SDC - Approved Building Consent Document - BC260811 - Pg 1 of 61 - 23/04/2026 - cherie.newman

Approved building consent documents

Please note: A copy of the stamped approved documents must be available on site for all inspections.

Inspection bookings

For building inspections and enquiries phone ContactUs on: 03 347 2800.

For current inspection timeframes see Selwyn District Council - Building.

Note: where restricted building work is involved, you must provide the relevant LBP numbers for the work to be inspected at the time of booking the inspections.

Please ensure all work for inspection is ready the day before.
Incomplete work requiring re-inspection will incur an additional inspection fee.

SDC - Approved Building Consent Document - BC260811 - Pg 2 of 61 - 23/04/2026 - cherie.newman

PROPOSED RESIDENCE

Kelvin Boyd
Architectural Services Limited
196 Halkett Road, West Melton
Christchurch
PH: 0211790346
kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 1a
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 3 of 61 - 23/04/2026 - cherie.newman

Notes:
1. BOUNDARIES SHOWN ARE INDICATIVE ONLY AND SUBJECT TO TITLE SURVEY

patersons. Land Professionals

CLIENT
Sam Cottam
4 Corravally Rise
West Melton

DRAWING TITLE
SITE SURVEY

DATUM INFORMATION	
COORDINATE SYSTEM	NZGD 2000 Mt Pleasant
DATUM	NZVD 2016
ORIGIN OF COORDINATES	MA 926 DP 609617
ORIGIN OF LEVELS	MA 62 (F5K9) RL = 82.78

REV	DRAWN	DATE	NOTE

STATUS **AS SURVEYED**

SURVEYED	JY	27.08.25
DESIGNED		
DRAWN	JP	29.08.25
REVIEWED	CDC	30.08.25
APPROVED	CDC	30.08.25

© Paterson Pitts Limited Partnership

PROJECT	**P251450**
DRAWING NO	**100**
SHEET	**001**
REVISION	**0**
SCALE (A3)	**1:200**

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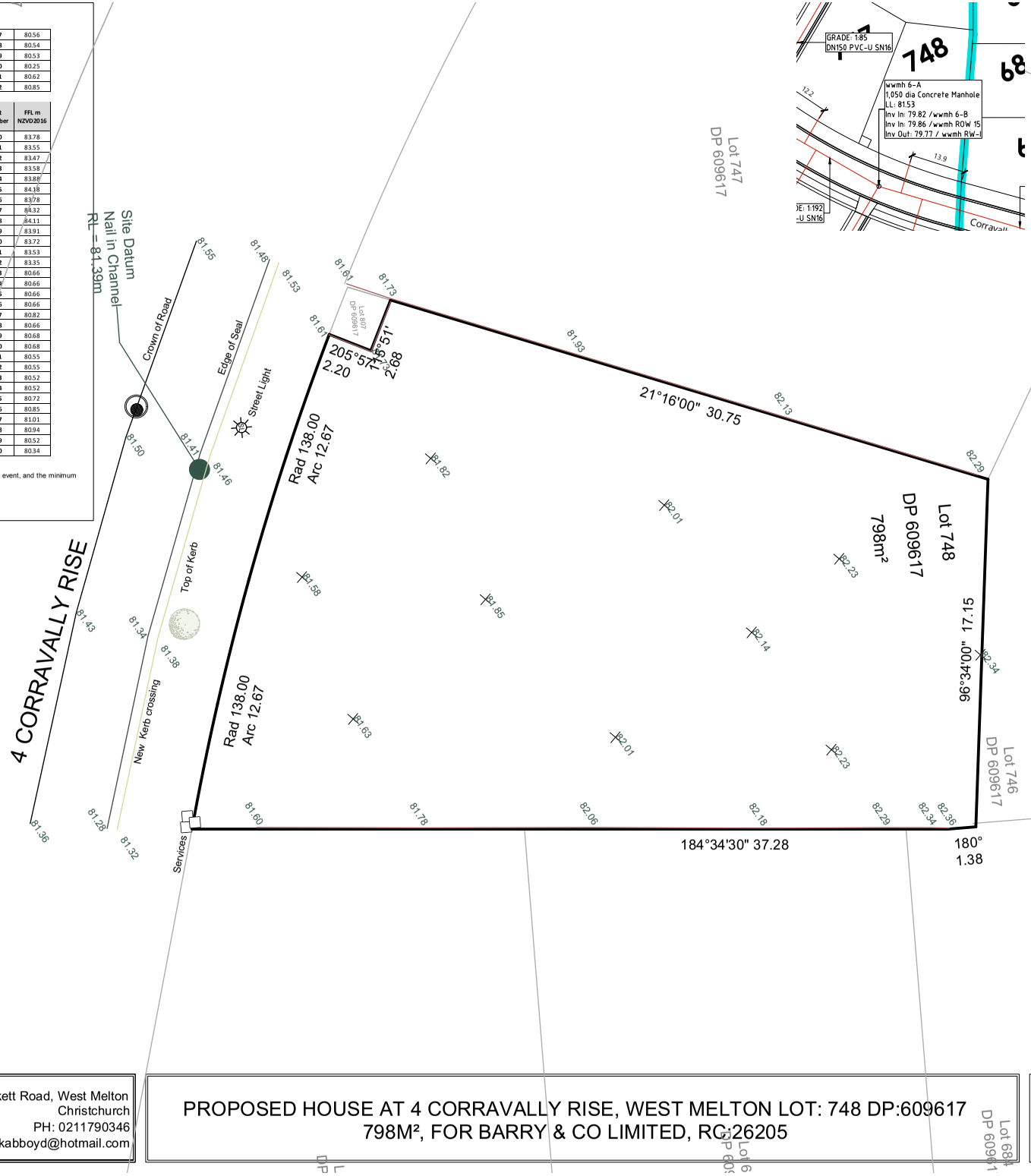
362	80.71	476	80.66	628	82.47	657	80.56
363	80.67	600	82.54	629	82.47	658	80.54
364	80.69	601	82.54	630	82.49	659	80.53
365	80.68	602	81.84	631	82.50	660	80.25
366	80.68	603	81.80	632	82.50	661	80.62
367	80.48	604	81.75	633	82.50	662	80.85

Lot Number	FFL m NZVD2016	Lot Number	FFL m NZVD2016	Lot Number	FFL m NZVD2016	Lot Number	FFL m NZVD2016
663	80.96	692	82.46	721	81.84	750	83.78
664	81.09	693	82.55	722	82.05	751	83.55
665	81.19	694	82.55	723	82.16	752	83.47
666	81.73	695	82.55	724	82.32	753	83.58
667	81.94	696	82.56	725	82.45	754	83.88
668	81.51	697	82.44	726	81.66	755	84.18
669	81.41	698	82.44	727	81.66	756	83.78
670	81.74	699	82.44	728	81.66	757	84.32
671	81.62	700	82.22	729	81.82	758	84.11
672	81.51	701	80.29	730	82.02	759	83.91
673	81.42	702	80.29	731	82.16	760	83.72
674	81.34	703	80.29	732	82.32	761	83.53
675	81.05	704	80.22	733	82.41	762	83.35
676	80.89	705	80.17	734	82.51	763	80.66
677	80.89	706	80.29	735	82.55	764	80.66
678	80.89	707	80.40	736	82.56	765	80.66
679	80.89	708	80.47	737	82.56	766	80.66
680	81.09	709	80.53	738	82.55	767	80.82
681	81.20	710	80.53	739	82.55	768	80.66
682	81.35	711	80.40	740	82.55	769	80.68
683	81.54	712	80.31	741	82.56	770	80.68
684	81.62	713	80.16	742	82.34	771	80.55
685	81.74	714	79.95	743	82.21	772	80.55
686	81.93	715	80.30	744	82.06	773	80.52
687	81.93	716	80.42	745	82.06	774	80.52
688	81.23	717	81.34	746	82.06	775	80.72
689	82.15	718	81.45	747	81.84	776	80.85
690	82.24	719	81.56	748	81.64	777	81.01
691	82.35	720	81.71	749	83.78	778	80.94
						779	80.52
						780	80.34

Disclaimers

1. Whether the site is likely to be subject to inundation in a 200-year ARI flood event, and the minimum finished floor level have been determined with reference to:



RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General of Land

Identifier 1204928
Land Registration District Canterbury
Date Issued 15 April 2025

Prior References
1157033

Estate Fee Simple
Area 798 square metres more or less
Legal Description Lot 748 Deposited Plan 609617
Registered Owners
Barry & Co Limited

Interests

Land Covenant in Easement Instrument 10150117.4 - 21.8.2015 at 1:33 pm

13132328.4 Court Order pursuant to Section 316-317 of the Property Law Act 2007 extinguishing Land Covenant 10150117.4 as to any land being vested as road or reserve in accordance with Sections 238-239 Resource Management Act 1991 - 15.4.2025 at 2:38 pm

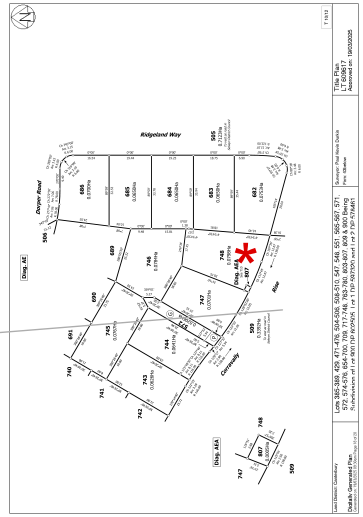
Land Covenant (in gross) in favour of GW Wilfield Limited created by Covenant Instrument 13132328.13 - 15.4.2025 at 2:38 pm

13132328.19 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 15.4.2025 at 2:38 pm

Fencing Covenant in Transfer 13463916.1 - 1.12.2025 at 1:01 pm

Transaction ID 75/5817
Client Reference Barry & Co Limited - 37.588 & 4 Corravally Rise, West Melton
Search Copy Dated 01/12/25 1:01 pm, Page 1 of 2
Register Only

Identifier 1204928



Transaction ID 75/5817
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Search Copy Dated 01/12/25 1:01 pm, Page 2 of 2
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CONSENT PLANS			SHEET 1b
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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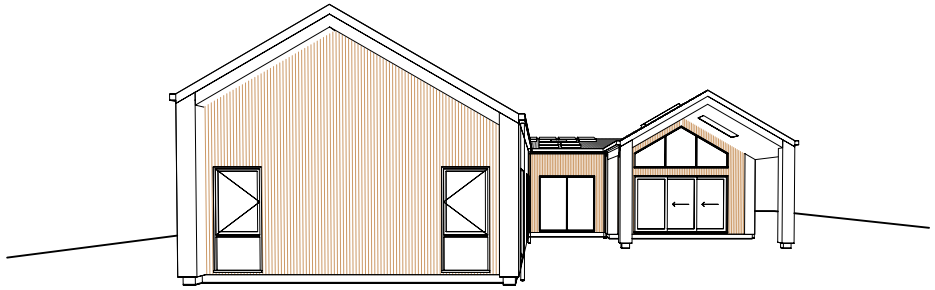

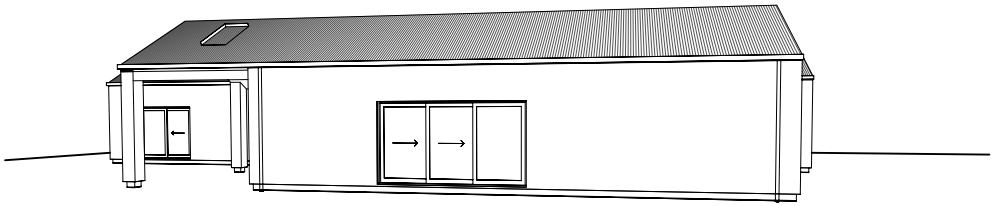

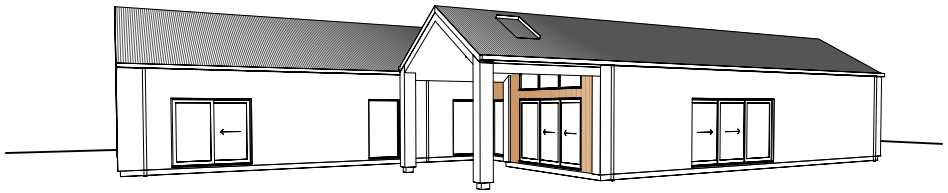

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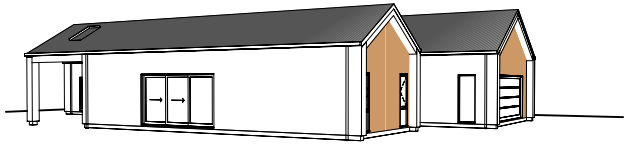
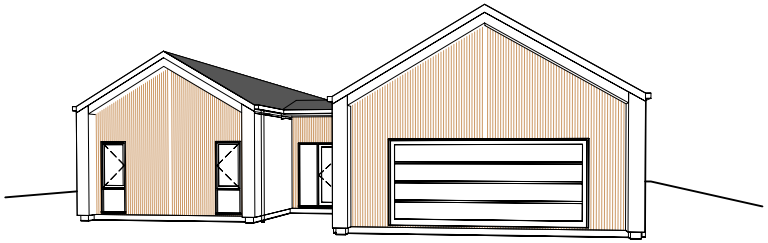
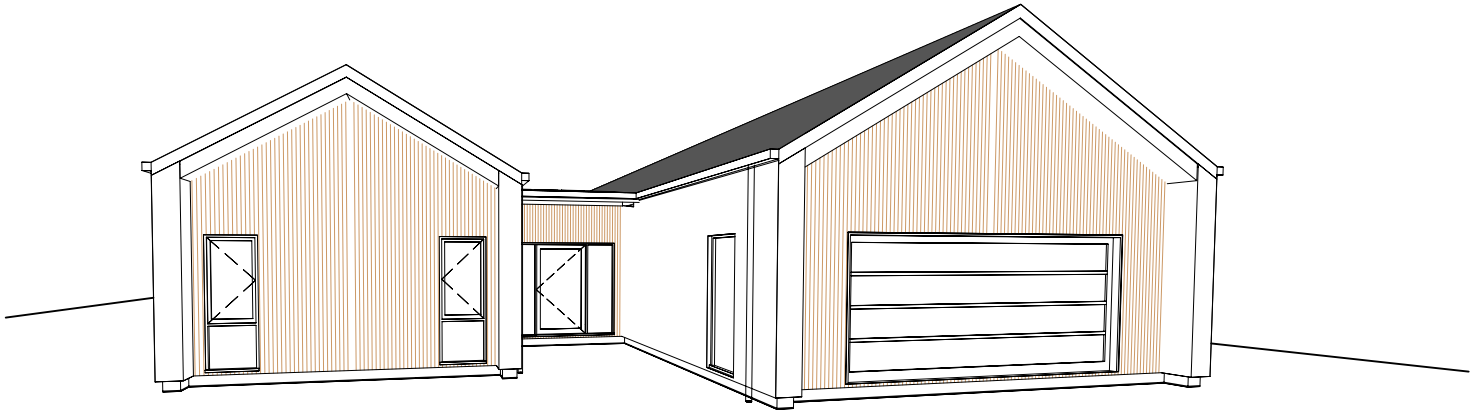
CONSENT PLANS			SHEET 1c
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 6 of 61 - 23/04/2026 - cherie.newman







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CONSENT PLANS			SHEET 1d
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Appellation: Lot 1 DP 597320
Location: West Melton

Climate Zone: 5
Earthquake Zone: Zone 2
Exposure Zone: Zone B
Lee Zone: No
Rainfall Range: 40 - 50
Wind Region: A
Wind Zone: High

SDC - Approved Building Consent Document - Be checked on site before commencing

E2 KITCHEN FLOOR ALTERNATIVE SOLUTION
Scope the project:
Floor surface in residental house,polished concrete floor in kitchen area (around kitchen sink)

Identify the Building Code clauses:

(**E3.3.3** Floor surfaces of any space containing *sanitary fixtures* or *sanitary appliances* must be *impervious* and easily cleaned.)

The polished concrete floor in kitchen is outside of NZBC E3 AS1 so is an alternative solution, as it is not strictly impervious

(We have discussed with the floor polishing company, and they have used the proposed product (on sheets AD9 & AD10) for 20+ years and never had any issues.
The proposed product on sheets AD9 & AD10 is a "breathable penetrating" sealer which is preferred over a surface topical sealer.
Which would be susceptible to scratching, marking, and delaminating.
Which is very undesirable to the contractors, myself and the owners.
To use of a topical sealer is undesired and would be problematic, with us needing to be very careful, as with the concrete being new, it will still have a high moisture content even months later, sealing it with a product that won't allow moisture to pass through could result in product failure (which is why polished concrete with penetrating sealer is a safer and better option which is a common practice in the industry.)

We have also discussed with the owners in depth, and they confirm they are happy with the detailed penetrating sealer product showing their preference over the use of any other product.
We hope you can approve the proposed alternative solution.
I have personally used the same penetrating sealer in my own house and after 8 years have had no problems and very happy with the flooring solution.)

AREAS:

PROPOSED RESIDENCE: 281.8m²
PROPOSED ROOF AREA (over spouting): 342.6 m²
LAND: 798m²
SITE COVERAGE(including roof): 42.9%

SITE MANAGEMENT

Site is partially fenced.
Balance of site will be protected with barriers with lockable gate at entrance.

Install temporary work site fencing or other site security features as required to comply with NZBC F5/AS1 for site security and protection of the public and in accorance with the main Contractors health and safety plan

NOTE:

-All framing and trusses to be SG8 grade timber
-Waterproofing system to all tiled shower floors and walls
-Shower floors to have a minimum fall
of 1:50 towards the floor waste
-Glazing to shower screens to be safety
glass complying with NZBC F2
Non slip paving to all door access areas to comply with Table 2 of NZBC D1
-All wall linings adjacent to appliances
and facilities to have painted or applied impervious coating to comply
with NZBC G3
-All lining materilas in areas exposed
to water splash must be easily cleaned and meet the impervious performance as listed in Section 3.1,
NZBC E3
-All artificial light sources must comply with NZBC G8. All down lights must be CA 80 compliant.

KEY

New Ø100mm sewer line 1:60 fall	
New Ø100mm stormwater line 1:120 fall	
Down Pipe	DP
Gully trap	GT
Overflow Relief Gully trap	ORGT
Ø100mm main vent	MV
Air admittance valve	AAV
Inspection point	IP

Waste Fittings

Kitchen waste pipe:	DN 50	gradient 1:40
Basin waste pipes:	DN 32	gradient 1:20
Shower waste pipes:	DN 40	gradient 1:40
Bath Waste pipes:	DN 40	gradient 1:40
WC waste pipes:	DN 100	gradient 1:60
Laundry tub waste pipes:	DN 40	gradient 1:30
stormwater pipes:	DN 100	gradient 1:60

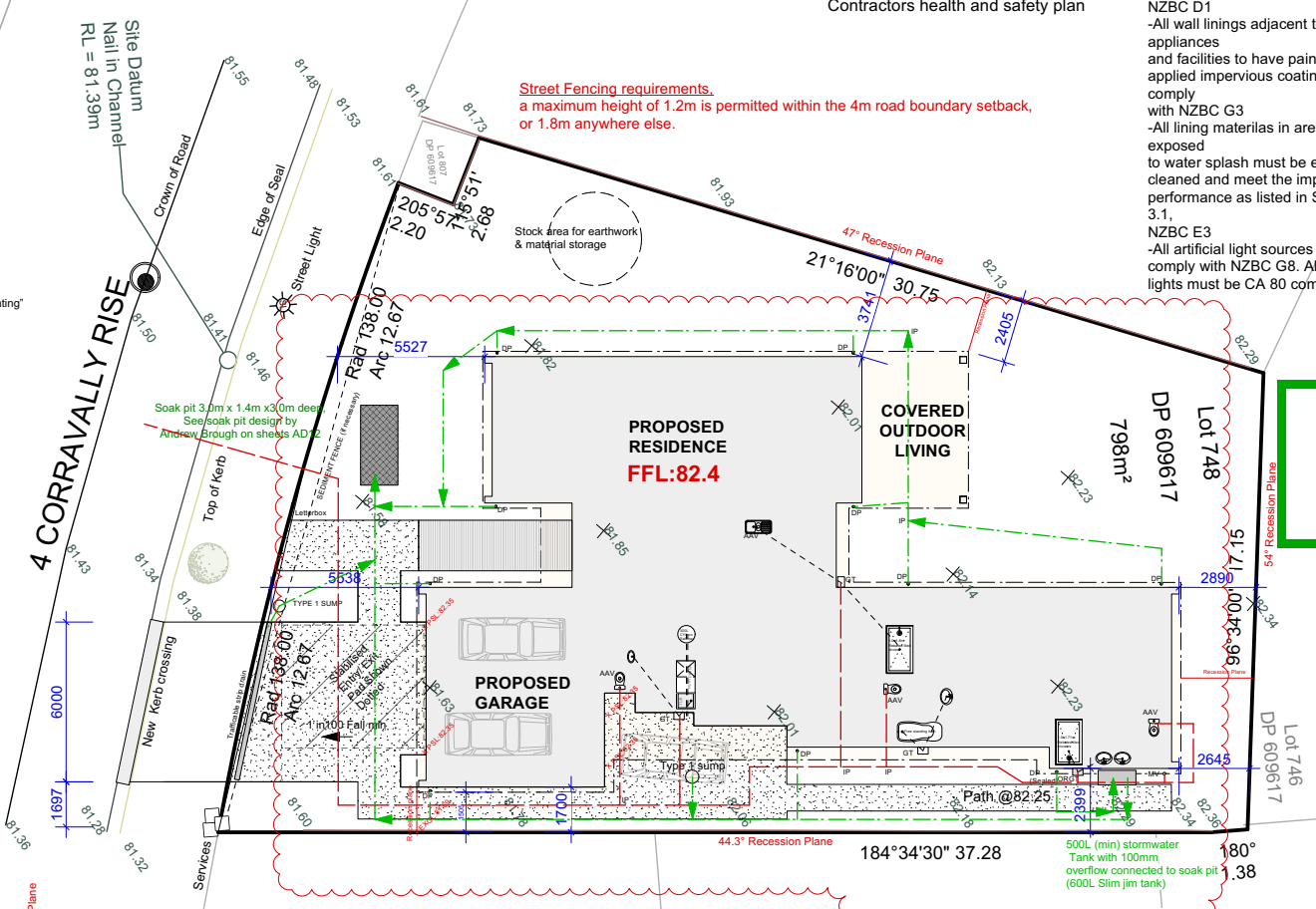
Locations of laterals to be confirmed on site by drainlayer

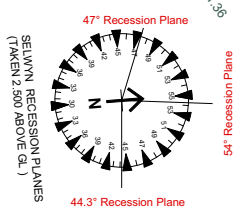
NOTE:
ALL WASTE PIPES WITH A RUN TO GULLY TRAP OF GREATER THAN 3.5M ARE TO BE FITTED WITH AN AIR ADMITTANCE VALVE

HWC cylinders safe tray discharge pipes to include a vermin flap in accordance with NZBC G12/AS1

Resource Consent # 265025
has been granted on 24/02/2026

23/04/2026 tiffany.cavanaugh





- All work shall comply with the New Zealand Building Code and all relevant and associated standards, codes and territorial authority by-laws including terms and conditions of the building consent and any resource consents issued for project-
Architectural drawings are to be read in conjunction with the structural engineers drawings and vice versa.-
All proprietary items and materials shall be fixed, installed or applied in strict accordance with the manufacturers recommendations and specifications.
- All documentation must be read in full and completely understood before any works begin and any discrepancies or ambuguity shall be clarified with design LBP before any work commences
- The builder is responsible for the setting out of the works, the checking of all dimensions and levels on site, and the reporting of any discrepancies prior to commencement of work. Do not scale from these drawings.

NOTE :
ALL ACCESS ROUTES (EXTERNAL & INTERNAL) PROVIDED WITH ANTI-SLIP SURFACE TO D1/AS1 TABLE 2. (EXCEPT SURFACE AREA INSIDE ENTRY DOORS CONSIDERED DRY)
MAXIMUM 190MM RISERS TO BUILDING THRESHOLD ANDMINIMUM 280MM TREADS.
DECKS AND PAVING TO HAVE MIN SLIP COEFFICIENT OF 0.4 WHEN WET

West Melton Lighting Observatory Area note:
The site is location within the West Melton Lighting Observatory Area, any outdoor lighting is to be shielded so that any light spill is directed at an angle 90 degrees below the vertical. All outdoor light to only be down lights in the soffits pointing down

All earthworks shall be carried out in accordance with the 'Erosion and Sediment Control Guidelines for small sites' Enviroment Canterbury

SITE & DRAINAGE PLAN

SCALE 1:200

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CONSENT PLANS			SHEET 2
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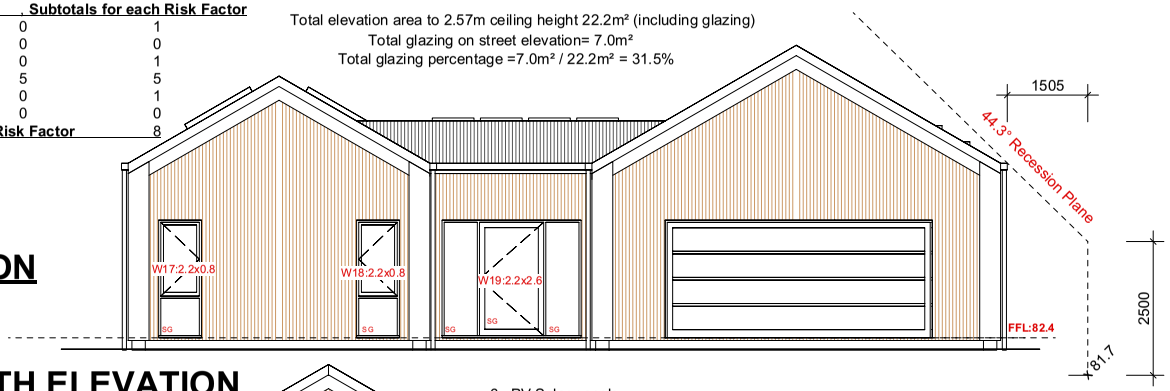
Building risk matrix (for all elevations)

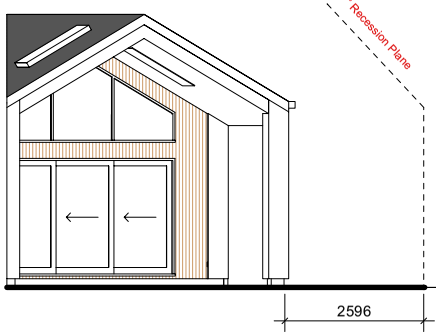
Risk Factor	(Low)	Score	(Medium)	Score	(High)	Score	(Very High)	Score	, Subtotals for each Risk Factor
Wind Zone	0	0	0	0	1	1	2	0	1
Number of Storeys	0	0	1	0	2	0	4	0	0
Roof/Wall Intersection Design	0	0	1	0	3	0	5	0	1
Eaves Width	0	0	1	0	2	0	5	5	5
Envelope Complexity	0	0	1	1	3	0	6	0	1
Deck Design	0	0	2	0	4	0	6	0	0
							Total Risk Factor		8

Total elevation area to 2.57m ceiling height 22.2m² (including glazing)
Total glazing on street elevation= 7.0m²
Total glazing percentage =7.0m² / 22.2m² = 31.5%

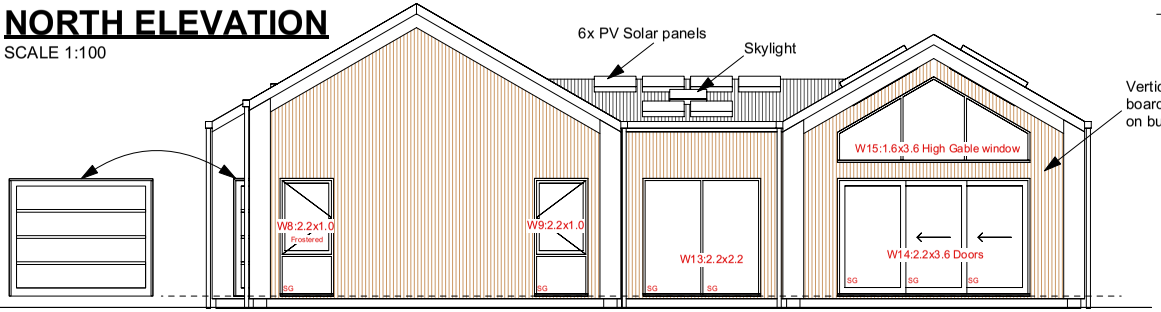
SOUTH ELEVATION
SCALE 1:100

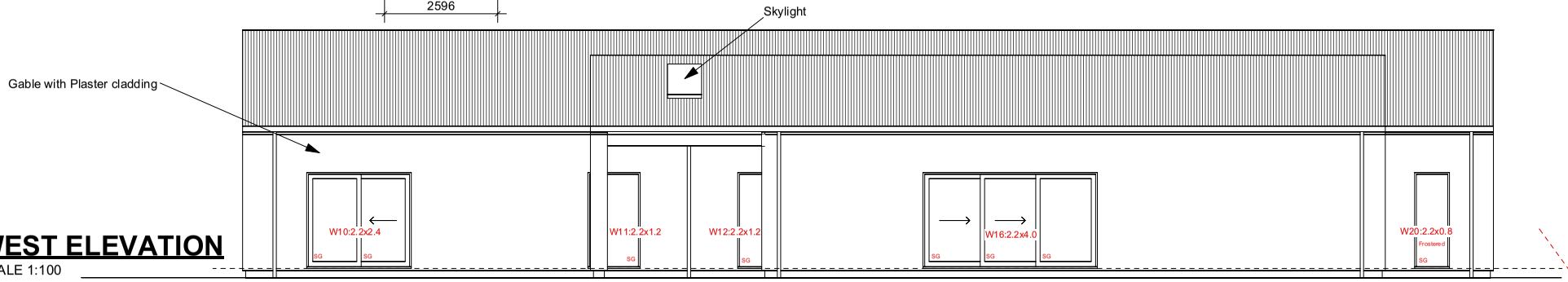


RECESSION PLAN A
SCALE 1:100



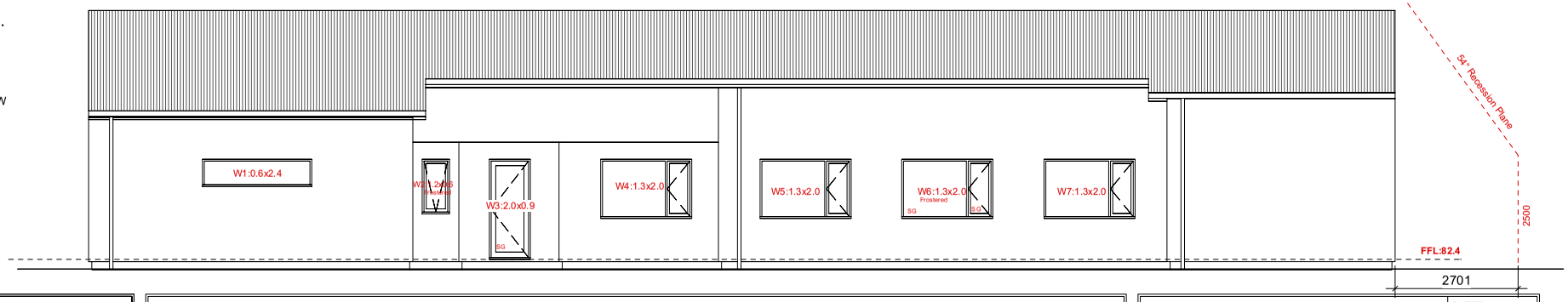
NORTH ELEVATION
SCALE 1:100





WEST ELEVATION
SCALE 1:100

NOTE: **ALL WINDOWS TO BE DOUBLE GLAZED.**
RESTRICTION STAYS SHALL BE FITTED TO OPENING WINDOWS LESS THAN 760mm FROM FLOOR, LIMITING OPENING OF SASH TO 100mm MAXIMUM WHERE THE POSSIBLE HEIGHT OF FALL FROM AN OPEN WINDOW IS MORE THAN 1000mm. THE HEIGHT OF FALL SHALL BE MEASURED FROM THE INSIDE FLOOR LEVEL ADJACENT TO THE WINDOW. IF A FIXED WINDOW SEAT IS PROVIDED, THE SILL HEIGHT SHALL BE MEASURED FROM THE SEAT.



EAST ELEVATION
SCALE 1:100

SDC - Approved Building Consent Document - BC260811 - Pg 8 of 61 - 23/04/2026
Pierie.newman

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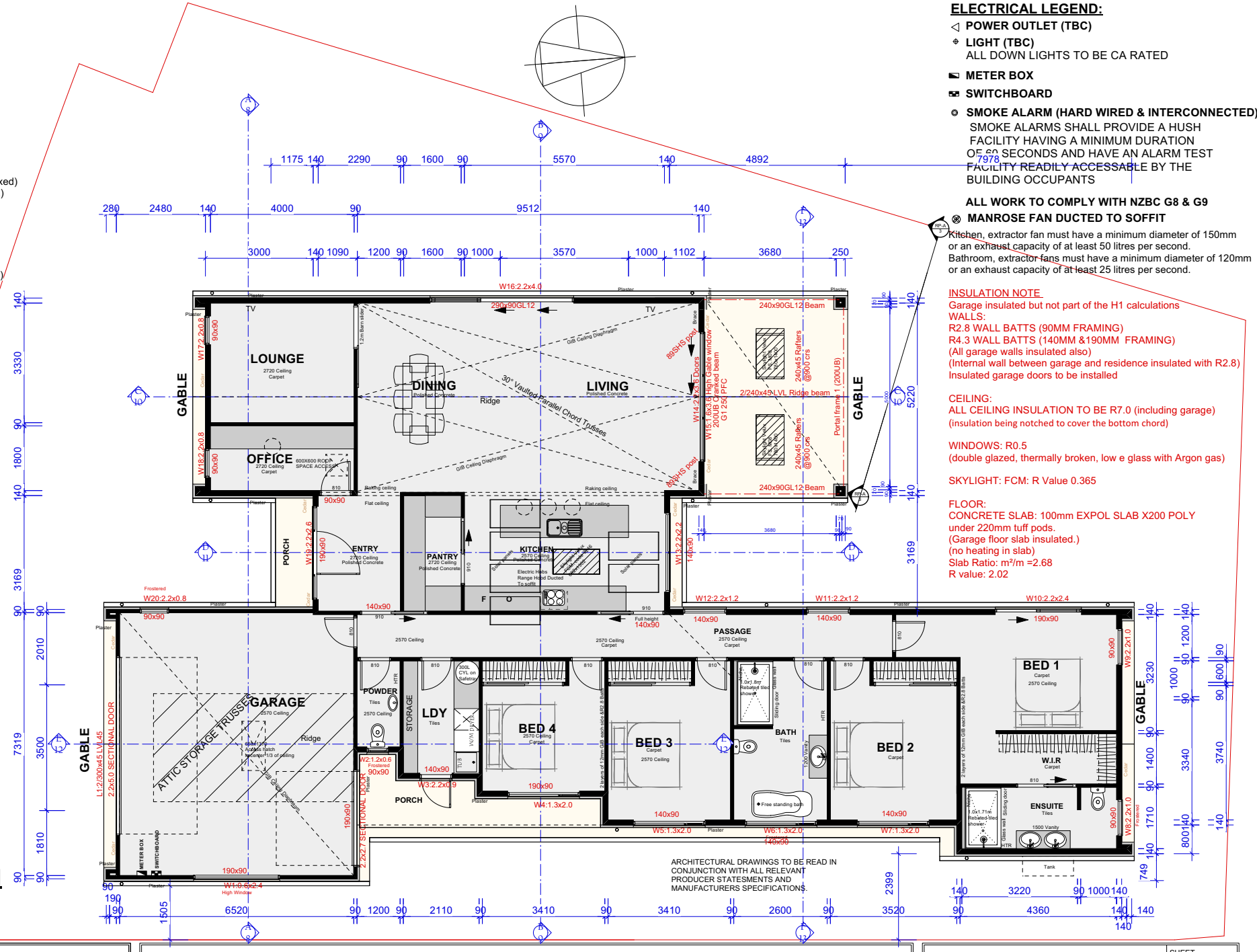
GENERAL NOTES:
30° Vaulted Parallel Chord Trusses over Living room & Dining room
6x PV Solar panels
Stormwater storage tank
Sealed downpipes
Stormwater Soak pit
8° & 30° roof pitch, with gable
Plaster and Cedar cladding
Claddings on building wrap
2.570 & 2.720m stud heights
9x Skylights
Ducted heat pump
GIB PLY ceiling diaphragm
Rondo ceiling battens @ 600mm crs (direct fixed)
(Timber ceiling battens in Living/ Kitchen area)
All top plates to be double 45mm top plates
Polished concrete floor (not heated) in Living, Dining, Entry, Kitchen, Pantry
Polished concrete floor to be coated with SuperCURE Ultra Densifier & SuperSHIELD Stain Protector
30MPa floor slab concrete (Polished concrete)
Aqualine Gib To All Wet Areas
Tiled shower with Glass walls
to shower, floor to have 1:50 fall to drain
Tile waterproofing : Sika, Davco k10
All internal doors to be 2200mm high

SDC - Approved Building Consent Document - BC260811 - Pg 9 of 61 - 23/04/2026



FLOOR PLAN
SCALE 1:100

ELECTRICAL LEGEND:
- POWER OUTLET (TBC)
- LIGHT (TBC)
  ALL DOWN LIGHTS TO BE CA RATED
- METER BOX
- SWITCHBOARD
- SMOKE ALARM (HARD WIRED & INTERCONNECTED)
  SMOKE ALARMS SHALL PROVIDE A HUSH FACILITY HAVING A MINIMUM DURATION OF 60 SECONDS AND HAVE AN ALARM TEST FACILITY READILY ACCESSABLE BY THE BUILDING OCCUPANTS

ALL WORK TO COMPLY WITH NZBC G8 & G9

- MANROSE FAN DUCTED TO SOFFIT
  Kitchen, extractor fan must have a minimum diameter of 150mm or an exhaust capacity of at least 50 litres per second.
  Bathroom, extractor fans must have a minimum diameter of 120mm or an exhaust capacity of at least 25 litres per second.

INSULATION NOTE
Garage insulated but not part of the H1 calculations
WALLS:
R2.8 WALL BATTS (90MM FRAMING)
R4.3 WALL BATTS (140MM &190MM FRAMING)
(All garage walls insulated also)
(Internal wall between garage and residence insulated with R2.8)
Insulated garage doors to be installed

CEILING:
ALL CEILING INSULATION TO BE R7.0 (including garage)
(insulation being notched to cover the bottom chord)

WINDOWS: R0.5
(double glazed, thermally broken, low e glass with Argon gas)

SKYLIGHT: FCM: R Value 0.365

FLOOR:
CONCRETE SLAB: 100mm EXPOL SLAB X200 POLY under 220mm tuff pods.
(Garage floor slab insulated.)
(no heating in slab)
Slab Ratio: m²/m =2.68
R value: 2.02

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798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET	4
DRAWN KELVIN BOYD	DATE SEP 2025
Scale in A3 size	AS SHOWN
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CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK

DO NOT SCALE DRAWINGS. IF IN DOUBT, REQUEST CLARIFICATION PRIOR TO COMMENCING WORK

Polished Concrete see floor plan for locations

6mm x25mm Deep Saw Cut

CONTRACTOR TO ENSURE SLAB EXTENDS UNDER EACH FLOOR TO CEILING WINDOW AND DOOR. REFER DETAILS ON WINDOW AND DOOR DETAIL SHEETS.

