




FAÇADE MATERIALS

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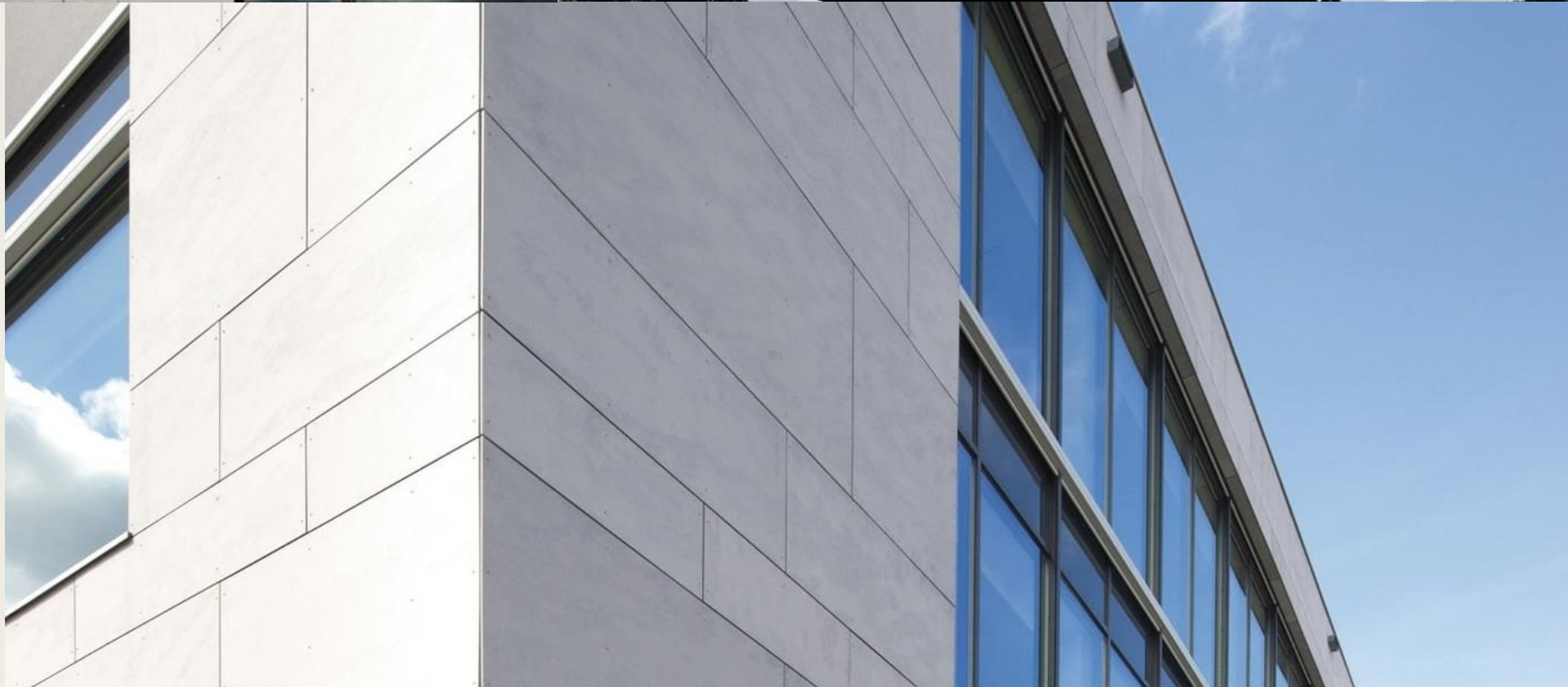


Team members: Mei Fen, Sajida

OPAQUE MATERIAL



Case Study: Office
building Temse
RDBM Architects,
Antwerpen – Belgium
Material: EQUITONE
[tectiva] TE 20



