

UrbanE™ Nail Strip
Architectural Panels System

INSTALLATION GUIDE

UrbanE™ 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 you're 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 National Code of Construction of Australia and 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 for rainwater goods, accessories, and fasteners metal shape or sheet rainwater goods, and metal accessories and fasteners
- AS 3500.3 – plumbing and drainage stormwater drainage

The installer is fully responsible for the proper interpretation of this manual, and in the eventual need for the adaptation of details provided on this manual to fulfill on site requirements the installer must achieve compliance with above mentioned standards. No1 Architectural Panels Systems is not to be held responsible for any work carried out outside of the recommendations provided on this manual and/or NCC & Australian Standards. For assistance, please contact the No1 APS team.

Technical Specifications

Rib Height	25mm or 38mm
Standard Pan widths	295mm and 495mm (25mm ribs) 265mm and 465mm (38mm ribs)
Minimum sheet length	750mm
Maximum recommended sheet length	4000mm for walls* 8000mm for roofing*
Custom pan widths	Available. Please consult with our APS team (May require additional design parameters)

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

Concealed fixed.

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

For projects requiring longer panels, either consider a clip-based system (ie.: No1 Snap-Line45®) or get in touch with our No1 Architectural Panel System team.

For additional design parameters or project specific technical data, please contact the No1 Architectural Panel Systems team.

General

- A. Provide components required for a complete metal roof panel assembly including trim, capping, fascia, corner, Z closures, flashings, sealants, gaskets, fillers and similar items. Match material and finish of metal roof panels, unless otherwise indicated.
- Flashing: Provide flashing at eaves, valleys, sidewalls, headwalls, rakes, transitions, hips and ridges fabricated of same metal as metal roof panels.
- B. General: Provide metal roof panels of full length from eave to ridge. Anchor metal roof panels and other components of the work securely in place, with provisions for thermal and structural movement.
- Field cutting of metal roof panels by torch, plasma cutter or saw blade is not permitted.
 - Mechanically fasten ridge end of metal roof panels and allow eave end free movement due to thermal expansion and contraction.
 - Provide metal Z closures at high-side eave, rake edges, rake walls, each side of ridge and hip caps and any other area indicated in the manufacturer's installation details.
 - Lap metal flashing over metal roof panels to allow moisture to run over and off the material.
- C. Fasteners:
- Panel fixing: it is recommended to use minimum Class 3, 25mm flat top/wafer head fastener.
- 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, Zinc (as in pure Zinc) and bitumen are incompatible. If you are unsure, please contact No1 Architectural Panel Systems.

Field- assembled UrbanE™ panel installation

- A. Metal roof panels: Fasten metal roof panels 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 600mm centres for both internal and end span. For specific wind load requirements, please consult with our team.
 - Install panels to an appropriate substrate by using class 3, 25mm low profile / wafer head fasteners fixed into the slotted holes on the panels edge (male / under) tab using recommended spacing as per above.
 - Push and click seams together (female rib of panel over the fastened male rib) for a snap tight seam.
- B. Metal soffit panel: Provide metal soffit panels that are the full width of the soffits. Install panels perpendicular to support framing.
- Flash and seal panels with weather closures where metal soffit panels meet walls and at the perimeter of all openings.
- C. Installation on plywood requires the following:
- Continuous air gap (20mm for wall, 40mm for roofing) must be incorporated unobstructedly beneath the plywood substrate for ventilation.
 - Breathable waterproofing membrane fixed to outer/external side of plywood substrate.
 - UrbanE™ roofing is installed on a minimum 18mm plywood (15mm for wall cladding) substrate (For projects in BAL areas, please consult our team for alternative / appropriate substrate options)
 - Concealed fasteners attached directly into plywood substrate.
 - Push and click seams together (female rib of panel over the fastened male rib) for a snap tight seam.

Delivery, storage, and handling

For the installer to work safely, it is recommended that you wear protective gloves whilst handling metal panels and flashings to avoid personal harm and marks on material (i.e. 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 a 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 roof panel installation, clean finished surfaces as recommended by metal roof 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

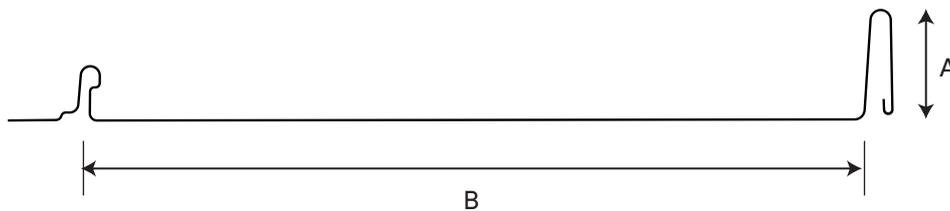
Whilst usually undesirable, oil canning is a common natural occurrence to all metals and results from the natural movement of the panel caused by its expansion and contraction once exposed to temperature variation.

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.



UrbanE™ panel



Options	Rib Height (A)	Pan Cover (B)	Requires Plywood Substrate*
25 × 295	25mm	295mm	No
25 × 495	25mm	495mm	Yes
38 × 265	38mm	265mm	No
38 × 465	38mm	465mm	Yes

*Plywood substrate is always recommended for increasing serviceability, and reducing oil canning.



Index

Installation Overview	2
Fixing Specification	7
Pan turn-up & turn-down details	9
Roof cladding flashing details on steel batten	10
Roof cladding flashing details on plywood	18
Cladding roof to wall detail	26
Wall cladding flashing details on steel batten	27
Wall cladding flashing details on plywood	32

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fixing specification

G550 Steel Battens (Minimum BMT of 0.55)

Fix panels x 10g-16 x 16 wafer

70x35 Timber

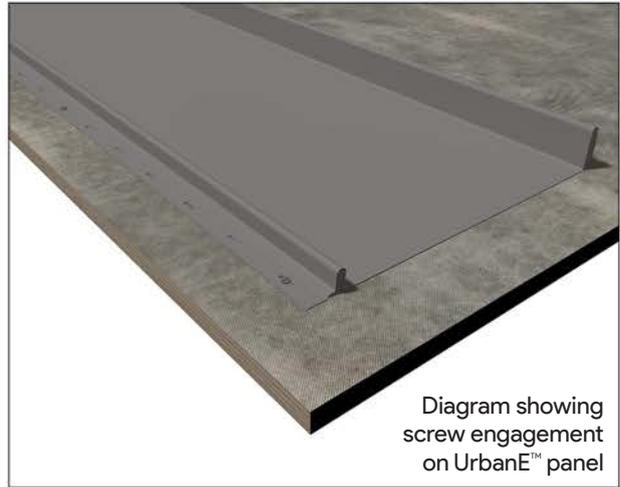
Fix panels x 10g x 25 bugle

18mm Plywood (Roof application)

Fix panels x 10g x 25 bugle

15mm Plywood (Wall cladding application)

Fix panels x 10g x 25 bugle



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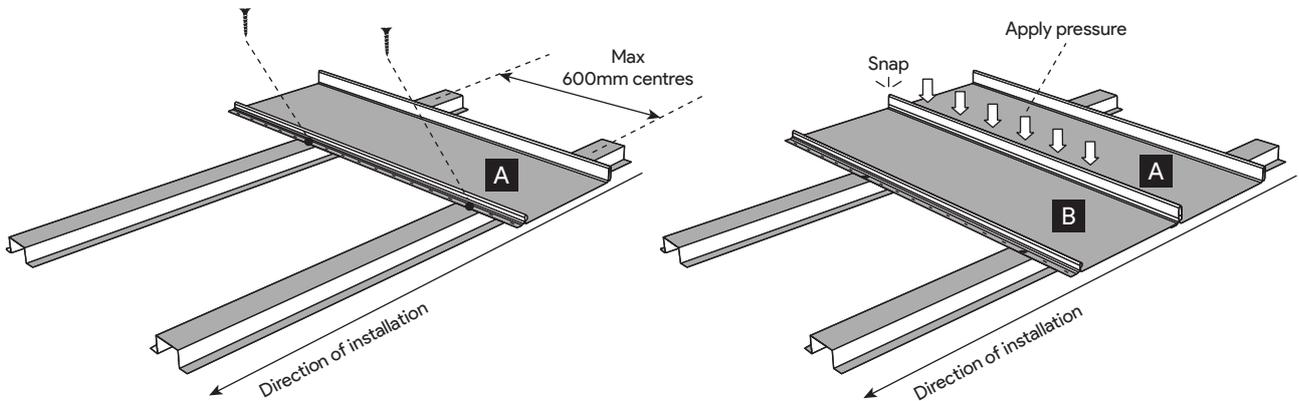
maximum recommended spacing of fasteners

Normal conditions

Roof & wall

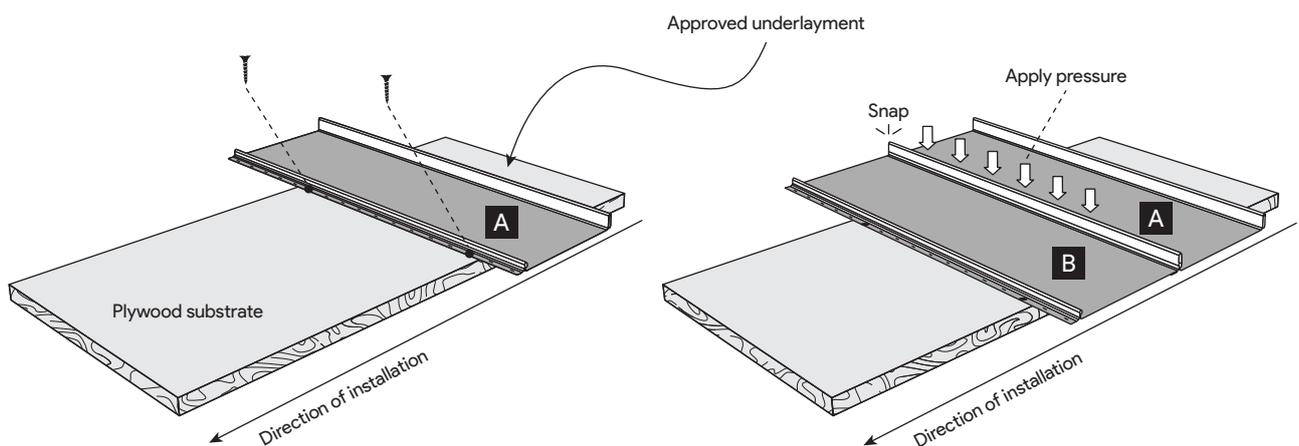
Material	End spans	Internal span
Steel 0.55BMT G300	600mm	600mm
Corten Steel 0.55BMT G300	600mm	600mm

Non-cyclonic fixing to steel batten



- 1 Fix Panel down on battens with 10G x 16 wafer head screws through slotted holes on male / under side tab.
- 2 Secure following panel **B** by positioning female / over side over previously fixed panel **A** and applying pressure until it “SNAPS” in place.
Repeat steps as required.

Fixing to plywood detail

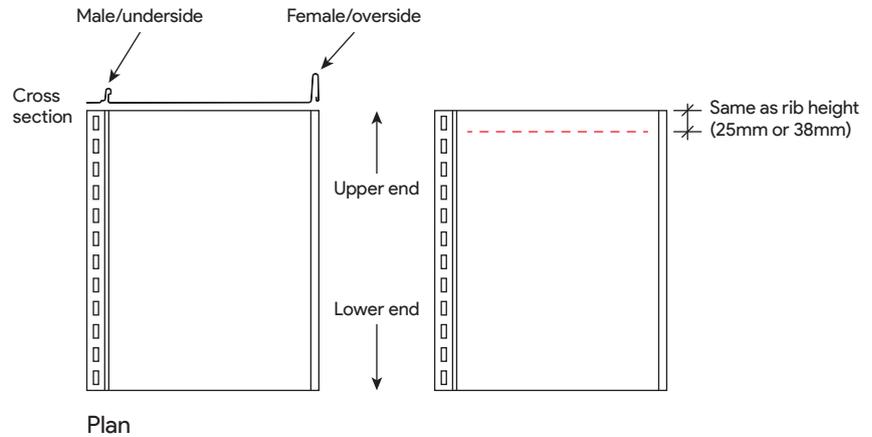


- 1 Fix down on Plywood with 10g-12x25mm low profile / wafer head screws through slotted holes on male/under side tab of panel.
- 2 Secure following panel **B** by positioning female / over side over previously fixed panel **A** and applying pressure until it “SNAPS” in place.
Repeat steps as required.

Panel upper end preparation - Stop end option

1

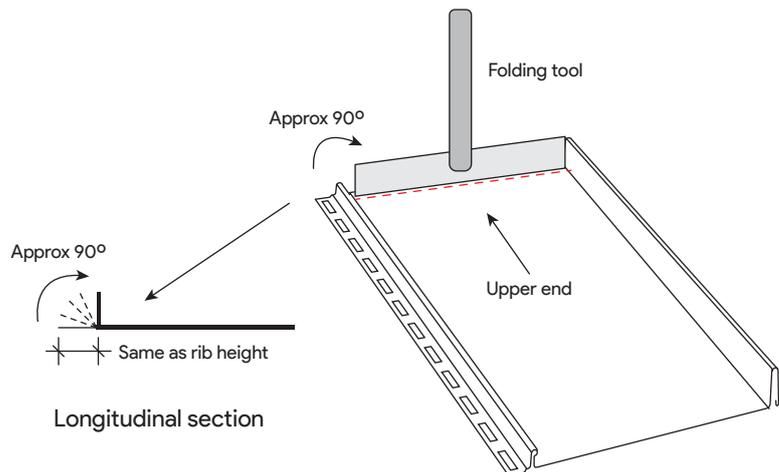
Mark upper end of panel with line parallel to upper edge



2

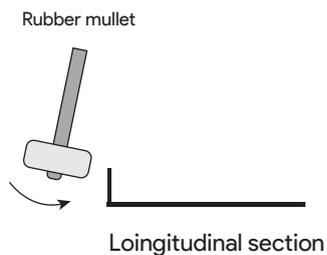
Insert a folding tool or flat head hand seamer/plier on the upper end of the panel ensuring alignment with marked line.

Fold upper end up as close to 90° as possible, being careful not to pierce face of panel.



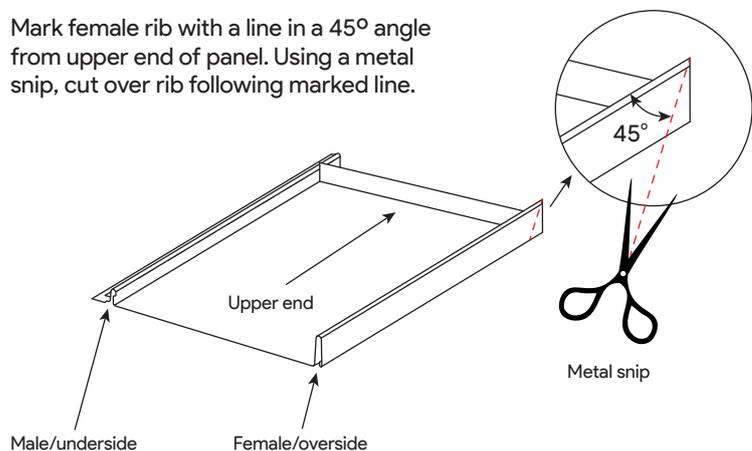
3

Use a rubber mallet to straighten stop end (folded edge).



4

Mark female rib with a line in a 45° angle from upper end of panel. Using a metal snip, cut over rib following marked line.

