w.

On a side with a logo, graphics will begin 2' from the edge of the logo (the only exception is a short canopy side). **SHORT CANOPIES** are less than 29' (36" fascia)/30.5' (48" fascia)/18' (no logos) – graphics can begin/end no less than 1' from the logo and are centered between the end of the canopy and logo. **DO NOT begin the ACM panel 2' from the logo.** See Table B.

Table B - Distance from Edge of Canopy to Edge of Graphic (with Logo)

Logo Size	1' Space logo to graphic (short canopy)	2' Space logo to graphic (long canopy)
33" h x 42" w	6' 6"	7' 6"
45" h x 57-3/8" w	7' 9-3/8"	8' 9-3/8"
60" h x 76-1/8" w	9' 4-1/8"	10' 4-1/8"

Note that in Table B, the distance between logo and graphic can vary between 1' and 2'. As that distance is reduced from 2' down to 1', the distance from the edge of canopy to edge of graphic will be reduced by the same amount.



ACM Take-off/Layout

Table C - Distance from Edge of Canopy to Edge of Graphic (without Logo)

Canopy Side

Short sides (Example: 30')	2'
Long sides (Example: 50')	3'
Square canopy	2'
Less than 29' (36" fascia)	No less than 1' (must center)
Less than 30.5' (48" fascia)	No less than 1' (must center)
Less than 18' (no logos)	No less than 1' (must center)

Standard Cut Panel Dimensions

Certain panels will always need to be cut down in the field, especially if a side receives a logo. In Table D below, 3' refers to the graphics beginning/ending 3' from the edge of the canopy on long sides, and 2' refers to the graphics being 2' from the edge of the canopy on short sides of the canopy.

Table D - Panel Lengths to be Cut (Based on Logo Placement)

	Logo Left Justified	Logo Right Justified
33" h Logo		
Silver Logo Panel	66"	66"
Left End Panel	86-1/16"	98-1/16" (3') / 86-1/16" (2')
Right End Panel	96-1/2" (3') / 84-1/2" (2')	84-1/2"
45" h Logo		
Silver Logo Panel	81-3/8"	81-3/8"
Left End Panel	86-1/16"	98-1/16" (3') / 86-1/16" (2')
Right End Panel	96-1/2" (3') / 84-1/2" (2')	84-1/2"
60" h Logo		
Silver Logo Panel	100-1/8"	100-1/8"
Left End Panel	86-1/16"	98-1/16" (3') / 86-1/16" (2')
Right End Panel	96-1/2" (3') / 84-1/2" (2')	84 -1/2"



Installation

Demolition and Angle

Remove any fascia layers necessary to install the new fascia system.

It is the installer's responsibility to determine whether or not the canopy structure/existing fascia is capable of supporting the new fascia system.

If there are existing mounting angles in good condition, leave installed and use existing angles for installation.

If there are no mounting angles present, existing mounting angle is not in good condition, or if mounting angle needs to be installed onto existing fascia, install new angles (next section).



Table E - Mounting angles & hardware

Name	Image	Application	Location
1" x 2" x 1/8" Mounting angle		Mounting ACM to canopy structure	Top of canopy structure
1" x 5" x 1/16" Mounting angle		Mounting ACM to canopy structure	Bottom of canopy structure
#12x7/8 hex washer head Tek screw (suggested - installer provided)		Mounting angle to canopy structure	Top and bottom of canopy structure

For 36" canopy, angles will be placed 35-3/4" to 35-5/8" apart (very top to very bottom of angles).

For 48" canopy, angles will be placed 47-3/4" to 47-5/8" apart.

Suggested hardware for installation is a #12x7/8 Tek screw – this can vary depending on the canopy structure. Because of this, installers are to provide all necessary hardware for attaching angles to structure.

The mounting angles will be attached straight, level and plumb to the existing canopy structure.

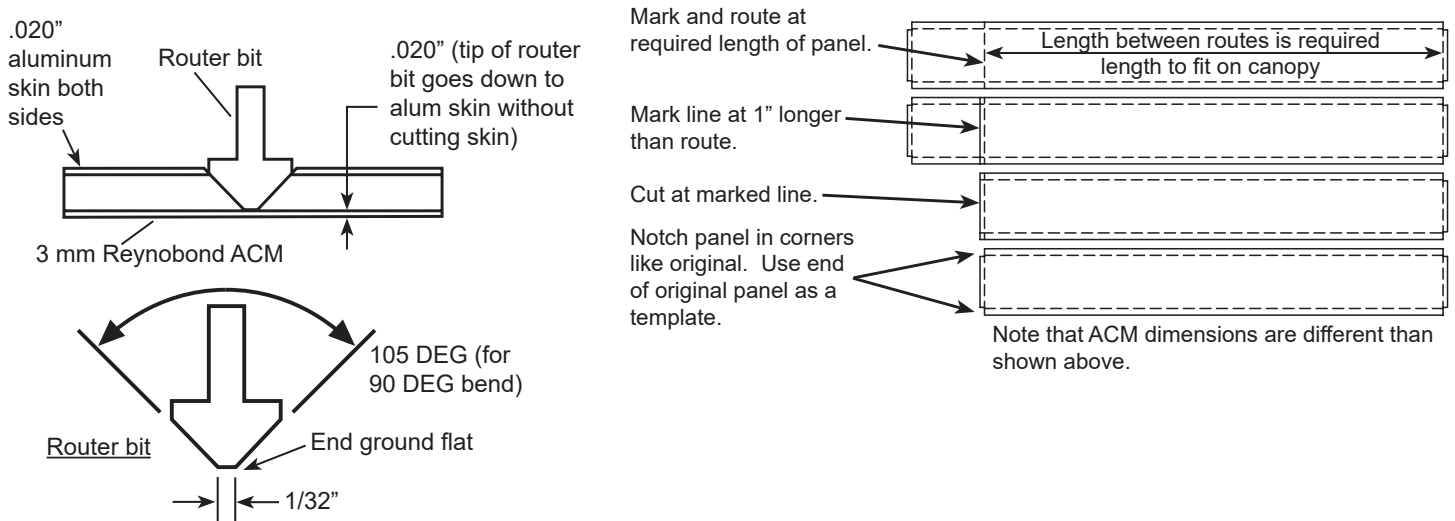
The top angle will be attached using (suggested) #12 x 7/8 Tek screws with recommended 12" spacing.

The bottom angle will also be attached using (suggested) #12 x 7/8 Tek screws with recommended 12" spacing.

