



Zeno-Clad™  
No1 Architectural Panels System  
**INSTALLATION  
GUIDE**  
Non-Cyclonic

# Zeno-Clad™ panel installation

## Important Note:

No1 Architectural Panels recommends you refer to the most recent release of this manual, as changes might be made for improvement purposes. If unsure which version of the manual you have, please contact No1 Architectural Panel Systems for assistance.

This manual should be read in conjunction with related Australian Standards, and all installation works must be carried out in accordance with the National Construction Code of Australia and the following standards:

- AS 1562.1 - design and installation of sheet roof and wall cladding
- SA HB 39:2015 - installation code for metal roof and wall cladding
- AS 2180 - metal rainwater goods - selection and installation
- AS 2179.1 - specification of rainwater goods, accessories, and fasteners metal shape or sheet rainwater goods, and metal accessories and fasteners
- AS 3500.3 - plumbing and drainage stormwater drainage

## Usage Terms

By utilising this manual, you agree to abide by the specified terms and conditions. No1 Architectural Panel Systems, including its employees, agents, consultants, officers and subcontractors, does not make explicit or implied claims regarding the suitability of the information and data provided for your specific needs, and will not be liable for any work done outside the recommendations in this manual and/or compliance with NCC & Australian Standards.

This manual offers clear and structured information on products, installation details and recommended practices. It is essential for users to interpret this information correctly. If a third-party product is suggested, it is recommended to the user to verify its qualities and capabilities with the manufacturer before use. In case of any uncertainty, seek clarification.

Should on-site requirements necessitate adjustments to the details provided, users must ensure compliance with the abovementioned standards. It is your responsibility to ensure that your chosen design aligns with your requirements, purchased products, site constraints, and construction capabilities.

## Technical Specifications

|                                  |                      |
|----------------------------------|----------------------|
| Panel height                     | 20mm                 |
| Standard panel cover             | 295mm and 495mm      |
| Minimum sheet length             | 300mm                |
| Maximum recommended sheet length | 4000mm*              |
| Custom pan widths                | Available on request |
| Fixing                           | Concealed fixed      |

Please consult with our APS team - additional design parameters might be required

Zeno-Clad™ Panels are tested and certified to comply with AS 1562.1:2018 - Design and installation of sheet roof and wall cladding - Metal. It replaces AS 1562.1:1992

\*Considering the characteristics of Zeno-Clad™ as a direct fixing architectural panel (without clips), extended panel lengths may exhibit increased vulnerability to the manifestation of oil canning.

## Use of Authentic Materials

We exclusively mention authentic materials and products produced by No1 Roofing & Building Supplies and sold under our brand labels. Please apply our suggestions solely to our products, as they derive from thorough testing of our designs, base metal thicknesses, and material coatings and finishes.

## General

- A. Provide components required for a complete metal cladding panel assembly including trim, capping, corner, flashing, sealants, gaskets, fillers and similar items. Match material and finish of metal cladding panels, unless otherwise indicated.
- Flashing: Provide flashing at bottom, tops, corners, transitions, window surroundings and door surroundings fabricated of same metal as metal roof panels.
- B. General: Provide metal cladding panels of full length from floor level to soffit / awning underside / internal ceiling lining.
- Field cutting of metal wall cladding panels by torch, plasma cutter or saw blade is not permitted.
  - Mechanically fasten top cappings, corner capping and bottom flashings / toe mould
- C. Fasteners:
- Panel fixing: It is recommended to use minimum class 3, 5.4 - 13 x 28mm architectural low profile screws, or minimum class 3, 6.2 - 13 x 25mm hex head screws.
- D. Metal protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic reaction by painting contact surfaces with bituminous coating, by applying rubberised-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer. Please use a suitable fastener

Whilst this will work for the majority of metals, there are instances where incompatibility with coatings / underlayments can also occur - for example: titanium zinc and bitumen are incompatible. If you are unsure, please contact No1 APS team.

## Field-assembled Zeno-Clad™ panel installation

- A. Metal wall cladding panels: Fasten metal wallpanels to a solid substrate as per the manufacturer's engineering report or engineer recommendation based on project location and wind load requirements.
- Fixing spacing: Maximum 650mm centres for both internal and end span. For specific wind load requirements, please consult with our No1 APS team.
  - Install panels to an appropriate substrate by using recommended fasteners fixed centred into the pre-punched slots on the slotted edge of Zeno-Clad™ panels, using recommended spacing as per above.
  - Slide Batten edge of panel sideways, ensuring batten hook is fully inserted into slotted edge groove for panel engagement.
- B. Metal soffit panel: Provide metal soffit panels that are the full width of the soffit. Install panels perpendicular to the support framing.
- Flash and seal panels with weather closures where metal panels meet walls and at the perimeter of all openings.
- C. Installation on plywood requires the following:
- 20mm continuous unobstructed air gap must be incorporated beneath the plywood substrate for ventilation.
  - Breathable waterproofing membrane fixed to outer/external side of plywood substrate.
  - Zeno-Clad™ panels to be installed on a minimum 15mm plywood substrate. (For projects in BAL areas, please consult with our team for alternative / appropriate substrate options).
  - Concealed fasteners attached directly into plywood substrate.
  - Slide batten edge of panel sideways, ensuring batten hook is fully inserted into slotted edge groove for panel engagement

## Delivery, storage and handling

For a safer installation, it is recommended that you wear protective gloves whilst handling metal panels and flashings to avoid personal harm and marks on material (ie.: marks caused by sunscreen). Be aware metal panels have sharp edges and should be treated carefully. Whilst holding a panel, assure even support throughout the length of it (i.e. hold it with arms open, to avoid creating uneven pressure on panels and flashings), and seek help when carrying longer pieces to lower risk of creasing and scratches.

Always inspect delivered items thoroughly to ensure there are no missing items and all goods are in good condition prior to starting installation. When laying metal sheets and flashings on ground, allow the sheet to naturally hang towards the ground with even support and avoid laying goods on hard/rough surfaces that could potentially scratch or damage them.

Goods should be stored in a safe area, off the ground high enough to allow for air circulation underneath and to prevent rising water from contacting products.

If covered, allow for air circulation between draped edges of tarpaulin and slightly elevated on one side as to allow for proper drainage until ready for installation. Prolonged storage is not recommended.

## Safety on site

Carrying long and heavy panels can be challenging exercise on a busy job site. Always be aware of safety laws and comply with safe working conditions imposed by each site. Be aware of others whilst carrying panels throughout a site and avoid resting panels in vertical position in case wind could blow them down. Always be extra careful and consider postponing installation in case of bad weather and windy conditions.

## Cleaning and protection

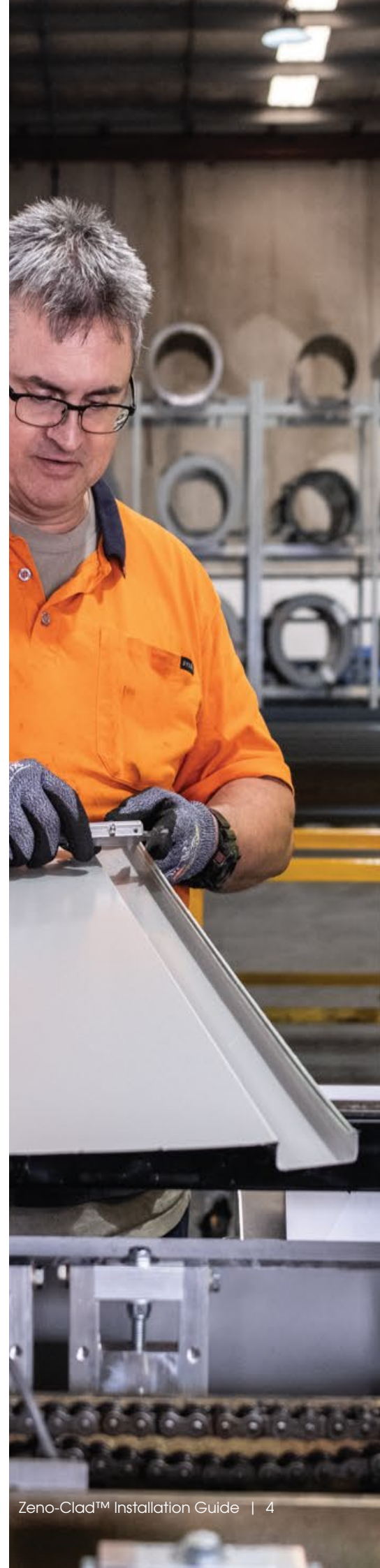
- A. Unless otherwise indicated in manufacturer's written installation instructions, remove temporary protective coverings and strippable films if applicable as metal roof panels are installed. On completion of metal cladding panel installation, clean finishes surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.
- B. To prevent rust staining, remove any fillings caused by drilling or cutting immediately from finished surfaces.

## Oil canning

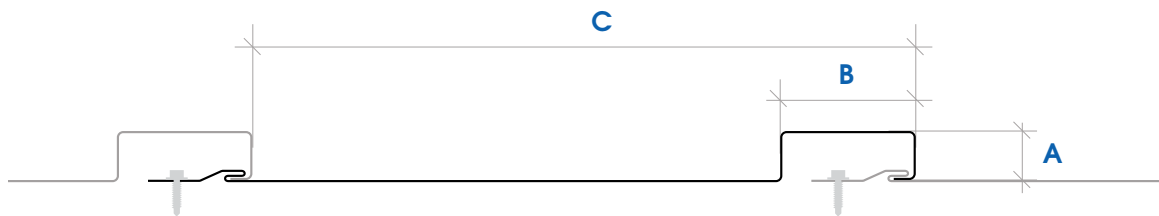
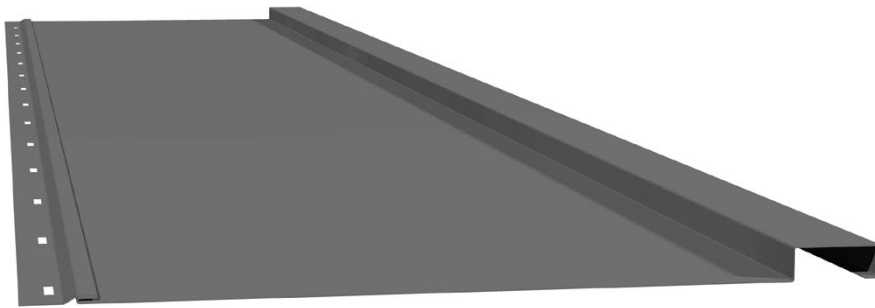
Whilst usually undesirable, oil canning is a common natural occurrence to all metals and results from the natural movement of the panel caused by its expansion and contraction once exposed to temperature variation.

No1 Architectural Panel Systems takes all possible measures to manufacture panels with maximum quality control resulting in an aesthetically flat looking panel, and for this reason oil canning on installed panels will not be considered a cause for panel rejection.

Please speak to No1 for assistance on how to mitigate oil canning on your installation.