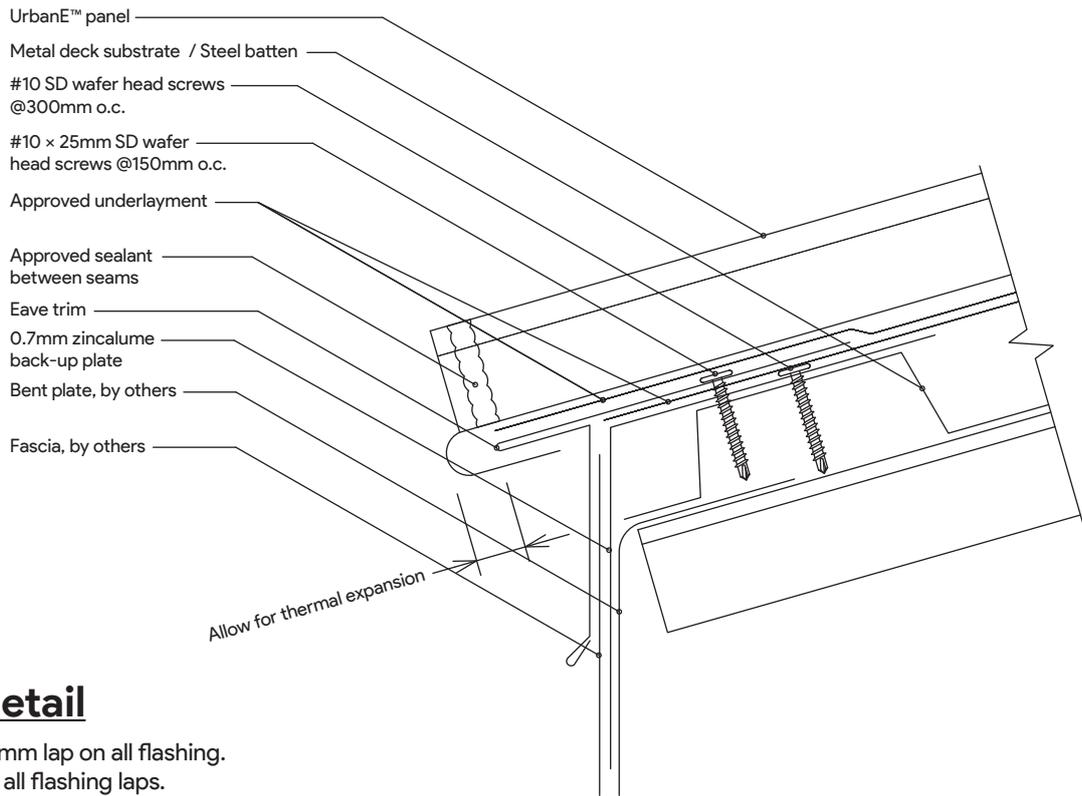




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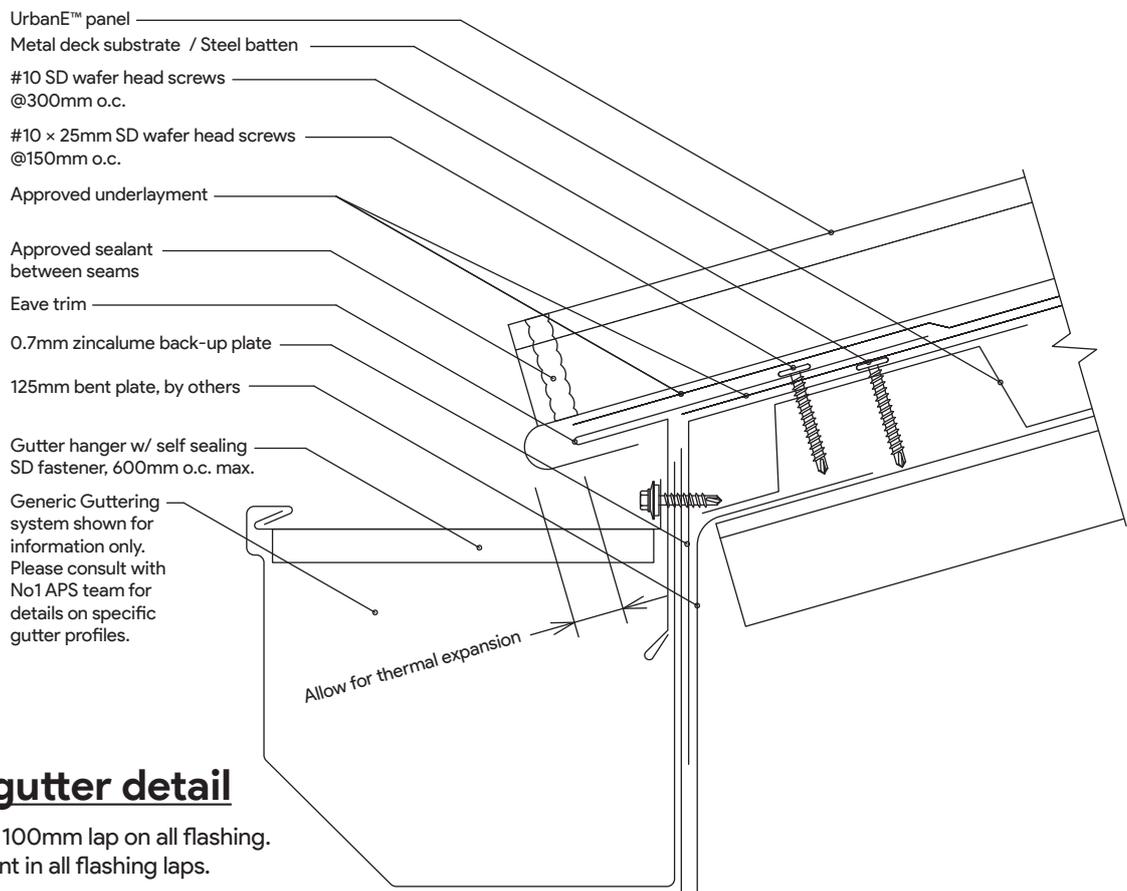
Roof Cladding Flashing Details on Steel Batten

*Only recommended on module 25x295mm or 38x265mm



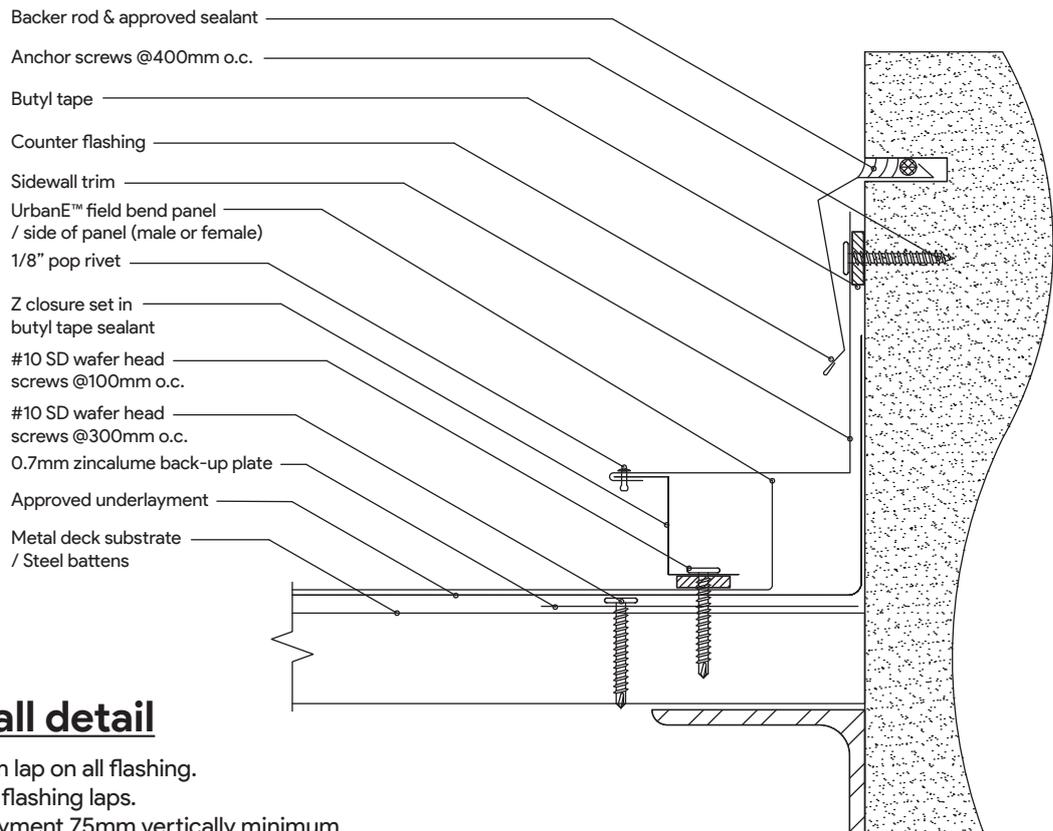
E1 - Eave detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



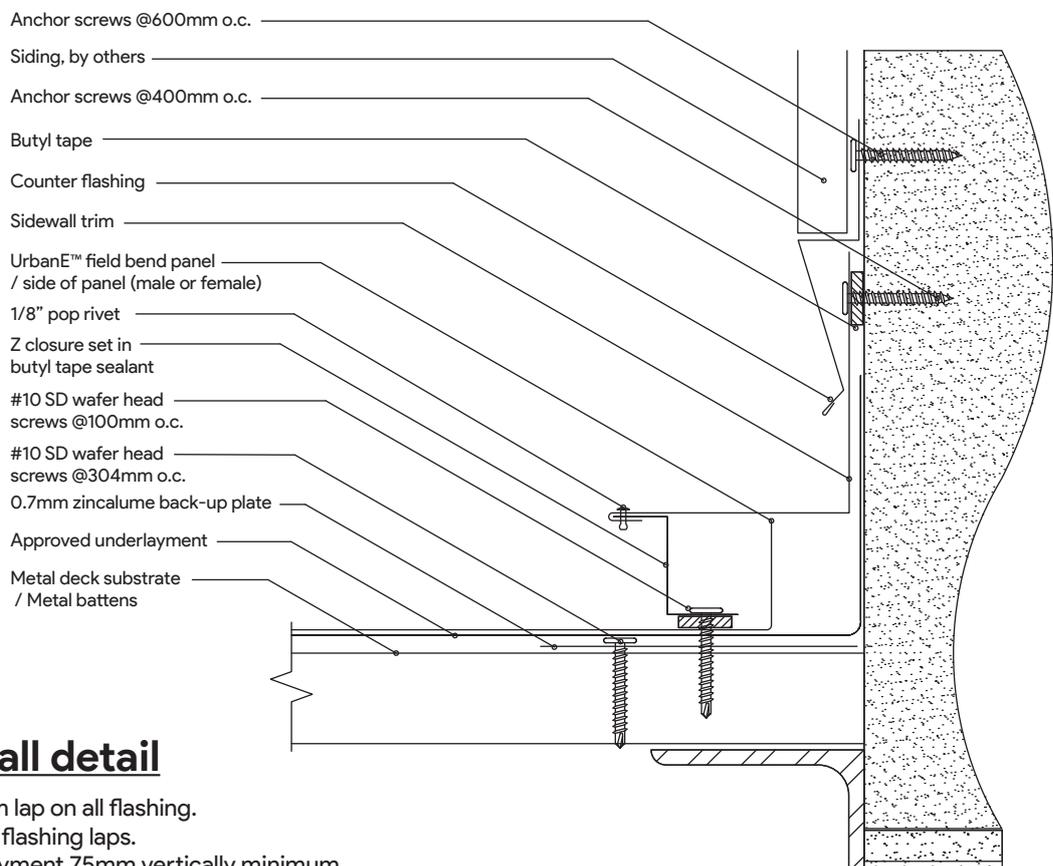
Eave w/gutter detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



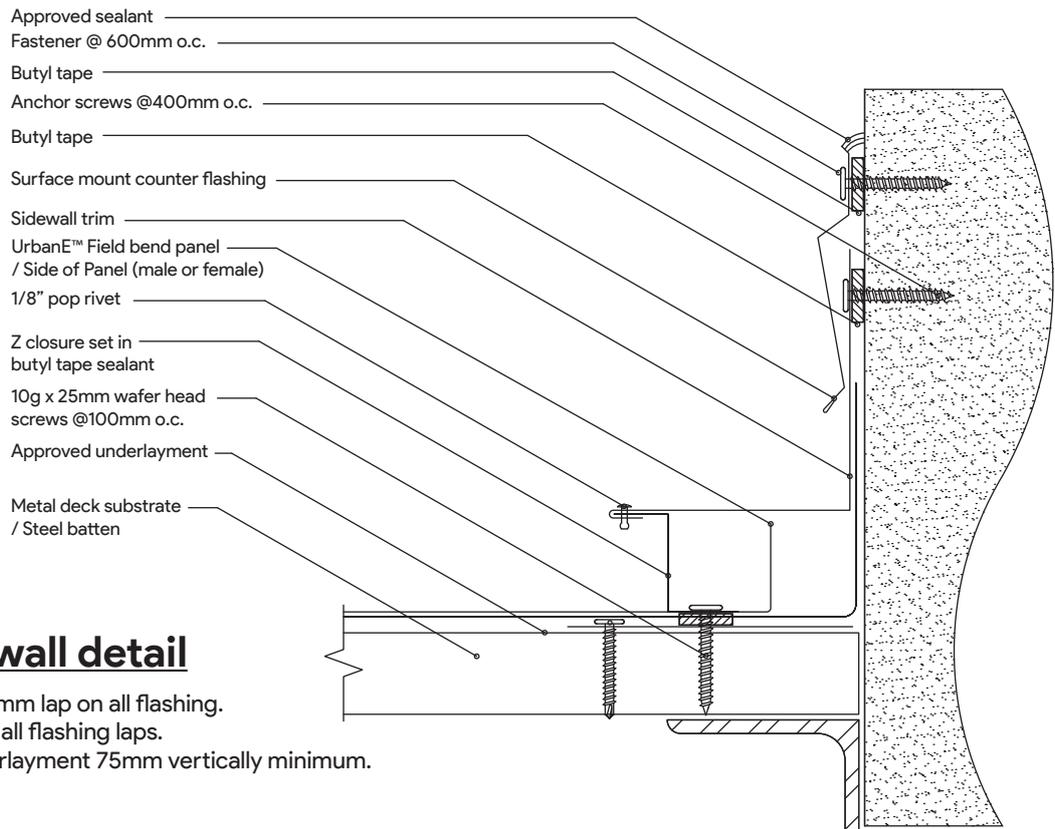
SW1- Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