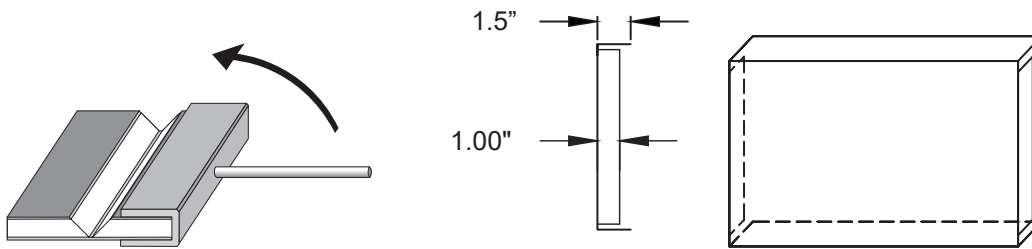


Routing and Cutting ACM Panels

- Any cut red center panel should be on the end of the canopy farthest away from the logo, but before the end graphic panel.
- Measure the length between the last panels placed on the canopy for the length required.
- Take a 116" panel and measure from the existing end rout to provide the length required to fit on the canopy (remember to reduce length if required to provide gap to allow for temperature expansion of panel). Create a new rout at that length.
- Measure a line 1" from the new rout, and cut the panel on that line. Notch the panel in the corners like the original, 1-3/4" deep. Use the end of the original panel as a template.
- If a cut length will be 24" or less, two cut panels will be required (no panel is allowed to be less than 24").
- If the end panels with a graphic pattern on the left and/or right must be cut shorter, be sure the cuts do not remove any part of the graphic. There will be instances where the rout in a panel will be right up to the edge of the graphic.
- A cut seam should NEVER fall behind a logo.
- Do this for all necessary places on each side of the canopy. For the long side of a canopy, most will have at least two cut panels, one on each end of the graphic.



Bending ACM Panels



Using a bending tool available from LSI or a similar guide, bend the panels along the routed lines as shown in this detail. Duckbill pliers can be used for bending ACM, but **DO NOT USE REGULAR PLIERS!** This can damage the vinyl overlay and/or mar the surface of the ACM.

Minimum Temperature for Bending ACM

3M requires the substrate and ambient temperature to be a minimum of 60 deg F (16 deg C) for the 3M vinyl on the ACM panels for bending. Failure to follow this procedure can lead to cracking of the 3M vinyl.

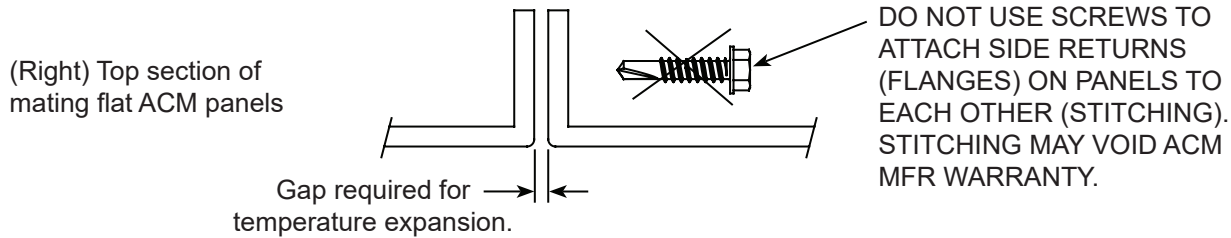
When working in temperatures below 60 deg F, the ACM could be kept and bent inside a truck, car wash or other enclosed space that is at a higher temperature. Panels should be kept separated by 1/2" space to allow warm air to circulate around each panel. Panels must not be re-bent in the cold to avoid vinyl cracking.



Gap Needed Between Panels to Allow for Temperature Expansion

To prevent warping of ACM panels on canopy structures caused by thermal expansion, a gap should be allowed between panels. Also, stitching (using screws to attach end returns on adjacent panels together) must not be done, because it eliminates the gap between panels and aggravates warping of panels.

At 80 deg F or higher, a 1/16" gap should be used between full length panels. Installation at lower temperature requires a greater gap to allow the panels to expand (for example, installation at 40 deg F requires a 1/8" gap). The thermal coefficient of expansion of 1.31×10^{-5} in/in-degree F can be used to calculate required gap for a larger temperature change.



Installing ACM Corners/Panels

Install the ACM corners to both ends of the structure, overlapping the top of the top mounting angle and the bottom of the bottom angle. The top and bottom ACM returns should be attached with recommended 12" spacing using #8 x 3/4" K-Lathe screws. Decreased spacing is required for top and bottom screws for wind load design higher than 115mph IBC. Install ACM panels the same way as the ACM corners.

