

Installation Guide

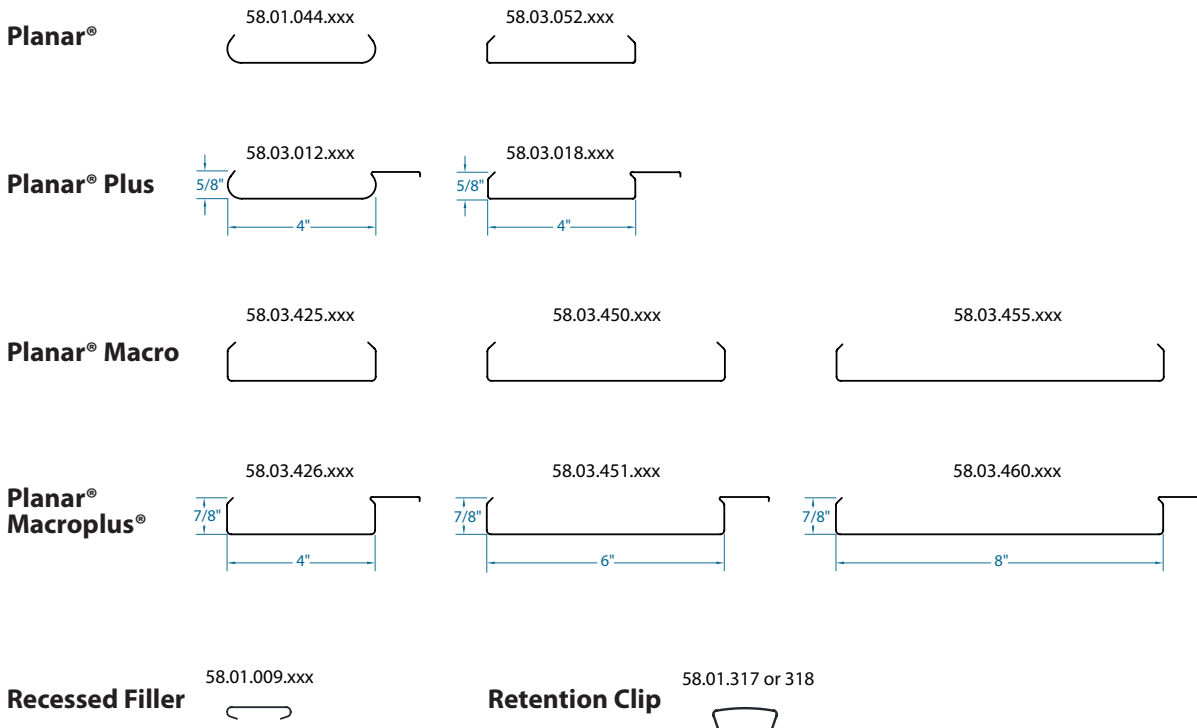
Planar®, Planar® Plus, Planar® Macro, Planar® Macroplus® Linear Ceiling

System Overview

Rockfon® Planar®

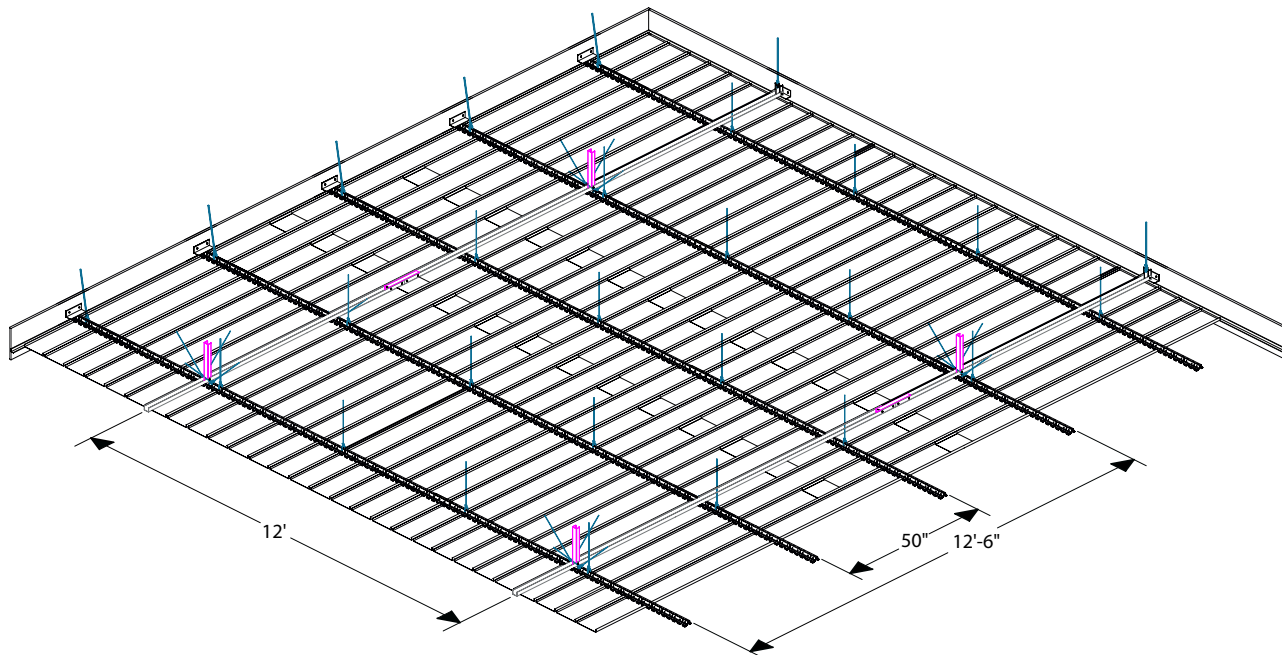
The Rockfon linear metal ceiling system has been full scale shaker table tested at the University at Buffalo in New York. The Planar products are verified to be code compliant through Intertek. For further details, refer to Code Compliance Research Report #CCRR-0267 on Architectural Testing's website. (<http://www.archtest.com>) This document outlines the installation conditions tested. Planar is an excellent choice for all seismic zones. With all seismic installations, some special installation techniques and details are required for a proper code alternative installation.

