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**NPDC SITE COPY**

This Building Consent is approved under the Building Act and is limited to new work only as shown on these plans and related specifications

Approved: NPDC Date: 1/12/2025

The Building Consent Documents are to be available on site to Council Officers at all times

**SUBSTITUTIONS:**

A substitution may be proposed by the owner where specified products are not reasonably available or a substitution is equal to quality and compliance as that specified and comes with a NZ Branz Appraisal or Code Mark .

**GENERAL NOTES:**

All work to comply with local authority requirements and relevant sections of the building code and NZS 3604: 2011  
Contractor to verify all dimensions on site prior to commencing construction

Building to be used as a single house hold unit only . Any change of use will need an application for change of use

**PRODUCER STATEMENTS AND INSPECTION REPORTS ARE REQUIRED FOR THIS PROJECT:**

These must be provided by people/ or organisations approved to do so by the Building Consent Authority. These are listed on the inspection sheet attached to the site copy of the documents and are to be received before the code compliance certificate is issued.Or at another time requested by The Building Consent Authority



**Architectural Design**

**WHARE AWA**

Extend Existing Ground Floor Garage Area.  
and Extend Dwelling to Above to Form 1 x Single House Hold Unit

22C Sequoia Grove Merrilands

**Parcel ID:** 4618962

**Appellation:** Lot 13 DP 14221

**Location:** Merrilands

**Climate Zone:** 2

**Earthquake Zone:** Zone 1

**Exposure Zone:** Zone C

**Rainfall Range:** 90 - 100

**Wind Region:** A

**Wind Zone:** High





**NOTES-**

ANY FILL OTHER THAN EXISTING NATURAL GROUND SHALL BE APPROVED AND INSTALLED WITH THE GUIDANCE FROM AN ENGINEER.  
BEFORE CONSTRUCTION ENSURE ALL ORGANIC, NOXIOUS MATERIALS OR RUBBISH (IF ANY) IS REMOVED FROM THE AREA COVERED BY THE BUILDING.  
ENSURE GROUND LEVELS FALL AWAY FROM THE BUILDING PLATFORM.

CONTRACTOR TO ENSURE SITE IS SURVEYED OR BOUNDARY POINTS ARE CONFIRMED 100% BEFORE SITE SET OUT OF BUILDING.  
UNDER GROUND SERVICE LOCATIONS TO BE CONFIRMED BEFORE SITE WORKS.

NO CONSTRUCTION TO COMMENCE UNTIL BUILDING CONSENT & ANY PLANNING CONSENTS ARE APPROVED.

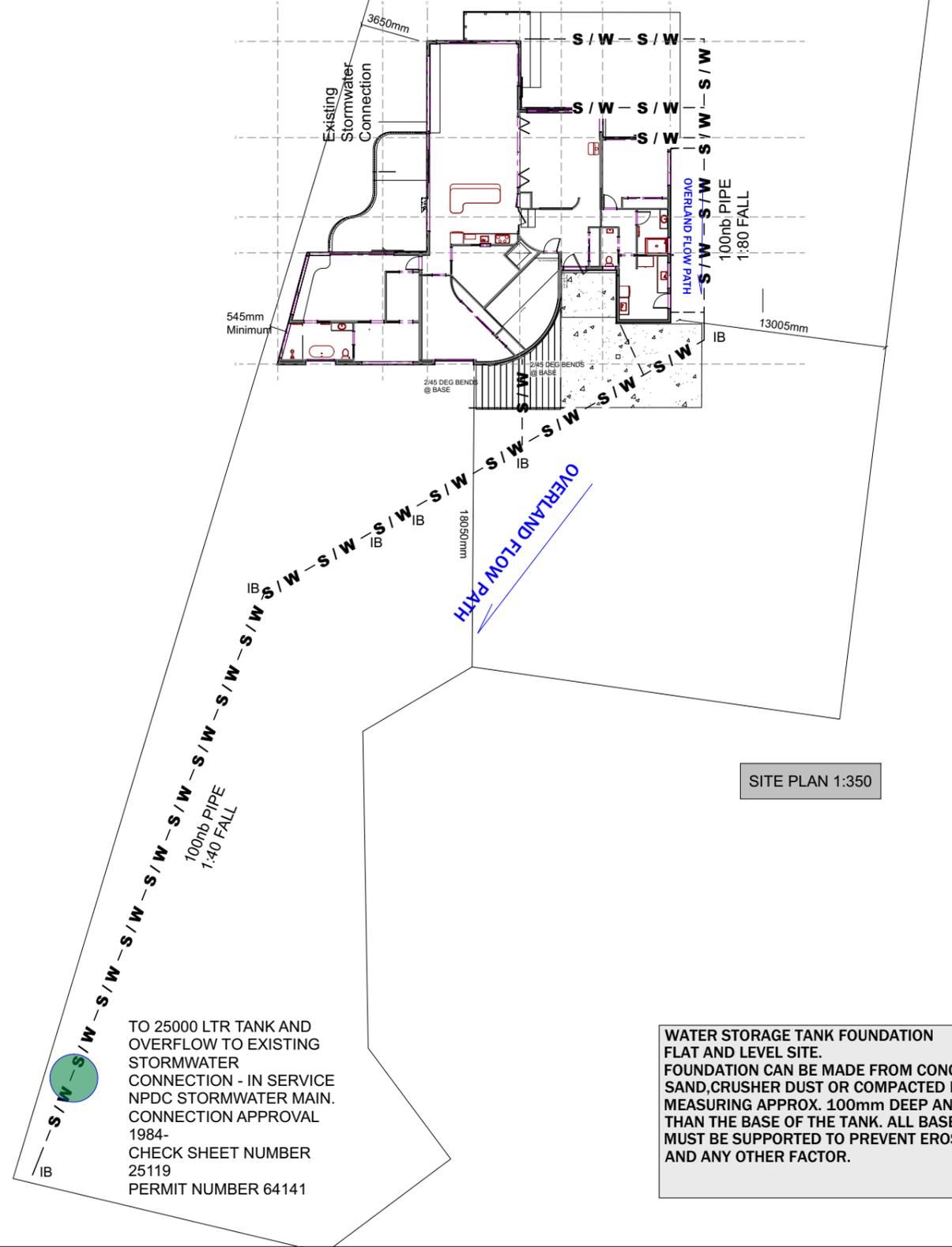
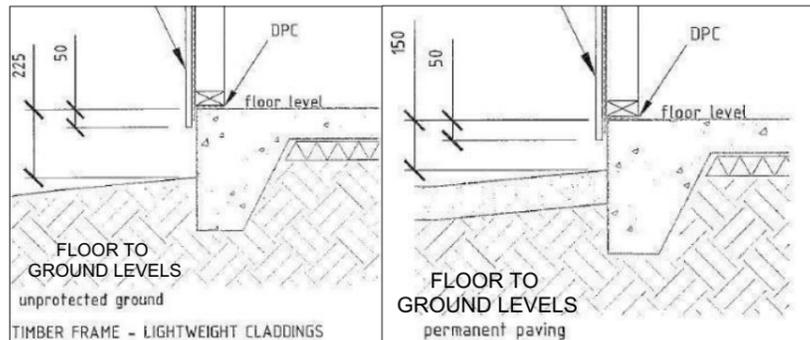
STEPS MUST BE TAKEN TO ENSURE CONTROL OF STORMWATER & SEDIMENT DURING CONSTRUCTION - FAILURE TO COMPLY MAY RESULT IN ENFORCEMENT ACTION BEING TAKEN UNDER THE BUILDING ACT 200

F5.2 CONSTRUCTION AND DEMOLITION WORK ON BUILDINGS SHALL BE PERFORMED IN A MANNER THAT AVOIDS THE LIKELIHOOD OF:

- (A) OBJECTS FALLING ONTO PEOPLE ON OR OFF THE SITE.
- (B) OBJECTS FALLING ON PROPERTY OFF THE SITE.
- (C) OTHER HAZARDS ARISING ON THE SITE AFFECTING PEOPLE OFF THE SITE AND OTHER PROPERTY, AND
- (D) UNAUTHORISED ENTRY OF CHILDREN TO HAZARDS ON THE SITE.

IF ANY OF THESE SCENARIOS ARE LIKELY THEN CLAUSE F5 OF THE NZ BUILDING CODE MUST BE ADHERED TO.

BUILDING TO BE SET OUT BY SURVEYORS  
DATA THEN USED TO DIMENSION STEEL WORK



SITE PLAN 1:350

TO 25000 LTR TANK AND OVERFLOW TO EXISTING STORMWATER CONNECTION - IN SERVICE NPDC STORMWATER MAIN. CONNECTION APPROVAL 1984-  
CHECK SHEET NUMBER 25119  
PERMIT NUMBER 64141

**WATER STORAGE TANK FOUNDATION**  
FLAT AND LEVEL SITE.  
FOUNDATION CAN BE MADE FROM CONCRETE, SAND, CRUSHER DUST OR COMPACTED NATIVE SOIL MEASURING APPROX. 100mm DEEP AND 600mm WIDER THAN THE BASE OF THE TANK. ALL BASES (EXCEPT CONCRETE) MUST BE SUPPORTED TO PREVENT EROSION FROM WIND, WATER AND ANY OTHER FACTOR.



**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

SITE PLAN

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

DO NOT SCALE

ORIGINAL SIZE IS A3

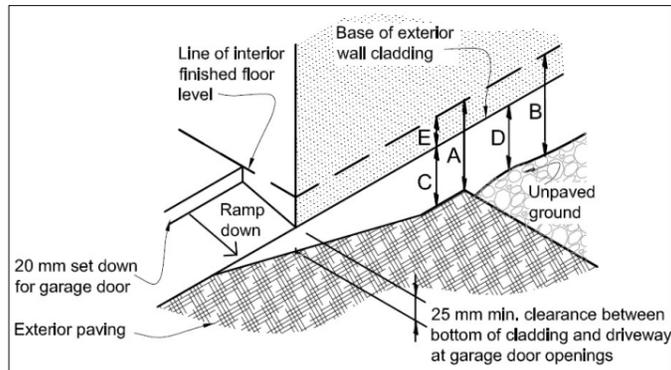
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### LEGEND

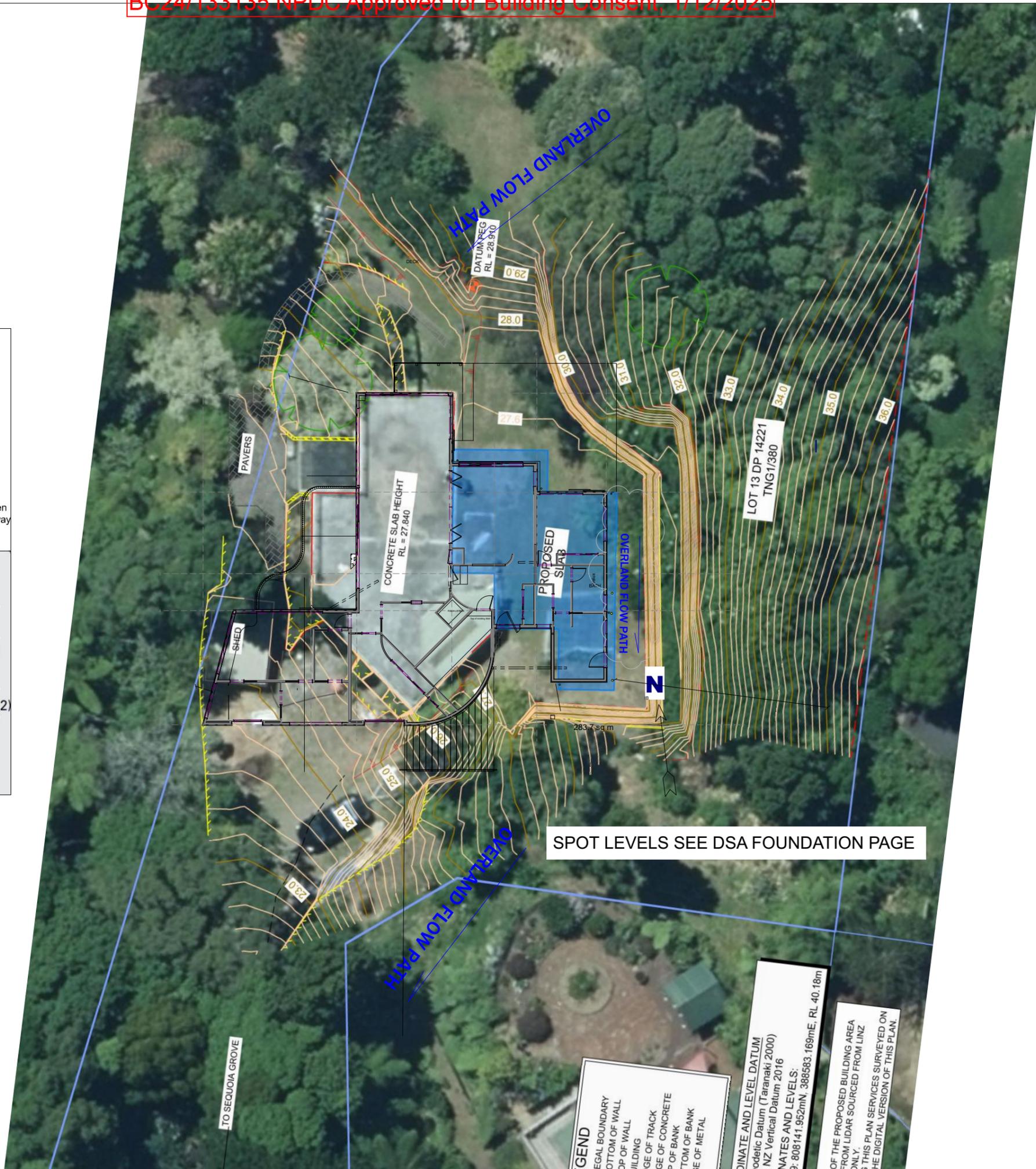
- LEGAL BOUNDARY
- - - BOTTOM OF WALL
- - - TOP OF WALL
- BUILDING
- EDGE OF TRACK
- EDGE OF CONCRETE
- - - TOP OF BANK
- - - BOTTOM OF BANK
- - - EDGE OF METAL



Minimum clearances (mm)	Masonry veneer		Other claddings				
	A	B	A	B	C	D	E
Concrete slab	100	150	150	225	100	175	50
Timber floor	Refer Note 1)		100	175	50	200	

**NOTE:** 1) Refer to NZS 3604 for requirements.  
 2) Cladding to extend minimum 50 mm below bearer or lowest part of timber floor framing.

SITE PLAN AERIAL VIEW 1:200



SPOT LEVELS SEE DSA FOUNDATION PAGE

**LEGEND**  
 LEGAL BOUNDARY  
 BOTTOM OF WALL  
 TOP OF WALL  
 BUILDING  
 EDGE OF TRACK  
 EDGE OF CONCRETE  
 TOP OF BANK  
 BOTTOM OF BANK  
 EDGE OF METAL

**DINATE AND LEVEL DATUM**  
 Geodetic Datum (Taranaki 2000)  
 NZ Vertical Datum, 2016  
**NATES AND LEVELS:**  
 9: 808141.952mN, 388583.169mE, RL 40.18m

OF THE PROPOSED BUILDING AREA  
 FROM LIDAR SOURCED FROM LINZ  
 ONLY  
 THIS PLAN SERVICES SURVEYED ON  
 THE DIGITAL VERSION OF THIS PLAN.



**CLIENT:**  
 Slinger George

**PROJECT NAME:**  
 Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
 DSA 1027

**TITLE:**  
 TOPOGRAPHY

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

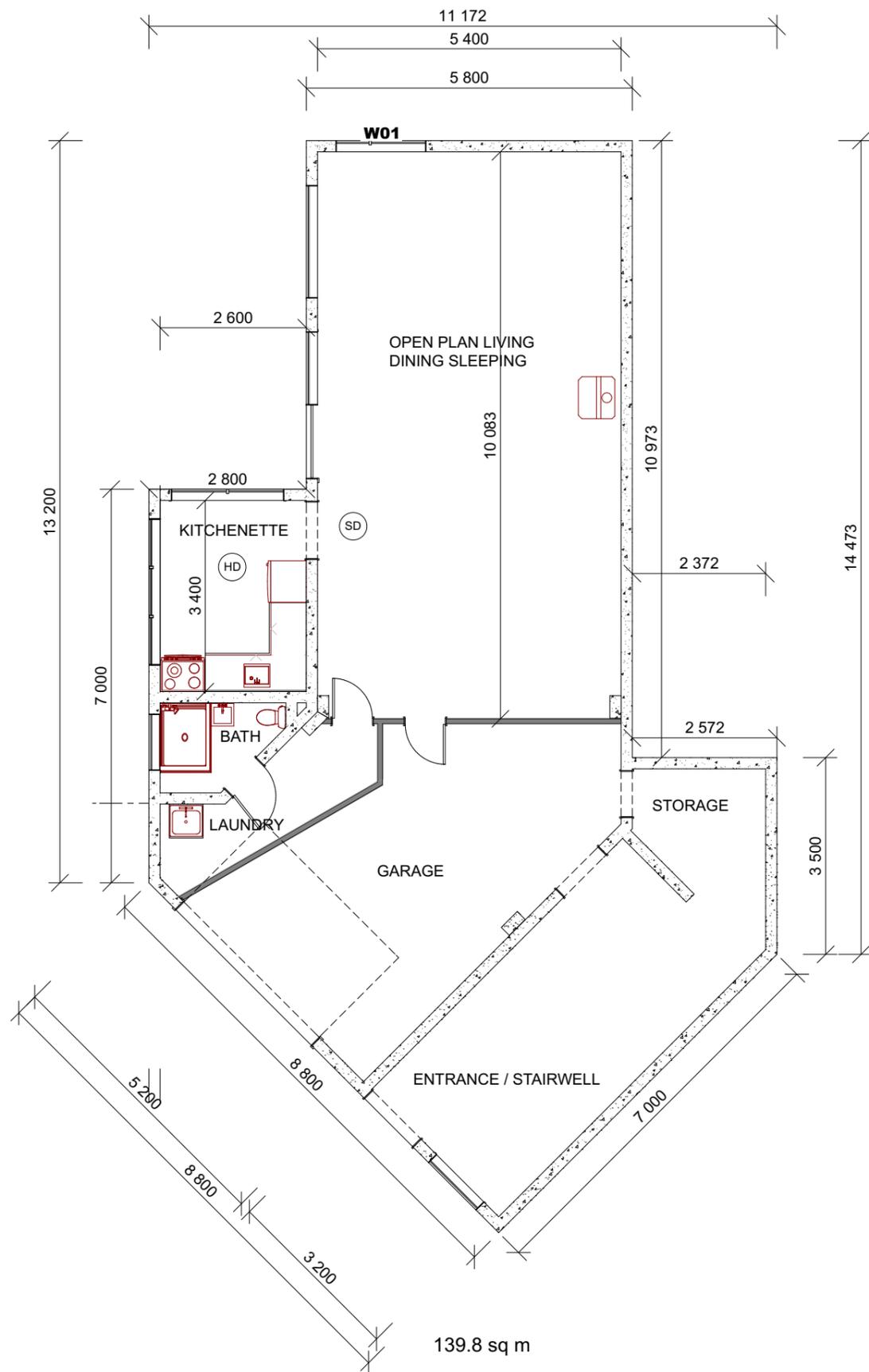
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Sheet 5



EXISTING GROUND FLOOR PLAN 1:100  
SINGLE STOREY



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
EXISTING FLOOR PLAN - SINGLE LEVEL

**NOTES:**



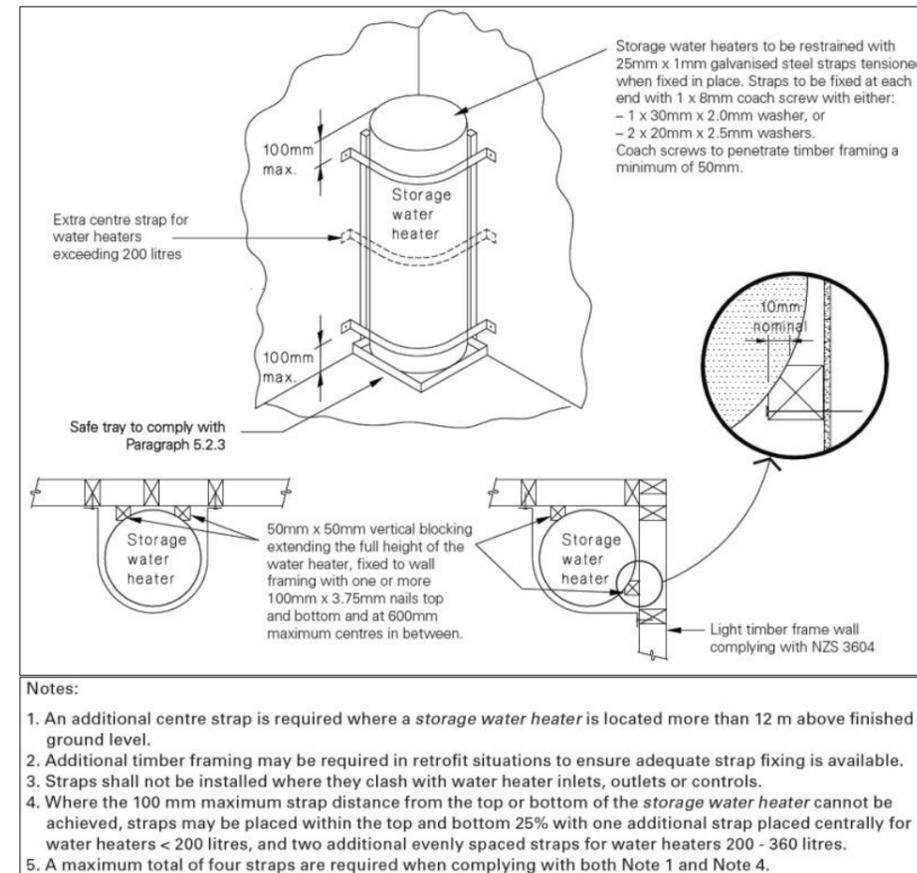
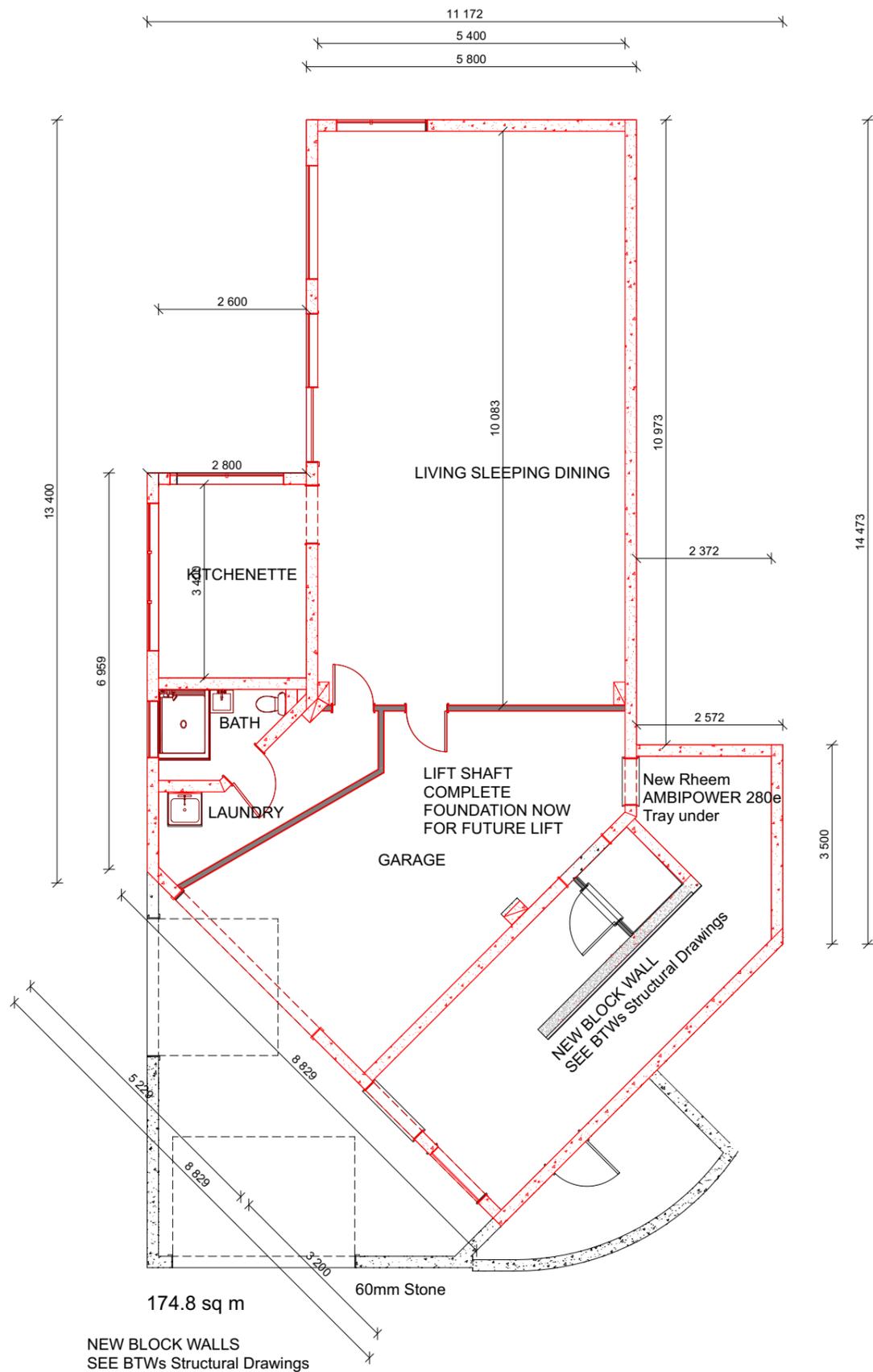
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GROUND FLOOR PLAN 1:100

All new construction is to comply with NZS3604:2011 and the NZ Building Code Handbook unless specifically designed.

Builder to check all dimensions prior to construction, manufacture or fixing of any part and shall refer all discrepancies to designer.

All timber in near contact with concrete, steel or cement based products shall be separated with a malthoid strip DPC of sufficient width to prevent contact between the two.

All framing timber to be H1.2 treated or where within 150mm of ground level to be H4 treated. Exposed timber to min H3.2 treated. Timber in ground to be min H5 treated. All timber framing to be SG8 grade unless specified otherwise.

Windows and glazing to be in accordance with NZS4223.3.2016 and F2

Smoke alarms to be interconnected as per C/AS1 2nd edition and NZS 4514:2021.

Confirm quantity of all joinery to floor plan, elevations and layouts with the owner



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
NEW GROUND FLOOR DIMENSIONS

**NOTES:**



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Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
ARCHITECTURAL FIRST FLOOR PLAN

**NOTES:**

**LIGHT AND VENTILATION**

GUEST B/R =17m <sup>2</sup>	LIGHT=7.5m <sup>2</sup> =44%
VENT=6.66m <sup>2</sup> =39.2%	
MASTER B/R 2=30m <sup>2</sup>	LIGHT=19.64m <sup>2</sup> =65.5%
VENT=12.21m <sup>2</sup> =40.7%	
LOUNGE/DINING/KITCHEN=100m <sup>2</sup>	LIGHT=55.74m <sup>2</sup> =55.74%
VENT=13.7m <sup>2</sup> =31.2%	
STUDIO/SEWING ROOM=18m <sup>2</sup>	LIGHT=6.24m <sup>2</sup> =34.7%
VENT=2.08m <sup>2</sup> =11.5%	



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Sheet 8

**EXHAUST FANS**  
BATHROOMS MIN 25L/SEC  
KITCHENS MIN 50L/SEC



NON SLIP FLOOR COVERINGS



TIMBER OVERLAY FLOORING



FULL WET AREA  
with marmox surface mounted tray with hobs  
Under Glass Walls

**SD** SMOKE DETECTOR

**HD** HEAT DETECTOR

FIRST FLOOR FLOOR PLAN 1:100



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
FIRST FLOOR DIMENSIONS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

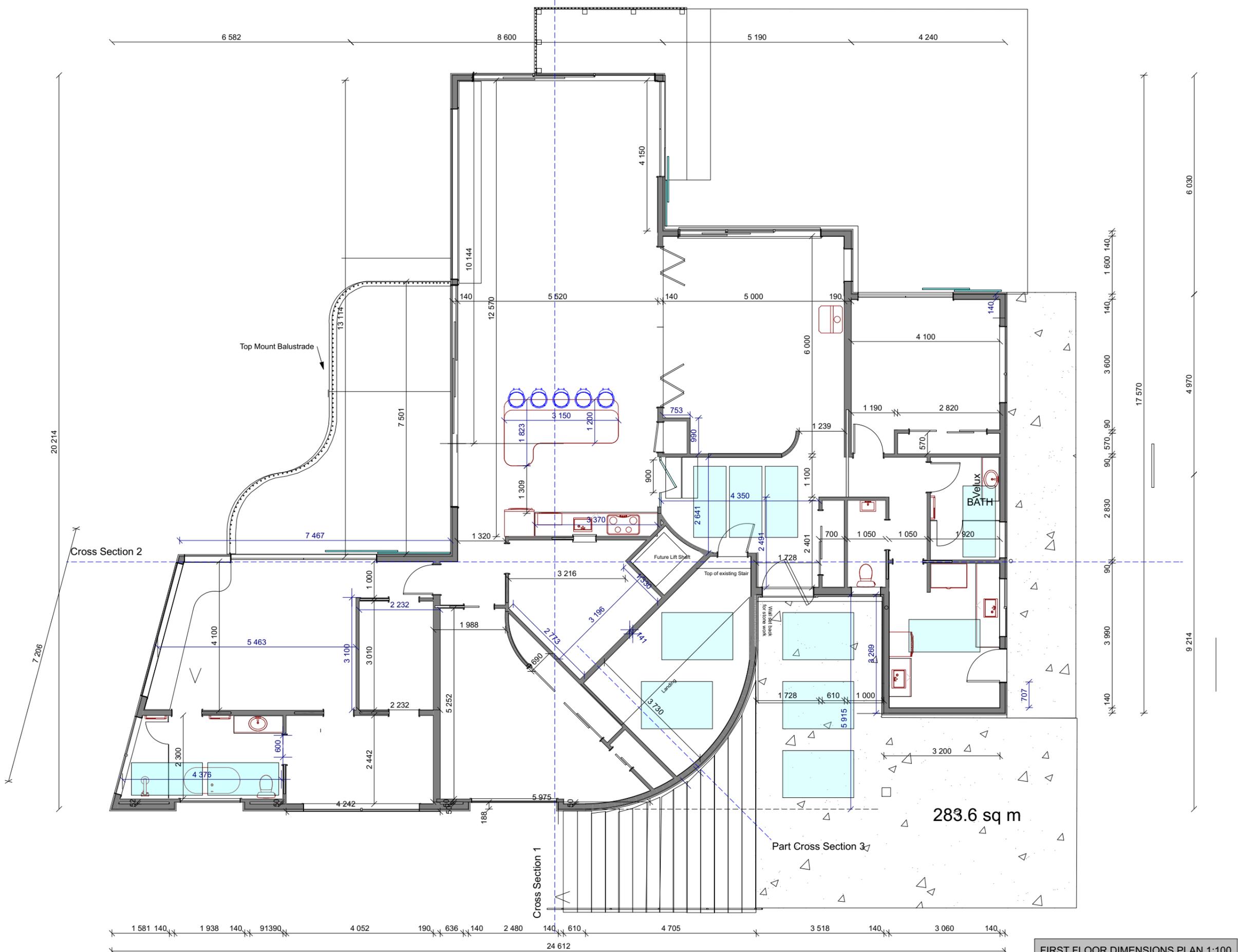
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FIRST FLOOR DIMENSIONS PLAN 1:100



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
FIRST FLOOR OVERLAY WITH GROUND FLOOR