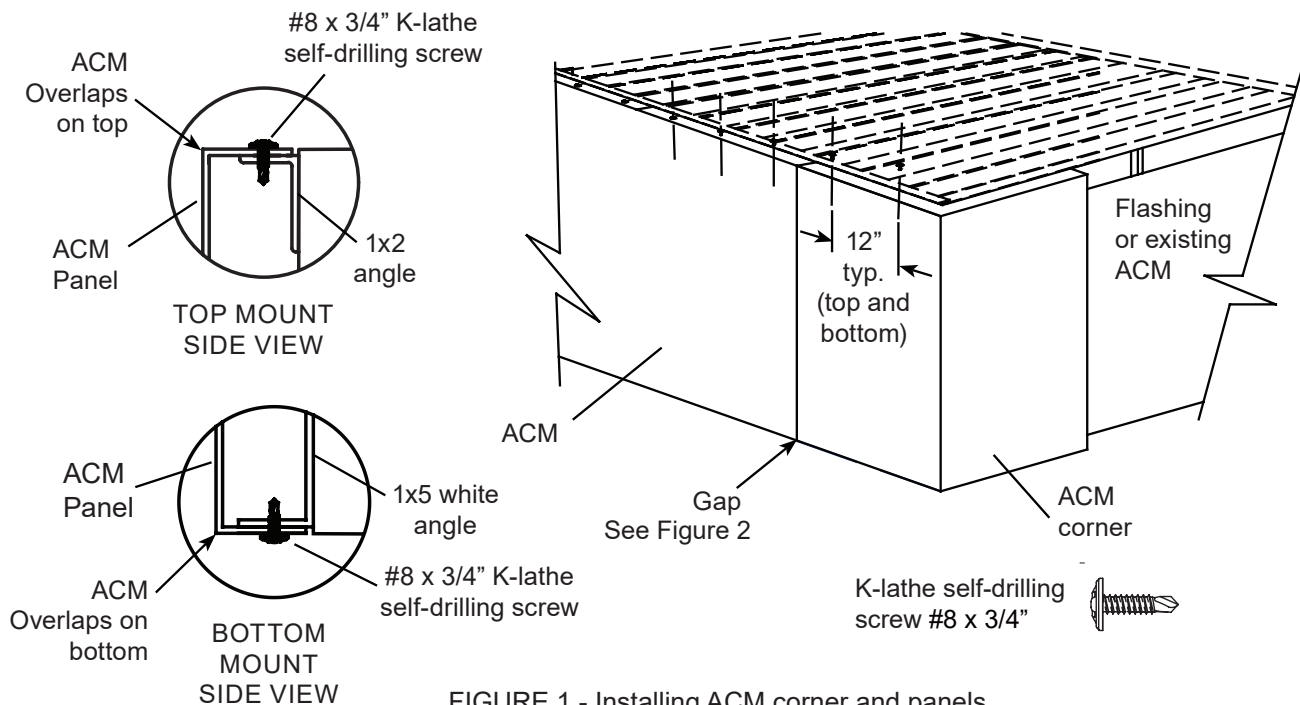


FIGURE 1 - Installing ACM corner and panels

If Light Bar will not be installed on top of an ACM panel, then use PN 771520 - SCR TEK HWH #12X1 SHEETING, STL ZINC W/ WSHR to fasten top return of ACM panel to top mounting angle. These sheeting screws hold panels to canopy better in high wind. If Light Bar will be installed on top of a panel later, use the K-lathe screws to fasten top of that panel to top mounting angle (sheeting screws on panel prevent Light Bar from seating flush). Fasten Light Bar using sheeting screws later.



