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DesignWorx
LBP.:106952



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Date Created: 02.07.2023
Date modified: 13.09.2026

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Rafters will be 290 x 45 H1.2 to fit insulation.

All **Window** dimensions on the window Schedule are Box Sizes , meaning The Trim or Frame size will be 20 mm bigger each side, a window of 1000 x 800 in the window schedule will need a framing opening of 1040 x 840 . Doors don't require 20 mm on the bottom. Windows will be UPVC windows , double glazed , lowE from NK windows, Christchurch

Cladding and roofing will be 5-rib (Roofdeck) in a darker colour on cavity with castellated battens.

Foundation is already done, and inspected Rib raft concrete foundation with polished concrete finish throughout, all services in place .

If you require updated plans or any other question, please contact me.

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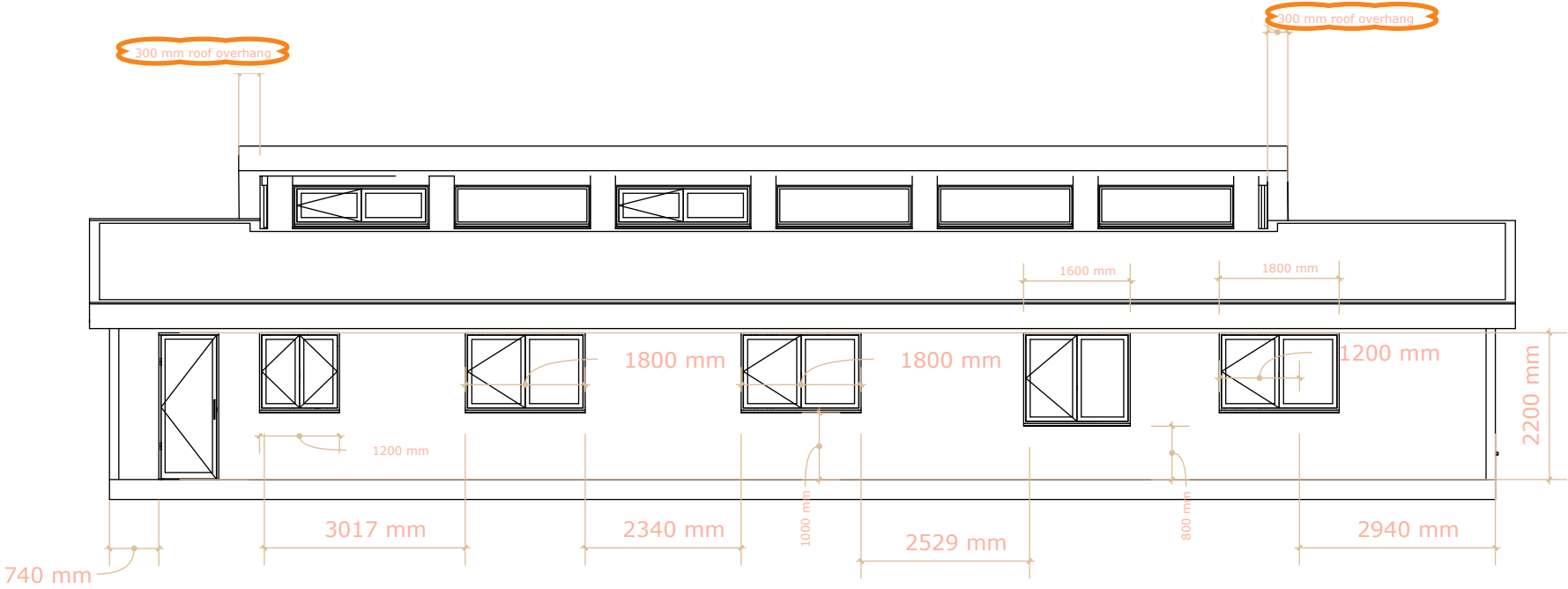
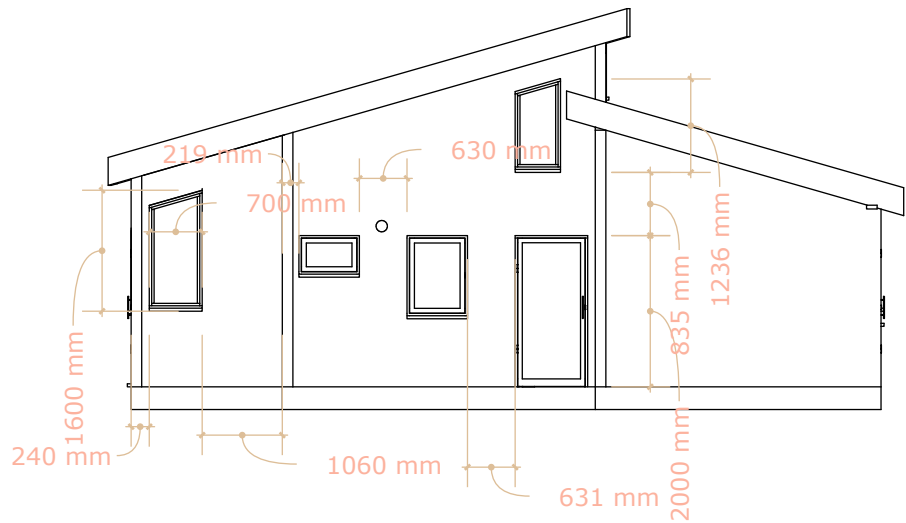
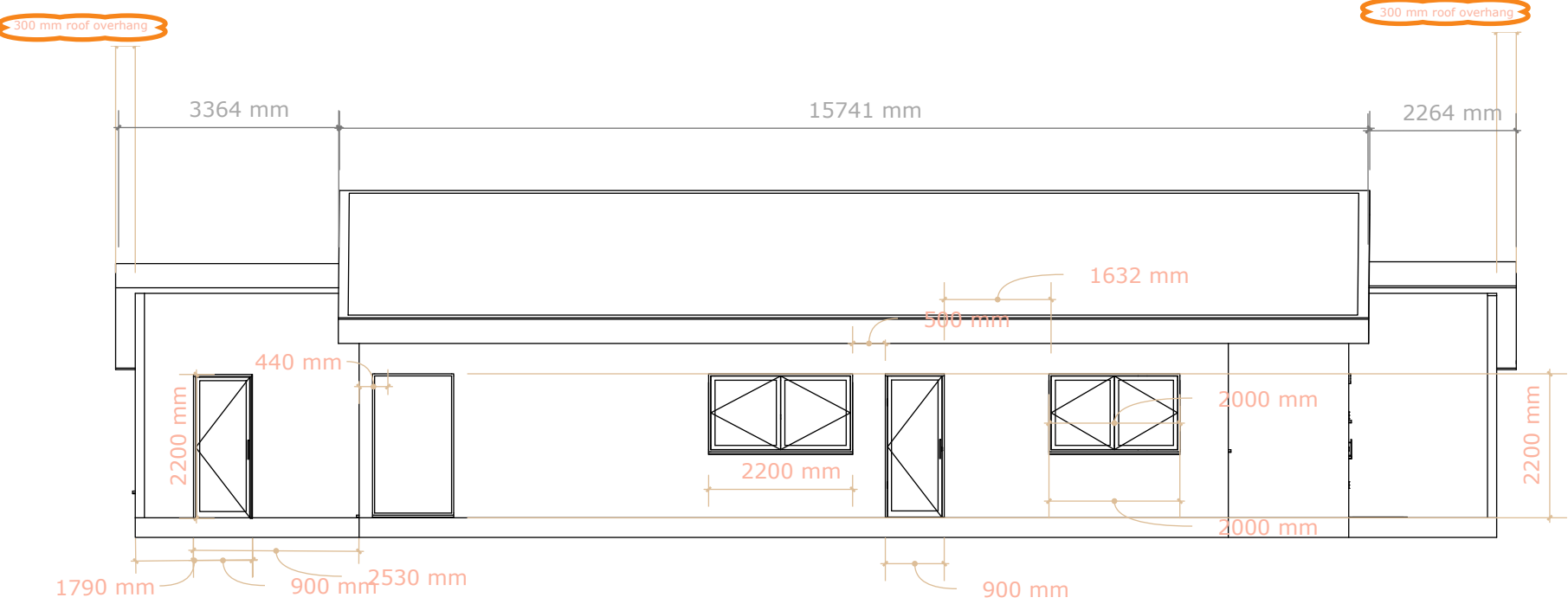
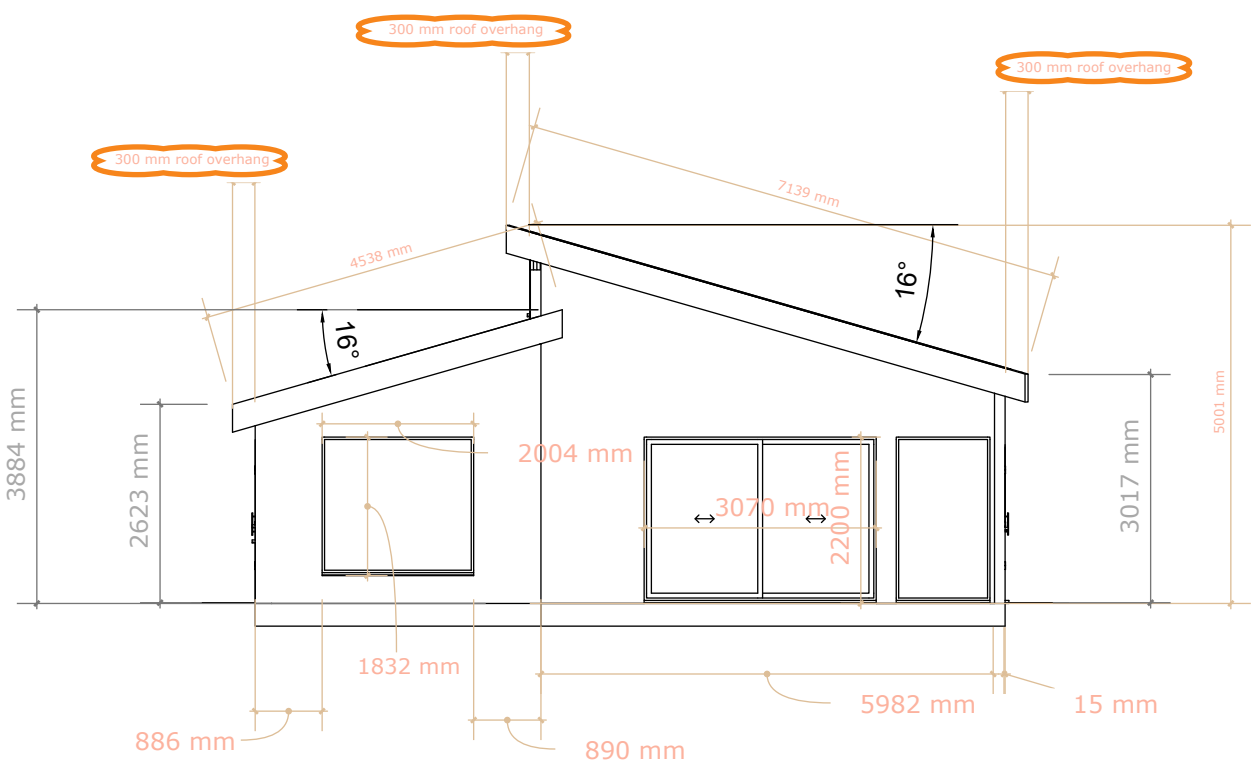
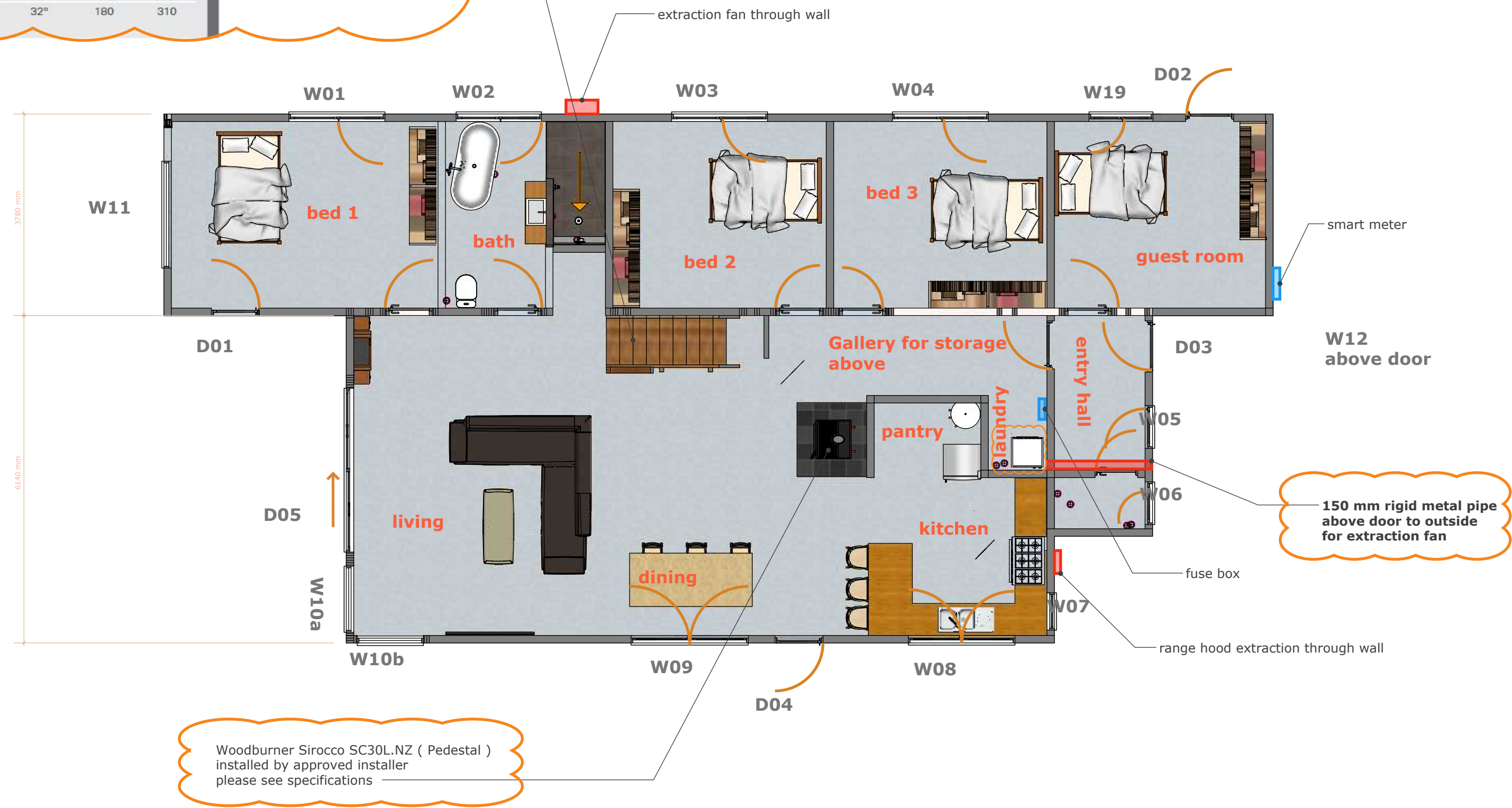


Table 6:
Design Limits for Stairs
 Paragraphs 4.1.1, 4.1.4 a), 4.4.2, 4.5.1 a)
 and Figure 17

Stair	Maximum pitch	Maximum riser height (mm)	Minimum tread (mm)
Service, minor private	47°	220	220
Secondary private	41°	200	250
Common and main private	37°	190	280
Accessible	32°	180	310

Tread 250 mm, raiser 195 mm secondary private

Floor polished concrete throughout , in wet areas finished with OSMO concrete oil (see specs)



Electrical Legend

 Extract fan ducted through ceiling space & vented through roof and/or walls where shown. Allow for power supply.
Flow rate to comply with G4/AS1:
- 50 L/s for cooktops +
- 25 L/s for showers / baths / laundry

 Wall extract grille (refer to wall penetration detail).
Ensure wall extract ducting is constructed with 100mmØ uPVC pipe.
Weatherproof external wall grille to match paint colour of wall cladding

 Extract duct from drier to exterior

 New smart meter / distribution board

 Ceiling mounted smoke alarm with 'hush' facility

 Recessed LED dimmable downlights
(zero insulation clearance required)

 Pendant lighting

 Recessed LED soffit downlight with motion sensor

 Wall mounted light. Confirm height position with client on site

 External spotlight with motion sensor

 Television (aerial / SKY dish) output

 Data socket

 Double power point (switched)
Confirm height position with client on site

 Weatherproof double power point (switched)
Confirm height position with client on site

 Heated towel rail power point

 Heated towel rail

 Location of WiFi router

 Ceiling fan

HWC Rheem Optima mains pressure electric hot water cylinder
293 litres - 2x2kW 91330025 - with hot water diverter

Power points shown in indicative locations, final numbers & positions to be confirmed with electrical contractor on site.

Proposed ceiling fittings may clash with exposed roof beams

Confirm number of power points to kitchen area with client
(above and below bench)

Allow to install dedicated power outlets to gas cooktops, fridge, hobs, oven, kitchen extract, microwave, washing machine / dryer (if not shown).