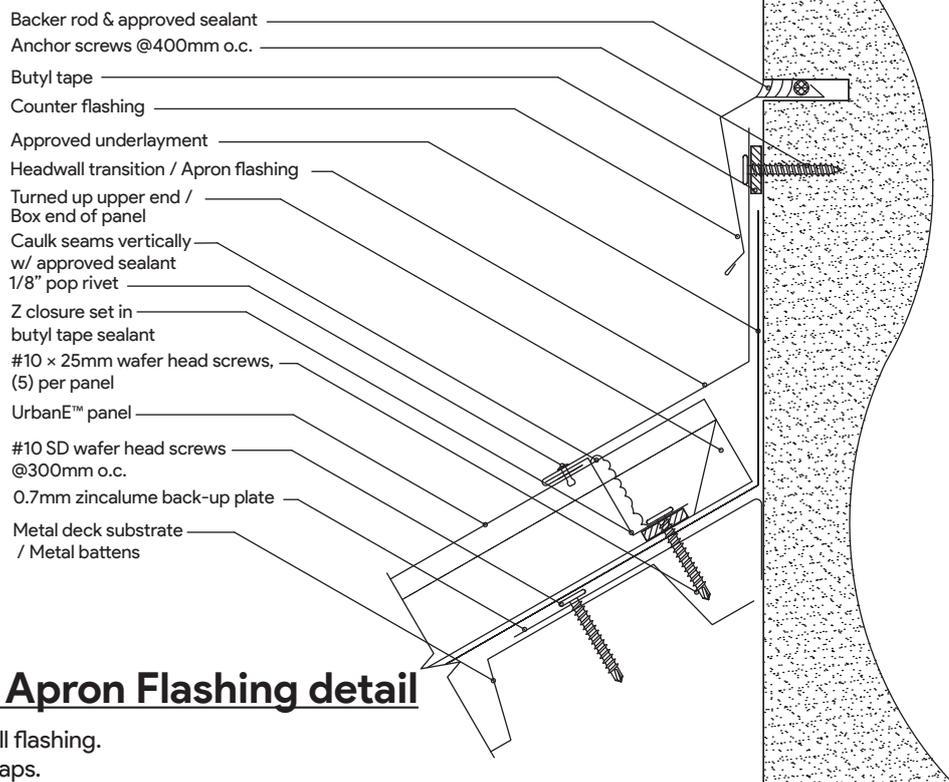
SW2- Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



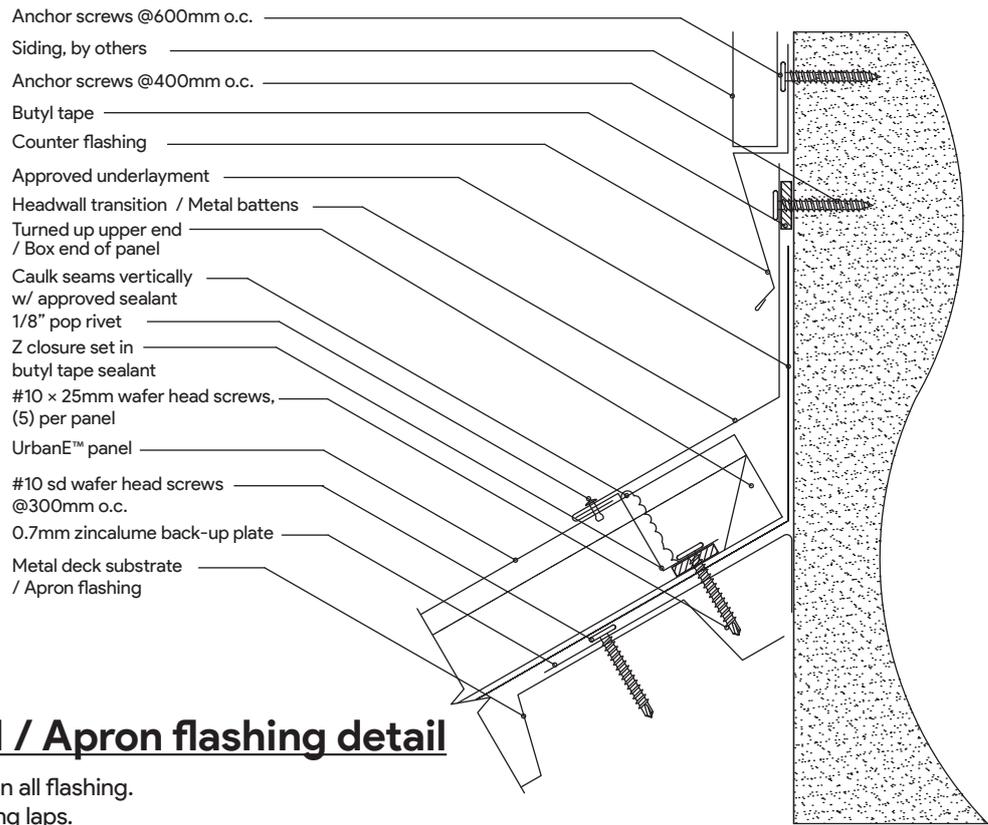
SW3- Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



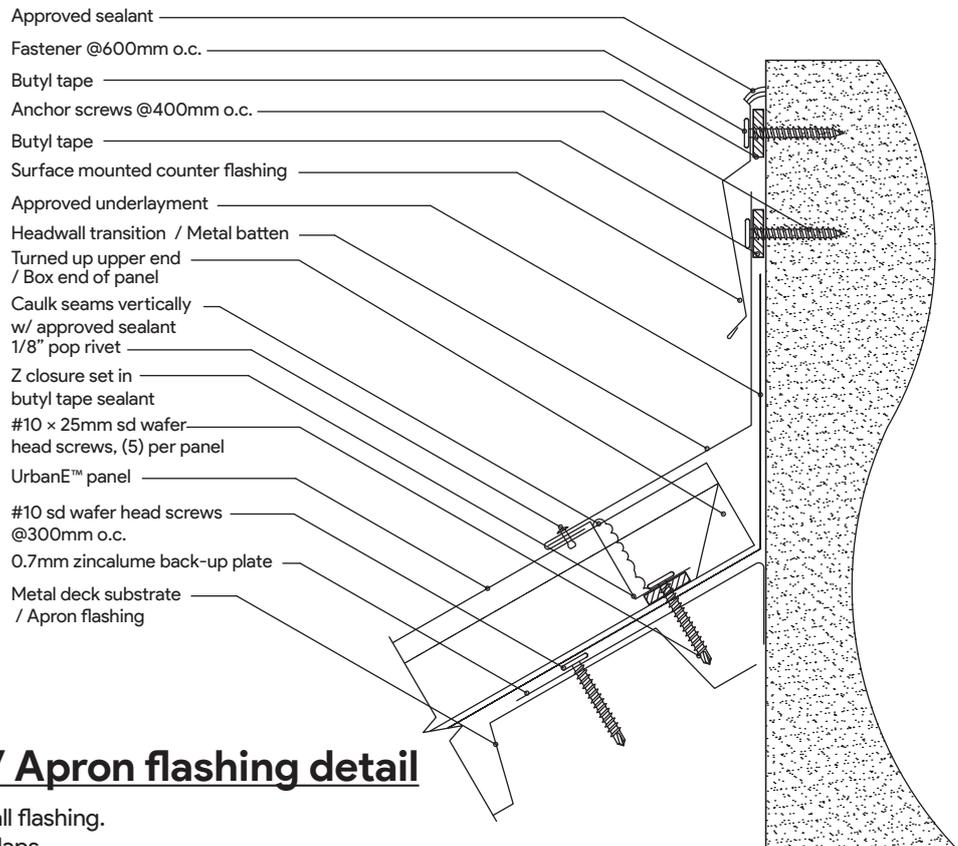
HW1- Headwall / Apron Flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



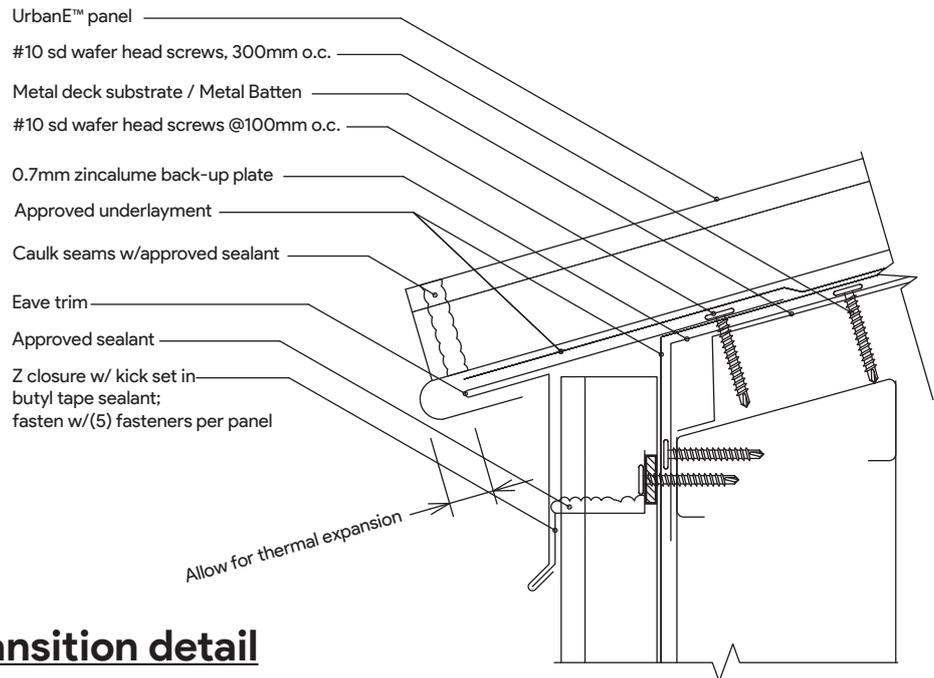
HW2- Headwall / Apron flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



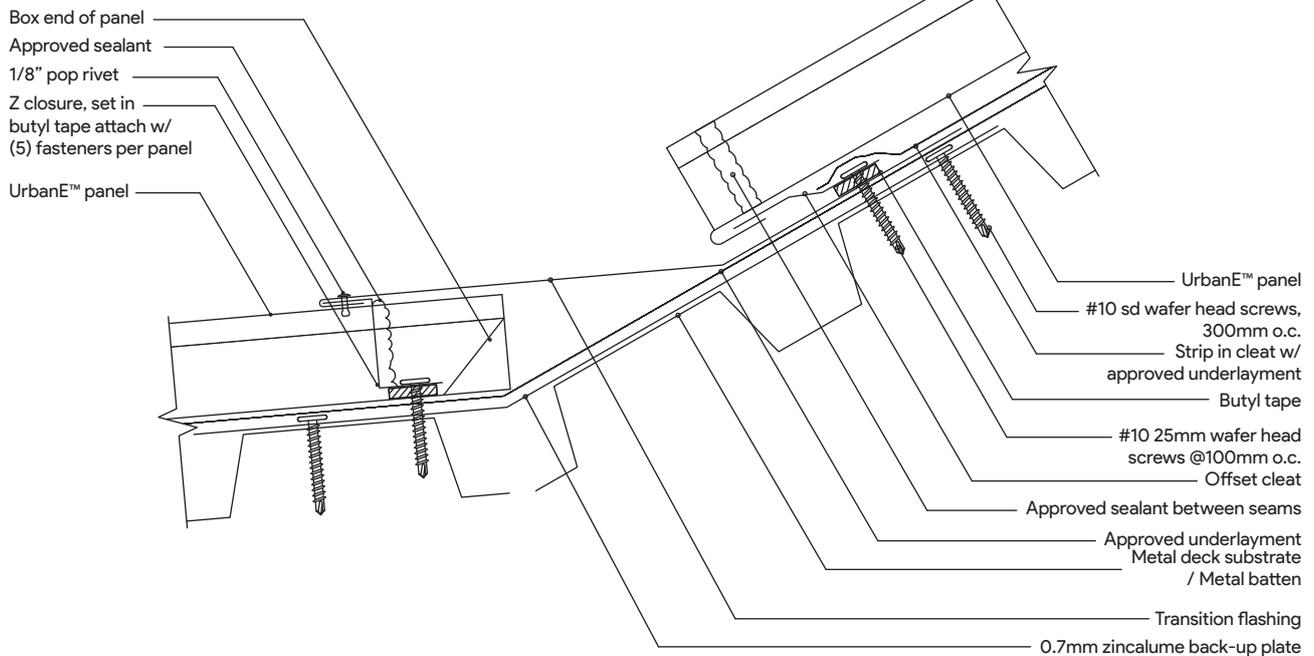
HW3- Headwall / Apron flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



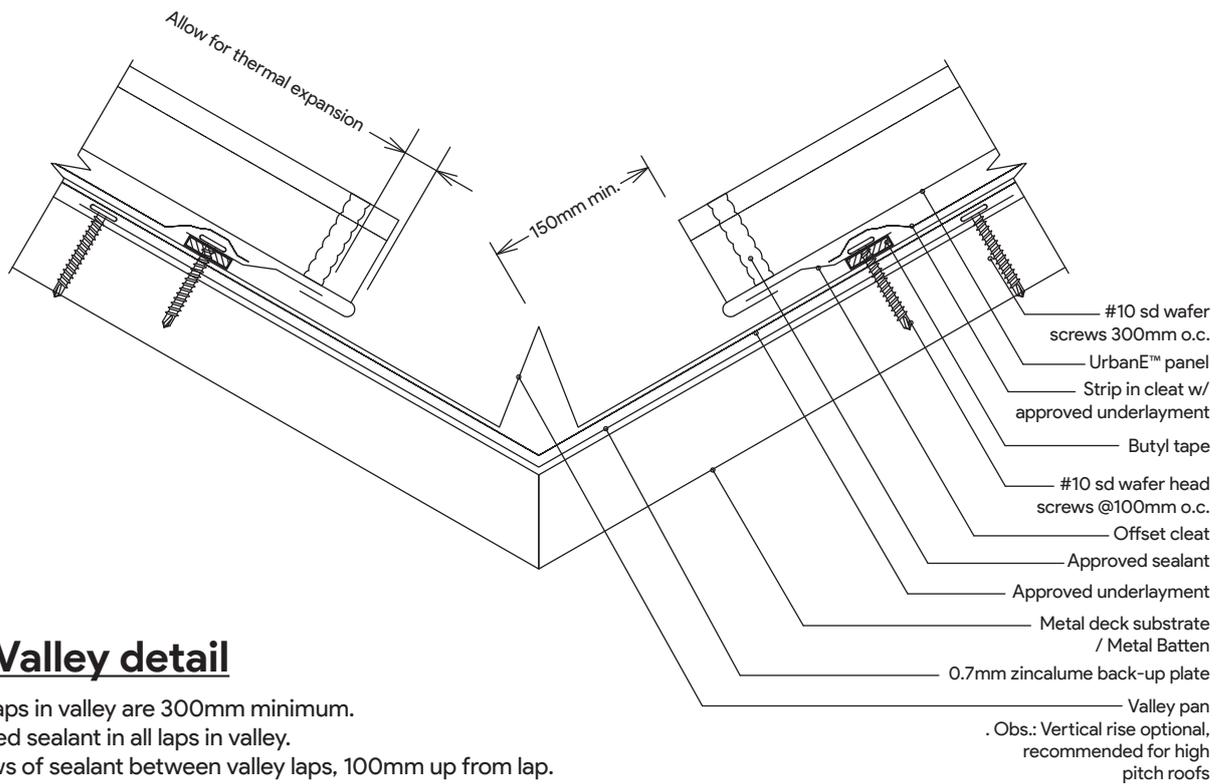
T1- Roof/fascia transition detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