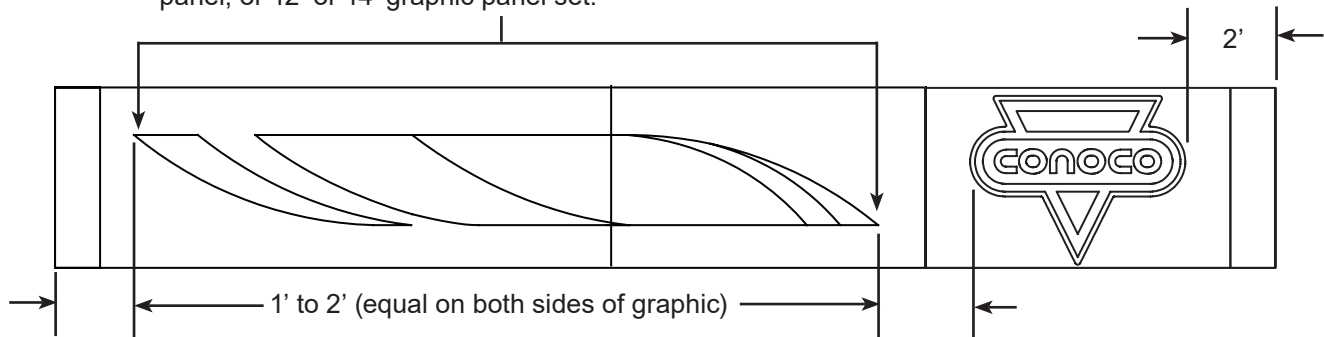
PN 771520, #12X1
SHEETING SCREW



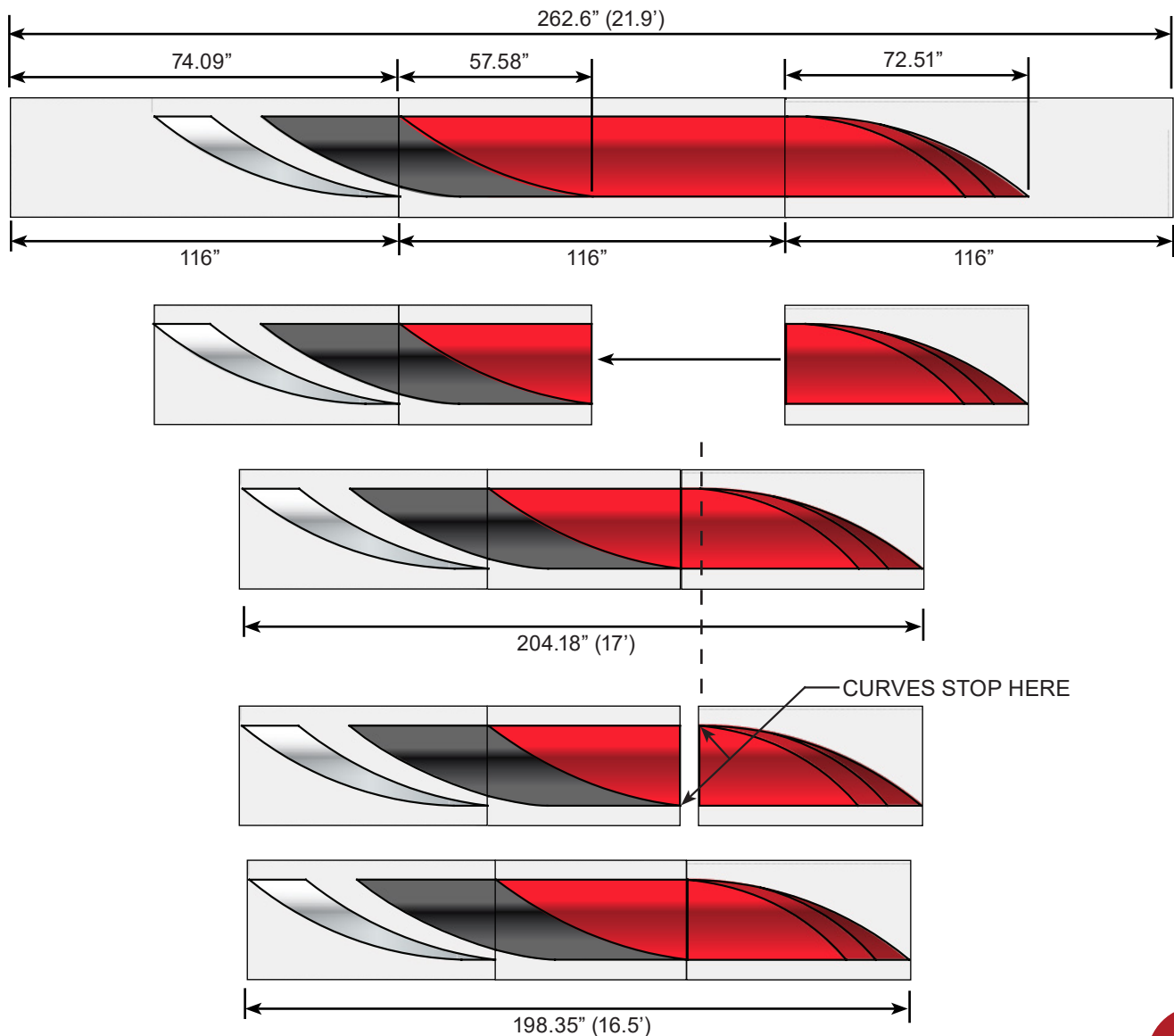
Short Canopy Sides

As stated in the ACM Take-off/Layout section earlier, on canopies less than 29' (36" fascia)/30.5' (48" fascia)/18' (no logos), graphics can begin/end no less than 1' from the edge of the canopy and are centered between end of canopy and end of logo.

Short graphic is formed with left end panel set and right end panel, or 12' or 14' graphic panel set.

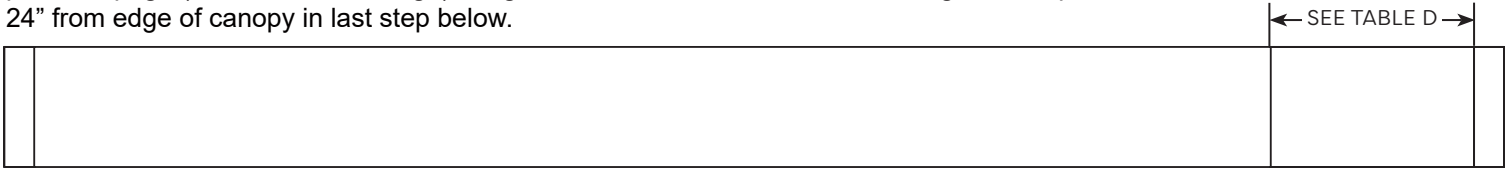


(BELOW) LEFT END PANEL SET AND RIGHT END PANEL CUT AND JOINED TO SHORTEST GRAPHIC LENGTH. CUTTING AND FOLDING PANELS ALL THE WAY TO WHERE CURVES STOP ON THESE PANELS PROVIDES 16.5' LONG GRAPHIC, THE SHORTEST THAT CAN BE MADE WITH THESE PANELS. SHORTER GRAPHICS REQUIRE USING 12' OR 14' GRAPHIC PANEL SET. CANOPY SIDES 18' OR LESS CANNOT HAVE A LOGO.

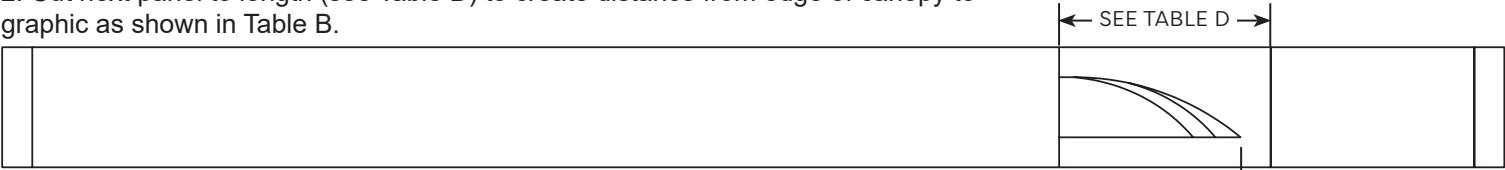


Installation on Canopy Side with Logo SEE ACM TAKE-OFF/LAYOUT INSTRUCTIONS ON PREVIOUS PAGES

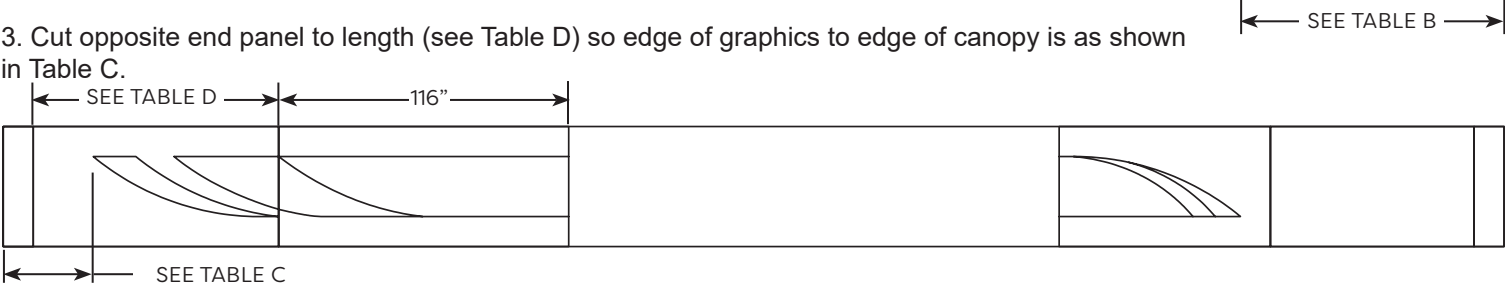
1. Place corner pieces at each end of canopy. Cut silver logo panel to length shown in Table D on previous page (based on size of logo). Logo must not have seam behind it. Logo will be placed 24" from edge of canopy in last step below.



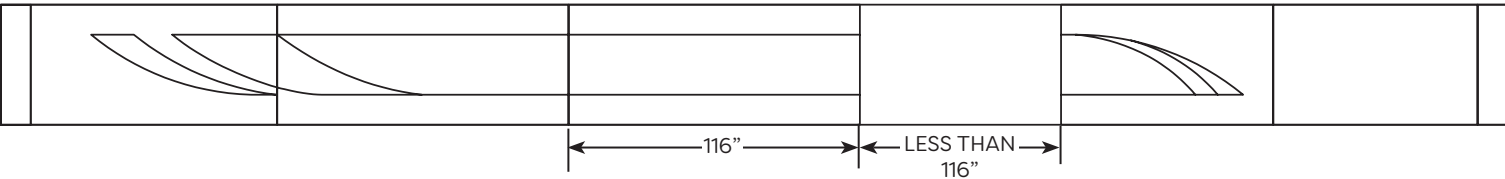
2. Cut next panel to length (see Table D) to create distance from edge of canopy to graphic as shown in Table B.