Kitchen extract to have power for in line extract fan in ceiling space to serve extract hood. Install remote wall switch.

Confirm all electrical fittings colours, materials, model type etc with client prior to ordering

Kitchen Fittings

Sink Stainless steel sink

Hobs / Oven Client selected gas hobs + electric oven

Kitchen Finishes

Walls Polyurethane sealer coat to timber walls (3x coats)

Kitchen Bench High pressure laminate bench top

Bench Splashback Client selected splashback
(tiles or brushed stainless steel)

Kitchen Joinery Low pressure laminate to all kitchen joinery doors / drawers / shelves

Hob Splashback Brushed stainless steel plate screwed + glued to timber wall up to extract hood above. Extend 200mm min. past each side of hobs

Bathroom Fittings

Shower Slide Confirm with client

Shower Mixer Confirm with client

Vanity Confirm with client

WC Confirm with client

Heater Client selected fan heater

Extractor Fan High level Venter ceiling extractor fan ducted to exterior over shower.

All fittings sealed to wall with MS Sikaflex sealant to fitting / wall junction

Bathroom Finishes (Laundry finishes similar)

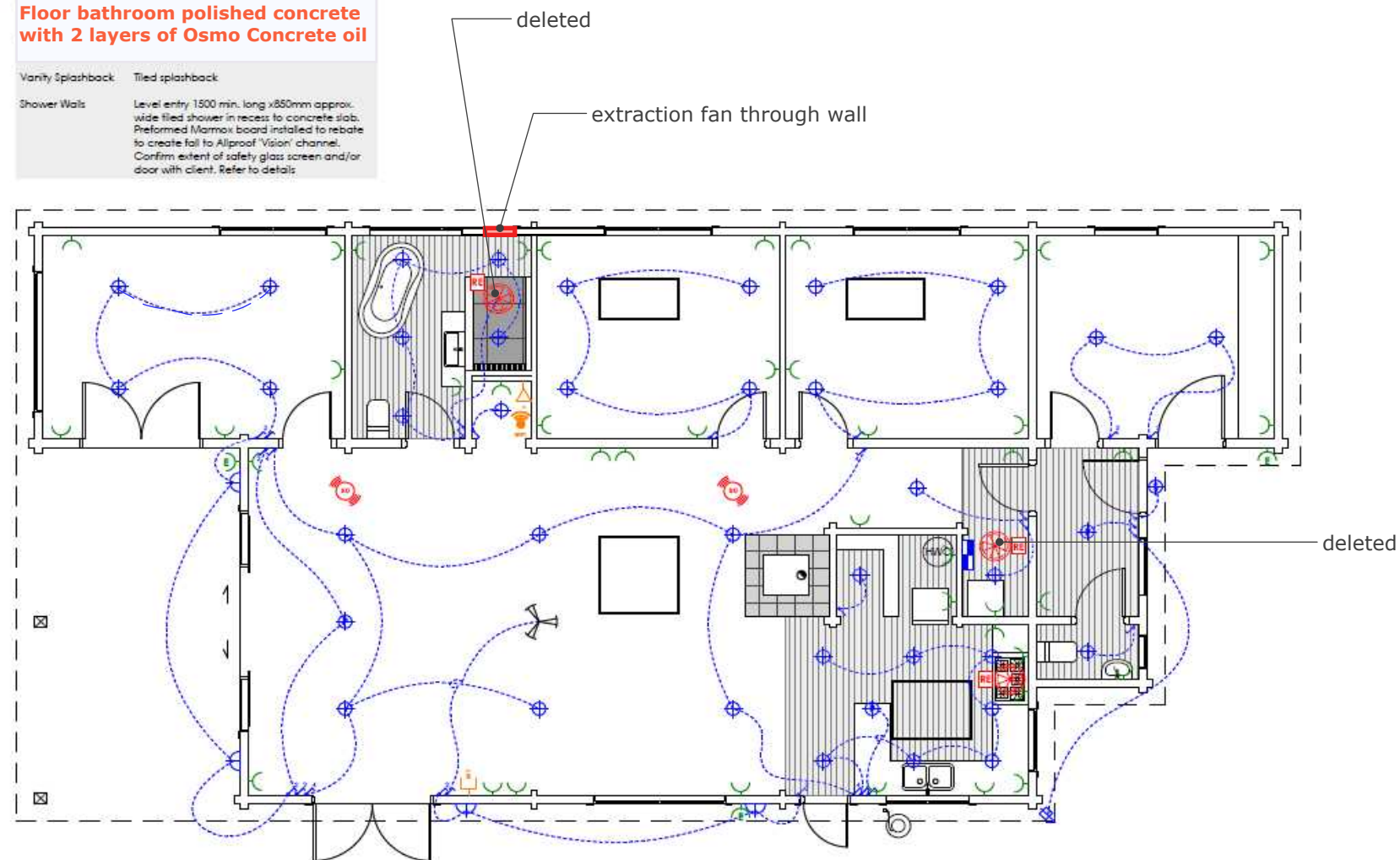
Floor bathroom polished concrete with 2 layers of Osmo Concrete oil

Vanity Splashback Tiled splashback

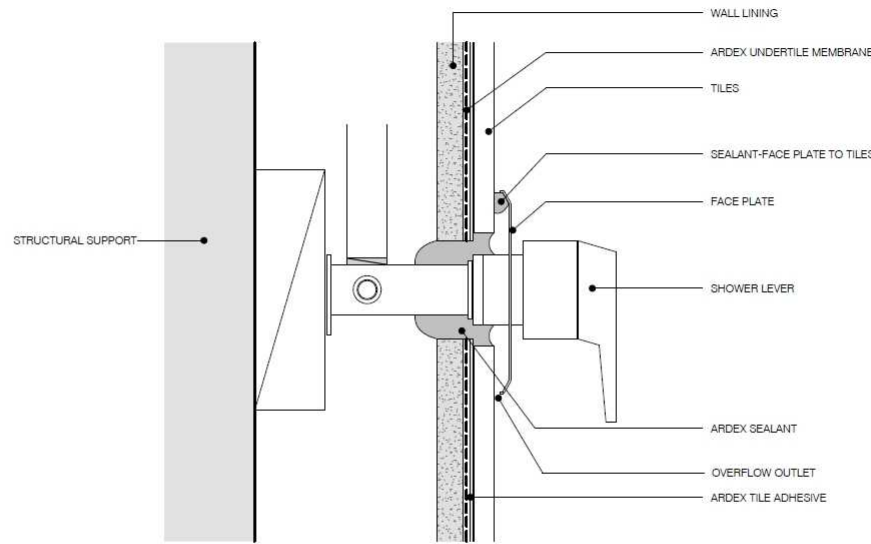
Shower Walls Level entry 1500 min. long x850mm approx. wide tiled shower in recess to concrete slab. Preformed Marmax board installed to rebate to create fall to Allproof 'Vision' channel. Confirm extent of safety glass screen and/or door with client. Refer to details

Kitchen / Bathroom / Laundry / WC flooring

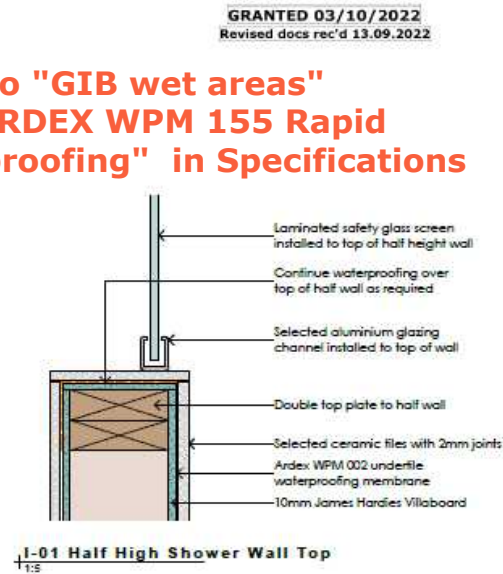
Floor bathroom polished concrete with 2 layers of Osmo Concrete oil



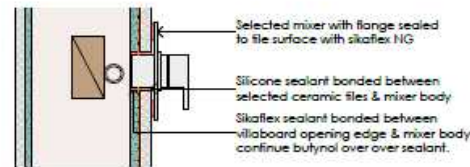
Electrical + Finishes Plan
1:50



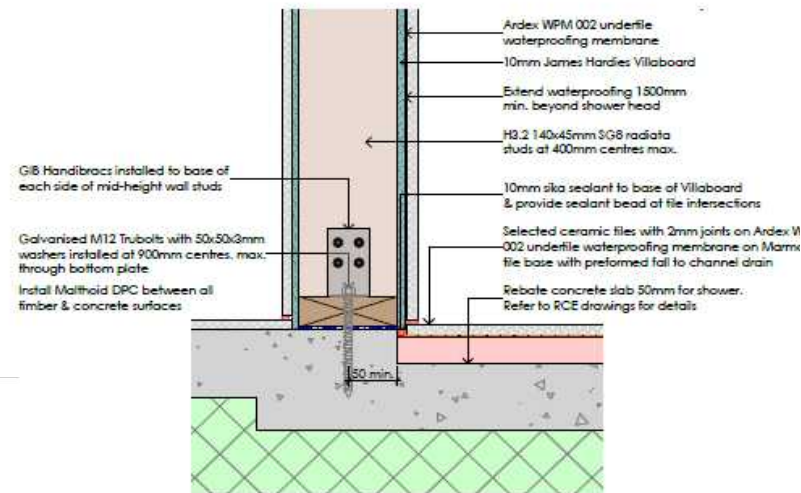
see also "GIB wet areas"
and "ARDEX WPM 155 Rapid
waterproofing" in Specifications



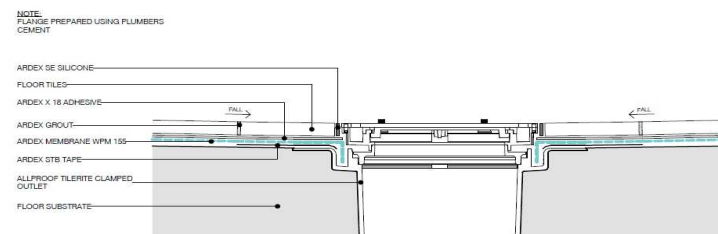
I-01 Half High Shower Wall Top



I-02 Half High Shower Wall Penetration



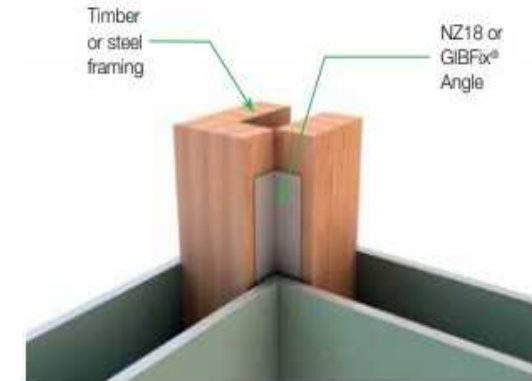
I-03 Shower Base / Half High Wall Junction



WET AREA WATERPROOFING TYPICAL MEMBRANE TERMINATION AT DRAINAGE FLANGE

METAL ANGLES FOR TILED INTERNAL CORNERS

- Prior to lining in tiled areas (shower cubicles and shower over bath only) the internal corners shall be reinforced with a minimum 32 x 32 x 0.55mm galvanised metal angle.
- Suitable GIB® metal angle options include:
 - GIB® Rondo® NZ18 metal angle, available length: 3.0m
 - GIBFix® Angle metal angle, available lengths: 2.4m and 2.7m
- Angles need to be temporarily held in place until secured by the lining fixings
- Minimum height of the metal angle is 1800mm



WATERPROOF MEMBRANE SYSTEMS

A waterproof membrane system must be applied to all lining materials used as a substrate for ceramic tiles in a shower or shower over a bath application, or any other tiled application exposed to frequent water splash.

For further information see p10.

TILES AND TILE WEIGHTS

In areas likely to be directly exposed to water, tiles may be ceramic, porcelain or stone must comply with the over-surface finish requirements of the IWAM Code of Practice and be bedded with a suitable tile adhesive on the waterproof membrane system. See page 10 for the minimum extent of wall surfaces requiring impervious sheet materials or waterproof membrane systems prior to tiling.

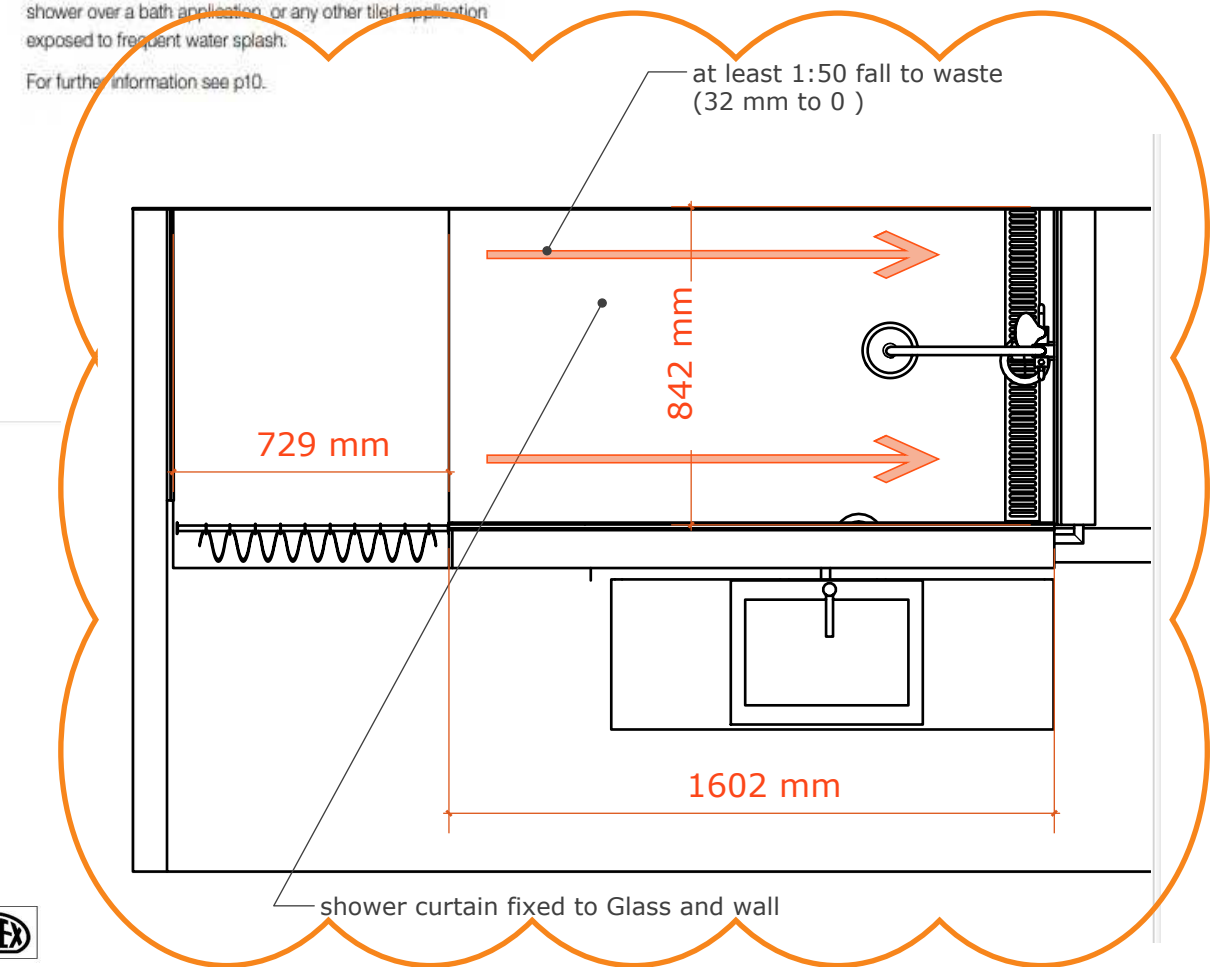
Smaller mosaic tiles are often lighter, but the integrity of grout joints might be more prone to impact, whilst heavier tiles are larger and have less and deeper grout and sealant joints. For more information also see AS 3958:2007 Ceramic tiles – Guide to the installation of ceramic tiles.