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

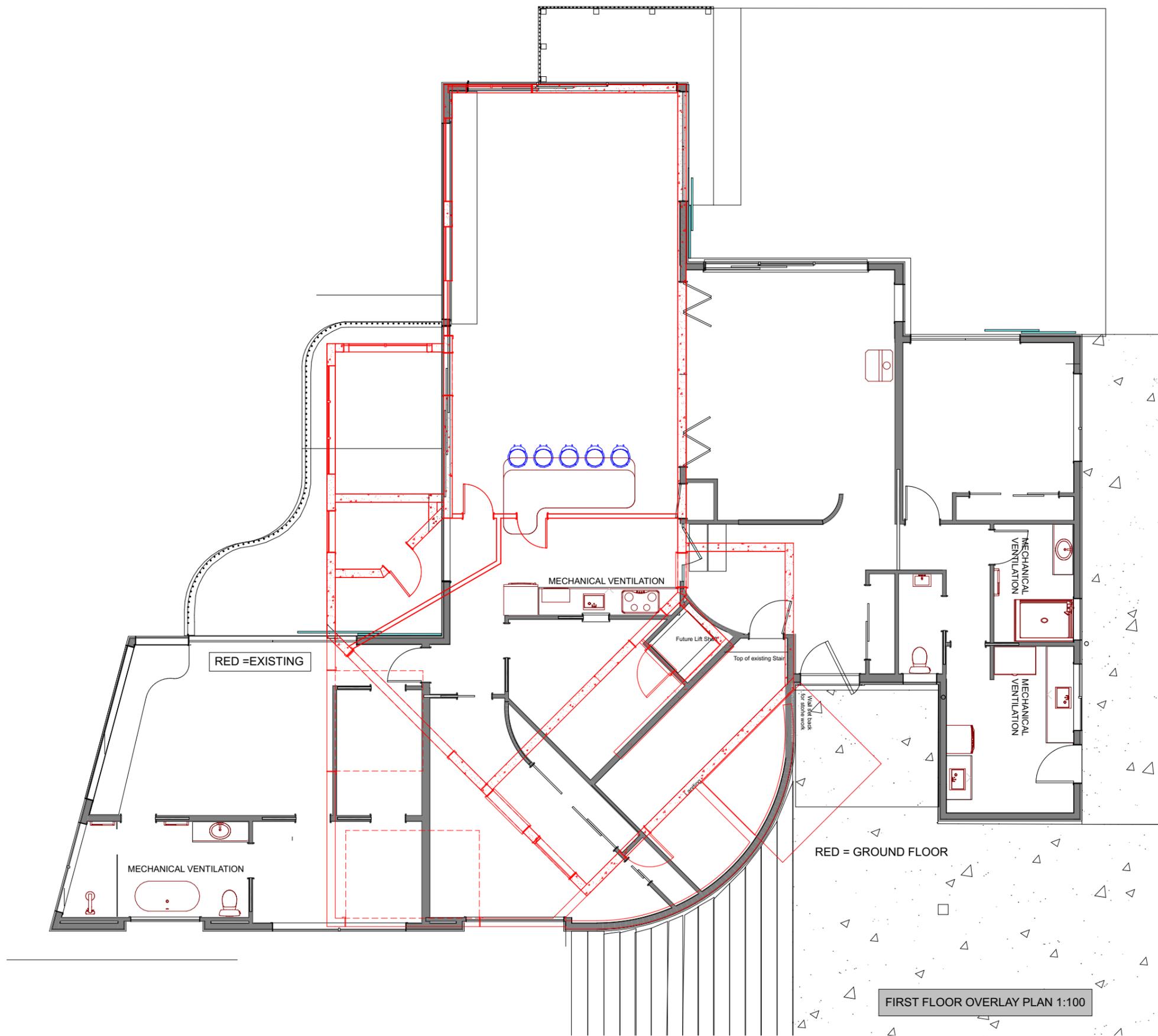
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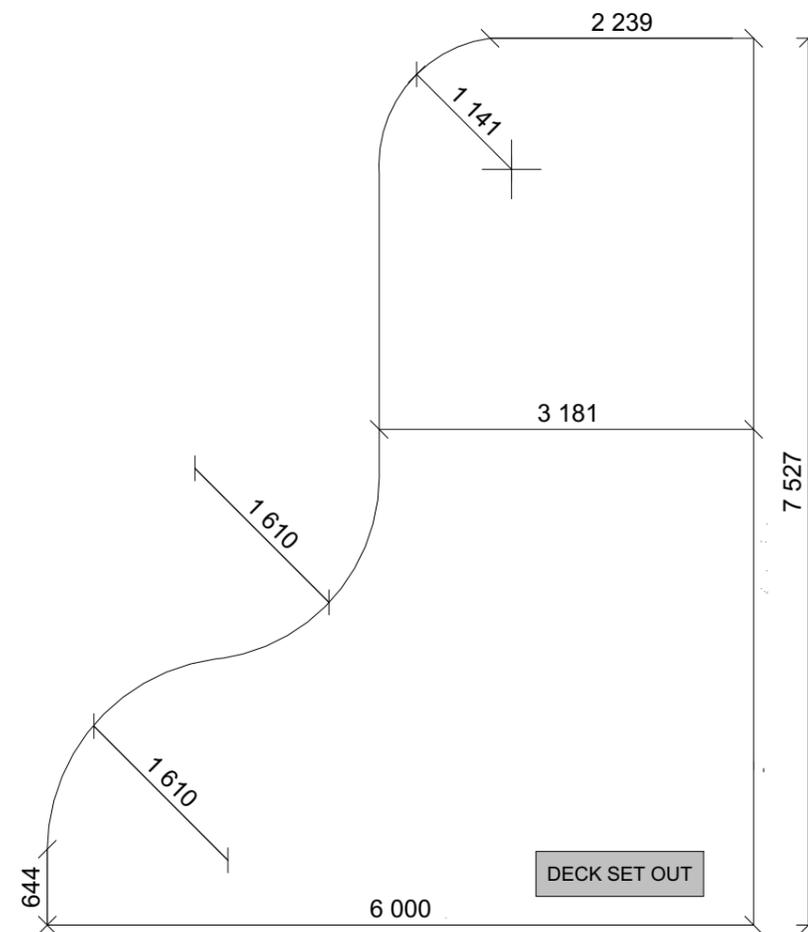
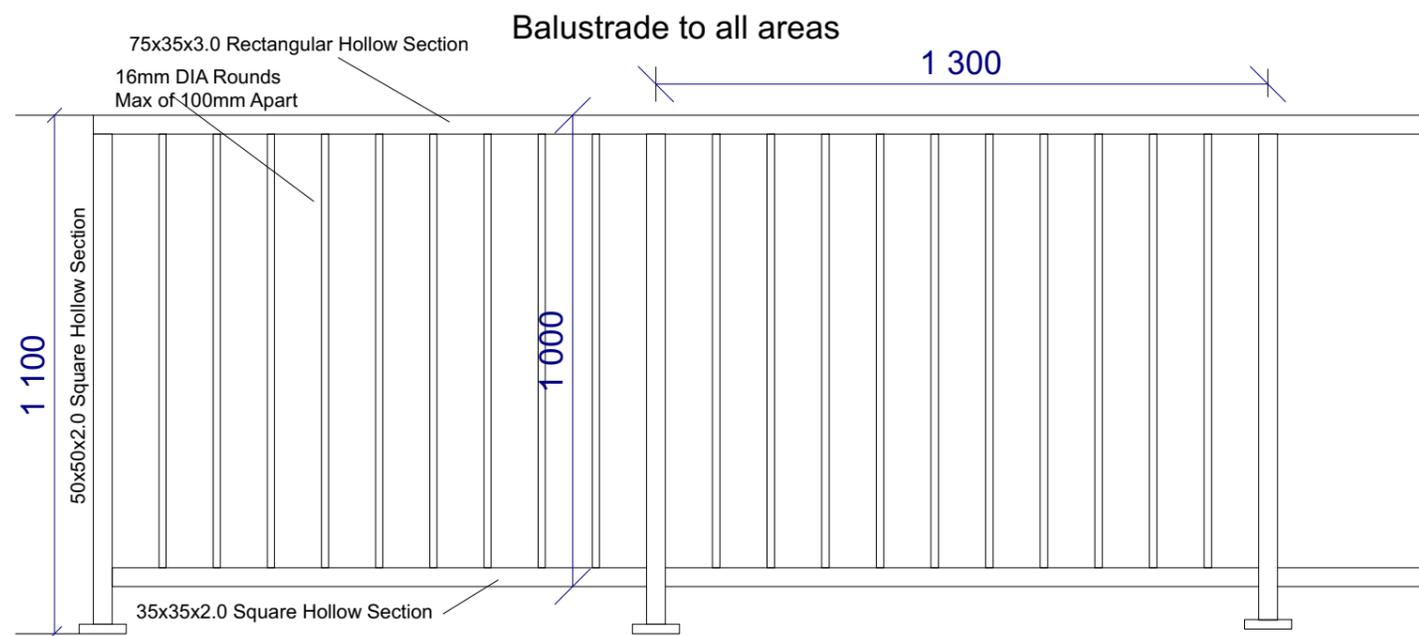
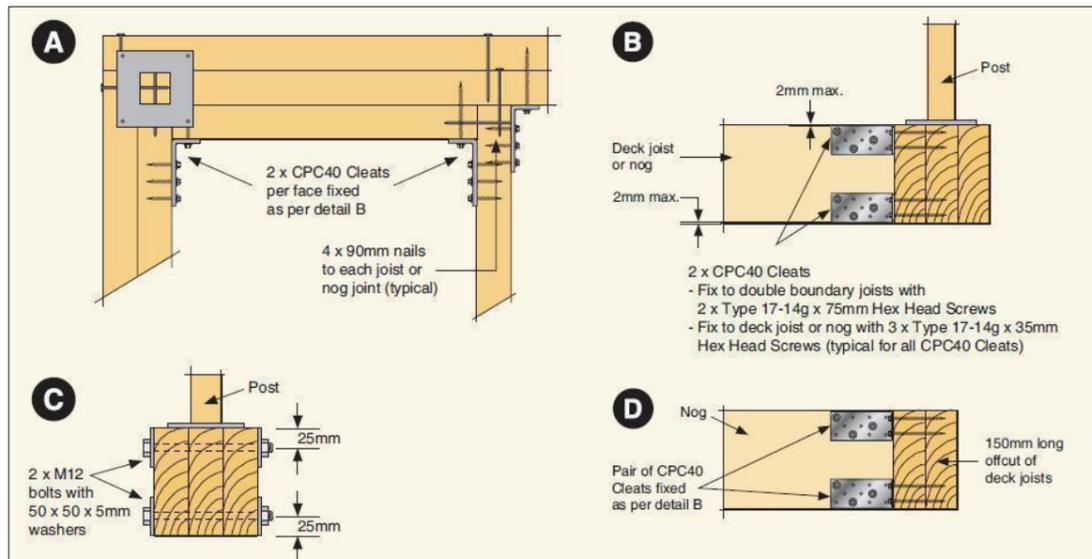
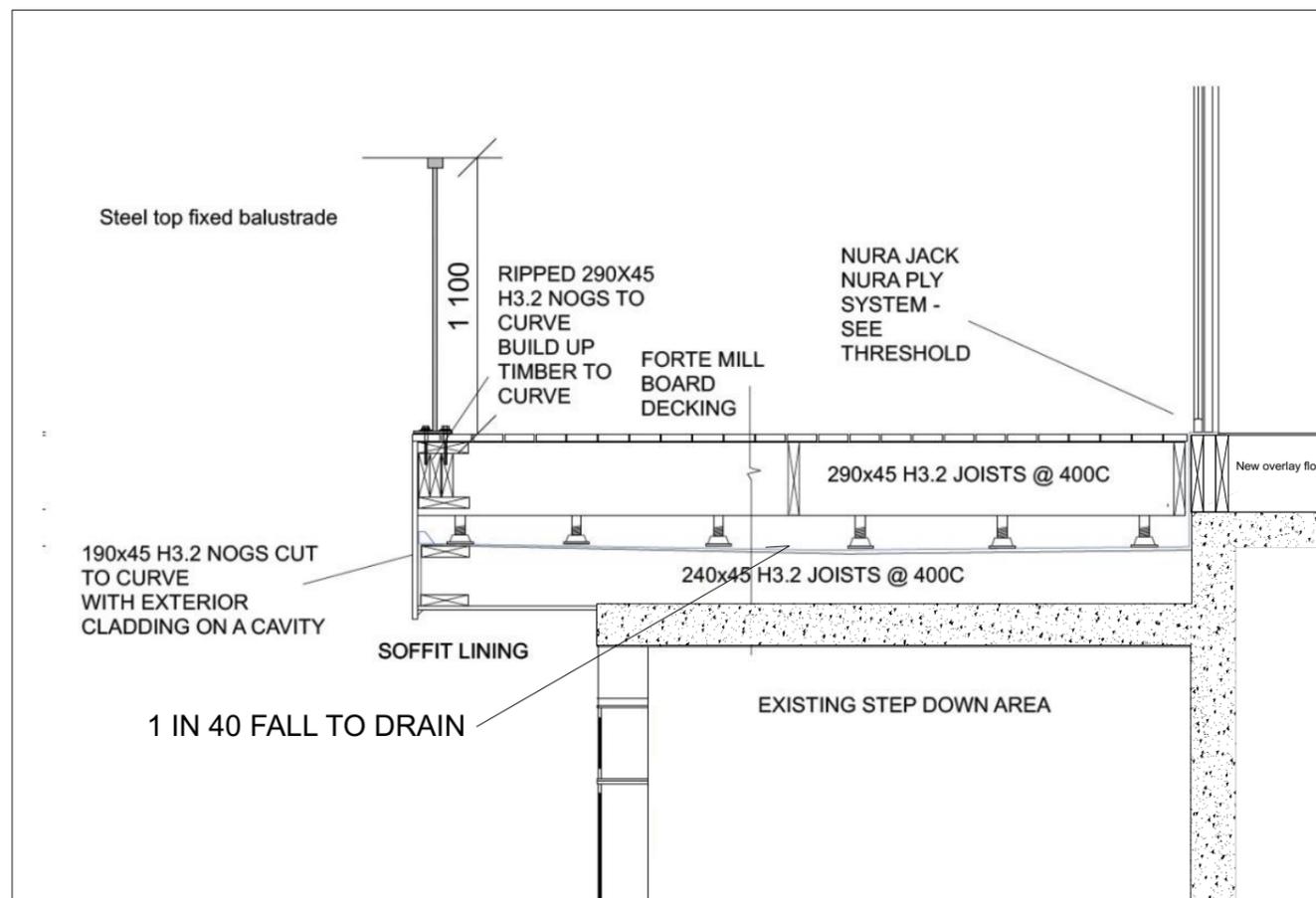
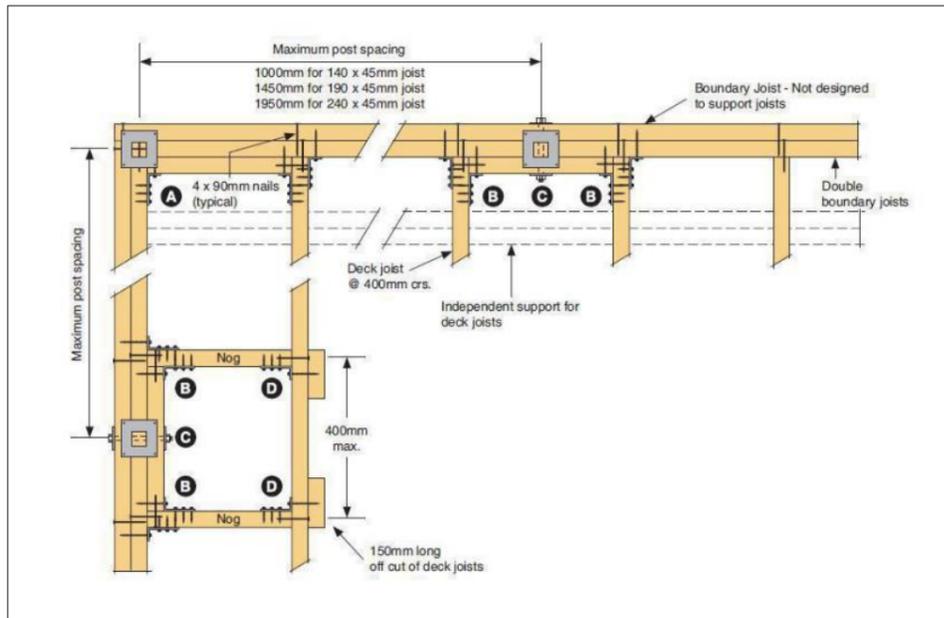
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Sheet 10







See BTW Sheet S7.02 for full details



**CLIENT:**  
 Slinger George

**PROJECT NAME:**  
 Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
 DSA 1027

**TITLE:**  
 DECK RAILING FRAMING DETAILS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

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Sheet 12



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
ELEVATIONS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

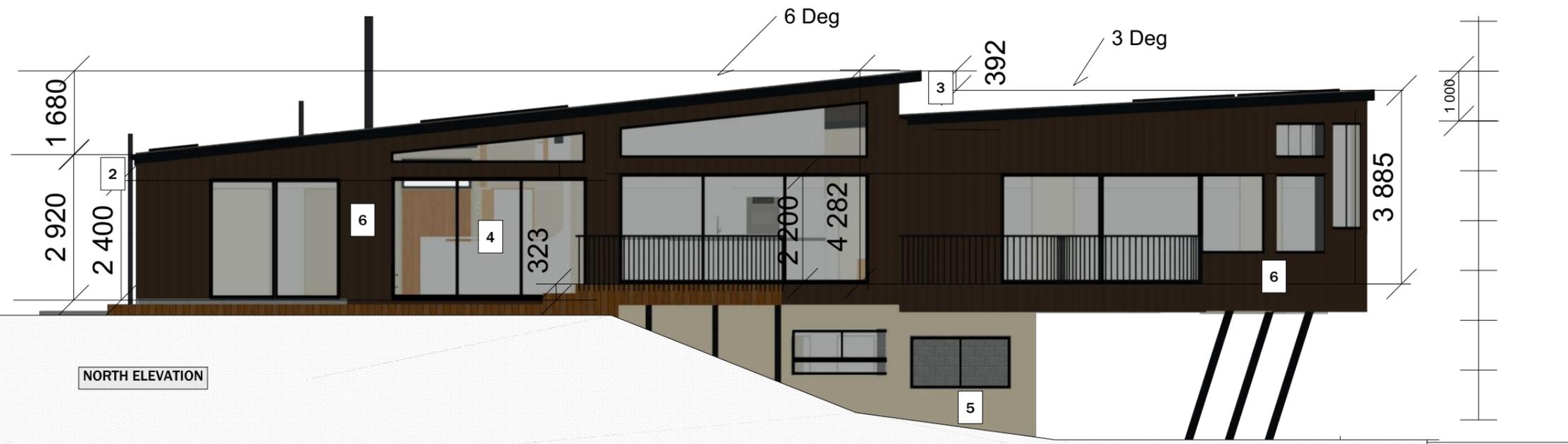
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NORTH ELEVATION

Project Name / Facade ID: WHARE AWA

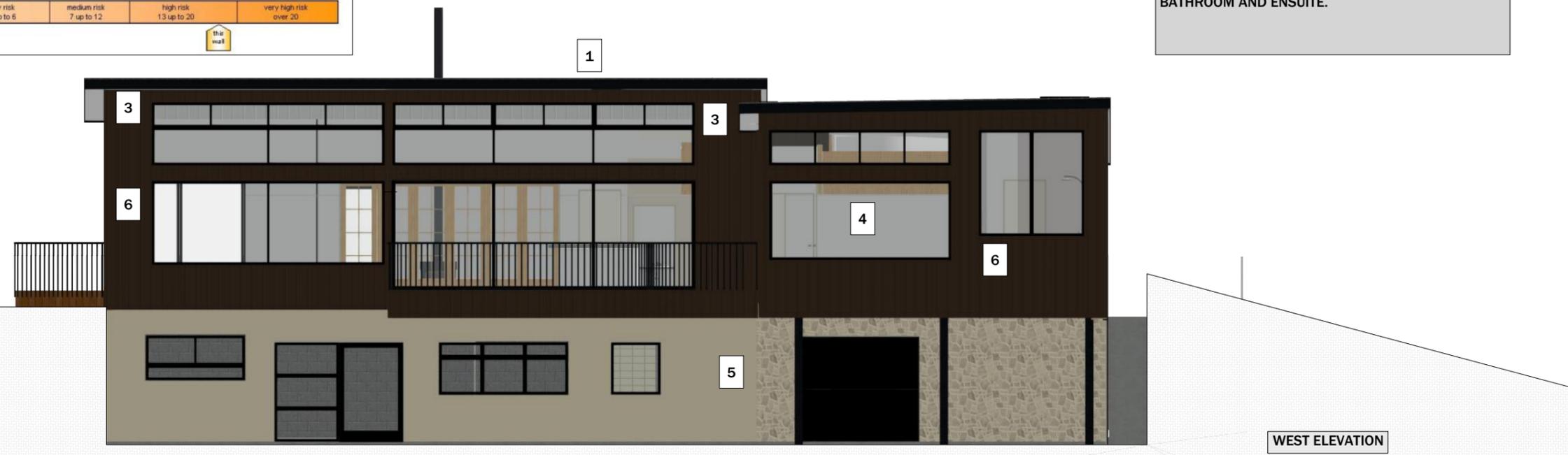
Wall type:  Parapet or enclosed balustrade  Other

Risk Scores	Low	Medium	High	Very High
A. Wind Zone:	<input type="radio"/> Low = 0	<input type="radio"/> Medium = 0	<input checked="" type="radio"/> High = 1	<input type="radio"/> Very High = 2 <input type="radio"/> Extra High = 2
B. Number of Storeys:	<input type="radio"/> Low = 0	<input checked="" type="radio"/> Medium = 1	<input type="radio"/> High = 2	<input type="radio"/> Very High = 4
C. Roof/Wall Intersection Design:	<input type="radio"/> Low = 0	<input type="radio"/> Medium = 1	<input type="radio"/> High = 3	<input checked="" type="radio"/> Very High = 5
D. Eaves Width:	<input type="radio"/> Low = 0	<input type="radio"/> Medium = 1	<input type="radio"/> High = 2	<input checked="" type="radio"/> Very High = 5
E. Envelope Complexity:	<input type="radio"/> Low = 0	<input type="radio"/> Medium = 1	<input checked="" type="radio"/> High = 3	<input type="radio"/> Very High = 6
F. Deck Design:	<input type="radio"/> Low = 0	<input type="radio"/> Medium = 2	<input checked="" type="radio"/> High = 4	<input type="radio"/> Very High = 6

Total Risk Score: **19**

low risk 0 up to 6    medium risk 7 up to 12    high risk 13 up to 20    very high risk over 20

- 1 METALCRAFT MC760 on THERMAKRAFT 215. Vented With Netting
  - 2 125MM BOX GUTTER
  - 3 SOFFITS JAMES HARDIE
  - 4 ALL WINDOWS AND DOORS DOUBLE GLAZED AND SITE MEASURED R0.5
  - 5 SEALED AND PAINTED BLOCK WORK
  - 6 ULTRA CLAD SHADOWLINE ON A CAVITY
- STUD HEIGHT VARIES  
INTERNAL DOORS 2200mm HIGH  
GIB AQUALINE TO CEILINGS AND WALLS OF BATHROOM AND ENSUITE.



WEST ELEVATION

ELEVATIONS 1:100



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
ELEVATIONS

**NOTES:**



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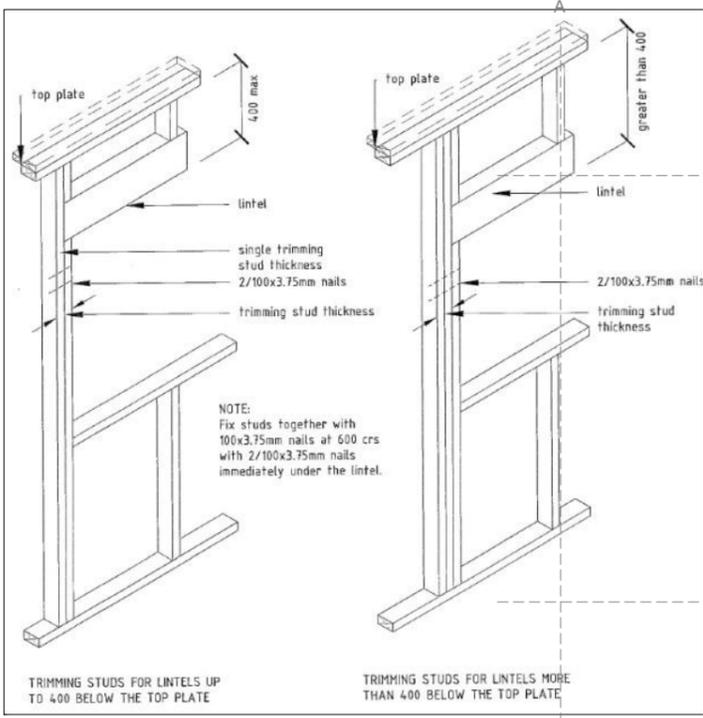
SOUTH ELEVATION



EAST ELEVATION

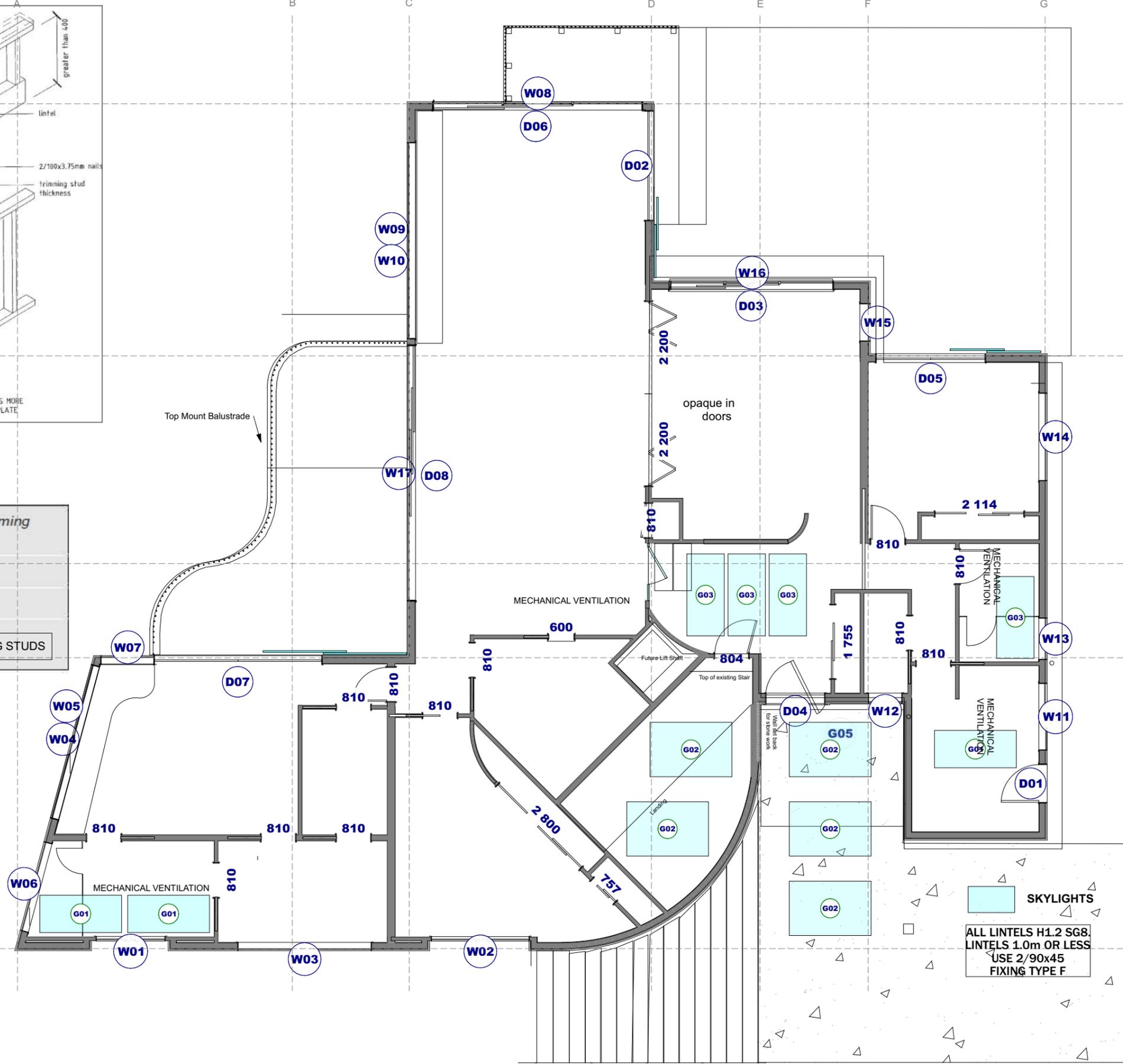
- 1. METALCRAFT MC760 on THERMAKRAFT 215.Vented with netting
- 2. JAMES HARDIE 6.0MM HARDIE FLEX ON CURVED WALL
- 3. 125MM BOX GUTTER
- 4. SOFFITS JAMES HARDIE
- 5. ALL WINDOWS AND DOORS DOUBLE GLAZED AND SITE MEASURED R0.5
- 6. ULTRACLAD SHADOWLINE ON A CAVITY
- 7. SEALED AND PAINTED BLOCK WORK

STUD HEIGHT VARIES  
INTERNAL DOORS 2200mm HIGH



Maximum clear width of opening (span of lintel) (m)	Thickness of <i>trimming stud</i> (mm)
Up to 1.8	45
1.8 to 3.7	90
3.7 to 4.8 (garage doors only)	180

TRIMMING STUDS



SKYLIGHTS  
ALL LINTELS H1.2 SG8.  
LINTELS 1.0m OR LESS  
USE 2/90x45  
FIXING TYPE F

JOINERY PLAN 1:100



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
WINDOWS AND DOORS FIRST FLOOR

**NOTES:**



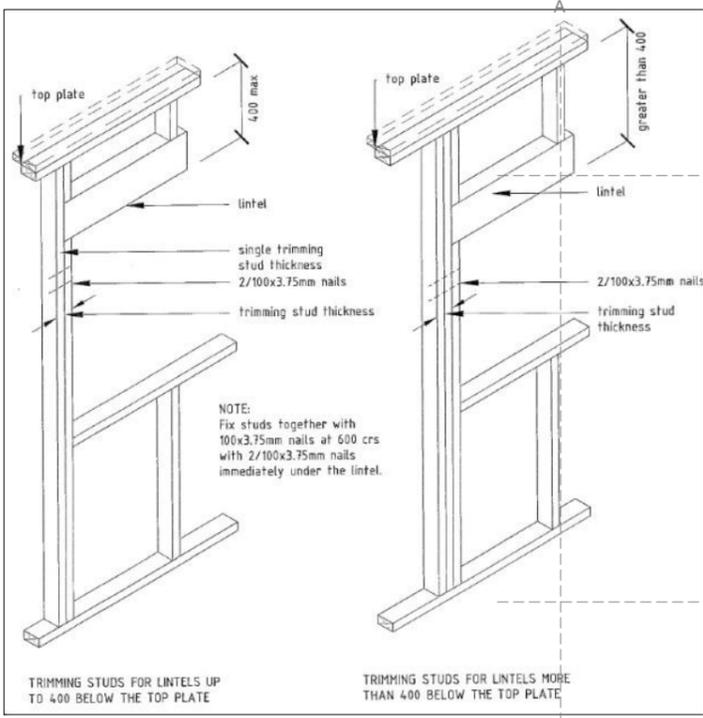
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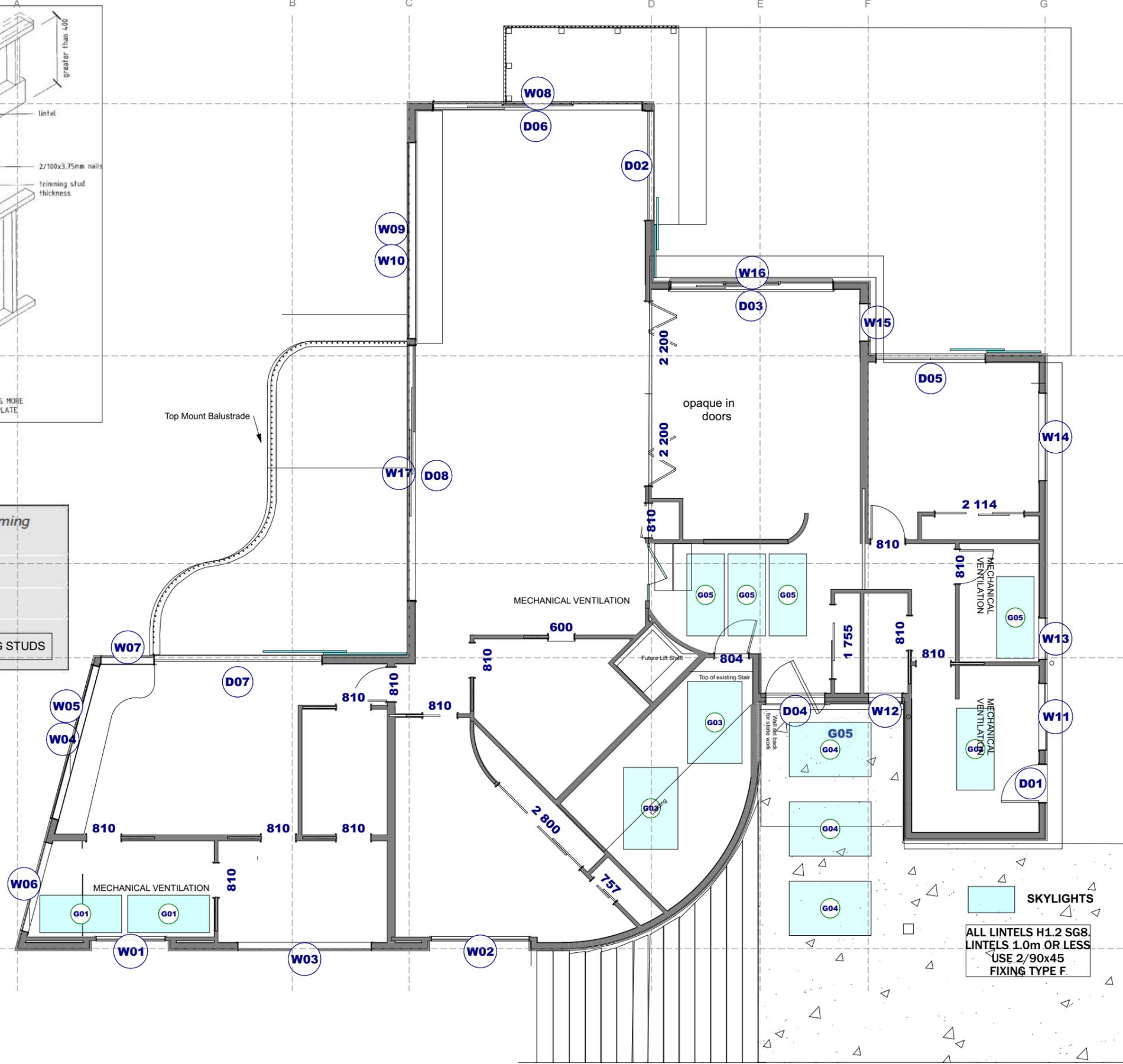
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Maximum clear width of opening (span of lintel) (m)	Thickness of <i>trimming stud</i> (mm)
Up to 1.8	45
1.8 to 3.7	90
3.7 to 4.8 (garage doors only)	180

TRIMMING STUDS



SKYLIGHTS  
 ALL LINTELS H1.2 SG8.  
 LINTELS 1.0m OR LESS  
 USE 2/90x45  
 FIXING TYPE F.

JOINERY PLAN 1:100



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
WINDOWS AND DOORS FIRST FLOOR

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE  
 DO NOT SCALE  
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DOOR SCHEDULE						
NUMBER	QTY	FLOOR	HEIGHT	WIDTH	AREA, STANDARD (SQ M)	3D EXTERIOR ELEVATION
D01	1	2	2200	900	1.98	
D02	1	2	2200	2600	5.72	 External Hung
D03	1	2	2400	3900	9.36	
D04	1	2	2814	1400	3.94	 Pivot Door
D05	1	2	2400	2600	6.24	 External Hung
D06	1	2	2200	5000	11.0	
D07	1	2	2200	4000	8.8	 External Hung
D08	1	2	2200	6100	13.42	
<b>TOTALS:</b>					60.46	

WINDOW SCHEDULE						
NUMBER	QTY	FLOOR	HEIGHT	WIDTH	AREA, STANDARD (SQ M)	3D EXTERIOR ELEVATION
W01	1	2	1700	1660	2.82	
W02	1	2	2650	2350	6.23	
W03	1	2	651	3200	0.96	
W04	1	2	1600	3800	6.08	
W05	1	2	710	3800	2.7	
W06	1	2	2140	2200	4.71	
W07	1	2	1600	1287	2.06	
W08	1	2	1141	5000	2.5	

SAFETY GLASS AS PER  
NZS 4223.3.2016 & F21

UNLESS OTHERWISE STATED  
GLAZING UNITS R0.5

ALL WINDOWS WITH A FALL  
FURTHER THAN 1.0M  
INSTALL SAFETY STAYS

Raking Windows Head Flashings  
see Branz Build 162 in A4s

SKYLIGHT SCHEDULE			
NUMBER	AREA, ACTUAL (SQ M)	LABEL	QTY
G01	1.76	895X1 962	3
G02	2.55 SG Not in insulation envelope	1 300X1 962	5
G03	1.76	1 959X900	4

Total 12.32m2

All standard FCM Velux's



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
DOOR AND WINDOW SCHEDULE

**NOTES:**



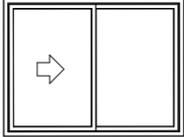
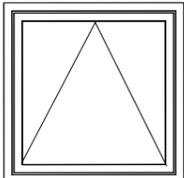
CONFIRM ALL DIMENSIONS ON SITE

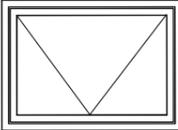
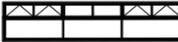
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W09	1	2	1700	4700	7.99	
W10	1	2	1264	4700	5.94	
W11	1	2	1200	1600	1.92	
W12	1	2	810	810	2.42	

W13	1	2	700	1000	0.7	
W14	1	2	600	2100	1.26	
W15	1	2	1700	900	1.53	
W16	1	2	633	3900	1.56	
W17	1	2	1264	6107	7.72	
<b>TOTALS:</b>					<b>62.58</b>	

SAFETY GLASS AS PER  
NZS 4223.3.2016 & F21

UNLESS OTHERWISE STATED  
GLAZING UNITS R0.5

ALL WINDOWS WITH A FALL  
FURTHER THAN 1.0M  
INSTALL SAFETY STAYS

Raking Windows Head Flashings  
see Branz Build 162 in A4s

1.2



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing  
Dwelling Ground Floor  
and Extend Dwelling  
Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
DOOR AND WINDOW  
SCHEDULE CONT...

**NOTES:**



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Lintel Span (m)	Loaded Dimension (m)	Light Roof				
		Wind Zone				
		Low	Medium	High	Very High	Extra High
1.0	2.0	E	E	E	F	F
	3.0	E	E	F	F	F
	4.0	E	F	F	F	G
	5.0	E	F	F	G	G
	6.0	E	F	F	G	G
1.2	2.0	E	E	F	F	F
	3.0	E	E	F	F	F
	4.0	E	F	F	G	G
	5.0	E	F	F	G	G
	6.0	F	F	G	G	H
1.5	2.0	E	E	F	F	F
	3.0	E	F	F	F	G
	4.0	E	F	F	G	G
	5.0	F	F	G	G	H
	6.0	F	F	G	H	H
2.0	2.0	E	F	F	F	G
	3.0	E	F	F	G	G
	4.0	F	F	G	G	H
	5.0	F	F	G	H	H
	6.0	F	G	G	H	H
2.4	2.0	E	F	F	G	G
	3.0	F	F	G	G	H
	4.0	F	F	G	H	H
	5.0	F	G	G	H	H
	6.0	F	G	H	H	-
3.0	2.0	E	F	F	G	G
	3.0	F	F	G	H	H
	4.0	F	G	G	H	H
	5.0	F	G	H	H	-
	6.0	F	G	H	-	-
3.6	2.0	F	F	G	G	H
	3.0	F	F	G	H	H
	4.0	F	G	H	H	-
	5.0	F	G	H	-	-
	6.0	G	H	H	-	-
4.2	2.0	F	F	G	G	H
	3.0	F	G	H	H	-
	4.0	F	G	H	-	-
	5.0	G	H	H	-	-
	6.0	G	H	-	-	-
4.5	2.0	F	F	G	H	H
	3.0	F	G	H	H	-
	3.4	F	G	H	H	-
	4.0	F	G	H	-	-
	5.0	G	H	-	-	-
4.8	2.0	F	F	G	H	H
	3.0	F	G	H	H	-
	3.2	F	G	H	H	-
	4.0	F	G	H	-	-
	5.0	G	H	-	-	-
5.1	2.0	F	F	G	H	H
	3.0	F	G	H	H	-
	3.5	F	G	H	-	-
	4.0	G	G	H	-	-
	5.0	G	H	-	-	-
5.4	2.0	F	F	G	H	H
	2.8	F	G	H	H	-
	3.0	F	G	H	-	-
	4.0	G	H	H	-	-
	5.0	G	H	-	-	-
6.0	G	H	-	-	-	

# LUMBERLOK® LINTEL FIXING OPTIONS

## ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12 NZS 3604:2011

### TYPE E 1.4kN

4 x 90mm x 3.15 dia. nails

2 x 90mm x 3.15 dia. nails directly below lintel

90mm x 3.15 dia. nails Trimmer to understud at 250mm crs.

Tylok 2T5 one side

Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011

### TYPE F 4.0kN

6 x 90mm x 3.15 dia. nails

2 x 90mm x 3.15 dia. nails directly below lintel

Tylok 4T5 one side

90mm x 3.15 dia. nails Trimmer to understud at 250mm crs.

2 x Tylok 2T5 one side for Radiata Pine or 2 x Strap Nail one side for Douglas Fir

Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011

### TYPE G 7.5kN

6 x 90mm x 3.15 dia. nails

200mm Sheet Brace Strap to one side

2 x 90mm x 3.15 dia. nails directly below lintel

6 x 30mm x 3.15 dia. nails each end

90mm x 3.15 dia. Trimmer to understud at 250mm crs.

OR

6 x 90mm x 3.15 dia. nails

Tylok 10T10 to one side

60mm [Two rows of teeth into understud]

OR

2 x 200mm Sheet Brace Strap to one side 3 x 30mm x 3.15 dia. nails to each stud

OR

2 x Tylok 2T5 to both sides for Radiata Pine 2 x Strap Nail to both sides for Douglas Fir

OR

GIB® HandiBrac™

400mm Sheet Brace Strap to one side 6 x 30mm x 3.15 dia. nails to stud 3 x 30mm x 3.15 dia. nails to bottom plate

6 x 30mm x 3.15 dia. nails to timber joist/bearer

Max. 100mm

Min. 75mm into concrete floor

6kN Stud Anchor (CPC80)

3 x 30mm x 3.15 dia. nails into bottom plate

BOWMAC Screw Bolt M10 x 140mm with 50 x 50 x 3mm square washer into concrete floor or timber joist/bearer. No Washer required with GIB HandiBrac™.

Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011

### TYPE H 13.5kN

8 x 90mm x 3.15 dia. nails

200mm Sheet Brace Strap to both sides

2 x 90mm x 3.15 dia. nails directly below lintel

6 x 30mm x 3.15 dia. nails each end of each strap

OR

8 x 90mm x 3.15 dia. nails

Tylok 10T10 to both sides

60mm [Two rows of teeth into understud]

OR

90mm x 3.15 dia. nails @ 250mm crs. both sides

OR

2 x 400mm Sheet Brace Strap to one side 6 x 30mm x 3.15 dia. nails each end to stud

OR

GIB® HandiBrac™

2 x Tylok 2T5 both sides

3 x 30mm x 3.15 dia. nails to bottom plate

6 x 30mm x 3.15 dia. nails each end to timber joist/bearer

Max. 100mm

Min. 75mm into concrete floor (typical)

2 x 6kN Stud Anchor (CPC80)

400mm Sheet Brace Strap wrap around bottom plate and up the other side

BOWMAC Screw Bolt M10 x 140mm with 50 x 50 x 3mm square washer into concrete floor or timber joist/bearer. No Washer required with GIB HandiBrac™.

Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
LINTEL FIXINGS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

DO NOT SCALE

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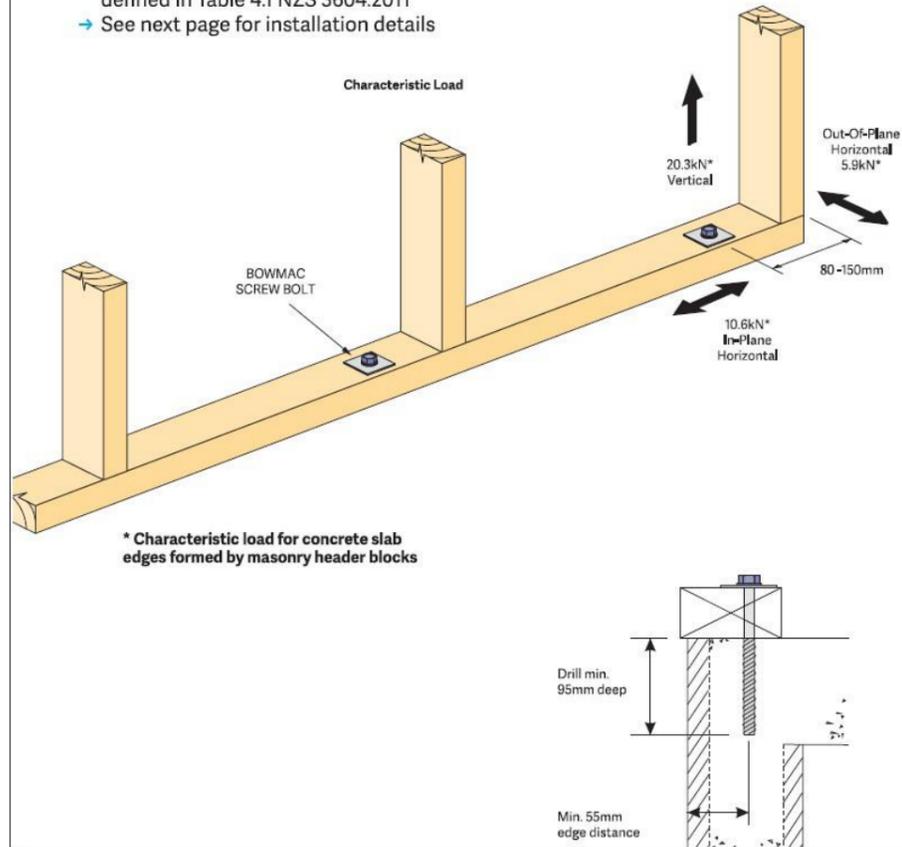
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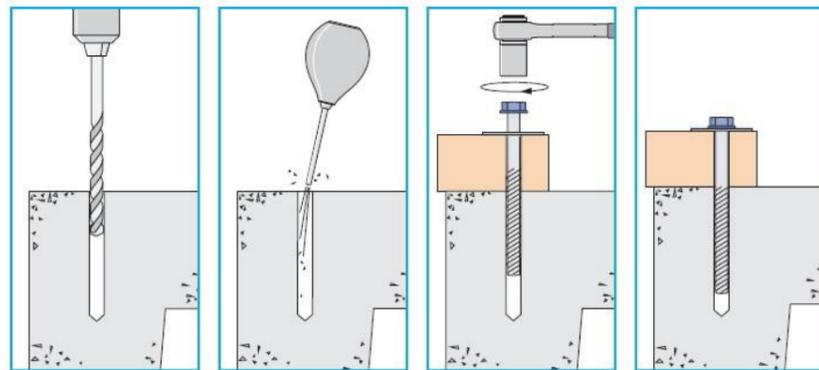
### M10 X 140 BOWMAC BLUE HEAD

- Complies with Clause 7.5.12.2 NZS 3604:2011 Proprietary Post Fixed Anchors
- BRANZ tested. Ref # ST0895 Oct. 2012
- Suitable for both external and internal wall frame anchor to concrete slab or masonry header blocks
- Complies with durability requirements for "All Zones" in a "CLOSED" environment as defined in Table 4.1 NZS 3604:2011
- See next page for installation details



### INSTALLATION DETAILS

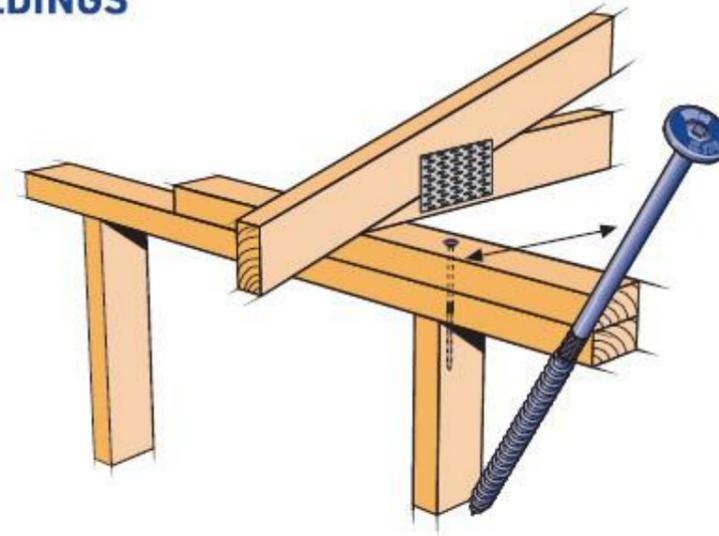
- Install BOWMAC SCREW BOLT and washer supplied to concrete slabs at 900mm max. crs., or 600mm max. crs. when using masonry header blocks
- SCREW BOLT must be located within 150mm from end of timber wall frame



- Use a 10mm diameter masonry bit for drilling into concrete substrate
- Drill a hole into the concrete base to a minimum depth of 95mm and clean out dust and debris from hole prior to installation of BOWMAC SCREW BOLT
- Insert SCREW BOLT through washer and timber and into the hole
- Begin tightening SCREW BOLT by applying downward pressure when engaging the first thread
- Additional downward pressure may be required for installation in high strength, dense concrete
- Continue tightening SCREW BOLT until the head is firmly seated against the washer
- In extremely dense material, use of an impact wrench is recommended
- Ensure SCREW BOLT is at the required embedment depth
- Don't exceed the maximum clamping torque of 80Nm
- The installation is now complete

## STUD-LOK SL170 (BLUE) TOP PLATE FIXING

### PROVIDES A SOLUTION FOR TOP PLATE TO STUD FIXINGS FOR RESIDENTIAL TIMBER FRAME BUILDINGS



- Complies with fixing requirements in Section 8 NZS 3604:2011
- The BOWMAC STUD-LOK forms an integral part of the MiTek Truss & Frame design and layout

#### NOTE:

- Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist lateral loads
- The STUD-LOK connections assume that the correct choice of rafter/truss fixings have been made
- Wall framing arrangements under girder trusses are not covered in this schedule
- All timber selections are as per NZS 3604:2011 and include LVL8 timber grades

### FIXING THROUGH VERY TOP PLATE OR CAPPING PLATE TO STUDS



### FIXING SELECTION CHART

(Suitable for walls supporting roof members at 600, 900 or 1200mm crs.)

Wind Zones L, M, H, VH, EH as per NZS 3604:2011

Loaded Dimension (m)	Stud Centres			Light Roof Wind Zone					Heavy Roof Wind Zone				
	300mm	400mm	600mm	L	M	H	VH	EH	L	M	H	VH	EH
3.0	23	15	2N	2N	SL	SL	SL	2N	2N	SL	SL	SL	SL
4.0	30	20	2N	2N	SL	SL	SL	2N	2N	SL	SL	SL	SL
5.0	38	25	2N	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
6.0	45	30	2N	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
7.0	53	35	2N	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
8.0	60	40	2N	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
9.0	68	45	SL	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
10.0	75	50	SL	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
11.0	83	55	SL	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL
12.0	90	60	SL	SL	SL	SL	SL	2N	2N	SL	SL	SL	SL

2N = 2/90mm x 3.15 dia. Nails

SL = Single STUD-LOK SL170 (blue) plus 2/90mm x 3.15 dia. Nails or 100mm x 3.75 dia. Framing Nails

#### NOTE:

To calculate the number of STUD-LOK fixings required, divide the wall length by the stud centres, add 1 to this figure and locate this numbers of fixings as evenly as possible along the wall length. This figure includes the start and end studs in each wall length.



#### CLIENT:

Slinger George

#### PROJECT NAME:

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

#### PROJECT CODE:

DSA 1027

#### TITLE:

FRAMING CONNECTIONS

#### NOTES:



CONFIRM ALL DIMENSIONS ON SITE

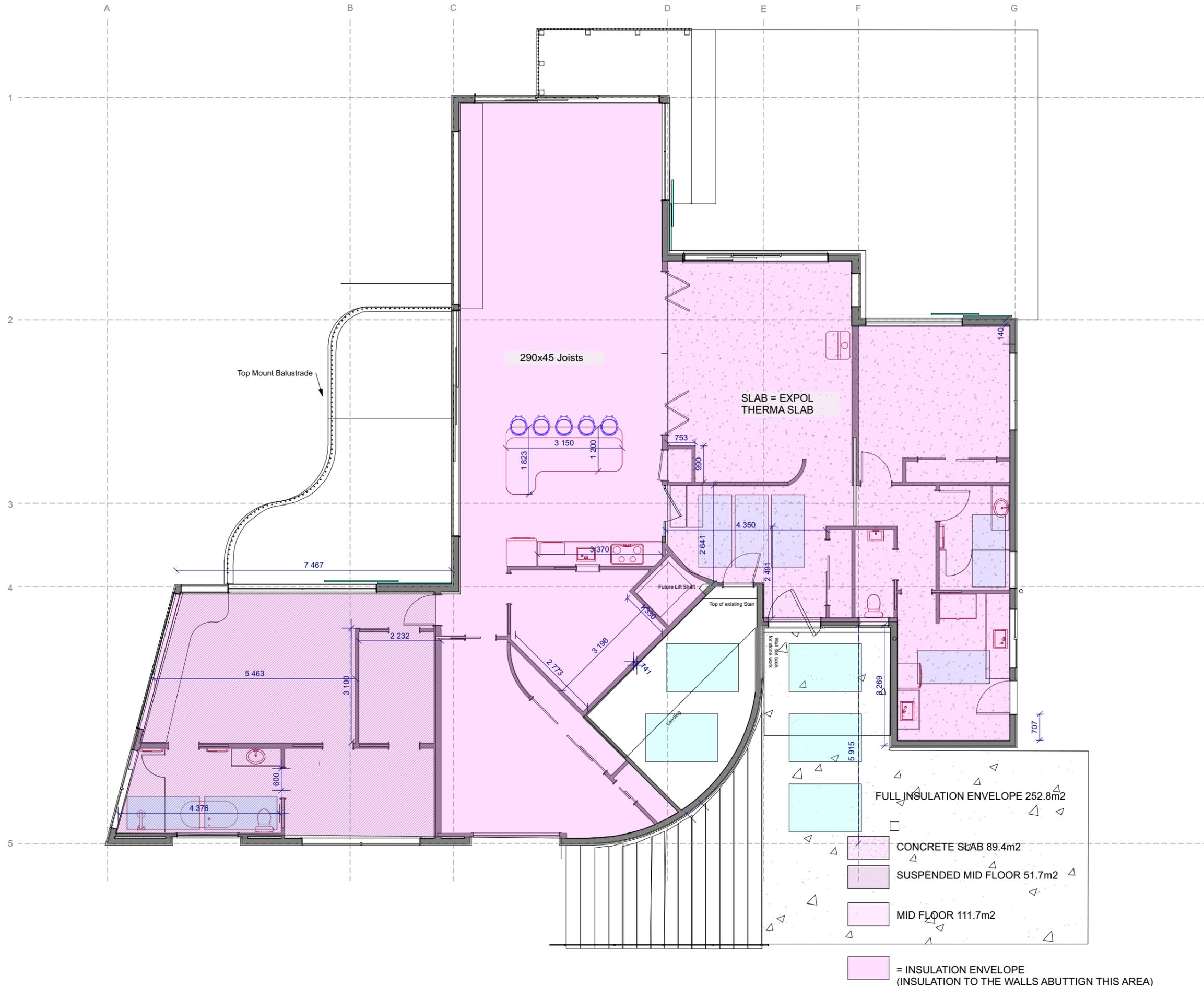
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**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
H1 PLAN

**NOTES:**



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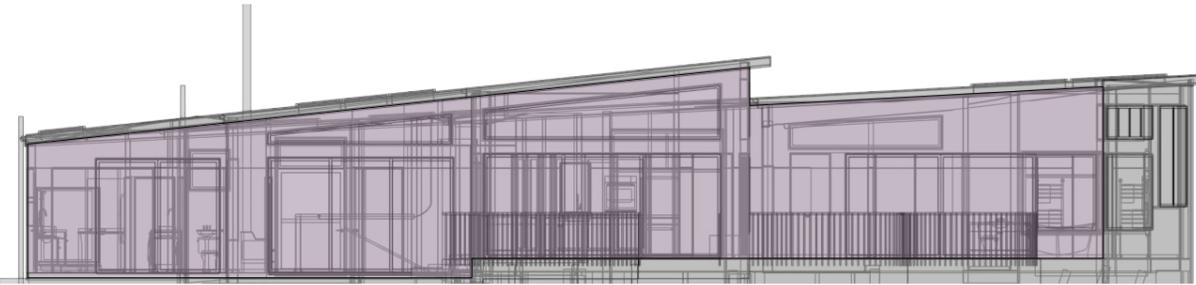
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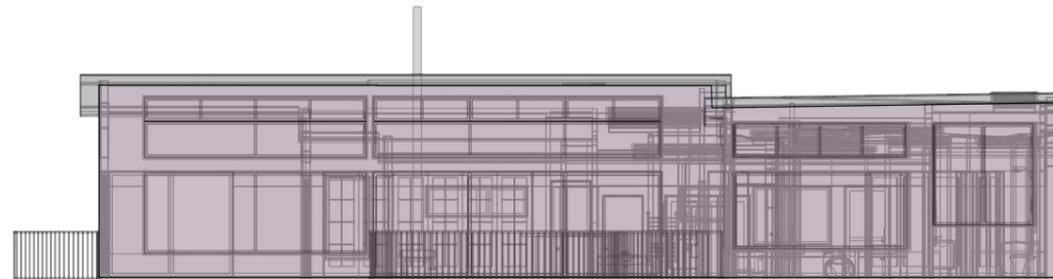
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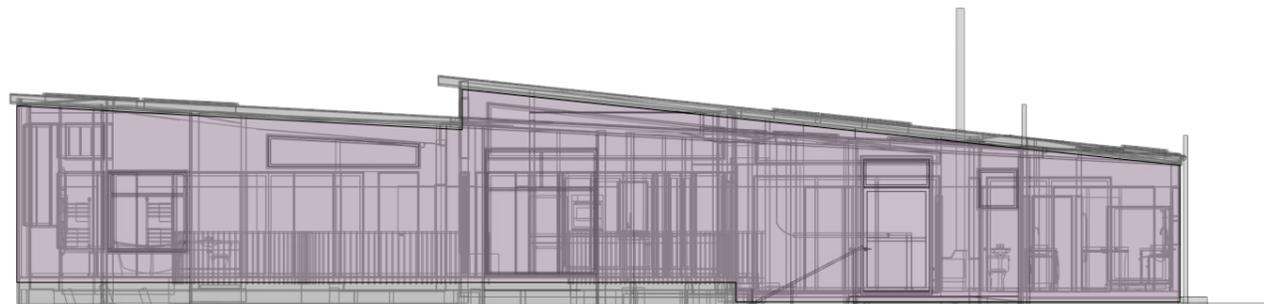
Sheet 22



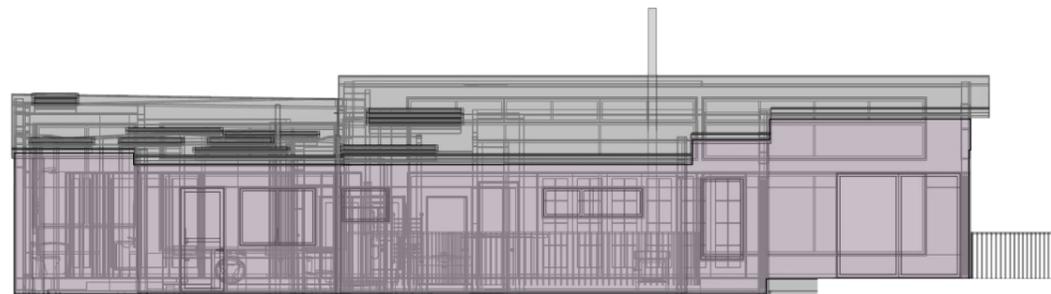
NORTH ELEVATION		
WALL AREA	37.88m2	R3.2
GLAZING AREA	41.52m2	R.05
TOTAL WALL AREA	79.4m2	



WEST ELEVATION		
WALL AREA	44.46m2	R3.2
GLAZING AREA	35.14m2	R.05
TOTAL WALL AREA	79.6m2	



SOUTH ELEVATION		
WALL AREA	70.71m2	R3.2
GLAZING AREA	16.31m2	R.05
TOTAL WALL AREA	87.02m2	



EAST ELEVATION		
WALL AREA	33.27m2	R3.2
GLAZING AREA	26.53m2	R.05
TOTAL WALL AREA	59.8m2	



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
H1 DATA

**NOTES:**



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Lounge, entry bedrm, bathrm, laundry 2.01 m<sup>2</sup>C/W

Type: Floor: Expol Floors - H1/AS1 Edition 5 and H1/AS2 Edition 1  
Expol Floors - H1/AS1 Edition 5 and H1/AS2 Edition 1

Expol Slab Insulation (H1 Edition 5) - Expol Thermal Performance

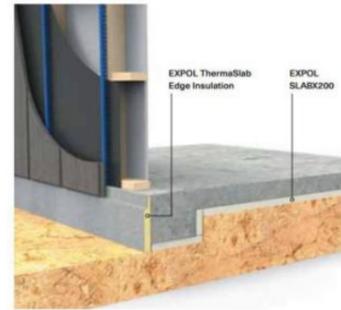
Slab floor area [m<sup>2</sup>]: 89.4  
Area Perimeter Ratio: 2.22

**Perimeter:**

Edge Detail	Length [m]*	Insulation*
insulated edge, non-veneer wall	40.2	50mm SLABX200 Underslab, R-1.0 ThernaSlab/Edge or MaxEdge
uninsulated edge		
internal edge		

\* required data. If empty the perimeter type will be ignored.

**SLABX200** Edge Insulation



All roof 4.39 m<sup>2</sup>C/W

Type: Roof: Timber framed skillion or flat Roof  
Timber framed skillion or flat Roof [view detail](#)

external surface 0.03

Roofing: generic - Metal corrugate Iron with building paper  
R-value: 0.01

Timber Frame & Cavity: 290mm rafters or joists @ 400mm, battens covered with insulation  
Roof Frame Area: 11.3% Cavity Area: 88.8%

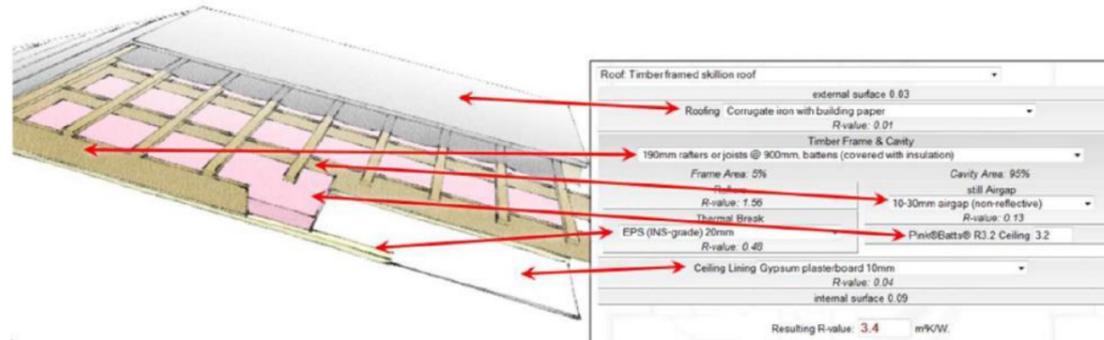
Framing: R-value: 2.40  
Thermal Break: generic - none R-value: 0.00  
still Airgap: more than 90mm airgap (non-reflective) R-value: 0.18  
Insulation: 4.5

Ceiling Lining: generic - gypsum Plasterboard 12mm  
R-value: 0.05

internal surface 0.09

Non-IC-rated recessed downlights

Ceiling Area [m<sup>2</sup>]:  Number of downlights:  Clearance from lamp holder side [m]:



Other flooring 3.48 m<sup>2</sup>C/W

Type: Floor: Suspended Floor with Lining under the Joists & Gap above or below the Insulation  
Suspended Floor with Lining under the Joists & Gap above or below the Insulation [view detail](#)

internal surface 0.09

Flooring: generic - Plywood 18mm  
R-value: 0.13

Timber Frame & Cavity: 190+ mm joists @ 400mm  
Floor Frame Area: 11.3% Cavity Area: 88.8%

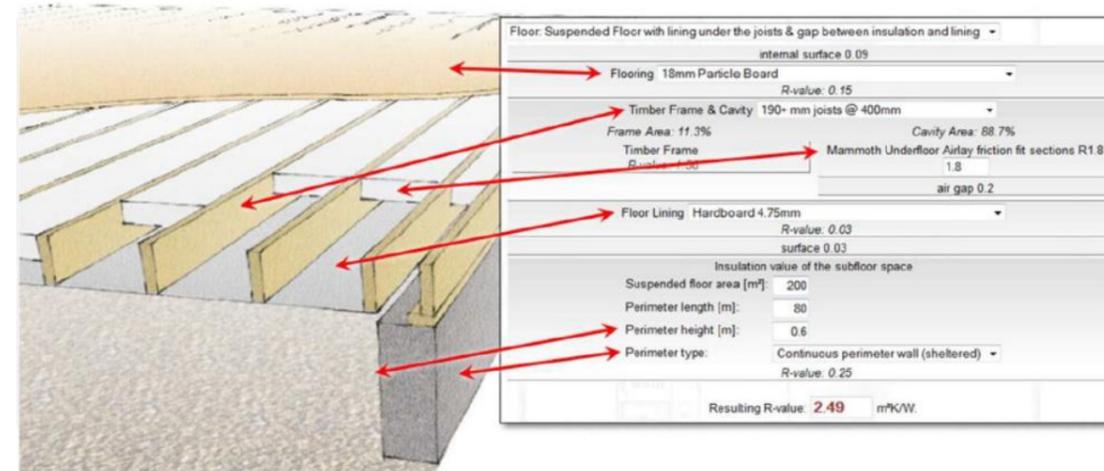
Framing: R-value: 1.56  
Thermal Break: generic - none R-value: 0.00  
Insulation: 3.4  
air gap 0.20

Floor Lining: generic - Plywood 12mm  
R-value: 0.09

surface 0.03

Insulation value of the subfloor space

Suspended floor area [m<sup>2</sup>]:   
Perimeter length [m]:   
Perimeter height [m]:   
Perimeter type: Continuous perimeter wall (sheltered)



Walls 3.24 m<sup>2</sup>C/W

Type: Wall: Timber Frame with vented Cavity  
Timber Frame with vented Cavity [view detail](#)

external surface 0.03

Cladding: NuWall aluminium cladding  
R-value: 0.00

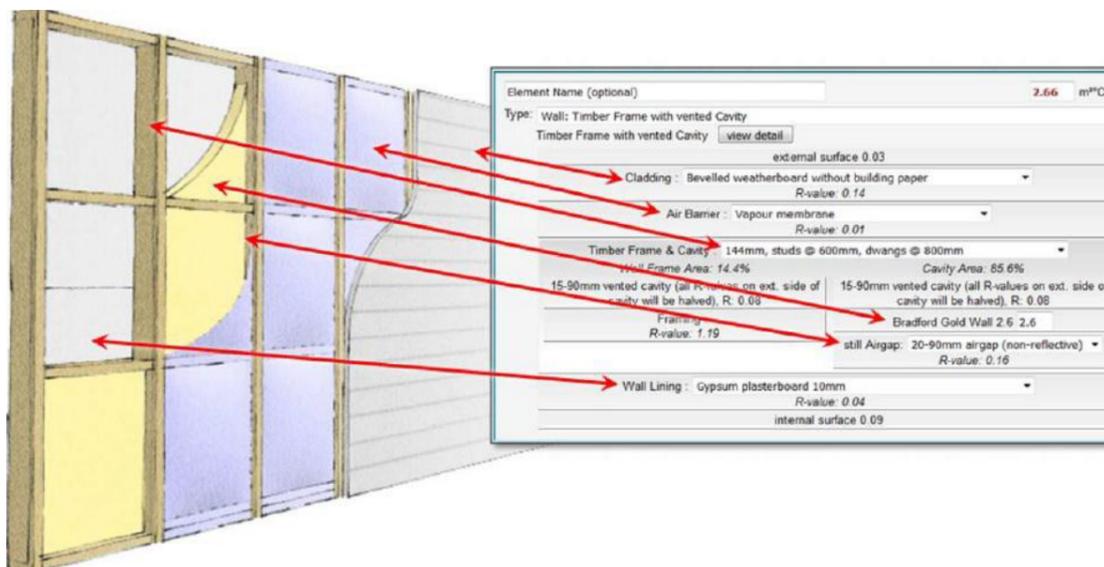
Air Barrier: generic - Building paper  
R-value: 0.01

Timber Frame & Cavity: 140mm, studs @ 600mm, dwangs @ 800mm  
Wall Frame Area: 14.4% Cavity Area: 85.6%

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08  
Framing: R-value: 1.17  
Insulation: 4  
still Airgap: none R-value: 0.00

Wall Lining: generic - gypsum Plasterboard 12mm  
R-value: 0.05

internal surface 0.09



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
CONSTRUCTION R VALUES

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

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**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
PLUMBING & DRAINAGE

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

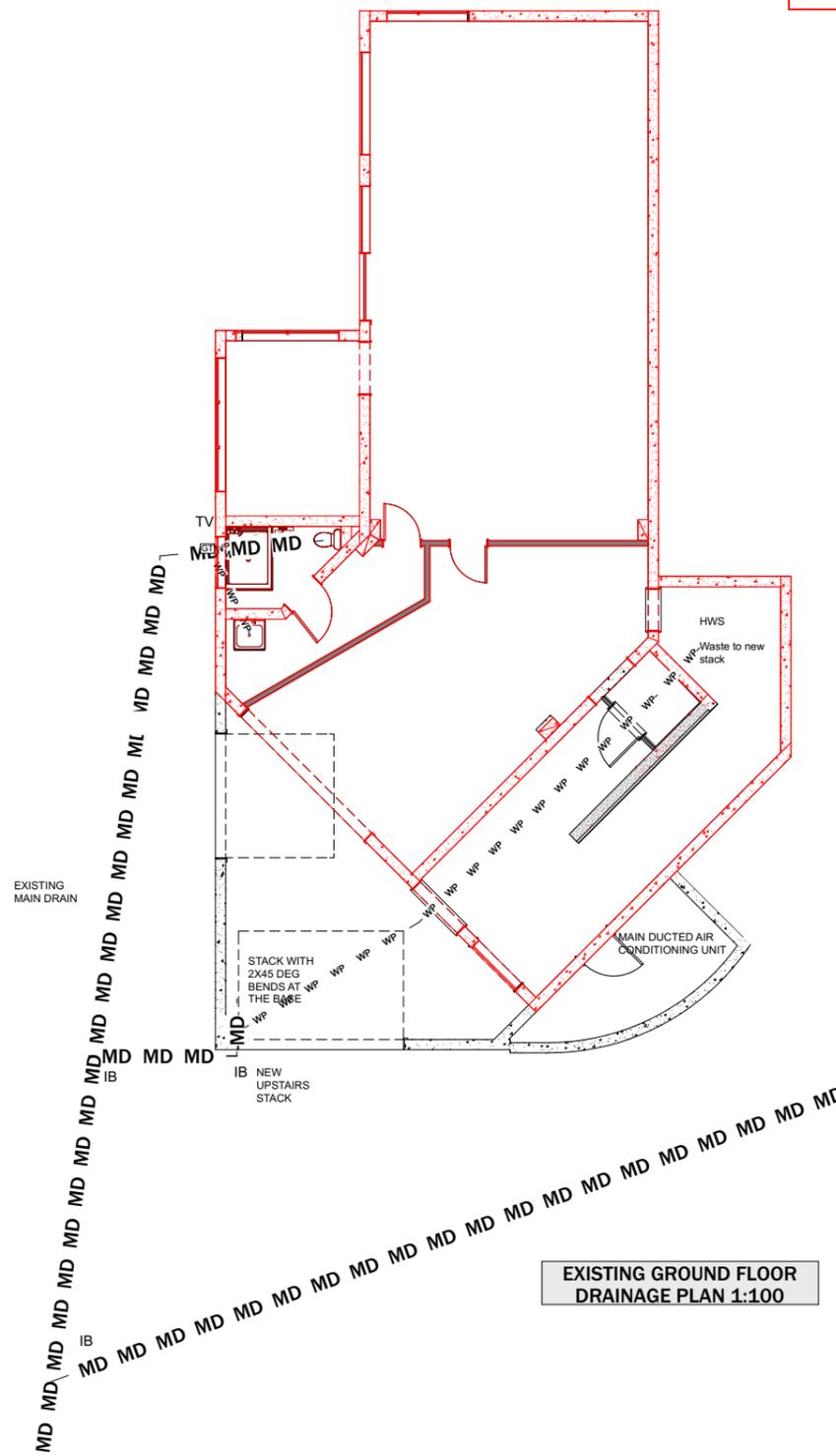
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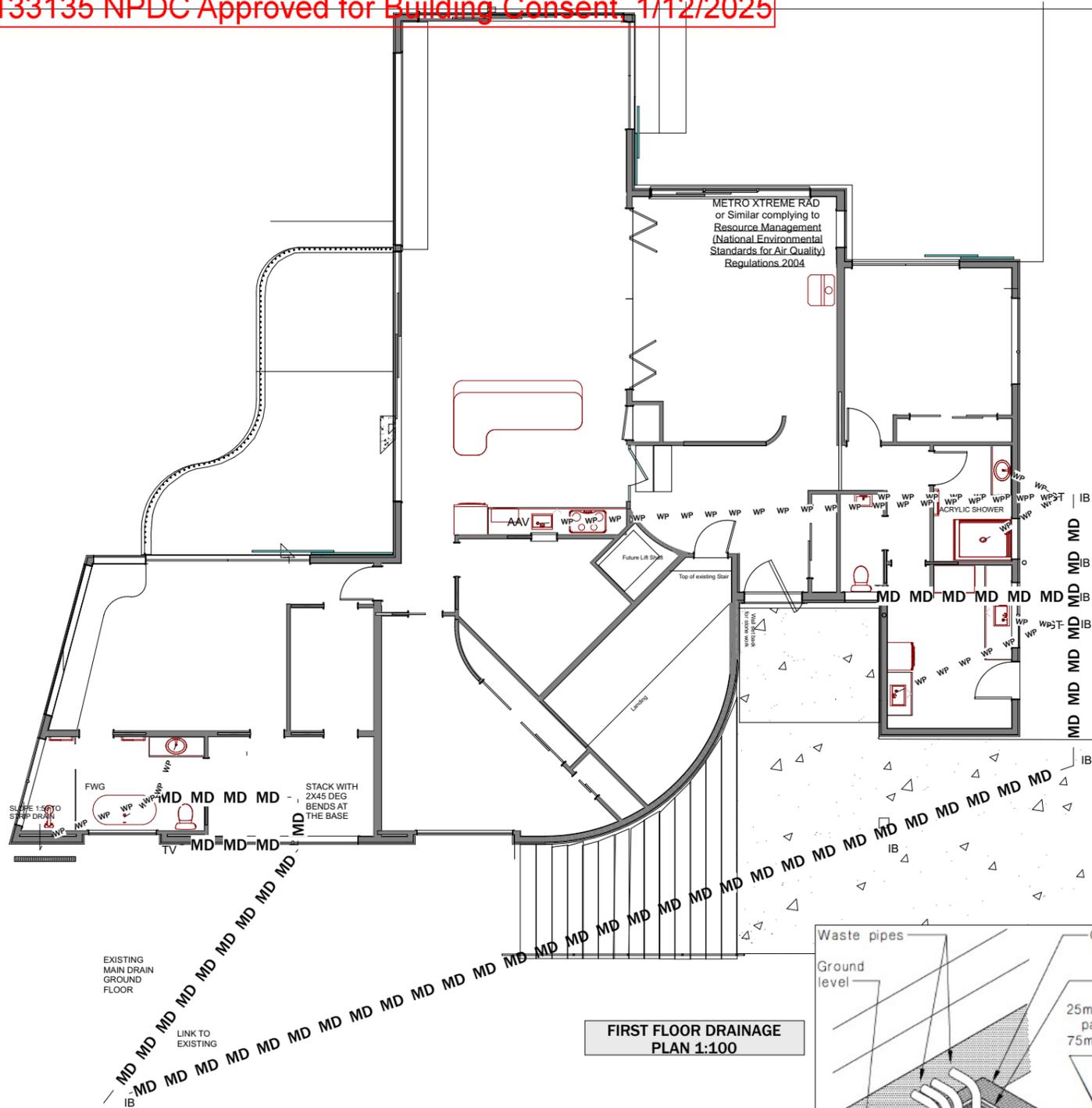
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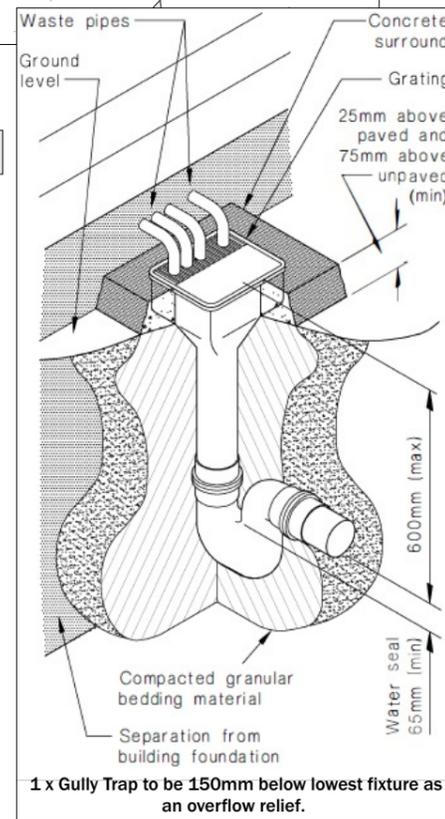
Sheet 25



EXISTING GROUND FLOOR DRAINAGE PLAN 1:100



FIRST FLOOR DRAINAGE PLAN 1:100



1 x Gully Trap to be 150mm below lowest fixture as an overflow relief.

