

General Arrangement

Fascia top angle ribbed aluminum 1" x 1" x 1/8" thick

Flat head screws at 18" centres

Access floor panel with or without stringer (see details below)

1/8" pop rivets at 18" centres

Fascia plate 1/16" thick aluminum

1/8" pop rivets at 18" centres

Fascia bottom angle 24 ga. galvanized steel 2" x 4"

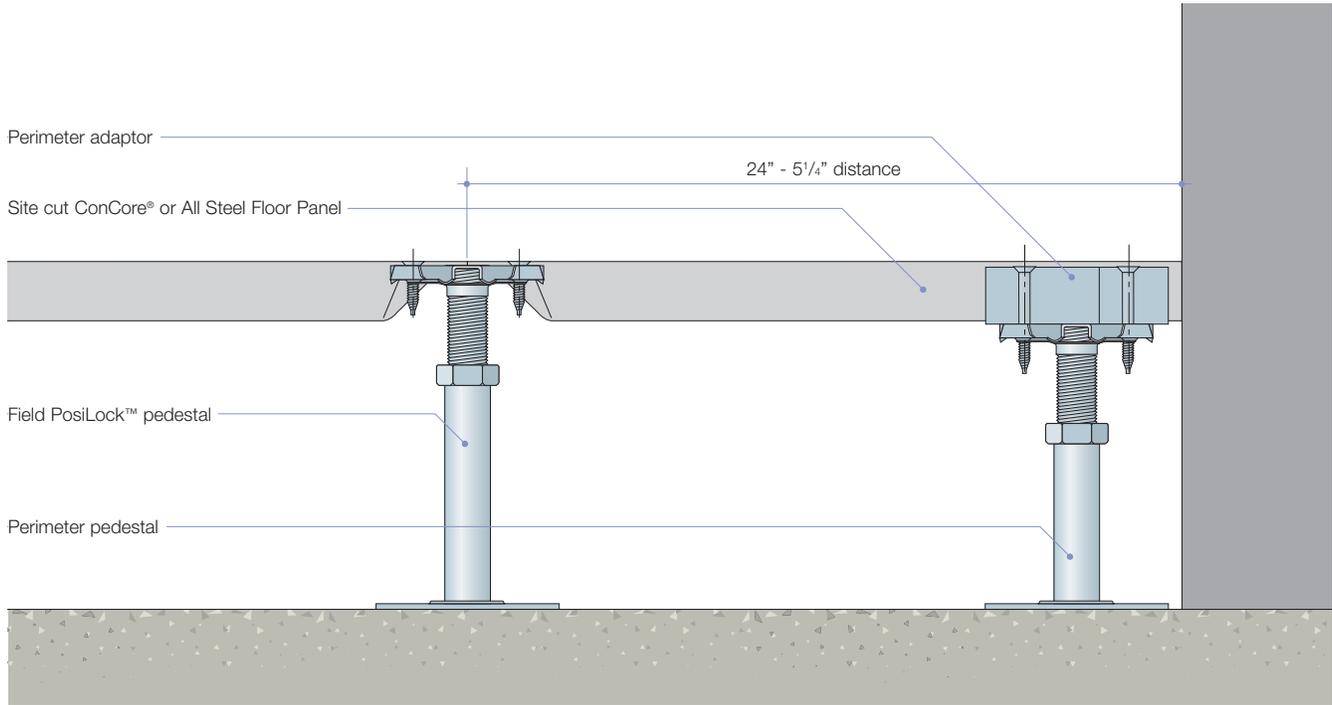
Perimeter pedestal assembly (see details below)



Cornerlock Perimeter System Details for ConCore® & All Steel Access Floor Panel Applications

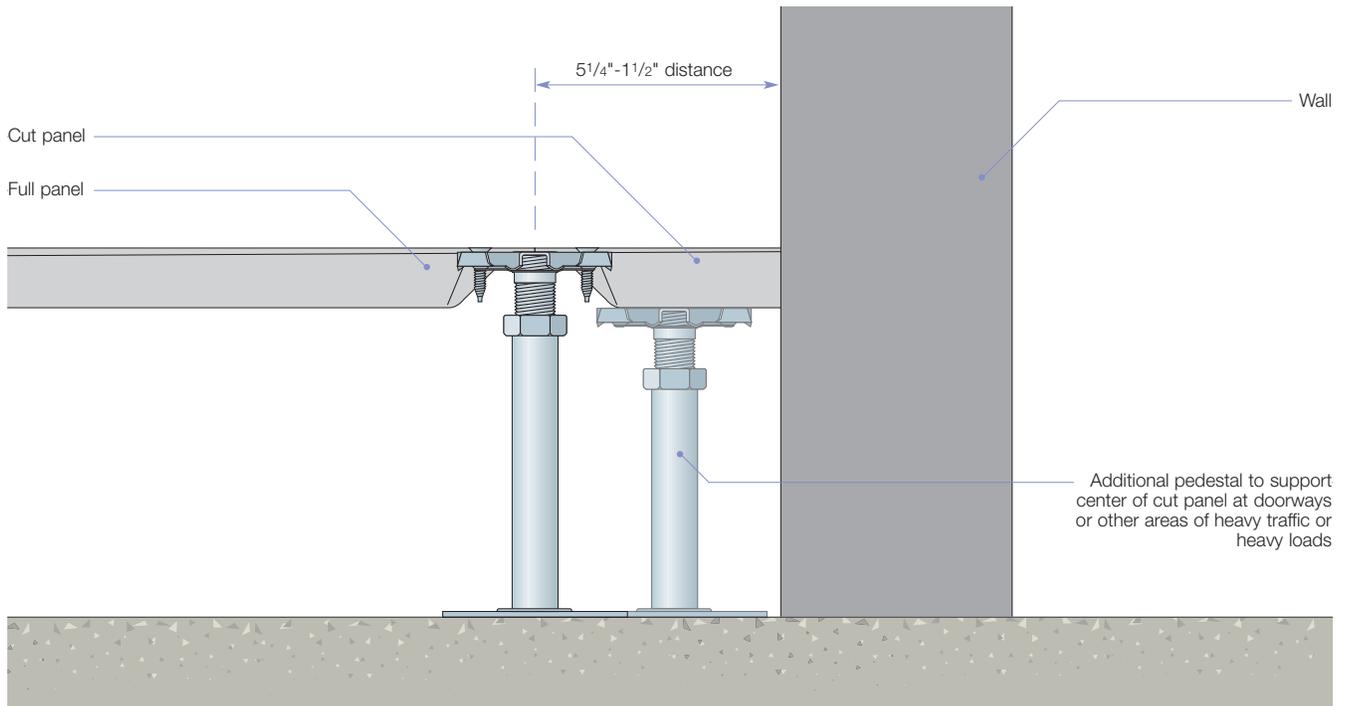


Posilock™ Understructure - Perimeter



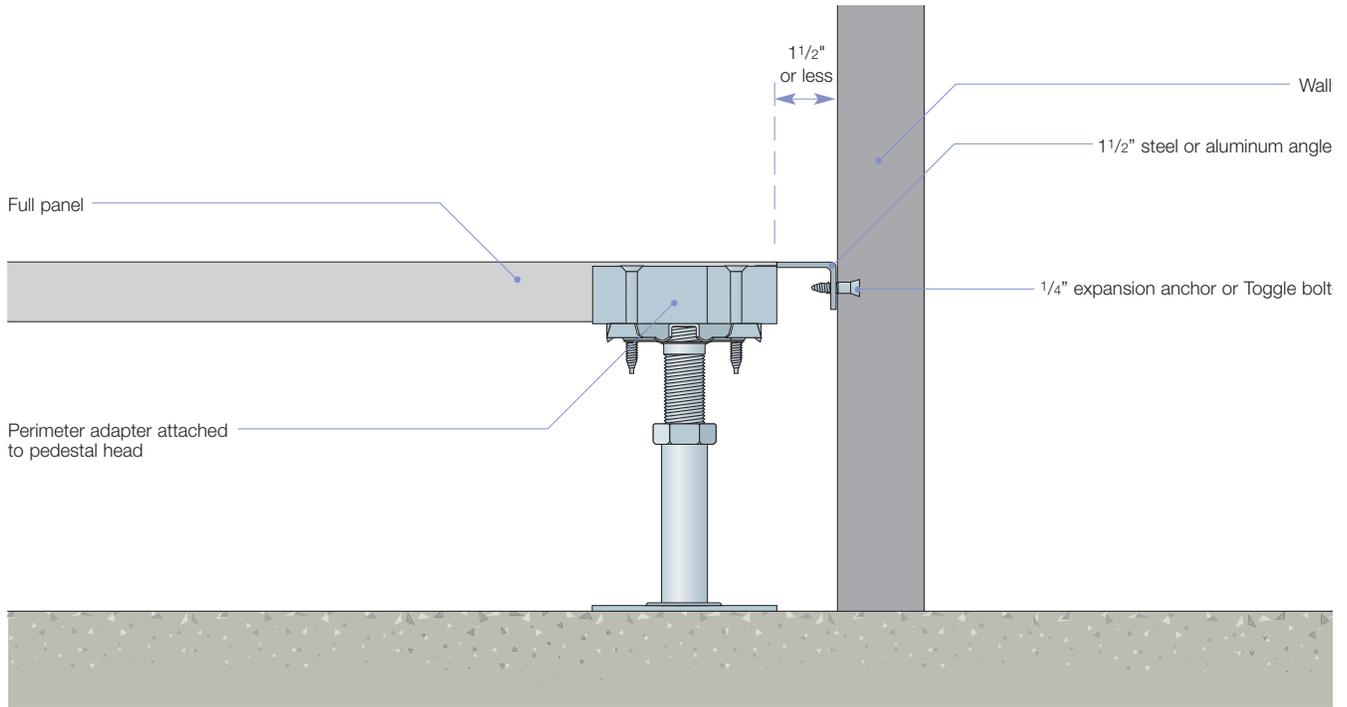
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Posilock Understructure - Perimeter

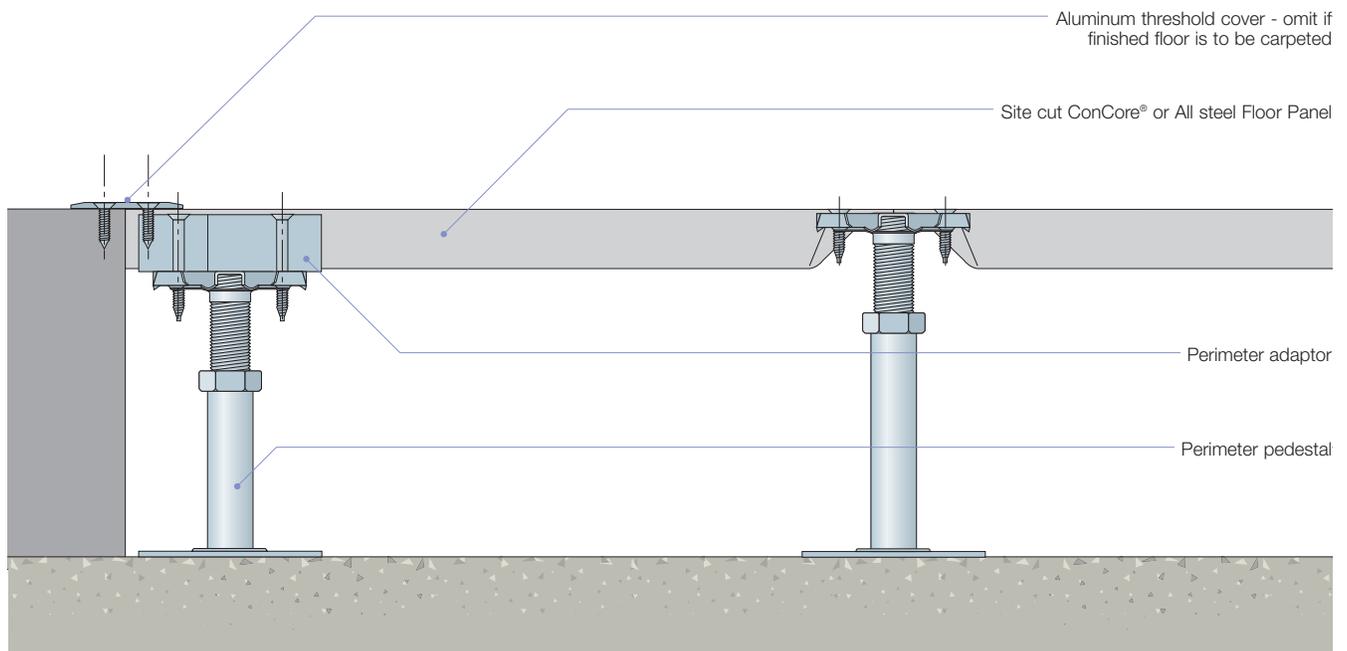


Cornerlock Perimeter System Details for ConCore® & All Steel Access Floor Panel Applications

Posilock™ Understructure - Perimeter



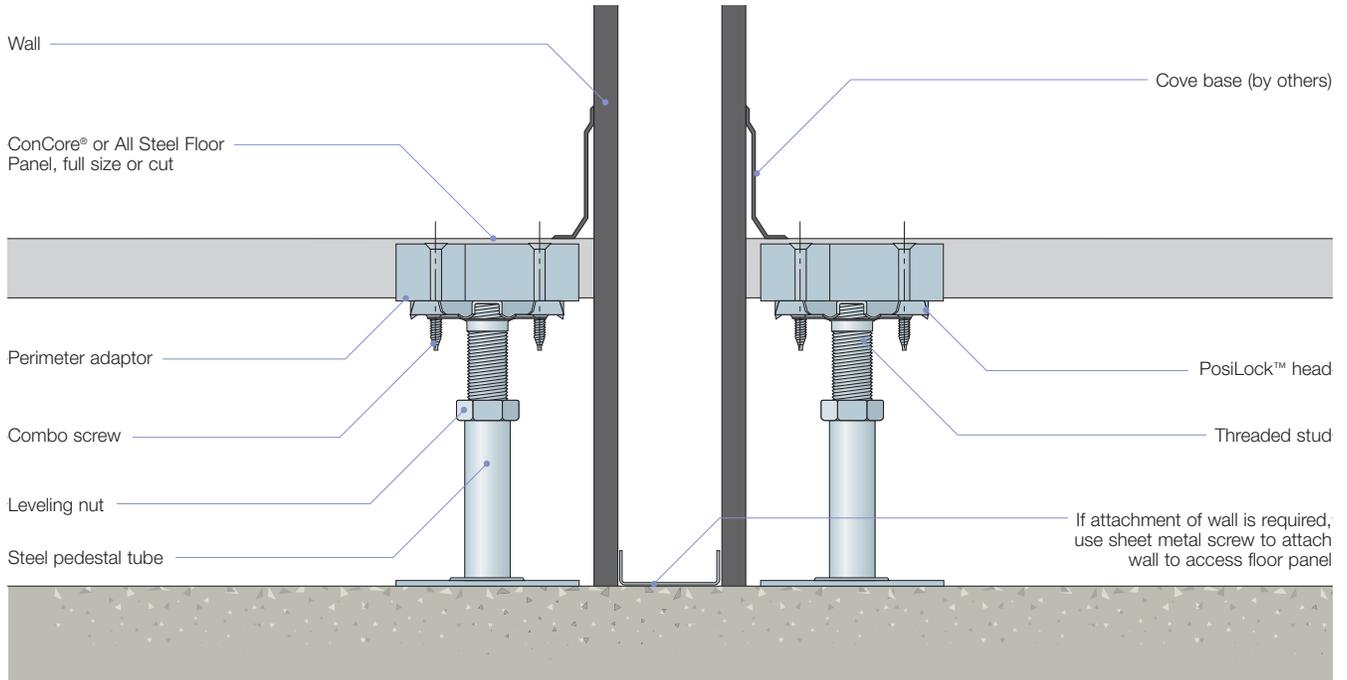
Posilock™ Understructure - Curb



Cornerlock Perimeter System Details for ConCore® & All Steel Access Floor Panel Applications

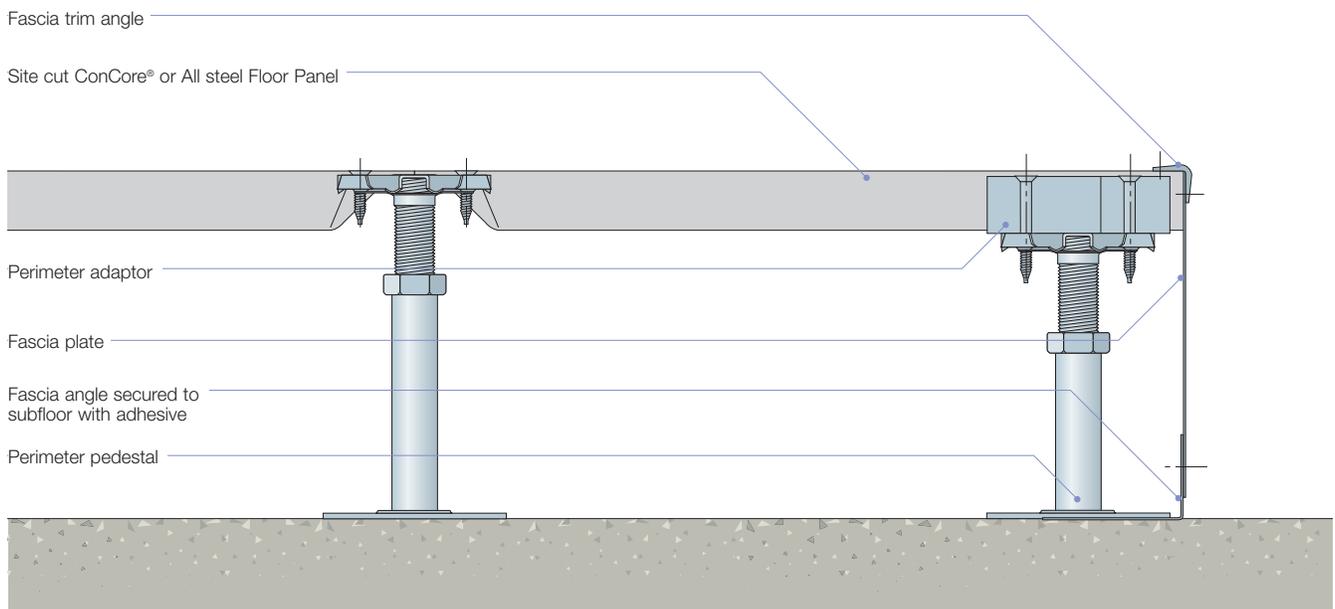


Posilock™ Understructure - Through Wall Partition Detail



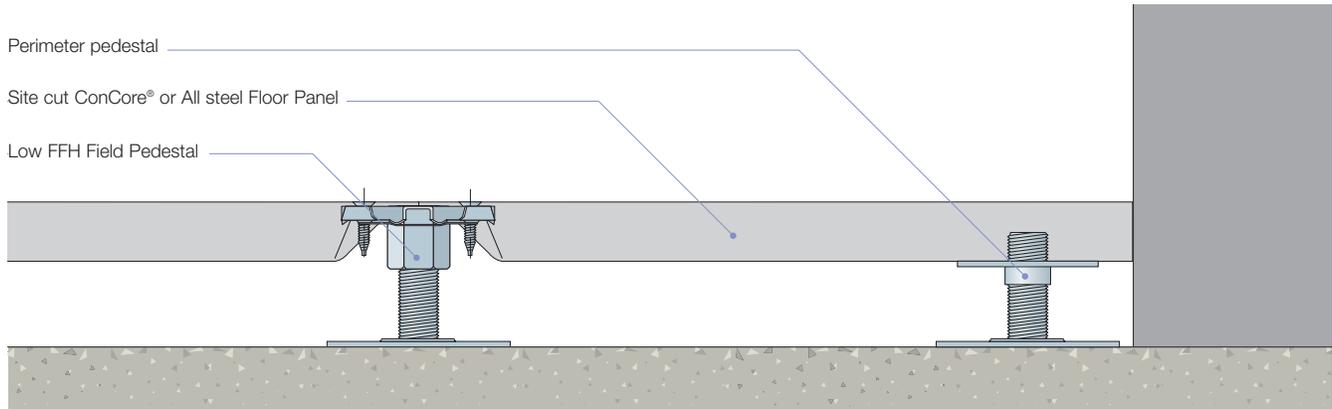
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Posilock™ Understructure - Fascia

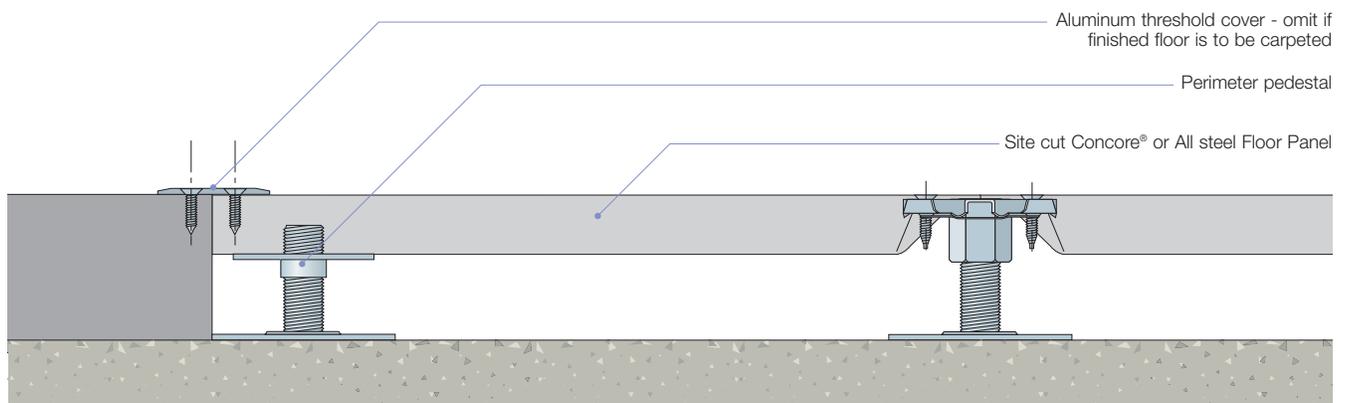


Low FFH Perimeter System Details for ConCore® & All Steel Access Floor Panels 24"

Low FFH Posilock™ Understructure - Perimeter

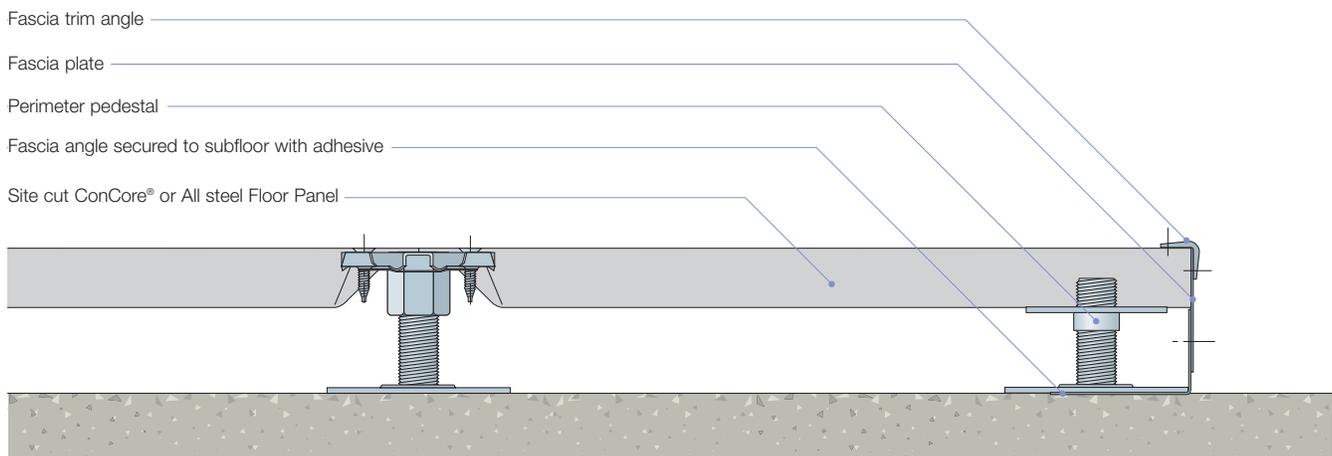


Low FFH Posilock™ Understructure - Curb



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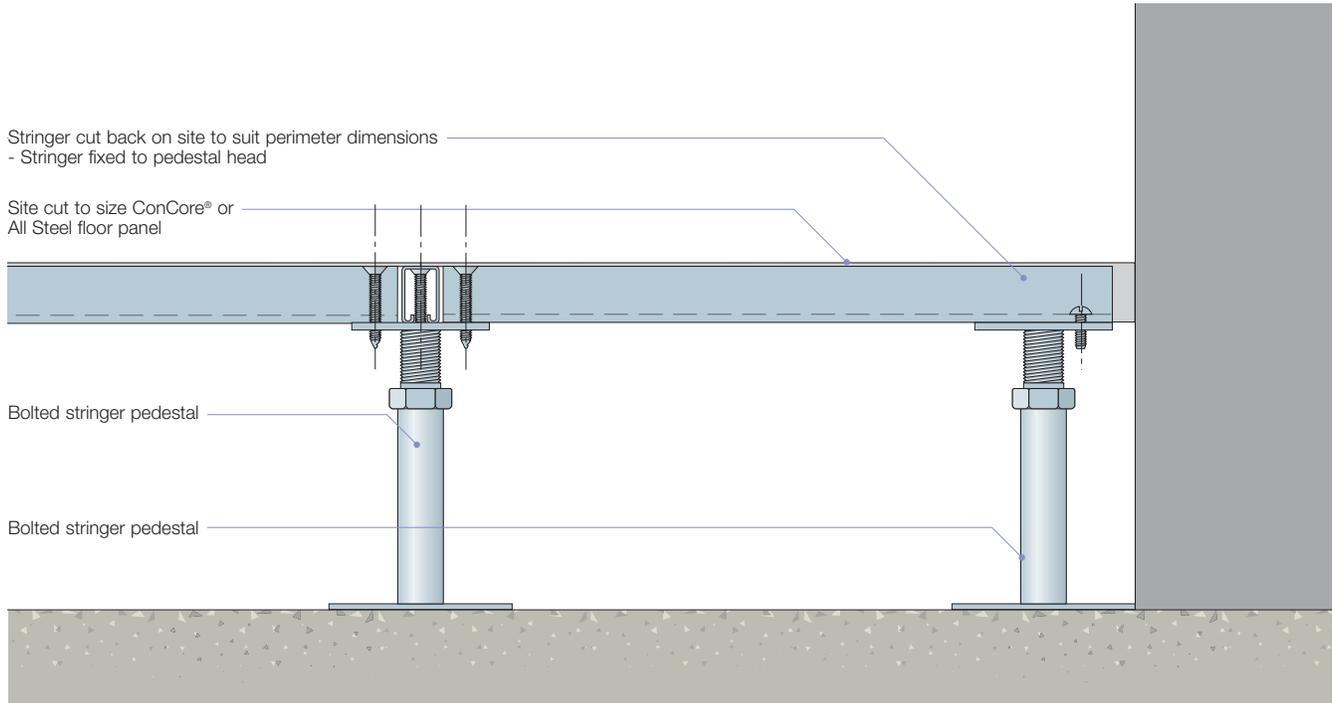
Low FFH Posilock™ Understructure - Fascia



Bolted Stringer Perimeter System Details for ConCore® & All Steel Access Floor Panels 24"

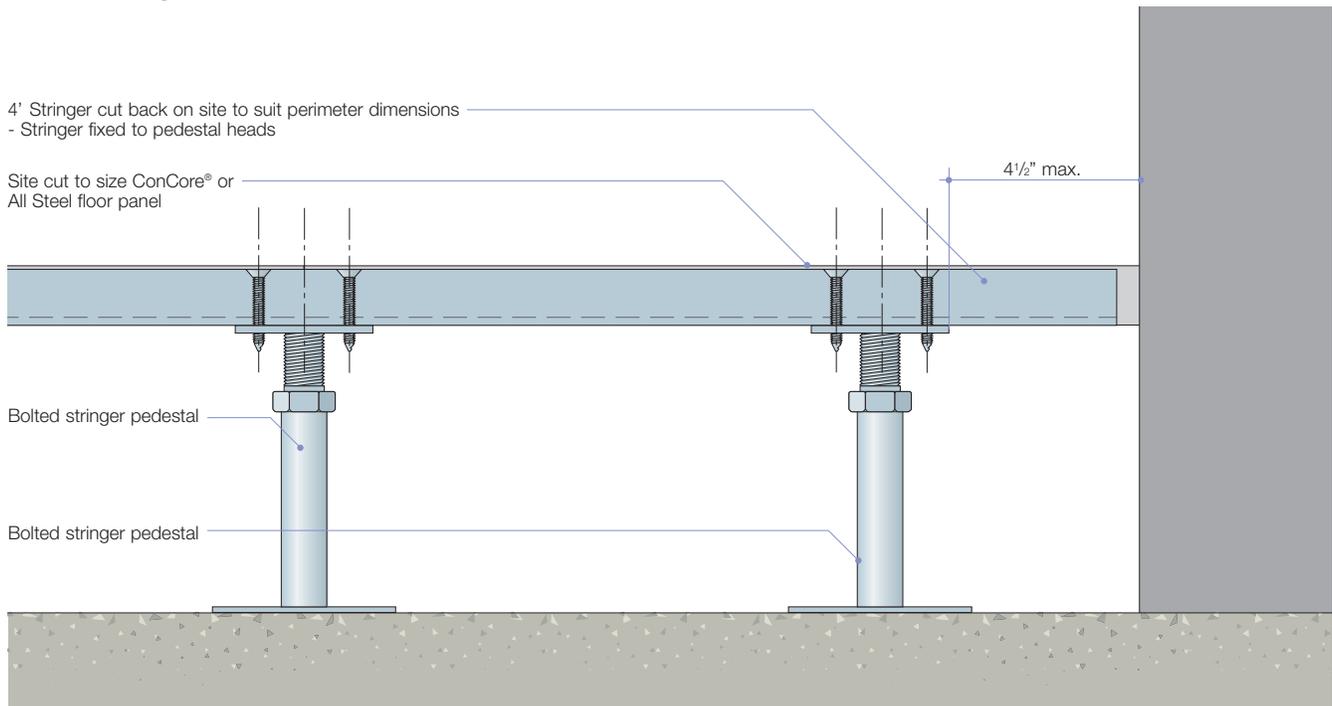


Bolted Stringer Understructure - Perimeter



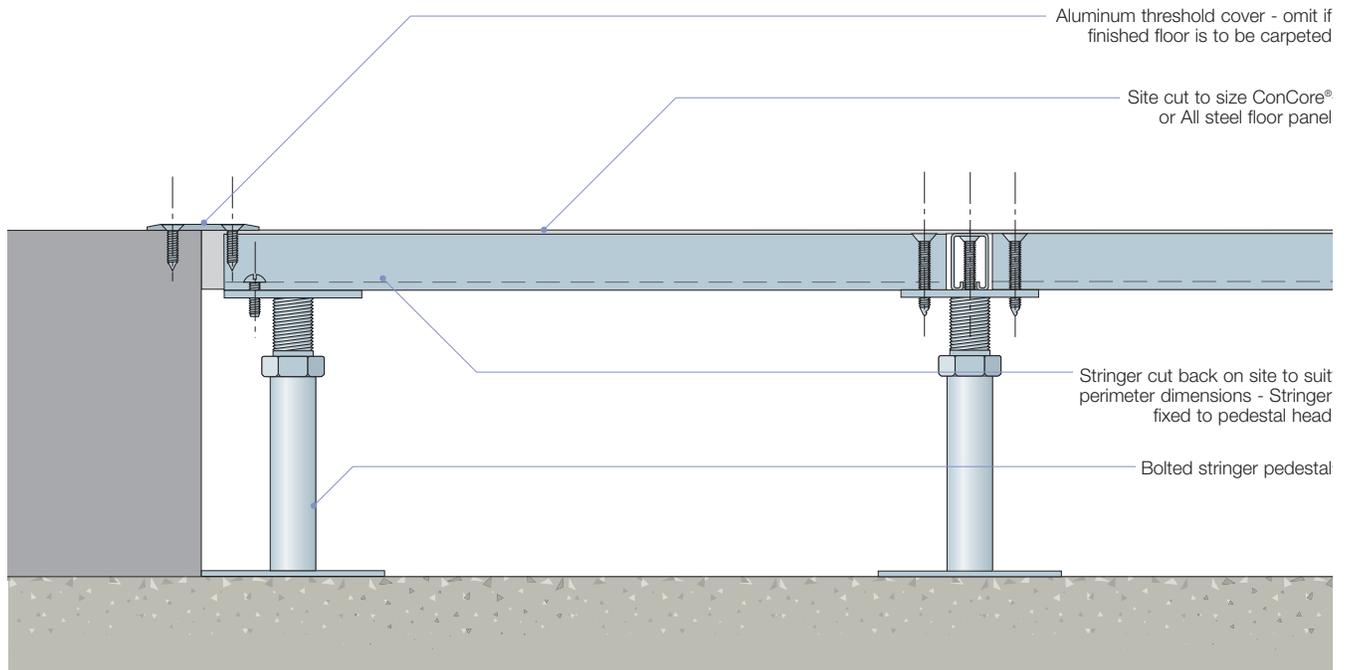
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Bolted Stringer Understructure - Perimeter Cantilever