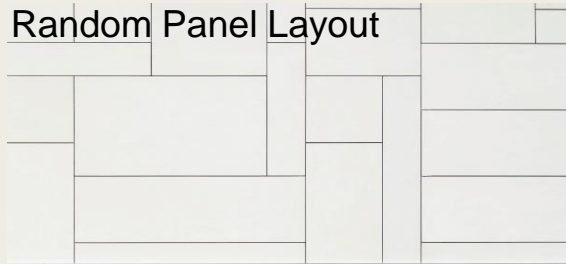
OPAQUE MATERIAL - DETAIL INFORMASHION

Maximum usable sizes in mm:
EQUITONE [tectiva] 8 mm thick

Fire Resistance: A2s1-d0 to EN 13501-1



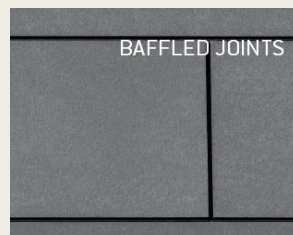
Random Panel Layout



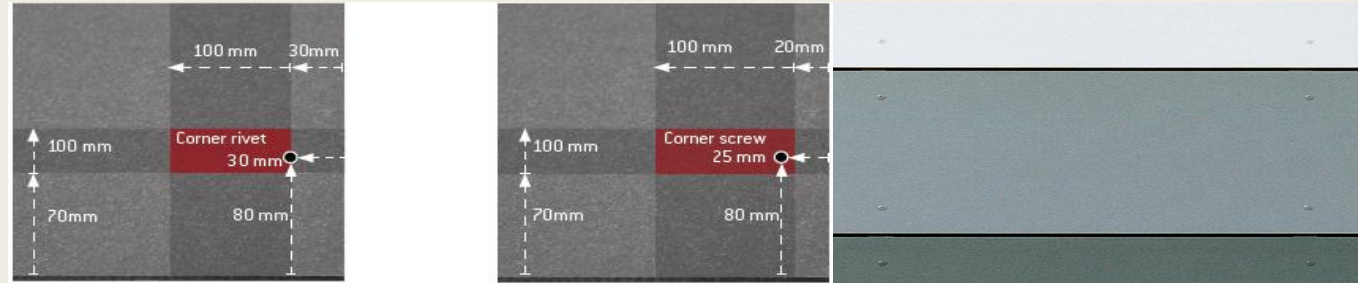
Joints: A ventilated facade joints are not sealed. Any water penetration is managed by a combination of the cavity and the air tightness of the backing wall.

Open joints -a clear open gap between the edges of adjoining panels.

Baffled joints - positioned behind the panels to block the direct line through the opening, while not sealing it.
Minimum joint – 8mm. Maximum joint - 12mm



Face Fixings - using EQUITONE UNI-rivet for metal support frames. The fixings are centered depending on the wind load the façade will be exposed to. (up to 625mm).
Corners:



Support Frame Materials:
Aluminium
Galvanised Steel



9.0 Detailing

Ground Level

General Principles:

- Position the ends of the panels a minimum 150 mm above the finished ground level to help prevent rain splashback
- Ensure entry of air into cavity
- Protect opening with a perforated profile to prevent entry of vermin into the cavity.
- End of panel to form a drip to prevent water running back to wall.
- No planting should be grown near the air inlet as over time the plants may block the air flow.

Only EQUITONE [textura] and [pictura] can be used for this arrangement of allowing the panel to run into the ground. Position a 10 mm open continuous joint within 600 mm of the finished ground. Form a drainage trench at the base of the panels to prevent water build-up.

Figure 1: Ground Level

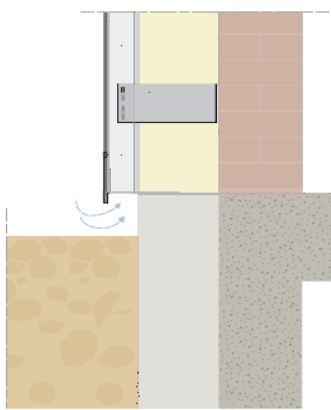
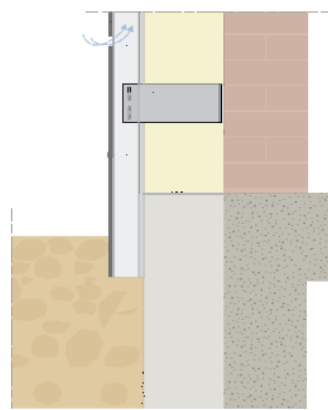


Figure 2: Ground Level



EXTRA NOTE:
For EQUITONE [materia] finish panels ends 300 mm above finished ground level.