**PLUMBING & DRAINAGE NOTES**

All work shall be carried out by a registered contractor and shall satisfy the requirements of the NZBC and the local territorial authority. A temperature controlling valve shall be fitted at the hot water supply to restrict the hot water temperature at the tap to 55 degrees C.max. All pvc pipes and drains shall comply with NZS 7641, 7642, and 7649. All copper pipes shall comply with NZS 3501:1975

All work shall meet the standards set out in G13/AS1 (Foul Water)

-HOT AND COLD WATER RETICULATION TO COMPLY WITH NZBC G12/AS1

-HOT AND COLD SUPPLY TO TEMPERING VALVE & SHOWERS ALL 20mm POLYBUTYLENE MIN  
-HOT AND COLD SUPPLY TO SINK, LAUNDRY AND BATH 15mm POLYBUTYLENE MIN  
-HOT AND COLD SUPPLY TO ALL OTHER FIXTURES 10mm POLYBUTYLENE MIN  
-HOSE TAP POSITIONS CONFIRMED BY OWNER

**PLUMBING & DRAINAGE**

<b>HWS</b>	- SOLAR HOT WATER	
	LOCATION - CURVED WALL STORAGE AREA GROUND FLOOR	
	- Sink	40mm waste 1:40 fall
	- Hand basin	40mm waste 1:40 fall
	- Shower	40mm waste 1:40 fall
	- Bath	40mm waste 1:40 fall
<b>GT</b>	- Gully Trap	
<b>TVP</b>	- Terminal Vent Pipe	80mm
<b>IB</b>	- Inspection Bend	
<b>MD</b>	-Main Drain 100mm nb	1:80 fall

**LIGHT & VENTILATION**

LIVING/DINING/KITCHEN=76m<sup>2</sup>  
 LIGHT=48m<sup>2</sup>=63%  
 VENT=30m<sup>2</sup>=40%

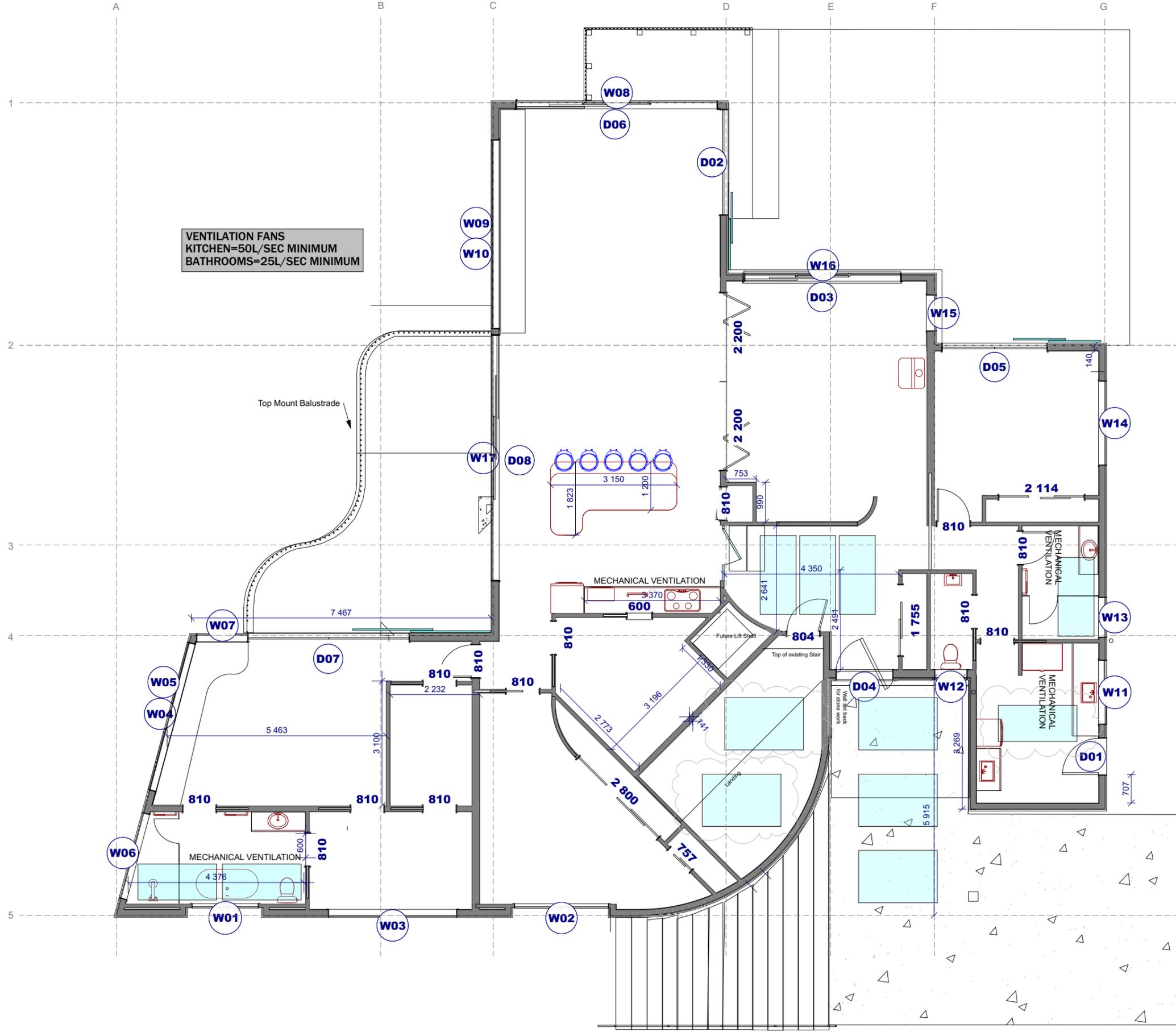
SUNKEN LOUNGE=38m<sup>2</sup>  
 LIGHT=23m<sup>2</sup>=61%  
 VENT=12m<sup>2</sup>=32%

B/R =17m<sup>2</sup>  
 LIGHT=10m<sup>2</sup>=59%  
 VENT=9m<sup>2</sup>=54%

MASTER B/R =36m<sup>2</sup>  
 LIGHT=19m<sup>2</sup>=54%  
 VENT=9m<sup>2</sup>=24%

SEWING ROOM=22m<sup>2</sup>  
 LIGHT=6m<sup>2</sup>=29%  
 VENT=1.4m<sup>2</sup>=6%

VENTILATION FANS  
 KITCHEN=50L/SEC MINIMUM  
 BATHROOMS=25L/SEC MINIMUM



VENTILATION AND NATURAL LIGHT PLAN 1:100



**CLIENT:**  
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**PROJECT CODE:**  
 DSA 1027

**TITLE:**  
 VENTILATION

**NOTES:**



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Sheet 26



**CLIENT:**  
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Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
TYPICAL CROSS SECTION 1

**NOTES:**



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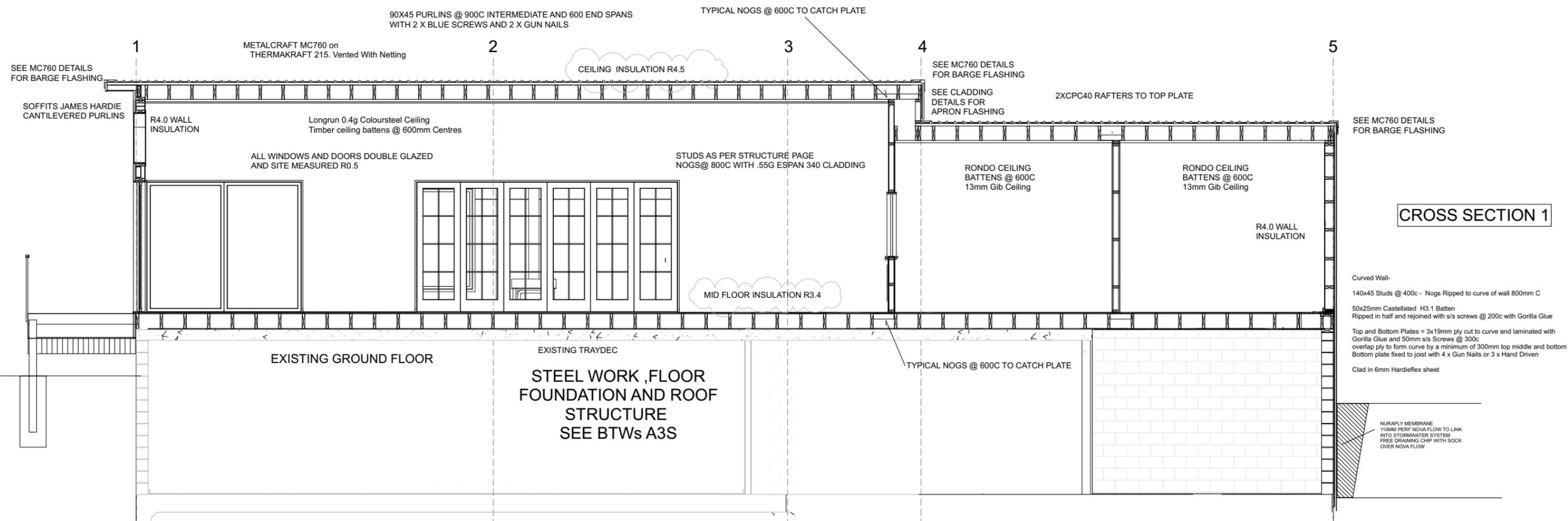
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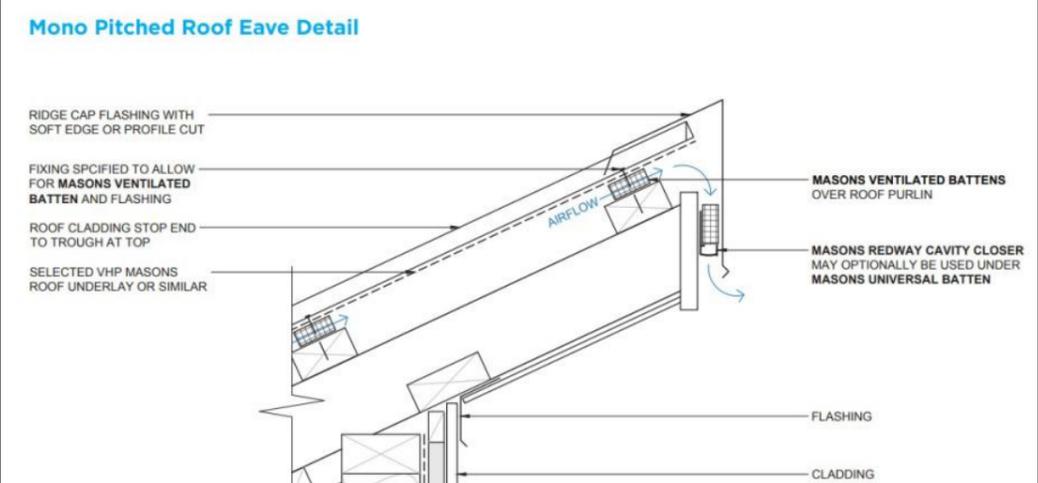
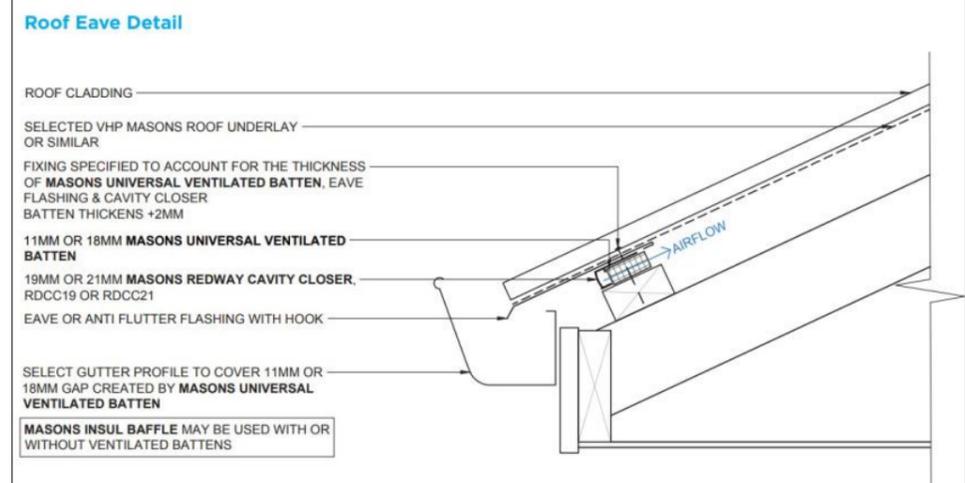
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Sheet 27



CROSS SECTION 1





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**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
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**TITLE:**  
TYPICAL CROSS SECTION 2

**NOTES:**



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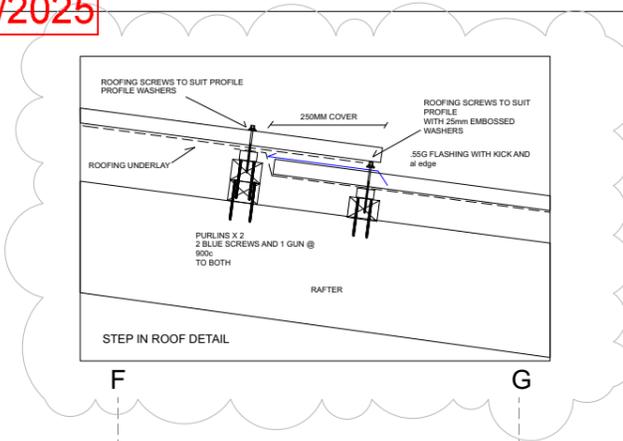
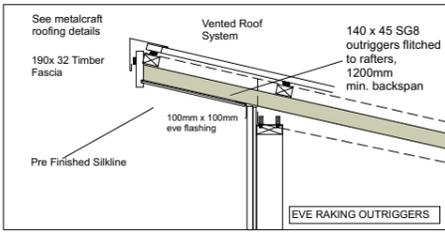
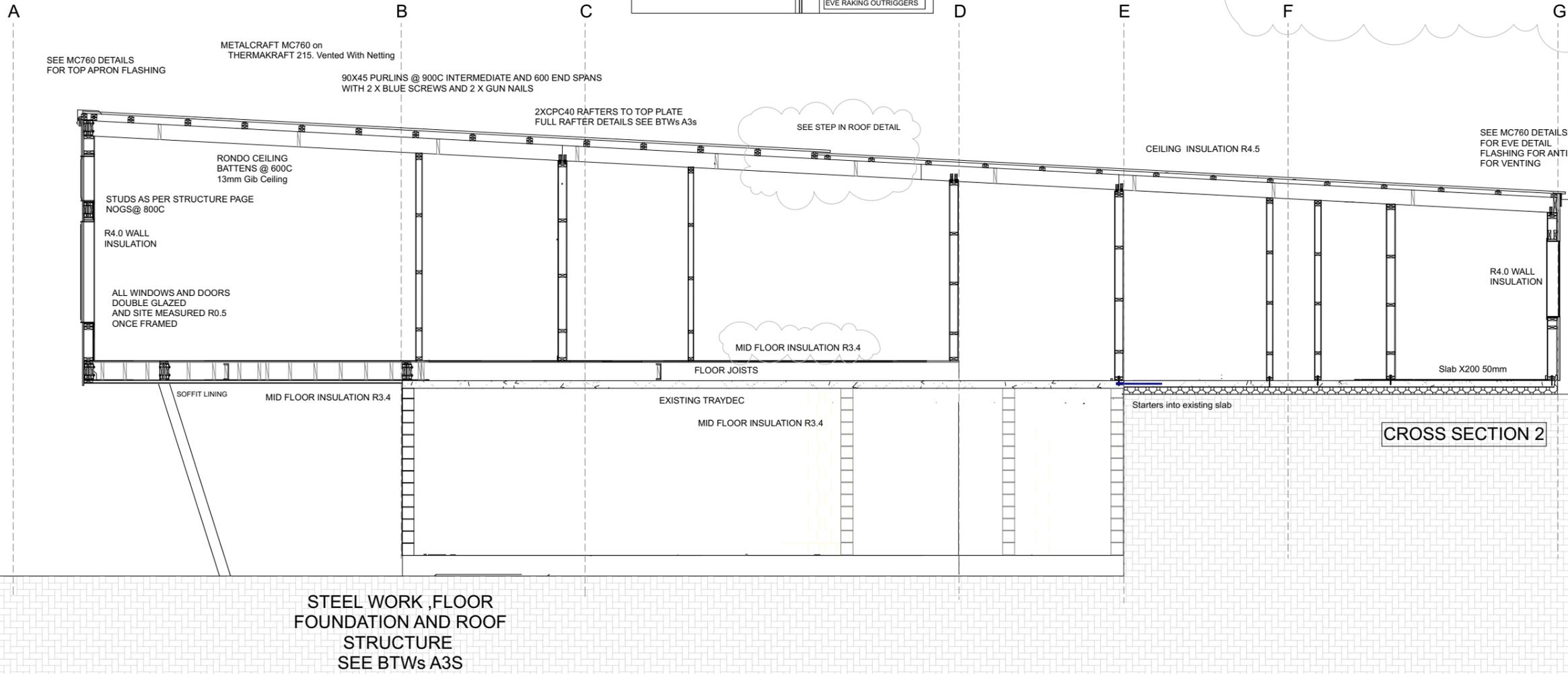
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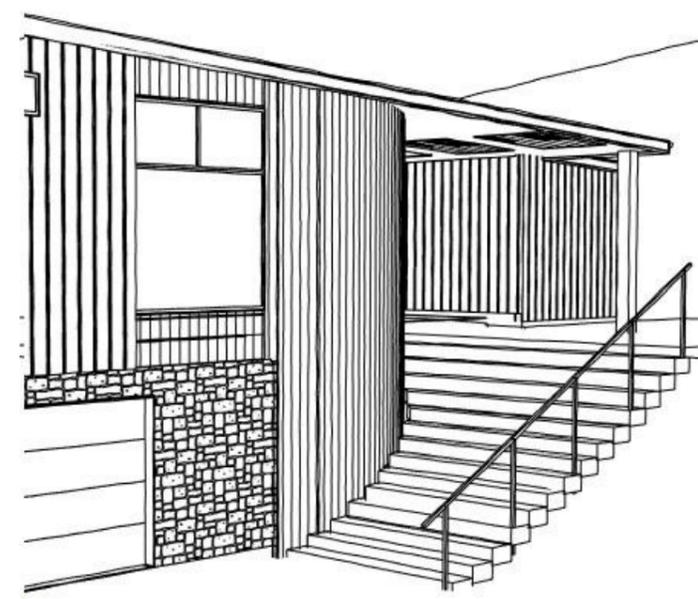
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Sheet 28



Curved Wall -  
Block wall up to first FL & Timber framing above.  
castellated cavity batten over blocks with Clelands Vert Timber Weatherboards.  
Below ground tanking system is Nuraply 3PG

Access =  
Common Main Stair Existing in dwelling 190mm max Rise & 280mm mIn Going -





**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
TYPICAL CROSS SECTION 1

**NOTES:**



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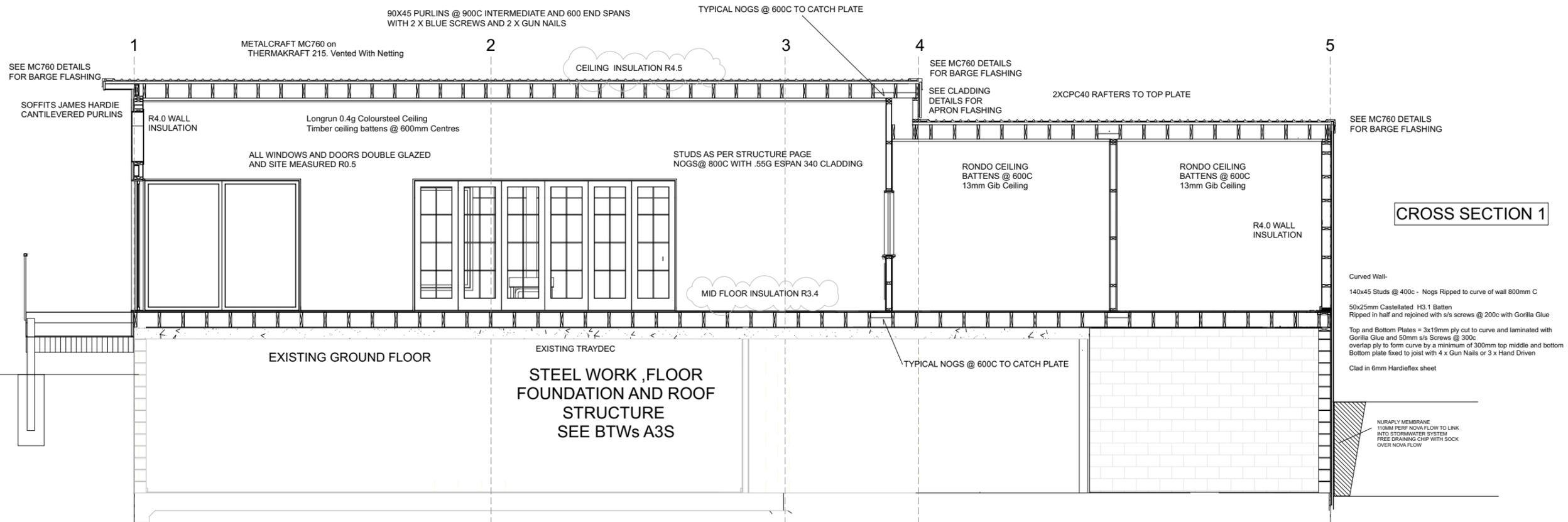
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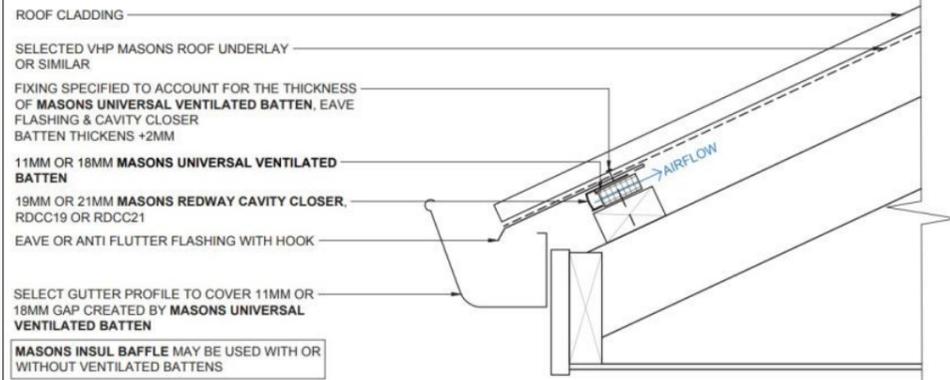
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Sheet 27

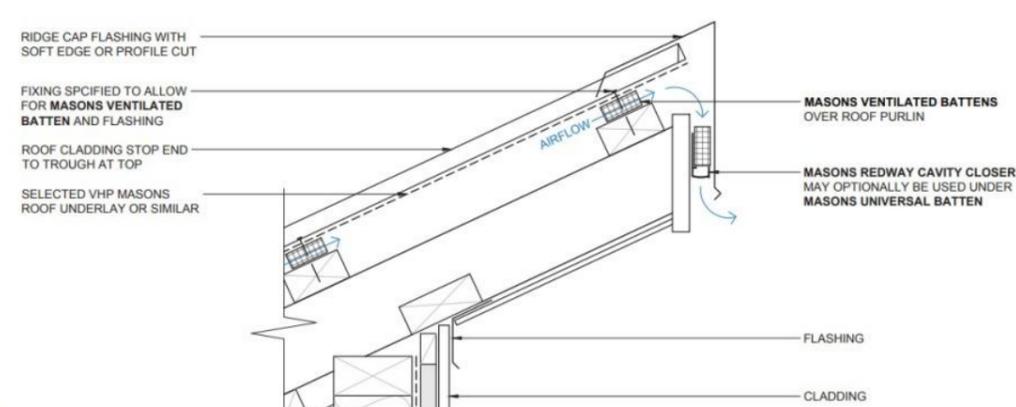


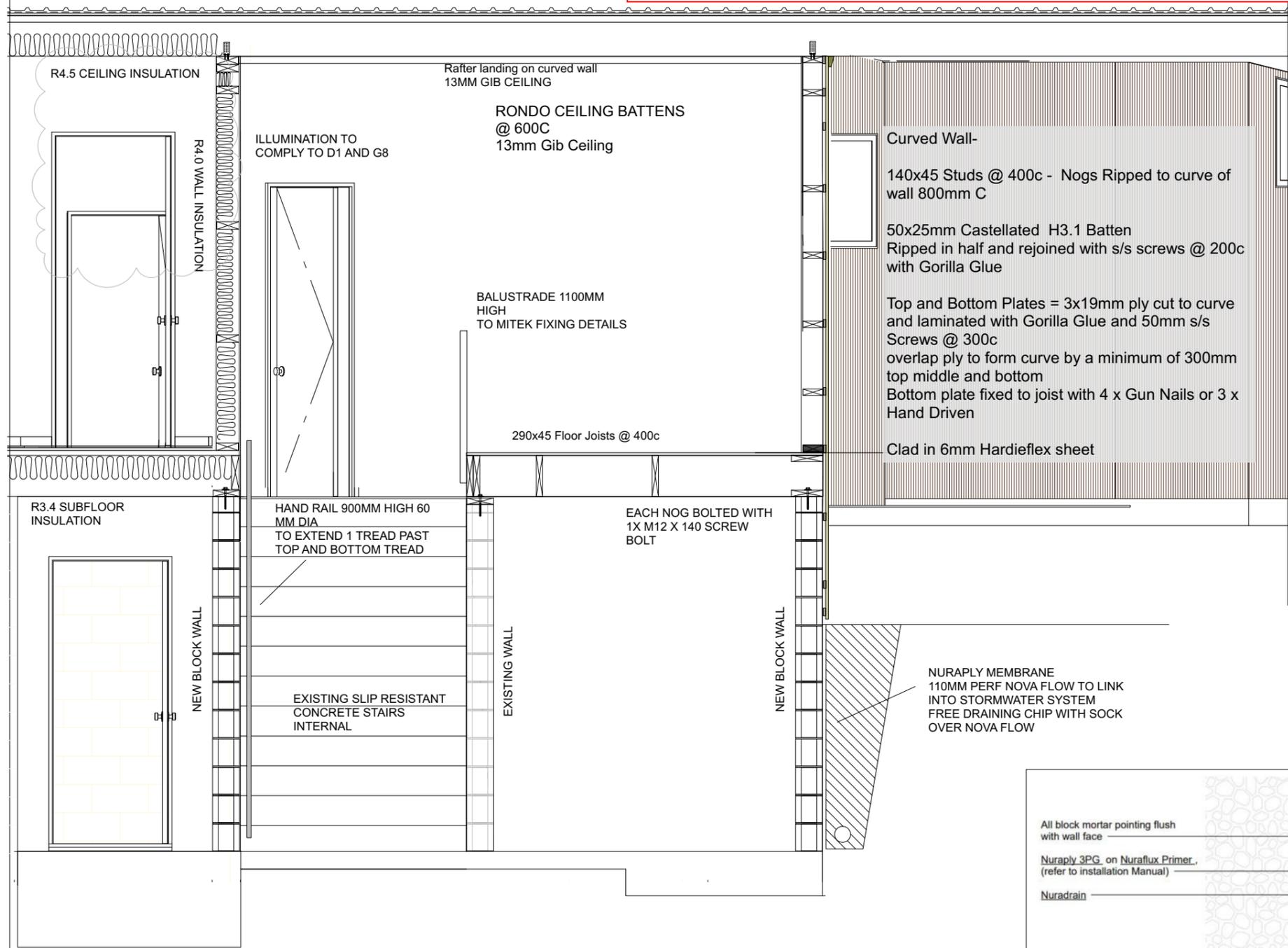
CROSS SECTION 1

Roof Eave Detail



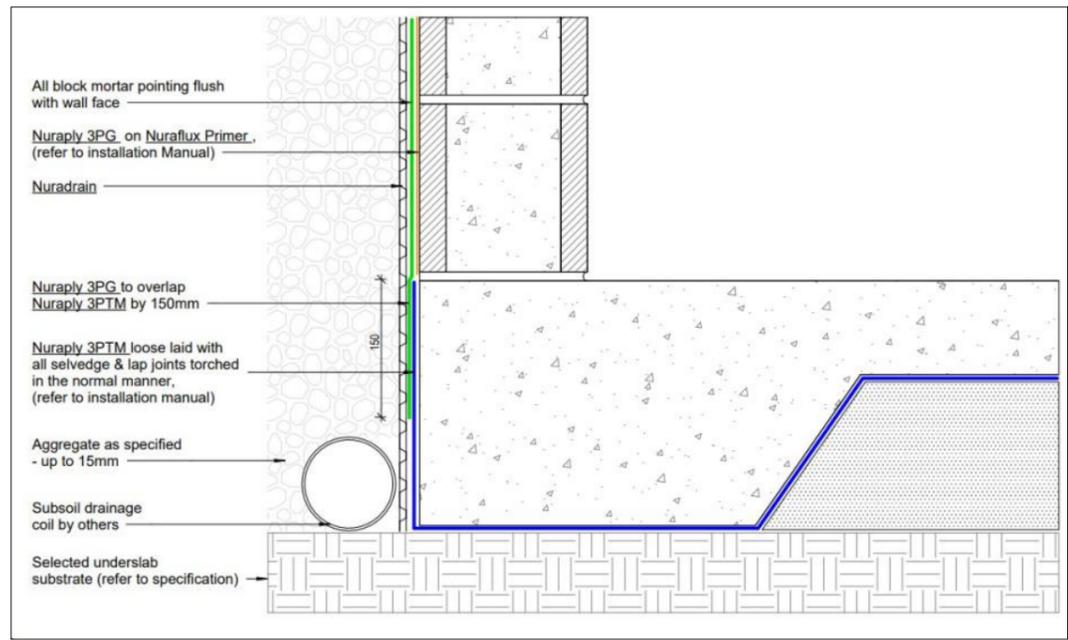
Mono Pitched Roof Eave Detail





Curved Wall-  
 140x45 Studs @ 400c - Nogs Ripped to curve of wall 800mm C  
 50x25mm Castellated H3.1 Batten  
 Ripped in half and rejoined with s/s screws @ 200c with Gorilla Glue  
 Top and Bottom Plates = 3x19mm ply cut to curve and laminated with Gorilla Glue and 50mm s/s Screws @ 300c overlap ply to form curve by a minimum of 300mm top middle and bottom  
 Bottom plate fixed to joist with 4 x Gun Nails or 3 x Hand Driven  
 Clad in 6mm Hardieflex sheet

NURAPLY MEMBRANE  
 110MM PERF NOVA FLOW TO LINK INTO STORMWATER SYSTEM  
 FREE DRAINING CHIP WITH SOCK OVER NOVA FLOW



**Hardies Flat Sheet Installation Details-**  
 The framing is to be closed up to 400mm centres for curved wall applications to give extra support to the curve. Commence fixing from centre of the sheet and work outwards to avoid any drumminess.  
 Unless indicated otherwise, sheets must be bent only along the length.  
 The minimum recommended radius for convex or concave is 2400mm bent along the width of the sheet.  
 As per Hardie Flex Sheet Technical Specification, Section 6.4, horizontal joints must be flashed using a uPVC horizontal flashing or alternatively aluminum or colour steel Z-flashing can be used.  
 Use a custom made aluminum or colour steel Z-flashing with the same radius as the proposed wall frame to ensure a tight fit.  
 The installation of curved Hardie Flex Sheet only applies to standard installation.



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**PROJECT NAME:**  
 Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
 DSA 1027

**TITLE:**  
 EXISTING STAIRWELL & CURVED WALL  
 PART CROSS SECTION 3

**NOTES:**



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# GIB EzyBrace® Systems specification BL1-H

Specification code	Minimum length (m)	Lining requirement	Other requirements
BL1-H	0.4	10mm or 13mm GIB Braceline® to one side only	Hold downs

## WALL FRAMING

Wall framing to comply with;

- NZBC B1 – Structure B1/AS1 Clause 3 Timber (NZS 3604:2011).
- NZBC B2 – Durability B2/AS1 Clause 3.2 Timber (NZS 3602).

Framing dimensions and height as determined by NZS 3604:2011 stud and top plate tables for load bearing and non-bearing walls. The use of kiln dried stress graded timber is recommended.

## BOTTOM PLATE FIXING

### Timber floor

Use panel hold downs at each end of the bracing element. The GIB HandiBrac® is recommended. See details in GIB EzyBrace® Systems or GIB® Site Guide.

Pairs of hand driven 100 x 3.75mm nails at 600mm centres; or Three power driven 90 x 3.15mm nails at 600mm centres.

### Concrete floor

Use panel hold downs at each end of the bracing element. The GIB HandiBrac® is recommended. See details in GIB EzyBrace® Systems or GIB® Site Guide. Within the length of the bracing element bottom plates are to be fixed in accordance with the requirements of NZS 3604:2011.

## WALL LINING

- A layer of 10mm or 13mm GIB Braceline®.
- Sheets can be fixed vertically or horizontally.
- Sheet joints shall be touch fitted.
- Use full length sheets where possible.

## PERMITTED ALTERNATIVES

For permitted GIB® plasterboard alternatives refer to p. 5 in GIB EzyBrace® Systems literature.

## FASTENING THE LINING

### Fasteners

32mm x 6g GIB® Grabber® High Thread Screws or 32mm x 7g GIB® Grabber® Dual Thread Screws. If using the GIBFix® Framing System or if fastening through GIBFix® Angles use only 32mm x 7g GIB® Grabber® Dual Thread Screws.

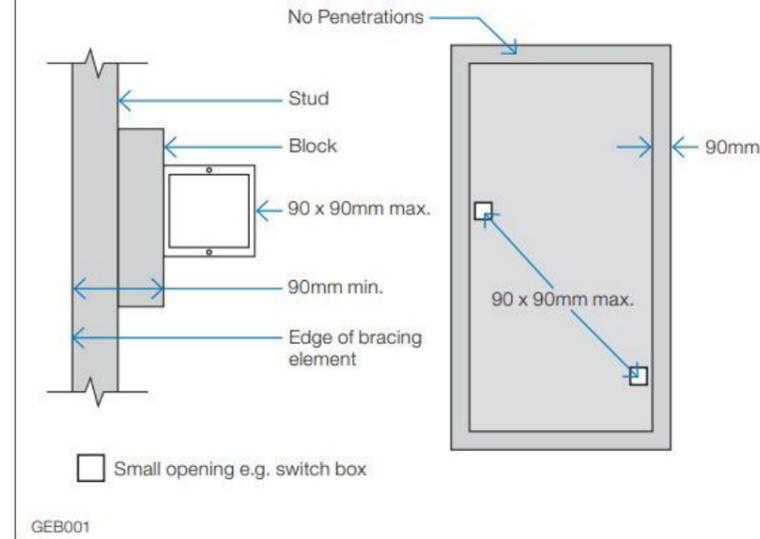
### Fastener centres

50,100,150, 225, 300mm from maximum each corner and 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets place fasteners at 300mm maximum centres to the sheet joint. For horizontally fixed sheets place single fasteners to the sheet edge where it crosses the stud. Use daubs of GIBFix® adhesive at 300mm maximum centres to intermediate studs. Place fasteners no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

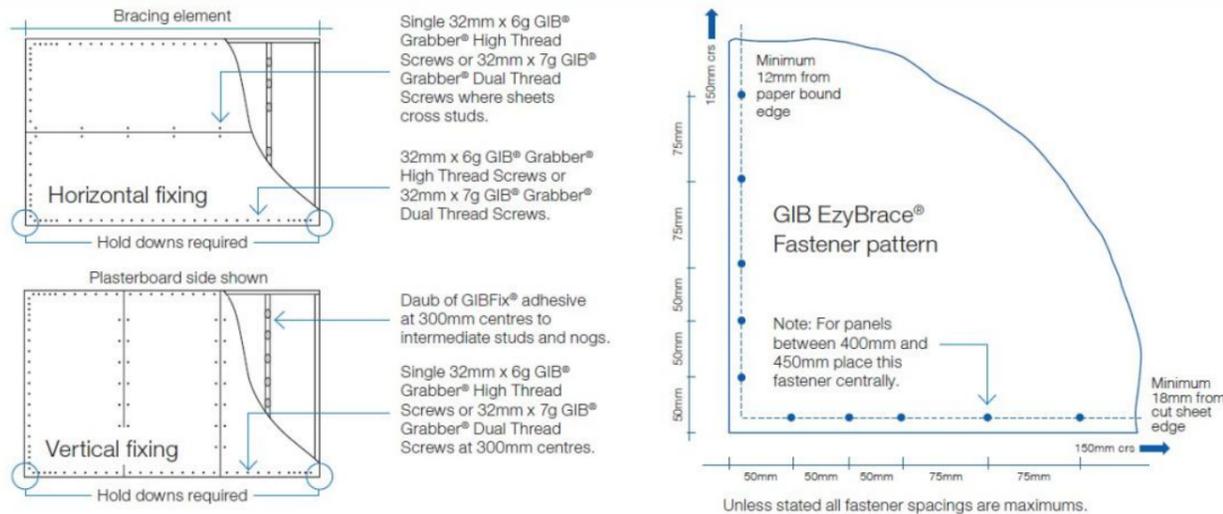
## JOINTING

Joint strength is important in delivering bracing system performance. All fastener heads stopped and all sheet joints GIB® Joint Tape reinforced and stopped in accordance with the GIB® Site Guide.

FIGURE 10: SMALL OPENINGS IN BRACING ELEMENTS



Concrete floor		Timber floor	
External walls	Internal walls	External walls	Internal walls
Position GIB HandiBrac® as close as practicable to the internal edge of the bottom plate.	Position GIB HandiBrac® at the stud/plate junction and at mid-width of plate.	Position GIB HandiBrac® flush with the outside stud face, as close as practicable to the centre of the boundary joist.	Position GIB HandiBrac® in the centre of floor joist or full depth solid block.
Hold-down fastener requirements			
A mechanical fastening with a minimum characteristic uplift capacity of 15kN or use supplied BT10/140 screwbolt in GIB HandiBrac® pack.		12 x 150mm galvanised coach screw or use supplied BT10/140 screwbolt in GIB HandiBrac® pack.	



In order for GIB® systems to perform as tested, all components must be installed exactly as prescribed. Substituting components produces an entirely different system and may seriously compromise performance. Follow the specifications. This specification sheet is issued in conjunction with the publication GIB EzyBrace® Systems



**CLIENT:**  
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**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
BRACING DETAILS

## NOTES:



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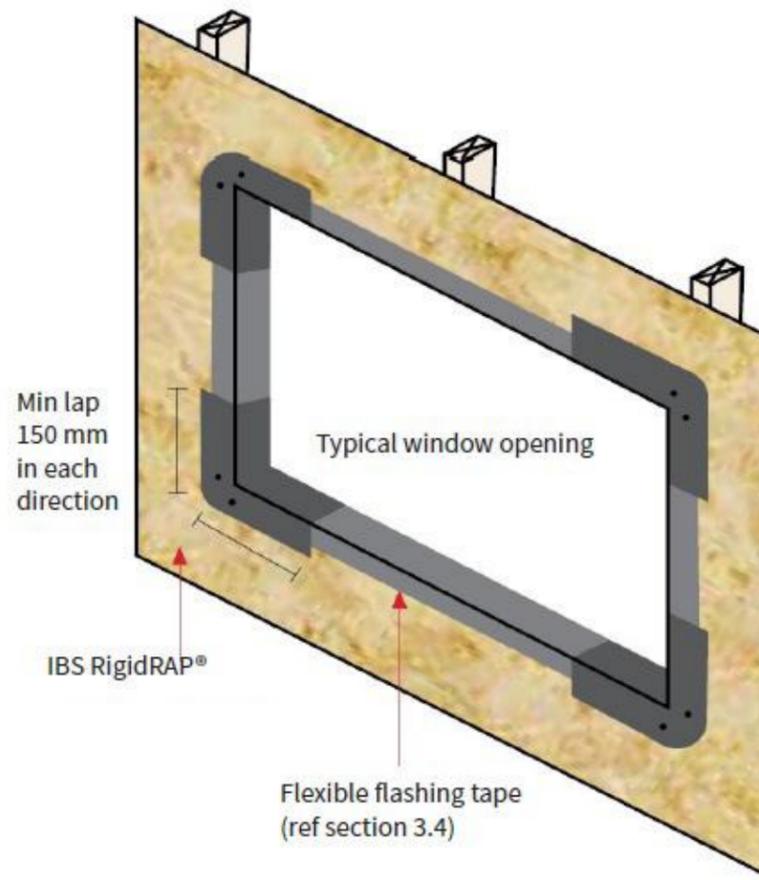
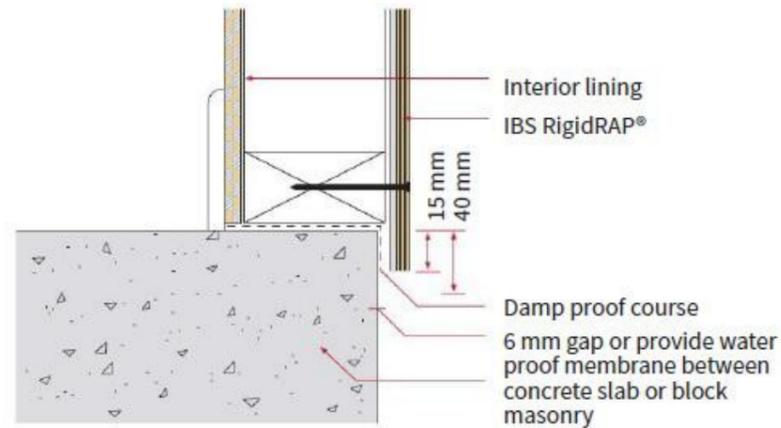
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### 3.3.13.3 BOTTOM PLATE FIXING DETAILS BASE DETAIL



The tape is to be installed in accordance with the specific supplier instructions.

All joints and penetrations must be sealed including:

- Vertical and horizontal joints
- External and internal joints
- Penetrations
- Window and door joinery

Where sealing a joint, ensure the IBS RigidRAP® joints are centred under the tape joint. Use a 25 mm hard PVC roller to ensure full adhesion.

	Maximum Fastener Spacing		Maximum Fastener Spacing from Board's Edge	
	Centres at edges (on board's perimeter)	Centres at the intermediate supports	Centres at the intermediate supports	Centres at the intermediate supports
Nails/screws	150 mm	300 mm	12 mm	25 mm

#### Frequently Asked Questions -

- Q. How long can IBS RigidRAP be left exposed for?  
A. IBS RigidRAP can be left exposed to the weather for up to 90 days.
- Q. Do I need to leave an expansion gap between sheets?  
A. IBS RigidRAP is designed for a 2mm gap to be left around the perimeter of all sheets.
- Q. Do I need to tape all the joints?  
A. Yes all joints vertical and horizontal need to be taped.
- Q. How do you join mid floor sheets?  
A. All horizontal mid floor joints need to have a Z flashing
- Q. Do all Horizontal joints need a Z Flashing?  
A. No you can use 150mm tape on all other horizontal joints.
- Q. Can I use IBS RigidRAP on steel frames?  
A. No, for steel frames you need to use IBS RigidRAP-XT as you need a thermal break.
- Q. Do nails and screws need to have tape on them?  
A. No you do not need to tape over them unless they penetrate the board. All fixings should finish flush with the board.
- Q. Can IBS RigidRAP be used as bracing?  
A. Yes IBS RigidRAP has been tested as a bracing element. Details are listed in this installation guide.
- Q. Do I need to seal cut edges?  
A. Yes whenever IBS RigidRAP is cut you need to seal the cut edge.
- Q. Do I need to install sheets vertically?  
A. Yes when used as a bracing element, all sheets need to be installed vertically. If using IBS RigidRAP as a rap only, sheets can be installed horizontally as well.