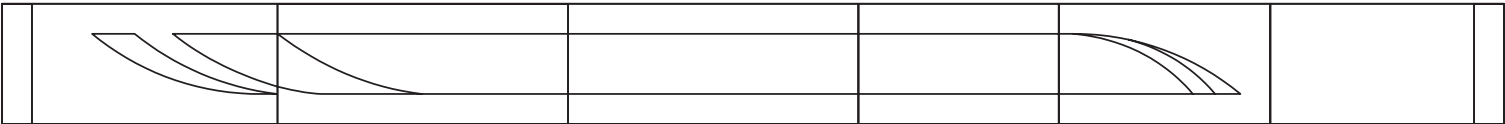
3. Cut opposite end panel to length (see Table D) so edge of graphics to edge of canopy is as shown in Table C.



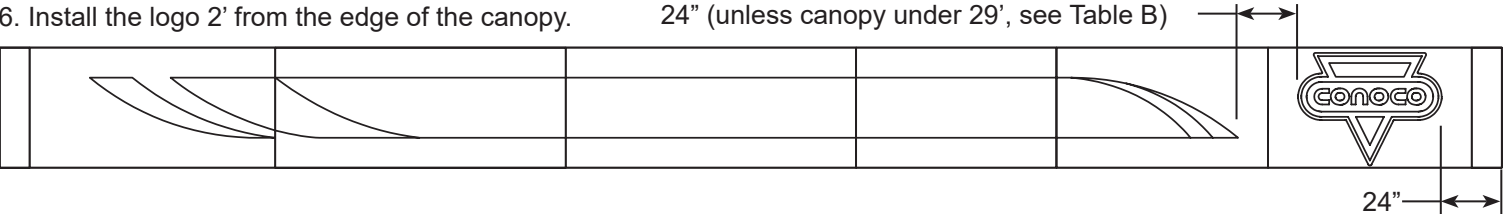
4. Install red middle sections until there is a space less than 116" before graphic panel. Last red center panel will require a cut. If space is less than 24", last two red center panels must be cut (to equal length) to avoid having a panel less than 24" long.



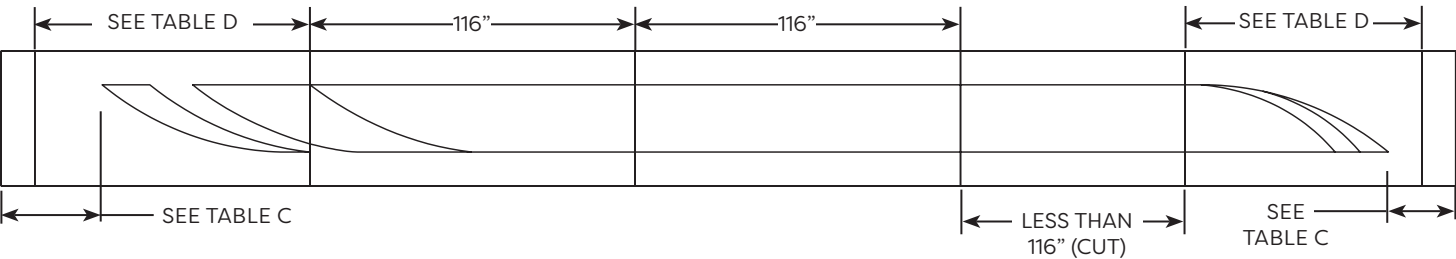
5. Cut the final red middle panel to required length and install.



6. Install the logo 2' from the edge of the canopy. 24" (unless canopy under 29', see Table B)

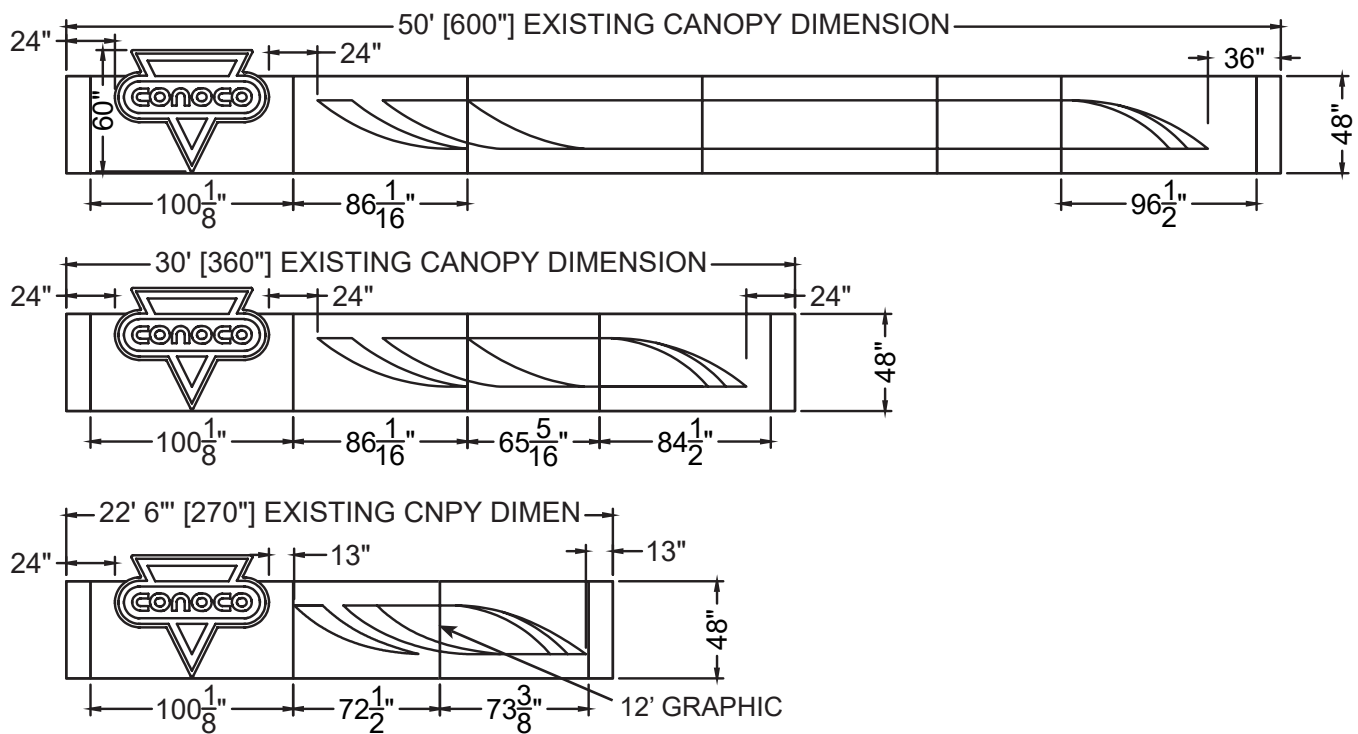


Installation on Canopy Side without Logo Installation is same as for side with logo, except there is no silver panel or logo.