All Rockfon Planar, Planar Plus, Planar Macro and Planar Macroplus® panels have been tested for use in seismic zones, both with and without integral filler strips or with open reveal. The Planar round edge panels 58.01.044.xxx and 58.03.012.xxx require retention clips that install between the panels. Consult with a local engineer of record or authority having jurisdiction (AHJ) to verify compliance for your project.



Linear: Seismic Installation

System Overview (cont.)

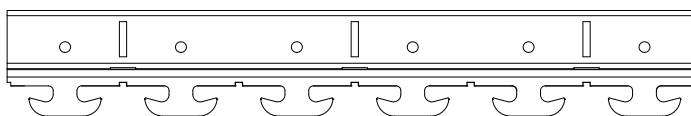


1. Suspension Layout and Details

The suspension consists of the Rockfon symmetrical carrier 58.01.007 which is an aluminum double grip profile that allows the panels to snap or clip into place. The carrier is installed on 50 inch centers and crossed by 20 gauge steel drywall track (supplied by others) 144 inches (12 feet) on center. Each intersection of symmetrical carrier and wall track receives 2, #8 sheet

metal screws driven up through the symmetrical carrier into the wall track. The 12 gauge hanger wires are installed 48 inches on center on the symmetrical carriers. Symmetrical carriers running parallel to the rooms walls should be located within 1 foot of the wall.