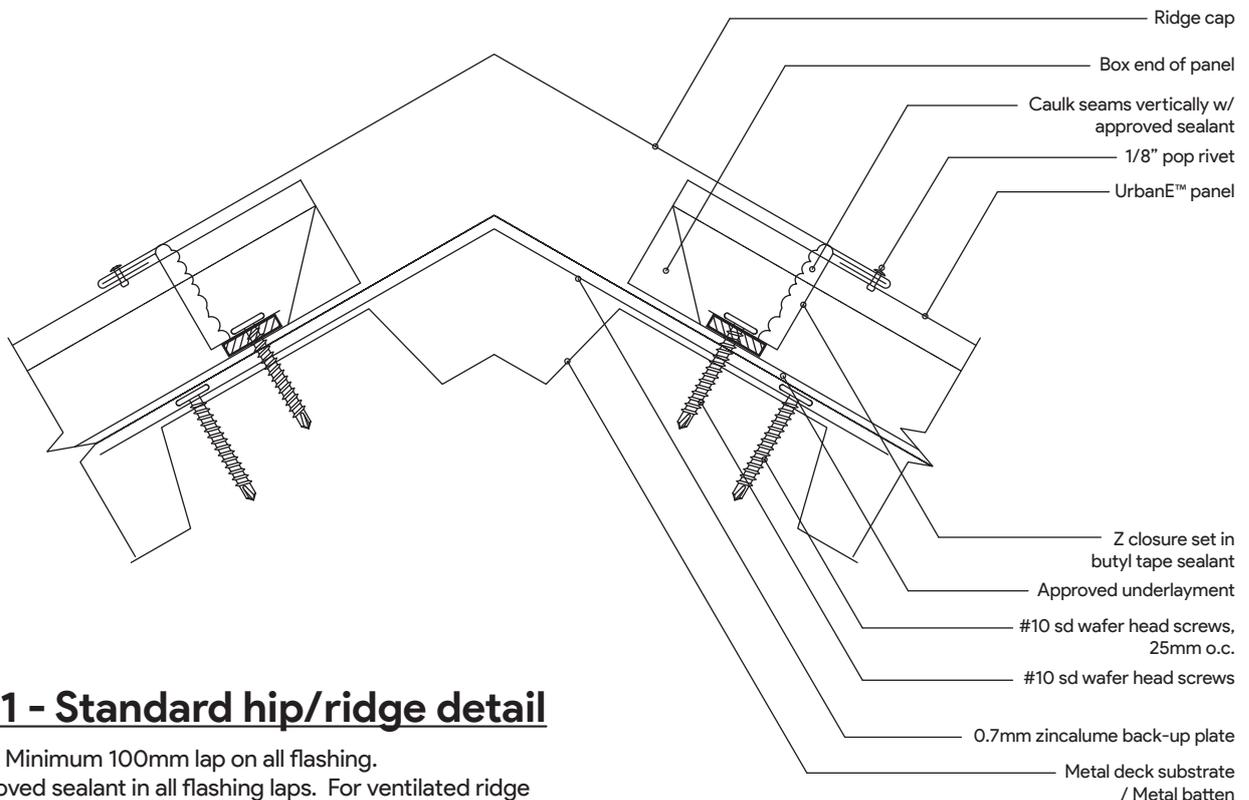
T2- Roof transition detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



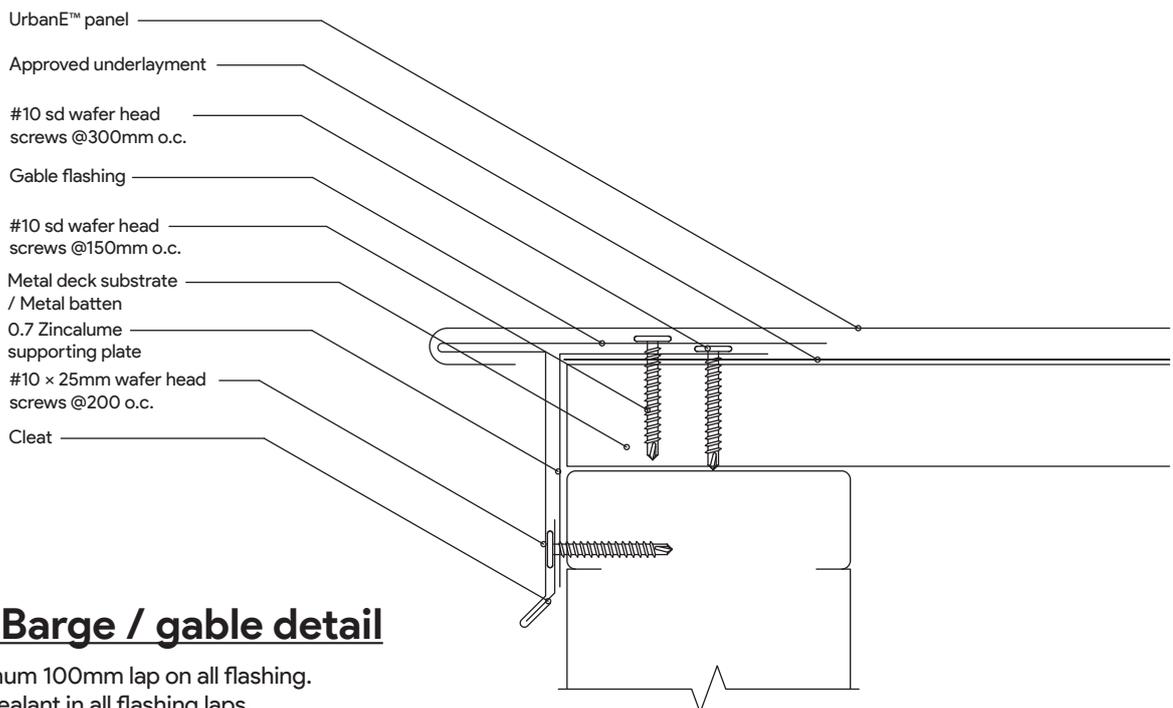
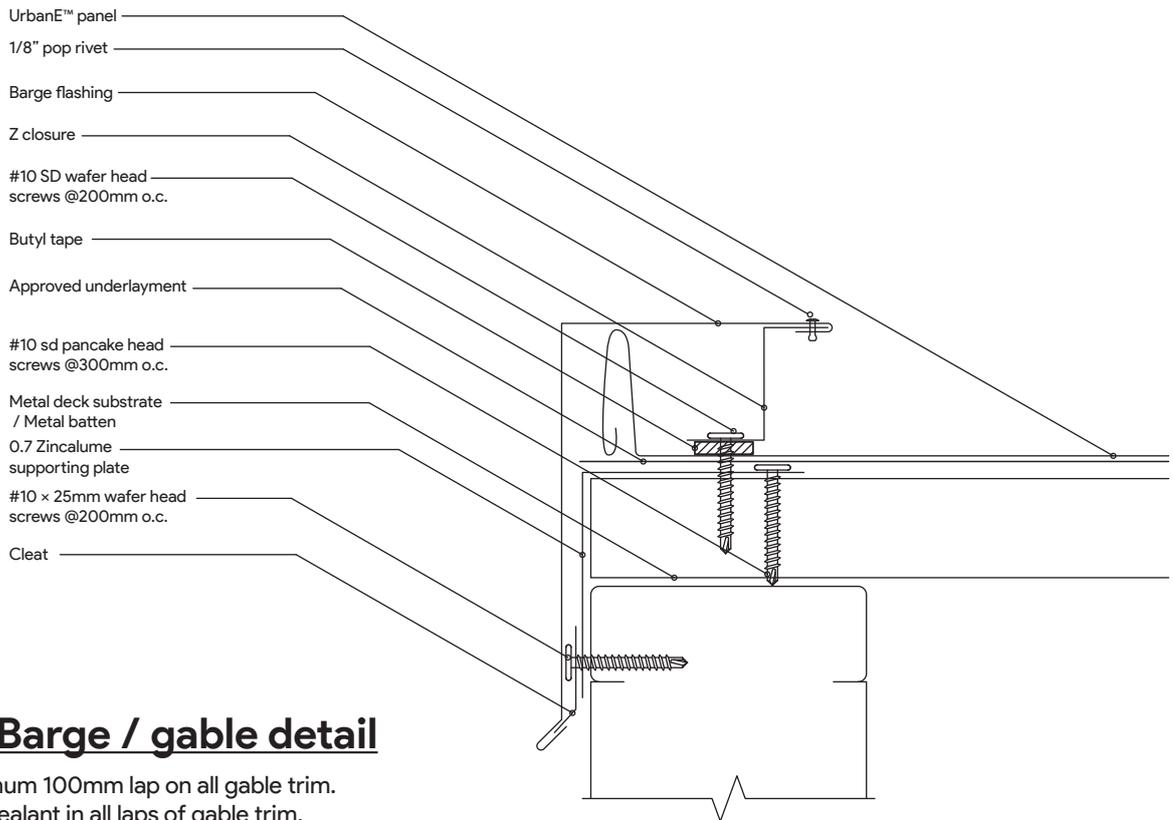
V1- Valley detail

Note: Laps in valley are 300mm minimum.
Approved sealant in all laps in valley.
Two rows of sealant between valley laps, 100mm up from lap.



HR1 - Standard hip/ridge detail

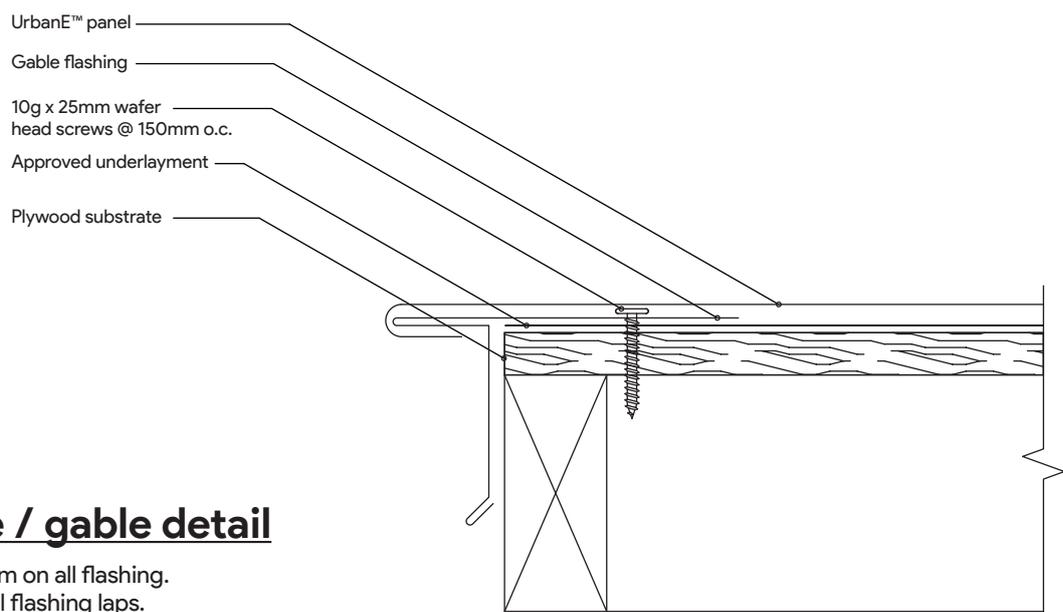
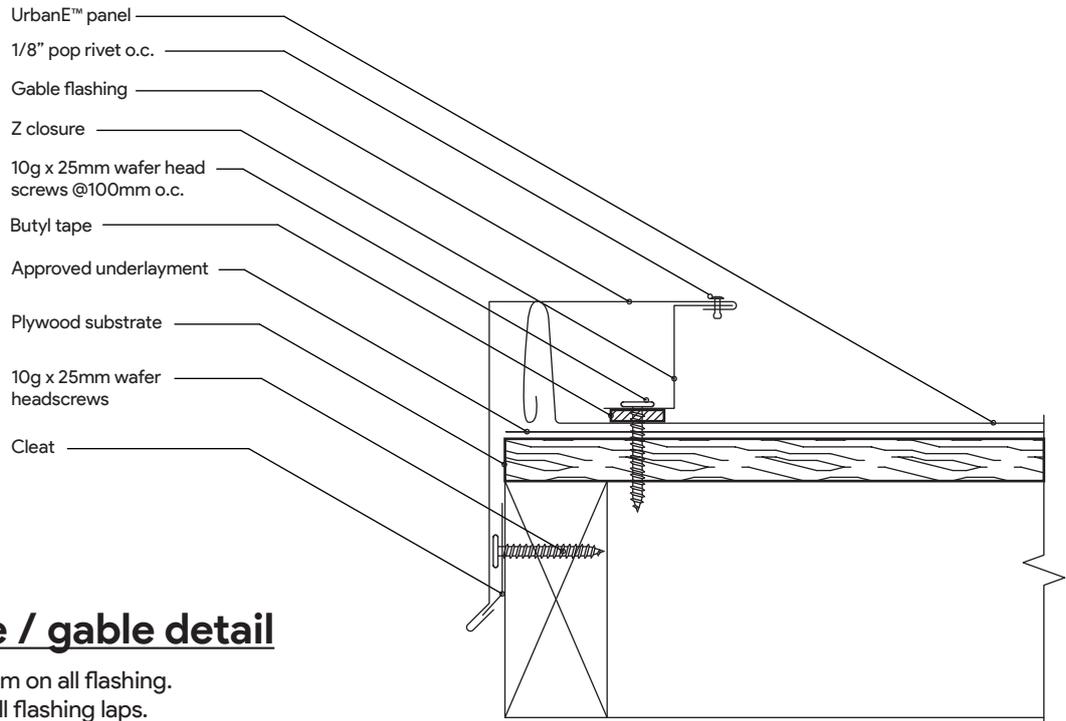
Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps. For ventilated ridge details, please contact No1 APS Team.

