

# CONQUEROR MODI CLAD PANEL

TECHNICAL SPECIFICATIONS AND PROFILES



Conqueror NZ Ltd has a policy of continuous product improvement; we reserve the right to change design or specifications without prior notice.



**CONQUEROR**

**Conqueror NZ Ltd** is New Zealand's only manufacturer of PIR foam core panel products on a continuous line.

From our state-of-the art 7500m<sup>2</sup> manufacturing plant in Christchurch we can manufacture a diverse range of panel products from a single production line, making it one of the most adaptable plants of its type anywhere in the world. This facility also has the unique ability to manufacture panels in lengths of up to 24m, enabling significantly more flexibility in building design.

### Quality and Durability

Conqueror panels are manufactured and tested to BS EN 14509 standards from the highest quality materials, using state of the art production equipment to rigorous quality control standards, ensuring long term reliability and service life.

### Warranty

In business, your reputation is everything and minimising risk makes sound business sense. Conqueror's range for thermal insulated cladding will give you the peace of mind you've chosen a quality material that conforms to relevant Australian and New Zealand standards and backed by a warranty you can count on.

### Packaging and Delivery

Protective film is applied to the steel facing during the production process. Conqueror PIR panels are stacked flat. The number of panels in each pack depends on panel thickness.

Handling guidelines are available from Conqueror NZ Ltd Technical Services.

Lead times are typically 2-3 weeks for stocked coatings and colours. Non stocked coatings/colours require extra lead time.

## WHY PIR CORE?

### ECONOMIC ADVANTAGES

Accelerated construction reduces site time and energy efficiency of PIR core, which can reduce operating costs by up to 50%.

### INSULATION PROPERTIES

Due to the low heat conductivity of its fully formed closed cell structure, PIR is thermally efficient. This superb thermal performance allows buildings to achieve premium levels of energy efficiency, with some of the thinnest available solutions.

### DURABILITY

As PIR does not sag or absorb moisture you can be confident of consistent performance which will last the full lifetime of the building.

### MOISTURE RESISTANCE

Water absorption through exposure to moisture or in exceptional circumstances through floods, is a significant factor with any modern insulation product. Due to having a closed cell structure, PIR is a hydrophobic product, meaning it does not absorb water. This allows the thermal performance and integrity of the product to be retained regardless of water exposure.

## STEEL FACING

### COLOURS

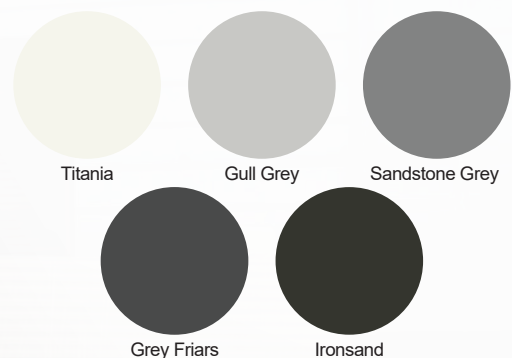
Our standard colour is Titania. Other colours are available on request. However, please note that the colour chart shown here is indicative only and is as close as the printing process allows. If in doubt before ordering, please refer to your Conqueror NZ Ltd agent's colour chart.

### FIRE RESISTANCE

PIR will self-extinguish as soon as the cause of fire is removed. PIR foam is a thermosetting material. It does not melt, flow or drip when exposed to fire and it will form a strong char that helps protect the foam core and prevent flame spread within the panels.

### OCCUPANT ADVANTAGES

- Passive temperature control for a more stable environment.
- Superior water, condensation and moisture proofing.
- Low allergenic qualities.
- Superior seismic performance.
- High fire rating for maximum inhabitant safety.
- Paint and steel finish option.
- Lifetime performance, with no deterioration of airtightness or insulation values.

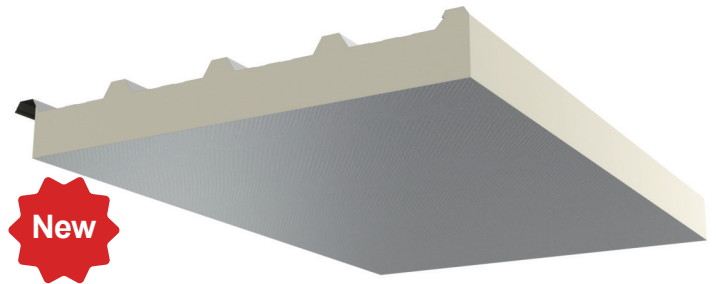


### COATING

The Zinc/Aluminium alloy coated steel has been formulated to give a significantly longer service life than a galvanized coating. This is of particular value in New Zealand where the prevailing winds carry corrosive salt-laden air many kilometers inland.

## PRODUCT INFORMATION

Conqueror NZ Ltd's trapezoidal profile roof panels can be used for both roof panel and wall panel cladding for residential, industrial and commercial applications. Please be aware that darker colours are not recommended for roof and wall applications, and might not be covered by our standard warranty. Please consult Conqueror NZ Ltd for further information.



## PANEL PERFORMANCE

Thickness (mm)	50	75	100
R Value at 15°C (mK/W)	2.8	4.0	5.3
R Value at 23°C (mK/W)	2.7	3.9	5.0
Weight (kg/m <sup>2</sup> )	6.2	8.0	9.3
Unsupported Span (m)	1.8	1.8	1.8

Weight for 0.5/foil facings

## ACOUSTIC PROPERTIES

Freq	125	250	500	1000	2000	4000	STC	RW
Hz	16.1	17.5	19.2	23	32.2	36.8	20	23

Tested to ISO 10140-2 on 75mm roof panel

## FIRE PERFORMANCE

AS1530.3 - Group 1-S	
Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Index	1
Foam Plastic Core	
Core meets the requirements of AS1366.2	
External Radiation(ISO 5660-1:2015)	
<b>Total Heat THRR</b>	<b>Peak Heat PHRR</b>
34.7 MJ/m <sup>2</sup>	83.5 kW/m <sup>2</sup>

## PRODUCT PROPERTIES

Core	Fire-retardant (PIR) foam
External facing	0.55mm thick Zinc/Aluminium G300S AZ150 coated steel to AS 1397
Internal Facing	Fibreglass Aluminium Foil
Width	1000mm cover width
Length	As required, 2m - 16m
Undercut Range	75mm - 200mm
Thickness	50mm, 75mm, 100mm

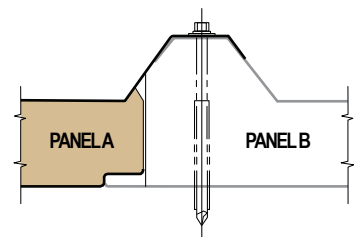
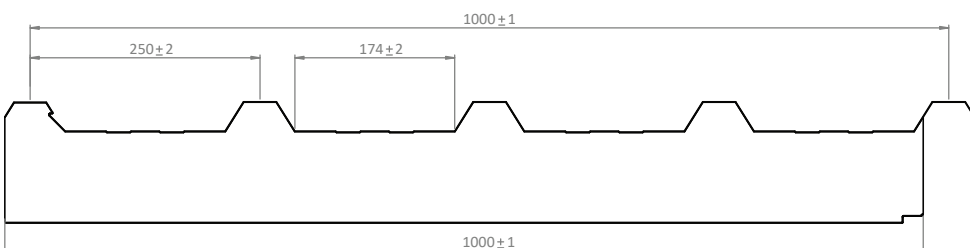
Other steel thicknesses and coatings upon request.