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**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
RigidRAP XT DETAILS

#### NOTES:



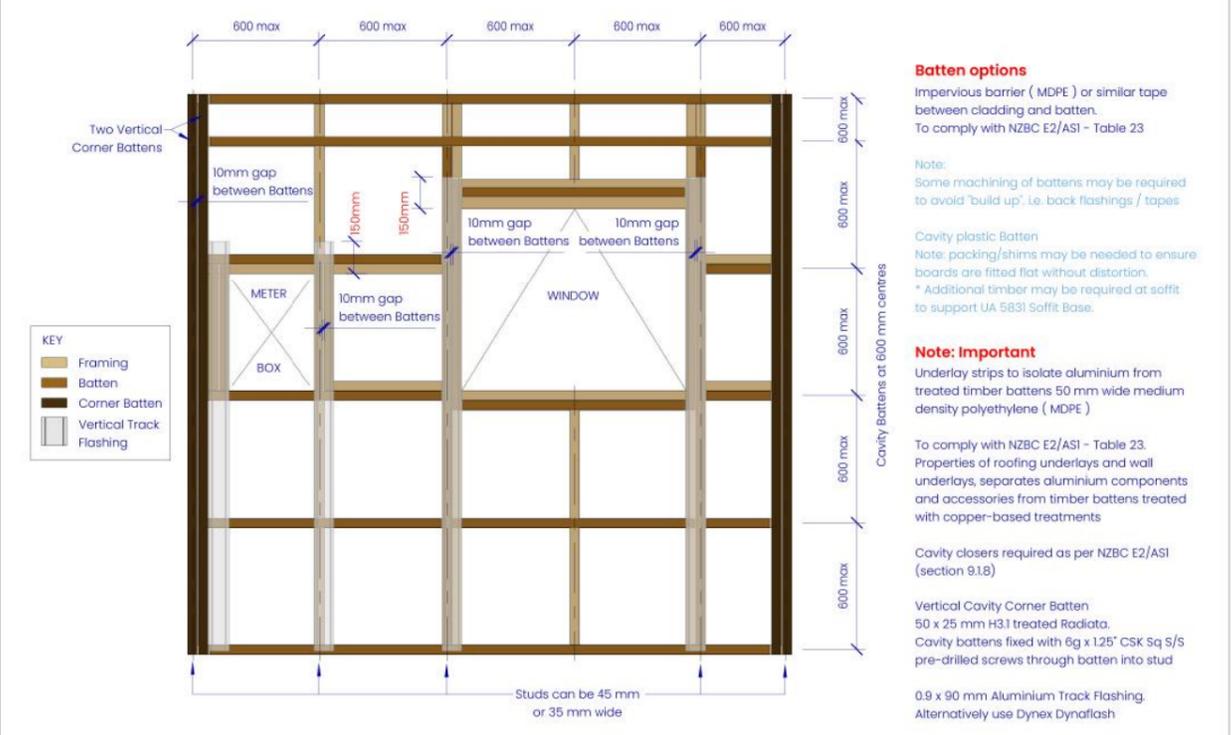
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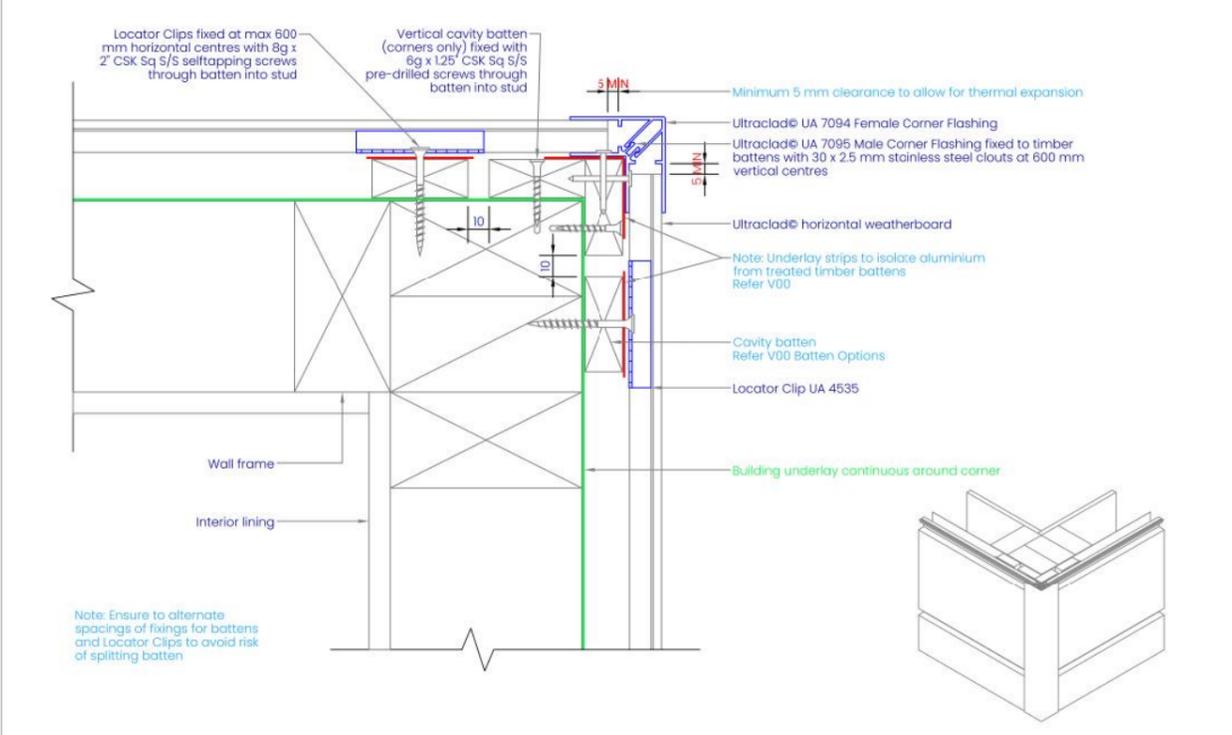
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V00  
**WALL BATTEN ELEVATION**  
 Building Systems: Vertical Weatherboard Cavity System

REVISION:	12
SCALE:	1:20 (@A4)
DATE:	2024
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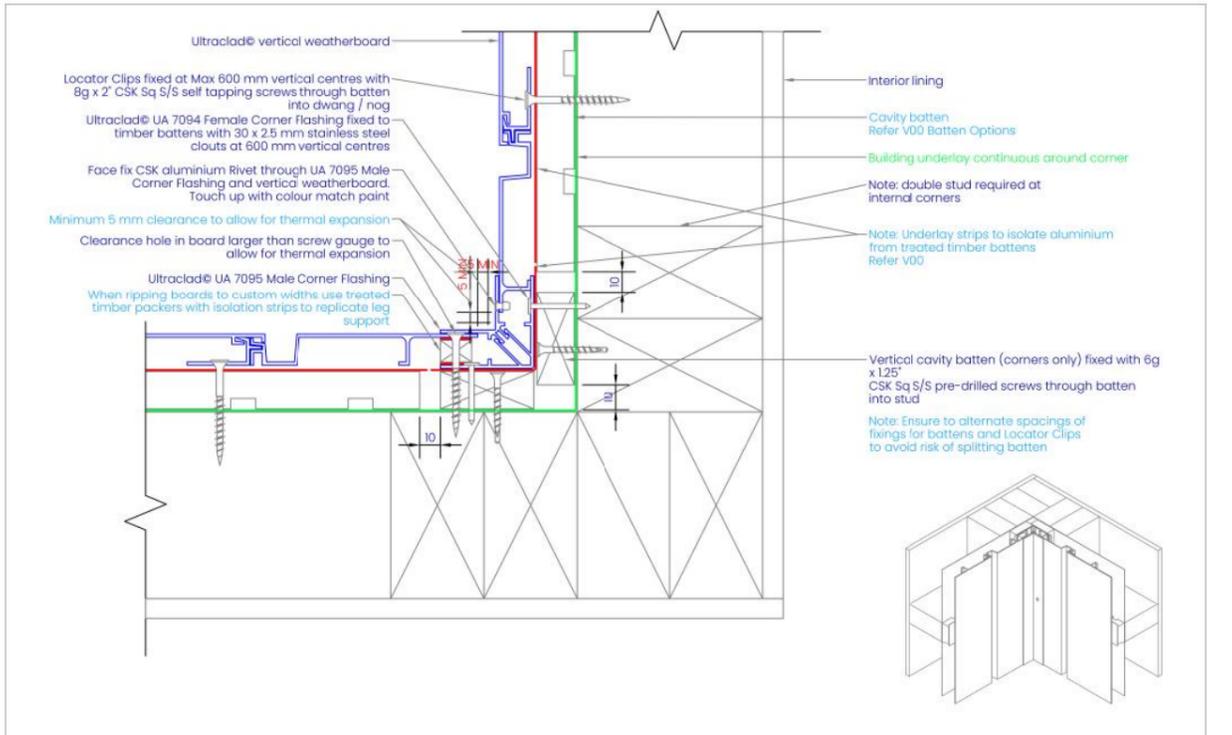
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V01  
**EXTERNAL CORNER ON CAVITY**  
 Building Systems: Vertical Weatherboard Cavity System

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SCALE:	1:2 (@A4)
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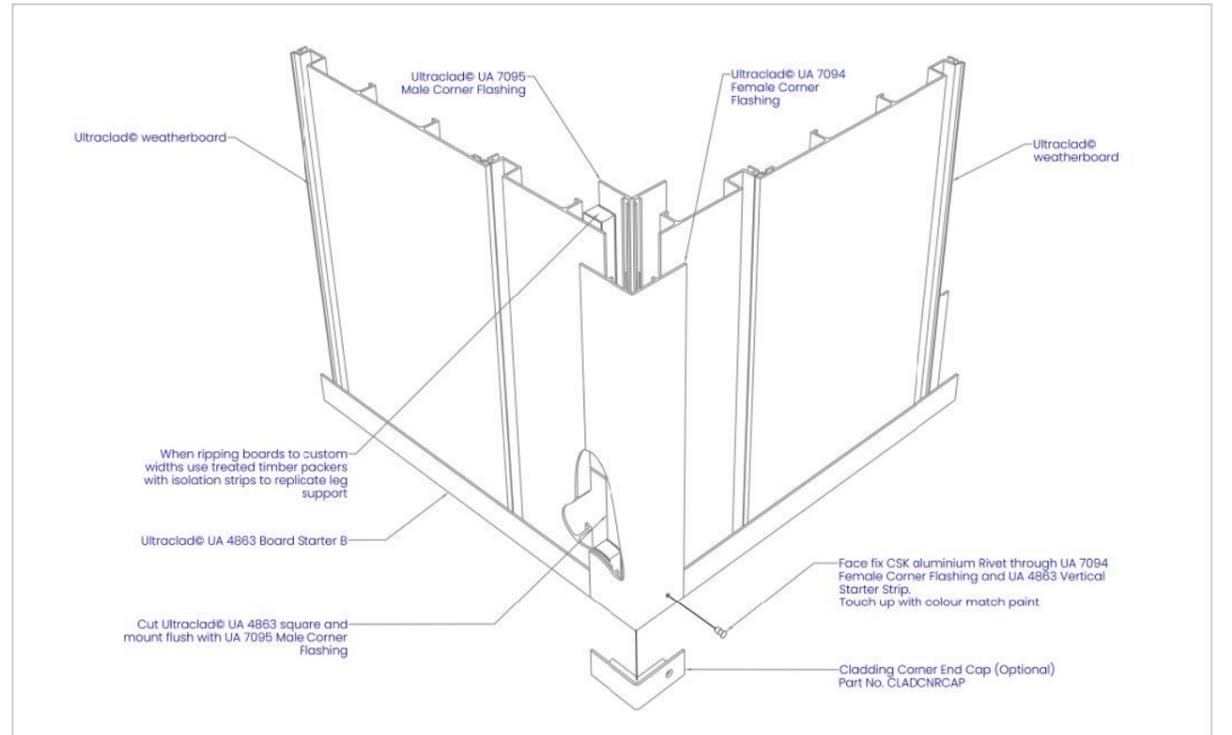
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V02  
**INTERNAL CORNER ON CAVITY**  
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V03  
**90 DEG CORNER CAP**  
 Building Systems: Vertical Weatherboard Cavity System

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**PROJECT CODE:**  
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**TITLE:**  
 UltraClad Vertical

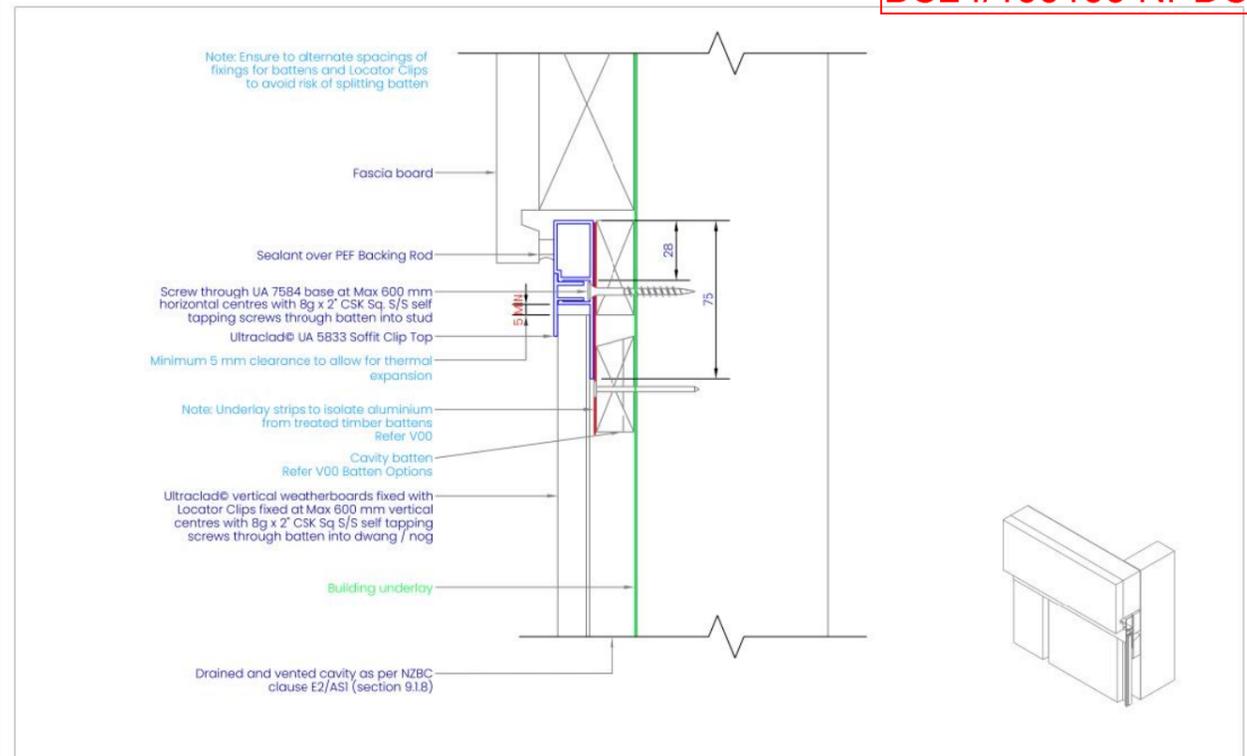
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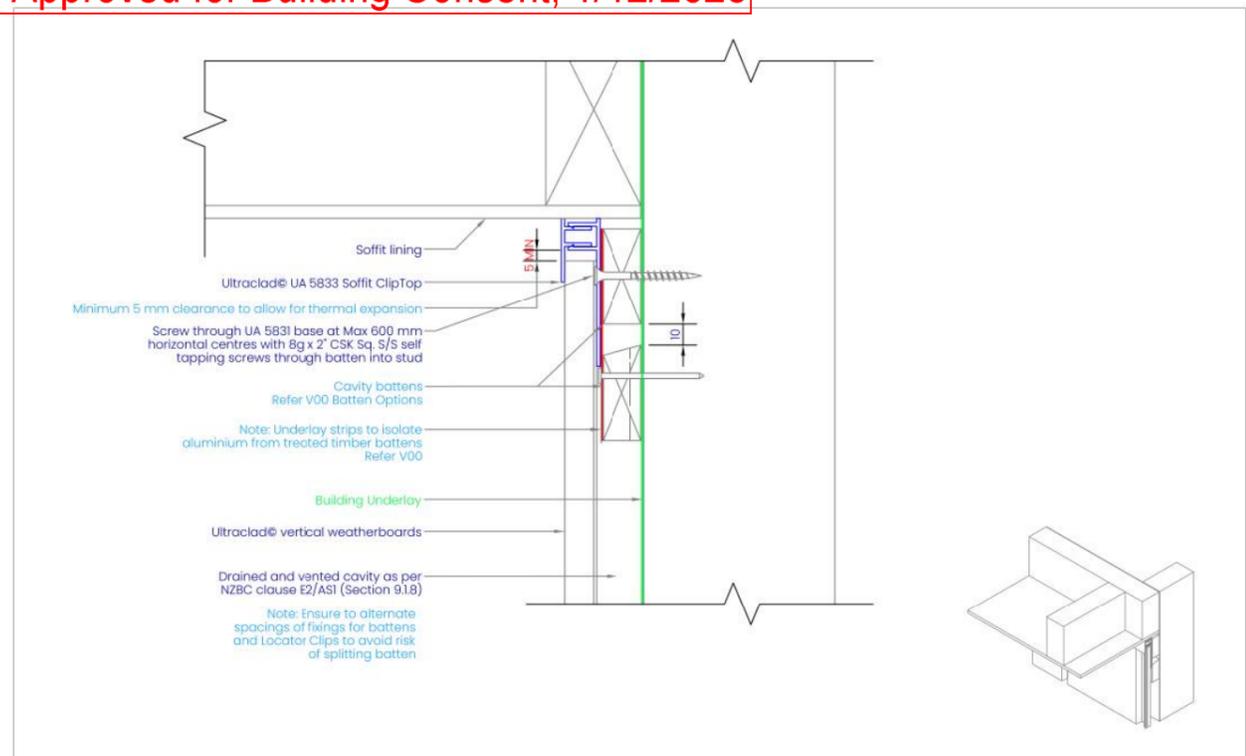
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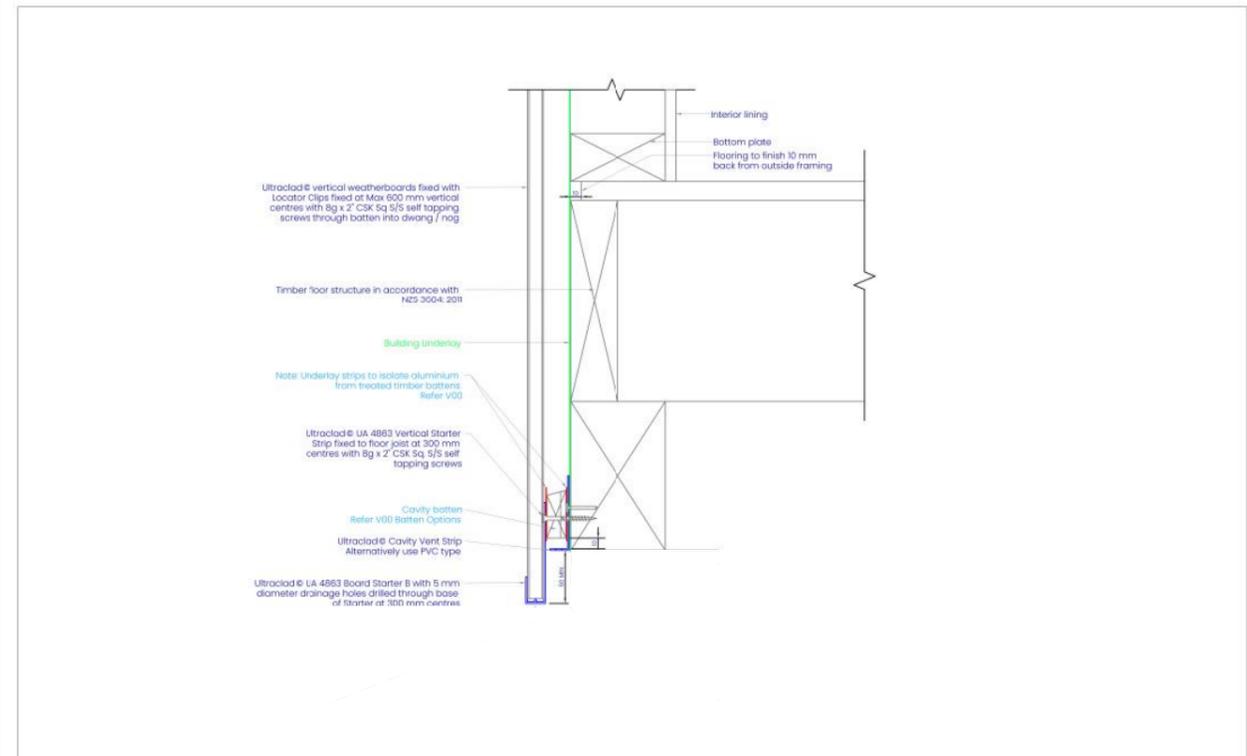
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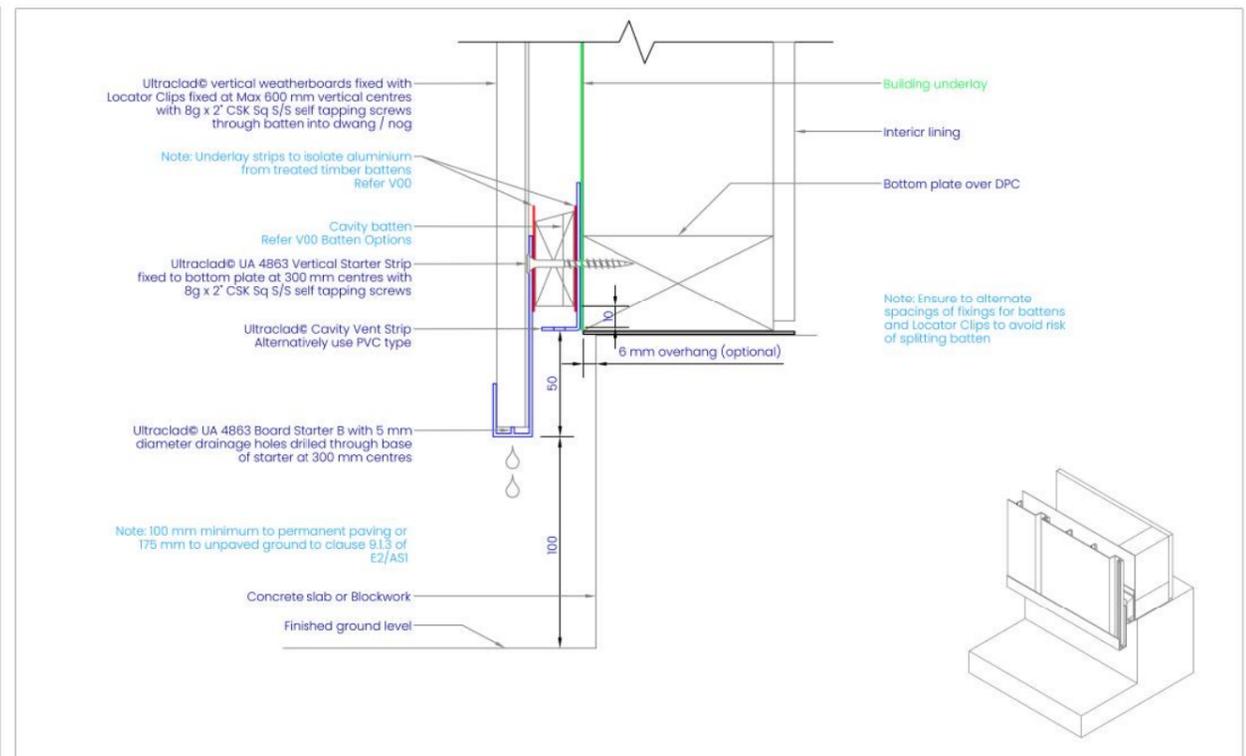
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		SCALE: 1:2 (@A4)
		DATE: 2024
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		SCALE: 1:4 (@A4)
		DATE: 2024
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		DATE: 2024
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**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
UltraClad Vertical

**NOTES:**



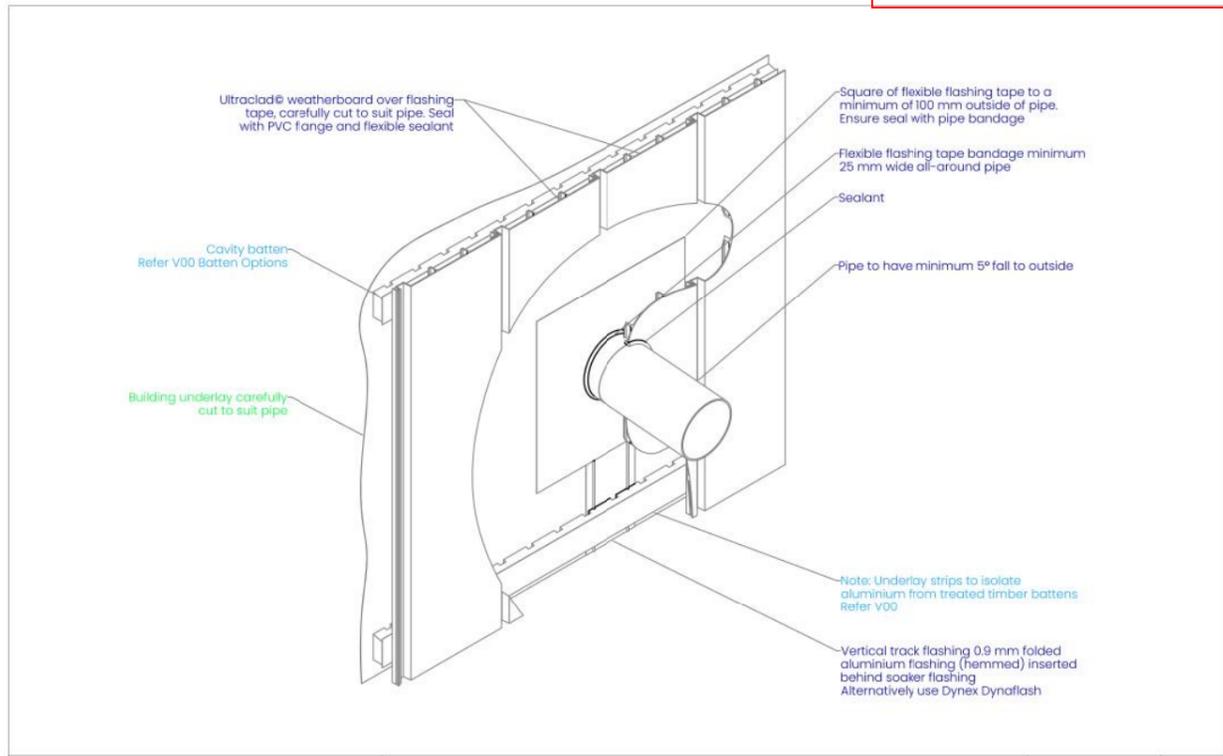
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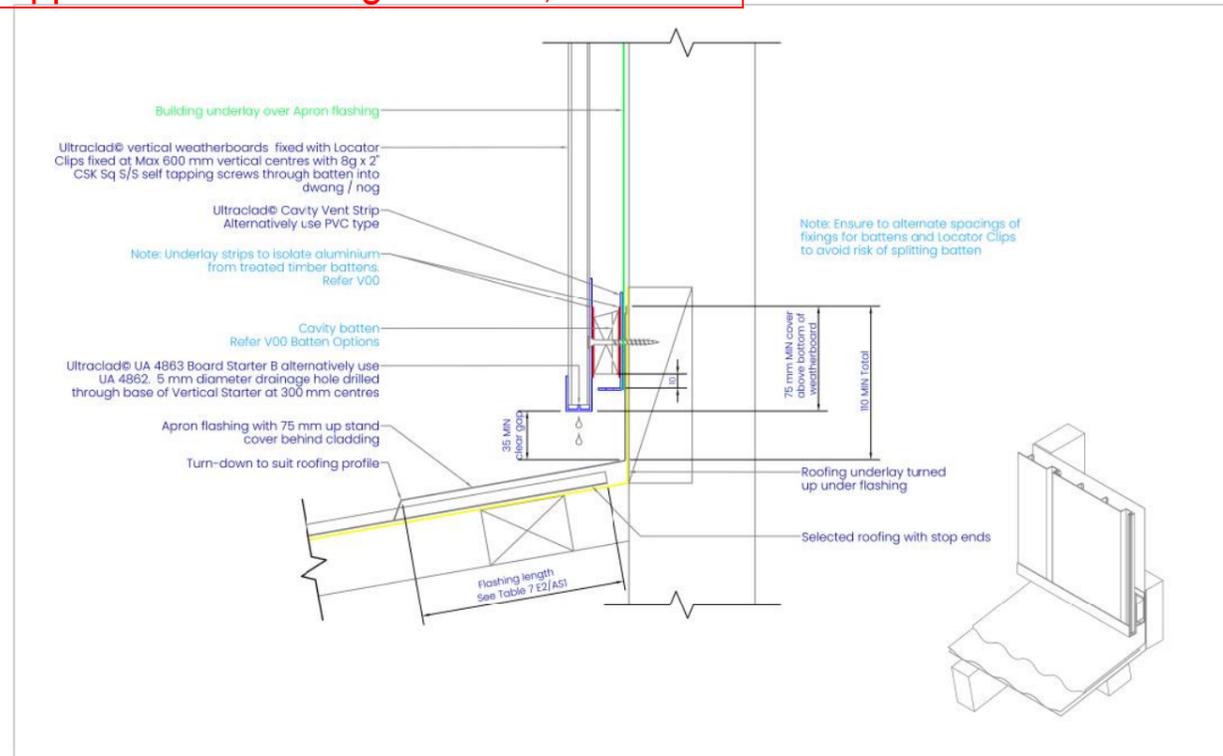
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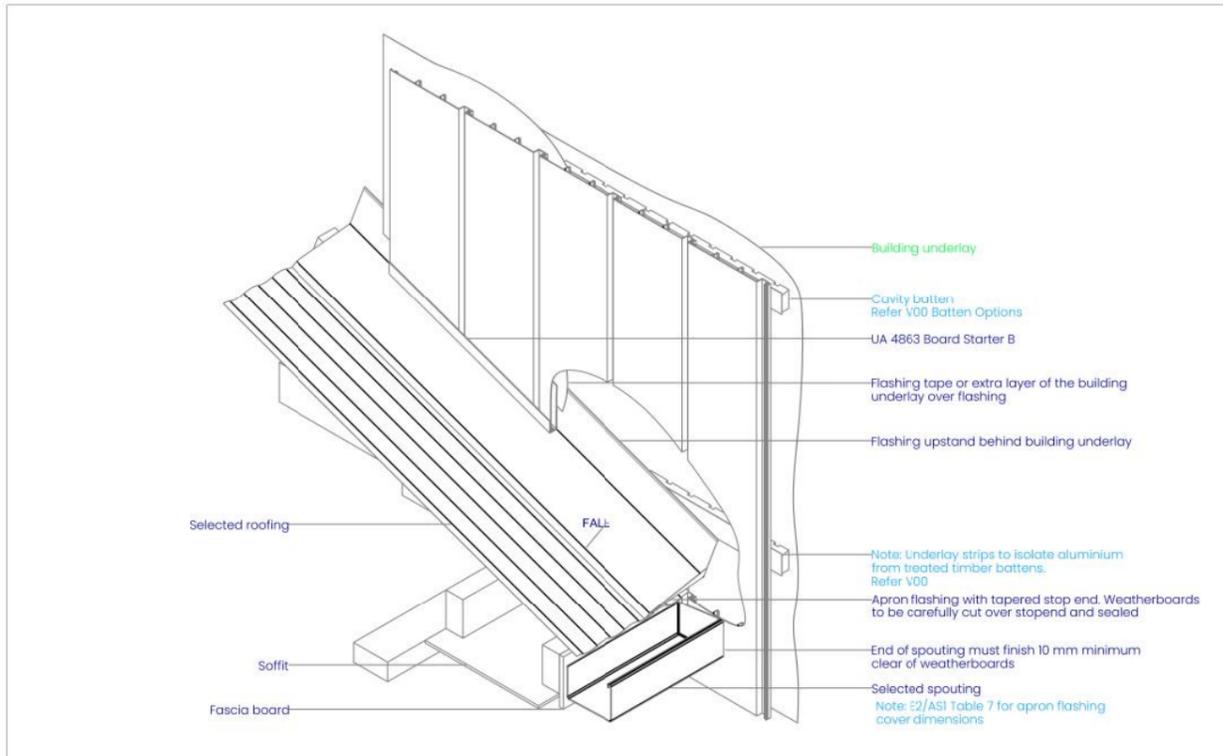




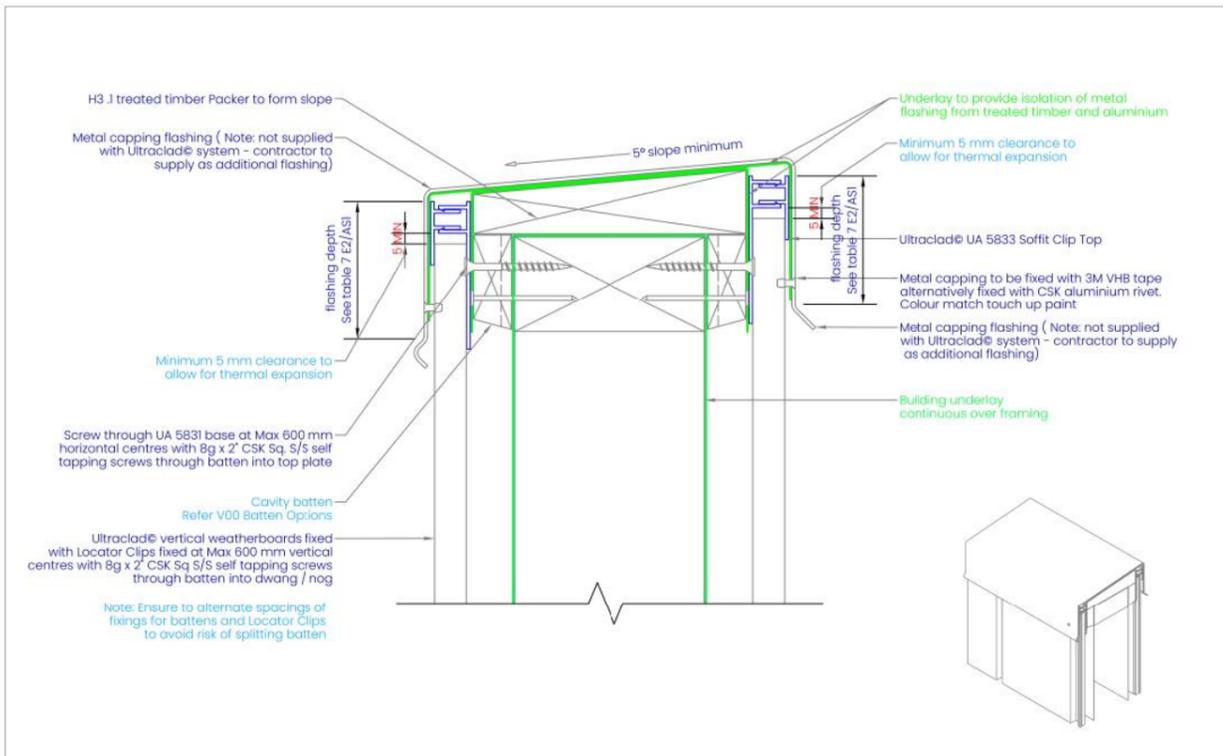
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----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------	-------------------------------------------------------------------------------------------------	------------------------------------------------------------------------