Internal Corners

General Principles:

- Similar to external corners, Internal corners can be left as open joints or fitted with a trim profile.
- Any trim profile must be less than 0.8mm thick to prevent distortion of panel. Trim profiles need to be fully supported on angle profiles.

Figure 7:
Robust Internal Corner Detail
Metal

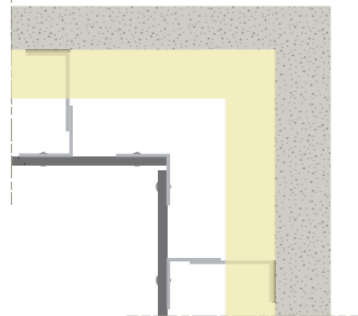


Figure 8:
Internal corner trim
Could be metal or plastic

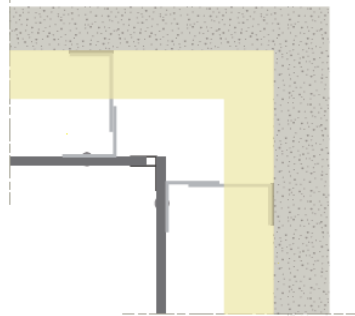
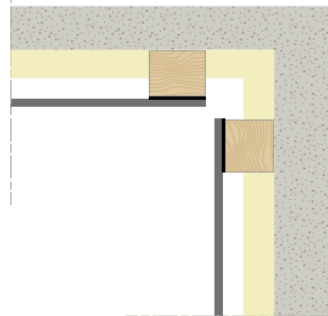


Figure 9:
Alternative Internal corner trim
Timber



Corner detail

External Corners

General Principles:

- The edges of the panels can be open joints or fitted with a decorative trim profile.
- Supporting the corners of the panels is critical.
- A continuous vertical cavity closer can be introduced so that the wind pressures are separated from one side to the other.

Figure 3:
Open Joint External Corner

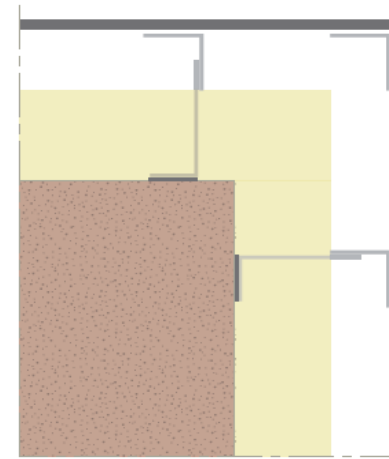


Figure 4:
Standard External Corner Detail



Figure 5:
Mitred External Corner Detail



Figure 6:
External Corner with trim
Timber subframe

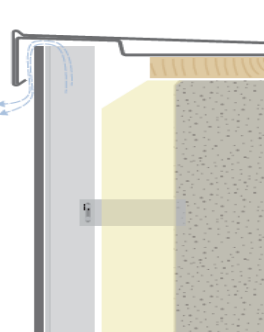


Parapet

General Principles:

- Protect the top of the cavity against water ingress.
- Ensure sufficient air flow is maintained out under the coping.
- For wider gaps a perforated profile can be used to prevent entry of birds.

Figure 10: Parapet Detail

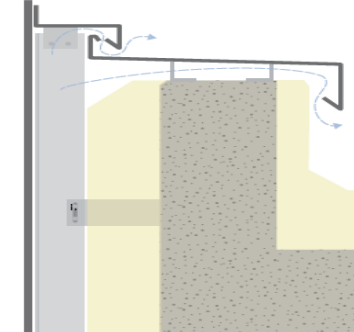


Flush Parapet Detail:

- Where a parapet is desired without an overhanging coping it is important to;
- Protect the top of the cavity against water ingress.