## ADVANTAGES

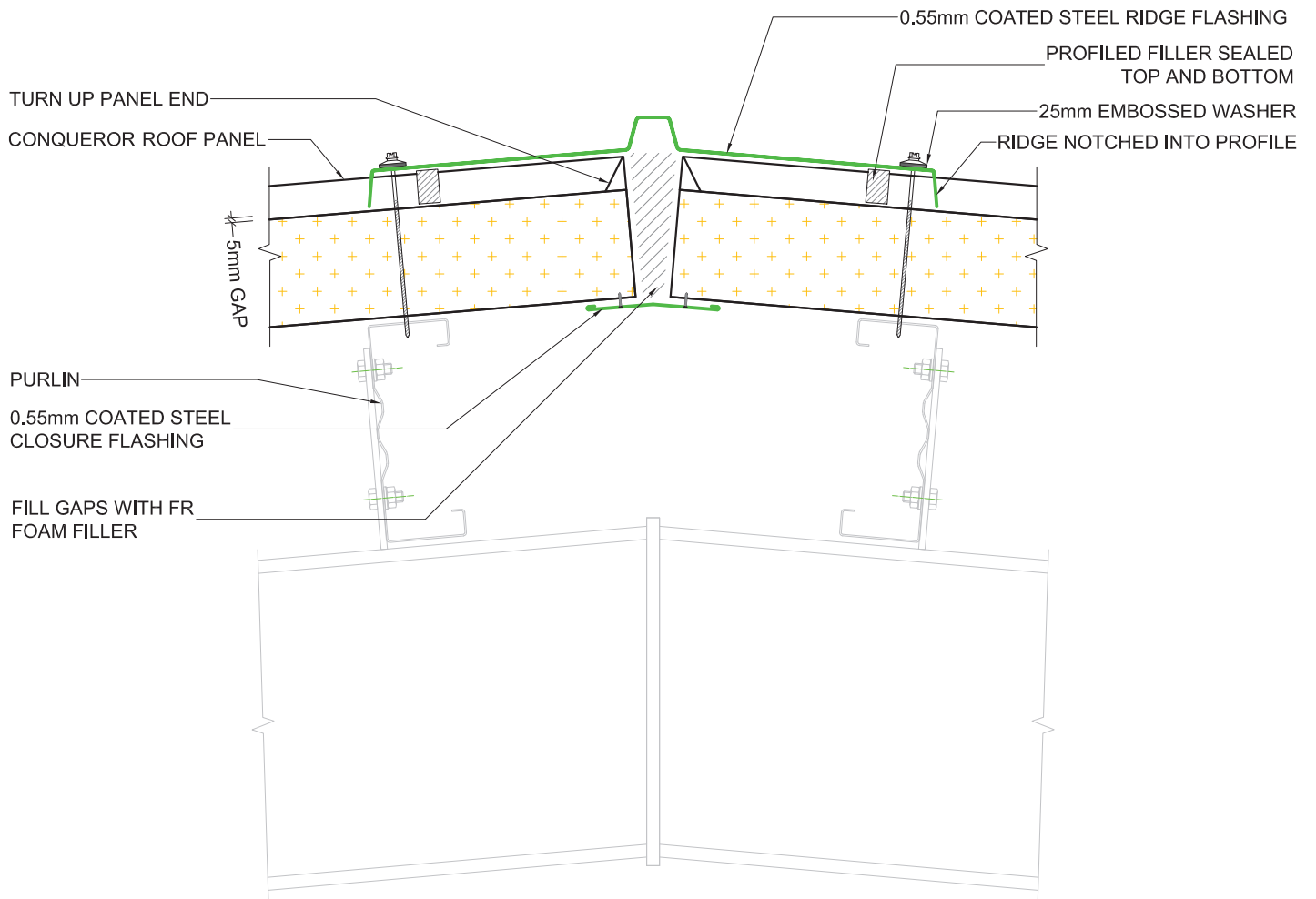
- Fast, simple, safe install techniques.
- Environmentally responsible systems – Zero ODP (ozone depletion potential), reduced carbon emissions.
- Energy efficient performance reducing cost over the life of the building.
- Durable construction and long life cycle.
- Insulation maintains its integrity over time.
- Earlier building occupation generates vital cash flow.

