CEDRAL

Application guidelines for Bluclad Proboard as a base sheet for brick or stone slips

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1 Introduction

GENERAL

These guidelines relate to the installation of Bluclad Proboard on a vertical support structure as a backing board for brick slips on ventilated exterior walls.

The use of Bluclad Proboard as a backing board for slips in a non-ventilated application is not permitted.

PRODUCT DESCRIPTION

Bluclad Proboard 10 mm

SCOPE OF THE GUIDELINES

These guidelines are valid for the applications of Bluclad Proboard listed below:

- Support plate for brickslips in ventilated facades on a timber support structure,
- Support plate for brickslips in ventilated facades on a support structure in galvanized steel

The use of Bluclad Proboard as a backing board for brickslips in ventilated facades on an aluminum support structure is not permitted.

NORMATIVE FRAMEWORK

The normative references are given for informational purposes only.

EN 1991-1-4	Eurocode 1: Loads on structures - Part 1-4: General loads - Wind loads
EN 12467	Flat fibre cement boards - Product specifications and test methods.
EN12004+A1	Adhesives for ceramic tiles - Part 1: Requirements, assessment and verification of performance resistance, classification and marking
ETAG004	External thermal insulation composite systems with rendering
ETAG034	Kits for external wall claddings - Part 1: Ventilated cladding kits comprising cladding components and associated fixings.

2 Description Bluclad Proboard product range.

BLUCLAD PROBOARD AT A GLANCE

- 25 years of proven experience in the UK market,
- Very strong, stable and durable material (EN 12467 class 2 cat B),
- Large number of approved exterior renders,
- High impact resistance,
- Non-combustible material (fire reaction: A2-s1,d0), suitable for high-quality fire-resistant facade systems,
- Bluclad Proboard is hydrophobised and can be exposed to outdoor conditions for up to 12 weeks before the brickslips are applied,
- Environmental Product Declaration (EPD) available according to ISO 14025.

BOARD

Description

Bluclad Proboard is made from cement, selected mineral fillers including mica (for extra high dimensional stability and low hydric movement), organic reinforcing fibers and functional additives.
The boards have undergone hydrophobic treatment on the face and back. The board is edged on all edges.

Aspect

- Bluclad Proboard is beige in color and exhibits on the surface shiny particles of mica crystals visible on both sides. Stains in the surface, for example brown or white stains inherent in the autoclaving process, are occasionally possible and are inherent in production.
- The board has a smooth front side and slightly rougher back side. The board is installed with the smooth side facing outward (the rough side with the CE mark should be mounted against the support structure).

Available sizes

- Thickness: 10 mm
- Available in 1250 mm wide with lengths of 2500, 2850 or 3000 mm.

Application:

- Support board for brickslips on a wooden or a metal support structure,
- Base sheet for exterior renders on a wood or metal support structure for ventilated facades (not covered in this document),
- Base sheet for exterior renders on a wood or metal support structure for ventilated exterior ceilings (not covered in this paper)

Conformance:

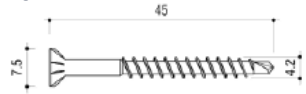
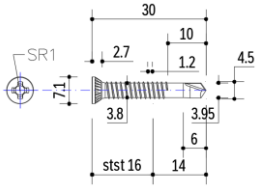
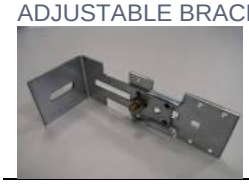
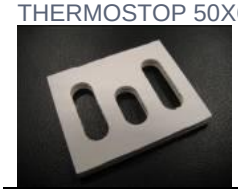
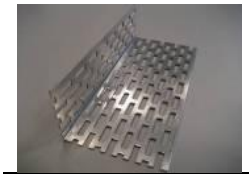
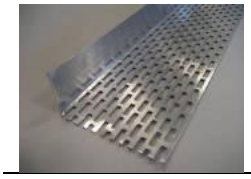
- Bluclad Proboard is CE marked according to EN 12467:2012+A2:2018 "Flat fiber cement boards - Product specifications and test methods," Class 2, Category B.

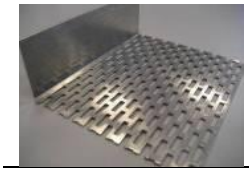
National Certificates:

- Germany: Z-31.4-160. Approved for use as load-bearing element for timber frame structures according to Eurocode 5.

ACCESSORIES

The following accessories for Bluclad Proboard are available:

BLUCLAD PROBOARD WOOD SCREW 4.2x45 DP SQD A2/304 	For fastening Bluclad Proboard to wooden studs. It is a countersunk head screw with milling ribs with a length of 45mm, a shank diameter of 4.2mm diameter and a head diameter of 7.5mm.
BLUCLAD PROBOARD METAL SCREW 4.5x30 DP SR1 A2-AISI-201 Cu 	For fastening Bluclad Proboard to galvanised steel support structures (1 to 2 mm thick). It is a self-drilling bi-metal screw with countersunk head and milling ribs, with a length of 30 mm, a shank diameter of 4.5 mm and a head diameter of 7.1 mm. The screw has a Stadler SR1 head (compatible with a PH2).
ADJUSTABLE BRACKET 150mm GALVA 	Adjustable bracket for anchoring the vertical wooden support batten of to structures with uneven back (e.g. uneven masonry walls) and to create an insulation and ventilation cavity (60 to 120 mm to the back of the batten).
THERMOSTOP 50X60X5MM PVC 	A perforated flat profile in PVC to prevent cold bridges. To be used with the adjustable bracket to avoid cold bridges between the existing rear structure and the adjustable bracket.
PERFORATED CLOSE PROFILE 50/30x2,5m ALU 	0.8 mm thick perforated aluminum profile used to seal the 50 mm cavity in the façade to prevent birds and pests from entering. The raised leg of the sealing profile is clamped between the wooden support batten and Bluclad Proboard.
PERFORATED CLOSED PROFILE 70/30x2,5m ALU 	0.8 mm thick perforated aluminum profile used to seal the 70 mm cavity in the façade to prevent birds and pests from entering. The raised leg of the sealing profile is clamped between the wooden support batten and Bluclad Proboard.

PERFORATED CLOSED PROFILE 100/40x2,5m ALU 	0.8 mm thick perforated aluminum profile used to seal the 70 mm cavity in the façade to prevent birds and pests from entering. The raised leg of the sealing profile is clamped between the wooden support batten and Bluclad Proboard.

3 Design considerations

VERIFICATION OF THE MECHANICAL STRENGTH AND STABILITY OF THE FACADE

In order to meet the basic requirement of the construction work regarding the mechanical resistance and stability of the façade, the following aspects must be considered when fixing Bluclad Proboard against a timber support structure :

- The verification of the mechanical resistance and durability of Bluclad Proboard under its own weight and wind loads, in particular:
  - The flexural strength of Bluclad Proboard
  - The pull-out and pull-through resistance of the fasteners used to attach Bluclad Proboard to the support structure
- Verification that the deflection of the Bluclad Proboard clad with brickslips is within predetermined limits.

The verifications listed above define

- the maximum center distances between the vertical support slats
- The maximum center distances between fasteners.

We recommend limiting the height of the facade against which the Bluclad Proboard is attached to a maximum of 30m.

Material properties and characteristic values

Bluclad Proboard

Characteristic bending strength ⊥	$f_{m,90,k}$	14,0	N/mm²
Characteristic bending strength //	$f_{m,0,k}$	8,5	N/mm²
Elasticity modulus ⊥	$E_{mean,90}$	9.000	N/mm²
Elasticity modulus //	$E_{mean,0}$	7.800	N/mm²

Characteristic load capacity for fastening for axial loads (according to EN 1995-1-1)

Characteristic pull-out capacity	$F_{ax,Rk}$		Ref
Bluclad Proboard screws	500	N	Z-31.4-160
Staples 50 / 11.3 / 1.8	265	N	EN 1995-1-1

Characteristic load capacity for attachment for lateral loads (according to EN 1995-1-1)

Characteristic pull-out capacity	$F_{v,Rk}$		Ref
Bluclad Proboard screws	695	N	Z-31.4-160
Staples 50 / 11.3 / 1.8	415	N	EN 1995-1-1

Modification factors

k_{mod} for class 2, instantaneous load			Ref
Bluclad Proboard	k_{mod}	0,60	DoP
wood	k_{mod}	0.9	EN 1995-1-1
Bluclad Proboard + wood	k_{mod}	0.734	EN 1995-1-1
k_{mod} for class 2, permanent load	k_{mod}		
Bluclad Proboard	k_{mod}	0.2	DoP

wood	k_{mod}	0.6	EN 1995-1-1
Bluclad Proboard + wood	k_{mod}	0.346	EN 1995-1-1
k_{def} Bluclad Proboard (for class 2)	k_{def}	4	DoP

Partial safety factors

Material safety factor

Partial safety factor for material	γ_M	1,30

Partial safety factors for loads

Partial safety factors for loads			Explanation
Permanent load adverse	$\gamma_{G,sup}$	1,35	For lateral load verification
Variable load on the fasteners	γ_Q	1,25	To verify the attachment of the cladding panels to the supporting structures
Changing loads on the gable plates	γ_Q	1,1	For verification of gable plates

WIND LOAD

Wind loads on buildings are defined in EN 1991-1-4 (Eurocode 1) and its national annexes.

The wind load on a facade depends on several factors, such as the building location, shape, height, orientation, terrain category, position of the facade on the building, wind permeability of the cladding, and air flow in the ventilation cavity.

Only a project-specific analysis, performed by qualified engineers on the building as a whole, can determine the actual design wind pressures (design) to be taken into account when designing facades.

The design wind pressures considered in these guidelines should be compared to the design wind pressure in the project specification.

The following paragraphs provide estimates of the maximum design wind pressure to be considered for the vertical walls of rectangular buildings.

Wind loads on façade claddings.

In order to determine the maximum design wind pressure, the cladding consisting of brickslips glued against a Bluclad Proboard support board is considered a "windproof" cladding over a non-insulated ventilated cavity.

The design wind pressure on the slab is obtained from the combination of external wind pressure (C_{pe}) and the pressure within the ventilated cavity ($C_{pi,a}$).

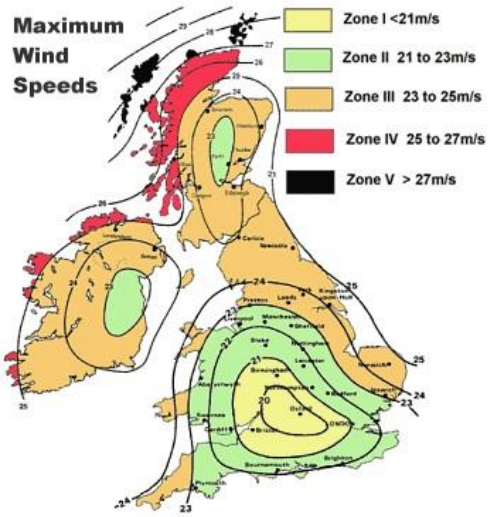
The design wind pressure $F_{d(w)}$ is defined by

$$F_{d(w)} = \gamma_Q .q\, C_{p(z).p}$$

with

γ_Q : partial load factor,
$q_{p(z)}$: peak wind pressure,
C_p : local pressure coefficient, (C_p = -2.3 for a "windproof" cladding over a non-insulated ventilated cavity).

The design wind pressure is given as a function of façade height, terrain category and wind speed
Base wind speeds for the UK



Impermeable cladding, non insulated air cavity

Design wind pressure, N/m²

Terrain category		Façade height													
coast	0					2m	3m	4m	6m	8m	10m	12m	15m	22m	30m
Level area	I					3m	5m	6m	9m	12m	14m	17m	20m	30m	
Rural area	II		3m	4m	6m	7m	10m	12m	17m	21m	26m	30m			
Urbanised areas	III	5m	9m	12m	18m	21m	27m	30m							
Cities	IV	15m	25m	30m											

UK	22 m/s	-896	-1141	-1253	-1419	-1495	-1647	-1731	-1886	-2002	-2081	-2157	-2240	-2412	-2529
		880	1121	1231	1395	1469	1618	1700	1853	1968	2046	2119	2200	2371	2529
	23 m/s	-979	-1247	-1370	-1551	-1634	-1800	-1892	-2061	-2189	-2275	-2358	-2448	-2637	-2765
		962	1225	1345	1525	1605	1769	1858	2025	2151	2236	2316	2404	2592	2765
	24 m/s	-1066	-1358	-1491	-1689	-1779	-1960	-2060	-2244	-2383	-2477	-2567	-2665	-2871	-3010
		1048	1334	1465	1661	1748	1926	2024	2205	2342	2434	2522	2618	2822	3010
	25 m/s	-1157	-1474	-1618	-1833	-1931	-2126	-2235	-2435	-2586	-2688	-2786	-2892	-3115	-3266
		1137	1448	1590	1802	1896	2089	2196	2393	2542	2641	2737	2841	3062	3266
	26 m/s	-1251	-1594	-1750	-1983	-2088	-2300	-2417	-2634	-2797	-2907	-3013	-3128	-3370	-3533
		1230	1566	1719	1949	2051	2260	2375	2588	2749	2857	2960	3073	3312	3533
	27 m/s	-1349	-1719	-1888	-2138	-2252	-2480	-2607	-2840	-3016	-3135	-3249	-3373	-3634	-3810
		1326	1689	1854	2102	2212	2437	2561	2791	2964	3081	3192	3313	3572	3810
	28 m/s	-1451	-1849	-2030	-2299	-2422	-2667	-2803	-3054	-3244	-3372	-3494	-3628	-3908	-4097
		1426	1816	1994	2260	2379	2621	2754	3002	3188	3313	3433	3563	3841	4097
	29 m/s	-1557	-1983	-2178	-2467	-2598	-2861	-3007	-3276	-3479	-3617	-3748	-3891	-4192	-4395
		1530	1948	2139	2425	2552	2812	2954	3220	3420	3554	3682	3823	4120	4395
	30 m/s	-1666	-2122	-2330	-2640	-2780	-3062	-3218	-3506	-3724	-3871	-4011	-4164	-4486	-4703
		1637	2085	2289	2595	2731	3009	3162	3446	3660	3804	3941	4091	4409	4703

4 General processing instructions, handling and sawing

These instructions apply only when Bluclad Proboard is used as a backing board for brickslips on ventilated exterior walls.

HANDLE

- Bluclad Proboard boards are delivered on pallets. The boards must be transported under a tarpaulin.
- The boards should be stacked horizontally on a flat surface in a dry and ventilated area.
- When sheets are stored outside, they should always be protected from rain by a tarpaulin or plastic cover.
- If the plates are exposed to moisture during storage, remove the packaging and allow the plates to dry completely before use.
- We recommend storing the boards in their final location 24h min before beginning installation to allow the board to balance its internal moisture content with its environment.
- Plates should always be transported vertically.

SAWING AND DRILLING

- Sawing and drilling must be done in a dry and ventilated environment.
- Drilling and saw dust should be immediately removed from the board with a dry microfiber cloth to prevent permanent staining.
- Bluclad Proboard can be sawn with either a sawing machine or a hand saw.
- When machining the plate, the plate must be adequately supported such that it does not deflect. The saw table must be very stable and must not vibrate. The plate must not be under tension during sawing. A vibration and tension-free board during sawing is necessary for a good cut.

- For saws: the following tools can be used:
    - Universal saw blade on high-speed stationary saws or manual circular saw with rail guide, available diameters: 160, 190, 225 and 300 mm (available from Leitz-Service),
    - Jigsaw with carbide tooth blade type T141 HM from Bosch,
    - Diamond saw blade with teeth on stationary saw machines with fast rotation or handheld circular saw with guide,

- Before drilling: the board must be supported around the hole to be drilled (e.g. by a wooden surface). The following tools can be used:
    - for holes: HSS twist drill (or all colbalt twist drill) with a nose angle of 60°.
    - For round openings: hole saw with carbide teeth (e.g. type Pioneer from Metabo).

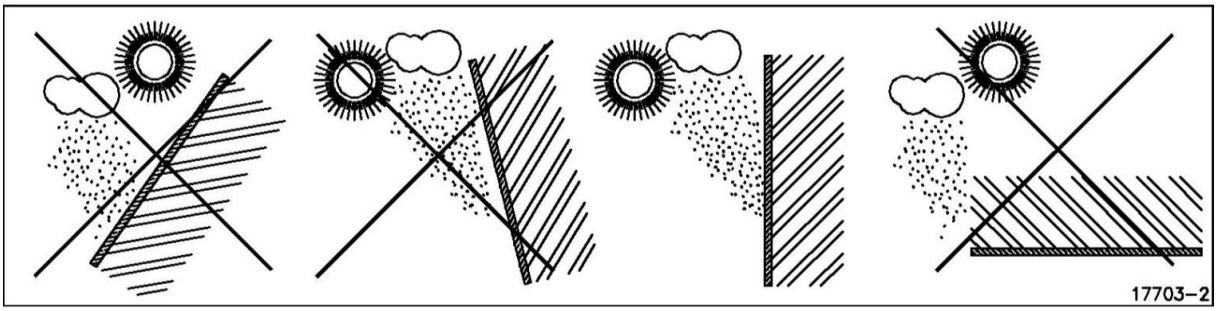
HEALTH AND SAFETY

- Refer to the Bluclad Proboard product data sheet and safety data sheet.
- When machining Bluclad Proboard indoors (sawing or drilling), an efficient dust extraction system must be used to capture the dust particles. If dust extraction is not efficient or if cutting is done with a handsaw, the operator must wear dust masks of type FFP2 or better according to EN149:2001.

5 Placement Instructions

GENERAL

- We recommend limiting the height of the facade against which the brickslips are glued to Bluclad Proboard to a maximum of 30m.
- When exposed to weather conditions (rain, sun), the boards should only be mounted on a vertical support structure.



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INSTALLATION OF THE SUPPORT STRUCTURE

General

Bluclad Proboard can be fixed against support structures in wood or in galvanized steel.

- The maximum center distance between support slats or profiles for Bluclad Proboard is 627 mm but should be determined by the project engineer based on the wind load occurring.
- When conceiving the support structure, keep 3 mm of clearance between the boards.
- A net ventilation opening of at least 1000 mm²/lm should be provided at the bottom and top of the façade, as well as window and door openings, to ensure uninterrupted natural air flow behind the Bluclad Proboard. In case perforated termination profiles are used, the perforation degree of the profile must be taken into account.
- We recommend an open cavity with a minimum width as shown in the table below.

Gable height	0-3 m	3-30 m
Minimum width of open cavity	25 mm	30 mm

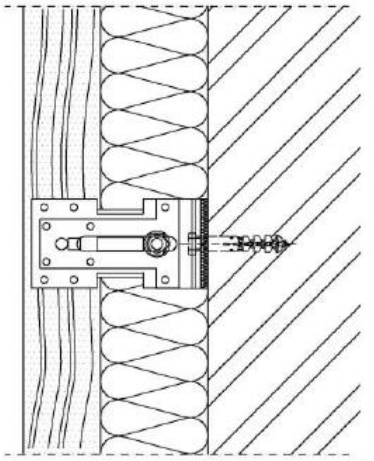
Support structure in wood

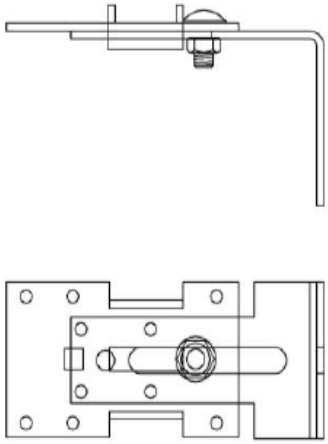
- Bluclad Proboard boards are fixed against a vertical support structure.
- The timber structure to which Bluclad Proboard is mounted must be designed in accordance with EN 1995-1-1 (Eurocode 5) to accommodate all loads acting on the façade, such as wind loads (defined according to EN 1991-1-4) and the dead weight of the slabs and brickslips.
- The timber meets at least strength class C18 according to EN 338. When using less durable wood, such as softwood, the wood should be treated. The timber should also be protected with a suitable foil in EPDM, black PE or equivalent, between the batten and Bluclad Proboard.
- The minimum width of the timber batten is 65 mm.
- The Bluclad Proboard boards can be fixed against the timber support structure using the Bluclad Proboard screws or staples.