All concrete shall be standard 30MPa concrete mix.

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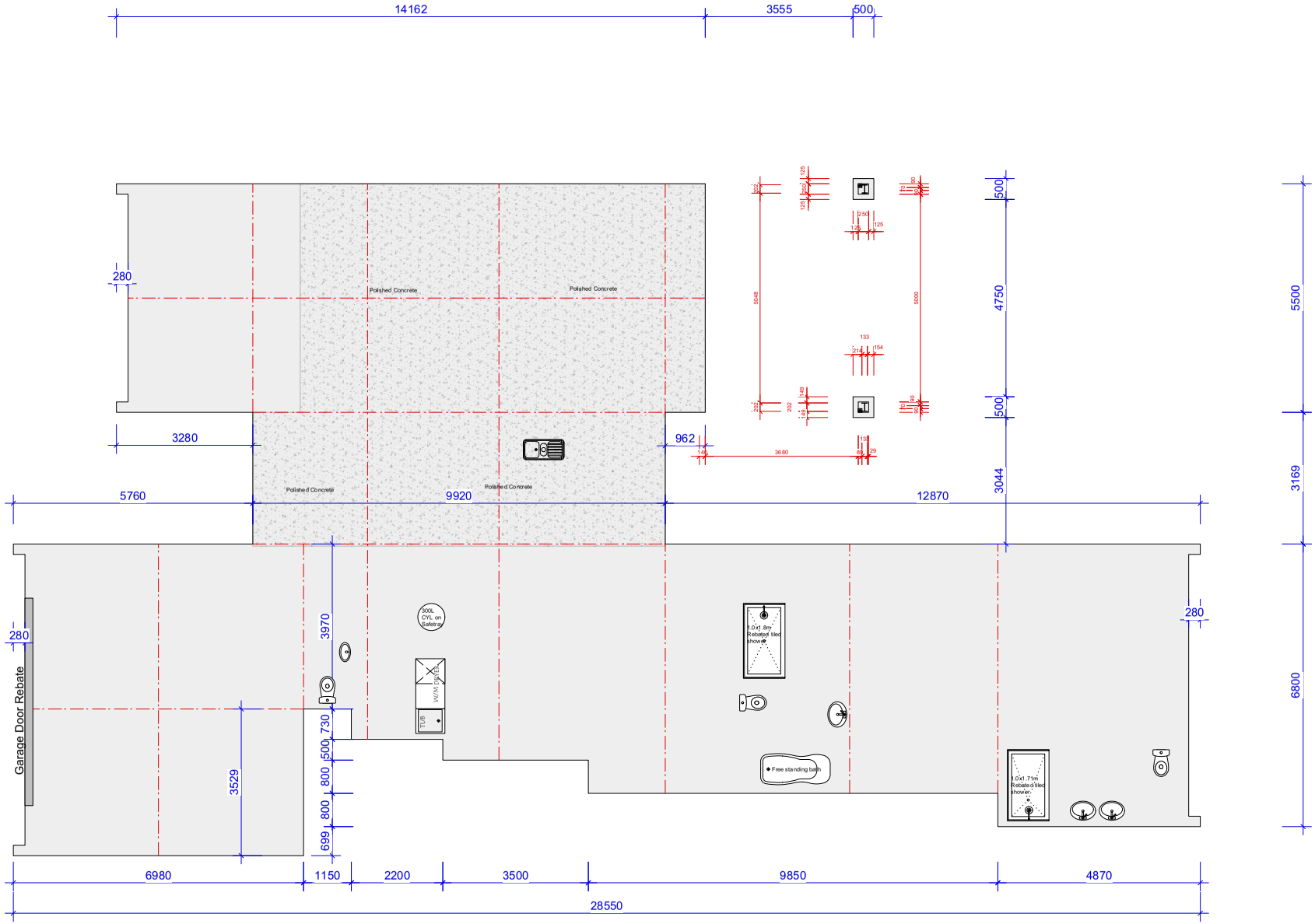

FOUNDATION PLAN

Scale 1:100

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 5
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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0.4 mm Trapezoidal colorsteel roofing on reinforced underlay on 70 x 45 purlins at 900 crs generally & 600 @ ends on 8° & 30° Nailplate trusses at 900 crs max

Spouting to be at the same height around the building

— · — · — · — · — Pair Metal Strip Roof Plane Bracing
All eaves to have eave flashings installed
Valley baffle's to be installed to all asymmetrical valleys

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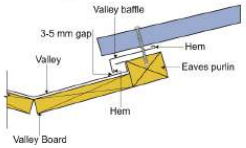
5.5.6 Asymmetrical Valleys

Where opposing roofs of different pitches discharge into a valley, an asymmetrical valley is required. As these have reduced cross-section area compared to a symmetrical valley at the same (lower) pitch, it is often necessary to increase the valley dimensions. Increasing the depth has the biggest effect on capacity. Greater depth can be gained by using 10 mm ply valley boards, standing purlins on edge, or fitting valley boards flush with the rafter. The consequences that a deeper valley will have on the capacity of the gutter it discharges into must also be considered.

A valley baffle is required in all cases where a valley has a change of angle or when the difference in roof pitch exceeds 10°. Valley baffles are also helpful in wooded locations to minimise lodging of debris under the roof overhang.

5.5.6A Valley Baffle



5.5.7 Valley Capacity Calculator

Calculation Date: 27/02/2026, 10:57:12 am – https://www.metalroofing.org.nz/cop

Project Name: 4 Corravally Rise, West Melton

Site Address: 4 Corravally Rise, West Melton

Note that this site address is used only for convenience if printing calculations to attach to documentation. This address is not factored into calculations - you must determine intensity from Rainfall Intensity Maps or NIWA's HIRDS tool. The address is not recorded or shared with any other parties.

Rainfall Intensity (10 Min Duration, **10 Year** Return Period)	100	mm/hr
Rainfall Intensity (10 Min Duration, **50 Year** Return Period)	100	mm/hr

Select the appropriate intensity from the Rainfall Intensity Maps, or use the Hirds-tool from NIWA.

Short-Term Intensity Multiplication Factor	3.1	
Minimum 3.1 for current selections		
Main Roof Pitch	30	°
Minimum 0° for valleys (metal roofs min 3°)		
Secondary Roof Pitch	8	°
Minimum 0° for valleys (metal roofs min 3°)		

Enter Valley Dimensions

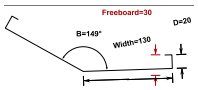
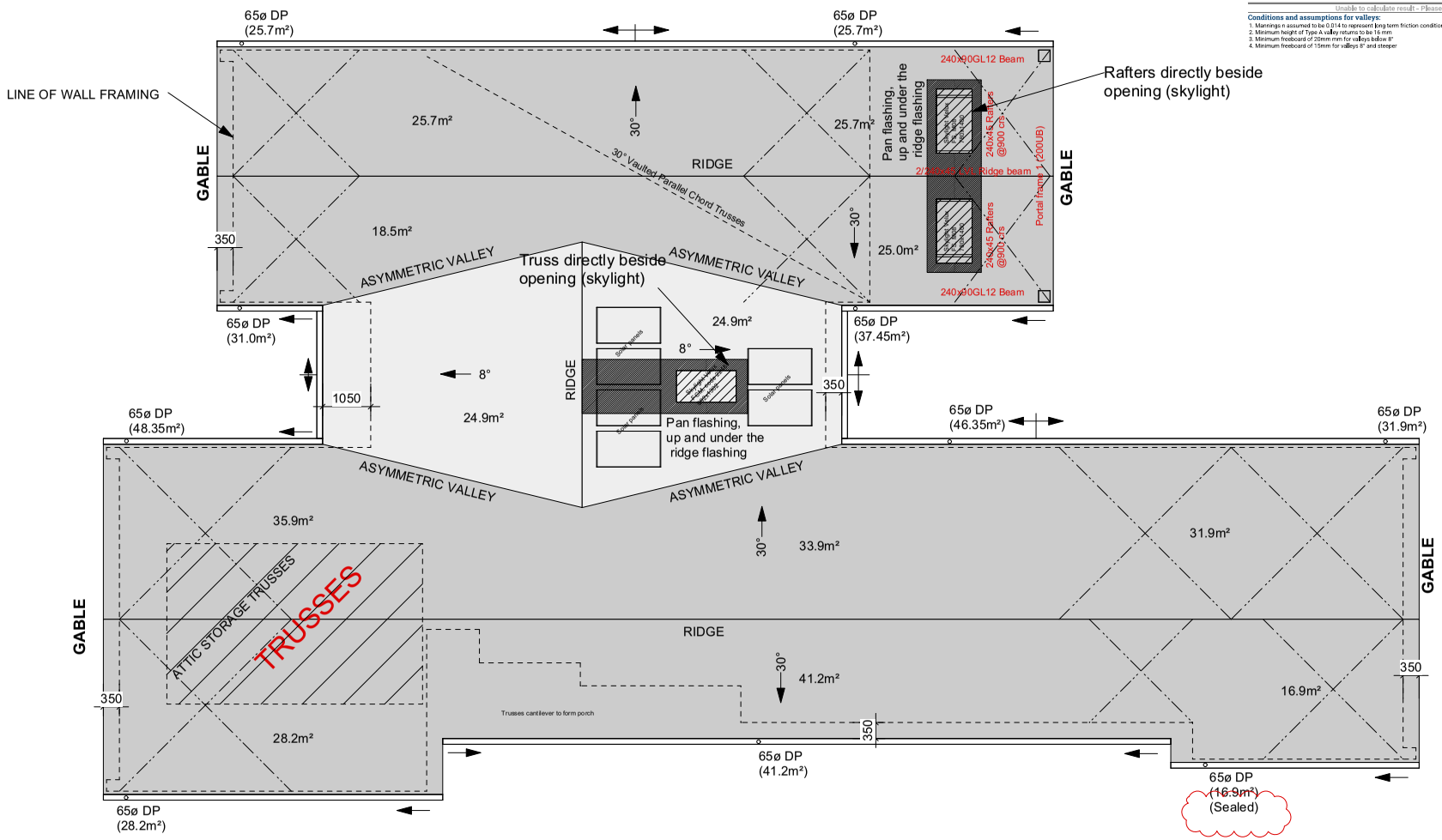


Illustration is for explanatory purposes only.

Valley Width (Each Side)	130	mm
Valley Upstand	20	mm
Freeboard	30	mm
Minimum 20 for current selections		

Unable to calculate result – Please check values!

Conditions and assumptions for valleys:
1. Mannings n assumed to be 0.014 to represent long term friction conditions
2. Minimum height of Type A valley returns to be 16 mm
3. Minimum freeboard of 20mm mm for valleys below 8°
4. Minimum freeboard of 15mm for valleys 8° and steeper



ROOF PLAN

SCALE 1:100

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CONSENT PLANS			SHEET 6
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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CONSENT PLANS			SHEET 7
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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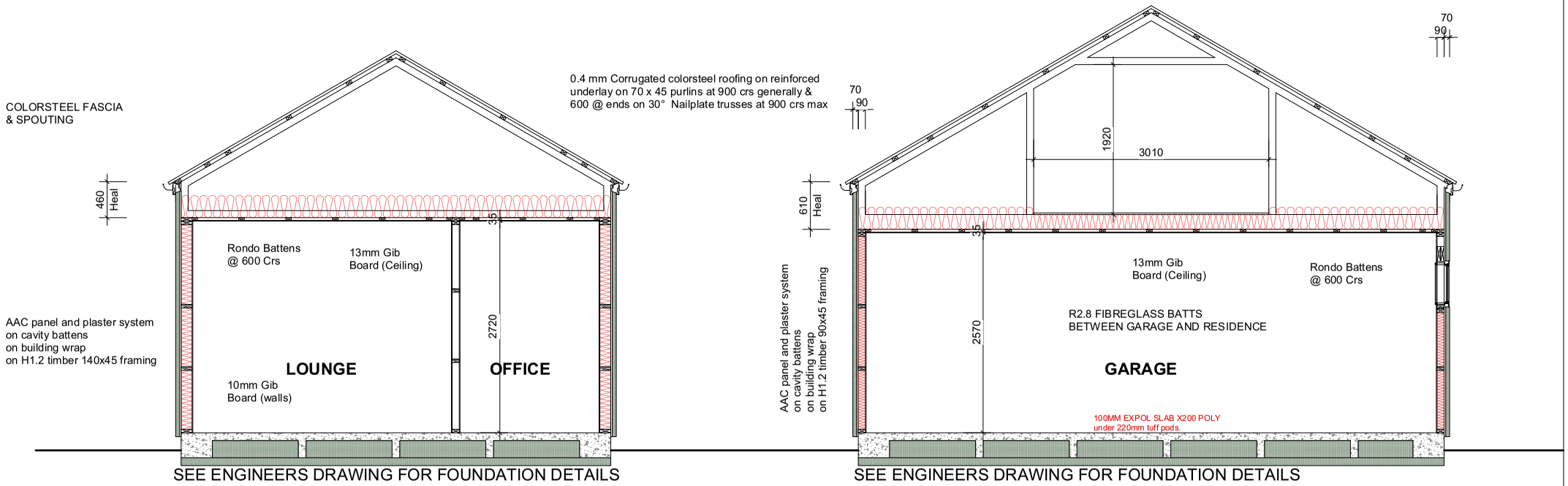
NOTE:

-All framing and trusses to be SG8 grade timber
-Shower floors to have a minimum fall of 1:50 towards the floor waste
-Glazing to shower screens to be safety glass complying with NZBC F2
Non slip paving to all door access areas to comply with Table 2 of NZBC D1
-All wall linings adjacent to appliances and facilities to have painted or applied impervious coating to comply with NZBC G3
-All lining materilas in areas exposed to water splash must be easily cleaned and meet the impervious performance as listed in Section 3.1, NZBC E3
-All artificial light sources must comply with NZBC G8. All down lights must be CA 80 compliant.

BUILDING ELEMENT	TREATMENT LEVELS
ALL TIMBER SHALL BE SG8 UNLESS OTHERWISE STATED	
ROOF FRAMING, TRUSSES, FLOOR AND CEILING JOISTS INTERIOR WALL FRAMING INCLUDING BOTTOM PLATES EXTERIOR WALL FRAMING PARAPETS SUB FLOOR FRAMING	**H1.2 TREATED, PLANER GAUGED RADIATA PINE**
CAVITY BATTENS REVEALS FOR ALUMINIUM JOINERY	**H3.1 TREATED, PLANER GAUGED RADIATA PINE**
CANTILEVERED DECK FRAMING	**H3.2 TREATED, PLANER GAUGED RADIATA PINE**
PILES AND OTHER STRUCTURAL IN GROUND MATERIAL	**H5 TREATED, RADIATA PINE**



SEE ENGINEERS DRAWING FOR FOUNDATION DETAILS

SEE ENGINEERS DRAWING FOR FOUNDATION DETAILS

A/4

CROSS-SECTION

SCALE 1:50

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CONSENT PLANS			SHEET 8
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STUD NOTE:

STUD SPACING
LOAD BEARING EXTERNAL WALLS.
90X45 STUDS @ 400 CRS 2.400 - 2700MM
140X45 STUDS@ 600 CRS 0.000 - 3000MM
190X45 STUDS@ 400 CRS 3.000 - 3600MM

STUDS IN INTERNAL LOAD BEARING WALLS
90X45 STUDS @ 600 CRS 0.00 - 3000MM
90X45 STUDS @ 300 CRS 3000 - 3600MM

STUDS IN NON LOAD BEARING WALLS
90X45 STUDS @ 600 CRS 0.00 - 3000MM

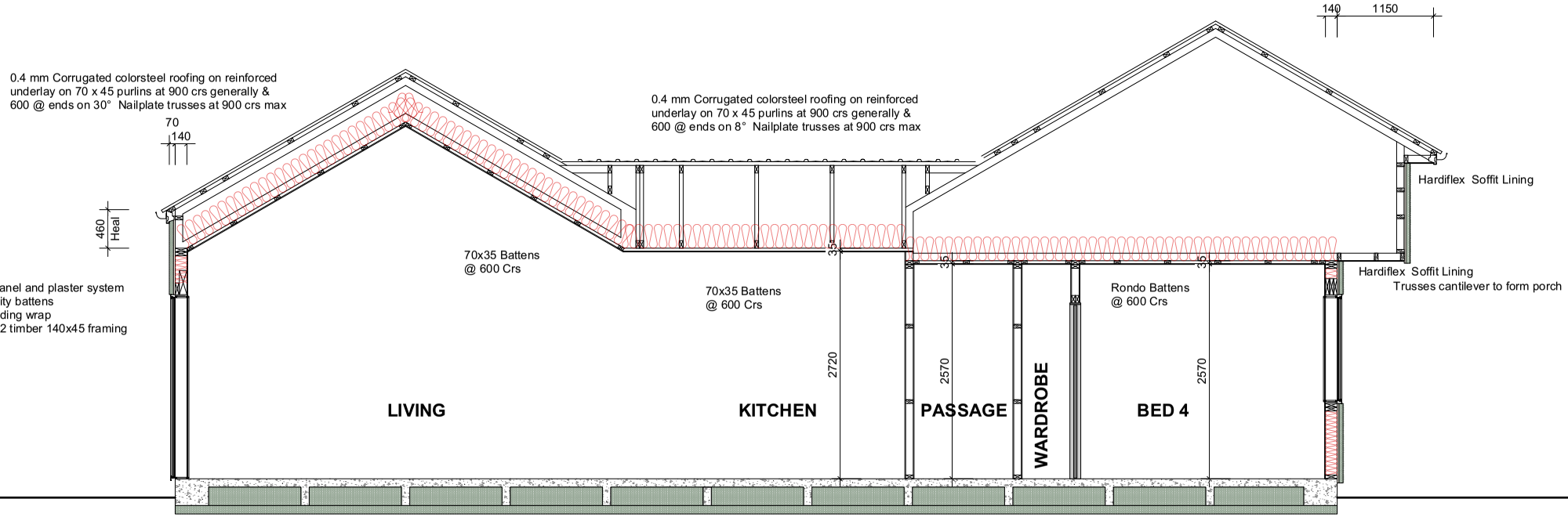
DWANGS TO BE @800 CRS FOR
PLASTER CLADDING,
DWANGS TO BE @480 CRS FOR
VERTICAL CEDAR CLADDING,
OTHERWISE DWANGS @900 CRS MAX

ALUMINIUM DOORS & WINDOWS

- ALUMINIUM DOOR & WINDOW FINISH SHALL BE ***POWDERCOAT***
- COLOUR SHALL BE CONFIRMED WITH CLIENT PRIOR TO FABRICATION.
- CONFIRM ALL OPENING SIZES ON SITE PRIOR TO FABRICATION.
- ALL GLAZING TO BE ALLOWED IN ***CLEAR DOUBLE GLAZED WITH ARGON GAS***, LOW E GLASS, UNLESS STATED OTHERWISE.
- ALL ALUMINIUM JOINERY SHALL COMPLY WITH NZS 4211:1985.
- REFER ALSO TO THE FLOOR PLAN FOR OPENING DIRECTIONS.
- ALL JAMBS SHALL BE 25MM H3.1 TREATED PINUS RADIATA, GROOVED FOR WALL LININGS.
- ALL OPENING SASHES SHALL BE FITTED WITH ***DOUBLE SNIB*** HANDLES.
- WHERE OPENING SASHES ARE SHOWN AT FIRST FLOOR LEVEL, THESE SHALL HAVE RESTRICTOR STAYS TO ALLOW 100MM MAX OPENING.

SAFETY GLASS

- ALL GLAZING SHALL COMPLY WITH NZS 4223:2016.
- PANES SHOWN WITH 'SG' SHALL BE ALLOWED AS GRADE A SAFETY GLASS.



B/4

CROSS-SECTION

SCALE 1:50

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CONSENT PLANS			SHEET 9
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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SMOKE ALARM NOTE

Smoke alarms are a requirement under the New Zealand Building Code Acceptable Solutions C/AS1 and C/AS2 (for fire prevention) and F7/AS1 (for warning systems). Smoke alarms must have:

a hush button to silence the alarm for at least 60 seconds
a test button
a sound level that complies with NZS 4514:2021 Interconnected smoke alarms for houses – not less than 75 dBA at the sleeping position and not more than 100 dBA at 1.8 m height. (The standard can be downloaded for free.)
Acceptable Solutions C/AS1 and C/AS2 were amended in November 2023 with a 12-month transition period that will end in November 2024. They require interconnected smoke alarms in all new household units and homes where there are renovations that require a building consent, or a change of use. The Acceptable Solutions cite NZS 4514: 2021 for the installation of alarms. With interconnected alarms, when one smoke alarm detects smoke, all alarms will sound. Models that connect wirelessly are available.

Installing or replacing a hard-wired alarm must be done by a licensed electrician.

Some of the key points of the standard include:

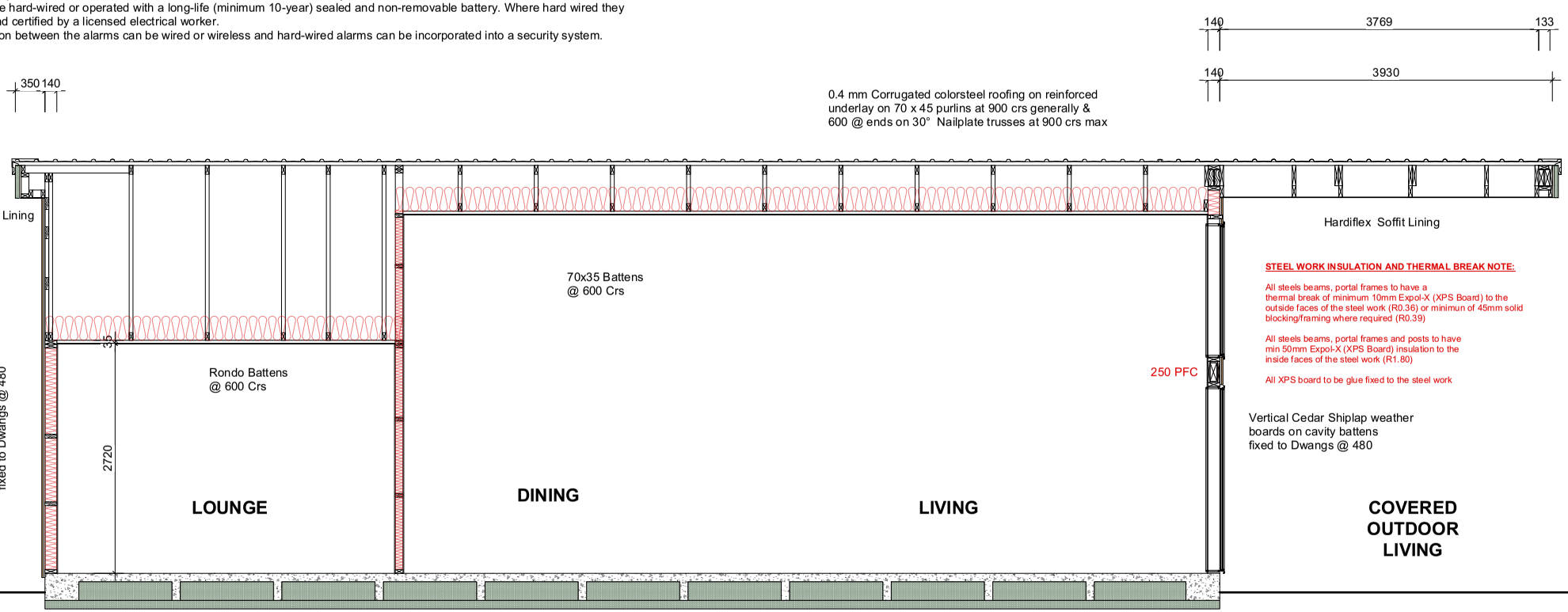
The alarms must be in all bedrooms, living spaces, hallways and landings, and on each level of a multi-level home.
Where a kitchen is separated from living spaces and hallways by closable doors, an alarm suitable for kitchens (which may be a heat alarm) must be installed in the kitchen.
Where they are required, alarms must be mounted within 10 m of each other in any direction.
The alarms can be hard-wired or operated with a long-life (minimum 10-year) sealed and non-removable battery. Where hard wired they must be tested and certified by a licensed electrical worker.
The interconnection between the alarms can be wired or wireless and hard-wired alarms can be incorporated into a security system.

Interconnected smoke alarms
Following the feedback MBIE received during consultation, we have introduced interconnected smoke alarms as the minimum fire safety system in household units.

Interconnected smoke alarms work by sending a signal between the smoke detectors. If one smoke alarm detects a fire, all the smoke alarms in the home will sound an alarm. This update aims to bring New Zealand in line with the latest industry standards. We have cited NZS 4514:2021 which sets out the requirements for the installation, maintenance and commissioning of interconnected smoke alarms. Smoke detectors will need to be installed in all bedrooms, living spaces, hallways and landings and in multi-level dwellings there must be at least one smoke alarm on each level. The standard provides recommendations on different types of detectors that can be used in different areas of a house to avoid nuisance alarms (such as in a kitchen).

The standard also provides options for different power supplies and includes wired smoke alarms or wireless smoke alarms with long-life batteries. A hard-wired interconnected smoke alarm system can be installed during construction while the house is being wired.

The new acceptable solution can be used today and has a one-year transition period ending in November 2024. Until then, the previous acceptable solution can be used for new building work. Homes or buildings which are renovated or have a change in use will also have to consider compliance with new requirements. For existing buildings, battery-operated interconnected smoke alarms can be installed without the need to rewire the home. This is a cost-effective solution that saves lives.



STEEL WORK INSULATION AND THERMAL BREAK NOTE:

All steels beams, portal frames to have a thermal break of minimum 10mm Expol-X (XPS Board) to the outside faces of the steel work (R0.36) or minimun of 45mm solid blocking/framing where required (R0.39)

All steels beams, portal frames and posts to have min 50mm Expol-X (XPS Board) insulation to the inside faces of the steel work (R1.80)

All XPS board to be glue fixed to the steel work

C/4

CROSS-SECTION

SCALE 1:50

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CONSENT PLANS			SHEET 10
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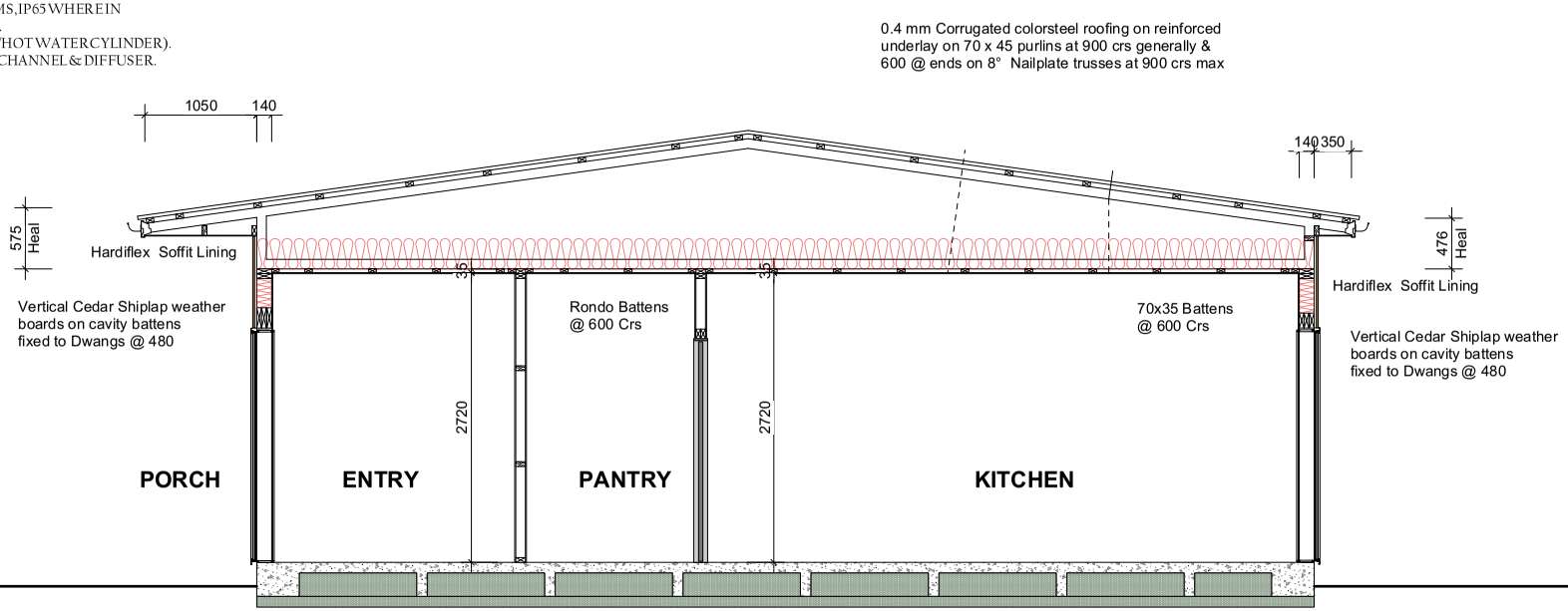
NOTE

- THE ELECTRICIAN SHALL CONFIRM ACTUAL LIGHT & POWER POINT POSITIONS WITH THE CLIENT ON SITE.
- THE ELECTRICIAN SHALL INSTALL WIRING FOR DIGITAL TELEVISION SERVICE. SATELLITE DISH SUPPLIED AND INSTALLED BY SKY ON REQUEST OF THE CLIENT.
- SUPPLY AND INSTALL A ROOF MOUNTED UHF AERIAL IN LOCATION TO BE CONFIRMED.
- ALL DOWNLIGHTS SHALL BE 'CA80' RATED MINIMUM. ELECTRICIAN SHALL ENSURE NO CEILING INSULATION IS PLACED OVER RECESSED FITTINGS.
- SMOKE ALARMS SHALL COMPLY WITH NZBC F7/AS1, SHALL HAVE TEST AND HUSH FACILITIES, SHALL BE LOCATED NO MORE THAN 3.0M FROM EVERY SLEEPING SPACE DOOR AND WITHIN EACH SPACE THAT MUST BE PASSED THROUGH TO ACCESS A SAFE PLACE (OUTSIDE). ALARMS SHOWN ARE A MINIMUM REQUIREMENT, ADDITIONAL ALARMS ARE RECOMMENDED.
- THE ELECTRICIAN SHALL CO-ORDINATE WITH THE SECURITY & MEDIA SUB-CONTRACTORS FOR INSTALLATION AND POWER REQUIREMENTS FOR SECURITY & MEDIA SYSTEMS.
- THE ELECTRICIAN SHALL ENSURE ALL EXTRACT GRILLE TERMINATIONS ARE PAINTED TO MATCH CLADDING/SOFFIT COLOUR.
- BATHROOM EXTRACTION FANS SHALL INCLUDE A 2 MIN RUN ON FACILITY.
- BATHROOM EXTRACTION FANS TO HAVE A MIN CAPACITY OF 180M3/HR.
- GARAGE DOOR TO BE SUPPLIED WITH TWO KEY RING REMOTES & ONE WALL MOUNTED REMOTE SWITCH.
- ALL SENSORS TO INCLUDE A DAYLIGHT CONTROL.
- ALLOW TO WIRE & INSTALL HEAT PUMPS.
- ALLOW TO WIRE FOR DATA TO ALL TELEVISION JACKPOINTS.
- SPEAKER CABLE TO BE RUN BACK TO DINING JOINERY UNIT, TERMINATE AT 1.0M A.F.L.
- HEATED TOWEL RAILS TO HAVE PROGRAMMABLE TIMERS.
- LIGHT FITTINGS TO BE IP44 RATED IN BATHROOMS, IP65 WHERE IN SHOWER ENCLOSURES, IP54 EXTERIOR FITTINGS.
- WIRE FOR WATER HEATING UNIT (GAS HEATER/HOT WATER CYLINDER).
- LED RIBBON TO BE SUPPLIED WITH ALUMINIUM CHANNEL & DIFFUSER.



D/4

CROSS-SECTION

SCALE 1:50

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CONSENT PLANS			SHEET 11
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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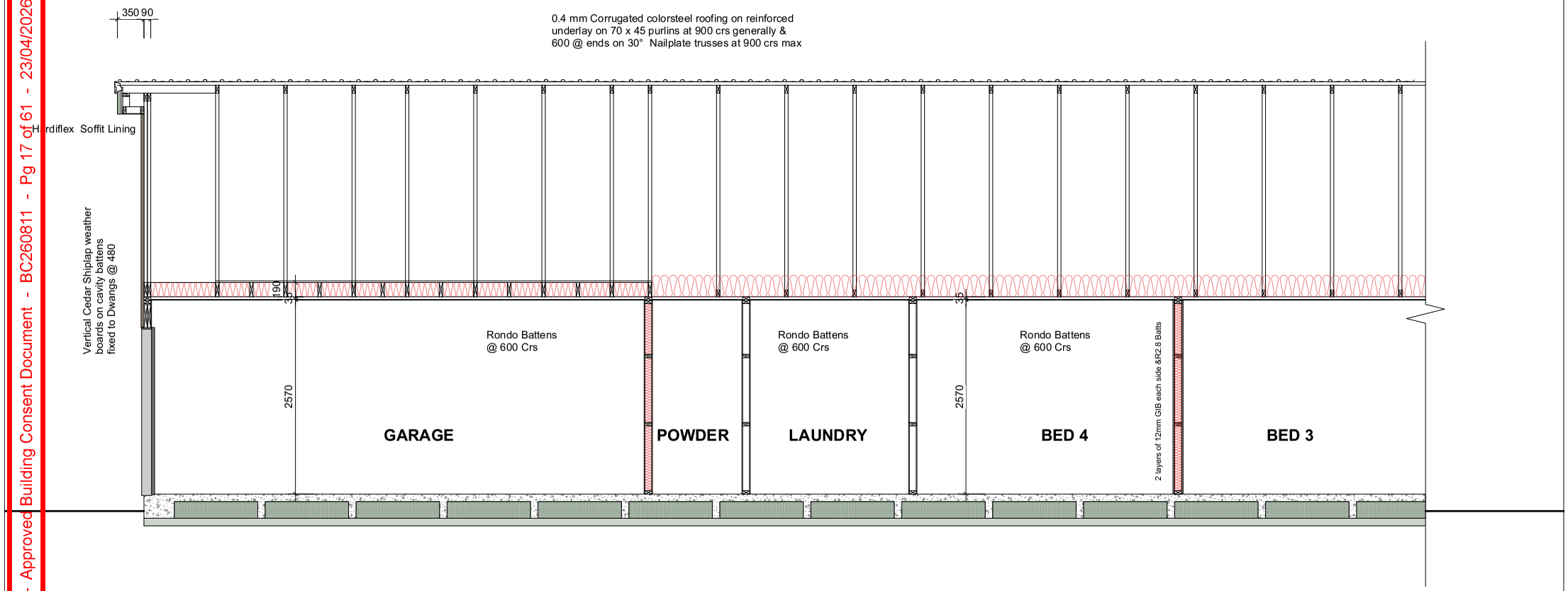

E/4

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SCALE 1:50

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CONSENT PLANS			SHEET 12
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REVISION NO.	REV. 21 APRIL 2026		REF

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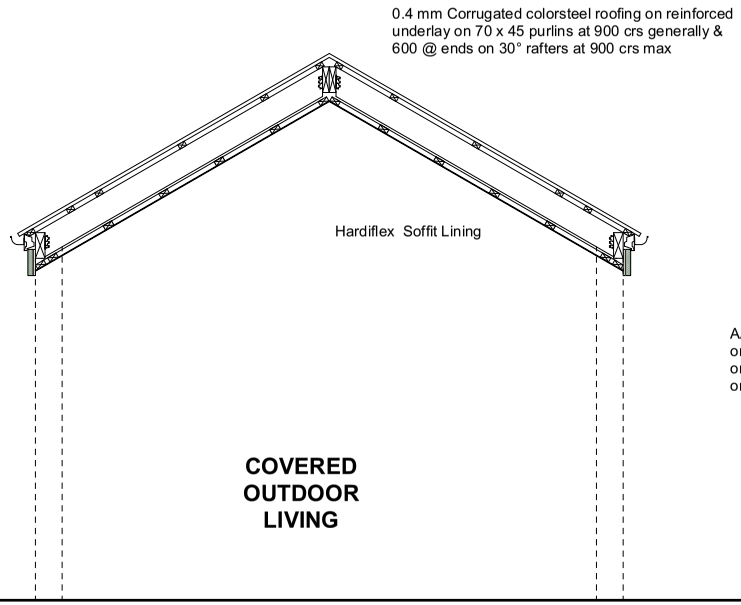

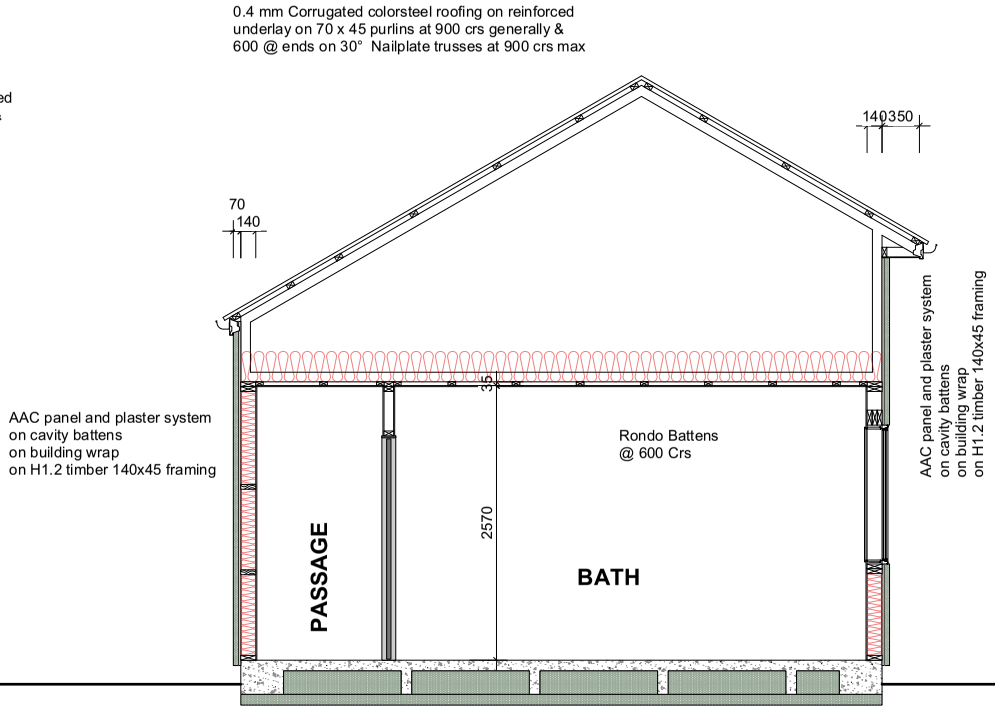

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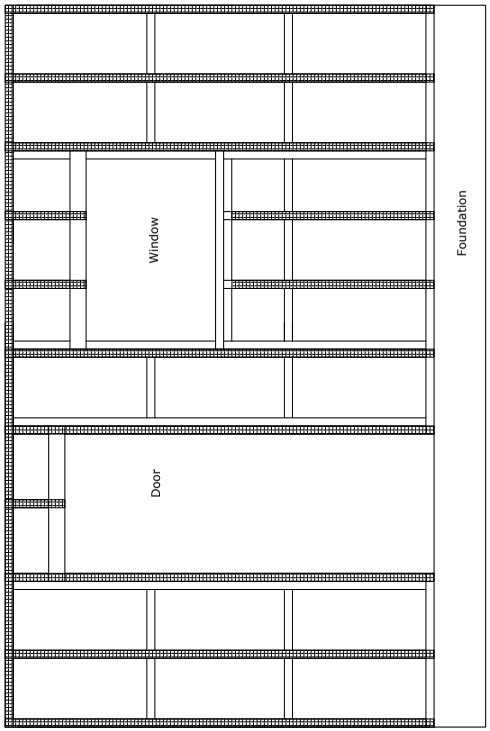

