TECHNICAL MANUAL





ALPOLIC®/fr









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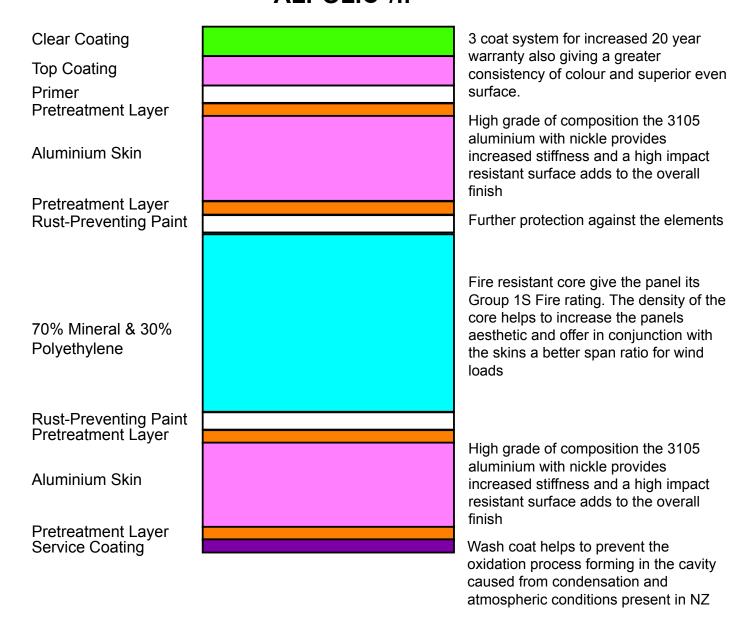
1. GENERAL DESCRIPTION

ALPOLIC®/fr is composed of a 70% mineral & 30% polyethylene filled core sandwiched between two skins. It is suitable for use for:

- Commercial, High Rise and curtain wall cladding
- Corporate Signage
- Fascia
- Fire-rated Wall linings
- Fire-rated Ceiling linings
- Feature Walls

ALPOLIC®/fr is coated with Lumiflon FEVE Polymer (CFTE) paint with a 20 year warranty for applications further than 1 km from the ocean and 15 years for closer to water applications.

ALPOLIC®/fr





2. COMPLIANCE WITH THE BUILDING CODE

ALPOLIC®/fr is CodeMark certified, confirming that the product has guaranteed acceptance by theregulatory bodies. Any building consent authority must accept a Codemark™ certified product or system, as long as it is used within the conditions and limitations of its certificate of conformity.

3. COMPLIANCE OF SCOPE

ALPOLIC®/fr, if designed used and installed and maintained in accordance with this Technical Manual and Details, will meet or contribute to the following provisions of the New Zealand Building Code (NZBC)

Clause B1 - Structure:

Clause B2 - Durability:

Clause C3.4 (a)

Clause F2.3.1, F2.3.3(a) and (b)

Clause E23.2, E2.3.5 and E2.3.7 (a, b, c)

3.1 CLAUSE B1 STRUCTURE

ALPOLIC®/fr, including their fixings, is able to withstand all wind loadings and earthquake zones in all areas of New Zealand in accordance with NZS 3604:2011;

3.2 CLAUSE B2 DURABILITY

When installed in accordance with this technical manual, ALPOLIC®/fr, meets the requirements of NZBC Clause B2.

When fixed in accordance with this technical manual, the fixings meet the requirements of NZBC Clause B2.

The Lumiflon-based fluorocarbon paint system (ALPOLIC®/fr) is known for its high durability. ALPOLIC®/fr, meets the requirements of NZBC B2 relating to the resistance of all kinds of weathering attack, provided the integrity of the specified external system.

3.3 CLAUSE E2 EXTERNAL MOISTURE

ALPOLIC®/fr, when installed in accordance with technical Literature, will prevent the penetration of water that could cause undue dampness and/or damage to building elements and will therefore comply with clause E2.3.2.

3.4 CLAUSE F2 HAZARDOUS BUILDING MATERIALS

In reference to NZBC Clause F2 regarding Hazardous Building Materials, ALPOLIC®/fr panels installed are non-hazardous, and will not present a health hazard to people.



4. DESIGN REQUIREMENTS

ALPOLIC®/fr, is certified for use as a non-load bearing, internal lining or external cladding system on new and existing buildings and the scope of use is defined as:

- a) Buildings which fall under the New Zealand Building Code acceptable solutions C/AS1 to 6 and for verification method C/VM2 for buildings with an importance level not greater than 3.
- b) Buildings constructed with timber framing, or timber framing infill complying with NZBC. This does not limit the panel being fixed to steel framing, concrete or concrete masonry.
- c) Buildings subject to maximum wind pressures for weather- tightness design of 2.5kPa Ultimate Limit State (ULS).
- d) Buildings where the cavity is drained and ventilated at least at every second floor level-or 10m height, whichever is the lesser.

Compliance with B2.3.1. (b) for a 15 year period where the building is within a 1 km distance from the sea, otherwise for a 20 year period.

Compliance with C3.4 (a) is applicable where a Group 1-S rating is permitted.

The compliance requirements of the wall, ALPOLIC®/fr, is attached to is outside the scope of this technical manual, including fire resistance, acoustics and energy efficiency.

Weather tightness details which are developed by the designer outside the scope of this technical manual are the responsibility of the designer for compliance with the NZBC. Significant acceleration of corrosion can occur due to industrial contamination and corrosive

atmospheres and contamination from agricultural chemicals and fertilisers. Specific Engineering Design is required under these micro climatic conditions.



5 CONSTRUCTION REQUIREMENTS

- a) ALPOLIC/fr is to be installed by a fabricator/installer appointed by the project owner or construction company. On completion, all work is to be inspected and issued a signed Producer Statement by the Architect or Engineer, Installer in conjunction with the appointed construction company.
- b) The wall structure to which the ALPOLIC®/fr is installed to must be able to be support the intended building work as designed by suitability qualified engineers and must not be subjected to wind loads exceeding ULS 2.5kPA. Supporting substrates may be timber or steel framing, concrete or concrete masonry.
- c) Vertical compartmentalisation with airtightness exceeding 0.1 MNs/m3 is required of the cladding cavity within 500mm of every corner, at 2m centres after that, to a maximum of 5m centres where cladding panels are located further than 2.5m from any edge of the cladding, or areas where airflows are interrupted.
- d) A building with wind exposure of less than 1.1 kPa ULS must have a building wrap complying with NZBC Clause E2/AS1 Table 23, or a rigid air barrier (RAB)
- e) A building with any exposure to wind above 1.1 kPa ULS must have building wrap or a rigid air barrier that has an airflow resistance of greater than 0.1 MNs/m3.
- f) A building with exposure on any part of its face above a 1.55 kPa ULS must use a RAB as the backing for a cavity.
- g) The installation must be carried out in accordance with the ALPOLIC®/fr technical literature.

6 MAINTENANCE REQUIREMENTS

Regular maintenance is essential to maximise the serviceable life of ALPOLIC®/fr.

An inspection of ALPOLIC®/fr installations should be undertaken at least annually to determine the condition of the whole building. Items to be checked include, but are not limited to:

- a) Dirt any accumulation of dirt should be washed from the surface of the panels.
- b) Scratches and Dents these need to be identified and repaired.
- c) Joint Sealant identify any failures and repair

7. WARRANTY

The manufacturer of the ALPOLIC®/fr panels provides a minimum of 15 years warranty (from date of completion) when the panel forms part of the ALPOLIC®/fr closer than 1 km from the ocean. The manufacturer of the ALPOLIC®/fr panels provides a minimum of 20 years warranty (from date of completion) when the panel forms part of the ALPOLIC®/fr further than 1 km from the ocean. PSP Limited warrant the ALPOLIC®/fr for not less than 15 years provided it is installed in accordance with the most current PSP technical literature.



8. NOMINATED SYSTEM REQUIREMENTS

a) ALPOLIC®/fr Panels

Sizes available: 2489mm x 1575mm, 3099mm x 1270mm, 3099mm x 1575mm & 4000mm x 1575mm

Colours Available: White M9010, Black MJ062, Charcoal M7991, Silver Metallic M9170, Dark Grey Metallic MB106, Champagne Metallic M9177, Medium Bronze Metallic M9221, Galaxy Metallic BF7542, Sparkling White MD046, Sparkling Black MD044, Sparkling Grey MD045, Sparkling Dark Grey MD049 & Cloud White Matte CWM

- b) Stainless Steel fixings in accordance E2/AS1 Table 20 and current NZBC legislation
- c) Flashings Marshall innovations trade seal self-adhesive collar
- d) Metal flashings complying with E2/AS1 Table 7 and current NZBC legislation
- e) Sealants Sikaflex AT Façade

Holdfast Fix All MS Polymer

- f) Aluminium Angle Fixing Brackets
- g) PEF backing rods
- h) Plastic Packers/shims

Where products other than the above are substituted it is the responsibility of the installer to ensure that the product is fit for purpose. If nominated components are substituted without the knowledge of PSP Limited, any warranties may be void.