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
UltraClad Vertical

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

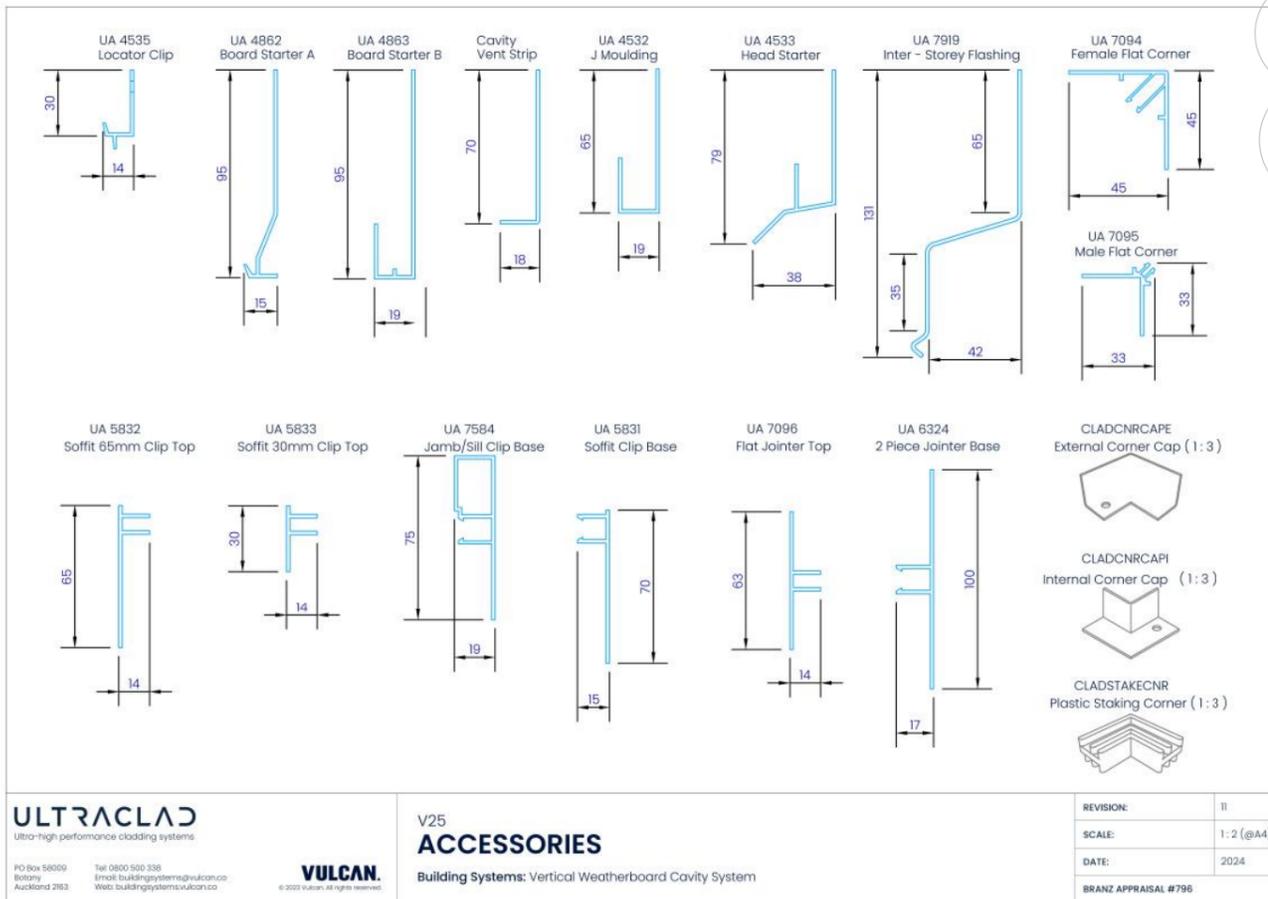
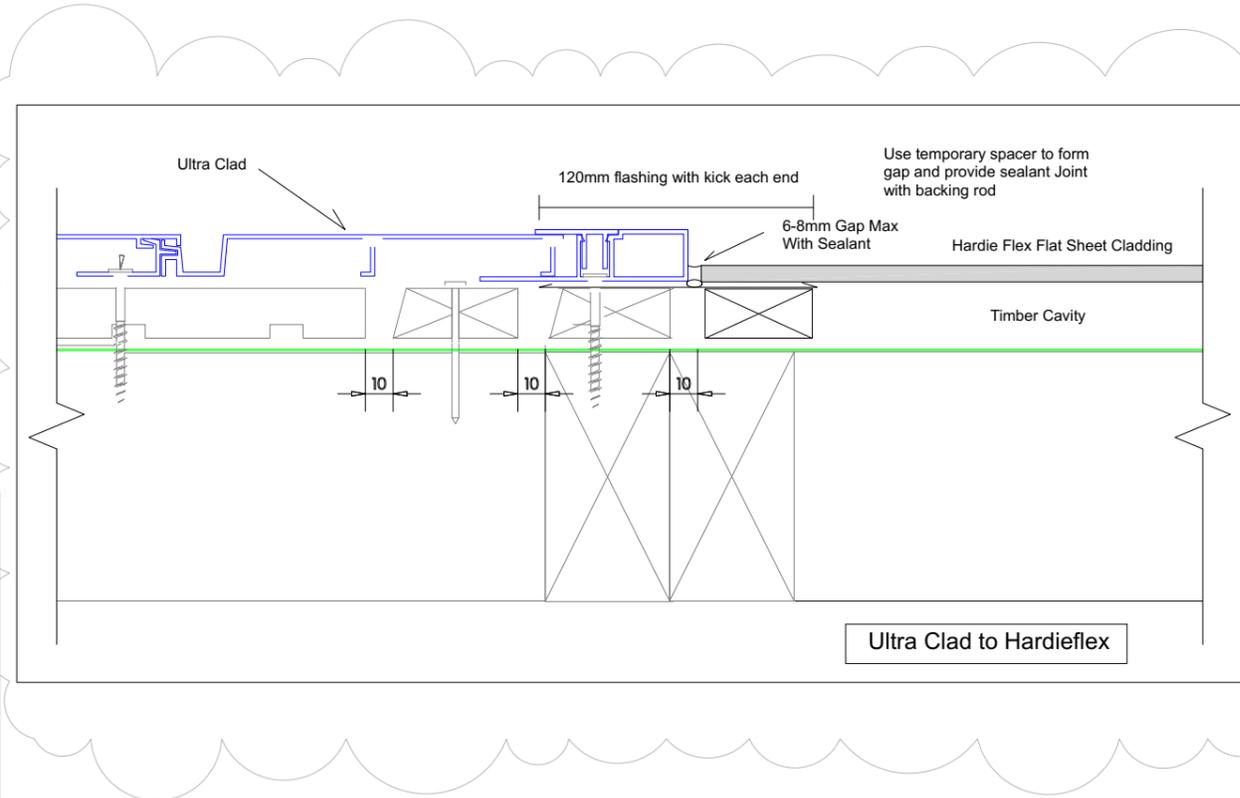
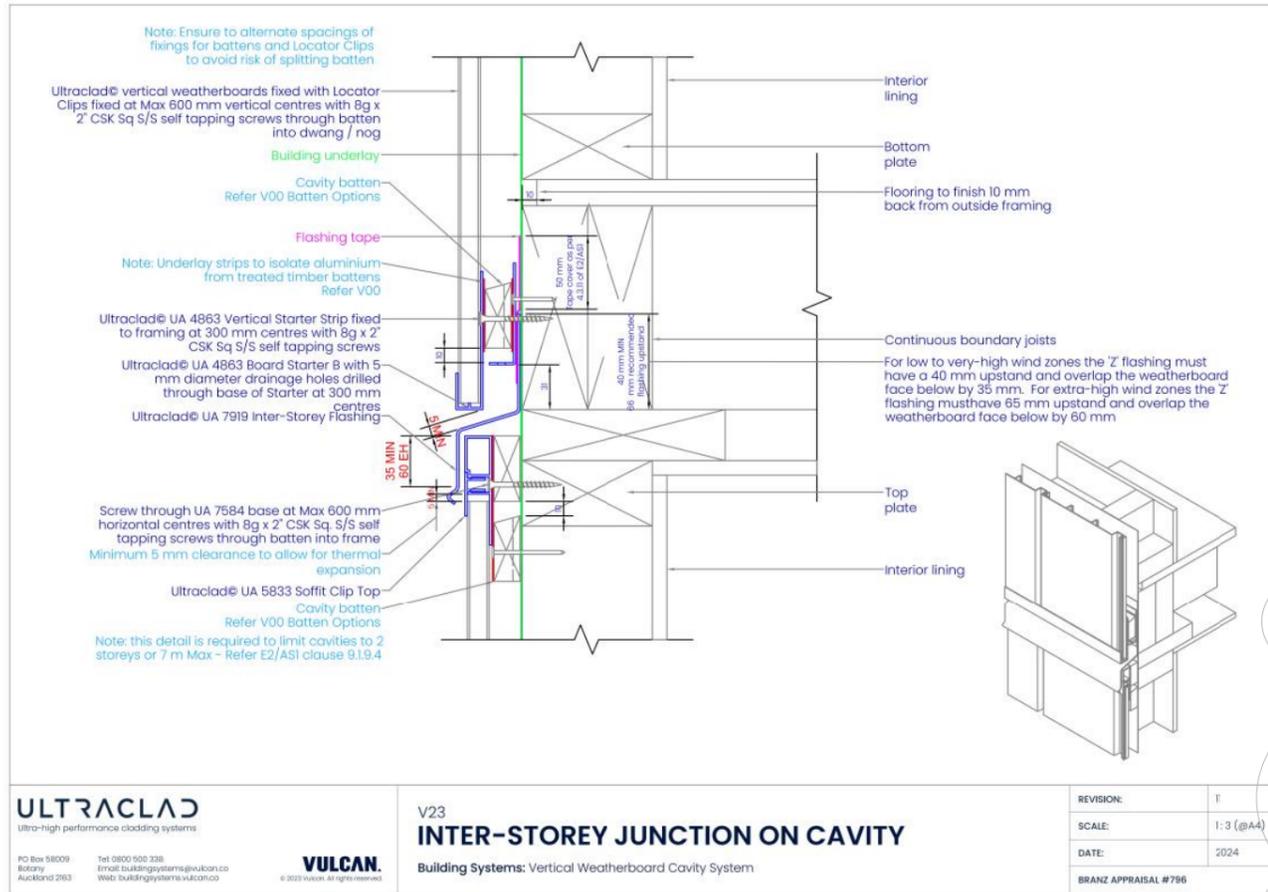
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Sheet 36



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

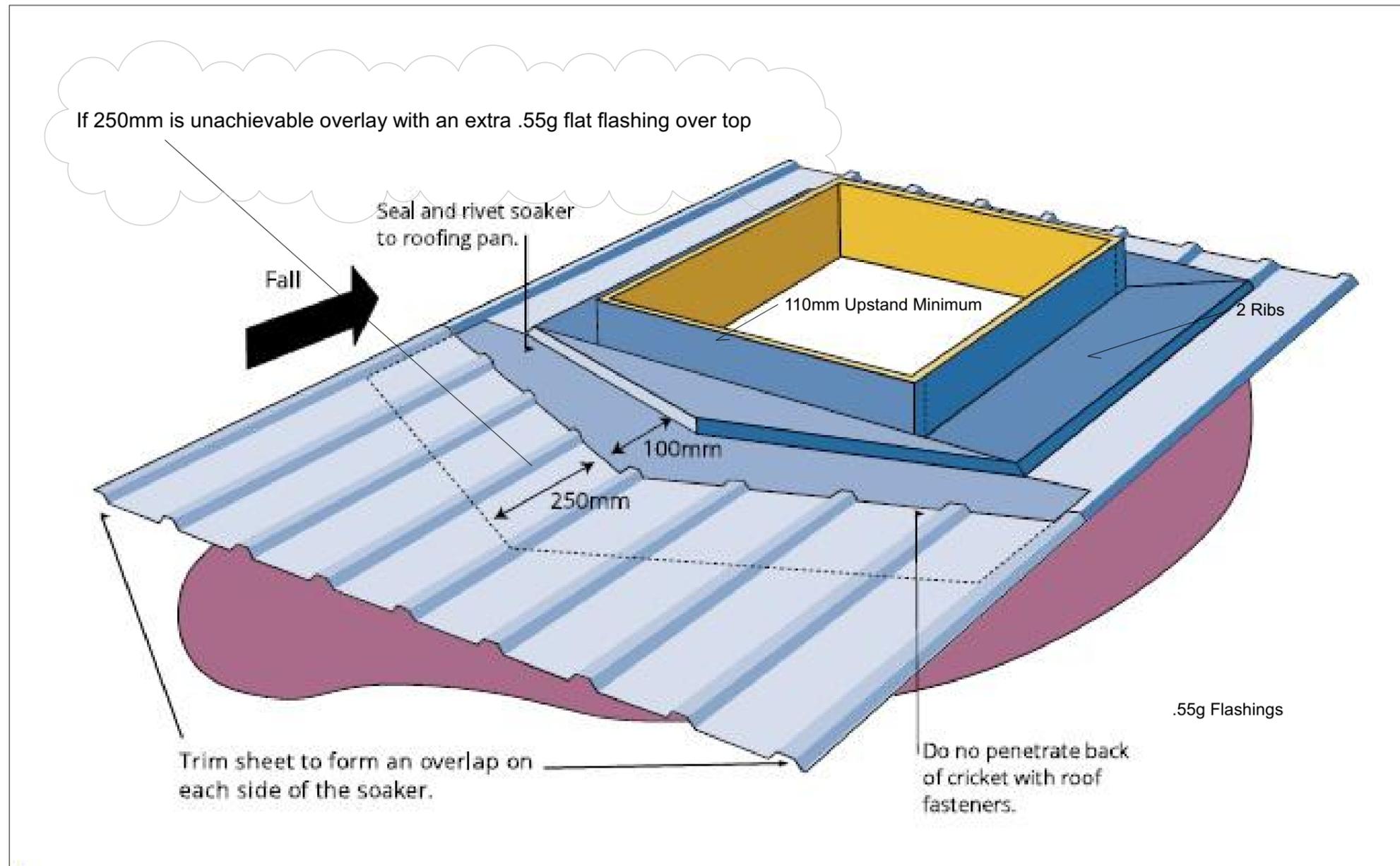
**TITLE:**  
UltraClad Vertical and Curved Wall Window Flashings

**NOTES:**

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**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

MC760 ROOF PENETRATIONS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

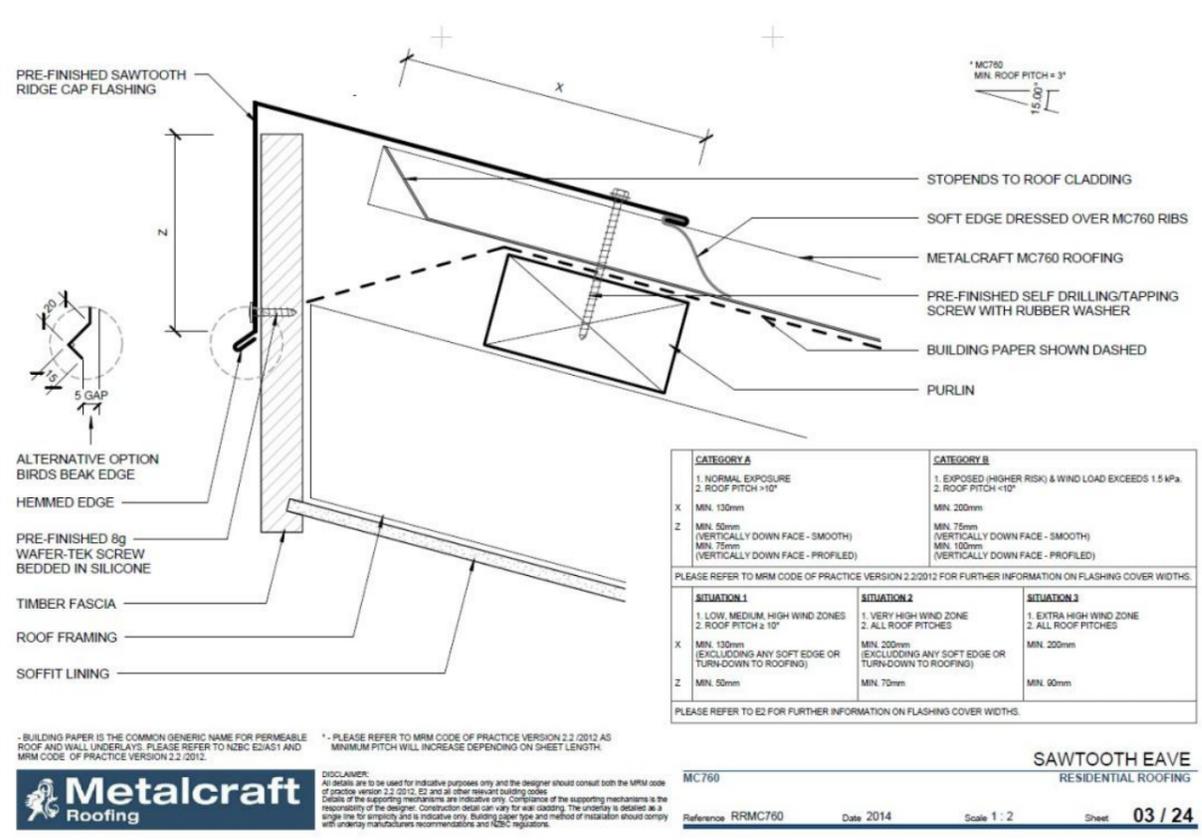
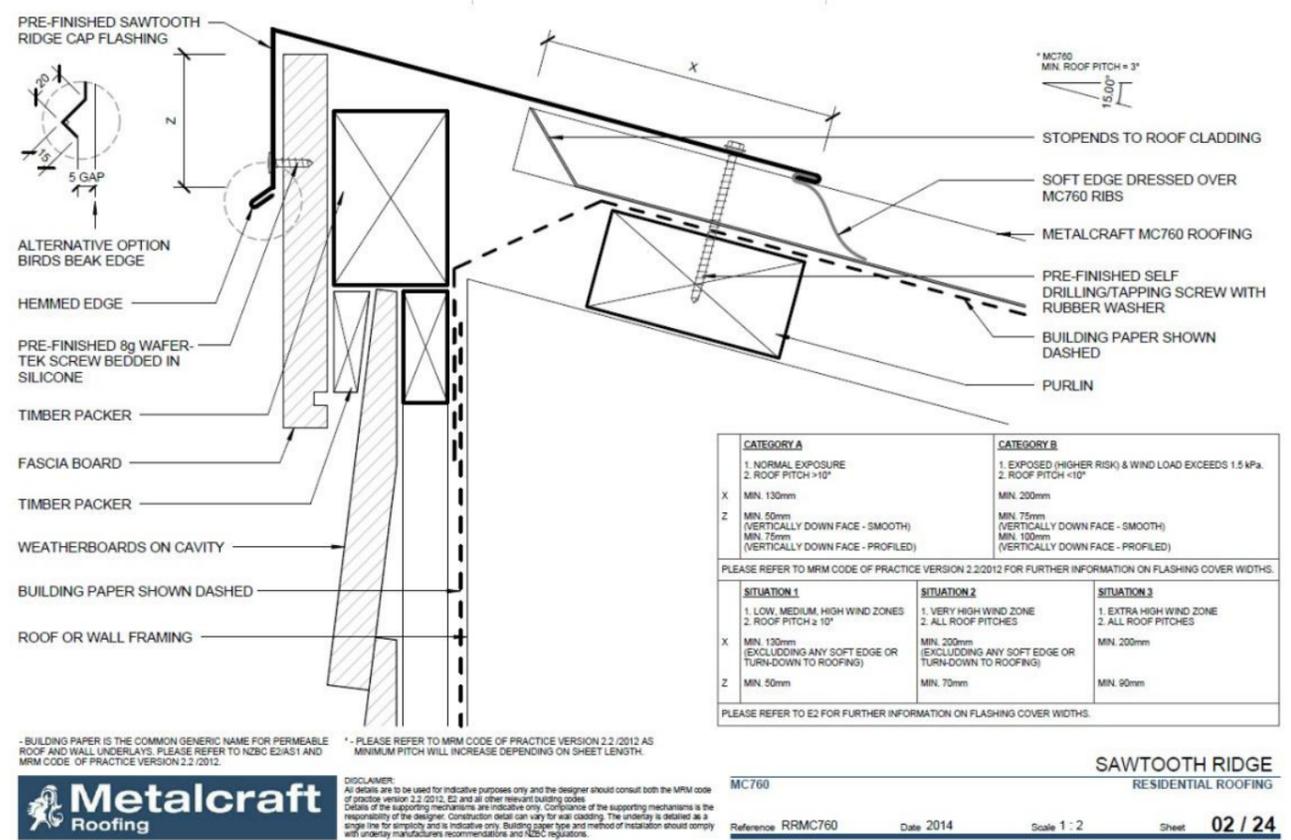
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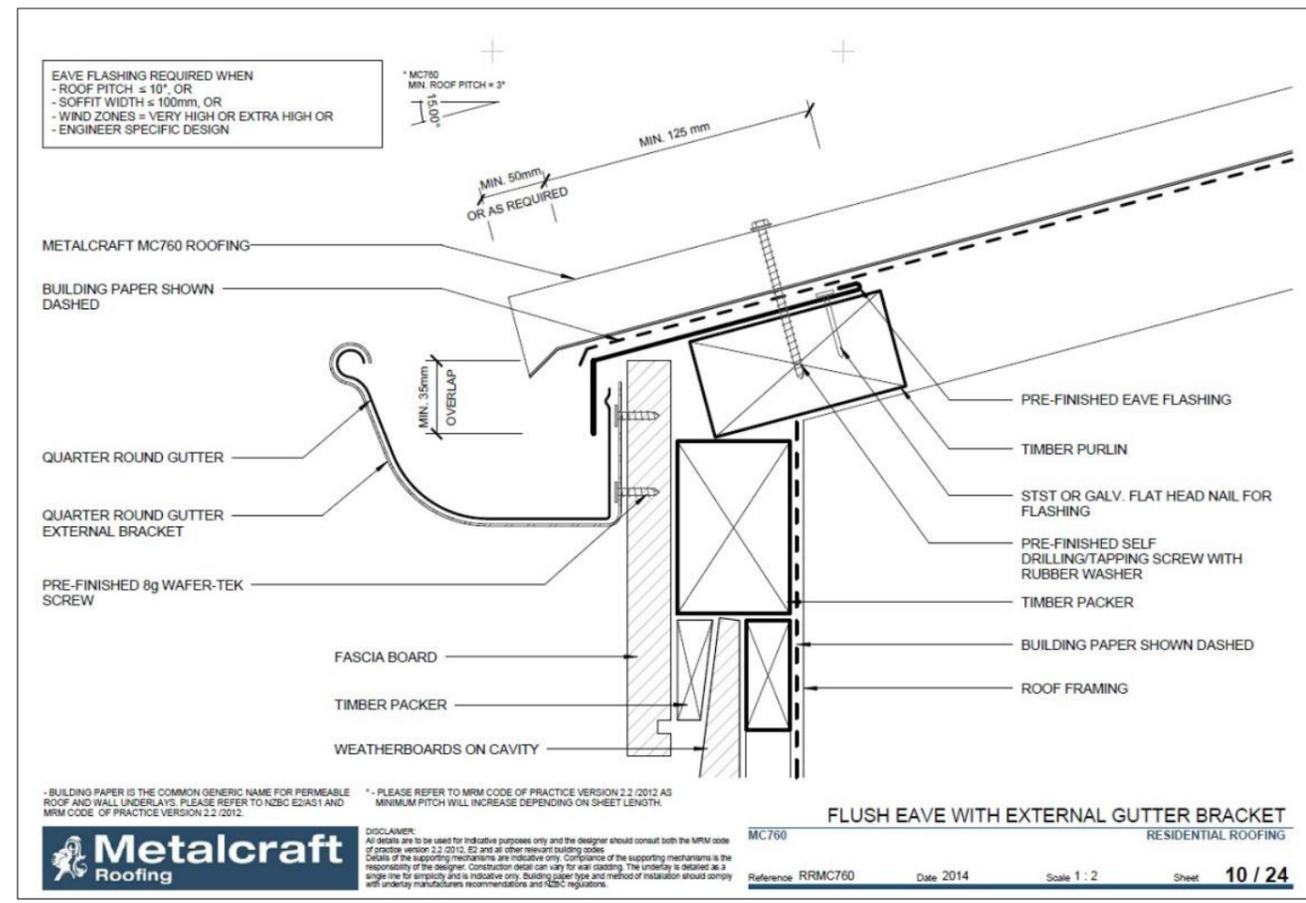
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Allow for a Vented Roof System - See Cross section



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
MC760 ROOF DETAILS

**NOTES:**

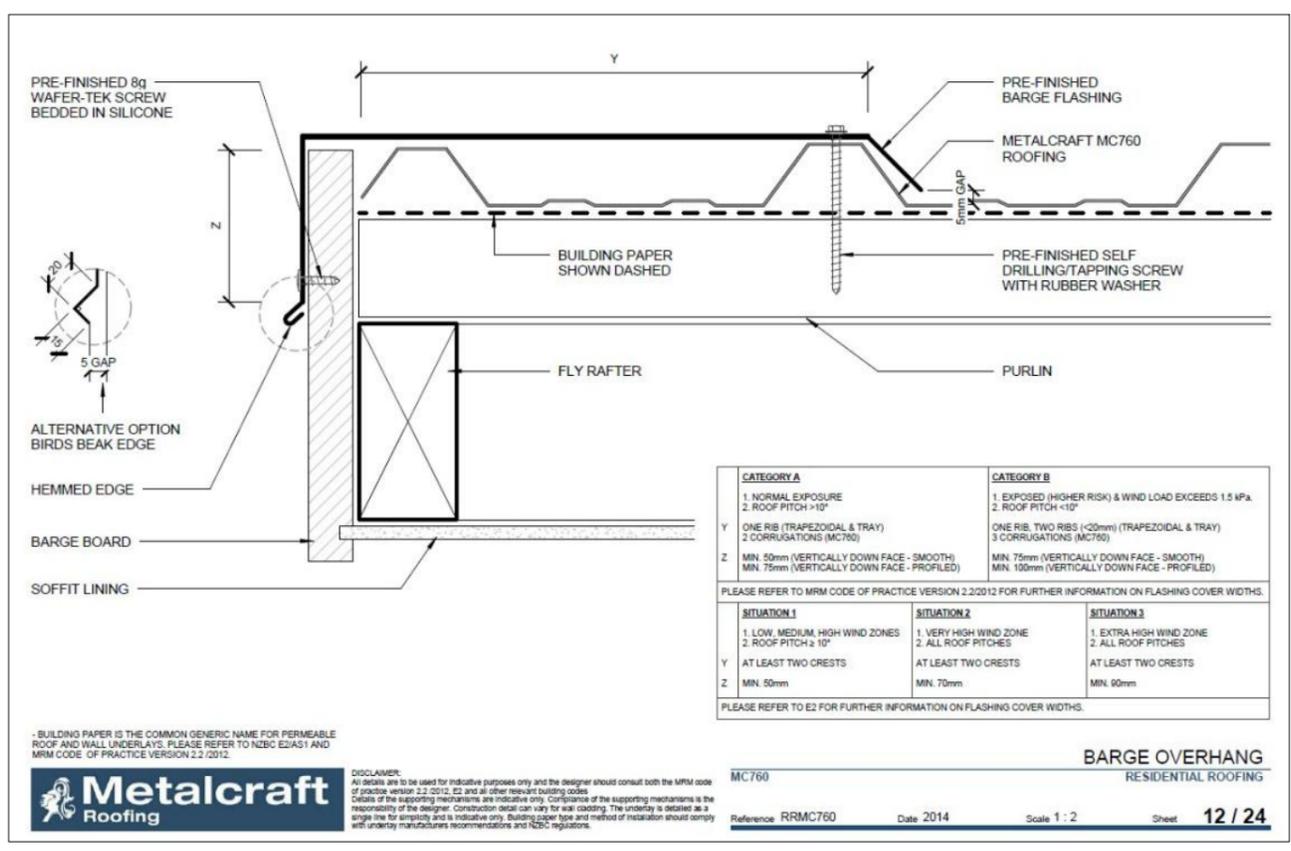
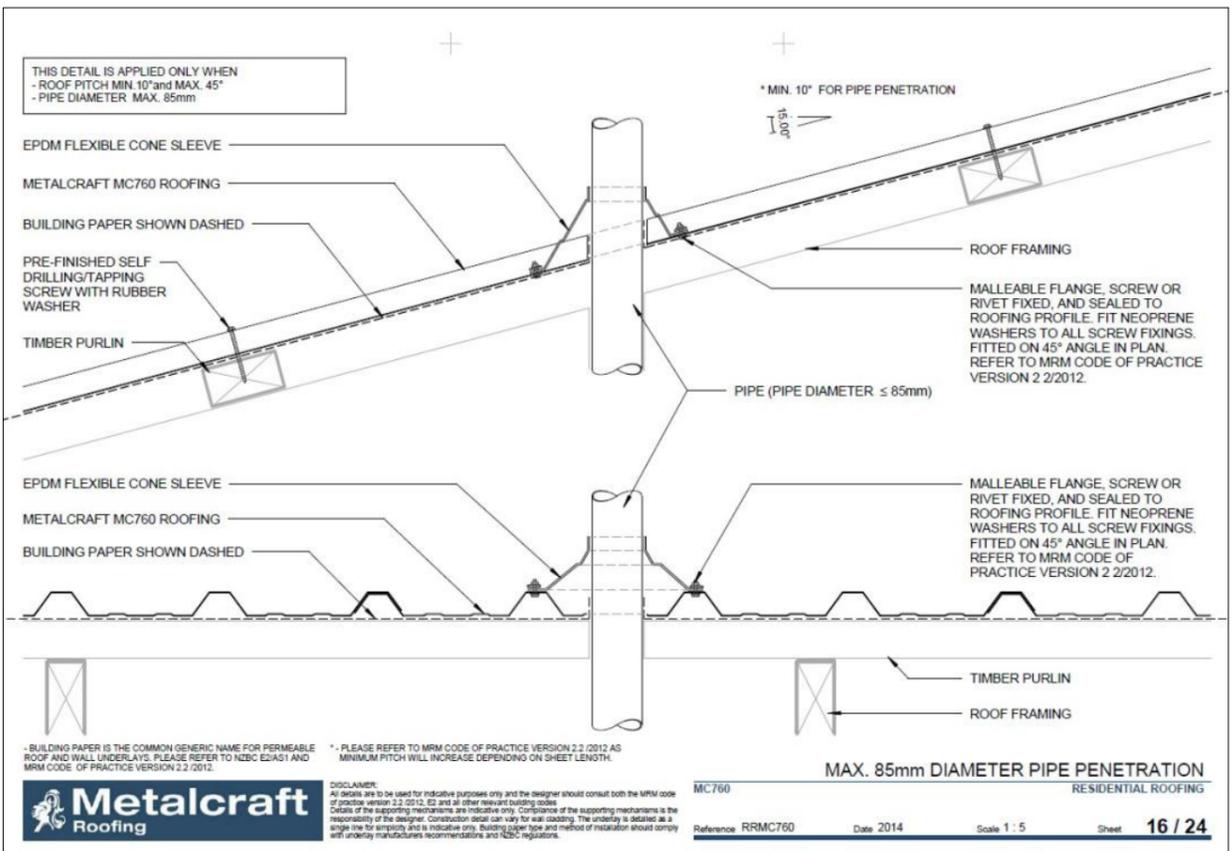


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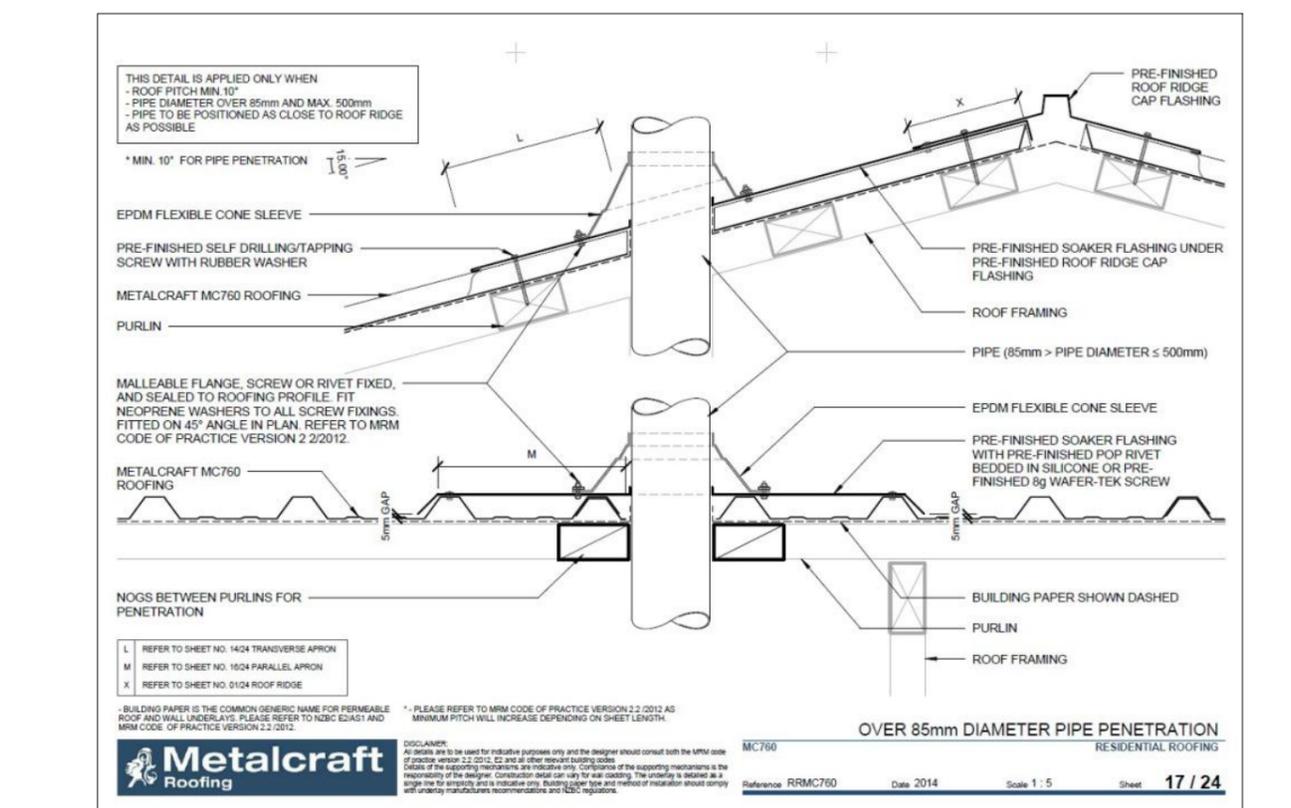
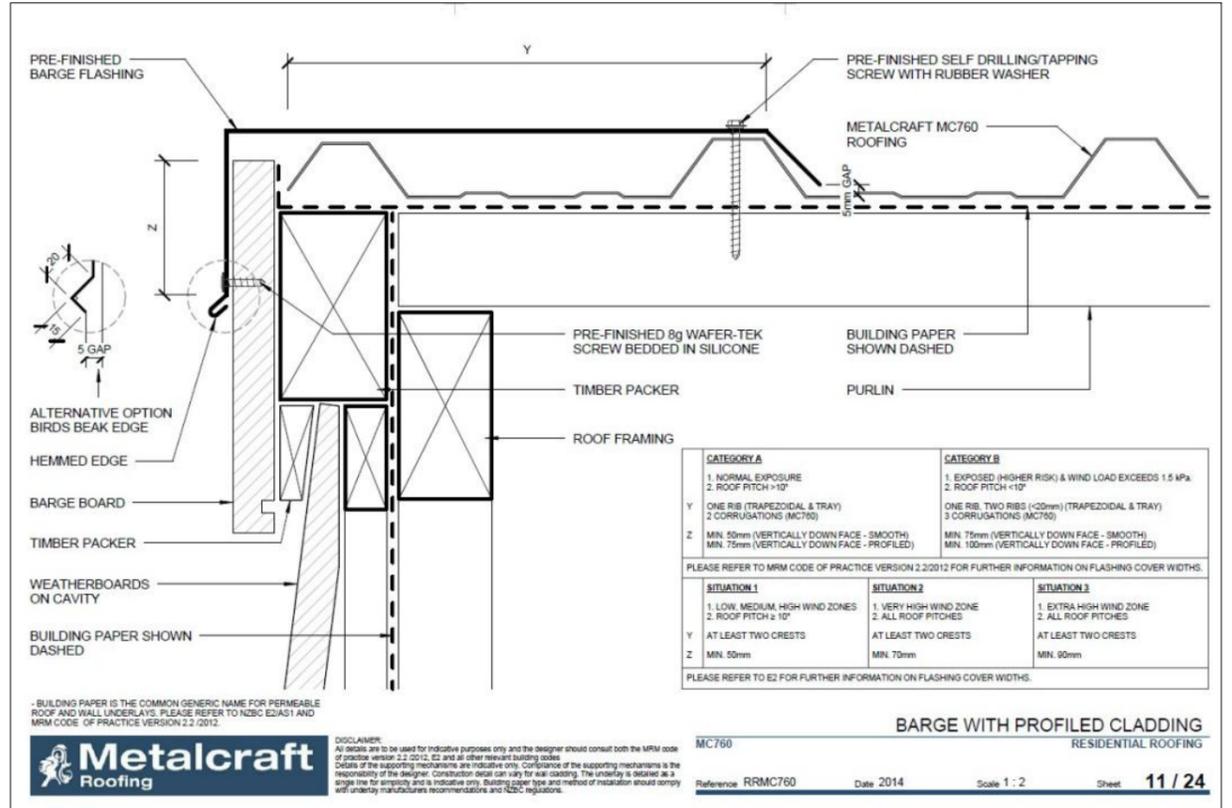
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Allow for a Vented Roof System - See Cross section



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
MC760 ROOF DETAILS

**NOTES:**



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**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
MC760 ROOF DETAILS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