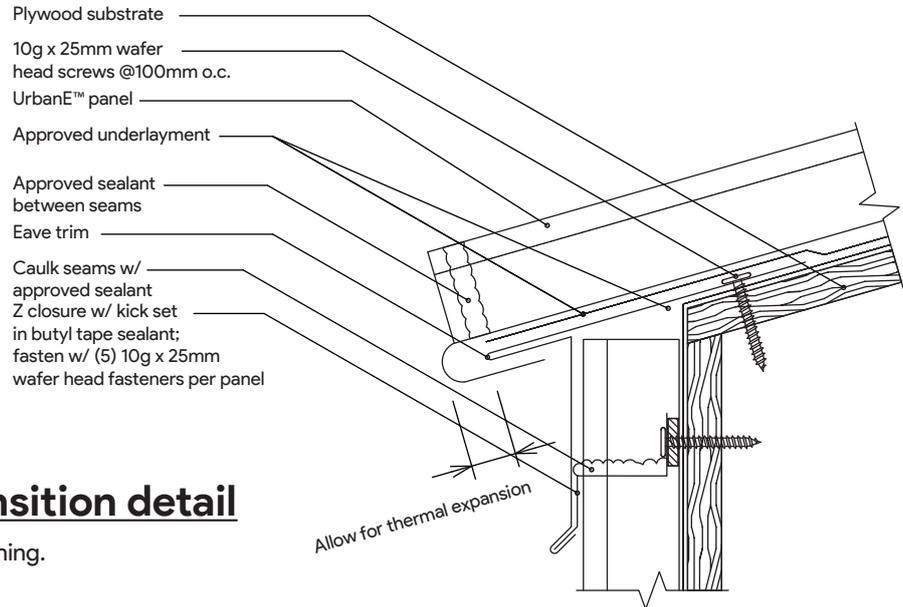




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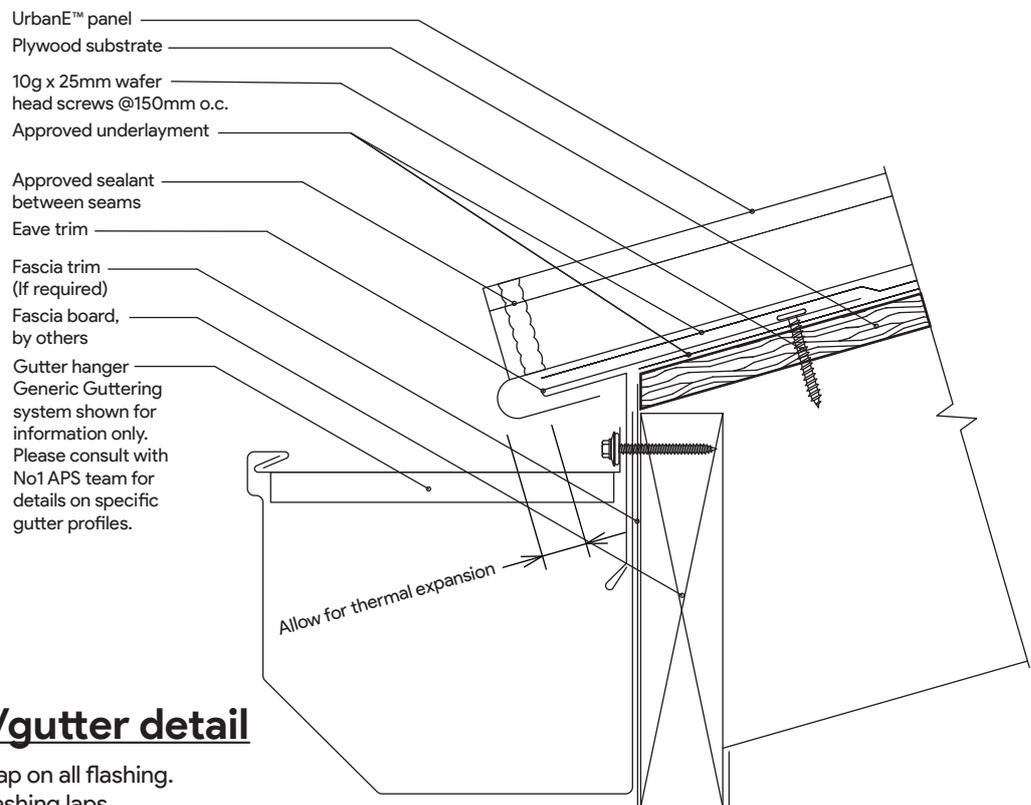
Roof Cladding Flashing Details on Plywood





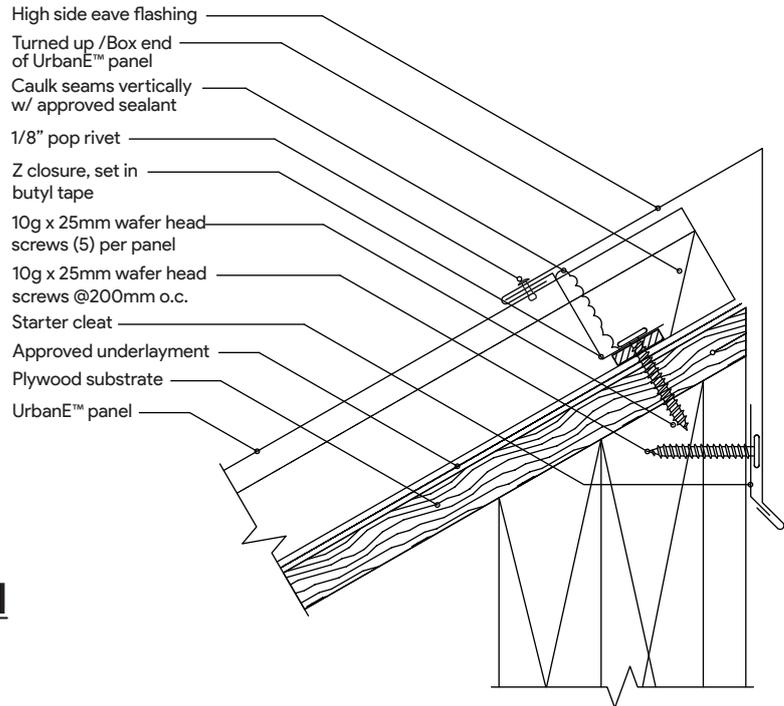
T1 - Roof/fascia transition detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



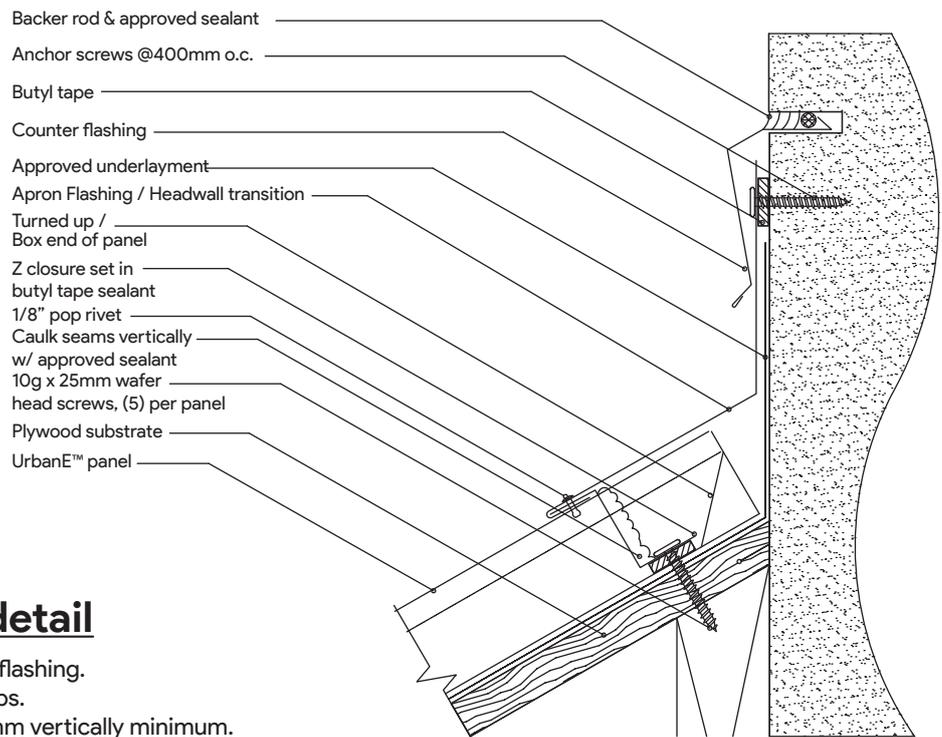
EG1 - Eave w/gutter detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



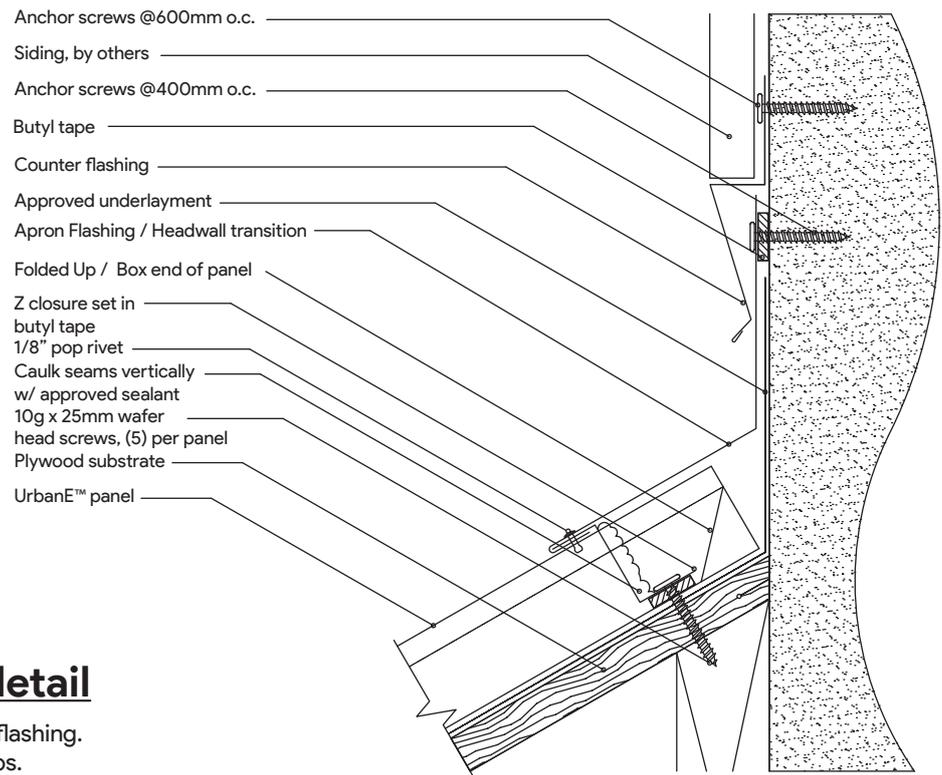
PK1 - High side eave detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



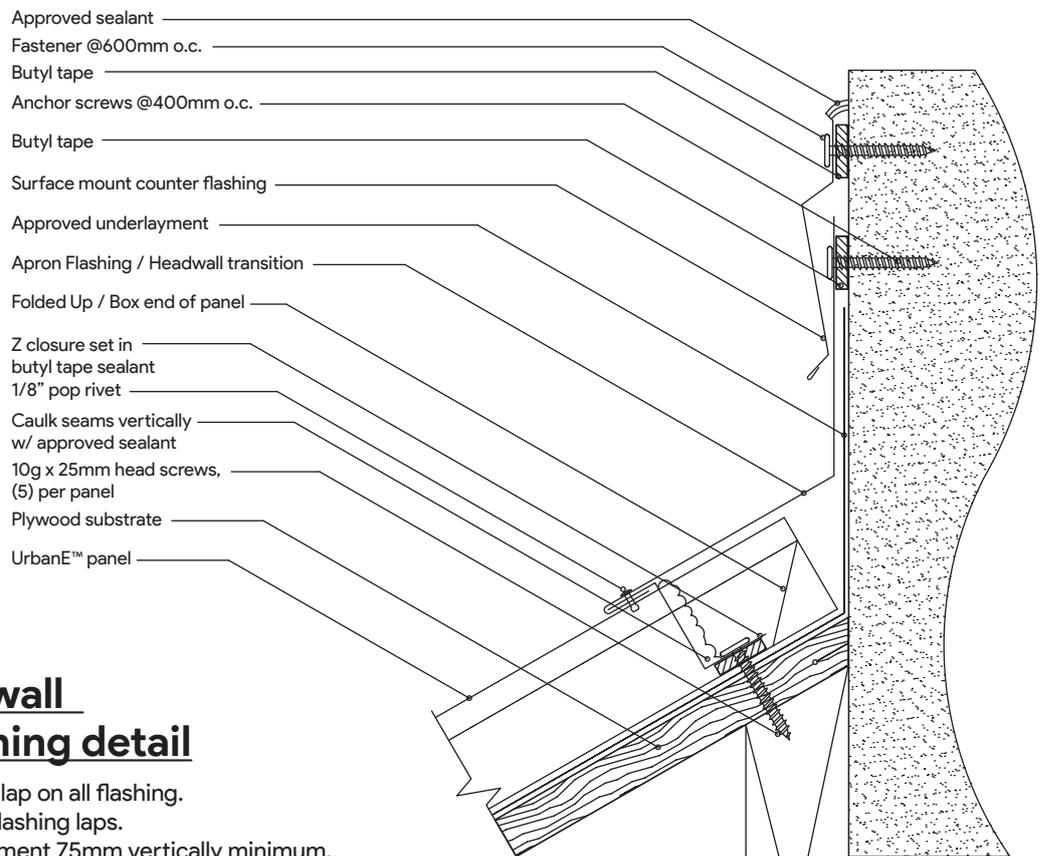
HW1 - Headwall / Apron Flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



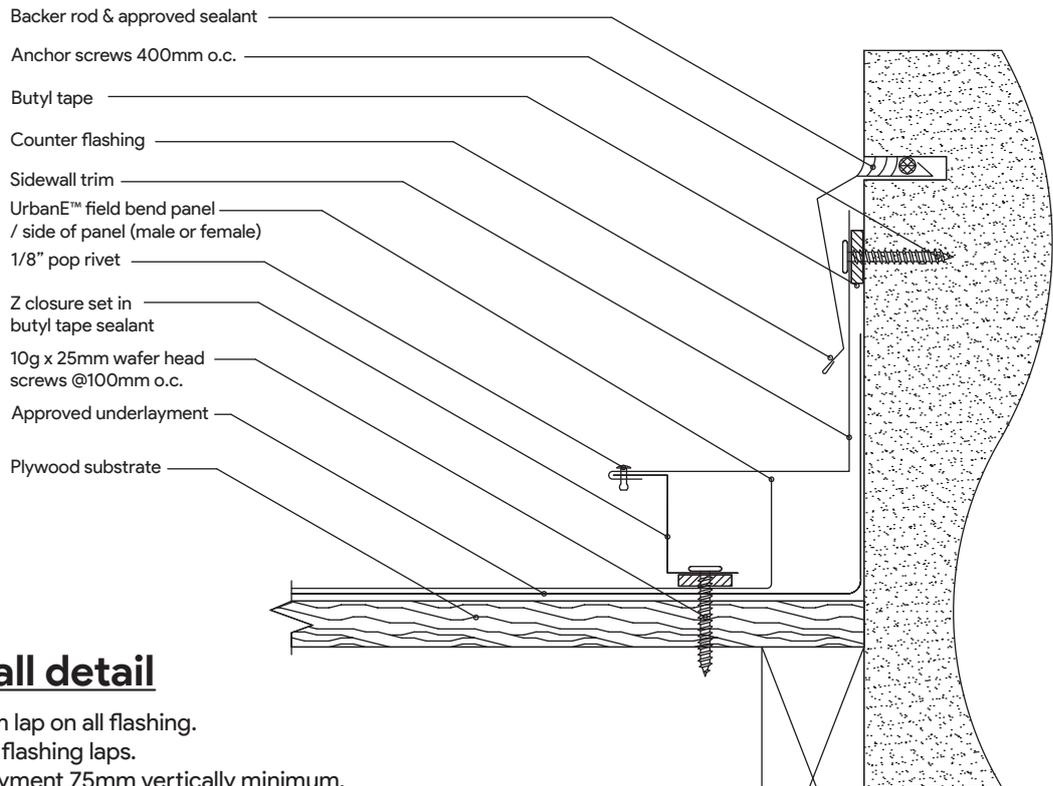
HW2- Headwall / Apron Flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