# Zeno-Clad™ Panel Characteristics



| Module   | A - Batten Height | B - Batten Width | C - Standard Module |
|----------|-------------------|------------------|---------------------|
| 20 x 295 | 20mm              | 50mm             | 295mm               |
| 20 x 495 | 20mm              | 50mm             | 495mm               |



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## Zeno-Clad™ Fixing Specification

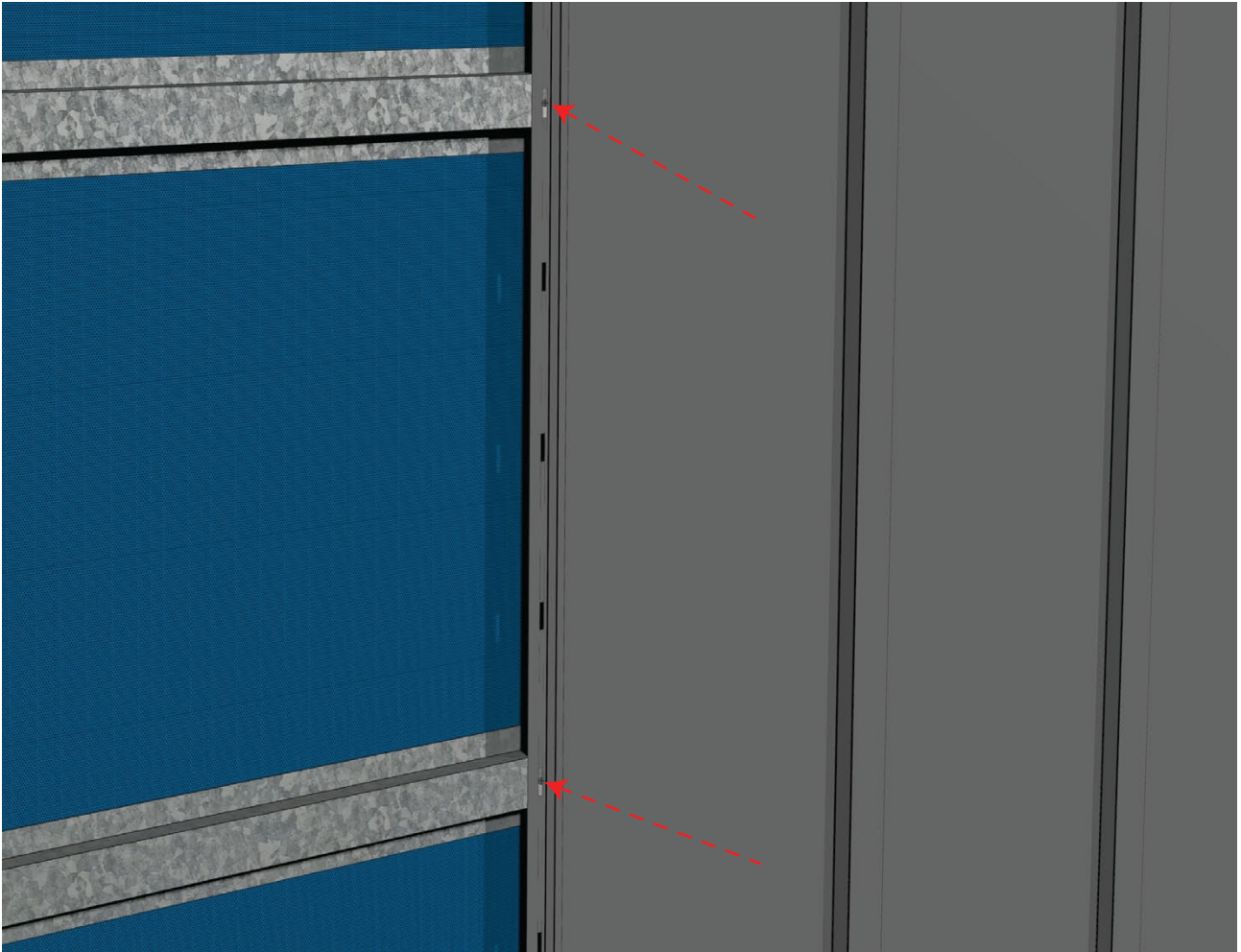


Diagram showing screw engagement on Zeno-Clad™ panels over steel battens.

### Fixing Options

#### Substrate Options

G550 Steel Battens Minimum 0.48mm BMT  
 70x35 Timber Batten  
 Plywood Minimum 15mm

#### Fastener

6.2 - 13 x 25mm hex head  
 5.4 - 13 X 28mm SDM flat head

Note: Plywood substrate is always recommended for optimum panel performance and flatness.

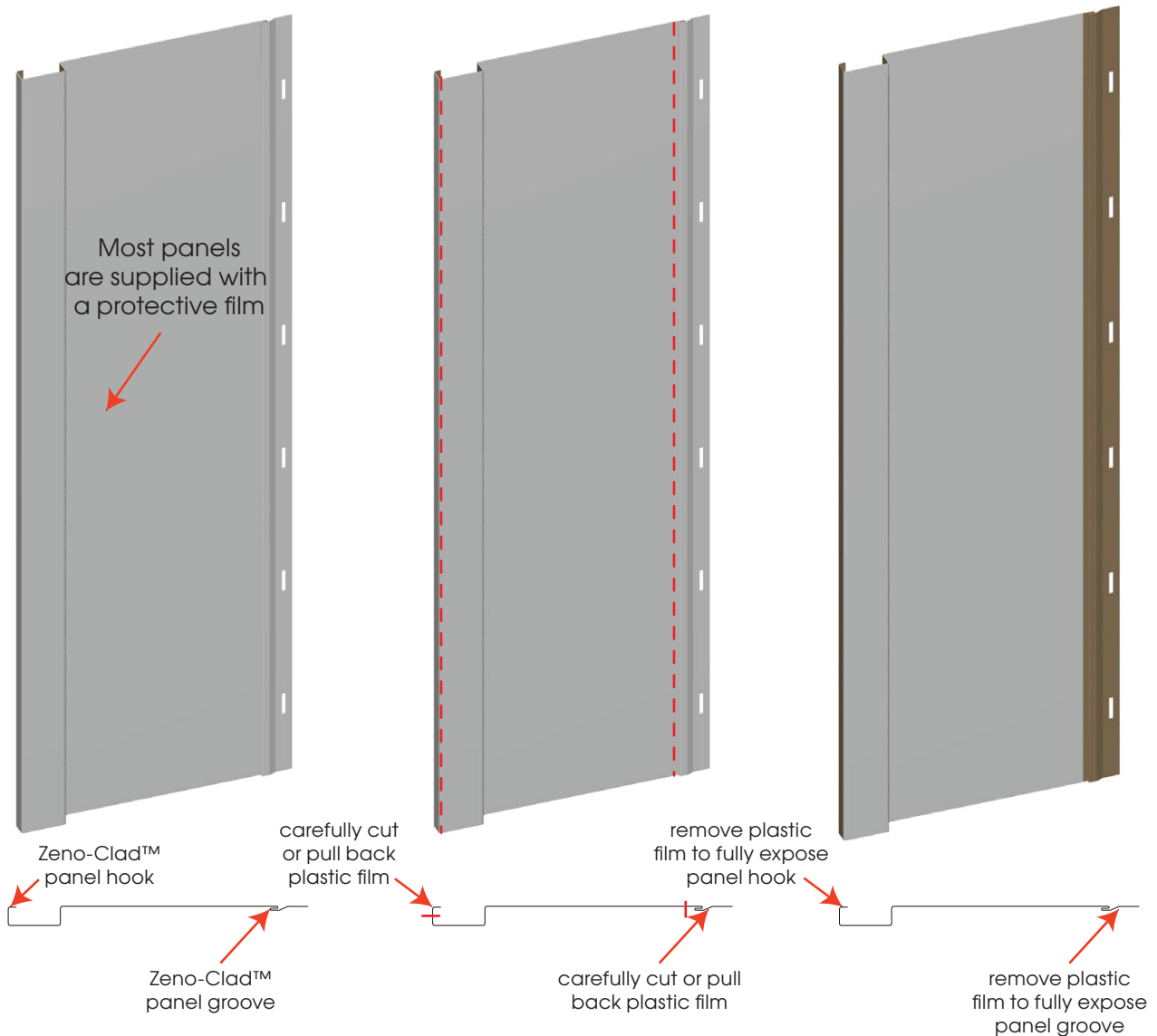
### Recommended Maximum Fixing Spacing

| Zeno-Clad™ Base Material            | End Span | Internal |
|-------------------------------------|----------|----------|
| Painted Steel 0.55mm BMT G300       | 650mm    | 650mm    |
| Corten Steel 0.55 or 0.7mm BMT G300 | 650mm    | 650mm    |
| Aluminium 0.7 or 0.8mm BMT 5005 H34 | 650mm    | 650mm    |

## Zeno-Clad™ Panel Preparation

Most metal panels are supplied with a protective plastic film (e.g., Corestrip, PE film, etc.) that must be removed immediately after installation.

For Zeno-Clad™ panels, due to the hooking process required to engage one panel with another, it is recommended to remove the plastic film protection from the groove and hook edges before installing the panels. This ensures a smooth and secure installation process.

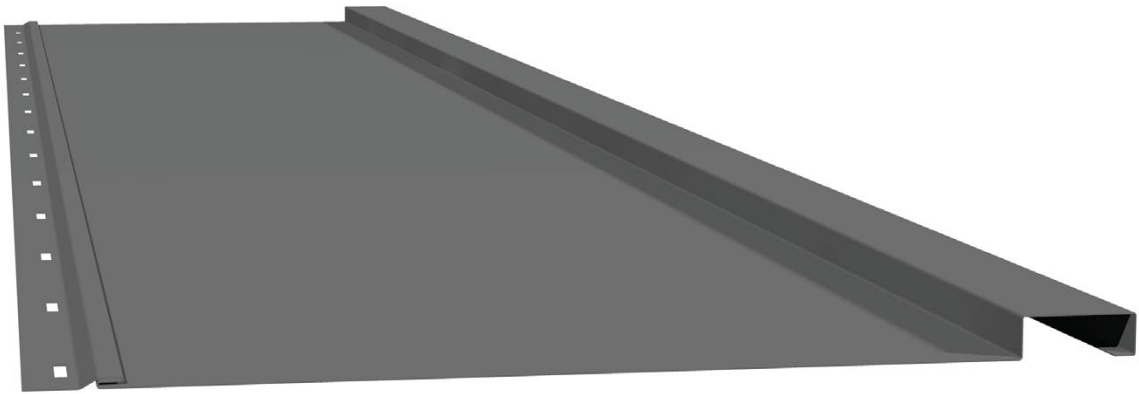


### Important:

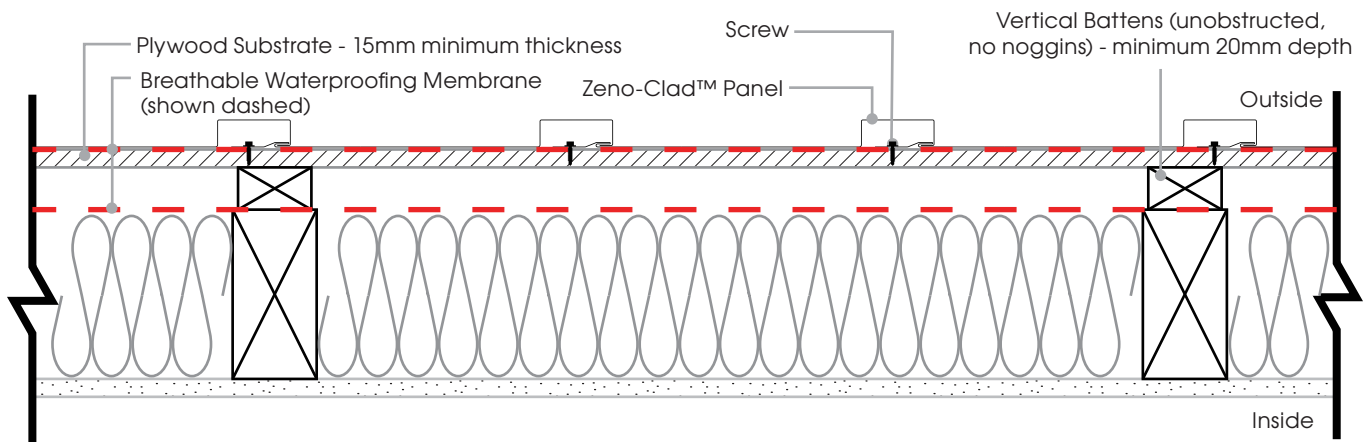
Under no circumstances should panels be stepped on. Doing so can cause permanent damage, such as dents or deformations, which may compromise their structural integrity and aesthetic appearance.