Seal back of panel to the metal flashing.

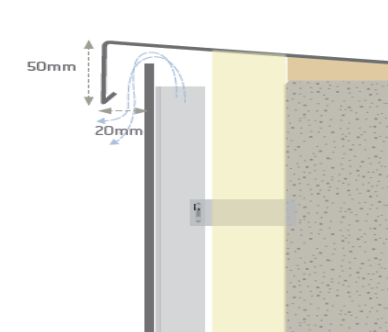
Figure 11: Flush Parapet Detail



EXTRA NOTE:

For EQUITONE [materia] the following capping dimensions should be followed. A minimal 20mm (50mm in case of copper) should be left between the front of the panel and rear of the capping. The front edge of the capping must offer adequate cover to the panels and provide a minimum of 50mm by buildings up to 8m and a minimum of 80mm by buildings up to 20m and a minimum of 100mm by buildings over 20m protection.

Figure 12: EQUITONE [materia] Capping Detail



Roof detail

Recessed Window

The ends of the window cill must be returned up behind the panel or the flashing at the reveals to offer protection from moisture ingress.

Figure 13: Window Jamb

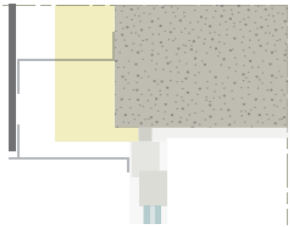


Figure 14: Jamb Detail

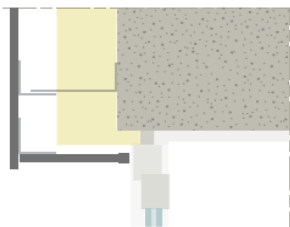


Figure 16: Window Head

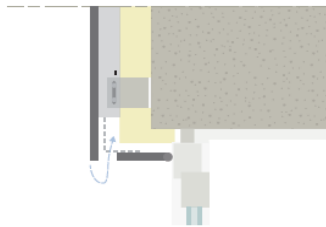
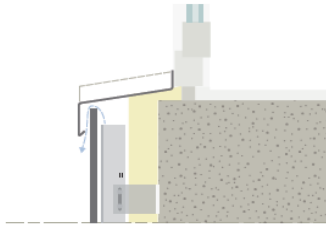
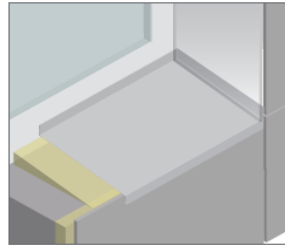


Figure 15: Window Cill



See Figure 15.

For Narrow Window Reveals Specialist flashings as part of the window are best suited. The ends of the window cill must be returned up behind the panel or the flashing at the reveals to offer protection from moisture ingress.

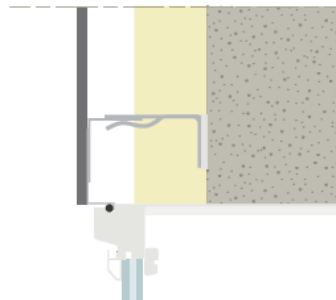


Flush Window

General Principles:

Typically formed using an Aluminium profile or similar to create the closer to cavity and cover to the window abutments. The maximum unsupported edge of the panel must be respected.

Figure 17: Flush Window



Structural Movement Joint

General Principles:

For the building structural expansion joints the panel must not be fixed crossing over this expansion joint.