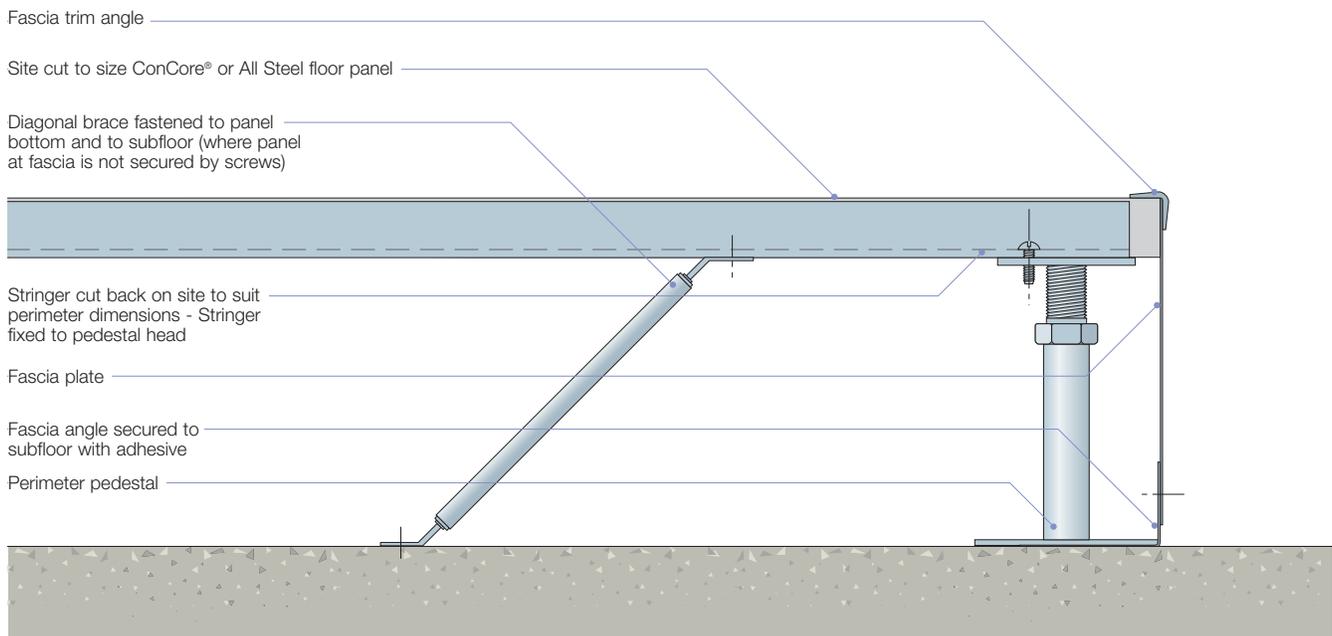
Bolted Stringer Perimeter System Details for ConCore® & All Steel Access Floor Panels 24"

Bolted Stringer Understructure - Curb



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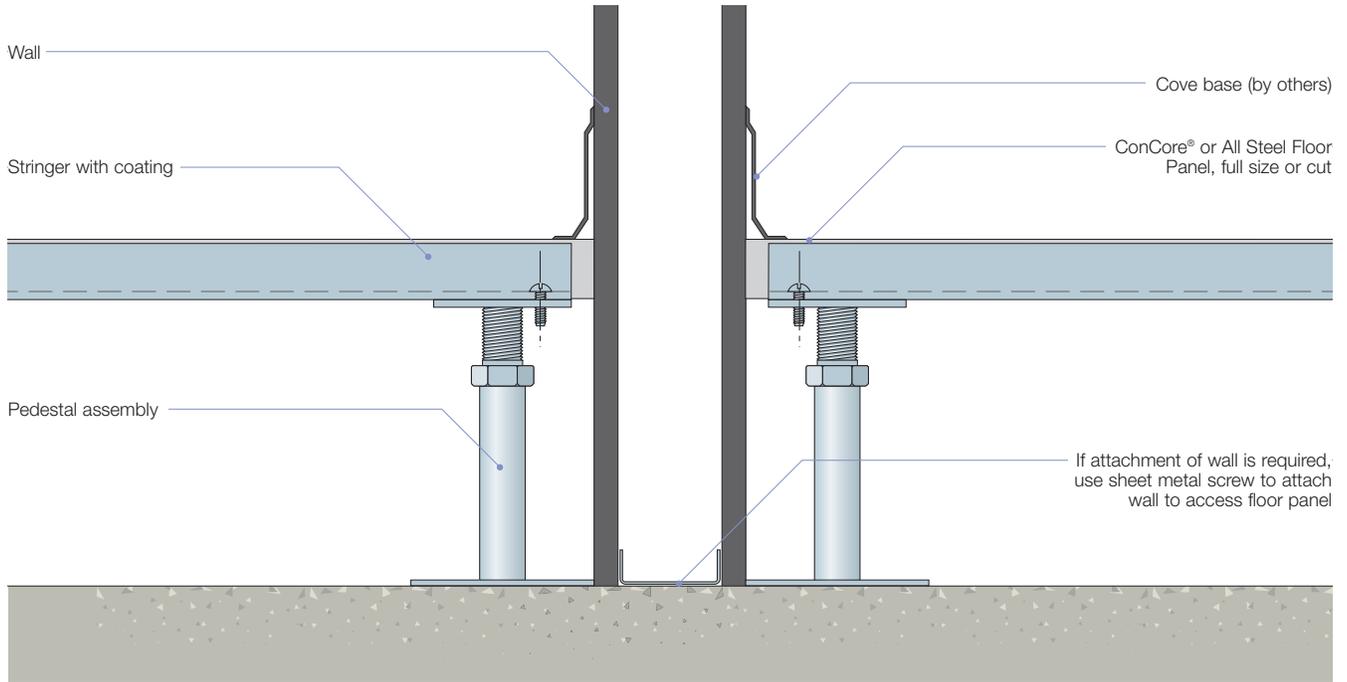
Bolted Stringer Understructure - Fascia



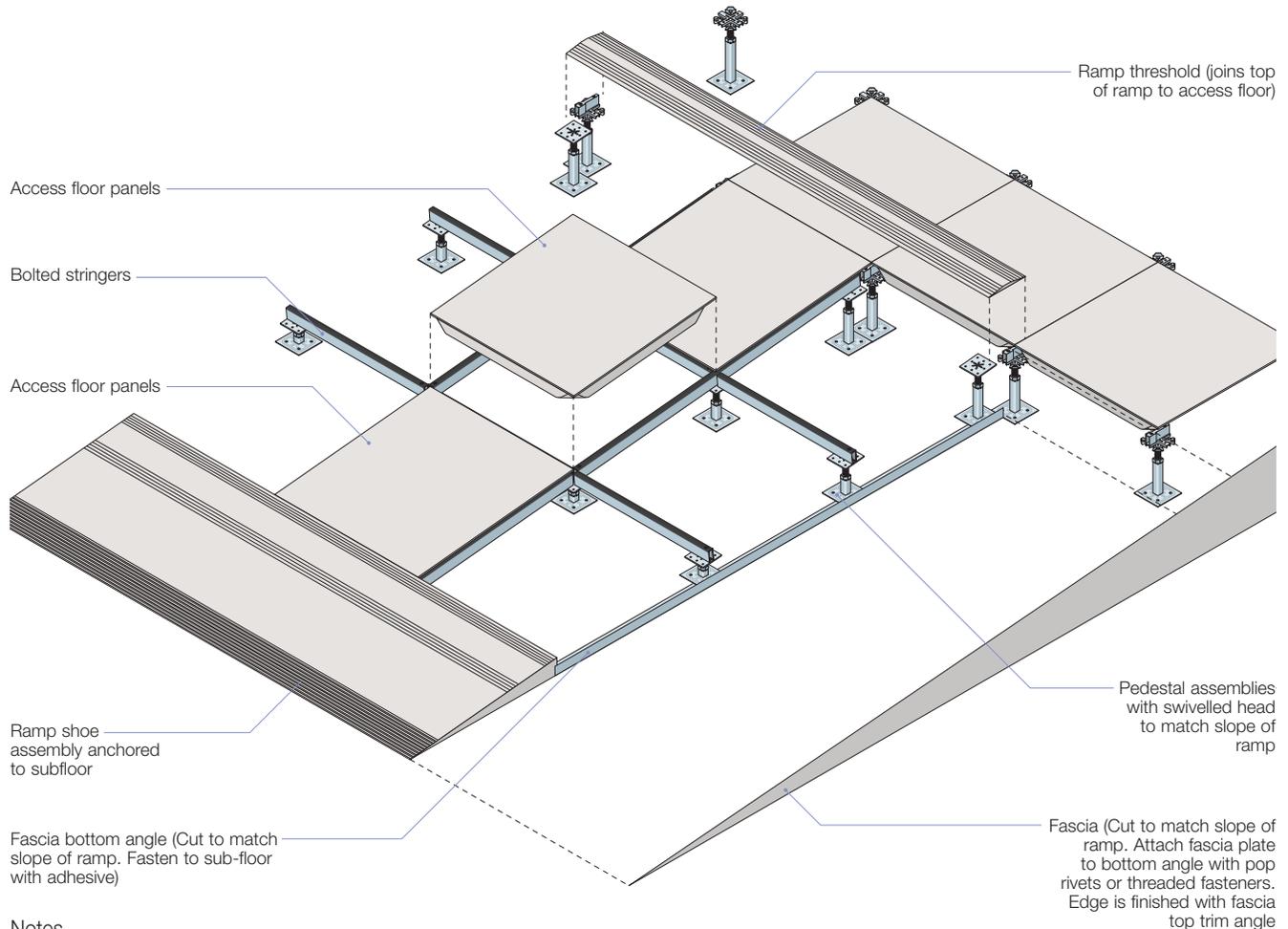
Bolted Stringer Perimeter System Details for ConCore® & All Steel Access Floor Panels 24"



Bolted Stringer Understructure - Through Wall Partition Detail



Ramp Construction



Notes

1. Ramp shoe assembly shall be secured to sub-floor utilizing expansion anchors.
2. Corners of access floor panels shall be fastened to swivelled pedestal heads utilizing threaded fasteners.

Recommendations for Building a Ramp

Ramp Size

The ramp width should be in two foot increments and the overall length should be in odd foot dimensions (including the width of the 12" ramp shoe) so that there are no cut panels in the ramp. For example: a ramp that is three panels long with the 12" ramp shoe would be seven feet long overall.

Ramp Slope

The slope of a ramp can vary from 1" to 2" of rise per foot. The A.D.A. allows no more than 1" of rise per foot (use A.D.A. ramp shoe supplied by Tate). The slope of the standard shoe is 1 1/2" per foot.

Panel Grade

ConCore® panels should be used for ramp construction and should be one grade stronger than the floor panels.

Understructure

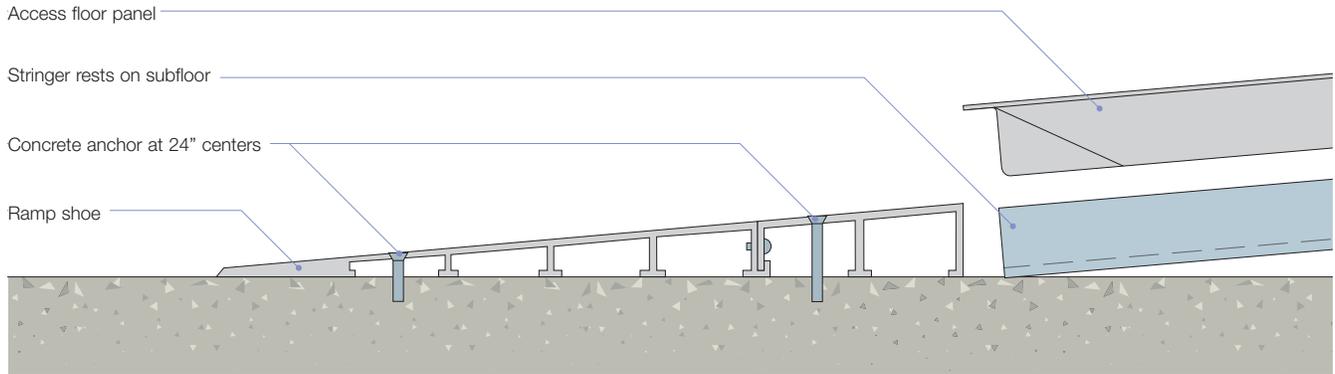
Use standard swivel pedestal heads with 4' stringers along the ramp's length where possible. Attach the ramp panels to the swivel heads with combo screws.

Ramp Covering/Recommendation

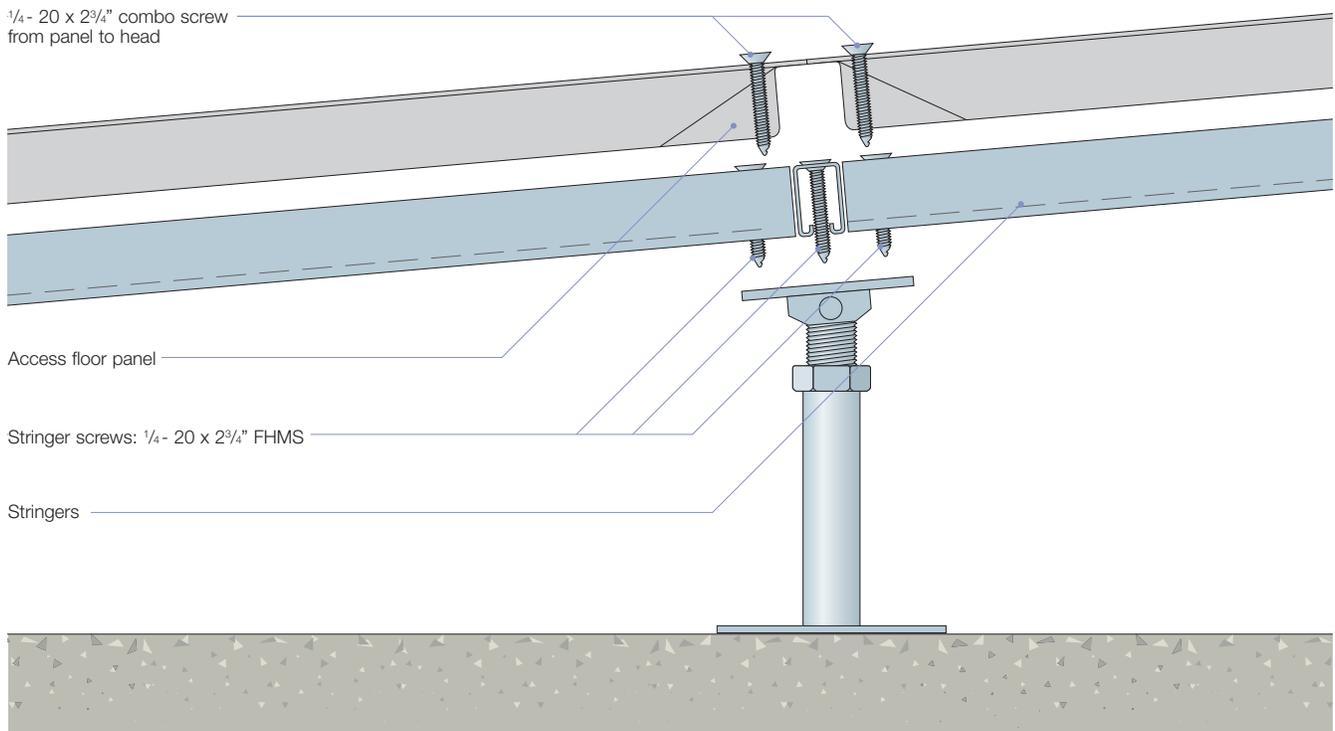
Step Master by Armstrong or other non-slip finish.

Ramp Details

Bottom of ramp



Connections at Swivel Pedestal Head

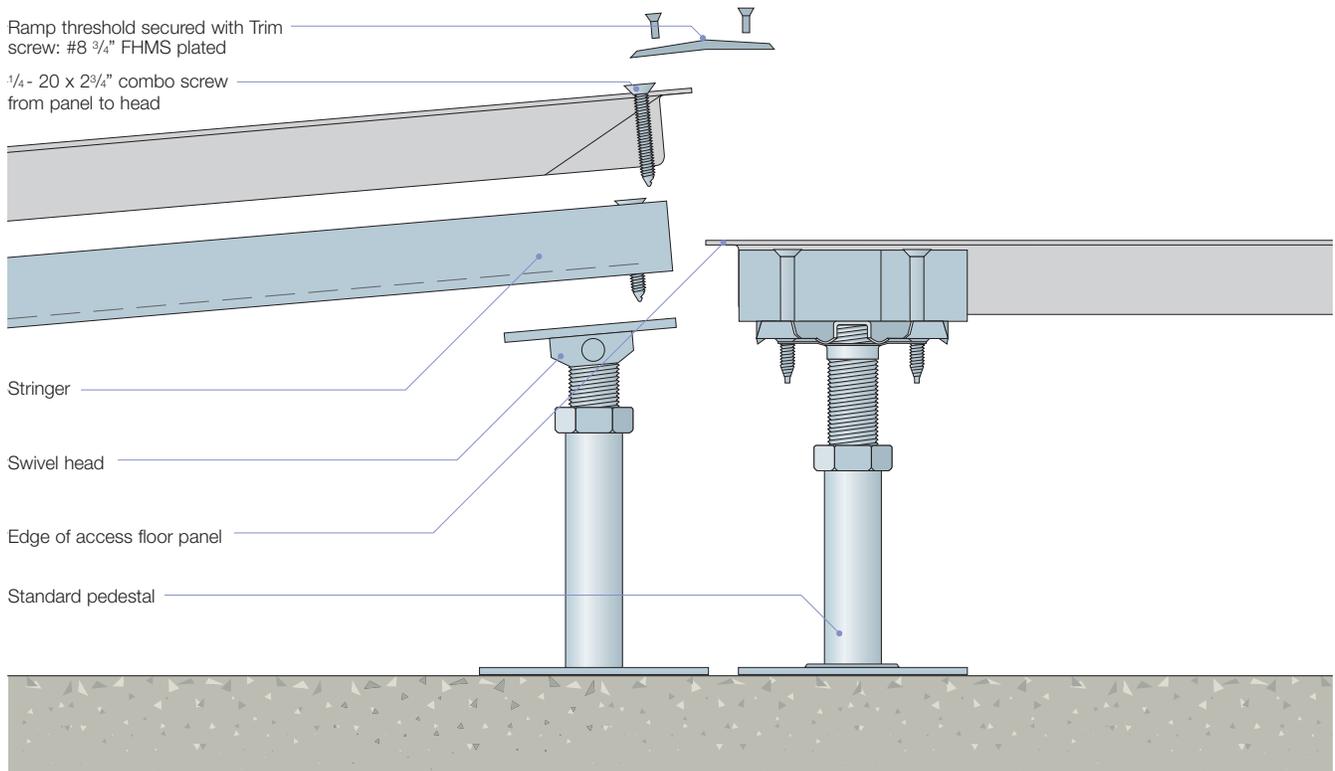


Ramp Details

Top of ramp

Ramp threshold secured with Trim screw: #8 3/4" FHMS plated

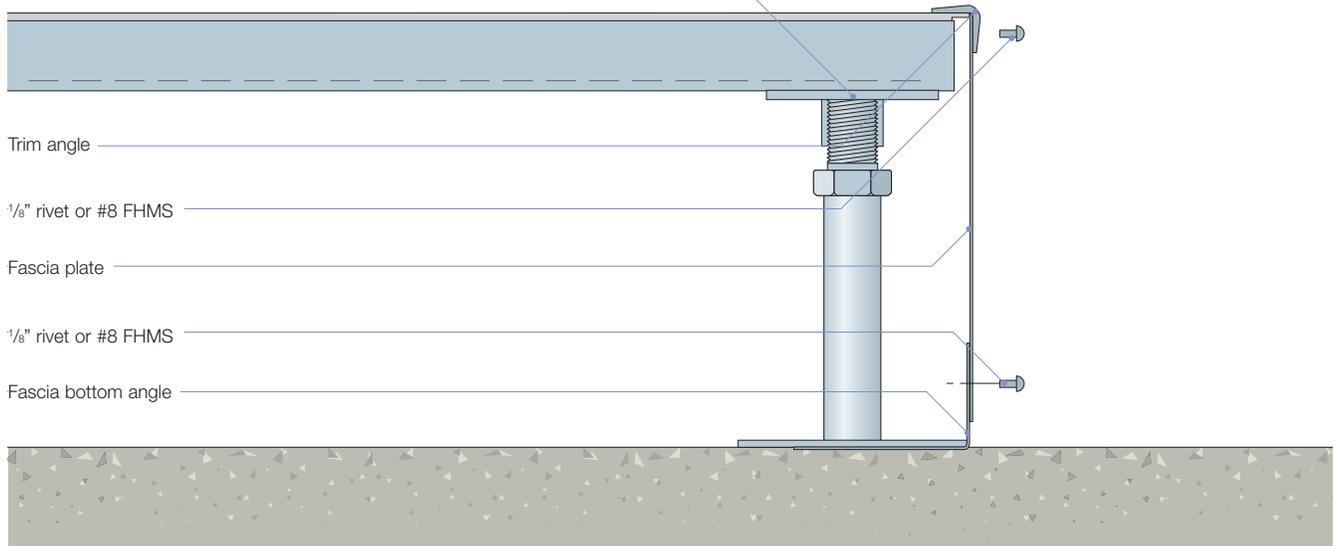
1/4" - 20 x 2 3/4" combo screw from panel to head



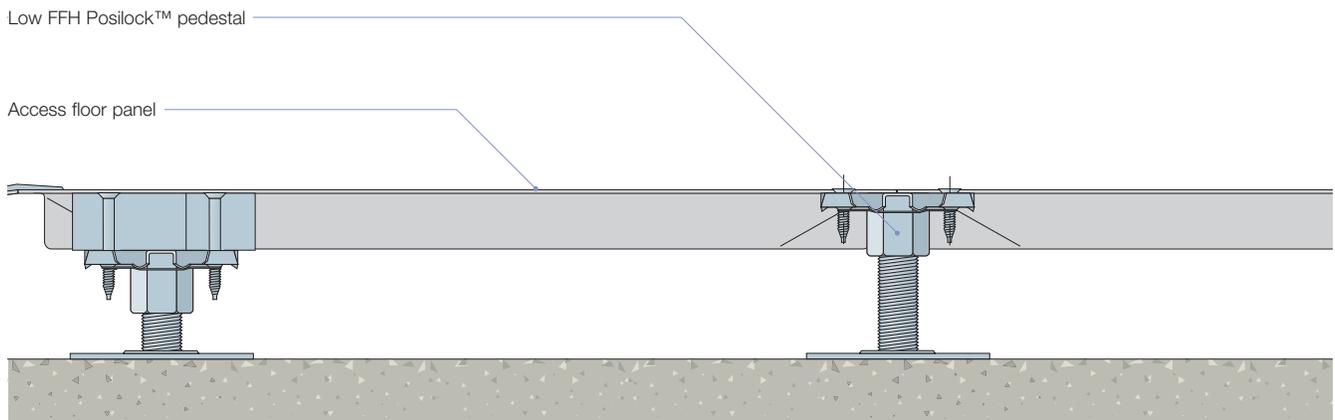
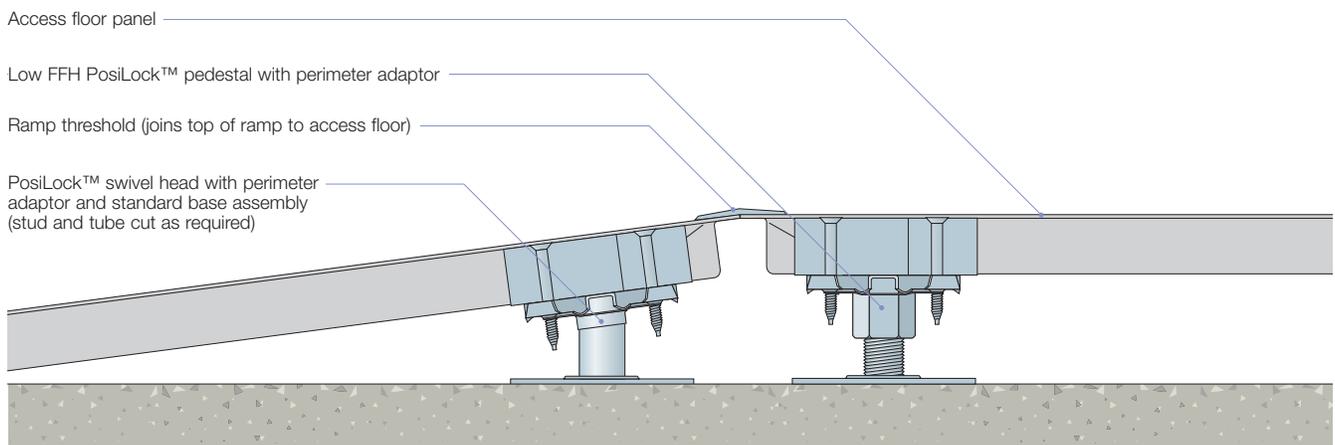
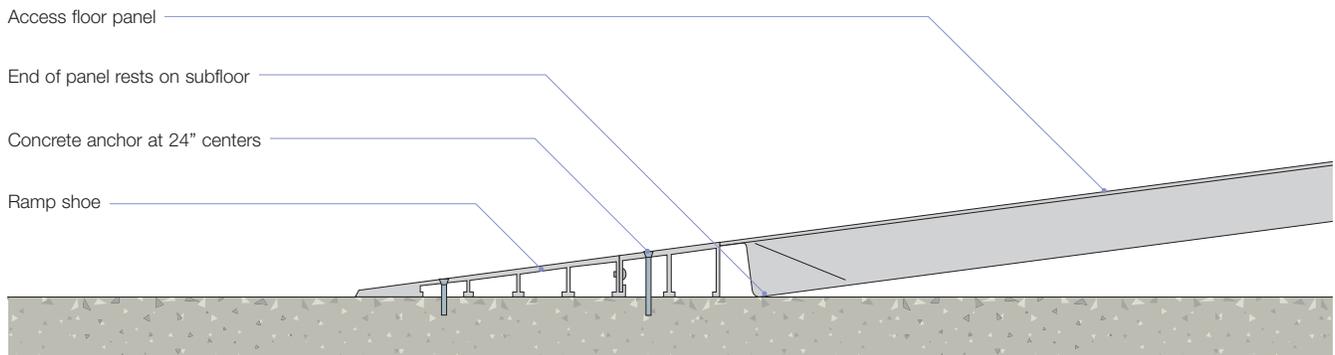
Side of ramp (exposed edge condition)

Trim screw: #8 3/4" FHMS plated

Swivel head



Low FFH Ramp Details



Recommendations for building a low FFH ramp

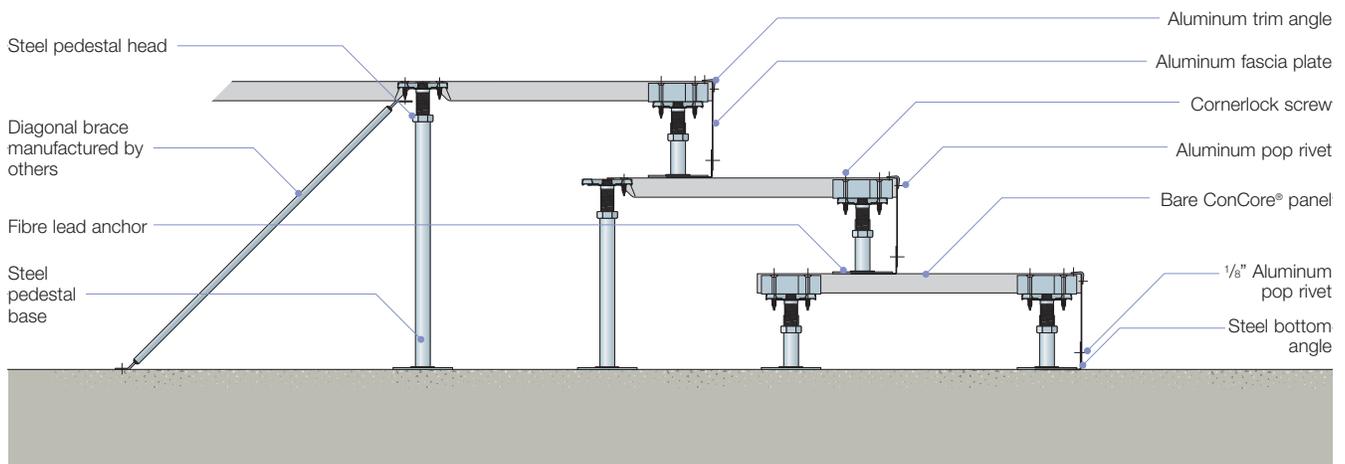
Understructure

Ramps for low FFH floor (4" or lower) constructed with panel grades at or below the CC1500 rating typically do not utilize stringers. PosiLock™ pedestals with perimeter adaptors will be used and pedestals will be cut as required.

Other Considerations

Recommendations regarding slope, panel grade, edge enclosure and ramp covering are the same as those for standard floor height ramp construction.

Step Construction



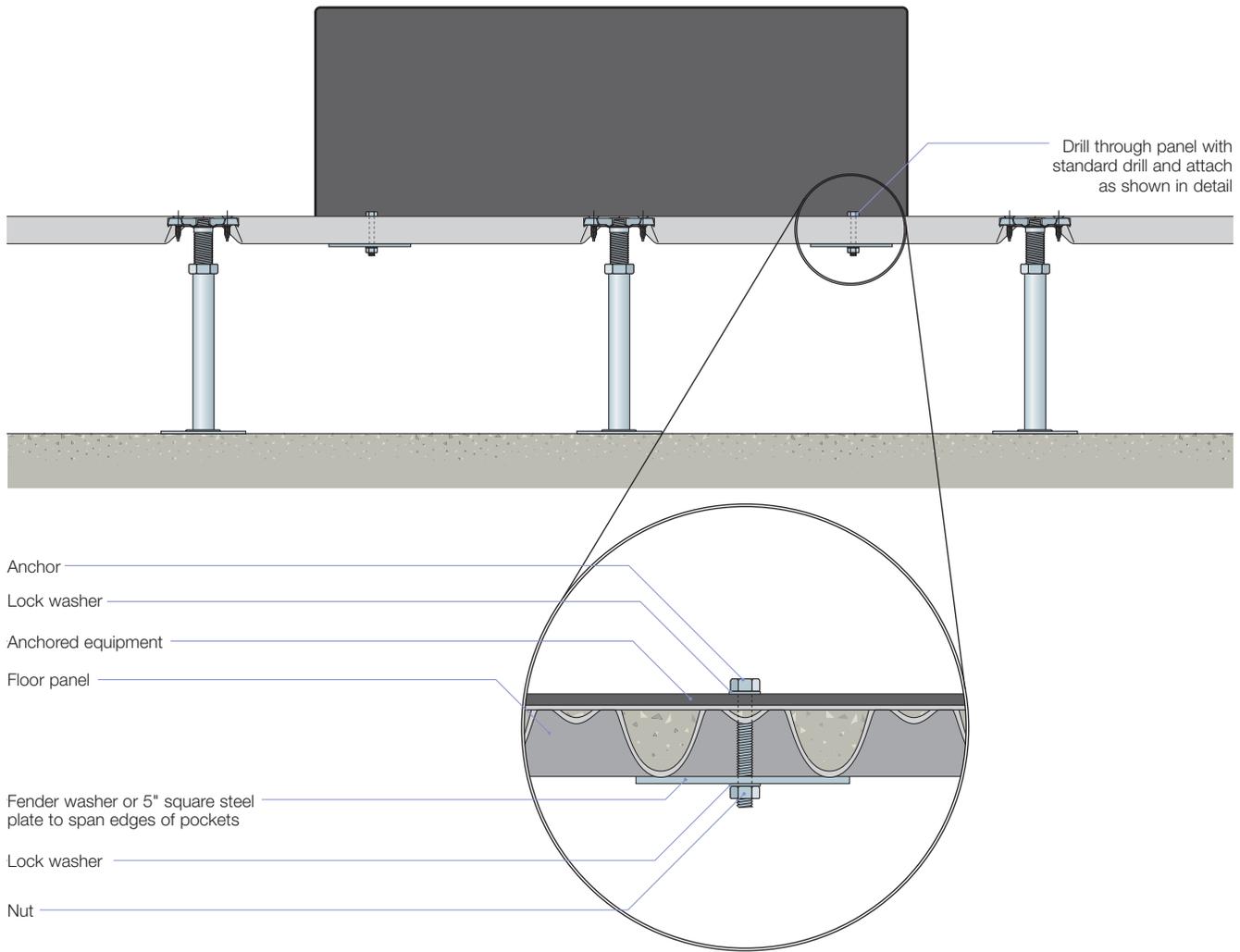
Steps

Note: Check local building codes to determine whether steps may be built with access floor materials. In some areas, unitized (preformed) steps may be required to comply. Tate does not provide one-unit step assemblies.

Recommendations for building steps with access floor materials

1. Limit the overall height of the step assembly to three risers.
2. The panels in the first and second steps should be attached to the subfloor with diagonal braces.
3. Keep the width of the assembly in two feet increments if possible to allow for uncut panels to be used (cut panels are inherently weaker).
4. Verify allowable step tread and riser dimensions with local code officials. As a guide, use a step tread of 12" and a riser height of 6". All risers should be the same height.
5. Cover treads with non-slip floor covering.

Mounting Equipment to Access Floor



Mounting Equipment to Subfloor

When it is necessary, to mount equipment to the access floor due to cantilevered loads, tall and narrow equipment, or other

situations which may cause equipment tip over concerns, consider the following methods for equipment tie down.