PRE-CLADDING CHECKLIST

For builders, installers & building inspectors

Consent No:	 -
Commence Date:	
Client Name:	phone:
Builder:	phone:
Architect:	phone:

Owner/Builder must have the framing and other components of the building correctly installed to enable the installation of ALPOLIC®/fr.

Floor slab layout:

- Ensure distance from outside of framing to outside of concrete footing is exactly 50 on all sides of building.
- If slightly under it is okay on single storey. This allows 50mm for the ALPOLIC®/fr panels.
- Ensure ground level is 250mm below floor level, minimum 300mm out around base to allow for installation work.

Rebate:

- Install approved DPC as per manufacturers' specifications.
- Smooth and level

Framing:

- All straight and level
- Studs straightened for wall lining before ALPOLIC®/fr panels are installed

Wall Wrap/ Rigid Air Barrier:

- Exterior timber framed walls must be wrapped with building wrap that complies compliance document E2/AS1 table 23.
- RAB/Wall wrap must be fixed to the exterior wall framing prior to installation of ALPOLIC[®]/fr panels.
- Ensure wall wrap/RAB is continuous around corners and installed as per the manufacturers instructions.
- Ensure that all penetrations such as waste water pipes and the like have been flashed to the building wrap using "approved flexible flashing tape".

Joinery:

- The builder is also responsible for the application of approved flexible flashing tape around openings prior to the installation of any joinery.

Plumbing:

- All plumbing including gas lines need to be pressure tested prior to installation of internal linings.



Variables / Concerns / Comments:				
Builder / Owner:				
Signature:				



PRE-SEALANT CHECKLIST

For builders, installers & building inspectors

Consent No:		
Commence Date:		
Client Name:		phone:
Builder:		phone:
Architect:		phone:
PSP re	commends an inspection l to sealar	by Building Inspector prior
Panels must be fla	at, true & straight with minimum 6	screws per sheet
All external and in	ternal corners are vertical and sq	uare, and fastened with the screws tightly
Ensure that the dr properly	ainage holes of window head, cla	idding base are in place and installed
Ensure window he	ead flashing tape is fixed in place,	level, straight, tightly and properly
] Sill and base flash	ings are installed as required in t	his specification
All pipe work/pene	trations through cladding are inst	alled as required in this specification
Variables / Concern	is / Comments:	
Installer:		
Signature:		
Approved by:		
Signature:		
Oigilatai oi		



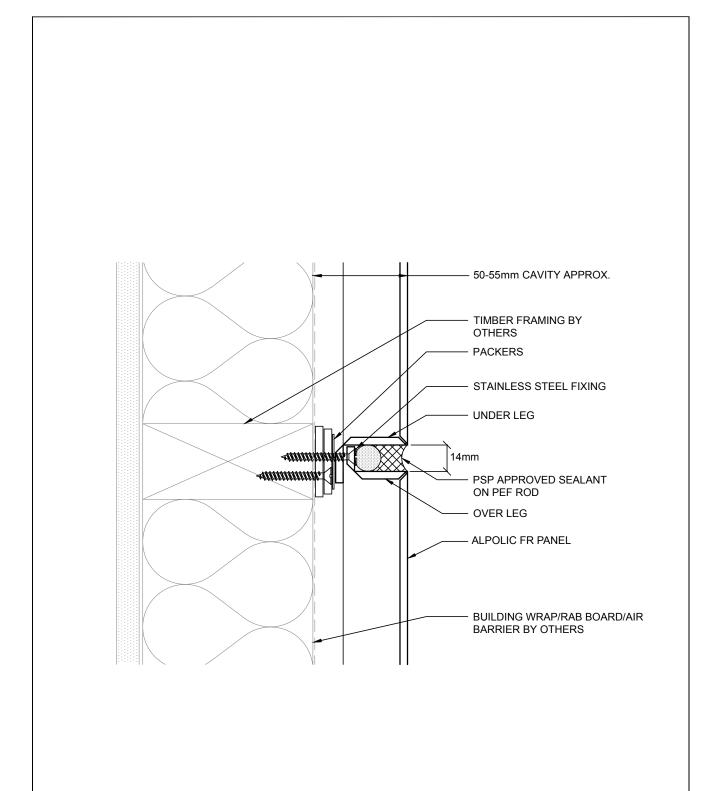
FINAL CHECKLIST

For builders, installers & building inspectors

Consent No:	
Commence Date:	
Client Name:	phone:
Builder:	phone:
Architect:	phone:
All the drainage holes are working and not	been applied, finished to manufacturer's specification t blocked een applied, any damage of coatings is repaired and
finished to manufacturer's standard	en applied, any damage of coatings is repaired and
All the penetrations including plumbing pip fittings	be work and the like are filled with foam tape under
Variables / Concerns / Comments:	
Builder/Owner:	
Signature:	
Approved by:	
Signature:	



STANDARD HORIZONTAL JOINT DETAIL



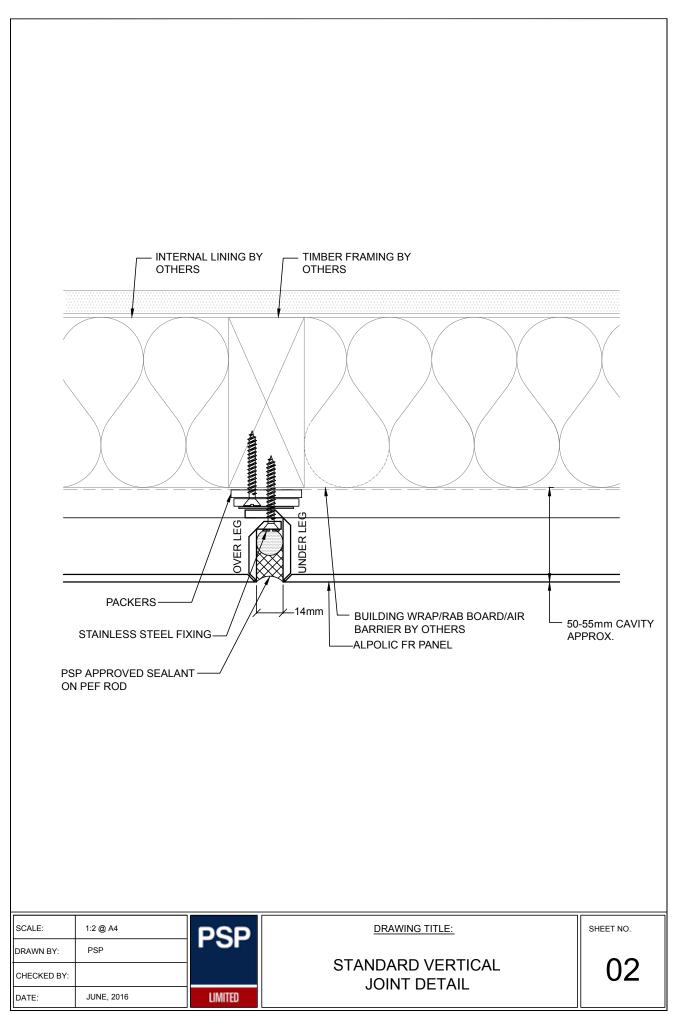
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DRAWN BY:	PSP	FSF
CHECKED BY:		
DATE:	JUNE, 2016	LIMITED

DRAWING TITLE:

STANDARD HORIZONTAL JOINT DETAIL SHEET NO.

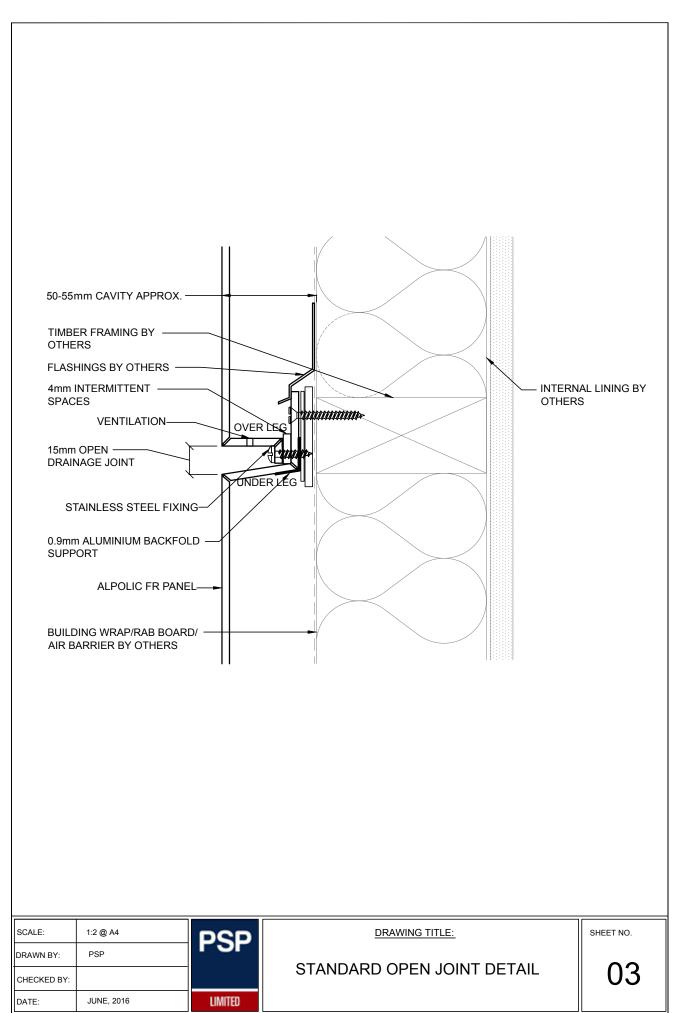
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STANDARD VERTICAL JOINT DETAIL



