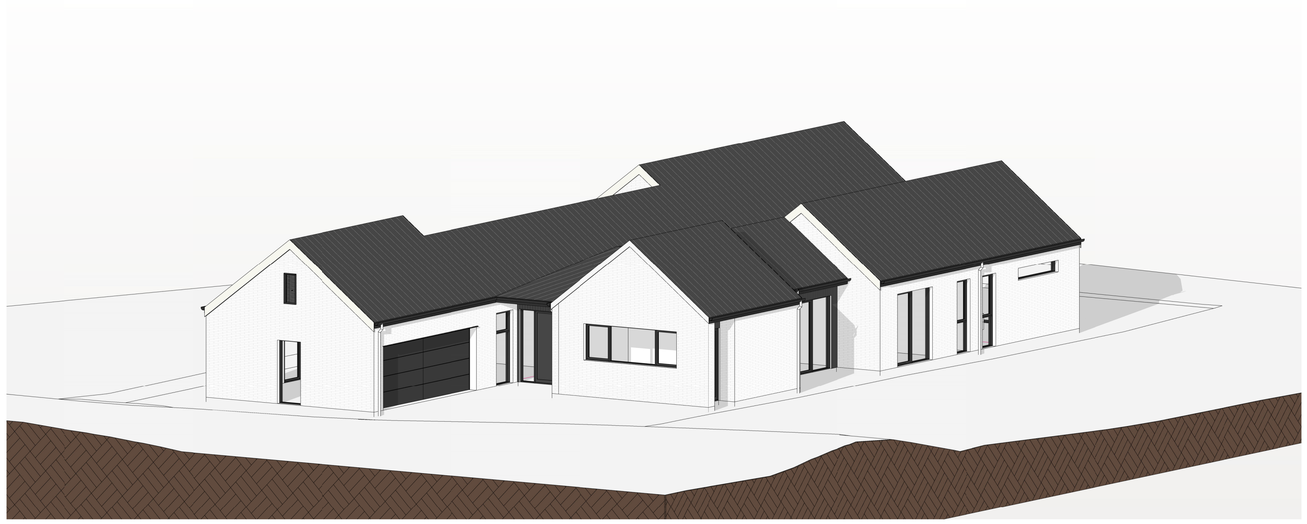
ARCLIGHT
ARCHITECTURE

BUILDING CONSENT

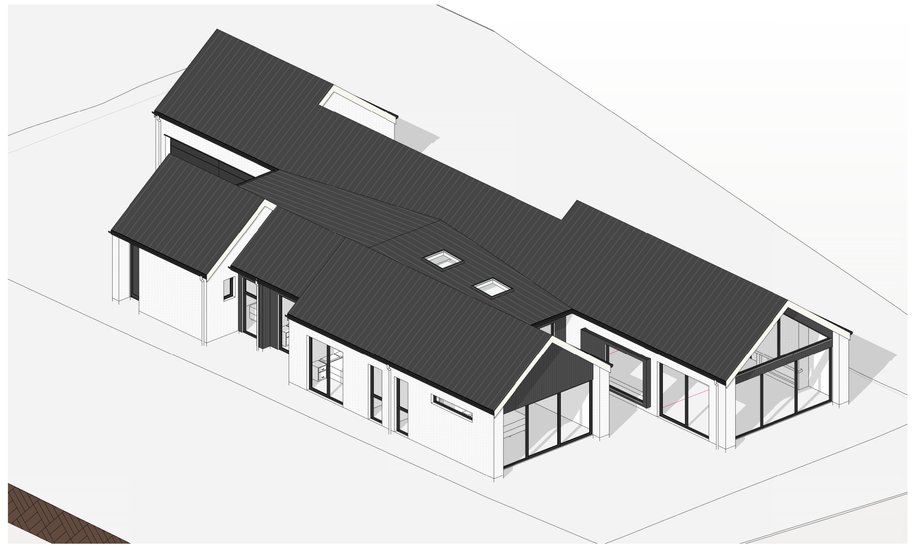
LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)











SHEET INDEX

SHEET No.	SHEET TITLE	REVISION
A0.0	COVER SHEET	A
A0.1	SHEET INDEX	A
A1.1	PROPOSED SITE PLAN	A
A1.2	DRAINAGE PLAN	A
A1.3	EARTHWORKS PLAN	A
A2.1	GROUND FLOOR PLAN	A
A2.2	ROOF PLAN	A
A2.4	FOUNDATION PLAN	A
A3.1	ELEVATIONS	A
A4.1	SECTIONS	A
A4.2	WINDOWS & DOORS SCHEDULE	A
A5.1	ARCHITECTURAL DETAILS	A
A5.2	ARCHITECTURAL DETAILS	A
A5.3	ARCHITECTURAL DETAILS	A
A5.4	ARCHITECTURAL DETAILS	A
A5.5	ARCHITECTURAL DETAILS	A
A5.6	ARCHITECTURAL DETAILS	A
A5.7	ARCHITECTURAL DETAILS	A
A5.60	WET AREA DETAILS	A
A5.71	TRIMMING STUDS & LINTEL FIXING DETAIL	A
A5.72	FRAMING FIXING DETAILS	A
A5.73	GABLE END BRACING, RAKING VERGE & DURABILITY	A

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

SHEET INDEX

REV	ID	DESCRIPTION	DATE	STATUS
A	BC		01/10/2020	

BC

REV A
SCALE-A1
JOB 28161
DRAWN
CHECKED

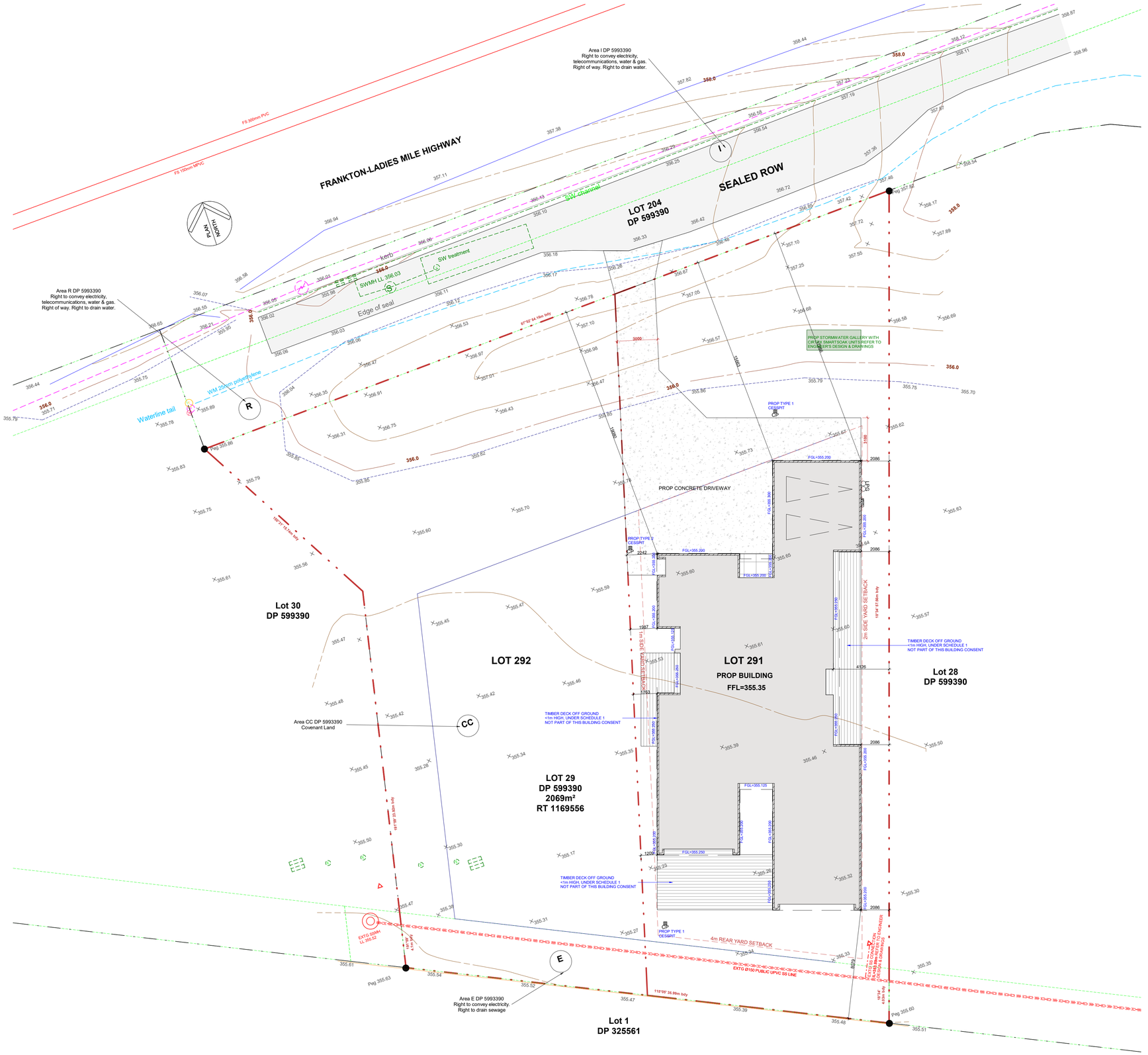
GENERAL NOTES

1. ALL BUILDING WORK TO COMPLY WITH NZS 3604:2011
2. ALL PLUMBING, DRAINAGE & GAS WORK TO COMPLY WITH THE NEW ZEALAND BUILDING CODE AND AS/NZS
3. ALL ELECTRICAL WORK TO COMPLY WITH NZS 3000
4. ALL DIMENSIONS & LEVELS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION
5. CONTRACTOR TO ENSURE ALL ADDITIONAL LOCAL & NEW ZEALAND REGULATIONS ARE COMPLIED WITH DURING CONSTRUCTION. COPYRIGHT ©2020 ARCLIGHT ARCHITECTURE LTD
6. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT

SHEET No.