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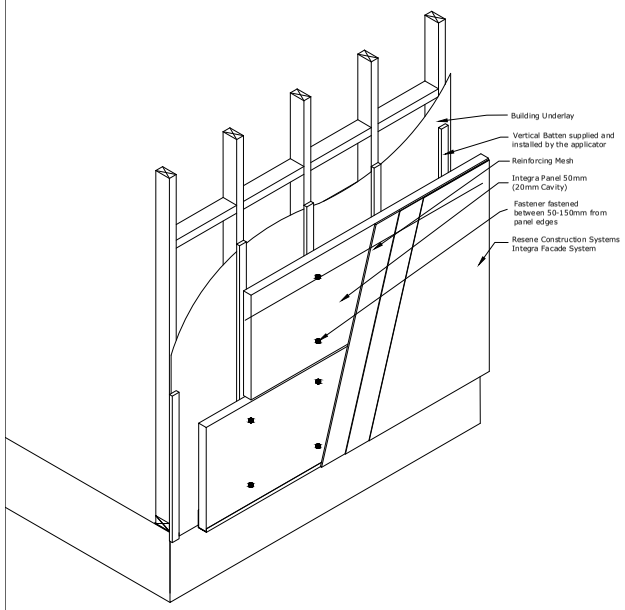
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Batten Layout (400mm Centres)	10.01.01



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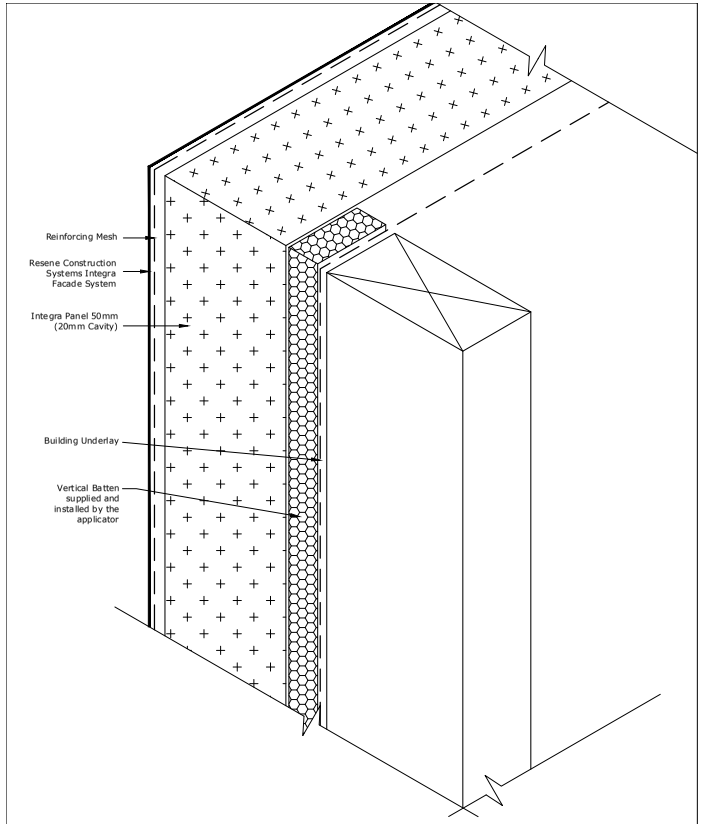
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Isometric (400 Centers)	10.01.11



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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Isometric Cross Section	10.01.20

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CONSENT PLANS			SHEET 14
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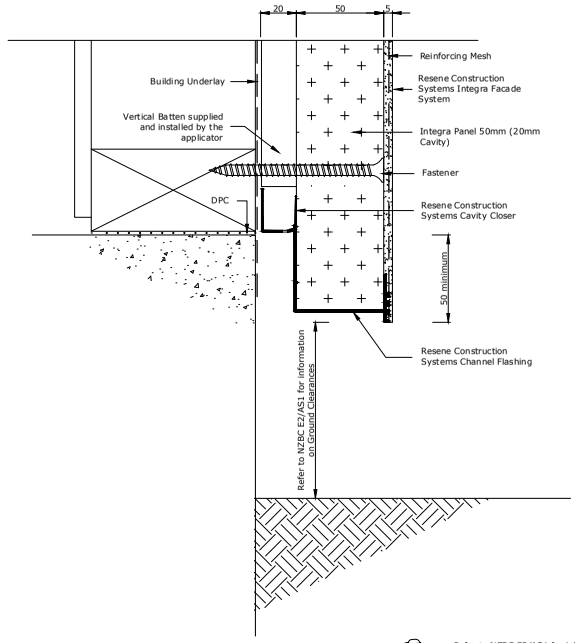

Refer to NZBC E2/AS1 for information on Ground Clearances

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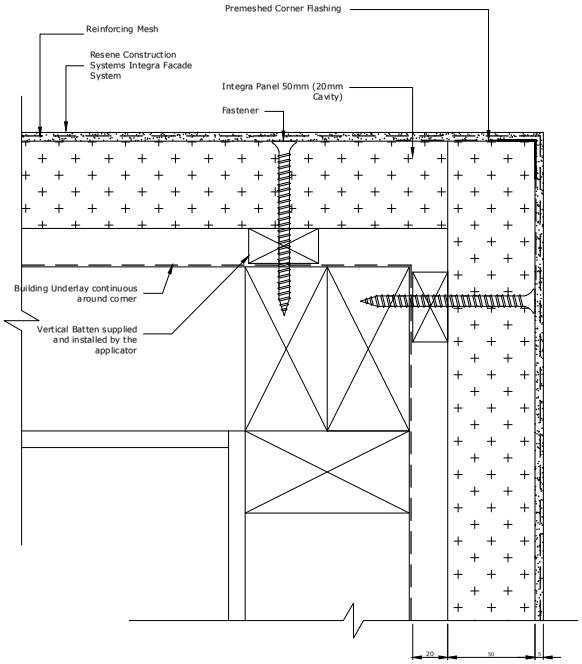
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 October 2019
Drawing Name	**Sheet**
Foundation	10.02.00



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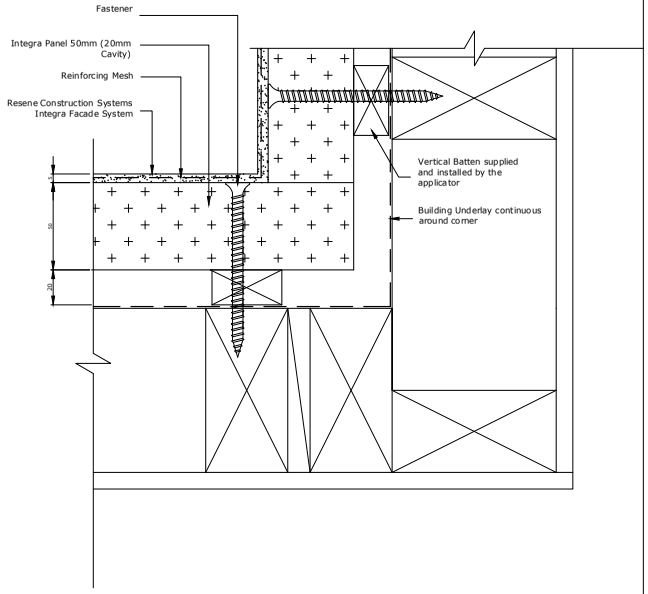
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
External Corner	10.03.00



Mesh to be wrapped continuously around the internal corner, if there is a break in the mesh then an additional layer of Sticky Mesh must be used

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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Internal Corner	10.04.00

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 15
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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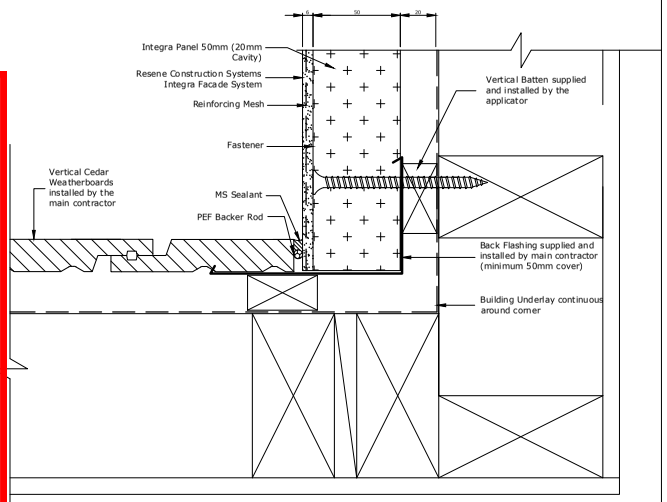

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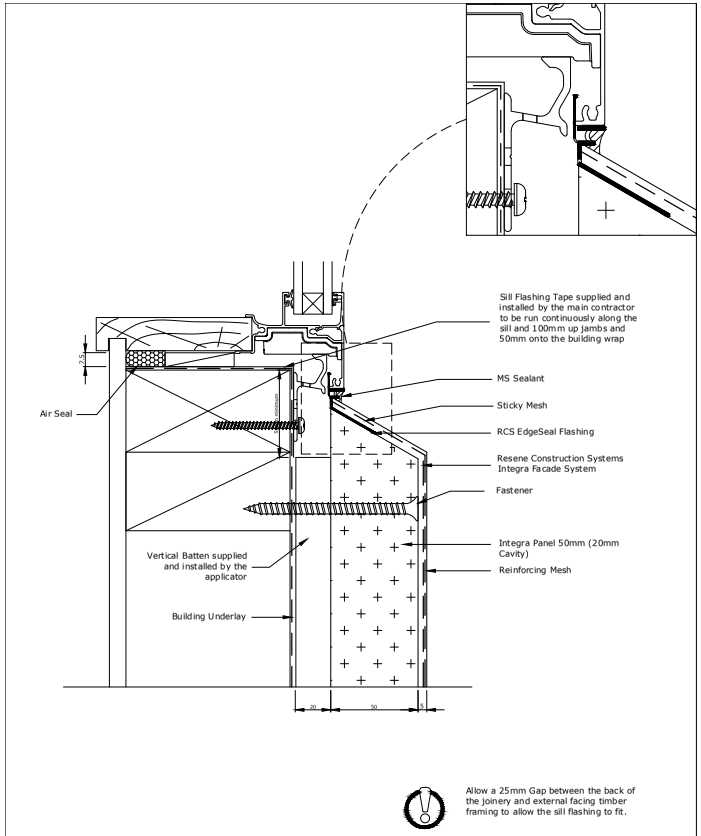
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	6 June 2019
Drawing Name	**Sheet**
Internal Corner with Vert Cedar Weatherboard - Option 2	10.04.71



The RCS EdgeSeal Flashing holds a patent for its innovative design - Patent # 582317
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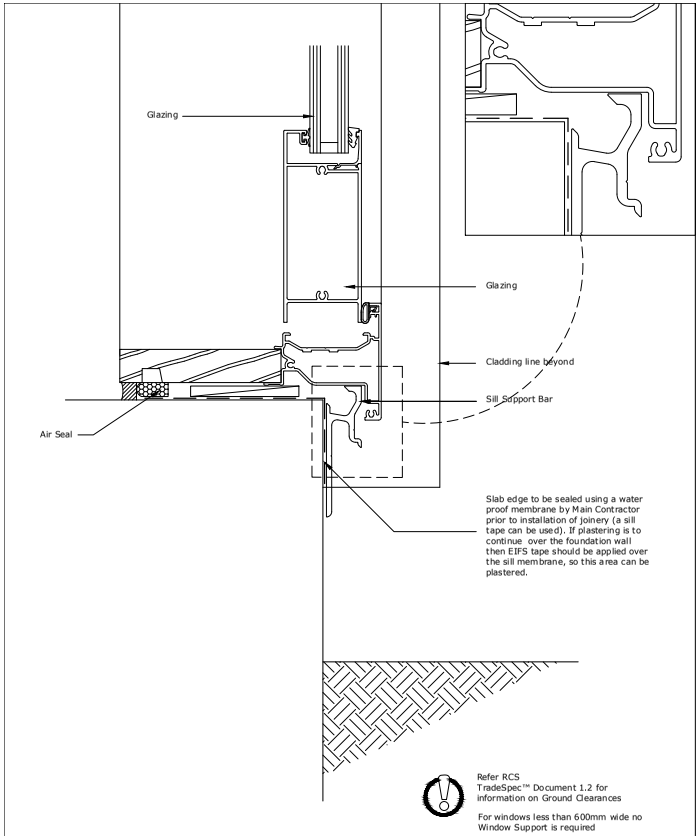
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Window Sill	10.05.00



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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Door Sill - Option 1	10.05.60

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798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 16

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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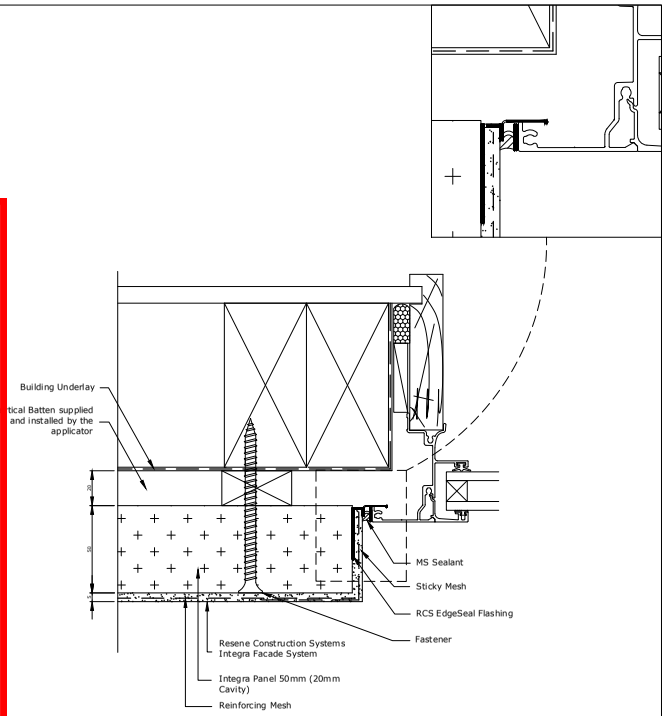

The RCS EdgeSeal Flashing holds a patent for its innovative design - Patent # 582317
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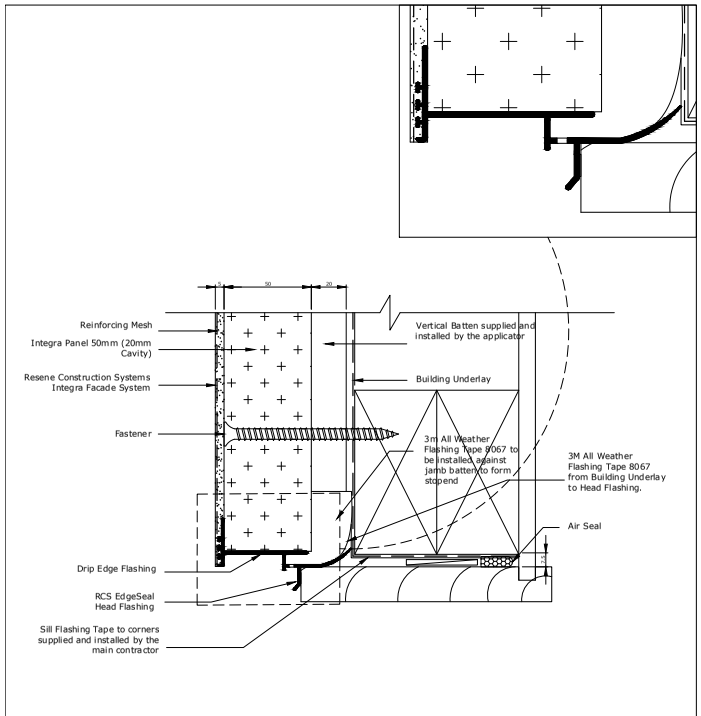
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	8 August 2022
Drawing Name	**Sheet**
Window Jamb	10.06.00



The RCS EdgeSealHead Flashing holds a patent for its innovative design - Patent # 588193
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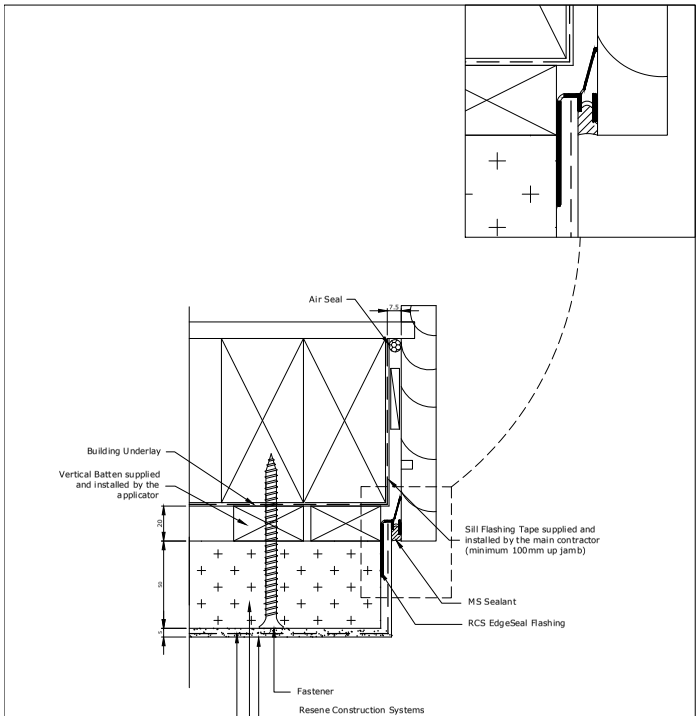
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Garage Door Head - Option 1	10.07.50



The RCS EdgeSeal Flashing holds a patent for its innovative design - Patent # 582317
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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Garage Door Jamb - Option 1	10.06.50

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798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 17

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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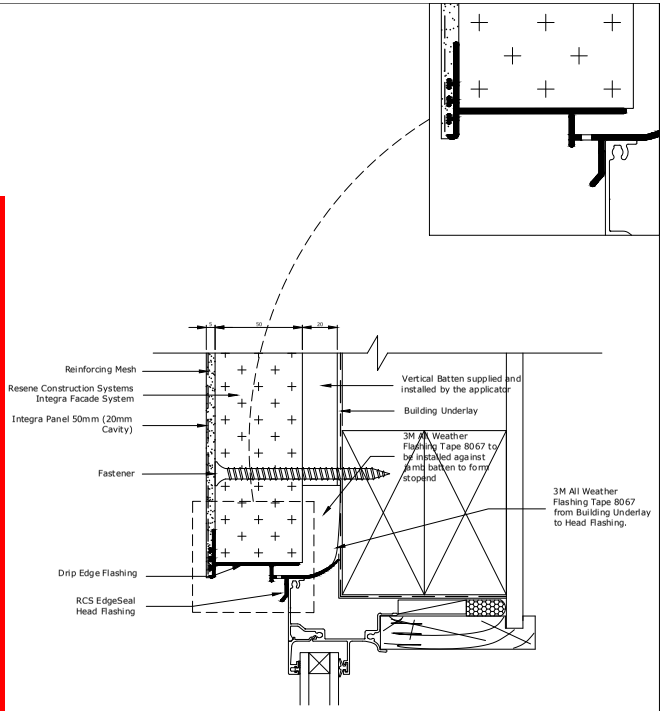

The RCS EdgeSealHead Flashing must be installed so that it extends 10mm either side of the jamb extrusion.

Can be utilised on a sloping window head up to 25 degrees

The RCS EdgeSealHead Flashing holds a patent for its innovative design - Patent # 588193

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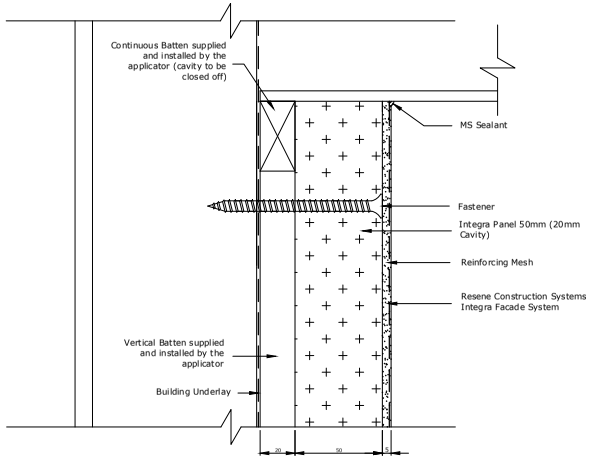
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	8 August 2022
Drawing Name	**Sheet**
Window Head - Option 1	10.07.00



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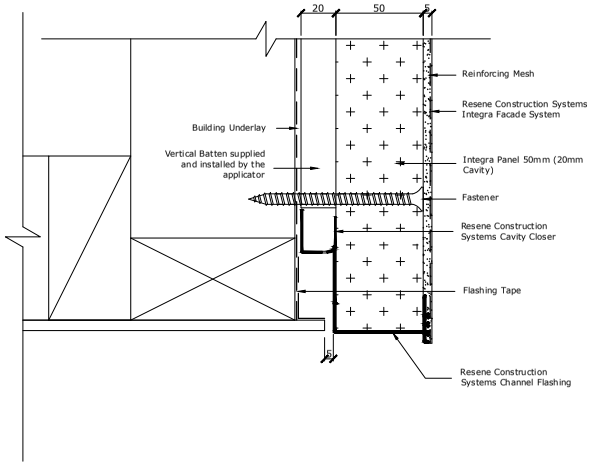
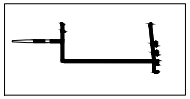
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Soffit	10.08.00





Alternative flashing can be used to replace the cavity closer and channel flashing.

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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	26 July 2023
Drawing Name	**Sheet**
Soffit Edge - Option 1	10.08.10

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CONSENT PLANS

SHEET 18

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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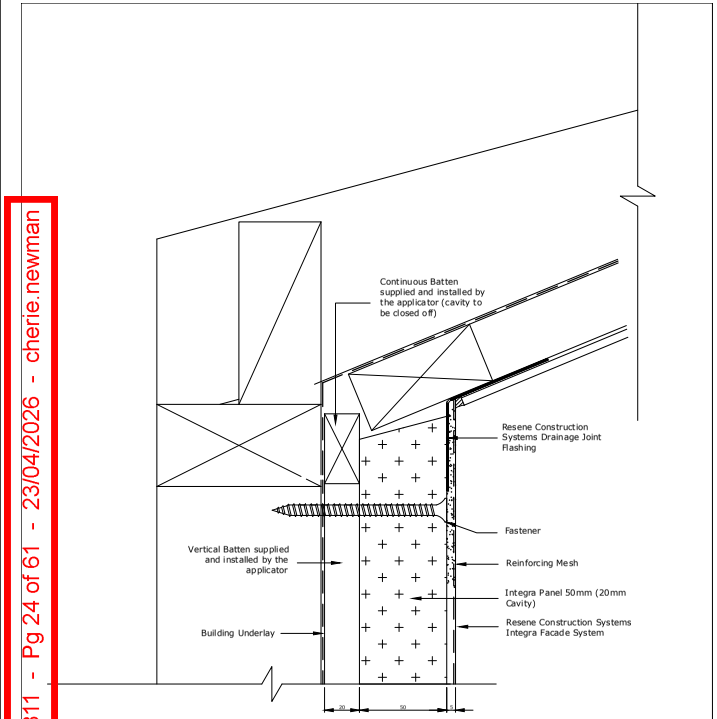

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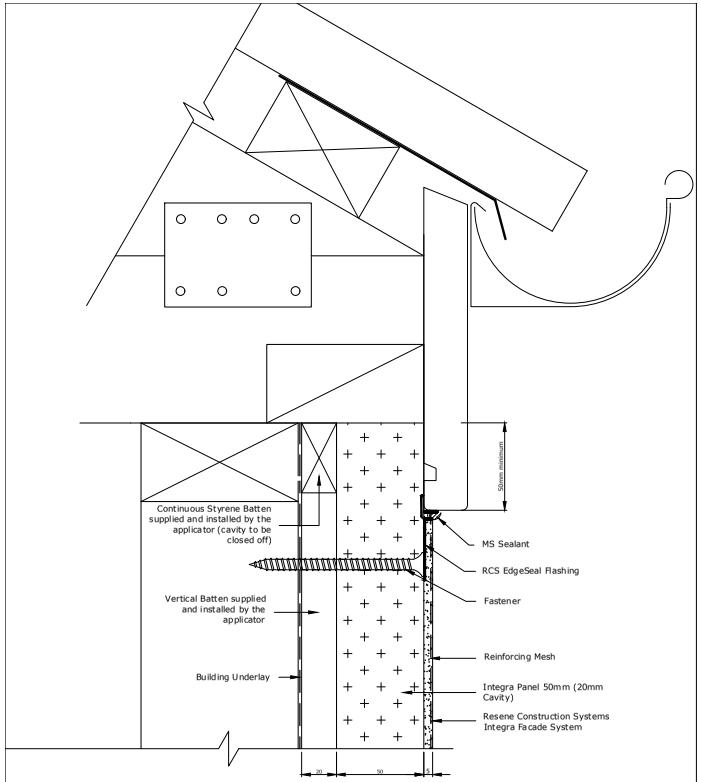
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	8 August 2022
Drawing Name	**Sheet**
Raking Soffit - Option 2	10.08.31



The RCS EdgeSeal Flashing holds a patent for its innovative design - Patent # 582317
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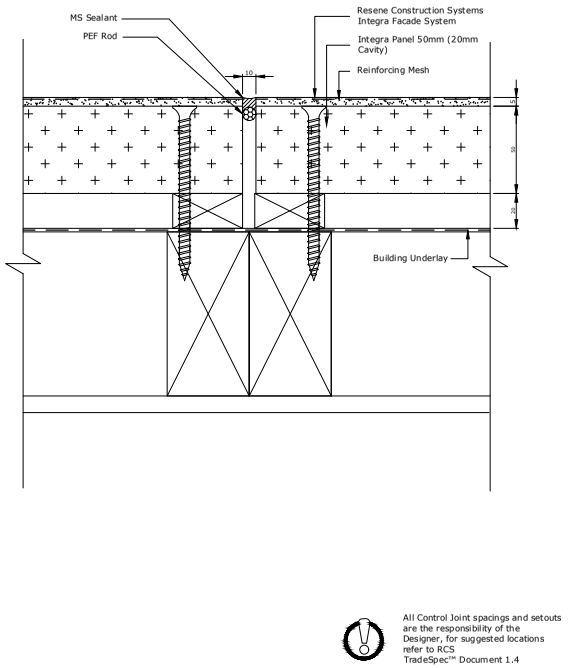
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Face Fixed Fascia - Option 2	10.08.41



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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Vertical Control Joint - Option 1	10.10.00

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
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CONSENT PLANS

SHEET 19

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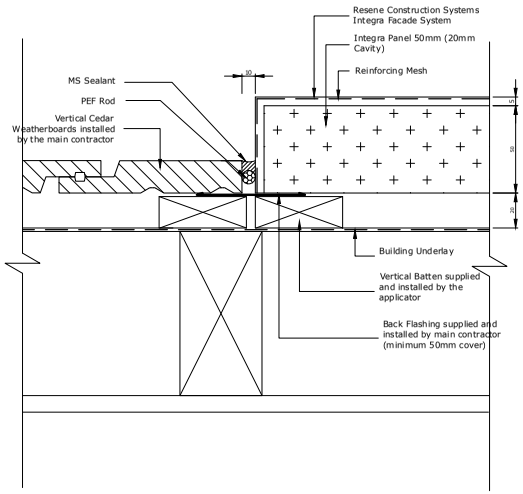

All Control Joint spacings and setouts are the responsibility of the Designer, for suggested locations refer to RCS TradeSpec™ Document 1.4

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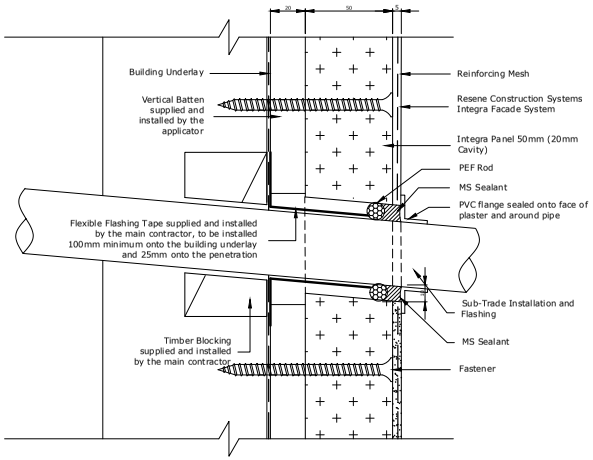
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Vertical Junction with Vertical Cedar Weatherboards	10.10.90



The responsibility for the penetration is the responsibility of the main contractor, where possible and practical use a flange.

It is important that there is adequate support for the penetration in the form of timber packing. The penetration should be angled slightly away from the cladding so any moisture is diverted away from the cladding.

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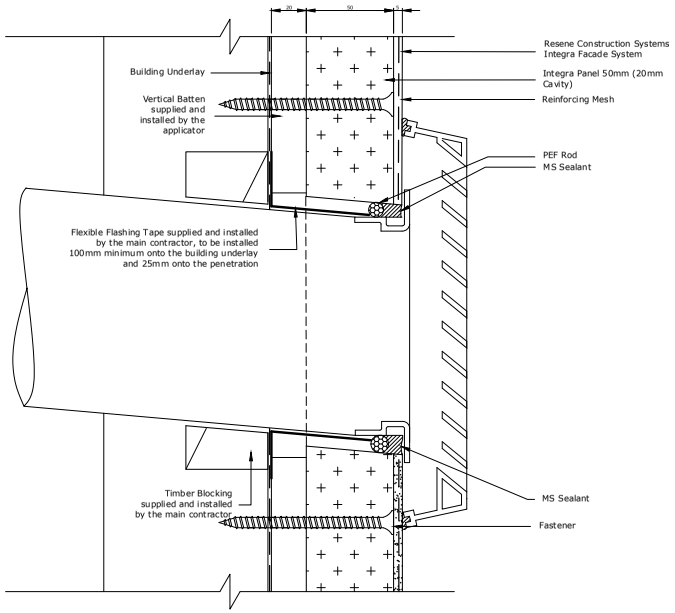
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Pipe Penetration	10.12.20



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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Fan Vent	10.12.21

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CONSENT PLANS

SHEET 20

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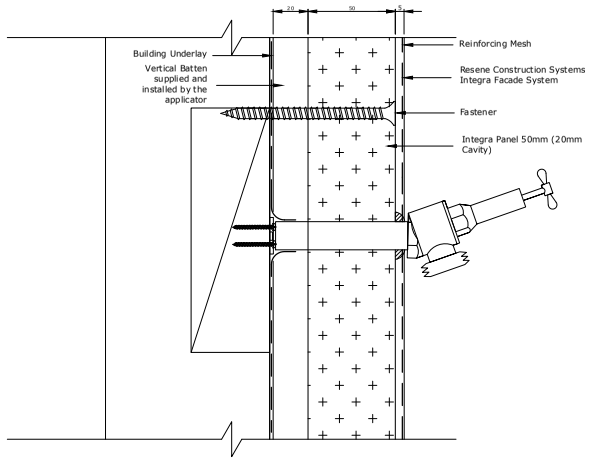

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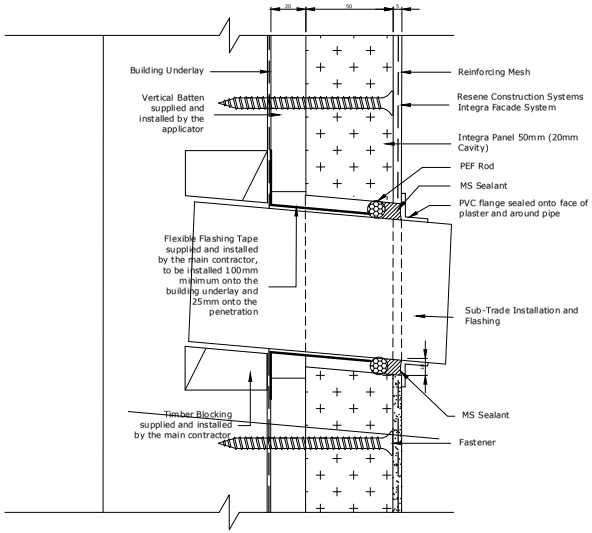
System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Tap Fitting Detail	10.12.22



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System	Scale
Integra Facade System	1 : 2 @ A4
Substrate	**Date**
Integra Panel 50mm (20mm Cavity)	1 November 2017
Drawing Name	**Sheet**
Heatpump Penetration	10.12.25

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CONSENT PLANS

SHEET 21

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
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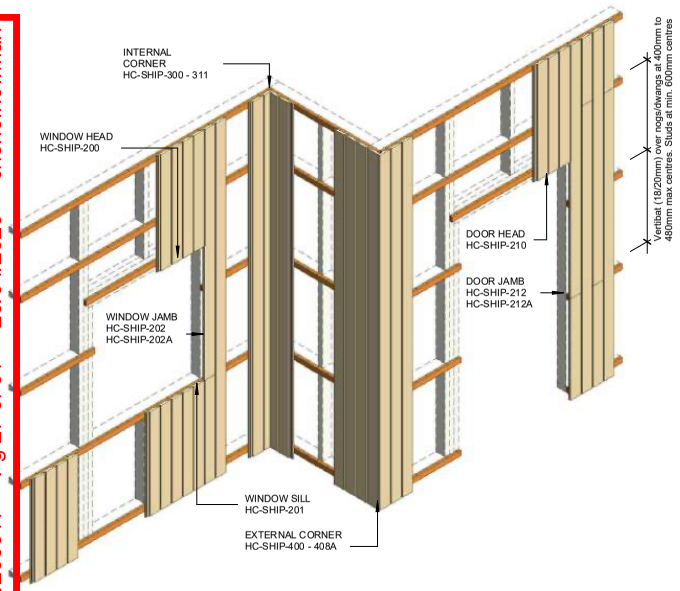

Refer HC-SHIP40 drawings if fixing using 40/45mm Vertibat Cavity Battens

Note:
Building Underlay and Flashings not shown for clarity.