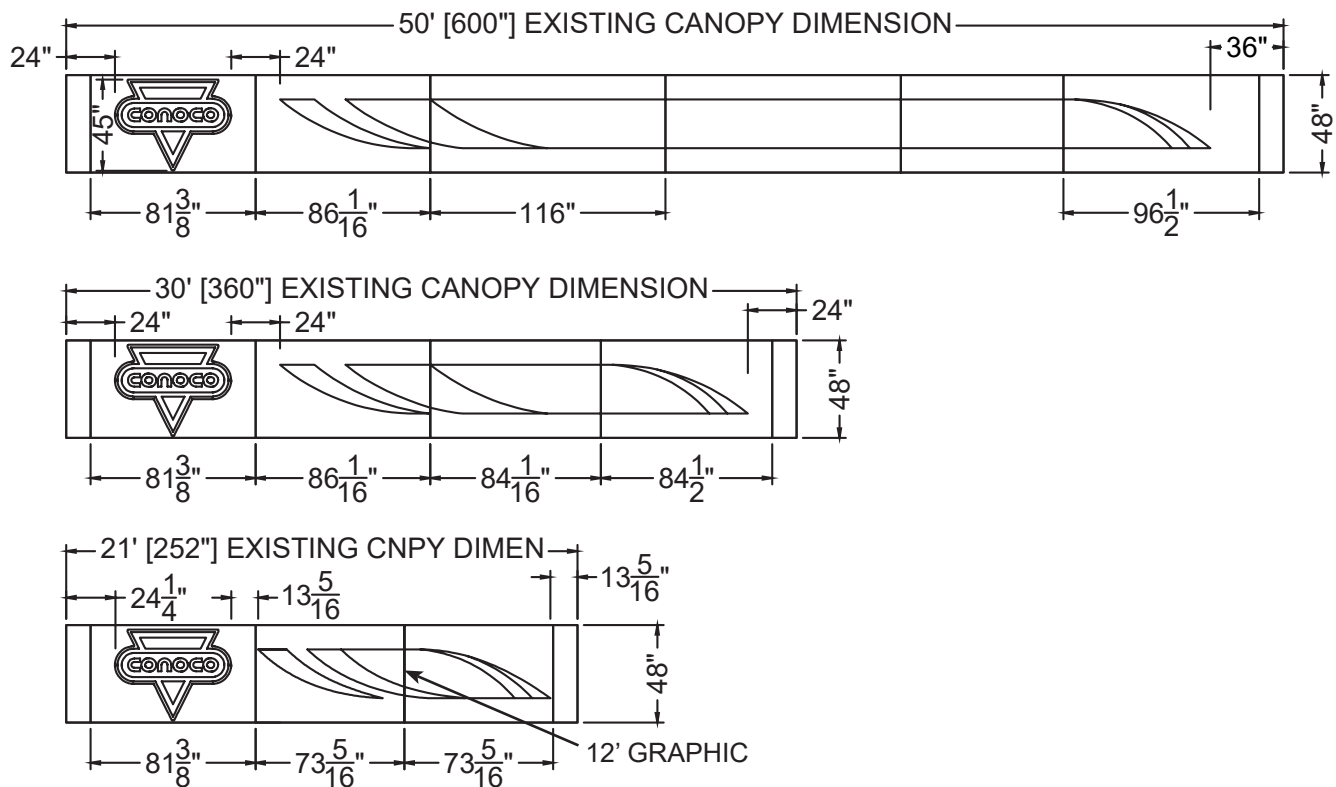


Installation Examples

48" H Canopy, Breaking (60" H) Logo

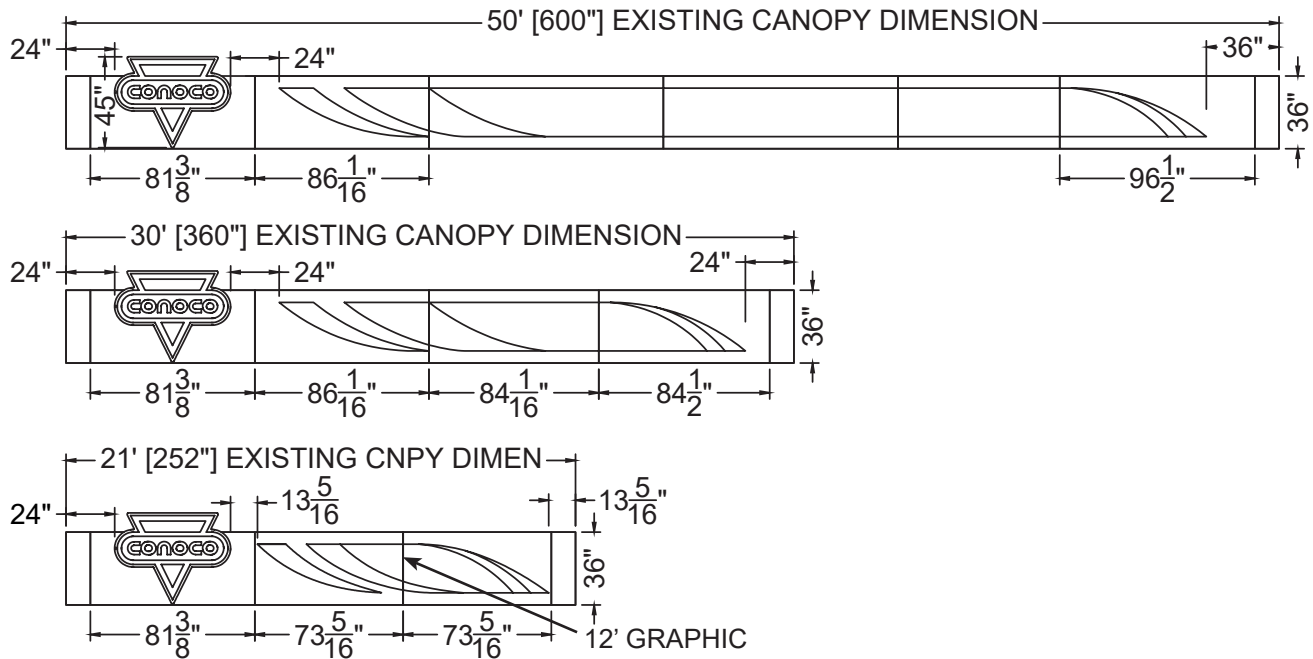


48" H Canopy, Contained (45" H) Logo

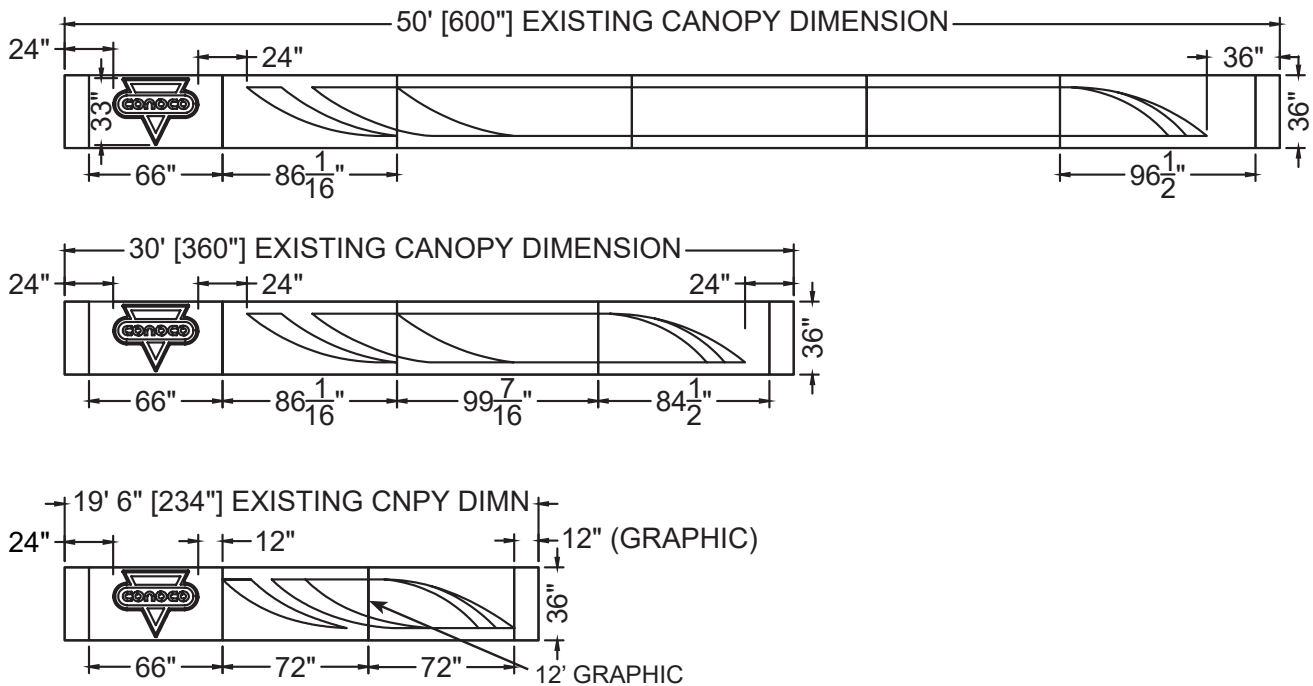


Installation Examples

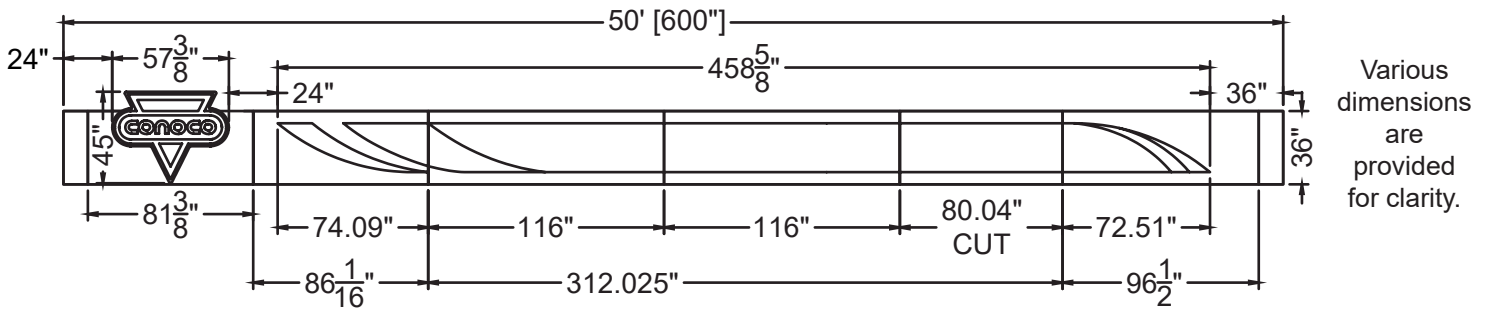
36" H Canopy, Breaking (45" H) Logo