58.01.007: Symmetrical Carrier

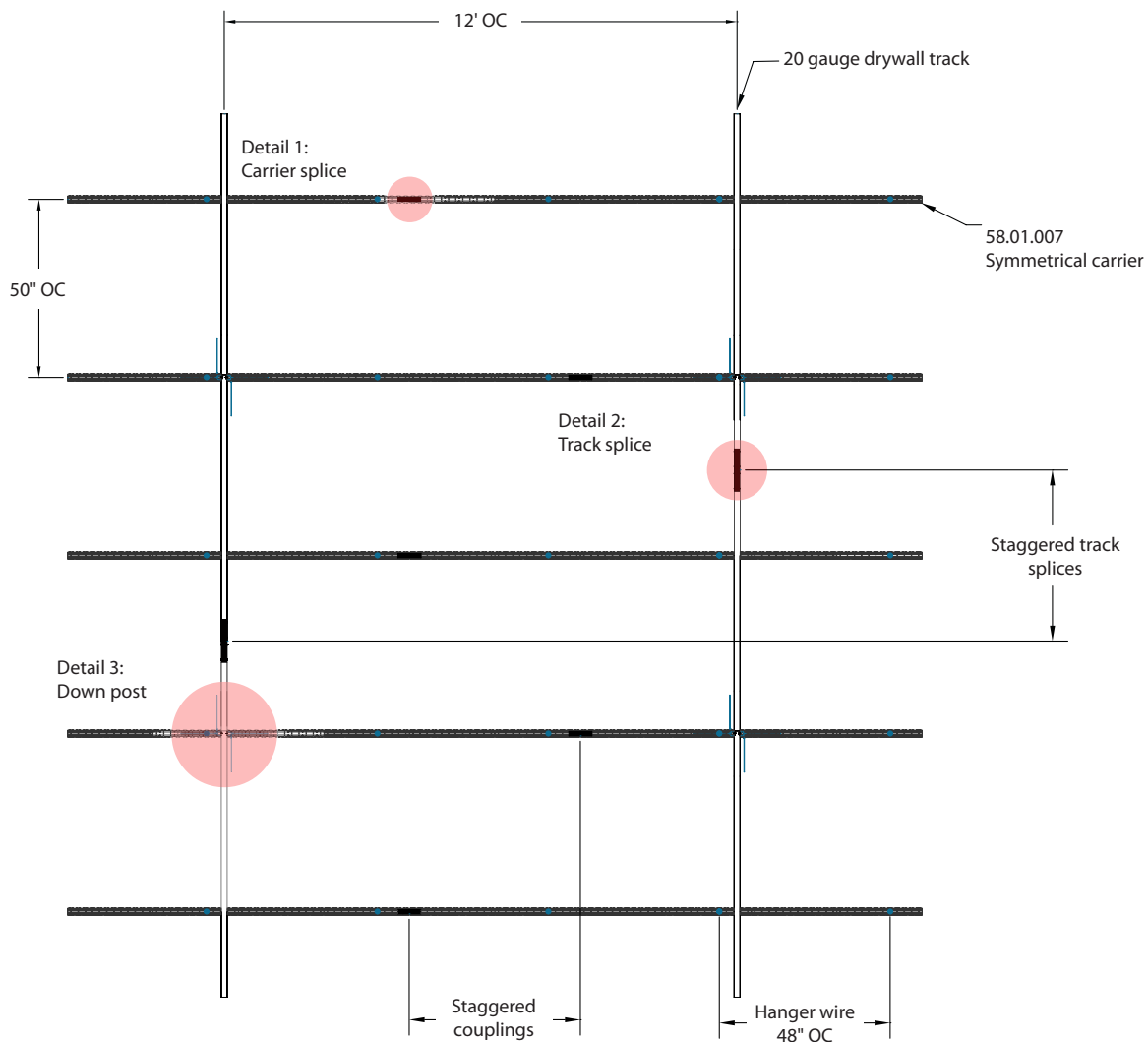
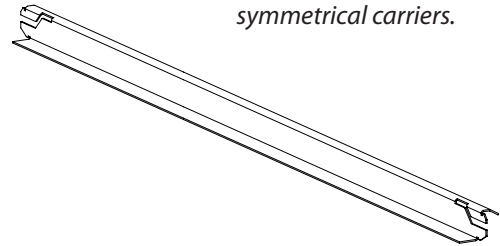


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1. Suspension Layout and Details (cont.)

Note: Stabilizer bars are optional, and may be used to maintain alignment of the symmetrical carriers.



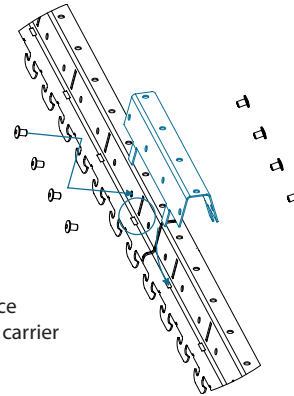
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1. Suspension Layout and Details (cont.)

Detail 1: Carrier Splice

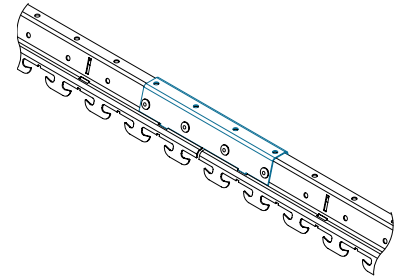
The 58.01.007 symmetrical carrier is spliced together differently than standard suspended grid components. Each intersection requires the use of 1, 58.01.403.008 symmetrical carrier splice along with 8, 3/16 inch aluminum pop rivets. The carrier splice is installed over the top of the symmetrical carrier; the tabs on the carrier splice are inserted through the carrier and bent over. Use an all or pin to align the holes. Install the pop rivets through the two angled faces of the coupling through the carrier. It is best practice to stagger the couplings in the suspension layout.