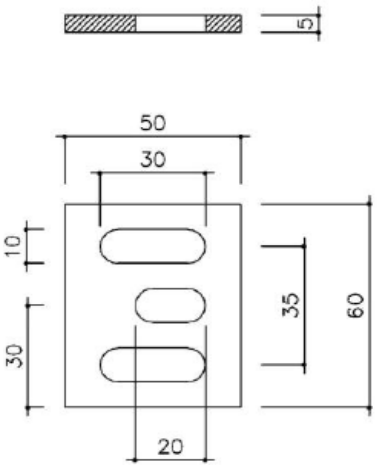
Recommendations for the wooden support structure when fixing against an existing masonry wall

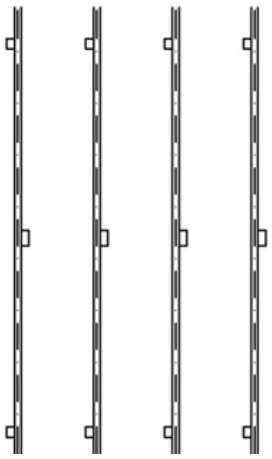
- If the support structure is fixed against an existing masonry wall, adjustable brackets are preferred.
- In this case, the insulation is placed after the installation of the adjustable brackets.
- It is recommended to apply a Thermostop pad between the adjustable brackets base and the wall.

- The wooden support slats should have a minimum thickness of 50 mm.









- To improve the stability of the support structure, the adjustable brackets are installed staggered alternately to the left and right of the support bar.
- The row of adjustable brackets should also stagger for each adjacent batten.
- The type of attachment for the adjustable brackets (mounting with screws and dowels) must be adapted to the structure. (Please contact the anchoring supplier directly).
- The vertical center distance between the adjustable brackets should be determined according to the wind load on the façade and the load capacity of the anchors.

Support structure in galvanized steel

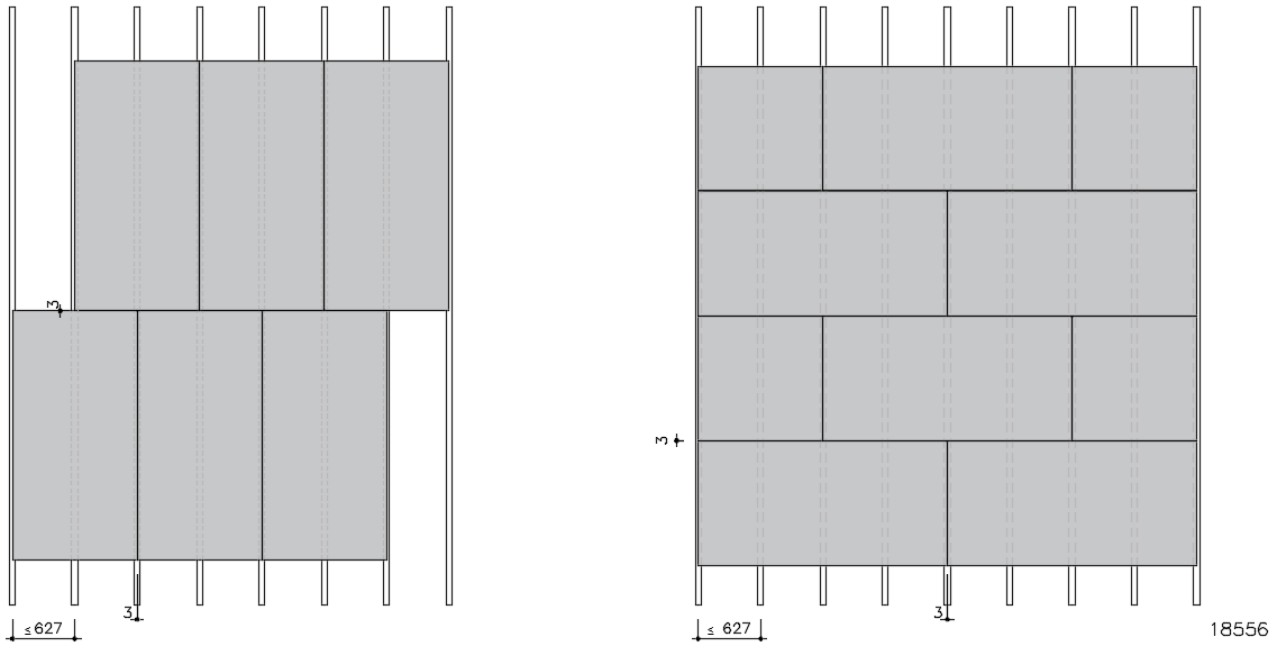
- The galva support structure must be designed in accordance with EN 1993-1-3 (Eurocode 3) to properly accommodate the loads, e.g. wind loads.
- The galva support structure shall meet the classification of steel for structures with minimum test strength according to EN 10346 (e.g. S250GD).
- The minimum flange width of the steel profile is 50 mm.
- The minimum flange thickness of the steel profile is 1.5 mm.

FIXING BLUCLAD PROBOARD TO THE SUPPORT STRUCTURE.

General

- The boards should be installed with a 3 mm space between the edges of the boards.
- The board is installed with the smooth side facing outward (the rough side with the CE mark should be mounted against the support structure).

- The boards can be installed either vertically ("portrait") or horizontally ("landscape"). However, the relevant mechanical properties must then be taken into account in the design.
- The vertical joints should stagger.
- The boards are placed so that the four corners of the boards do not coincide. Continuous vertical joints should be avoided; horizontal continuous joints are permitted.

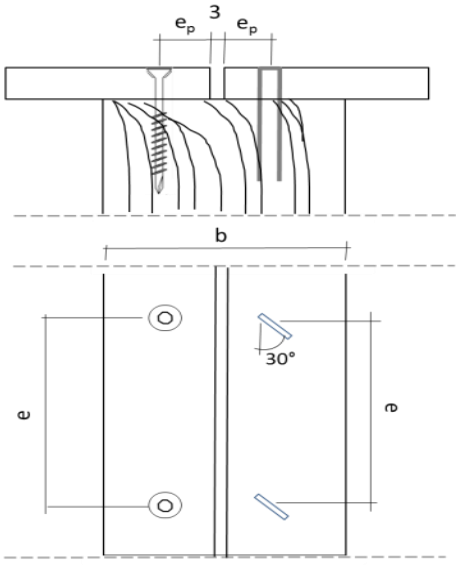


Fastening against support structures in timber

- Bluclad Proboard can be fastened against wood support structures with the Bluclad Proboard wood screws or staples.
- The vertical sheet edges should always be supported by a wooden support batten.
- The minimum width (b) of the wooden batten is 65 mm.

Screw recommendations

- Use Bluclad Proboard wood screws type 4.2x45-DP-SQD-A2/304 with countersunk head to fasten the boards to the wood support structure.
- The horizontal distance (e_p) between screw and vertical board edge is 15 mm.
- The vertical distance between the screw and the horizontal board edge is 50 mm
- The center distance between the screws depends on the maximum permissible screw pull-through values, the characteristic wind load and the center distance between the wood battens.



Stapling recommendations

- Bluclad Proboard can also be fastened to a timber frame with staples; for this, use staples with a diameter of 1.8 mm and a minimum length of 40 mm (type Senco, Haubold).
- Staples should be placed at a 30° angle to the vertical reference.
- The horizontal distance (e_p) between the center of the staple and the vertical board edge should be 15 mm.
- The vertical distance between the staple and the horizontal board edge is 50 mm
- The center distance between staples depends on the maximum permissible pull-through values of the staple, the characteristic wind load and the center distance between the wood studs.

Fastening against support structures in galvanized steel

Bluclad Proboard can be fixed with the recommended screws on a support structure in galvanized steel with a thickness of 1.5 to 2 mm.

Screw recommendations

- Use Bluclad Proboard metal screws type 4.5x30-DP-SR1 A2-AISI-201 with countersunk head to fasten the boards against the galvanized steel profiles.
- The horizontal distance between screw and the vertical board edge is 15 mm.
- The vertical distance between the screw and the horizontal board edge is 50 mm
- The center distance between the screws depends on the maximum permissible screw pull-through values, the characteristic wind load and the center distance between the steel profiles.

RECOMMENDATIONS FOR BLUCLAD PROBOARD BEFORE APPLYING THE BRICKSLIPS

- The 3 mm gap between the Bluclad Proboard boards must be filled with MS polymer-based adhesive/filler immediately after mounting the boards on the support structure.
- It is advisable to apply the brickslips to Bluclad Proboard within 12 weeks of mounting the board to the supporting structure. During extended periods or severe frost, we recommend protecting Bluclad Proboard from driving rain.
- When applying the brickslips to the board, the moisture content in Bluclad Proboard must be below 18% and the surface of the board must be dry and clean(dust free).
- In the case where the adhesive is applied to the board by hand (or application with adhesive on the back of the brickslips), it is recommended to apply a suitable primer to the board according to the adhesive manufacturer's instructions before bonding the brickslips, unless otherwise specified.
- In the case where the adhesive is applied to the Bluclad Proboard by spraying, it is recommended that this be done on boards that lie flat and horizontal (e.g., prefabricated modules).

ADHESIVES FOR BRICKSLIPS

Certain manufacturers/suppliers have developed their own system for bonding brickslips to a Bluclad Proboard backing board.

The adhesive system used by third party adhesive manufacturers/suppliers shall be developed for structural bonding of brickslips to Bluclad Proboard.

Types of adhesives for brickslips

Brickslips as specified on the previous page can be bonded to Bluclad Proboard using the following adhesives

- MS polymer adhesive
- Sprayable MS polymer adhesive

The gluing of the brickslips should always be done according to the instructions of the adhesive manufacturer/supplier and those of the brickslips.

Therefore, always consult the most up to date specific information from the adhesive manufacturers who have a system for bonding brickslips to Bluclad Proboard.

SPECIFICATIONS FOR THE BRICKSLIPS

- The brickslip shall comply with EN 771-1.
- The maximum capillary water absorption of the brickslip is 19% by weight.
- The maximum permissible weight of the brickslip including the adhesive system is 50 kg/m².
- The maximum permitted thickness of the brickslip is 30 mm.
- Maximum size of the brickslip 100mm x 500mm (maximum area is 0.05m²).
- Surface expansion joints depend on the brickslip, consult the brickslip manufacturer's recommendations.

CONSTRUCTION DETAILS

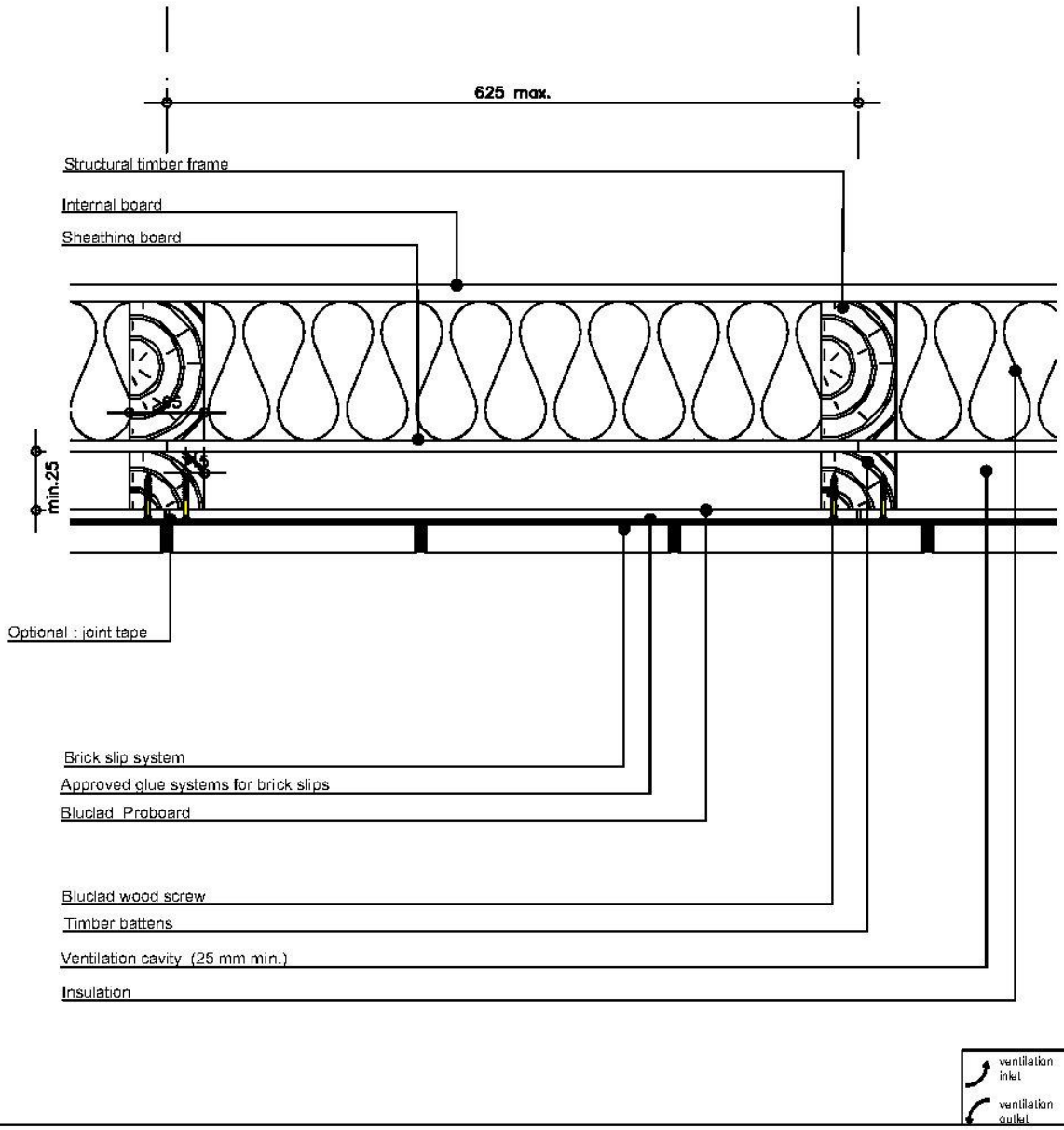
Bluclad Proboard as a support plate for brickslips in ventilated facades for a timber frame wall

Title drawing	Number
Surface mounted vertical wall system	Detail 1
Surface-mounted vertical wall system, detail	Detail 1b
Detail Basic Profile	Detail 2
Connection to floor plate	Detail 3
Inside corner building	Detail 4
Exterior corner building	Detail 5
Detail expansion joint	Detail 6
Detail window sill	Detail 7

Detail above window opening	Detail 8
Detail reveal window opening	Detail 9
Flat roof connection	Detail 10

BLUCLAD Proboard as a Brick Slip Carrier Board for ventilated façade systems on timber frame

Detail 1 - Vertical wall system build up



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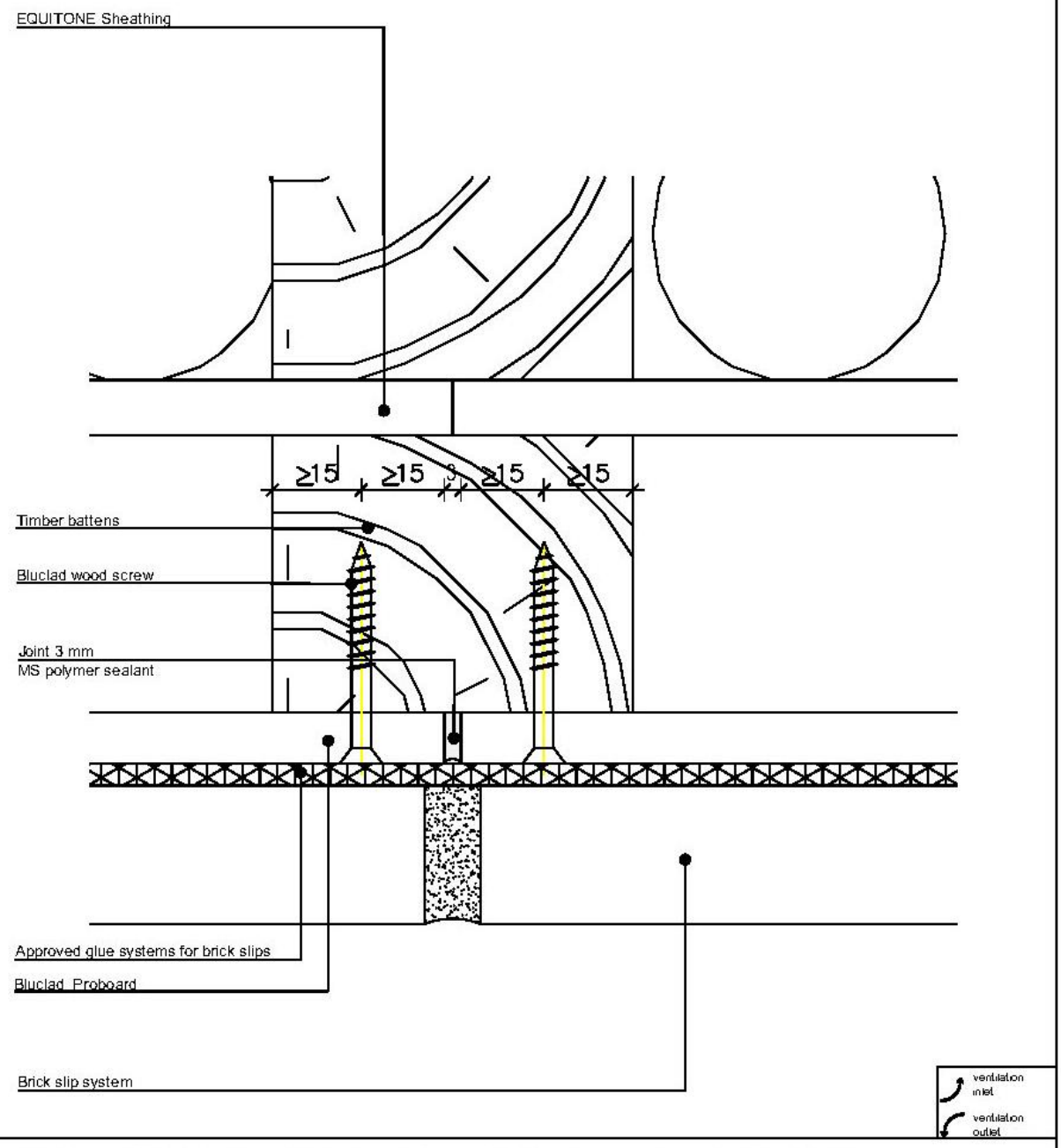
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