Table 2: Recommended maximum tile weights

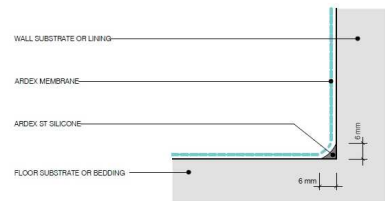
Maximum Tile Weights for GIB Aqualine®, GIB Toughline® Aqua or GIB Weatherline®			
Stud Centre (maximum)	Fasteners Centre (maximum)	Lining Thickness	Tile Weight
600mm maximum	150mm maximum	10mm	26kg/m²
		13mm	40kg/m²

ADHESIVE AND GROUT WEIGHTS

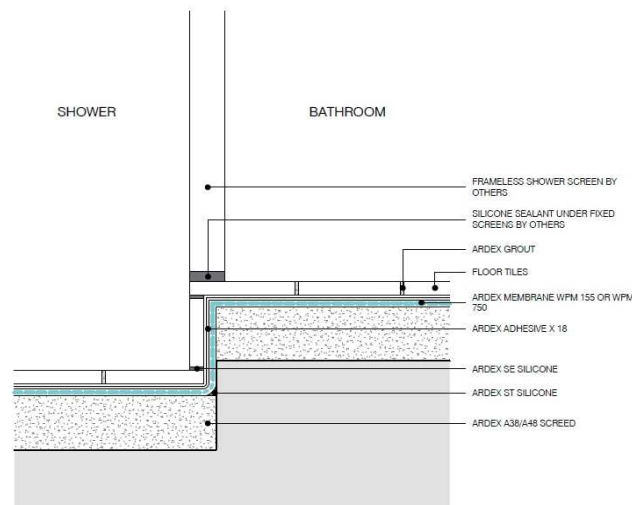
The weight of adhesive and grout can vary depending on the type of tile and the installation process used. The maximum tile weights stated in table 2 are conservative and refer to the tile weight excluding grout and adhesive used. An additional 3kg/m² has been factored into tile adhesion testing on top of the above stated tile weights to account for adhesive and grout weight used during the installation of the tile.



WET AREA WATERPROOFING TYPICAL SHOWER MIXER USING SEALANT



WET AREA WATERPROOFING BOND BREAKER - CLASS 3 MEMBRANE



WET AREA WATERPROOFING UNENCLOSED SHOWER - MEMBRANE BELOW TILE BED

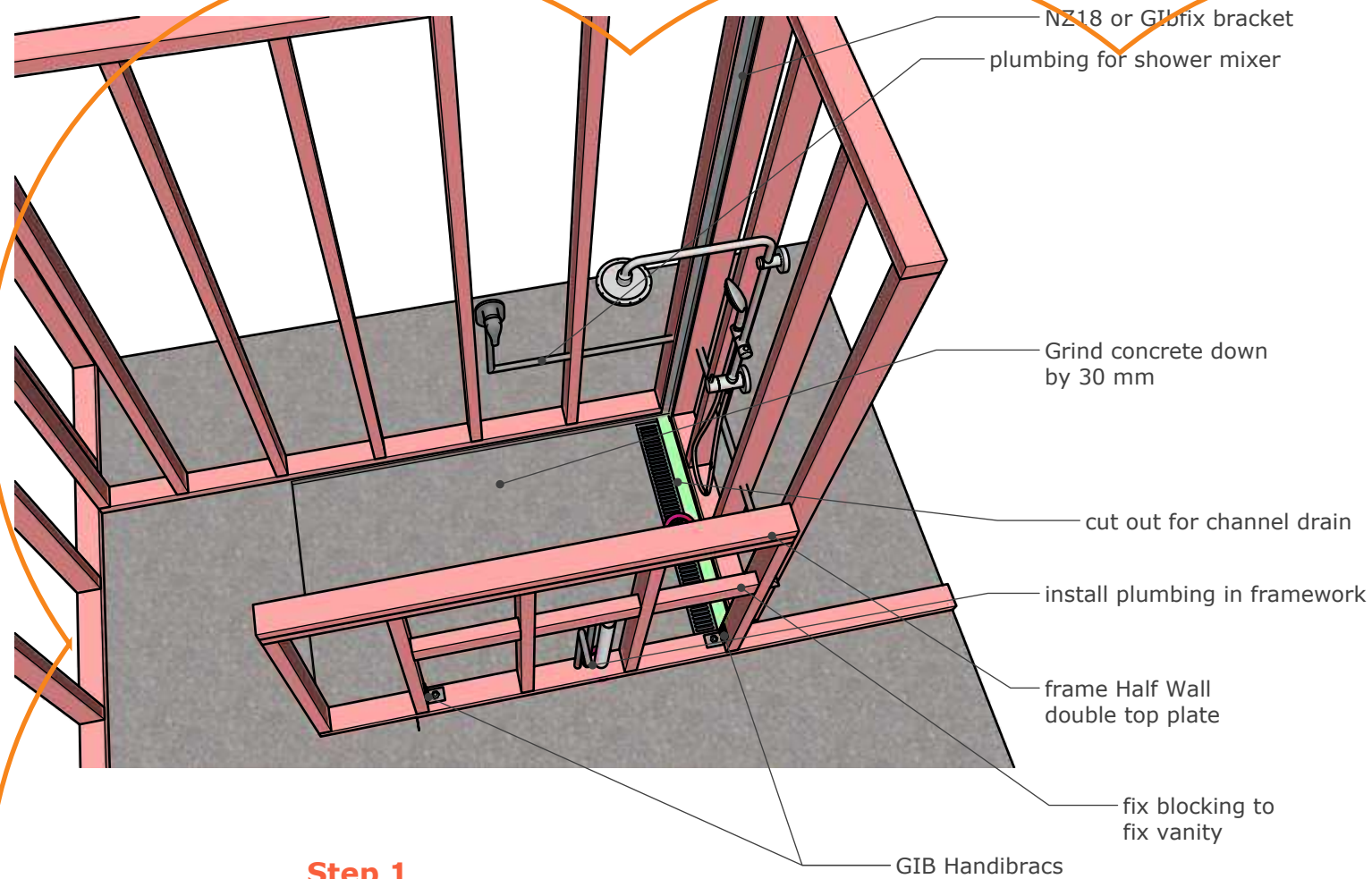


DesignWorx

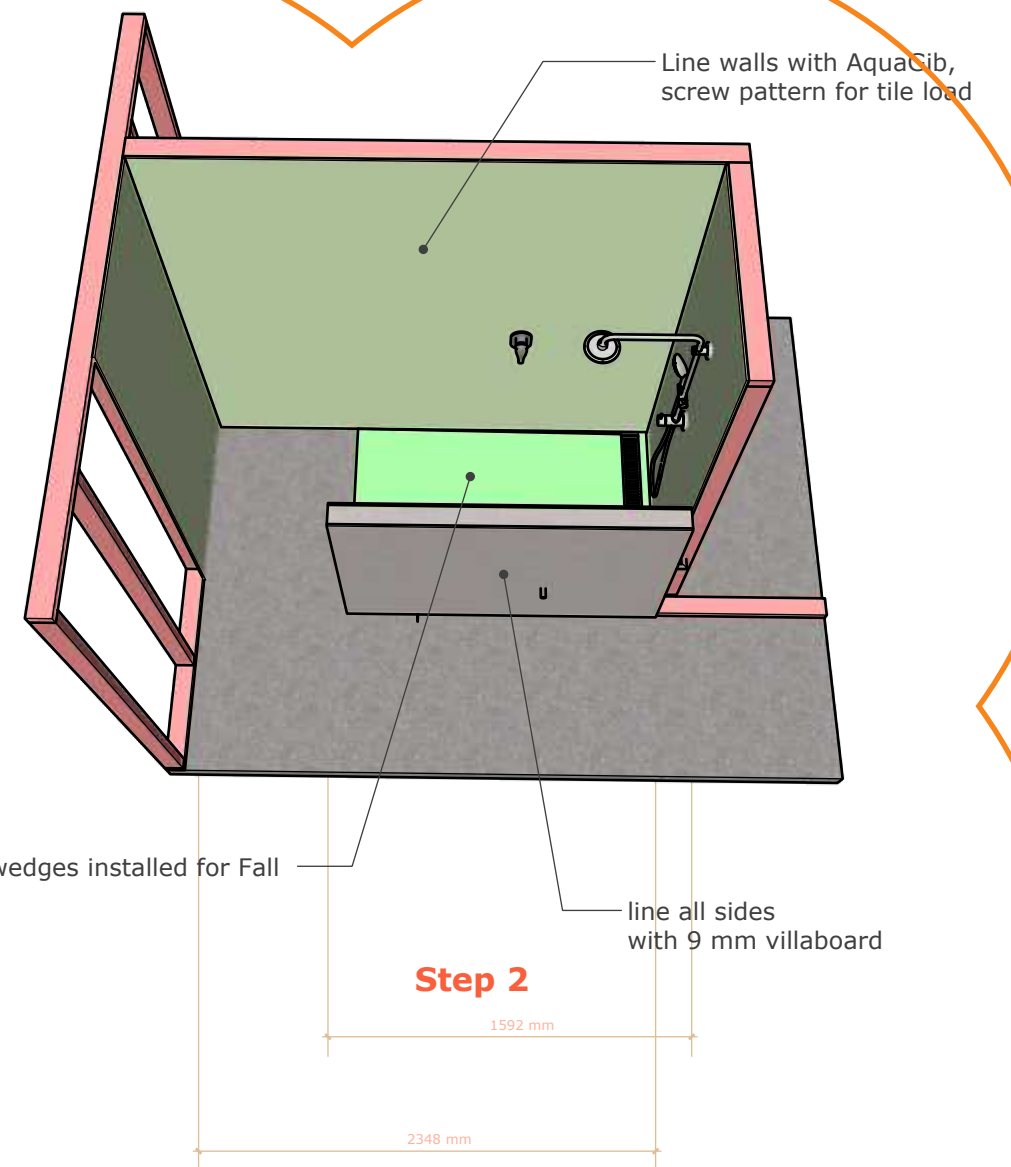
Date Created: 02.07.2023
Date modified: 13.09.2026

shower details

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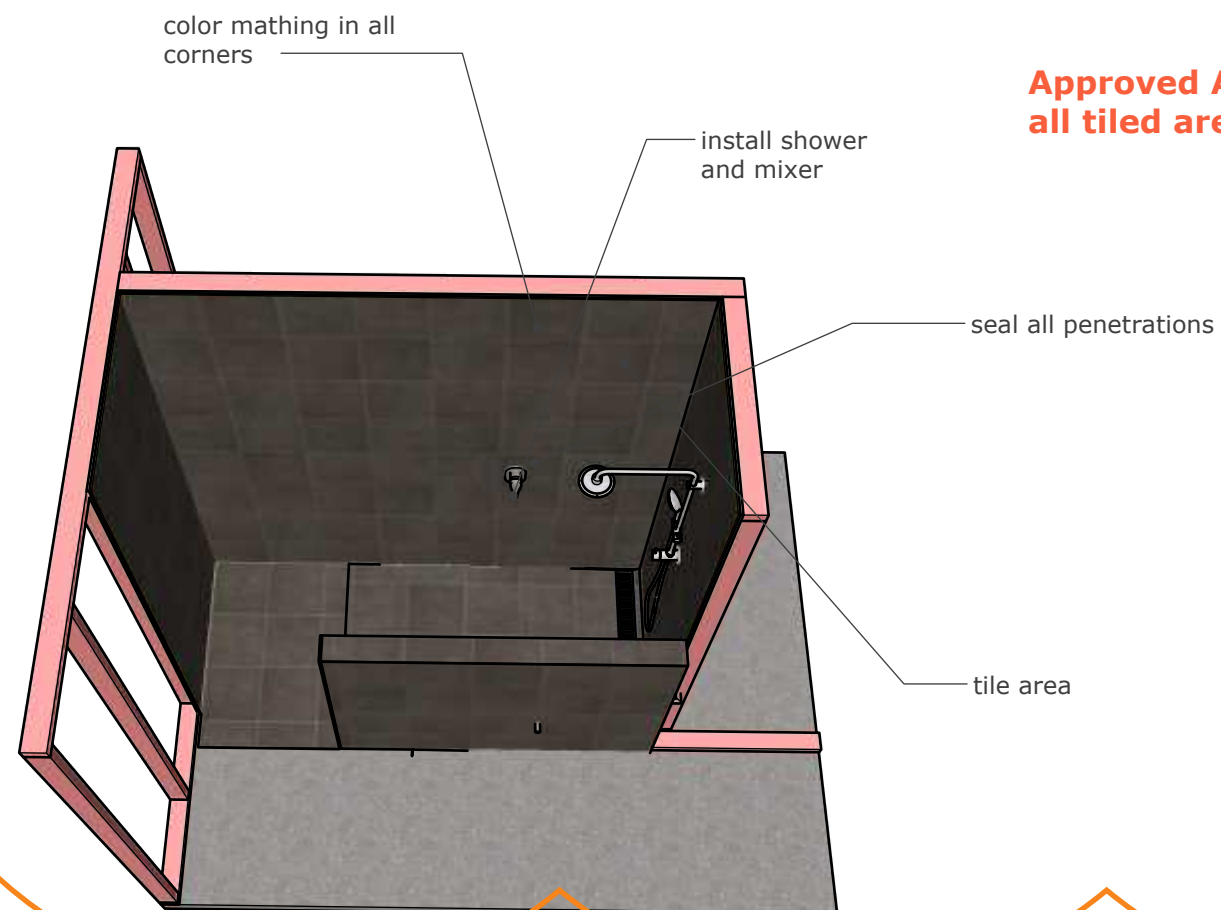
Step 1



Step 2

Step 3

Approved ARDEX Installer to waterproof all tiled area with ARDEX WPM 155 System

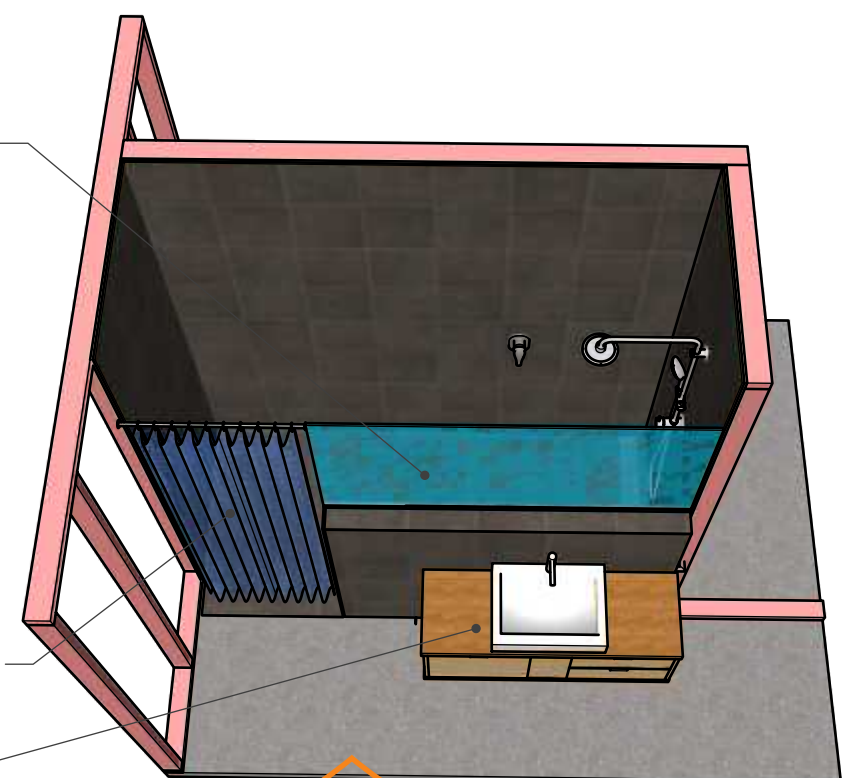


Step 4

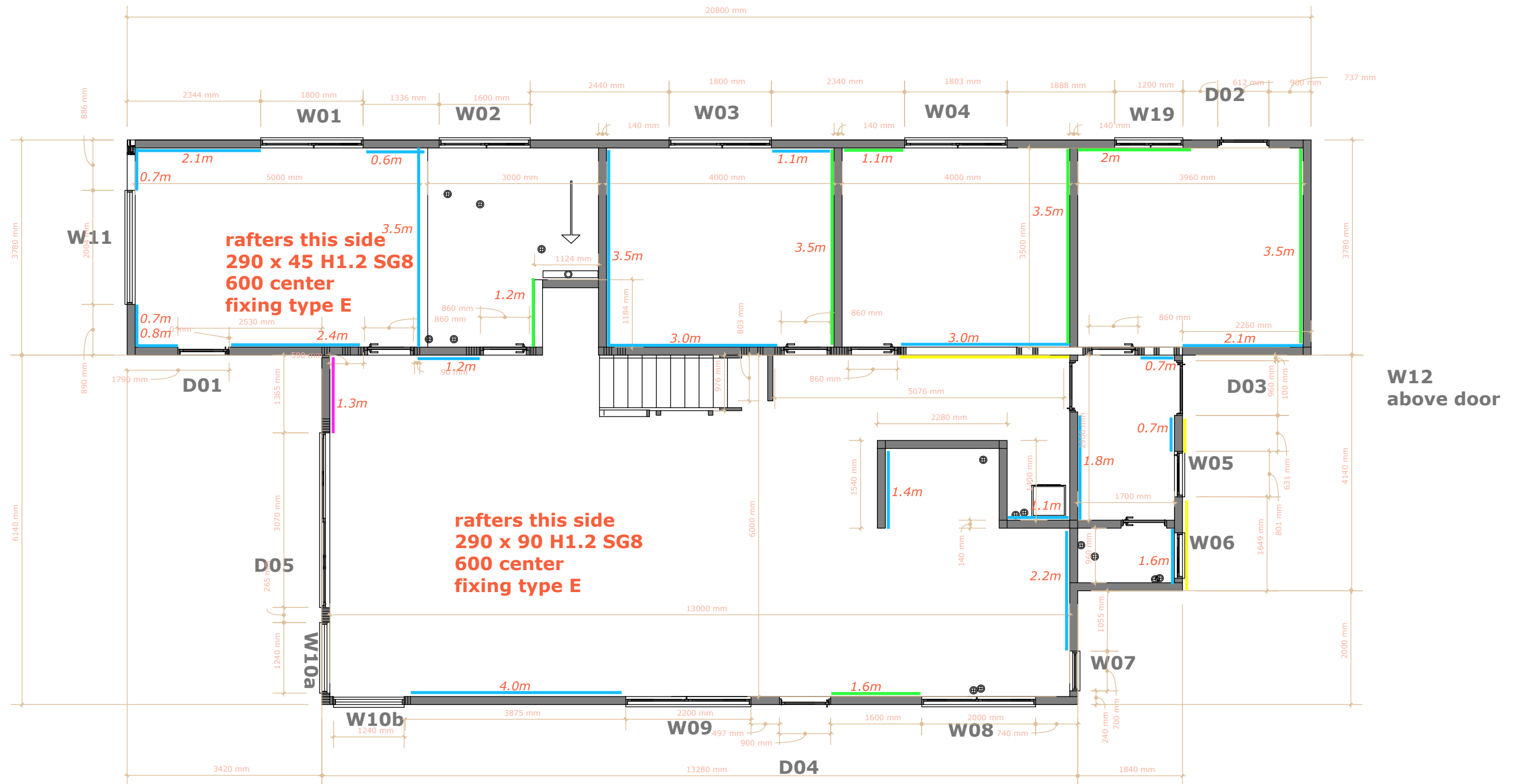
install Glass panel (10 mm toughened) in Aluminium channel on silicon bead