Exploded View:



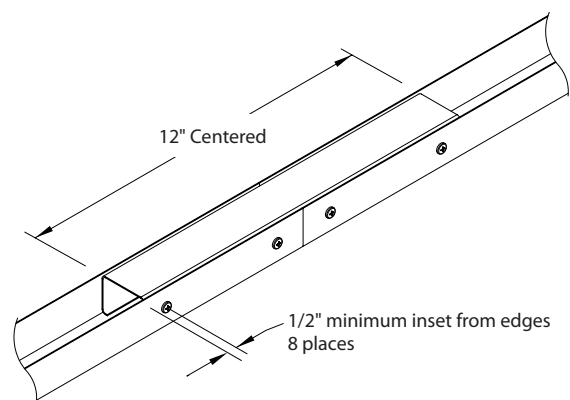
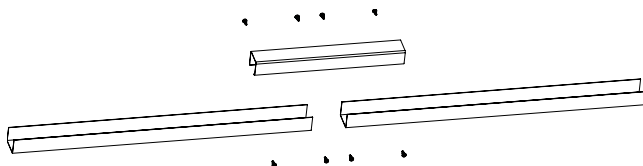
Install the tabs of the 58.01.403.008 carrier splice through the symmetrical carrier and bend over the tabs.

Finished Coupling:



Detail 2: Wall Track Splice

Using sections of 20 gauge wall stud, cut off 12 inches minimum sections to insert into the wall channel inverted as shown below. Use 8, #8 screws to join the assembly. Make sure that when placing the screws they are roughly 1/2 inch from the edge of the stud or the joint of the track as shown below.



- 12" section of 20 gauge wall stud inverted into wall track to form a box
- Centered between the joint of a wall track
- 8, #8 screws total; 4 screws per side of joint

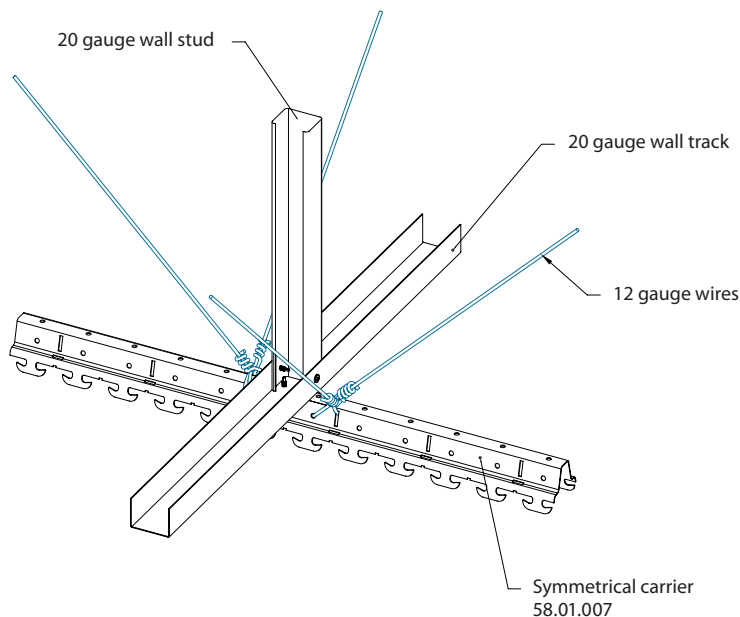
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1. Suspension Layout and Details (cont.)

Detail 3: Down Post

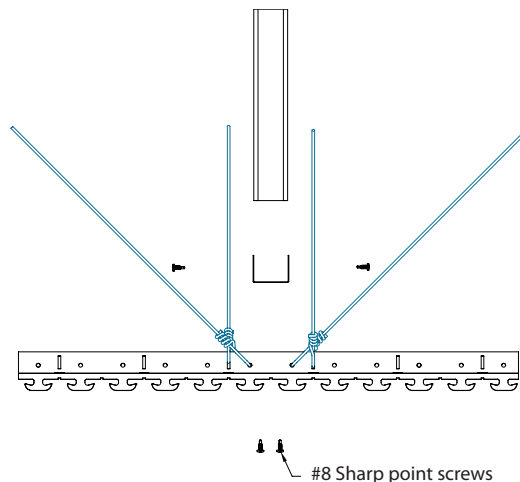
ASTM E580 establishes code minimums that are required in seismic categories; please reference this standard along with ASTM C636 for further details and installation techniques. ASTM E580 establishes the down post requirement in seismic categories DEF; these down posts are located on 12 foot by 12 foot modules. However, the unique main runner spacing of the Planar system requires that the down posts are moved out to a 12 foot by 12 foot 6 inch module. This spacing and

performance has been tested and verified through shake table testing conducted at the University at Buffalo in NY based on ICCES AC156 - Special Seismic Certification. Proper sizing of the down post must be determined by the engineer of record. See the Rockfon Seismic Guide for more information about down post sizing. The down post needs to be anchored to the deck or acceptable structural member per code.