Hermpac
hermpac.co.nz
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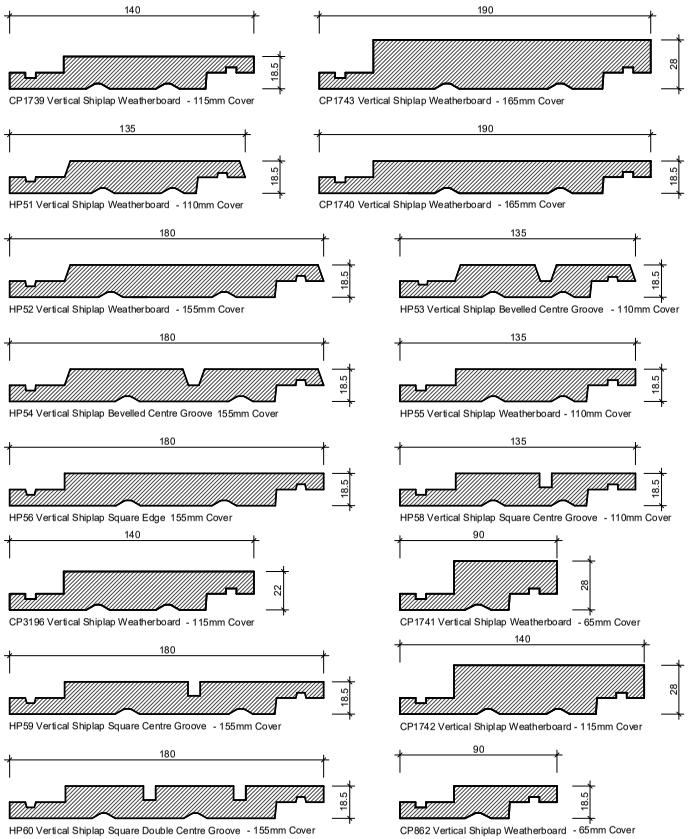
Cavity Fix Vertical Shiplap Weatherboard System
Isometric View

CodeMark CERTIFIED CMNZ30036

HC-SHIP-002 DRAWING	
1 : 25 @ A4 SCALE	2022 ISSUED DATE



NOTE:
Custom Hermpac Profiles Available
Paint Profiles (PQ) on request
Paint Quality (PQ) profiled boards are supplied dressed and sanded

Hermpac
hermpac.co.nz
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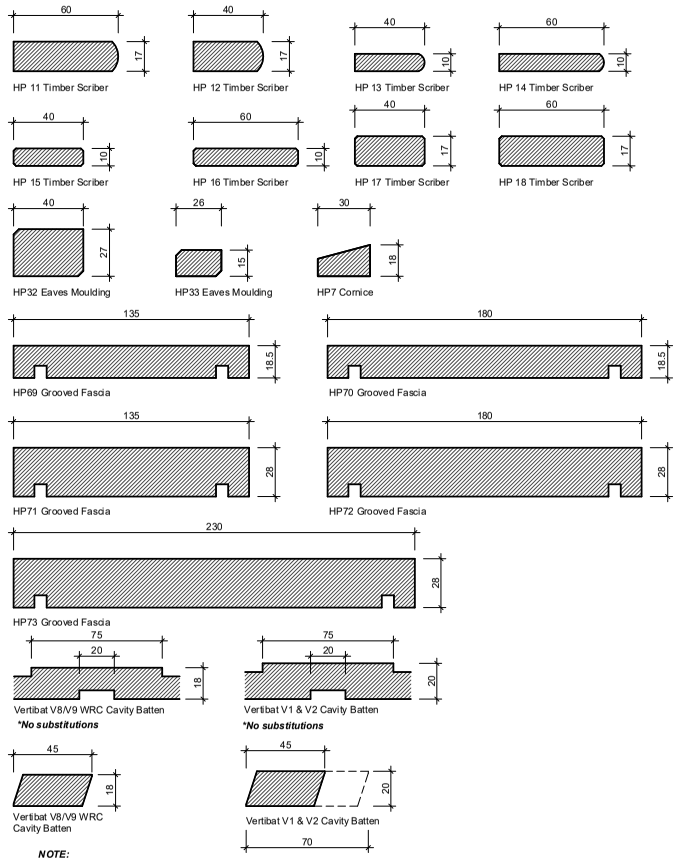
Cavity Fix Vertical Shiplap Weatherboard System
Vertical Shiplap Weatherboard System Profiles

CodeMark CERTIFIED CMNZ30036

HC-SHIP-100 DRAWING	
1 : 2 @ A4 SCALE	2022 ISSUED DATE



NOTE:
Custom Hermpac Profiles Available
Paint Profiles (PQ) on request
Paint Quality (PQ) profiled boards are supplied dressed and sanded

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Cavity Fix Vertical Shiplap Weatherboard System
Fascia, Scriber, Eaves & Vertibat Battens

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HC-SHIP-101 DRAWING	
1 : 2 @ A4 SCALE	2022 ISSUED DATE

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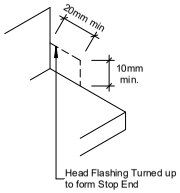
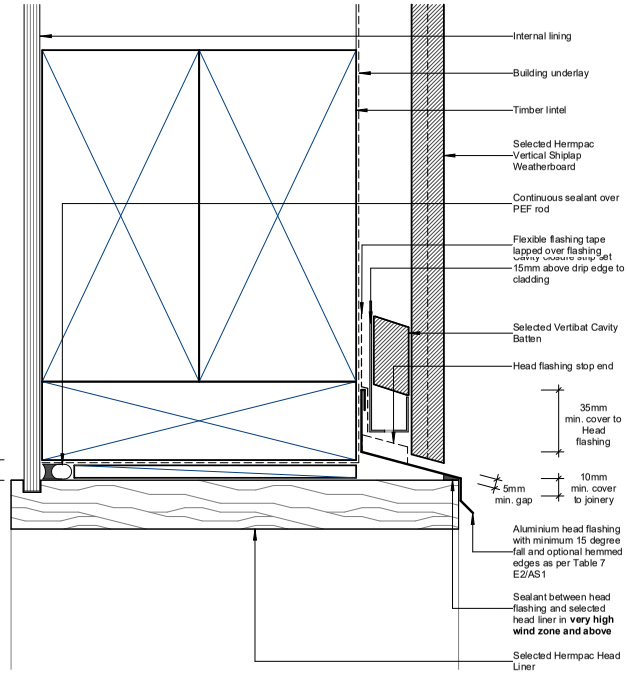
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 22
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 Pg 28 of 61 - 23/04/2026 - cherie.newman

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
- *All Hermpac timber products, cut ends and edges to be precoated as per Installation Specifications.*
- *All materials and fixtures are to comply with E2/AS1 Clause 2.2.*
- *For non-hemmed corner flashings, ensure a minimum 75mm cover to weatherboards beyond the point where BRANZ Bulletin 411 compliant weatherboard lap or rebate combinations terminate at the corner junction.*
- *In Extra High Wind Zone and above, the 75mm cover requirement remains and hemmed edges must also be used.*
- *Refer to NZBC Acceptable Solution E2/AS1 Table 21 for the separation requirements between CCA treated battens and metal flashings.*
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*





Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System
Garage Door Head Detail

CodeMark CERTIFIED CMNZ30036

HC-SHIP-220
DRAWING

1 : 2 @ A4	01/11/2021
SCALE	ISSUED DATE

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
- *All Hermpac timber products, cut ends and edges to be precoated as per Installation Specifications.*
- *All materials and fixtures are to comply with E2/AS1 Clause 2.2.*
- *For non-hemmed corner flashings, ensure a minimum 75mm cover to weatherboards beyond the point where BRANZ Bulletin 411 compliant weatherboard lap or rebate combinations terminate at the corner junction.*
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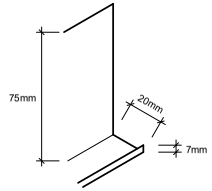
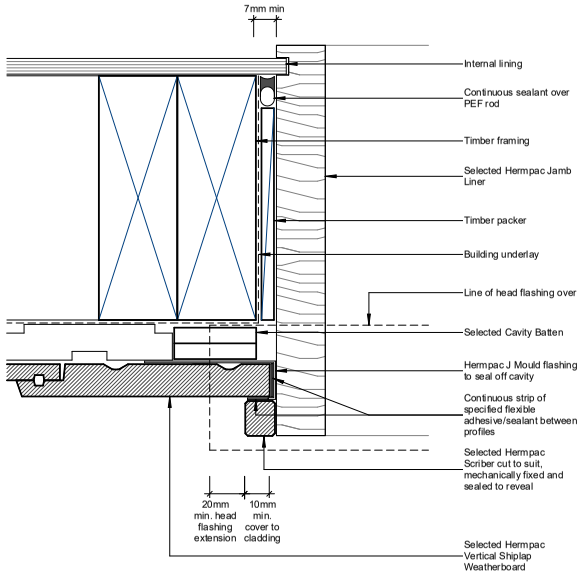
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*



Hermpac J Mould Flashing



Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System
Garage Door Jamb Detail

CodeMark CERTIFIED CMNZ30036

HC-SHIP-222A
DRAWING

1 : 2 @ A4	01/11/2021
SCALE	ISSUED DATE

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
- *All Hermpac timber products, cut ends and edges to be precoated as per Installation Specifications.*
- *All materials and fixtures are to comply with E2/AS1 Clause 2.2.*
- *For non-hemmed corner flashings, ensure a minimum 75mm cover to weatherboards beyond the point where BRANZ Bulletin 411 compliant weatherboard lap or rebate combinations terminate at the corner junction.*
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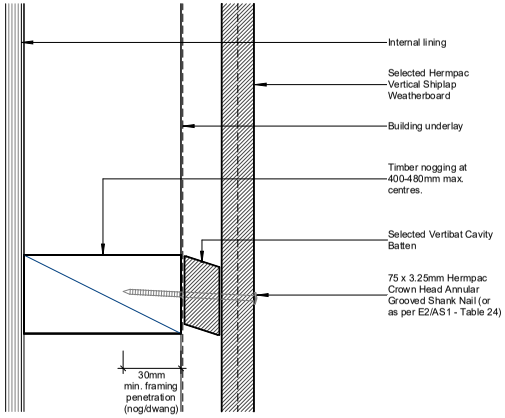
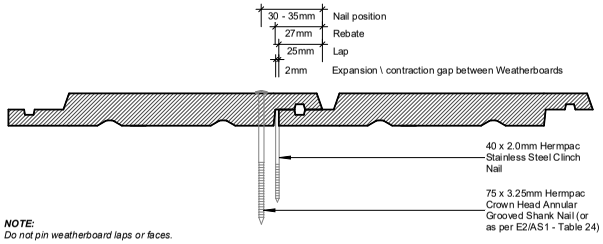
- *Refer to NZBC Acceptable Solution E2/AS1 Table 21 for the separation requirements between CCA treated battens and metal flashings.*
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*





NOTE:
Do not pin weatherboard laps or faces.

Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System
General Detail Cavity Fix, Stain Finish

CodeMark CERTIFIED CMNZ30036

HC-SHIP-410
DRAWING

1 : 2 @ A4	2022
SCALE	ISSUED DATE

Kelvin Boyd
Architectural Services Limited
196 Halkett Road, West Melton
Christchurch
PH: 0211790346
kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 23

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 29 of 61 - 23/04/2026 - cherie.newman

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
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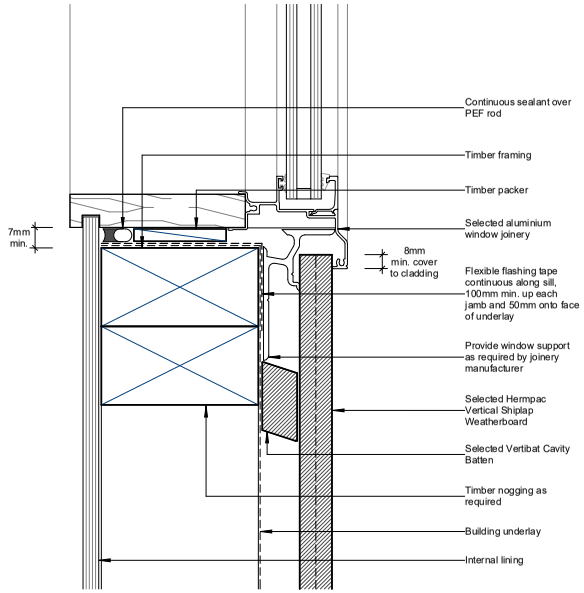
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*



Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System

Window Sill Detail, Aluminium Joinery

CodeMark CERTIFIED CMNZ30036

HC-SHIP-201
DRAWING

1 : 2 @ A4	2022
SCALE	ISSUED DATE

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
- *All Hermpac timber products, cut ends and edges to be precoated as per Installation Specifications.*
- *All materials and fixtures are to comply with E2/AS1 Clause 2.2.*
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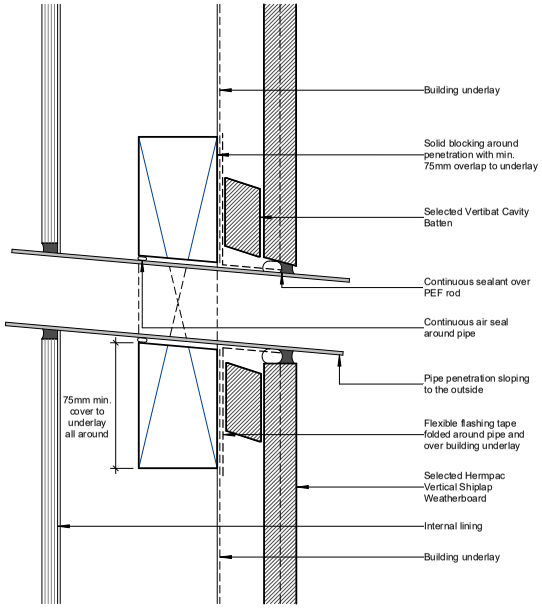
- *In Extra High Wind Zone and above, the 75mm cover requirement remains and hemmed edges must also be used.*
- *Refer to NZBC Acceptable Solution E2/AS1 Table 21 for the separation requirements between CCA treated battens and metal flashings.*
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*



Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System

Pipe Penetration Detail

CodeMark CERTIFIED CMNZ30036

HC-SHIP-801
DRAWING

1 : 2 @ A4	2022
SCALE	ISSUED DATE

NOTES:
- *All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.*
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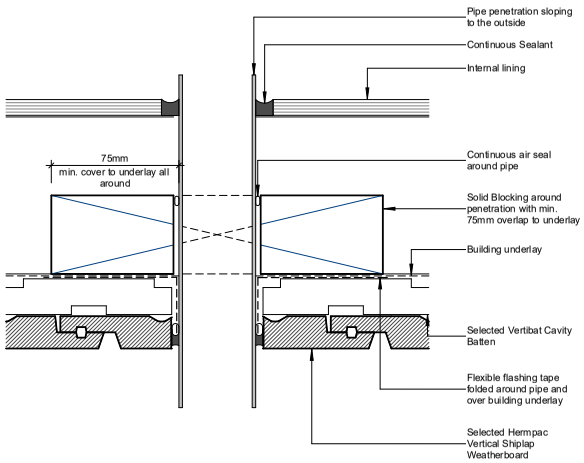


Hermpac
hermpac.co.nz
SUBJECT TO CHANGE WITHOUT NOTICE

Cavity Fix Vertical Shiplap Weatherboard System

Pipe Penetration Plan Detail

CodeMark CERTIFIED CMNZ30036

HC-SHIP-802
DRAWING

1 : 2 @ A4	2022
SCALE	ISSUED DATE

Kelvin Boyd
Architectural Services Limited
196 Halkett Road, West Melton
Christchurch
PH: 0211790346
kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 24

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 30 of 61 - 23/04/2026 3:00:00 pm

E2/AS1 Alternative solution

The 1x raking window head flashings are an alternative solution based on the principles of the standard window head detail from E2/AS1.

E2/AS1 only covers window head flashings that are level not raking

below is the Extract from E2/AS1:

9.1.10.4 Head flashings Head flashings shall be in accordance with Paragraph 4.6.1.6 and Table 7, unless specifically shown otherwise, and shall:

a) Direct water to the outside of the wall cladding, and

b) Finish to the window head with clearance dimensions shown in Figure 71

c) For direct fixed claddings, have 50 mm bead of sealant installed between cladding and each end of the head flashing

d) For wall claddings on cavity walls:

i) incorporate 10 mm turn-ups as stop ends, terminating at the inside face of the cladding so they do not pass through the cladding, and

ii) permit ventilation of the drained cavities above, by the installation of cavity base closers as shown in Figure 66.

The 1 raking head flashings are all under a wide soffit, resulting in the soffit provides some protected from some of the rain, with it being deflected, reducing the amount of rain that can runs down the head flashing

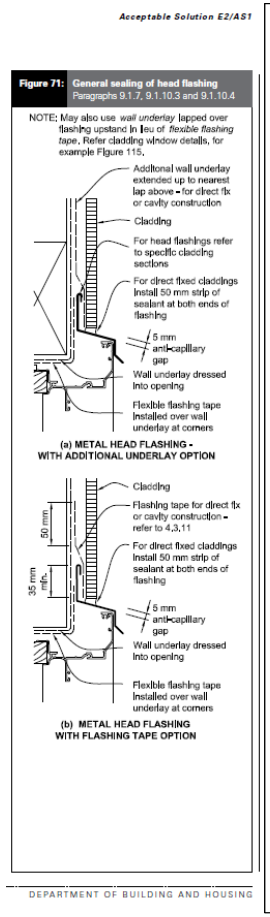
The site is located in a high wind zone, not very hight or extra high

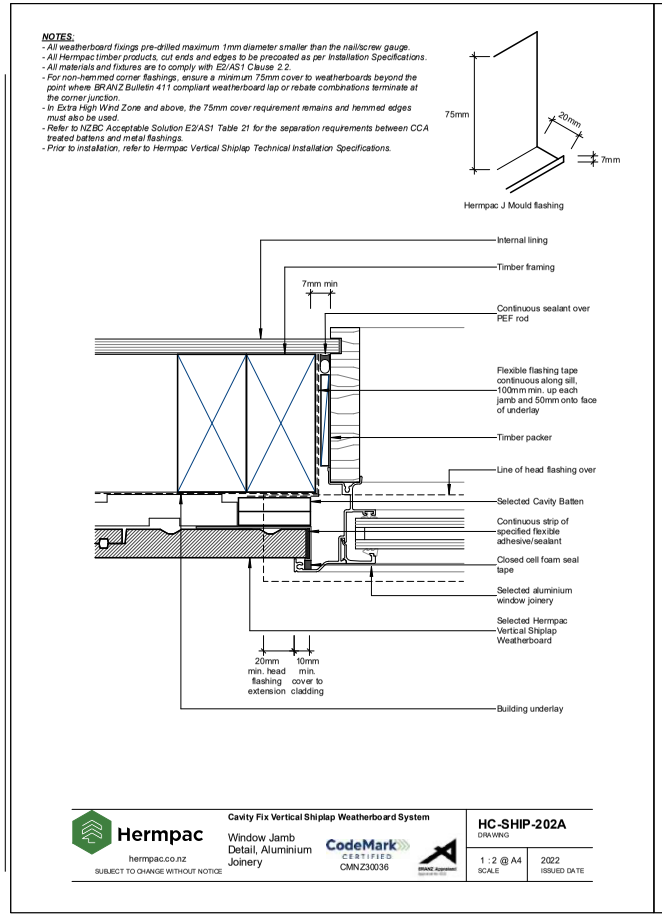
The vertical Cedar cladding is on a 20mm vented drained cavity, with cavity base closer, with all walls lined with ecoply barrier, with joints and junctions taped.

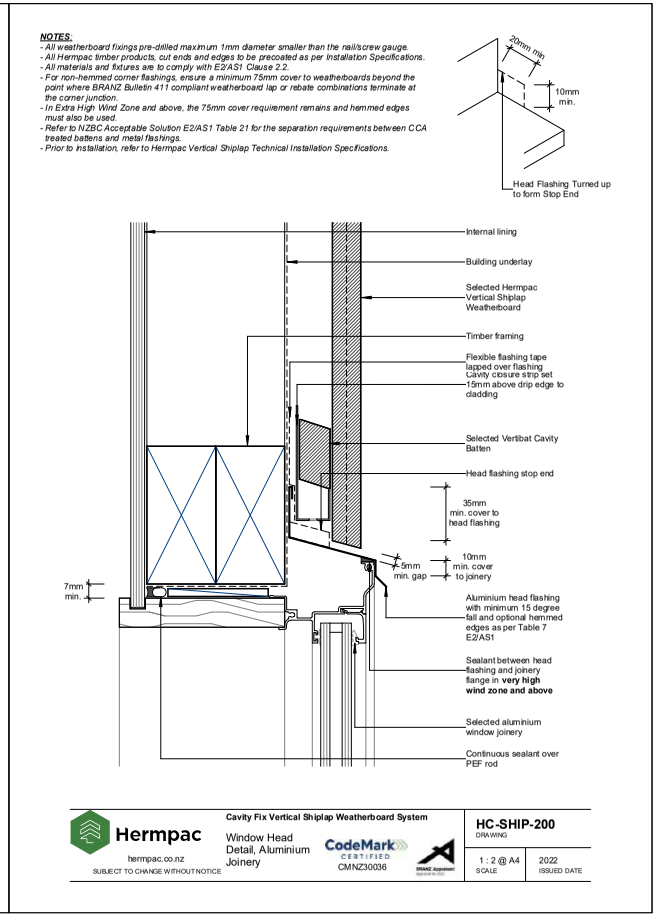
The head Flashing is to have a minimum 15° fall and a minimum 10mm overhang with the aluminium window face.

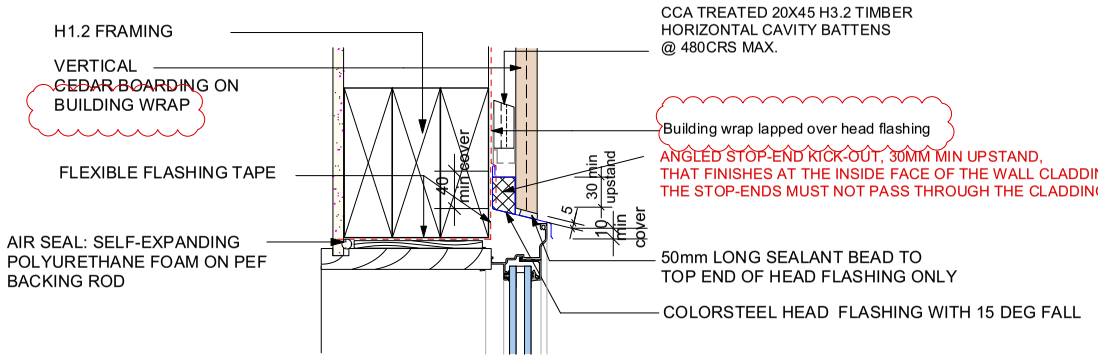
The head flashing continues past the edge of the window by 20mm

The angled stop-end kickout on the head flashing has a 30mm min upstand, that finishes at the inside face of the wall cladding. and does not pass through the cladding.









CEDAR RAKING WINDOW HEAD DETAIL

SCALE 1:5

NOTE

Metal Head Flashing supplied and installed by main contractor to extend past the line of the aluminium jamb by 20mm and be turned up at the ends by a minimum 30mm

Head flashing over lapped with Building Underlay by the main contractor/window installer using a tape that is compatable with the Building Underlay

Head Flashing to have a minimum 15° fall

Kelvin Boyd
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196 Halkett Road, West Melton
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PH: 0211790346
kabboyd@hotmail.com

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798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 25
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 31 of 61 - 23/04/2026 - cherie.newman

NOTES:
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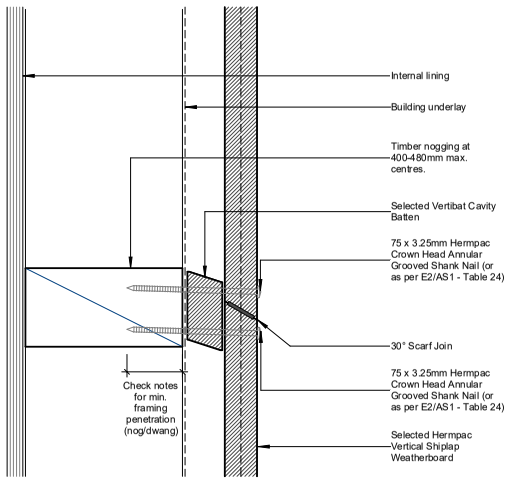
- *Prior to installation, refer to Hermpac Vertical Shiplap Technical Installation Specifications.*



NOTE:
1.) Cut ends of scarf join must be well sealed with specified end sealer.
2.) Fix weatherboards either side of the scarf join.
3.) Crown head nail - 30mm minimum framing penetration.
4.) Jolt Head nail - 35mm minimum framing penetration.
5.) Starcap screw - 21mm minimum framing penetration.

Hermpac hermpac.co.nz SUBJECT TO CHANGE WITHOUT NOTICE	**Cavity Fix Vertical Shiplap Weatherboard System** Scarf Join Stain Finish	CodeMark CERTIFIED CMNZ30036	**HC-SHIP-413** DRAWING
		1 : 2 @ A4 SCALE	2022 ISSUED DATE

NOTES:
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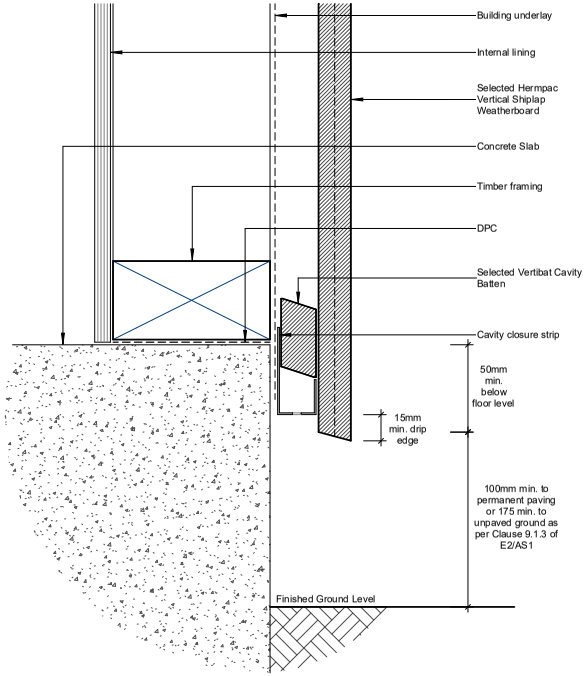

Hermpac hermpac.co.nz SUBJECT TO CHANGE WITHOUT NOTICE	**Cavity Fix Vertical Shiplap Weatherboard System** Base of Wall, Concrete	CodeMark CERTIFIED CMNZ30036	**HC-SHIP-500** DRAWING
		1 : 2 @ A4 SCALE	2022 ISSUED DATE

NOTES:
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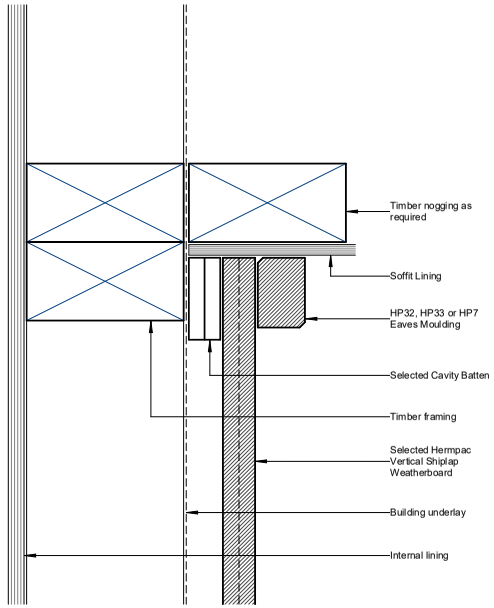

Hermpac hermpac.co.nz SUBJECT TO CHANGE WITHOUT NOTICE	**Cavity Fix Vertical Shiplap Weatherboard System** Soffit Detail, Overhang	CodeMark CERTIFIED CMNZ30036	**HC-SHIP-601** DRAWING
		1 : 2 @ A4 SCALE	01/11/2021 ISSUED DATE

Kelvin Boyd
Architectural Services Limited
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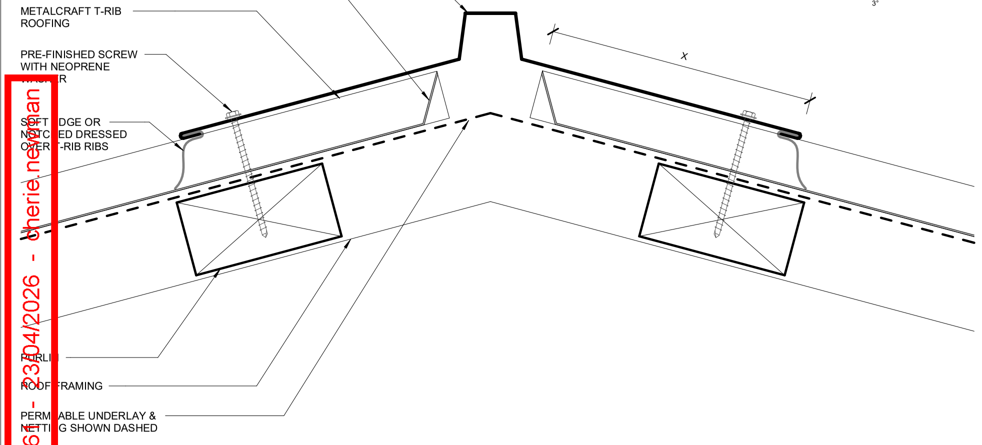
Christchurch
PH: 0211790346
kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 26
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

ROOF RIDGE

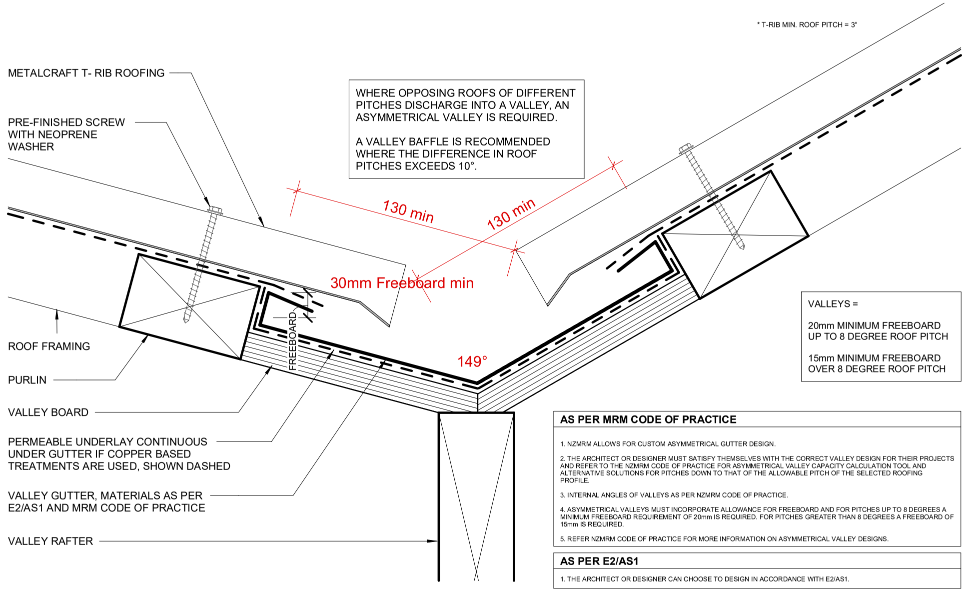


Metalcraft Roofing www.metalcraftgroup.co.nz

DISCLAIMER:
All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice and E2 and all other relevant building codes
Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

ROOF RIDGE
RESIDENTIAL ROOFING
T - Rib | Rev. 3.0
Reference RRTRI | Date SEP 2024 | Scale 1 : 2 | Sheet A 01 / 26

ASYMMETRICAL ROOF VALLEY



AS PER MRM CODE OF PRACTICE

1. NZMRM ALLOWS FOR CUSTOM ASYMMETRICAL GUTTER DESIGN.
2. THE ARCHITECT OR DESIGNER MUST SATISFY THEMSELVES WITH THE CORRECT VALLEY DESIGN FOR THEIR PROJECTS AND REFER TO THE NZMRM CODE OF PRACTICE FOR ASYMMETRICAL VALLEY CAPACITY CALCULATION TOOL AND ALTERNATIVE SOLUTIONS FOR PITCHES DOWN TO THAT OF THE ALLOWABLE PITCH OF THE SELECTED ROOFING PROFILE.
3. INTERNAL ANGLES OF VALLEYS AS PER NZMRM CODE OF PRACTICE.
4. ASYMMETRICAL VALLEYS MUST INCORPORATE ALLOWANCE FOR FREEBOARD AND FOR PITCHES UP TO 8 DEGREES A MINIMUM FREEBOARD REQUIREMENT OF 20mm IS REQUIRED. FOR PITCHES GREATER THAN 8 DEGREES A FREEBOARD OF 15mm IS REQUIRED.
5. REFER NZMRM CODE OF PRACTICE FOR MORE INFORMATION ON ASYMMETRICAL VALLEY DESIGNS.

AS PER E2/AS1

1. THE ARCHITECT OR DESIGNER CAN CHOOSE TO DESIGN IN ACCORDANCE WITH E2/AS1.

Metalcraft Roofing www.metalcraftgroup.co.nz

DISCLAIMER:
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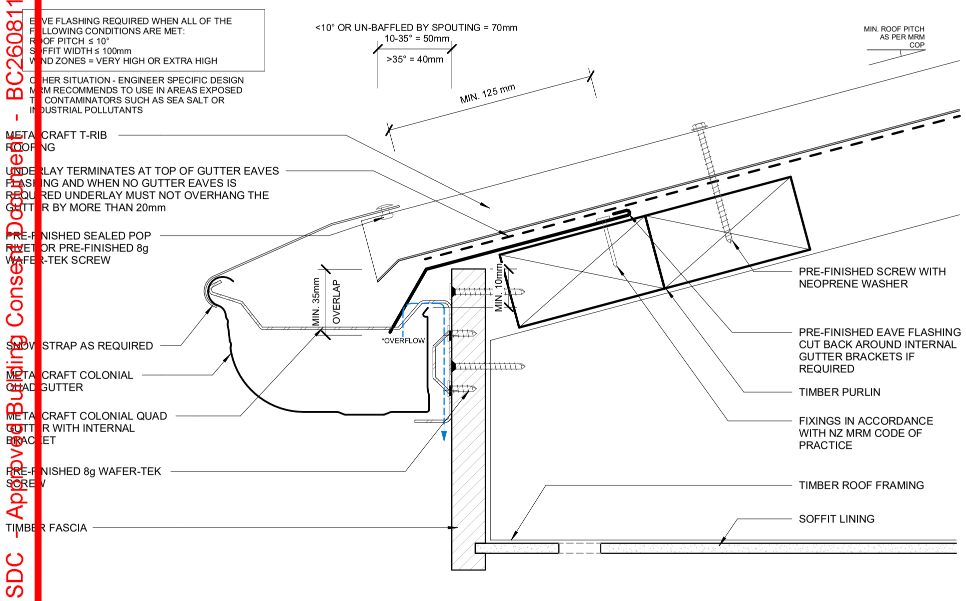
ASYMMETRICAL ROOF VALLEY
RESIDENTIAL ROOFING
T - Rib | Rev. 3.0
Reference RRTRI | Date SEP 2024 | Scale 1 : 2 | Sheet A 06 / 26

EAVE WITH SNOW STRAP



Metalcraft Roofing www.metalcraftgroup.co.nz

DISCLAIMER:
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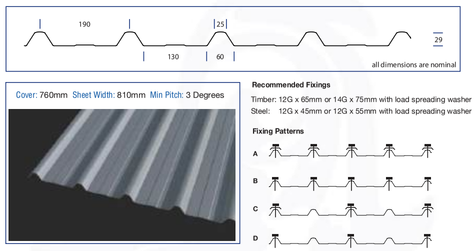
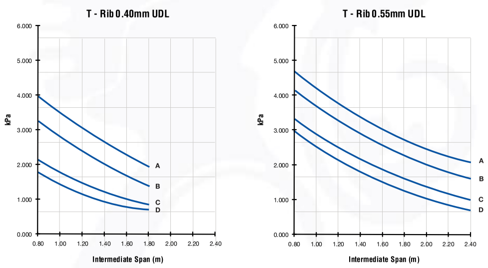
EAVE WITH SNOW STRAP
RESIDENTIAL ROOFING
T - Rib | Rev. 3.0
Reference RRTRI | Date SEP 2024 | Scale 1 : 2 | Sheet A 12 / 26

T-Rib

Metalcraft ROOFING
0800 ROOFNZ (0800 766369)
Issue Date August 2008

T-Rib is a popular and versatile 5 Rib trapezoidal roofing profile that can be used in commercial and residential applications as a roof or wall cladding solution. T-Rib offers the value of Corrugate whilst being able, by design, to achieve roof pitches down to 3 degrees and is available in Zincalume, Galvsteel, Colorsteel Endura and Colorsteel Maxx.





Note: The intermediate spans shown in the graphs above are based on G550 Steel as the base metal. To calculate end spans please multiply the intermediate span calculated by 0.66. Spans are based on restricted access. For alternative metals please contact your local Metalcraft branch.

Manufacturing Locations Christchurch, Cromwell, Palmerston North, Whangarei

T-Rib is available for purchase from all Metalcraft branch locations

www.metalcraftroofing.co.nz

NZ Metal Roof and Wall Cladding Code of Practice

5.5.7 Valley Capacity Calculator

Calculation Date: 27/02/2026, 10:57:12 am – https://www.metalroofing.org.nz/cop

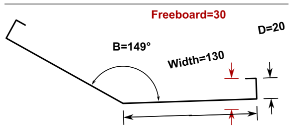
Project Name
4 Corravally Rise, West Melton

Site Address
4 Corravally Rise, West Melton

Note that this site address is used only for convenience if printing calculations to attach to documentation.
*This address is **not** factored into calculations - you must determine intensity from Rainfall Intensity Maps or NIWA's HIRDS tool.*
The address is not recorded or shared with any other parties.

Rainfall Intensity (10 Min Duration, **10 Year** Return Period): 100 mm/hr
Rainfall Intensity (10 Min Duration, **50 Year** Return Period): 100 mm/hr
Select the appropriate Intensity from the Rainfall Intensity Maps, or use the Hirds-tool from NIWA.
Short-Term Intensity Multiplication Factor: 3.1
Minimum 3.1 for current selections
Main Roof Pitch: 30 °
Minimum 0° for valleys (metal roofs min 3°)
Secondary Roof Pitch: 8 °
Minimum 0° for valleys (metal roofs min 3°)

Enter Valley Dimensions



Valley Width (Each Side): 130 mm
Valley Upstand: 20 mm
Freeboard: 30 mm
Minimum 20 for current selections

Illustration is for explanatory purposes only.

Unable to calculate result - Please check values!

Conditions and assumptions for valleys:
1. Mannings n assumed to be 0.014 to represent long term friction conditions
2. Minimum height of Type A valley returns to be 16 mm
3. Minimum freeboard of 20mm mm for valleys below 8°
4. Minimum freeboard of 15mm for valleys 8° and steeper

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kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SHEET 27
REVISION NO.	REV. 21 APRIL 2026		SERIES OF
			REF

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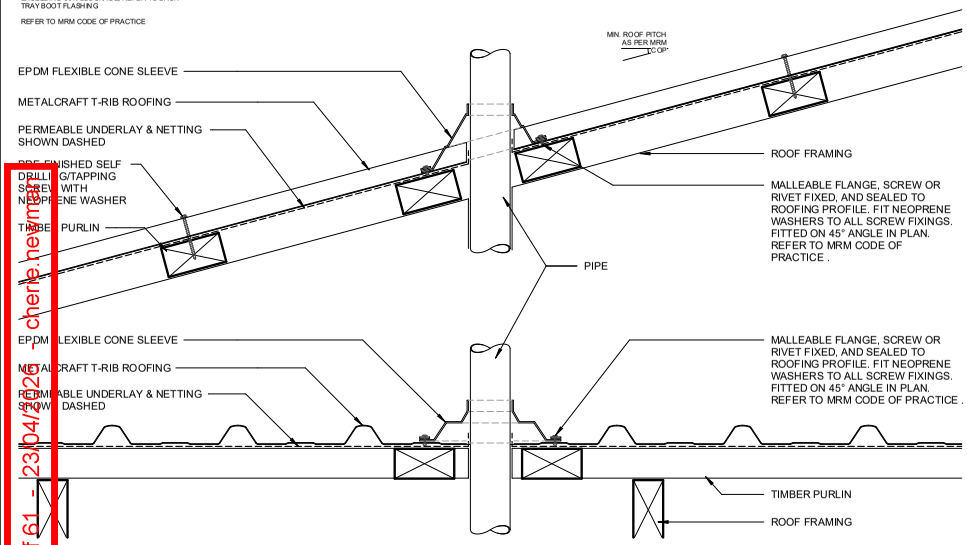
SDC - Approved Building Consent Document - BC260831 - Pg 35 of 61 - 23/04/2026 - cherie.hemmes

* MIN. 10° FOR PIPE PENETRATION. DIRECT FIX BOOT FLASHING IS APPLICABLE FOR WHEN LESS THAN 50% BLOCKAGE OCCURS. WHEN EXCEEDING 50% BLOCKAGE, REFER TO BACK TRAY BOOT FLASHING

REFER TO MRM CODE OF PRACTICE

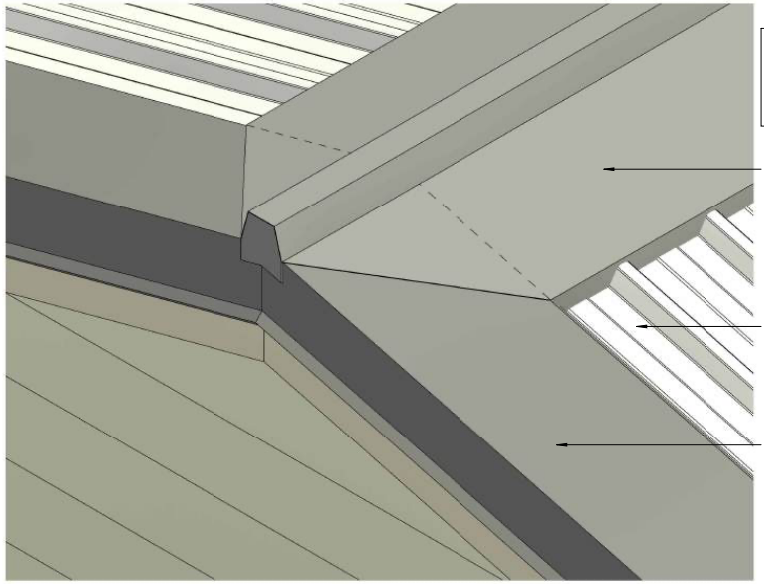


Metalcraft Roofing
www.metalcraftgroup.co.nz

DISCLAIMER:
All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice and E2 and all other relevant building codes
Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

PIPE PENETRATION DIRECT FIXED BOOT FLASHING

T - Rib | Rev. 3.0 | RESIDENTIAL ROOFING
Reference RRTRI | Date SEP 2024 | Scale 1 : 5 | Sheet **A 18 / 26**



* PLEASE REFER TO MRM CODE OF PRACTICE AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.

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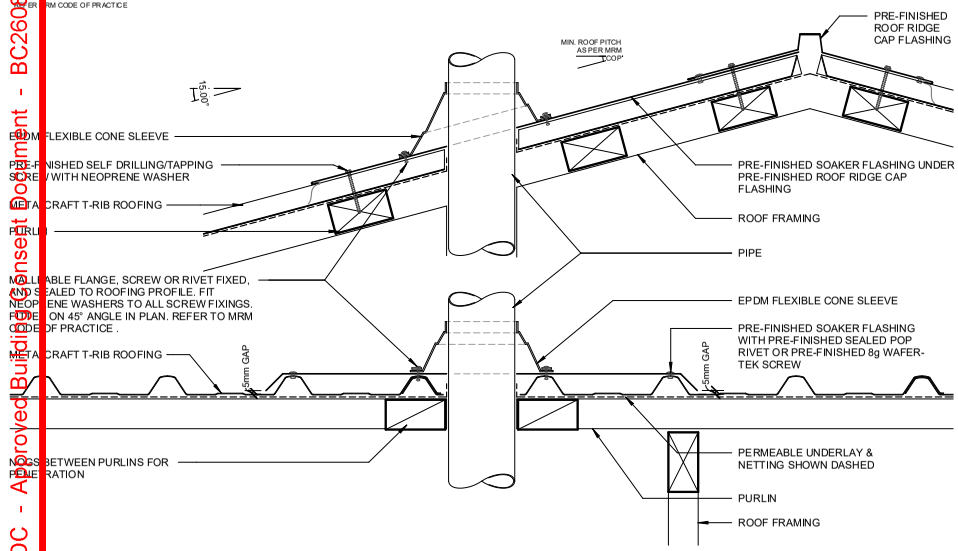
3D RIDGE TO BARGE JUNCTION

T - Rib | Rev. 3.0 | RESIDENTIAL ROOFING
Reference RRTRI | Date SEP 2024 | Scale | Sheet **A 20 / 26**

* MIN. 30° FOR PIPE PENETRATION WITH A BACK TRAY BOOT FLASHING.