When on site, ensure that panels are fully supported and kept in a flat position at all times. This prevents bending or warping, which can occur if panels are stored unevenly or unsupported.

Additionally, panels must be protected from rain and other environmental elements to avoid water damage, corrosion, or staining.

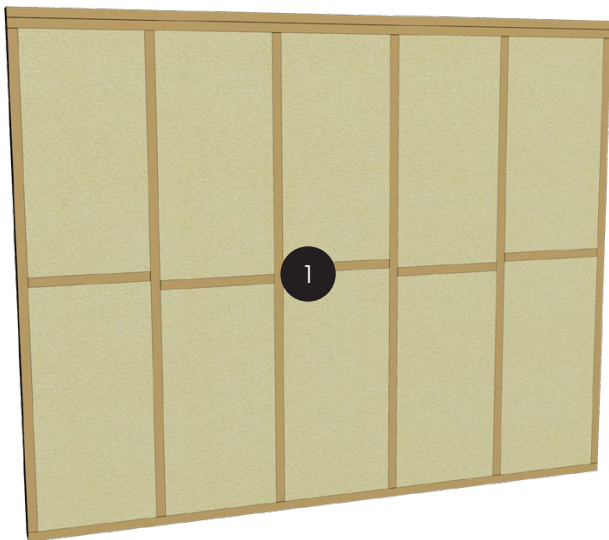


# Zeno-Clad™ Wall Cladding Flashing Details on Plywood

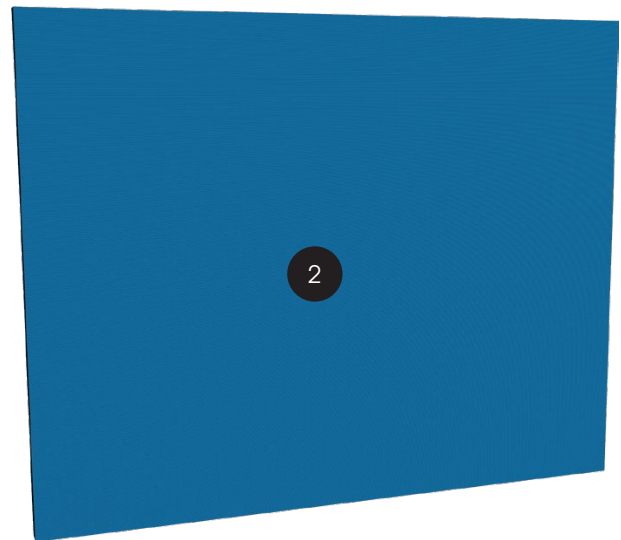


## Zeno-Clad™ Panels installed on Plywood Substrate - breathable build up - wall section

### Installation Steps

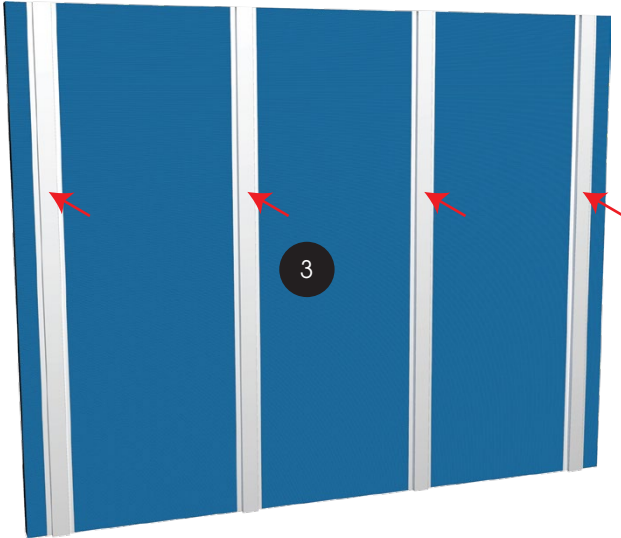


Ensure wall structure is levelled and plumb. This will be essential for an optimum installation process.



Apply a layer of breathable waterproofing membrane to the structure. Ensure structure is protected and sealed.

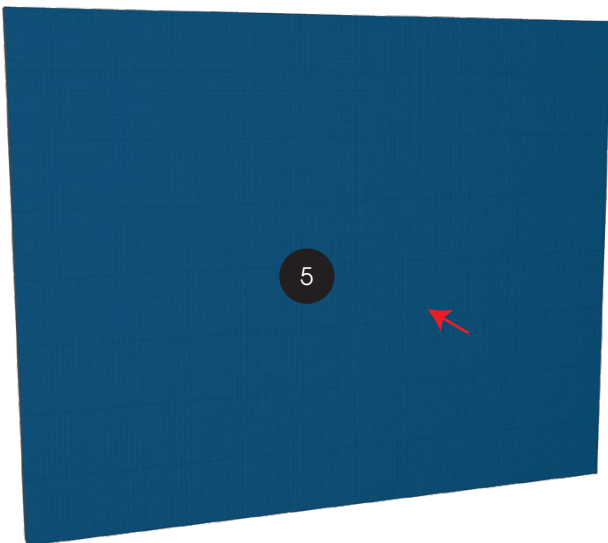
# Wall Cladding Flashing Details on Plywood



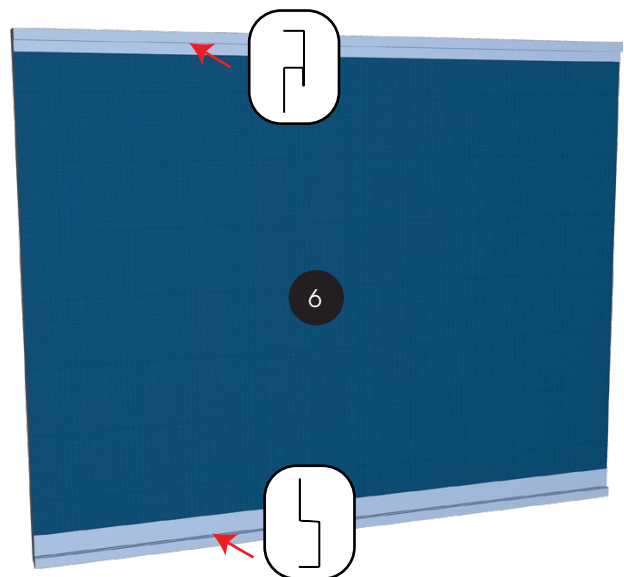
Install top hats (minimum depth 20mm) vertically over membraned wall at maximum 600mm centres, to create a ventilation cavity to mitigate condensation.



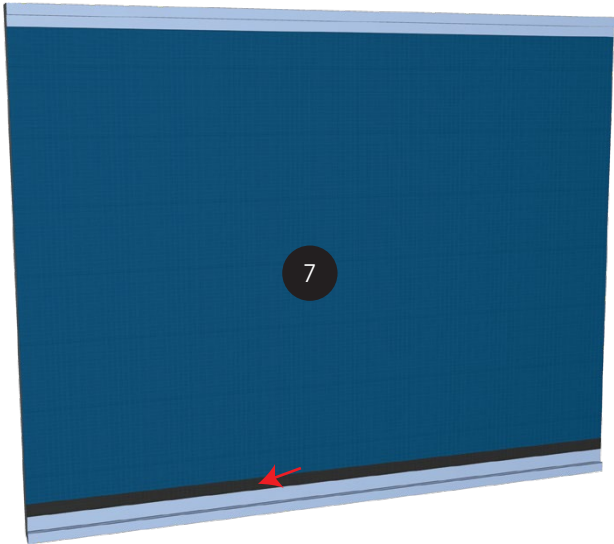
Install a layer of 15mm plywood (minimum CD grade) over top hats.



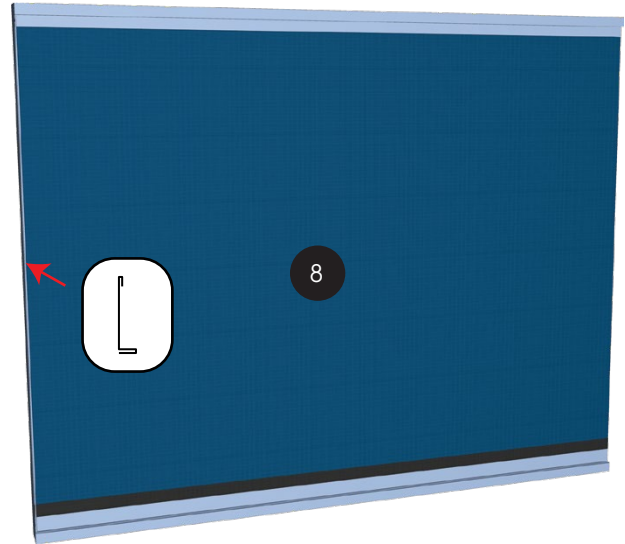
Install another layer of breathable waterproofing membrane over plywood.



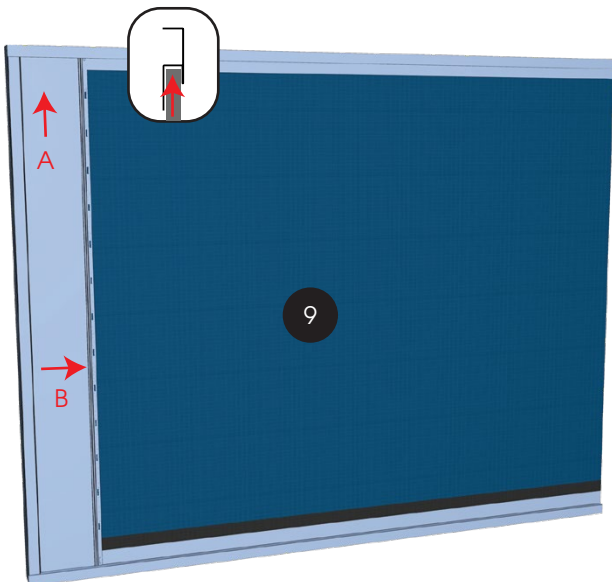
Install Top Flashing and Bottom Flashing.



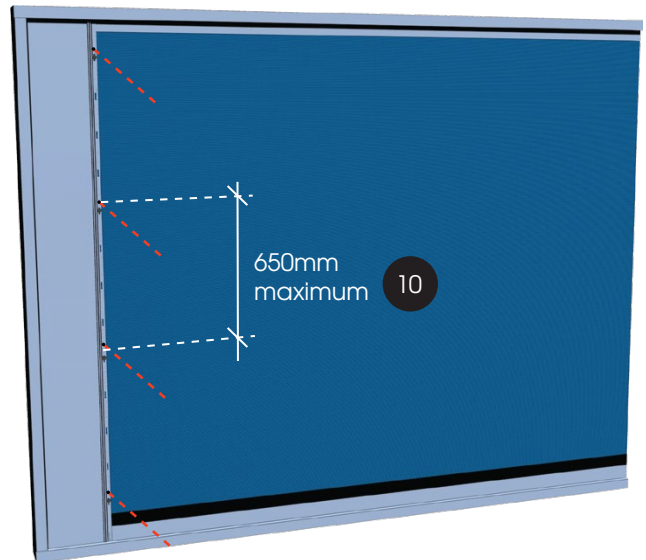
Apply a weathertight sealing tape to seal flashings to drain out condensation and minor infiltrations.