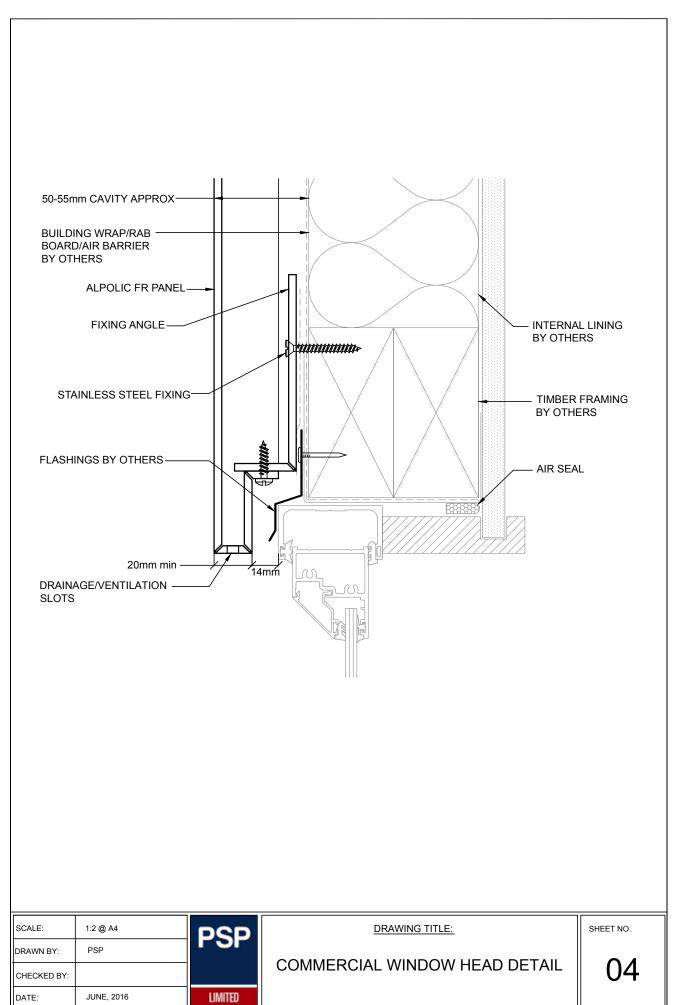


STANDARD OPEN JOINT DETAIL



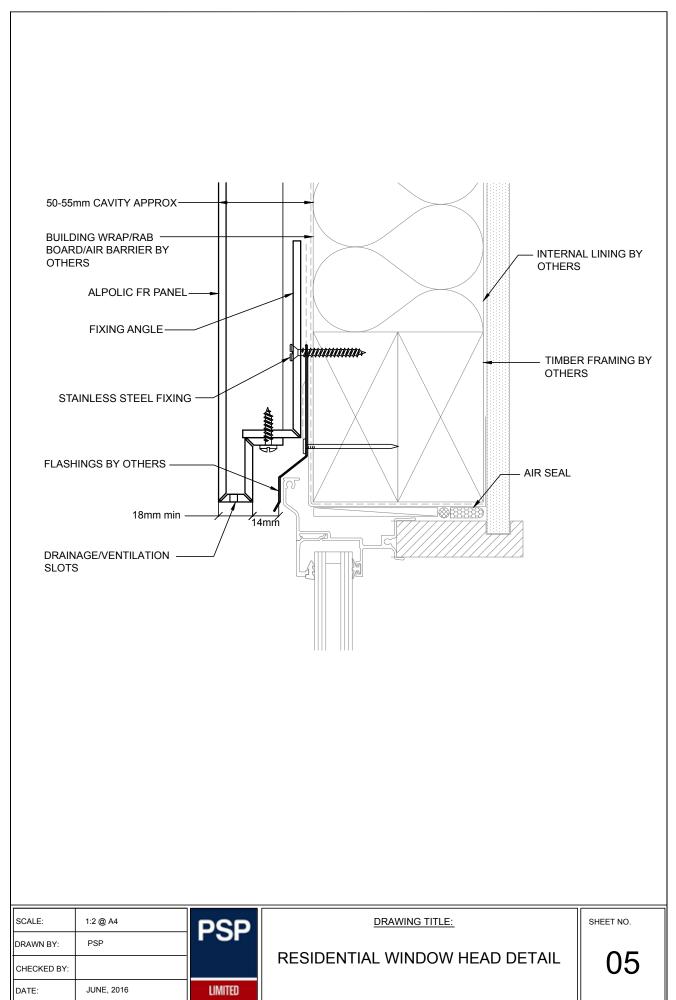


COMMERCIAL WINDOW HEAD DETAIL



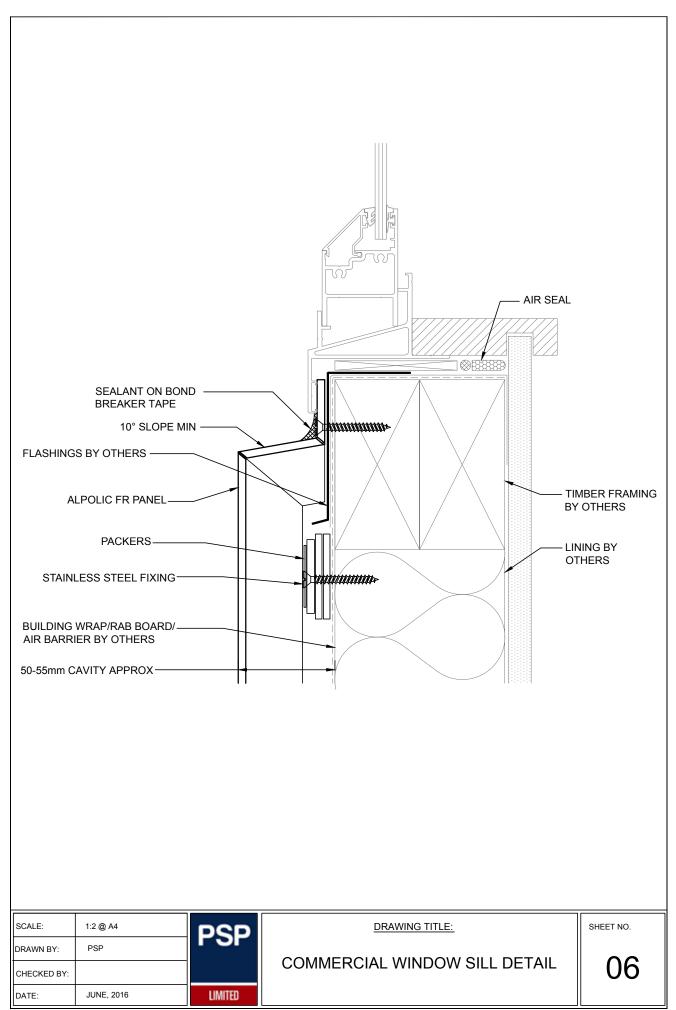


RESIDENTIAL WINDOW HEAD DETAIL



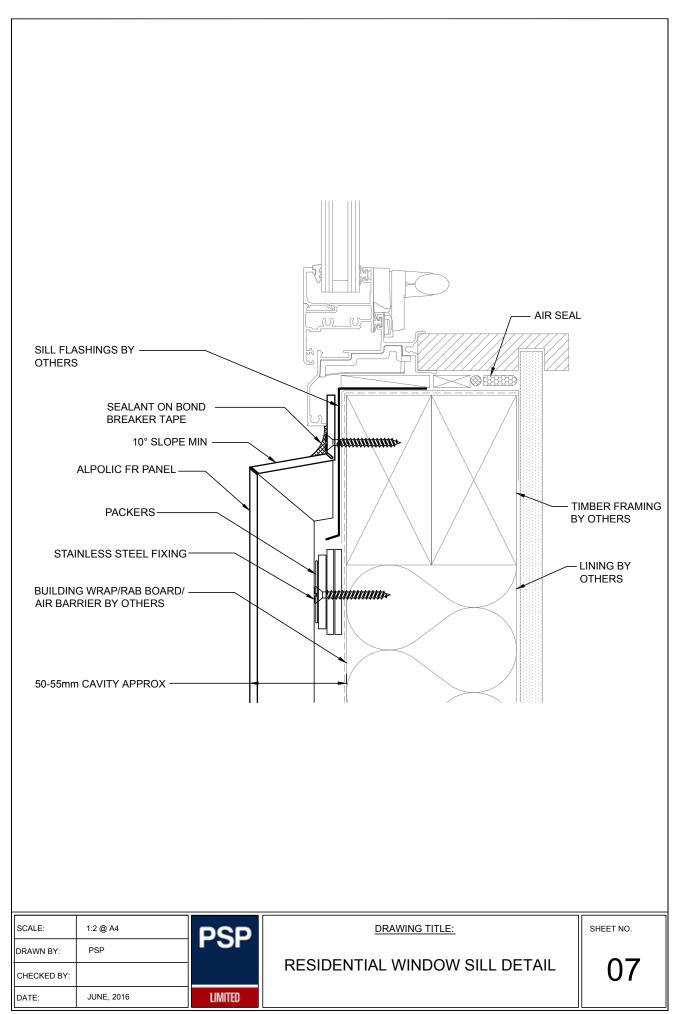


COMMERCIAL WINDOW SILL DETAIL





RESIDENTIAL WINDOW SILL DETAIL

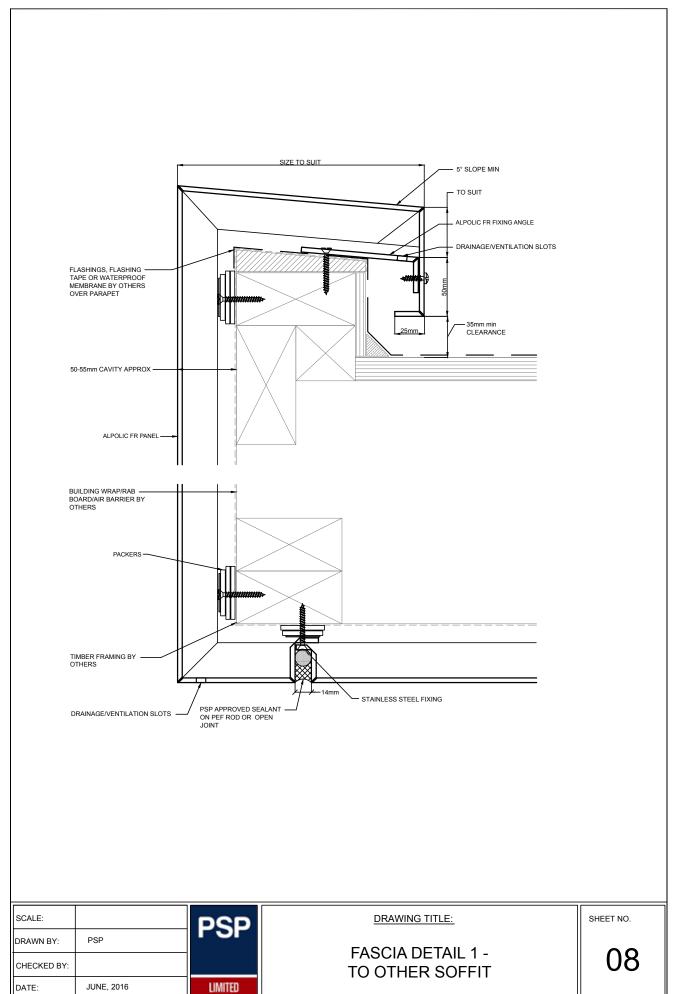