shower curtain, pole fixed to wall and Glass panel

install vanity and plumb



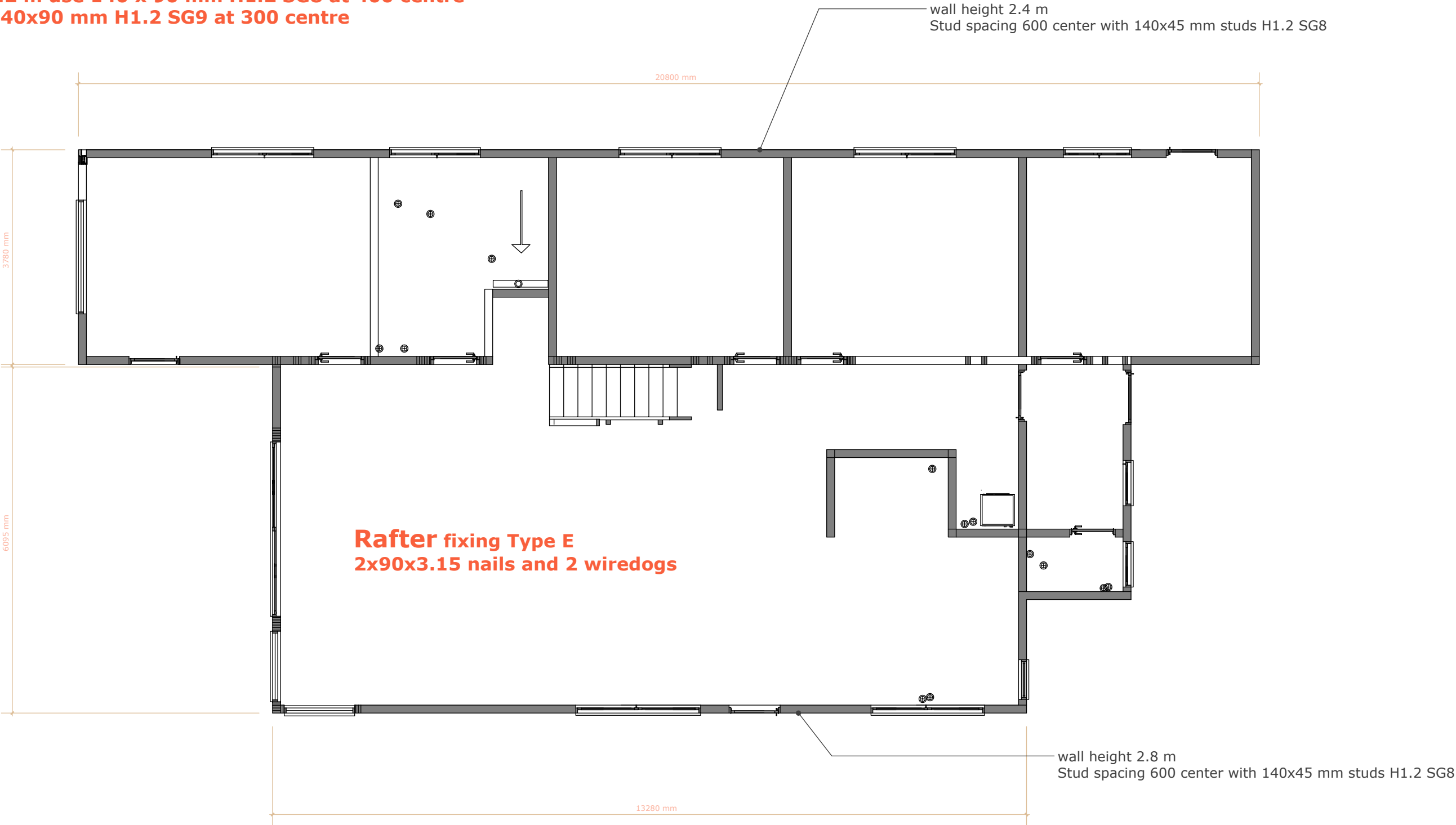
Step 5



Wall underlay watergate plus
roof underlay covertec 403
DPM under bottom plate Supercourse 500

Studs shall be spaced 600 center when less than 3m,
over 3 m up to 4.2 m use 140 x 90 mm H1.2 SG8 at 400 centre
over 4.2 m use 140x90 mm H1.2 SG9 at 300 centre

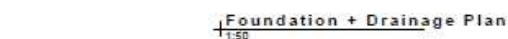
Bottom plate fixing 900 mm center 7kN BOWMAC screw bolt (refer to specifications)
Top plate fixing Studlock SL (2@ SL125 Studlock screws to each stud)
Lintel fixings Type H for lintels min.190 mm (6xStudlock SL170)
Type G for lintel min. 140 mm (4xStudlock SL125)
Trimmer fixed with Studlock SL80 (refer to details in specifications)

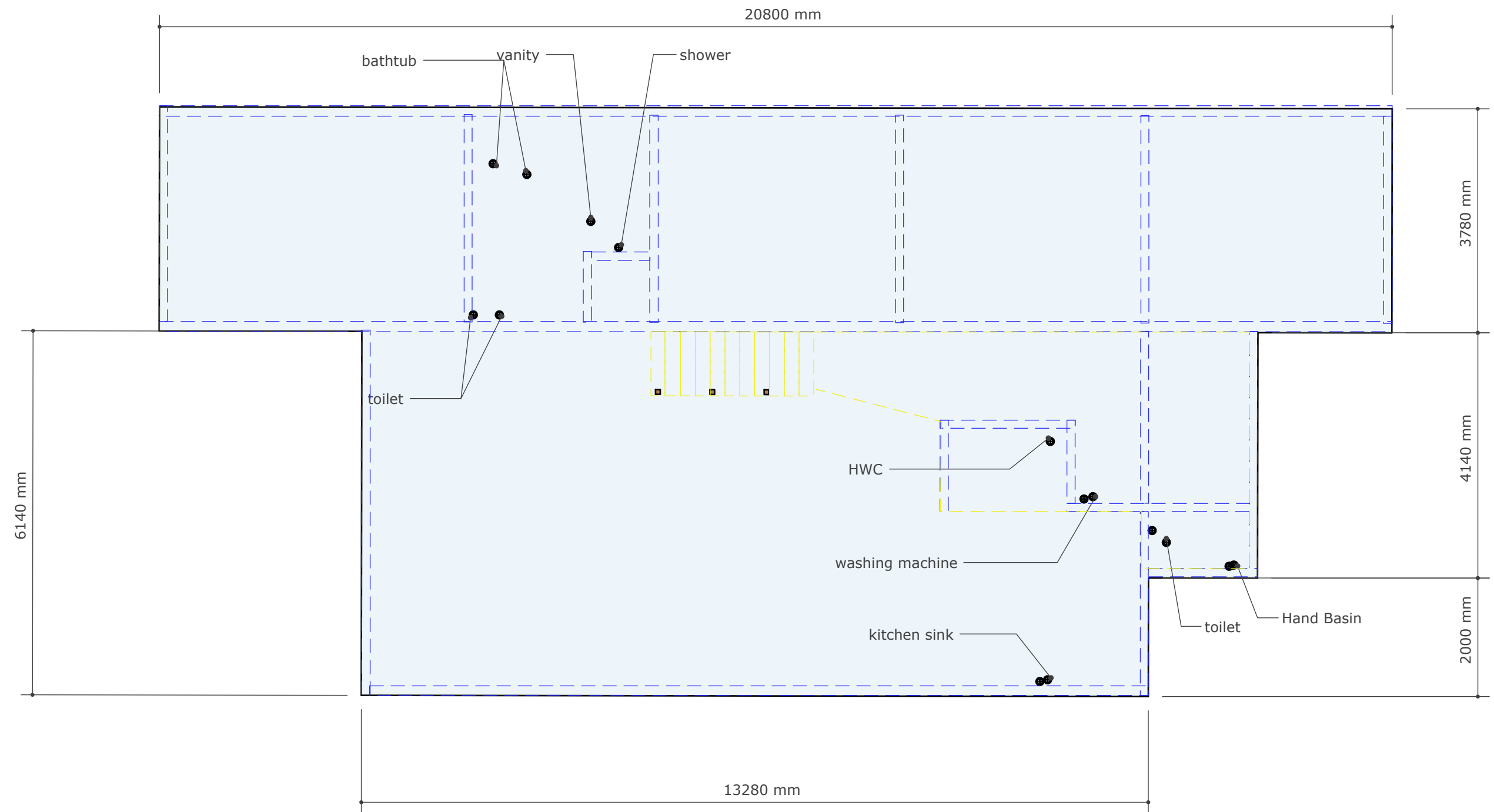


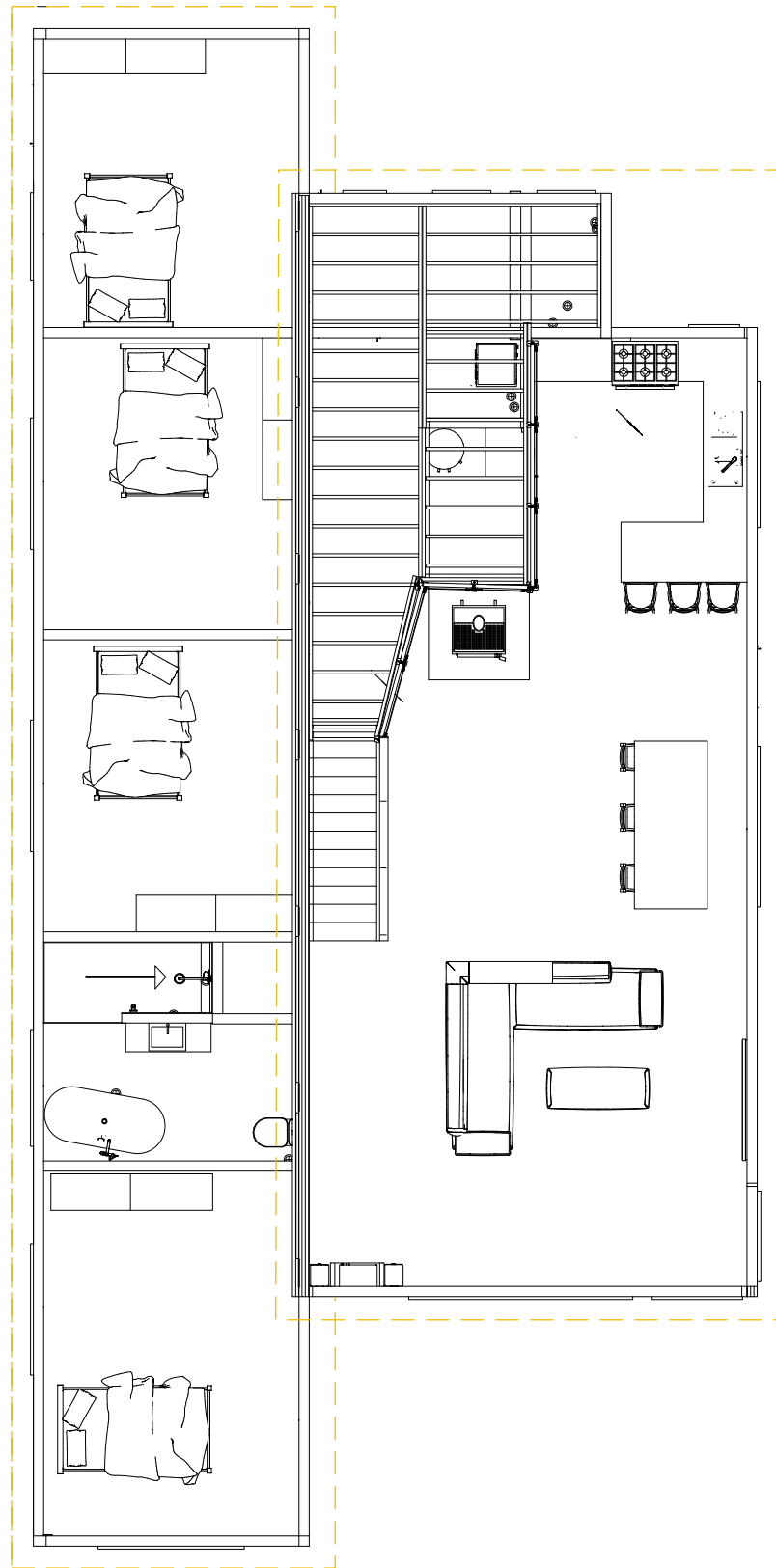
Insulation :
Roof: Knauf Earthwool R7.4 Skillion 265mm x 430mm x 1160mm
outside walls : Knauf Earthwool R4.1 Super High Density wall 140mm x 580mm x 1160mm
Inside walls : Knauf Earthwool R3.2 Basic 140mm x 580mm x 1160mm



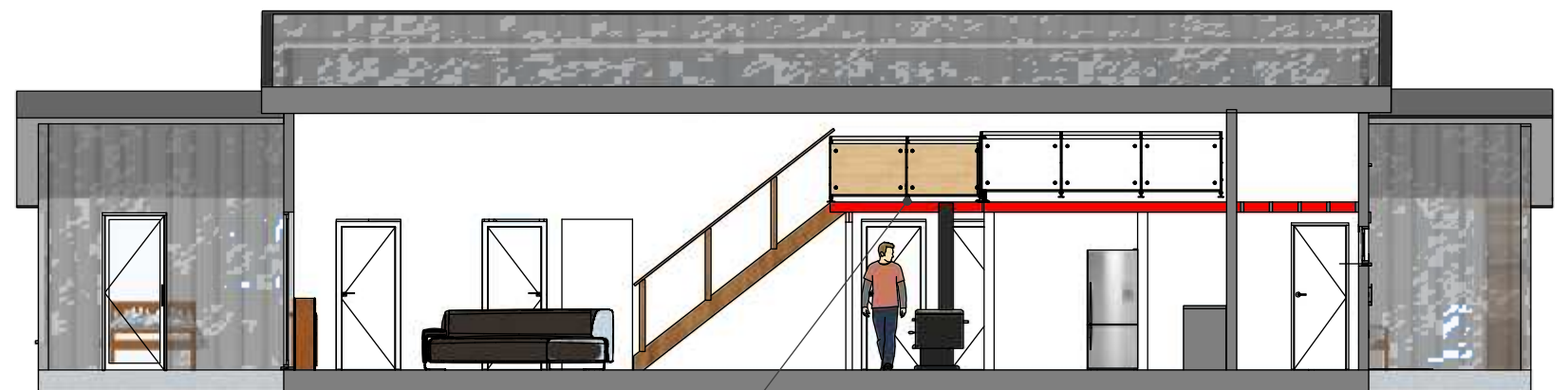
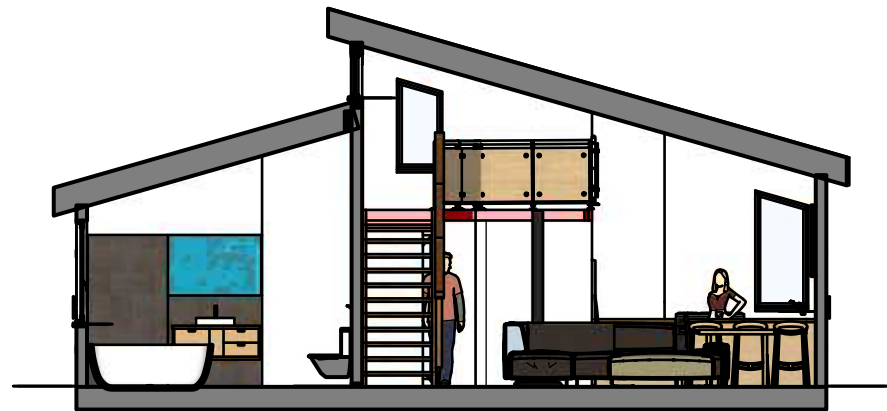
Measurements taken from base of bottle