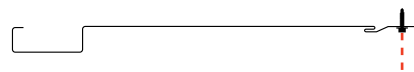
Install a custom starter flashing to fix the first Zeno-Clad™ panel.

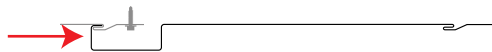
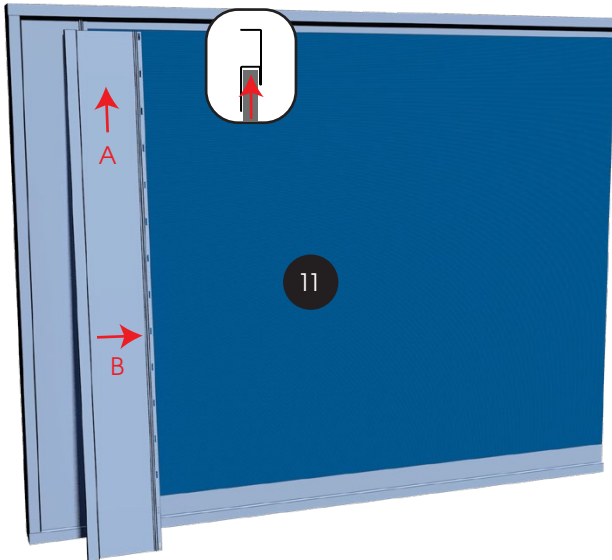


A. Slide the first Zeno-Clad™ panel into Top Flashing.  
B. Then slide the panel sideways to engage the panel hook inside starter flashing groove.

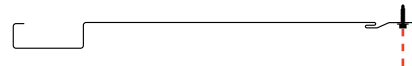
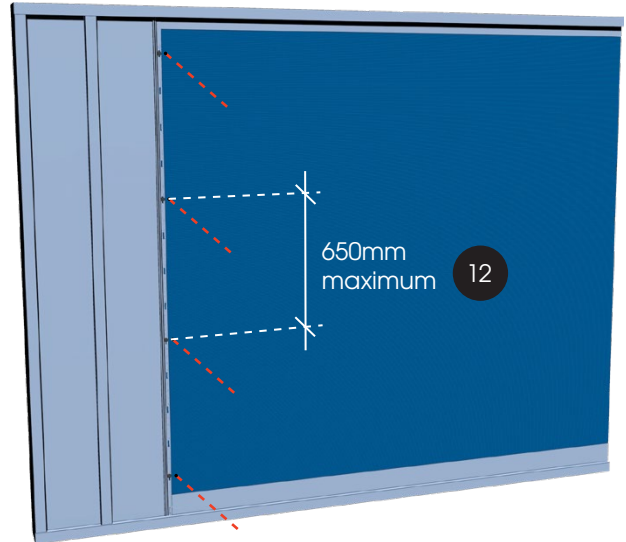


Fix first Zeno-Clad™ panel with recommended fasteners, ensuring screws are placed in the centre of the slotted holes at no more than 650mm centres.

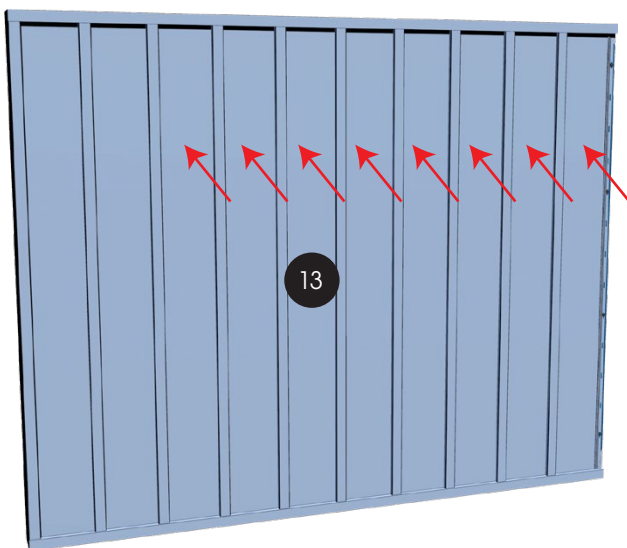




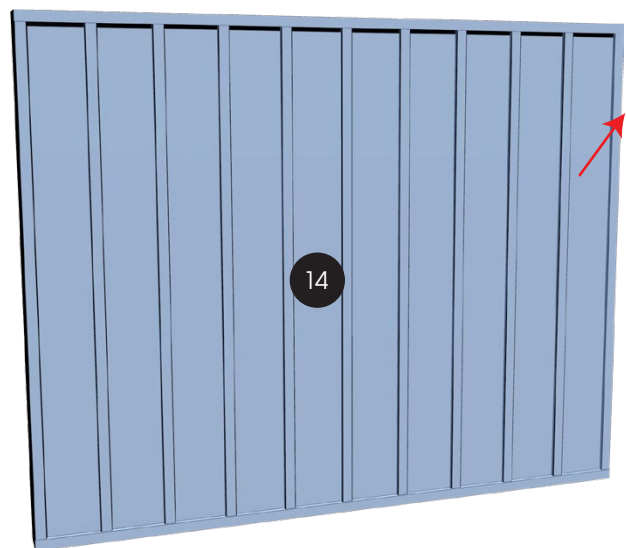
A. Slide the next Zeno-Clad™ panel into Top Flashing.  
B. Then slide the panel sideways to engage the panel hook with the groove of first panel installed.



Fix Zeno-Clad™ panel with recommended fasteners, ensuring screws are placed in the centre of the slotted holes at no more than 650mm centres.



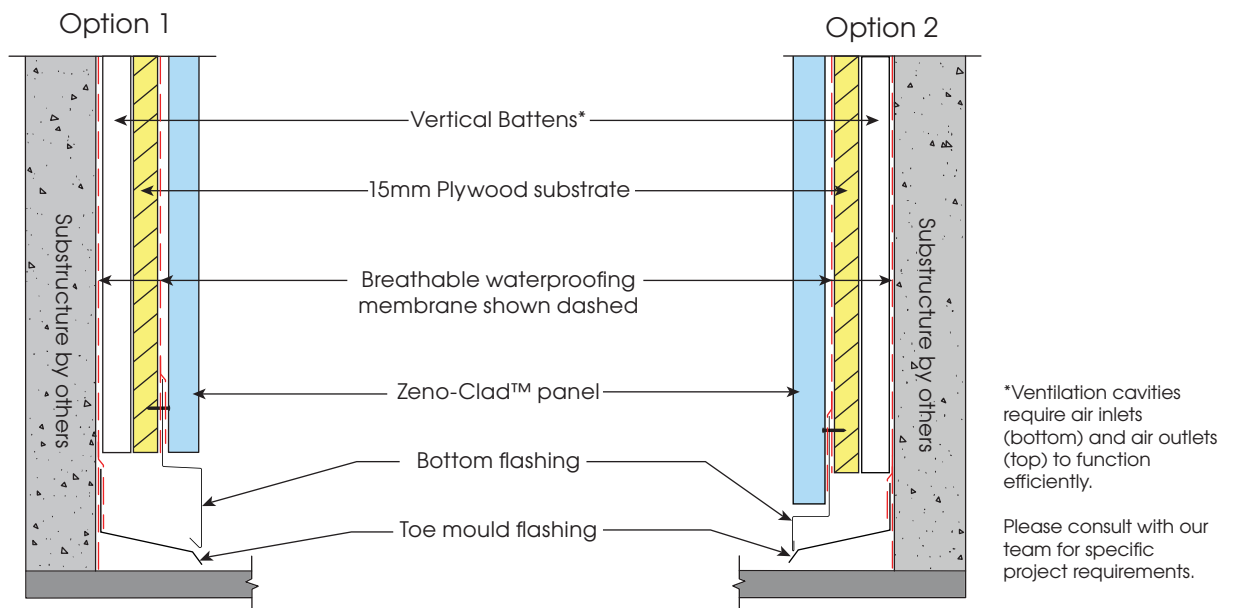
Repeat steps 11 and 12 as required to finish cladding the wall.



Install a custom capping to finalise the installation.

|                                 |                       |                                |                             |
|---------------------------------|-----------------------|--------------------------------|-----------------------------|
| External Corner Panel           | Internal Corner Panel | Bottom Flashing - Batten Style | Top Flashing - Batten Style |
| External Corner                 | Internal Corner       | Bottom Flashing                | Top Flashing                |
| Starter Flashing - Batten Style | Starter Flashing      | Pocket Flashing                | Batten Plug                 |

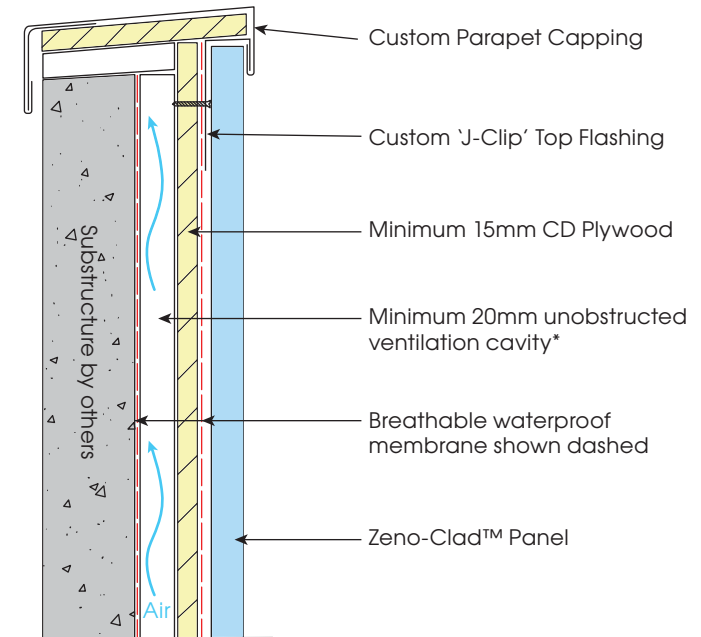
Above are the most common flashing profiles for the Zeno-Clad™ panel system. On site requirements might change flashings shape and dimensions. It is the responsibility of the installer to ensure installation is done in accordance to Australian Standards.