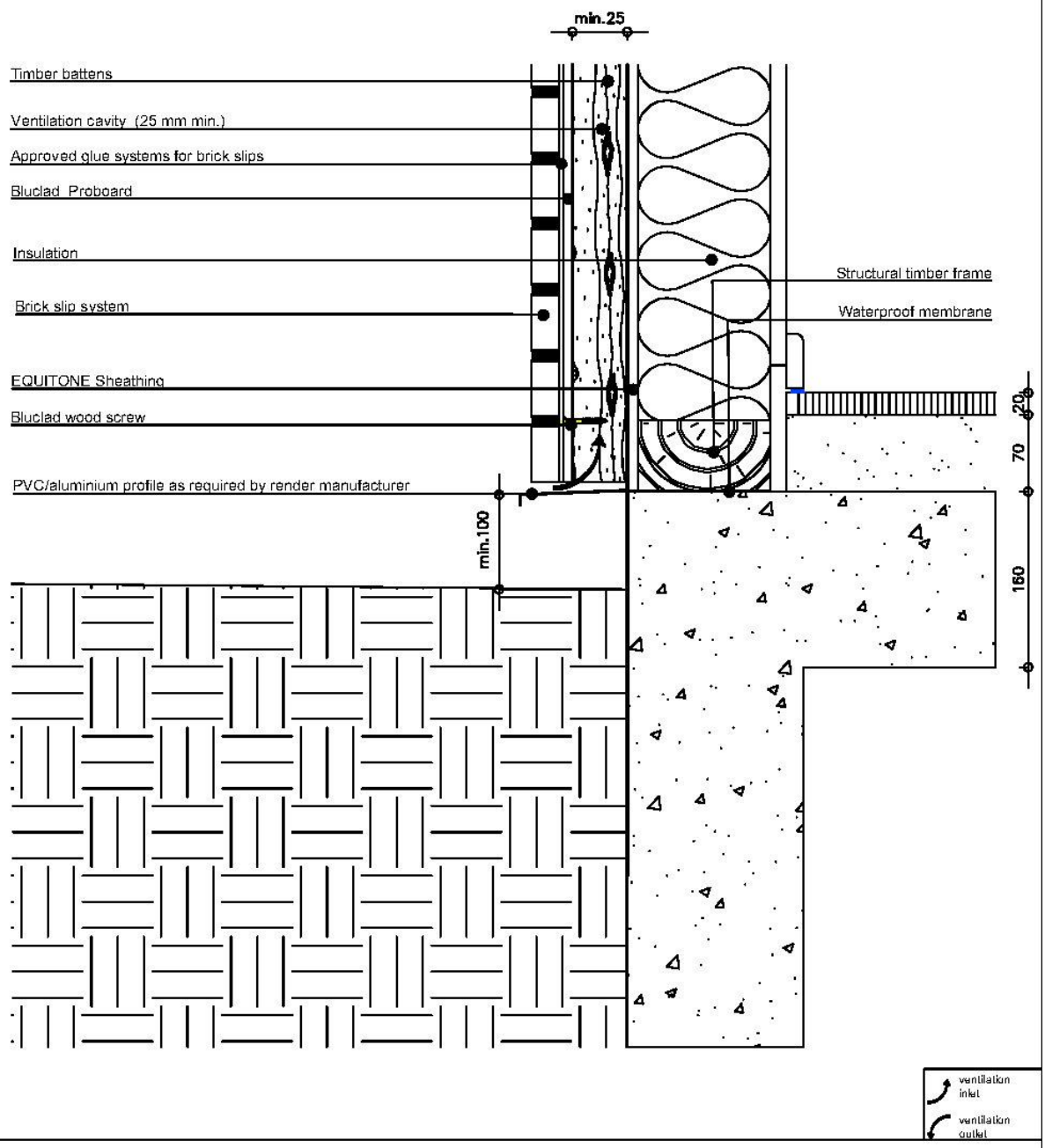
Detail 1b - Vertical wall system build up



This document if for information and illustration only. In case of doubts, please refer to your local Etex Cedral Team.

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

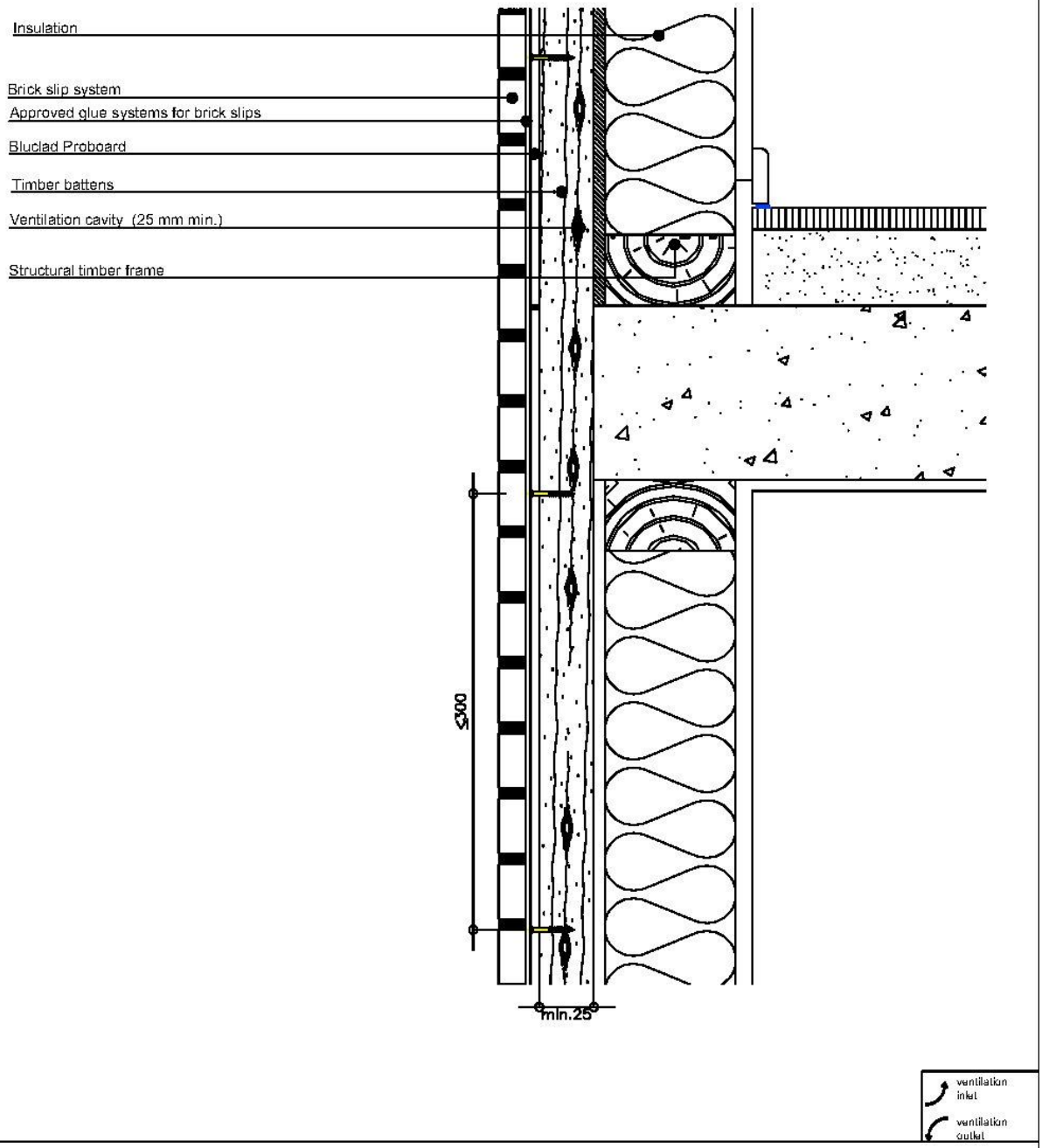
Detail 2 - Base bead Detail



This document if for information and illustration only. In case of doubts, please refer to your local Etex Cedral Team.

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 3 - Connection to floor slab



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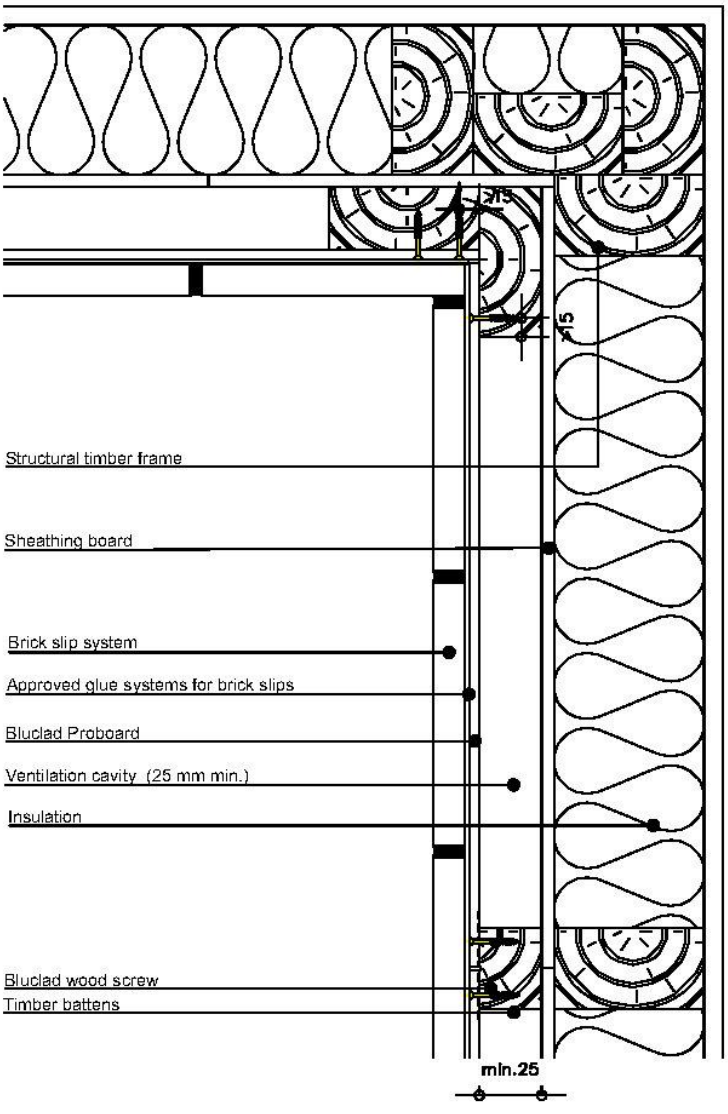
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 4 - Building internal corner



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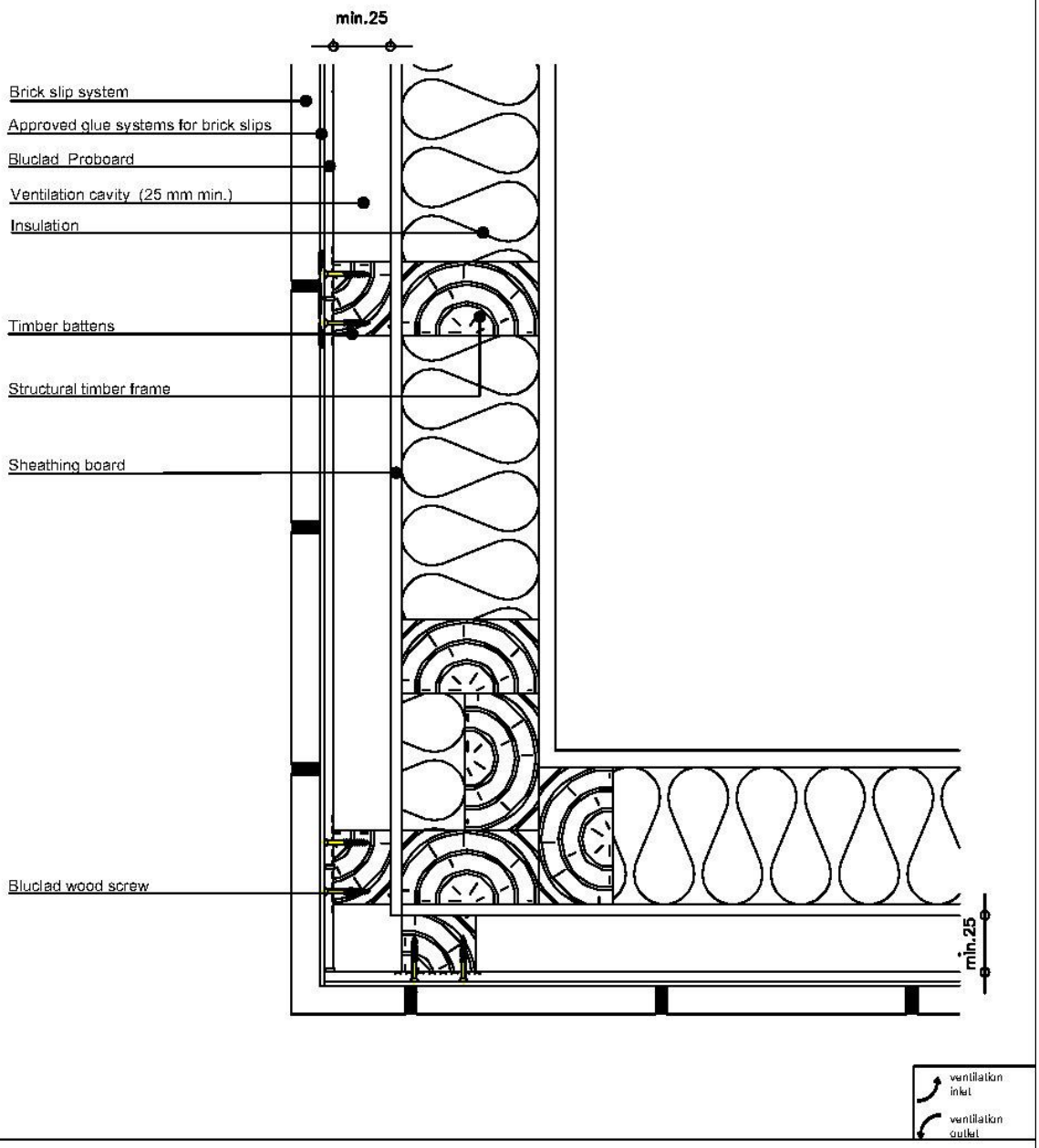
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 5 - Building external corner



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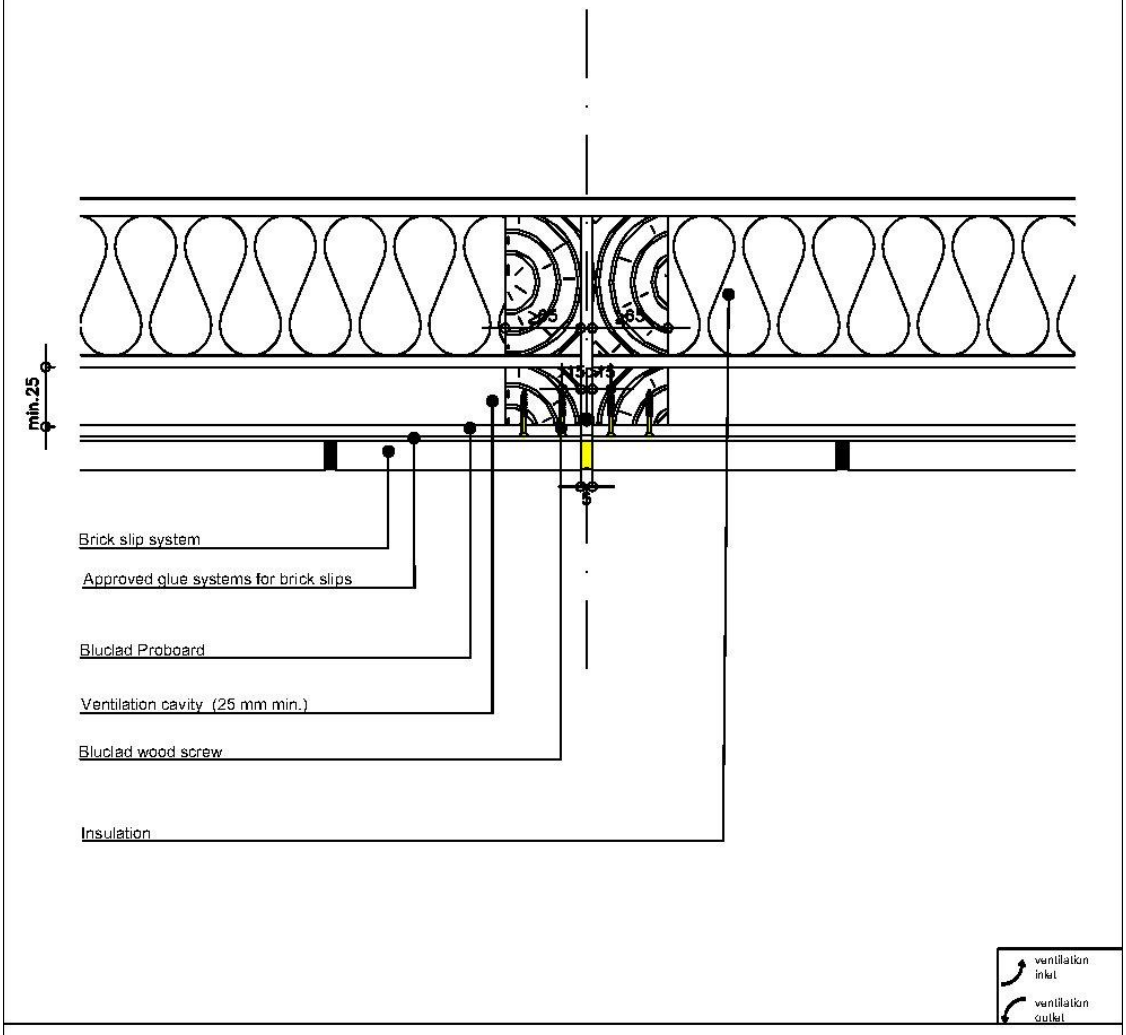
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 6 - Movement Joint Detail

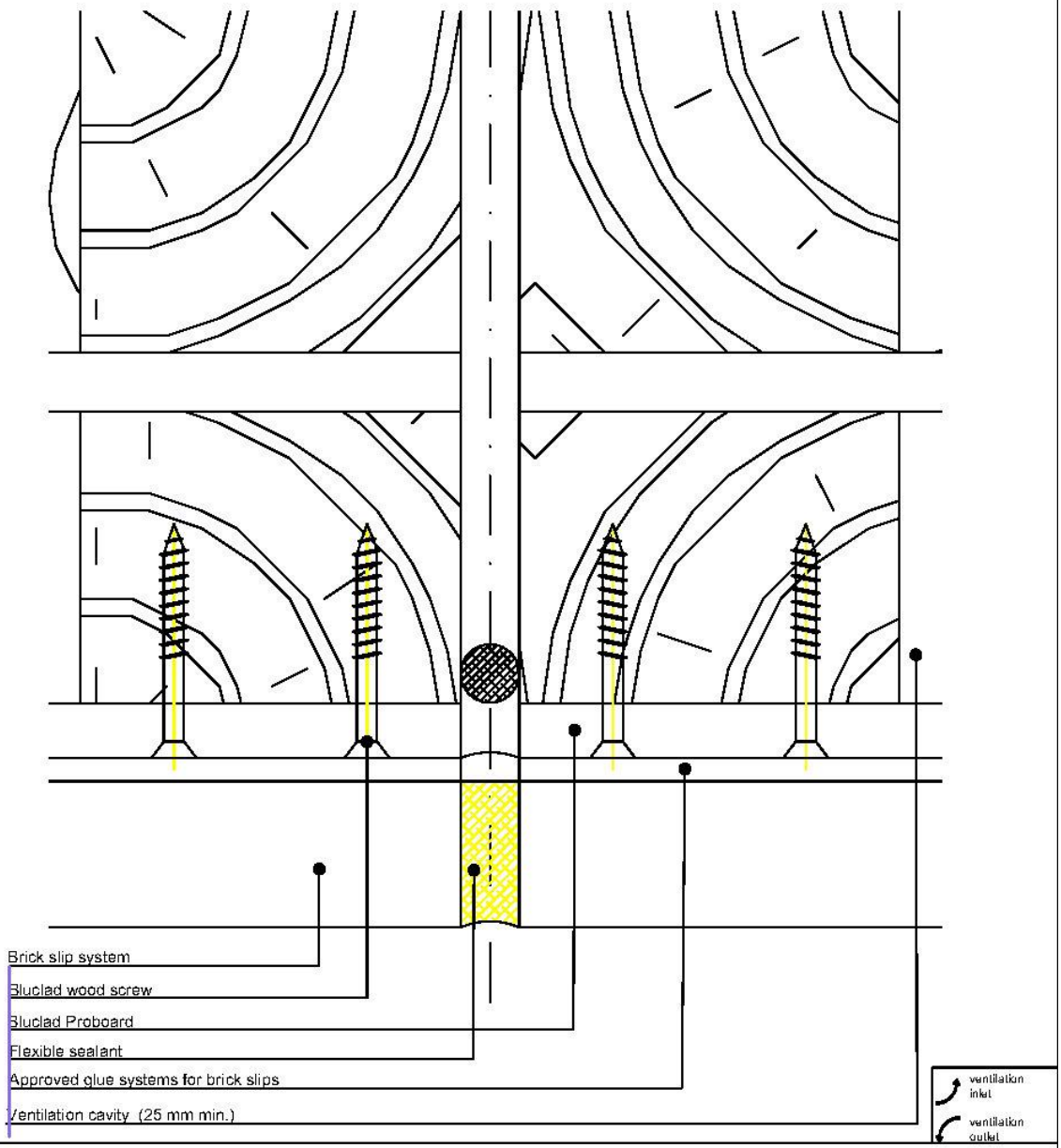


This document if for information and illustration only. In case of doubts, please refer to your local Etex Cedral Team.