Hex head nut, washer, lock washer

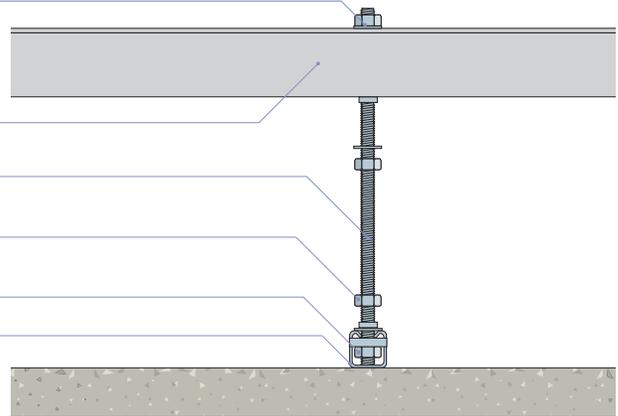
Access floor panel

Threaded rod / turnbuckle

Hex head nut, washer, lock washer

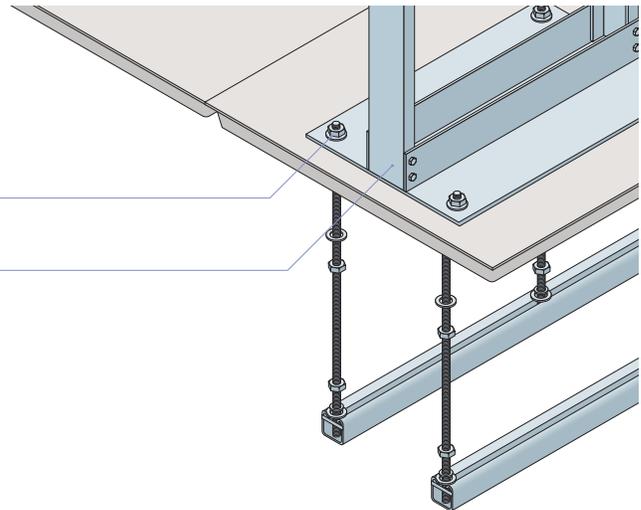
Spring nut

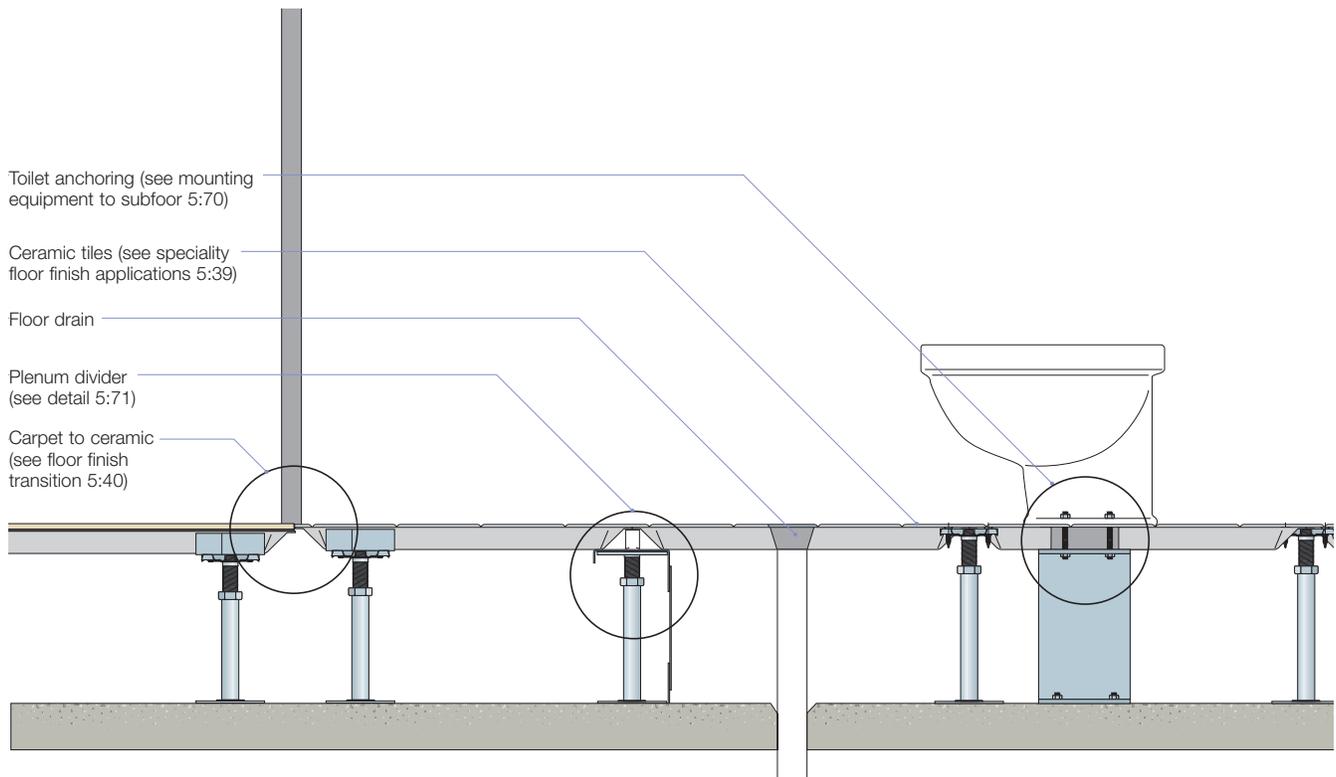
Unistrut mounted to subfloor per manufacturer's instructions



Drill hole and pass threaded rod through panel

Mounted equipment





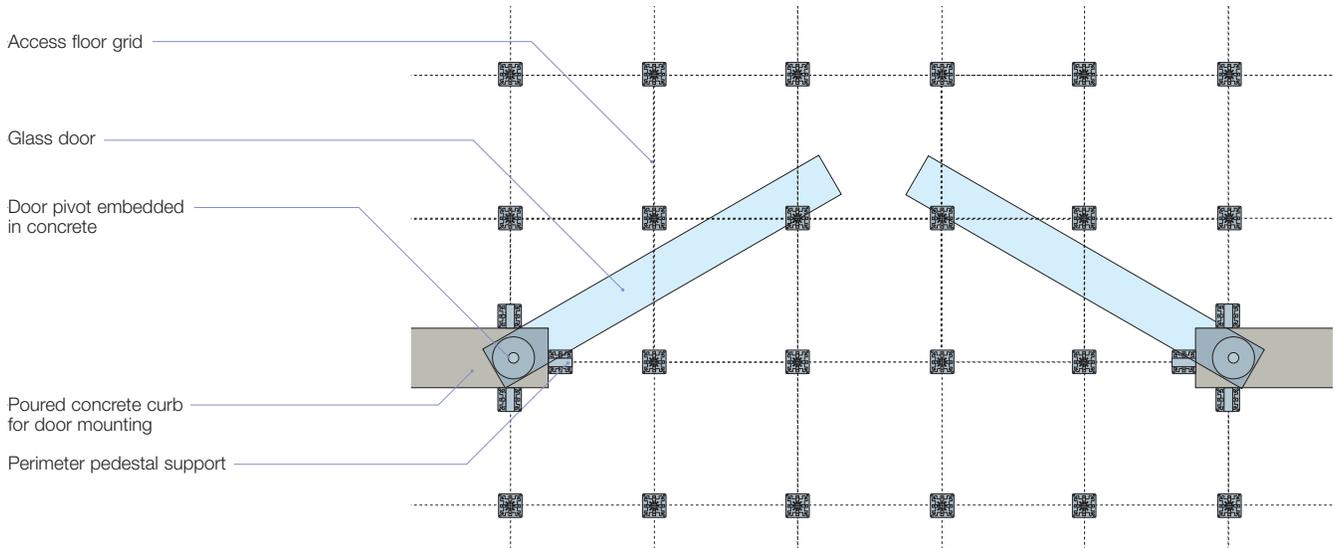
If there is a requirement to extend the access floor into the bathroom area, consideration needs to be given to the following:

- Access floor cavity plenum seal
- Mounting cantilever equipment such as toilets and sinks
- Waterproof flooring and drain
- Floor finish transitions

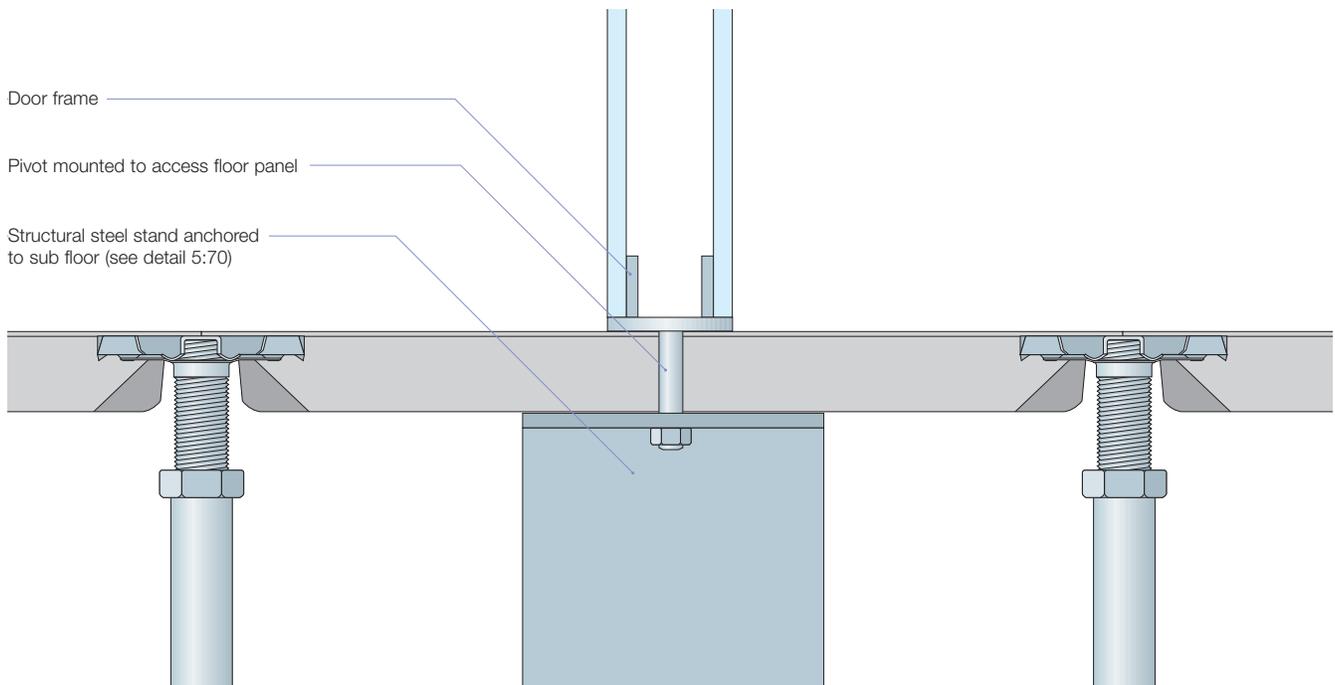
Details are provided herein for your consideration.

Access Floor Interface at Glass Door

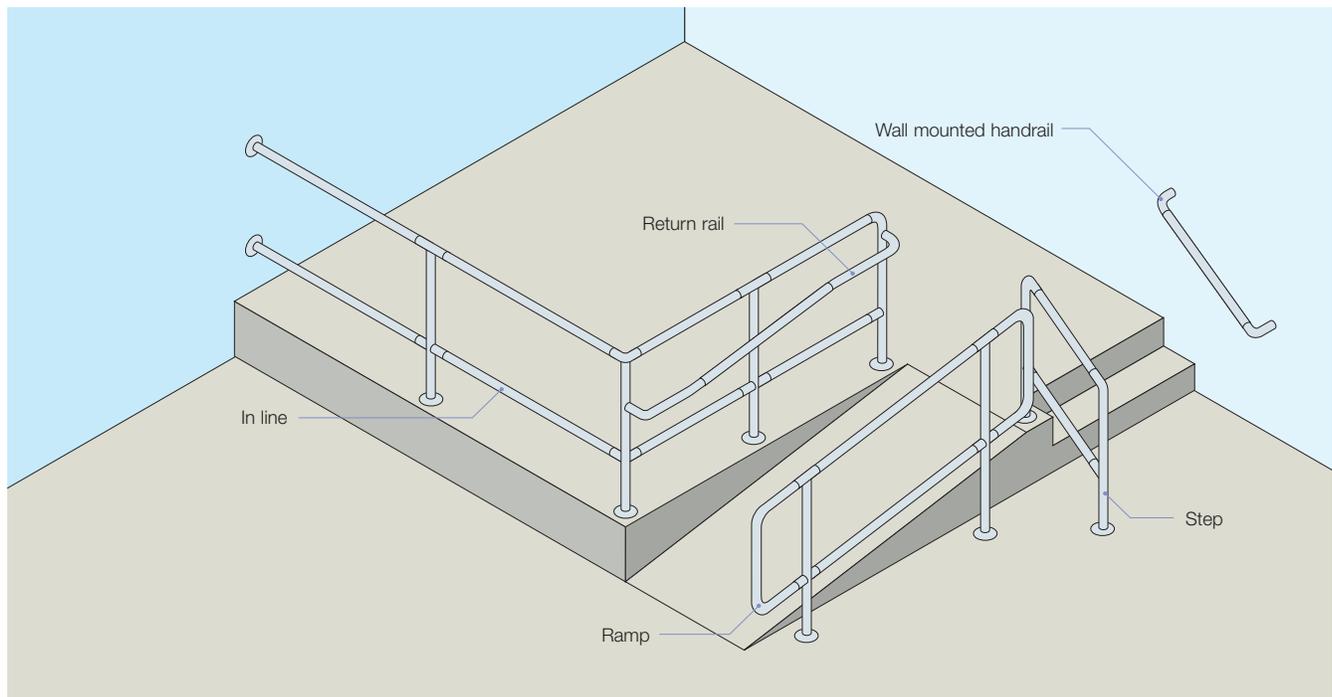
Option 1



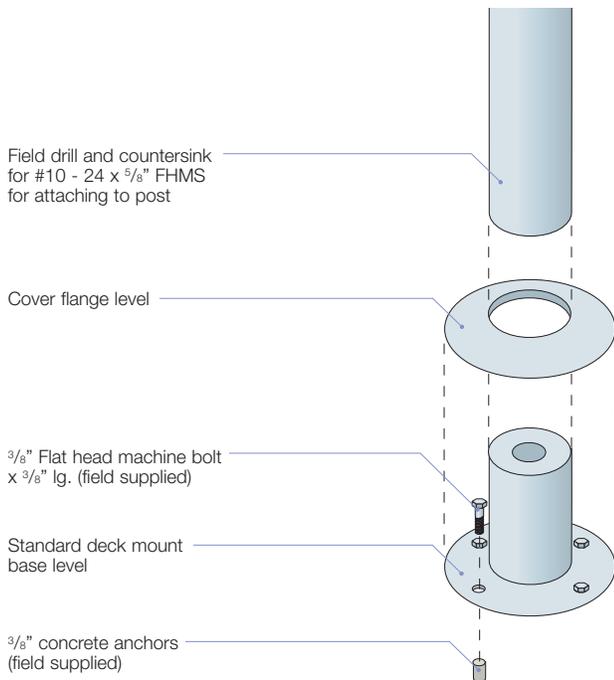
Option 2



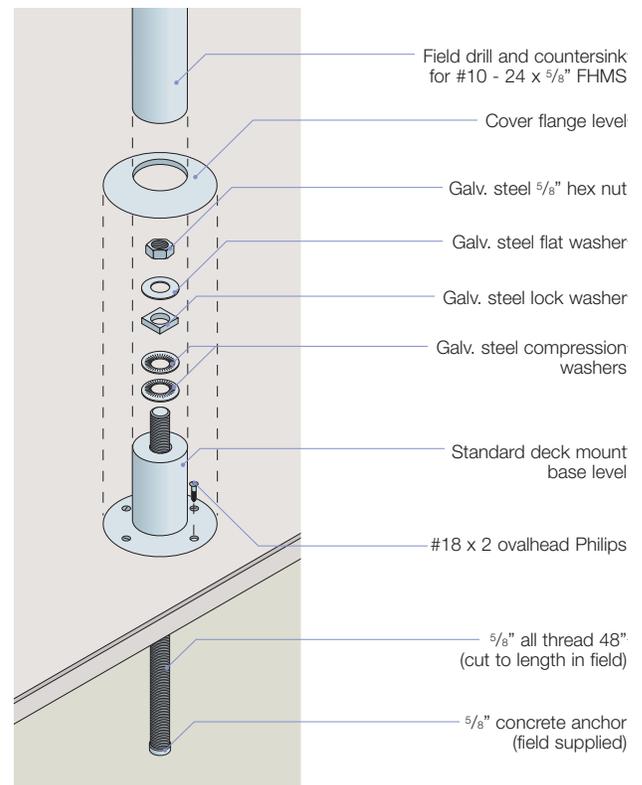
Handrail Assemblies



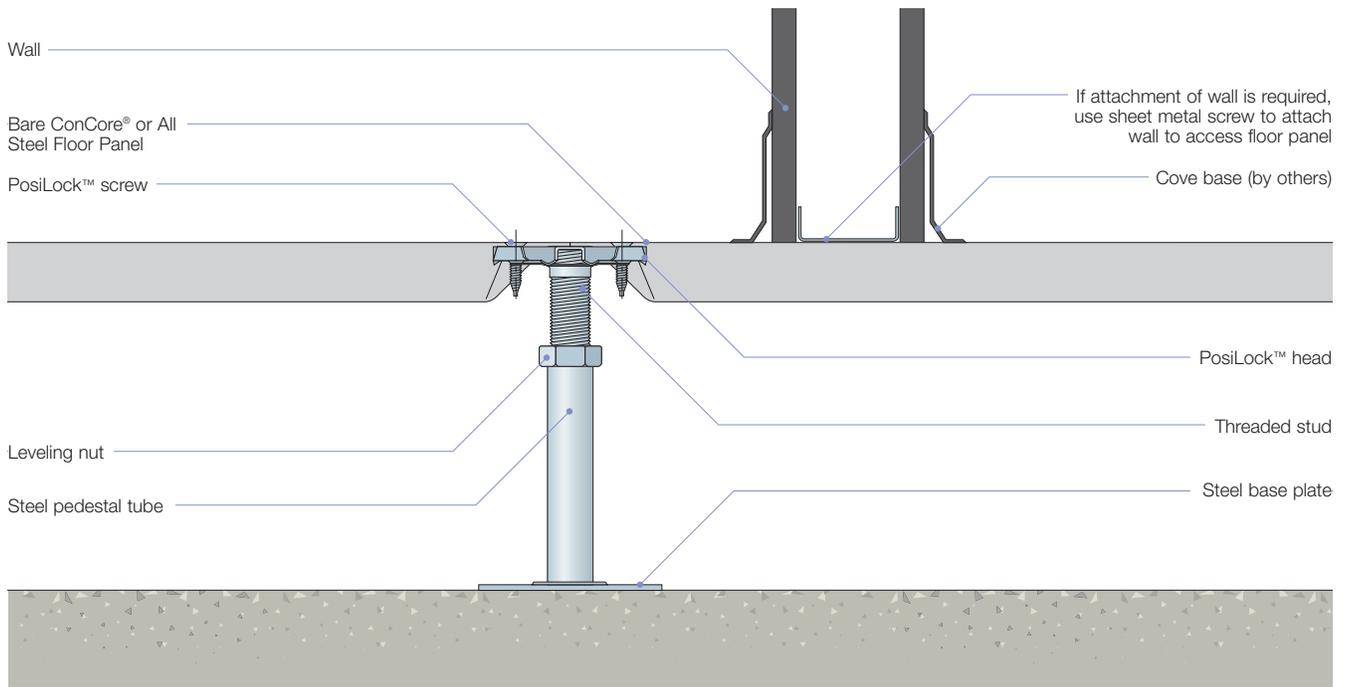
Post Mount at Subfloor



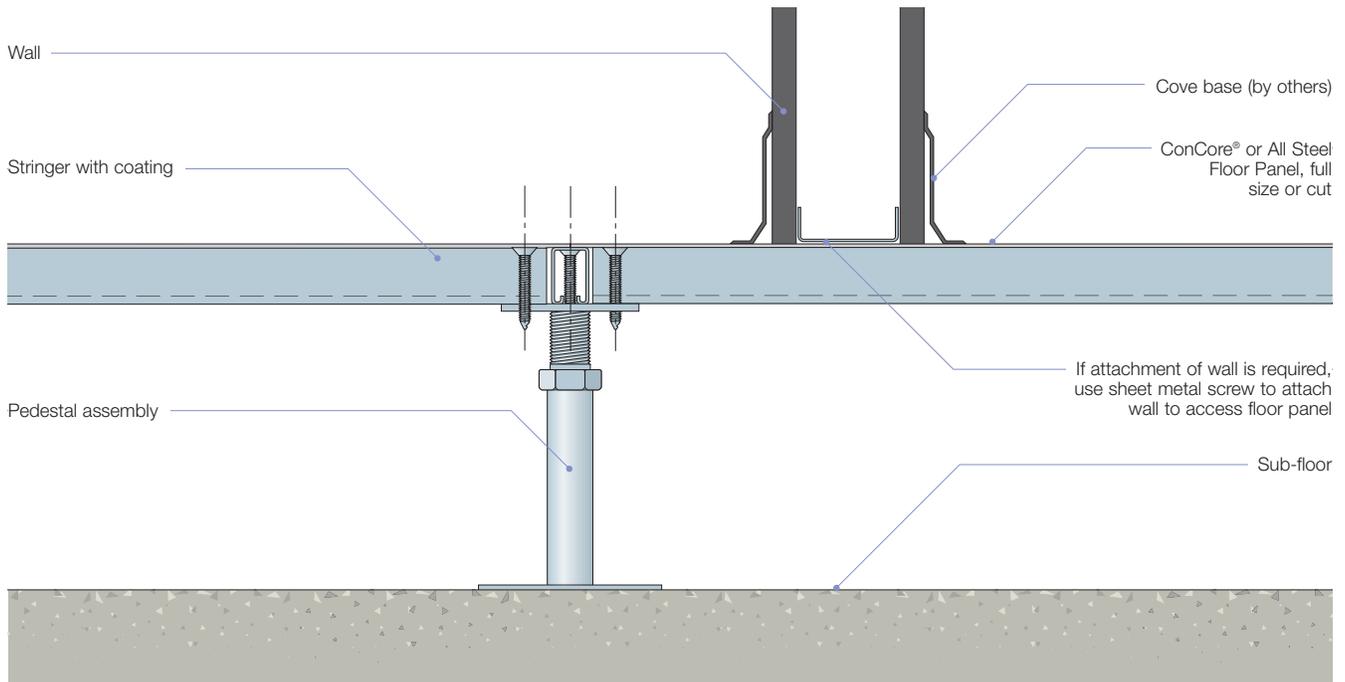
Post Mount at Access Floor



Posilock Understructure - Surface Wall Partition Detail



Bolted Stringer Understructure - Surface Wall Partition Detail



Air Leakage Definition and Significance

Air leakage is passage of pressurized air from an underfloor air supply cavity through elements other than the air diffusers. As test reports herein show, the volume of air that leaks between the panels in a bare raised floor will be reduced to exceptionally low levels by the application of overlapping carpet tiles or by the use of stringers lined with air-seal gaskets.

The cavity can leak air also at the access floor perimeter where walls and columns extend from the floor slab; and through wall and slab penetrations created for ducts, conduits and pipes. By utilizing the sealing methods detailed in this bulletin, leakage in these areas can be reduced to levels that will not affect temperature control or air distribution performance.

Elements of Air Leakage Control

Floor Panel Integrity

Floor panels need to be consistent in size and have straight edges to minimize panel seam leakage, and should therefore be the steel die-cut type. A system that relies upon heavy applications of carpet adhesive to fill large panel seams is not recommended, since this impedes panel removal and replacement.

Quality of Installation

The manufacturer's installation procedures must be followed to form the properly sized panel seams and thereby lessen leakage through the panel seams. Part 3 of Tate's Installation Manual: "Installation of the Field", provides procedures for installing a floor that is square, level and sufficiently tight.

And keep in mind that it is essential to hold other trade people working in the floor cavity responsible for maintaining the floor in its original condition during and after the installation.

Sealing of Construction Seams and Penetrations

Sealing of the perimeter where the access floor connects with walls and columns is crucial. The perimeter of a carpeted access floor can be sealed with snug-fitting perimeter panels, carpet extending completely to the wall, and wall base firmly pressed against the carpet. The perimeter of a floor without carpet can be caulked, gasketed or taped at the wall prior to installing wall base. All walls passing through the access floor must have drywall extending completely to the slab and be sealed at the slab line.

All utility penetrations through walls and slabs for plumbing, electricity and voice/data cabling must be sealed. This sealing

work should be performed by those who make the penetrations and inspected prior to installation of the access floor. Penetrations made after access floor installation must be sealed and inspected. For specifications and drawings on sealing of construction seams and penetrations, see pages 3-15.

Sealing of the Panel Seams

The seams between floor panels in a PosiLock or stringer system will automatically be sealed against leakage if overlapping carpet tiles are applied. In the case of a floor that will not be carpeted, a stringer system with air-seal gaskets applied to the stringers will seal the panel seams.

Laboratory Tests

Leakage through Panel Seams

The data in Table 1 was derived from laboratory tests with access floor mockups constructed to simulate normal field conditions with typical sized seams between panels. Leakage occurring at the perimeters of the mockups was measured and subtracted from the panel seam numbers. Slight variations in leak rates are possible when compared to actual installations due to variations of installation tightness.

Air Leakage through a Power, Voice & Data (PVD) Distribution Box

Installed in a Panel A test was conducted to determine the volume of air that would pass through a high capacity PVD box installed in a 10.5 inch-square cutout in a ConCore panel. The test panel was covered with a 24-inch commercial carpet tile having a cutout matching the panel cutout. The PVD receptacle plate was fitted with two duplexes; the voice/data plate was fitted with three steel interface plates each of which was fitted with two RJ-45 connectors. With the PVD installed in the test panel, all other seams in the mockup were sealed so that leakage would be confined to the area of the cutout and PVD assembly. The results are as follows:

Static Pressure	Leakage (CFM)
0.05 in. w.g.:	5.9
0.10 in. w.g.:	7.65

Laboratory test report is available through your distributor or by calling Tate's Technical Hotline @ 1-800-231-7788.

Table 1: Panel Seam Air Leakage Tests

Static Pressure (in. w.g.)	PosiLock™-Cornerlock Understructure System (CFM/ Sq. Ft.)			Bolted Stringer Understructure System with Stringer Gaskets (CFM/ Sq. Ft.)	
	Bare Panels	18-Inch Glue-Down Carpet Tiles ¹	PosiTile Carpet Tiles ²	Bare Panels Gravity-Held	Bare Panels Cornerlock ³
0.05	0.44	0.0	0.31	0.07	0.0
0.10	0.61	0.01	-----	0.11	0.0
Test Number	03-40-0357A	03-40-0357A	02-0010	05-40-0032A	03-40-0357B

Notes:

1. 18-inch carpet tiles overlapped floor panels to cover the seams and were adhered with a light application of releasable adhesive.
2. PosiTile carpet tiles are 24-inch tiles applied without adhesive and do not overlap the panel seams, but precisely match the floor panels.
3. The combination bolted stringer & cornerlocked panel system was utilized.
4. Laboratory test reports are available through your distributor or by calling Tate's Technical Hotline @ 1-800-231-7788.

Method of Commissioning Test

The data derived in this test is used to calculate the maximum construction leakage and determines how much air is lost to leakage by the duct and air supply cavity. A good system will leak no more than 10-15% of the total volume of air forced into the cavity, while a marginal system may leak up to 20-25%. If leakage is beyond 25%, the cavity should be repaired to yield leakage of no more than 25%.

The floor cavity should be tested in its completed condition after all perimeter seams and penetrations in the access floor, subfloor and walls have been sealed. If the floor is slated to have a carpet covering, it should be installed in the intended manner of application. All diffusers should be covered and sealed with self-adhesive protective sheets (or blank panels temporarily installed in their place). All panels and closures must be in place. Check all duct access doors for tight fit and closure.

With the diffusers sealed, the system shall be brought to normal working pressure -- typically .05 to .10 inches w.g. in the plenum. The airflow of the supply fan system is measured by the air balance personnel and compared to maximum delivery volumes. The test volumes are recorded in the commissioning report. Any systems that demonstrate leakage/uncontrolled flow in excess of 25% design maximum should be corrected and retested.

Floor Cavity Sealing Specifications and Drawings

To ensure that the cavity construction seams and penetrations are properly sealed (before, during and after access floor construction) the initial contract documents should include specifications and details clearly indicating sealing requirements and areas of responsibility. We offer the following construction specifications and associated drawing details for your reference (see pages 22-23 for drawings, and see page 24 for a quick-reference diagram of common floor sealing locations).

Specification	Drawing Detail
Before the start of access floor construction, all slab-to-ceiling walls shall be sufficiently sealed at the floor slab-line as described below to maintain air tightness. All air duct, conduit, cabling and piping penetrations in the access floor cavity shall be sufficiently sealed as described below. The general contractor shall have the overall responsibility for meeting these requirements.	See Below
Where applicable, the carpet installer shall comply with the carpet installation requirements described below (carpet installer requirements are in italics).	See Below
Access floor seal at fascia/exposed edge: Precisely cut the fascia plate to meet the top edge of access floor, leaving no gaps. Apply metal tape over joint prior to application of carpet and angle trim. Secure fascia to access floor edge with angle trim.	Detail A
Perimeter seal at smooth walls and columns: Cut perimeter panels to fit within 1/16 inch or less of walls and columns. Carpet installer must ensure that carpet tiles fit snugly against all vertical surfaces. Finish all joints with wall base firmly pressed against carpet and access floor. For floors that will not be carpeted, follow specifications under "Perimeter seal at non-smooth walls and columns" and Detail C.	Detail B
Perimeter seal at non-smooth walls and columns: Where wavy/rugged surfaces prohibit perimeter panels from fitting uniformly close to the surface or where carpet will not be applied: Option 1: attach self-stick foam/rubber gasket to wall flush with surface of floor and press panels into gasket material. Option 2: install perimeter panels and fill joint with caulk/sealant prior to installation of carpet or wall base.	Detail C

Specification	Drawing Detail
Access floor seal at fire barrier below door threshold: Cut panels to fit within 1/16 inch of barrier. Options to seal joints: Option 1: cover joints between access floor panels and barrier by attaching threshold plate with gasket affixed to underside. Option 2: attach gasket to vertical surface of barrier flush with edge of floor and press panels into gasket material. Option 3: install panels and fill joint between floor panels and barrier with fire-rated caulk/sealant.	Detail D
Fire wall seal at access floor: Cut perimeter panels to fit within 1/16 inch of walls. Carpet installer must ensure that carpet tiles fit snugly against all vertical surfaces. Finish joint with wall base firmly pressed against carpet and access floor. For floors that will not be carpeted, follow specifications under "Perimeter seal at non-smooth walls and columns" and Detail C.	Detail E
Fire-wall seal at sub floor: Before the start of access floor construction, seal fire-wall along slab-line with fire-rated caulk/sealant that has rating equal to that of the wall assembly.	Detail E
Access floor seal at curb joint where floor covering is continuous from access floor to curb: Cut panels to fit within 1/16 inch (or less) of curb. If gap will be larger than 1/16 inch attach self-stick foam/rubber gasket to curb and press panels into gasket material. Overlap carpet or other tiles from access floor to curb.	Detail F
Access floor seal at curb joint where floor covering is not continuous from access floor to curb: Cut panels to fit within 1/16 inch (or less) of curb. If gap will be larger than 1/16 inch attach self-stick foam/rubber gasket to curb and press panels into gasket material. Bridge joint with transition strip or threshold.	Detail G

Specification

Drawing Detail

Cable cutout seal: Install manufacturer's trim for rectangular cable cutouts into panel cable openings and cut foam section to fit snugly into opening and support ledge.

Detail H

Fire wall seal at air duct, piping, conduit and cable penetrations: Cut openings into wall assemblies approximately equal to diameters of ducts, pipes or conduit / cable bundles passing through. Fill excess voids with firestop system materials to prevent passage of air. All excess voids must be sealed and inspected prior to installation of access floor whenever possible.

Details I, J, K

Plenum divider seal at air duct, piping, conduit and cable penetrations: Cut openings into divider approximately equal to diameters of ducts, pipes or conduit / cable bundles passing through. Seal excess opening areas with duct or metal tape, caulk or sealant to prevent passage of air. All excess openings must be sealed and inspected prior to installation of access floor whenever possible.

Details I, J, K

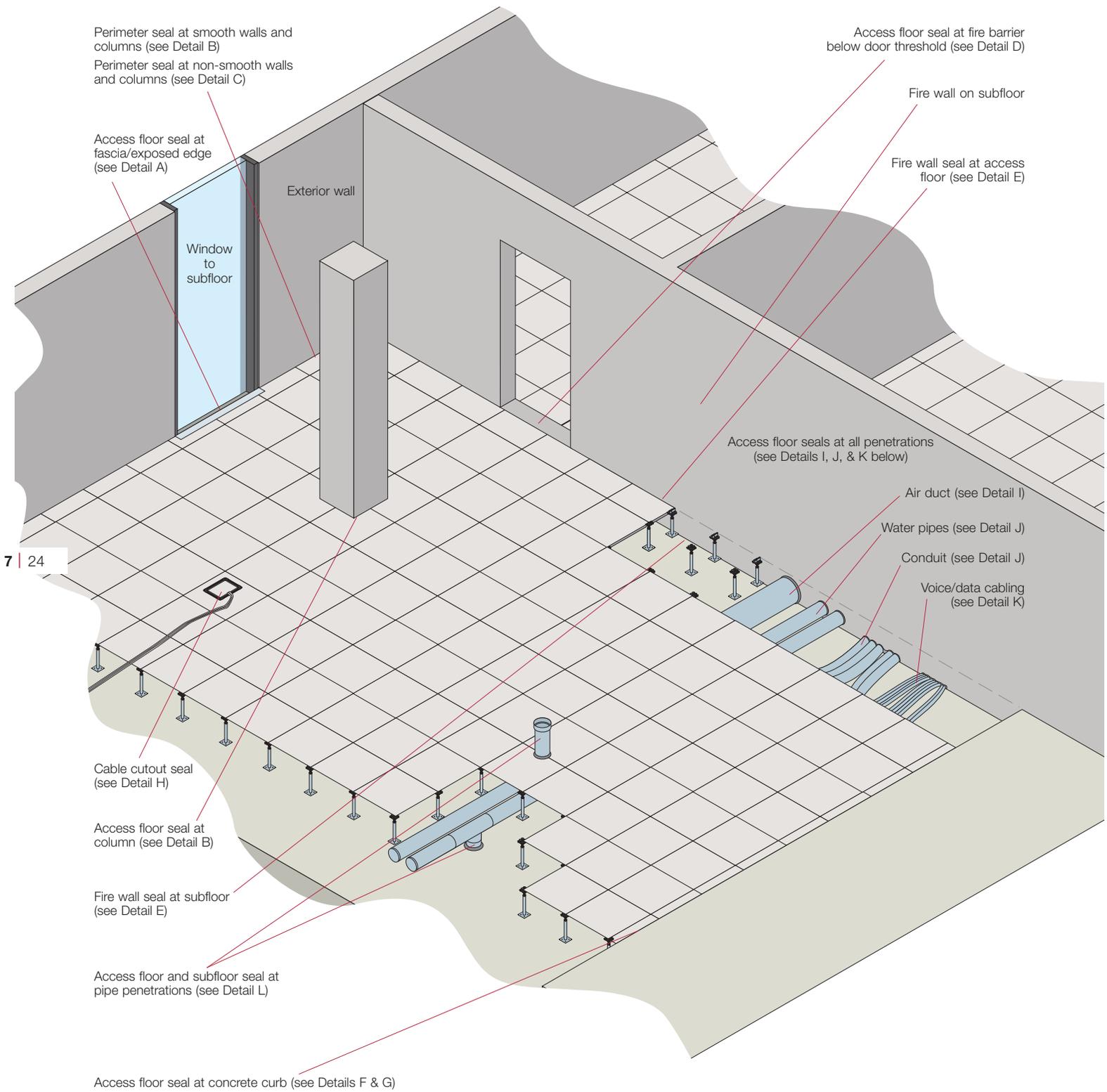
Access floor seal at piping penetrations: Cut openings into access floor approximately equal to diameters of pipes. Seal excess opening areas around piping passing through access floor surface with caulk or sealant to prevent passage of air. All excess openings must be sealed and inspected prior to installation of access floor whenever possible.