## Typical bottom flashing detail - cross section

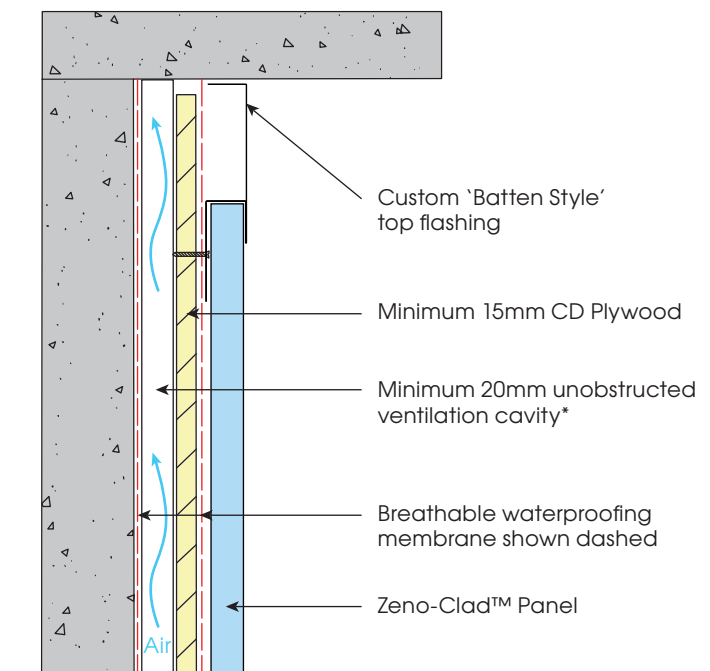
## Typical parapet detail

\*Ventilation cavities require air inlets (bottom) and air outlets (top) to function efficiently. Please consult with our team for specific project requirements.

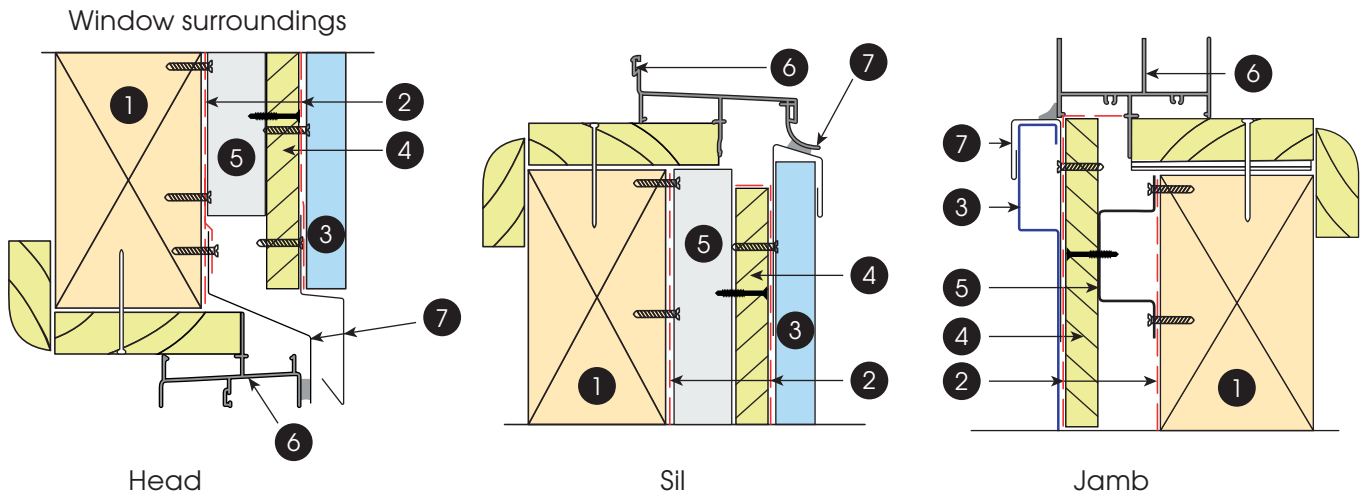


## Typical top of wall detail

\*Ventilation cavities require air inlets (bottom) and air outlets (top) to function efficiently. Please consult with our team for specific project requirements.

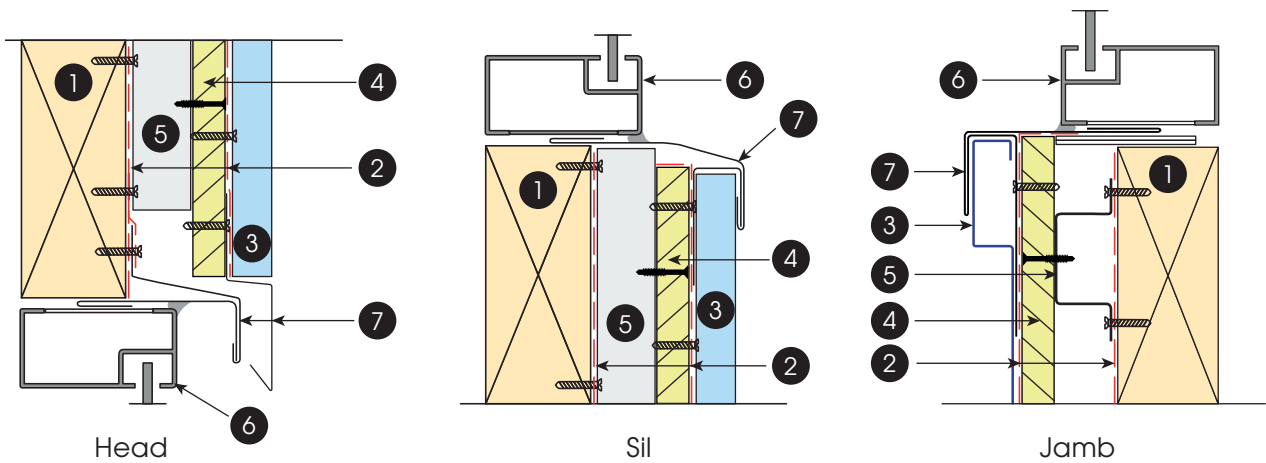






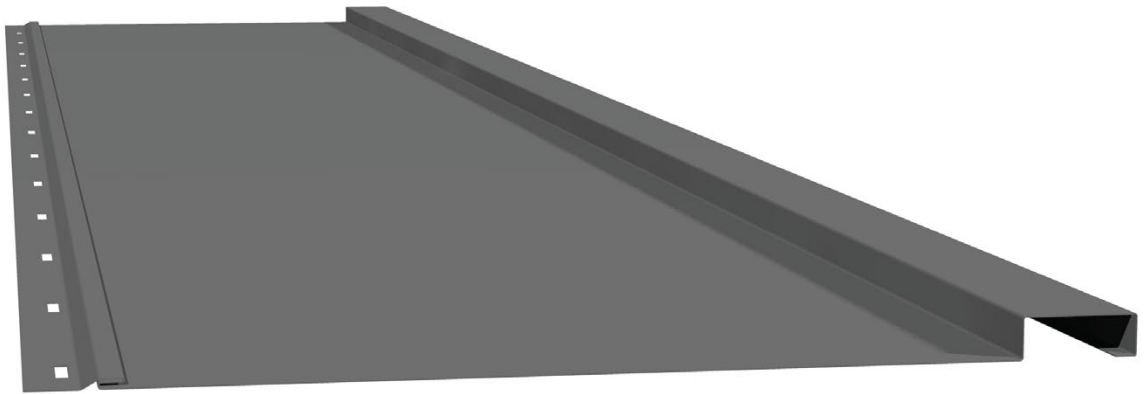
## Typical timber reveal window detail

- 1 Substructure supplied by others
- 2 Breathable waterproofing membrane shown dashed
- 3 Zeno-Clad™ panel
- 4 15mm Plywood substrate
- 5 Vertical top hat/batten
- 6 Window supplied by others
- 7 Custom flashing



## Typical window detail

- 1 Substructure supplied by others
- 2 Breathable waterproofing membrane shown dashed
- 3 Zeno-Clad™ panel
- 4 15mm Plywood substrate
- 5 Vertical top hat/batten
- 6 Window supplied by others
- 7 Custom flashing

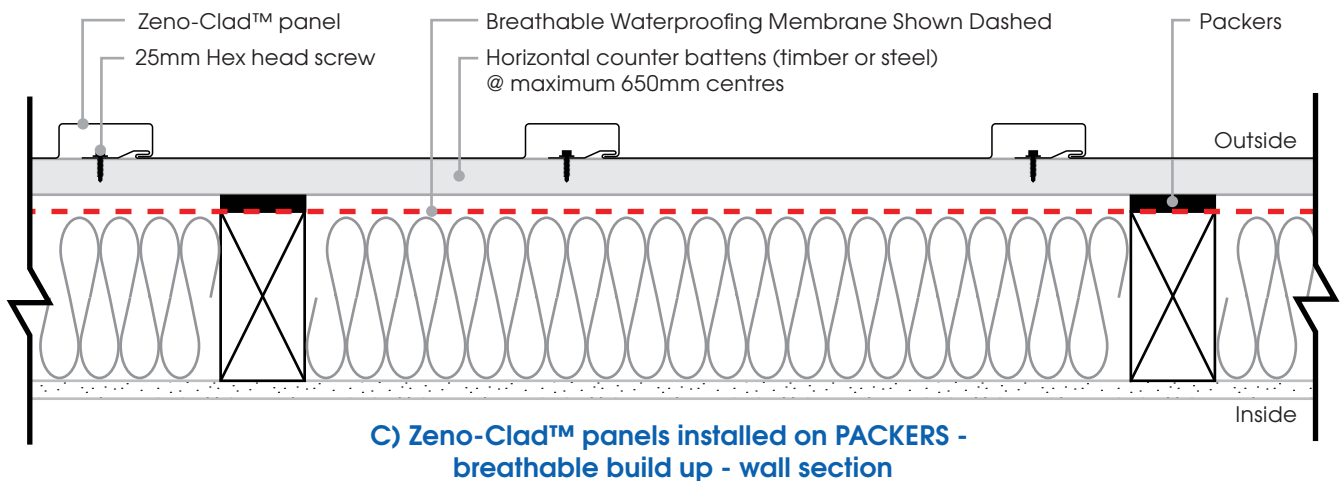
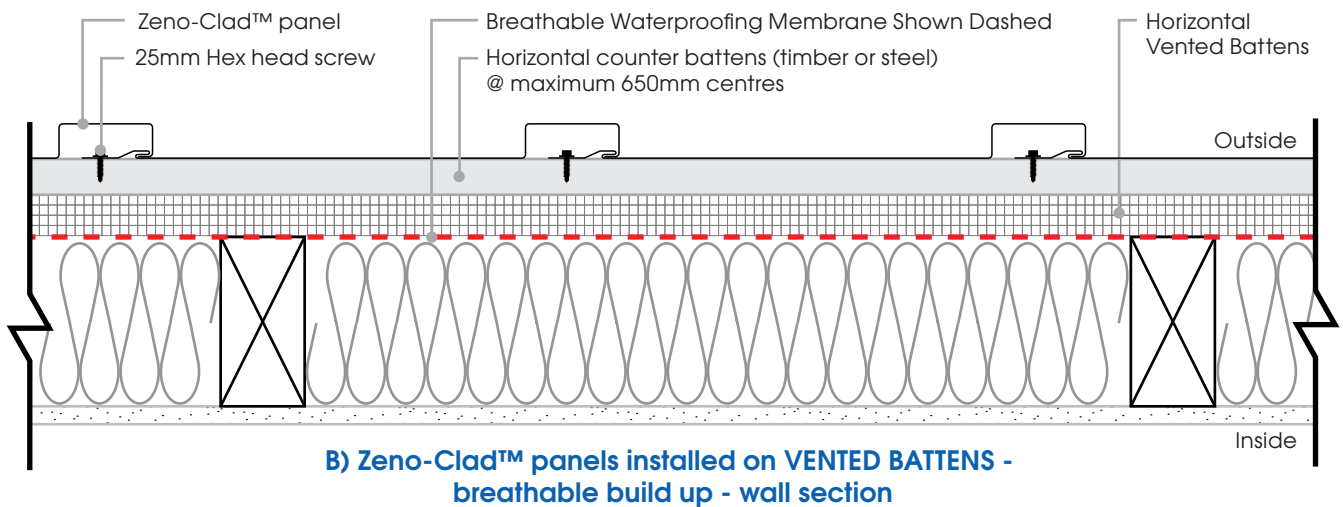
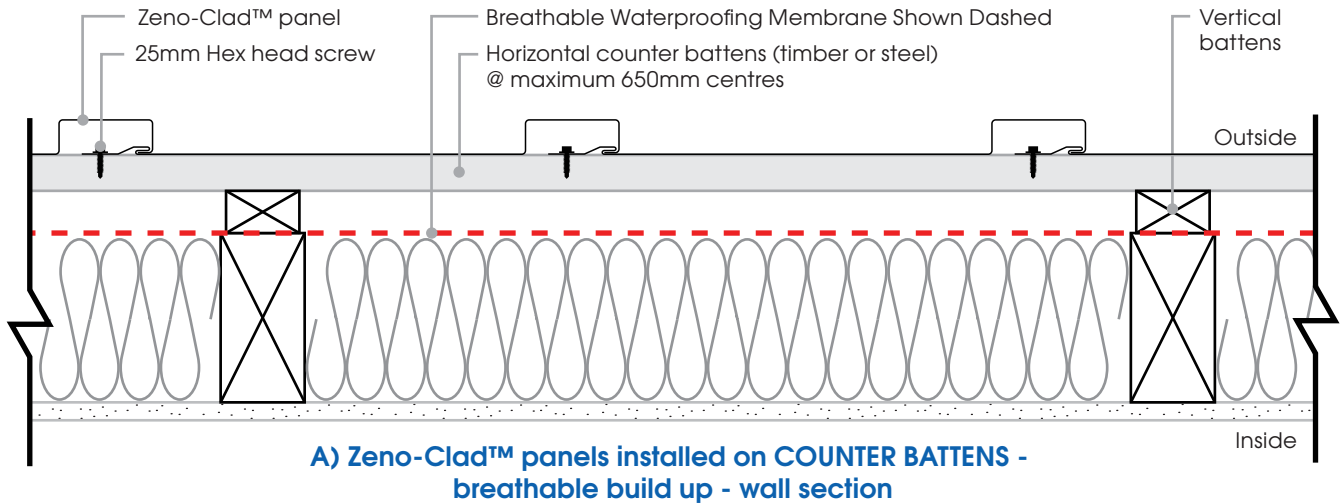