Surface expansion joints depend on the brickslips. Refer to the brickstrip manufacturer's recommendations.

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 6b - Surface expansion joints



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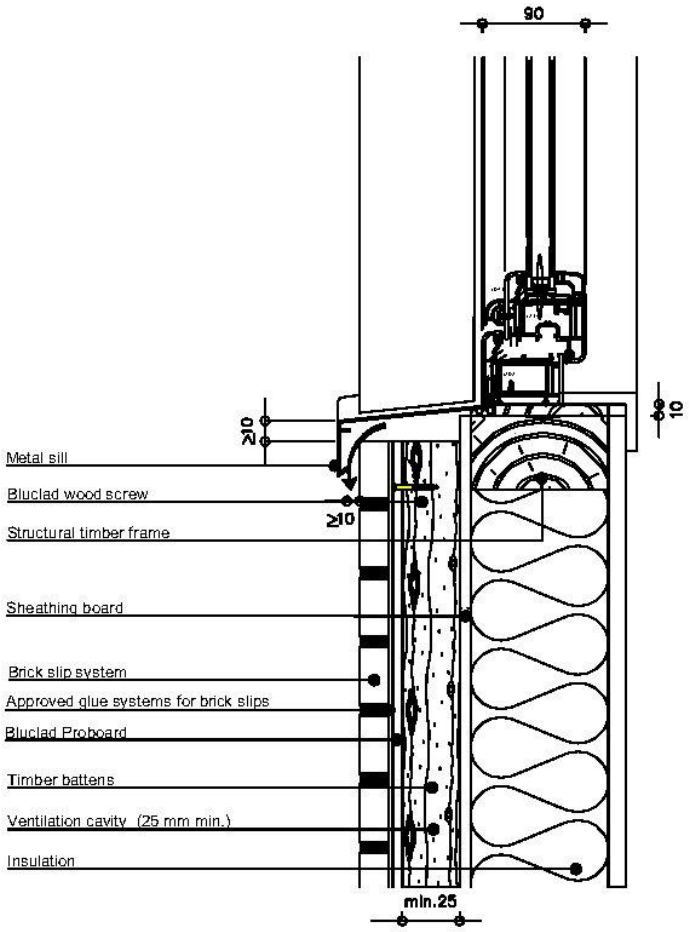
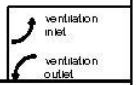
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 7 - Window sill detail





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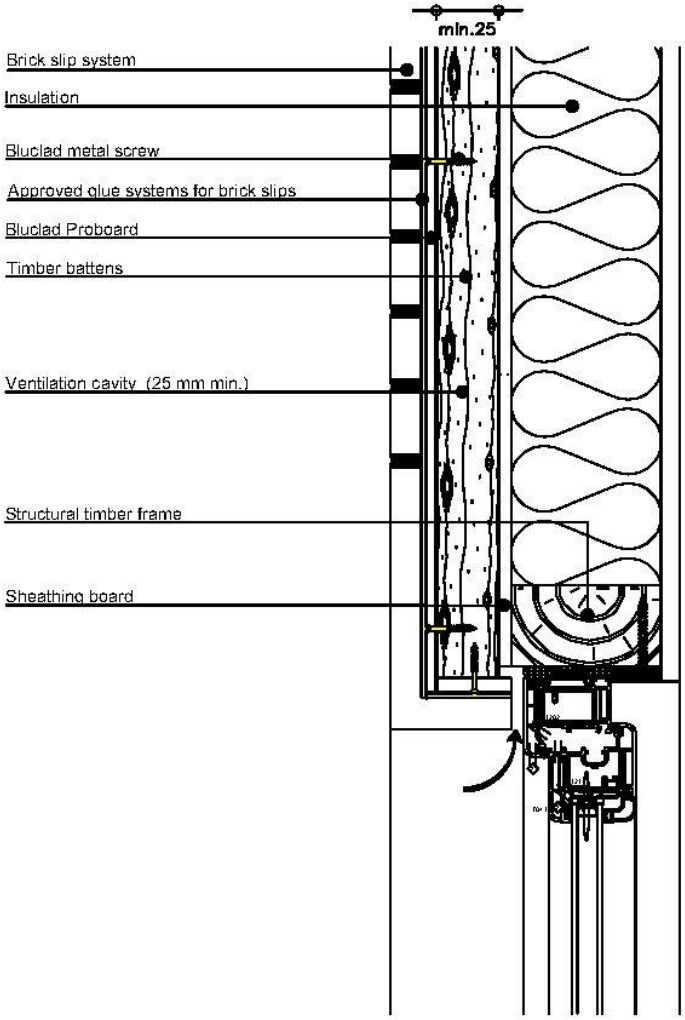
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 8 - Window head detail



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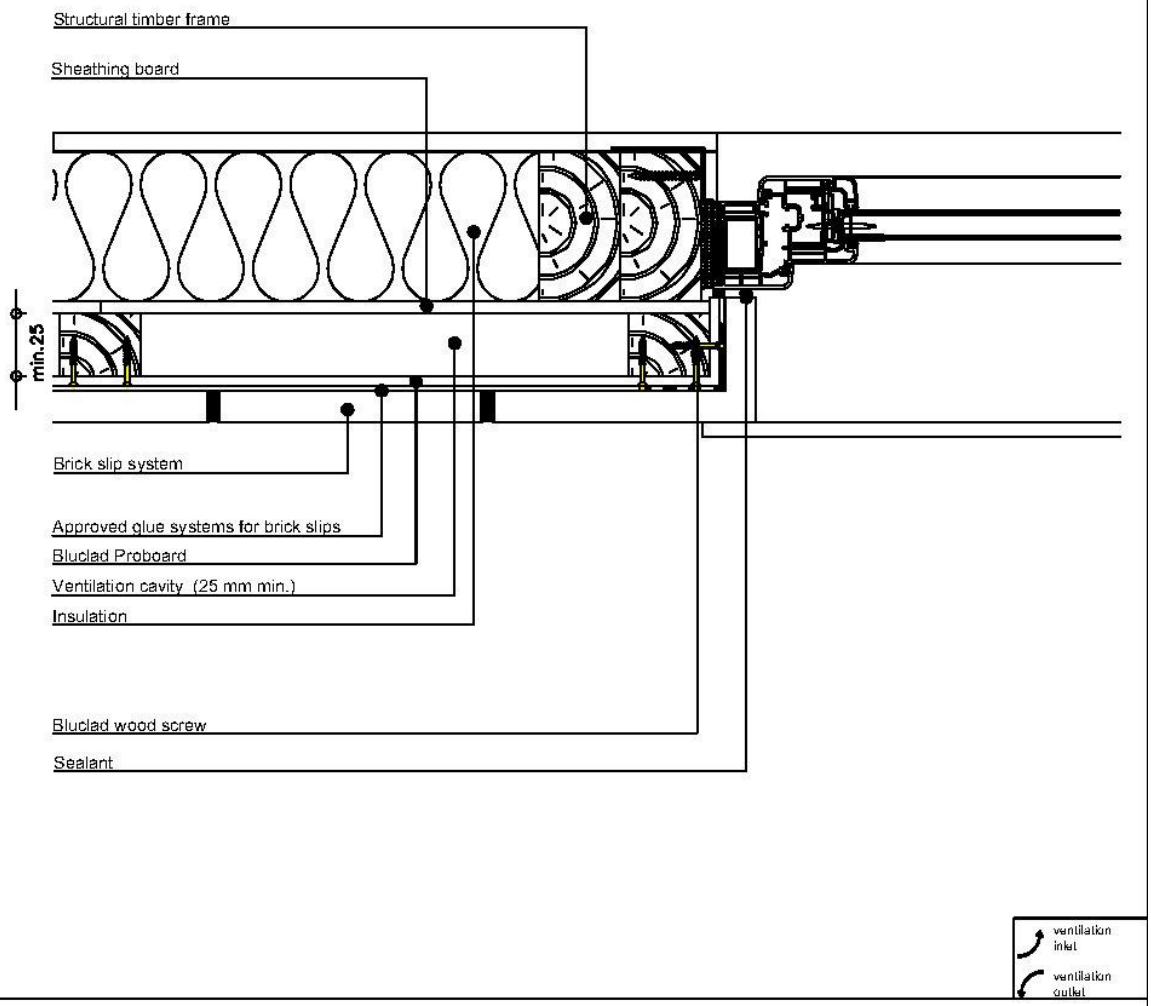
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 9 - Window jamb detail



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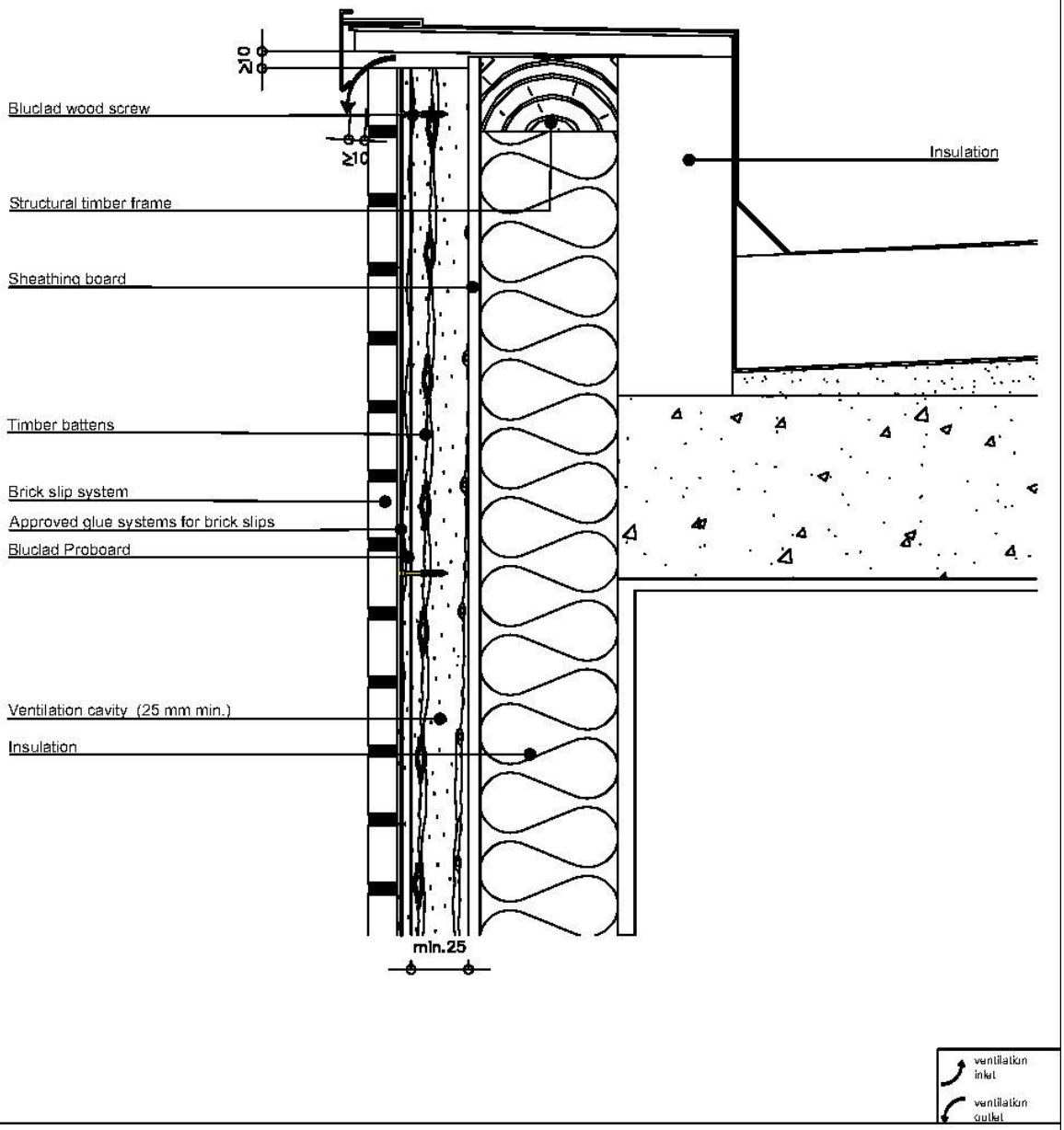
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 10 - Connection with flat roof



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Bluclad Proboard as a support plate for brickslips in ventilated facades for a steel frame wall

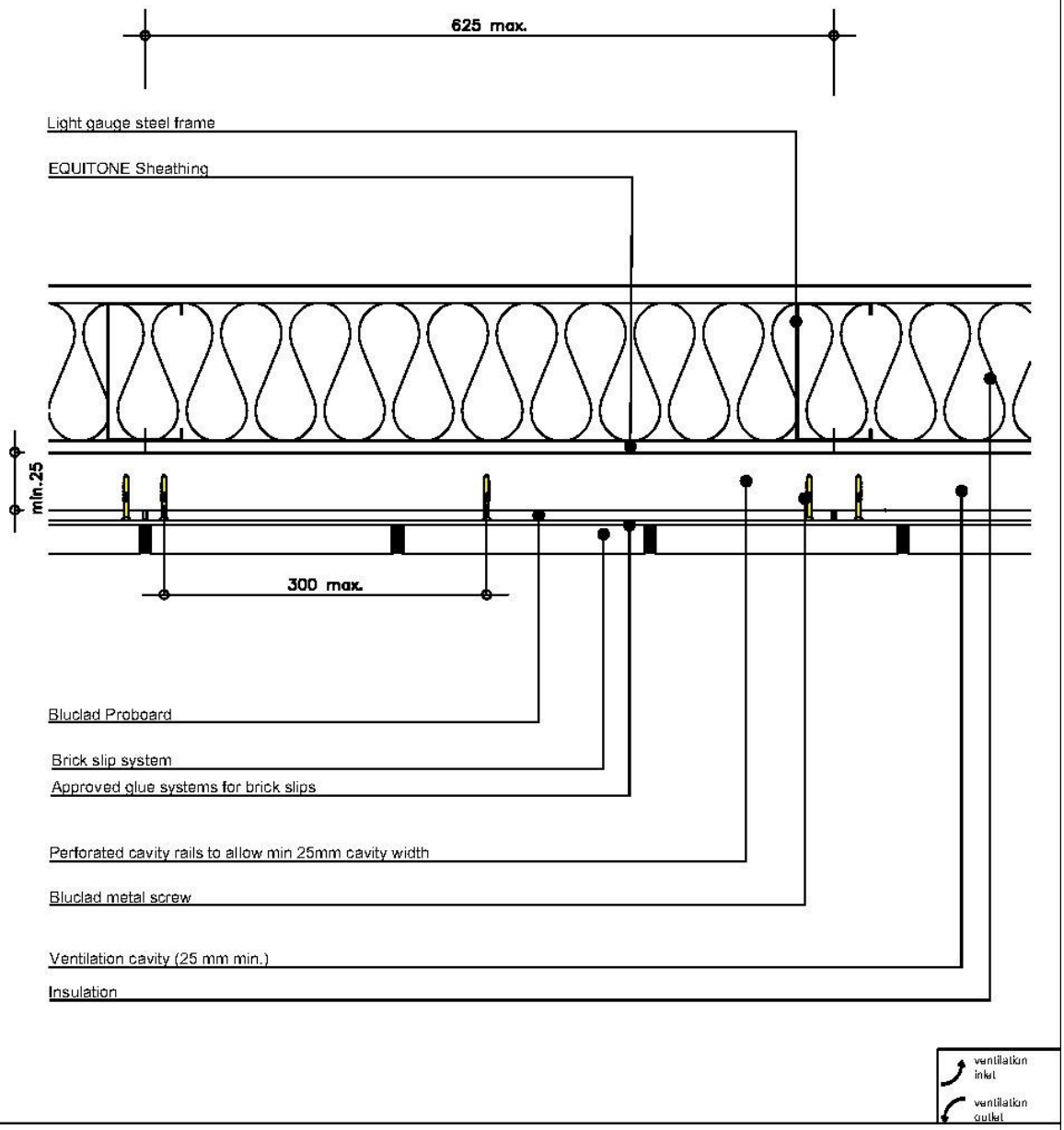
Title drawing	Number
Surface mounted vertical wall system	Detail 1.1
Surface-mounted vertical wall system, detail	Detail 1.1b-B
Detail Basic Profile	Detail 2.1B
Connection to floor plate	Detail 3.1
Inside corner building	Detail 4.1
Exterior corner building	Detail 5.1
Detail expansion joint	Detail 6.1
Detail window sill	Detail 7.1
Detail above window opening	Detail 8.1
Detail reveal window opening	Detail 9.1
Flat roof connection	Detail 10.1

Notes :

- All details are given for Bluclad Proboard installed on horizontal perforated support profiles. Similar principles should be applied when installed on vertical metal profiles.
- The horizontal support profiles in the cavity should be perforated to allow proper drainage and ventilation.