Detail L

Sub floor seal at piping penetrations: Fill excess voids or cavities around piping passing through sub floor with firestop system materials to prevent passage of air. All excess voids must be sealed and inspected prior to installation of access floor whenever possible.

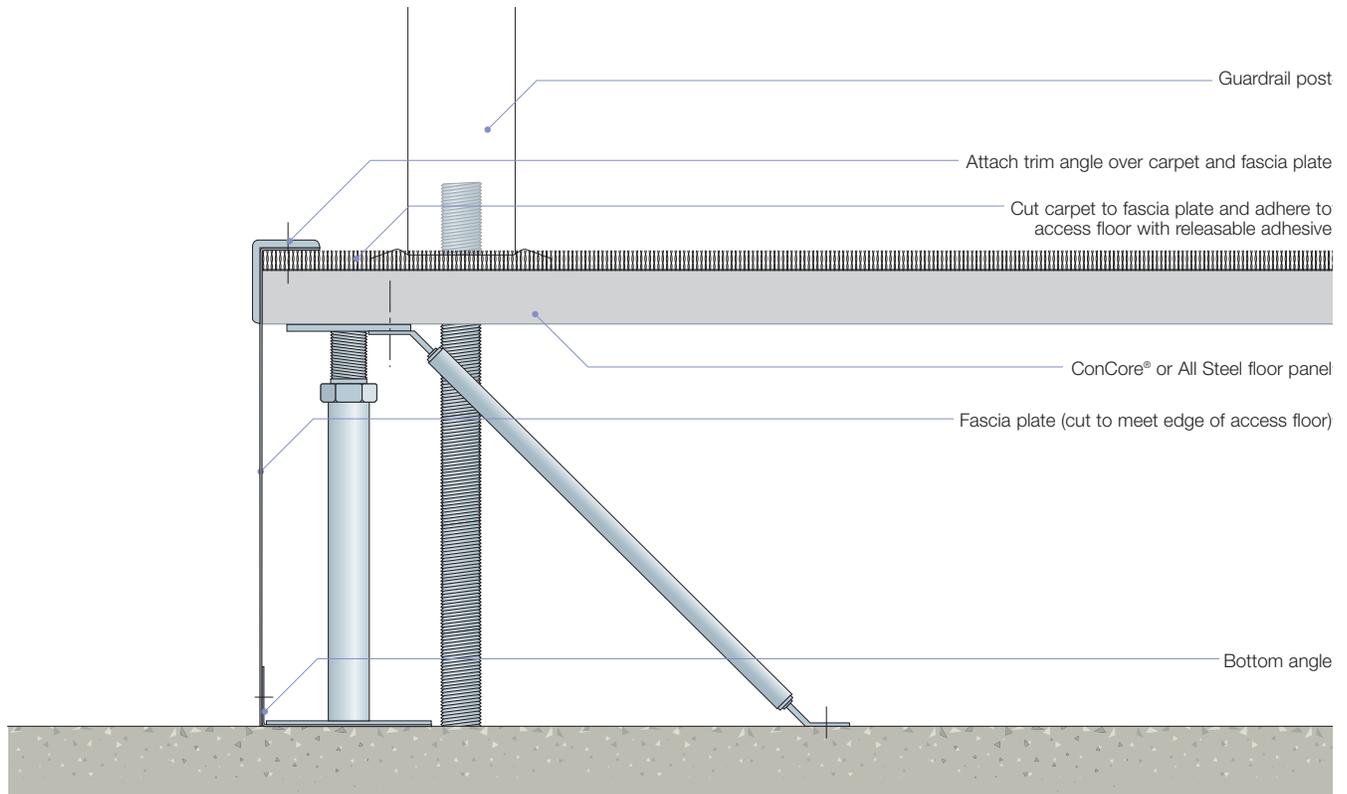
Detail L

Access Floor Air Cavity Sealing Locations



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Detail A: Access floor seal at fascia/exposed edge

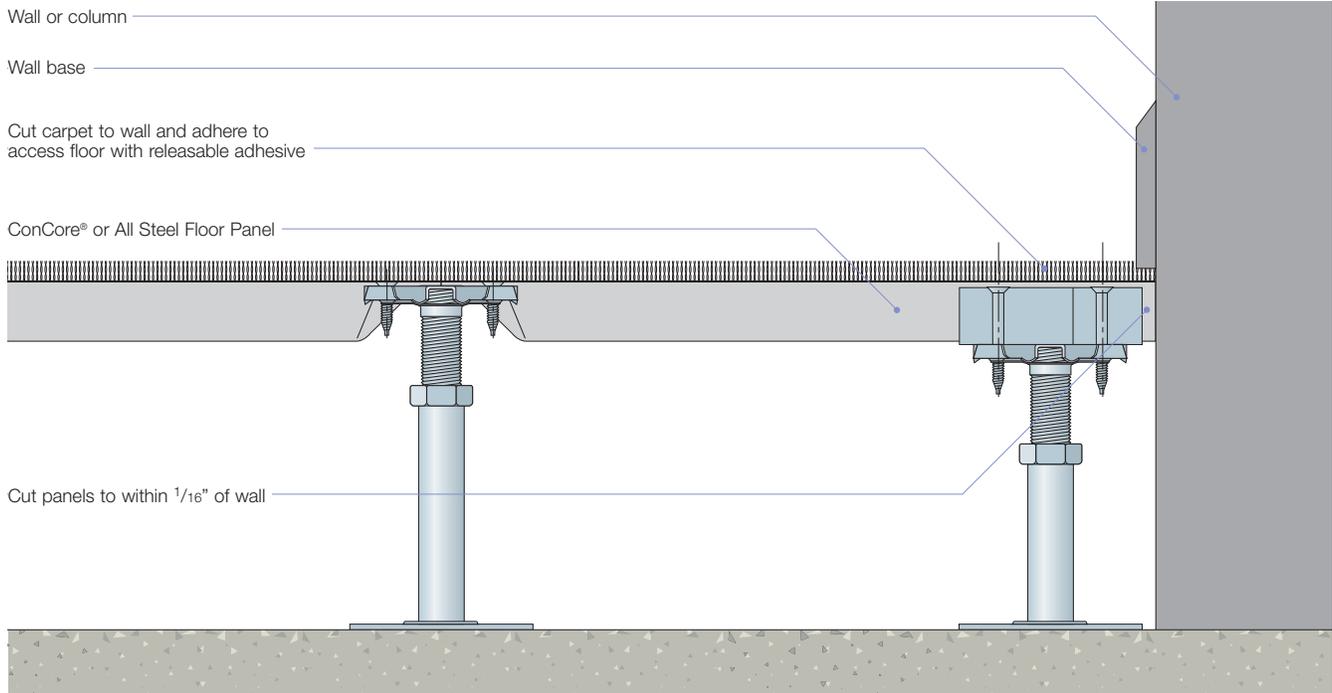


Where gaps occur between the edge of access floor and fascia:
apply duct or metal tape to seal joint prior to application of
carpet.

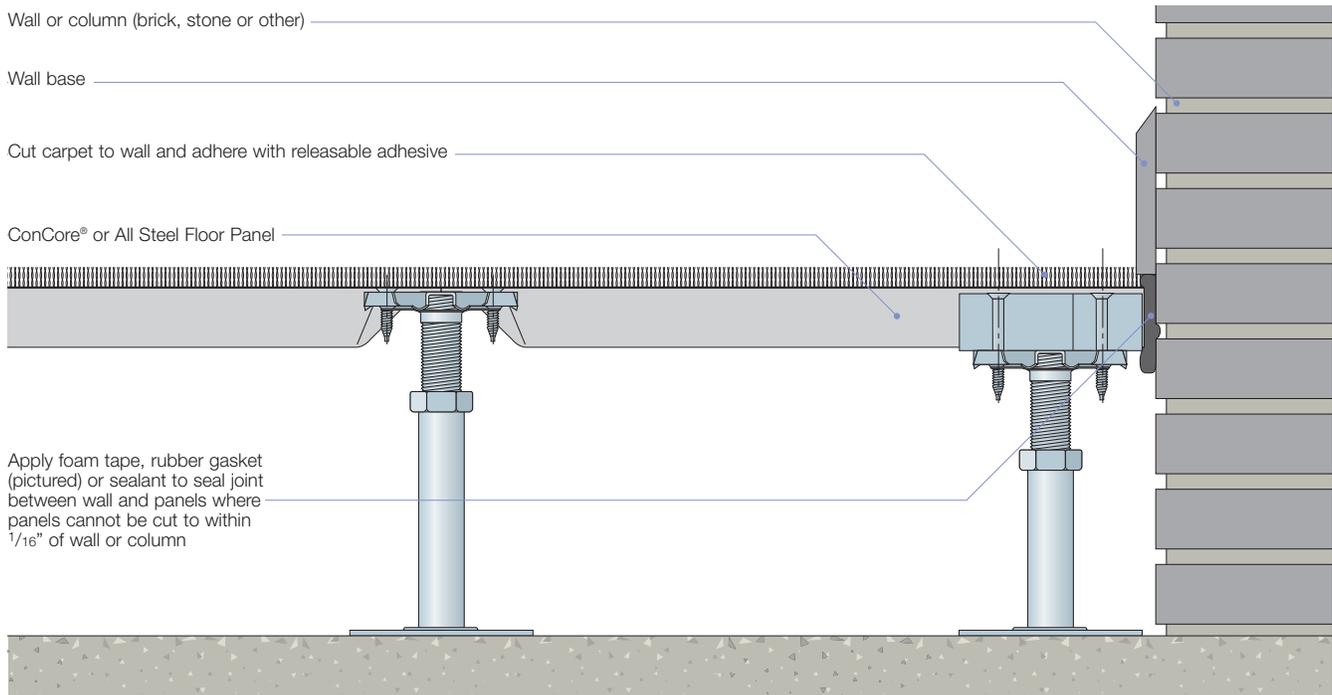
Access Floor Air Cavity Seals

Access Floor Seal at Walls and Columns

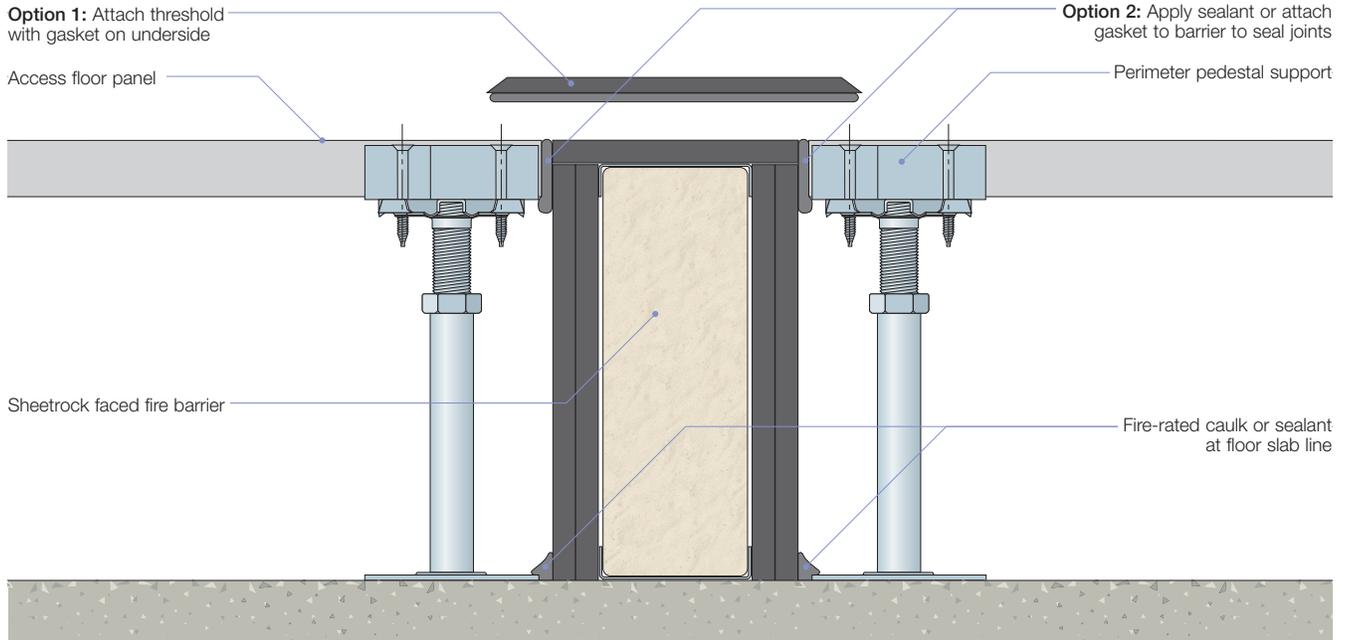
Detail B: Perimeter seal at smooth walls and columns



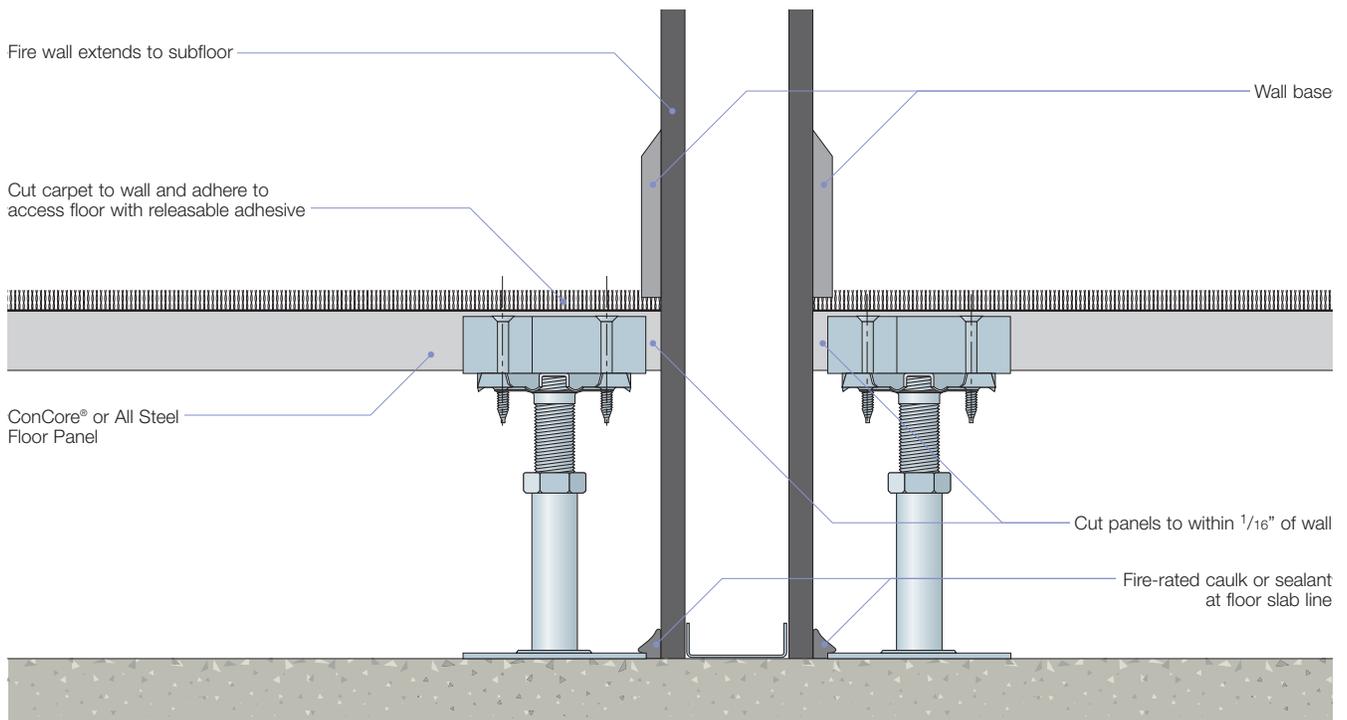
Detail C: Perimeter seal at non-smooth walls and columns



Detail D: Access floor seal at fire barrier below door threshold

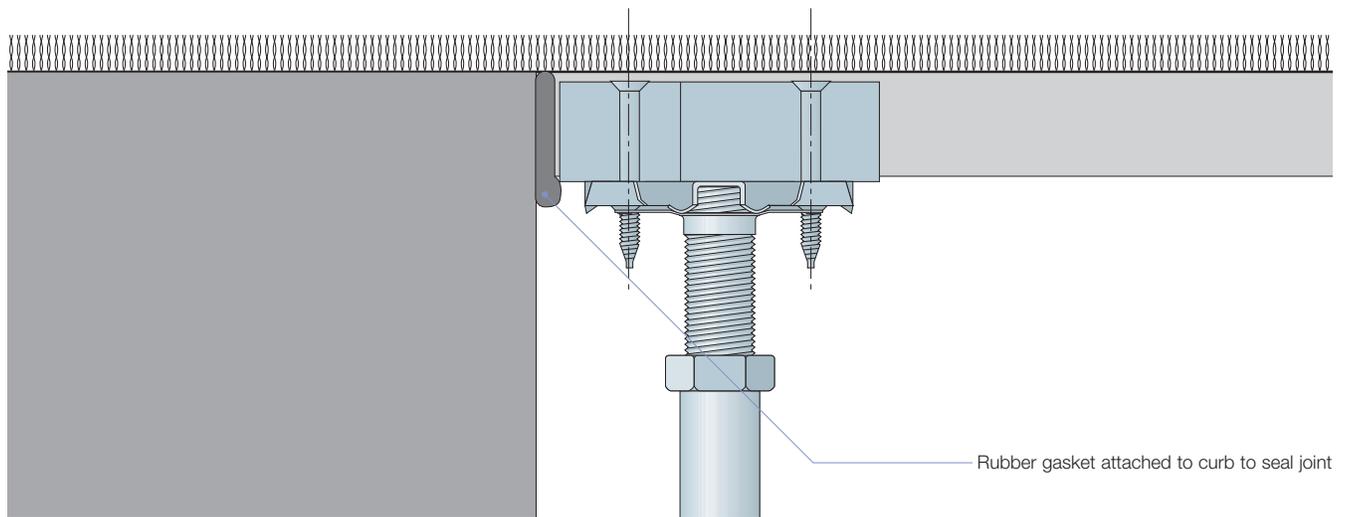
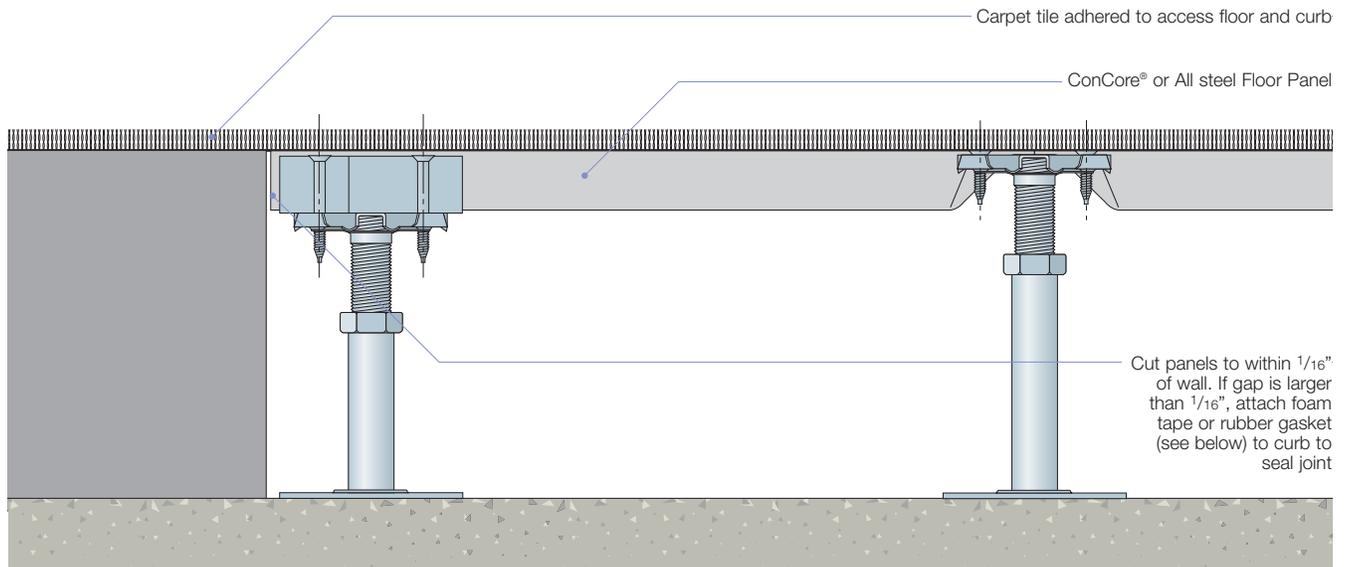


Detail E: Fire wall seals at access floor and subfloor



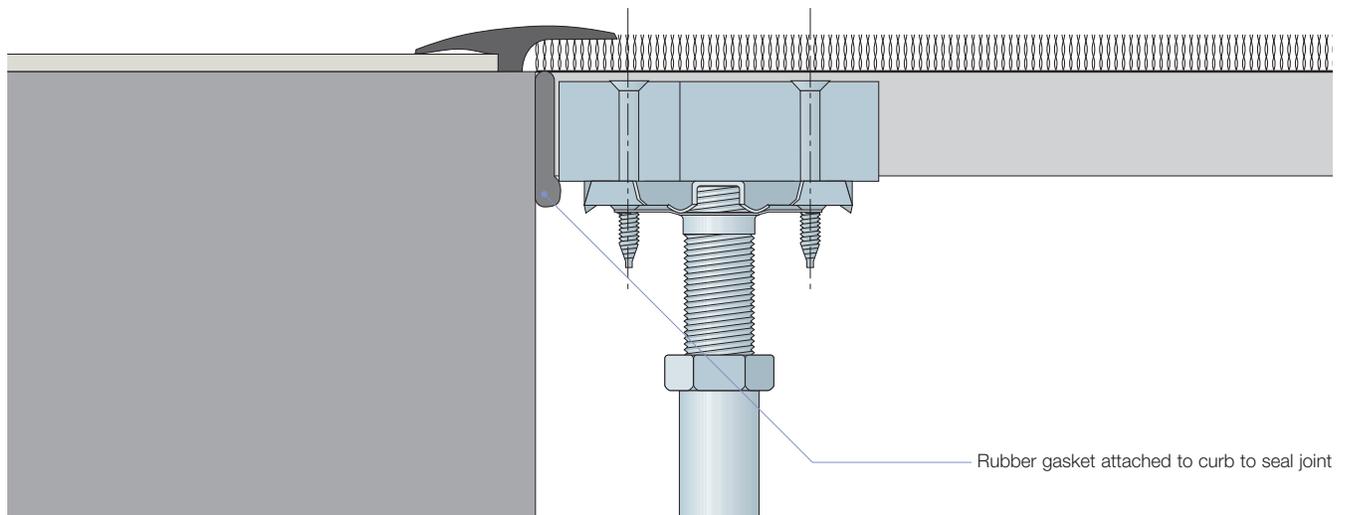
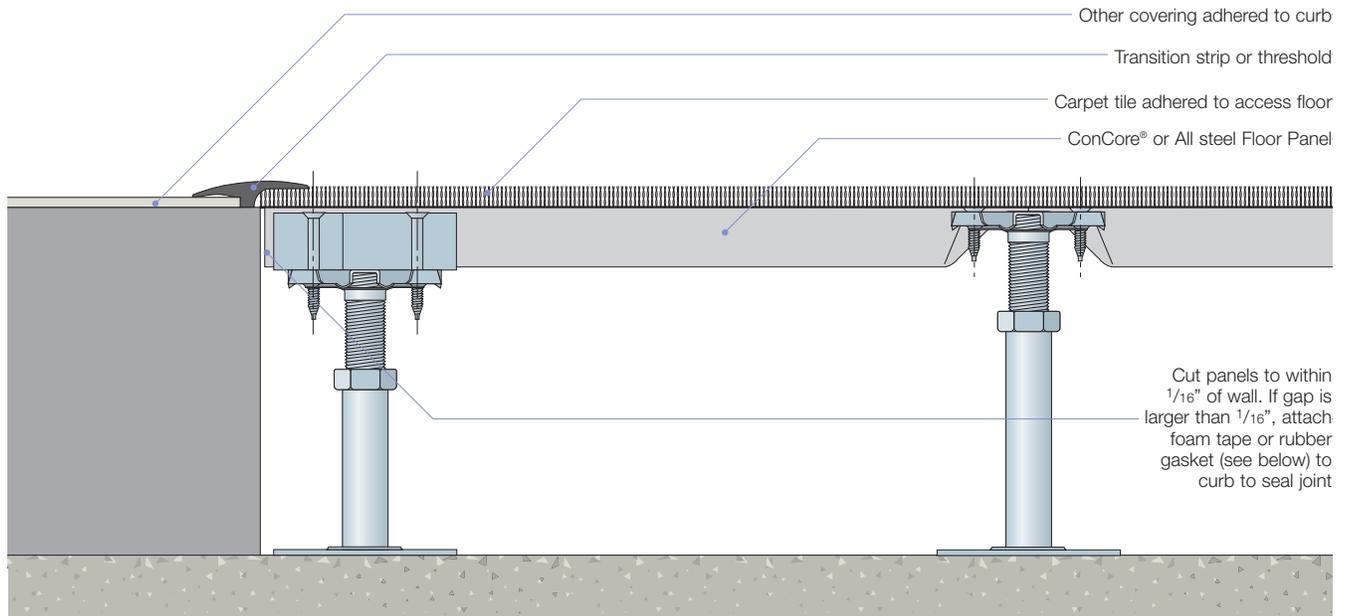
Detail F: Access floor seal at curb

- Continuous floor covering from access floor to curb



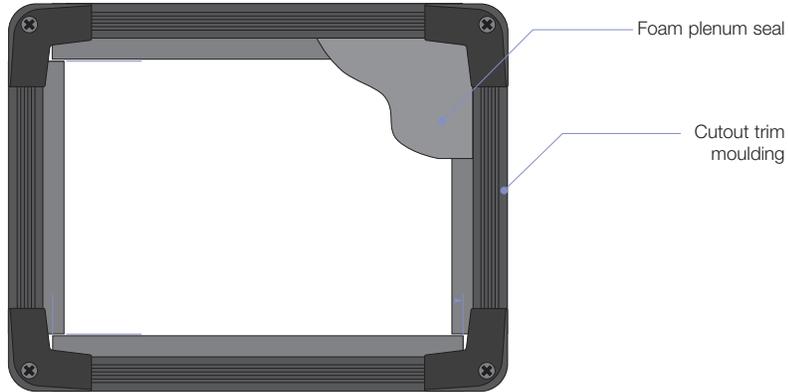
Detail G: Access floor seal at curb

- Non-continuous floor covering from access floor to curb

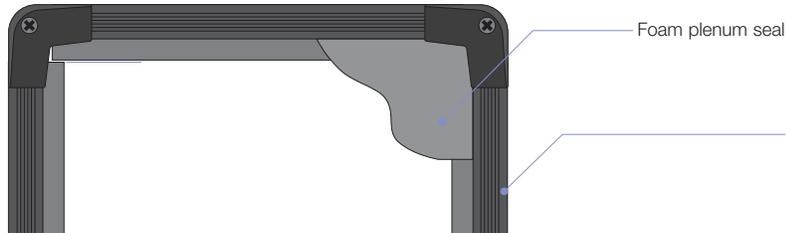


Detail H: Cable cutout seal Assembly

Plan View



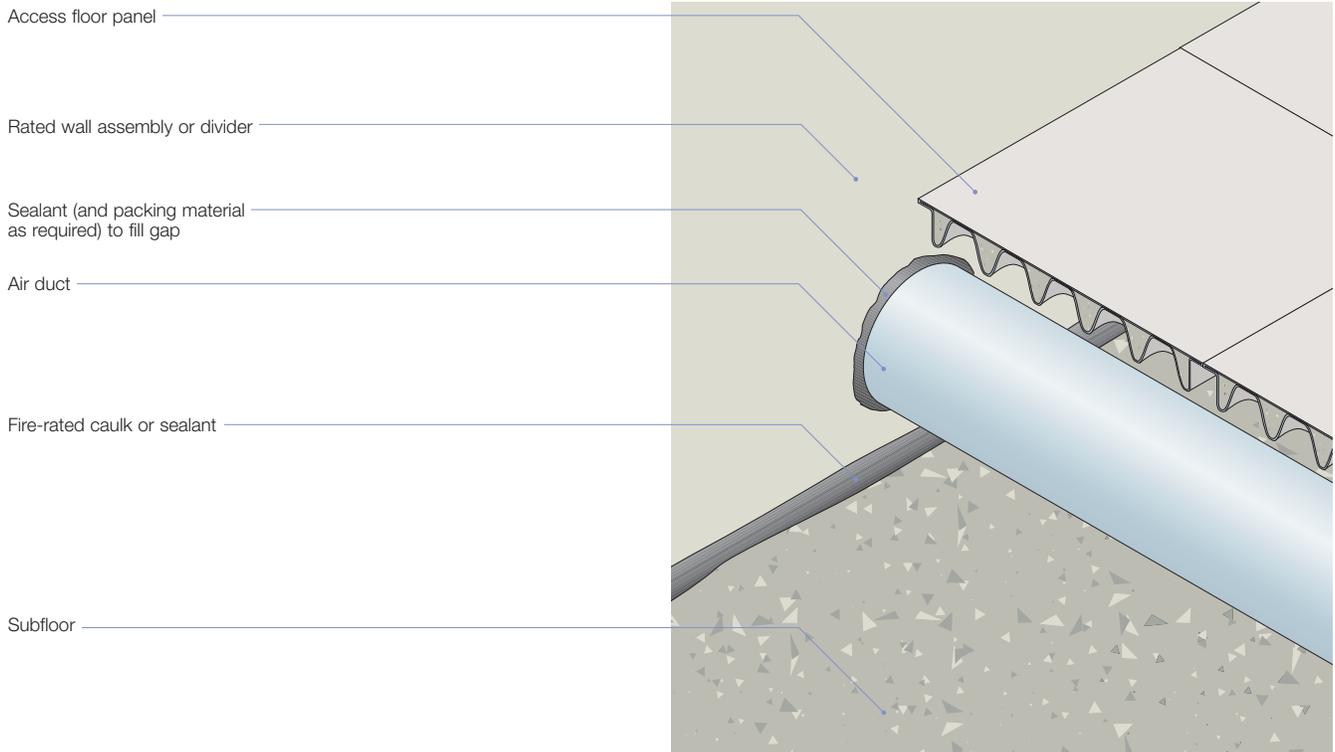
Section through Cutout



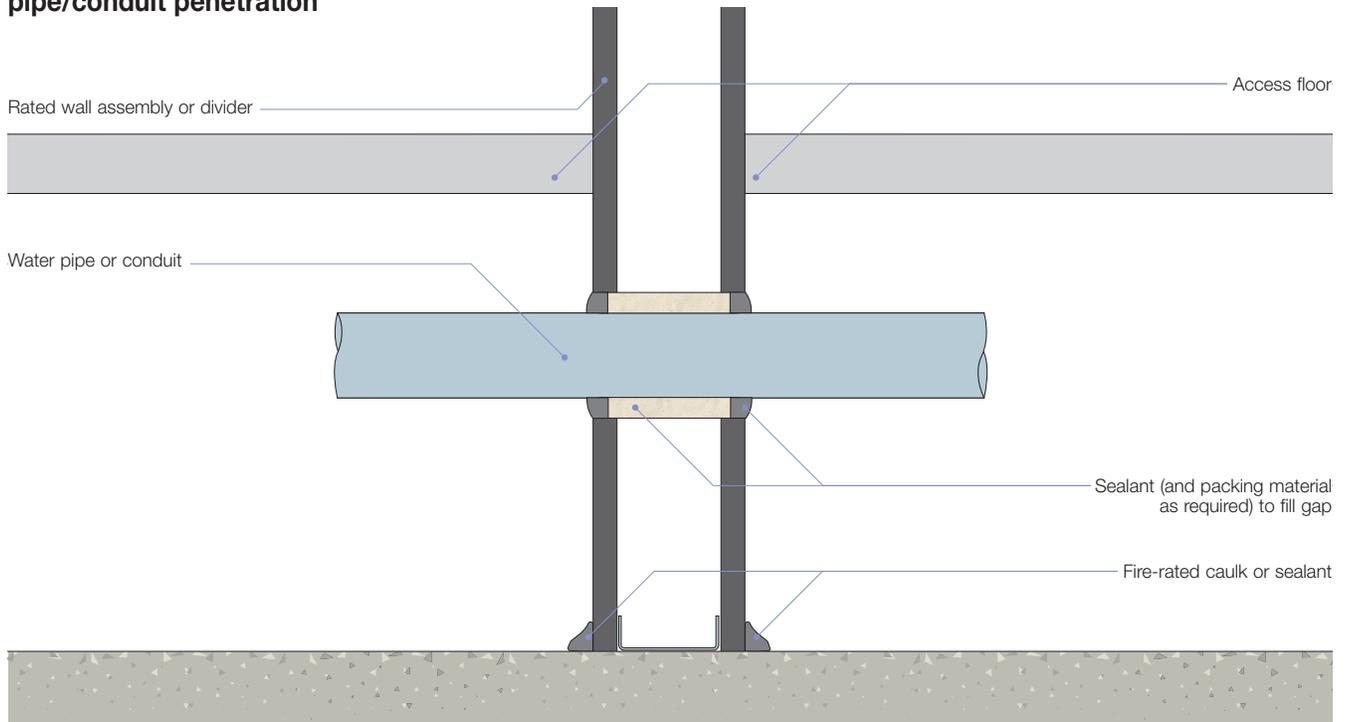
Foam Plenum Seals

These are provided by the access floor manufacturer and are recommended to seal cable openings.