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FASCIA DETAIL 1 - ALPOLIC®/fr PANEL SOFFIT

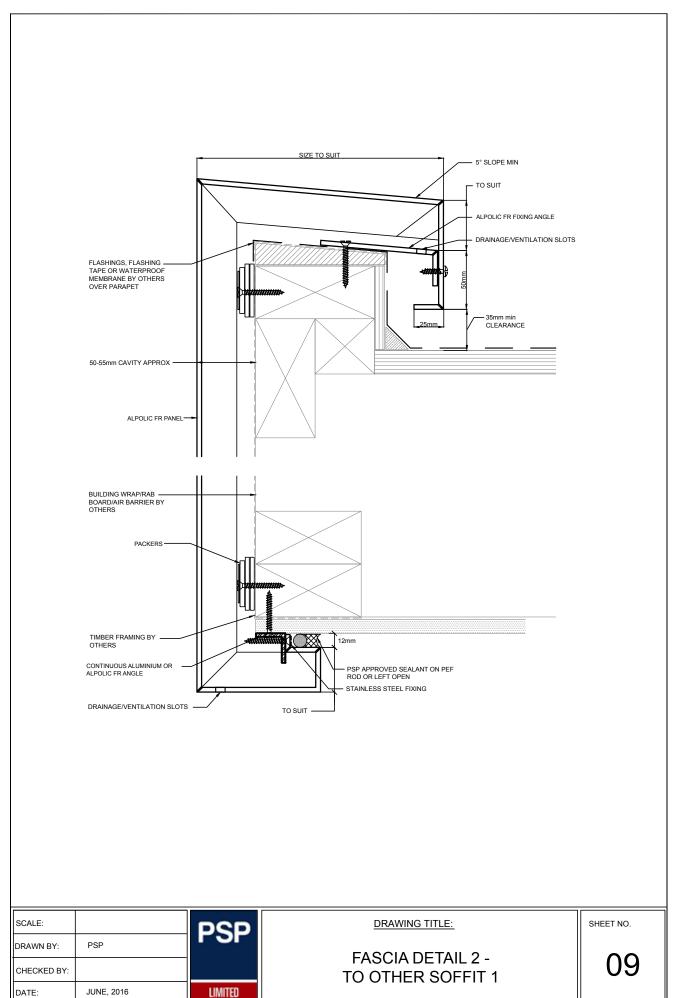




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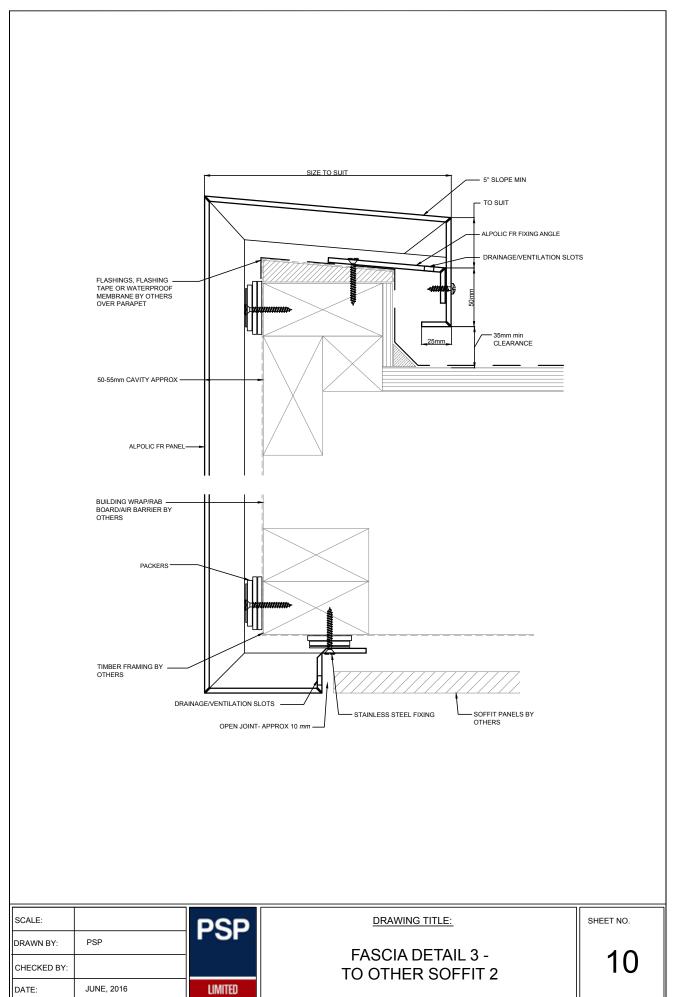
FASCIA DETAIL 2 - ALPOLIC®/fr PANEL SOFFIT 1





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FASCIA DETAIL 3 - ALPOLIC®/fr PANEL SOFFIT 2