## PROFILE OPTIONS

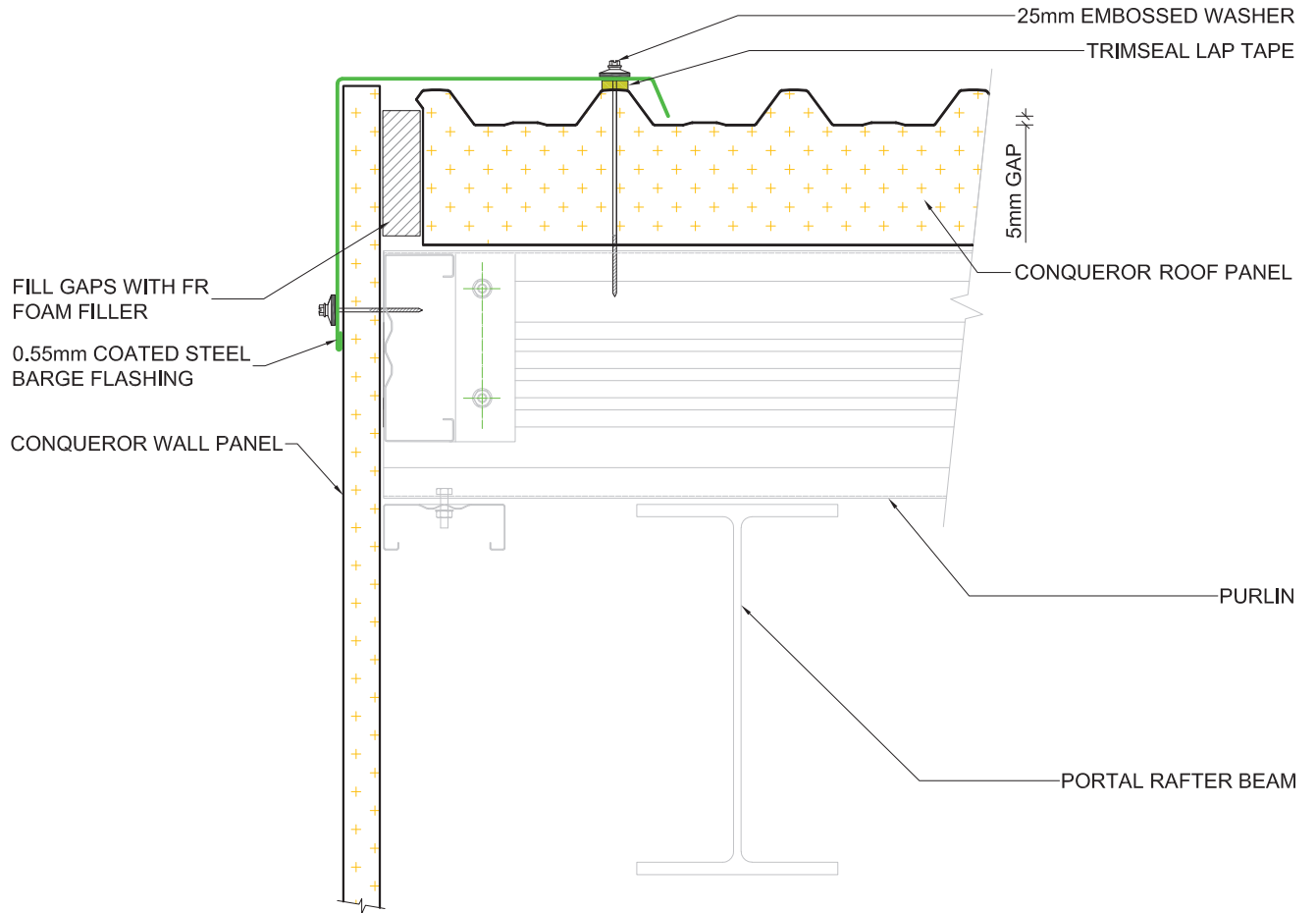
Trapezoidal 4 Rib - Foil



D01 RIDGE DETAIL

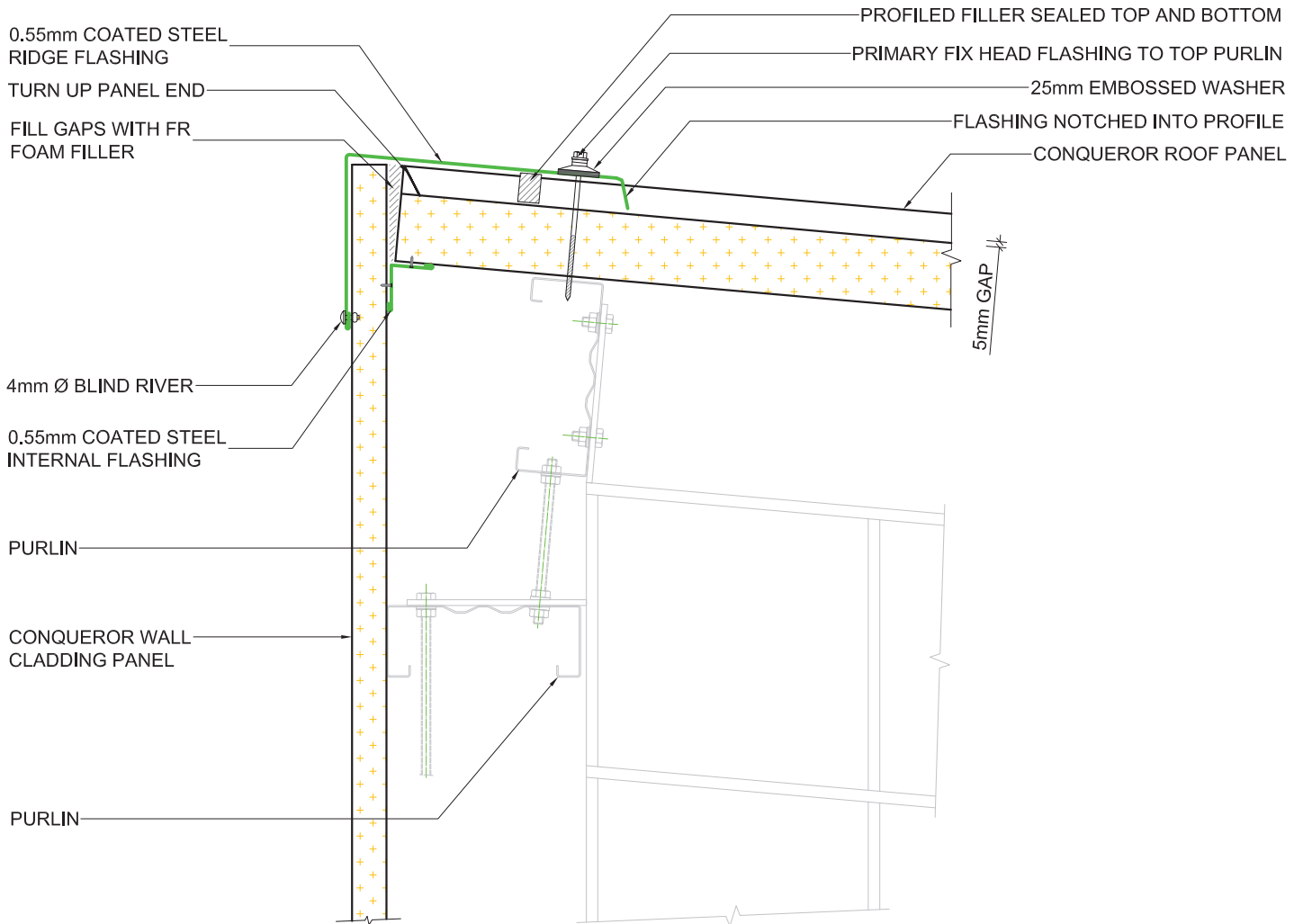


D02 BARGE DETAIL