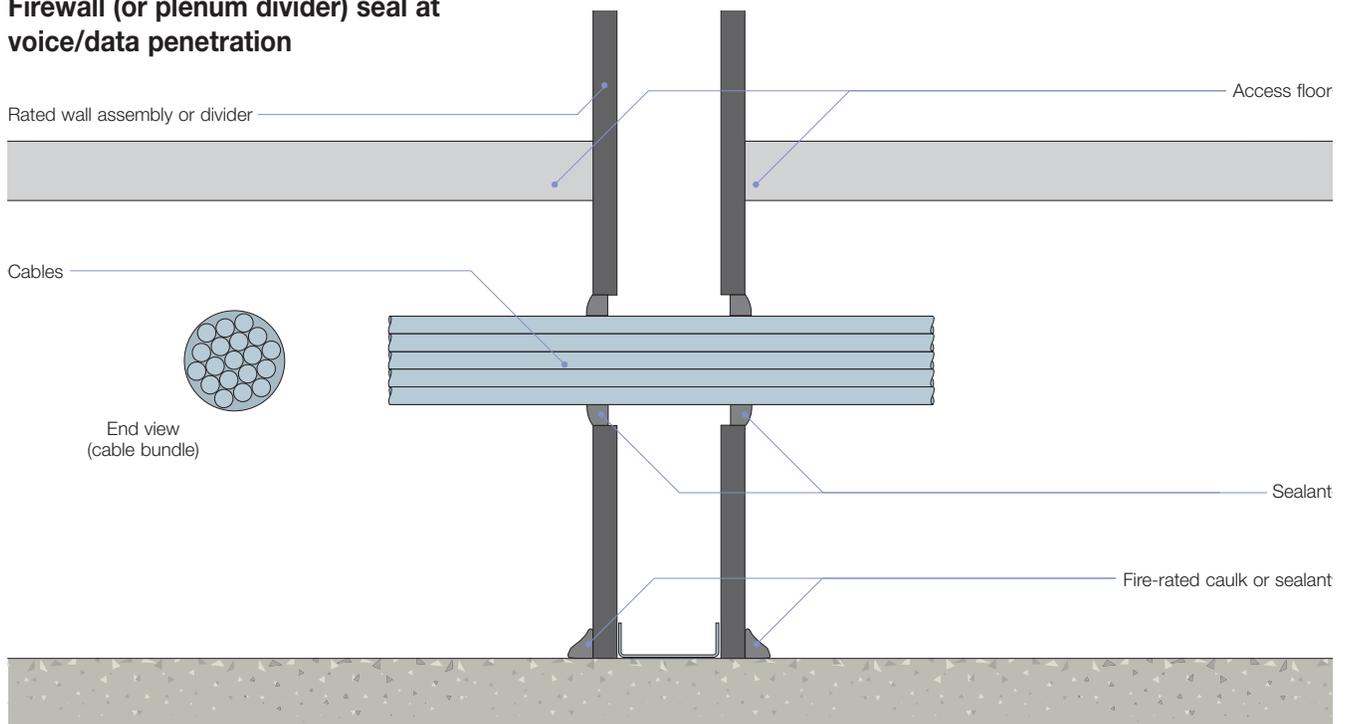
**Detail I:
Firewall (or plenum divider) seal at air duct
penetration**



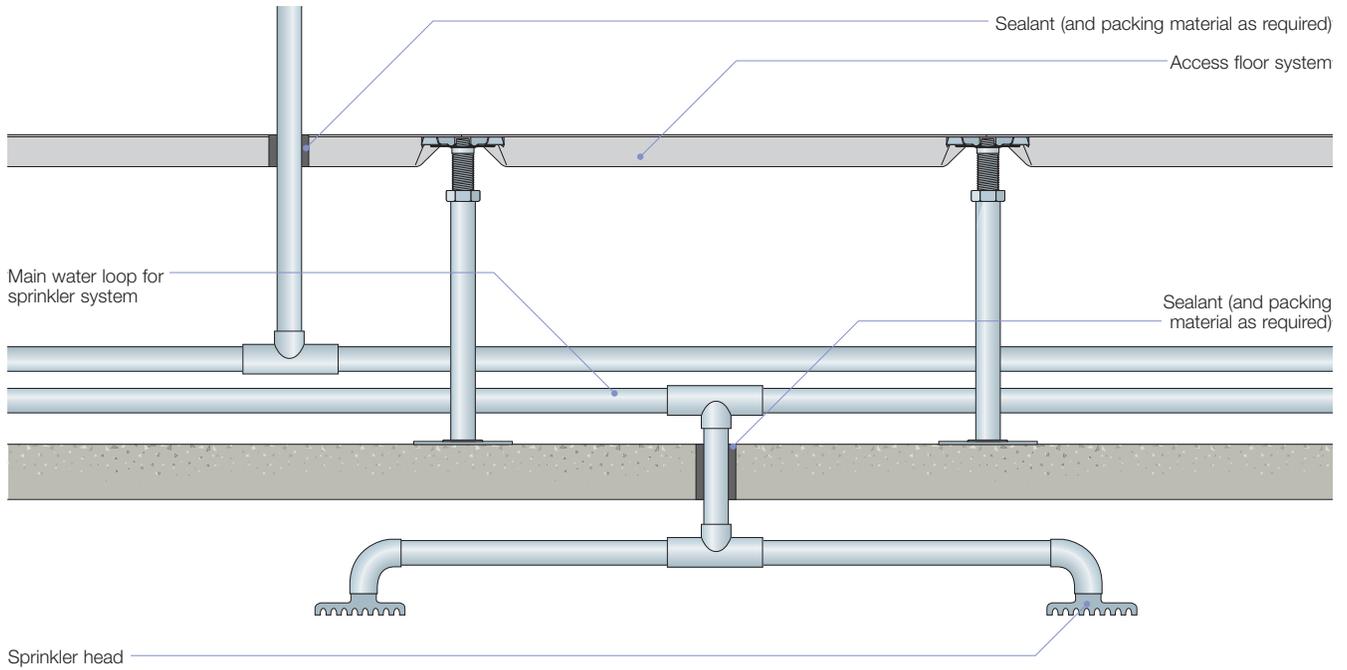
Detail J: Firewall (or plenum divider) seal at water pipe/conduit penetration



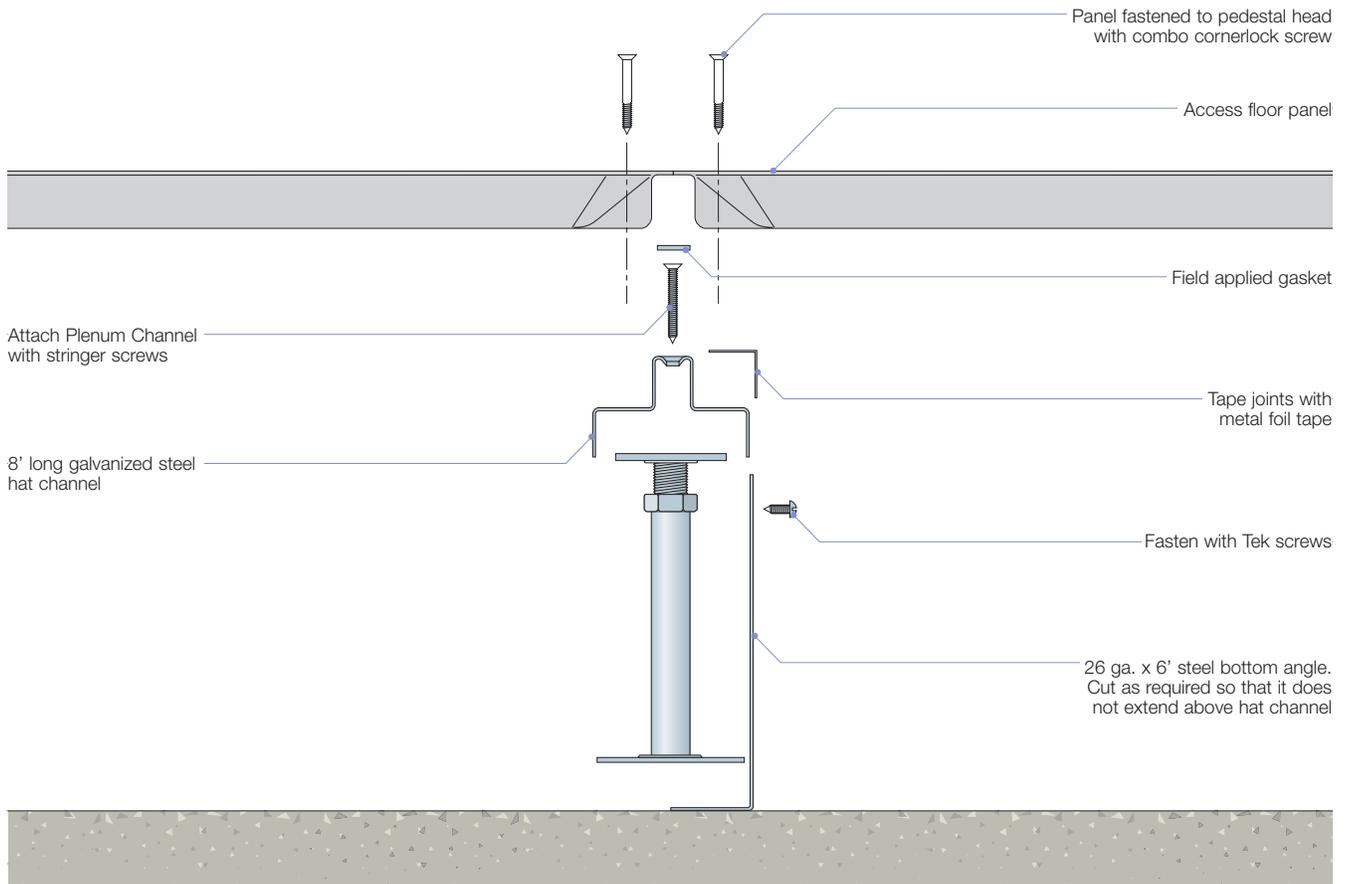
Detail K: Firewall (or plenum divider) seal at voice/data penetration



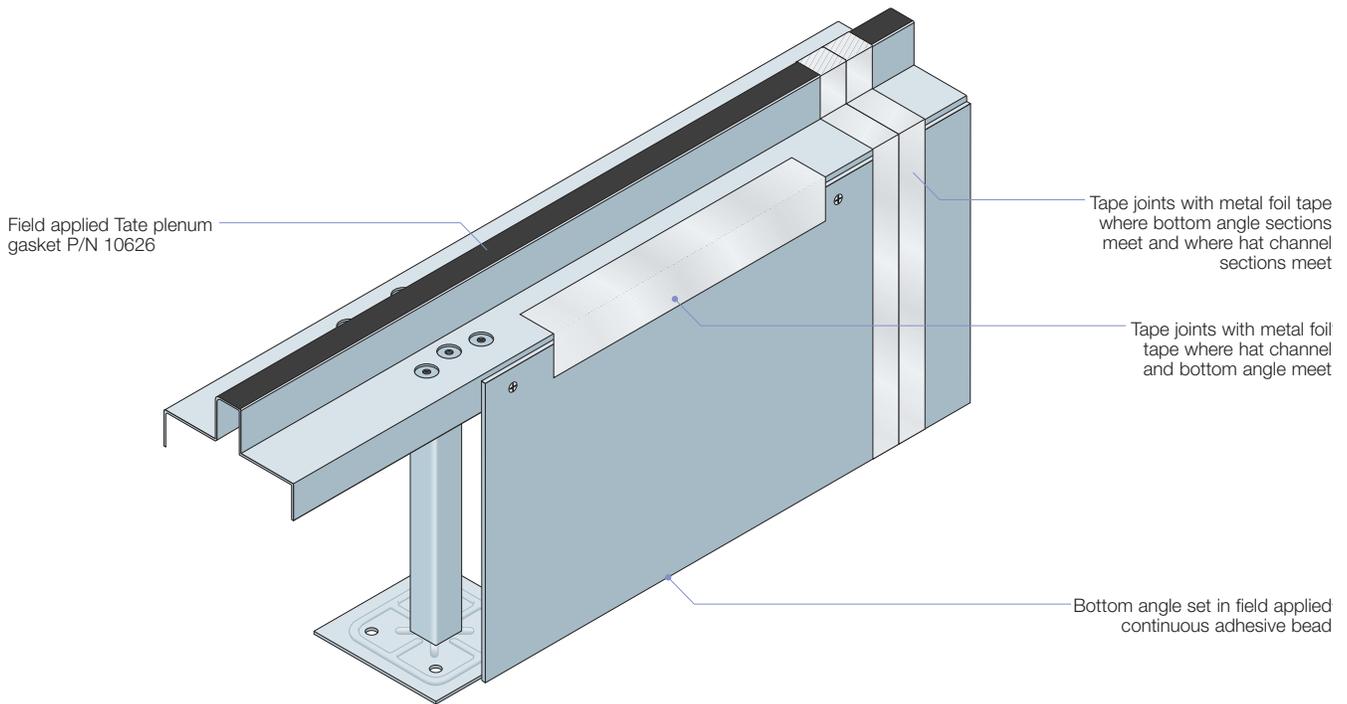
Detail L: Access floor/subfloor seal at pipe penetrations



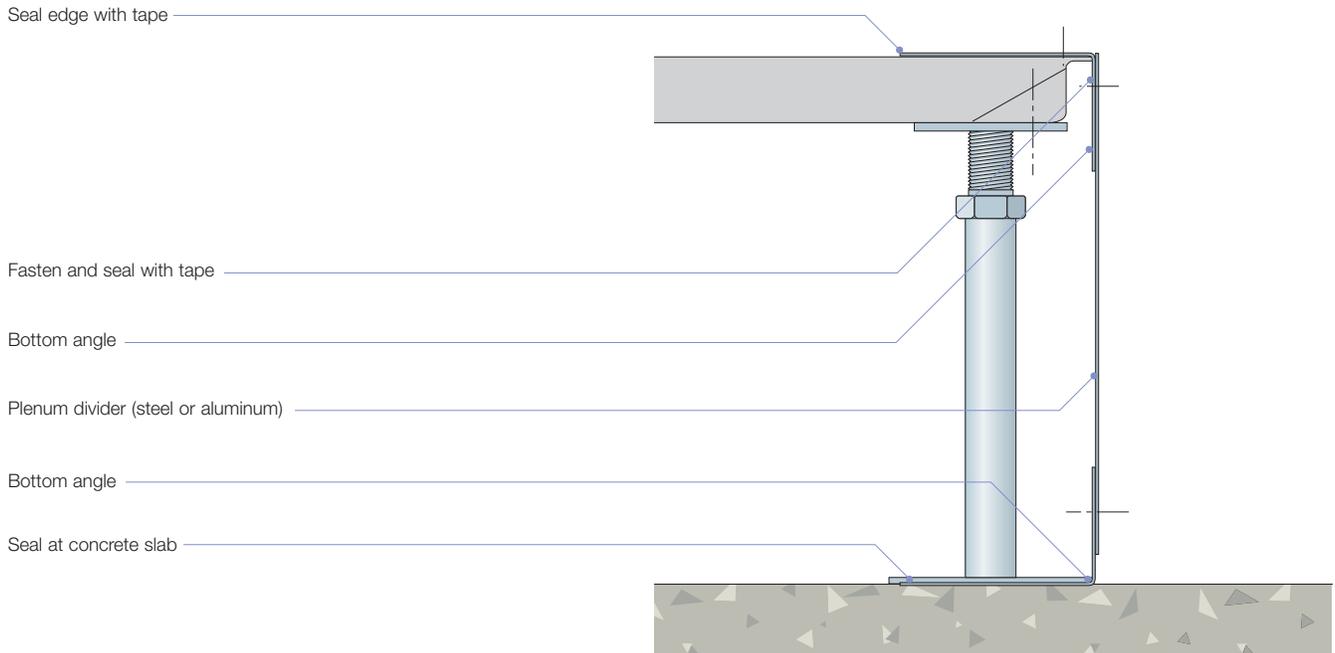
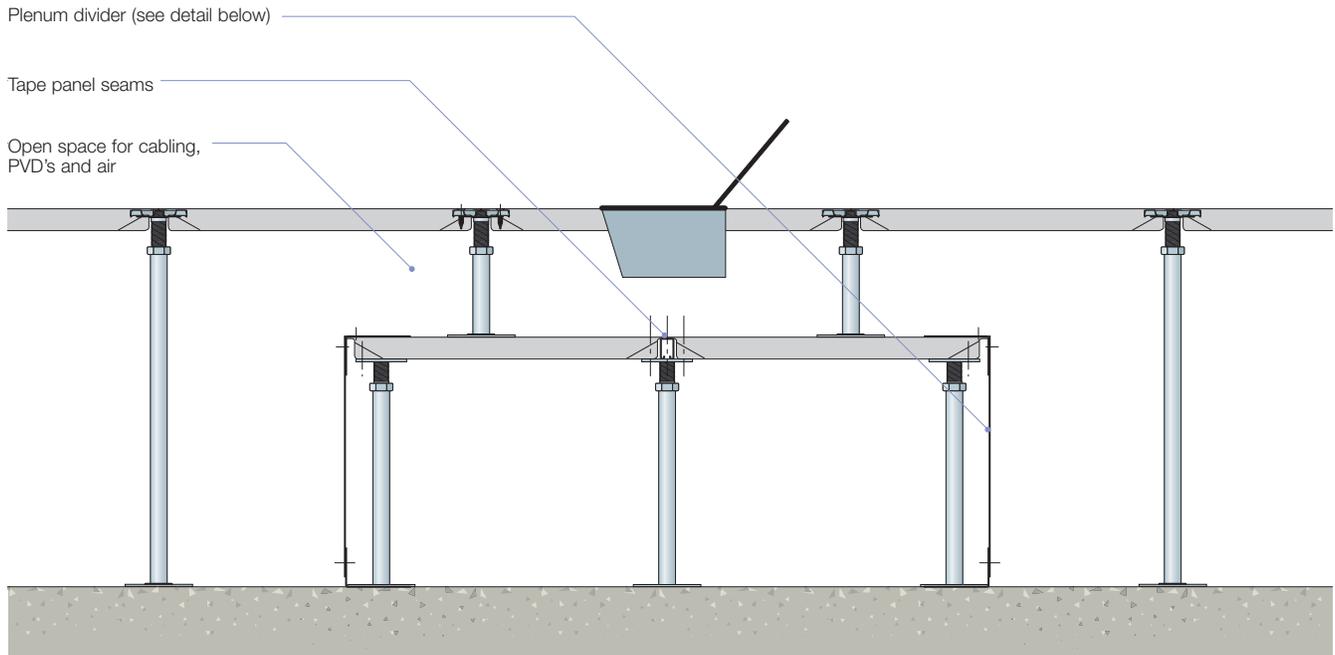
Plenum Divider Detail



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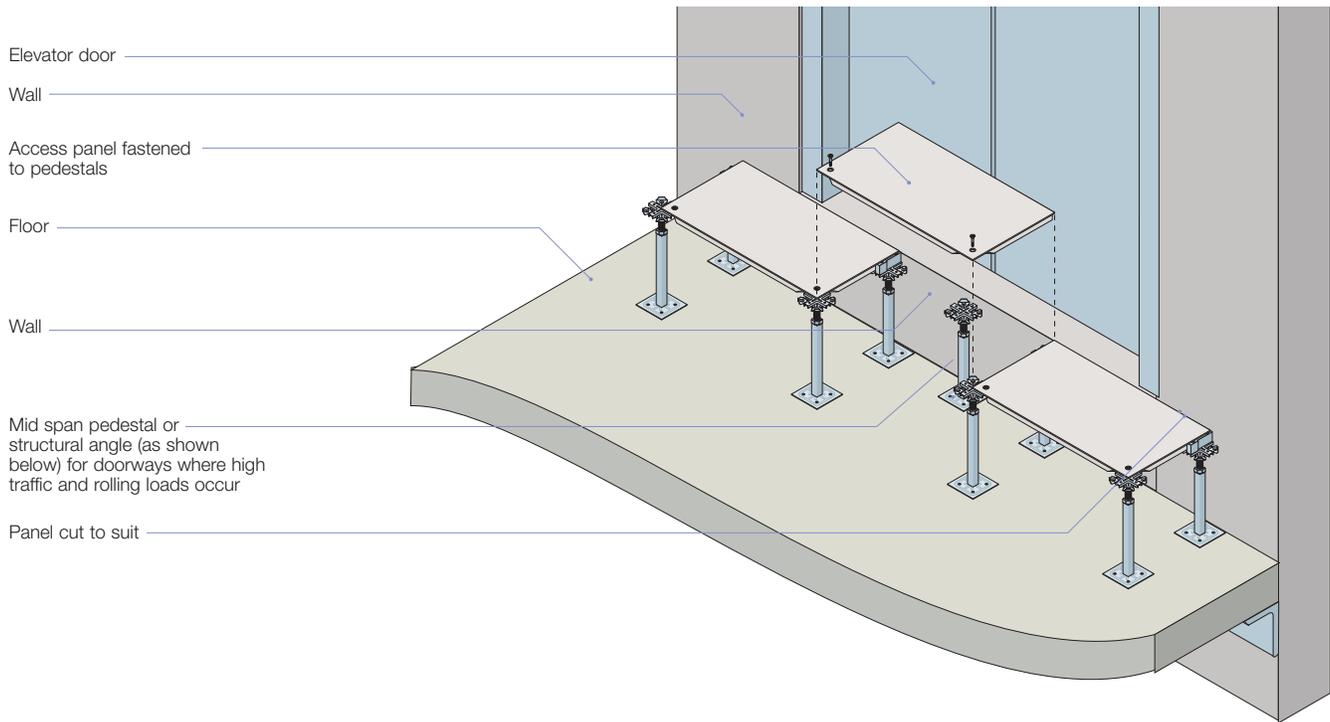


Air Highway - Interior

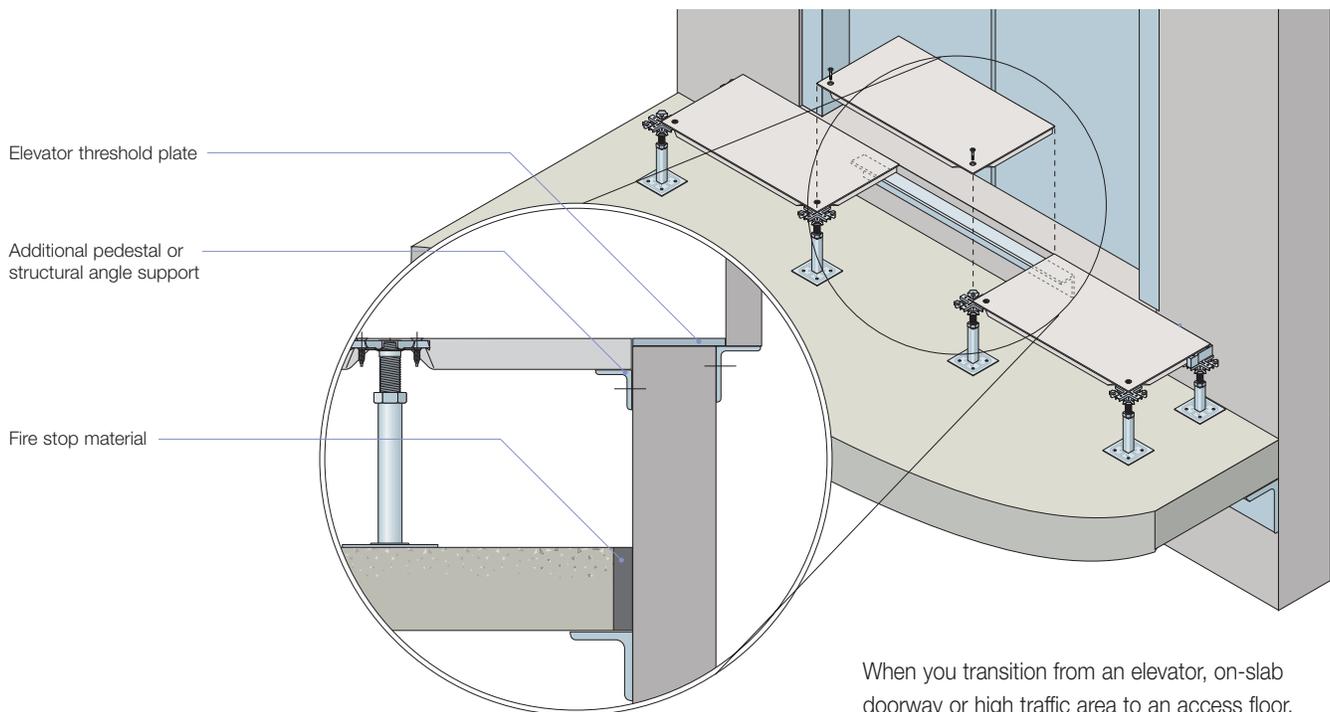


Note: Air Highway constructed with Concore® Panels on Bolted Stringer System with duct tape or optional gaskets.

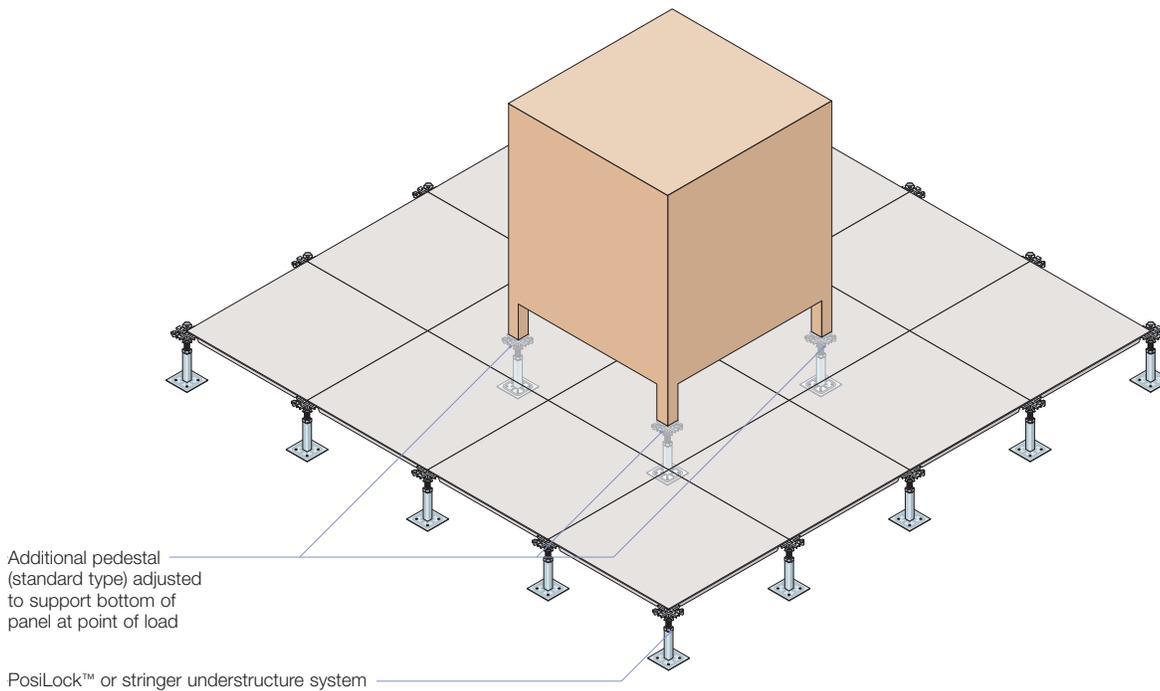
Transition from Elevator/On-Slab Doorways to Access Floor



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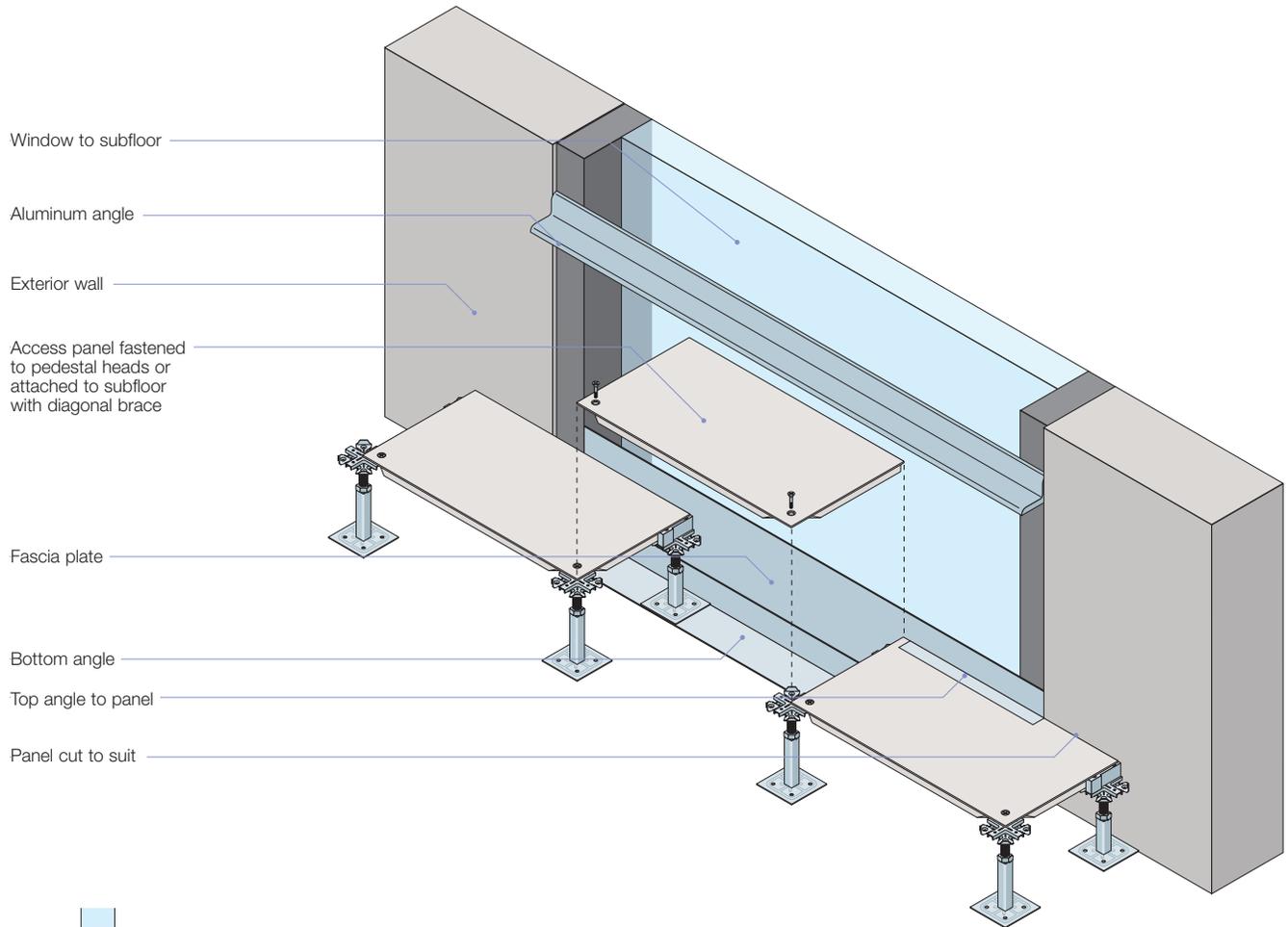
When you transition from an elevator, on-slab doorway or high traffic area to an access floor, additional support under the access floor panel at this transition is recommended. This additional support can be handled in several ways, two such methods are offered for your consideration:



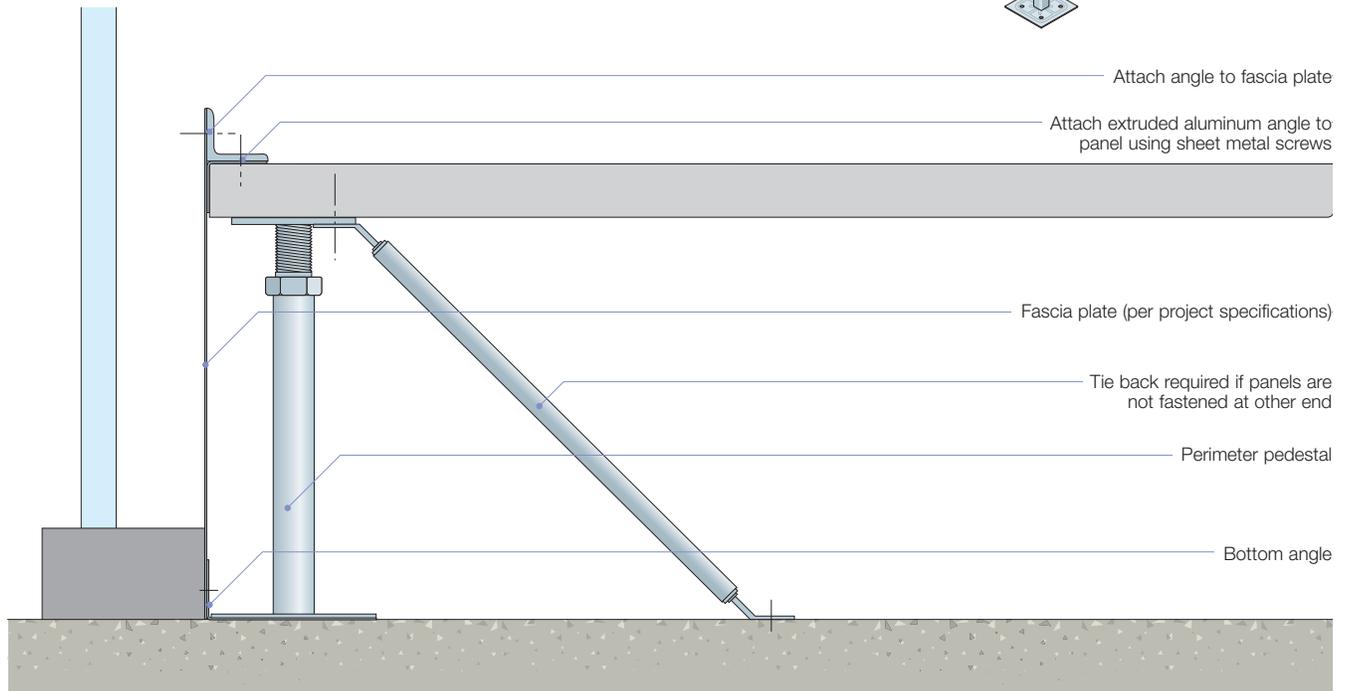
Notes

- This support method is used for conditions where equipment loads will be in excess of the panel load rating
- This method allows the equipment legs to be located anywhere on the panels
- Equipment that rests on rails (or that had a continuous base) may be supported by putting supplemental pedestals around the equipment perimeter on 12" centers
- This method can be used with either PosiLock™ or stringer understructure systems
- Care should be taken when moving equipment into place, use spreader plates to help spread the load over the panels during move-in