Notes:

- QTY: 2, #8 screws driven up through the symmetrical carrier into the wall track
- QTY: 2, #8 screws driven through the 20 gauge wall track into the 20 gauge down post, 1 each side
- Splay wires per code; 45 degrees max in each plane

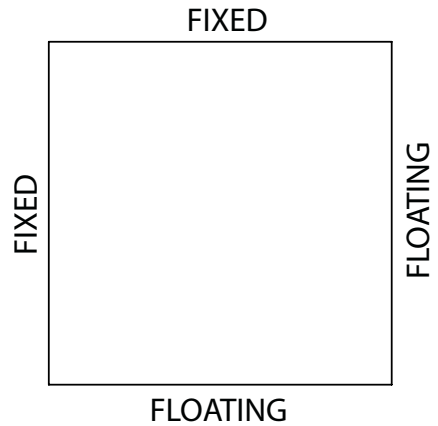


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1. Suspension Layout and Details (cont.)

Wall Details

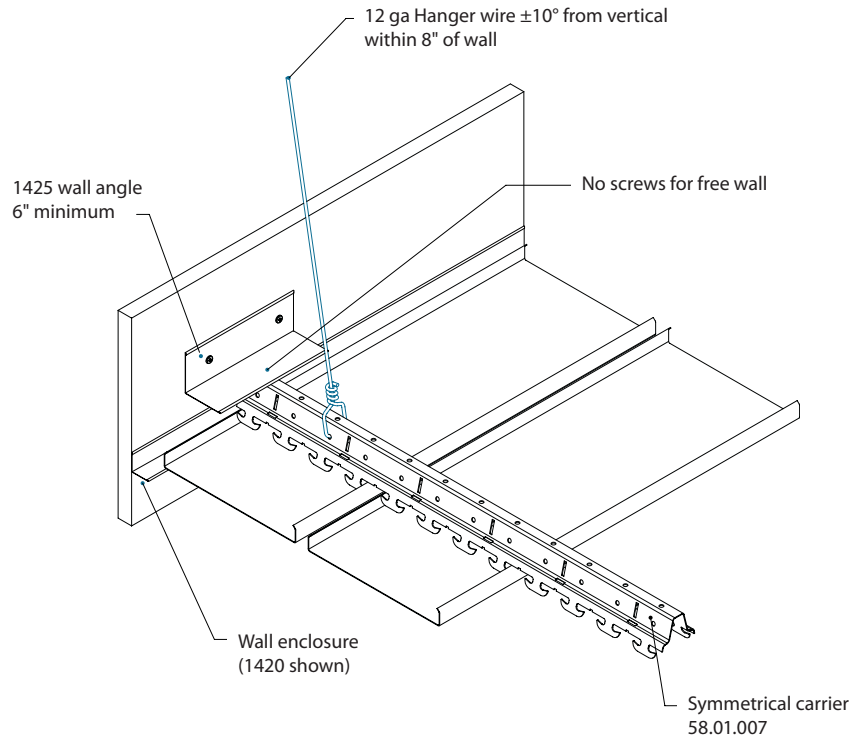
ASTM E580 requires that two adjacent walls are fixed and not permitted to move, while the two opposite adjacent walls are floating with a 3/4 inch gap remaining at the walls. When laying out the ceiling, work from the floating walls back. This allows for a full panel at the floating perimeter wall. A partial panel at a fixed wall can be pop riveted to the wall angle to finish the installation.



Symmetrical Carrier Detail

Shown below is a free wall condition, the same basic details are used at the fixed wall. For the Planar panels (5/8 inch deep) the 1425: 2 inch by 2 inch wall section is positioned 2 inches above the wall enclosure; for the deeper (7/8 inch) Macro panels, the spacing for the 1425 section is 2-1/4 inches. The free wall requires the

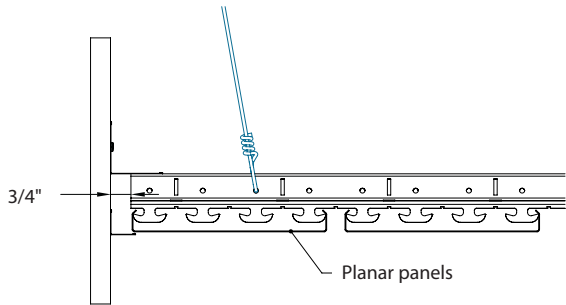
3/4 inch cut back, but the fixed wall can be cut tight to the walls. Secure the symmetrical carrier on the fixed walls with 2, #8 screws. These screws are driven up through the symmetrical carrier and into the 1425 wall section. If a partial panel is required at the fixed wall, pop rivet the panel to the wall enclosure.



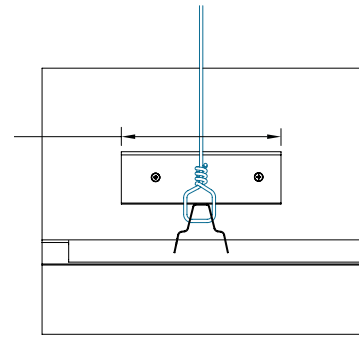
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1. Suspension Layout and Details (cont.)