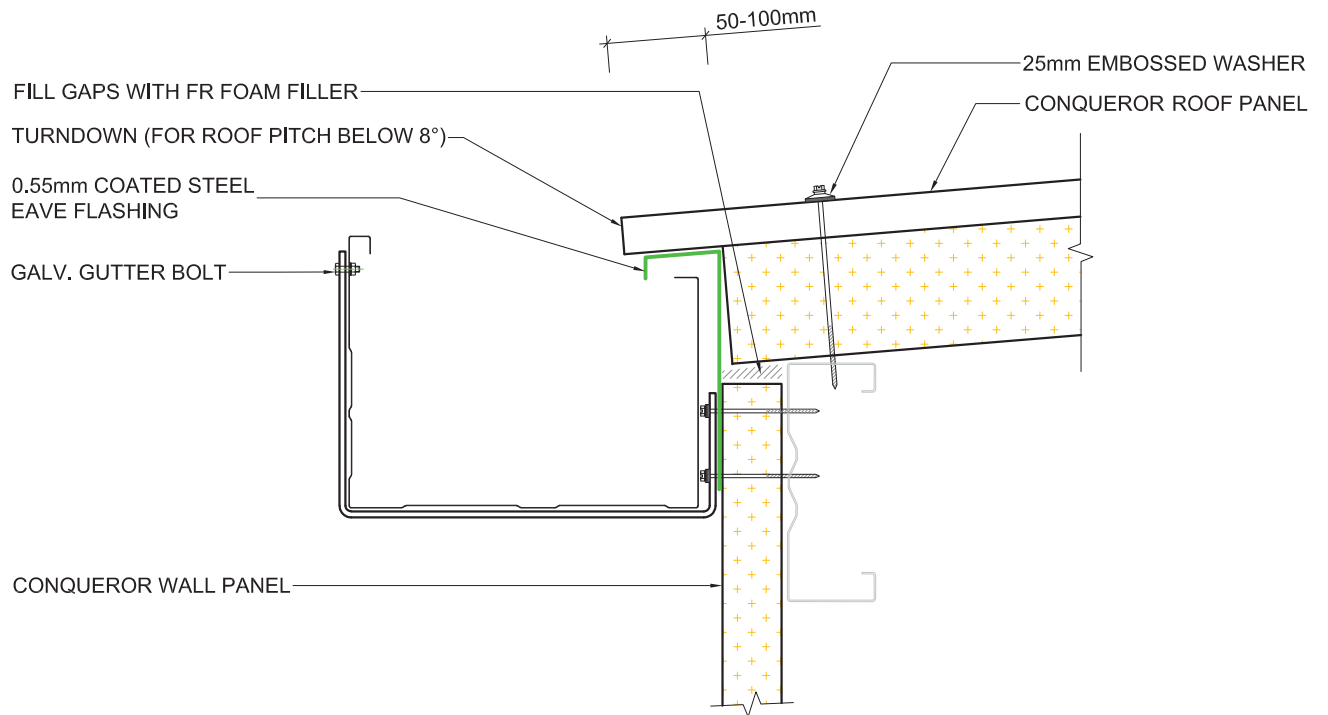




D03 APEX DETAIL - MONOPITCH

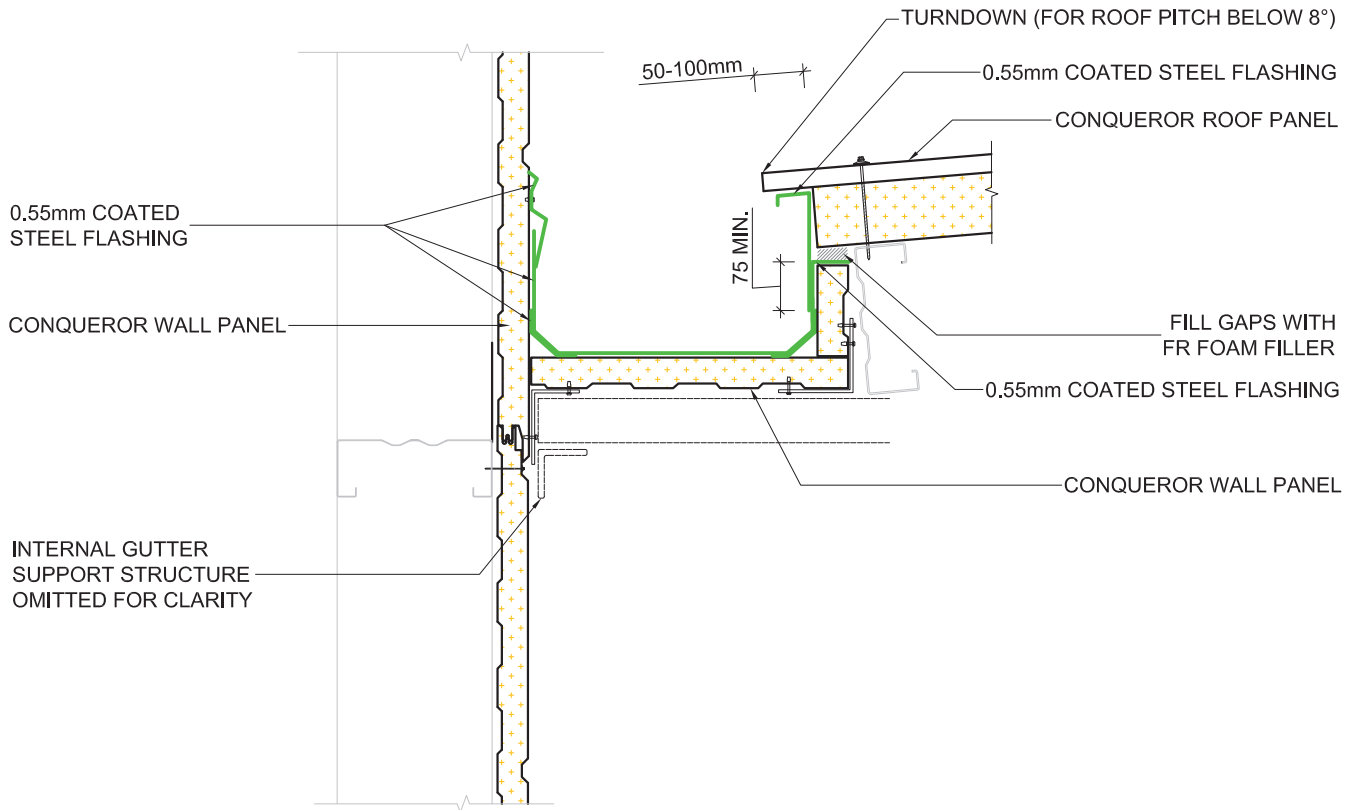


D04 EAVES GUTTER DETAIL