# Zeno-Clad™ Wall Cladding Flashing Details on Battens

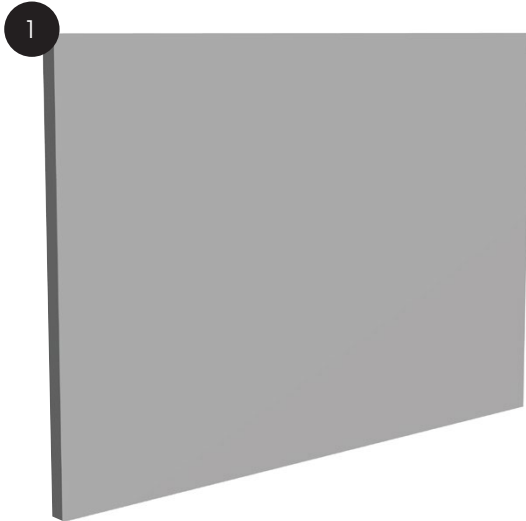
For optimum performance and aesthetics,  
a plywood substrate is always recommended.

## Zeno-Clad™ - Common Wall Types

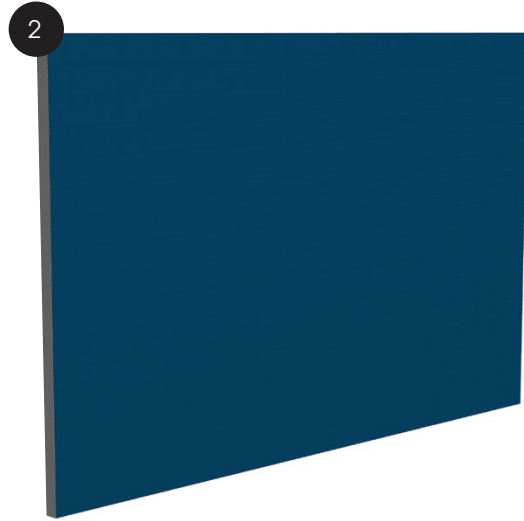
Important: It is recommended that all Zeno-Clad™ installations allow for appropriate condensation management control. Below are the most common wall types, all including options of ventilated cavities. For any custom wall type application of Zeno-Clad™, please consult with our No1 APS team.



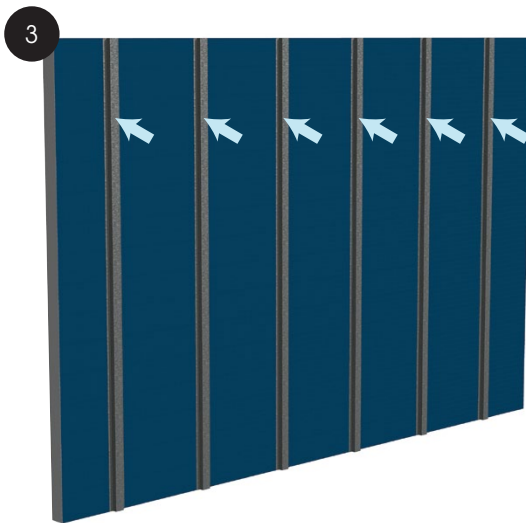
## Installation Steps



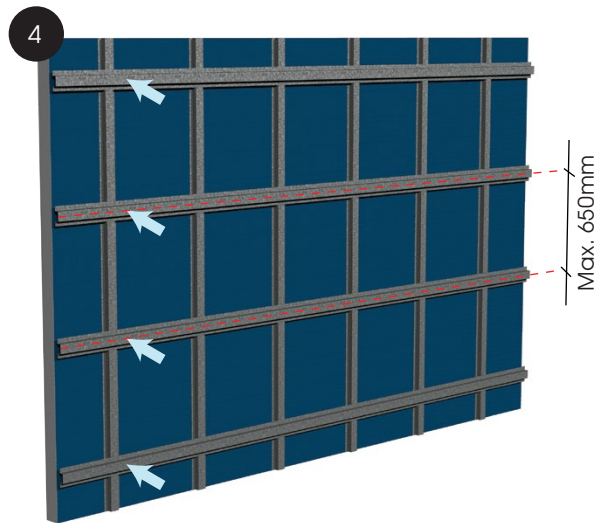
1  
 Ensure wall structure is levelled and plumb, to reduce chances of deviations of the substrate showing at the surface of Zeno-Clad™ panels. \*Wall structure not shown for clarity.



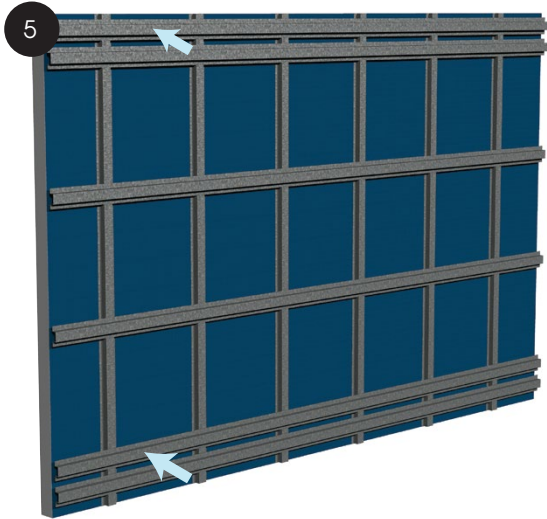
2  
 Apply a layer of breathable waterproofing membrane to the structure. Ensure structure is protected and sealed.



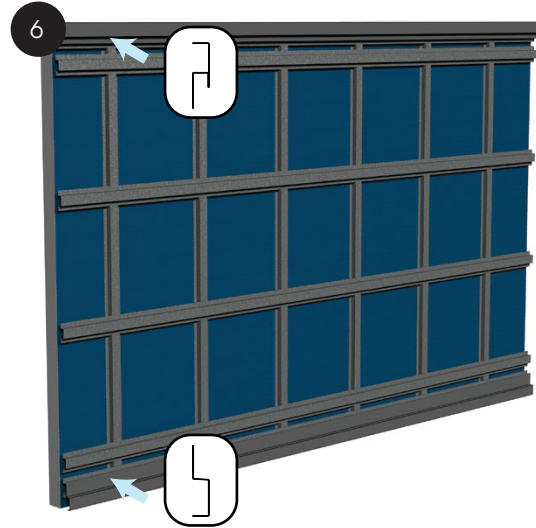
3  
 Install vertical battens to construct a ventilation cavity to assist in condensation management control.



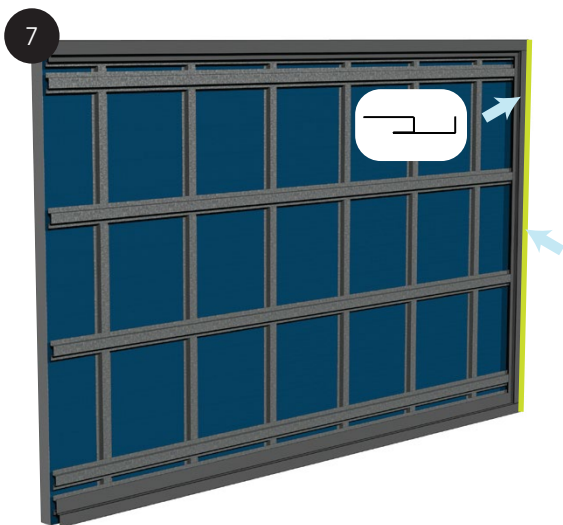
4  
 Install the horizontal battens that will be the support to fix Zeno-Clad™ panels. Maximum spacing of 650mm.