A0.1

ARCLIGHT ARCHITECTURE



1 1 : 150 Plan

0. Proposed Site Plan

LEGEND

- SITE BOUNDARY
- EXISTING PUBLIC SS LINE
- STORMWATER GALLERY WITH CIRTEX SMARTSOAK UNITS REFER TO ENGINEER'S DESIGN & DRAWINGS
- YARD SET BACK
- GHW — GAS HOT WATER HEATER
- LPG — 2 x 45KG LPG BOTTLES
- CP — PROP CESSPIT

NOTES

- TOPOGRAPHY DATA BASED ON THE TOPOGRAPHICAL PLAN PREPARED BY - AURUM SURVEY CONSULTANTS, REF: 6530.1T.1A, DATED 26/05/2026
- LEVELS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016

SITE SUMMARY

ADDRESS	**LOT 291**- 31 KAHIWI DRIVE, LOWER SHOTOVER, QUEENSTOWN 9304
LEGAL DESCRIPTION	LOT 29 DP 599390
SITE AREA	1086m²

CLIMATE ZONE: 6
EARTHQUAKE ZONE: ZONE 3
EXPOSURE ZONE: ZONE B
LEE ZONE: NO
RAINFALL RANGE: 20 - 30
WIND REGION: A
WIND ZONE: HIGH

SITE DEVELOPMENT SCHEDULE

SITE AREA	1086m²
BUILDING COVERAGE	351.4m² 32.4%
IMPERVIOUS AREA	538.5m² 49.6%
LANDSCAPED AREA	562.8m² 51.8%

LOT 291- 31 KAHIWI DRIVE — **PROPOSED SITE PLAN**

QUEENSTOWN (LOT 29 DP 599390)

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	

BC
REV A
SCALE-A1 As indicated
JOB 2610
DRAWN
CHECKED

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE CURRENT 2024/11 NZ'S (UNLESS OTHERWISE NOTED).
2. ALL MATERIAL, FINISHES AND SOLVENTS TO COMPLY WITH SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NZ BUILDING CODE AND ALL RELEVANT LOCAL AUTHORITY BYLAWS.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. DO NOT SCALE DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY CONTRACTOR BEFORE COMMENCEMENT OF ANY WORK.
6. ALL DIMENSIONS ARE TO BE CONFIRMED ON SITE BY CONTRACTOR. ANY DISCREPANCIES ARE TO BE REPORTED TO ARCLIGHT ARCHITECTURE IMMEDIATELY. ALL DIMENSIONS ARE TO BE CHECKED BY CONTRACTOR PRIOR TO THE MANUFACTURE OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.

SHEET No. **A1.1**

ARCLIGHT ARCHITECTURE

NOTES

- SELECTED LAUNDRY TUBS AND KITCHEN SINKS MUST HAVE AN INTERGRATED OVERFLOW WITH A MINIMUM FLOW RATE OF 0.25L/S.

- ALL PLUMBING AND DRAINAGE WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.2:2021 AND NZBC E1/AS1 AND WITH ALL RELEVANT CODES AND LOCAL BYLAWS. ALL CONNECTION TO PUBLIC LINES BY REGISTERED PROFESSIONALS

- ALL PLUMBING AND DRAINAGE TO BE INSTALLED AND TESTED BY A REGISTERED TRADESPERSON.

WATER SUPPLY NOTES

- Water pipe material comply with Clause 2.2, Table 1 of G12/AS1:
(1) Hot and cold water pipe Ø15mm copper,galvanised steel or polybutylene.
(2) Cold water pipe Ø15mm PVC-U or polybutylene.

- Hot water to sanitary fixtures to comply with NZBC G12/AS1 Clause 6.14.The delivered hot water temperature at any sanitary fixture used for personal hygiene includes showers, baths, hand basins and bidetes shall not exceed 55°C.

All sanitary waste uPVC pipes under concrete floor slab to be 100Ø and necked down at finished floor level to the fixtures, laid in sand or AP7 scoria under slab, or sleeved inside dust pipe of a bigger diameter copper dense wrapped in and under slab. When encased in concrete, all pipes and fittings shall be wrapped with an by impermeable flexible sheath not less than 6mm thick.

Figure 8: Type-one Surface Water Sump — Paragraph 3.6.2

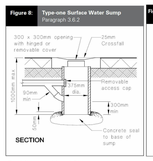


Figure 2: Non potable Water Sign — Paragraph 4.2.1

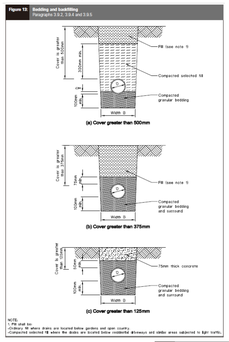


Bedding and backfilling note
Stormwater Drains bedding and backfilling shall complies with section 3.9 and Figure 13 of NZBC E1/AS1.

Trench width- The width B of the trench shall be no less than the pipe diameter D plus 200 mm. Trench width at the top of the pipe shall be no more than 600 mm unless the pipe(s) in the trench are covered with concrete, as shown in Figure 13 (c).

Acceptable materials
Acceptable fill materials shown in Figure 13 are:
a) Bedding material of clean granular non-cohesive material with a maximum particle size of 20 mm, or
b) Selected compacted fill of any fine-grained soil or granular material which is free from topsoil and rubbish and has a maximum particle size of 20 mm, or
c) Ordinary fill which may comprise any fill or excavated material.

Figure 13 Bedding and backfilling — Paragraphs 3.9.1, 3.9.4 and 3.9.5



Proximity of trench to building note
For light timber frame and concrete masonry *buildings* constructed to NZS 3604 or NZS 4229 in accordance with B1/AS1, pipe trenches which are open for no longer than 48 hours shall be located no closer than distance 'A' (see Figure 14) to the underside of any *building* foundation. Where the trench is to remain open for periods longer than 48 hours, the minimum horizontal separation shall increase to 3V in all ground except rock.

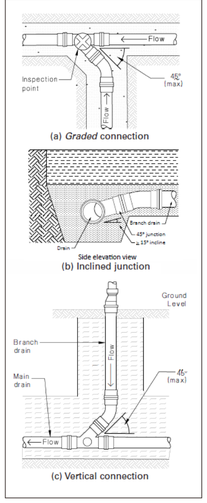
Figure 14 Relationship of Pipe Trench to Building Foundation — Paragraph 3.9.6.1

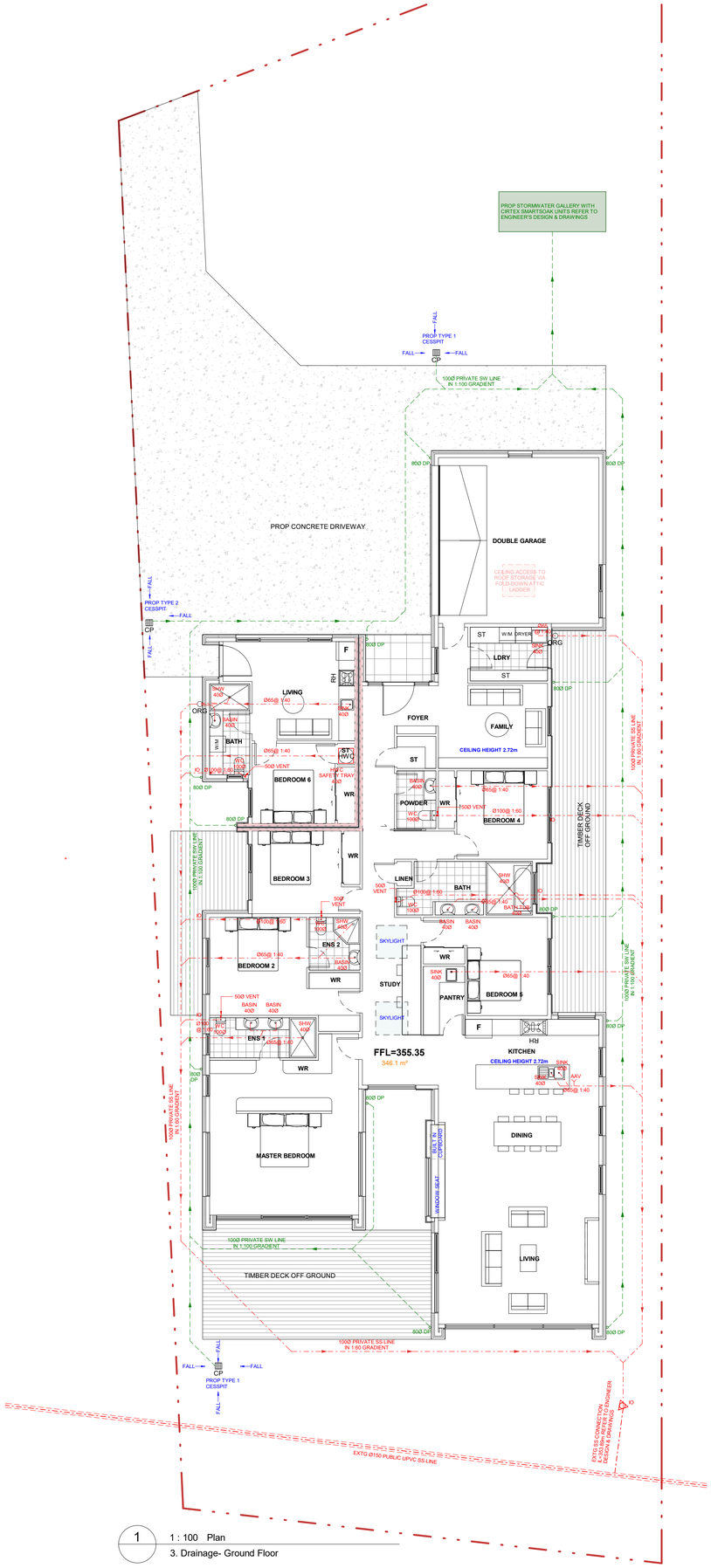


FOUL WATER DRAINAGE JUNCTION NOTE

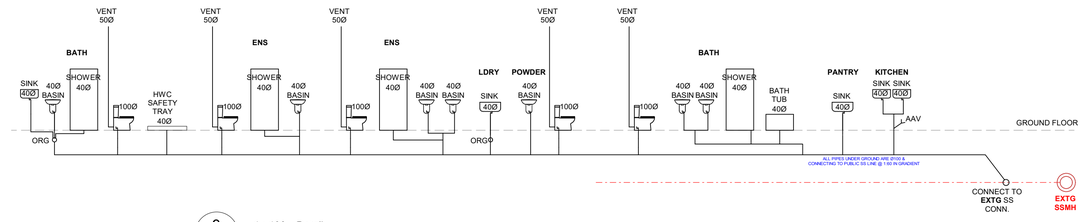
Any connection to a drain, excluding vent pipe connections, shall be made by means of a junction with an upstream angle no greater than 45° and installed in the direction of flow.Junctions in graded drains shall be installed so that the entry level of the branch drain is elevated at an incline of not less than 15° above the horizontal (see Figure 1).