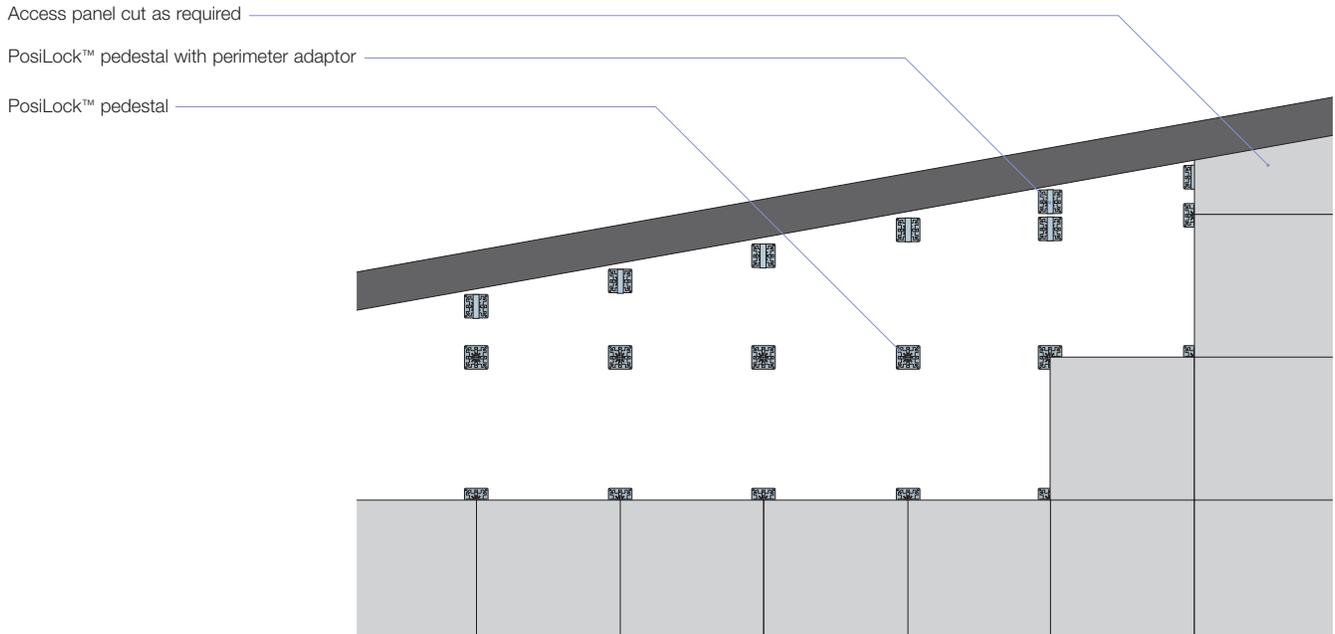
Access Floor Interface at Glass Wall



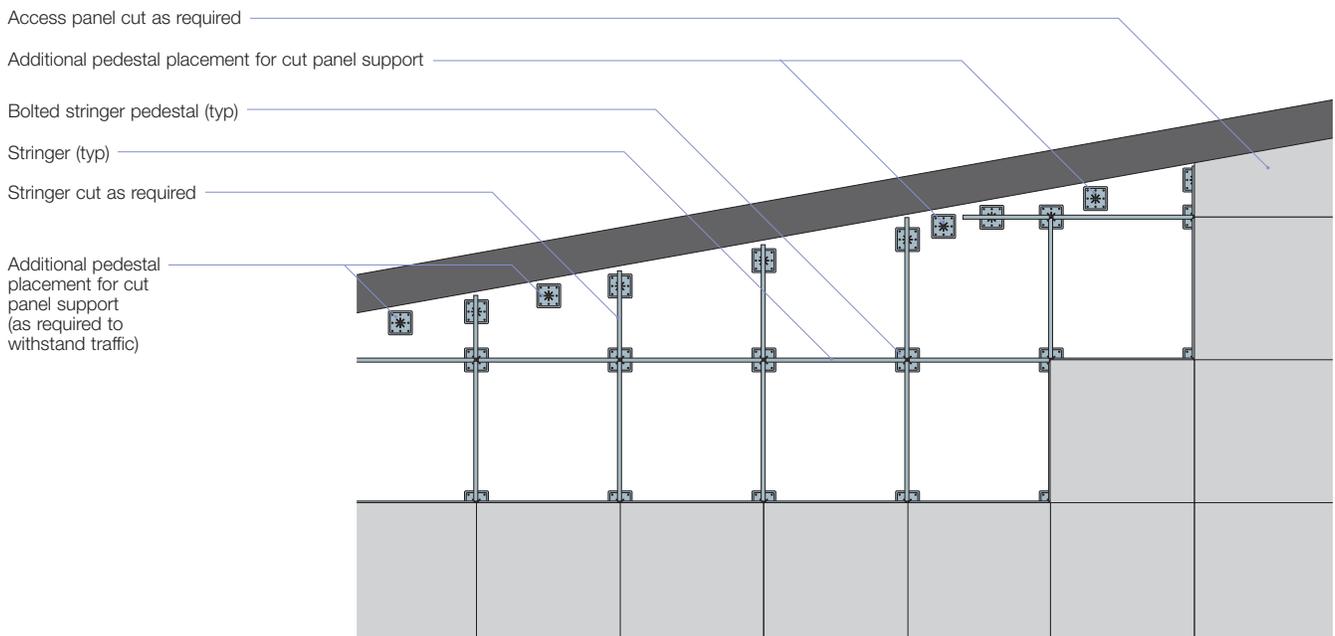
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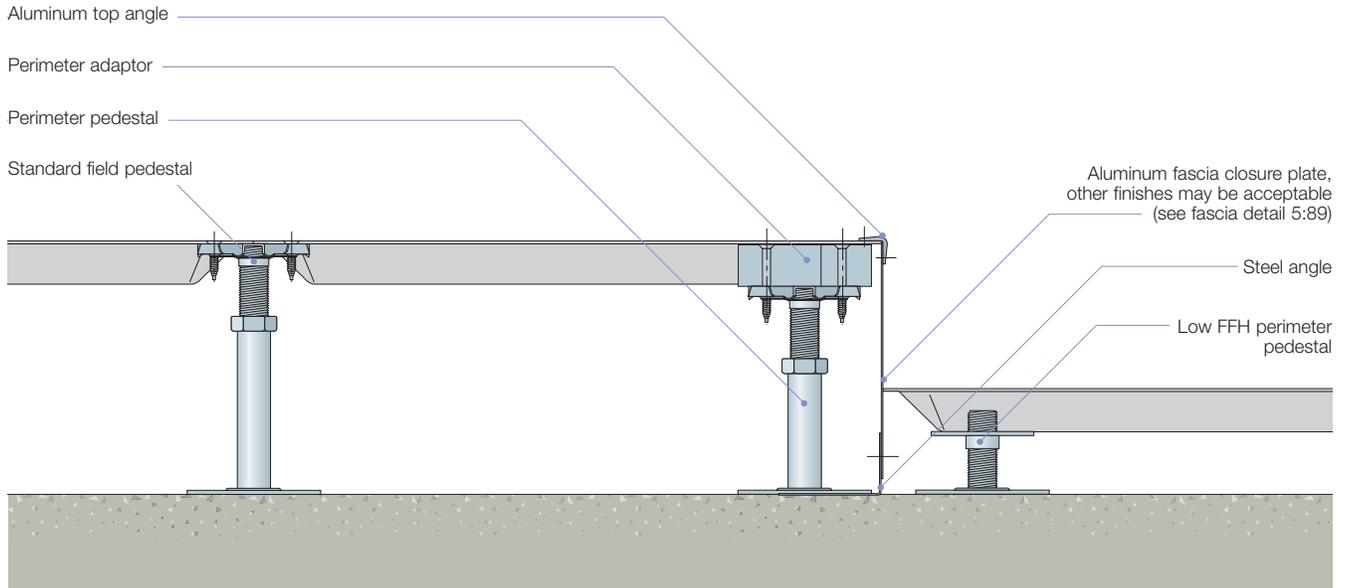
PosiLock™ System



Bolted Stringer System

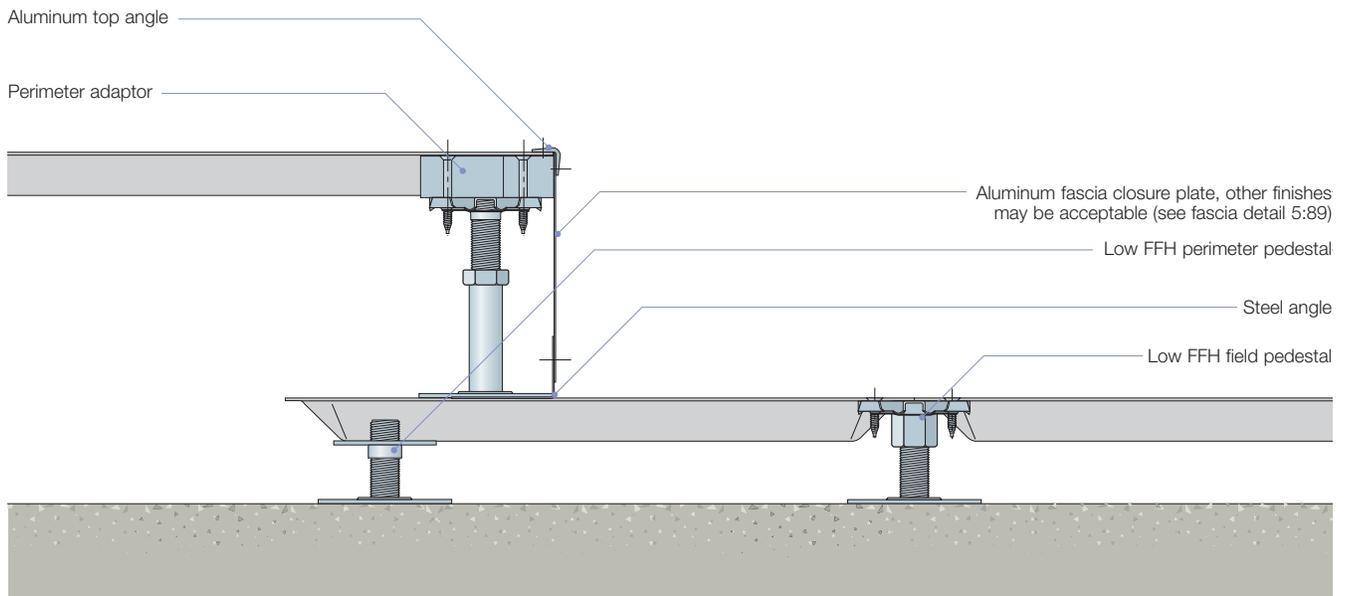


Option 1



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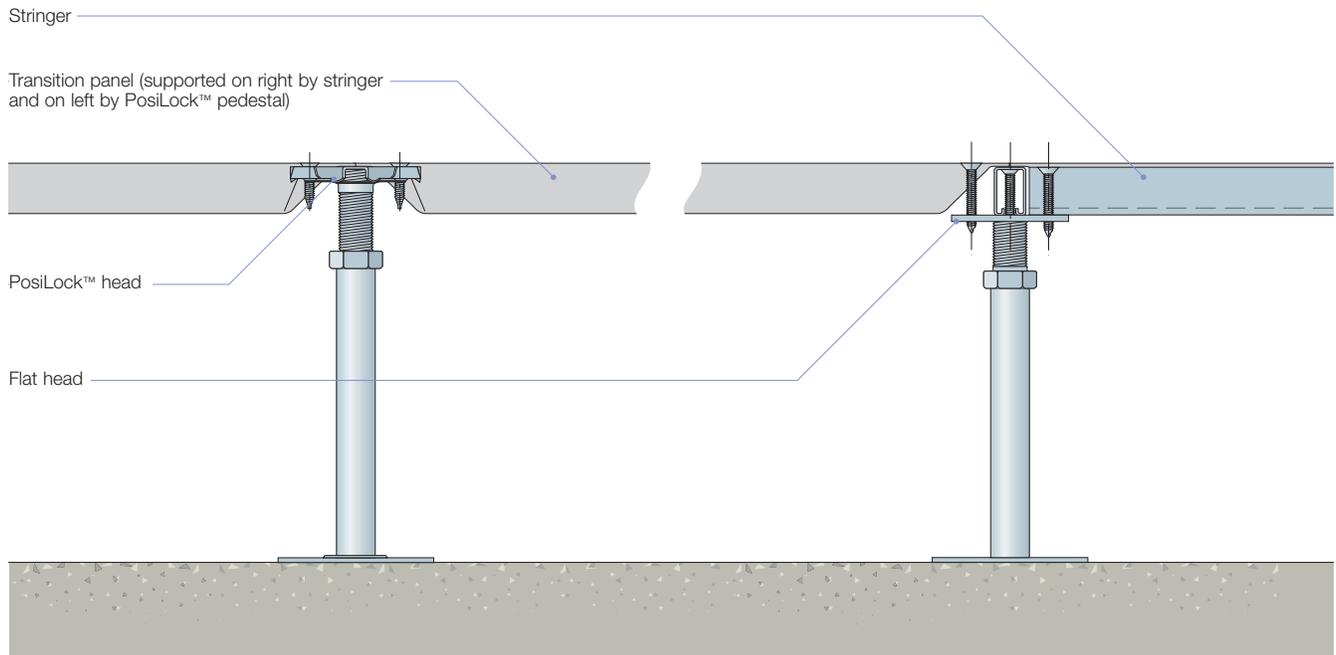
Option 2



Notes:

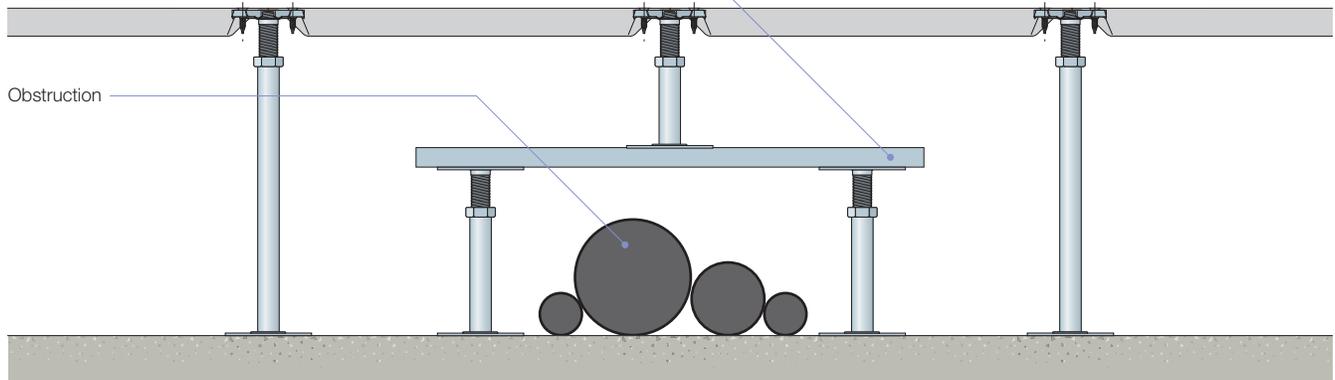
The use of low FFH pedestals (as shown in these drawings) is required where a portion of the floor will be 4" or lower.

Posilock™ to Stringer Detail



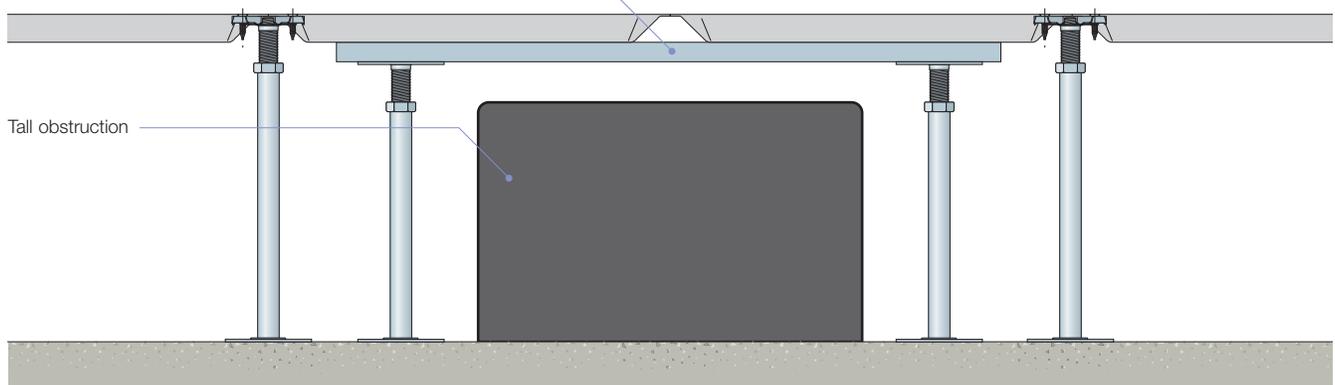
Option 1

Structural channel (actual size and spacing to be determined by loading required for floor)



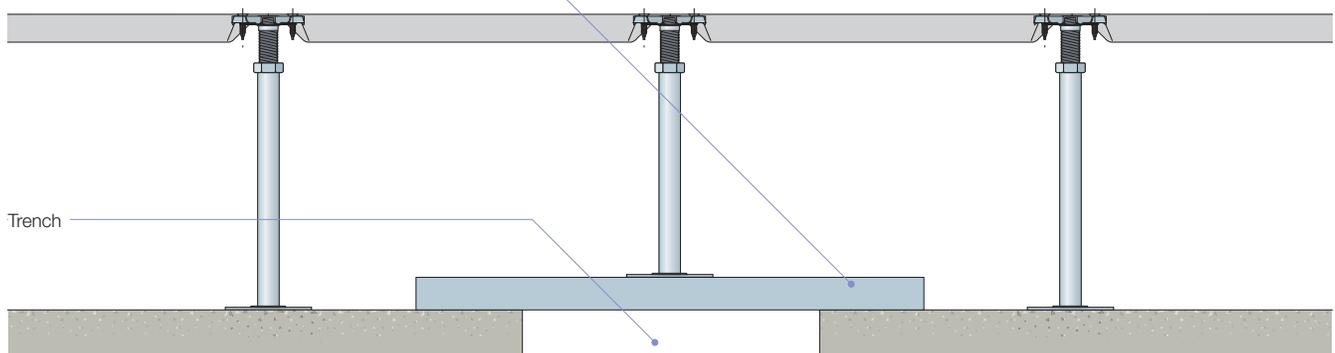
Option 2

Structural channel every 24" min. (actual size and spacing to be determined by loading required for floor)



Option 3

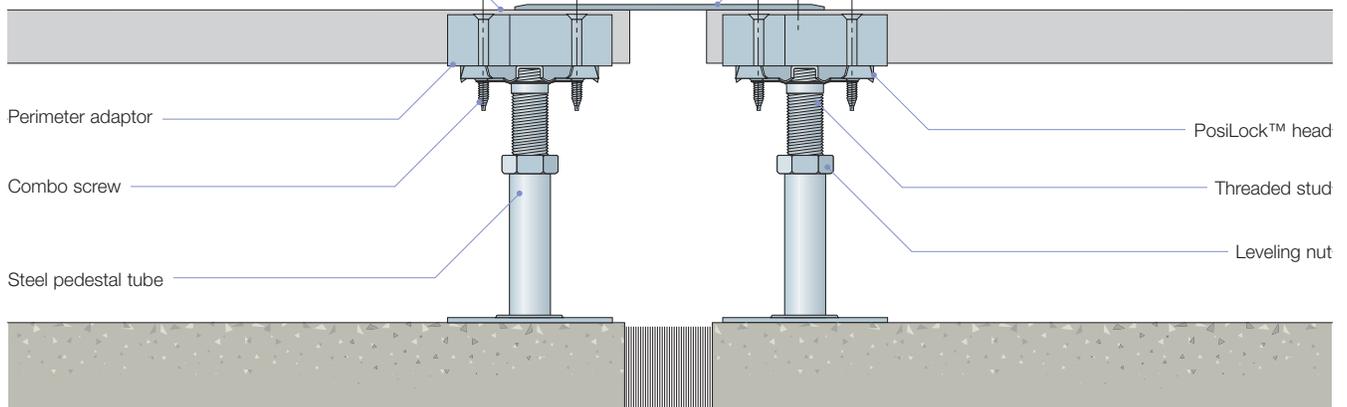
Structural channel (actual size and spacing to be determined by loading required for floor)



PosiLock™ Understructure - Expansion Joint Detail

Use full panels, or to maintain 24" module, cut panel. Do not attach panel to pedestal here.

6" wide aluminum threshold plate (by others). Secure this side with #8 FHSMS at 12" O.C.



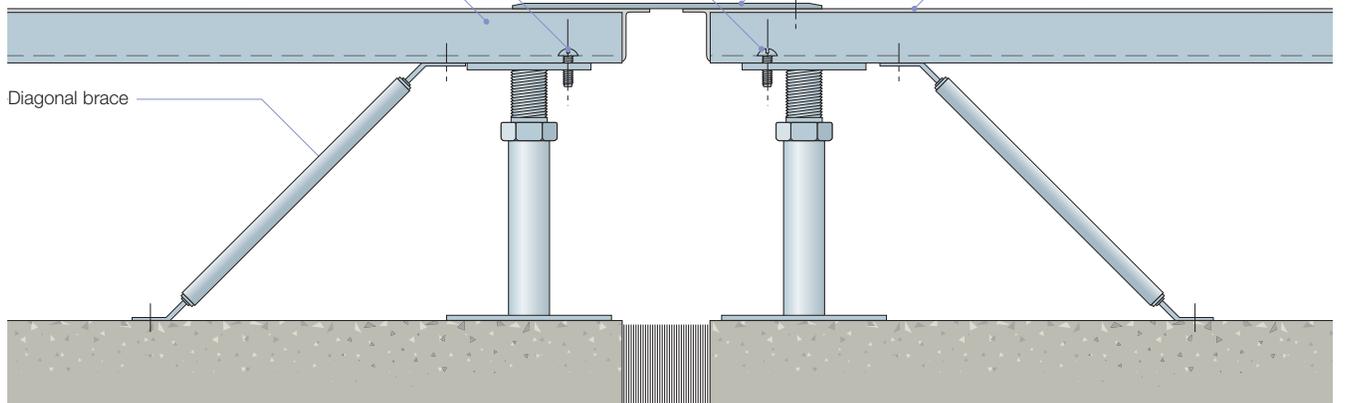
Bolted Stringer Understructure - Expansion Joint Detail

1/4" - 20 pan head screws

Use full panels, or to maintain 24" module, cut panel and stringer. Do not attach panel here

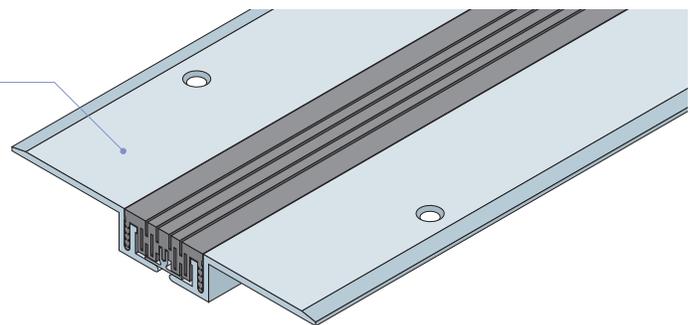
6" wide aluminum threshold plate (by others). Secure this side with #8 FHSMS at 12" O.C.

Full panels and stringers this side



Optional Expansion Joint Cover

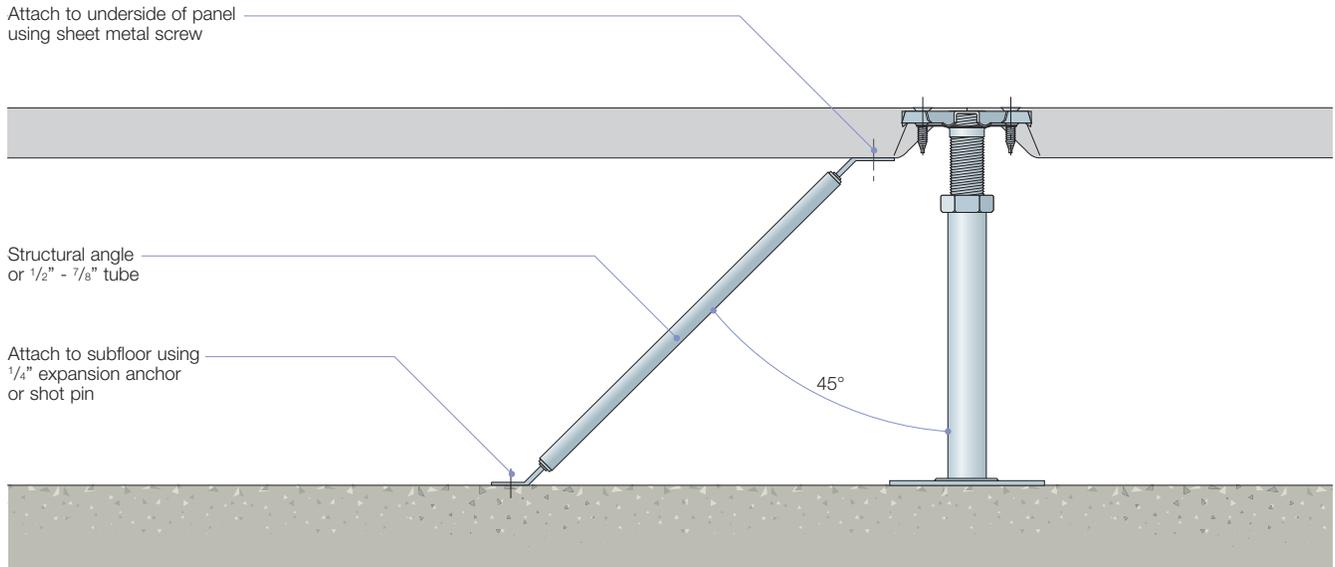
Surface mount elastomeric joint system available from expansion joint manufacturers such as EMSEAL Joint Systems Limited, (www.emseal.com)



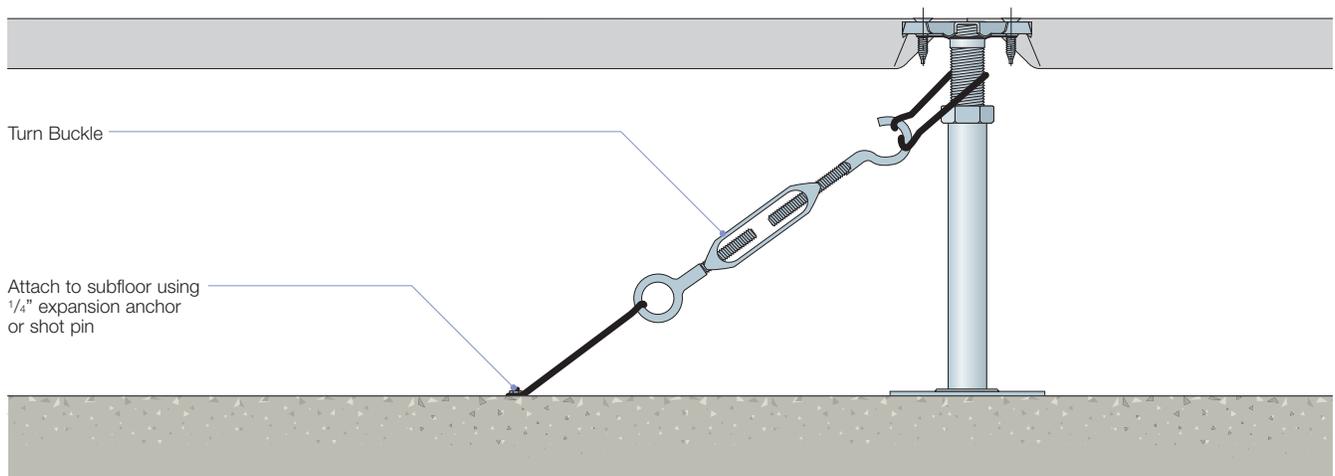
Pedestal Tie-Back Methods

For fascia, step, ramp and other exposed edge conditions

Tie-Back Method 1



Tie-Back Method 2



Supporting a Cut Panel

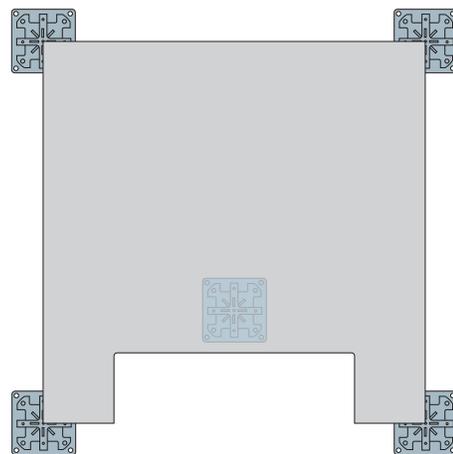
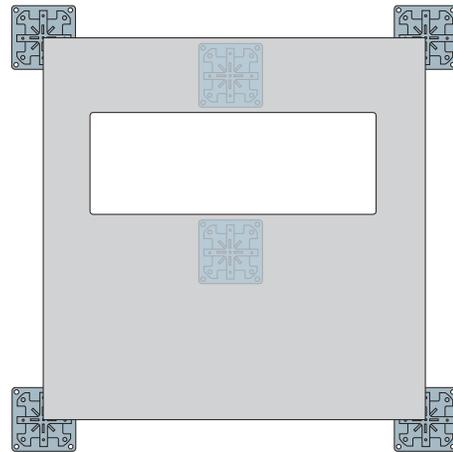
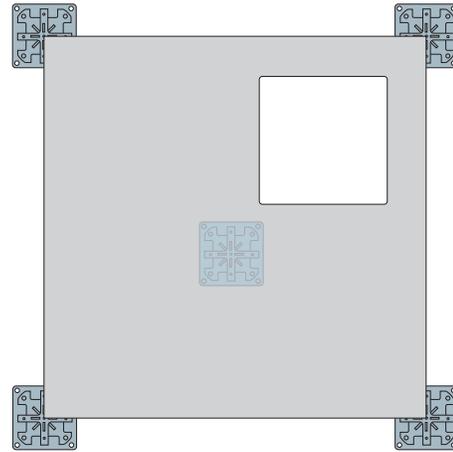
When it is necessary to retain the design load capacity of a base panel after it has been cut, an effective solution is to use additional pedestal supports. Guidelines for the number and location of additional supports are outlined on this page.