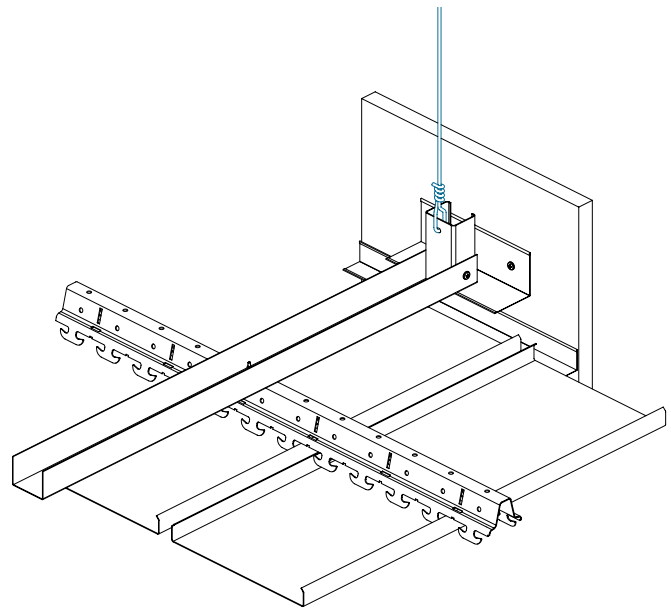


6" minimum 1425 wall section anchored into a structural wall element, otherwise continuous runs are required with screws 24" on center.



Wall Track Detail

The wall track perimeter details are similar to the treatment for the symmetrical carrier; however the track is positioned on top of the 1425 wall sections. It is recommended to cut a short section of the wall stud to screw into the wall track to provide a better location to attach the code-required perimeter wire. Free walls require the 3/4 inch cut back while the fixed walls can be cut tight and are screwed to the 1425 wall angle.

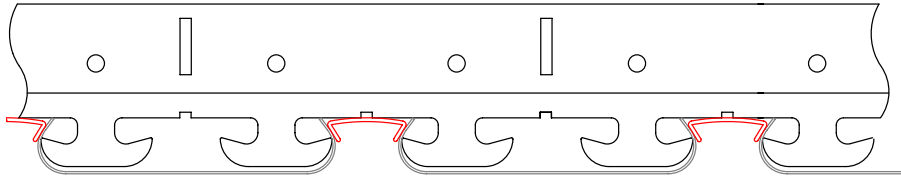
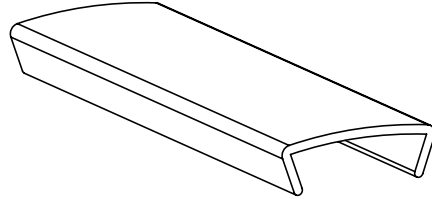


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1. Suspension Layout and Details (cont.)

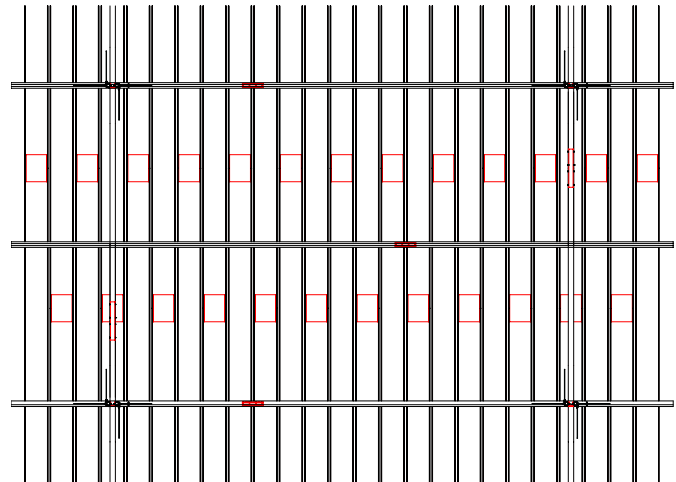
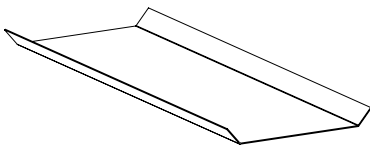
Retention Clips

Planar round edge panels 58.01.044.xxx and 58.03.012.xxx require panel retention clips: 58.01.317 for installation with filler strip, or 58.01.318 for installations with open reveal between the linear panels. The panel retention clips are clear and install between the panels at the symmetrical carrier locations. They are required on every other symmetrical carrier location down the length of the panel, 2 clips minimum per panel.