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 1.1 - Vertical wall system build up



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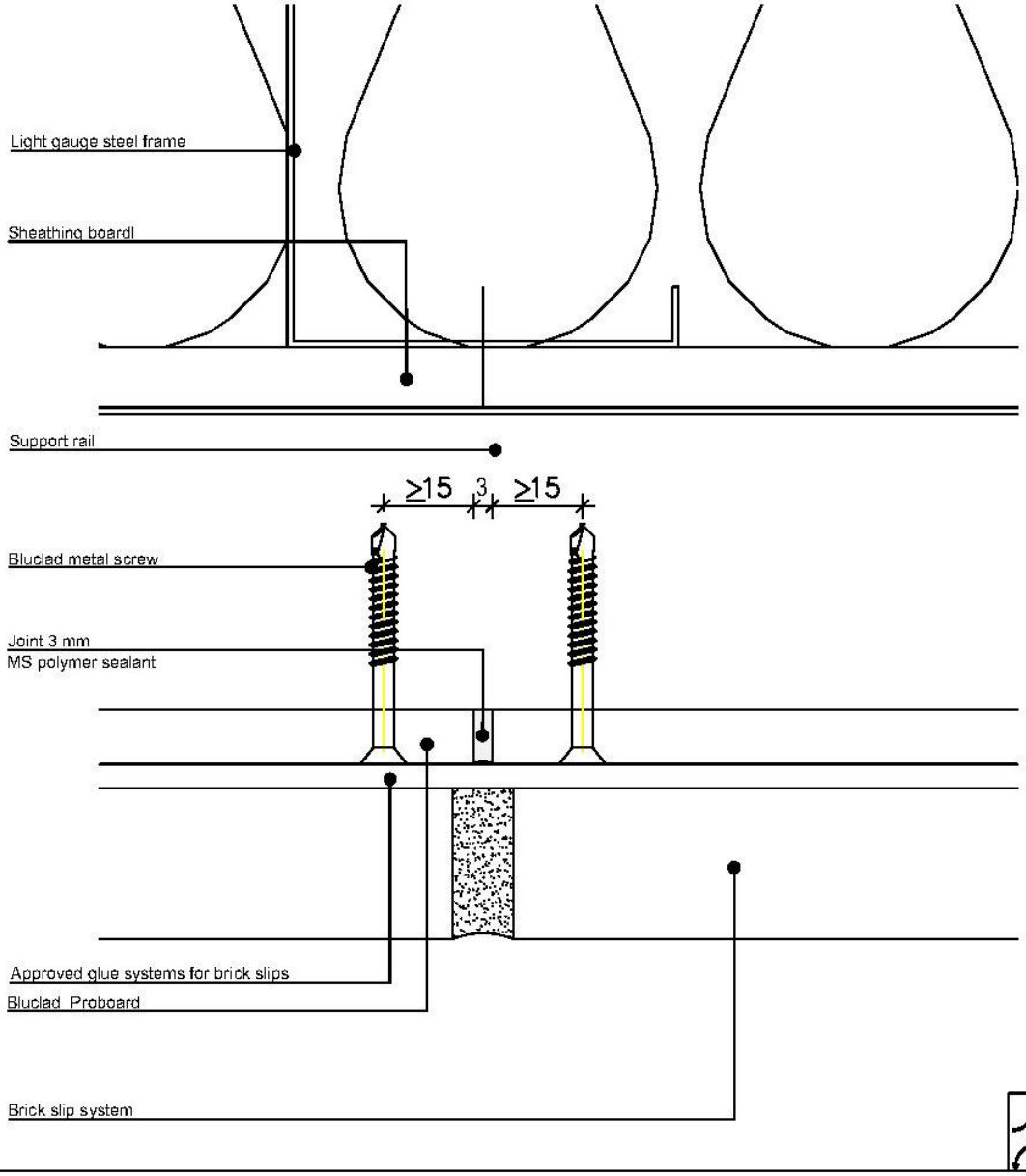
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 1.1b - Vertical wall system build up



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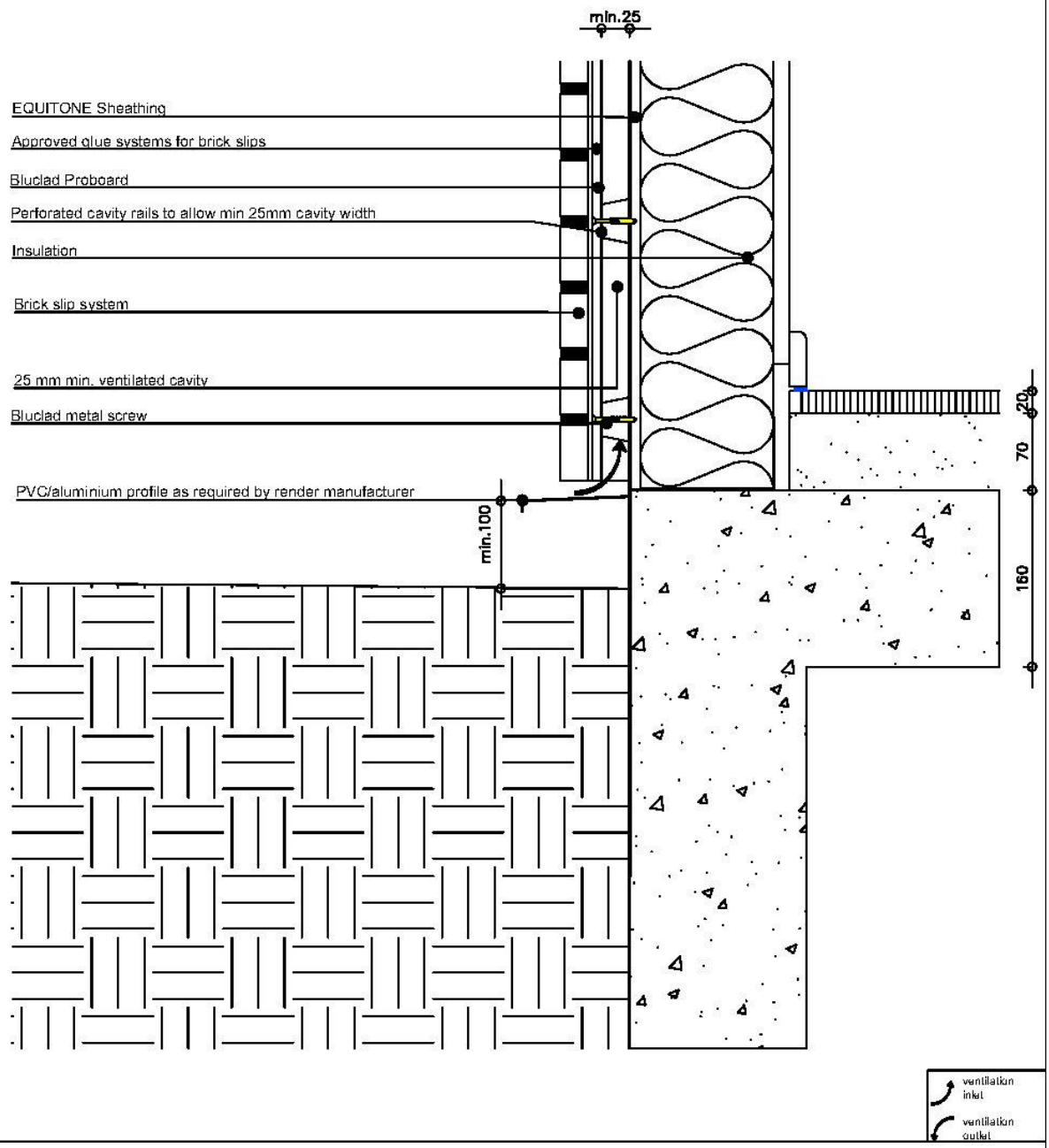
BLUCLAD Proboard as a Brick Slip Carrier Board forVentilated façade systems on metal frame

Detail 2.1 - Base bead Detail



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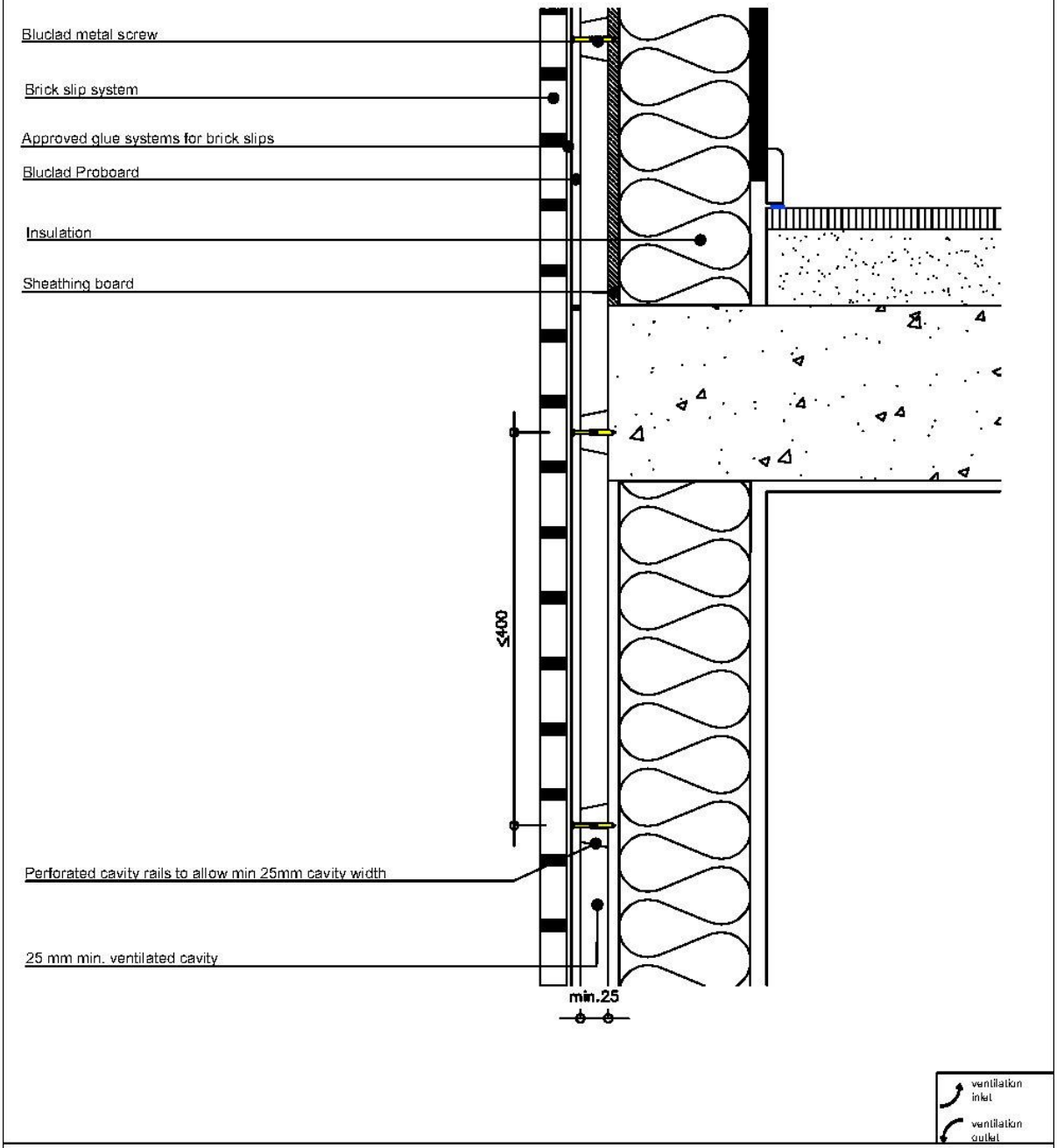
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 3.1- Connection to floor slab



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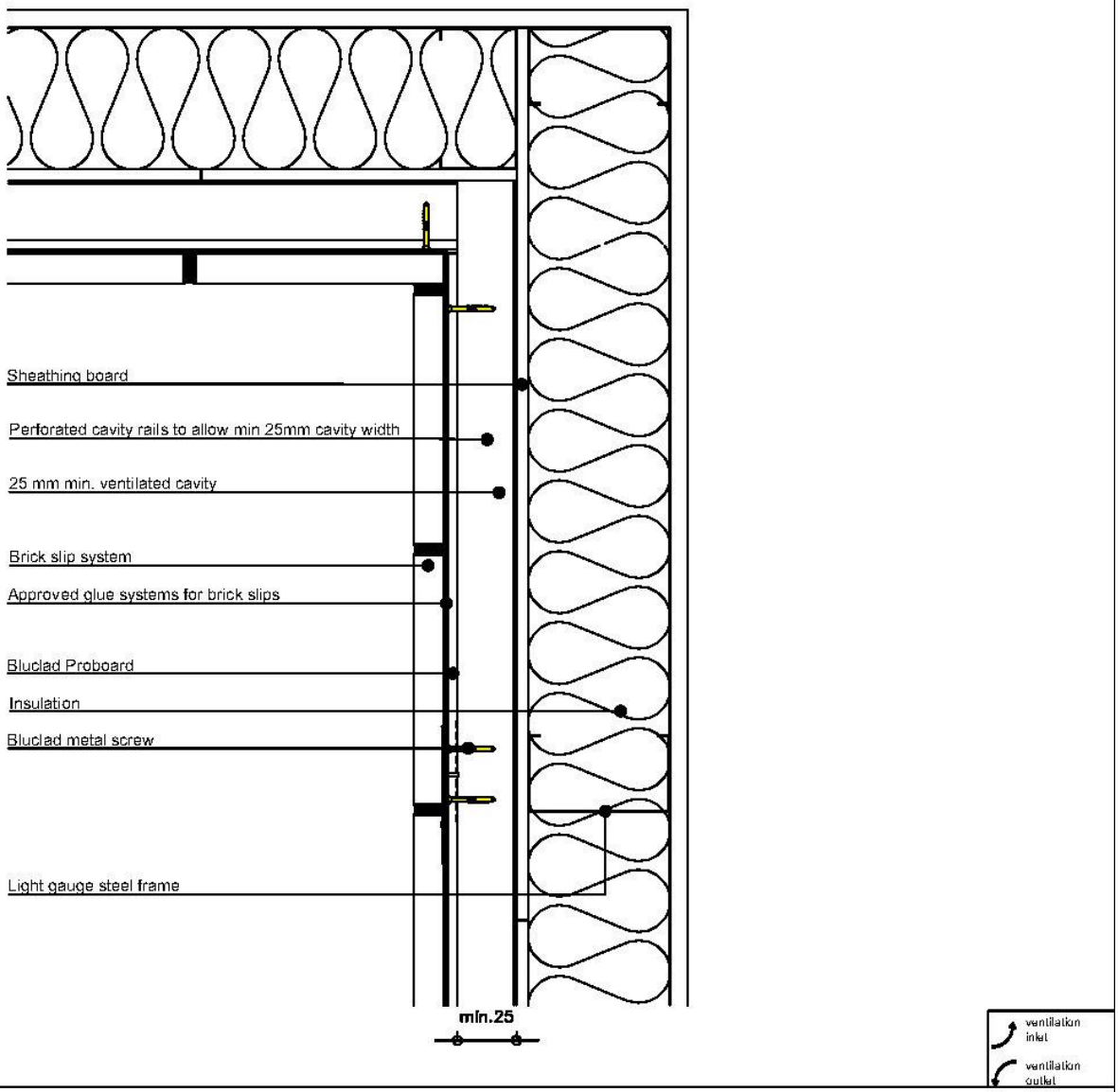
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 4.1- Building internal corner



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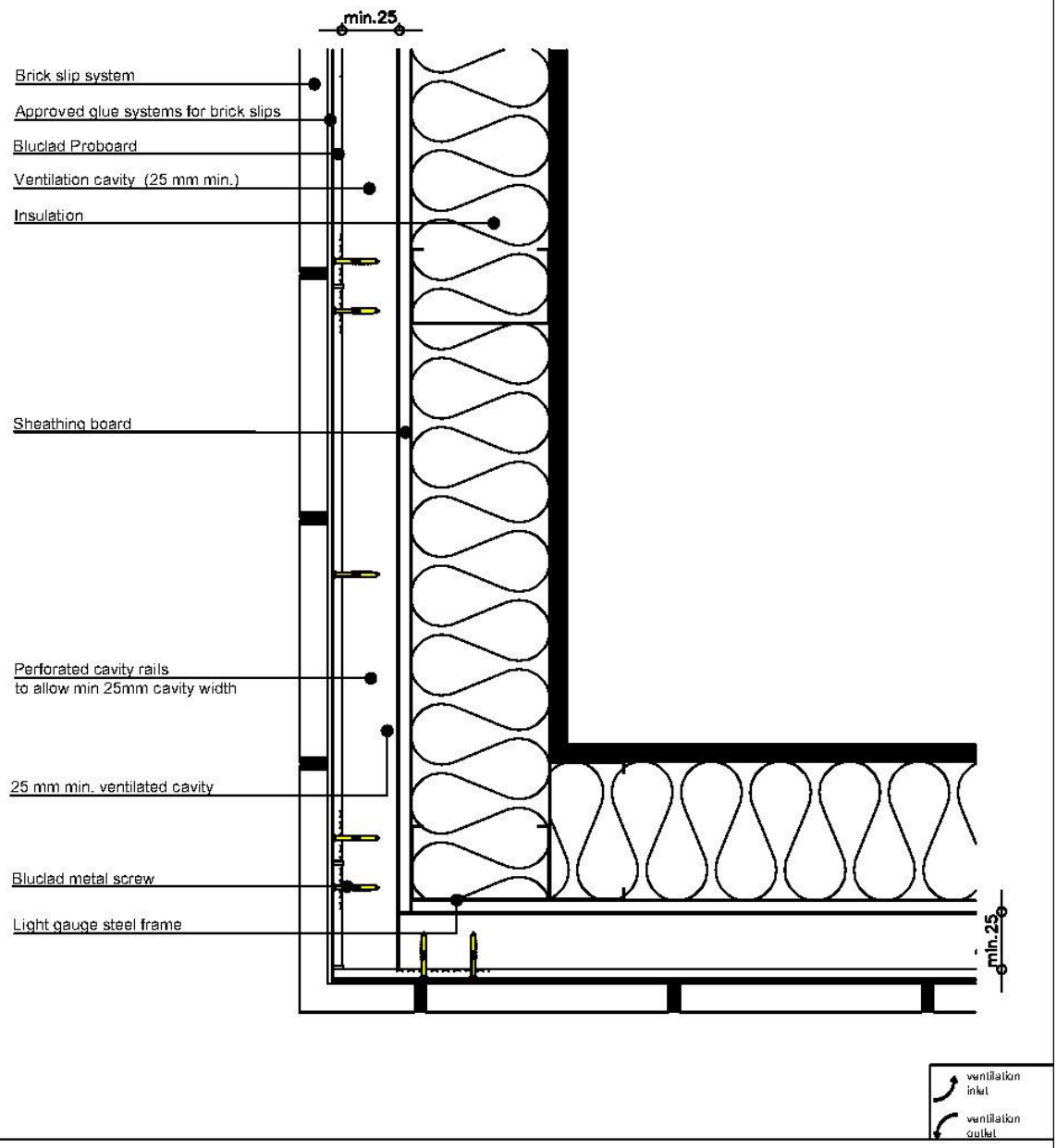
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 5.1- Building external corner