Figure 1: Connection of drains — Paragraph 3.2.1

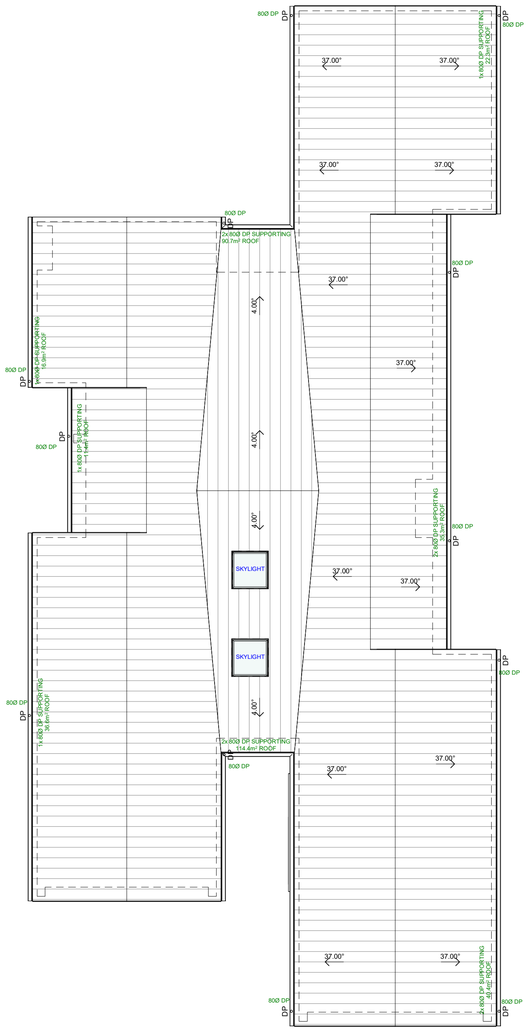




1 — 1 : 100 Plan
3. Drainage- Ground Floor



3 — 1 : 100 Detail
Plumbing Schematic



2 — 1 : 100 Plan
3. Drainage-Roof

LEGEND

- SITE BOUNDARY
- PROP PRIVATE SW LINE
- EXISTING PUBLIC SS LINE
- PROP PRIVATE SS LINE
- STORMWATER GALLERY WITH CIRTEX SMARTSOAK UNITS REFER TO ENGINEER'S DESIGN & DRAWINGS
- CP — PROP CESSPIT
- ORG — OVERFLOW RELIEF GULLY
- IO — INSPECTION OPENING

PIPES, TRAPS & FITTINGS MATERIALS, GRADIENT & SIZE NOTES

Materials for sanitary plumbing systems using gravity flow shall comply with **G13/AS1 Table 1.**

Table 1: Pipes, traps and fittings — Paragraph 2.1.1

Material	Standard
Pipes and fittings	
Air admittance valves	ASSE 1050 or ASSE 1051, BS EN 12380, AS/NZS 4936
Copper pipe	NZS 3501, AS 1432
Copper fittings	AS 1589
PVC pipe and fittings	AS/NZS 1260
Plastic fittings	AS 2987
PE pipe and fittings	AS/NZS 4401
Elastomeric rings	AS 1646
Polypropylene	AS/NZS 7671
Stainless steel	BS EN 1124 Parts 1 and 2
Traps	
Plastic	AS 2987
Copper	AS 1589

PIPES SIZE & GRADIENTS		
SANITARY FIXTURE OR APPLIANCE	**MIN. TRAP OUTLET AND FIXTURE DISCHARGE PIPE (Ømm)**	**MINIMUM GRADIENT**
Basin	Ø40	1:40
Vanity	Ø40	1:40
Kitchen Sink	Ø40	1:40
Shower	Ø40	1:40
Bath	Ø40	1:40
Laundry Tub	Ø40	1:40
Washing Machine	Ø40	1:40
Dishwashing Machine	Ø40	1:40
HWC Safety Tray	Ø40	1:40
Floor Waste Gullies(FWG)	Ø65	1:60
Water Closet Pan(WC)	Ø100	1:60

Vent Pipe	Ø50	NA
Waste stacks	Ø100	NA
Downpipes	Ø80	NA

Wastewater Drains	Ø100	1:60
Stormwater Drains	Ø100	1:120
Subsoil Drainage /Drain Coils	Ø100	1:200

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

DRAINAGE PLAN

REV ID	DESCRIPTION	DATE	STATUS	BC
A	BC	01/10/2026		
			REV	A
			SCALE-A1	1 : 100
			JOB	2614
			DRAWN	
			CHECKED	

GENERAL NOTES
1. DRAWINGS TO BE READ IN CONJUNCT WITH ALL OTHER CONTRACT DOCUMENTS.
2. ALL WORK TO COMPLY WITH THE NEW ZEALAND BUILDING CODE AND ALL RELEVANT CODES AND STANDARDS.
3. ALL DIMENSIONS ARE AVAILABLE BEFORE VALUES ARE SCALED OR ESTIMATED.
4. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE THE COMMENCEMENT OF CONSTRUCTION OR FABRICATION OF ALL ITEMS.
5. ALL DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
6. THE COPYRIGHT OF THIS DRAWING IS VESTED IN ARCHLIGHT ARCHITECTURE LIMITED AND THE CONTRACTOR SHALL NOT COPY, TRACE, REPRODUCE OR TRANSMIT THIS DRAWING IN ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR WRITTEN PERMISSION OF ARCHLIGHT ARCHITECTURE LIMITED. ANY UNAUTHORISED USE OF THIS DRAWING MAY RESULT IN LEGAL PROCEEDINGS BEING TAKEN AGAINST THE INFRINGING PARTY.