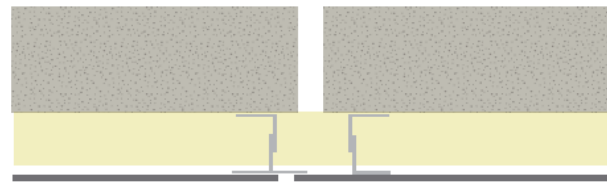


Figure 18: Vertical Movement Joint

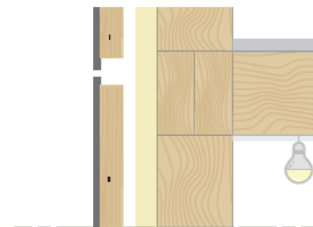


Figure 19: Horizontal Movement Joint

Soffit/Junctions

General Principles:

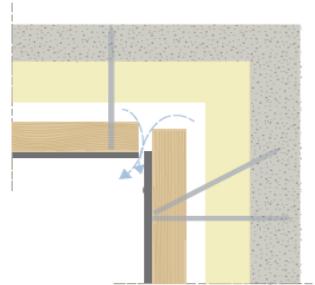
EQUITONE to Flat Soffit

EQUITONE materials can be used for a soffit application either as a small soffit and fascia or a large soffit/ceiling. When used in this application it is recommended to ventilate the rear of the material and to reduce the framing/fixing centres.

Please contact your local EQUITONE Service team for more assistance.

A clear ventilation path must be provided at the head of any façade panel/framing where it abuts a soffit. Depending upon the soffit type and finish this may require ventilation as well.