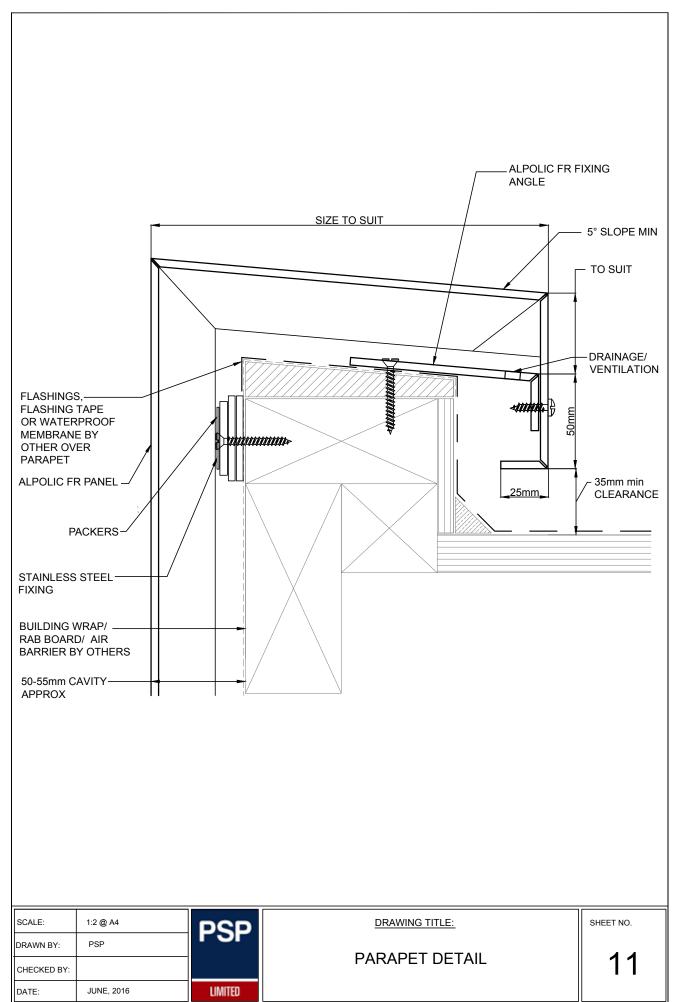




Web Site www.psp.co.nz

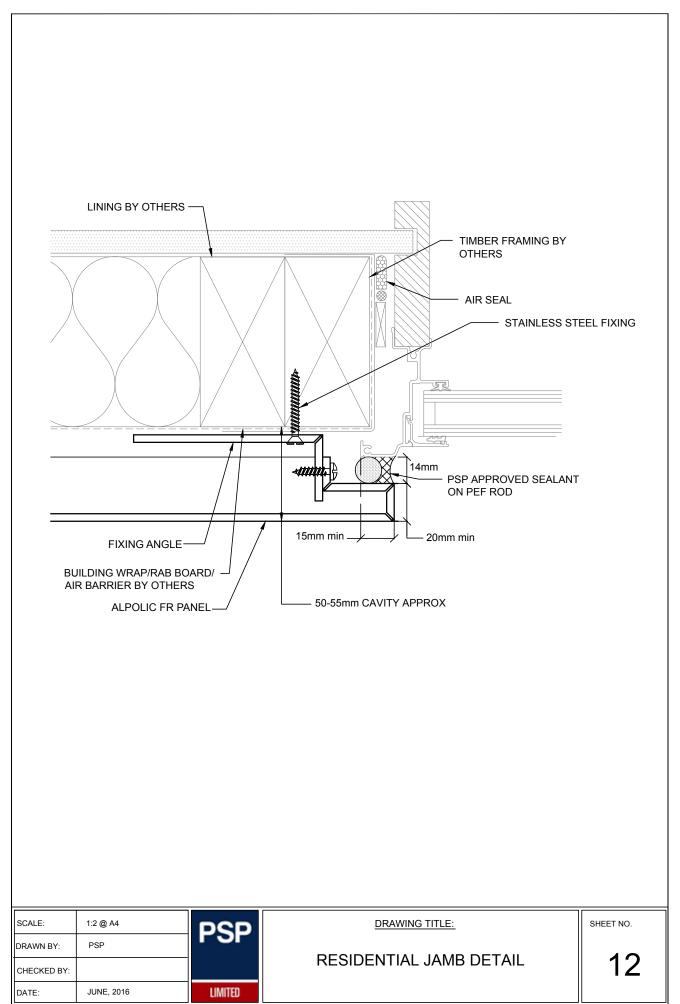
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PARAPET DETAIL