36" H Canopy, Contained (33" H) Logo



Calculation Examples



Example: 36" fascia height, 50' long canopy, breaking logo. Note that calculations depend on logo width, not height.

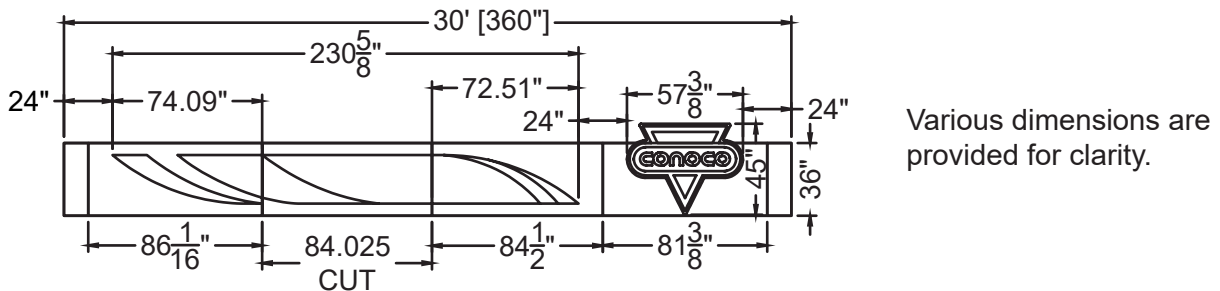
Canopy length - 50' = 600"

600" (overall) - [24" (space) + 57.375" (45" h logo) + 24" (space) + 36" (space)] = 458.625" (graphic space)