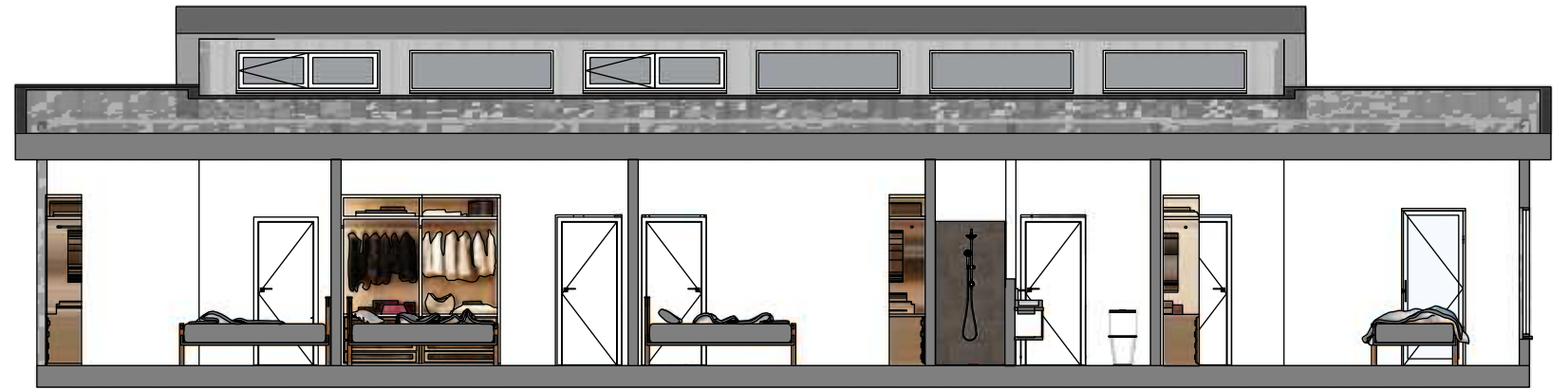
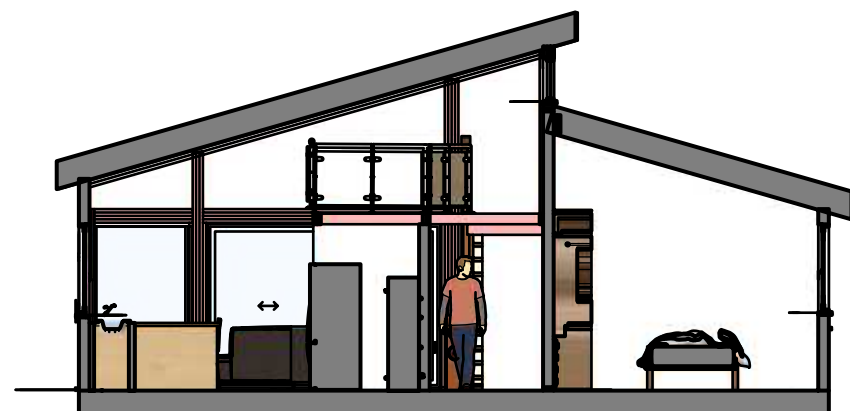


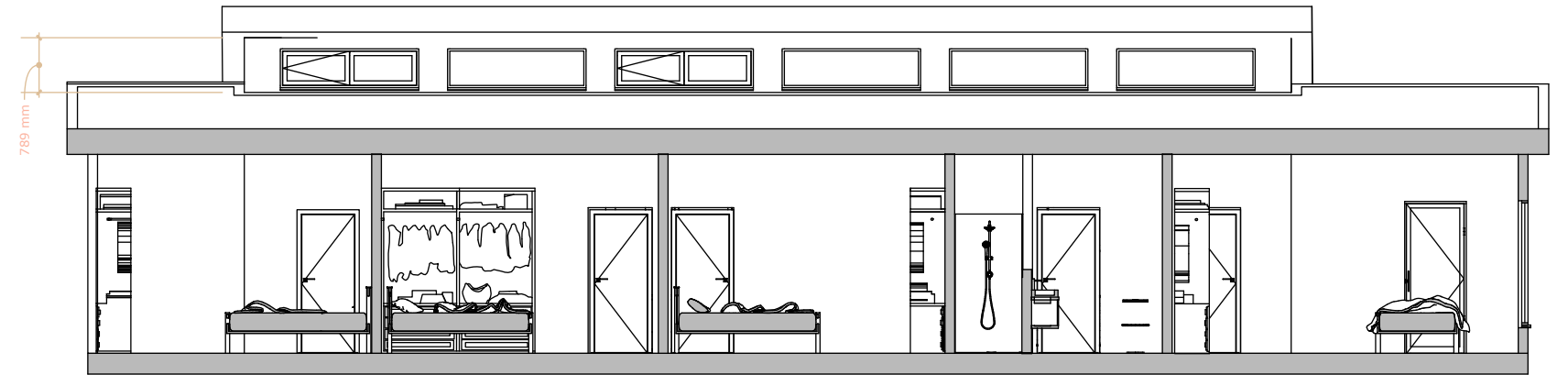
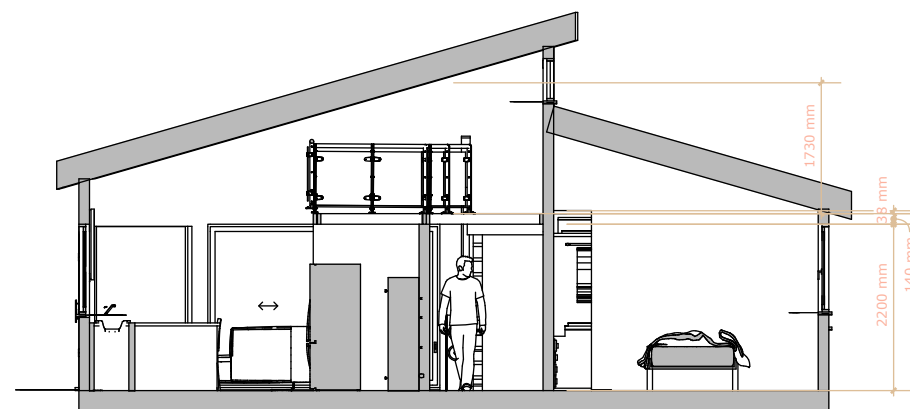
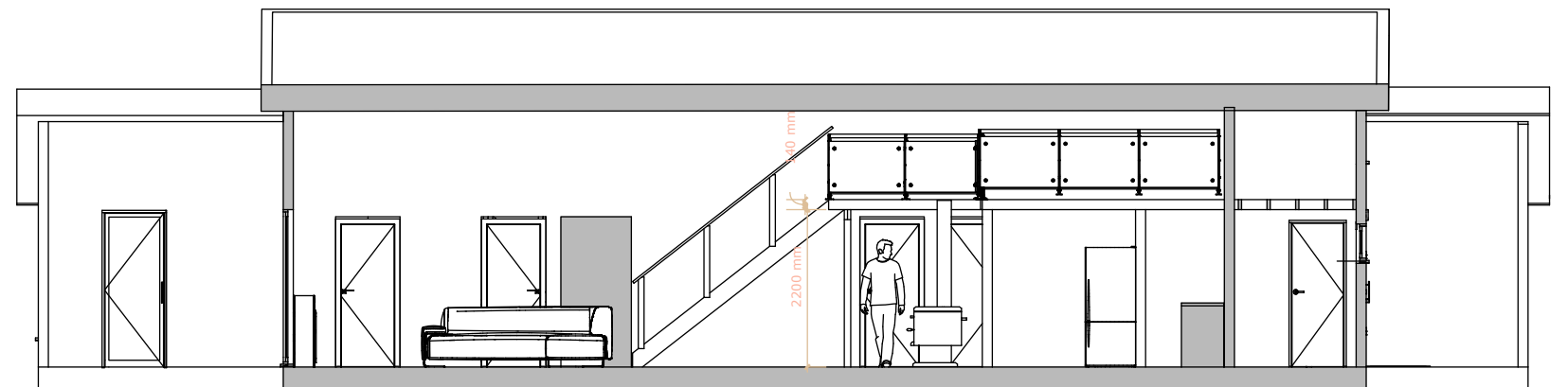
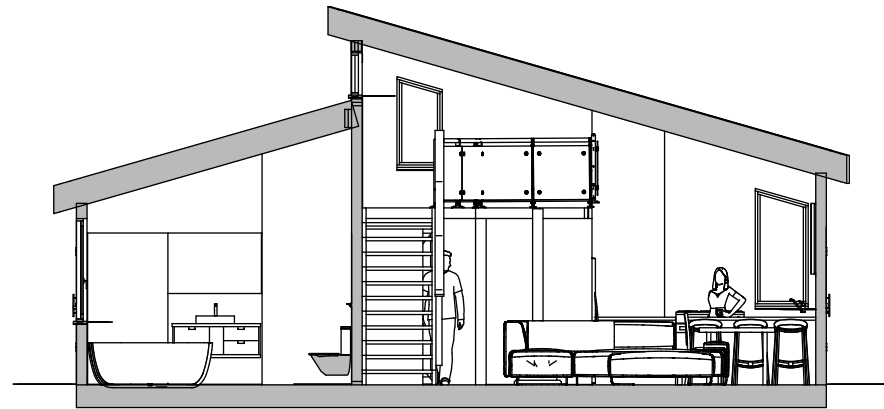


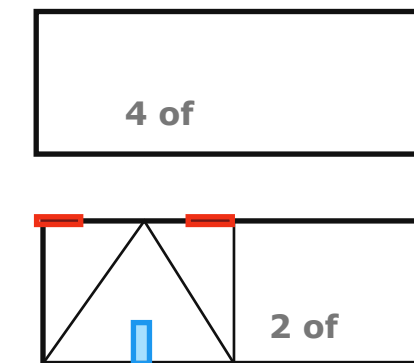
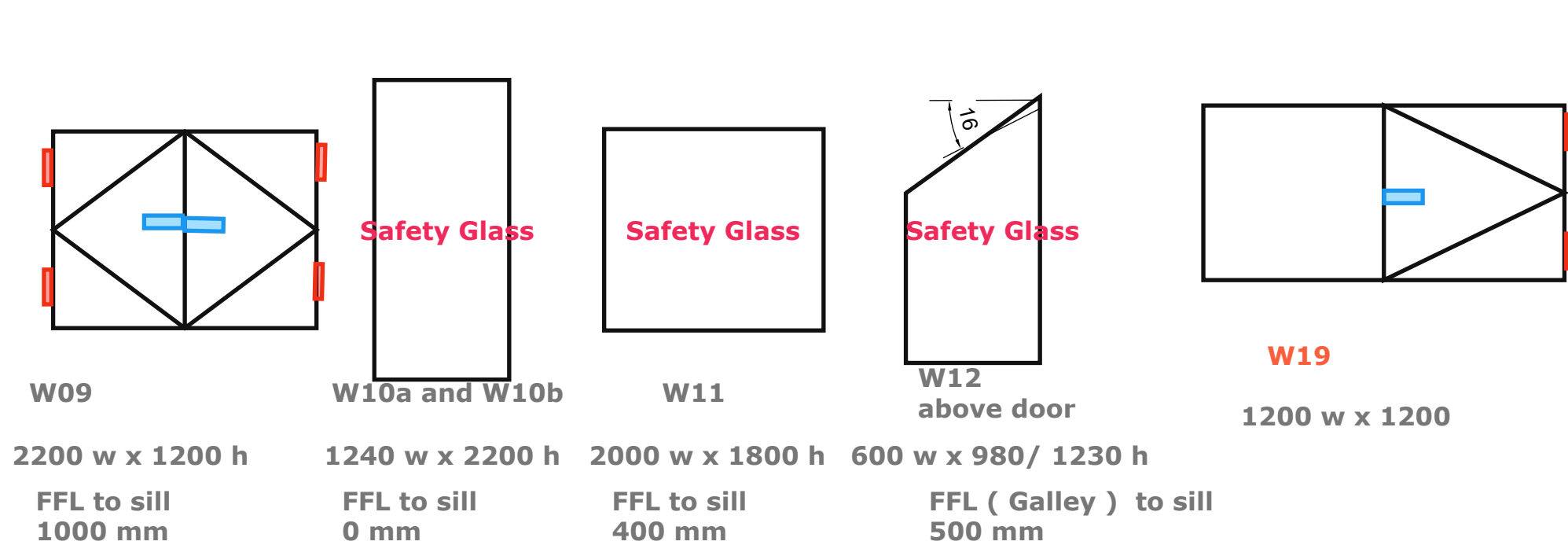
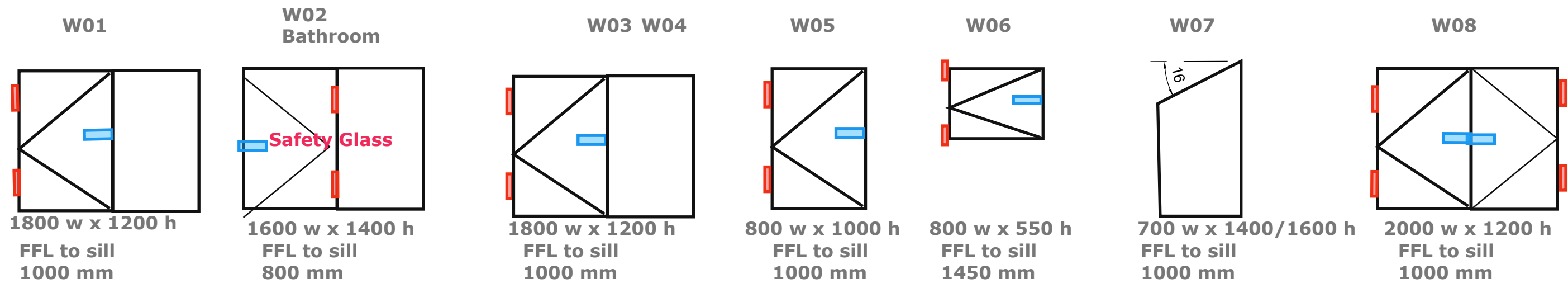
Diagonal roof bracing