REFER MRM CODE OF PRACTICE



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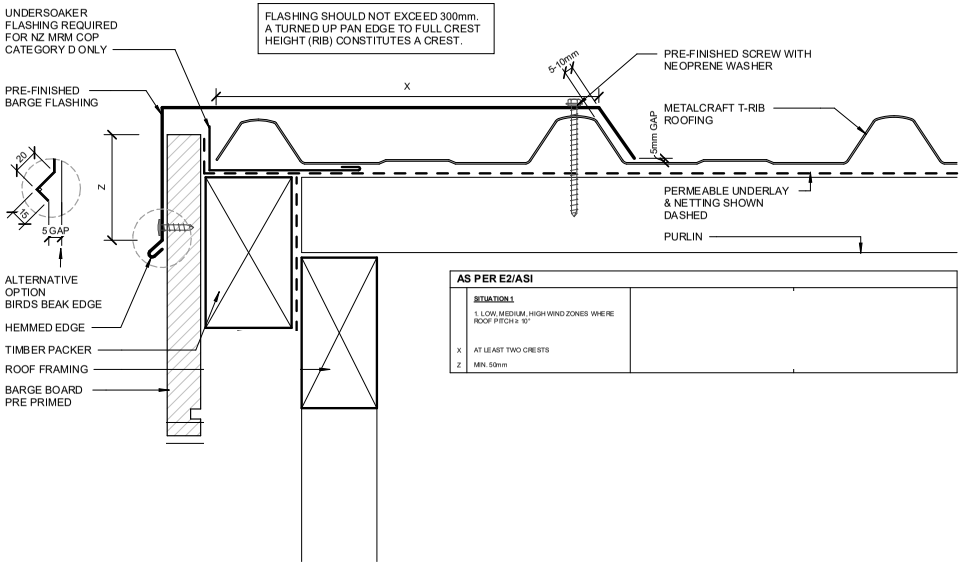
PIPE PENETRATION BACK TRAY BOOT FLASHING

T - Rib | Rev. 3.0 | RESIDENTIAL ROOFING
Reference RRTRI | Date SEP 2024 | Scale 1 : 5 | Sheet **A 19 / 26**



FLASHING SHOULD NOT EXCEED 300mm. A TURNED UP PAN EDGE TO FULL CREST HEIGHT (RIB) CONSTITUTES A CREST.

AS PER E2/ASI	
SITUATION 1 1. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH ≥ 10°	
X AT LEAST TWO CRESTS	
Z MIN. 50mm	

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BARGE WITH NO SOFFIT

T - Rib | Rev. 3.0 | RESIDENTIAL ROOFING
Reference RRTRI | Date SEP 2024 | Scale 1 : 2 | Sheet **A 13 / 26**

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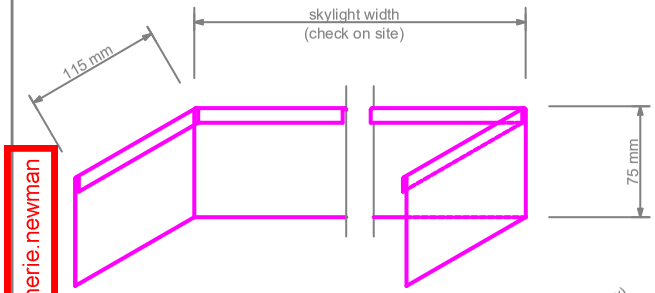
PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

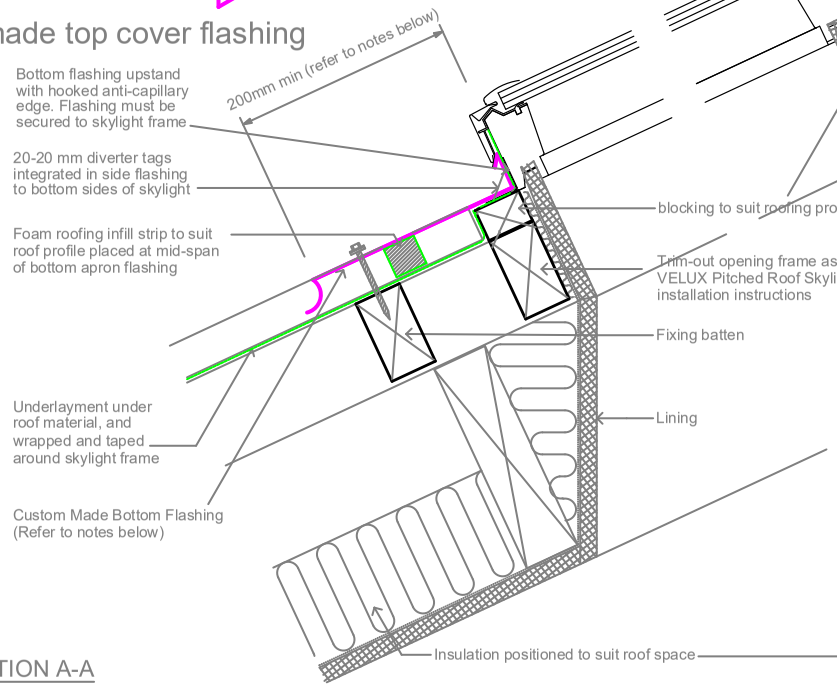
SHEET 28

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

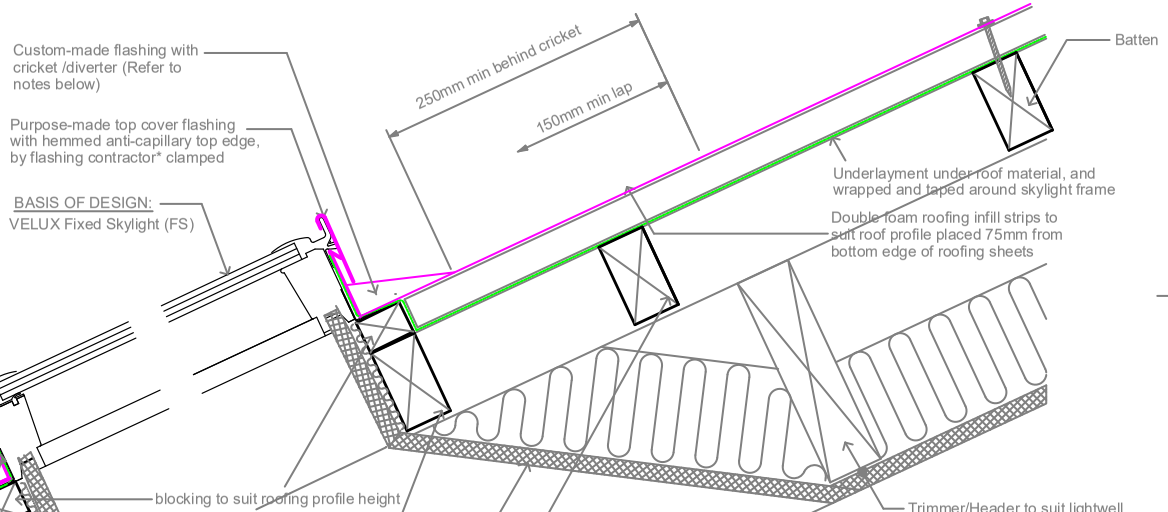
THIS DETAIL APPLIES TO METAL TRAPEZOID AND TROUGH ROOF PROFILES WITH ROOFPITCHES BETWEEN 15 AND 60 DEGREES.

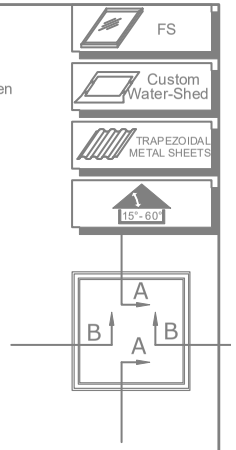


Purpose-made top cover flashing

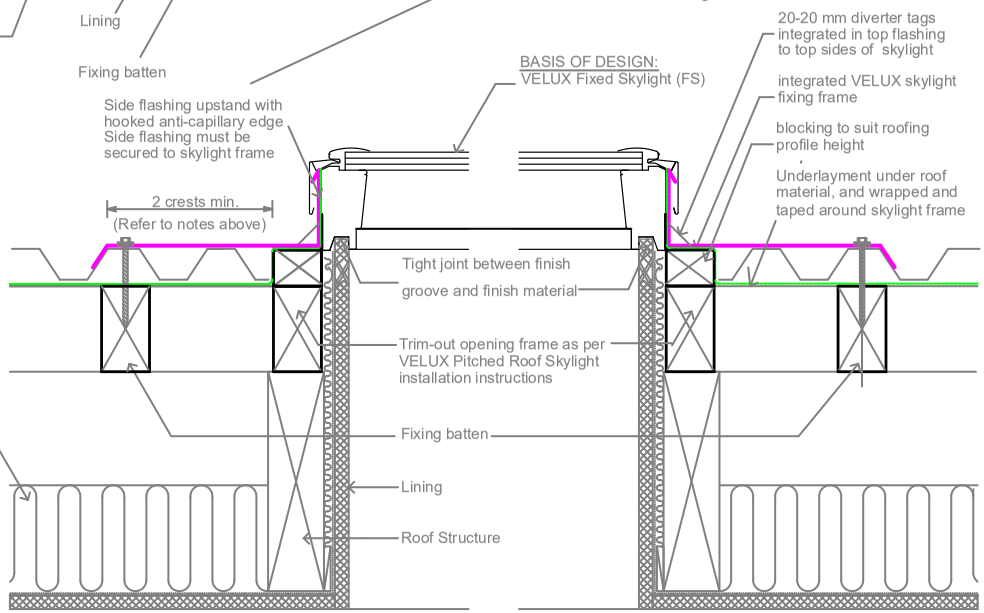


SECTION A-A





ELEVATION



SECTION B-B

BRANZ APPRAISED CUSTOM WATER-SHED FLASHING

This detail applies to all metal profile roofs with roofpitches between 15 and 60 degrees.

No cricket or diverter required when skylight is less than 600mm wide, and catchment less than 40 sqm.

Custom flashings must be designed to meet the requirements set out in the latest version of the New Zealand Metal Roof and Wall Cladding Code of Practice, and shall be manufactured and installed by a specialist flashing contractor to the latest trade practices.

For roofs with roof pitches less than 15 degrees, the VELUX Skylight must be installed to a min.15 degrees.

The flashing and installation must be guaranteed against weathertightness by the specialist flashing contractor.

Insulation material meeting the requirements of NZBC/H1 is required in the cavities of the lightwell structure.

VELUX NEW ZEALAND LTD.
Sky-Product Management
0800 650 445

	Name	Date
Drawn by		Mar 19
Checked by		Mar 19
Drawing No.		

VELUX FS Fixed skylight with custom-made water-shed flashing for Trapezoid and Trough Metal Roofs with roof pitch 15-60 degrees

® VELUX is a registered trademark

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 29

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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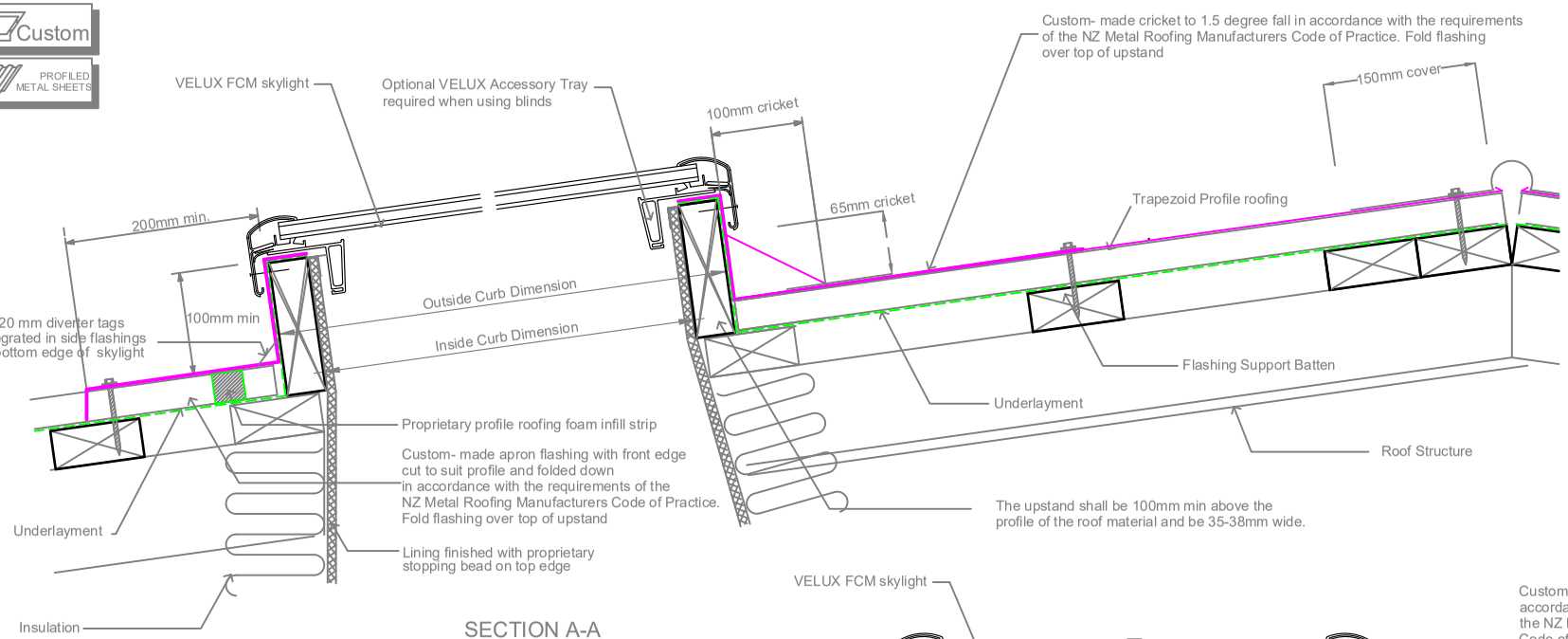
FCM

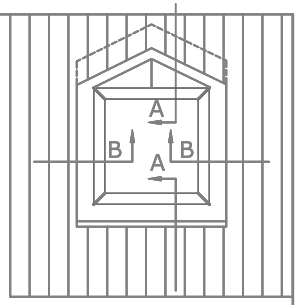
Custom

PROFILED METAL SHEETS

THIS DETAIL APPLIES TO METAL TRAPEZOID AND TROUGH ROOF PROFILES WITH ROOFPITCHES BETWEEN 3 AND 60 DEGREES.



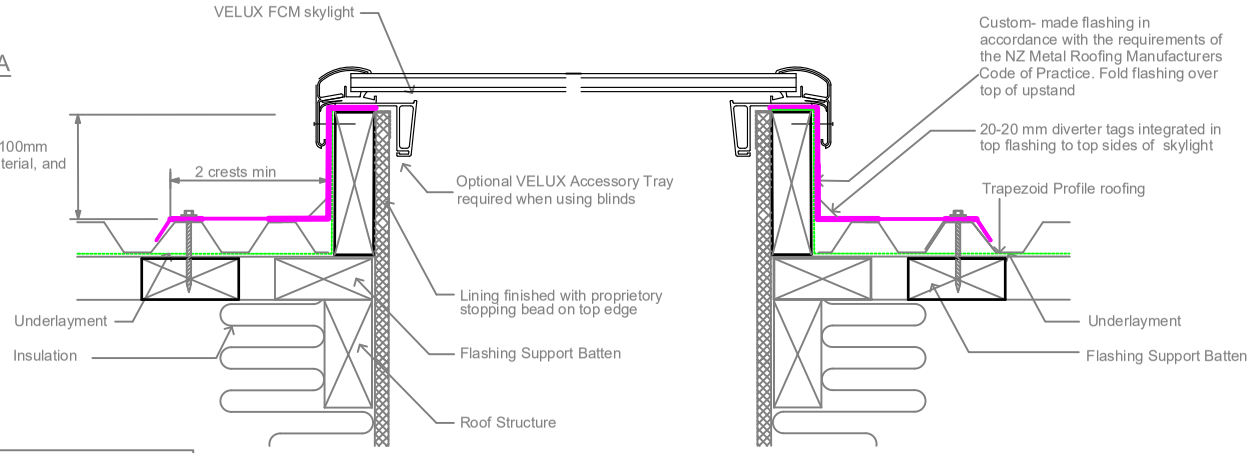
SECTION A-A



ELEVATION

Custom-made flashing in accordance with New Zealand Metal Roofing Manufacturers Code of Practice. Ensure all flashings meet the requirements for your projects' location.

Please note:
Below 15 degrees:- Any condensation that forms on the glass due to high humidity may drip



SECTION B-B

BRANZ APPRAISED CUSTOM WATER-SHED FLASHING

No cricket or diverter required when skylight is less than 600mm wide, and catchment less than 40 sqm.

Custom flashings must be designed to meet the requirements set out in the latest version of the New Zealand Metal Roof and Wall Cladding Code of Practice, and shall be manufactured and installed by a specialist flashing contractor to the latest trade practices.

The flashing and installation must be guaranteed against weathertightness by the specialist flashing contractor.

Insulation material meeting the requirements of NZBC/H1 is required in the cavities of the lightwell structure.

VELUX
Sky-Product Management

NEW ZEALAND LTD.
0800 650 445

VELUX Low Pitch Fixed Skylight in Trapezoidal Steel Roof with metal water-shed flashing (3-60 degrees)

	Name	Date
Drawn by		Feb 19
Checked by		Feb 19
Drawing No.		

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS

SHEET 30

DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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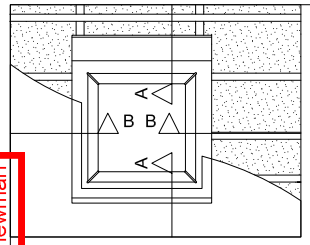
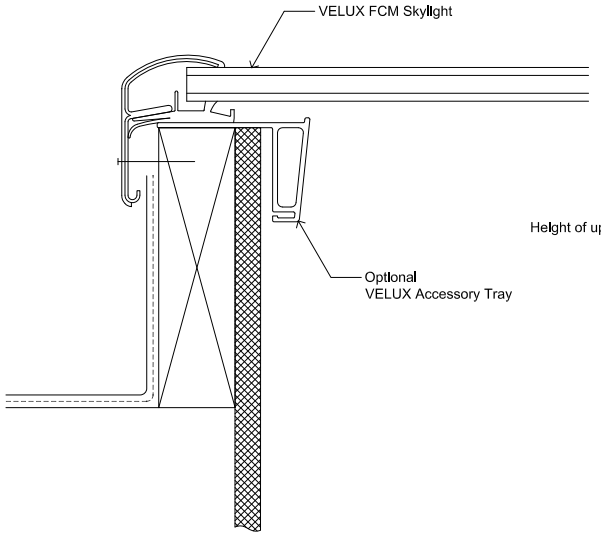


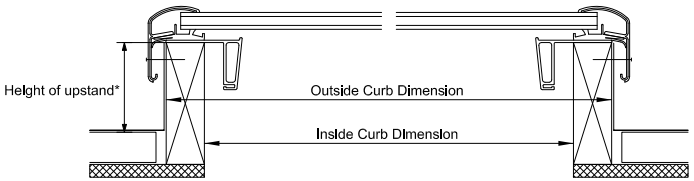
Please note:
Below 15 degrees:
- Any condensation that forms on the glass due to high humidity may drip
- Standing water and dirt left on the glass over time may cause smudging and corrosion on the glass

FCM

0°-60°

ELEVATION





VELUX FCM skylight at 0 degrees minimum pitch with purpose-made flashing to suit roofing material

SECTION B-B

* The upstand shall be the greater of 110 mm or the minimum requirements as set out in the Approved Document for New Zealand Building Code - External Moisture, clause E2

All flashing for FCM skylight are to be purpose-made to suit the roofing material, and subject to Approved Document for NZ Building Code - External Moisture, clause E2

PRODUCT DIMENSIONS METRIC UNITS (MILLIMETERS)		
SIZE	OUTSIDE CURB DIMENSION	INSIDE CURB DIMENSION
2222	648 x 648	572 x 572
2246	648 x 1257	572 x 1181
2270	648 x 1867	572 x 1791
3030	851 x 851	775 x 775
3434	952 x 952	876 x 876
4646	1257 x 1257	1181 x 1181

VELUX
Sky-Product Management

NEW ZEALAND LTD.
0800 650 445

FCM Skylight general installation details

	Name	Date
Drawn by		May 12
Checked by		May 12
Drawing No.		

This drawing is an instrument of service and is provided for informational use only.
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kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET 31
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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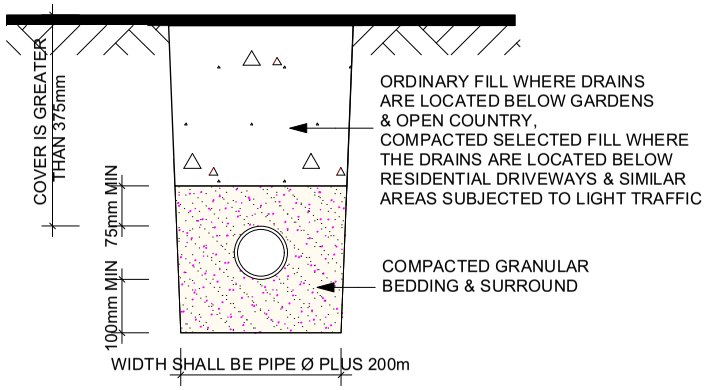
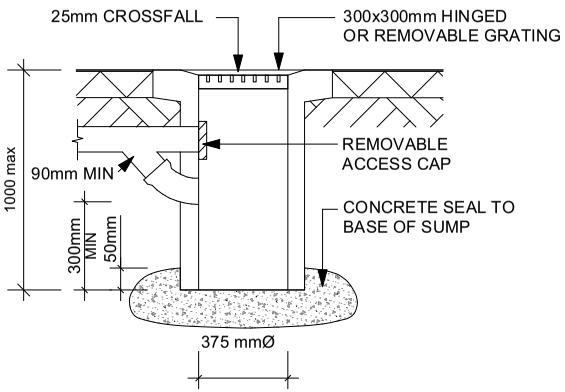
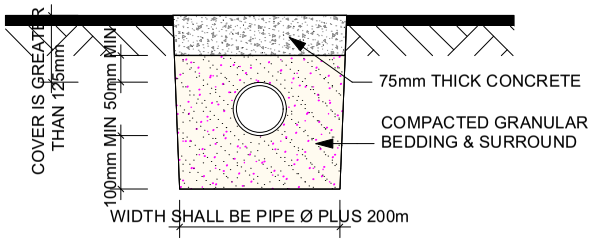


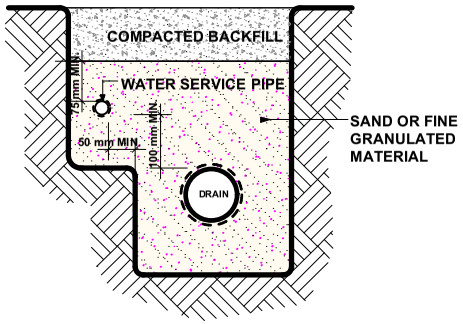
COVER GREATER THAN 375mm



TYPE-ONE SURFACE WATER SUMP

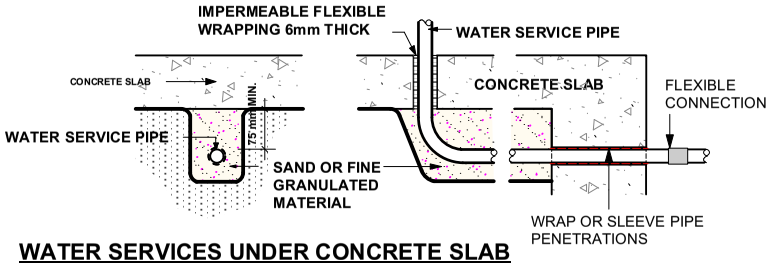


COVER GREATER THAN 125mm



SHARED TRENCH FOR WATER SERVICE PIPE AND DRAIN

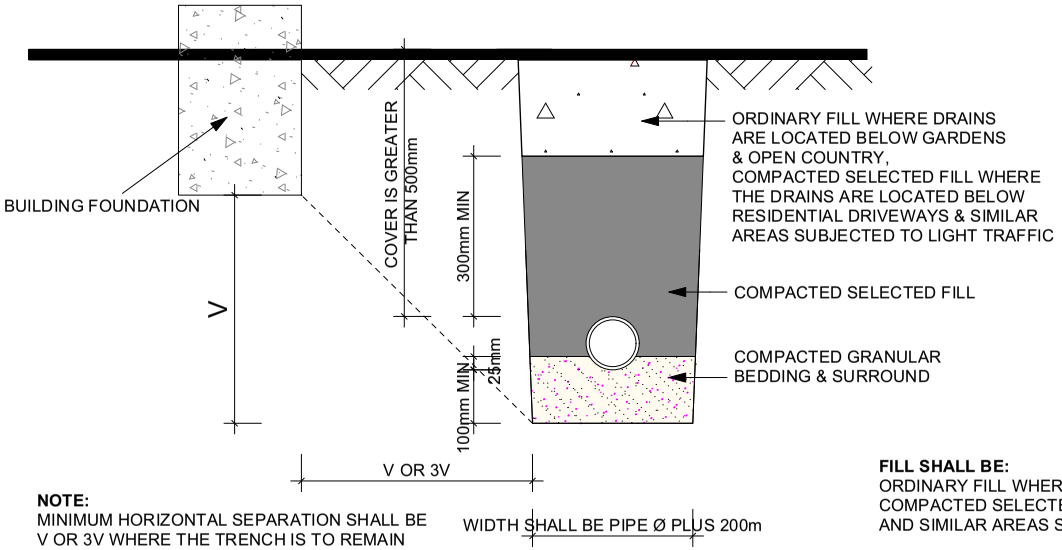
SCALE 1:5



WATER SERVICES UNDER CONCRETE SLAB

SCALE 1:5

NOTE: PIPES UNDER SLABS SHOULD BE DUCTED OR SLEEVED TO ALLOW FOR DETECTION OF LEAKS AND FOR REPAIR OR REPLACEMENT.



NOTE:
MINIMUM HORIZONTAL SEPARATION SHALL BE V OR 3V WHERE THE TRENCH IS TO REMAIN OPEN FOR PERIODS LONGER THAN 48 HOURS

FILL SHALL BE:
ORDINARY FILL WHERE DRAINS ARE LOCATED BELOW GARDENS AND OPEN COUNTRY.
COMPACTED SELECTED FILL WHERE THE DRAINS ARE LOCATED BELOW RESIDENTIAL DRIVEWAYS AND SIMILAR AREAS SUBJECTED TO LIGHT TRAFFIC.

COVER GREATER THAN 500mm

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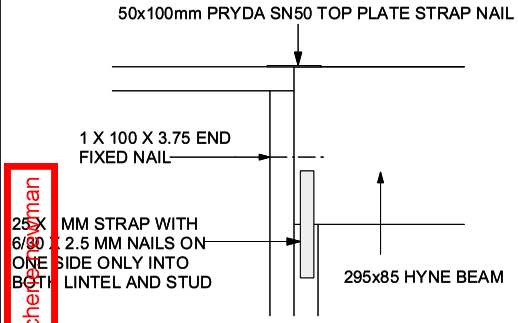
PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD1
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

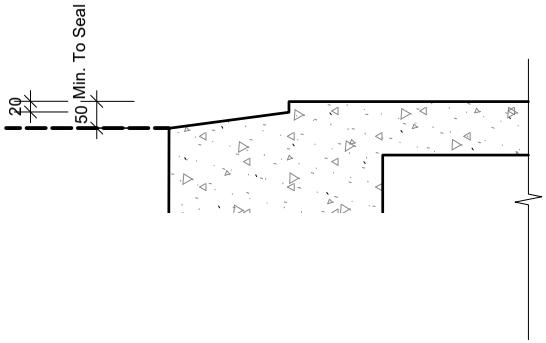


FIXING OF LINTELS TO PREVENT UPLIFT.

SCALE 1:10

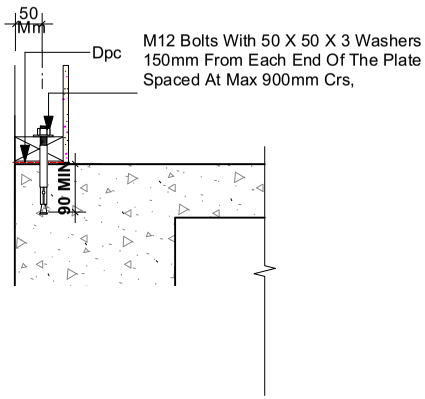
PURLIN FIXINGS (ON THEIR FLAT) FOR LIGHT ROOF ALL WIND ZONES

SCALE 1:10



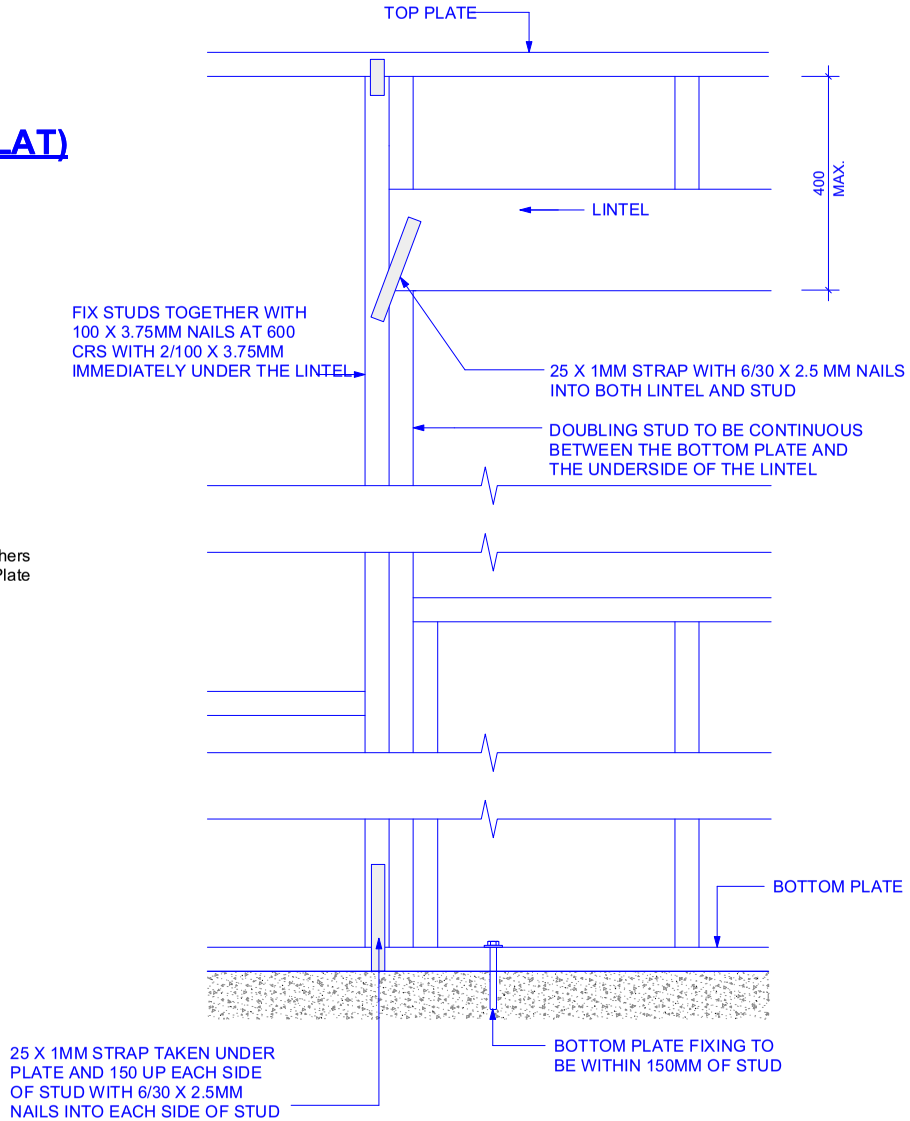
GARAGE DOOR FOUNDATION DETAIL

SCALE 1:10



BOTTOM PLATE FIXING

Scale 1:10



FIXING OF LINTEL TO PREVENT UPLIFT.

SCALE 1:10

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kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
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CONSENT PLANS			SHEET AD2
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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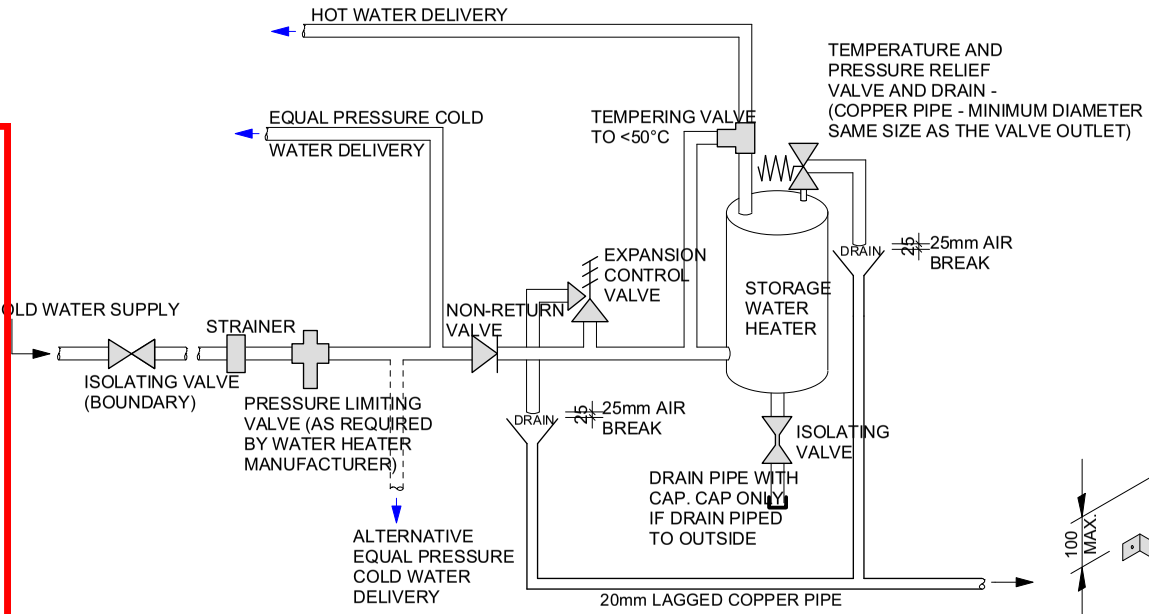
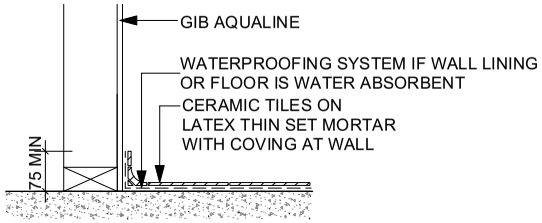
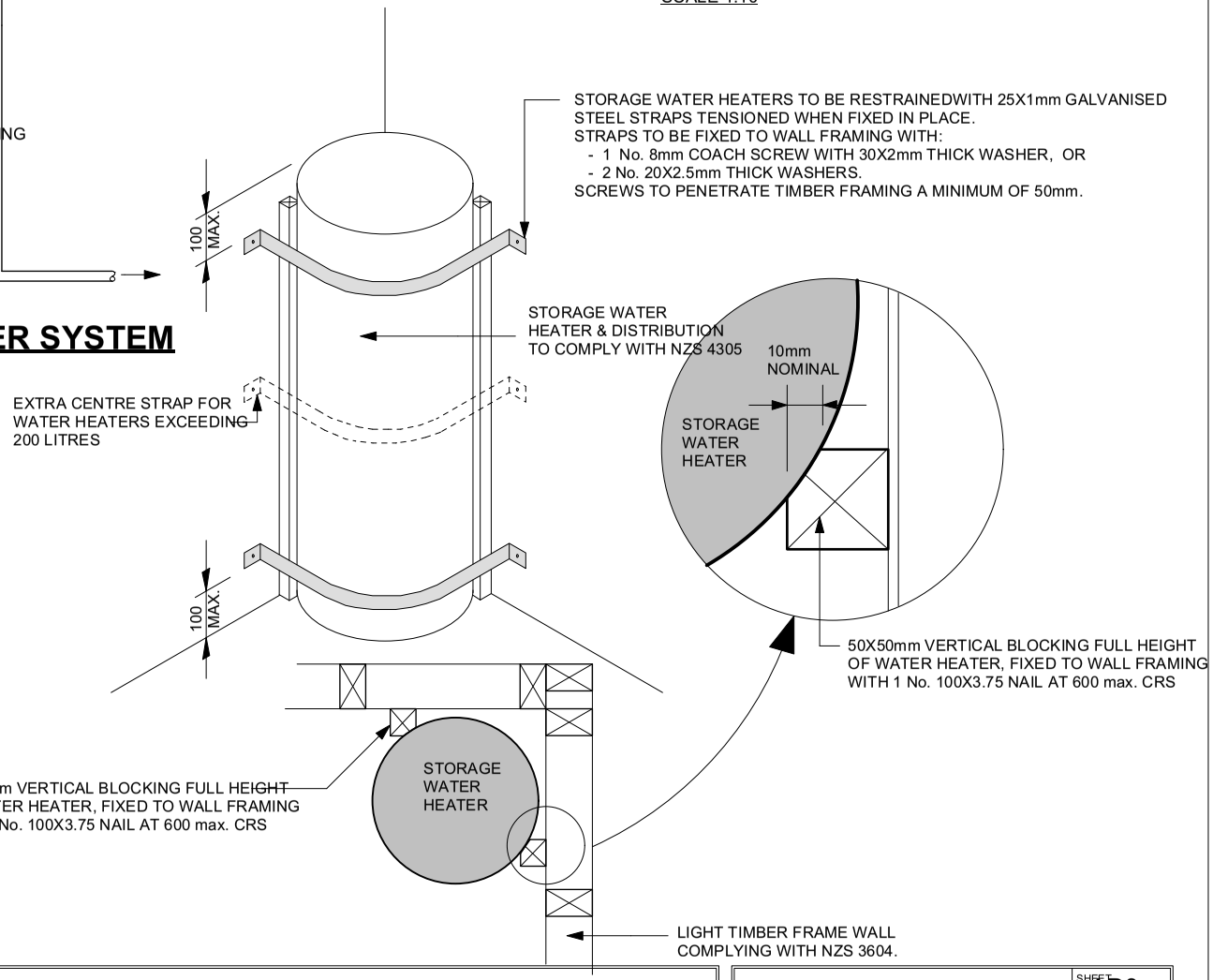


MAINS PRESSURE STORAGE WATER HEATER SYSTEM



WET AREA TILE FLOOR WALL DETAIL

SCALE 1:10



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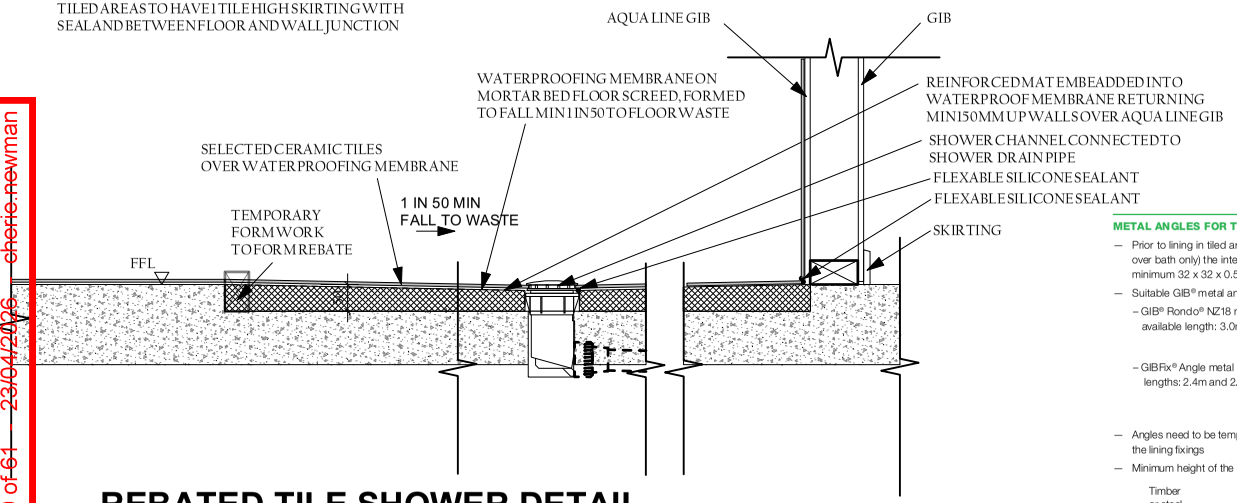
PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD3
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

NOTE
TANK ENTIRE TILED SHOWER WELL TO THE HEIGHT OF 1800MM AND 300MM ABOVE SHOWER HEAD WHICH EVER IS GREATER AND 1500MM HORIZONTAL RADIUS FROM THE SHOWER ROSE
TILED AREAS TO HAVE 1 TILE HIGH SKIRTING WITH SEAL AND BETWEEN FLOOR AND WALL JUNCTION

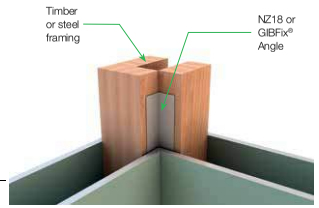


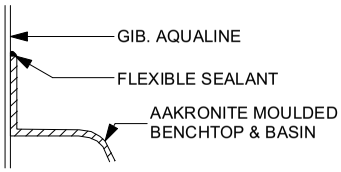
REBATED TILE SHOWER DETAIL

SCALE 1: 10

METAL ANGLES FOR TILED INTERNAL CORNERS

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





BASIN/VANITY JUNCTION DETAIL

SCALE 1:10

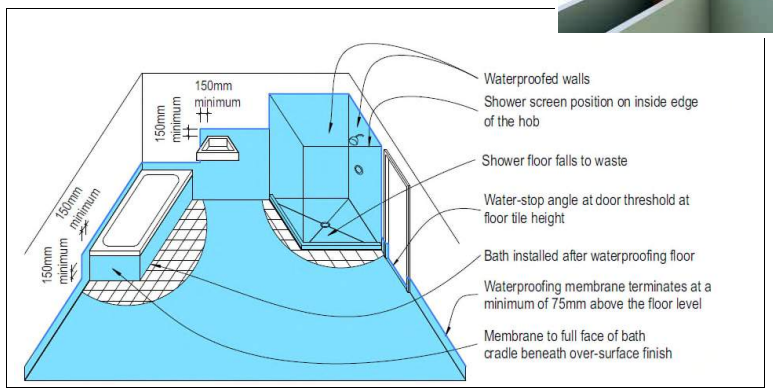


Figure 10: Typical extent of membrane in bathroom with hob to shower area

Notes:

1. Shower area shown with waterproof membrane system to provide waterproofing to floor and walls, and with rigid screen and door. Refer to Fig 10 (p33) for other options which affect the extent of membrane to shower floor, and to walls around and adjacent to the shower area.