SHEET No.
A1.2

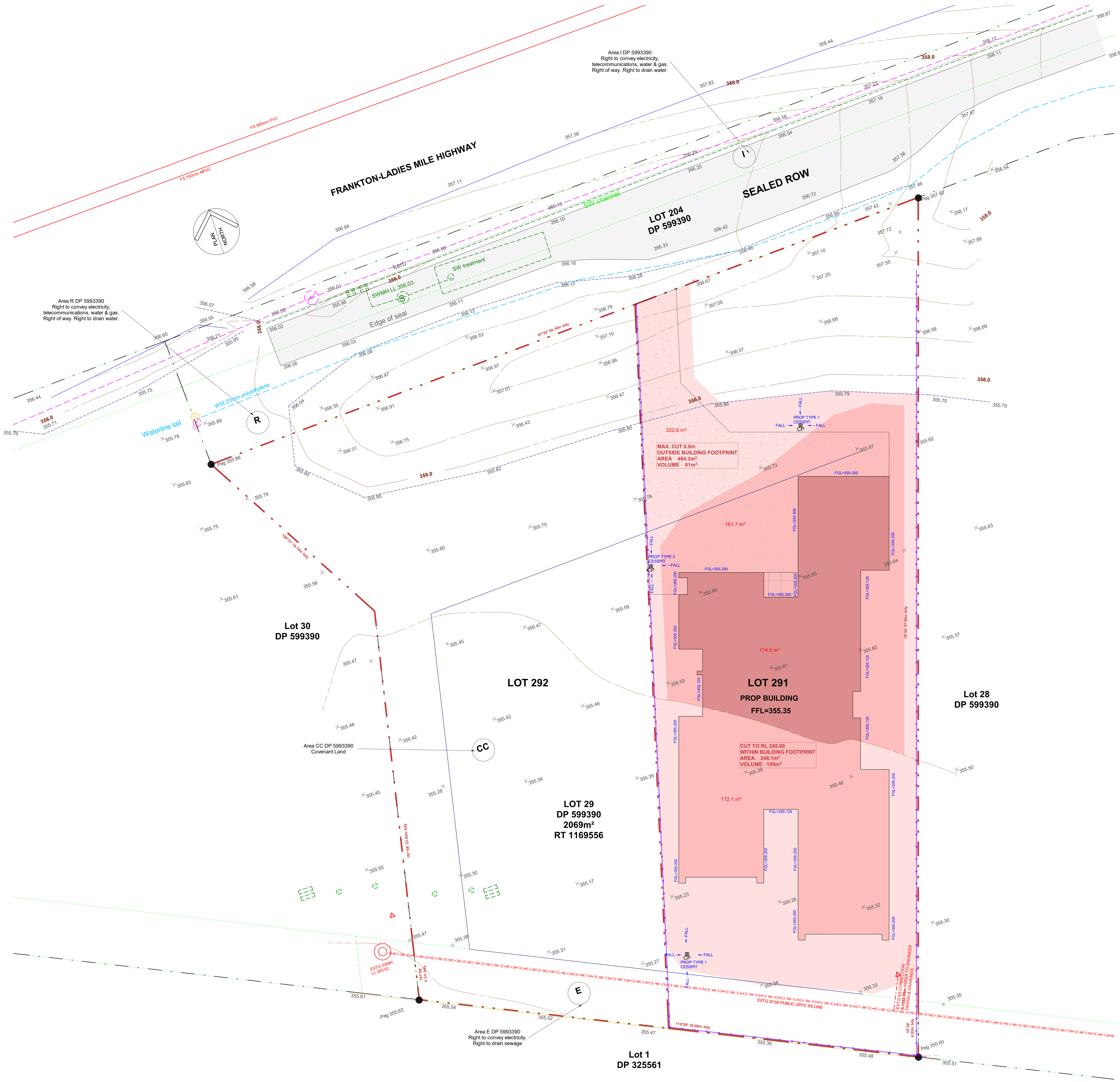
ARCLIGHT ARCHITECTURE

LEGEND

- SILT FENCE
- SITE BOUNDARY
- EARTH CUT 0-0.25m
- EARTH CUT 0.25-0.5m
- EARTH CUT 0.5-0.75m

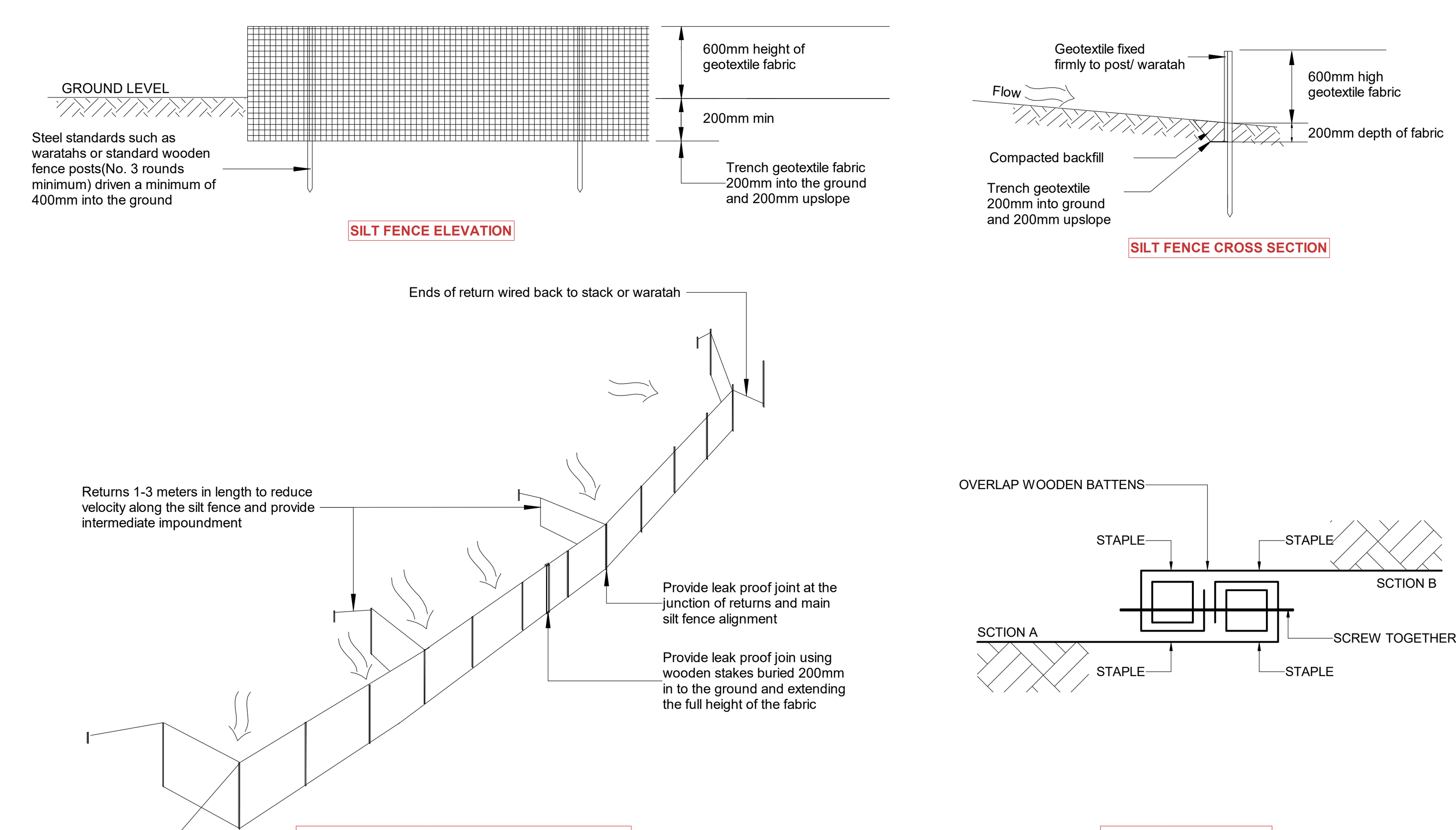
SITE EARTHWORKS

TOTAL CUT AREA INSIDE BUILDING	346.1m²
TOTAL CUT AREA OUTSIDE BUILDING	484.3m²
TOTAL FILL AREA INSIDE BUILDING	0m²
TOTAL FILL AREA OUTSIDE BUILDING	0m²
TOTAL EARTHWORKS AREA	**830.4m²**
TOTAL CUT VOLUME INSIDE BUILDING	109m³
TOTAL CUT VOLUME OUTSIDE BUILDING	81m³
TOTAL FILL VOLUME INSIDE BUILDING	0m³
TOTAL FILL VOLUME OUTSIDE BUILDING	0m³
TOTAL EARTHWORKS VOLUME	**190m³**



2 1 : 150 Plan

3. Earthworks Plan



1 NTS Detail

Silt Fence Construction Methodology

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

EARTHWORKS PLAN

REV ID	DESCRIPTION	DATE
A	BC	01/10/2026

STATUS: BC
REV: A
SCALE-A1: As indicated
JOB: 26101
DRAWN
CHECKED

SHEET No. **A1.3**

ARCLIGHT ARCHITECTURE

FLOOR PLAN LEGEND

- I.S.A — INTERCONNECTED SMOKE ALARM
- RH — MECHANICAL EXHAUST FAN WITH DUCT
- RANGE HOOD
- MBS — METER BOARD & SWITCH BOARD
- GHW — GAS HOT WATER HEATER
- LPG — 2 x 45KG LPG BOTTLES
- HWC — HOT WATER CYLINDER
- STORMWATER GALLERY WITH CIRTEX SMARTSOAK UNITS REFER TO ENGINEER'S DESIGN & DRAWINGS
- CA — CEILING ACCESS

FLOOR FINISHES

- CONCRETE
- CARPET
- TILES IN WET AREA
- SPC FLOORING -WATERPROOFING MEMBRANE UNDER WET AREA
- TIMBER DECK

NOTES

- INTERCONNECTED SMOKE ALARM SHALL BE LOCATED ON ALL BEDROOMS, LIVING SPACE, HALL WAYS AND LANDING WITHIN THE HOUSEHOLD UNIT.

- INTERCONNECTED SMOKE ALARM INSTALLED ON OR NEAR THE CEILING IN ACCORDANCE WITH NZS 4514:2021 AND MANUFACTURER'S INSTRUCTIONS

FOR ALL OTHER PLANNING INFORMATION, PLEASE REFER TO APPROVED RESOURCE CONSENT PLANS

WALL FRAMING

TYPICAL EXTERNAL WALLS

CLADDING	STUDS SIZE & SPACING	NOG SIZE & SPACING
VERTICAL SHIPLAP WEATHERBOARD	2720mm HIGH 140X45@400CRS STUDS	140X45@480CRS
BRICK VENEER	2720mm HIGH 140X45@400CRS STUDS	140X45@800CRS
GARAGE WALLS	2720mm HIGH 140X45@400CRS STUDS	140X45@800CRS

TYPICAL INTERNAL WALLS	STUDS SIZE & SPACING	NOG SIZE & SPACING
INTERNAL AND LOADBEARING WALLS	2720mm HIGH 90X45@400CRS STUDS	90X45@800CRS
INTERNAL AND NON-LOADBEARING WALLS	2720mm HIGH 90X45@600CRS STUDS	90X45@800CRS