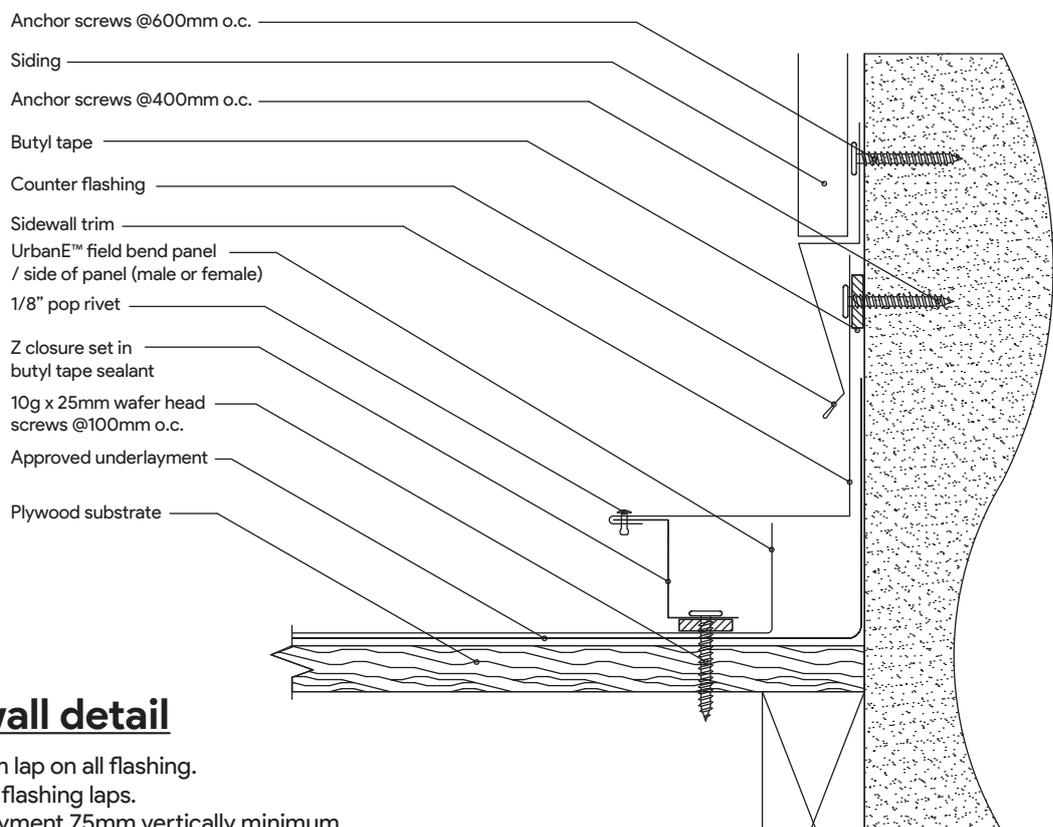
HW3 - Headwall / Apron Flashing detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



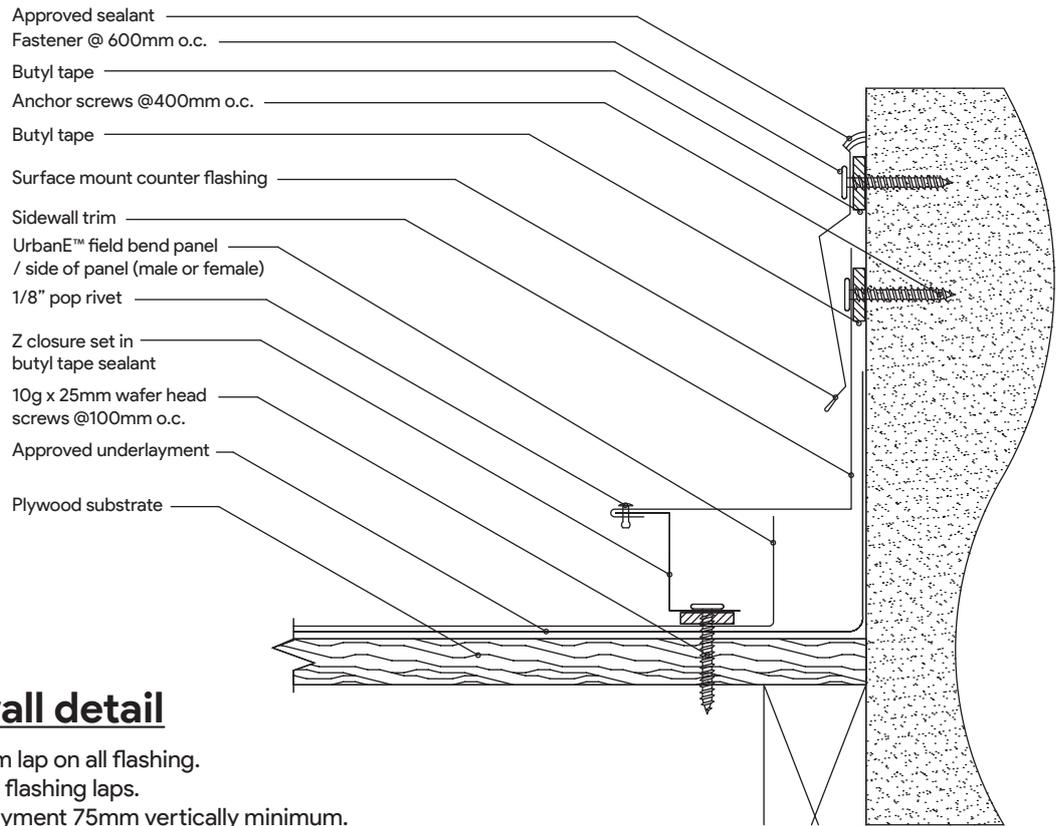
SW1- Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



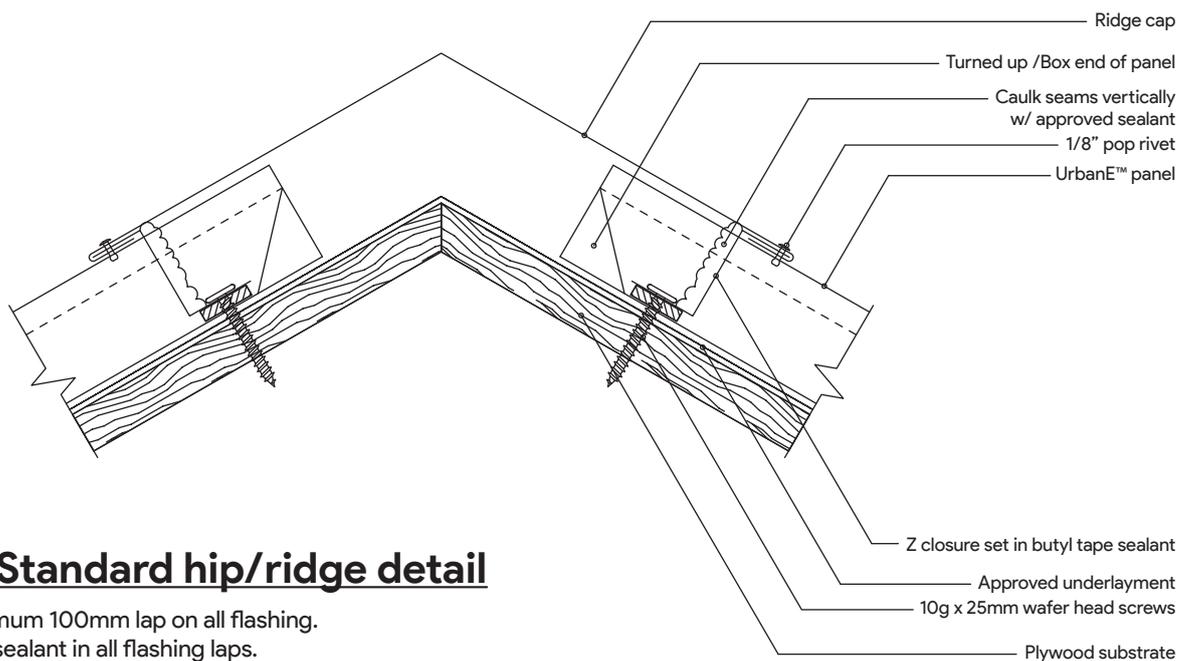
SW2 - Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



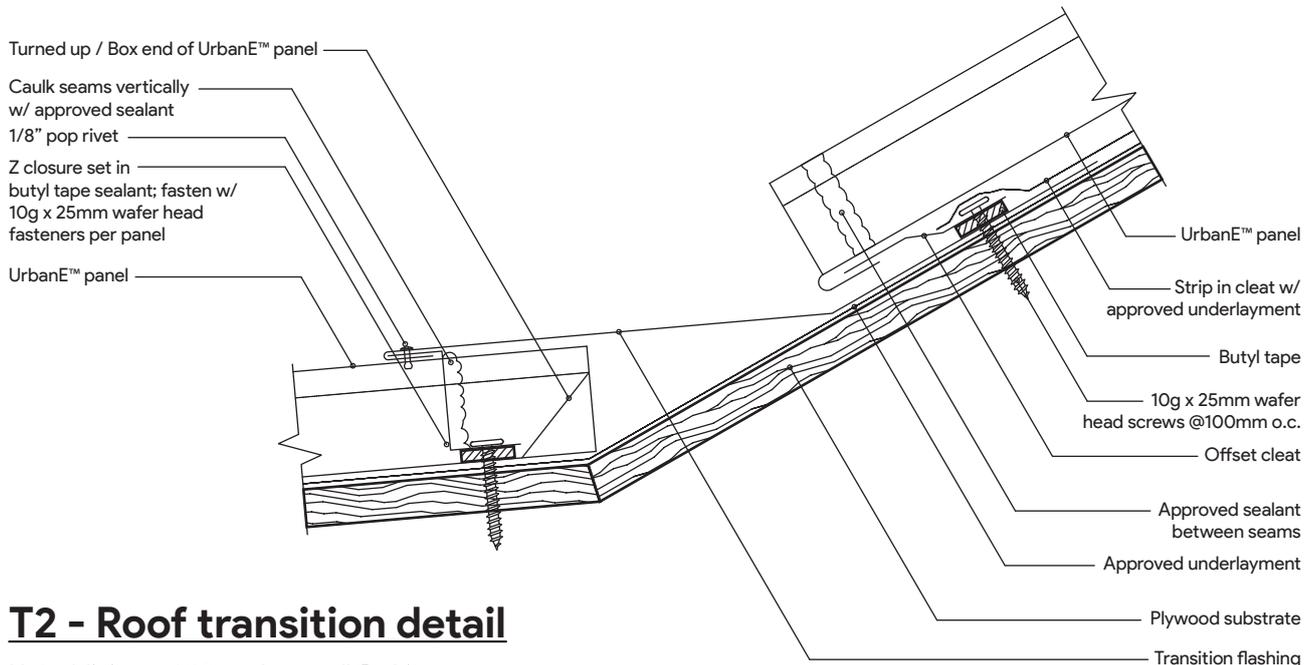
SW3- Sidewall detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.
Turn approved underlayment 75mm vertically minimum.



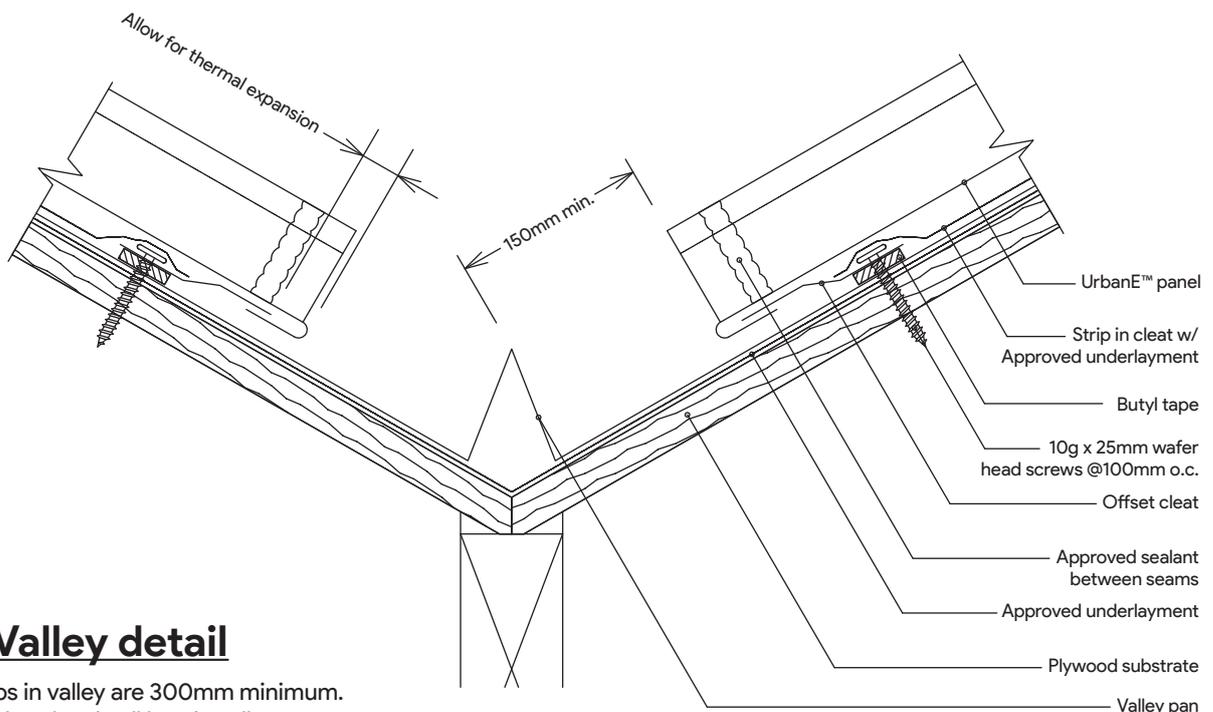
HR1 - Standard hip/ridge detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



T2 - Roof transition detail

Note: Minimum 100mm lap on all flashing.
Approved sealant in all flashing laps.



V1 - Valley detail

Note: Laps in valley are 300mm minimum.
Approved sealant in all laps in valley.
Two rows of sealant between valley laps,
100mm up from lap.

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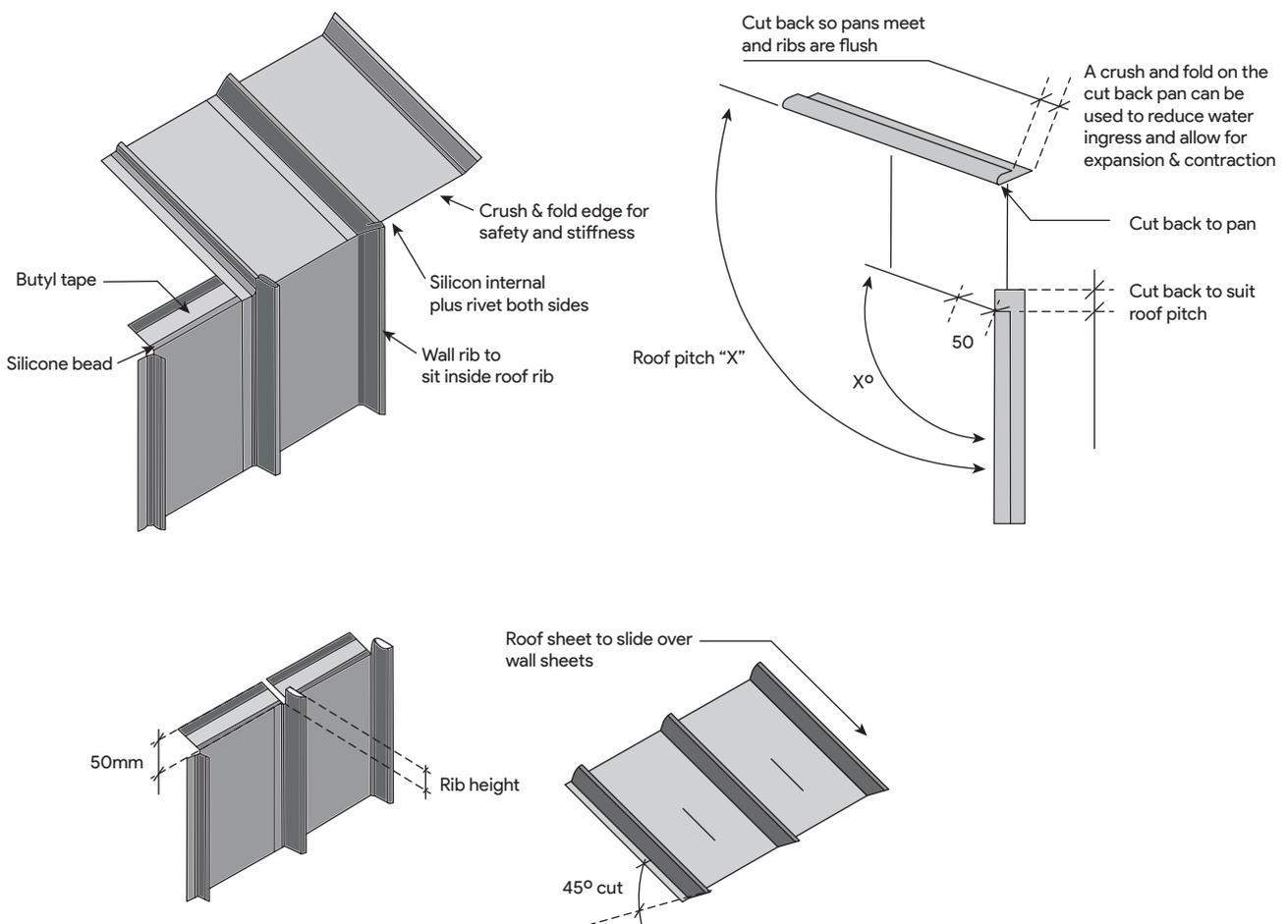
Cladding Roof to Wall Detail (Mansard Detail)

This common architectural detail requires the wall sheet to be cut 50mm longer than the wall height.