(notes continued on next page)

2. Built-in bath shown. For both built-in and freestanding baths, the waterproof membrane system must extend under bath and up the wall(s) behind.

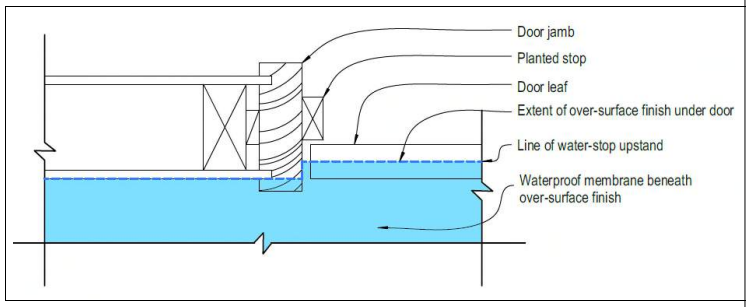


Figure 18: Plan view of water-stop under door jamb

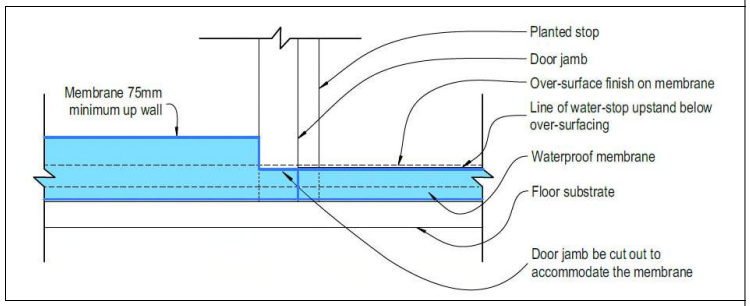


Figure 19: Elevation/edge of door jamb with water-stop under door

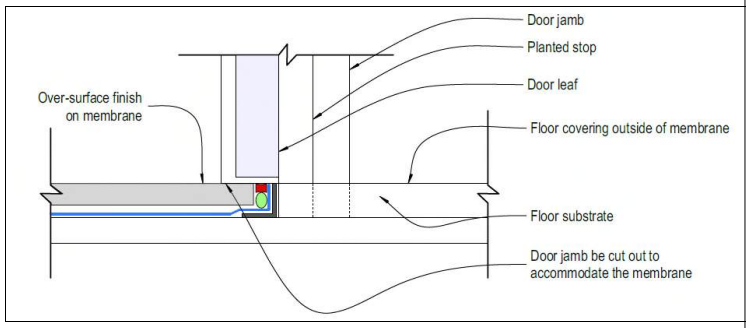


Figure 20: Face of door jamb with water-stop under door

(drawing notes on next page)

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD4
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

BRANZ H1/AS1 5th Edition Calculation Method Spreadsheet - Results

Version: 12 September 2024

Client	Sam
Project name	HOUSE
Address	4 Corravally Rise, West Melton
Designer	Kelvin
Date	18 02 2026

Territorial Authority	Selwyn District	Climate Zone	5
When submitted	After 2 November 2023	Application	Housing

Proposed Building

Element		Area (m²)	Proposed Building Heat Loss (W/K)
Slab Floors		232.0	114.9
Other Floors		0.0	0.0
Roof		232.0	31.6
Skylights		0.9	2.5
Walls		151.6	45.6
Glazing (walls & doors)	(27.1% of total wall area)	57.0	114.1
Doors (opaque)		1.8	1.3
		675.3	Total 309.9

Reference Building

Element		Area (m²)		Reference Building Heat Loss (W/K)
Slab Floors		232.0	1.6	145.0
Other Floors		0.0	3.0	0.0
Total Roof (includes skylight area)		232.9	6.6	35.3
Walls (100% of total wall area)		147.3	2.0	73.6
Glazing allowance (30% of total wall area)		63.1	0.50	126.3
		675.3	Total	380.2

Comparison of proposed building against the reference building PASS

	Element type	Description	Embed heating?	Area (m²)	Construction R-value (m².K/W)	Heat Loss (W/K)	Errors
1	Slab Floors	Slab with 100mm Slab X200	No	232.0	2.02	114.9	
2	Roof	R7.0 batts	No	232.0	7.34	31.6	
3	Skylights	Kitchen skylight		0.9	0.37	2.5	
4	Walls	CEDAR	No	29.1	3.26	8.9	
5	Walls	Plaster	No	110.7	3.51	31.5	
6	Walls	Internal 90mm garage wall	No	11.8	2.32	5.1	
7	Glazing (walls & doors)	Masterbed lower floor		57.0	0.50	114.1	
8	Doors (opaque)	1x Garage internal door		1.8	1.40	1.3	

Plaster cladding 140mm wall — 3.51 m²°C/W

Type: Wall: Timber Frame with vented Cavity

Timber Frame with vented Cavity [view detail]

- external surface 0.03
- Cladding: Resene Construction Systems Integra 50mm — R-value: 0.29
- Air Barrier: generic - none — R-value: 0.00
- Timber Frame & Cavity: 140mm, studs @ 600mm, dwangs @ 800mm
  - Wall Frame Area: 14.4% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Framing: R-value: 1.17
  - Cavity Area: 85.6% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Pink(c)Batts(c) Ultra R4.3 140mm Wall 4.3; still Airgap: none — R-value: 0.00
- Wall Lining: generic - gypsum Plasterboard 10mm — R-value: 0.04
- internal surface 0.09

Construction R-value calculated by DesignNavigator ©

GIB internal garage wall — 2.32 m²°C/W

Type: Wall: Timber Frame with vented Cavity

Timber Frame with vented Cavity [view detail]

- external surface 0.03
- Cladding: generic - Gypsum plasterboard 10mm into still air (garage, etc.) — R-value: 0.10
- Air Barrier: generic - none — R-value: 0.00
- Timber Frame & Cavity: 90mm, studs @ 600mm, dwangs @ 800mm
  - Wall Frame Area: 14.4% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Framing: R-value: 0.75
  - Cavity Area: 85.6% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Pink(c)Batts(c) Ultra R2.8 90mm Wall 2.8; still Airgap: none — R-value: 0.00
- Wall Lining: generic - gypsum Plasterboard 10mm — R-value: 0.04
- internal surface 0.09

Construction R-value calculated by DesignNavigator ©

Cedar cladding — 3.26 m²°C/W

Type: Wall: Timber Frame with vented Cavity

Timber Frame with vented Cavity [view detail]

- external surface 0.03
- Cladding: generic - Weatherboard Rusticated or Shiplap — R-value: 0.16
- Air Barrier: generic - Building paper — R-value: 0.01
- Timber Frame & Cavity: 140mm, studs @ 600mm, dwangs @ 480mm
  - Wall Frame Area: 17.9% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Framing: R-value: 1.17
  - Cavity Area: 82.1% — 15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08; Pink(c)Batts(c) Ultra R4.3 140mm Wall 4.3; still Airgap: none — R-value: 0.00
- Wall Lining: generic - gypsum Plasterboard 10mm — R-value: 0.04
- internal surface 0.09

Construction R-value calculated by DesignNavigator ©

Waffle Pod Raft Slab Table (lightweight cladding)

Area to Perimeter Ratio	220mm or 300mm EXPOL "Tuff Pods"	with ThermaSlab Edge or MaxEdge	with 50mm SLABX200 Under Slab	with 75mm SLABX200 Under Slab	with 100mm SLABX200 Under Slab	50mm SLABX200 + ThermaSlab Edge or MaxEdge	75mm SLABX200 + ThermaSlab Edge or MaxEdge	100mm SLABX200 + ThermaSlab Edge or MaxEdge
1	0.80	1.00	0.93	0.96	0.99	1.69	1.78	1.86
1.2	0.85	1.10	1.05	1.09	1.12	1.84	1.94	2.02
1.4	0.90	1.20	1.17	1.22	1.26	1.99	2.10	2.19
1.6	1.00	1.30	1.29	1.35	1.40	2.14	2.26	2.35
1.8	1.10	1.40	1.41	1.48	1.54	2.29	2.42	2.52
2	1.20	1.50	1.53	1.61	1.68	2.43	2.56	2.67
2.2	1.20	1.54	1.62	1.72	1.80	2.54	2.68	2.79
2.4	1.30	1.62	1.72	1.82	1.91	2.65	2.80	2.92
2.6	1.40	1.73	1.81	1.93	2.02	2.76	2.91	3.04
2.8	1.40	1.82	1.91	2.03	2.13	2.87	3.03	3.16
3	1.50	1.91	2.00	2.13	2.24	2.98	3.14	3.28
3.2	1.60	2.02	2.08	2.22	2.34	3.07	3.24	3.38
3.4	1.60	2.05	2.17	2.31	2.44	3.16	3.33	3.48
3.6	1.70	2.10	2.25	2.40	2.53	3.25	3.43	3.58
3.8	1.80	2.22	2.33	2.49	2.63	3.35	3.53	3.69

ceiling R7.0 insulation — 7.34 m²°C/W

Type: Roof: Timber framed truss Roof, suspended Ceiling

Timber framed Roof, suspended Ceiling [view detail]

- external surface 0.03
- Roofing: generic - Metal trapezoidal Iron with building paper — R-value: 0.01
- Insulation:
- Timber Frame & Cavity: 90mm rafters or joists @ 900mm, battens covered with insulation
  - Roof Frame Area: 5.0% — Roof space (still air) 0.11; Framing: R-value: 0.75
  - Cavity Area: 95.0% — Roof space (still air) 0.11; Pink(c)Batts(c) Superbatts R7.0 Ceiling - 460mm wide 7; Insulation covering bottom chord ☑; When using this option make sure that the insulation product is suitable - typically manufactured at 460mm width
- air gap (between 50-200mm) 0.15
- Ceiling Lining: generic - gypsum Plasterboard 12mm — R-value: 0.05
- Internal surface 0.09
- Non-IC-rated recessed downlights

Ceiling Area [m²]: 232 Number of downlights: Clearance from lamp holder side [m]:

Construction R-value calculated by DesignNavigator ©

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD5
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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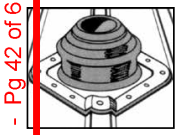
Dektite Premium

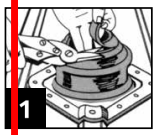
The versatile solution

- ✔ Most extensive range of Dektites for flashing penetrations 0 - 510mm, available in black and grey EPDM and silicone red for high temperatures.
- ✔ Designed to enable practically any pipe flashing operation to be carried out within minutes, simple to install and very effective.
- ✔ The low profile cone not only looks good but provides a generous internal clearance, so even the steepest roofs are handled with ease.
- ✔ Suitable for flashing pipes that penetrate wall claddings.
- ✔ Can also be used to flash square penetrations. Just add 30% to the pipe diameter and trim the cone to suit.
- ✔ EPDM withstands temperatures from -50°C to 115°C and up to 150°C intermittently.
- ✔ Silicone withstands temperatures from -60°C to 200°C and up to 250°C intermittently.

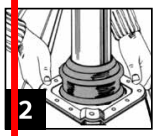
Installation Instructions:



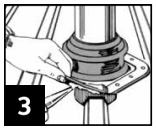
NOTE:
For more effective drainage, always fit the Dektite on the diamond or bias.
Dektites are suitable for flashing pipes that penetrate wall claddings.



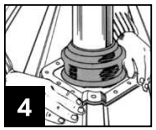
1 Cut a neat hole in roofing sheet with minimum clearance for pipe and insert pipe through hole. Trim the cone to suit pipe size using sharp tin snips. Where required, support cut sections of sheet with additional framing.



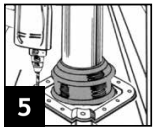
2 Slide Dektite flashing down over pipe. Lubricating the pipe with water allows the pipe to slide snuggly into position.



3 Apply a neutral cure 100% silicone sealant (roof and gutter approved) to the underside of the Dektite by turning back the flexible flange.



4 Press base to the roof profile by hand, smooth out any awkward creases. Don't fully extend to allow for vibration.



5 Fasten using self drilling washered screws or sealed rivets. Fit fasteners progressively outward in opposing pairs to avoid gaps.

Dektite Premium

The versatile solution

CODE: BLACK EPDM	CODE: GREY EPDM	CODE: RED SILICONE	BASE (MM)	PIPE (MM)	ROOF PITCH
DFE10MB			71 x 71	0-20	Up to 60° See foot note
DFE100B	DFE100G		100 x 100	0-35	
DFE100BS*		DFE200RES	100 x 100	0-35	
DFE101B	DFE101G		139 x 139	5-55	Up to 45° See foot note
DFE101BS*		DFE201RES	139 x 139	5-55	
DFE102BA	DFE102GA	DFE202REA	181 x 181	50-70	
DFE103B	DFE103G	DFE203RE	218 x 218	5-127	
DFE104B	DFE104G	DFE204RE	279 x 279	75-175	
DFE105B	DFE105G	DFE205RE	309 x 309	100-200	
DFE106B	DFE106G	DFE206RE	363 x 363	125-230	
DFE107B	DFE107G	DFE207RE	456 x 456	150-300	
DFE108B	DFE108G	DFE208RE	495 x 495	170-355	
DFE109B	DFE109G	DFE209RE	680 x 680	230-508	

* DFE100BS and DFE101BS both have multiple cable nipples

Can a Dektite flash a square pipe? YES!

100mm Round

Circumference = 314mm

100mm Square

Perimeter = 400mm

Difference = Approx. 30%

Therefore, to suit square pipes/stanchions add 30% to the diameter of the pipe and cut accordingly.

100mm x 30% = 130mm to suit a square

NOTE: Refer to page 7 for guide to Dektite square penetrations from 20mm - 125mm.

LE·VIVI

TECHNICAL DATA SHEET

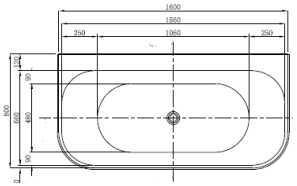
LUCCA

Freestanding Bath

LEVLUC16X8

Features:
- Twin skin construction
- 20mm wide top edge
- Rectangular style with rounded ends
- Back to wall style
- 110mm wide back platform with 20mm tile up-stand
- Fibreglass and board reinforced base
- 4 independent leveling feet
- Centre waste

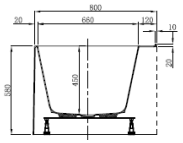
Specifications:
- Lucite sanitary grade acrylic
- Tile up-stand 20mm
- 254 litre capacity
- Internal depth 450mm

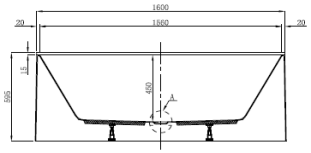


Colour:
- White

Size:
1600 x 800 x 595mm

Warranty:
- 10 years





ACCESSORIES, WASTES AND TAPWARE NOT INCLUDED UNLESS STATED. PLEASE NOTE MEASUREMENTS ARE NOMINAL ONLY. PLEASE MEASURE PRODUCT ON SITE. ACTUAL COLOURS MAY VARY

Branches Nationwide. Freephone 0800 800 686.
www.plumbingworld.co.nz

exclusive to plumbingworld

Kelvin Boyd
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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD6
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 43 of 61 - 23/04/2026 - cherie.newman

GIB EzyBrace® Systems specification GS1-N

Specification code	Minimum length (m)	Lining requirement
GS1-N	0.4	Any 10mm or 13mm GIB® Standard plasterboard to one side only

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
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
Internal Wall Bracing Lines: In accordance with the requirements of NZS 3604:2011 for internal wall plate fixing or 75 x 3.8mm shot fired fasteners with 16mm discs spaced at 150mm and 300mm from end studs and 600mm centres thereafter.

External Wall Bracing Lines: In accordance with the requirements of NZS 3604:2011 for external wall bottom plate fixing.

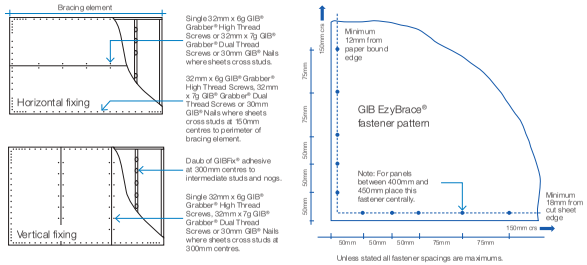
WALL LINING
- Any 10mm or 13mm GIB® plasterboard lining.
- Sheets can be fixed vertically or horizontally.
- Sheet joints shall be touch fitted.
- Use full length sheets where possible.

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, 32mm x 7g GIB® Grabber® Dual Thread Screws or 30mm GIB® Nails. If using the GIBFix® Angle use only 32mm x 7g GIB® Grabber® Dual Thread Screws.

Fastener centres
50,100,150, 225, 300mm maximum from each corner and 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets place fasteners at 300mm maximum centres to intermediate sheet joints. 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.



Unless stated all fastener spacings are maximums.

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

GIB EzyBrace® Systems specification GS2-N

Specification code	Minimum length (m)	Lining requirement
GS2-N	0.4	Any 10mm or 13mm GIB® Standard plasterboard fixed to each side of the wall framing

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
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
Internal Wall Bracing Lines: In accordance with the requirements of NZS 3604:2011 for internal wall plate fixing or 75 x 3.8mm shot fired fasteners with 16mm discs spaced at 150mm and 300mm from end studs and then 600mm centres thereafter.

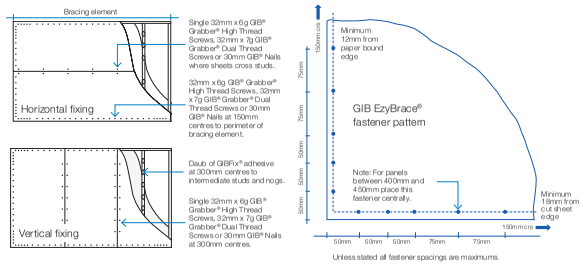
WALL LINING
- A layer of 10mm or 13mm GIB® plasterboard to each side of the wall.
- Sheets can be fixed vertically or horizontally.
- Sheet joints shall be touch fitted.
- Use full length sheets where possible.

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,32mm x 7g GIB® Grabber® Dual Thread Screws or 30mm GIB® Nails. If using the GIBFix® Angle use only 32mm x 7g GIB® Grabber® Dual Thread Screws.

Fastener centres
50,100,150, 225, 300mm maximum from each corner and 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets place fasteners at 300mm maximum centres to intermediate sheet joints. 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.



Unless stated all fastener spacings are maximums.

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

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.

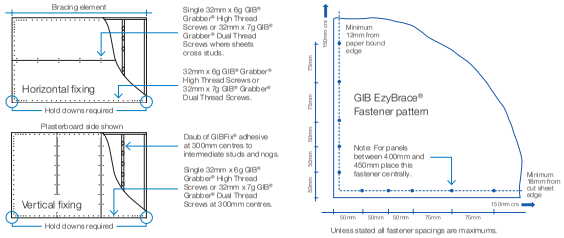
WALL LINING
- A layer of 10mm or 13mm GIB Braceline®
- Sheets can be fixed vertically or horizontally.
- Sheet joints shall be touch fitted.
- Use full length sheets where possible.

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.



Unless stated all fastener spacings are maximums.

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

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD7
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 44 of 61 - 23/04/2026 - cherie.newman

PRODUCT ASSURANCE SUPPLIER STATEMENT

pass™ no: | Expires:

UNITRAY HOT WATER UNIT SAFE TRAY SYSTEM

UNITRAY SAFE TRAY SYSTEM EXPLAINED

UNITRAY Safe Tray System is made from lightweight, UV resistant, high-density polyethylene Qenos (HDPE 0390) and meets the performance characteristic values of BS EN 1778:2000. The safe tray is warranted for 10 years and is available in 3 sizes:

- 482mm internal diameter
- 590mm internal diameter
- 695mm internal diameter

BASE SUPPORT

The safe trays can be supported on 6 x 100mm high elevating posts (to suit the location of the drainage waste and associated plumbing) installed directly on a stable, flat surface. The safe trays may be used internally or externally depending on the placement of the hot water cylinder (HWC).

TUNDISH ACCESSORIES

The 5mm diameter waste outlet of the UNITRAY Safe Tray System comes complete with a tundish assembly. This consists of 3 easily assembled parts, plus optional adaptors, if required, to suit the relief drain diameter.

The tundish (with regulated air gap) is located at the tray outlet. It prevents siphoning of water back into the HWC and provides a visible means for checking correct functioning of relief drains.

PURPOSE

The UNITRAY Safe Tray System is a safe tray system and base support designed specifically for use with HWC that utilise a controlled heat source. Its function is to collect and drain any accidental overflow.

SCOPE OF USE

- All buildings where the floor has been designed to support the applied loads.
- All buildings where a water supply system and drainage system has been installed to NZ Building code.
- In buildings where a drainage system has been installed that meets the requirements of NZ Building Code G13.
- Where overflow protection to neighbouring properties is required.
- Where the HWC is connected to a controlled heat source.

VERSION:

NOTE: Uncontrolled in printed format.

DATE:

Name:
Position:
Signed on behalf of:
Unitray NZ Ltd.

By signing this pass™, the signatory confirms that the product described by this pass™ complies with s14G, Building Act 2004.

FURTHER INFORMATION

For further product assistance please contact:
Phone: 021 365 130
info@unitray.co.nz
www.unitray.co.nz

info@unitray.co.nz › 021 365 130 › www.unitray.co.nz

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PRODUCT ASSURANCE SUPPLIER STATEMENT

pass™ no: | Expires:

UNITRAY HOT WATER UNIT SAFE TRAY SYSTEM

LIMITATIONS OF USE

- UNITRAY accepts either 15mm or 20mm relief drains depending on HWC model.
- The safe tray can support an HWC of up to 400 kg (restricted to an HWC of 315 L).
- The UNITRAY must be installed by a registered plumber/ gas fitter in accordance with UNITRAY Design & Installation Guide.
- The UNITRAY Safe Tray System is not suitable for use where the HWC is connected to a wet back.

USEFUL INFORMATION

Unitray have the following documents to assist in the specification, installation & maintenance:

- UNITRAY Design & Installation Guide
- UNITRAY Installation At A Glance
- UNITRAY Care & Maintenance
- UNITRAY Warranty

www.unitray.co.nz.

PERFORMANCE CLAIMS

If specified, installed and maintained in accordance with the all UNITRAY Safe Tray System requirements, the UNITRAY Safe Tray System will meet the following performance claims:

	Basis of compliance	
NZBC Clause	Compliance	Relevance
B1 Structure B1.3.1 B1.3.2 B1.3.3 (a, b, c, e, f, j & q)	**Alternative solution** Leap PTY limited Test Report Rev 2: 140519 JD, June 2014	To determine load carrying capability of the UNITRAY through › Assessment of ARMA Standard for Polyethylene Underground Storage Tanks › Comparison with BS/EN 1778:2000 Characteristic values for welded thermoplastics construction
B2 Durability B2.3.1 (c) B2.3.2 (a)	**Alternative solution** Salt Product Design Test Report CPS-0001, 20 April 2017 Leap PTY Limited Test Report rev 2: 140519 JD, June 2014	Reports looked at: › Thermal stability @ 90°C › Structural load bearing during failure of HWC › Creep modulus › s19 (1), (b), BA04
Internal Moisture E3.3.2	**Acceptable solution** **E3/AS1**	Free water from accidental overflow from sanitary fixtures
Hazardous Building Materials F2.3.1	**Alternative solution**	Does not contain or emit harmful materials.
Foul Water G13.3.1 (b & d)	**Acceptable solution** **G13/AS3** **AS/NZS 3500.2**	s19 (1), (b), BA04

SOURCES OF INFORMATION

- AS/NZS 3500.2 Plumbing and Drainage
- BS/EN 1778:2000: Characteristic values for welded thermoplastic. Determination of allowable stresses and moduli for design of thermoplastic equipment
- Leap Pty Ltd, Test report-140519 JD. Static & Creep Analysis May 2014
- Salt Product Design (UNITRAY test-CPS-0001) 20 April 2017: Structural load bearing during HWU failure

info@unitray.co.nz › 021 365 130 › www.unitray.co.nz

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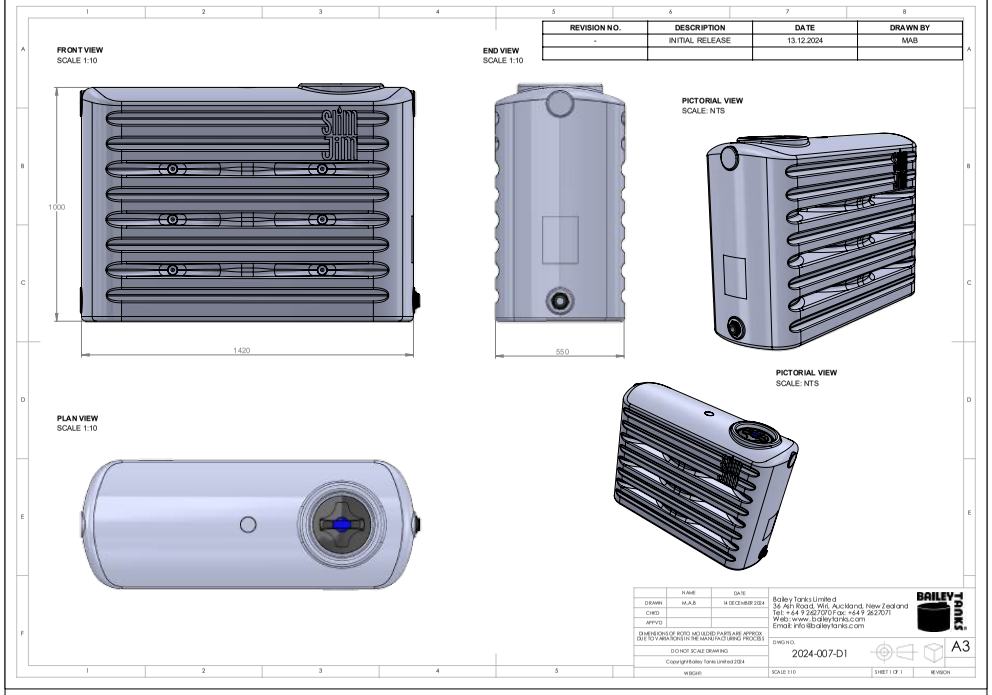
REVISION NO.	DESCRIPTION	DATE	DRAWN BY
-	INITIAL RELEASE	13.12.2024	MAB



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kabboyd@hotmail.com

PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD8
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 45 of 61 - 23/04/2026 - cherie.newman

Holer DIAMOND TOOLS

SUPERCURE ULTRA

Densifier — Hybrid Silicate, High Solid

For Opened/Porous Concrete | **Water-Based**

SUPER CURE ULTRA is a water-based (WB), **high solid**, ready to use concrete densifier. It contains 3 different sized molecule silicates to allow for full penetration for a variety of concrete densities. **It significantly increases the concrete durability** from traffic wear, improves surface density and hardness to provide dust proofing.

PRODUCT DESCRIPTION

SUPERCURE ULTRA is a blend of reactive silicates and additives providing enhanced densification and stain resistance with easy to use hybrid silicate densifiers. **SUPERCURE ULTRA** high solids formula, is ideal for use on open, or porous concrete that will readily accept densifier (for non-porous floors use **SUPERCURE PLUS**) and works equally well on both new and old concrete. **SUPERCURE ULTRA** is especially effective at resisting stains when used in conjunction with any of the **SUPERSHIELD** Stain Protector range.

USES

SUPERCURE ULTRA can be used by itself or with other Holer dyes and stain protectors.

- Hardens concrete surfaces
- Prepares surface for high gloss diamond polishing
- Locks in dyes for longer lasting colour
- Improves resistance to staining
- Improves scratch resistance

- ✔ **Improves Density**
- ✔ **Increases Durability**
- ✔ **Stain Protection**
- ✔ **Higher Clarity and Shine**

Up to 20m²/Litre

60 Mins — **Cures in 60 Minutes**

Ready to use

VOC Compliant (g/L)

Contains UV Stabilisers

Indoor & outdoor use

SUPERCURE PLUS Low Solid Densifier

SUPERCURE ULTRA High Solid Densifier ✔

Use in conjunction with **SUPERSHIELD PLUS** and **SUPERSHIELD ULTRA**

www.holer.co.nz

Holer DIAMOND TOOLS

SUPERCURE ULTRA

Densifier — Hybrid Silicate, High Solid

HOW TO USE FOR POLISHED CONCRETE:

- Perform main grind using up to #200 metal or resin bond diamond.
- Remove all dust and debris with dry vac or scrubber/dryer with cleaning pad and fresh water. Allow to dry.
- Spray **SUPERCURE ULTRA** with overlapping circular motion. Use Micro-fibre mop to spread evenly on surface. Product does not need vigorous scrubbing-in and will not form a gel. As product is absorbed into surface, apply additional product as needed until floor starts to reject the product. Keep floor wet for 15 minutes, spreading with mop to avoid puddles. Allow to dry.
- Optional: Apply additional light application (after #400) using Micro-fibre mop.
- Clean tools and equipment with fresh water before product dries. Overspray and unprotected surfaces should be immediately washed off with fresh water. Allow to dry.
- Polish to the desired grit level.
- Apply Holer **SUPERSHIELD** or **SUPERSHIELD PLUS**, followed by **SUPERSHIELD ULTRA**, following manufacturer's instructions to complete protection and enhance appearance.
- Surface should be cleaned regularly using a scrubber/dryer, fitted with #1500 or #3000 diamond impregnated pad and water or Holer Quad Clean (Multipurpose Rejuvenating Cleaner), according to manufacturer's directions.

HOW TO USE WITH HIGHSPEED BURNISHING SYSTEM

- Auto scrub with clean water
- Apply first application of densifier while maintaining wet edge
- Spread evenly with micro-fibre mop.
- Allow to dry
- High speed burnish with a #800 diamond impregnated pad
- Apply second application of densifier
- High speed burnish with a #1500 or #3000 diamond impregnated pad.
- Apply Holer **SUPERSHIELD** or **SUPERSHIELD PLUS**, followed by **SUPERSHIELD ULTRA**, following manufacturer's instructions to complete protection and enhance appearance.
- Surface should be cleaned regularly using a scrubber/dryer, fitted with #1500 or #3000 diamond impregnated pad and water or Holer Quad Clean (Multipurpose Rejuvenating Cleaner), according to manufacturer's directions.

CLEANUP

SUPERCURE ULTRA washes up quickly with soap and water.

SAFETY PRECAUTIONS

WARNING – Before using or handling this material, read the Material Safety Data Sheet and Warranty. EYE, SKIN AND GASTRO-INTESTINAL TRACT AND RESPIRATORY TRACT IRRITANT. Avoid contact with eyes, skin and clothing. Avoid breathing vapours or mists generated by this product. Use appropriate eye protection, and chemical-resistant gloves.

Material is not flammable, but if exposed to fire material may produce irritating vapours and toxic gases (e.g., carbon dioxides and peroxides). KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

FIRST AID

Ingestion: CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT INDUCE VOMITING. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

Eye Contact: Rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Flush for 15 minutes minimum. Seek medical attention if any adverse effect persists after rinsing.

Skin Contact: If adverse skin effects occur, discontinue use and flush contaminated area. Seek medical attention if adverse effect occurs after flushing.

Inhalation: Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. If adverse effect continues after removal to fresh air seek medical attention.

VOC COMPLIANCE

In addition, the original manufacturer's product (sold as **SUPERCURE ULTRA** Hybrid Silicate Densifier) offers VOC compliance with low VOC at 1g/L and is also compliant with national, state and district regulations: US Environmental Protection Agency

California Air Resources Board SCM Districts*

South Coast Air Quality Management District* Maricopa County, AZ

Northeast Ozone Transport Commission

*Before application, verify product conformance with local and state codes.

TESTING

The information contained herein is believed to be reliable. This information is based on laboratory testing and results. Because of variations in methods, conditions and equipment, each user must test this product to make a judgment of performance. Applicator is responsible for testing material for effectiveness and performance.

DEGREE OF HAZARD

4 = EXTREME

3 = HIGH

2 = MODERATE

1 = SLIGHT

0 = INSIGNIFICANT

STORAGE

- Store dry and upright at 5–30°C
- Keep product from freezing
- Keep out of reach of children
- Seal container after use
- Do not mix with other chemicals
- 1 year shelf life

A product from Holer Diamond Tools. For more information call us on +64 (03) 543-9750 or visit our website:

www.holer.co.nz

www.holer.co.nz

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD9
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

SDC - Approved Building Consent Document - BC260811 - Pg 46 of 61 - 23/04/2026 - cherie.newman

Holer DIAMOND TOOLS

SUPERSHIELD

Stain Protector — Wet Look

For Polished Concrete and Terrazzo | **Water-Based**

SUPERSHIELD is a water based (WB), ready to use, non-yellowing, **light penetrating breathable** stain protector. It leaves a **semi-topical** finish that contributes to colour enhancing and creates a **wet look** and **high gloss** finish when burnished.

The applied product creates a water resistant barrier, preventing common liquids from penetrating and staining the concrete surface. Depending on foot traffic and exposure, the applied product may require rejuvenation annually or bi-annually. Suitable for polished concrete and Terrazzo, old and new concrete (over 28 days). Do not apply if concrete is frozen, dirty or contains standing water/ puddles. Surface must always be clean and dry. Indoor application only. Apply between 5–30°C ambient temperatures.

PRODUCT DESCRIPTION

SUPERSHIELD Stain Protector is a sprayable, low VOC, **fast drying water-based** product designed to protect and beautify polished concrete and Terrazzo. SUPERSHIELD is water and chemical resistant, and is light penetrating with a semi-topical residue, which when burnished provides a wet look finish and may hide surface imperfections.

USES

SUPERSHIELD can be used on interior or exterior polished concrete, masonry and concrete-type surfaces. Use on coloured or uncoloured, stamped or exposed aggregate concrete, porous brick, natural and manufactured stone, stucco, slate, unglazed tile and flagstone.

- ✔ **Light Penetrating**
- ✔ **Wet-look Colour Enhancer**
- ✔ **Stain Protection**
- ✔ **Higher Clarity and Shine**

Up to 20m²/Litre

SUPERSHIELD Light penetration ✔
SUPERSHIELD PLUS Medium penetration
SUPERSHIELD ULTRA Full penetration

Cures in 12 Hours | Ready to use | Low VOC (<5g/L) | Streak Free
Contains UV Stabilisers | Indoor & outdoor use | Non-yellowing | Fast Drying

Use in conjunction with SUPERSHIELD ULTRA and SUPER GROUT

www.holer.co.nz

Holer DIAMOND TOOLS

SUPERSHIELD

Stain Protector — Wet Look

PREPARATION

In most cases the product will extend protection against colour fading or dissipating, due to variables in application, maintenance, and the concrete itself.

Warning: People, property, vehicles, animals, plants, and surfaces not intended to be stain-protected should be protected from the product, splash, overspray, and wind drift, using polyethylene sheeting or other proven protective material. Complete all grinding, colouring, densification and polishing before applying. Thoroughly clean the surface that the product is to be applied to, removing all oil, dirt, laitance and other contaminants. Vacuum and clean surface with autoscrubber and fresh water. Allow to dry thoroughly. New concrete should cure for 28 days.