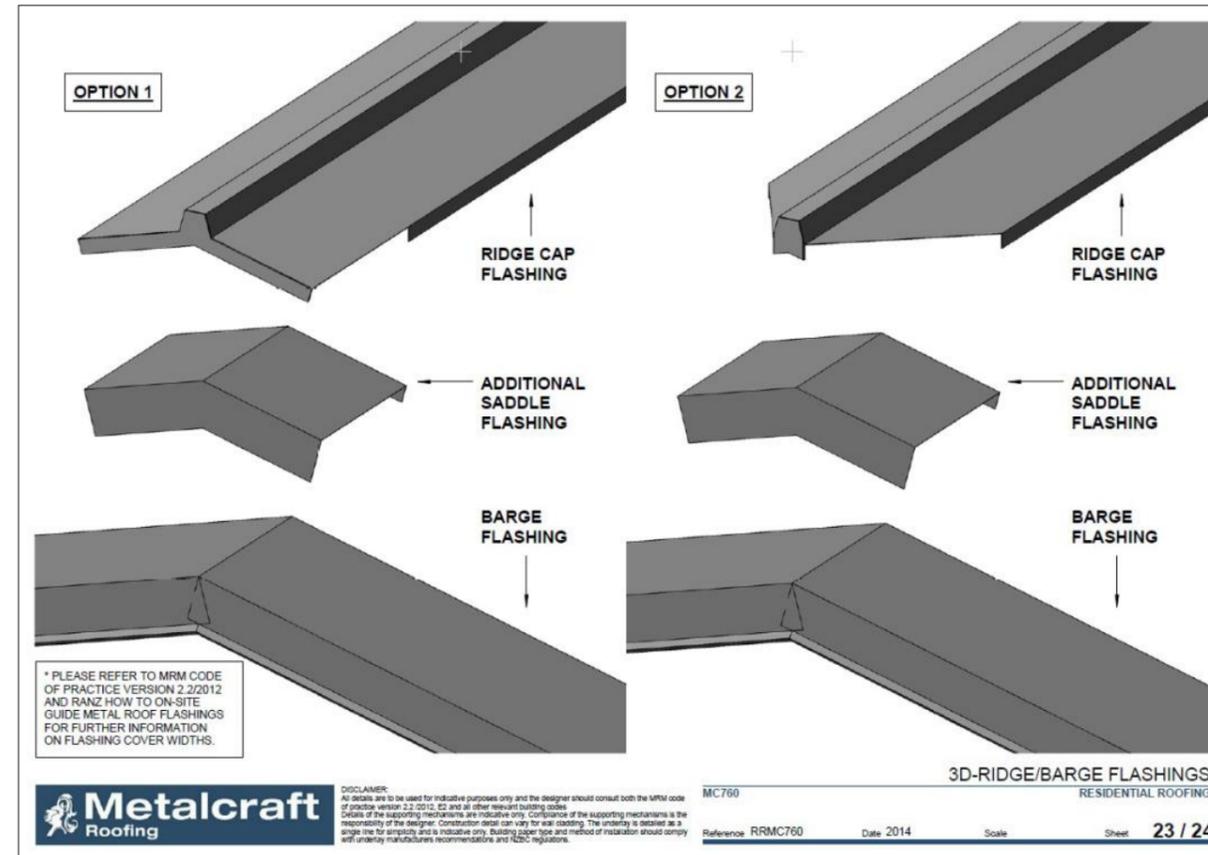
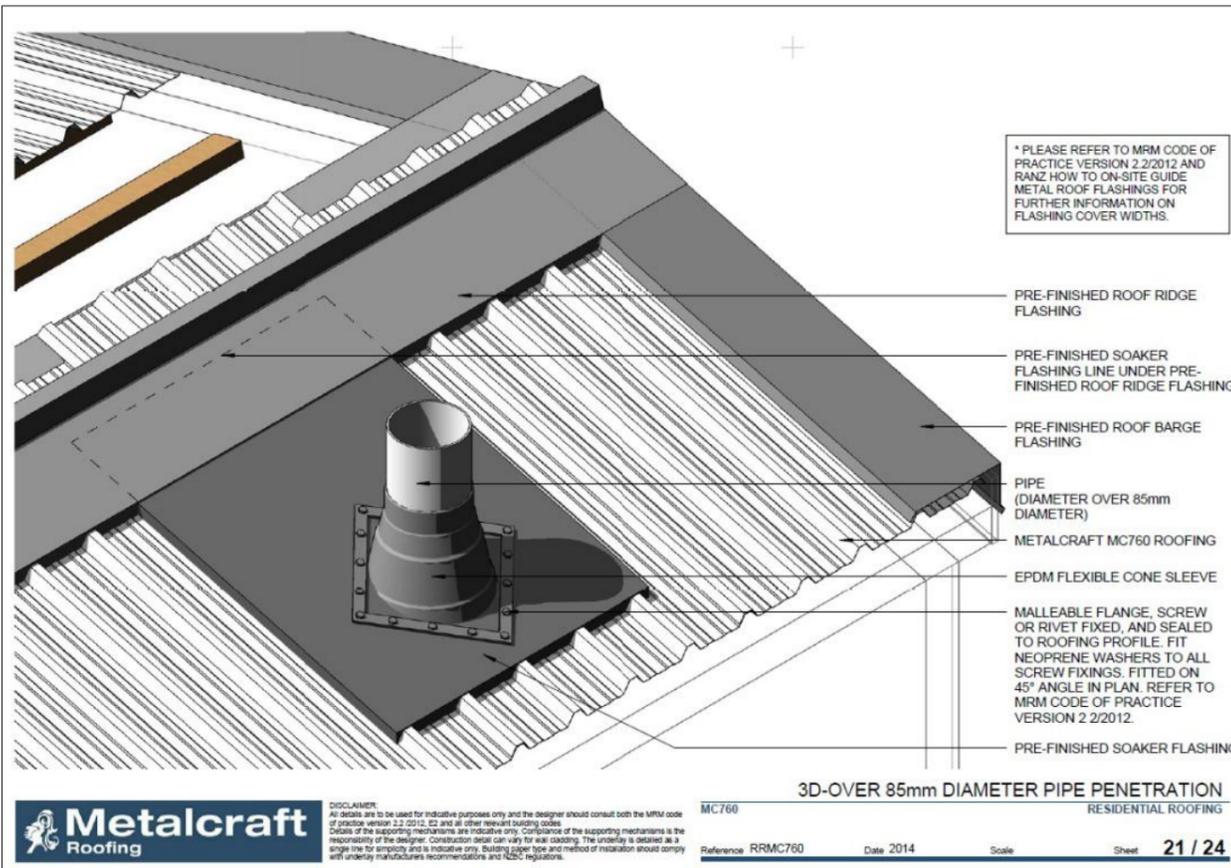
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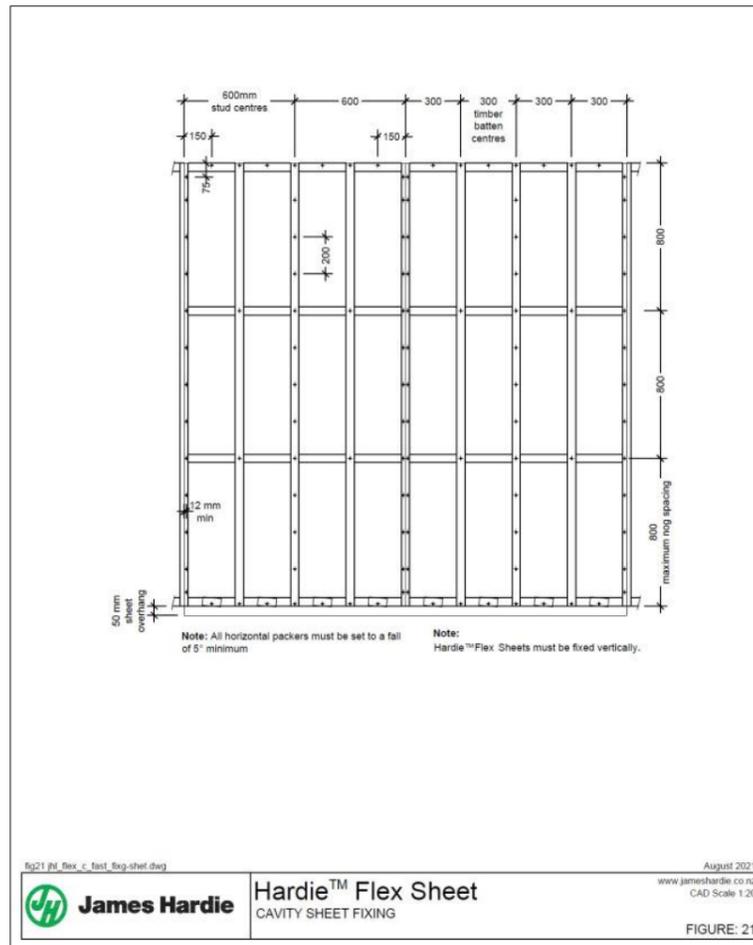
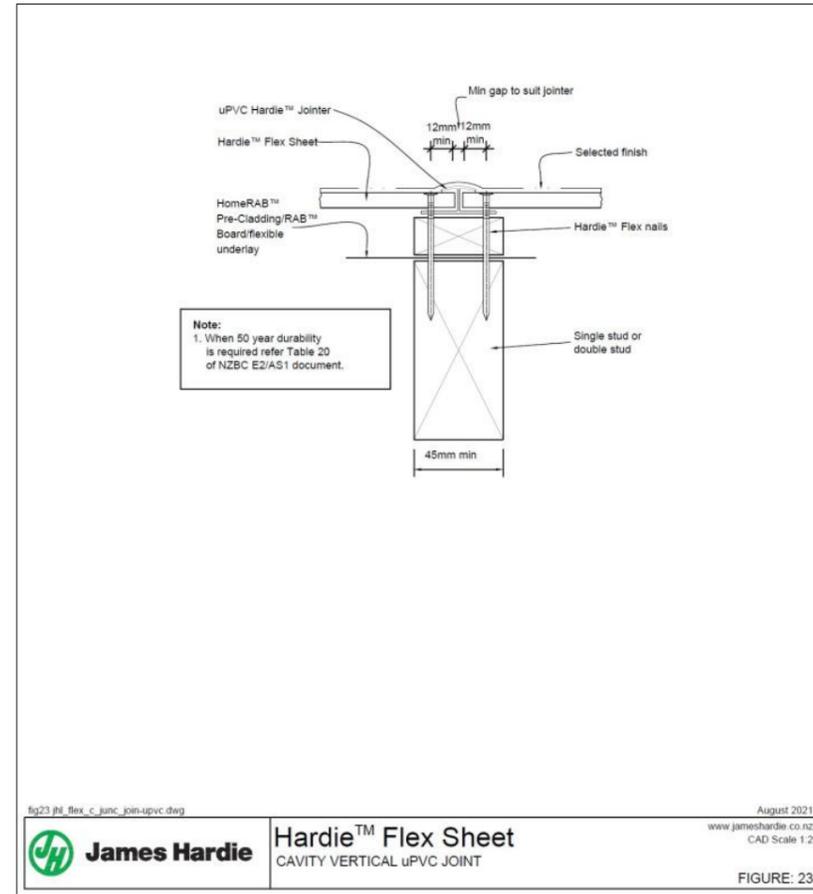
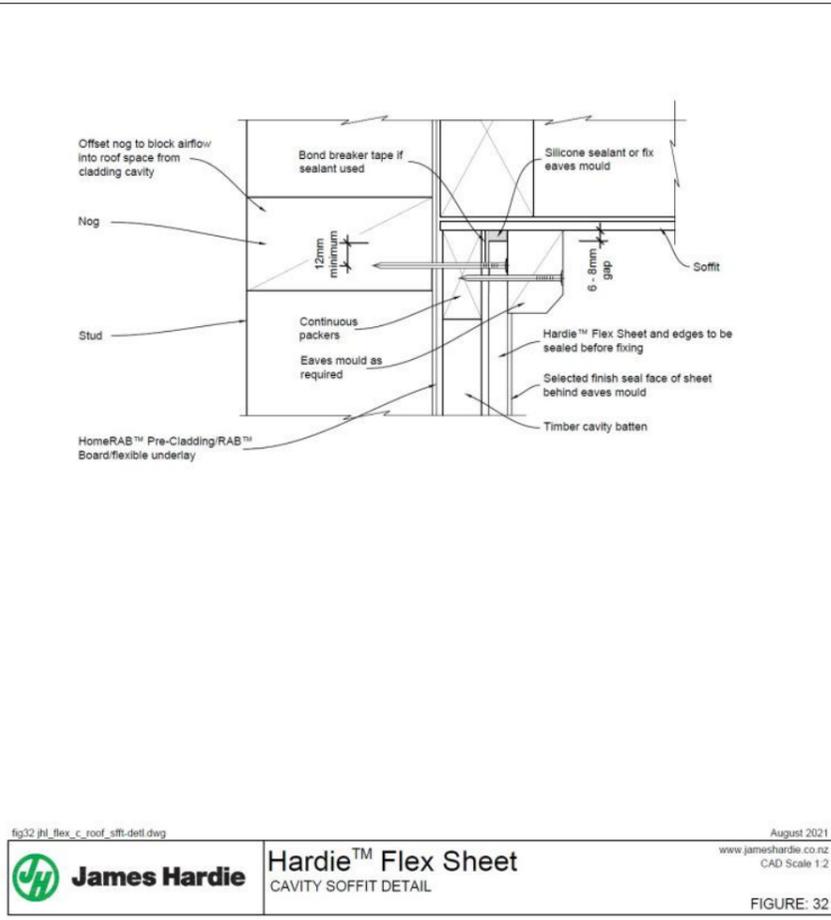
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31/10/2025

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Allow for a Vented Roof System - See Cross section





**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

JAMES HARDIE HARDI-FLEX DETAILS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

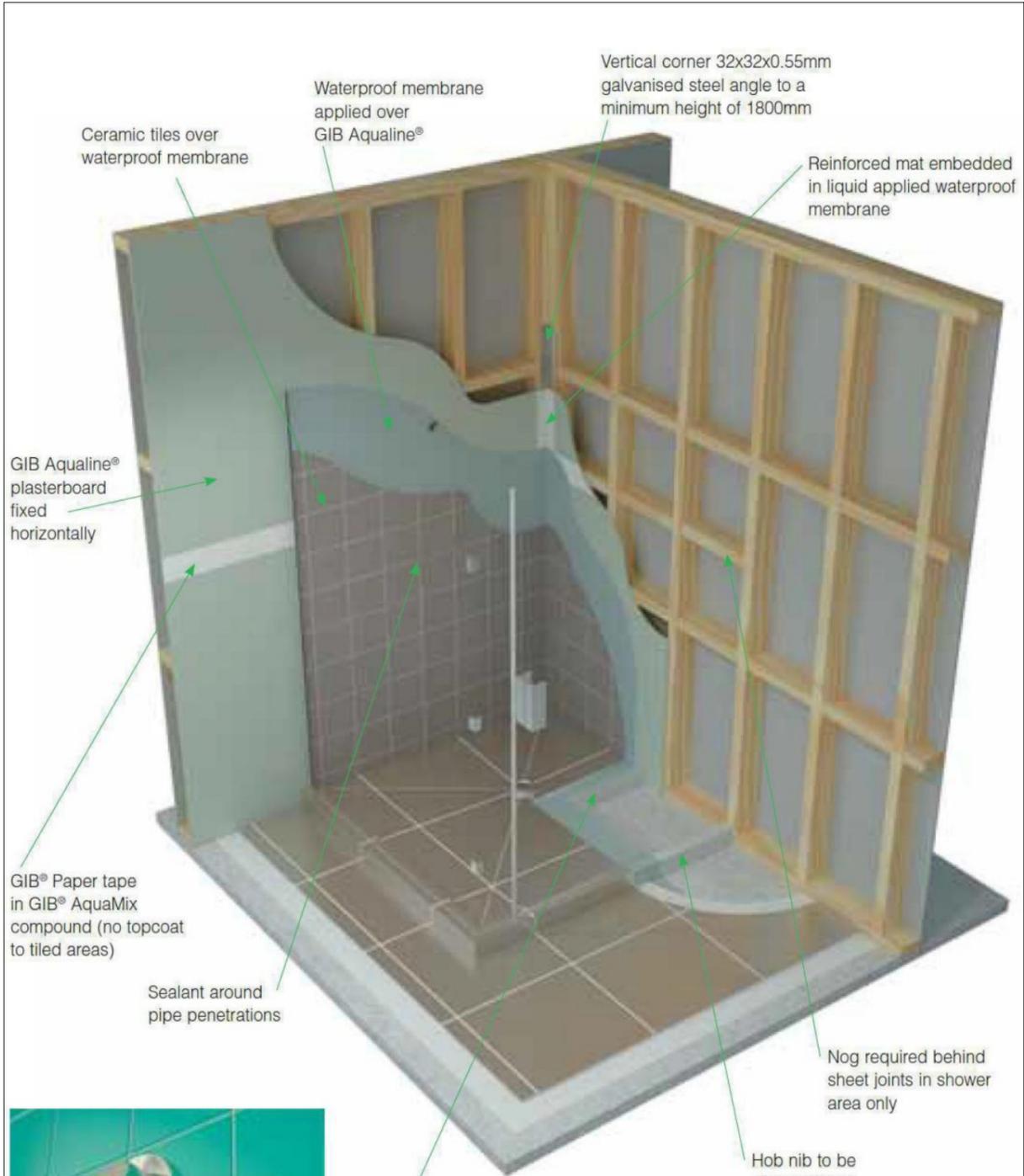
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Run a bead of silicone sealant around the mixer unit on the tiles extending below the bottom of the pipe aperture.

**USE APPROVED SIKA WATERPROOFING MEMBRANE OR SIMILAR. SEE A4 SPEC FOR FULL DETAILS**

**1:50 FALL TO WASTE**

**GIB TILED WALLS – TIMBER FRAMING**

**TIMBER WALL FRAMING**

Framing dimensions and spacing must be appropriate for the tile weight and comply with the requirements of NZS 3604:2011 Timber Framed Buildings, or relevant specific design Standard.

**NOGS**

For impact protection in shower cubicles or shower over bath situations it is important that all sheet joints are made on solid framing. This may require vertical fixing or the installation of additional nogs. Also provide nogs:

- Adjacent to each pipe penetration and behind sink and tub flashings
- Between all studs above bath flanges and preformed shower bases

**CORNER REINFORCING**

- 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 NZ18 or 45 x 45 x 0.55mm GIBFix® Angle. Angles need to be temporarily held in place until secured by the lining fixings.

**FASTENERS**

- Minimum 32mm x 6g GIB® Grabber® High Thread Screws

**FASTENER CENTRES**

- 150mm centres to perimeter of wall and all intermediate studs
- Adhesive is not to be used in place of mechanical fasteners
- Place fasteners 12mm from sheet edges and 18mm from sheet ends

- Single fasteners to each stud where the horizontal joint crosses the studs
- Where relevant, fastener lengths must comply with the requirements of GIB® Fire Rated Systems or GIB® Noise Control Systems

For bracing, noise control or fire rating applications including fastener lengths consult the relevant GIB® technical publication.

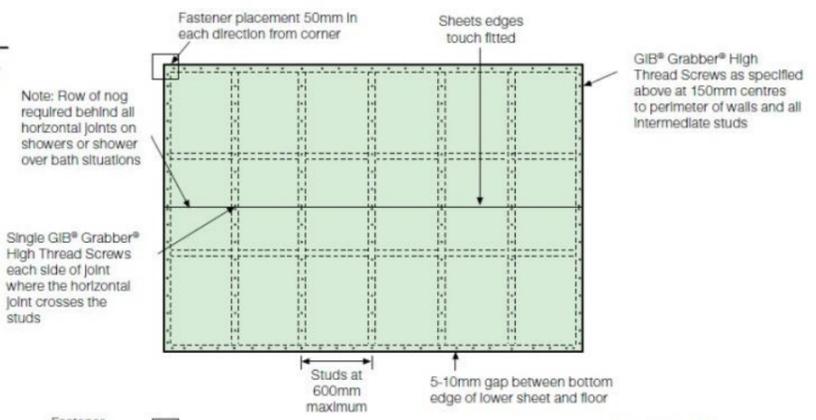
**LINING AND TILE WEIGHTS**

- Use minimum 10mm GIB® plasterboard
- For m ermitted tile weights refer to pg 16 of this manu
- GIB® Wet Area linings may be fixed vertically or horizontally
- Sheets are touch fitted
- Provide a 5-10mm gap at the wall/floor junction and between the bottom edge of the lining and any bath rim or preformed shower base to allow for placement of sealant
- Do not tile on the resilient side of GIB Rail® or STWC Acoustic Clip (ST001) and channel noise control system
- GIB® Wet Area linings are suitable for tiling full height of walls, but if a wall is to be partially tiled (e.g. half high), only the area of wall under the tiles needs to be fixed as required for tiled areas. The remainder of the wall may be fixed as for non-tiled areas

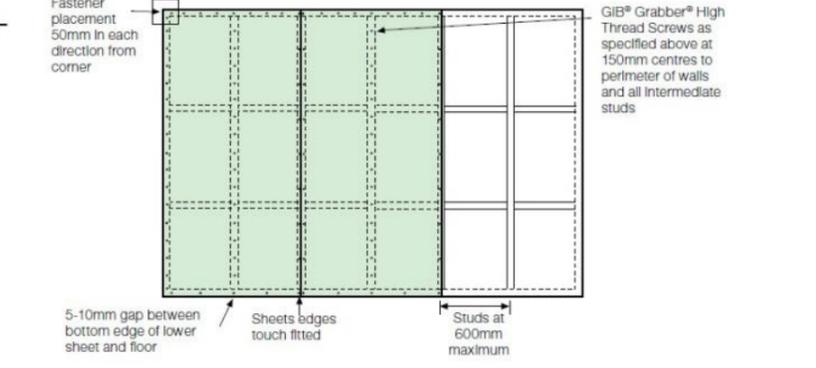
**JOINTING**

- Jointing shall be carried out in accordance with the instructions of the GIB® Site Guide

**Fastening the Linings – Horizontal Fixing Only**



**Fastening the Linings – Vertical Fixing Only**



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
E3 ENSUITE LEVEL ENTRY SHOWER

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

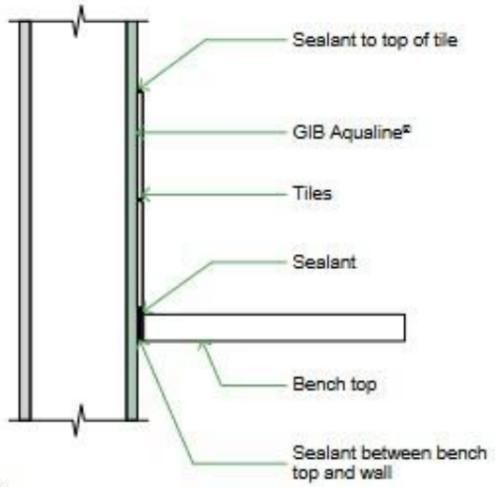
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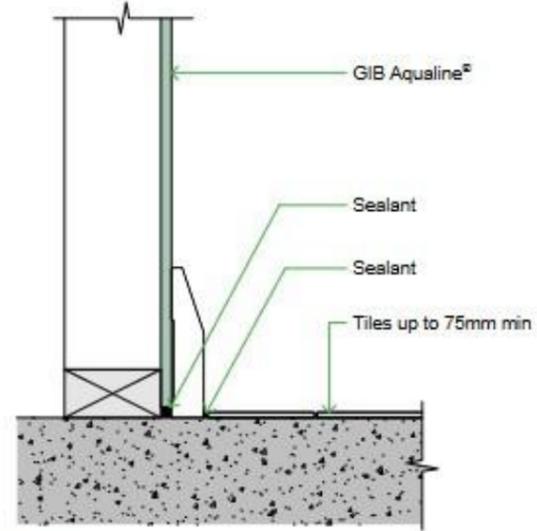
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**A: BENCH TOP LINING JUNCTION**



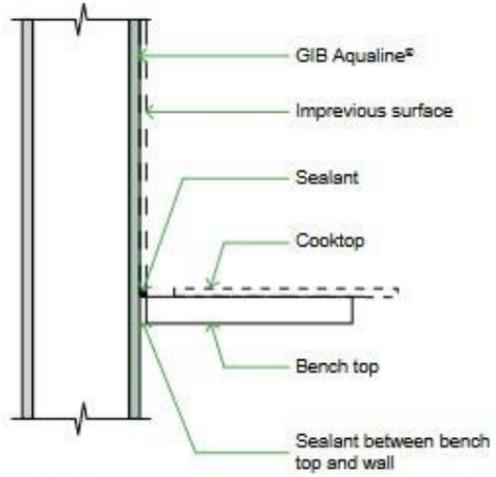
GAL-024

**CERAMIC FLOOR SKIRTING LINING JUNCTION**



GAL-001A

**B: COOKTOP LINING JUNCTION**



GAL-023B



**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

E3 KITCHEN

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

DO NOT SCALE

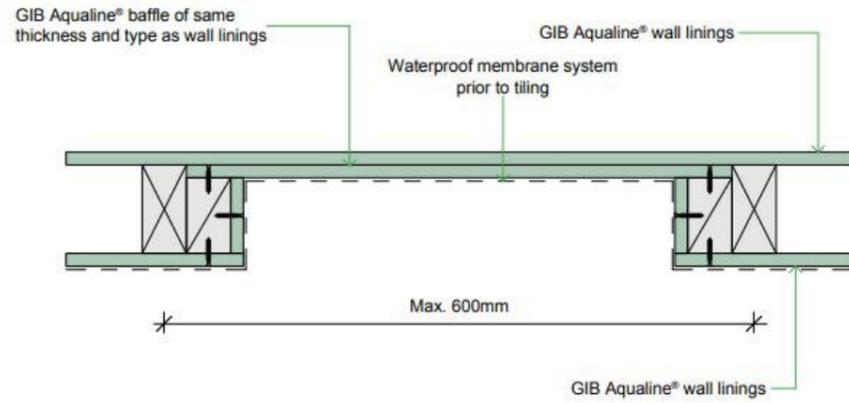
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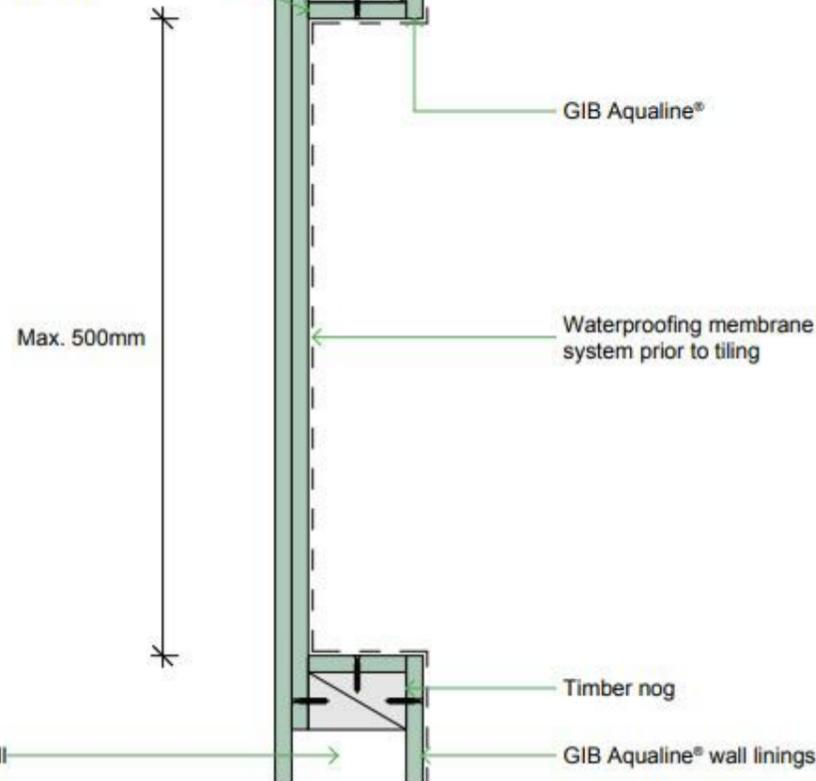
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**TIMBER FRAME TILE RECESS**

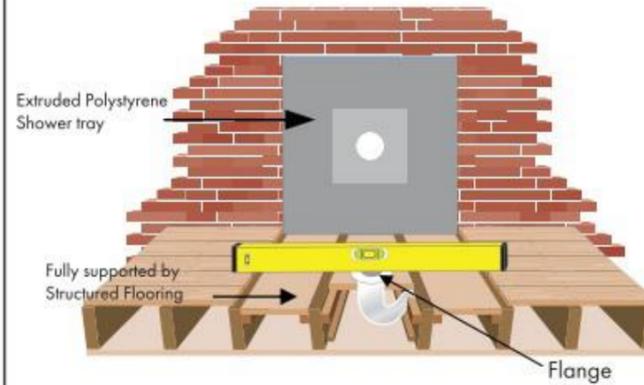


Larger recesses can be accommodated depending on specific framing layout provided 500mm is not exceeded in at least one direction.

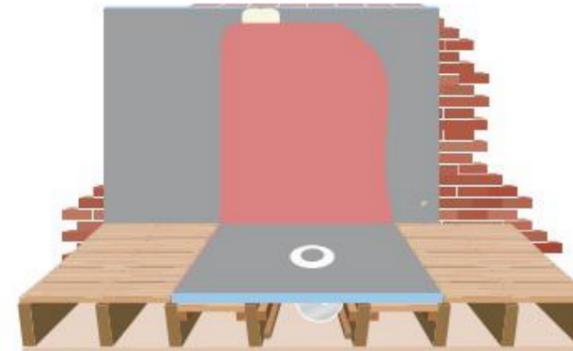
GIB Aqualine® baffle of same thickness and type as wall linings



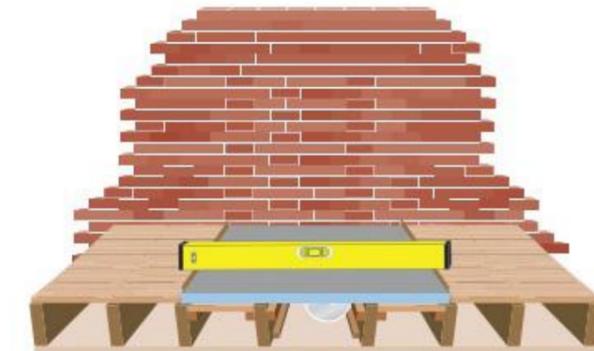
**Shower tray installation**



1. Check that the floor is flat and level. Clean the floor area for the shower base.
2. Dry position the shower base and mark the location of the drain, and the outside edge(s). **Cut the substrate for the pipe location and finish plumbing connections (including waste flange).**

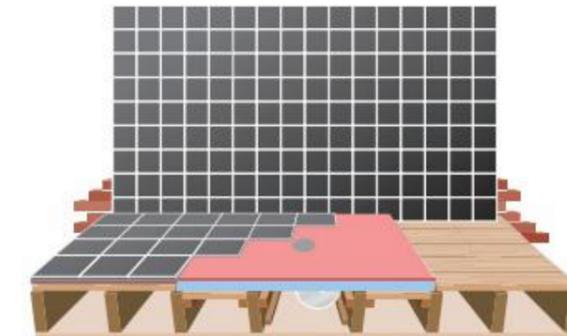


4. Apply any Branz approved water based waterproofing (non solvent based) to the entire surface of the shower base, flange and wall sheeting according to the manufacturer's recommendations.



Note: If laying on a timber floor, it is recommended that a tile and slate underlay be laid first.

3. Use a flexible tile adhesive applying full coverage with 10mm notch trowel to fix the shower base to the floor. Place the shower base in position, apply downward pressure on the shower base and check for level.



5. After the waterproofing dries, the shower can be tiled in a regular manner.



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
E3 ENSUITE WET AREA DETAILS

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

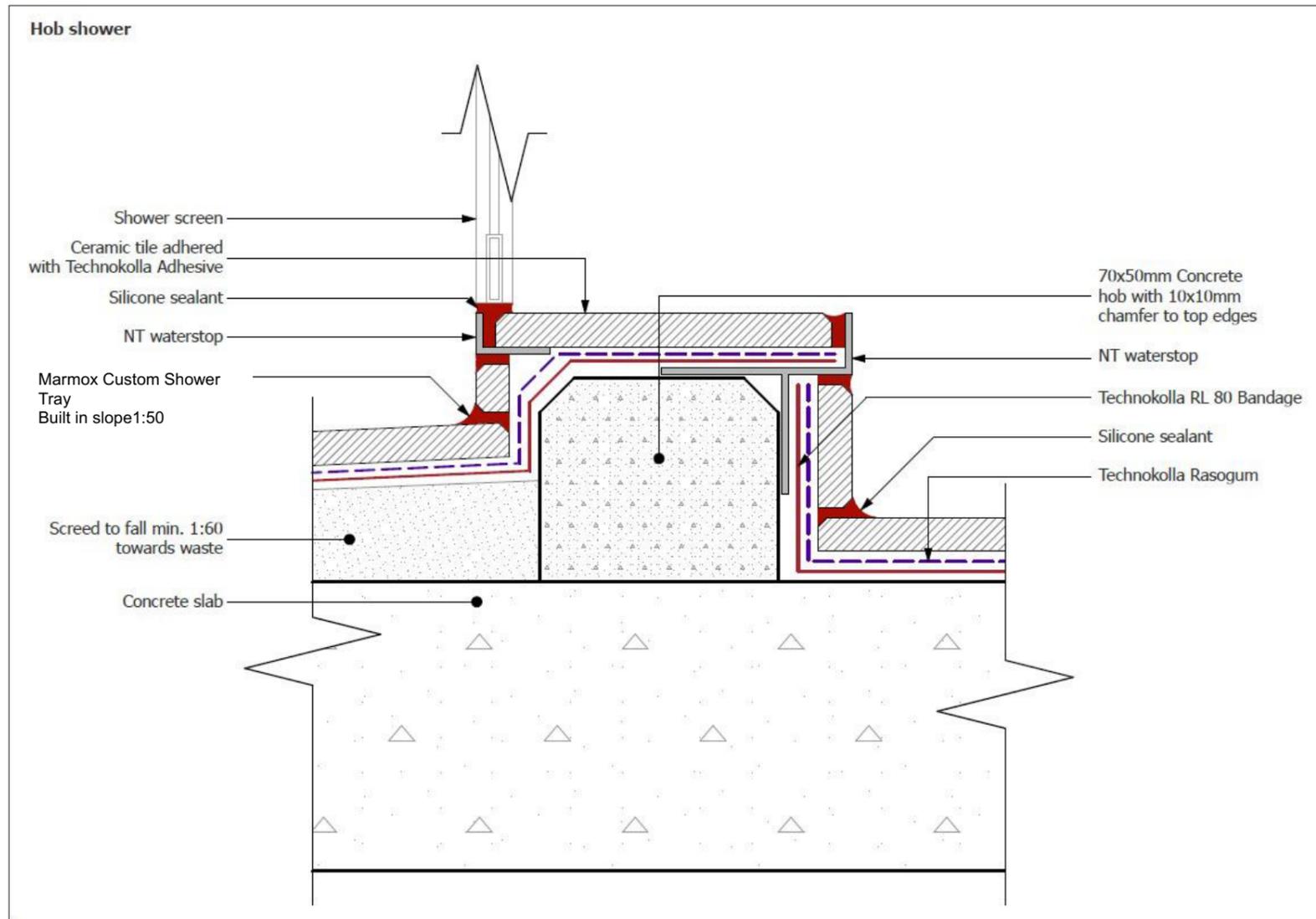
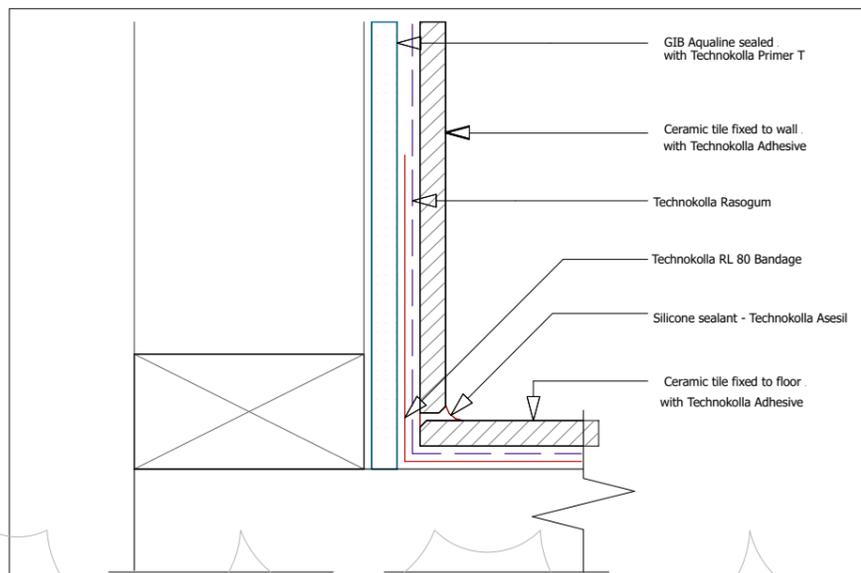
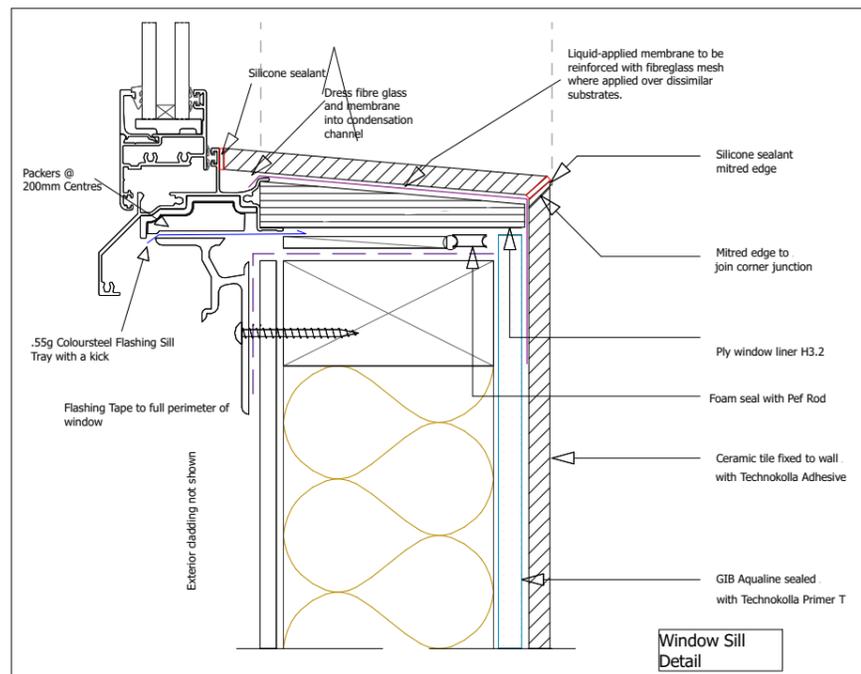
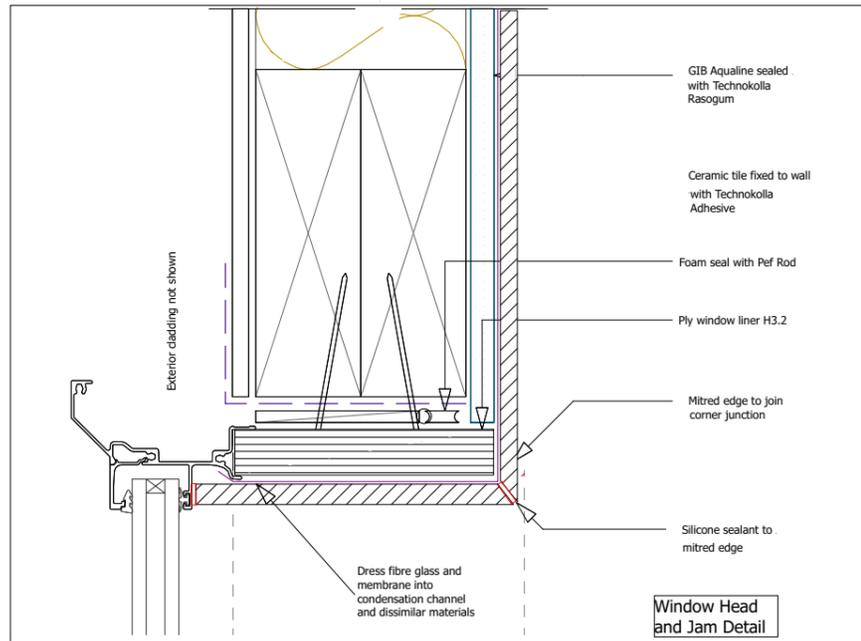
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Sheet 46



See A4s for Full Details



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
E3 SHOWER DETAILS

**NOTES:**



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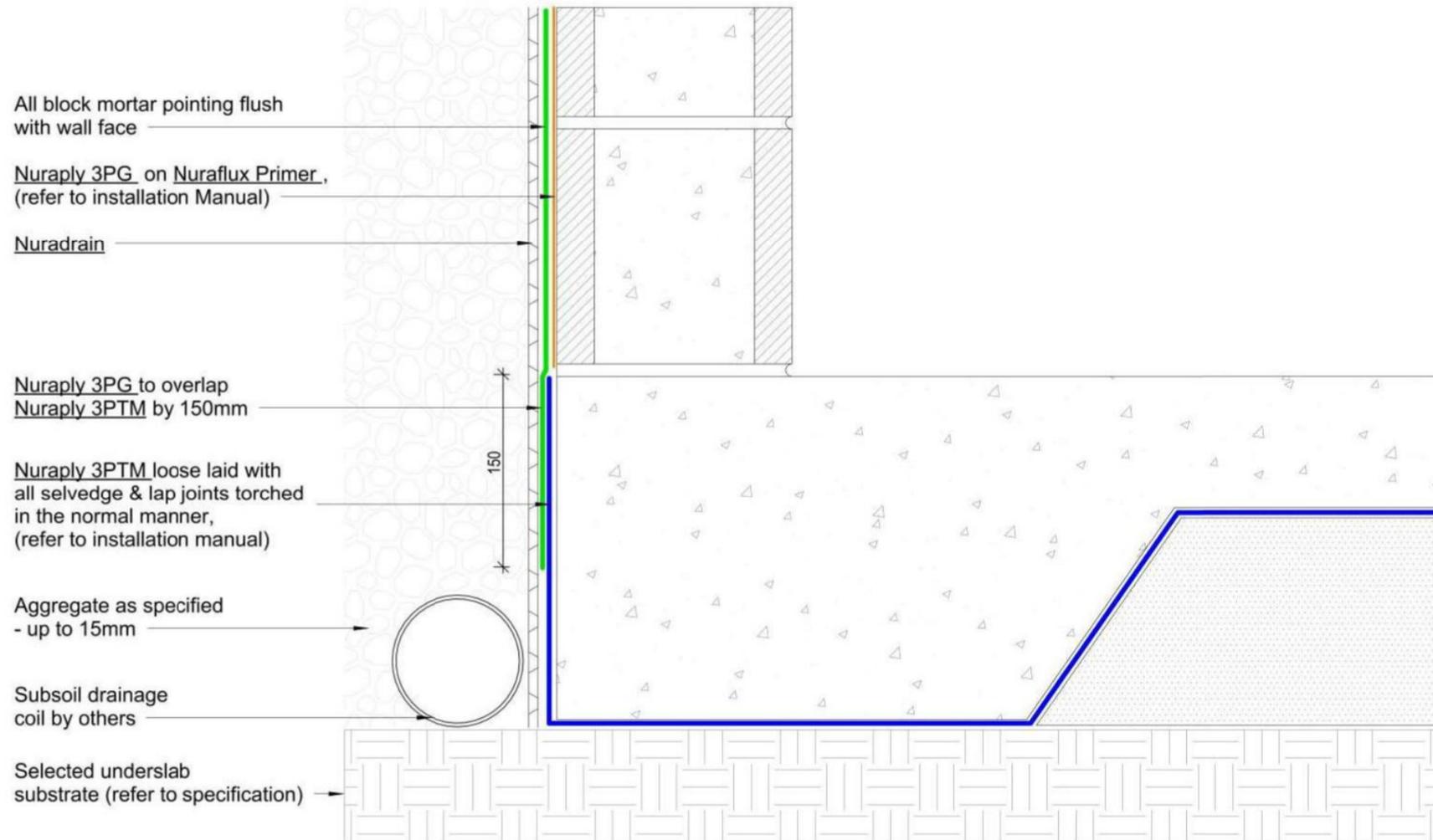
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**Note:**  
For waterproofing the lower storey of a building wholly or partially below ground. Buildings with deep multi-storey basements require specialised bespoke designs.