Figure 20: Soffit Detail



Junction with other Façade Materials

EQUITONE to Render

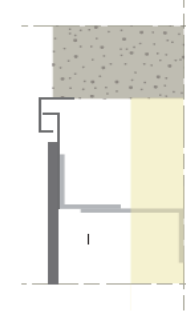


Figure 21:
EQUITONE to render side abutment

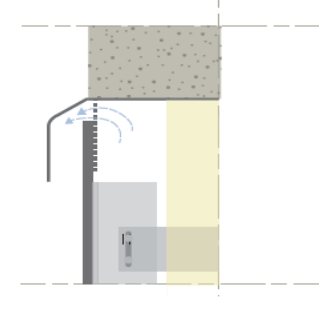


Figure 22:
EQUITONE to render top abutment

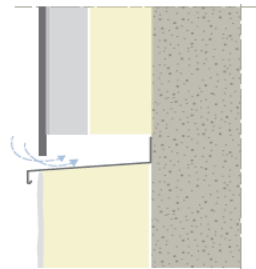


Figure 23:
EQUITONE to render base detail

Window detail

Glass Curtain Wall Material

Case Study



MARQUEE AT BLOCK 37

Architect:
Solomon Cordwell Buenz

Location:
Chicago, IL

Featured Products
Window Wall

Glass Curtain Wall Material – Detail Information

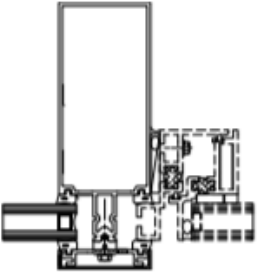
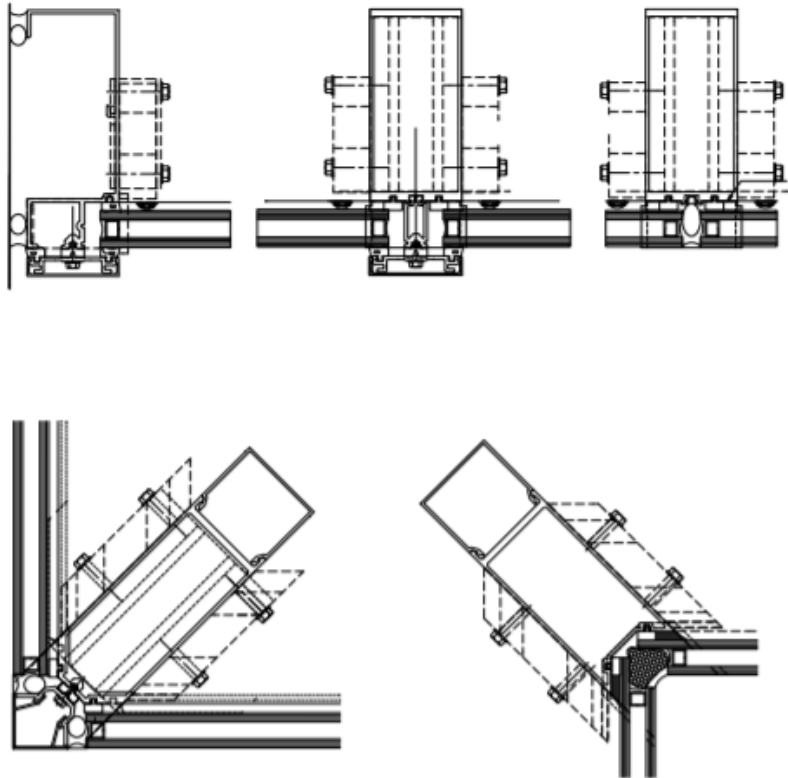
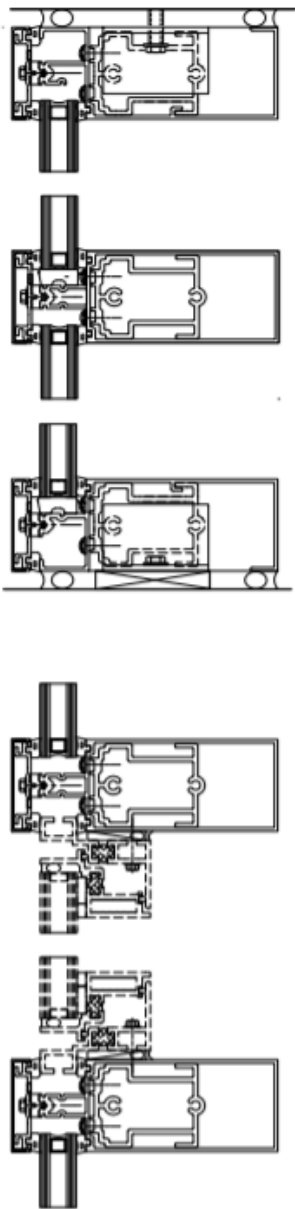
Reliance™ Curtain Wall—outside glazed, high performance pressure equalized curtain wall system by Oldcastle BuildingEnvelope®



The Reliance™ Curtain Wall zone-glazed system is easy to install and features **exceptional water control** and outstanding thermal performance. 1" and 1-1/4" typical infill systems are offered with snap-in glazing adaptors to accommodate 1/4" spandrel glazing. In addition, a complete system for 1/4" infill is available. Reliance™ provides two gasket options: EPDM dense gaskets on both the interior and exterior, or EPDM sponge gaskets on the interior to accommodate molded corners. Other installation features include roll-over and roll-under horizontals to simplify typical field stick erection. Reliance™ Curtain Wall is thermally broken utilizing an EPDM push-in isolator, and an FRP pressure plate is available for the 1" and 1-1/4" systems to take thermal performance to the next level.

RELIANCE™ CURTAIN WALL

rd Details



FRP PRESSURE PLATE

GLAZING

2.1 When installing AW-162 FRP pressure plate follow all standard installation steps as noted in appropriate Reliance™ system installation and glazing manual. Install fasteners located at 1-1/2" from each end first, then end fasteners in pressure plates last, be sure to hold firm pressure on pressure plate while installing the FS-325 fasteners to prevent pressure plate from pulling away from face of system and disengage the thermal isolator. Torque fasteners to 80 in/lbs. Fasteners will be located at a maximum of 9" on center. Fastener location may vary based on project specifications, so consult shop drawings for additional information. Additional fasteners should be added where needed to insure a fastener is located above and below each horizontal. See FIGURE 3

2.2 All unused holes in vertical and horizontal pressure plates must be sealed. See FIGURE 3

2.3 Seal horizontal pressure plate to verticals and install face caps. Reference system installation manuals for more information. See FIGURE 4, page 6.