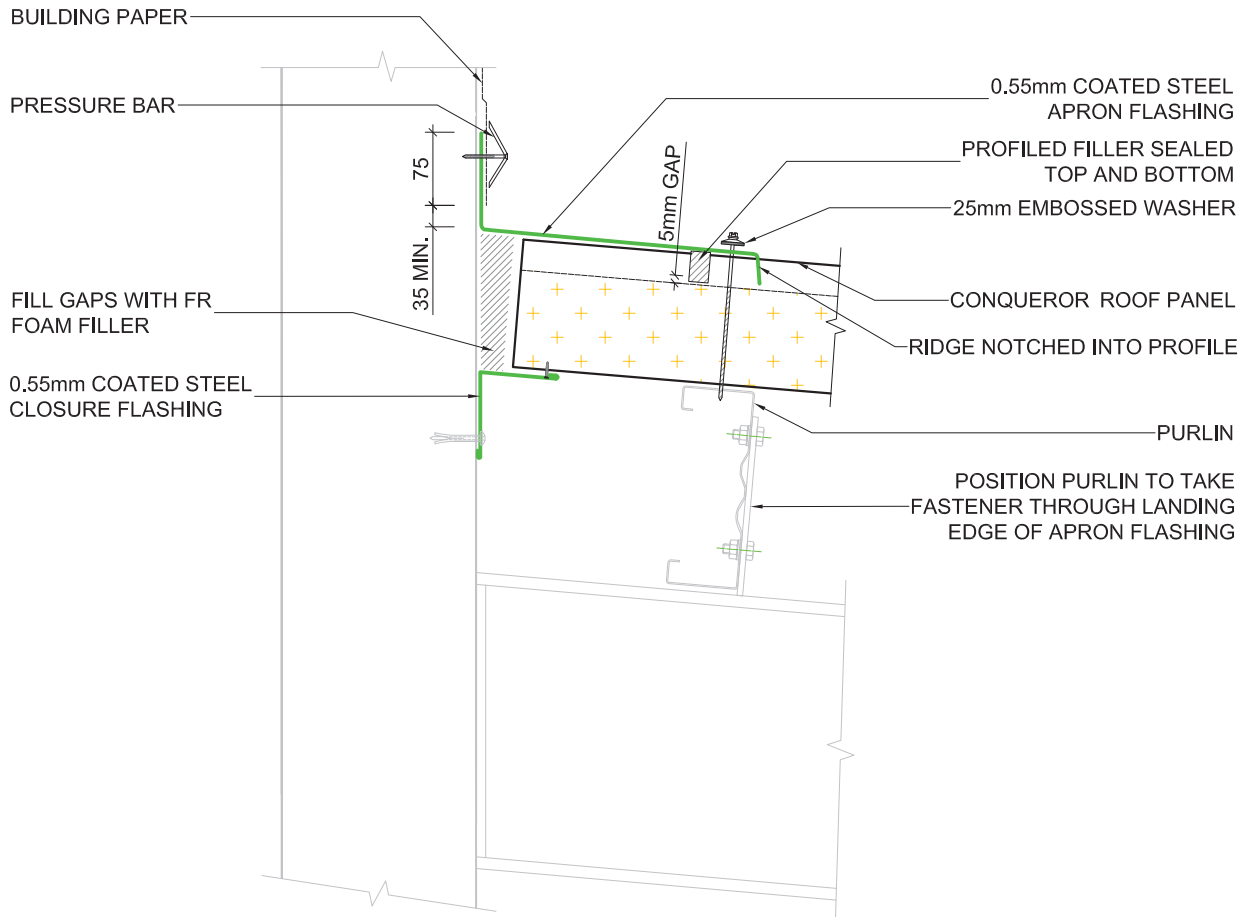


D05 INTERNAL GUTTER DETAIL



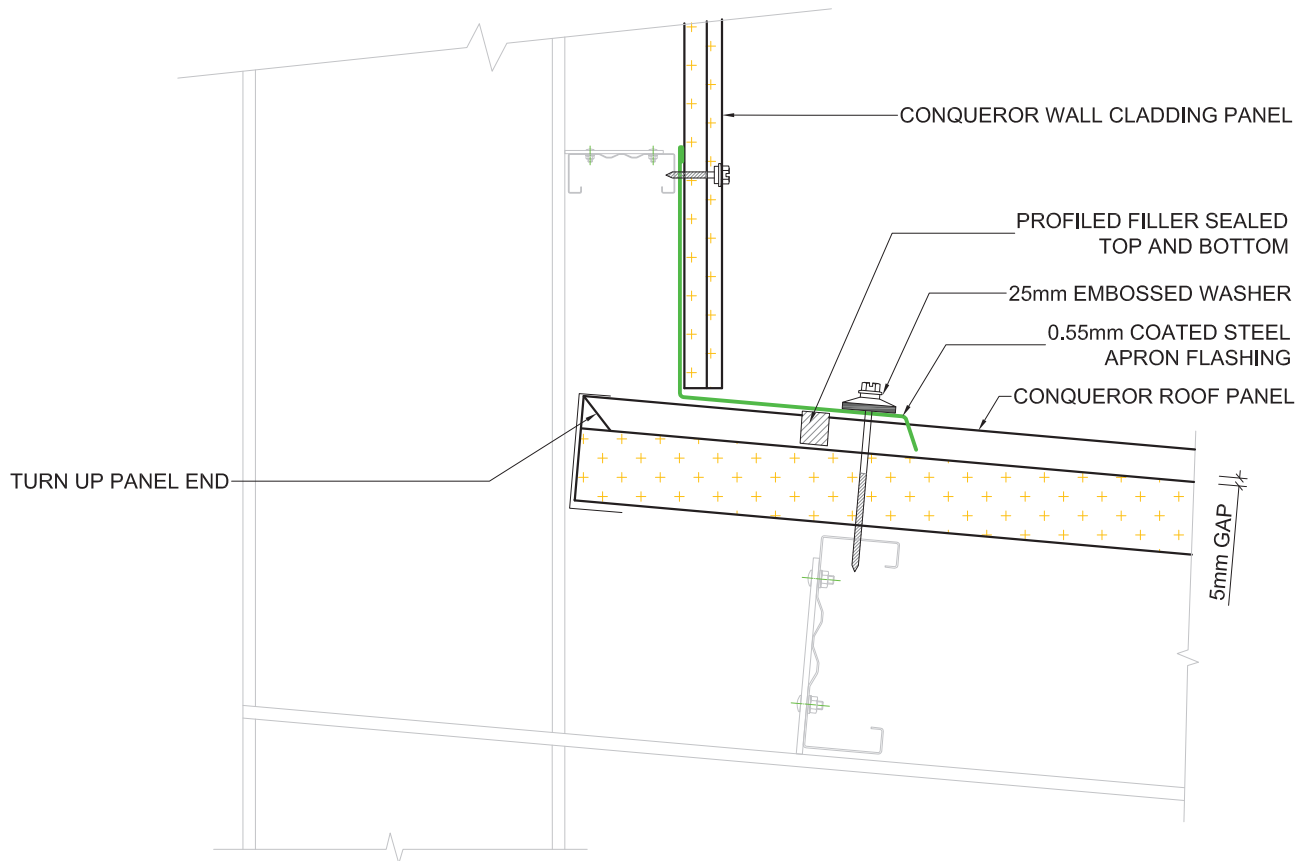
NOTE:  
ALL FLASHING SEALED WITH GUN GRADE BUTYL SEALANT