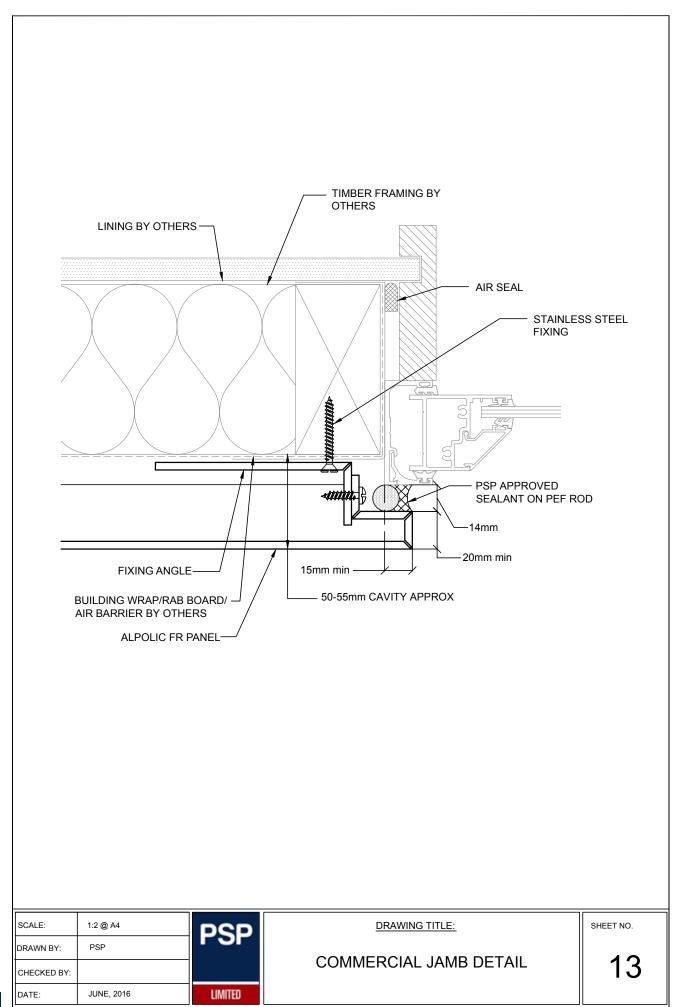


RESIDENTIAL JAMB DETAIL



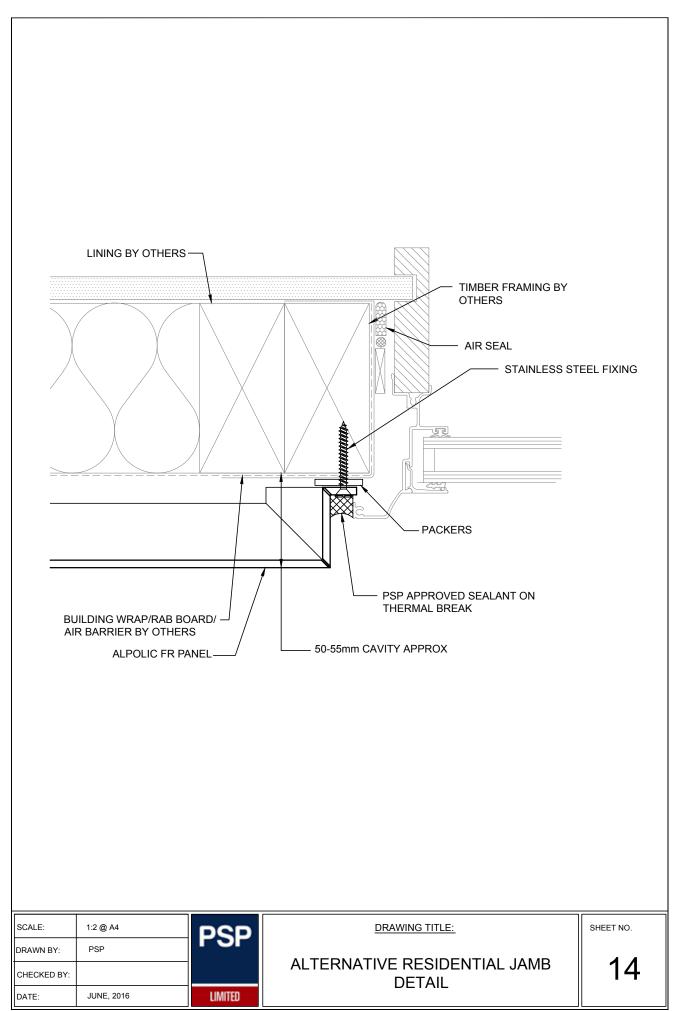
PSP

COMMERCIAL JAMB DETAIL



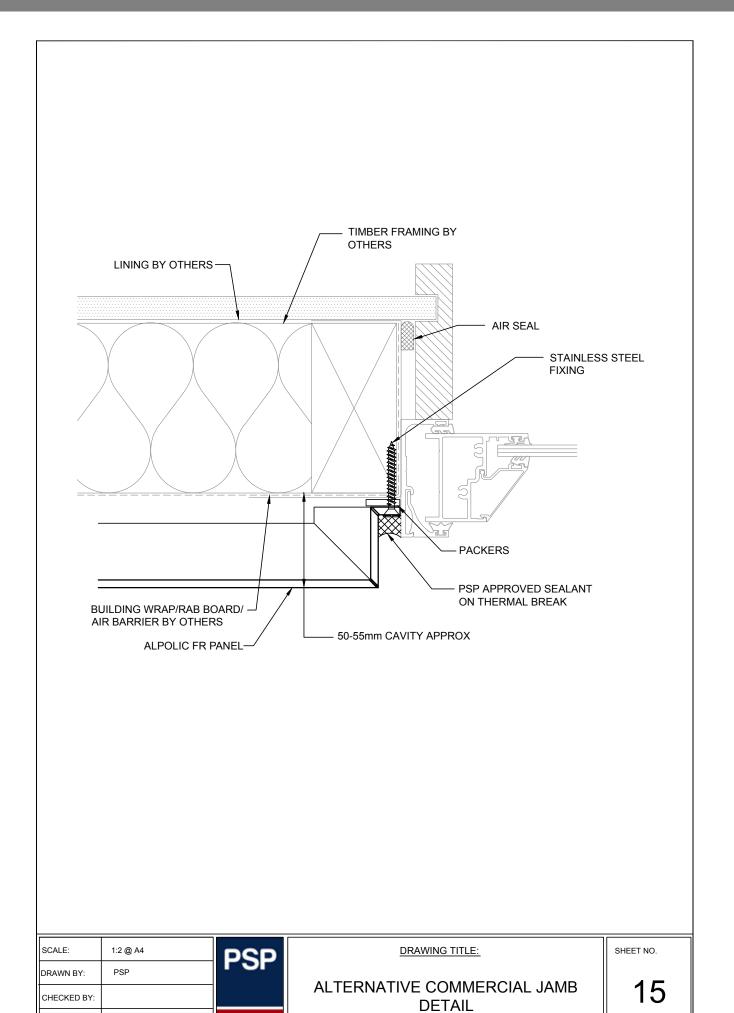


ALTERNATIVE RESIDENTIAL JAMB DETAIL





ALTERNATIVE COMMERCIAL JAMB DETAIL



PSP

Web Site www.psp.co.nz

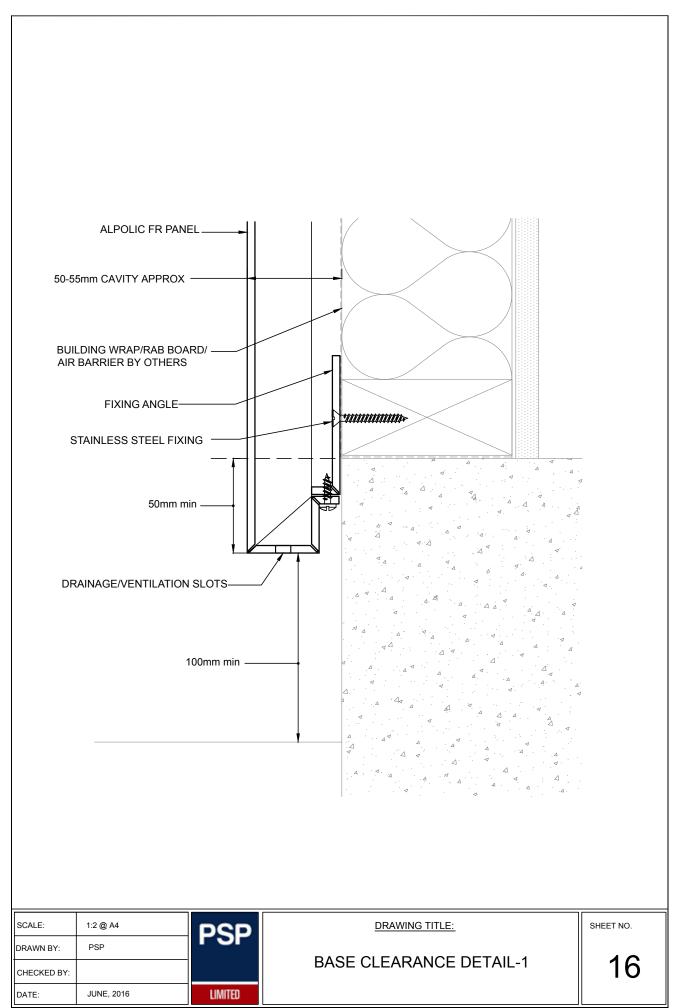
DATE:

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LIMITED

JUNE, 2016

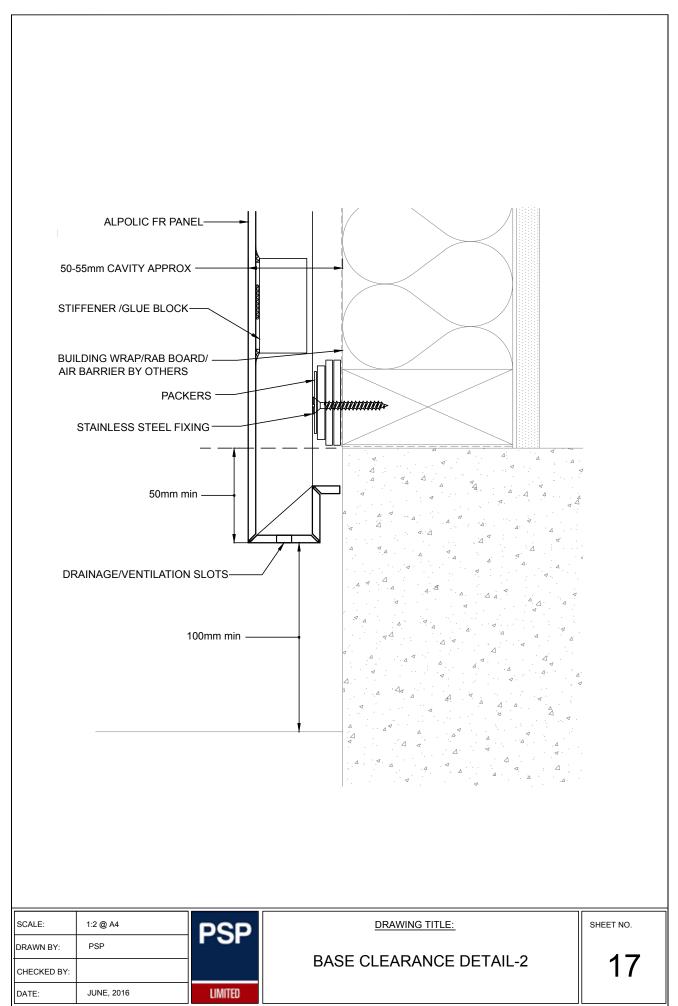
BASE CLEARANCE DETAIL - 1



Issue date: October 31, 2018

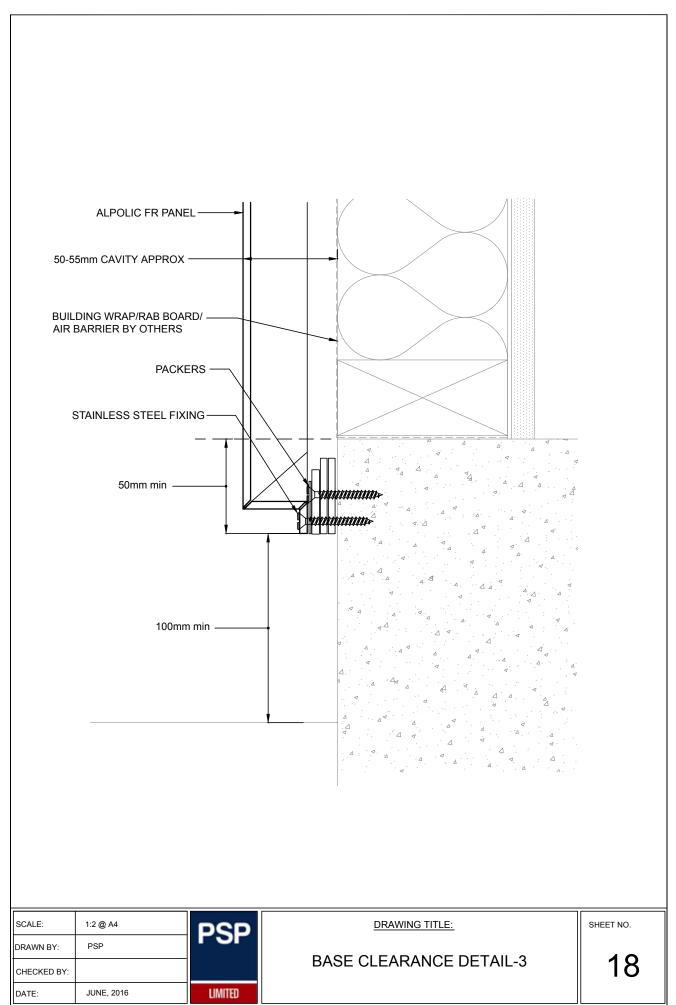


BASE CLEARANCE DETAIL - 2



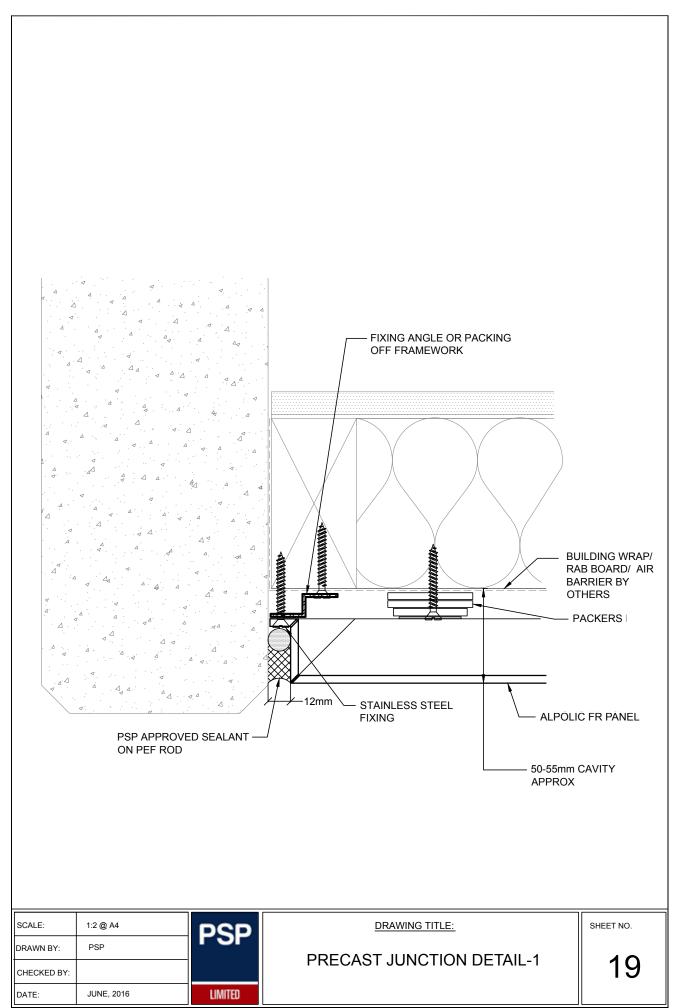


BASE CLEARANCE DETAIL - 3





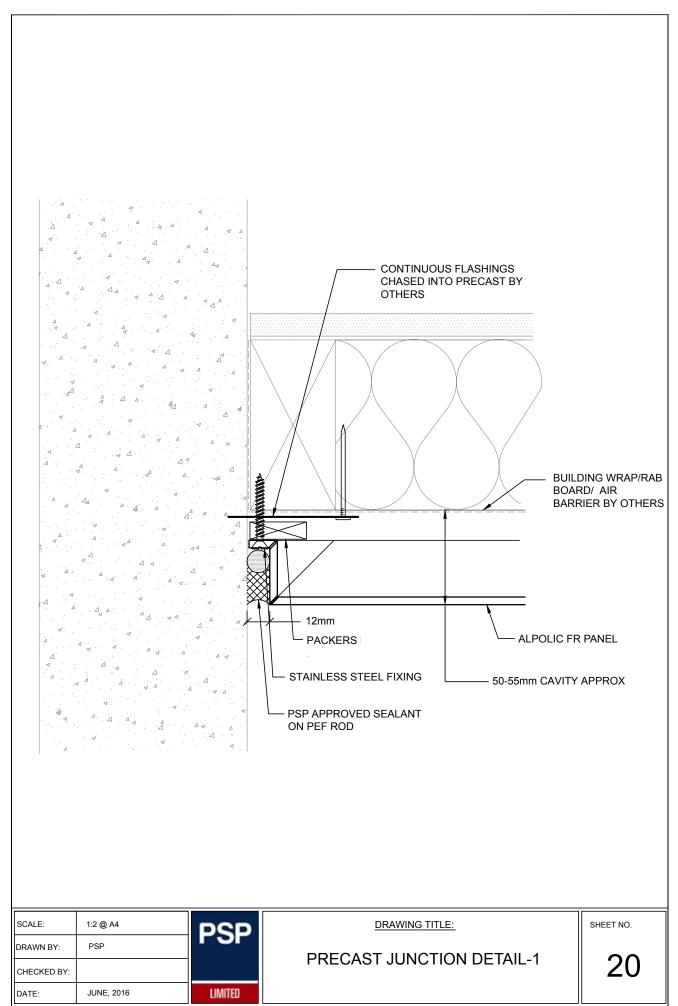
ALPOLIC®/fr PRECAST JUNCTION DETAIL -1



Issue date: October 31, 2018

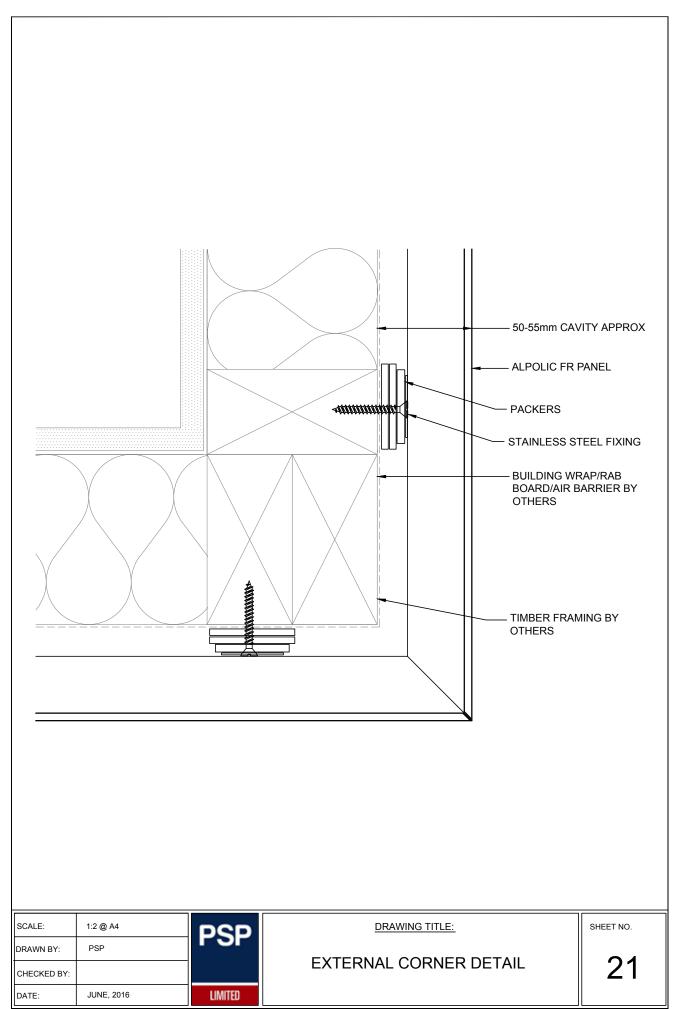


ALPOLIC®/fr PRECAST JUNCTION DETAIL -2



