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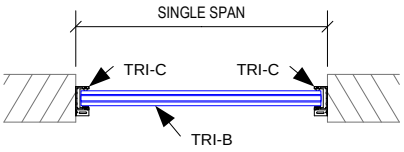
INSTALLATION OF A TRAP/JAMB END TO TRAP/JAMB OPENING

OPENING LAYOUT TYPES:

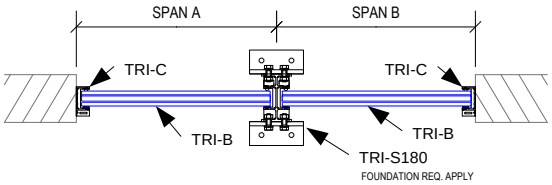
There are 2 installation types for this application

1. Single Span Opening that requires only the TRI-C end tracks. These are openings with widths less than the accepted span limits of the TRI-B stoplog blade[i]. (See Detail 1)
2. Multiple Span Openings are larger than the accepted span limits and require the use of an intermediate post(s). These posts break the opening into sections based on the allowable span limits of the TRI-B. (See Detail 2)



SINGLE SPAN

DETAIL 1



MULTIPLE SPAN

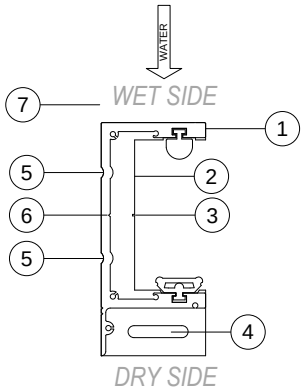
DETAIL 2

REFER TO THE PROJECT'S SHOP DRAWINGS FOR THE LAYOUT TYPE AND LOCATIONS OF ALL COMPONENTS.

STOPLOG COMPONENTS FOR OPENING TYPE

TRI-C END TRACK

The TRI-C (DETAIL 3) connects directly to the structure and is the end termination for an opening or multi-span StopLog run. The TRI-C allows the stoplog blades to come off the surface it is attached to at a 90° angle. Common applications would be jamb mounted for garage door openings, inside corridors/entrance ways or face mounted to bring the system away from the structure.



TRI-C
PLAN VIEW

DETAIL 3

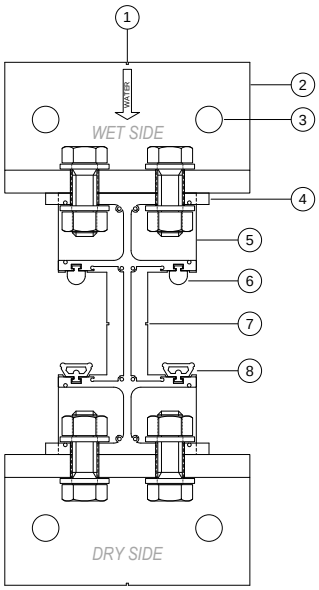
TRI-C COMPONENT DIAGRAM

1. TRI-C EXTRUSION
2. BASE PLATE
3. CENTERLINE NOTCH IN BASE PLATE
4. REAR SLOT FOR BASE PLATE COMPRESSION ANCHOR
5. SEALANT DEPRESSIONS
6. CENTERLINE DIE MARK & FASTENER LOCATION
7. WALL

TRI-S180 INTERMEDIATE STANCHION POST

The TRI-S180 (DETAIL 4) is an intermediate stanchion post that is used when the total opening width is greater than the allow span of the TRI-B stoplog blade. This post is used to continue a straight line of the barrier run.

It connects to the ground with 4 bolts. The bolts connect to internal threaded epoxy anchors set within the floor, with sizes varying for protection height.