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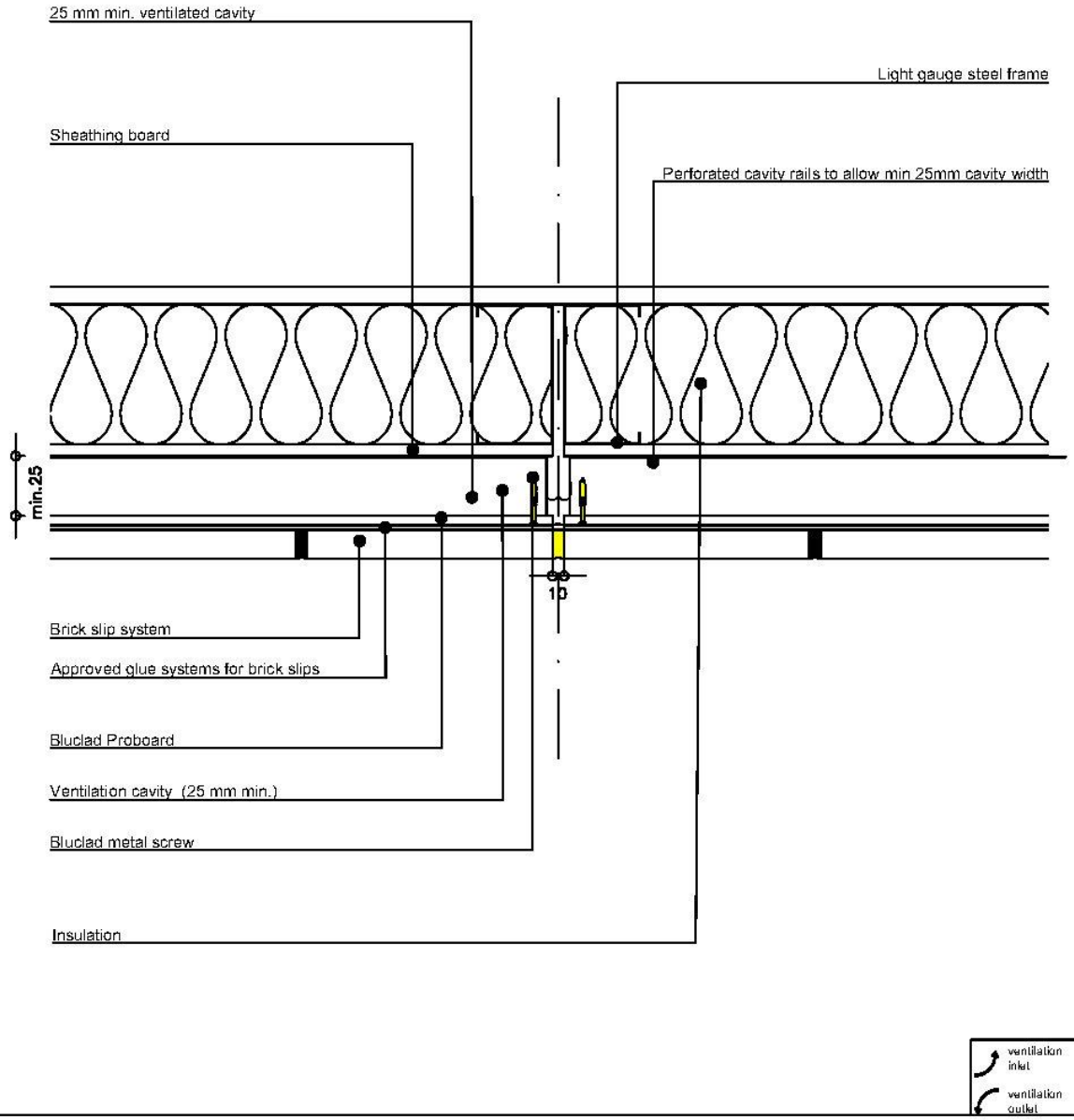
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 6.1 - Movement Joint Detail



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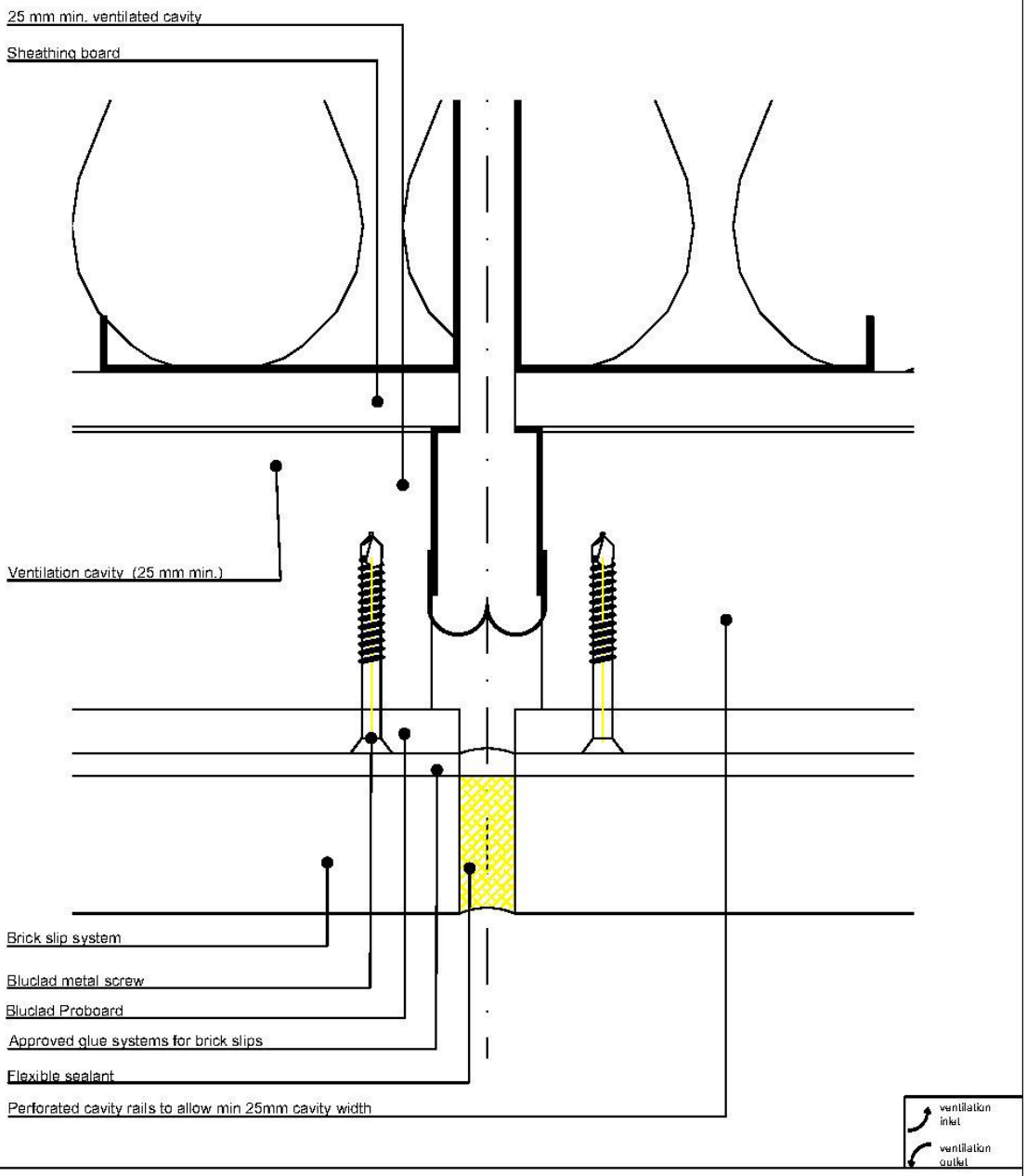
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on timber frame

Detail 6.1b - Surface expansion joints



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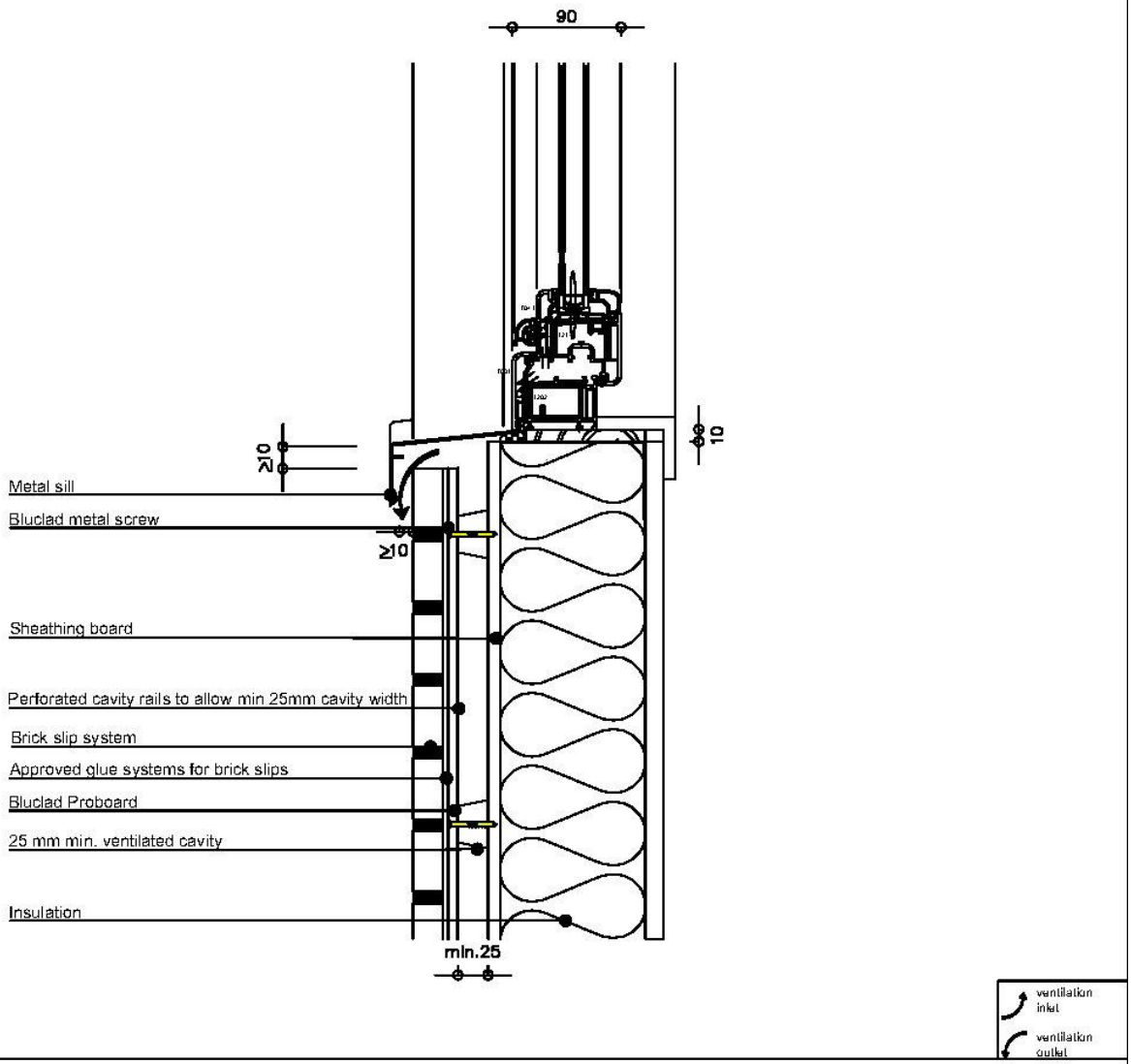
Surface expansion joints depend on the brickslips. Refer to the brickstrip manufacturer's recommendations.

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 7.1 - Window sill detail



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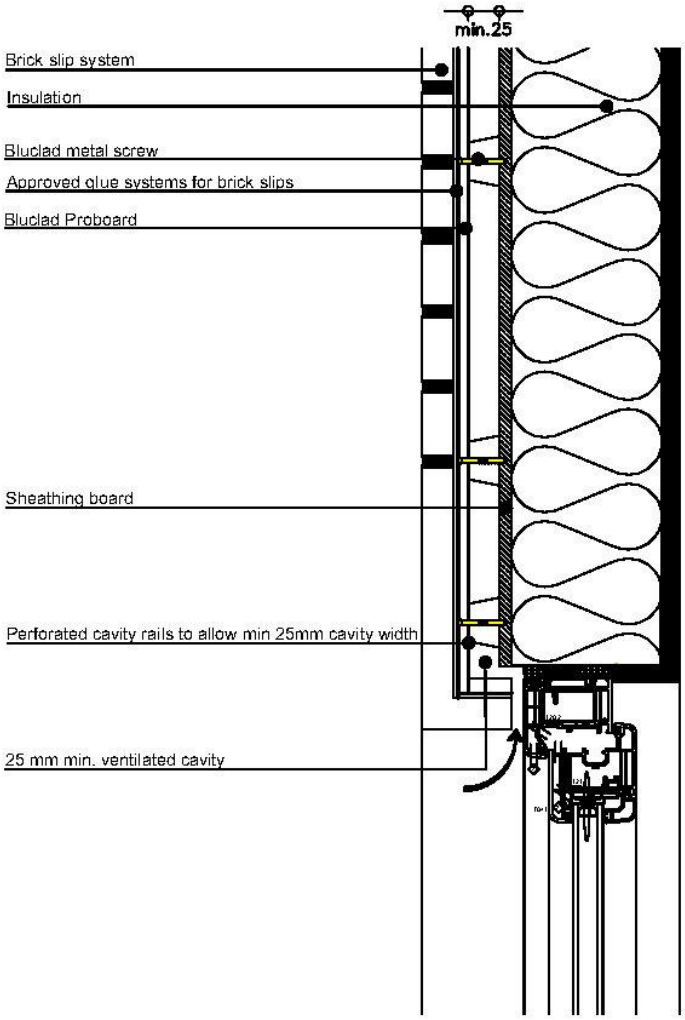
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 8.1 - Window head detail



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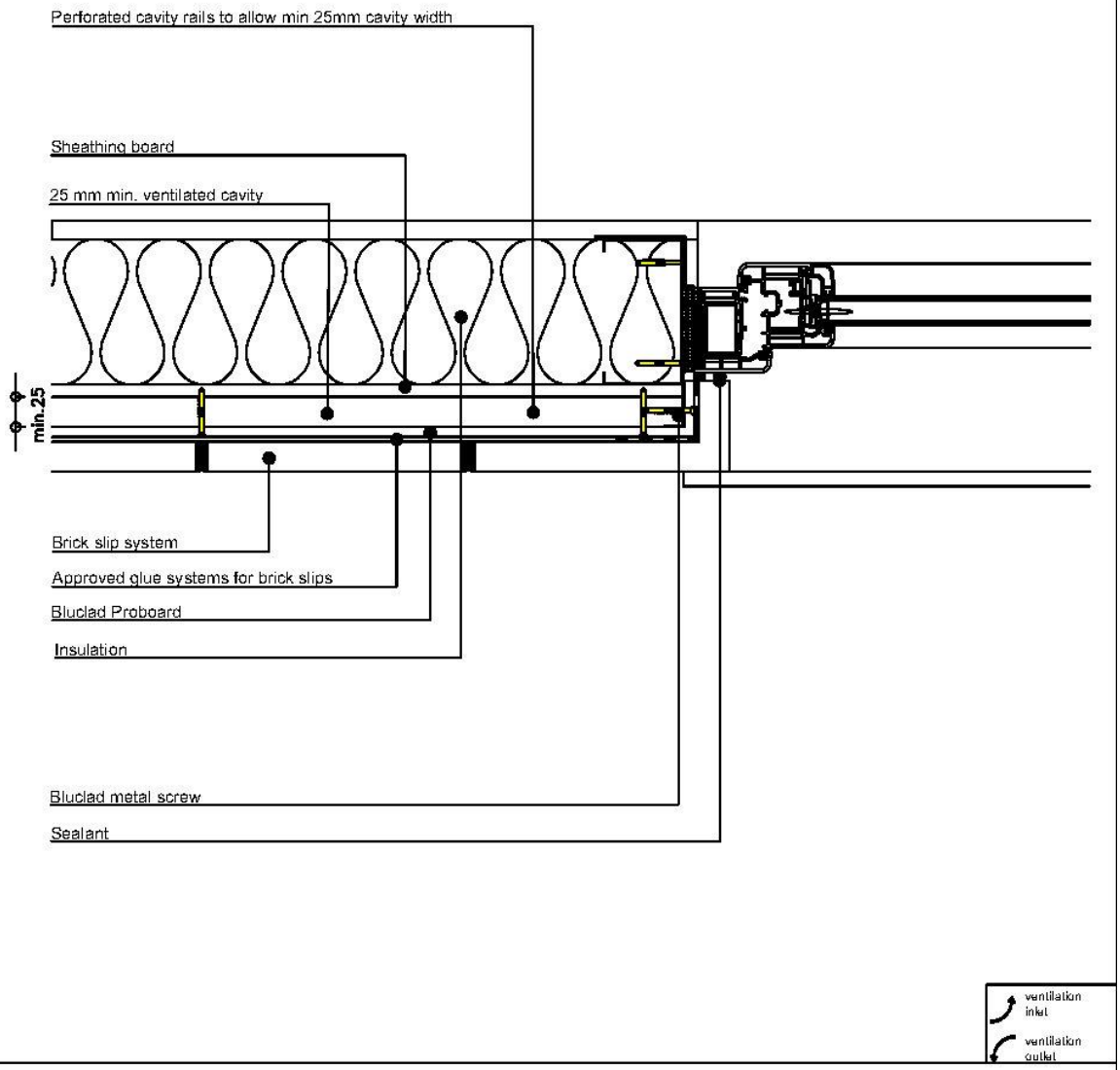
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 9.1 - Window jamb detail



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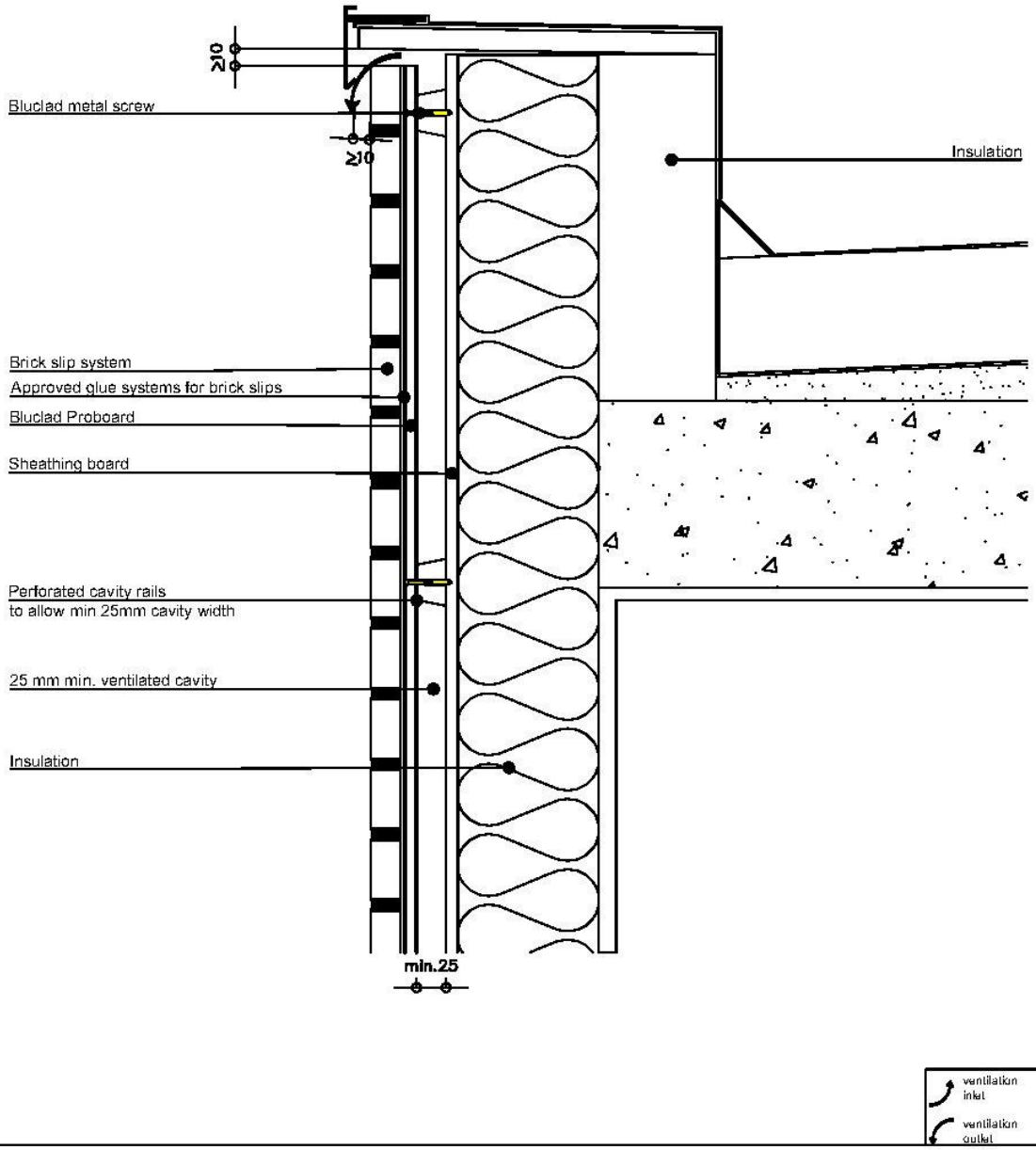
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on metal frame