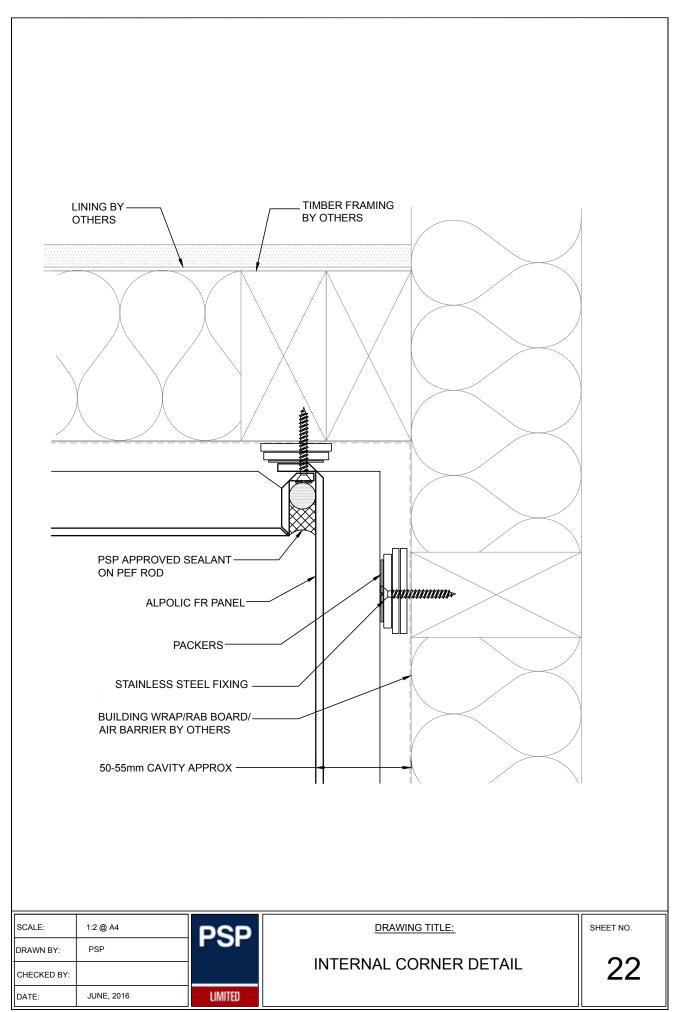


EXTERNAL CORNER DETAIL





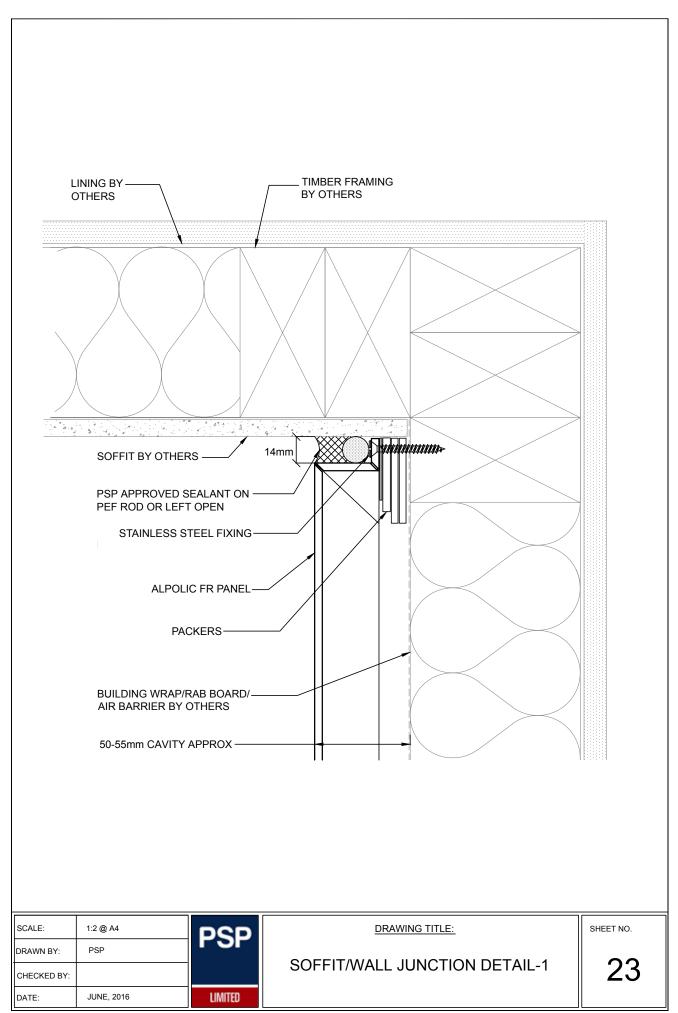
INTERNAL CORNER DETAIL



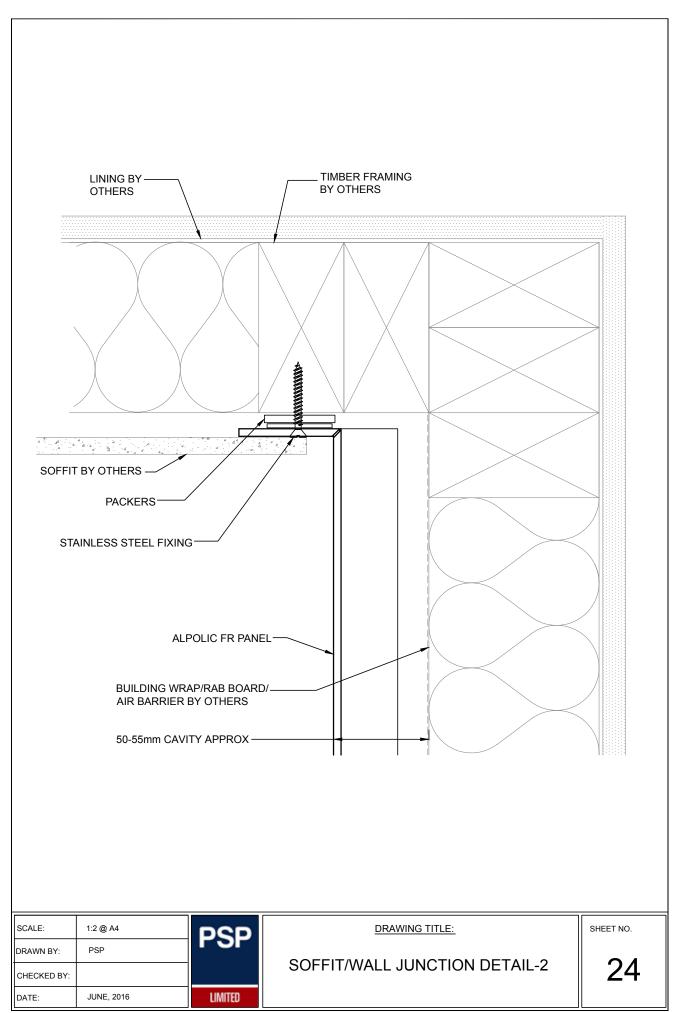
Issue date: October 31, 2018



SOFFIT/WALL JUNCTION DETAIL - 1

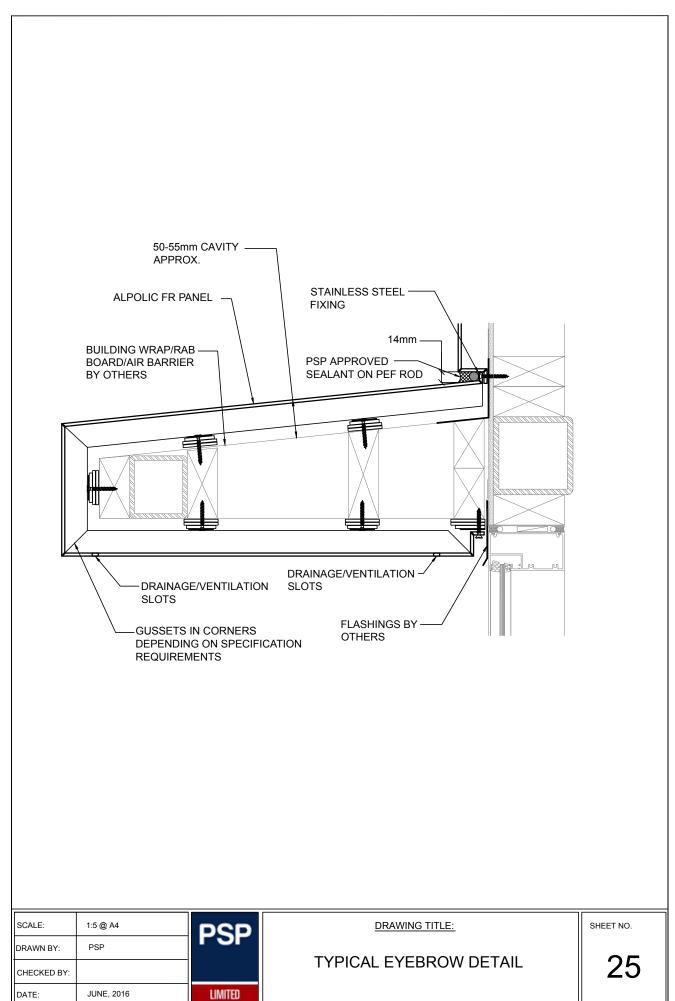


SOFFIT/WALL JUNCTION DETAIL - 2



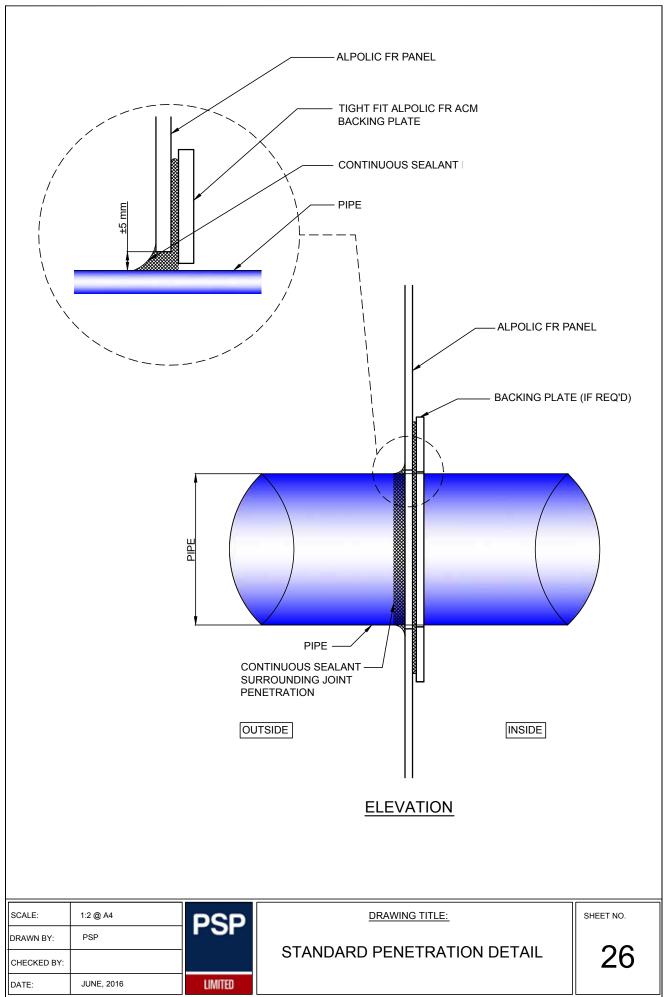


TYPICAL EYEBROW DETAIL





STANDARD





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8. CONTACT US

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