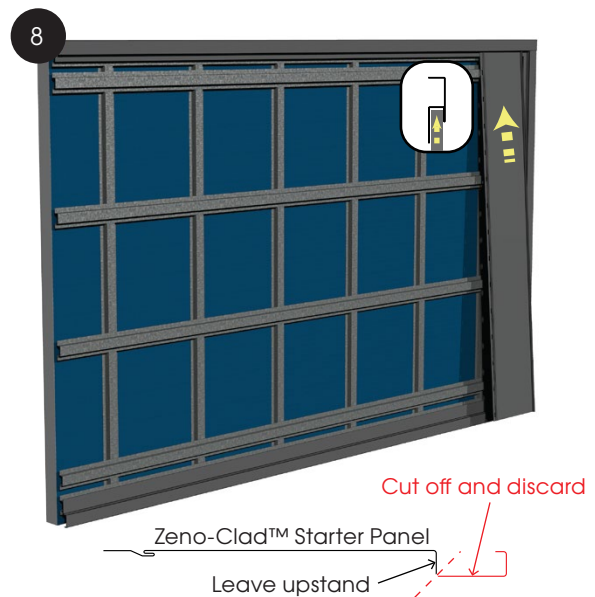
Install auxiliary battens for flashing support if required



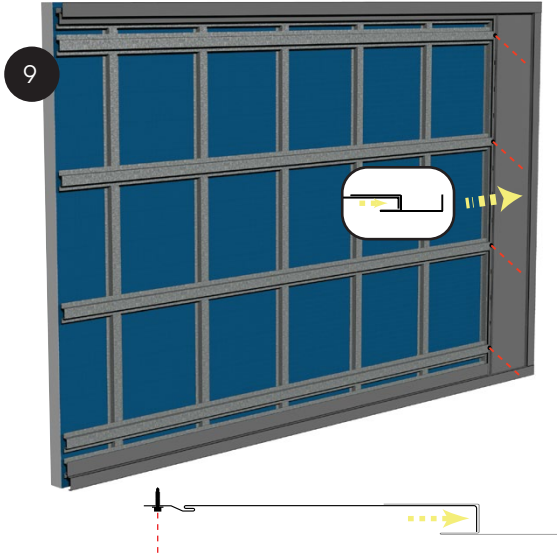
Install Top Flashing and Toe Mould Flashing



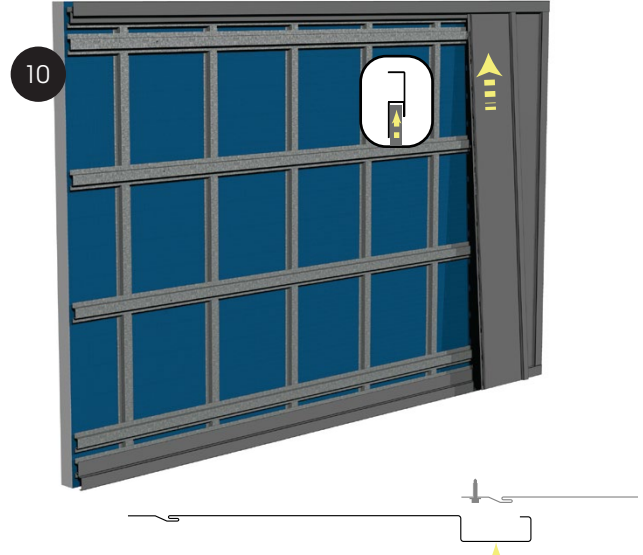
Install Starter Flashing, if required, seal Starter Flashing against the wall.



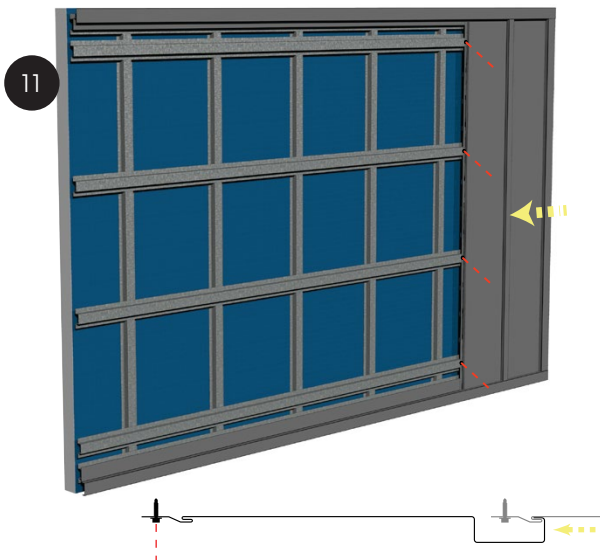
Prepare the Zeno-Clad™ Starter Panel by cutting off the batten edge. Slide the panel up into Top Flashing.



Slide Zeno-Clad™ Starter Panel sideways into Starter Flashing. Once panel is in correct position, fix it to the battens using recommended screws.



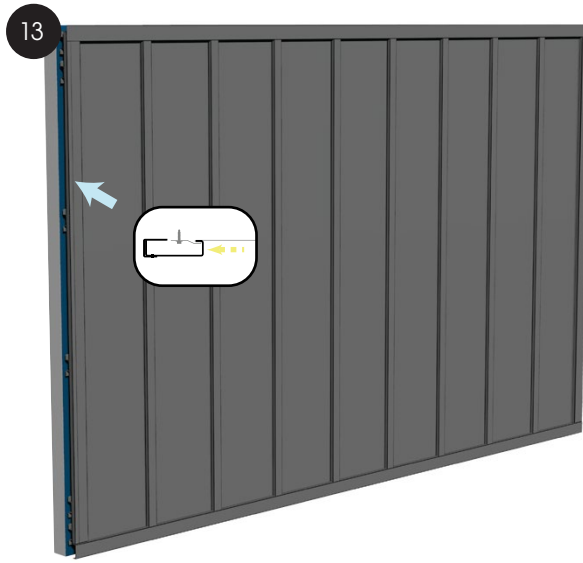
Position the first Zeno-Clad™ panel just so the batten edge of the panel covers the groove on slotted edge. Slide the first Zeno-Clad™ panel up into Top Flashing.



Slide panel sideways so the hook of batten edge of panel is fully inserted into Starter Panel's groove. Fix the first panel to the battens using recommended screws.



Follow steps 10 and 11 as required to complete covering the wall with Zeno-Clad™ panels.



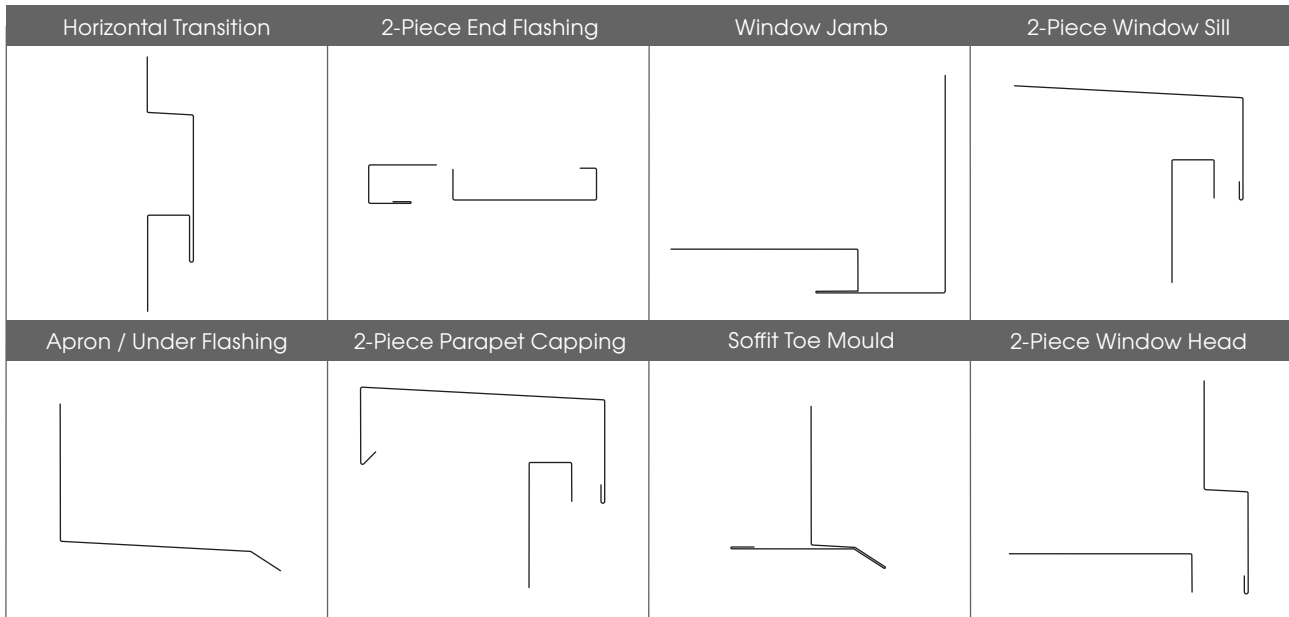
Finish the installation with a custom flashing.

## Standard Flashings

| External Corner Panel           | Internal Corner Panel | Bottom Flashing - Batten Style | Top Flashing - Batten Style |
|---------------------------------|-----------------------|--------------------------------|-----------------------------|
|                                 |                       |                                |                             |
| External Corner                 | Internal Corner       | Bottom Flashing                | Top Flashing                |
|                                 |                       |                                |                             |
| Starter Flashing - Batten Style | Starter Flashing      | Pocket Flashing                | Batten Plug                 |

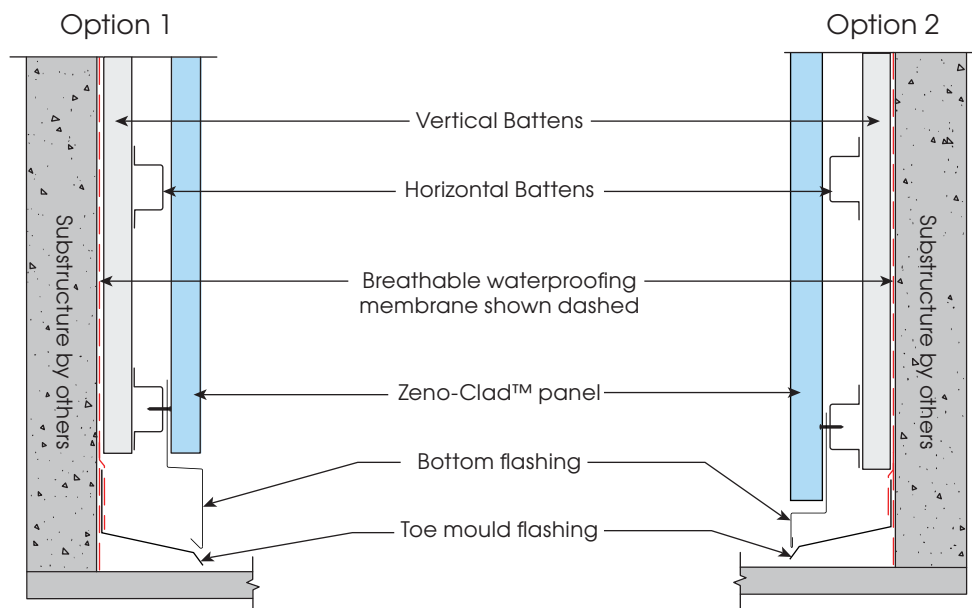
Above are the most common flashing profiles for the Zeno-Clad™ panel system. On site requirements might change flashings shape and dimensions. It is the responsibility of the installer to ensure installation is compliant to Australian Standards.

## Standard Flashings - Continuation



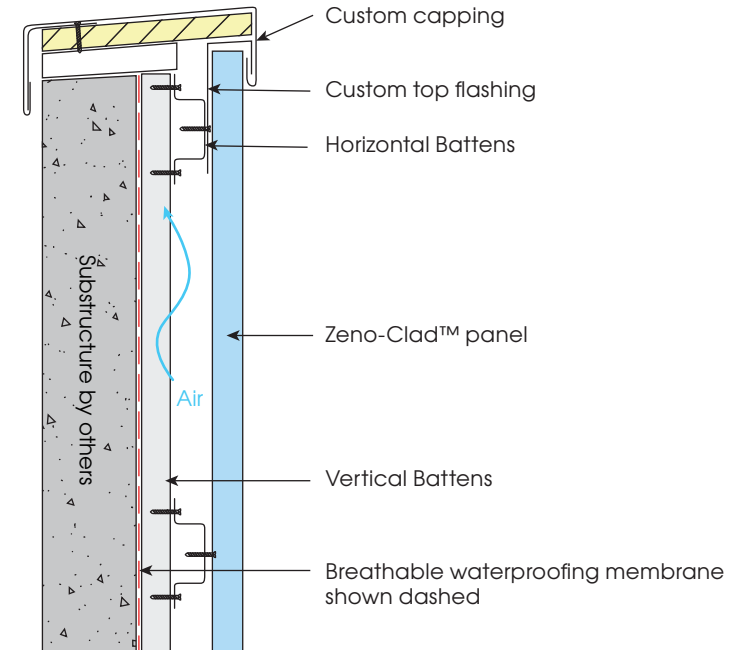
Above are the most common flashing profiles for the Zeno-Clad™ panel system. On site requirements might change flashings shape and dimensions. It is the responsibility of the installer to ensure installation is compliant to Australian Standards.