Detail 10.1 - Connection with flat roof



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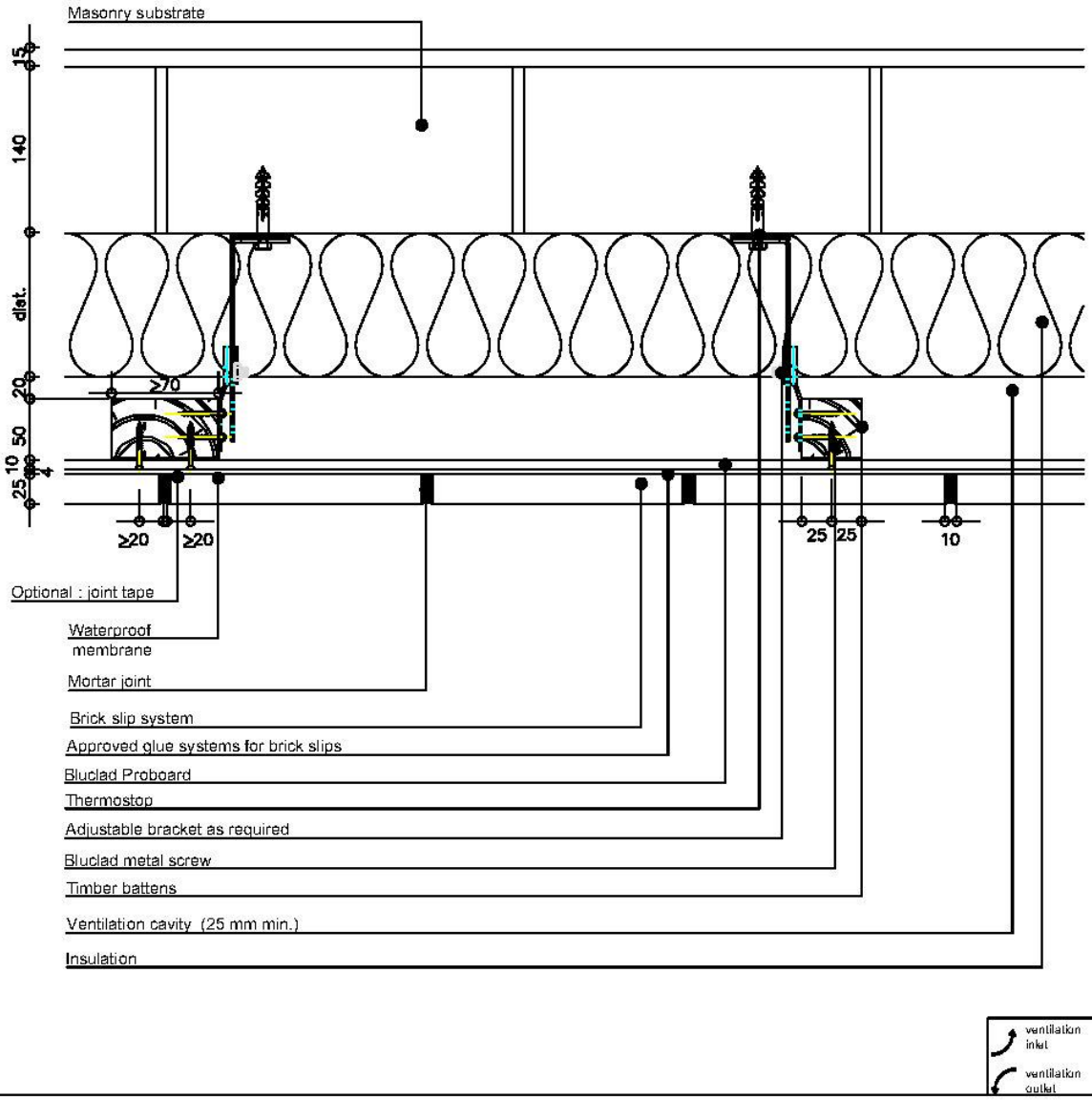
Bluclad Proboard as a support plate for brickslips in ventilated facades for a masonry wall

Title drawing	Number
Surface mounted vertical wall system	Detail 1.2
Surface-mounted vertical wall system, detail	Detail 1.2b
Detail Basic Profile	Detail 2.2
Connection to floor plate	Detail 3.2
Inside corner building	Detail 4.2
Exterior corner building	Detail 5.2
Detail expansion joint	Detail 6.2
Detail window sill	Detail 7.2
Detail above window opening	Detail 8.2
Detail daylight side window opening	Detail 9.2
Flat roof connection	Detail 10.2

BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 1.2 - Vertical wall system build up



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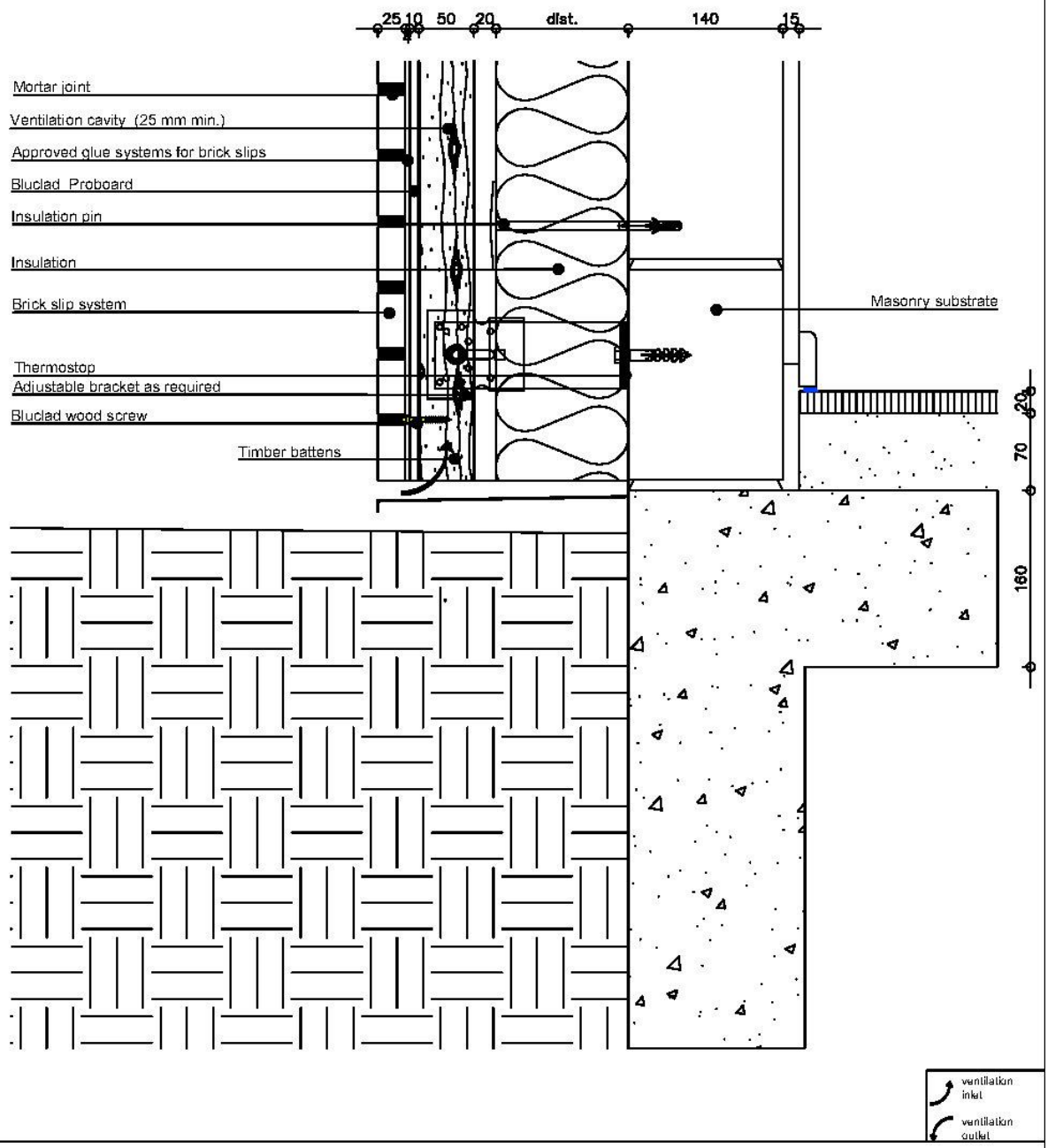
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 2.2 - Base bead Detail



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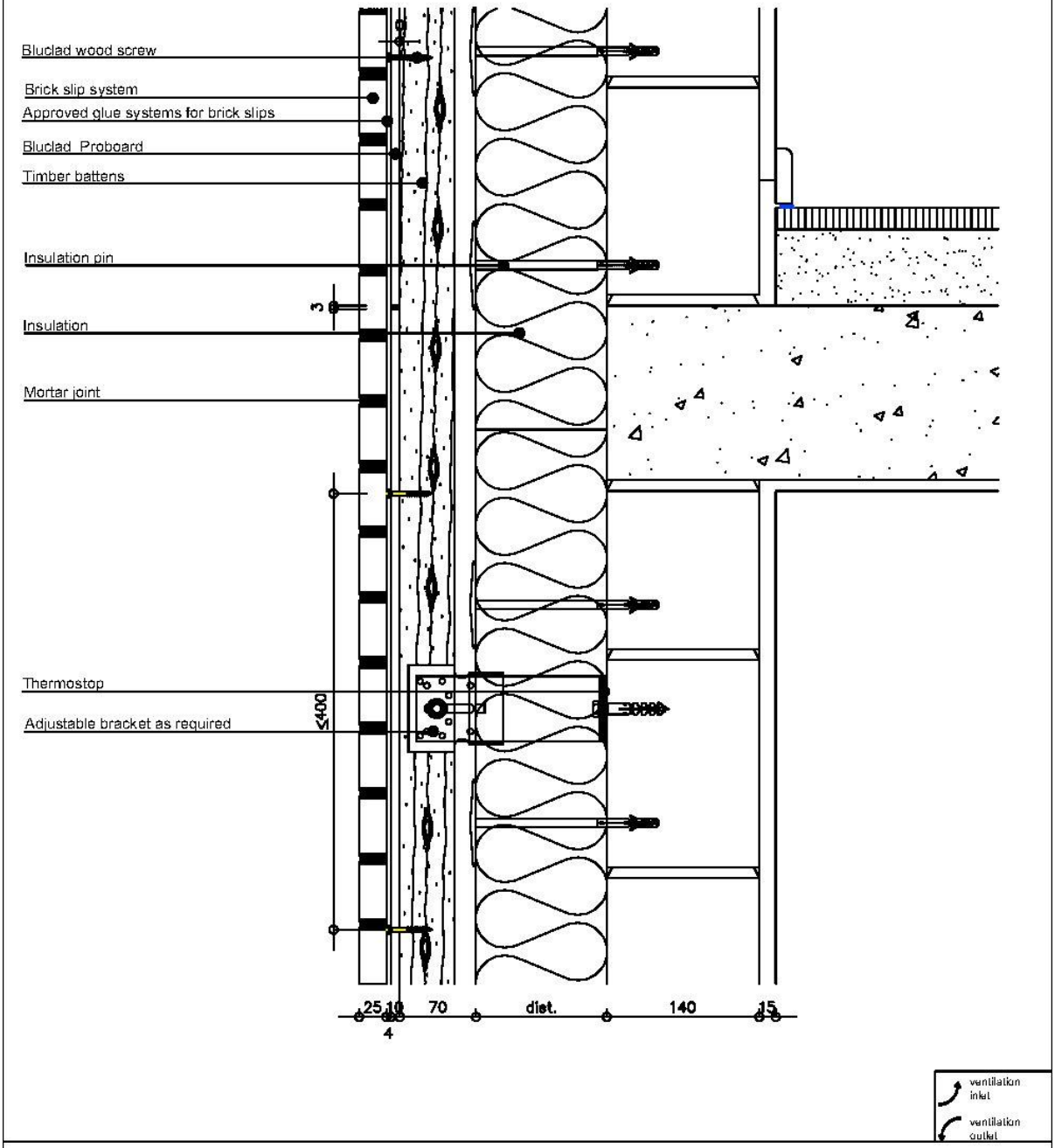
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 3.2 - Connection to floor slab



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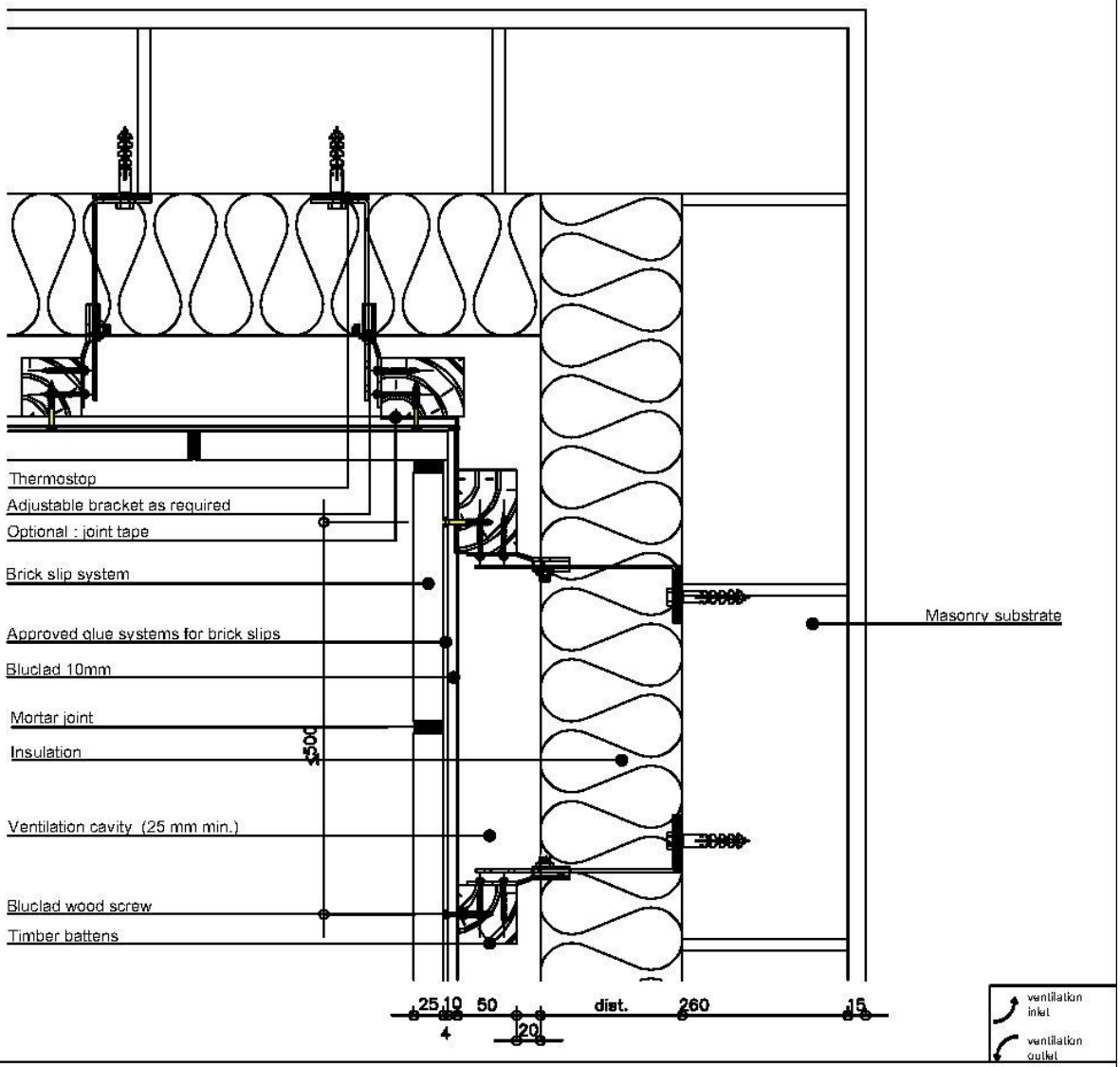
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 4.2 - Building internal corner



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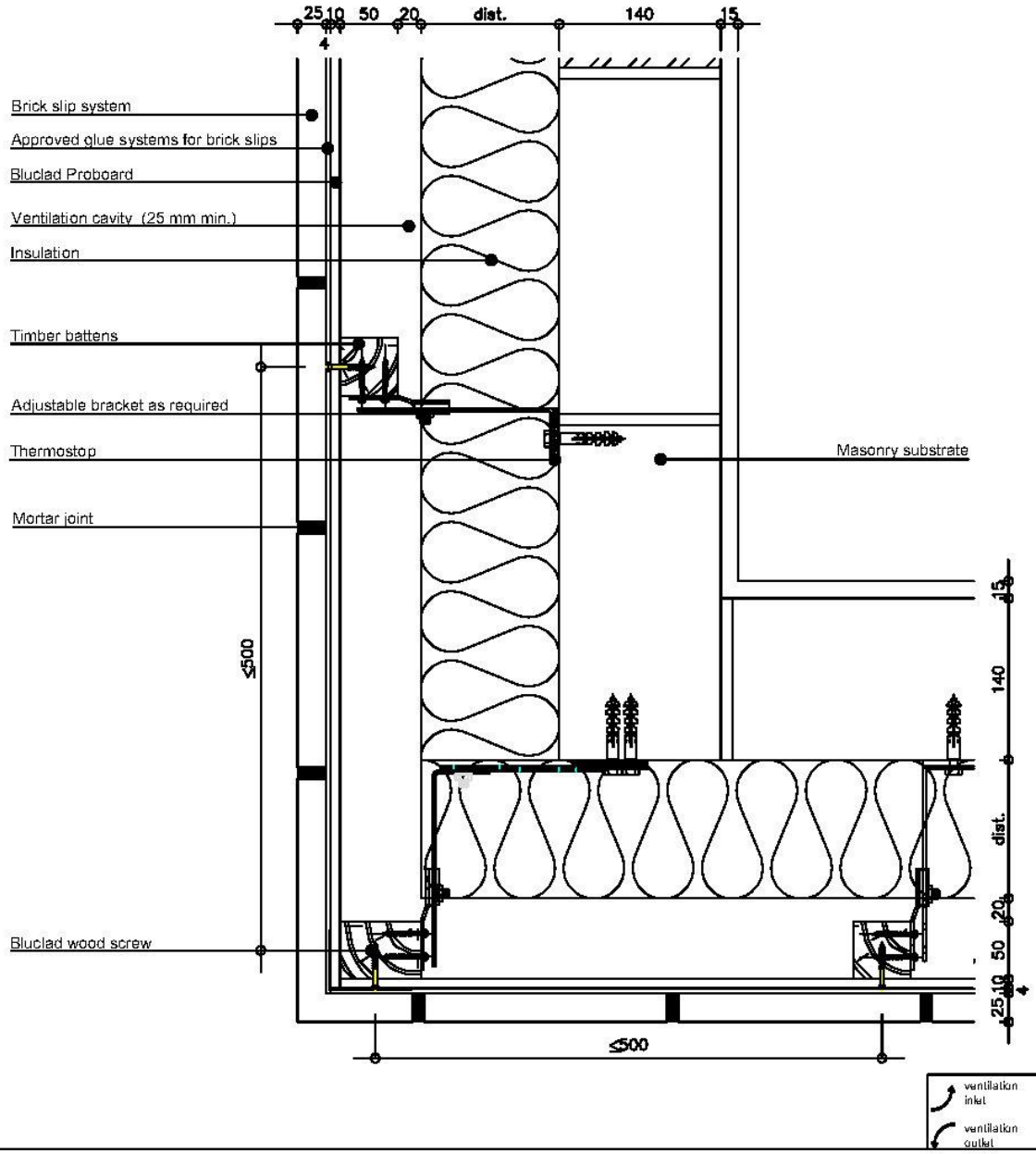
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 5.2 - Building external corner