TRI-S180
PLAN VIEW
DETAIL 4

TRI-S180 COMPONENT DIAGRAM

1. CENTERLINE NOTCH
2. BOTTOM ANGLE
3. BOLT HOLE TO GROUND ANCHOR
4. TRI-S180 EXTRUSION
5. BASE PLATE
6. WET-SIDE VERTICAL GASKET
7. CENTERLINE NOTCH
8. DRY-SIDE VERTICAL GASKET

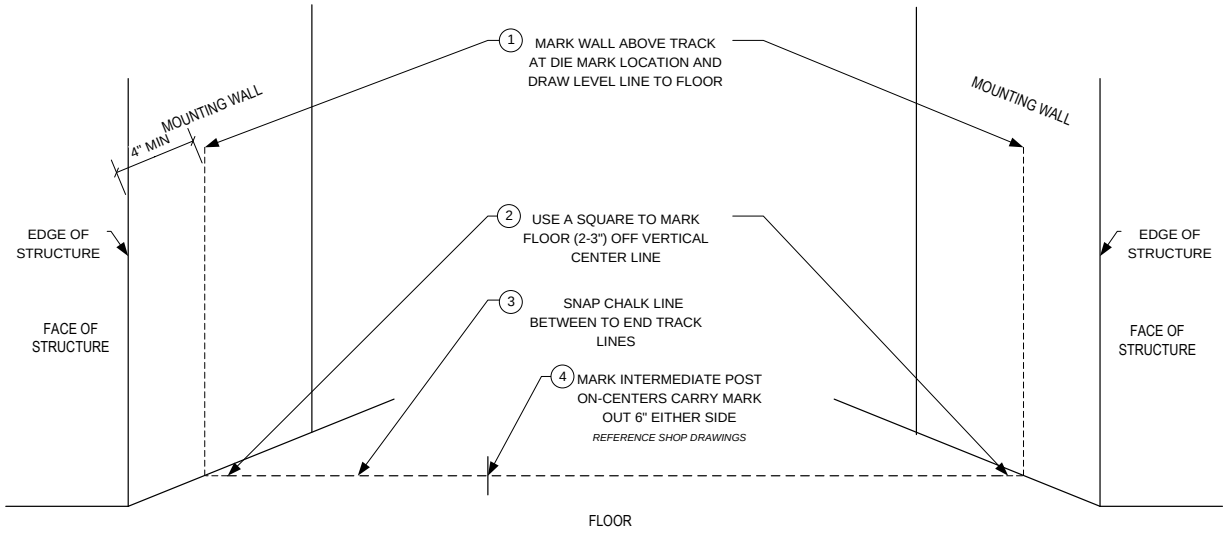
Setting the Layout Line (Centerline of Barrier Run)

The installation of these openings is controlled by Fastener Edge Distance of the Mounting Anchor for the TRI-C end track. It is 4" Minimum from the vertical edge of the concrete for both the permanent and removable anchors and is reference from the centerline die mark in the extrusion (See TRI-C component diagram). The TRI-C can be placed further from the edge of openings but not less. If edge distance is not achievable, contact the manufacturer. A site specific connection detail may be required.

DIRECTIONS:

1. Locate installation area where the TRI-C will be attached by dry fitting track to structure
    a. Minimum Fastener Edge Distance is 4"
        i. Any cladding on the structure, such as stucco, needs to be accounted for and is not included within the edge distance provided.
    b. Once location has been established on structure, make a pencil mark above the track and at the Die Mark location.
        i. Remove Track
    c. From the pencil mark, use a level and draw a line to the floor. Then using a square come off the vertical line and mark the floor (2"-3")
2. Repeat for other side using the same steps
3. FOR MULTIPLE SPAN OPENINGS
    a. Snap a chalk line between each vertical line.
    b. Reference Shop Drawings for Intermediate Post On-Centers for opening
    c. Mark locations on chalk line to match

i. Use a framing square carry the location marks out about 6” on both sides. THIS IS X & Y AXIS WHICH THE NOTCHES IN THE POST WILL LINE UP WITH



SETTING THE CENTER LAYOUT LINE

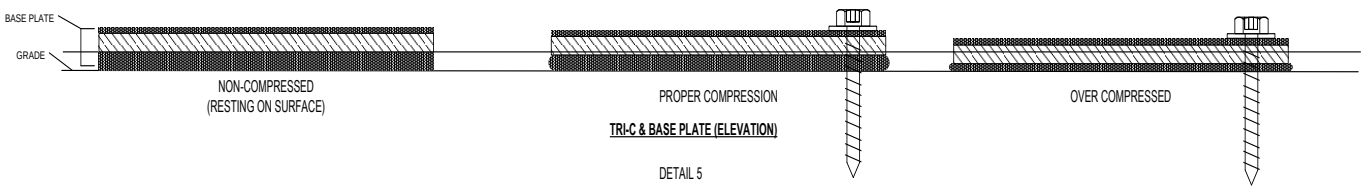
This is the Center Line of the barrier. The fasteners will be located on this line and all other components will be referenced from this layout