gallery sits on top of 2200 high internal walls

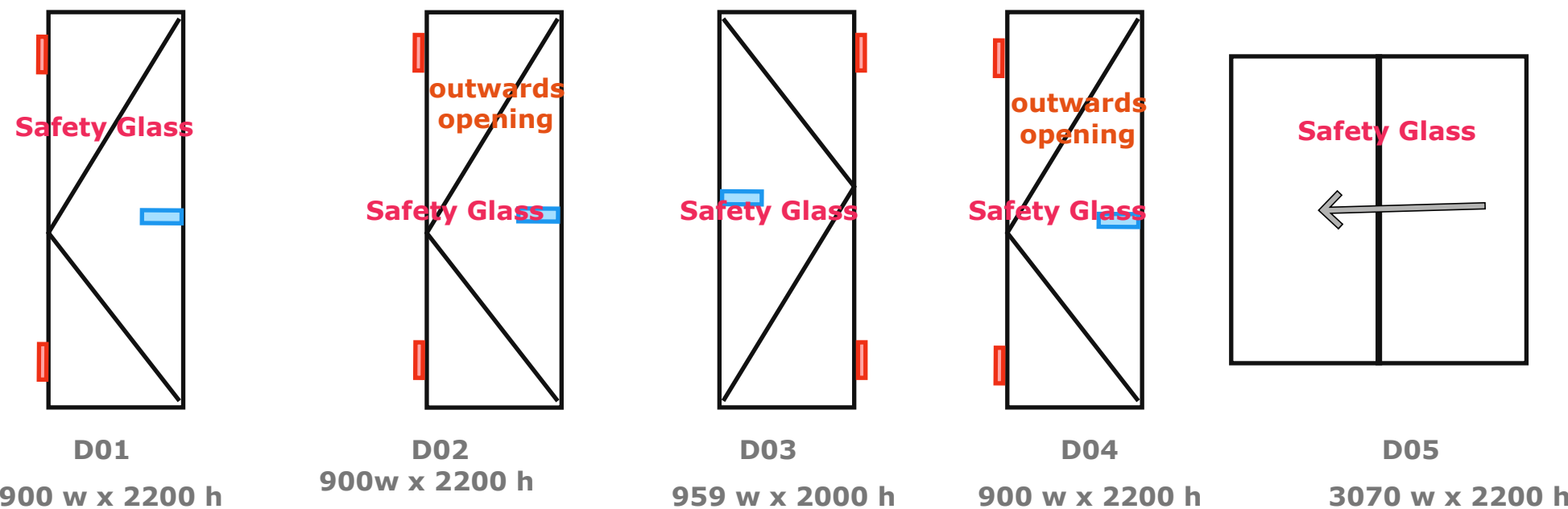




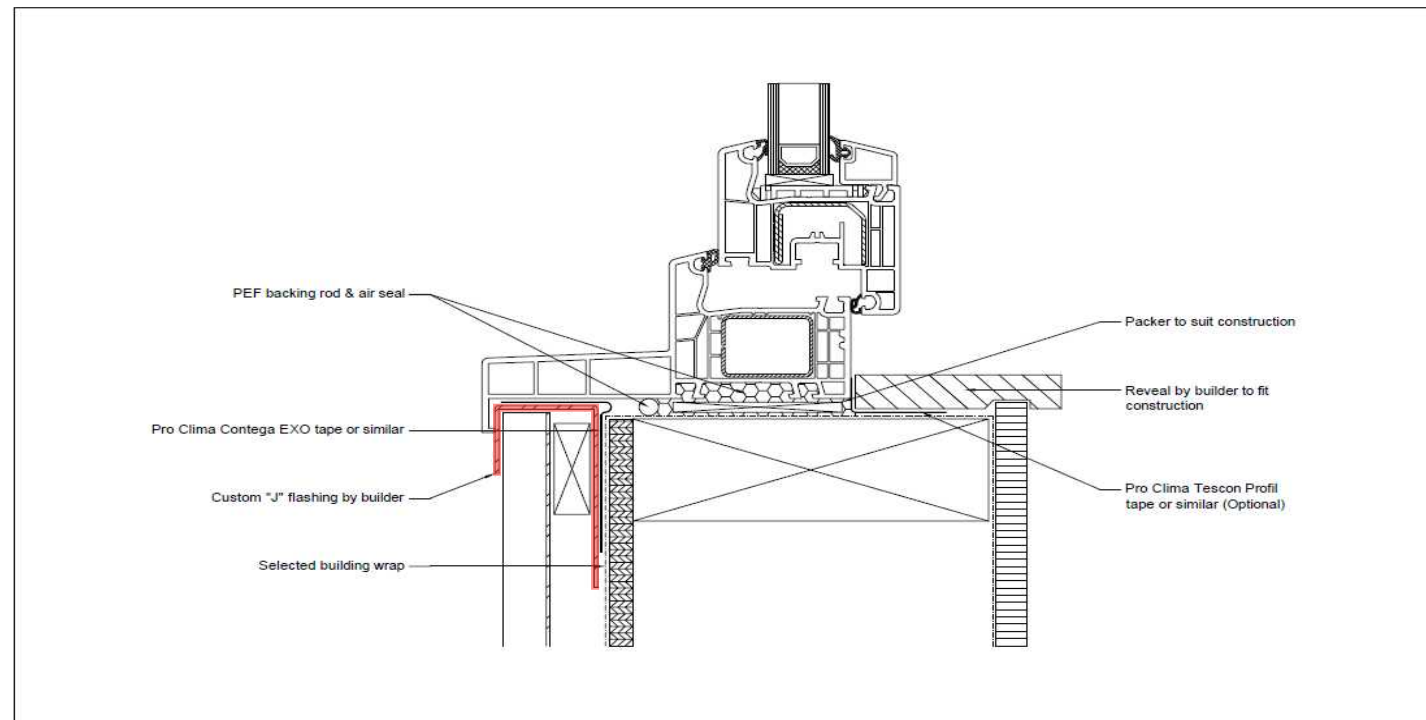


W13-18
Windows above roof 6 off
2000 w x 600 h

All windows and doors seeing from outside
All windows and doors inward opening ,
if not specified as outward opening



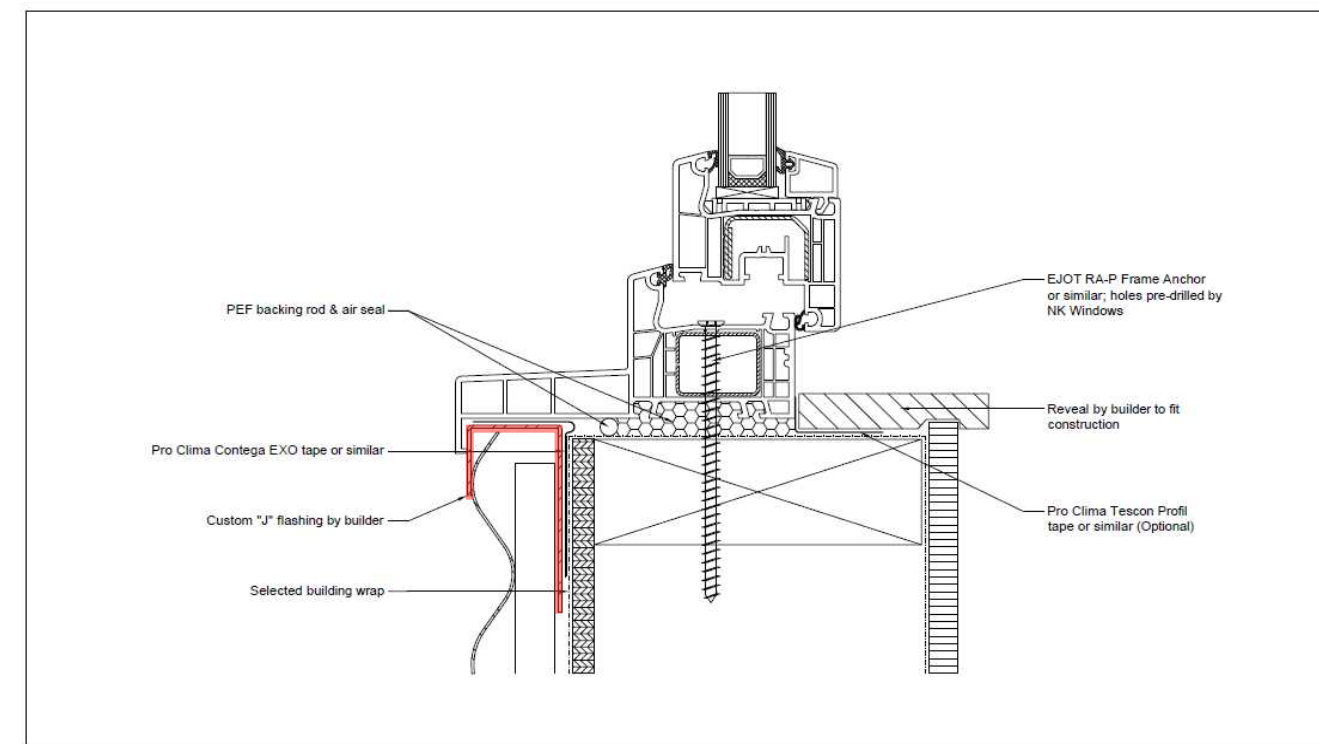
Window or door	Loaded dimension of Lintel	Window width	Lintel size (H1.2 SG8)
w1	1.9	1.2	90 x 90
w2	1.9	1.6	140x90
w3	1.9	1.8	140 x 90
w4	1.9	1.8	140x90
w5	1	0.6	90x90
w6	1	0.8	90x90
w7	1	2	140x90
w8	3.1	2	190x90
w9	3.1	2.2	190x90
w10	3.1	1.2	140x90
w11	1	2	140x90
d1	1	1	90x90
d2	1.9	1.4	90x90
d3	1	1	90x90
d4	3.1	0.9	90x90
d5	eng.	3.5	refer to engineer
w19	1.9	1.2	90x90



Inwards Opening Window Sill

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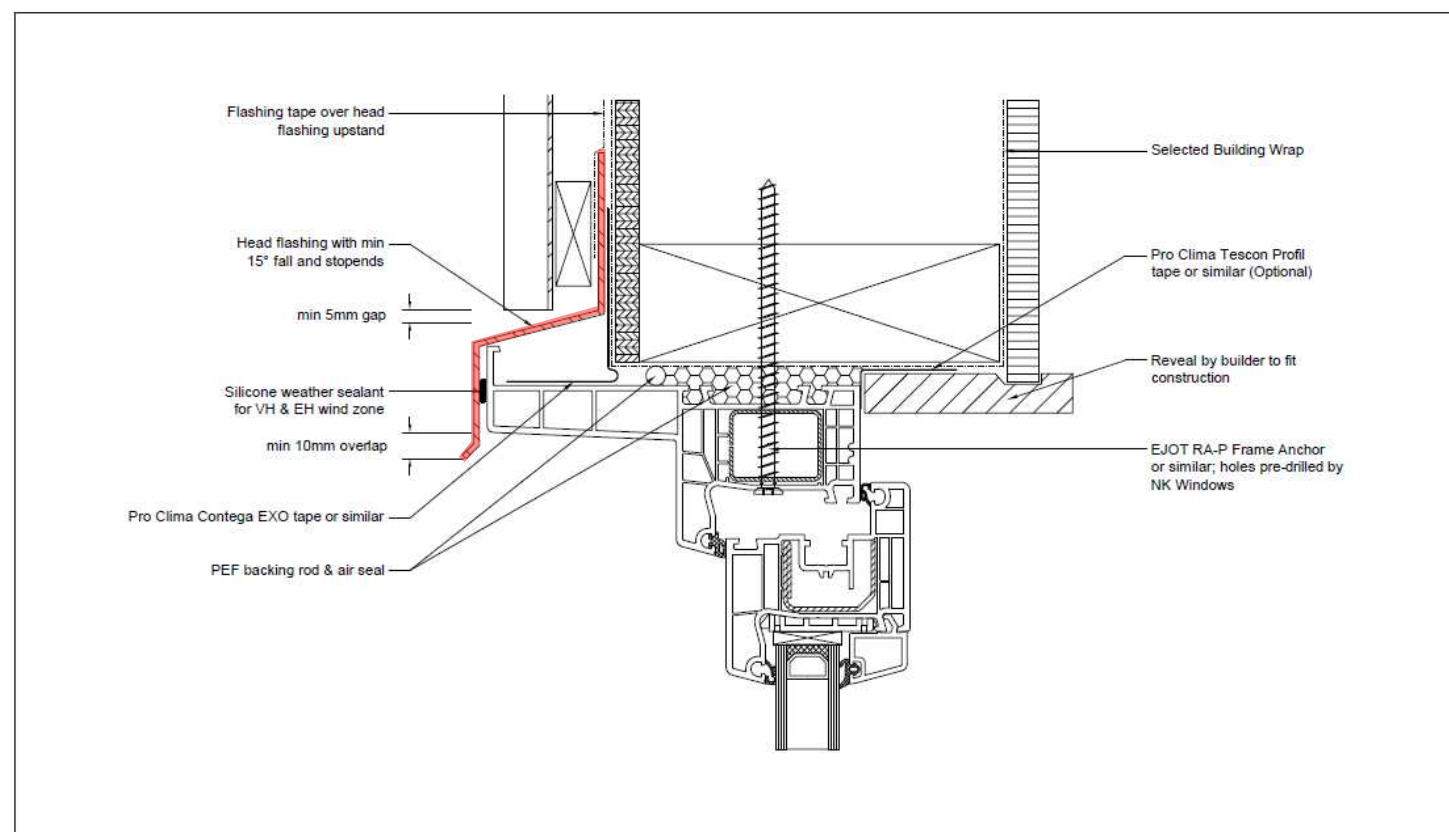
System: Aluplast Ideal 4000
Cladding: Profiled Metal
Version: 1.00, DEC19
Scale: 1 : 2
Code: 4NBPMMEWDI



Inwards Opening Window Jamb

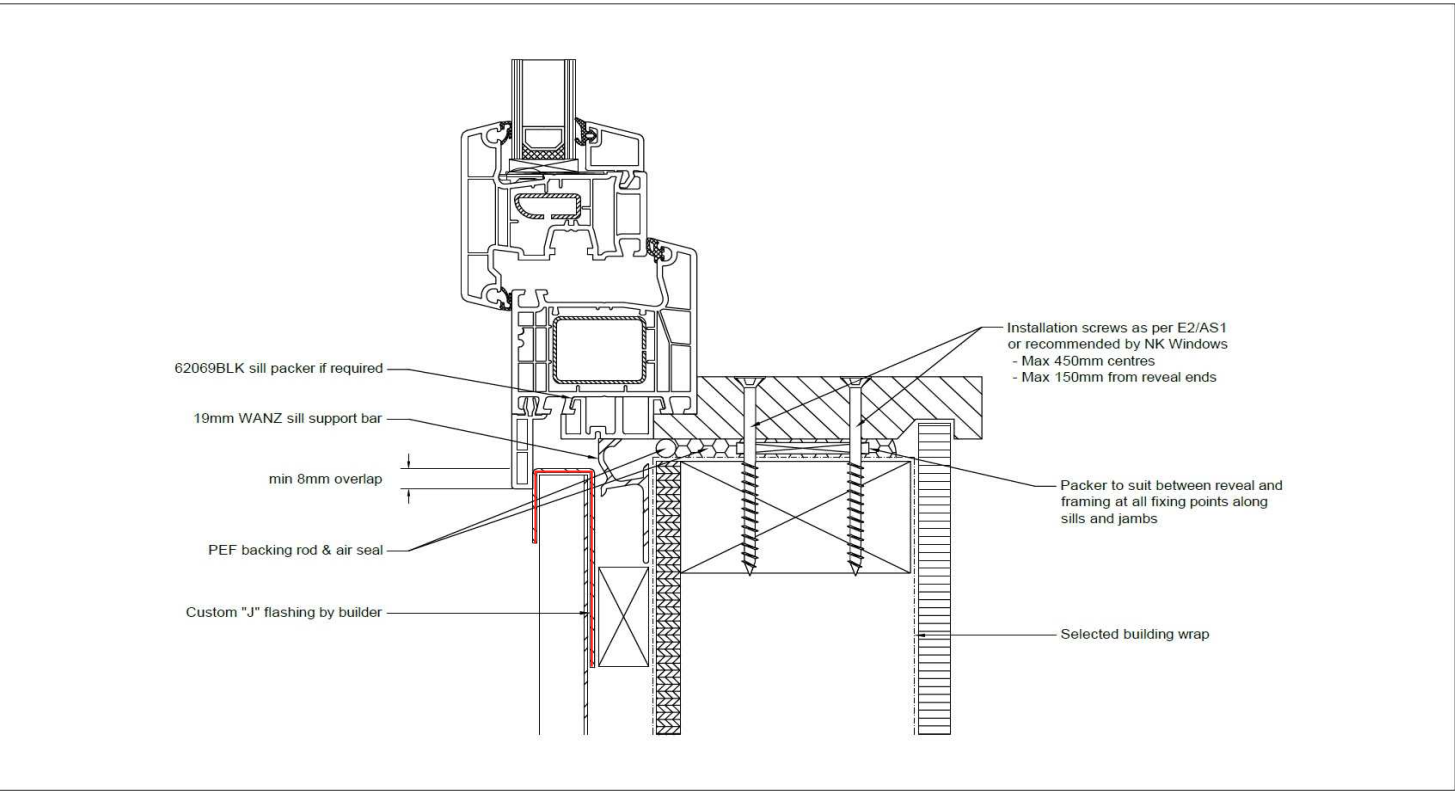
System: Aluplast Ideal 4000
Cladding: Profiled Metal
Version: 1.00, DEC19
Scale: 1 : 2

Flashing details all windows and doors except w13-18 (next page)



Inwards Opening Window Head

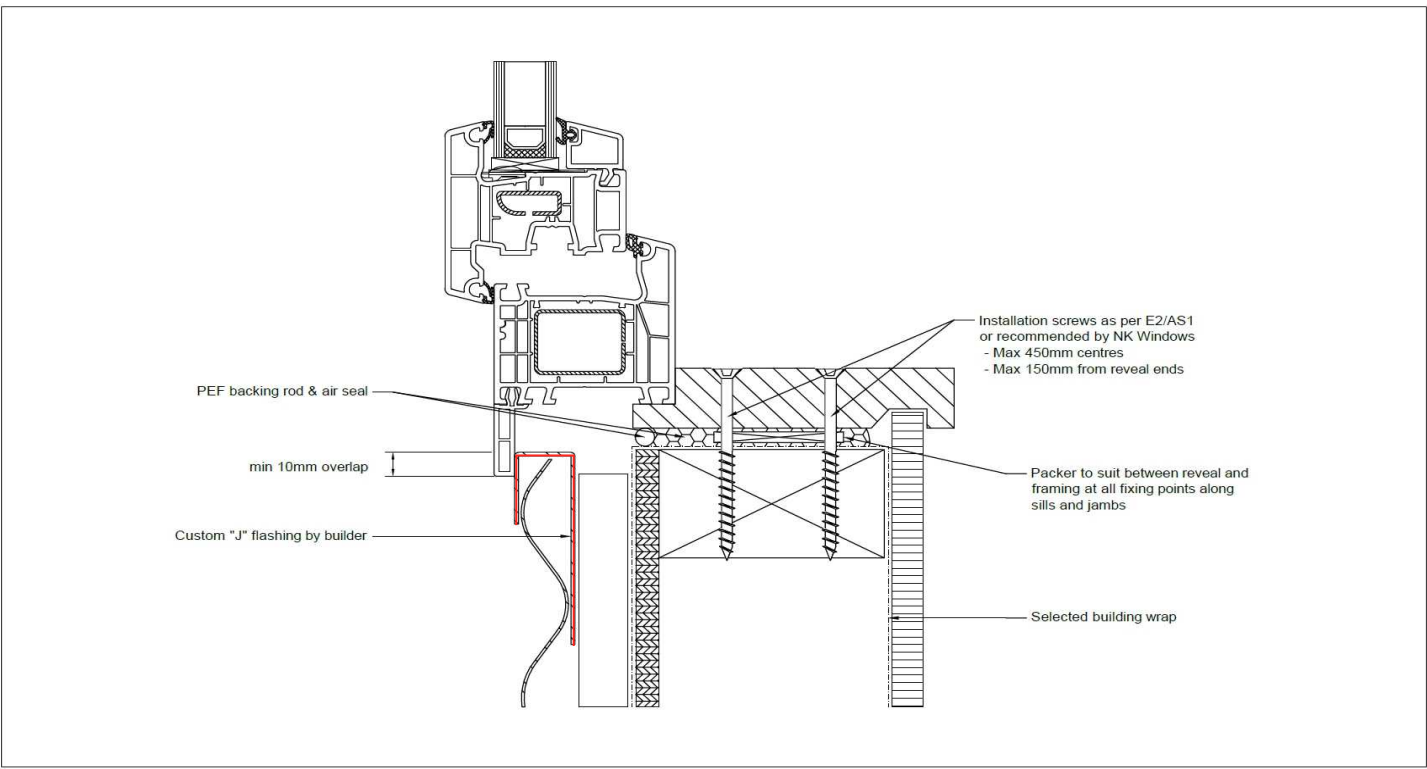
System: Aluplast Ideal 4000
Cladding: Profiled Metal
Version: 1.00 DEC19