D06 HEAD APRON DETAIL



**NOTE:**  
POSITION PURLIN TO TAKE LEADING EDGE OF FLASHING

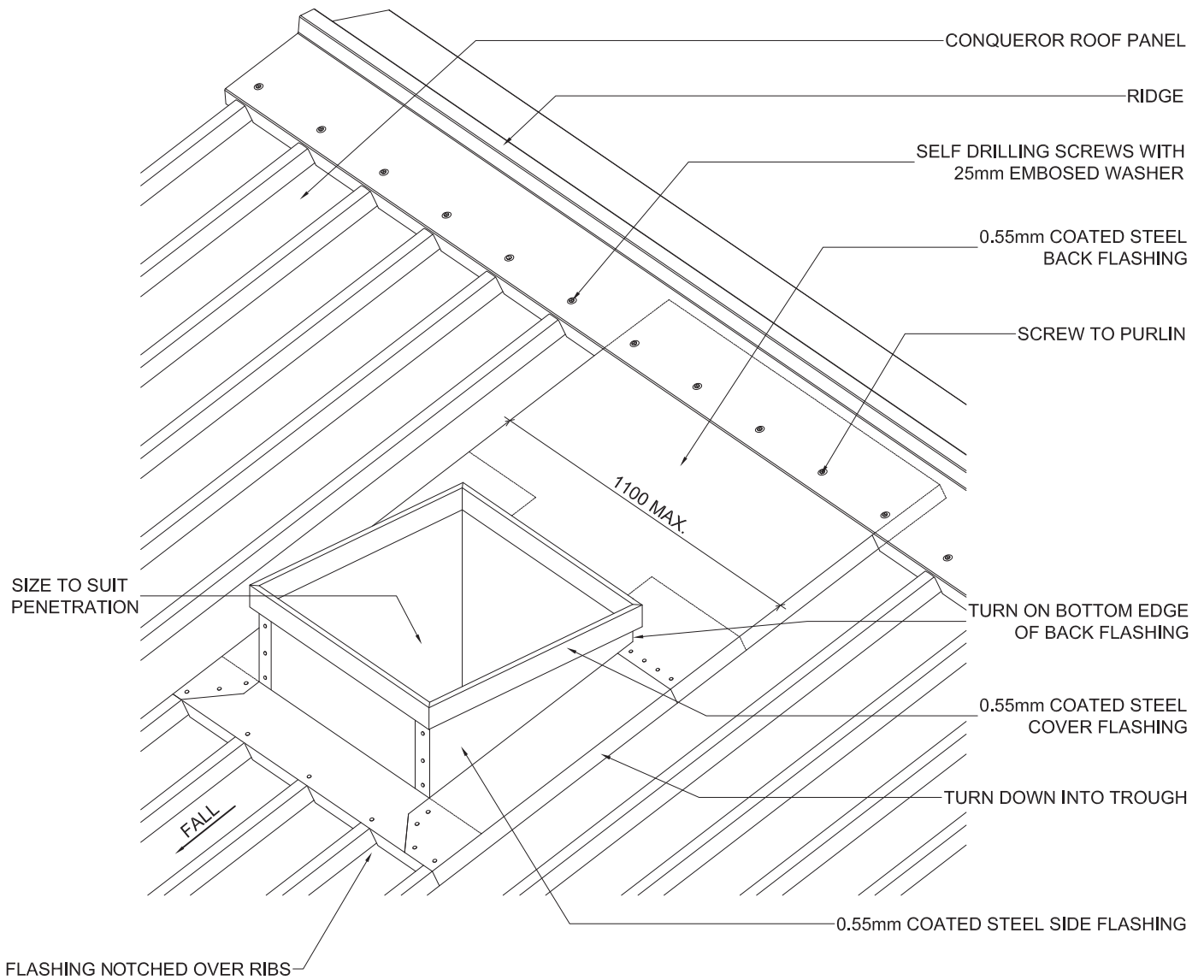
D07 ROOF TO ROOF APRON DETAIL



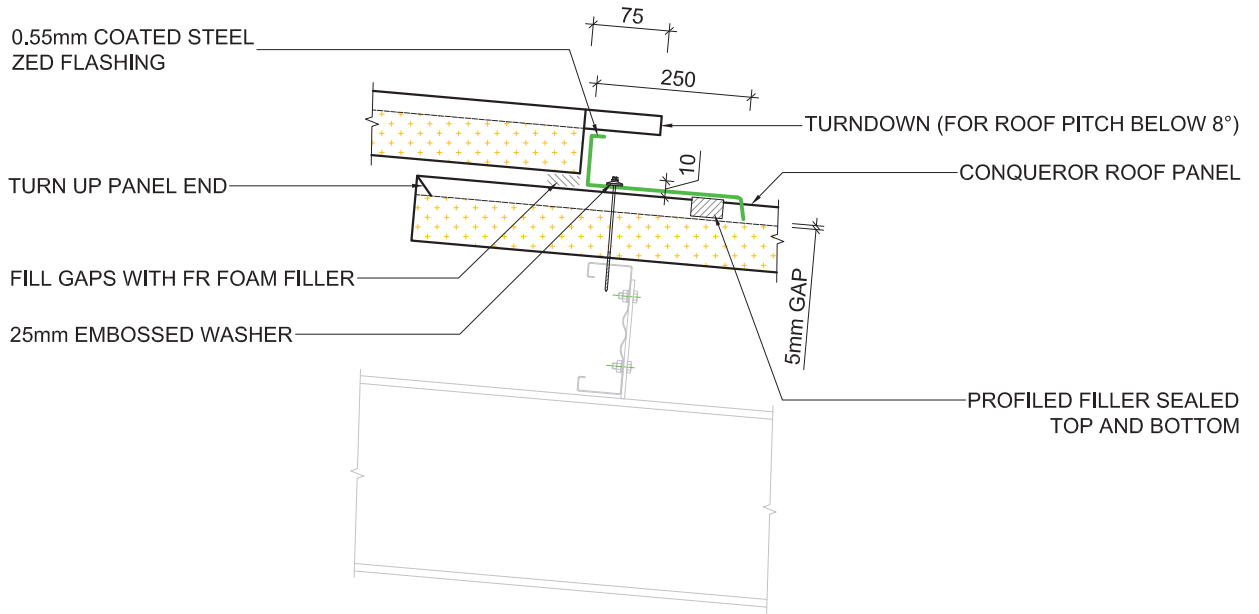
**D08 PENETRATION DETAIL SQUARE**

LAYING SEQUENCE:

1. NOTCHED APRON;
1. 0.55mm COATED STEEL SIDE FLASHING;
2. 0.55mm COATED STEEL BACK FLASHING;
3. 0.55mm COATED STEEL COVER FLASHING TO SUIT PENETRATION



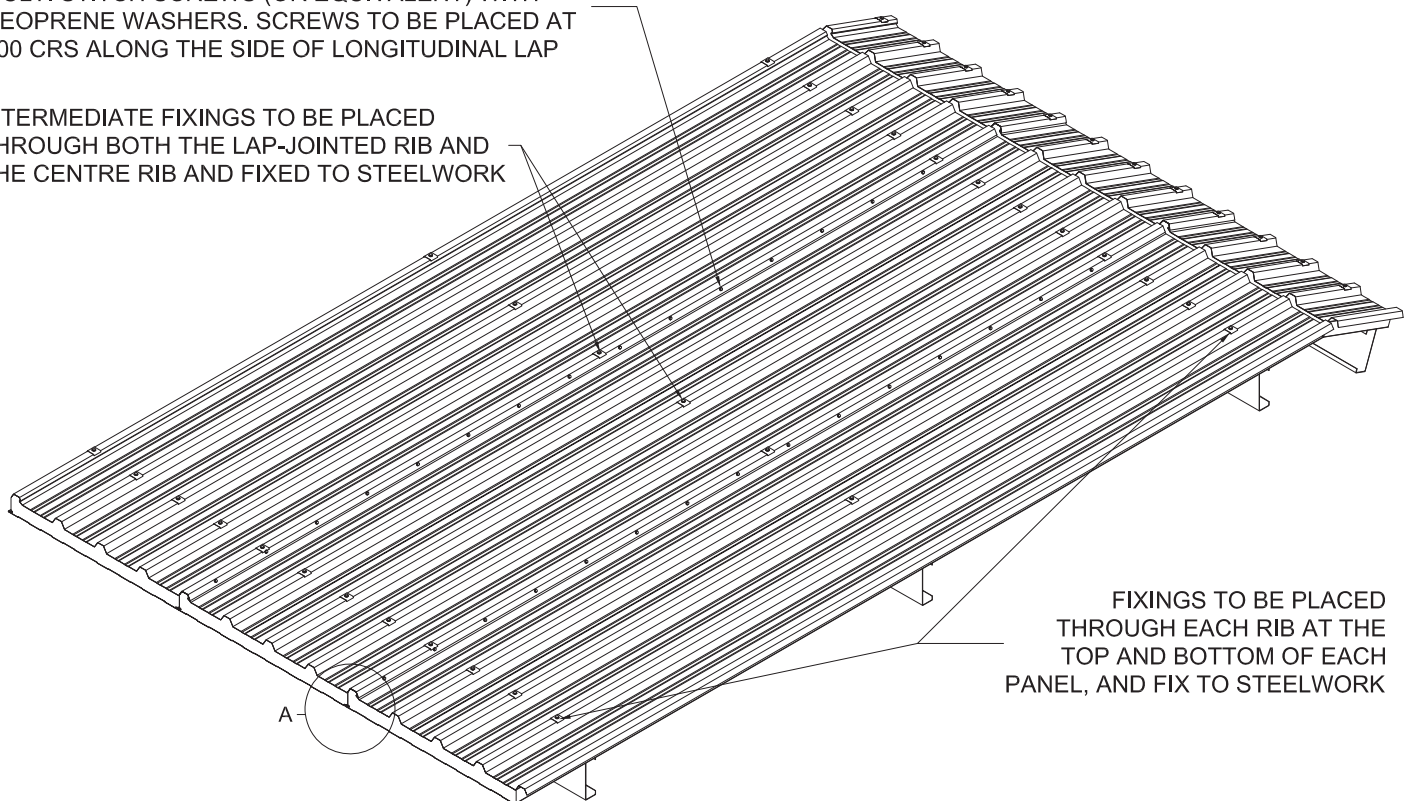
D09 ROOF STEP DETAIL



## D010 ROOF PANEL TYPICAL STEEL FIXINGS

LAP JOINS TO BE STITCHED WITH M6.3 x 22 CLASS 4 MULTI STITCH SCREWS (OR EQUIVALENT) WITH NEOPRENE WASHERS. SCREWS TO BE PLACED AT 300 CRS ALONG THE SIDE OF LONGITUDINAL LAP

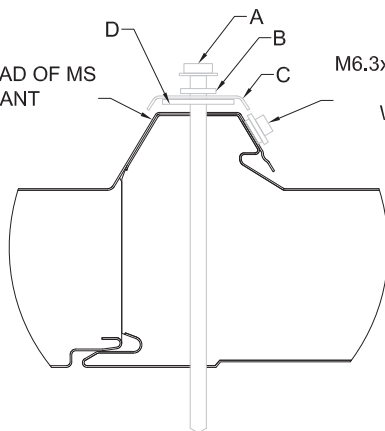
INTERMEDIATE FIXINGS TO BE PLACED THROUGH BOTH THE LAP-JOINTED RIB AND THE CENTRE RIB AND FIXED TO STEELWORK