Installing the Tracks and Posts

Installing the TRI-C End Track

1. Place TRI-C track back to mounting location and mark around perimeter with a pencil
    a. Clean the marked out mounting area of debris and check horizontal and vertical mounting planes
        i. Surfaces need to be clear of debris and any chemical residue.
            1. If a solvent is needed, MEK should only be used.
    b. Sealing surfaces need to semi-smooth and flat. Remove any protrusions until the track makes a uniform vertical and horizontal connection to the mounting surface.
        i. Continuous contact of the track and mounting surface is necessary to make water seal. Grinding of the structural surface may be required.

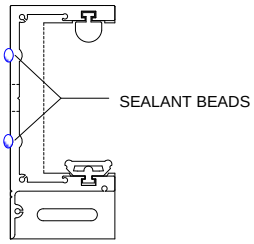
2. Place TRI-C track back into mounting area and set Base Plate
    a. Drill a hole for a ¼” Tapcon in the center of the base plate slot.
    b. Remove track and clean out concrete debris from whole
    c. Reset track into position and install Tapcon – It will need to tensioned until the bottom gasket starts to show compression (slight bulging past the middle aluminum plate)(DETAIL5)



TRI-C & BASE PLATE (ELEVATION)

DETAIL 5

3. Vertical Compression Bolt hole
    a. With Base Plate compressed mark the location of the vertical bolt holes.
    b. Remove Tapcon and track
    c. Drill and clean-out the vertical bolt holes
    d. Clean mounting area of any concrete residue



SEALANT LOCATION
DETAIL 6

4. Apply Sealant to Track
    a. Insure that the rear of the track is clean and free of any chemical residue. (MEK solvent to be used as needed)
    b. Open sealant and place two bead lines within the sealant depressions on the rear of the track (DETAIL 6)
        i. The bead size should place enough sealant to ensure that it expands past the sealant depression when compressed
        ii. Bead lines need to be continuous starting at the Bottom and Terminating 1” from the top of the track. (This prevents squeeze-out at the top of the track and is above the protection height of the barrier)
        iii. Note: Sealant is not intended to fill voids (variations out of the continuous plane). If the track does not make a consistent contact along the vertical structural surface. Remove track and grind structural surface until continuous contact is achieved.

5. Reset track into mounting area and manually compress sealant against vertical surface
    a. Reset Tapcon and washer and compress until the vertical anchor holes are in line with the holes drilled into the structure.
    b. Insert Compression Anchors through the track into the vertical mounting holes.
        i. Tighten Compression anchors until firmly seated.