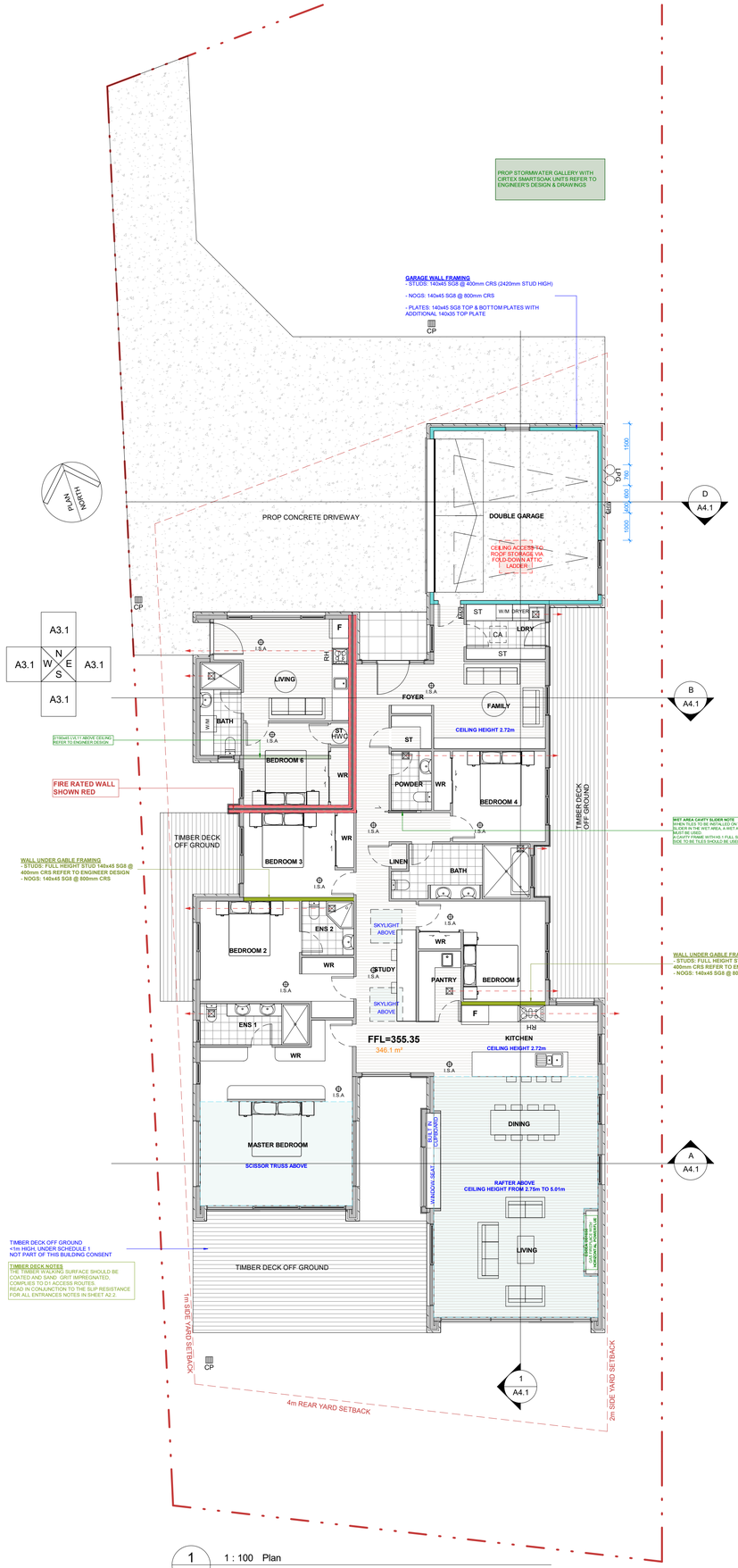
ALL SED WALLS/ POSTS/ BEAMS SIZE & LOCATION REFER TO ENGINEER DESIGN.

TOP PLATE	SG8 H1.2- 140x45 + 140x35
BOTTOM PLATE	SG8 H1.2- 140x45

FIRE RATED INTERTENANCY WALL

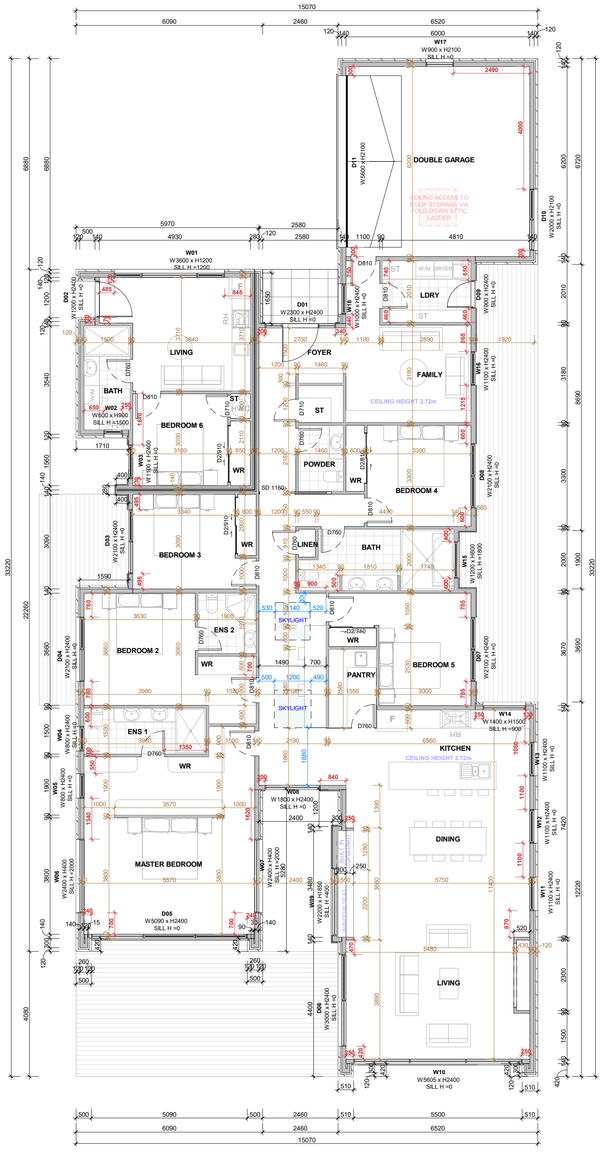
MIN 30/30/30 - INTERTENANCY WALL (FRR TWO WAY): GB/TLAB 60b - DOUBLE TIMBER FRAME WITH CENTRAL BARRIER, 1 x 10mm GIB BRACELINE/GIB NOISELINE EACH SIDE. SHALL BE REPLACED WITH 1 x 10mm GIB AQUALINE AT WET AREA AS PER GIB ALTERNATIVE MANUAL. SHALL BE REPLACED WITH FIRE RETARDANT UNDERLAY AT EXTERIOR.

GROSS FLOOR AREA (m²)	346m²



1 : 100 Plan

1. Overall- Ground Floor



2 : 100 Plan

2. Dimension- Ground Floor

Timber Treatment		
Timber to be used for		**Min. Required Treatment**
Foundation		
Piles/Posts in ground		H5
Piles/Posts supported clear of ground		H3.2
Exposed subfloor framing		H3.2
Enclosed subfloor framing		H1.2
Wall		
Wall framing		H1.2
Cavity batten		H3.1
Bracing plywood		H3 CCA
Roof		
Truss/Rafter		H1.2
Purlin/Tile batten		H1.2
Ceiling batten		H1.2
Shingle roof plywood	Above 12°	Untreated
	12° or lower	H3 CCA
Membrane roof plywood		H3 CCA
Soffit bearer		H1.2
Floor		
Mid floor joist		H1.2
Wet area plywood		H3 CCA
Deck		
Deck joist/bearers		H3.2
Decking		H3.2
Membrane deck plywood		H3 CCA
Stringer		H3.2
Exterior steps		
All timber elements for exterior steps		H3.2

Wall plates shall be fixed to foundation walls:
Cast-in M12 bolts and 50 mm x 50 mm x 3 mm washers within 300 mm from the end of the timber at corners of *foundation walls* and at no more than 1.4 m centres, set no less than 75 mm into the concrete and projecting sufficiently to allow for a washer and a fully threaded nut above the timber as shown in figure 6.16;

SECTION 6 – FOUNDATION AND SUBFLOOR FRAMING — NZS 3604:2011

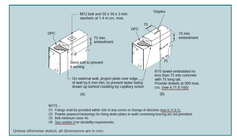


Figure 6.16 – Fixing of wall plates to foundation walls (see 6.11.3)

Fixing of bottom plates
- Cast-in anchors

Anchors shall be M12 bolts set within 150 mm of each end of the *plate*, *spaced* at a maximum of 1200 mm centres, bent to prevent turning and projecting sufficiently to allow a washer and fully threaded nut above the timber.

(a) For *internal* and *external walls*, where the slab edge is formed with in-situ concrete, anchors shall be set not less than 90 mm into the concrete, maintaining a minimum edge distance of 50 mm.

(b) For *external walls* where the slab edge is formed with masonry header *blocks*, anchors shall be set not less than 120 mm into the concrete, maintaining a minimum edge distance of 50 mm to the outside face of the *blocks*.

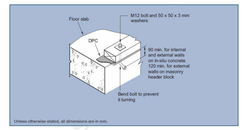


Figure 7.21 – Fixing of bottom plates to slabs and cast-in anchors (see 7.5.12.1)

- Proprietary post fixed anchors

Proprietary anchors shall be within 150 mm of each end of the *plate* and be *spaced* at a maximum of 900 mm centres, or 600 mm centres when used on slab edges formed by masonry header *blocks*.

Waterspash notes:
The following finishes to floors satisfy the performance for impervious and easily cleaned surfaces in spaces containing sanitary fixtures or sanitary appliances. In open plan spaces this surface shall extend at least 1.5 m from all sanitary fixtures and sanitary appliances should be in compliance with **E3/AS1 3.1.1** as below:

a) Integrally waterproof sheet material (e.g. polyvinylchloride) with sealed joints and sealed or coved at edges where waterspash may occur.

b) Ceramic or stone tiles having 6% maximum water absorption, waterproof grouted joints, and bedded with an adhesive specified by the tile manufacturer as being suitable for the tiles, substrate material and the environment of use. Edges of the tiled area where waterspash may occur must be sealed or coved, and tiles must be laid on a continuous impervious substrate or a membrane specified by the manufacturer as being suitable for the tiles, substrate material and the environment of use.

c) A slab-on-grade concrete floor having a steel trowel or polished finish, sealed at edges where waterspash may occur, when used in a domestic laundry within a garage, or in a building that contains only sanitary facilities.

GLAZING NOTES
All glazing should be in accordance with NZBC F2/AS1 & NZS 4223.3:2016. Glass to comply with AS/NZS 2208:1996.

Glazing in bathrooms, ensuites, or spa rooms within 2000 mm of the FFL shall be safety glass comply with NZS 4223.3:2016.

Frosted glass should be used in all the bathrooms, ensuites, toilets, walk-in robes.

Glazing Above Window Seat
For any glazing within 800mm of a window seat safety glass is required. For glazing within 2m safety glass is required.
(a) Where the glazing forms a backrest to a window seat, or similar seating arrangement, and the glazing extends down to within 800mm of the seat level it shall be safety glass in accordance with Table 1 of NZS 4223.3:2016.
(b) A horizontal ledge wider than 200mm from the glass face and within 800mm of the floor or seat level shall be considered a window seat.