**Note 2:**  
This detail shows a blockwork wall, if an in-situ or precast wall is to be used then a waterstop must be used. Refer to detail TCP.A2



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PRODUCT/SYSTEM: **NURAPLY 3PG & 3PTM TANKING**  
 DETAIL: **BASMENT FOOTING**  
 SCALE: NTS DATE: **MAY 2024** PREVIOUS DWG no: - REVISION: **1** DWG no: **TCP.B1**

TO BE INSTALLED BY A SUITABLY QUALIFIED APPROVED PERSON



**CLIENT:**  
Slinger George

**PROJECT NAME:**  
Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
DSA 1027

**TITLE:**  
NURAPLY TANKING

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

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ORIGINAL SIZE IS A3

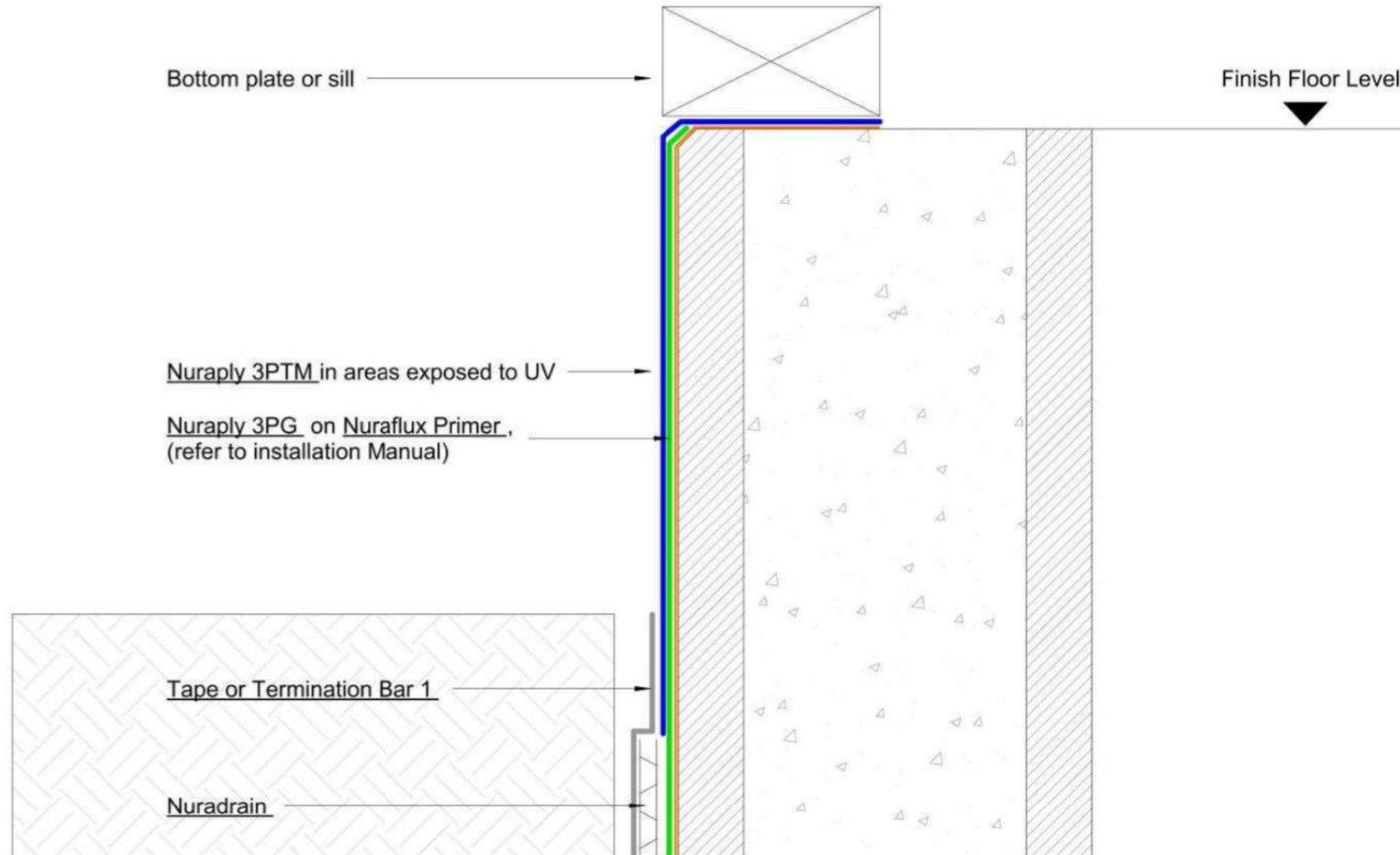
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**Note:**  
For waterproofing the lower storey of a building wholly or partially below ground. Buildings with deep multi-storey basements require specialised bespoke designs.



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PRODUCT/SYSTEM:

**NURAPLY 3PG & 3PTM TANKING**

DETAIL:

**TERMINATION UNDER BOTTOM PLATE**

SCALE: NTS    DATE: **MAY 2024**    PREVIOUS DWG no: -    REVISION: **1**    DWG no: **TCP.F1**

TO BE INSTALLED BY A SUITABLY QUALIFIED APPROVED PERSON



**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

NURAPLY TANKING

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

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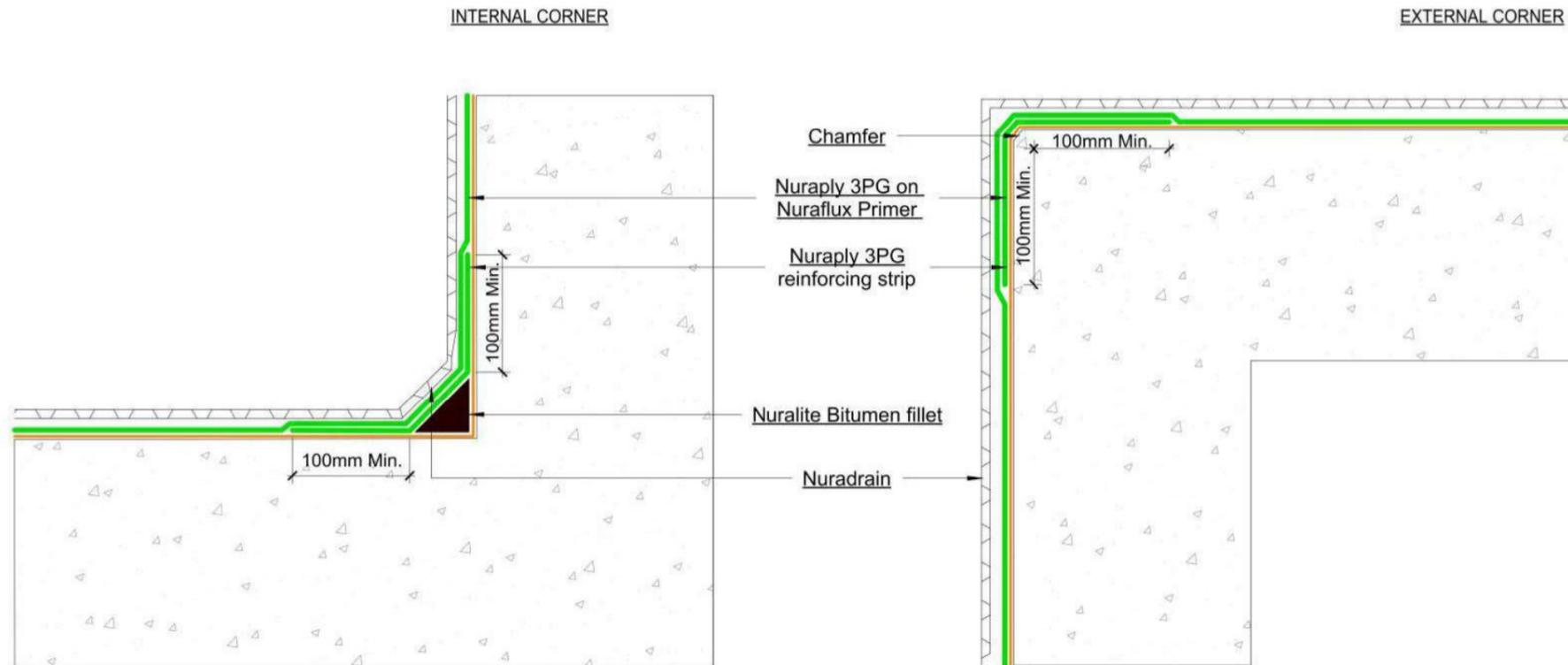
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**Note:**  
For waterproofing the lower storey of a building wholly or partially below ground. Buildings with deep multi-storey basements require specialised bespoke designs.



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PRODUCT/SYSTEM:

**NURAPLY 3PG & 3PTM TANKING**

DETAIL:

**INTERNAL AND EXTERNAL CORNER**

SCALE: NTS DATE: **MAY 2024** PREVIOUS DWG no:- REVISION: **1** DWG no: **TCP.C1**

TO BE INSTALLED BY A SUITABLY QUALIFIED APPROVED PERSON



**CLIENT:**

Slinger George

**PROJECT NAME:**

Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**

DSA 1027

**TITLE:**

NURAPLY TANKING

**NOTES:**



CONFIRM ALL DIMENSIONS ON SITE

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Sheet 50

**DURABILITY NOTES**  
 AS PER NZ5 3604:2011 THESE NOTES PERTAIN TO ALL EXPOSURE ZONES OTHER THAN SEA SPRAY ZONES. PROTECTION REQUIRED FOR STEEL FIXINGS AND FASTENINGS EXCLUDING NAILS AND SCREWS: ITEMS DESCRIBED BELOW ARE STEEL FASTENINGS REQUIRED TO LAST NOT LESS THAN 50 YEARS, USED FOR JOINING TIMBER, SUCH AS NAIL PLATES, BOLTS, BRACKETS, WIRE DOGS AND SIMILAR, BUT NOT INCLUDING NAILS OR SCREWS (WHICH ARE DESCRIBED UNDER STEEL ITEMS SUCH AS NAILS AND SCREWS USED FOR FRAMING AND CLADDING).

NAIL PLATES IN CLOSED AREAS AND ROOF SPACES - CONTINUOUSLY COATED GALVANISED STEEL.

AREAS AND ROOF SPACES: HOT-DIPPED GALVANISED STEEL.

(ALL GALVANISING WEIGHTS TO STEEL WIRE DOGS SHALL BE 150g/m<sup>2</sup> (Zn i- 5 % Al)).

(ALL GALVANISING WEIGHTS TO STEEL BOLTS SHALL RE 600g/m<sup>2</sup> AVERAGE).

ALL OTHER STRUCTURAL FIXINGS IN CLOSED AREAS: MILD STEEL (UNCOATED, NON-GALVANISED).

(STEEL FIXINGS IN TIMBER TREATED WITH COPPER-BASED TIMBER PRESERVATIVES SHALL BE HOT-DIPPED GALVANISED).

ALL OTHER STRUCTURAL FIXINGS, EXCEPT FABRICATED BRACKETS IN "SHELTERED AREAS HOT-DIPPED GALVANISED STEEL

ALL OTHER STRUCTURAL FIXINGS, EXCEPT FABRICATED BRACKETS IN EXPOSED AREAS TYPE 304 STAINLESS STEEL.

(TYPE 304 STAINLESS STEELS SUFFICIENT TO COMPLY WITH NZBC REQUIREMENTS, BUT MAY HAVE SURFACE STAINING. TYPE 316 MAY BE USED WHERE APPEARANCE IS A CONSIDERATION BUT EXCEEDS THE REQUIREMENTS OF THE NZBC).

(FABRICATED BRACKETS SHALL BE MADE FROM 5 (MINIMUM THICKNESS) MILD STEEL AND SHALL BE HOT-DIPPED GALVANISED). FIXINGS AND CONNECTIONS DURABILITY NOTES PART 2

STEEL ITEMS SUCH AS NAILS AND SCREWS USED FOR FRAMING AND CLADDING:

(IRRESPECTIVE OF THE NOTES BELOW, NAILS AND SCREWS SHALL BE COMPATIBLE WITH ANY FIXING PLATE THAT IS USED WITH THEM).

(NAILS AND SCREWS AND OTHER FIXINGS INTO PILES WITHIN 600 OF THE GROUND SHALL BE STAINLESS STEEL).

(GALVANISED NAILS SHALL BE HOT-DIPPED GALVANISED TO A MINIMUM OF 320g/m<sup>2</sup>, GALVANIZED SCREWS SHALL BE MECHANICALLY ZINC PLATED).

CLADDING THAT ACTS AS BRACING 50-YEAR DURABILITY: GALVANISED STEEL. (WHERE THE CLADDING IS A CORROSIVE TIMBER, SUCH AS WESTERN RED CEDAR OR REDWOOD, OR IS TREATED WITH COPPER-BASED ACO OR CuAz PRESERVATIVES, USE STAINLESS STEEL OR SILICON BRONZE).

(STAINLESS STEEL NAILS SHALL BE MINIMUM TYPE 304AND SHALL HAVE ANNULAR GROOVES TO PROVIDE SIMILAR WITHDRAWAL RESISTANCE TO HOT-DIPPED GALVANISED NAILS).

NON-STRUCTURAL CLADDING (15-YEAR DURABILITY): GALVANISED STEEL (WHERE THE CLADDING IS A CORROSIVE TIMBER, SUCH AS WESTERN RED CEDAR OR REDWOOD, OR IS TREATED WITH COPPER- BASED ASU OR CuAz PRESERVATIVES, USE STAINLESS STEEL OR SILICON BRONZE).

**HUMAN IMPACT SAFETY REQUIREMENTS**

FRAMED SHOWER SCREEN & BATH ENCLOSURES - GRADE A SAFETY GLAZING MATERIAL

PANELS AND DOORS WITH ONE UNFRAMED EDGE - THICK TOUGHENED SAFETY GLASS 5 MIN.

FRAMELESS PIVOT OR HINGE DOORS- THICK TOUGHENED SAFETY GLASS 6 MIN.

GLAZING WITHIN 1500 ABOVE THE ABUTTING FINISHED FLOOR LEVEL OR STANDING AREA OF A BATH OR SHOWER- GRADE A SAFETY GLAZING MATERIAL

GLAZING GREATER THAN 1500 ABOVE THE ABUTTING FINISHED FLOOR LEVEL OR STANDING AREA OF A BATH OR SHOWER- ANNEALED GLASS

NOTES: ALL GLAZING TO COMPLY WITH NZBC SECTION F2/AS1 & Part 3 NZS 4223.3:2016

**BUILDING WRAP NOTES**

ALL WALL CLADDING TO BE INSTALLED OVER THERMAKRAFT WATERGATE PLUS BUILDING WRAP

ALL OPENINGS IN BUILDING WRAP TOP BE SEALED WITH THERMAKRAFT ALUBAND WINDOW SEALING SYSTEM

ALL ROOF CLADDING TO BE INSTALLED OVER THERMAKRAFT 215 SELF SUPPORTING UNDERLAY. WHERE UNDERLAY ADJOINS A FIREWALL, THERMAKRAFT 407 COVERTEK SHALL BE USED.

**INSULATION NOTES**

**CEILINGS**  
 CEILING SPACES TO BE INSULATED WITH PINK BATTS 2/R3.6

**WALLS**  
 PERIMETER WALLS TO BE INSULATED WITH PINK BATTS R2.8

**GLAZING**  
 ALL WINDOWS TO BE DOUBLE GLAZED.

**CONCRETE SLAB**  
 THE SLAB TO CARRY AN INSULATION VALUE OF R2.07.

**WOODEN SUB FLOOR (IF APPLICABLE)**  
 USE EXPOL 60mm UNDER FLOOR INSULATION WITH INSULATION VALUE OF R1.4.

**BUILDING ELEMENTS**  
 ALL ELEMENTS SG8 AND H1.2 (UNLESS SPECIFIED)

ELEMENT	LOCATION	SIZE
<b>ROOF FRAMING</b>		
PURLINS	ALL	70x45 @900CRS
TRUSSES	ALL	VARIABLE@900CRS
RAFTERS	ALL	140x45 @900CRS
STRAPPING/ BATTENS	ALL	70x35 @400CRS
<b>WALL FRAMING</b>		
STUDS UP TO 2.4m	EXT. L/B EXT. NL/B INT. L/B INT. NL/B	90x45@600CRS 90x45@600CRS 90x45@600CRS 90x45@600CRS
STUDS UP TO 2.7m	INT. L/B INT. NL/B EXT. L/B	90x45@400CRS 90x45@600CRS 90x45@400CRS
TOP PLATES	BELOW TRUSSES BELOW RAFTERS	90x45 + 140x35 2/90x45
LINTELS	ALL	VARIABLE
SILLS	ALL	2/90x45
NOGS	ALL	90x45@800CRS
BOTTOM PLATES	ALL	90x45
CAVITY BATTENS	ALL	45x20 H3.1

**FLASHING PROTECTION NOTES**

FLASHING MATERIALS TO LAST 15 YEARS FOR EXPOSED/PARTIALLY EXPOSED OR ACCESSIBLE. OR 50 YEARS FOR HIDDEN BEHIND CLADDING OR NOT ACCESSIBLE.  
 USE NZBC E2/AS1 TABLES20,21,22 FOR LONGEVITY AND DURABILITY OF FLASHINGS.

**INTERIOR LINING NOTES**

**CEILINGS:** 13mm STANDARD GIB PLASTER BOARD FIXED TO 70x35 CEILING BATTENS @600CRS OR RONDO BATTENS @600CRS. PAINT FINISH- DIRECT FIXED

**WALLS:** 10mm STANDARD GIB PLASTER BOARD FIXED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS. WITH OWNER SELECTED PAINT FINISH , WALL PAPER OR TILES

**WATER SPLASH AREAS:**  
**Floor:** Polyvinylchloride with sealed joints - Ceramic or stone having 6% max absorption with waterproof grout joints and bedded with an adhesive specified by manufacturer. Monolithic applied coatings having non absorbent finish.  
 Timber based products sealed with water proof applied coatings,  
 Cement based concrete having a steel trowel finish.  
**Walls:** Integrally waterproof sheet material with sealed joints,Ceramic or stone having 6% max absorption with waterproof grout joints and bedded with an adhesive specified by manufacturer. Sheet linings with vinyl coated wall paper or semi gloss min coating.

ENSURE IMPERIOUS SURFACES OF DECORATIVE HIGH PRESSURE LAMINATE WITH SPLASH BACKS TO SINK BENCH AND ADJACENT TO APPLIANCES SINK TO BE A MINIMUM OF 300DIA X 125MM DEEP

**FRAMING**  
 PROVIDE DOUBLE STUDS UNDER ALL BEAMS AND LINTELS UNLESS NOTED OTHERWISE.

**JOINERY**  
 DOOR AND WINDOW SIZES ARE SHOWN NOT TIM SIZES AND ARE LABELLED AS HEIGHT AND WIDTH. WINDOW RESTRICTOR STAYS ARE REQUIRED WHERE THE FLOOR LEVEL EXCEEDS 1.0m FROM THE GROUND LEVEL AND THE SILL HEIGHTS ARE BELOW 0.75m ABOVE THE FLOOR LEVEL. PROVIDE RESTRICTOR STAYS ABOVE ALL PERMANENT FIXTURES. WINDOW RESTRICTORS STAYS MUST BE FITTED TO LIMIT THE MAX. OPENING SO THAT A 100DIA SPHERE CANNOT PASS THROUGH IT.  
 SITE MEASURE ALL WINDOWS AND DOORS PRIOR TO MANUFACTURE.

**WATERPROOFING**  
 TILED SURFACED TO BE SEALED PRIOR TO TILING.

**SMOKE ALARMS**  
 APPROVED SMOKE ALARMS TO BE INSTALLED IN ACCORDANCE WITH NZS 4514:2021. APPROVED SMOKE ALARMS TO BE LOCATED IN ALL BEDROOMS, LIVING SPACES,HALLWAYS AND LANDINGS WITHIN THE BUILDING. APPROVED SMOKE ALARMS MAY BE 10 YEAR LONG LIFE BATTERY POWERED, 230VAC OR AN EXTERNAL DC POWER SUPPLY AND ARE REQUIRED TO BE INTERCONNECTED. IN ADDITION THEY SHALL BE PROVIDED WITH A HUSH FACILITY HAVING A MINIMUM DURATION OF 60 SECONDS. APPROVED SMOKE ALARMS SHALL HAVE A TEST FACILITY THAT IS READILY ACCESSIBLE TO OCCUPANTS.

**ARTIFICIAL LIGHTING**  
 LIGHTING IN THE BUILDING SHALL BE NO LESS THAN 20 LUX AT FLOOR LEVEL EVERY ENTRANCEWAY TO HAVE A MINIMUM OF 1.100 WATT LIGHT BULB

ANY DOWN LIGHTS INSTALLED MUST COMPLY WITH AS/NZS 60598.2.2 AND AMENDMENT A. DOWN LIGHTS MUST BE ZERO CLEARANCE RATED IC-F



**CLIENT:**  
 Slinger George

**PROJECT NAME:**  
 Extend Existing Dwelling Ground Floor and Extend Dwelling Above

**PROJECT CODE:**  
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**TITLE:**  
 NOTES

**NOTES:**



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WHERE TIMBER TREATMENTS ARE USED		
Level	species	building element
<b>Floor framing protected from weather but exposed to ground atmosphere</b>		
H1.2	Radiata pine Douglas fir	Jackstuds, subfloor braces, wall plates, floor joists to subfloor, blocking, walings, and battens, nogs and diagonal boards
H1.2	Radiata pine Douglas fir	Interior solid wood flooring for ground floors
<b>Enclosed roof framing and trusses</b>		
H1.2	Radiata pine Douglas fir	Sarking and framing not protected from solar-driven moisture through absorbent cladding materials
H1.2	Radiata pine Douglas fir	Enclosed flat roof framing and associated roof members
H1.2	Radiata pine Douglas fir	Enclosed skillion roof framing and associated with roof members
H1.2	Radiata pine Douglas fir	Valley boards and boards supporting flashings for box gutters, roof penetrations and upstairs to roof decks
H1.2	Radiata pine Douglas fir	All roof trusses, including gable and trusses, roof framing, ceiling and eaves framing, purlins and battens
<b>Enclosed wall framing protected from the weather</b>		
H1.2	Radiata pine Douglas fir	Framing and other members within or beneath a parapet
H1.2	Radiata pine Douglas fir	Framing and other members within enclosed decks or balconies (see H3.2 for cantilevered decks)
H3.2	Radiata pine	Framing and other members within enclosed cantilevered decks (including joist trimmers, nogs and blocking)

FIXING DETAILS				
Joint	Hand driven nails Length (mm) x diameter (mm) and type	Number and location type	Power driven nails Length (mm) x diameter (mm) and	Number and location
Truss or rafter to top plate of internal wall	100x3.75	2	90x3.15	2
Ceiling batten to parallel top plate of internal wall bracing element	75x3.15	2 at 400mm centres	90x3.15	2 at 400mm centres
Steel strip brace:				
(i) at ends	60x3.15	2		
(ii) other cases	60x3.15	2		
Blocking between rafters or truss chords	100x3.75	2(end nailed)	90x3.15	2(end nailed)
Outrigger to rafter	100x3.75 or 75x3.75	2(end nailed) 4 skewed	90x3.15	3(end nailed)
Flying rafter to outrigger	100x3.75	2	90x3.15	3
Outrigger blocking to top plate	100x3.75	4 skewed	90x3.15	4 skewed

WHERE TIMBER TREATMENTS ARE USED		
Level	species	building element
<b>Enclosed wall framing protected from the weather continued</b>		
H1.2	Radiata pine Douglas fir	Framing and other members supporting enclosed decks or balconies (including for cantilevered decks)
H3.1	Radiata pine	Battens used behind cladding to form a cavity (H3.1 treatments can be either solvent-based or boron. H3.1 boron treatments supplied grey primer-printed)
H1.2	Radiata pine Douglas fir	All other exterior wall framing and other members including exterior and boundary joists
<b>Internal wall framing</b>		
H1.2	Radiata pine Douglas fir	Internal walls
<b>Mid-floor framing</b>		
H1.2	Radiata pine Douglas fir	All mid-floor framing, including boundary joists, ceiling framing and ceiling battens and double top plates
<b>Interior flooring</b>		
H1.2	Pinus species Douglas fir	interior flooring
<b>Other framing</b>		
None	Radiata pine Douglas fir	Wall framing and roof framing (including trusses) protected from the weather, in unlined and unoccupied farm buildings and outbuildings, except buildings with high internal humidity, such as saunas, spas etc
H3.2	Radiata pine	Framing exposed to the weather and above ground
H4	Radiata pine	Framing, such as fence posts and landscape timbers, that is exposed to the weather and is in contact with the ground
H5	Radiata pine	Framing, such as house piles, poles and crib walling, that is exposed to the weather and is in contact with the ground

FIXING DETAILS				
Joint	Hand driven nails Length (mm) x diameter (mm) and type	Number and location type	Power driven nails Length (mm) x diameter (mm) and	Number and location
Dwang to stud	75x3.5 or 100x3.75	2 (skewood) 2 (end nailed)	75x3.06 or 90x3.15	2(skewood) 2(end nailed)
Lintel to trimming stud	75x3.15 or 100x3.75	4(skewed) or 2(end nailed)	90x3.15	3(end nailed)
Sill or head trimmer to trimming stud (max 2.4 m long)	100x3.75	2(end nailed)	90x3.15	3(end nailed)
Sill or head trimmer to trimming stud (max 3.6 m long)	100x3.75	3(end nailed)	90x3.15	5(end nailed)
Stud to plate	100x3.75 or 75x3.15	2(end nailed) 4(skewed)	75x3.06 90x3.15	4(skew nailed) 3(end nailed)
Top plate 140x35mm to 90x45mm and top plate to lintel	100x3.75	2 at 500mm centres	90x3.15 90x3.15	3 at 500mm centres
Trimming studs at openings, blocking and studs at wall intersections	100x3.75	600mm centres	90x3.15 90.315	600mm centres
Trimming stud to doubled stud immediately under lintel	100x3.75	2	90x3.15	2

FIXING DETAILS				
Joint	Hand driven nails Length (mm) x diameter (mm) and type	Number and location type	Power driven nails Length (mm) x diameter (mm) and	Number and location
Ceiling batten (70x35mm) to rafter or truss	75x3.15	2	75x3.06	2
Blocking piece to top plate and truss or rafter	100x3.75	4-2 each end	90x3.15	6-3 each end



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TIMBER TREATMENTS

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**CLIENT:**  
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**TITLE:**  
COMPATIBILITY TABLES

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**Table 2.5 Compatibility of materials in contact**  
Paragraph 2.6

		Clay bricks (cement mortar)	Fibre cement, painted	Timber, copper treated, unpainted	Timber, painted	Aluminium, anodised or mill-finish	Aluminium, coated <sup>(1)</sup>	Lead (including lead-edged), unpainted	Roof tiles, masonry glazed or painted	Stainless steel	Steel, galvanised coil-coated <sup>(1)</sup>	Zinc/aluminium coated <sup>(1)</sup>	Zinc/aluminium, unpainted
Aluminium, anodised or mill-finish	Sea Spray, Zone 1	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y
Aluminium, coated <sup>(1)</sup>	Sea Spray, Zone 1	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Lead (including lead-edged), unpainted	Sea Spray, Zone 1	Y	Y	N	Y	N	N	Y	Y	N	Y	N	N
	Zones 2, 3, 4	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	N
Roof tiles, masonry glazed or painted	Sea Spray, Zone 1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Zones 2, 3, 4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Stainless steel	Sea Spray, Zone 1	Y	Y	Y	Y	N	N	N	Y	Y	N	N	N
	Zones 2, 3, 4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Steel, galvanised coil-coated <sup>(1)</sup>	Sea Spray, Zone 1	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zinc/aluminium steel, coated <sup>(1)</sup>	Sea Spray, Zone 1	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zinc/aluminium steel, unpainted	Sea Spray, Zone 1	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y
<b>Compatibility of fixings with flashings</b>						<b>Flashing materials</b>							
Aluminium fixings	Sea Spray, Zone 1					Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4					Y	Y	N	Y	Y	Y	Y	Y
Galvanised steel fixings	Sea Spray, Zone 1					Y	Y	N	Y	N	Y	Y	Y
	Zones 2, 3, 4					Y	Y	Y	Y	N	Y	Y	Y
Stainless steel fixings	Sea Spray, Zone 1					N	N	N	Y	Y	N	N	N
	Zones 2, 3, 4					Y	Y	Y	Y	Y	Y	Y	Y

Y = Acceptable, N = Unacceptable

Note 1: 'Coated' includes factory-painted, coil-coated and powder-coated

Note 2: Refer to Paragraph 2.5 Durability for descriptions of corrosion zones and fixings

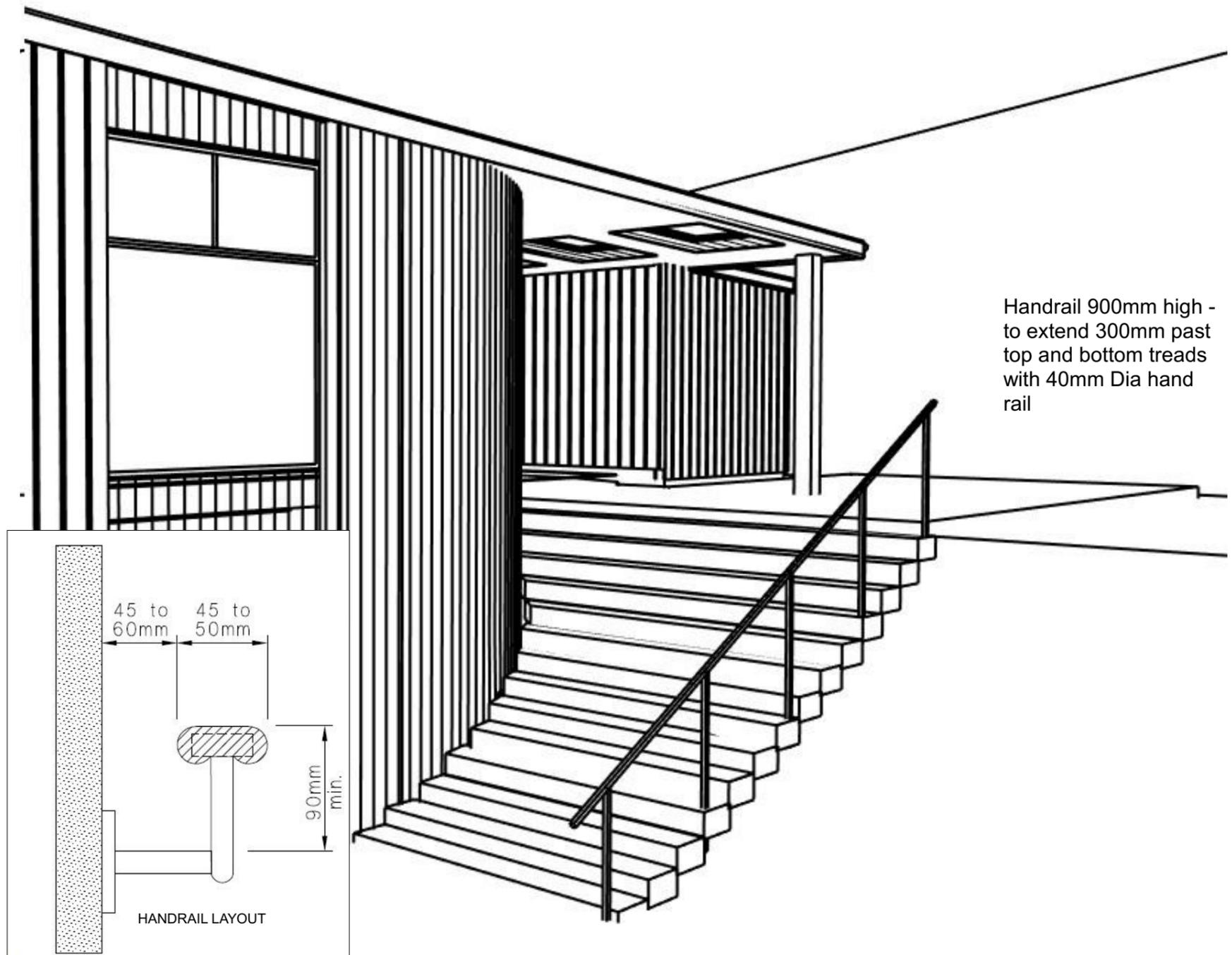
**Table 2.6 Compatibility of materials subject to water runoff**  
Paragraph 2.6

	Clay bricks (cement mortar)	Fibre cement, painted	Timber, copper treated, unpainted	Timber, painted	Aluminium, anodised or mill-finish	Aluminium, coated <sup>(1)</sup>	Lead (including lead-edged), unpainted	Roof tiles, masonry glazed or painted	Stainless steel	Steel, galvanised coil-coated <sup>(1)</sup>	Zinc/aluminium coated <sup>(1)</sup>	Zinc/aluminium, unpainted
<b>Material that water flows ONTO</b> →												
<b>Material that water flows FROM</b> ↓												
Clay bricks (cement mortar)	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N
Fibre cement, painted	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Timber, copper treated, unpainted	Y	Y	Y	Y	N	N	N	Y	Y	N	N	N
Timber, painted	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Aluminium, anodised or mill-finish	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Aluminium, coated <sup>(1)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lead (including lead-edged), unpainted	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N
Roof tiles, masonry glazed or painted	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Stainless steel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Steel, galvanised coil-coated <sup>(1)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zinc/aluminium coated <sup>(1)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zinc/aluminium, unpainted	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Y = Acceptable, N = Unacceptable

Note 1: 'Coated' includes factory-painted, coil-coated and powder-coated.

Note 2: Refer to Paragraph 2.5 Durability for descriptions of corrosion zones and fixings.



Handrail 900mm high -  
to extend 300mm past  
top and bottom treads  
with 40mm Dia hand  
rail



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and Extend Dwelling  
Above

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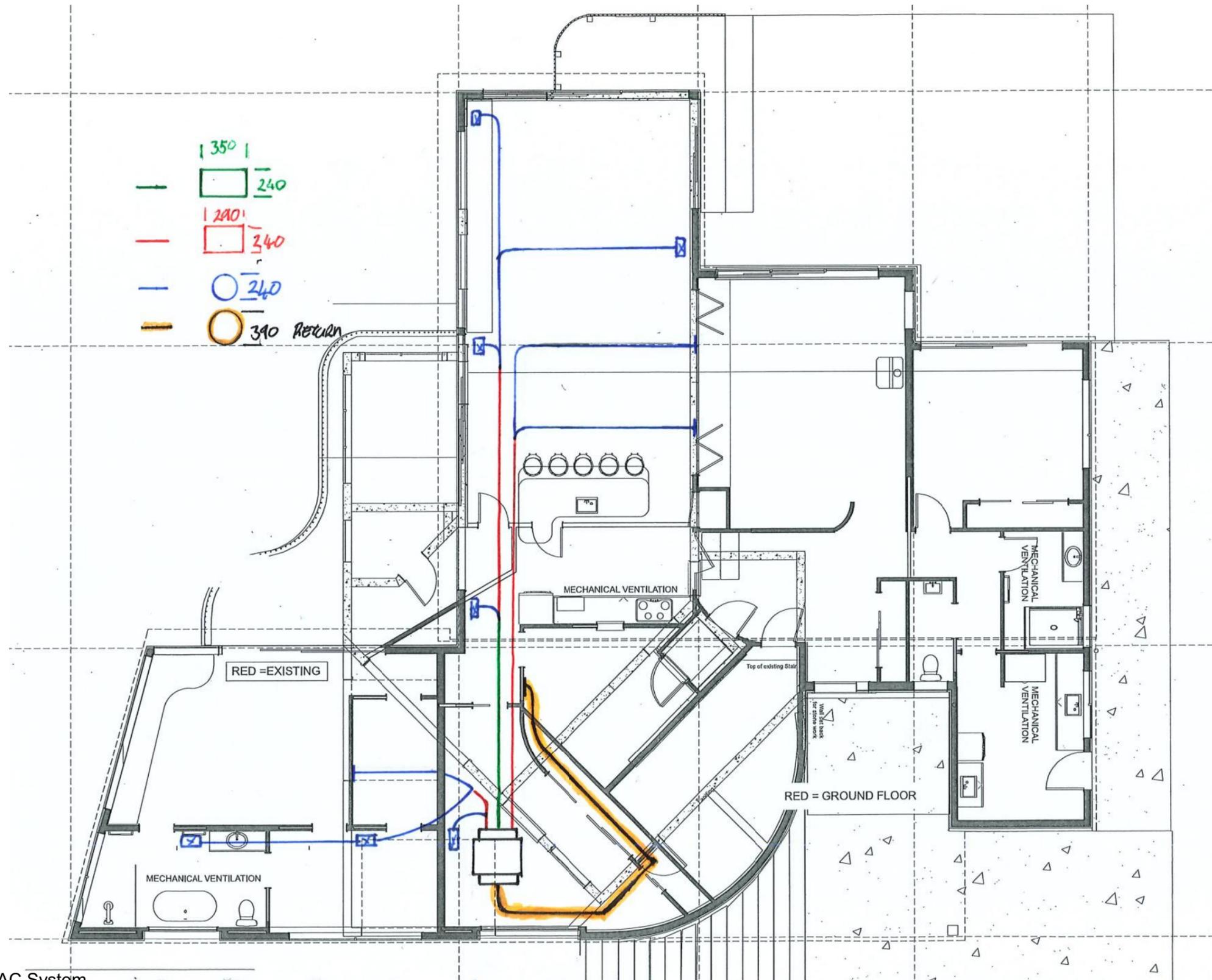
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Sheet 54



Smooth Air HVAC System  
 by Taranaki Refrigeration.  
 See A4 Specifications

As layed to be supplied on completion with PS3

Areas to ensuite to pass through ceiling space exposed and boxed out to suit .

When installing contact BTW if any structural members need adjusting or strengthening



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 and Extend Dwelling  
 Above

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**TITLE:**  
 HVAC System

**NOTES:**



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