Panel Splices

Panels come in 12 foot lengths; for runs longer than 12 feet, panel splices are required. The panel splices install into the back of the panels and snap firmly into place. Panel splices cannot occur at symmetrical carrier locations – every panel joint must have a splice and it is best practice to stagger splices.



- 58.01.004.xxx: 4" Planar splice
- 58.03.525.xxx: 4" Macro splice
- 58.03.530.xxx: 6" Macro splice
- 58.03.535.xxx: 8" Macro splice

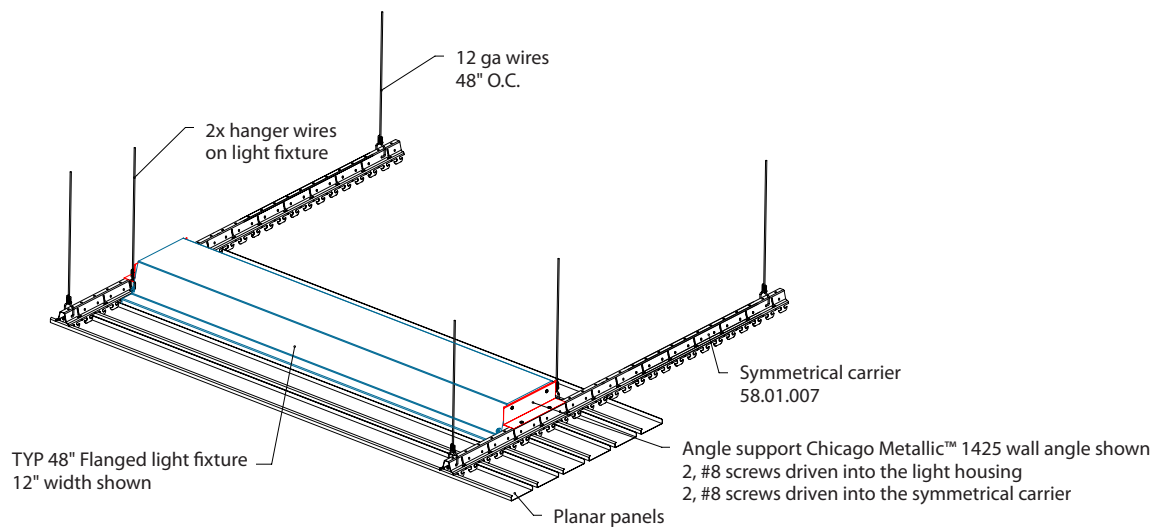
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1. Suspension Layout and Details (cont.)

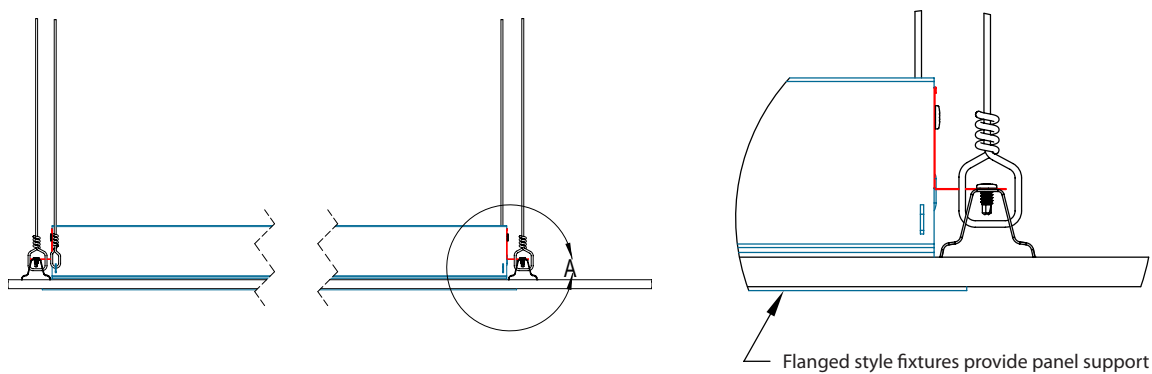
Typical Light fixture installation

It is recommended to use flange style light fixtures in order to trim and support cut panel edges. As mentioned in the suspension layout details, the carriers are installed on 50 inch centers in order to allow for the use of industry standard fixtures for 48 inch modules. To support the light fixtures, cut sections of 2 inches by

2 inches 1425 wall angle or equivalent, and screw 2, #8 screws into the light housing, and 2, #8 screws down into the symmetrical carrier. Two slack hangerwires are required per code for each fixture light fixture weighing more than 10 pounds.