6. Track installation is complete
    a. Allow 24 hours for the sealant to cure prior to utilizing the Triton System.

Installing the TRI-S180 Intermediate Post

Positioning Intermediate Post on Layout Lines
and Marking Anchor Locations

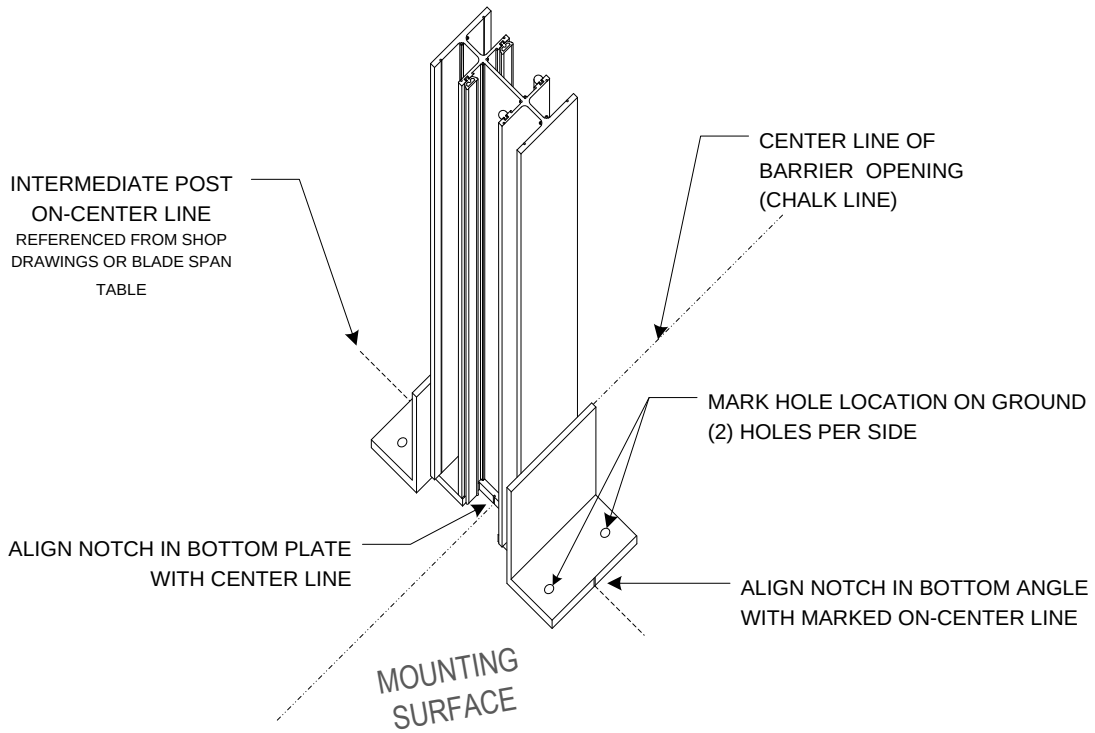
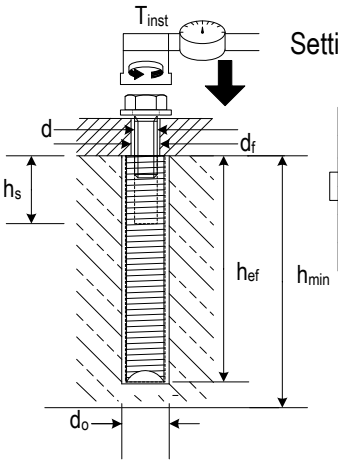


DIAGRAM 7

1. Place Post into position, aligning the notches on the post with the layout line.(DIAGRAM 7)
    a. Base Plate notches aligns with the Barrier Center Line (chalk line) and notches on angles with the On-Center Line (made with framing square)
2. Transfer the Bolt Holes locations on the Angles to the Ground
    a. Recommended Using a Concrete Bit the Size of the Holes (Reference Diagram 8- d_f) to just mark the concrete. This will give an accurate center point.
    b. Remove Post
3. Using the Drill Bit Size Required for the Hilti HIS-RN Anchor Drill Anchor Holes to Required Depth(Reference Diagram 8 – h_{ef})
4. Clean Out Holes of debris and any water
    a. The Hilti HIT-RE-500-SD epoxy does not require that concrete be dry prior to use.
5. Install Hilti HIS-RN Anchors with HIT-RE-500-SD
    a. Reference Manufacturers Installation Instructions (www.hilti.com)
    b. Allow Epoxy to properly cure prior to use



Setting Details of Hilti HIT-RE 500-SD with HIS-RN Inserts

d [inch]	d_f [inch]	d_o [inch]	h_{ef} [inch]	h_{min} [inch]	T_{inst} [ft-lb]
3/8	1/2	11/16	4 - 3/8	5.9	15
1/2	5/8	7/8	5	6.7	30
5/8	3/4	1 – 1/8	6 - 3/4	9.1	60
3/4	7/8	1 – 1/4	8 – 1/8	10.6	100

DIAGRAM 8

6. Reset Post into position and attach with bolts and washers
    a. Bolts should be tighten to proper Torque Settings (Reference Diagram 8)
7. Post is now ready to accept StopLog Blades.

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1. [i] Ref engineering drawing JK1301 for span limits to protection height