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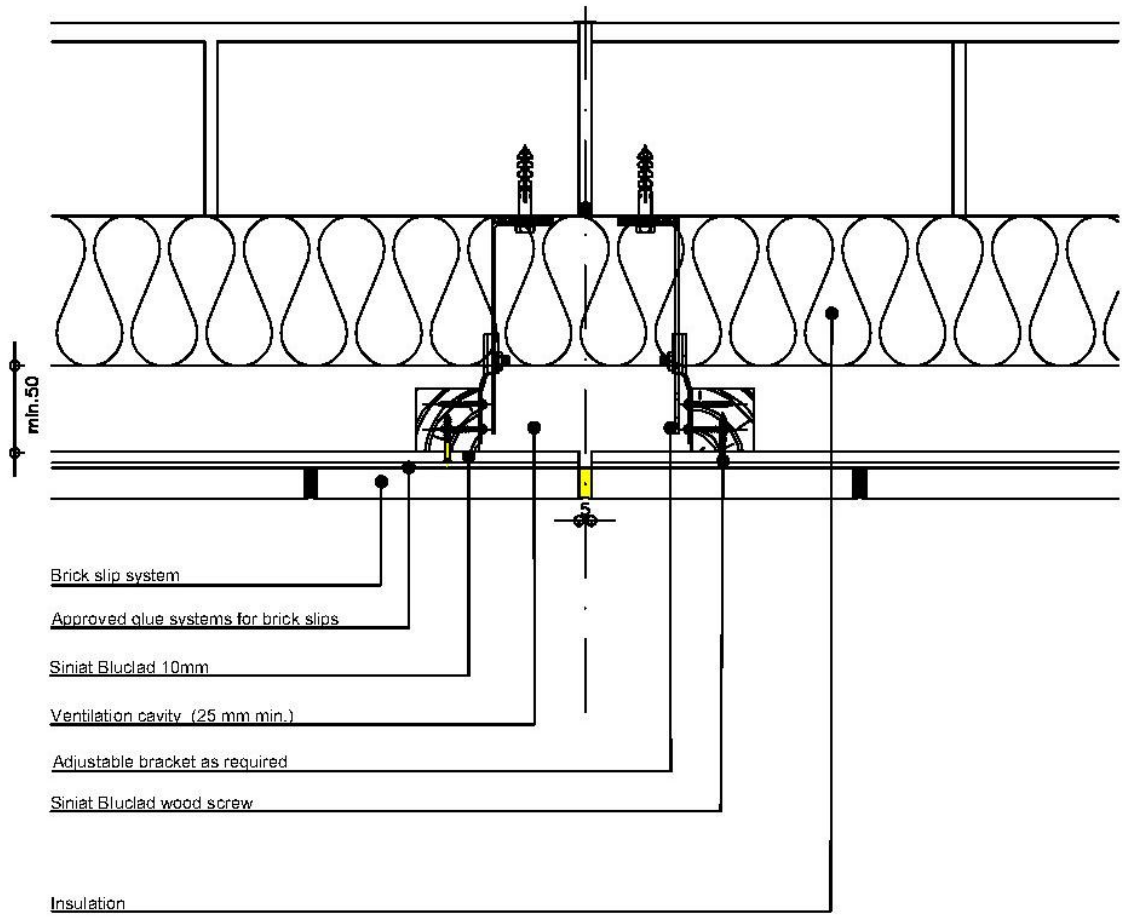
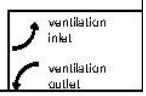
BLUCLAD Proboa

Surface expansion joints depend on the brickslips. Refer to the brickstrip manufacturer's recommendations.

ems on masonry wall

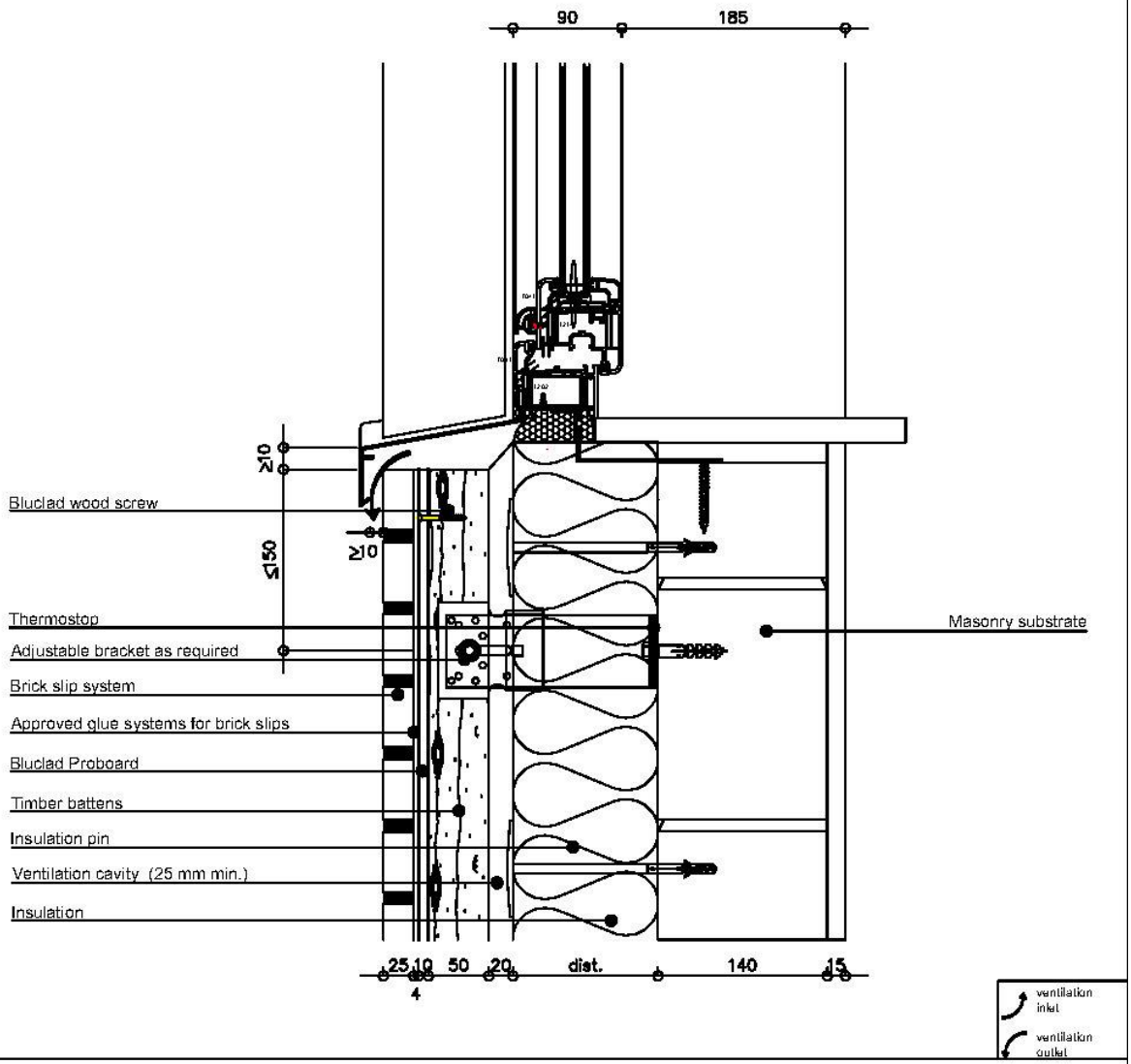
Detail 6.2 - Movement Joint Detail





BLUCLAD Proboard Board for Ventilated façade systems on masonry wall

Detail 7.2 - Window sill detail



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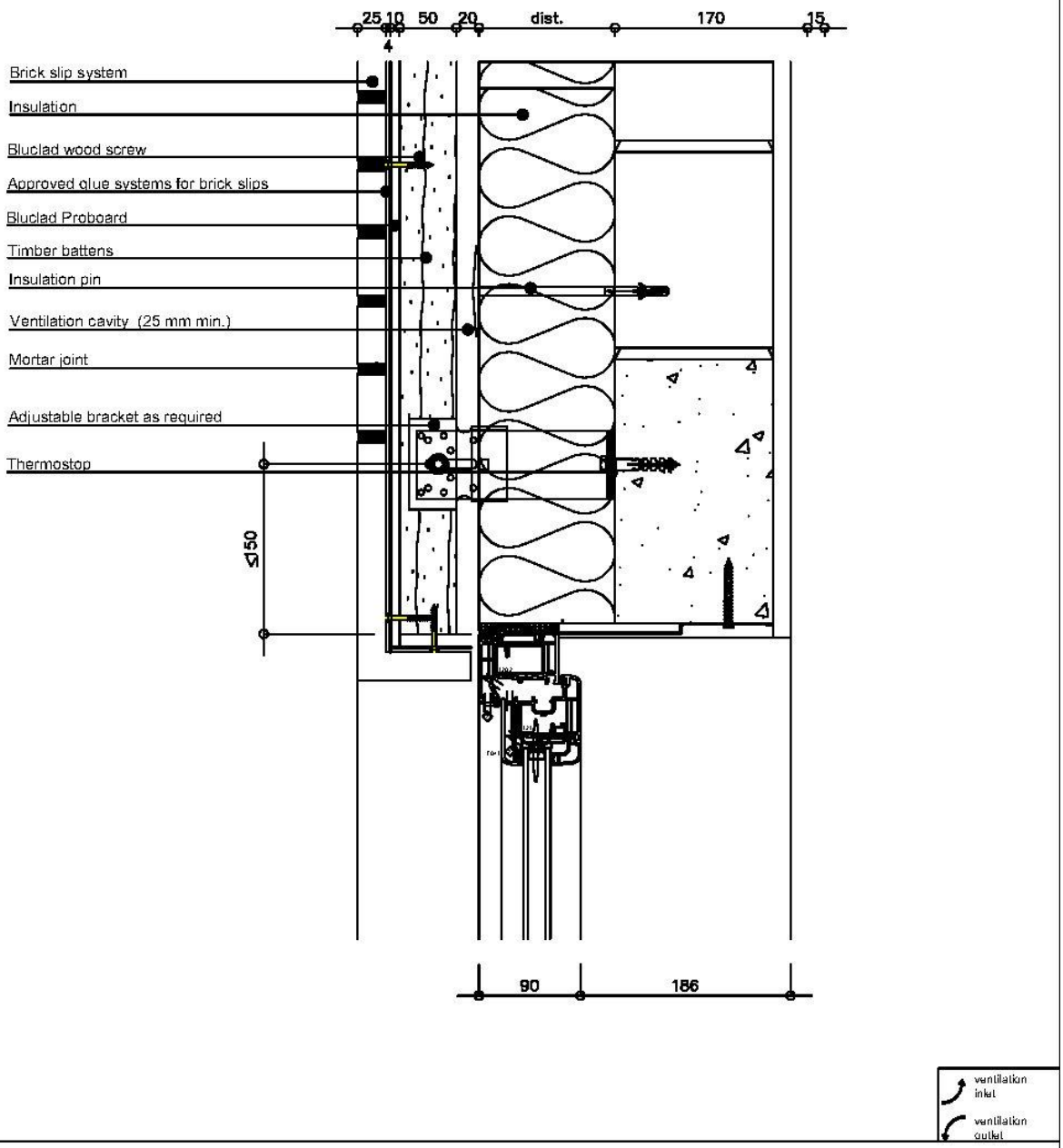
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 8.2 - Window head detail



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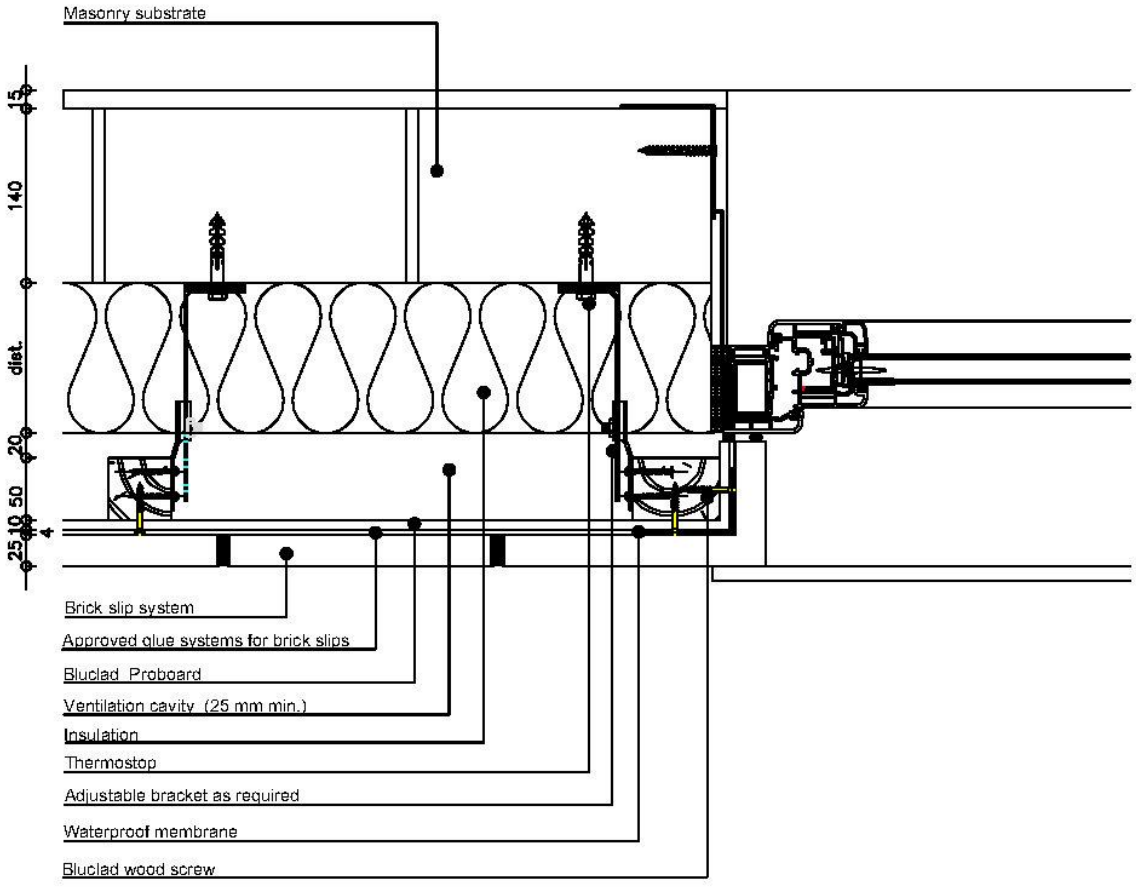
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 9.2 - Window jamb detail



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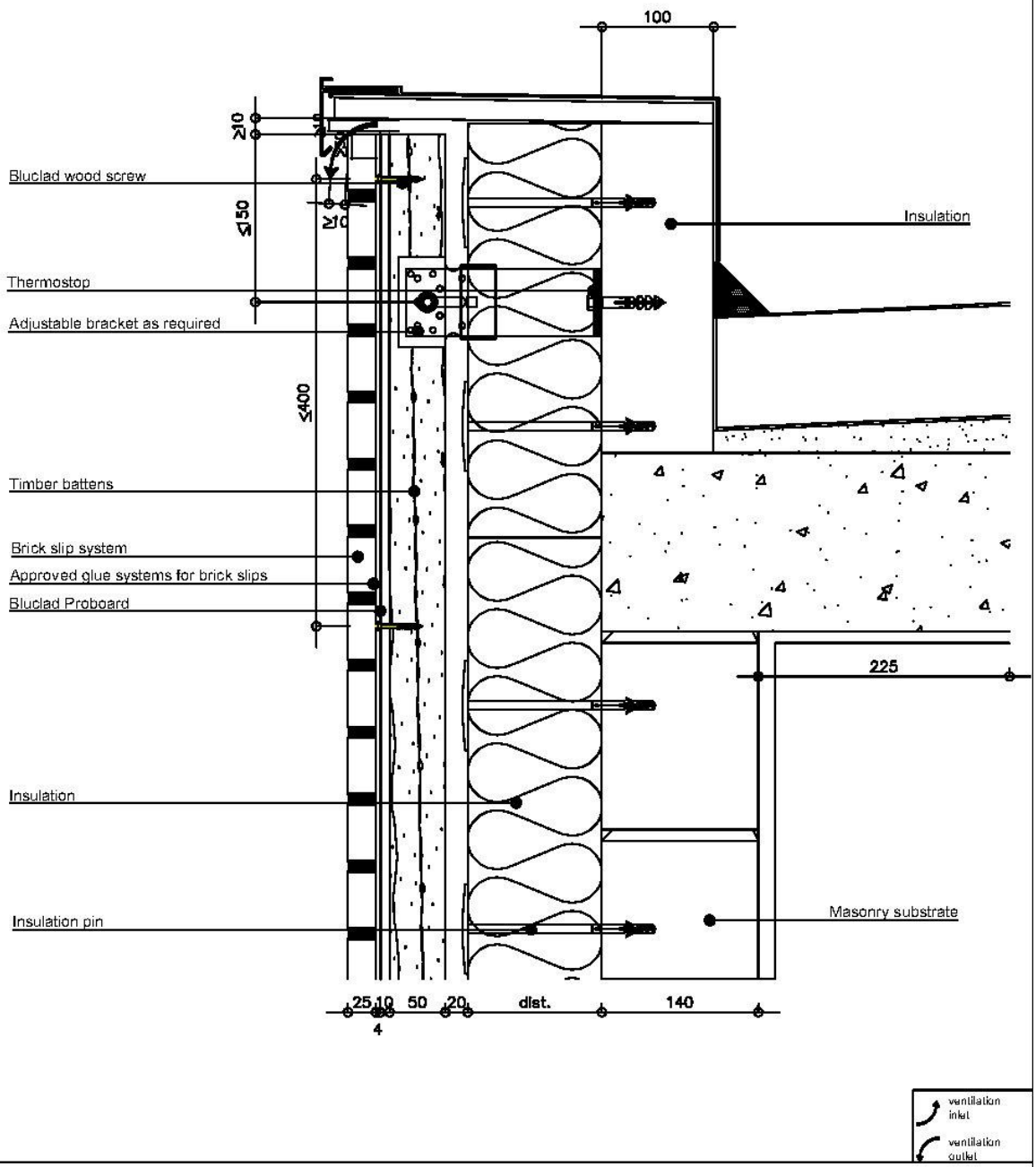
BLUCLAD Proboard as a Brick Slip Carrier Board for Ventilated façade systems on masonry wall

Detail 10.2 - Connection with flat roof



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All figures contained in this document are illustrations and should not be used as construction drawings.

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