FIXINGS TO BE PLACED THROUGH EACH RIB AT THE TOP AND BOTTOM OF EACH PANEL, AND FIX TO STEELWORK

**DETAIL "A"**

6mm CONTINUOUS BEAD OF MS CONSTRUCTION SEALANT BETWEEN LAP JOINT



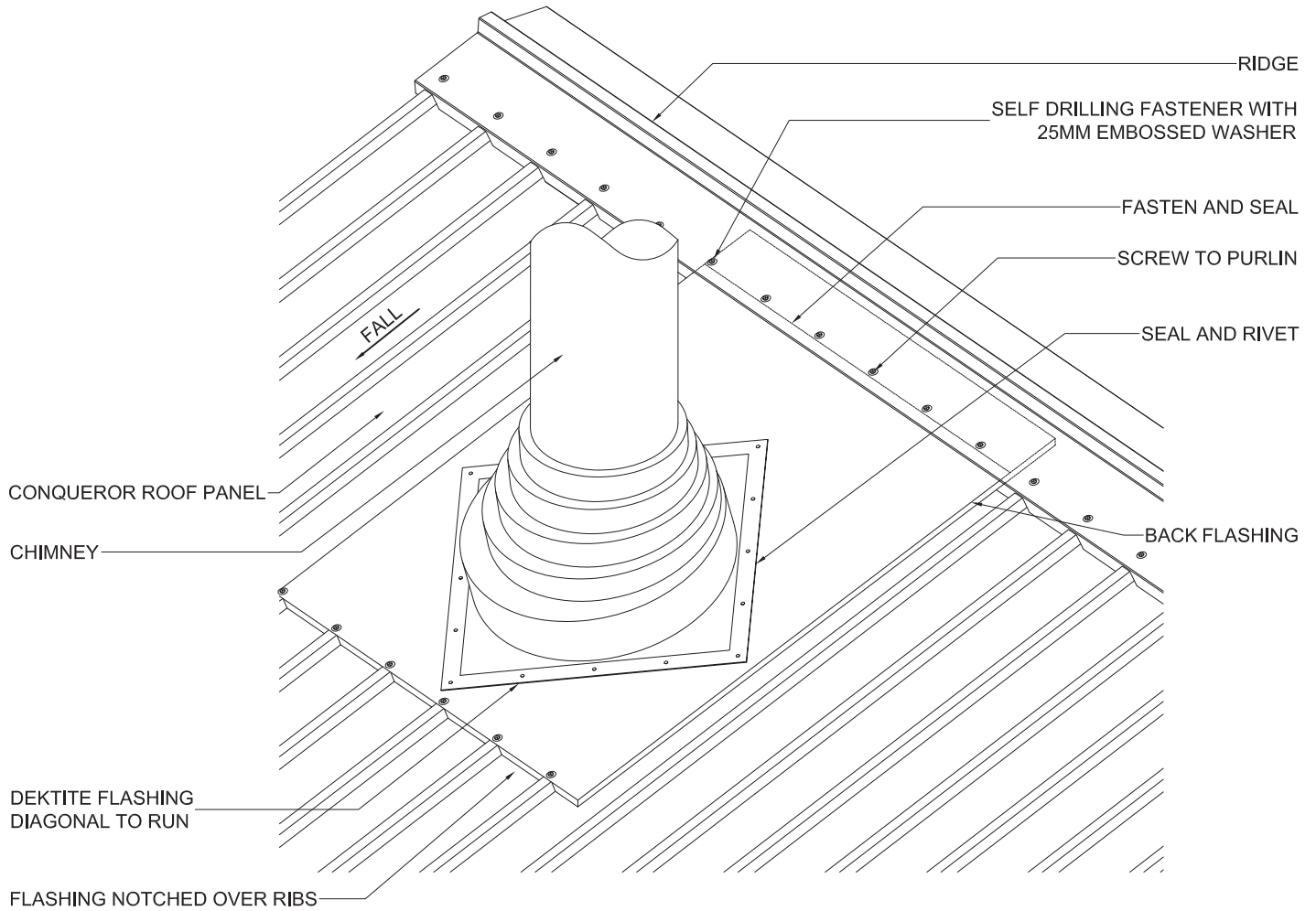
M6.3x22 CLASS 4 MULTI STITCH SCREW (OR EQUIVALENT) WITH NEOPRENE WASHER PLACED AT 300 CRS

**NOTE:**

FIXINGS TO STEELWORK TO CONSIST OF:  
 A - 14g CLASS 4 METAL SELF DRILLING SCREW\*  
 B - NEOPRENE WASHER  
 C - PROFILED LOAD SPREADING WASHER  
 D - 36mm EPDM SEALING WASHER

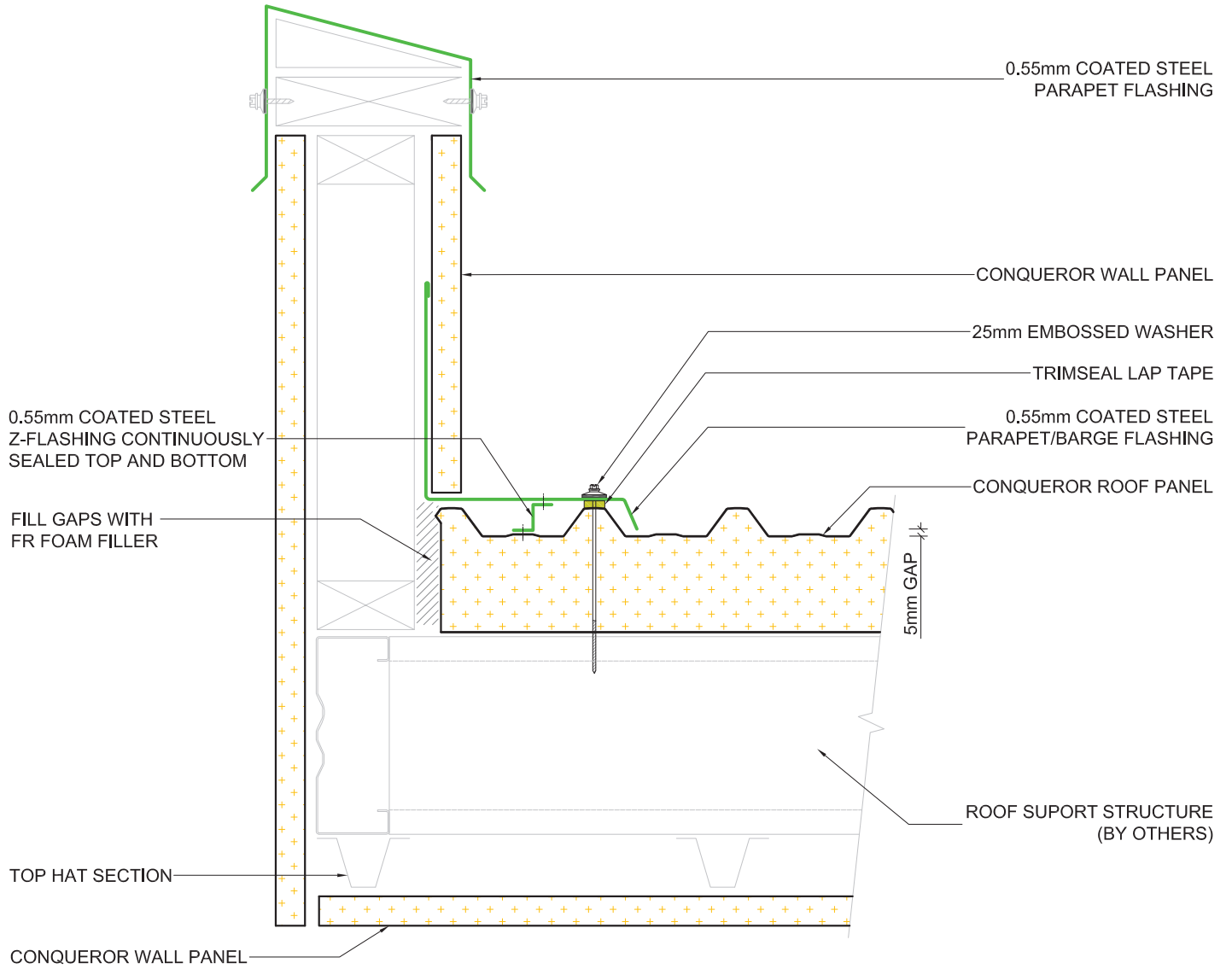
\*MINIMUM SCREW LENGTHS:  
 50mm ROOF PANEL - 110mm  
 75mm ROOF PANEL - 135mm  
 100mm ROOF PANEL - 160mm  
 150mm ROOF PANEL - 210mm