DILUTION AND COVERAGE

SUPERSHIELD is shipped ready to use. On polished concrete floors, SUPERSHIELD will cover approximately up to 20m2/L for each application, depending on the porosity of the concrete. Test areas to determine appropriate application procedure and adjust application rate. Can be diluted with water.

APPLICATION

Testing: Prior to starting project, apply product to sample area of each type of concrete to be treated, using application procedures proposed for project. Confirm that concrete is receptive to product, (prior densification application with SUPERCURE PLUS or SUPERCURE ULTRA is recommended to expand SUPERSHIELD coverage rates and added stain resistance).

Project Conditions: Ambient temperature during application should be 12°C–25°C. Do not apply on rainy, foggy, or extremely humid days. Excess moisture may prevent product from drying properly.

Equipment: Apply using a low pressure sprayer and microfibre mop, ensuring surface is evenly covered with no puddles.

Application: SUPERSHIELD provides the best protection when applied in two light applications.

1. Spray a light mist of SUPERSHIELD (can be diluted with water to aid penetration) onto concrete surface, and immediately spread evenly with mop. Apply enough material to attain 100% coverage, without dry streaking or puddling.

2. High-speed burnish with #3000 diamond coated pad.

3. Optional: Apply second application to same method.

4. For ultimate protection, apply SUPERSHIELD ULTRA (fully penetrating) afterwards (cannot be other way round!). Once tack free (more than 1hour) high-speed burnish fitted with a #3000 diamond coated pad.

5. Chemical resistance gains strength over time. Avoid exposure to etching agents for 7 days if possible.

CLEANUP

Clean tools and equipment immediately with water. Always remove rundown and spills immediately.

NEXT STEPS

Floor is ready for light foot traffic when SUPERSHIELD is tack-free; ready for equipment traffic within 24 hours. SUPERSHIELD cures fully within seven days. However, concrete, even after becoming densified and polished, is still a porous substrate. Densifiers can take 2–6 weeks to attain full densification.

MAINTENANCE

Spills of staining agents or acidic etching agents including acidic food substances (e.g. wine, vinegar, pickle juice) should be cleaned up immediately to minimise damage to surface.

Remove dust and debris with a microfibre pad or dry mop. Surface should be cleaned regularly using an automatic floor scrubber fitted with diamond coated pad #3000 and with Holer Quad Clean mixed with clean water according to manufacturer's directions. DO NOT use acidic cleansers.

SUPERSHIELD may be easily reapplied whenever deemed necessary. Reapplication at least once every two years is recommended, but more may be required depending on wear and usage conditions. If an improper cleaner is used, reapplication might be warranted. Clean floor thoroughly, allow to dry completely and the repeat original application instructions.

SAFETY PRECAUTIONS

WARNING – Before using or handling this material, read the Material Safety Data Sheet and Warranty. EYE, SKIN AND GASTRO-INTESTINAL TRACT AND RESPIRATORY TRACT IRRITANT. Avoid contact with eyes, skin and clothing. Avoid breathing vapours or mists generated by this product. Use appropriate eye protection, and chemical-resistant gloves.

Material is not flammable, but if exposed to fire material may produce irritating vapours and toxic gases (e.g., carbon dioxides and peroxides). KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

FIRST AID

Ingestion: CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT INDUCE VOMITING. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

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Skin Contact: If adverse skin effects occur, discontinue use and flush contaminated area. Seek medical attention if adverse effect occurs after flushing.

Inhalation: Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. If adverse effect continues after removal to fresh air seek medical attention.

VOC COMPLIANCE

In addition, the original manufacturer's product (sold as SuperShield) offers VOC compliance with low VOC at <5g/L and is also compliant with national, state and district regulations: US Environmental Protection Agency

TESTING

The information contained herein is believed to be reliable. This information is based on laboratory testing and results. Because of variations in methods, conditions and equipment, each user must test this product to make a judgment of performance. Applicator is responsible for testing material for effectiveness and performance.

DEGREE OF HAZARD

4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT

STORAGE

- Store dry and upright at 5–30°C
- Keep product from freezing
- Keep out of reach of children
- Seal container after use
- 1 year shelf life

A product from Holer Diamond Tools. For more information call us on +64 (03) 543-9750 or visit our website:
www.holer.co.nz

www.holer.co.nz

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD10
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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• Blinds page 12 • Flashings page 13 • Price list page 14/15

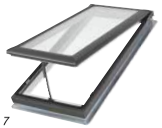
Pitched roof Skylights

VSS Solar-powered

15°-90° INSTALLATION PITCH

Page 5

VS Manually operated



15°-90° INSTALLATION PITCH

Page 7

FS Fixed (non-opening)

15°-90° INSTALLATION PITCH

Page 9

Flat roof Skylights

VCS Solar-powered

0°-60° INSTALLATION PITCH

Page 5

VCM Manually operated

0°-60° INSTALLATION PITCH

Page 7

FCM Fixed (non-opening)

0°-60° INSTALLATION PITCH

Page 9

Sun Tunnels and Roof Windows

TWR Rigid

15°-60° INSTALLATION PITCH

Page 11

TWF Flexible

15°-60° INSTALLATION PITCH

Page 11

TCR For flat roofs

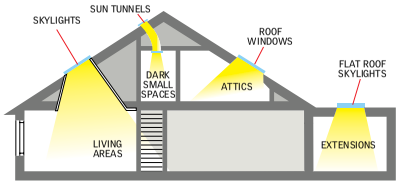
0°-60° INSTALLATION PITCH

Page 11

GGU Roof Window

15°-90° INSTALLATION PITCH

Page 11



Pitched roofs

15°-90° INSTALLATION PITCH*

FS

Fixed (non-opening)

Suitable for pitched roofs, the FS Skylight is the perfect solution for creating light filled rooms where added ventilation is not necessary. Energy efficient glazing and the use of blinds ensure heat transference is minimised.

- White painted interior timber frame.
- Outer aluminium cappings (grey).
- Flashings to be ordered separately.
- High Performance double glazing with NEAT™ coating on outer pane: reduces cleaning frequency.
- Smooth profile sits lower in the roof, does not obstruct the roofline.
- Available in 9 sizes.

CodeMark OWNZ10008

BRANZ Appraised Appraisal No. 988

H1 Compliance

Listed thermal values are compliant under H1 for all NZ Climate zones to VELUX Schedule Method Approved Solution or Calculation Method – refer H1 section website for more details

Technical Performance (complete skylight)

SHGC† 0.26

U° R-Value; 0.356-0.430

Varies by size – See website

Hailstone Test‡

VELUX Simulated Tests

ASTM E822-2009

WERS max 5 stars (summer rating)

★★★★★

NZ Standards

NZS4223.4 AS4285

NZS3604 NZS1170

Flat roofs

0°-60° INSTALLATION PITCH**

FCM

Fixed (non-opening)

Suitable for flat roofs, the brilliantly simple FCM Skylight is a cost effective way to provide natural daylight to buildings with flat roofs. The High Performance double glazing provides excellent thermal insulation and has been tested for hail resistance.

- High performance double glazing with NEAT™ coating on outer pane: reduces cleaning frequency.
- Approx 99% UV Block.
- Available in 11 sizes.
- Maintenance-free anodized aluminium frame.
- Requires custom-made flashing (not supplied by VELUX).

CodeMark OWNZ10008

BRANZ Appraised Appraisal No. 988

H1 Compliance

Listed thermal values are compliant under H1 for all NZ Climate zones to VELUX Schedule Method Approved Solution or Calculation Method – refer H1 section website for more details

Technical Performance (complete skylight)

SHGC† 0.27

U° R-Value; 0.362-0.438

Varies by size – See website

Hailstone Test‡

VELUX Simulated Tests

ASTM E822-2009

WERS max 5 stars (summer rating)

★★★★★

NZ Standards

NZS4223.4 AS4285

NZS3604 NZS1170

Solar Powered Blinds for FS

NEW

Honeycomb Blackout – FSCD
Pleated Translucent – FSLD

Includes wireless, wall-mounted keypad.

- All blinds are available in white. • Sold separately.
- Unique installation system allows easy installation.

Solar Powered Blinds for FCM

Honeycomb Blackout – FSCC
Pleated Translucent – FSLC

Includes wireless, wall-mounted keypad. Accessory Tray ZZZ 199 required.

- All blinds are available in white. • Sold separately.
- Unique installation system allows easy installation.

NEW

* For roofs below 15° pitch, FS skylights need to be raised to 15° and custom flashed. VELUX can assist with technical advice and drawings.

** The FCM is watertight for pitches between 0-60°, though raising the installation pitch to 10° may be preferred for the best aesthetic appearance. Below this pitch you are likely to experience water ponding on the glass.

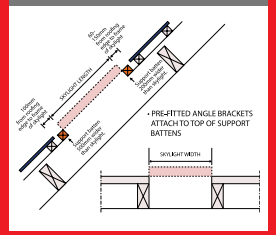
† SHGC data based on NFRC simulations at 90° installation pitch (FS/FCM nominal skylight size 1200mm x 1200mm).

Framing and trim-out guides

Complete installation instructions are supplied with each product and available for download on www.velux.co.nz

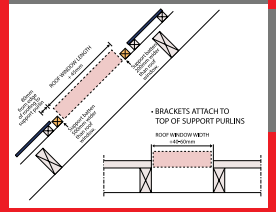
Pitched roof skylights VSS, VSE, VS, FS

(with VELUX Proprietary Flashing EDW, EDL, EKW)



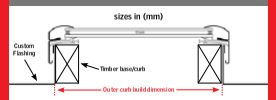
Roof windows (GGU)

(with VELUX Proprietary Flashing EDW, EDL, EKW)



Flat roof skylights VCS, VCM, FCM

Custom-made flashing by Roofer required (not supplied by VELUX)



Timber curb to be made from 35mm – 38mm timber.

Size	External Frame dimensions	Outer Curb Build dimensions
1430	418 x 895	445 x 850
2222	692 x 692	645 x 645
2230	692 x 895	645 x 850
2234	692 x 997	645 x 950
2246	692 x 1302	645 x 1255
2270	692 x 1911	645 x 1865
3030	895 x 895	850 x 850
3046	895 x 1302	850 x 1255
3434	997 x 997	950 x 950
3446	997 x 1302	950 x 1255
4622	1302 x 692	1255 x 645
4646	1302 x 1302	1255 x 1255

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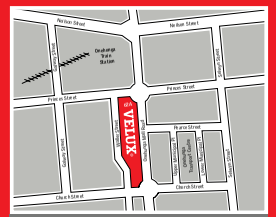
VELUX®

AUCKLAND HEAD OFFICE & SHOWROOM



OPENING TIMES:
Auckland Head Office: 8am – 4.30pm (Mon-Fri)
Showroom: 8.30am – 4pm (Mon-Fri)

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PROPOSED HOUSE AT 4 CORRAVALLY RISE, WEST MELTON LOT: 748 DP:609617
798M², FOR BARRY & CO LIMITED, RC:26205

CONSENT PLANS			SHEET AD11
DRAWN KELVIN BOYD	DATE SEP 2025	Scale in A3 size AS SHOWN	SERIES OF
REVISION NO.	REV. 21 APRIL 2026		REF

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NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

RICHARDS
CONSULTING | ENGINEERS

STRUCTURAL DRAWINGS
Job No. 25915

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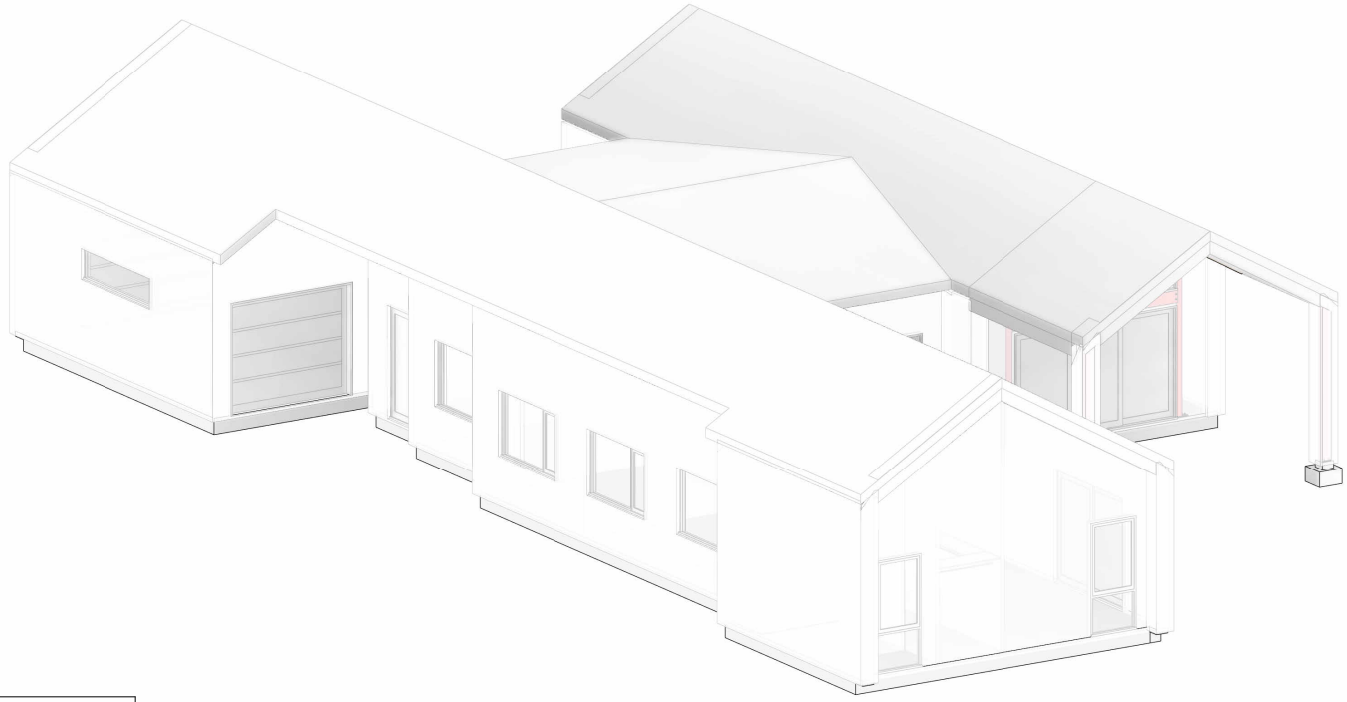

SHEET LIST

DWG NO	TITLE	REV	DATE
S0.00	SPECIFICATION	C	23/03/2026
S0.01	SPECIFICATION	C	23/03/2026
S1.01	FOUNDATION PLAN	C	04/03/2026
S1.02	FRAMING PLAN	B	19/02/2026
S1.03	BRACING PLAN	A	13/02/2026
S2.01	FRAMING SECTION	C	04/03/2026
S2.02	FRAMING SECTION	A	13/02/2026
S3.01	FOUNDATION DETAILS	B	19/02/2026
S3.02	FOUNDATION DETAILS	B	19/02/2026
S4.01	FRAMING DETAILS	B	19/02/2026

REV D
23/03/2026
BUILDING CONSENT

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1.0 GENERAL

1.1 All drawings to be read in conjunction with all relevant Architect's (design), services, Structural Engineer's and Specialist's drawings and specifications.

1.2 All Work shall comply with the relevant clauses of the New Zealand Building Code, best practice and relevant New Zealand Standards and Codes of Practice.

1.3 The Contractor shall verify all dimensions on site and compare with Architectural drawings before commencing work or making shop drawings.

1.4 Do Not Scale from any drawings. Use figured dimensions only. If in doubt ask.

1.5 The Contractor shall be responsible for verifying all dimensions on site and ensuring that all dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to the Engineer.

1.6 The Contractor shall notify the Engineer immediately if they become aware of any issues or discrepancies with what has been proposed in the Structural Drawing set, or discrepancies between the Structural Drawings and the Design Drawings (Architects, Mechanical, other specialists etc).

1.7 If at any time prior to Practical Completion, the Contractor should become aware of any signs of distress, excessive settlement or deflection, conflict of components or any other indications whatsoever of actual or potential damage to the Contract Works or any part thereof, they shall forthwith notify the Engineer, and confirm such notice in writing as soon as is practicable.

1.8 Materials and components to be appropriate for intended use.

1.9 For concrete nibs, chamfers, rebates and other Architectural features the Architectural drawings are to have preference over structural drawings.

1.10 Manufacturer's drawings and calculations for reinforcement, steelwork, flooring systems and stairs shall be submitted for the Engineer's approval/comment a minimum of 14 days prior to fabrication.

1.11 The Contractor shall design temporary propping works and be able to provide a Producer Statement (PS1-design) if requested.

1.12 The protection and durability requirements of steel, timber, concrete and masonry materials shall comply with Section 4 NZS 3604:2011. Please refer to Architectural plans and specifications for further details.

1.13 All weather tightness details are to be specified by others and are especially excluded from structural details.

2.0 INSPECTIONS

2.1 To verify the works have been constructed as per the design the following inspections:

Structural Element	Construction monitoring method
300 kPa bearing and excavations	By Richards Consulting Engineers
Footing and foundation reinforcing (pre-pour)	Richards Consulting Engineers
Structural framing and connections	Richards Consulting Engineers
Plasterboard bracing (pre and post line)	By Local TA

2.2 A minimum of 48 hours' notice shall be provided to the Engineer before an inspection is required.

2.3 Failure to have the structural work inspected may result in Richards Consulting Engineers Limited not able to issue a PS4 or destructive testing to expose hidden structural elements.

3.0 EXCAVATIONS AND FOUNDATIONS

3.1 The Contractor is to familiarize themselves with the site geotechnical report requirements - Geotechnical section of the structural design report prepared by RCE named: "4 Corravallay Rise, West Melton" referenced 25915.

3.2 For waterproofing, DPM, underfloor heating and insulation refer to Architectural drawings.

3.3 All organic material shall be stripped from under the foundations. All soft spots to be fully excavated and backfilled as per Engineers direction.

3.4 Assumed geotechnical ultimate bearing capacity (gubc) of 300kPa from a minimum depth of 200mm below ground level (BGL) unless noted otherwise. If the recommended founding stratum is not encountered at the foundation level, the Engineer is to be informed before work proceeds in that area.

3.5 Excavations under all footings and thickenings shall extend to gubc of 300kPa.

3.6 Backfill or subgrade material shall consist of well compacted AP40 in layers not greater than 200mm deep.

3.7 The Contractor shall manage the effects of ground water. Temporary dewatering may be required. The effects of dewatering on adjoining properties should be considered and managed.

3.8 Ground bearing floor slabs to be placed on DPM/Waterproof membrane on sand blinding on hardfill (DPM to be specified by the Architect).

3.9 The Contractor shall confirm construction methodology of foundations before commencing work. Alternative construction methodologies / detailing will be considered by the Engineer.

3.10 The Engineer shall inspect the excavations before any hardfill or boxing is formed.

3.11 The Contractor shall carry out all safety procedures as required by the WorkSafe publication *'Excavation Safety Good Practice Guidelines'*, and the Health and Safety at Work Act 2015, regarding notifiable work and timbering. Prevent material rolling into trenches.

3.12 For deep excavations, the trench width is to be sufficient to provide safe access and to accommodate shoring to WorkSafe requirements.

3.13 The Contractor must take care to prevent undermining of existing structures and foundations. The Engineer must advise on excavations which are closer than the line of influence (1V : 1H), measured from the toe of the existing foundation to the base of the excavated surface.

4.0 CARPENTRY

4.1 All timber shall be SG8, H1.2 unless stated otherwise.

4.2 All exposed timber shall be a minimum of H3.2. All timber which is direct contact with either concrete or soil shall be H5.

4.3 Timber shall be treated as set out in NZS 3602:2003 – Timber and Wood–based Products for use in Buildings.

4.4 Proprietary timber members (i.e. Carter Holt Harvey) shall be stored and installed as per the relevant manufacturer's guideline.

4.5 Plasterboard bracing shall be installed as per the GIB Site Guide. The Contractor shall check on the Architect's drawings for the specified plasterboard type noting some bracing elements can be substituted for Fyreline or Aqualine. The Contractor shall verify any substitutions with the Engineer prior to placing an order.

4.6 Where fixing to timber, bolts shall have a 50x50x3mm washer at each end unless specified otherwise.

4.7 All bolts specified for structural timber connections shall be from grade 4.6 steel unless specified otherwise.

4.8 All timber bolted connections shall have the following minimum spacings, unless specified otherwise:

	Perpendicular to timber grain	*Parallel to timber grain*
Edge Distance	4d	8d
Spacing	5d	

4.9 All timber screw and nail connections (pre-bored to 0.8d) shall have the following minimum spacings, unless specified otherwise:

	Perpendicular to timber grain	*Parallel to timber grain*
Edge Distance	5d	10d
Spacing	5d	10d

4.10 All timber nail connections (no pre-boring) shall have the following minimum spacings, unless specified otherwise:

	Perpendicular to timber grain		*Parallel to timber grain*	
	SG8	*Otherwise*	*SG8*	*Otherwise*
Edge Distance	5d		12d	20d
Spacing	5d	10d	10d	20d

4.11 All external timber fixings (i.e. sub-floor or deck framing) shall be stainless steel. All other fixings shall be galvanised.

4.12 The moisture condition of dry timber shall be maintained during construction, such that the moisture content should not exceed 15% as per NZS/AS 1720: 2022 (ZZ4.8.2).

4.13 The Contractor is responsible for checking the moisture content of timber prior to installation.

4.14 If non-vertical timber members have moisture content exceeding 15% (i.e. green timber), they must be propped and not subject to design loadings until they become dry (<15% moisture content), as per NZS 3604: 2011 (2.3.4) and NZS/AS 1720: 2022 (ZZ4.8.2).

5.0 STEEL WORK

5.1 All RHS, SHS and CHS members shall be from grade 350 steel. All other steelwork shall be fabricated from grade 300 steel (BHP 300-plus steel or equivalent). The exception to this is where grades are identified on the drawings. All bolts specified for structural steel connections shall be from grade 8.8 steel unless specified otherwise.

5.2 All welds shall be 6mm FWAR, structural purpose (SP), unless specified otherwise.

5.3 All steelwork shall be set out correctly to angles and planes at the time of fabrication. If necessary, component parts are to be trial assembled to ensure proper alignment. Fabrication shall be in accordance with the recommendations and procedures given in "general specification for the fabrication and erection of structural steel (Hera 1990)".

5.4 Holes shall be drilled in steel members at 600mm crs to accommodate M12 bolts where timber plates / packers are required. Alternatively, may install Wurth Wing-Type Drilling Screw, Round Countersunk Head With Aw Drive Pias® (6.3mm) at 300mm crs.

5.5 All tubular members shall, unless noted otherwise, be sealed at each end with a 6mm cap plate connected by fillet weld. Where hollow members are to be galvanised, vent holes shall be provided in accordance with the specification.

5.6 All perimeter beam/ column and beam/ perimeter beam connections to have full depth end plates.

5.7 All steel fabrication drawings are to be submitted for approval at least 14 days before fabrication commences.

5.8 All fabrication and erection of structural steelwork must comply with AS/NZS 5131: 2016.

5.9 The Contractor shall apply the quality control and construction requirements set out in AS/NZS 5131: 2016 and AS/NZS 1554.1: 2014, for a Construction Category of CC2 for all steelwork fabrication, erection, coatings and welding inspections. Note, the Construction Category is a risk-based fit for purpose categorisation of the structure or parts thereof.

5.10 No offshore fabrication of structural steel is permitted unless directly approved by the Engineer.

5.11 All external steel fixings shall be stainless steel and bolts are to have a 50mm diameter x 3mm washer (stainless steel).

5.12 All interior steel work shall be primed with Carbozinc 11. Inorganic Zinc Silicate. Surface preparation shall be abrasive blast to SSPC SP10 to achieve a jagged blast profile of between 35 and 50 microns and application of the primer shall be as specified. Dry film thickness shall be a minimum of 75 microns.

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Website: rcengineers.co.nz

PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
SPECIFICATION

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	FEB 2026	HW
B.	BUILDING CONSENT	FEB 2026	HW
C.	BUILDING CONSENT	MAR 2026	HW

PROJECT NO. 25915		**DESIGNED**	JK
SCALE@A3		**DRAWN**	AB
REV NO.	C	**SHEET NO.**	S0.00

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5.13 After erection all damaged paint and galvanizing shall be made good, and all bolted and welded connections shall be painted as specified for the members connected. Special care shall be taken to seal off around connections to prevent ingress of moisture to the joint.

5.14 The proposed steel paint coating system has a minimum intended design life of 25 years to first maintenance. To ensure a 50-year design life is achieved we recommend routine inspection of the paint protection system is undertaken. Re-coating may be required in select areas if the coating system has become compromise. Re-coating shall be undertaken in accordance with Resene specifications.

5.15 Where "epoxy" has been specified use RAMSET EPCON C8 XTREM epoxy, HILTI HY 200 epoxy, FISCHER FIS SB 390 S*, SIKA ANCHORFIX -3001 or similar epoxy suitable for Seismic C2 loadings as assessed by EOTA TR 049, designed as per EN 1992-4:2018. Ensure the following minimum embedment depths (unless specifically specified otherwise):

- M12 bolt – 110mm embedment.
- M16 bolt – 125mm embedment.

5.16 Post installed "epoxy" bolts must be installed as per the relevant supplier guidelines as applicable for specified anchor and epoxy systems. Contractor to note the minimum working and curing times for all systems prior to construction.

6.0 CONCRETE RIB RAFT SLAB – TC1

6.1 All reinforcing shall be grade 500E MA reinforcing made by Pacific steel and complying with AS/NZS4671.

6.2 All mesh shall be grade 500E supplied by Fletcher Reinforcing.

6.3 All concrete shall be standard 30MPa concrete mix.

6.4 Steel reinforcing shall have the following minimum covers:

- 75mm to earth.
- 50mm to exposed edge.
- 50mm to edge protected by vapour barrier.

6.5 All concrete to be mechanical vibrated and carefully worked around the reinforcement and into the corners of the formwork.

6.6 The bottom slab shall be broom finished.

6.7 Any load bearing points from the truss design shall be confirmed with the Engineer prior to construction.

6.8 Design drawings for rebates, nibs and ground clearances take precedence over structural drawing.

6.9 Slab reinforcing shall be bent or hooked at corners, junctions and ends.

6.10 H12 reinforcing rods can be joined by lapping 700mm.

6.11 H12 reinforcing rods found in the top of 100mm wide ribs are required to extend a minimum of 3m from the foundation's perimeter in.

6.12 Mesh shall be lapped 250mm.

6.13 All reinforcement shall be fixed and tied to specified position.

6.14 Spacers:

- Edge at 1200mm centres (one on edge and two on corners typically).
- Internal one on each side of pod (typically).
- 50/65 or similar chair at 800mm centres to support bottom bars of ribs and thickenings.

6.15 All work shall comply with **Firth Ribraft Technical Manual Oct 2024** except where altered by these drawings. The builder shall contact the Engineer where a standard detail is not applicable.

6.16 The Contractor must install sawcuts within 24 hours of pouring the concrete, in accordance with the proposed layout specified on the drawings. The Contractor must contact the Engineer for approval of any changes to this layout, or to the approved timing.

6.17 Sawcuts must be filled in accordance with the below requirements:

- General floors: Sikadur-51, Sikadur-61
- Heavy Vehicle Traffic: Sikaflex PRO-3
- Chemical Exposure: Sikaflex PRO-3

Alternative products may be used if approved by the Engineer.

7.0 SERVICES

7.1 Under no circumstance should pipe work for services be run longitudinally in 100mm ribs, perimeter foundation beams or internal foundation beams.

7.2 Vertical penetrations of pipe work through 100mm wide ribs should not be made.

7.3 Refer sheet S3.02 for typical service penetration details.

7.4 Services shall exit the foundations through the side of the perimeter beam (i.e. not under).

7.5 Service pipes shall not be routed parallel within ribs or perimeter foundation beams.

7.6 Where the services exit the concrete slab, a flexible joint shall be installed to allow for up to 50mm lateral movement.

8.0 STRUCTURAL MAINTENANCE SCHEDULE

8.1 This schedule of ongoing inspection and maintenance of structural elements shall be included with the O&M manuals and provided to the Owner/Body Corporate and building managers.

Inspection/Maintenance timeframe and item
(a) 25-yearly
Inspect samples of structural steel that is hidden from view but not enclosed within a vapour barrier, and repair protective coatings as necessary. A typical example is a veranda with built-in steelwork. (Such steelwork should typically have duplex protective coatings). Inspection may typically require removal of claddings and/or the drilling of holes for borescope access. Repair as required.
Inspect all exposed, external timber. Repair as required.
Inspect all exposed, external reinforced concrete for signs of spalling. Repair as required.
(b) Following seismic shaking > SLS1 event
Inspections and repair as per a) above.

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
SPECIFICATION

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	FEB 2026	HW
B.	BUILDING CONSENT	FEB 2026	HW
C.	BUILDING CONSENT	MAR 2026	HW

PROJECT NO. 25915
SCALE@A3
REV NO. C
DESIGNED JK
DRAWN AB
SHEET NO. S0.01

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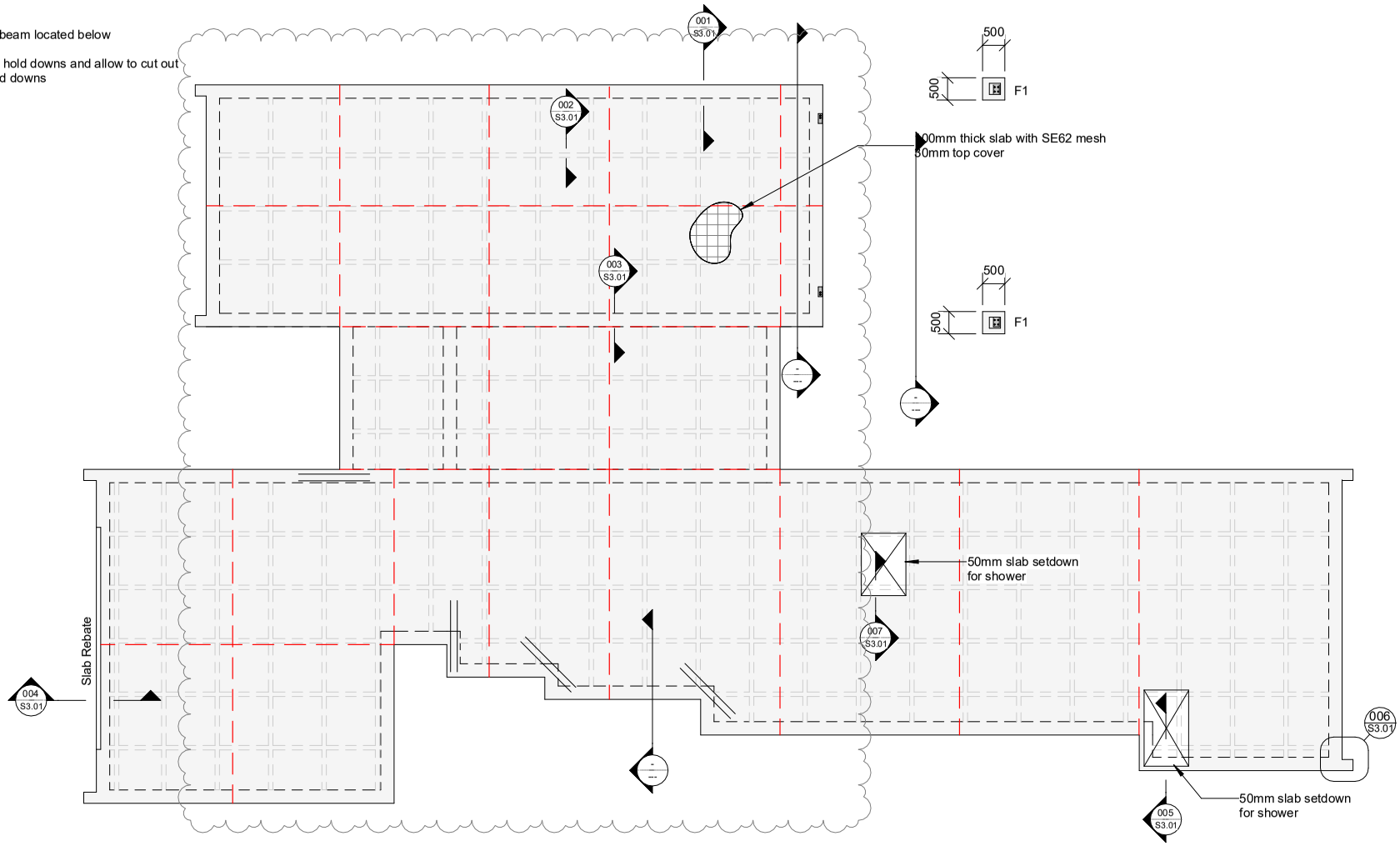
FOUNDATION KEY

- 2-H12, 1600mm long, spaced 150mm apart
- Refer to architect's drawings for rebate position & size
- 25mm(d) x 10mm Sawcut
- F1 — 500 x 500 x 450mm deep concrete footing

NOTES:

All load bearing walls are to have a rib or beam located below

Refer to bracing plan and identify any Gib hold downs and allow to cut out 200 x 200 of the pod to accommodate hold downs



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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FOUNDATION PLAN

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW
C	BUILDING CONSENT	04/03/2026	HW

PROJECT NO. 25915		**DESIGNED**	JK
SCALE @ A3 1 : 100		**DRAWN**	AB
REV NO.	C	**SHEET NO.**	S1.01

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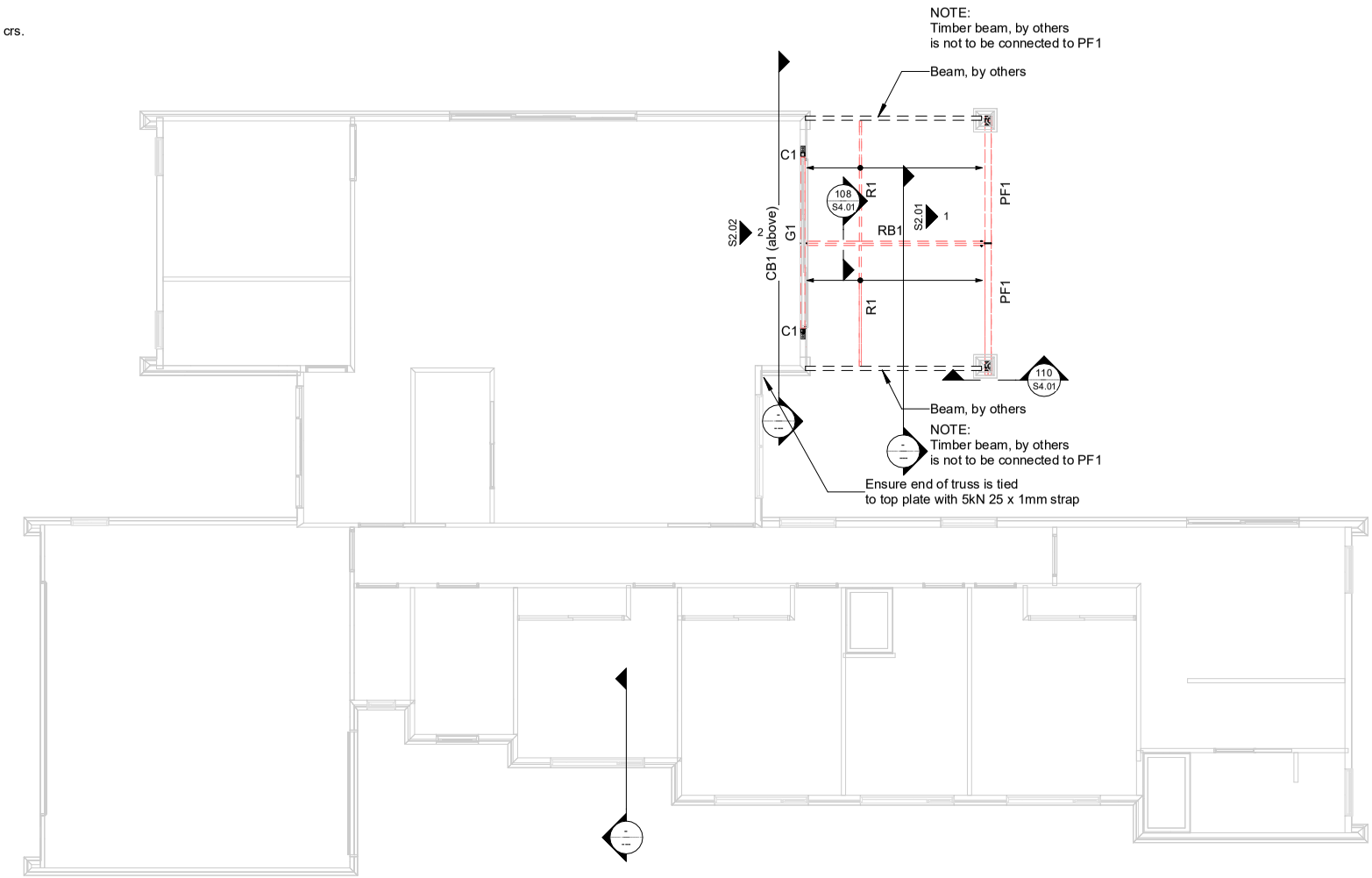
STRUCTURAL BEAM KEY

CB1	200UB22 Cranked Beam
G1	250PFC on edge
PF1	200UB22
R1	240 x 45 SG8 at 900mm crs.
RB1	2-240 x 45 LVL11

STRUCTURAL COLUMN KEY

C1	89 x 5 SHS
PF1	200UB22



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Christchurch office: (03) 347 1624
Auckland office: (09) 391 1324
Wellington Office: (04) 974 9094
Queenstown office: (03) 347 1624
Website: rcengineers.co.nz

PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FRAMING PLAN

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW

PROJECT NO.	25915	**DESIGNED**	JK
SCALE @ A3	1 : 100	**DRAWN**	AB
REV NO.	B	**SHEET NO.**	S1.02

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS

DO NOT SCALE - IF IN DOUBT CONFIRM DIMENSIONS ON SITE

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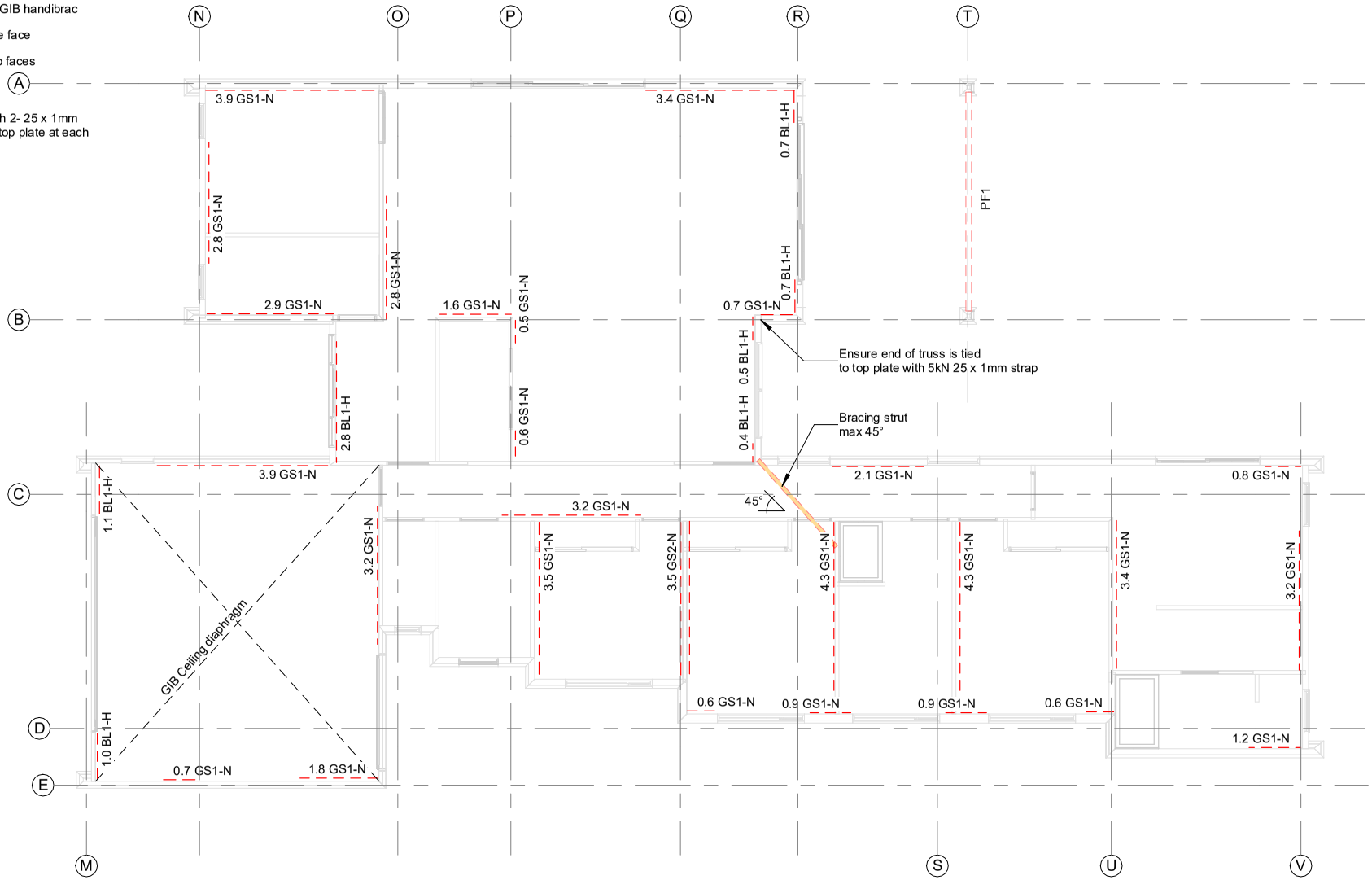
BRACING LEGEND

BL1-H	GIB Braceline one face with a GIB handibrac
GS1-N	Standard GIB plasterboard one face
GS2-N	Standard GIB plasterboard two faces
PF1	200UB22
Bracing Strut	90 x 45 on flat bracing strut with 2- 25 x 1mm straps and 3 skew nails to the top plate at each end



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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
BRACING PLAN

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW

PROJECT NO.	25915	**DESIGNED**	JK
SCALE @ A3	1 : 100	**DRAWN**	AB
REV NO.	A	**SHEET NO.**	S1.03

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS

DO NOT SCALE - IF IN DOUBT CONFIRM DIMENSIONS ON SITE

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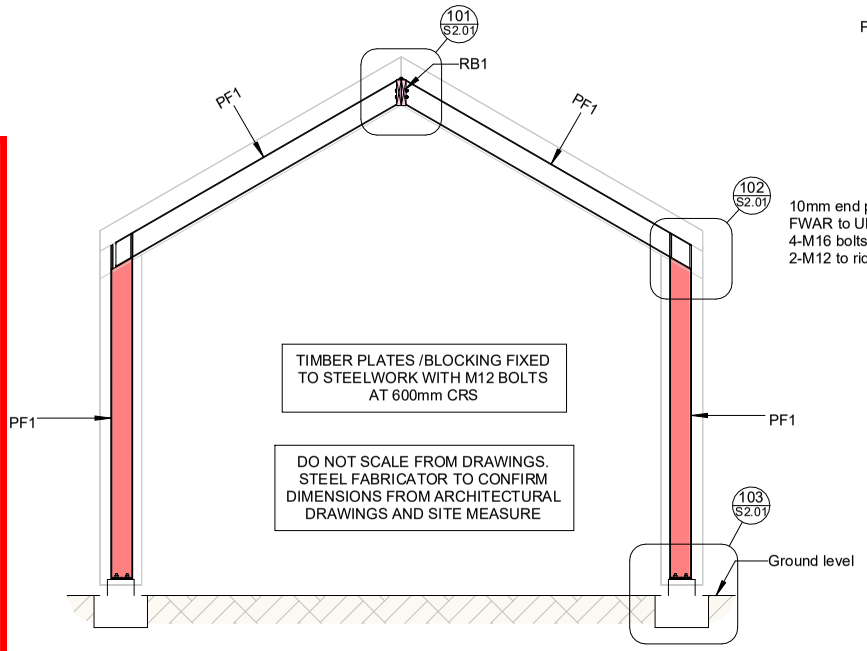
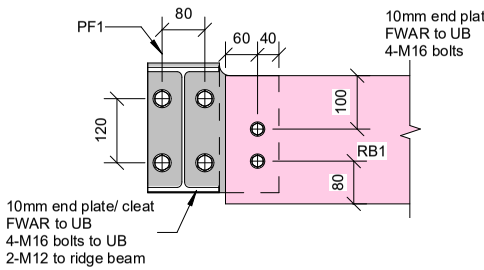
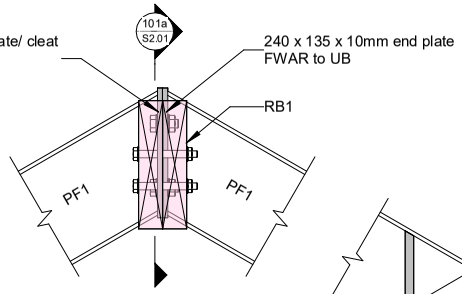


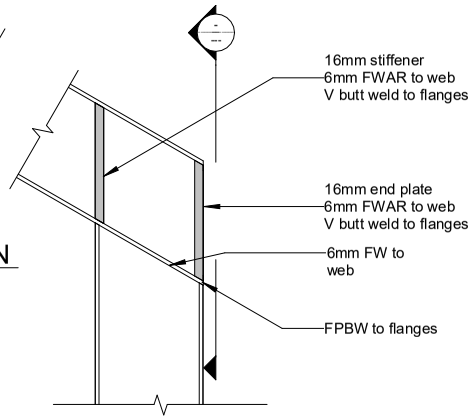
1 S1.02 PF1 ELEVATION
1 : 50



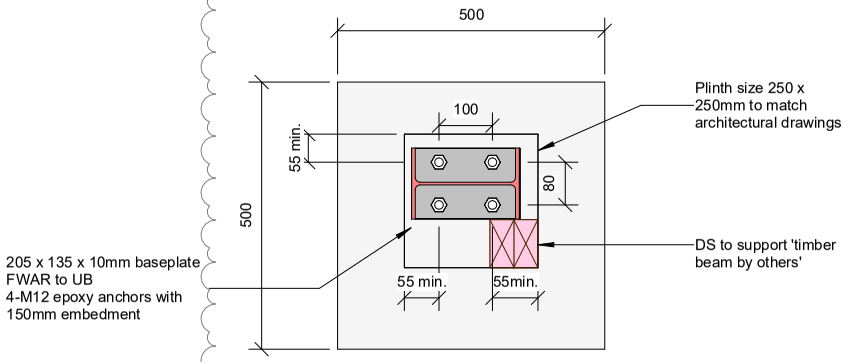
101a S2.01 DETAIL
1 : 10



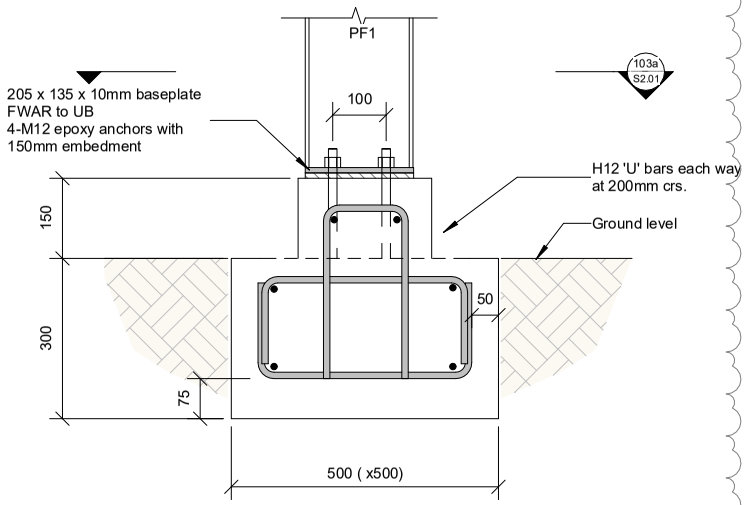
101 S2.01 APEX CONNECTION
1 : 10



102 S2.01 KNEE CONNECTION
1 : 10



103a S2.01 DETAIL
1 : 10



103 S2.01 PF1 BASEPLATE
1 : 10

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FRAMING SECTION

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW
C	BUILDING CONSENT	04/03/2026	HW

PROJECT NO. 25915		**DESIGNED**	JK
SCALE @ A3 As indicated		**DRAWN**	AB
REV NO.	C	**SHEET NO.**	S2.01

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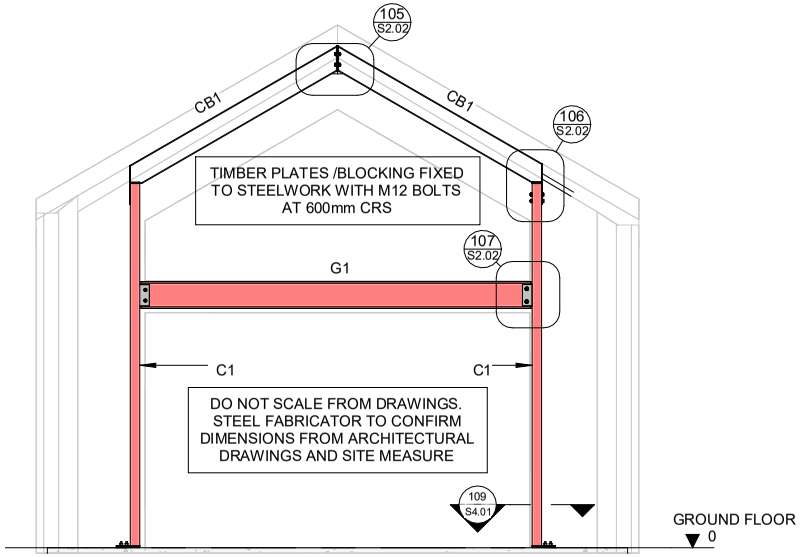
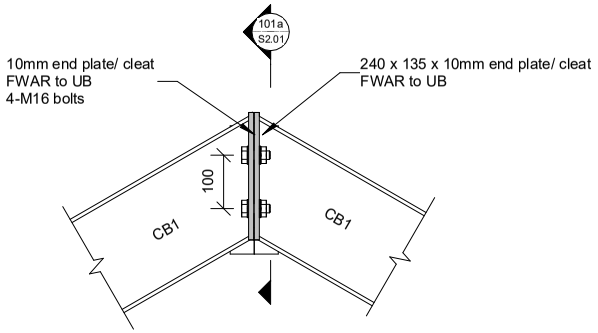
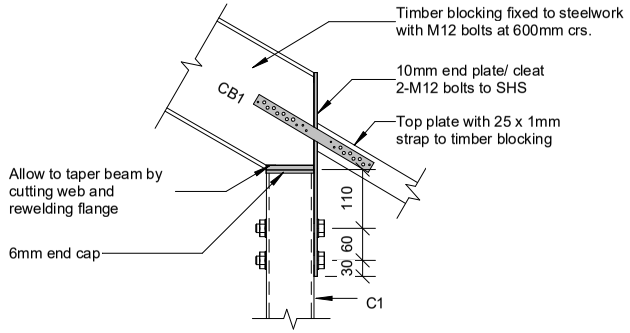


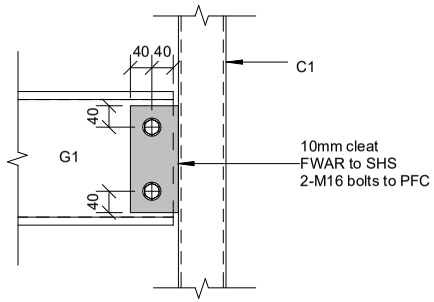
2 S1.02 FRAME ELEVATION
1 : 50



105 S2.02 APEX DETAIL
1 : 10



106 S2.02 KNEE DETAIL
1 : 10



107 S2.02 GIRT CONNECTION DETAIL
1 : 10

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FRAMING SECTION

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW

PROJECT NO.	25915	**DESIGNED**	JK
SCALE @ A3	As indicated	**DRAWN**	AB
REV NO.	A	**SHEET NO.**	S2.02

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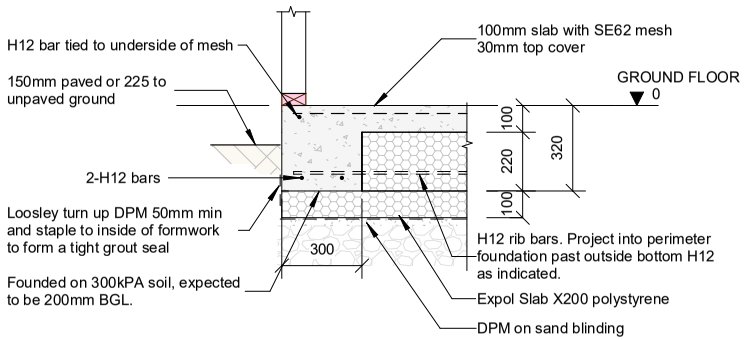
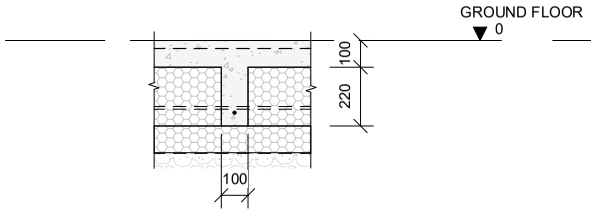
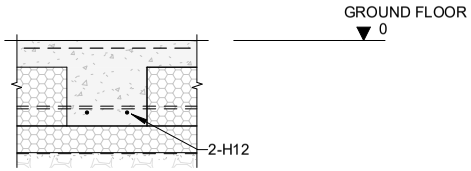
NOTE: Refer detail 001 for generic notes which apply to all details (unless specifically noted otherwise)



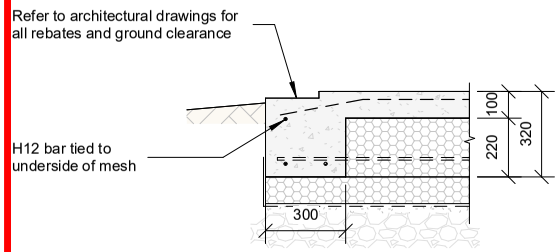
001 S1.01 PERIMETER FOOTING DETAIL
1 : 20



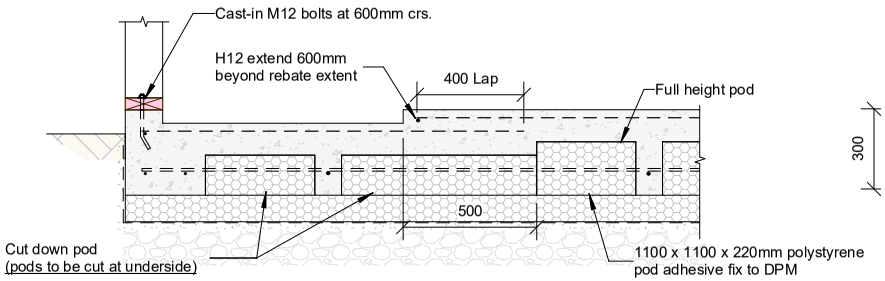
002 S1.01 RIB DETAIL
1 : 20



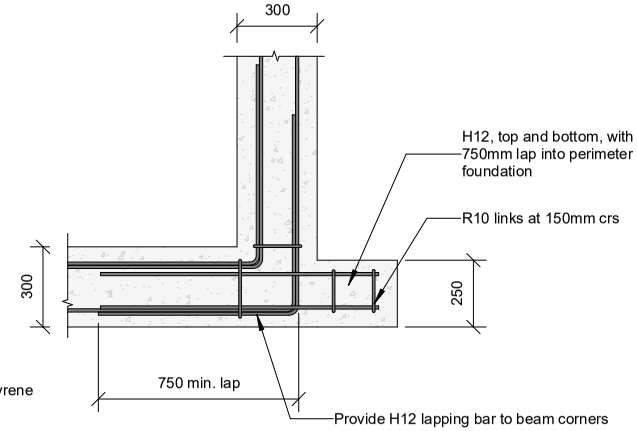
003 S1.01 INTERNAL BEAM DETAIL
1 : 20



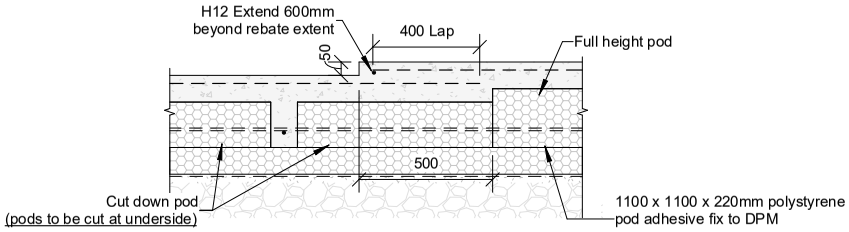
004 S1.01 SLAB REBATE DETAIL
1 : 20



005 S1.01 SHOWER REBATE DETAIL
1 : 20



006 S1.01 WING WALL
1 : 20



007 S1.01 SHOWER REBATE DETAIL
1 : 20

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FOUNDATION DETAILS

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW

PROJECT NO. 25915
SCALE @ A3 1 : 20
REV NO. B
DESIGNED JK
DRAWN AB
SHEET NO. S3.01

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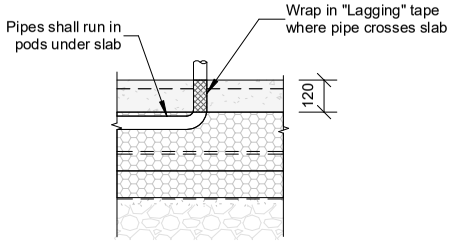
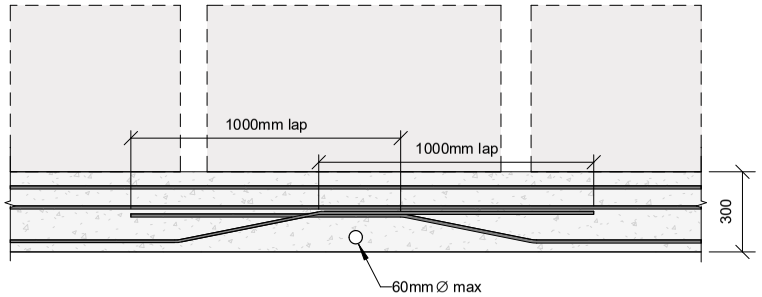
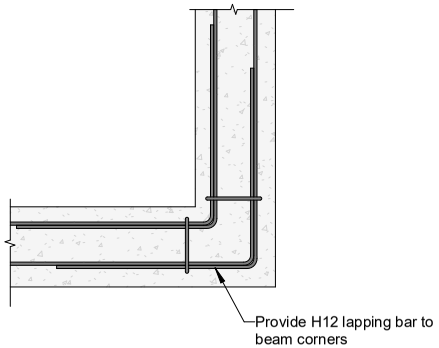


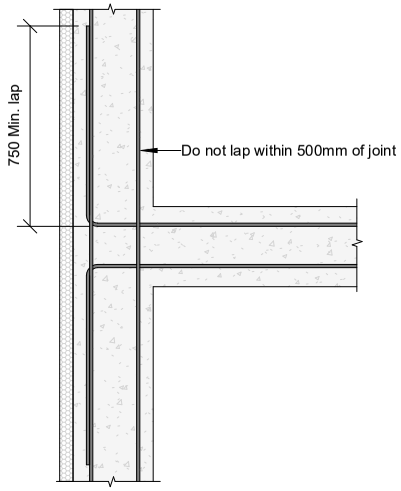
008 INTERNAL SLAB PENETRATION DETAIL
1 : 20



009 SERVICE PENETRATION DETAIL
1 : 20



010 CORNER BEAM DETAIL
1 : 20



011 INTERNAL TO EXTERNAL BEAM DETAIL
1 : 20

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

DRAWING TITLE
FOUNDATION DETAILS

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW

PROJECT NO. 25915
SCALE @ A3 1 : 20
REV NO. B
DESIGNED JK
DRAWN AB
SHEET NO. S3.02

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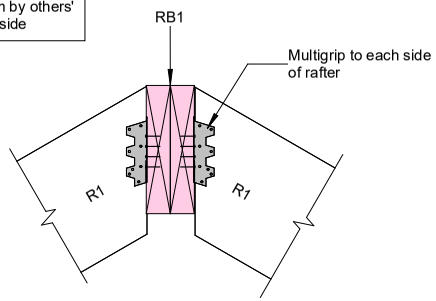
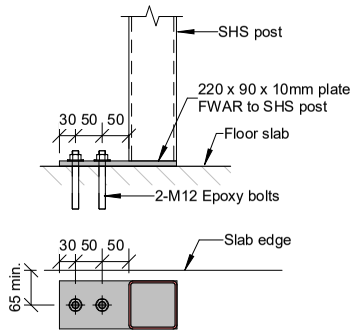
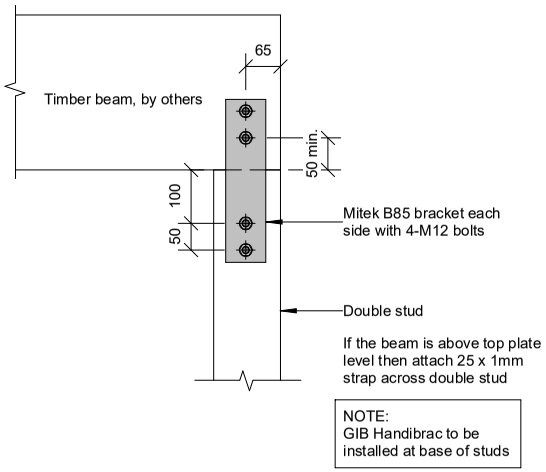
NOTE:
Connect R1 to 'Beam by others' with multigrips each side



108 S1.02 RIDGE CONNECTION DETAIL
1 : 10



109 S2.02 TYPICAL SHS BASEPLATE
1 : 10



NOTE:
GIB Handibrac to be installed at base of studs

110 S1.02 CONNECTION DETAIL
1 : 10

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PROJECT TITLE
NEW HOUSE
4 CORRAVALLY RISE
WEST MELTON

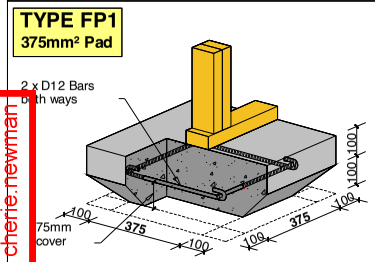
DRAWING TITLE
FRAMING DETAILS

REV NO.	REVISION	DATE	APPROVED
A	BUILDING CONSENT	13/02/2026	HW
B	BUILDING CONSENT	19/02/2026	HW

PROJECT NO. 25915
SCALE @ A3 1 : 10
REV NO. B
DESIGNED JK
DRAWN AB
SHEET NO. S4.01

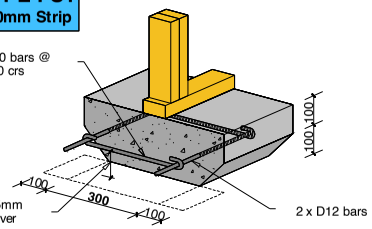
SLAB THICKENING & STUD REQUIREMENTS

TYPE FP1
375mm² Pad



2 3

TYPE FS1
300mm Strip



2 3

Notes:
- The numbers found in the hatched areas are the numbers of studs required below each truss
- Standard 100mm reinforcing concrete slab, as per NZS3604:2011

Refer to:
- MiTek Internal Load Bearing on Concrete Floor Slabs 10/2011
- MiTek Structural Fixings **On-Site Guide** for Building Code Compliance

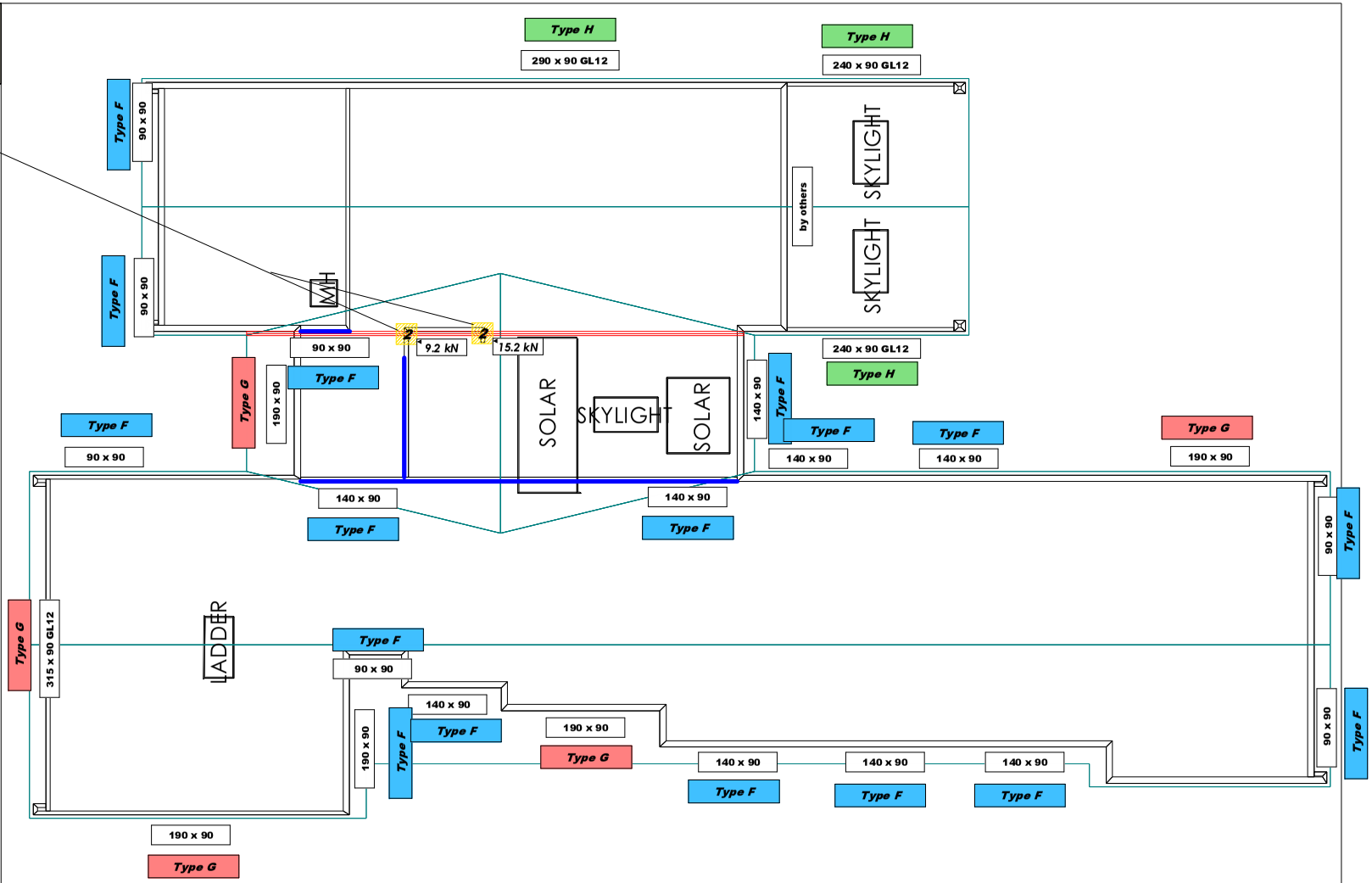
Concrete Slab Thickening Guide

Internal Loadbearing

Internal Loadbearing Walls with floor loads less than 8kN not requiring thickening

LINTELS SIZED USING MITEK GANGLAM CHARTS 2008 AND MITEK BEAM

All lintels are GL8 unless otherwise specified
All 90x90 lintels are 2/90x45 SG8



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CANTERBURY PRENAIL LTD
66 Stanleys Road
Harewood 8051
Christchurch
T: +64 3 242 0560
E: orders@itmcft.co.nz

Site Address :
Paramount Built
4 Corravally Rise
West Melton
Canterbury

Sheet Title :
For Building Consent
Slab Thickening

Date : 17 Dec,2025	Drawn : Eric Finn
Scale : NTS	System : MiTek 20/20

Job Details:

Roof Pitch	: 30.00deg	Truss Centres	: 900mm
Roof Material	: Galv Iron 0.55mm	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard Plaster Board 13mm	Floor Live Load	:
Wind Zone	: High	Wind Speed	: 44m/s
Roof Snow Load	: 0.378kPa	Overhang	: 80mm

PrimeCad v4.7.346

Job Title :
255310PS
Sheet :
2
Revision Number :

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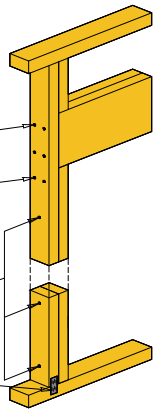
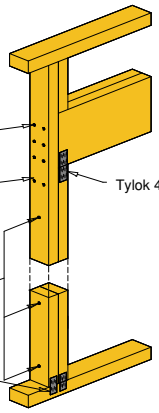
LUMBERLOK® LINTEL FIXING OPTIONS

TYPE E
1.4 kN



TYPE F
4.0 kN



Tylok Plate
Installation

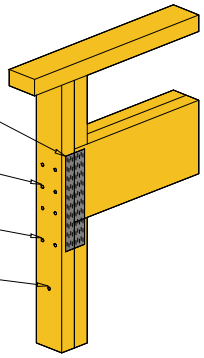
Notes:

For fixing of jack studs to lintel and top plate, refer to Stud to Top Plate Fixing Schedule

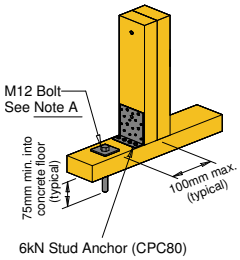
Stud numbers indicative only.
Refer to Table 8.5 NZS 3604:2011

LUMBERLOK Lintel Fixing Schedule 10/2011, MiTek Structural Fixings On-Site Guide for Building Code Compliance
(Alternative to Table 8.14 & Figure 8.12 NZS 3604:2011)

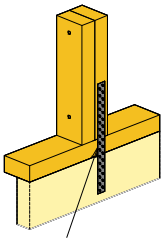
TYPE G
7.5 kN



Note A:
M12 proprietary concrete fixing bolt with 50x50x3mm square washer
Or
M12 x 150mm coach screw with 50x50x3mm square washer into timber joist/bearer

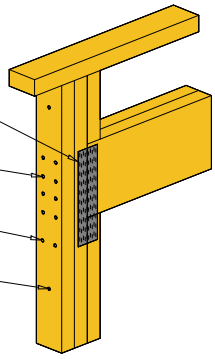


OR

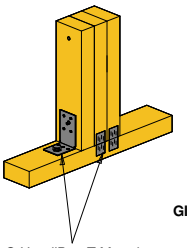


400mm Sheet Brace Strap to one side.
6 x 30mm x 3.15 Ø nails into stud.
3 x 30mm x 3.15 Ø nails into bottom plate.
6 x 30mm x 3.15 Ø nails into timber joist/bearer

TYPE H
13.5 kN



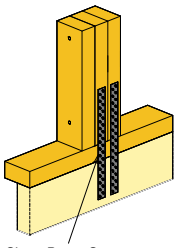
Note A:
M12 proprietary concrete fixing bolt with 50x50x3mm square washer
Or
M12 x 150mm coach screw with 50x50x3mm square washer into timber joist/bearer



GIB ® HandiBracT M and
2 x Tylok 2T4 both sides

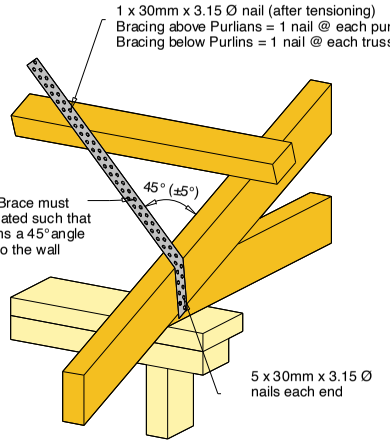
OR

GIB HandiBrac
Installation



2 x 400mm Sheet Brace Strap to one side.
6 x 30mm x 3.15 Ø nails into stud.
3 x 30mm x 3.15 Ø nails into bottom plate.
6 x 30mm x 3.15 Ø nails into timber joist/bearer

LUMBERLOK® ROOF BRACING



Roof Bracing Specifications

Refer to:
LUMBERLOK Roof Bracing Specifications 10/2011
MiTek Structural Fixings **On-Site Guide** for Building Code Compliance (As per NZS 3604:2011)

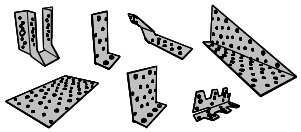
LUMBERLOK® TRUSS FIXINGS

D - Pair of Wire Dogs and 2 x 90mm 3.15mm skew nails
X - LUMBERLOK JH47x90 Joist Hanger
Z - LUMBERLOK JH47x120 Joist Hanger
P - LUMBERLOK JH47x190 Joist Hanger
E - LUMBERLOK JH95x165 Joist Hanger
T - LUMBERLOK CT200 Ceiling Tie
O - Pair of LUMBERLOK CT200 Ceiling Ties
H - LUMBERLOK CT400 Cyclone Tie
B - LUMBERLOK CT600 Cyclone Tie
4 - LUMBERLOK Multi Grip
M - Pair of LUMBERLOK Multi Grips
NP - LUMBERLOK Nailon Plate
N - LUMBERLOK N21 Diagonal Cleat
V - LUMBERLOK CPC40 Cleat
W - Pair of LUMBERLOK CPC40 Cleats
K - LUMBERLOK TTP 16kN Truss to Top Plate set
G - LUMBERLOK TTP 9kN Truss to Top Plate set

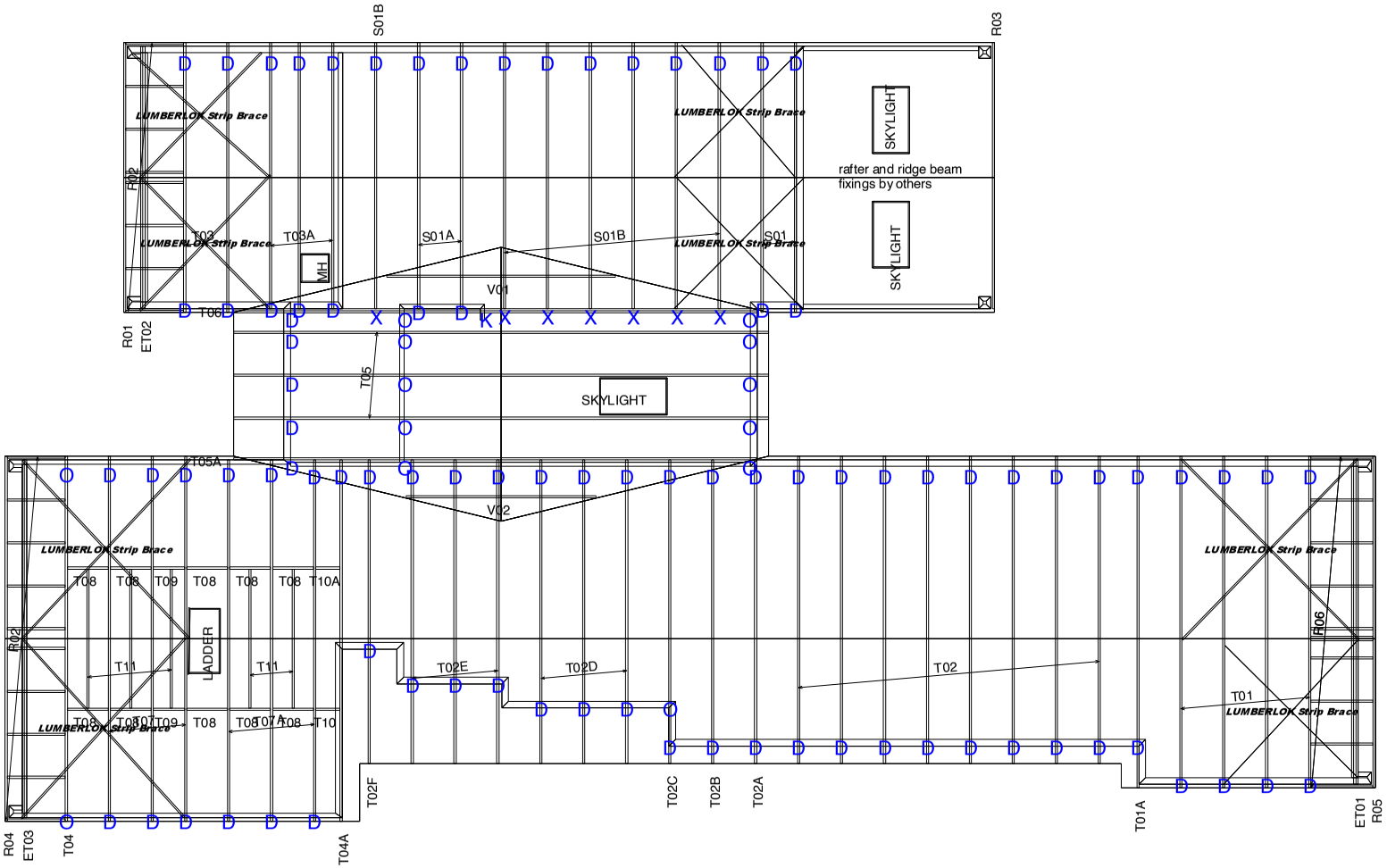
Joist Hanger Installation

CT200 Truss to Top Plate Fixing Installation

16kN & 9kN Truss to Top Plate Fixing Installation



Notes:
All other areas must have the minimum 2 x 90mm 3.15mm skew nails and 2 x wire dogs for truss to top plate connections
Refer to:
LUMBERLOK Timber Connectors Characteristic Loadings Data Brochure 08/2014



FIXINGS SHOWN ARE MINIMUM REQUIREMENT ONLY
THIS MAY CHANGE AT THE TIME OF MANUFACTURING
AND WILL BE COVERED OFF IN THE AS BUILT DOCUMENTS.

GDC - Approved Building Consent Document - BC260811 - Pg 61 of 61 - 23/04/2026 - cherie.newman

CANTERBURY PRENAIL LTD
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Harewood 8051
Christchurch
T: +64 3 242 0560
E: orders@itmcft.co.nz

Site Address :
Paramount Built
4 Corravally Rise
West Melton
Canterbury

Sheet Title :
For Building Consent
Truss Fixings & Roof Bracing

Date : 17 Dec,2025 | Drawn : Eric Finn
Scale : NTS | System : MiTek 20/20

Job Details:

Roof Pitch	: 30.00deg	Truss Centres	: 900mm
Roof Material	: Galv Iron 0.55mm	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard Plaster Board 13mm	Floor Live Load	:
Wind Zone	: High	Wind Speed	: 44m/s
Roof Snow Load	: 0.378kPa	Overhang	: 80mm

PrimeCad v4.7.346
MiTek™

Job Title :
255310PS
Sheet :
3
Revision Number :