SAFETY FROM FALLING NOTES
Where people could fall 1 metre or more from an opening in the external envelope or floor of a building, or from a sudden change of level within or associated with a building, a barrier shall be provided.
Minimum barrier heights comply with Table 1 of NZBC F4/AS1.
Barriers construction detail comply with Clause 1.2 and Figure 1-4 of NZBC F4/AS1.

WINDOW RESTRICTORS

(a) Window openings width less than 1000mm,lower edge of openings within 760mm from FFL,requires window restrictor fitted to limit the maximum opening so that a 100mm diameter sphere cannot pass through it or a 760mm high barrier protecting the opening of solid construction or with vertical members its full height.

(b) All window openings located in wet area, window restrictor are required.

(c) The height of fall shall be measured from the inside floor level adjacent to the window. If a toilet pan or any other fixed feature is within 500mm horizontally of a window, the lower edge of the opening shall be measured vertically from the pan or feature.

SLIP RESISTANCE FOR ALL ENTRANCES NOTES

Access routes shall have adequate slip-resistant walking surfaces under all conditions of normal use.
For *level access routes* (including *level accessible routes*) expected to become wet with water in normal use, walking surfaces shall either:
a) Have an SRV classification of not less than 39 from the wet pendulum test method of AS 4586 Appendix A using the Slider 96 rubber, or
b) Use the materials listed in Table 2 as 'acceptable wet slip'.
A slip resistance value of 0.4 when tested under AS/NZS 3661.1 may be assumed as equivalent to a SRV of 39.

VENTILATION NOTES

Spaces in household units and accommodation units that contain cooktops, showers and baths must have mechanical extract fans installed to remove moisture generated by these fixtures. Mechanical extract fans (including associated ducting) must have a flowrate not less than:
a) 25 L/s for showers and baths, and
b) 50 L/s for cooktops.

Mechanical extract fans should meet the flowrate as per the table below.

Room	AirFlow Rate (min.)	
	Intermittent	Continuous
Toilet[1]	25 l/s	10 l/s
Bathroom/shower	25 l/s	10 l/s
Laundry[2]	40 l/s	
Kitchen	50 l/s	12 l/s

1) Toilets only require ventilation if they have no openable windows
2) Simx recommends 40 l/s for laundries with unvented non-condensing tumble dryers as covered in AS 1668: Part 2 2012

Extract ventilation shall:

i) be constructed so that any products listed in Clause G4.3.3 are removed, collected or diluted by ventilation rates and methods set out in AS 1668.2 Section 5

ii) where provided to remove moisture and other contaminants from kitchens, bathrooms, toilet spaces and laundries in household units, exhaust the air to the outside at flow rates given in AS 1668.2, Table B1, and

iii) exhaust air to the outside at a flowrate not less than 50 L/s, when intermittent mechanical extract ventilation is used to remove moisture and other contaminants from spaces in household units and accommodation units that contain cooktops

d) outdoor air intakes shall be located to avoid contamination from any local source in accordance with AS 1668.2 Clause 4.3.1 and NZS 4303 Clause 5.5, and

e) recirculated air systems shall comply with AS 1668.2 Clause 4.5, and

f) contaminated air discharge systems shall discharge contaminated air in a way that complies with AS 1668.2 Clause 5.10, and

g) filtration shall comply with AS 1668.2 Clause 4.4, and

h) commissioning shall comply with CIBSE Code Series A.

ARTIFICIAL LIGHT NOTES

To provide a minimum illuminance of 20 lux, the total wattage required per m2 of floor area comply with Table 1 of NZBC G8/AS1.

An external light fitting at the main entrance to illuminate access route in absence of natural light to comply with NZBC G8/AS1.

Except for external private stairways, switches for stairway lighting shall be provided to illuminate the access route in absence of natural light comply with Clause 4.6 of NZBC D1/AS1 and NZBC G8/AS1:
(a) The top of the stairway,
(b) The bottom of the stairway, and
(c) Any intermediate landings having access to or from any floor.

ELECTRICAL INSTALLATION NOTES

Electrical installations in buildings shall comply with NZBC G9/AS1 and AS/NZS 5000.2:2006

EQUIPOTENTIAL BONDING NOTES

Electrical equipment requires earthing to ensure that if a fault occurs that the voltage has a safe path to travel where the surge in current will trip a breaker, cutting power to the equipment, making it safe to touch

DOOR ON ESCAPE ROUTES NOTES

- Doors on escape routes shall satisfy the following requirements:
a) Provide an unobstructed opening width of no less than 600mm, and when multi-leaf, have no single leaf less than 500mm wide; and
b) Open no less than 90°; and
c) When opened, not cause the door swing to obstruct the minimum required width of an escape route; and
d) Manual sliding doors may be used where the space has an occupant load of less than 20.

- Door locking mechanisms shall not impede or prevent occupants from moving to a safe place in the event of a fire.
Locks with a key on one side, while the other side features a knob orturning mechanism of some sort, are permitted. Key operation in the direction of theescape is not permitted.

DOWNLIGHT NOTES

Recessed luminaries in all ceilings shall comply with the provisions of AS/NZS 60598.2.2:
a) IC-F – building insulation that can safely be continuously exposed to 90°C, allowed to abut and cover the luminaire.
b) IC – – building insulation that can safely be continuously exposed to 90°C, allowed to abut and cover the luminaire.
c) CA-80 – – building insulation that can safely be continuously exposed to 90°C, allowed to abut the luminaire.
d) CA-135 – building insulation that can safely be continuously exposed to temperatures up to 150°C, allowed to abut the luminaire.

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

GROUND FLOOR PLAN

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	

REV: BC
SCALE-A1: As indicated
JOB: 2610
DRAWN:
CHECKED:

GENERAL NOTE
1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE NZBC.
2. ALL MATERIAL THICKNESS ARE TO COMPLY WITH MANUFACTURERS SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL TERRITORIAL AUTHORITY REQUIRED.
4. ALL DIMENSIONS ARE TO BE CHECKED ON SITE UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS ARE NOT TO BE SCALED FROM THE PRINTED DRAWING OF CONSTRUCTION DRAWINGS.
6. CONTRACTOR TO ENSURE ALL GROUND LEVELS & HEIGHT RESTRICTIONS ARE CORRECT BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO ARCLIGHT.
7. ALL LOT LINES, TOPOGRAPHICAL AND SURVEY INFORMATION SHOWN ON THESE PLANS ARE INDICATIVE ONLY. CONTRACTOR TO CONFIRM ALL SURVEY INFORMATION PRIOR TO COMMENCEMENT OF WORKS.

SHEET No.
A2.1

ARCLIGHT ARCHITECTURE

ROOF PLAN LEGEND

ROOF BRACING LINE

OUTRIGGER SIZE & SPACING

TYPICAL 90x45 OUTRIGGERS @900 CRS. REFER TO TRUSS PS1.

PURLIN SIZE & SPACING

PURLIN SIZE WILL BE 70x45 mm
PURLINS TO BE SPACED 600mm FROM RIDGE AND FASCIA
AND 900crs SPACING IN BETWEEN. REFER TO TRUSS PLAN.

SPACING & FIXING TYPE SHOULD COMPLY WITH 3604:2011
TABLE 10.10 AS BELOW:

Table 10.10 – Purlins on their flat in all wind zones – SG 8 (see 10.2.1.16.1)

Purlin size	Max. span	Maximum spacing and fixing in the following wind zones									
		Low		Medium		High		Very high		Extra high	
		Spacing	Fixing	Spacing	Fixing	Spacing	Fixing	Spacing	Fixing	Spacing	Fixing
	(mm)	(mm)	(type)	(mm)	(type)	(mm)	(type)	(mm)	(type)	(mm)	(type)
70 x 45	900	900	S	900	T	900	T	900	T	900	U
70 x 45	900	1200	T	1200	T	1200	T	1050	U	900	U
70 x 45	900	1800	T	1800	U	1400	U	1050	U	900	U
70 x 45	1200	1200	T	1150	T	800	T	600	T	500	T
70 x 45	1200	1300	T	1150	T	800	T	600	T	500	T
90 x 45	1200	1700	T	1450	U	1000	U	750	U	650	U

Fixing type	Description	Alternative fixing capacity (kN)
S	2 / 90 x 3.15 gun nails	0.8
T	1 / 10g self-drilling screw, 80 mm long	2.4
U	1 / 14g self-drilling type 17 screw, 100 mm long	5.5

NOTE – All fixing types are determined as required for the higher uplift loads at the periphery of the roof (based on local pressure factors in AS/NZS 1170.2).