2.4 Horizontal face caps are to be cut D.L.O. minus 1/16". Drill 5/16" weep hole on bottom of cap at centerline. See FIGURE 5, page 6.

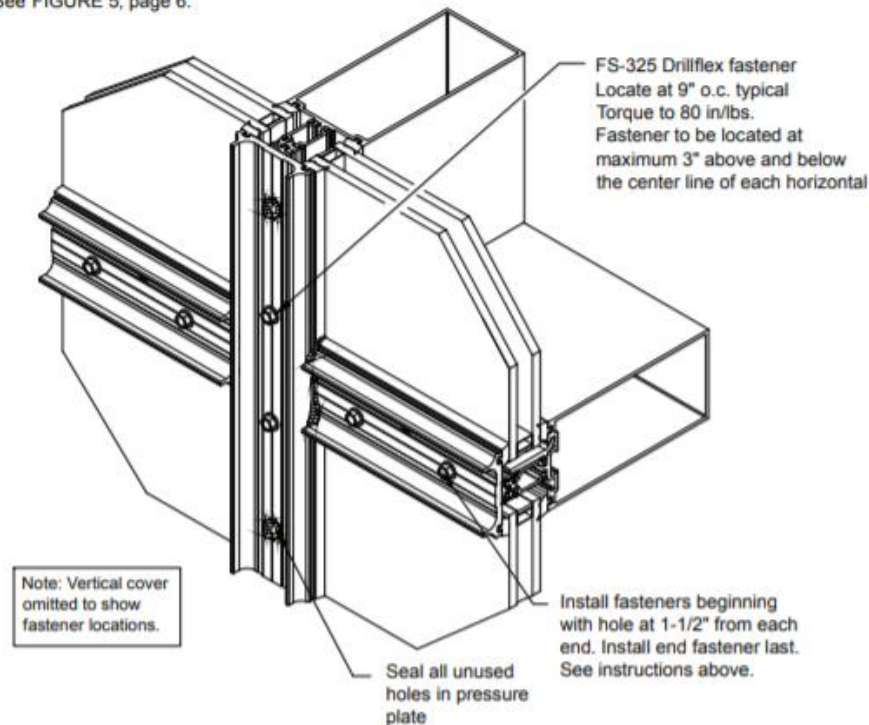


FIGURE 3
Sealant and Fastener
Locations

FRP PRESSURE PLATE
ASSEMBLY

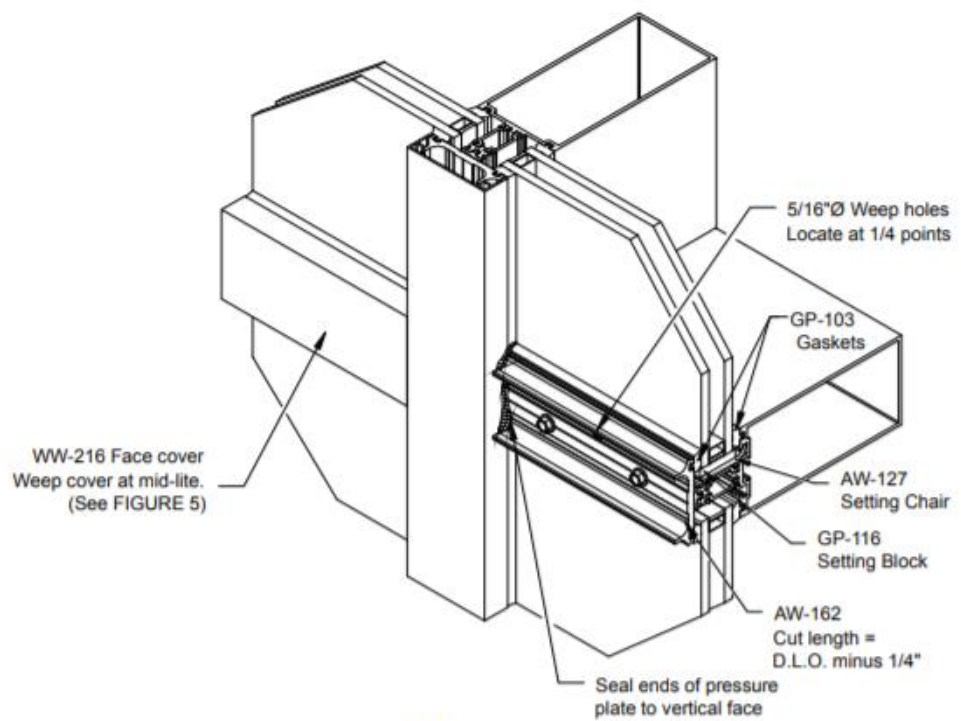


FIGURE 4
Installation

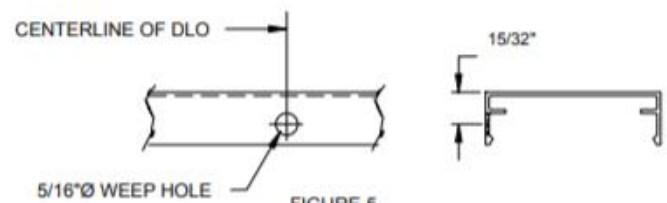


FIGURE 5
Horizontal Face Cover Fabrication

FRP PRESSURE PLATE

PRESSURE PLATE FABRICATION

2.7 Pressure plate reinforcement AW-310 must be installed at each horizontal to vertical intersection for deep face caps as noted in 2.8. Reinforcement will be held in place with FS-325 