Outwards Opening Window Sill

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System: Aluplast Ideal 4000
Cladding: Vertical Profiled Metal
Version: 1.00, JUL19
Scale: 1 : 2
Code: 4NBPMRVWDO

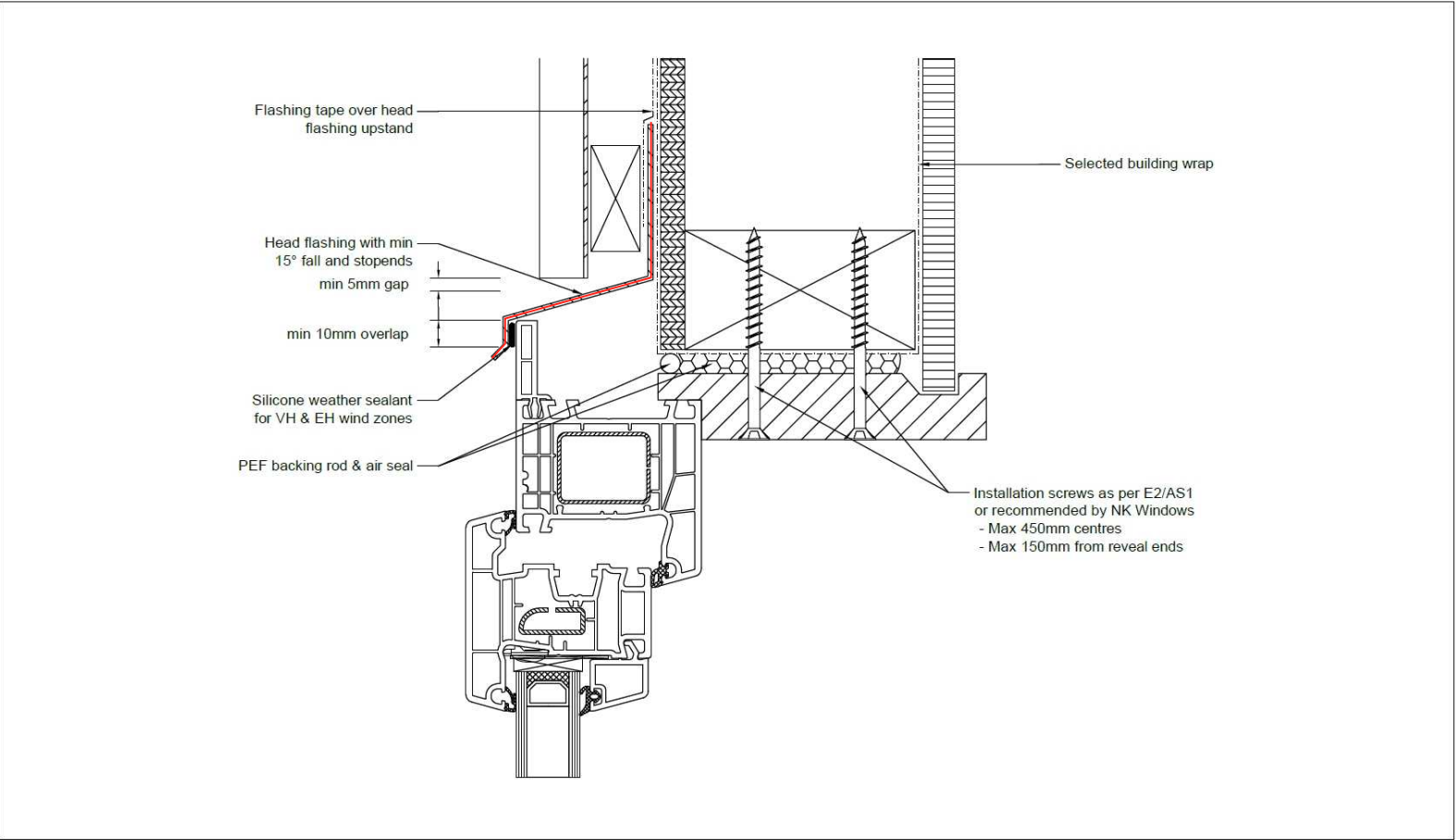


Outwards Opening Window Jamb

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System: Aluplast Ideal 4000
Cladding: Vertical Profiled Metal
Version: 1.00, JUL19
Scale: 1 : 2
Code: 4NBPMRVWDO

Flashing window13 - 18

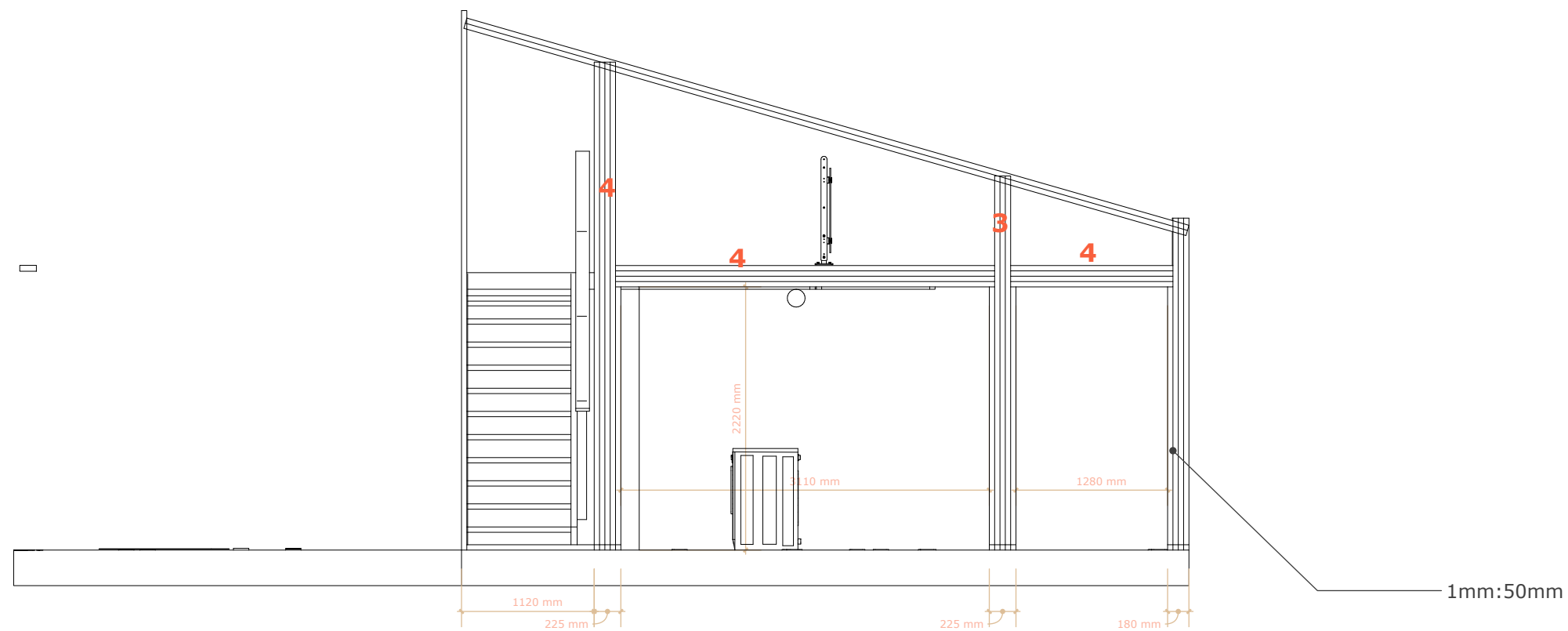


Outwards Opening Window Head

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System: Aluplast Ideal 4000
Cladding: Vertical Profiled Metal
Version: 1.00, JUL19
Scale: 1 : 2
Code: 4NBPMRVWDO



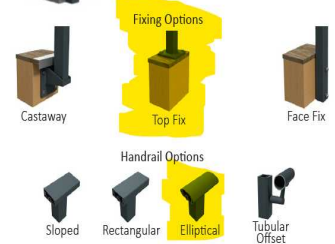
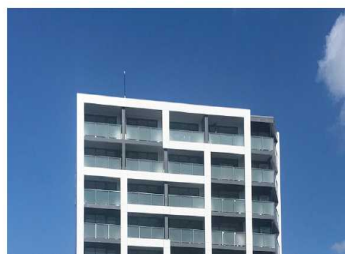


Clearspan Vista Balustrade

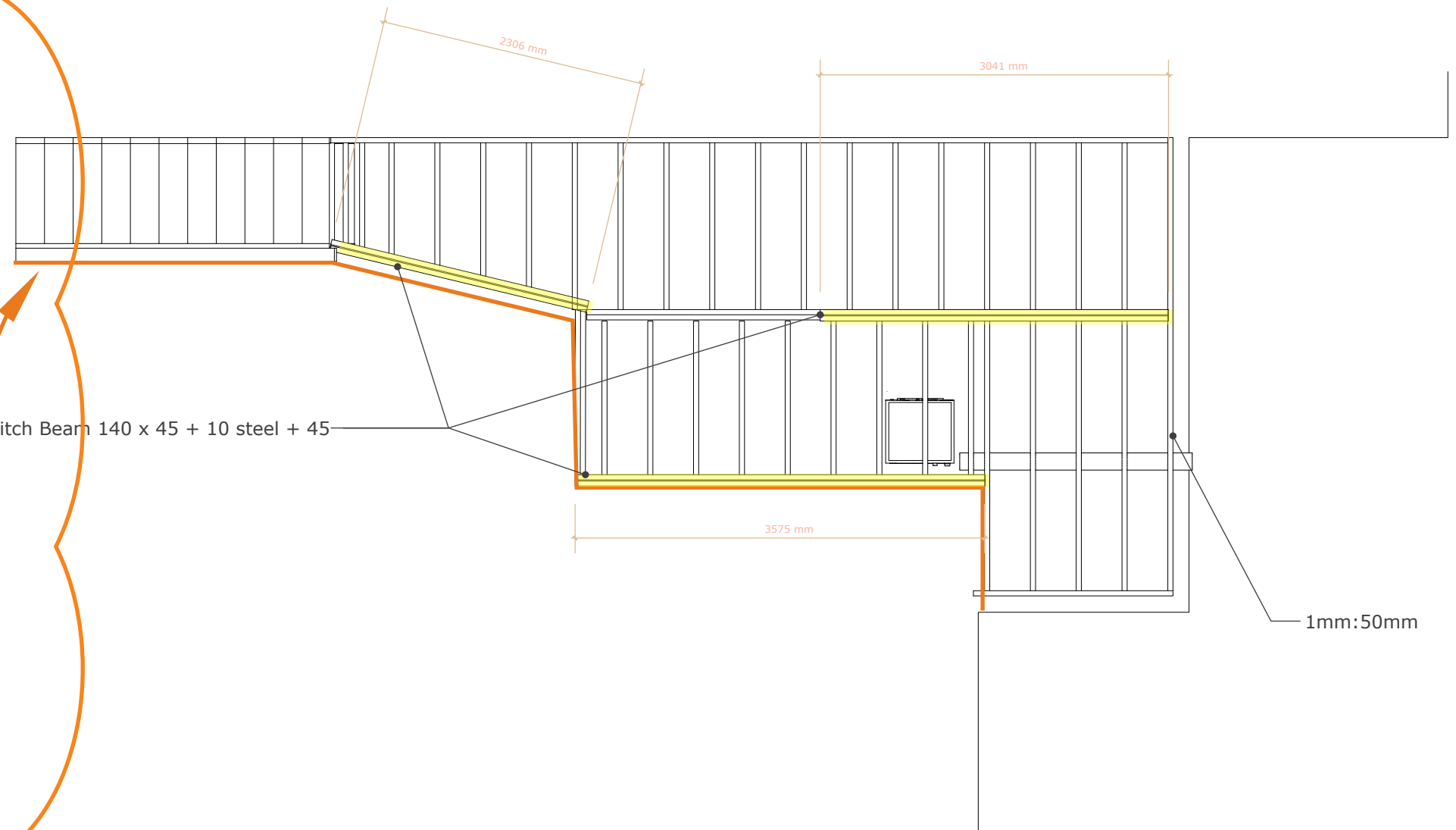
A traditional glass balustrade fully enclosed in a powder coated aluminium frame. Suitable for a broad range of applications including residential, commercial, external, internal, and pool fencing this balustrade system is super versatile and manufactured as a pre-assembled product meaning fast and easy installation.

Features

- Large range of glass options available
- Suitable for Pool fencing (F9)
- Tough powdercoated finish in your choice of colour*
- High quality TS/T6 aluminium and stainless steel fasteners
- Available to suit a range of substrates
- Designed and made in New Zealand