D011 PENETRATION DETAIL AROUND FLUE

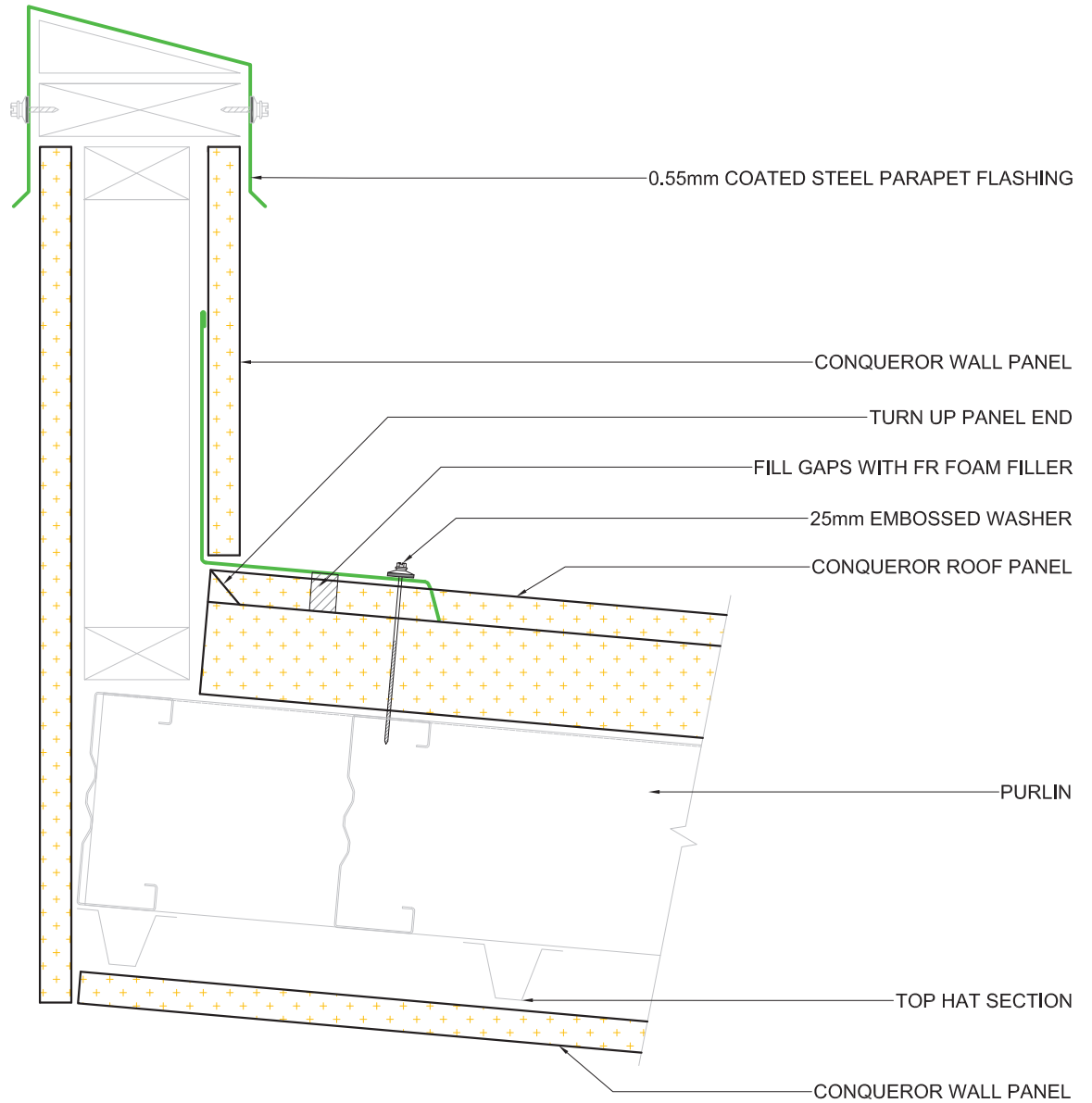




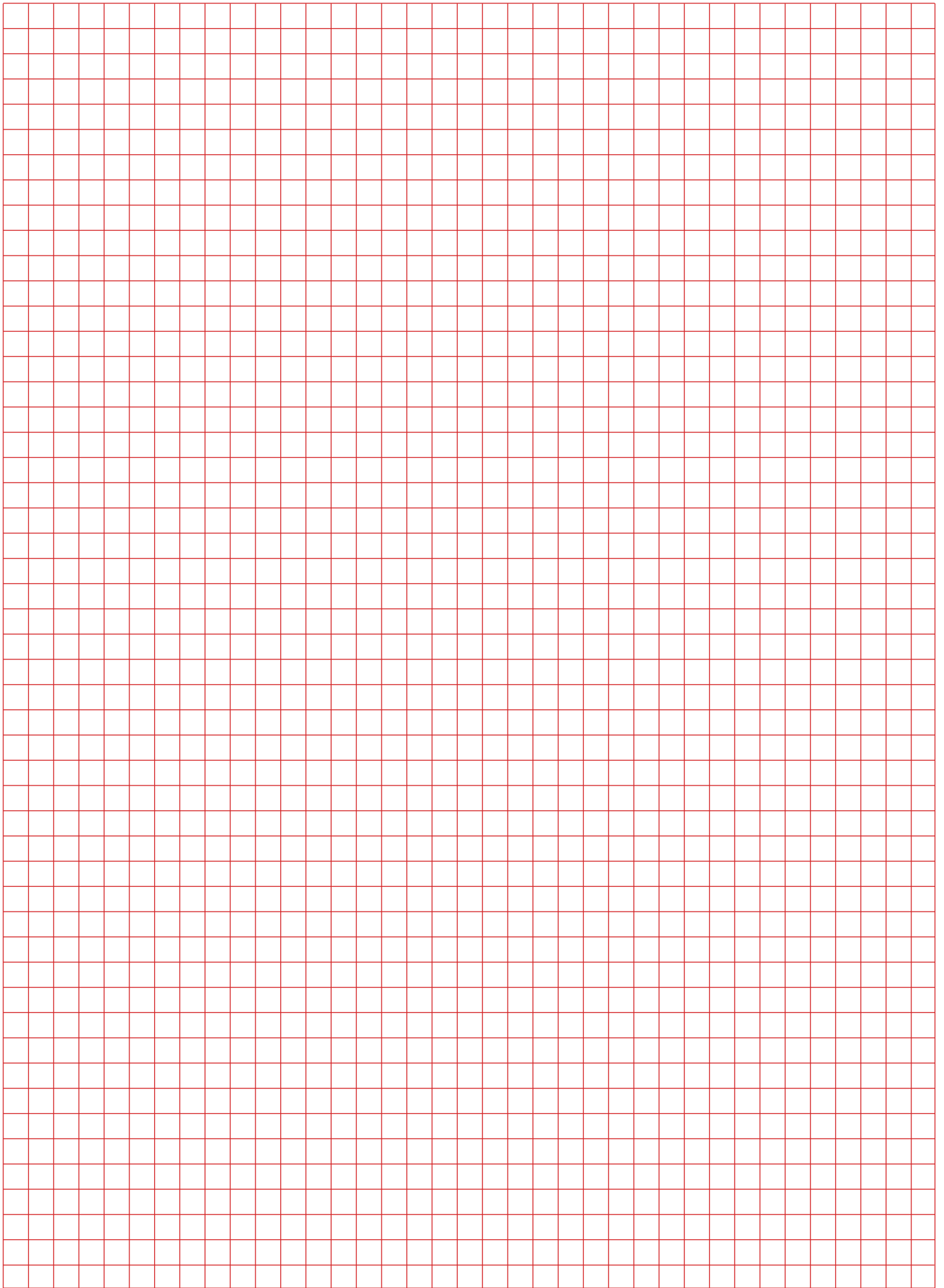
D12 PARAPET BARGE EAVE DETAIL



D13 PARAPET APEX EAVE DETAIL







# CONTACT



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