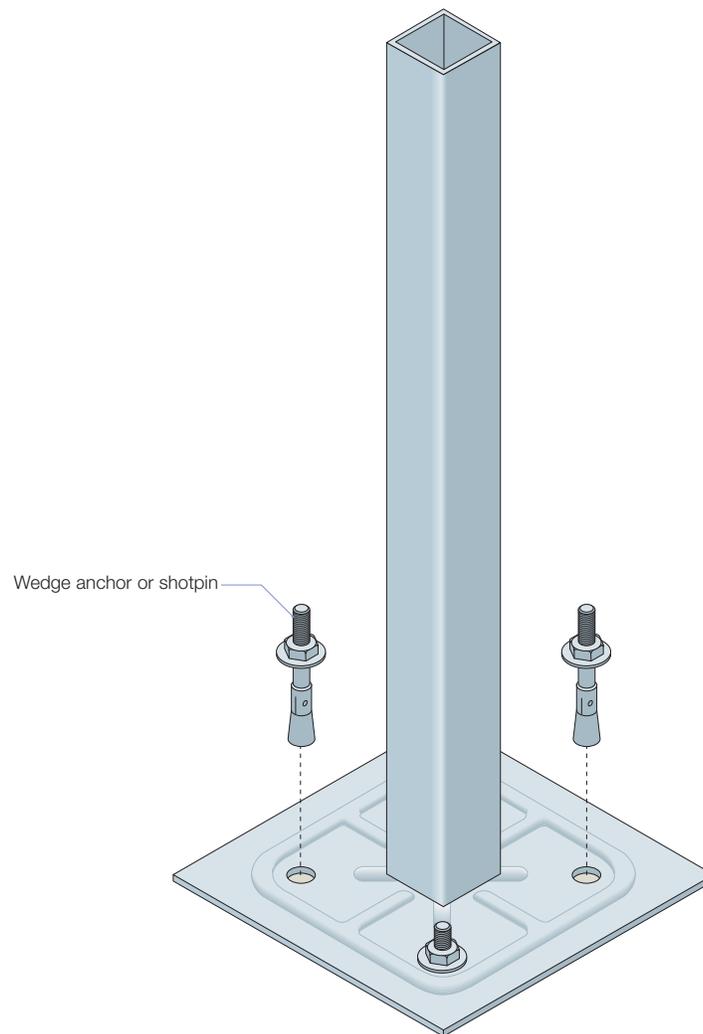
Support Pedestal



Additional Support Pedestal



Pedestal Attachment by Expansion Anchors/Shotpin



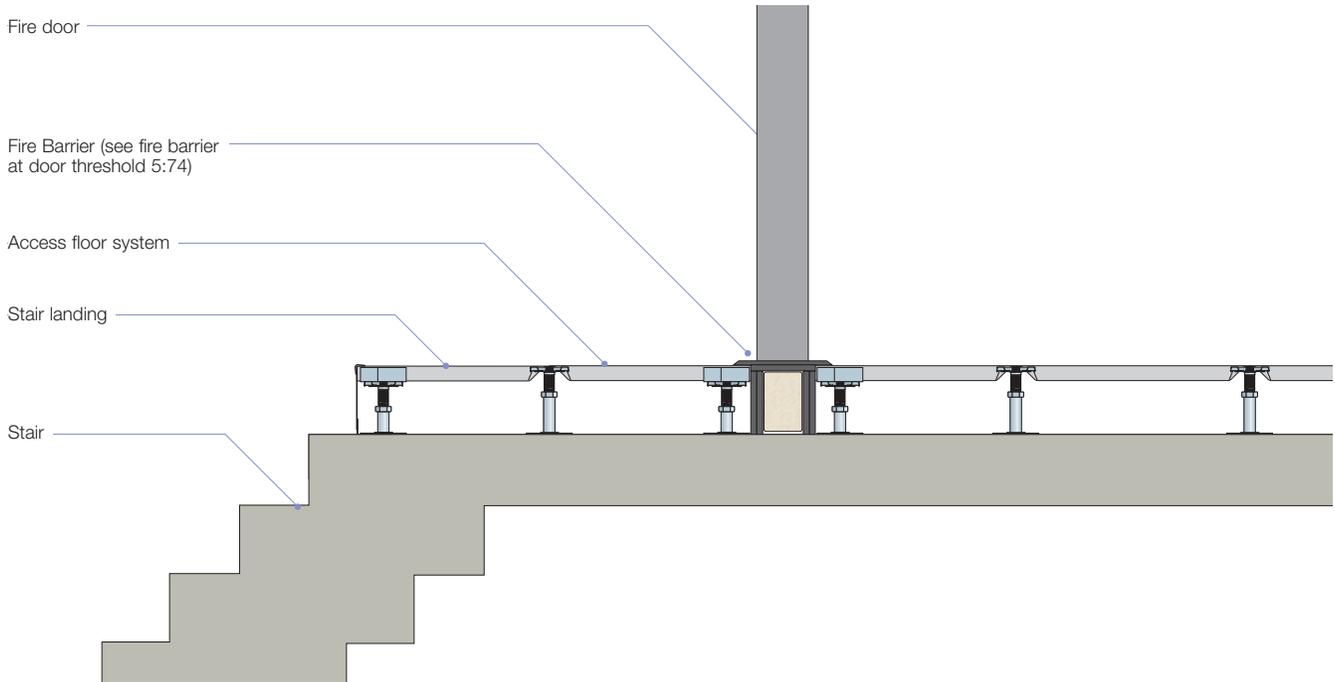
Notes: Typical embedment 2" into concrete.

Pedestal adhesive should be allowed to cure before installing anchors.

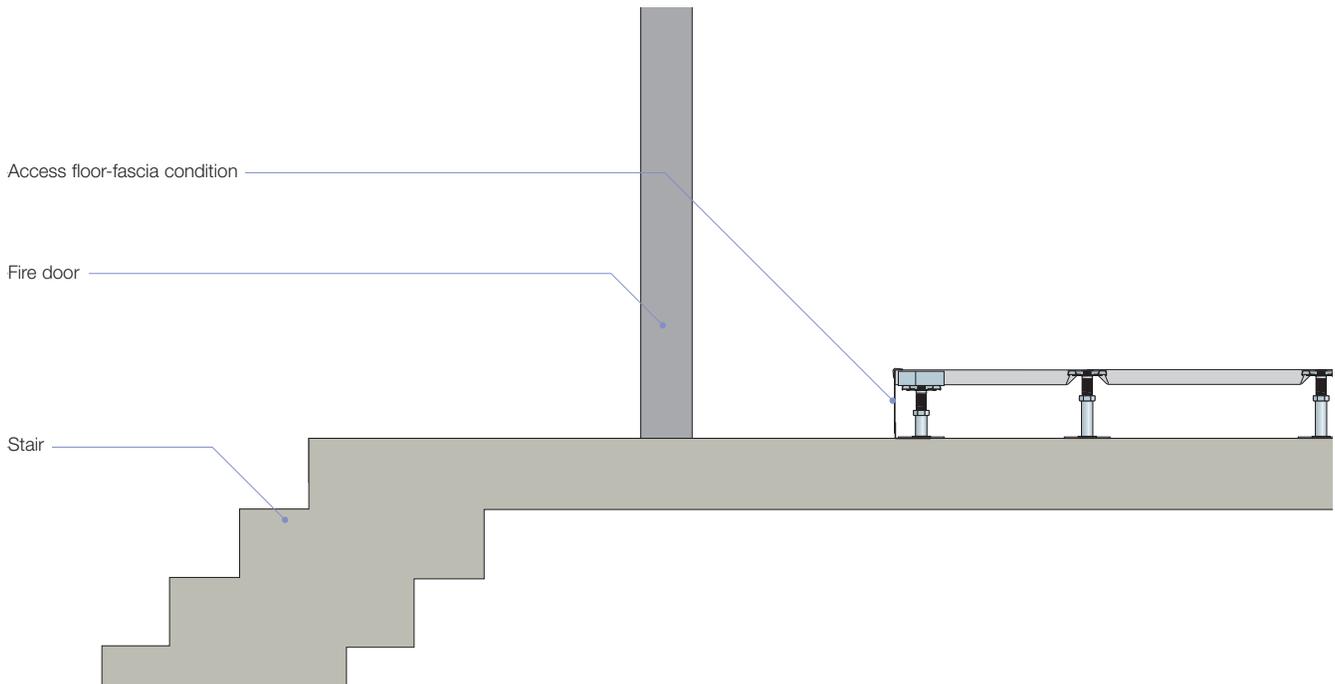
All Tate pedestals come standard with holes in base plate for optional mechanical fastening.

Stair Transition to Access Floor

Option 1



Option 2



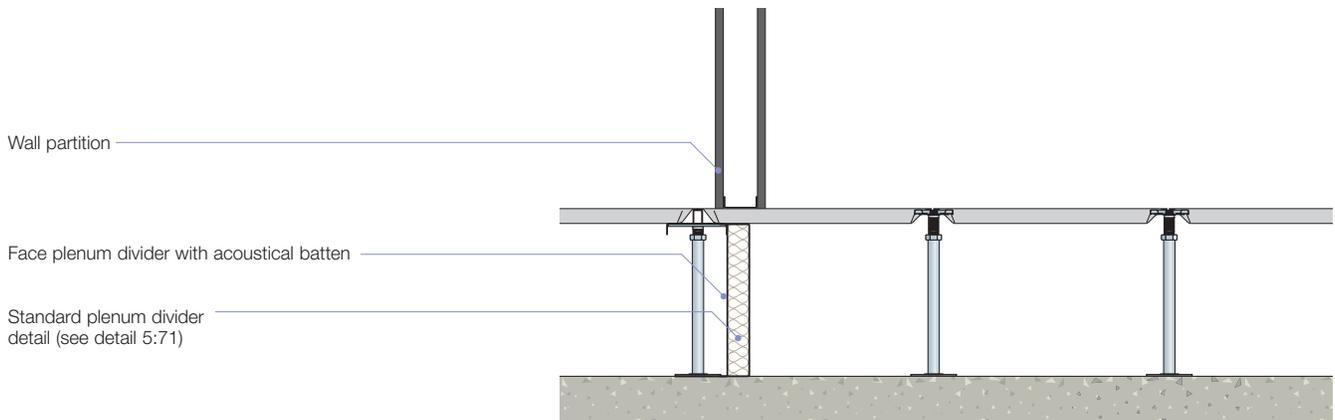
Acoustical Privacy between two spaces can be handled in a number of ways. Whenever you address acoustical privacy, consideration needs to be given to the absorptive properties of

ceiling and floor coverings systems, and sound blocking properties of furniture.

Option 1 - Physical Barrier

A physical barrier between the two spaces such as an acoustical wall partition should be placed on top of the access floor and it is recommended not to pass through the access floor so that the flexibility and reconfigurability of your space can be maintained.

A physical barrier below the access floor can be added to provide additional acoustical privacy, however we feel that it is not necessary as the floor system has an excellent STC rating.



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Option 2 - sound masking

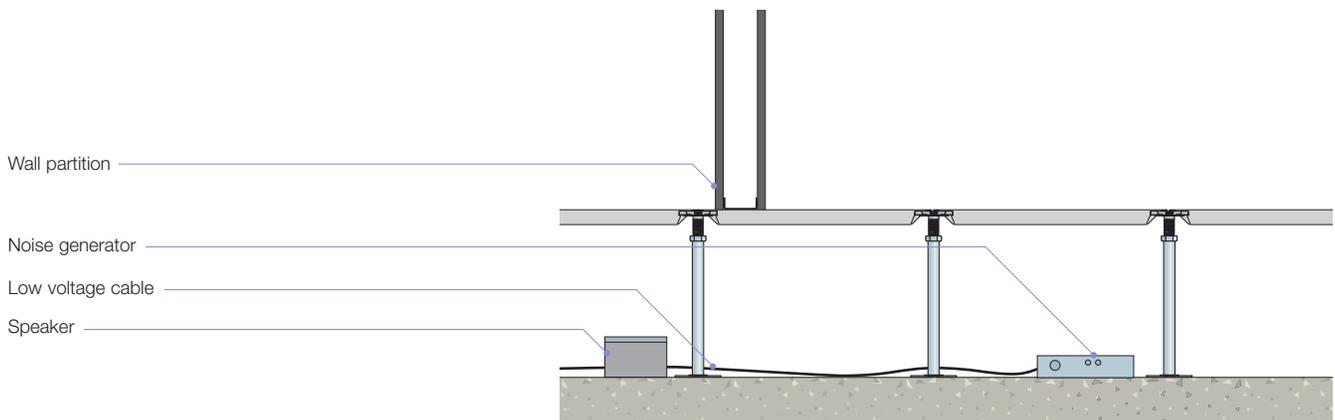
Sound Masking systems are available to provide acoustical privacy between spaces without the need for full height acoustical partitioning or physical barriers under the access floor. Sound masking systems are comprised of a white noise generator and

amplifier connected to a number of speakers placed strategically under the access floor.

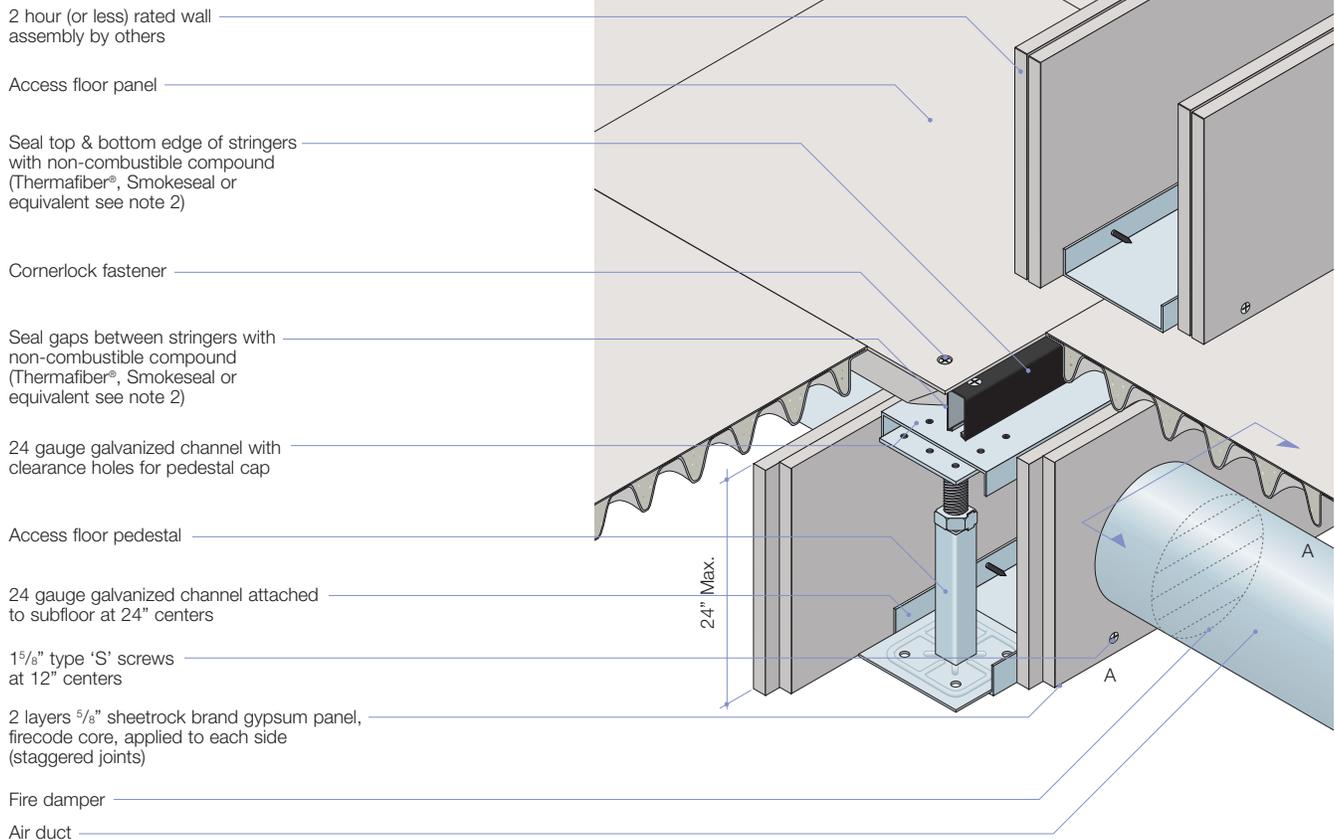
Examples of Manufacturers:

Dynasound - Norcross, GA (800) 989-6275

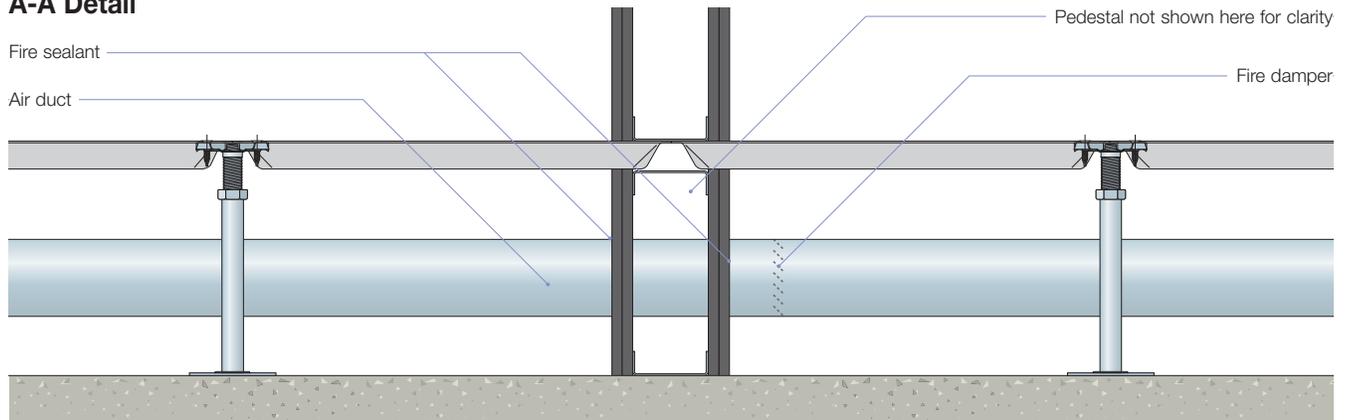
Lencore Acoustics - Merrick, NY (516) 223-4747



Air Duct Through Fire Wall



A-A Detail



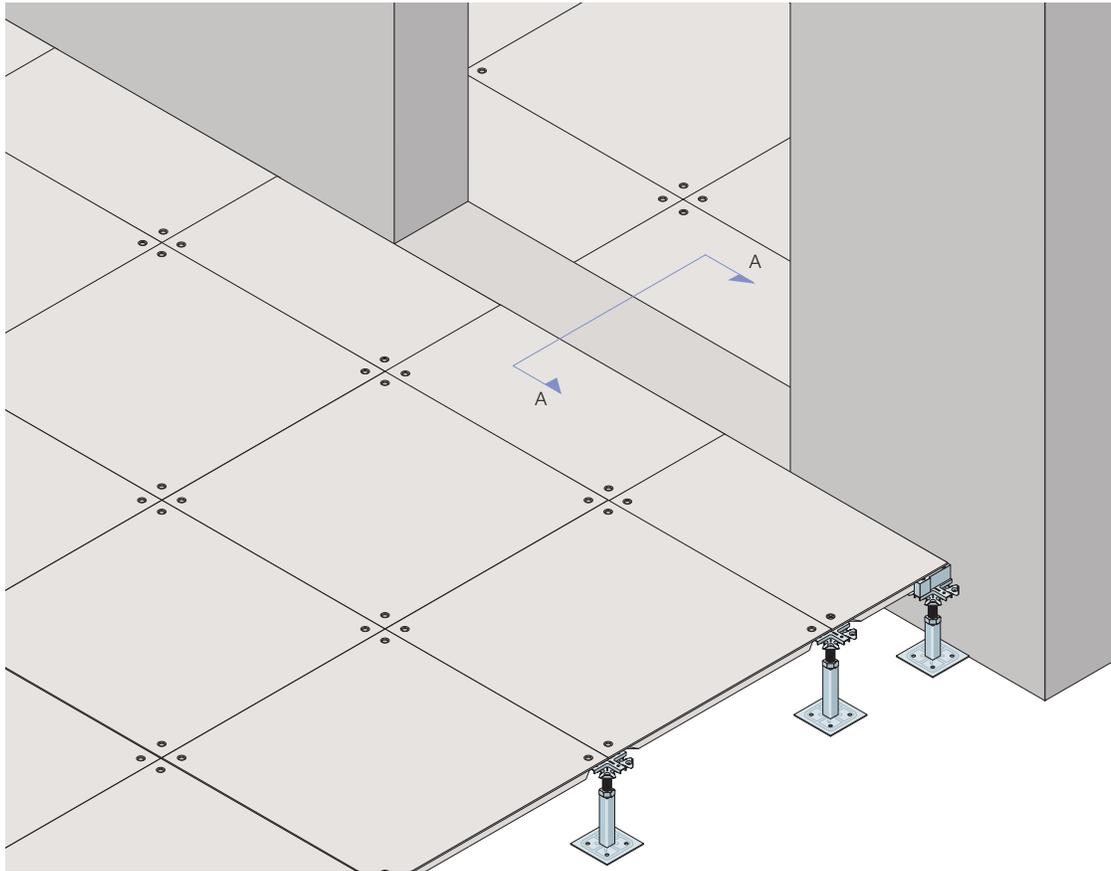
Notes

1. Use of this plenum divider in conjunction with a rated wall assembly must be pre-approved by the local fire marshal and/or building official authorized to judge suitability of fire resistance assemblies
2. Non-combustible compound must be applied to effectively plug all openings formed by the access floor which might otherwise allow passage of smoke

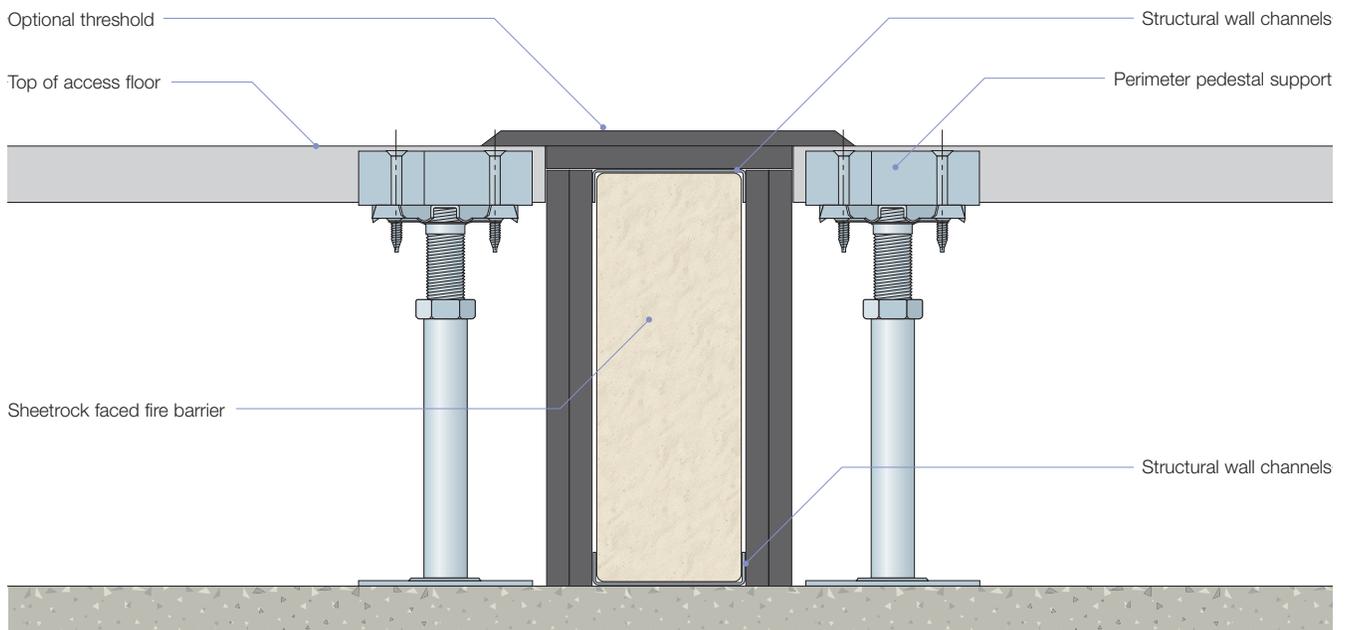
Note to Local Fire Marshall or Building Official

This barrier design is submitted for consideration as an alternative to a continuous rated fire wall construction from ceiling to (sub)floor. Although the Tate Access Floor Systems shown are not classified by UL, they are constructed entirely of non-combustible Class A materials. The plenum barrier design is derived from, but not equal to UL designs having a 2 hour rating.

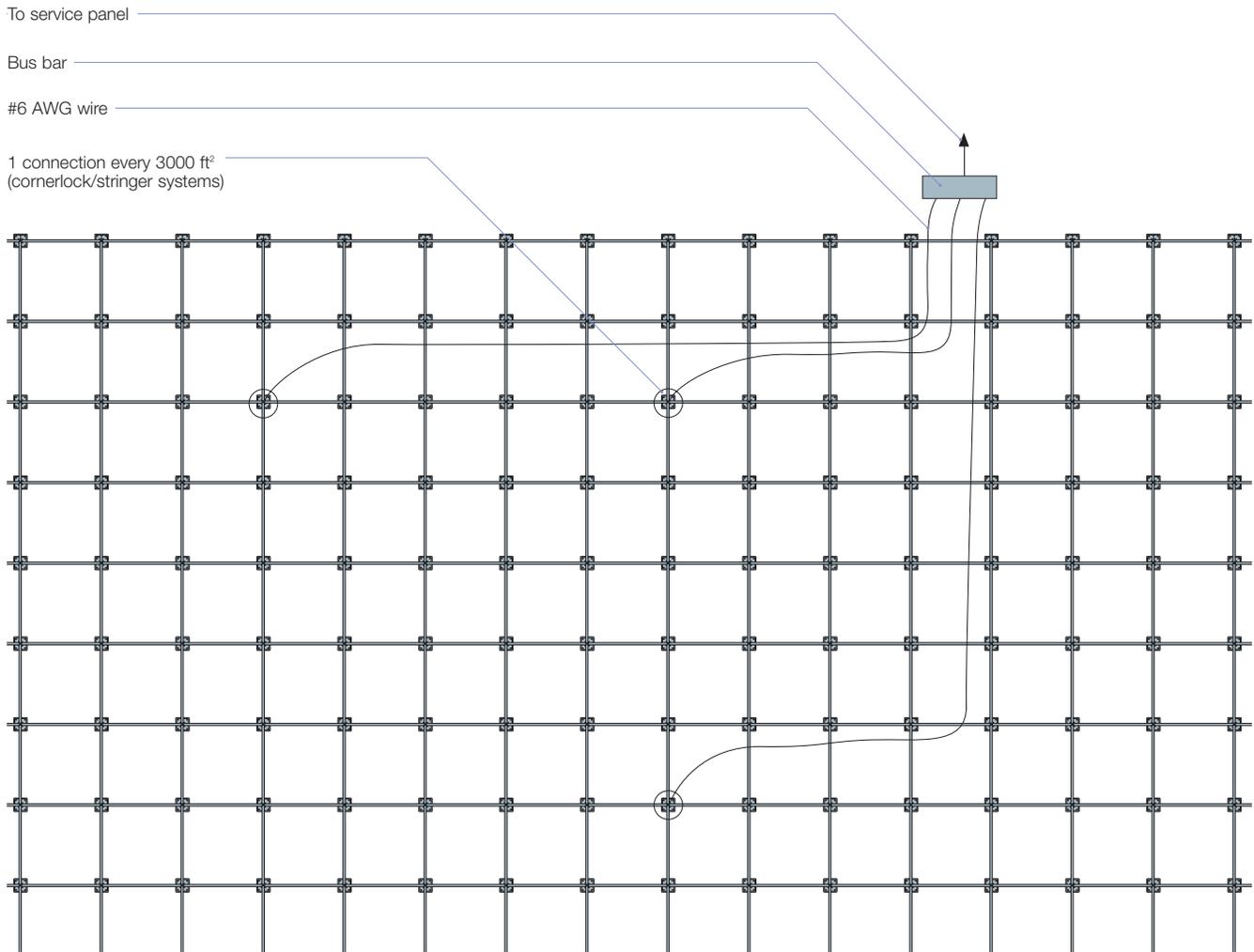
Fire Barrier at Door Threshold



A-A Detail



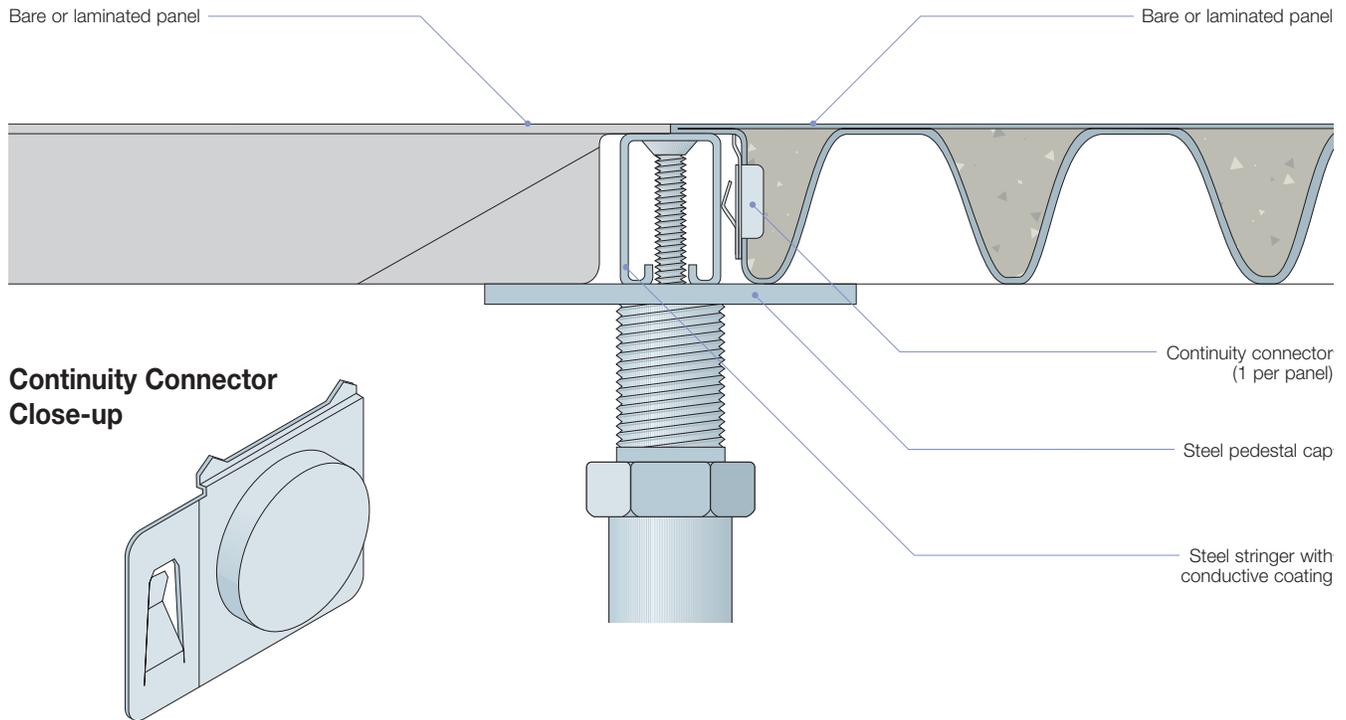
Grounding Access Floor



This detail depicts a possible method for attaching ground wires to access floor pedestals for the purpose of providing ESD control and safety grounding.

Please note that the final determination of the number, type, and actual installation of the building ground wires should be done by an electrician.

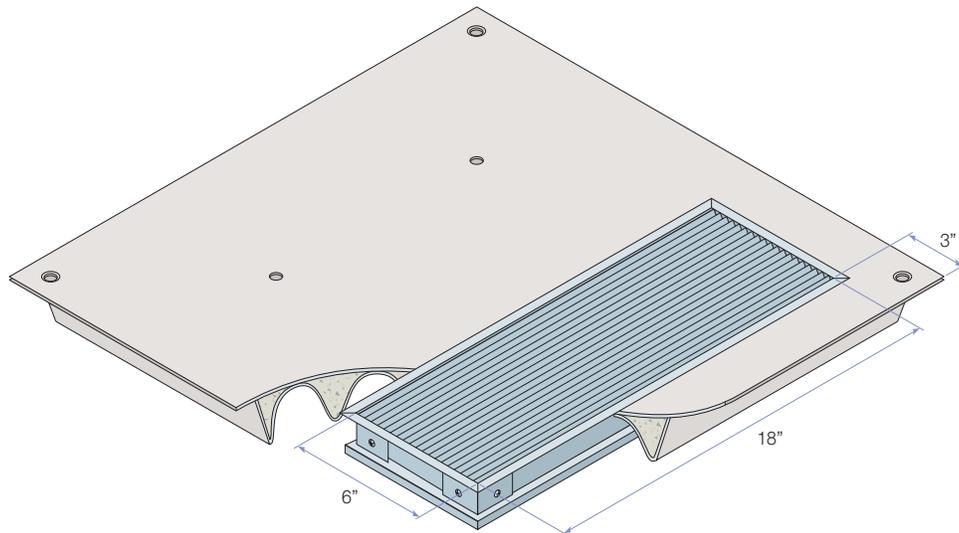
Electrical Continuity Connector



Electrical Continuity Connectors are an effective means to meet an electrical resistance specification of less than 1 ohm between the access floor panel and understructure when using a bolted

stringer system. When using a cornerlock understructure system, the cornerlock fastener provides the continuity path from panel to understructure.

Aluminum Grille



Grille Specifications

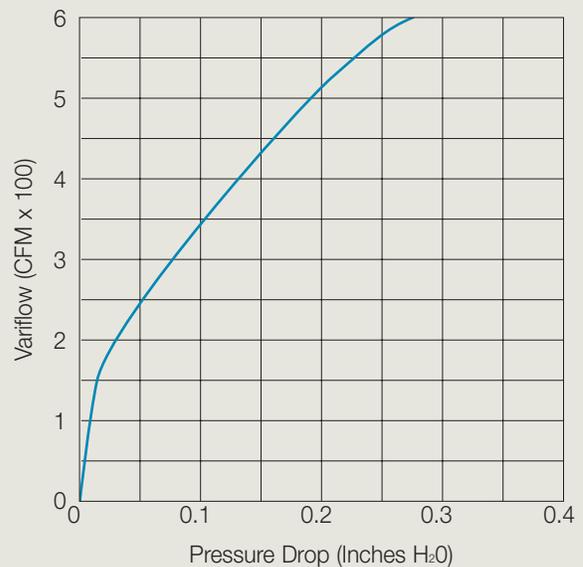
General Information

- Standard size is 6" wide x 18" long, other sizes are available
- Grille is made entirely of aluminum
- Exposed surface of the grille shall be 6061 T6 aluminum etched and anodized
- Cutout for grille is 6" x 18" long
- Grille vanes are made of extruded aluminum bars which are 1/4" apart to be pencil and heel proof

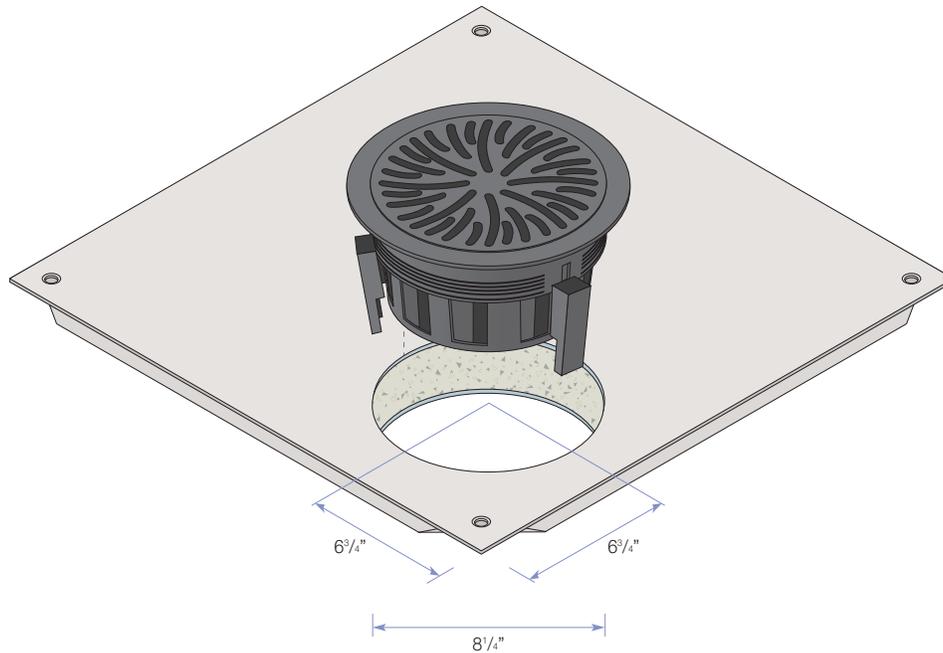
Options

- Optional damper is available; damper is adjustable from top with screwdriver or Allen key
- Electrical insulation band around entire grille can be used to electrically insulate grille from steel access floor

Air Flow Characteristics



Diffusers



Diffuser Specifications

General Information

- Low pressure drop core /damper assembly design
- Core design produces low velocity helical discharge air pattern
- Assembly achieves high induction rates of room air which optimizes circulation

Specifications

- Assembly to be high impact polycarbonate construction, shall comply with UL Standard 94-5V for flammability and shall be capable of withstanding without failure a static load of 800 lbs
- Trim ring shall incorporate three mounting clamps to secure assembly to panel. Clamps shall be adjustable by turning Phillips-head screws inside of trim ring
- Installed basket shall extend 4 1/4" below top surface of panel

- Diffuser core shall have visual open/closed indicator with built-in end stops
- Trim ring and core will be flush and will sit 1/8" above carpet/laminate surface and is rounded to 1/16" at edge
- Flow regulator shall be adjustable without removing diffuser core
- Dirt/dust collection basket shall be removable for cleaning
- NOTE: Diffusers are not designed to support rolling load traffic. This should be considered when establishing diffuser locations

Finish Options

- Standard finishes shall be Grey core and trim or Black core and trim. Damper and basket shall be black.