## Section Details

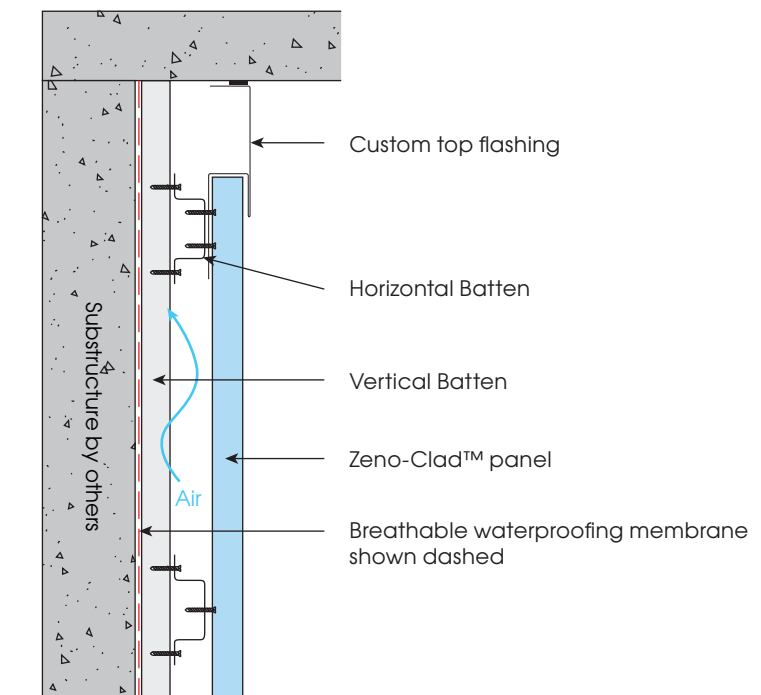


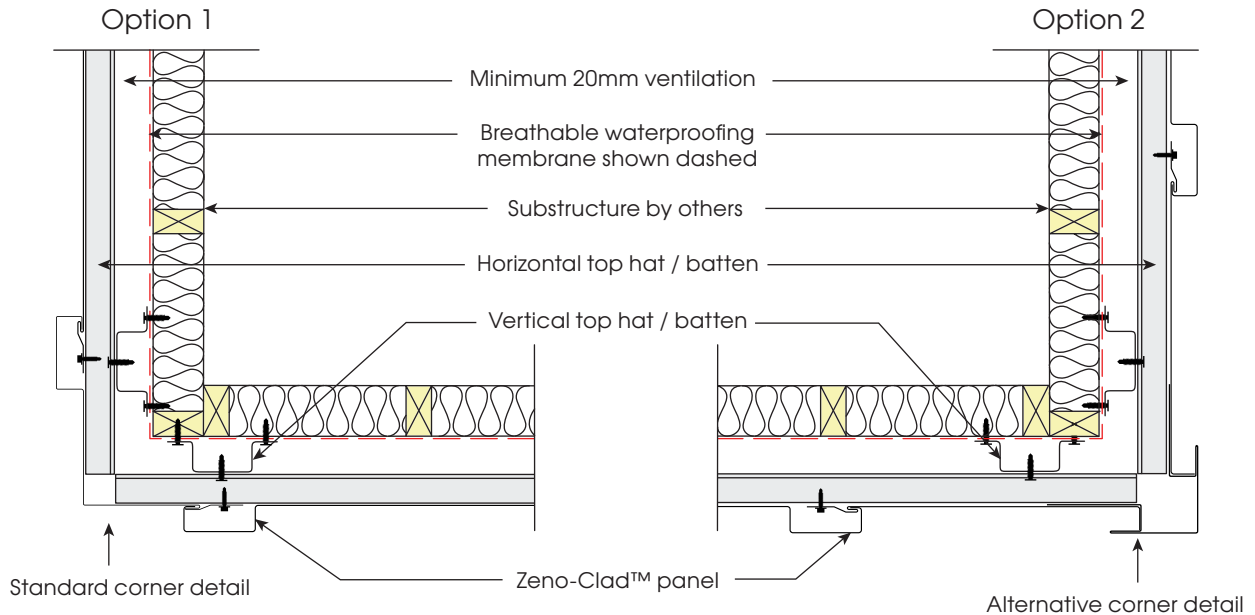
## Typical bottom flashing detail - cross section

## Typical parapet detail

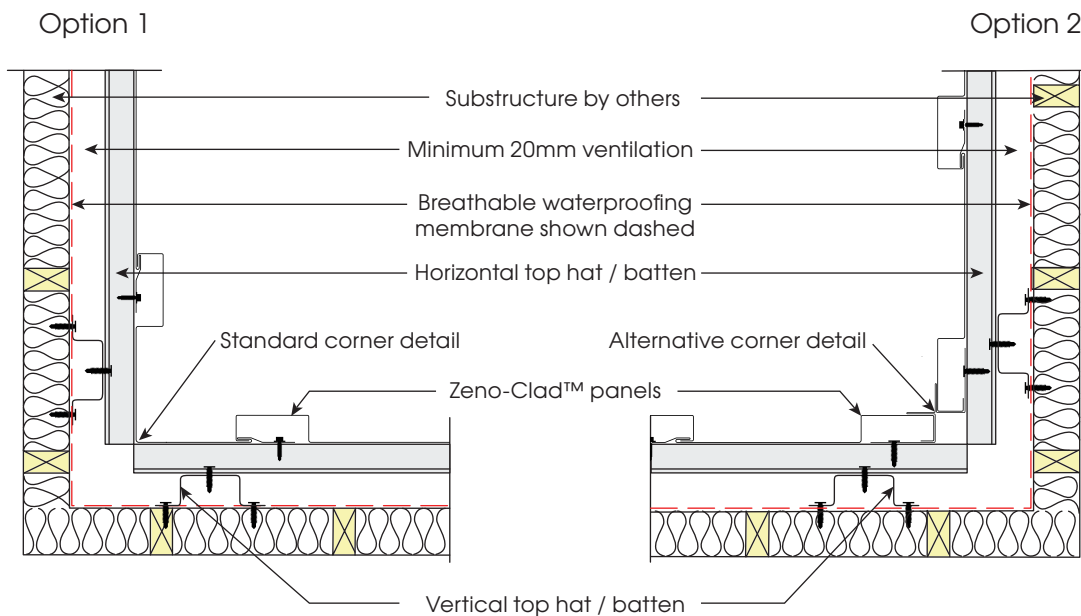


## Typical top of wall detail

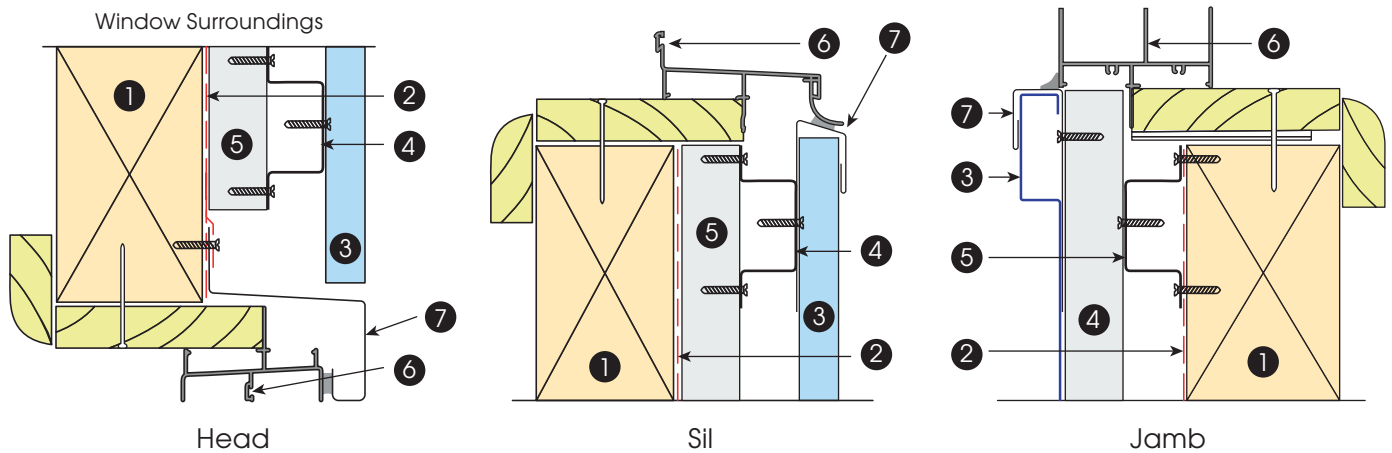




## Typical external corner detail

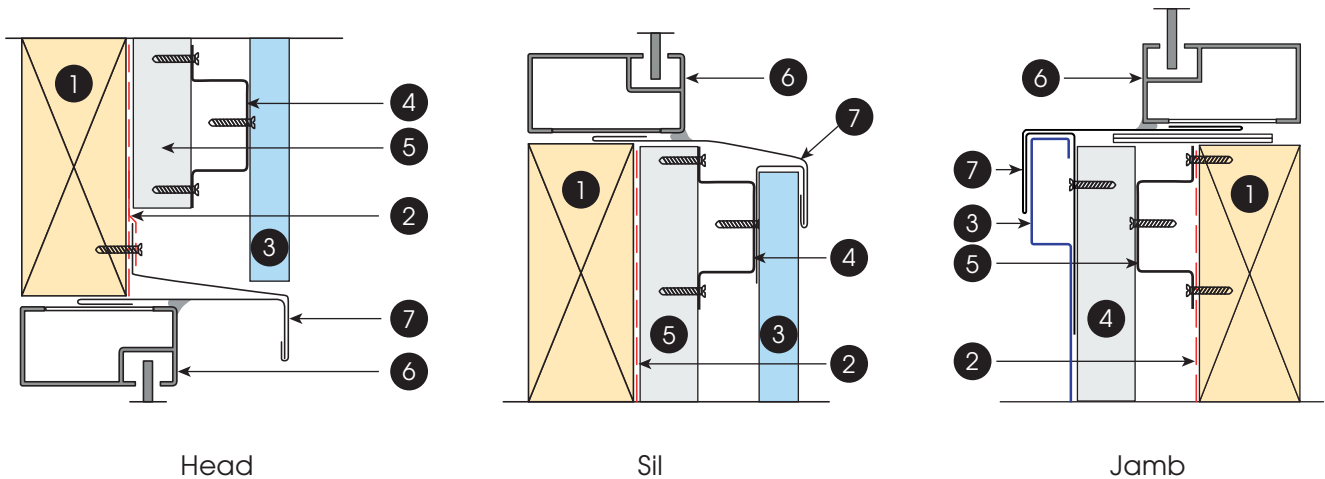


## Typical internal corner detail



## Typical timber reveal window detail

- 1 Substructure supplied by others
- 2 Breathable waterproofing membrane shown dashed
- 3 Zeno-Clad™ panel
- 4 Horizontal top hat/batten
- 5 Vertical top hat/batten
- 6 Window supplied by others
- 7 Custom flashing



## Typical window detail

- 1 Substructure supplied by others
- 2 Breathable waterproofing membrane shown dashed
- 3 Zeno-Clad™ panel
- 4 Horizontal top hat/batten
- 5 Vertical top hat/batten
- 6 Window supplied by others
- 7 Custom flashing

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Version One