The top end of the wall sheet is notched and a 50mm fold created to sit below the roof sheet.

The roof sheet is also notched at the bottom end to match the wall rib height, the ribs are cut back to the pans.

Use butyl tape and silicone to make the joint weathertight.

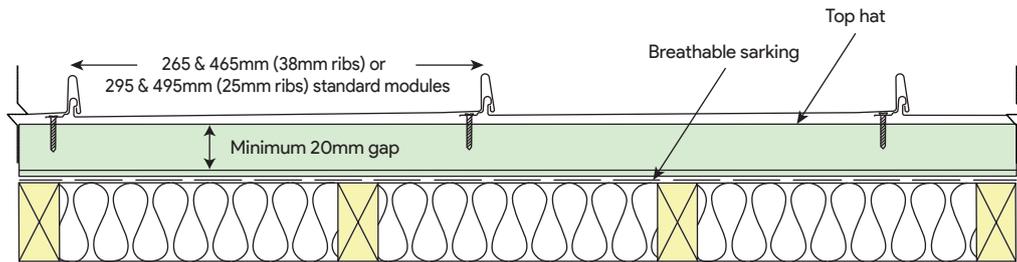
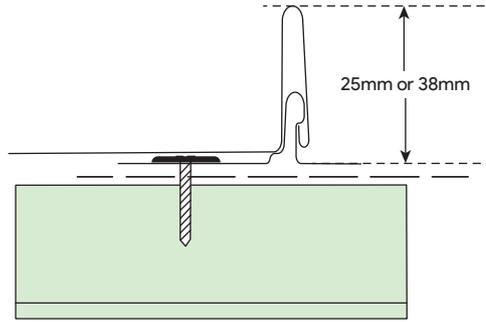


Ensure that the anti-capillary drain on the roof is allowed to drain before the roof/wall joint.

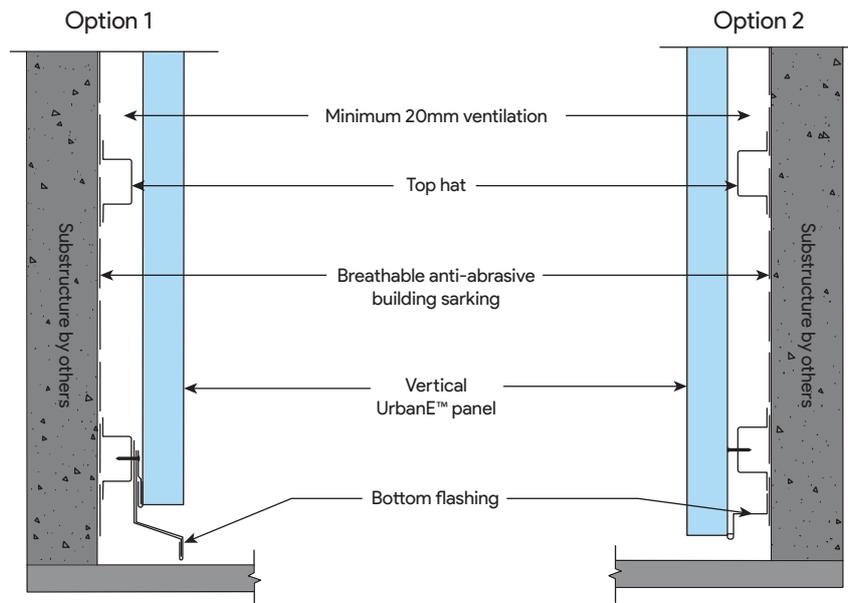


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Roof Cladding Flashing Details on Steel Batten

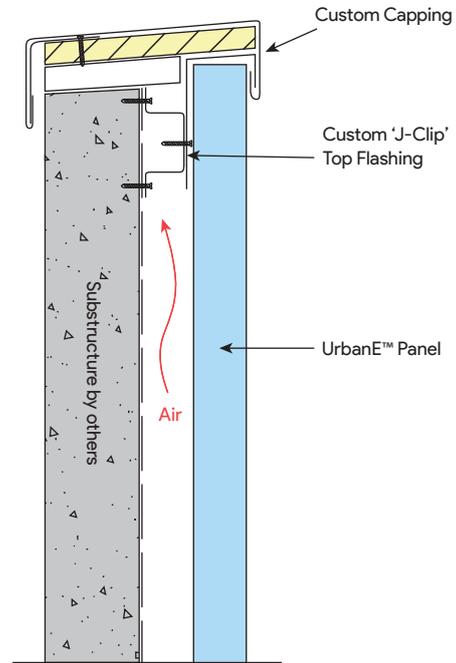


General plan details

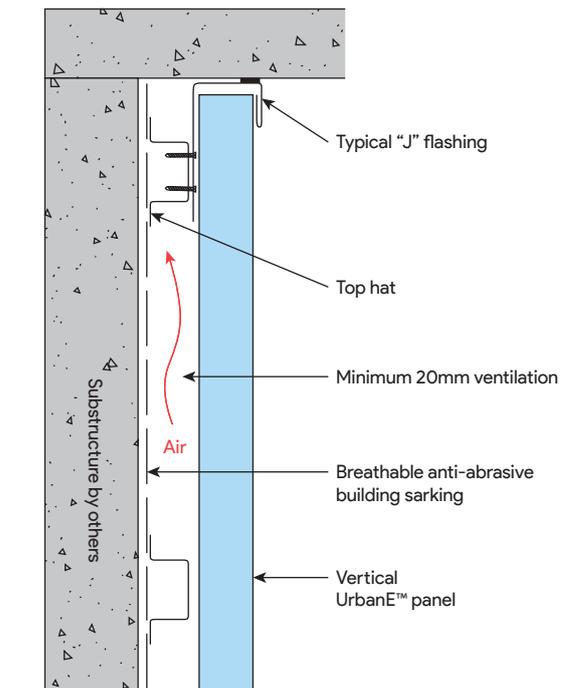


Typical bottom flashing detail - cross section

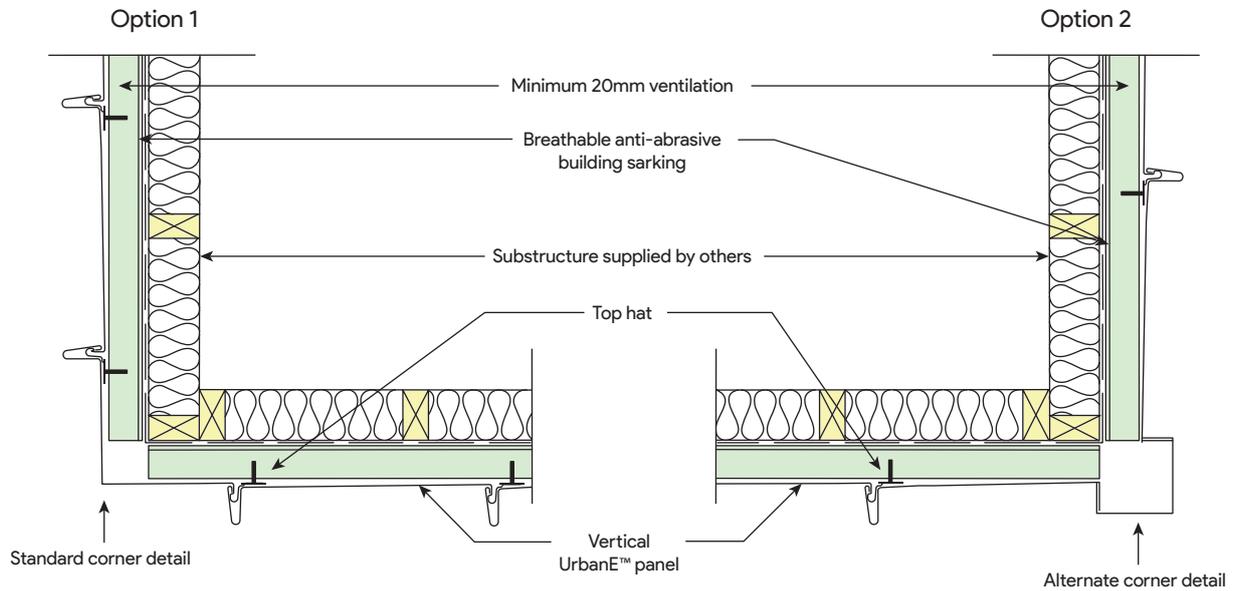
Wall Cladding Flashing Details on Steel Batten



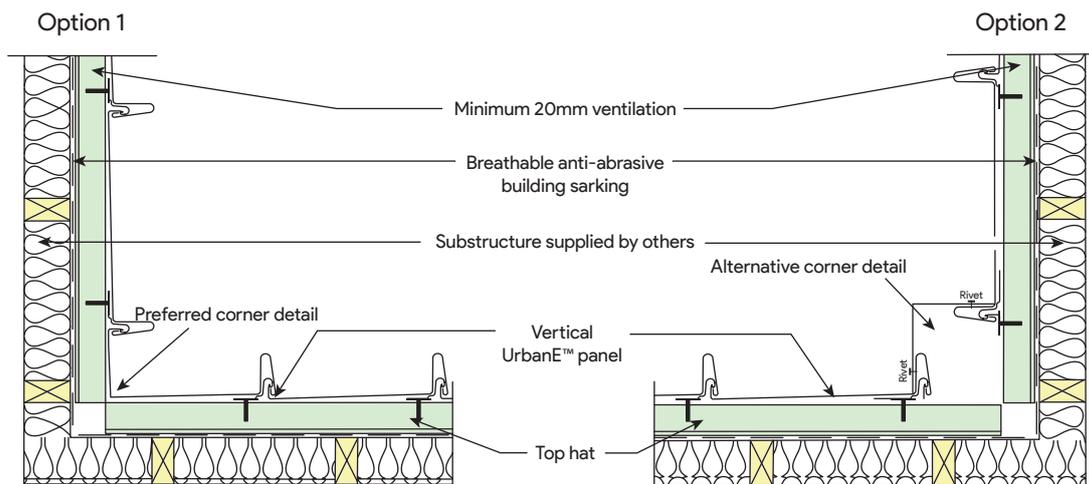
Typical parapet detail



Typical top of wall detail

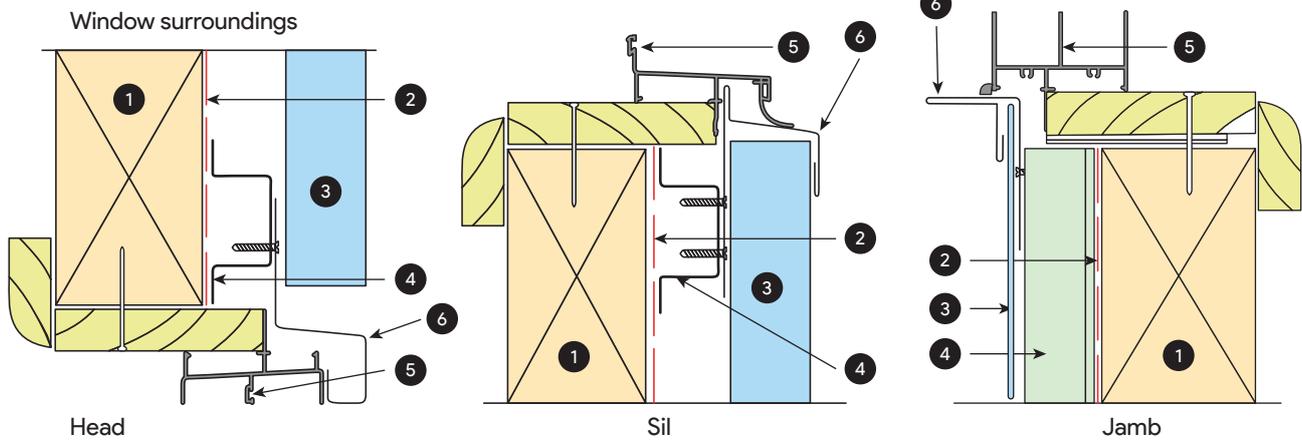


Typical external corner detail



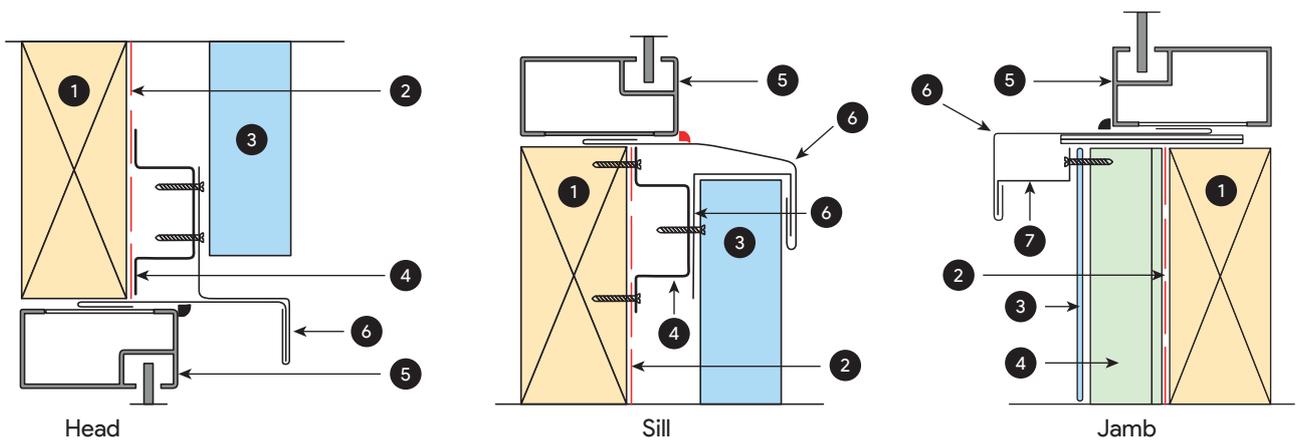
Typical internal corner detail

Wall Cladding Flashing Details on Steel Batten



- 1** Substructure supplied by others
- 2** Breathable anti-abrasive building sarking
- 3** Vertical UrbanE™ panel
- 4** Top hat
- 5** Window supplied by others
- 6** Flashing