458.625" (graphic space) - [74.09" (left end graphic) + 72.51" (right end graphic)] = 312.025" (for 116" panels)

312.025" (for 116" panels)/116" = 2.69 = 2 full sections & 80.04" additional

****Hint**:** Multiply the decimal quantity by 116 to convert to inches -- Ex: .69 x 116" = 80.04"



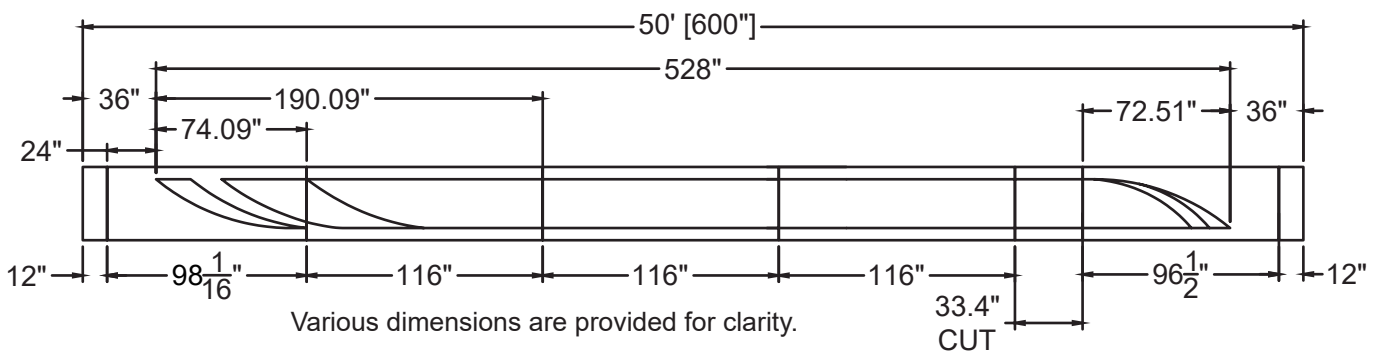
Example: 36" fascia height, 30' long canopy, contained logo. Note that calculations depend on logo width, not height.

Canopy length - 30' = 360"

360" (overall) - [24" (space) + 57.375" (45" h logo) + 24" (space) + 24" (space)] = 230.625" (graphic space)

230.625" (graphic space) - [74.09" (left end graphic) + 72.51" (right end graphic)] = 84.025"

84.025" is length to cut the remaining panel in the left end panel set as shown in the diagram above (note that the cut must be made on the right side of this panel to preserve the graphic).



Example: 36" fascia height, 50' long canopy, NO logo.

Canopy length - 50' = 600"

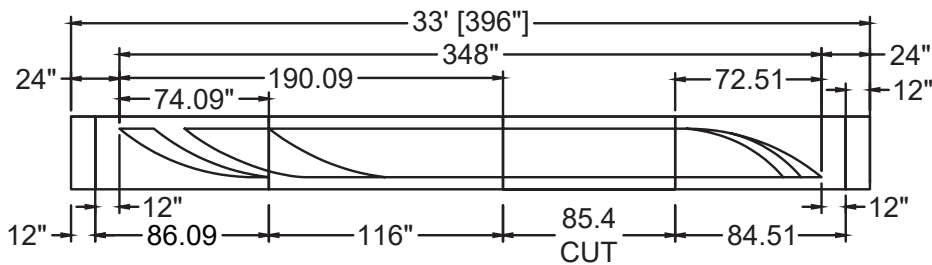
600" (overall) - [36" (space) + 36" (space)] = 528" (graphic space)

528" (graphic space) - [190.09" (left end graphic) + 72.51" (right end graphic)] = 265.4" (116" panels).

265.4" (for 116" panels)/116" = 2.288 = 2 full sections & 33.4" additional



Calculation Examples



Various dimensions are provided for clarity.

Example: 36" fascia height, 33' long canopy, NO logo.

Canopy length - 33' = 396"

396" (overall) - [24" (space) + 24" (space)] = 348" (graphic space)

348" (graphic space) - [190.09" (left end graphic) + 72.51" (right end graphic)] = 85.4" (space for red center panel).

85.4" is length to cut the remaining red center panel as shown in the diagram above.

LED Lightbar

Please see the LED Light Bar Installation Guide BEFORE beginning any installation of the light bars.

Logos are installed BEFORE the light bar has been installed.

If a canopy receives LED light bar, strips of 3" matte film will be provided in the boxes containing the light bar sections. This matte film **MUST** be installed **BEFORE** the LED light bar is installed. Failure to do so will cause the LED light bar to distribute poorly on the canopy surface.

The suggested method of application is to apply the matte film to the ACM panels before installation onto the canopy. This can ensure that the seams of the matte film wrap a small amount on the flange to keep from peeling up in the future. The film does not have to go edge to edge of the ACM panel, but it **MUST** cover the entire visual opening of the panel (116") between the flanges.

Before beginning lightbar installation:

- Identify the sides of the structure that will receive light bar BEFORE BEGINNING INSTALLATION. Refer to renderings/layouts if provided.
- Be sure that matte diffuser film has been applied to all sides receiving light bar. All matte film is to be applied on site by the installer. DO NOT PROCEED WITH LIGHT BAR UNTIL MATTE FILM HAS BEEN APPLIED.
- There are offsets on the left hand side of each section/corner. These offsets will fit into the next section, securing them together without gaps.
- The light bar section must be installed tight and flush against the fascia, with as little of a gap as possible between the reflector and the fascia. Failure to do so will cause improper illumination.
- If multiple sides of fascia will have illumination, a corner is needed at each light bar intersection.
- If not all sides of fascia are illuminated, end caps will be installed to terminate the light bar run at the edge of the fascia.
- Verify all sections/measurements BEFORE cutting. Failure to do so can result in a shortage of parts, with replacements at the installer's expense.

9/27/2019 - Date created

3/8/2021 - Showed bending tool. Added image for routing and cutting of ACM panels. Added router bit dimensions image. Added Figure 1 for Installing ACM Corners/Panels. Added temperature expansion gap requirements between ACM panels and no stitching panels together (Panel Gap Specifications section).

9/8/2021 - Added updated instructions (yellow box) to use PN 771520, #12X1 sheeting screws to fasten top return of ACM panels to top mounting angle (for more strength in high wind).

1/13/2025 - Added minimum ACM panel bending temperature.

4/16/2025 - Changed panel part numbers to current.