pressure plate fastener. Face cap, pressure plate and reinforcement will be fabricated with .125" hole on each side at center of face cap. A FS-317, 1/8" x 3/4" lg dowel pin (part # 35821) must be inserted at each side of face cap to secure the cap to the reinforcement. See FIGURE 6.

2.8 Use AW-310 reinforcement at all face caps deeper than 1-1/2" with maximum cap depth of 4".

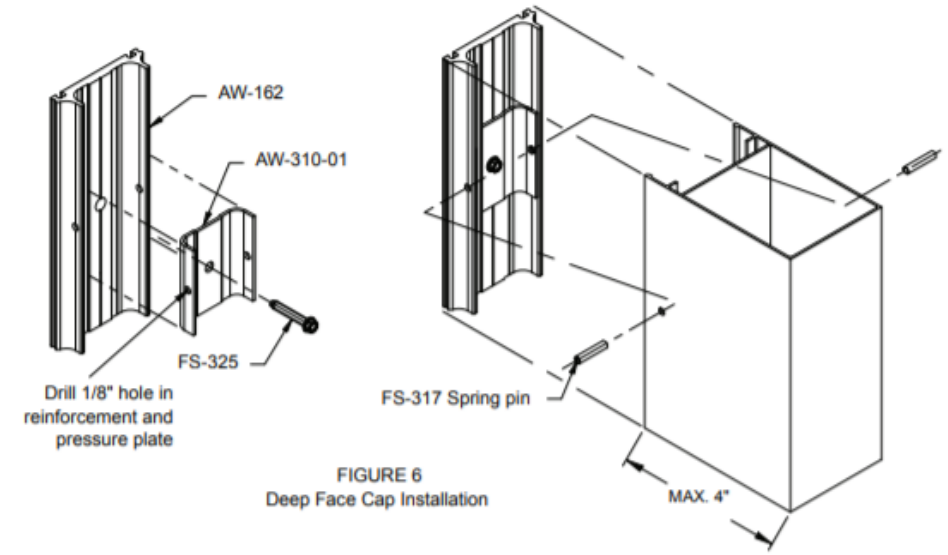






FIGURE 6
Deep Face Cap Installation

PARTS LIST

 AW-162	FRP Pressure Plate
 AW-310-01	Deep Cap Reinforcement
 FS-317	Spring Pin for AW-310-01
 FS-325	#12-24 X 1-1/2 HWH Drill Flex (Typ. Pressure Plate)