Typical timber reveal window detail

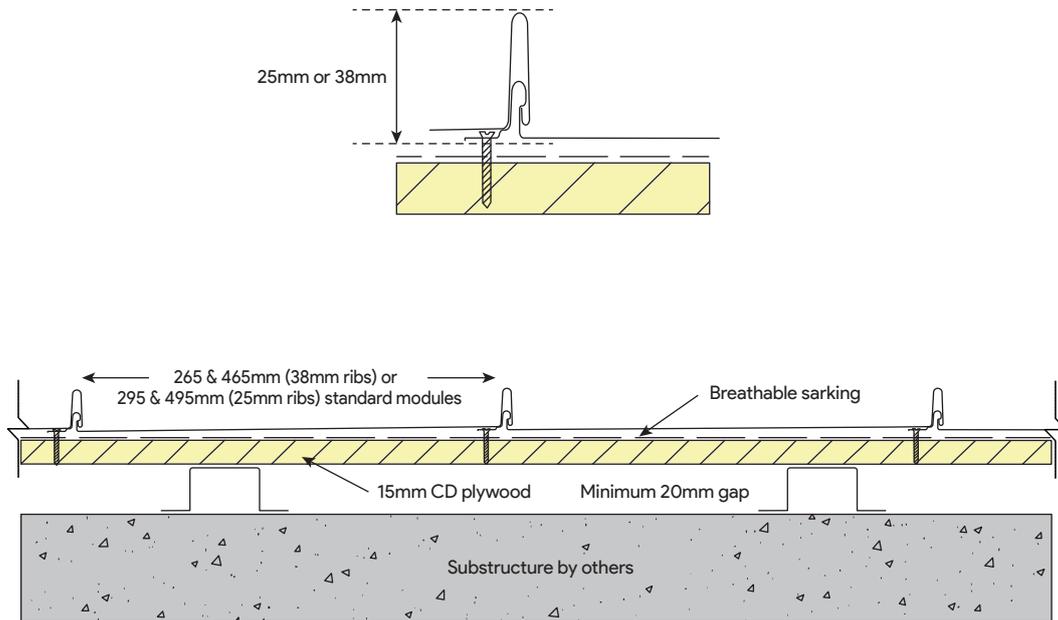


- 1** Substructure supplied by others
- 2** Breathable anti-abrasive building sarking
- 3** Vertical UrbanE™ panel
- 4** Top hat
- 5** Window supplied by others
- 6** Flashing
- 7** Z-closure flashing installed over sealer / Butyl tape

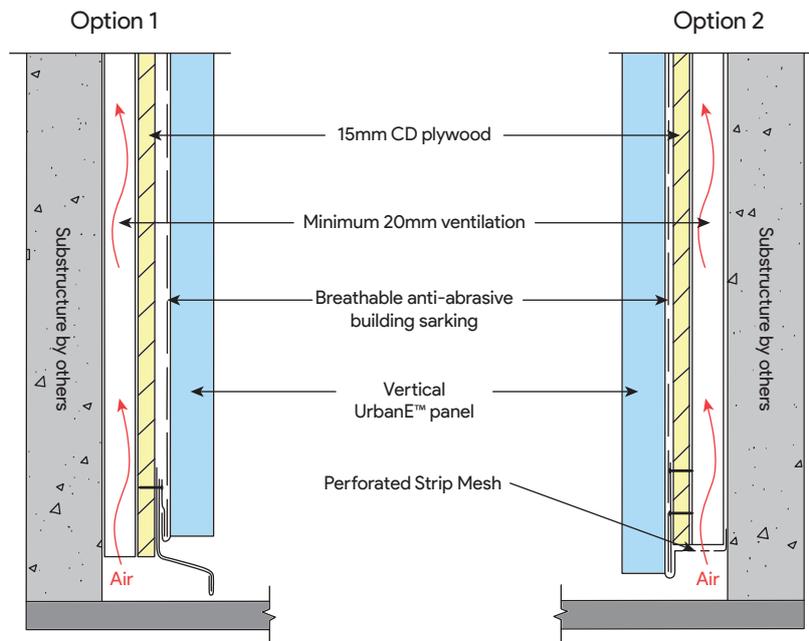
Typical window detail



UrbanE™ Wall Cladding Flashing Details on Plywood



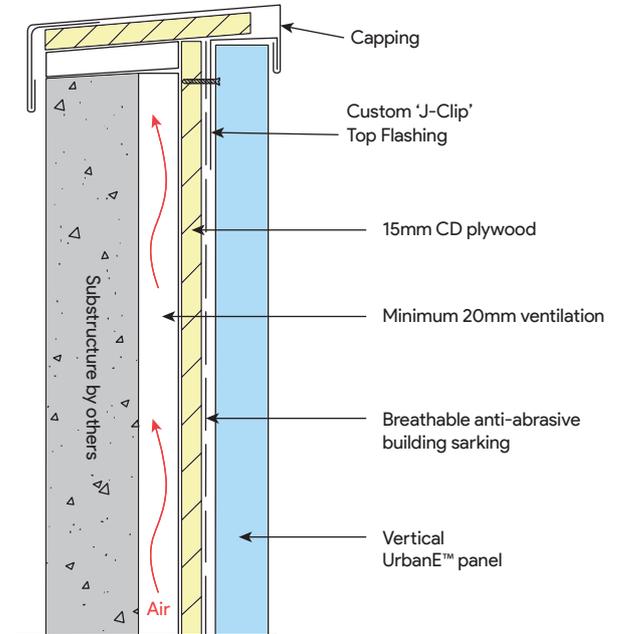
General plan details



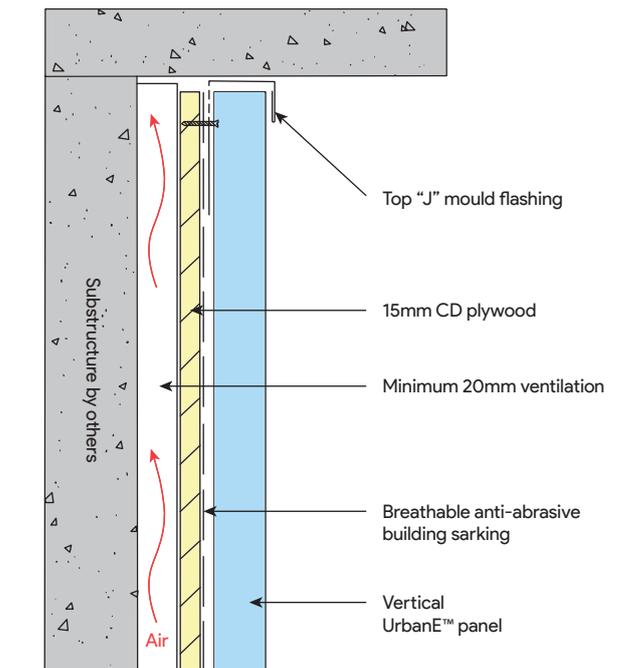
Typical bottom flashing detail - cross section

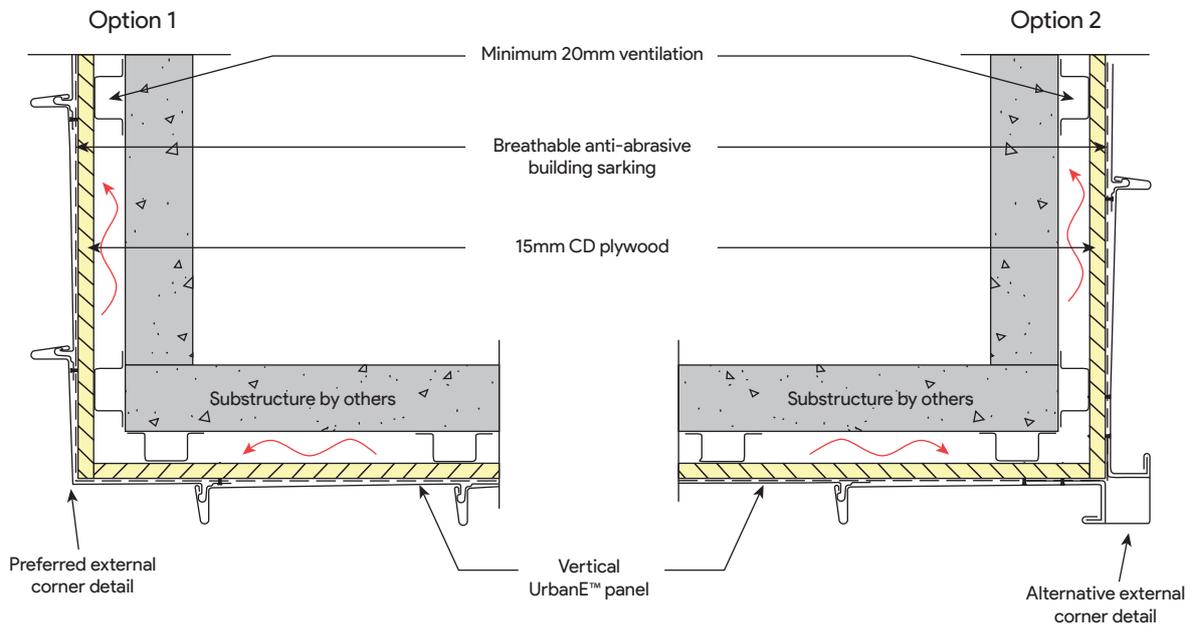
Wall Cladding Flashing Details on Plywood

Typical parapet detail

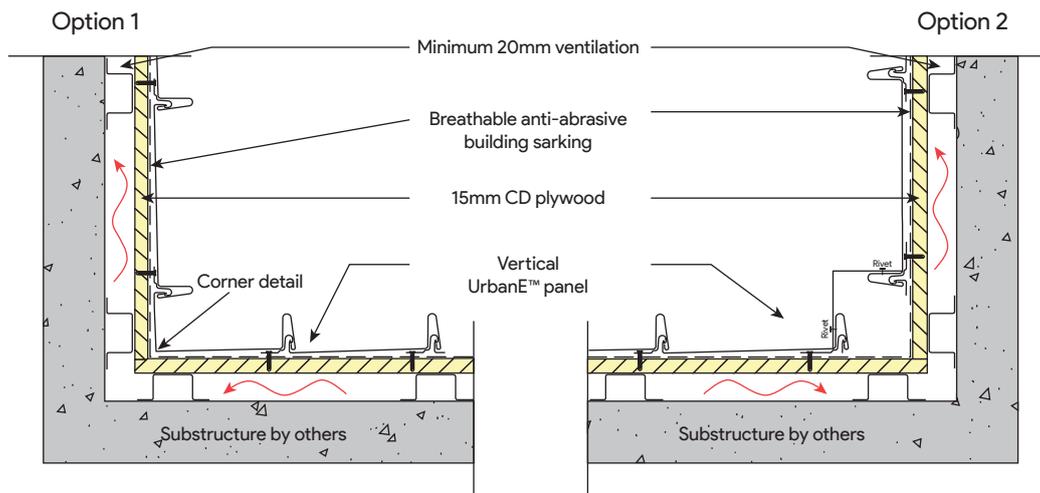


Typical top of wall detail

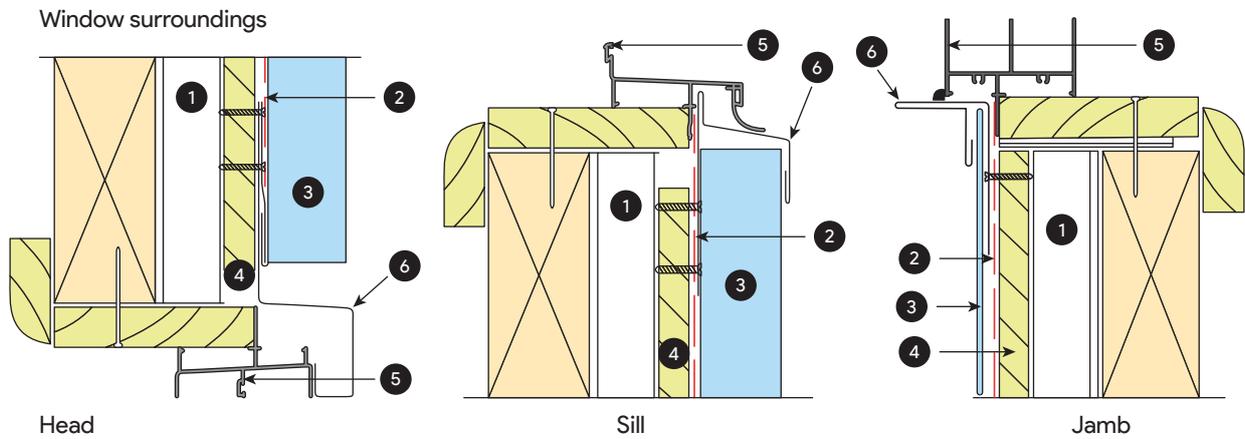




Typical external corner detail

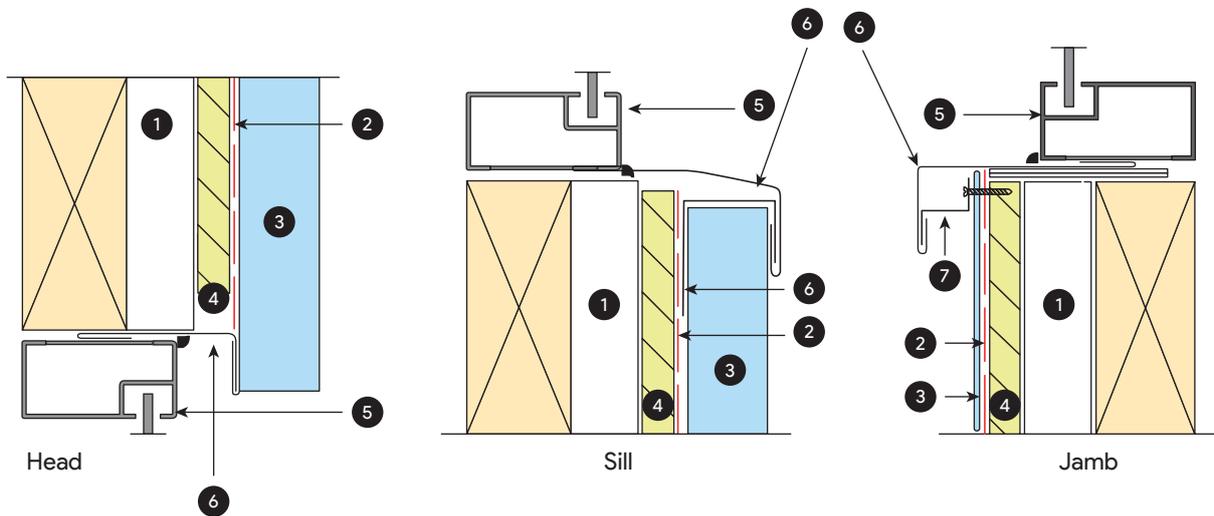


Typical internal corner detail



- 1 Minimum 20mm ventilation
- 2 Breathable anti-abrasive building sarking
- 3 Vertical UrbanE™ panel
- 4 15mm CD plywood
- 5 Window supplied by others
- 6 Flashing

Typical timber reveal window detail



- 1 Minimum 20mm ventilation
- 2 Breathable anti-abrasive building sarking
- 3 Vertical UrbanE™ panel
- 4 15mm CD plywood
- 5 Window supplied by others
- 6 Flashing
- 7 Z-closure flashing installed over sealer / Butyl tape

Typical window detail

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Version One