Flitch Beam 140 x 45 + 10 steel + 45

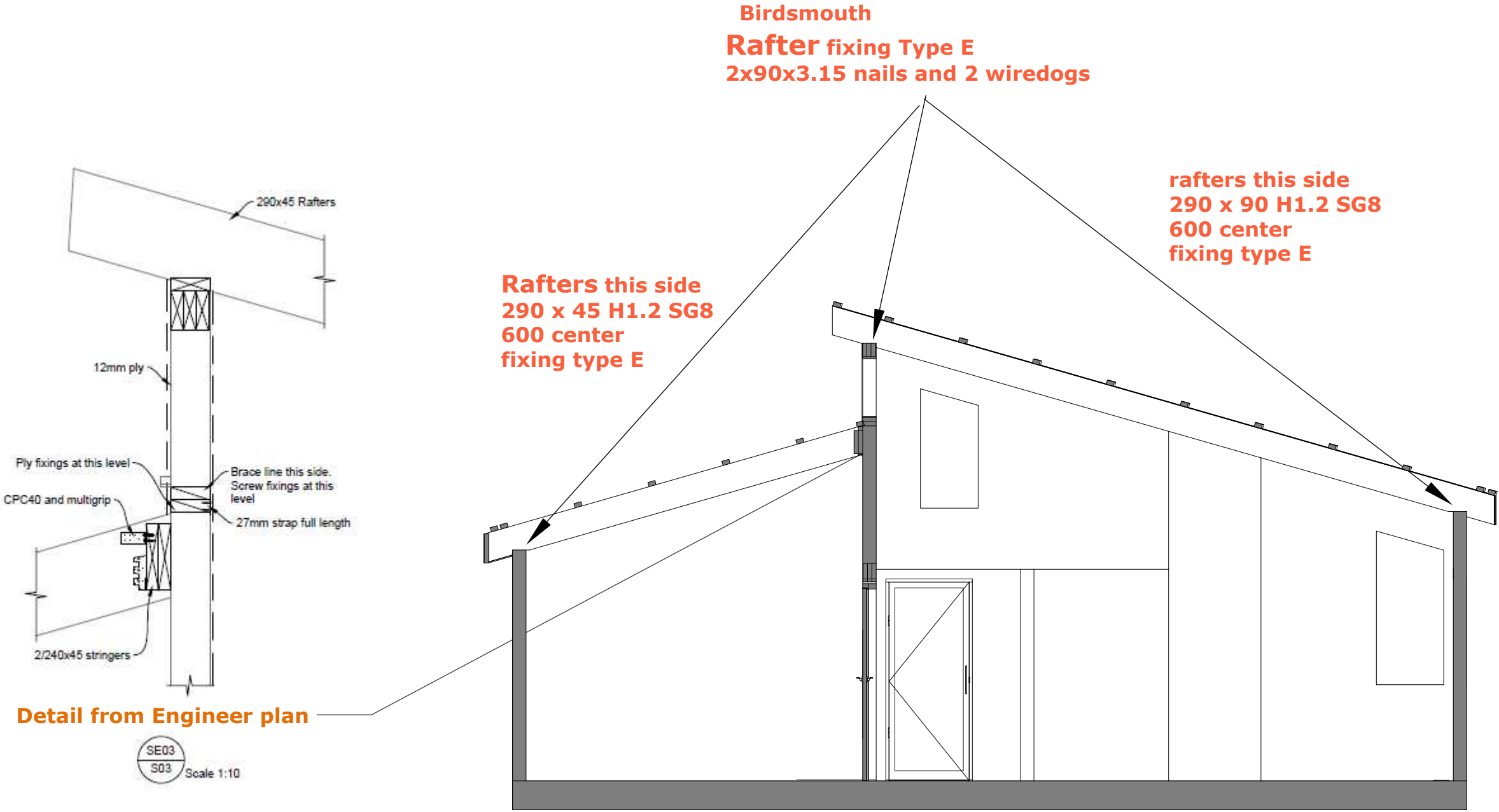


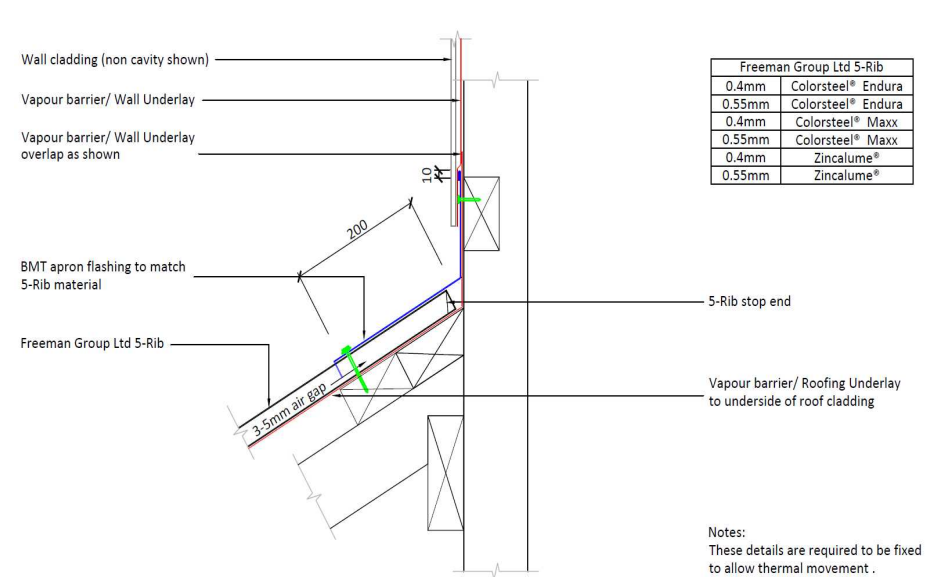
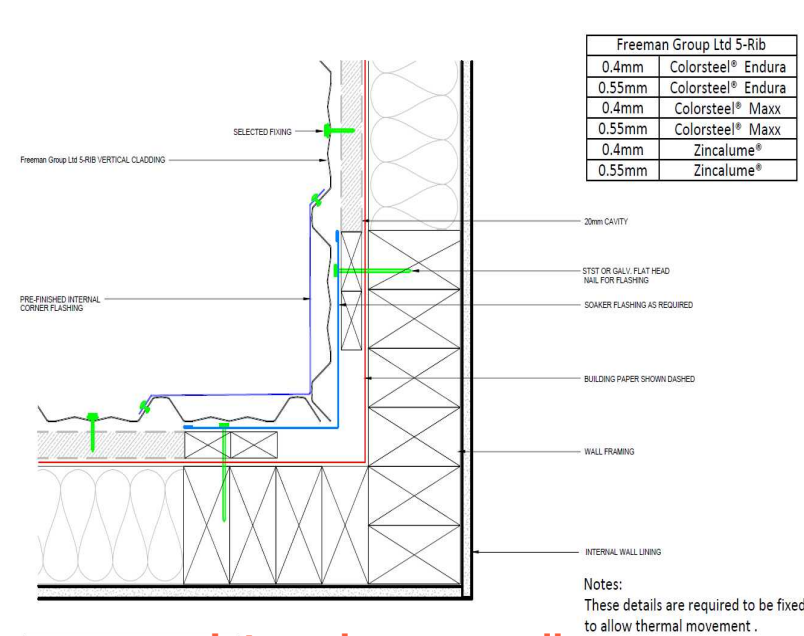
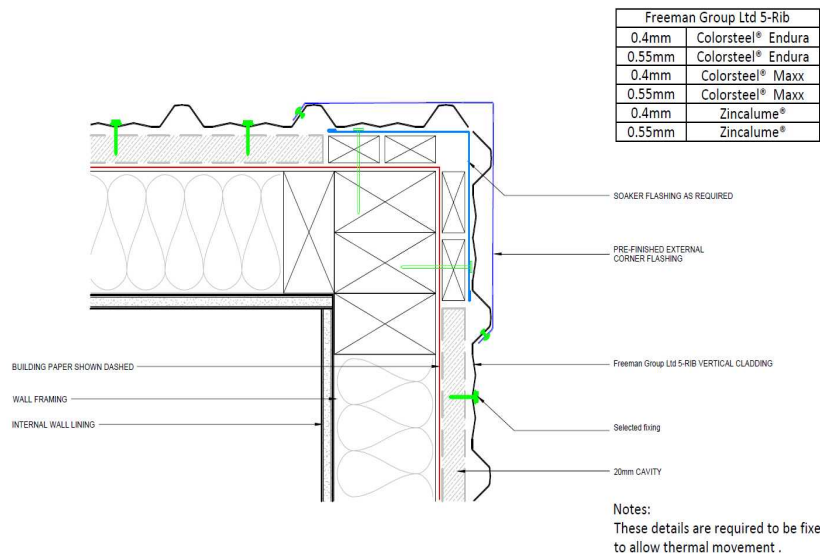
Balustrade for Gallery storage place in Specifications
" Clearspan or Clearview top fixed to timber "

Purlins (75 x 45 mm H1.2)
fixing Type D 3.45 kN
2 blue screws
max.purlin crs. 900 mm

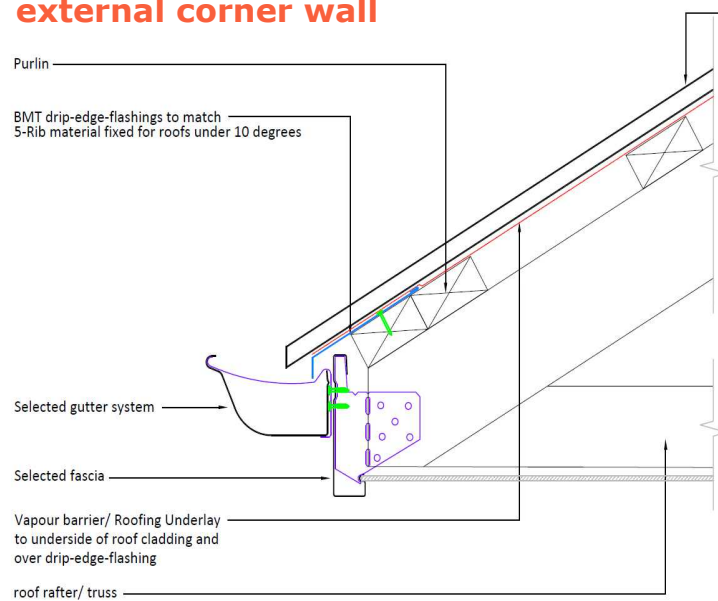
Thermacraft Covertec 401
self supporting underlay

5-Rib Colorsteel 0.4 mm MAXX
for all walls and roof





external corner wall



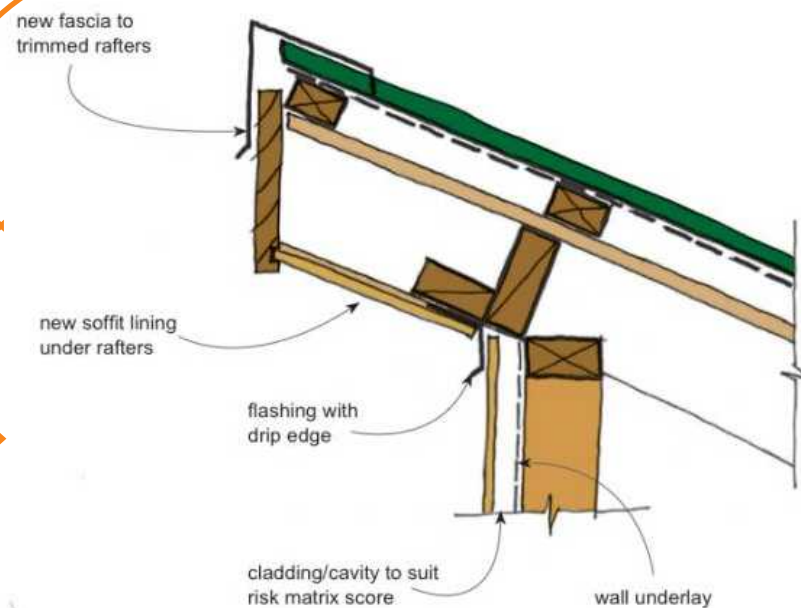
internal corner wall

Freeman Group Ltd 5-Rib	
0.4mm	Colorsteel® Endura
0.55mm	Colorsteel® Endura
0.4mm	Colorsteel® Maxx
0.55mm	Colorsteel® Maxx
0.4mm	Zincalume®
0.55mm	Zincalume®

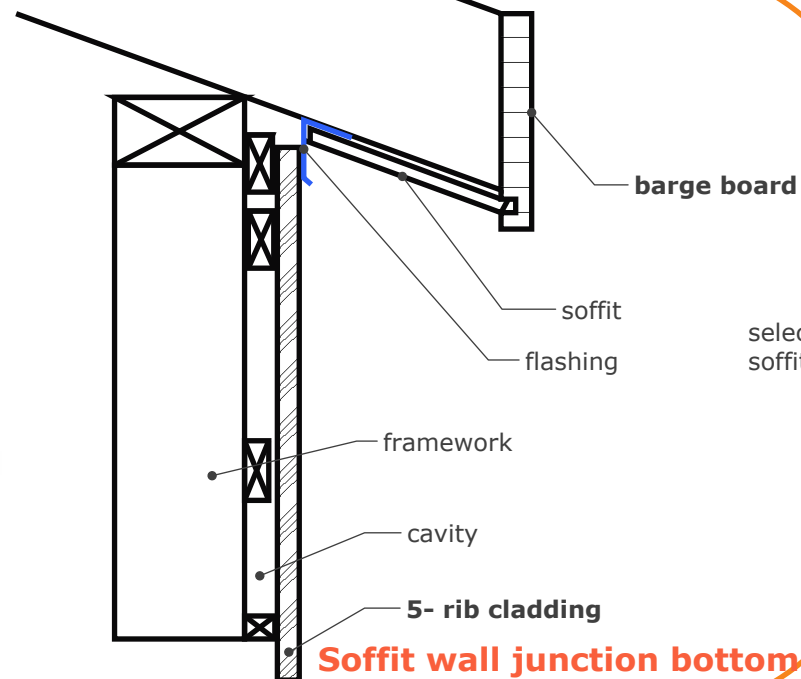
Notes:
These details are required to be fixed to allow thermal movement.

top apron flashing (under upper windows)

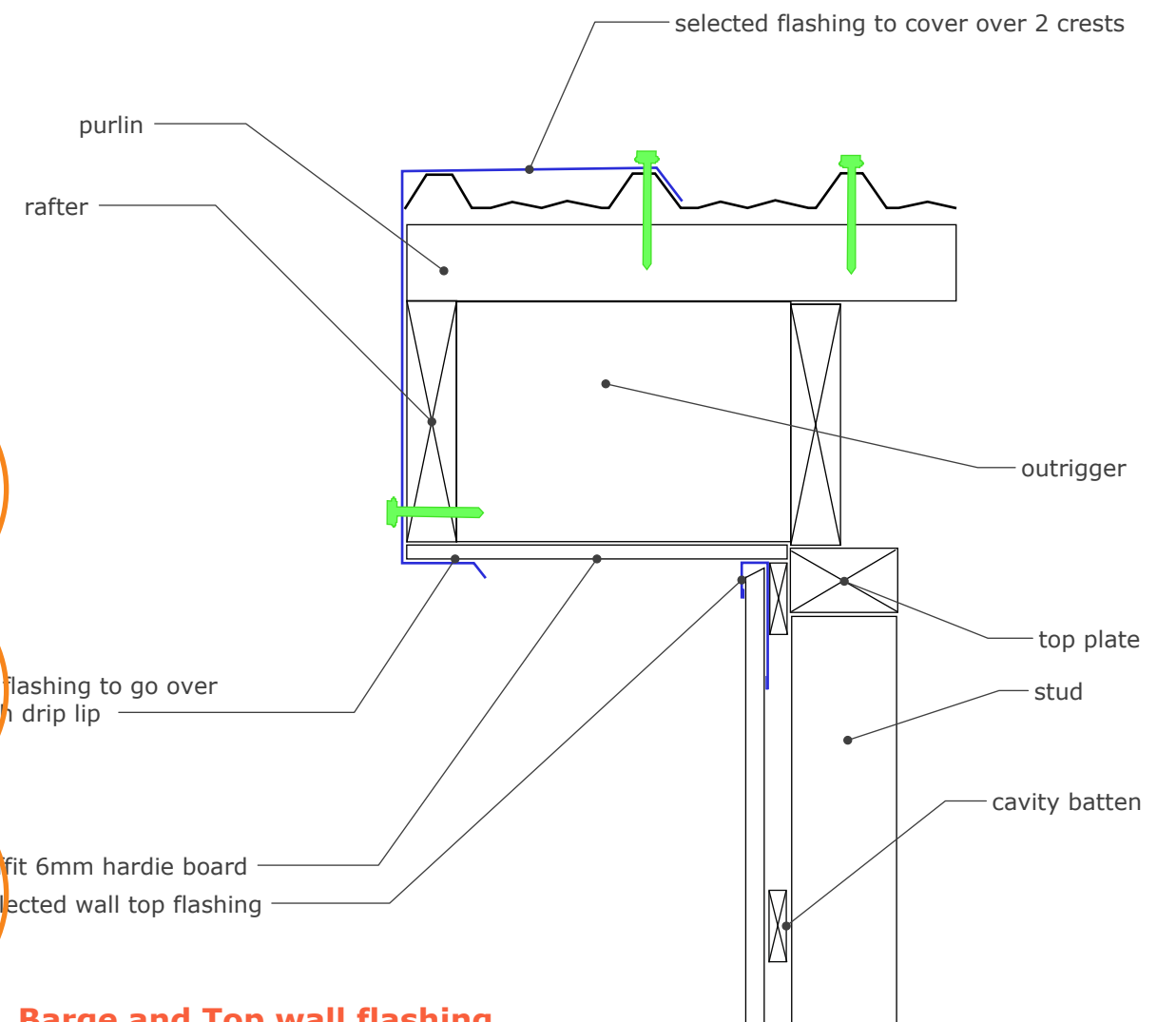
Drip edge Flashing



Soffit wall junction Top



Soffit wall junction bottom



Barge and Top wall flashing



DesignWorx

Date Created: 02.07.2023
Date modified: 13.09.2026

wall and roof flashings

26/27



Version: 4 May 2023

H1/AS1 5th Edition Calculation Method Spreadsheet

Client		
Project name		
Address		
Designer		
Date		
Territorial Authority	Nelson City	Climate Zone 3
When submitted	Before 2 November 2023	Application Housing

Proposed Building		
Element	Area (m ²)	Proposed Building Heat Loss (W/K)
Slab-on-ground_Floors	167.0	104.4
Other_Floors	0.0	0.0
Roof	172.0	23.2
Skylights	0.0	0.0
Walls	160.0	39.0
Glazing (in walls & doors)	(16.7% of total wall area) 32.0	41.6
Doors (opaque)	0.0	0.0
	531.0	Total 208.2

Reference Building		
Element	Area (m ²)	Reference Building Heat Loss (W/K)
Slab-on-ground Floors	167.0	111.3
Other_Floors	0.0	0.0
Total Roof (includes skylight area)	172.0	26.1
Walls (70% of total wall area)	134.4	67.2
Glazing allowance (30% of total wall area)	57.6	125.2
	531.0	Total 329.8

Comparison of proposed building against the reference building

PASS

		HIG 6th Ed					
Element type	Description	Embed ID	Area heating? (m ²)	Construction R-value (m ² .K/W)	Heat Loss (W/K)	Errors	
1 Slab-on-ground_Floors	rib raft	No	167.0	1.6	104.4		
2 Other_Floors		No					
3 Roof	Glasswool	No	172.0	7.4	23.2		
4 Walls	Glasswool	No	160.0	4.1	39.0		
5 Glazing (in walls & doors)		No	32.0	0.77	41.6		
6 Doors (opaque)		No	0.0	0.77	0.0		

Risk Matrix					
Wall Type: Standard					
Risk Factor	Low	Med.	High	Very High	Score
Wind (NZS3604)	0	0	1	2	2
Storeys	0	1	2	4	0
R/W Intersection	0	1	3	5	5
Eaves Width	0	1	2	5	2
Complexity	0	1	3	6	1
Deck Design	0	2	4	6	0
Total Risk Score: medium					10

Risk Matrix created by Design Navigator