ROOF INSULATION NOTES

PINK BATTS R7.0 CEILING INSULATION IS NOTCHED TO
COVER BOTTOM CHORD

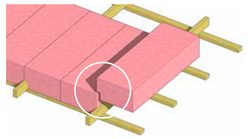
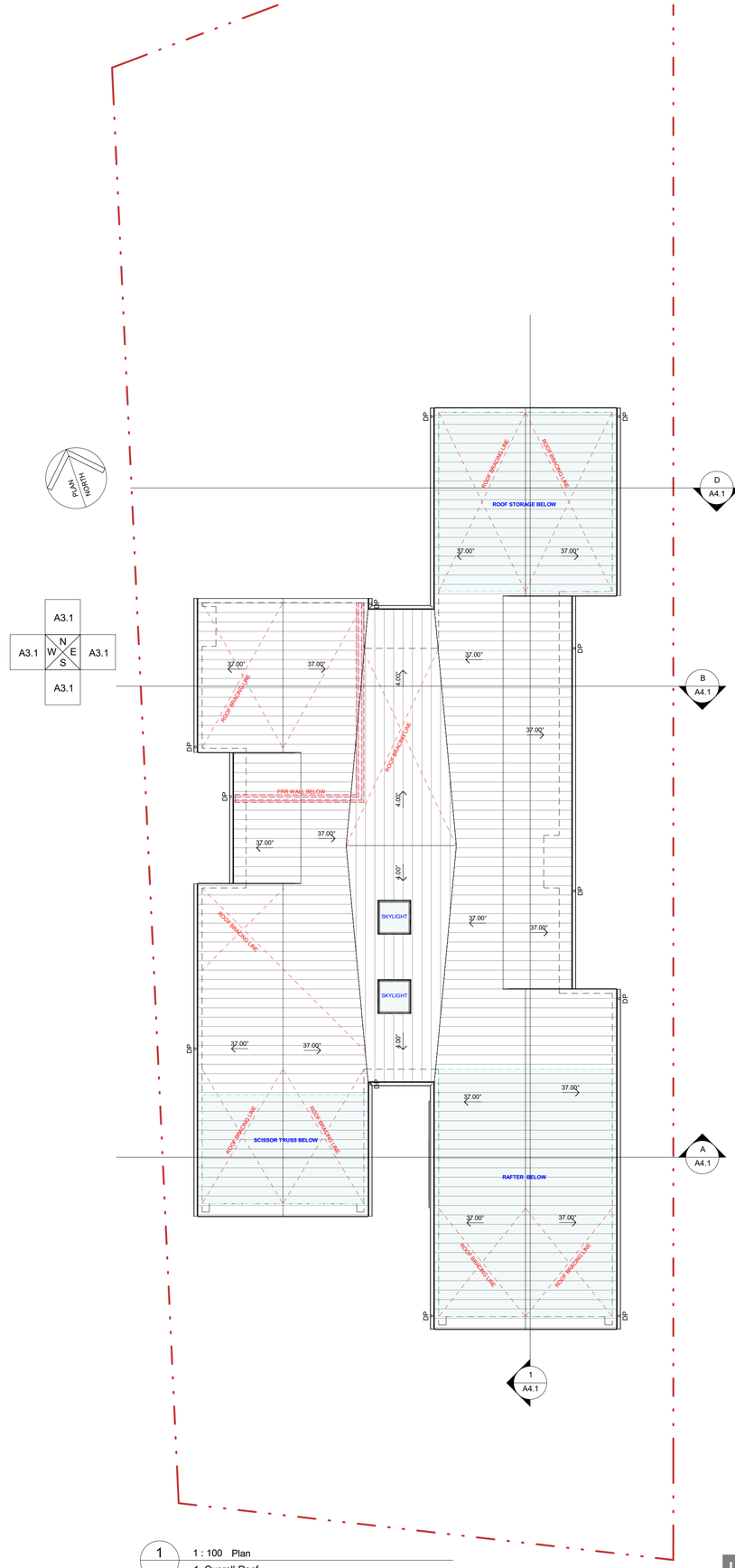
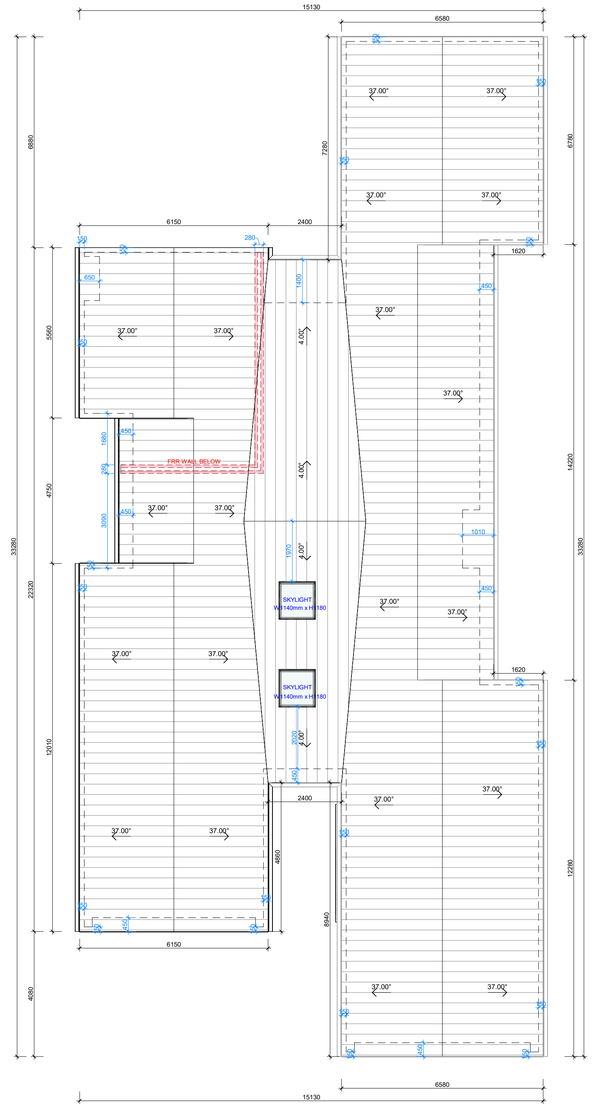


Figure 1. Single layer solution

External Gutter Cross-sectional Area Calculation					
External Gutter Type	CS Area	Roof Pitch			
(Continous Spouting)	(mm²)	0-25°	25-35°	35-45°	45-55°
125mm Wide Colorsteel	>5500mm²	48m²	42m²	34m²	28m²
150mm Wide Colorsteel	>7000mm²	66m²	52m²	45m²	38m²
Notes: Extract from Figure 15 of NZBC E1/AS1					



1 1 : 100 Plan
1. Overall-Roof



2 1 : 100 Plan
2. Dimension- Roof

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

ROOF PLAN

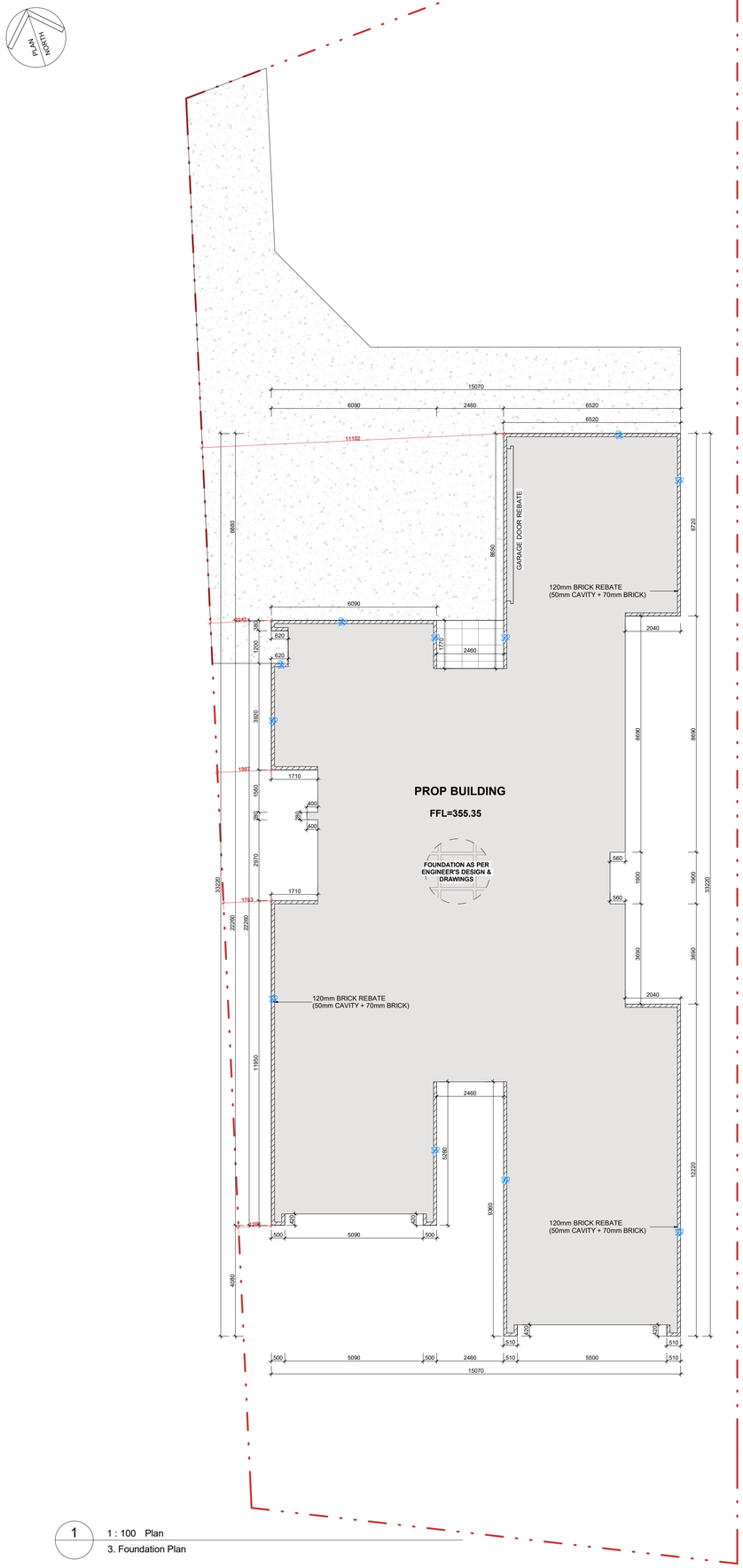
REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	