Performance Data

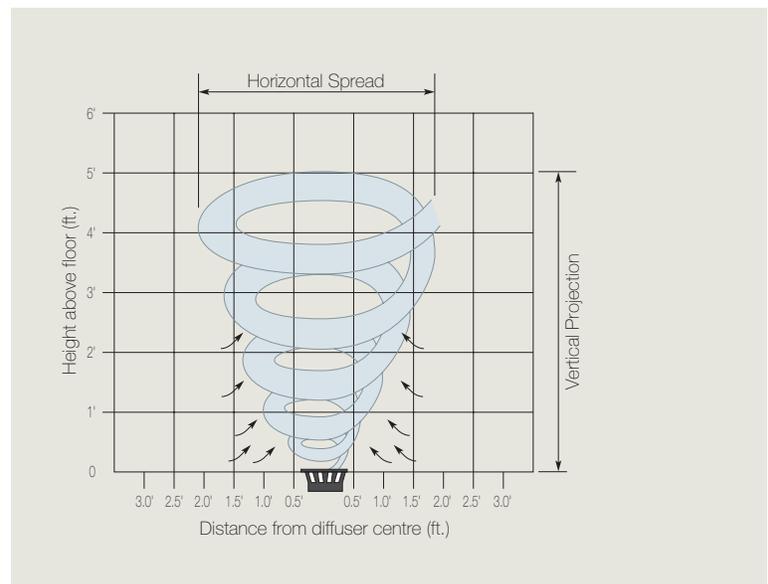
Airflow (CFM)	Plenum Pressure	Vertical Projection @ 150, 100 & 50ft	Horizontal Spread ft. @ 50 fpm	NC -
60	0.035	1.1-1.4-2.9	2.1	-
70	0.048	1.3-1.7-3.5	3.1	-
80	0.063	1.4-1.8-3.7	3.4	-
90	0.079	1.6-2.1-4.4	3.7	-
100	0.098	2.0-2.5-5.0	4.0	15
110	0.119	2.0-2.6-5.4	4.3	18
120	0.141	2.1-2.7-5.6	4.5	20

Correction Factors for other supply air temperature differentials

ΔT (°F)	Projection ft.	Spread ft.
-6	x 1.33	x 0.87
-8	x 1.11	x 0.94
-10	x 1.00	x 1.00
-12	x 0.96	x 1.06
-14	x 0.92	x 1.11
-16	x 0.91	x 1.16

Performance Notes:

1. Projection and Spread data were determined in a room with an 11' ceiling height and 10°F ΔT , between supply air and averaged occupied room temperature.
2. Vertical projection (throw) is the maximum height above the floor where terminal velocities of 150, 100 and 50 fpm were observed.
3. Noise Criteria (values) based on 10 dB room absorption, re 10-12 watts. Dash (-) in space denotes an NC value of less than 15.
4. Tests conducted with dirt basket/damper installed. Damper fully open. $A_k = 0.104$.
5. Data derived from independent tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.

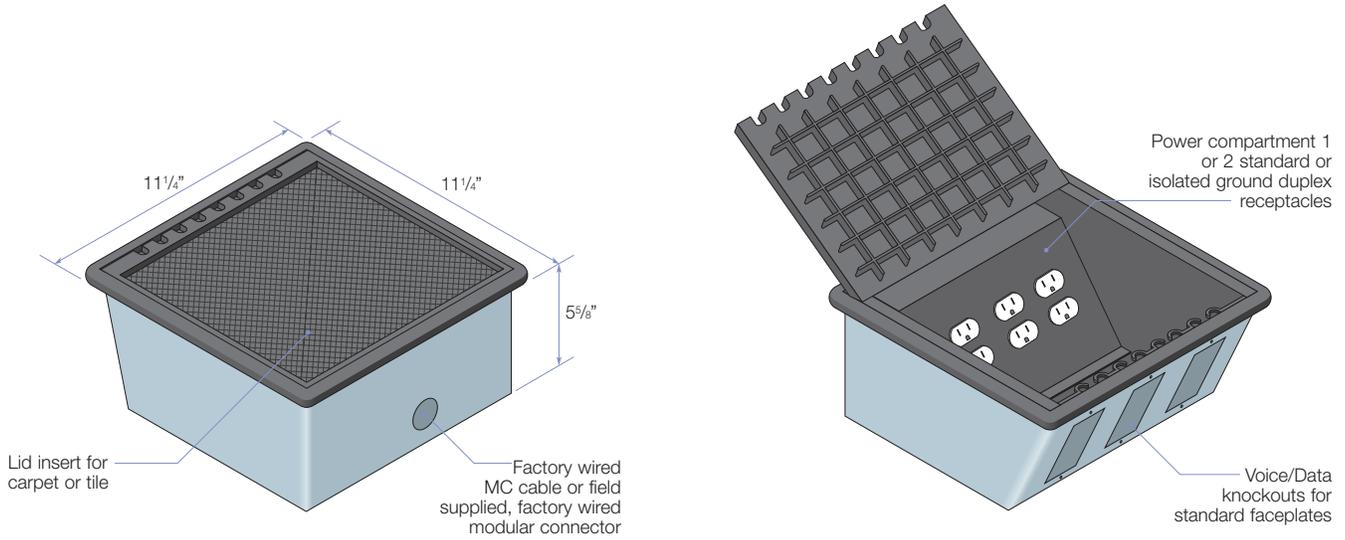


Standard Floor Height

High Capacity Power, Voice, Data (PVD) Servicer™



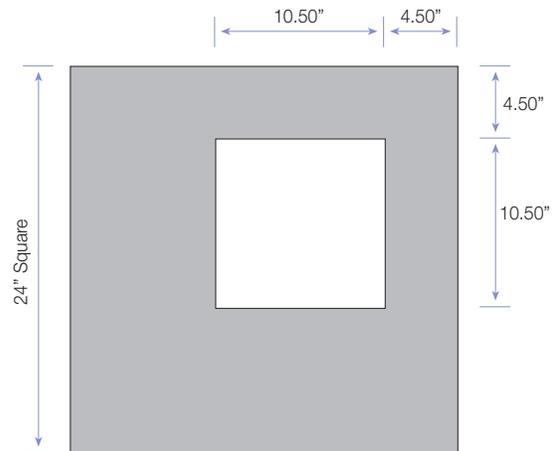
Standard Floor Height - High Capacity PVD Servicer™



Specifications

General Information

- 11 1/4" square lid assembly
- 1/8" thick low profile trim frame
- 5 5/8" overall depth for 6" minimum finished floor height
- Factory wired boxes are listed in U.L. file E63807
- Cutout size is 10 1/2" square
- Lid colour - black, gray or brown
- 1 to 4 standard or isolated ground Duplex receptacles
- Voice/data plates - 3 knockouts for standard faceplates, grommet material for 1 grommetted port (field installed). Interface plate for 2 Superior RJ-45 jacks (field installed)
- Carpet or vinyl insert is field supplied and installed



Performance Data

Min Floor Height	Inside Volume	Box Body	Lid/Frame Assembly	Lid Colour	Power Capacity	Voice/Data Capacity	Wiring	U.L. Designation
6"	215"	Galvanized Steel	Lexan 500	Black Brown or Gray	1 to 4 standard or isolated ground duplex receptacles	3 Knockouts for standard faceplates, grommet material for 1 grommetted port, interface plate for 2 Superior RJ45 Jacks	Factory wired MC cable or field supplied, factory wired modular connector	E63807

Factory wired boxes are listed in U.L. file E63807

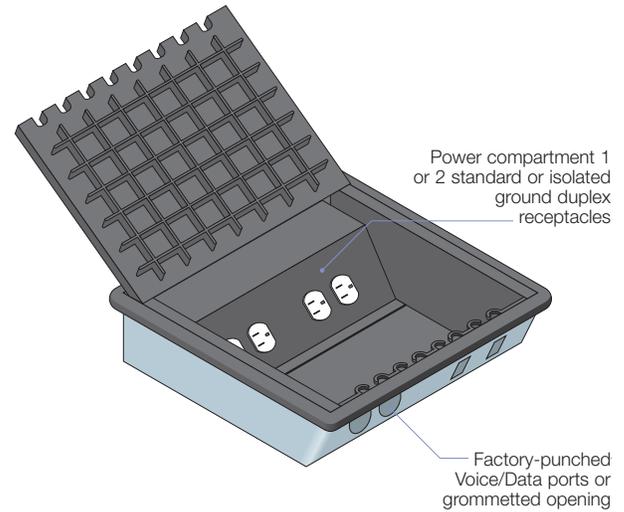
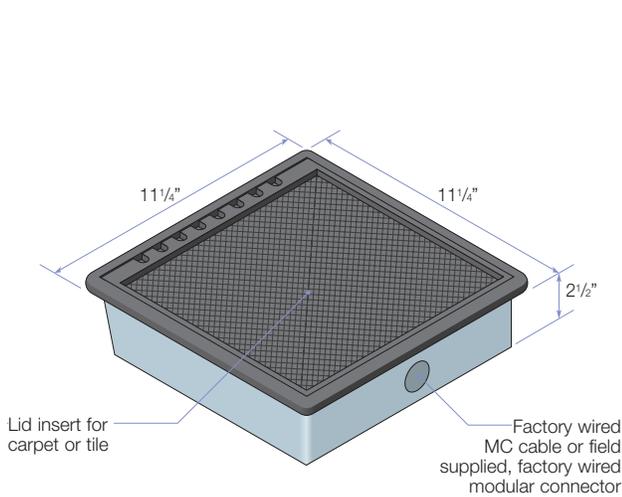
Note: For Power Voice Data configurations to suit any specific project requirements contact the Cii Hotline @ 1-800-679-9711

Low Floor Height

High Capacity Power, Voice, Data (PVD) Servicer™



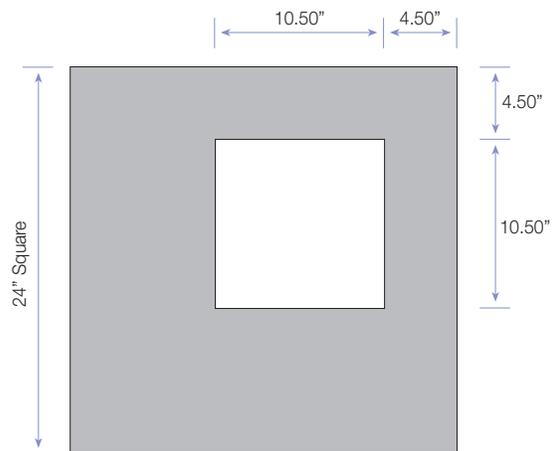
Low Floor Height - High Capacity PVD Servicer™



Specifications

General Information

- 11 1/4" square lid assembly
- 1/8" thick low profile trim frame
- 2 1/2" overall depth for 2 1/2" minimum finished floor height
- Factory wired boxes are listed in U.L. file E63807
- Cutout size is 10 1/2" square
- Lid colour - black, gray or brown
- 1 or 2 standard or isolated ground Duplex receptacles
- Voice/data plates - 1 knockout for grommetted port and knockouts for 2 Superior RJ-45 jacks (not installed)
- Carpet or vinyl insert is field supplied and installed



Performance Data

Min Floor Height	Inside Volume	Box Body	Lid/Frame Assembly	Lid Colour	Power Capacity	Voice/Data Capacity	Wiring	U.L. Designation
2 1/2"	75"	Galvanized Steel	Lexan 500	Black Brown or Gray	1 or 2 standard or isolated ground duplex receptacles	1 Knockout for grommetted opening, 2 knockouts for Superior RJ45 jacks	Factory wired MC cable or field supplied, factory wired modular connector	E63807

Factory wired boxes are listed in U.L. file E63807

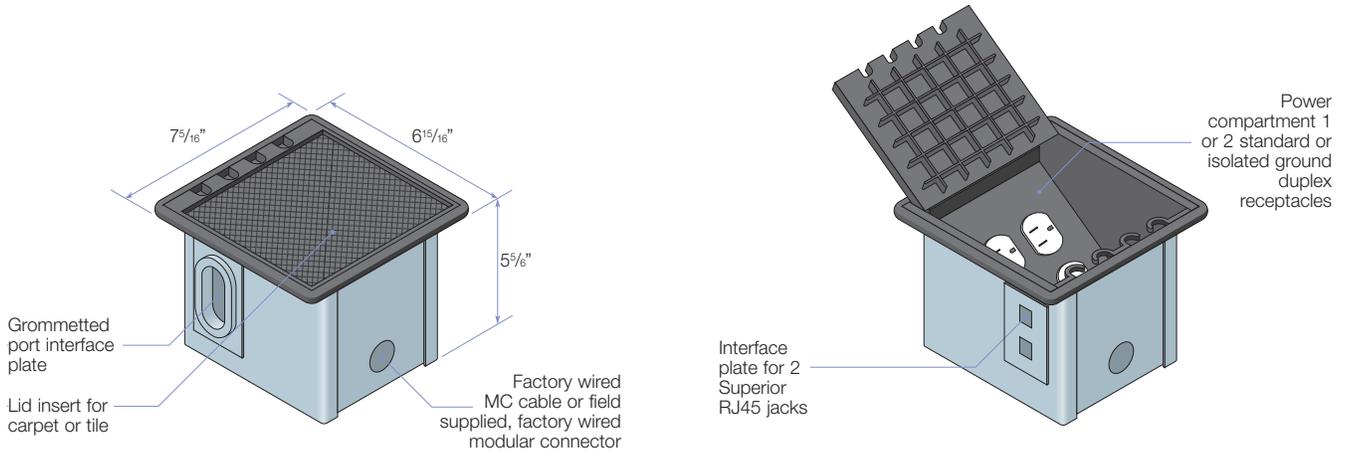
Note: For Power Voice Data configurations to suit any specific project requirements contact the Cii Hotline @ 1-800-679-9711

Standard Floor Height

Standard Capacity Power, Voice, Data (PVD) Servicer™



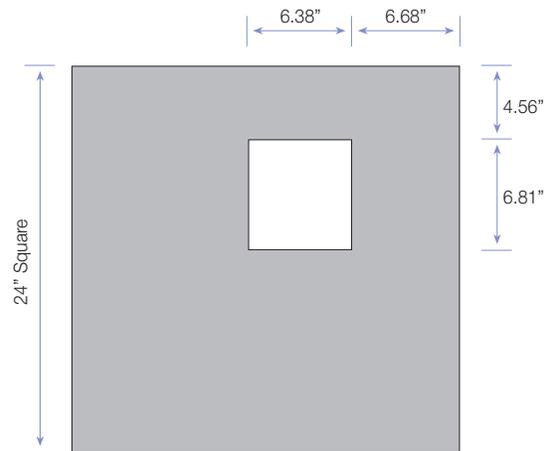
Standard Floor Height - Standard Capacity PVD Servicer™



Specifications

General Information

- 7⁵/₁₆" x 6¹⁵/₁₆" lid assembly
- 1/8" thick low profile trim frame
- 5⁵/₈" overall depth for 6" minimum finished floor height
- Factory wired boxes are listed in U.L. file E63807
- Cutout size is 6³/₈" x 6³/₄"
- Lid colour - black, gray or brown
- 1 or 2 standard or isolated ground Duplex receptacles
- Voice/data plates - 1 grommetted port interface plate and 1 interface plate for 2 Superior RJ-45 jacks
- Carpet or vinyl insert is field supplied and installed



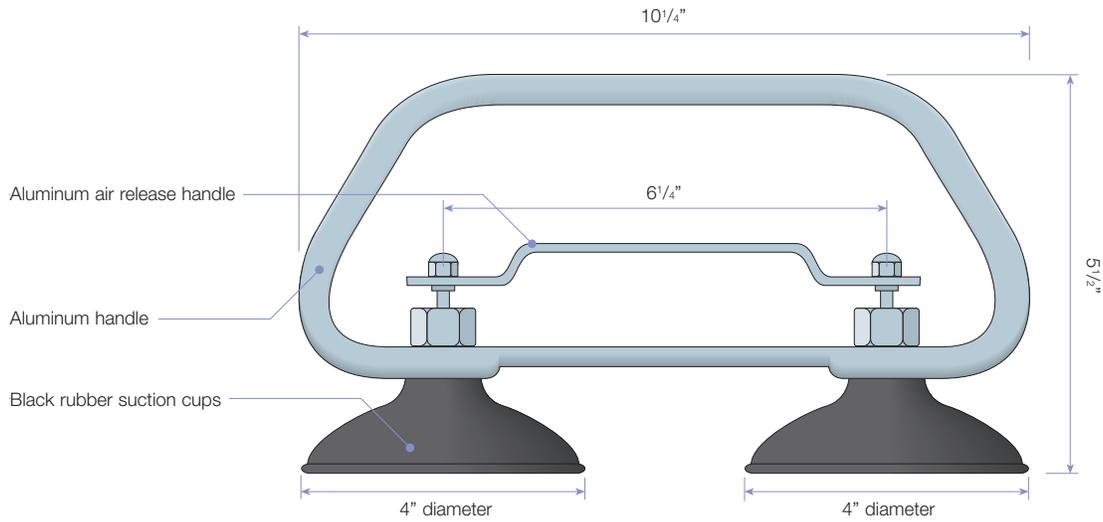
Performance Data

Min Floor Height	Inside Volume	Box Body	Lid/Frame Assembly	Lid Colour	Power Capacity	Voice/Data Capacity	Wiring	U.L. Designation
6"	80"	Galvanized Steel	Lexan 500	Black Brown or Gray	1 or 2 standard or isolated ground duplex receptacles	2 Multiport interface plates	Factory wired MC cable or field supplied, factory wired modular connector	E63807

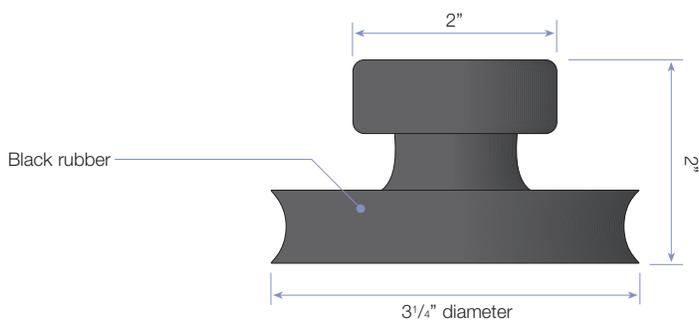
Factory wired boxes are listed in U.L. file E63807

Note: For Power Voice Data configurations to suit any specific project requirements contact the Cii Hotline @ 1-800-679-9711

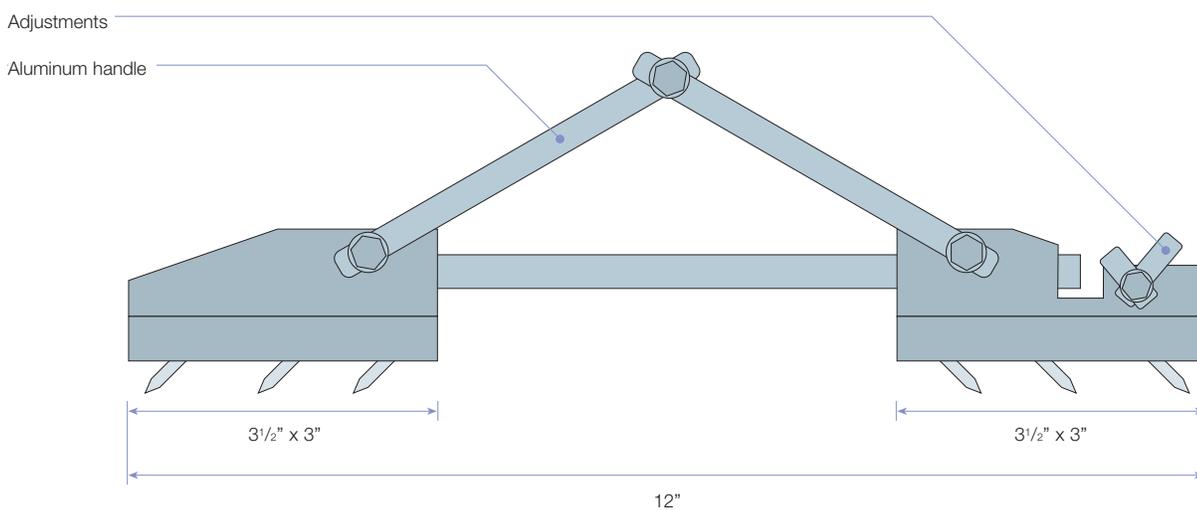
Double Cup Suction Type Lifter for Hard Surfaces



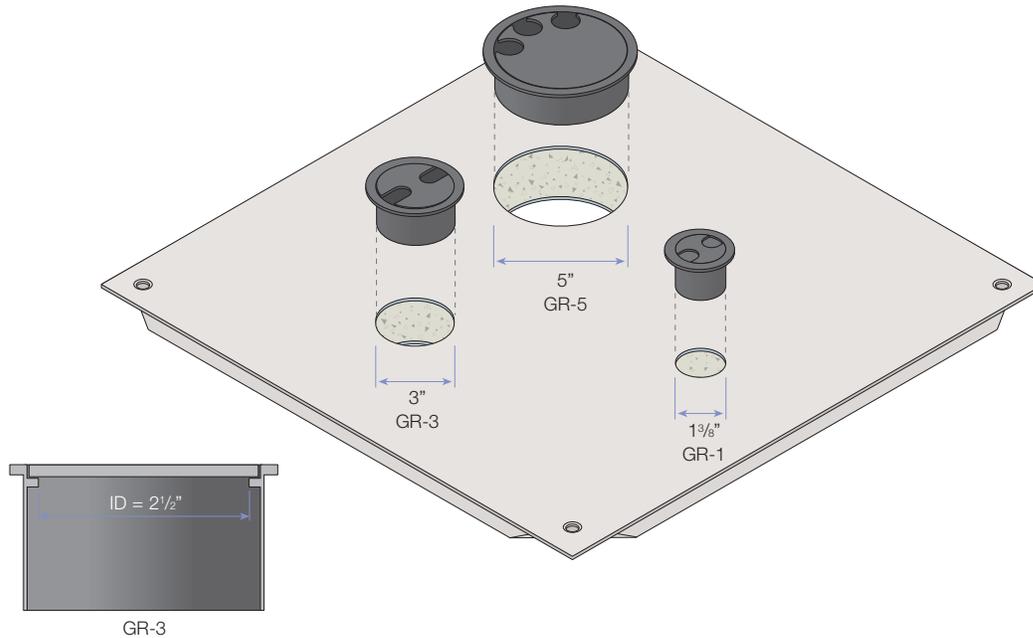
Single Cup Suction Type Lifter for Hard Surfaces



Claw Type Lifter for Cut Pile Carpets



Grommets



Grommet Specifications

Standard Grommets

- GR-1
1 1/2" inside diameter - 1 7/8" hole diameter
- GR-3
2 1/2" inside diameter - 3" hole diameter
- GR-5
4 3/8" inside diameter - 5" hole diameter

GR-3

Same as GR-1 except

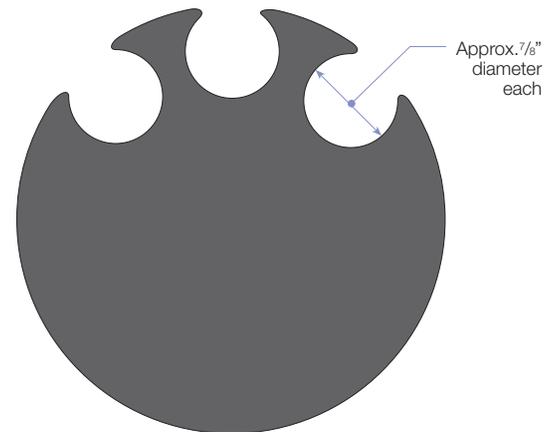
- OD dimension is 3 1/2"
- ID dimension is 2 1/2"
- Openings in lid are 3/4" x 1"

GR-5

Same as GR-1 except

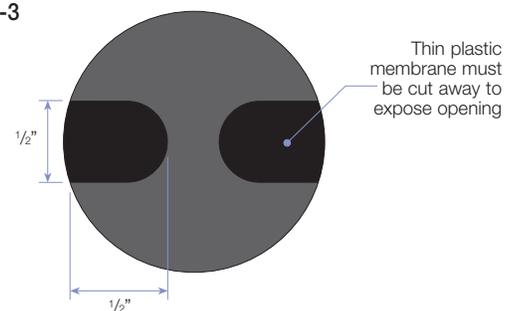
- OD dimension is 5 1/2"
- ID dimension is 4 3/8"
- Openings in lid are approximately 7/8" dia each
- Lid is 2 part with adjustable openings

GR-5

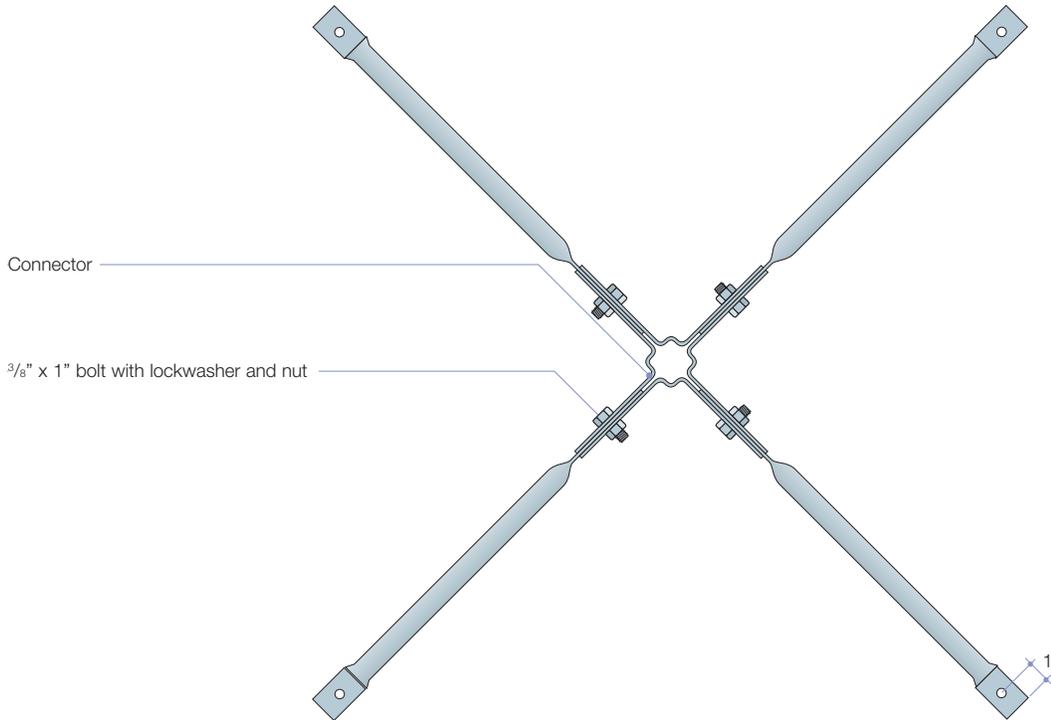


Lid is 2 part twist cover - fully open position as shown here or can be adjusted exposing only 1 or 2 openings

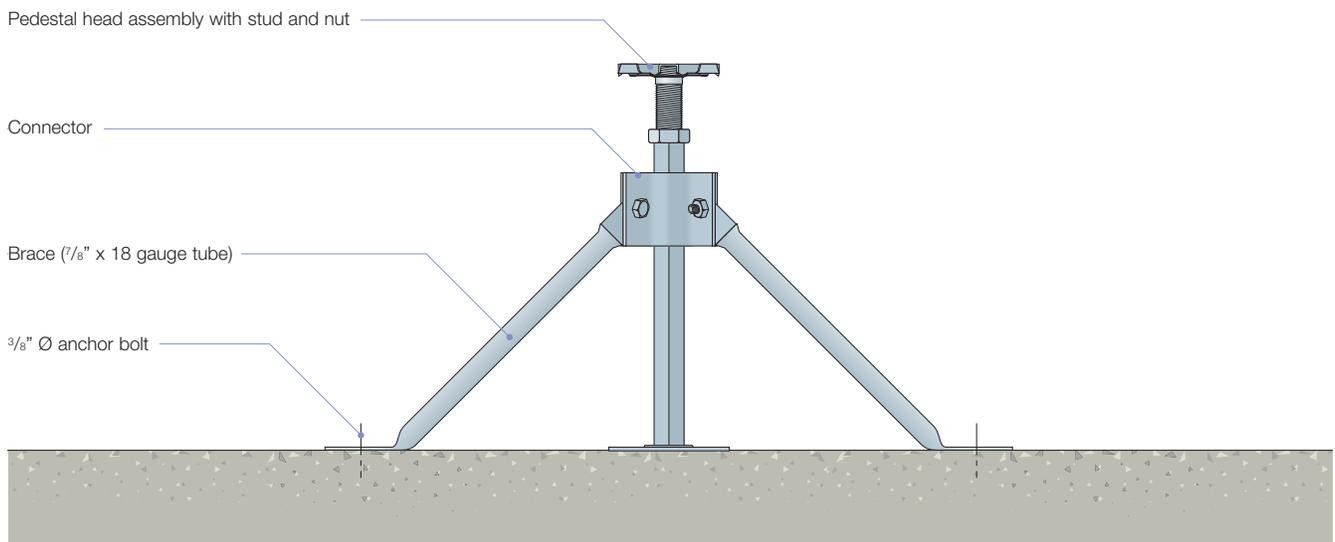
GR-1 & GR-3



Plan View

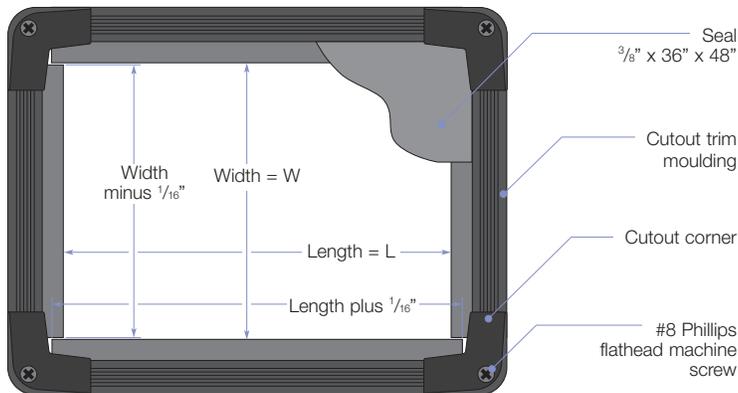


Elevation View

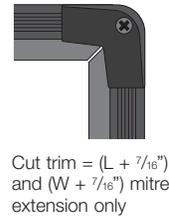


Internal Cutout Assembly

Plan View

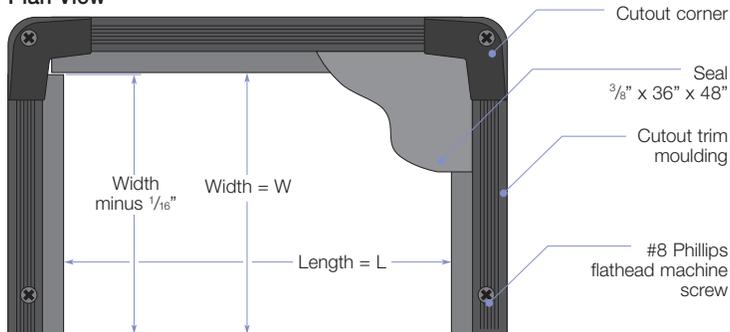


Corner Detail

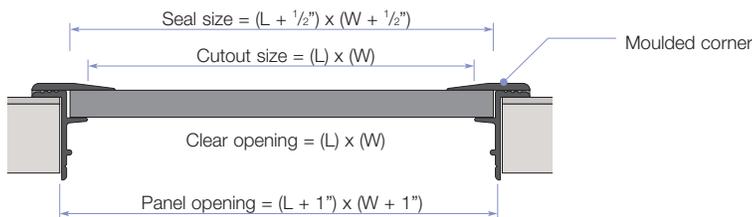


Perimeter Cutout Assembly

Plan View



Section through Cutout



Protective Trim around Cut Edges

All rectangular cutouts to be used as a passageway for cables or others services must have protective trim along the cut edge. Tate's cable cutout trim components are universal cutout trim in 4 foot lengths, and moulded corners and screws (an optional foam plenum seal is available to seal the opening).