Details



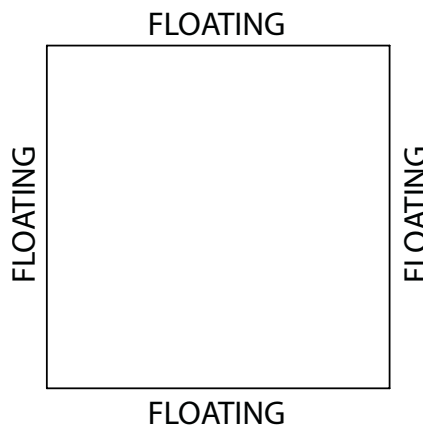
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1. Suspension Layout and Details (cont.)

Category C

ASTM E580 does not require down posts for category C installations; it also regulates that all suspension must be floating and 3/8 inch short of the walls. Below are details for creating floating perimeters in instances where the layout does not result in a full panel at the wall. Unlike the detail shown for categories D, E, F, you cannot pop rivet a cut panel to the wall angle. The carriers and track details are the same for the floating

conditions except only a 3/8 inch gap is required. The cut panel is held in place by cutting sections of wall angle and inserting them on top of the cut panel, driving screws through the two wall angles and into the wall. 58.01.317 or 58.01.318 retention clips are required along these cut panels at every other carrier location, with at least two clips per panel in order to keep the panel properly seated on the symmetrical carrier.

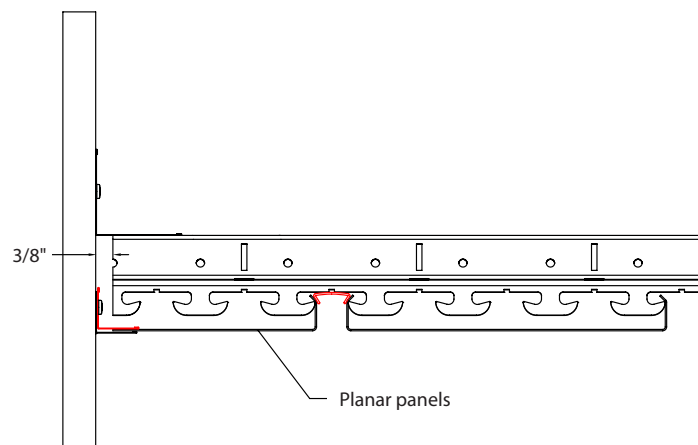
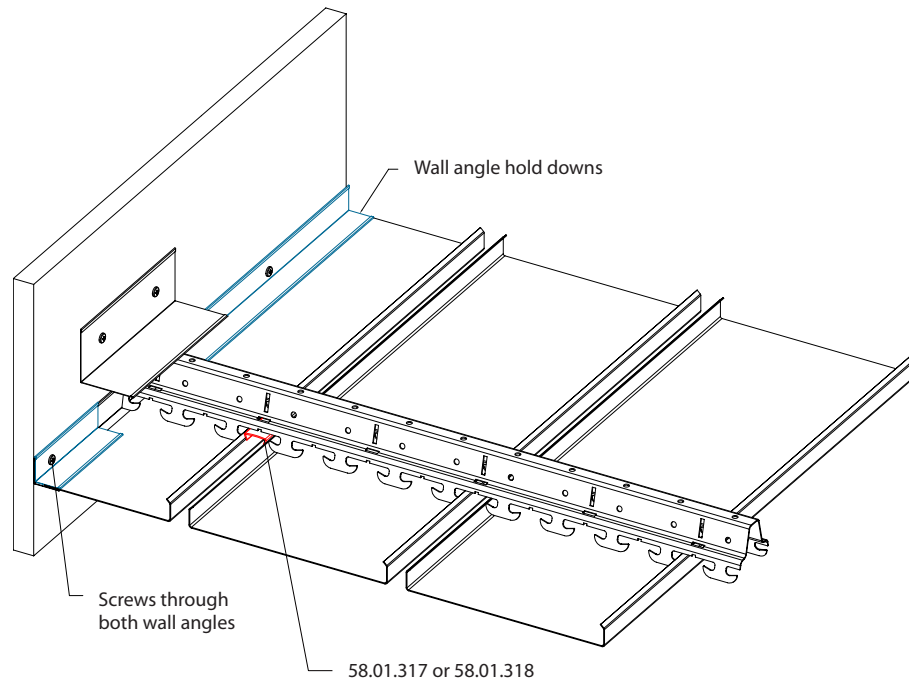


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1. Suspension Layout and Details (cont.)

Category C: Perimeter Details

Both suspension and panels are 3/8 inch short of walls.



Have questions?

Contact the Rockfon Technical Services Team by calling 800-323-7164 and we can provide assistance on your project.

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