REV
SCALE-A1 1 : 100
JOB 2610
DRAWN
CHECKED BC

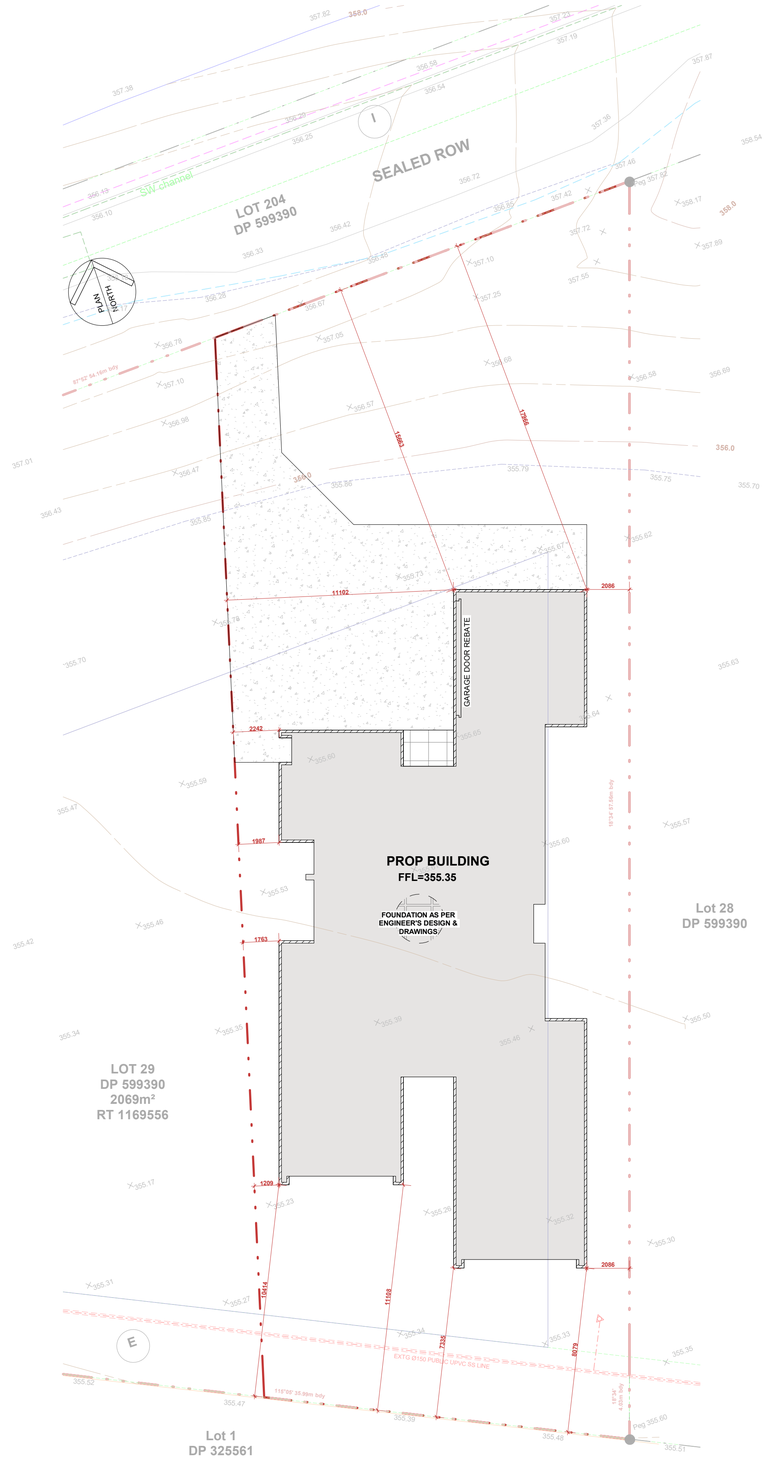
GENERAL NOTE
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE CONSTRUCTION.
2. ALL MATERIAL THICKNESS AND SIZES TO CONFORM SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL TERRITORIAL AUTHORITY REQUIRED.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. ALL MEASUREMENTS & SETOUT ARE TO BE CHECKED ON SITE BEFORE ANY SETOUT OR CONSTRUCTION COMMENCES.
6. CONTRACTOR TO ENSURE ALL ERRORS OR OMISSIONS ARE CORRECT BEFORE CONSTRUCTION COMMENCES. ANY DISCREPANCIES TO BE REPORTED TO ARCLIGHT.
7. DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES SHALL BE NOTIFIED TO THE DESIGNER. CONSTRUCTION TO BE BASED ON FIGURED DIMENSIONS ONLY.

SHEET No.
A2.2

ARCLIGHT ARCHITECTURE



1 1 : 100 Plan
3. Foundation Plan



2 1 : 150 Plan
3. Foundation Plan -Building Location

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

FOUNDATION PLAN

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	BC

REV	A
SCALE-A1	As indicated
JOB	26141
DRAWN	
CHECKED	

GENERAL NOTES

1. ALL WORKMANSHIP TO COMPLY UNLESS NOTED WITH OTHER
2. ALL MATERIAL FINISHES AND COLOURS TO COMPLY SPECIFICATION UNLESS OTHERWISE NOTED
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE NZ BUILDING CODE AND ALL RELEVANT NZ STANDARDS AND CODES
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
5. ALL DIMENSIONS AND SETOUTS ARE TO BE CHECKED ON SITE BY CONTRACTOR BEFORE COMMENCEMENT OF ANY WORK
6. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS AND COMPLY WITH THEIR DRAWINGS, ALL DISCREPANCIES TO BE REPORTED TO THE ARCHITECT BEFORE COMMENCEMENT OF ANY WORK. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY. WORK, ANY SHOP DRAWINGS TO BE SUBMITTED TO THE ARCHITECT.

SHEET No. **A2.4**

ARCLIGHT ARCHITECTURE

30. KEYNOTE LEGEND

Key Value	Keynote Text
1.1 TRAPEZOIDAL PROFILED METAL ROOFING	Metalcraft T-rib roofing on roof underlay on purlin on roof framing with ceiling insulation, purlin size and fixing refer to 3604:2011 TABLE 10.10 or Engineer's Design
1.2 GUTTER & FASCIA	Selected steel gutter on metal fascia
1.4 INSULATION GUARD	Selected Roll Panel Vent insulation guard under roof underlay to maintain a continuous 25mm air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves
2.2 VERTICAL SHIPLAP WEATHERBOARD	Selected timber vertical shiplap weatherboard on 20mm thickness timber cavity batten on selected wall underlay on wall framing
2.5 BRICK VENEER	Selected 70 mm thickness brick veneer with brick ties in 50mm cavity space on selected wall underlay over wall
2.6 FLEXIBLE WALL UNDERLAY	Selected flexible wall underlays for all exterior walls
3.1 CONCRETE FOUNDATION	Concrete slab refer to engineer design
4.1 WALL FRAMING	90mm wide timber wall framing @800mm nogs, spacing refer to engineer design
4.2 INTERTENANCY WALL	GIB Intertenancy Barrier Systems - GBTLAB 60b 1x10mm GIB braceline/Noiseline to be replaced with 10mm GIB Aqualine at wet area as per GIB alternatives manual
5.1 10mm GIB ON WALLS	Selected 10mm GIB standard board(GIB Aqualine in wet areas- Bathrooms, Laundries, Kitchens) for all walls
5.2 10mm GIB ON CEILING	Selected 10mm GIB standard board(GIB Aqualine in wet areas- Bathrooms, Laundries, Kitchens) fixed to 70mm x 35mm timber ceiling batten @ 400mm crs for all ceiling linings
5.3 SOFFIT LINING	Selected soffit lining fix to soffit bearers or bottom of joist, truss, rafter and outriggers
6.1 ALUMINIUM JOINERY	Selected R0.46 double-glazed thermally broken aluminium joinery
6.2 ENTRY DOOR	Selected entry door
6.3 GARAGE DOOR	Selected sectional garage door

7.5.2.2
The *finished ground level* adjoining the concrete slab-on-ground shall be formed so as to carry water away from the building, at a slope of not less than 1 in 25, for a distance of at least 1 m from the building. Where site conditions do not readily allow such a 1 m wide strip to be formed, then permanent paving shall be laid to the falls and dimensions shown in figure 7.12.

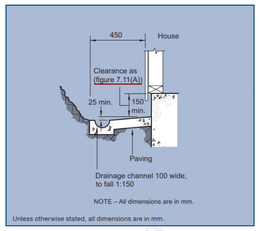


Figure 7.12 – Provision of permanent paving adjoining buildings with concrete slab-on-ground floors (see 7.5.2.2)

RISK MATRIX FOR	NORTH ELEVATION				
RISK FACTOR	LOW	MED	HIGH	VERY HIGH	SCORE
WIND ZONE (NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/ WALL INTERSECTION	0	1	3	5	3
EAVES WIDTH	0	1	2	5	2
ENVELOPE COMPLEXITY	0	1	3	6	1
DECK DESIGN	0	2	4	6	0
TOTAL RISK SCORE				MEDIUM	7

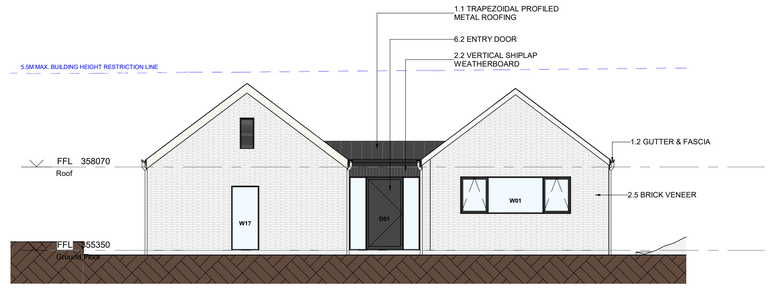
RISK MATRIX FOR	EAST ELEVATION				
RISK FACTOR	LOW	MED	HIGH	VERY HIGH	SCORE
WIND ZONE (NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/ WALL INTERSECTION	0	1	3	5	3
EAVES WIDTH	0	1	2	5	2
ENVELOPE COMPLEXITY	0	1	3	6	1
DECK DESIGN	0	2	4	6	0
TOTAL RISK SCORE				MEDIUM	7

RISK MATRIX FOR	SOUTH ELEVATION				
RISK FACTOR	LOW	MED	HIGH	VERY HIGH	SCORE
WIND ZONE (NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/ WALL INTERSECTION	0	1	3	5	3
EAVES WIDTH	0	1	2	5	2
ENVELOPE COMPLEXITY	0	1	3	6	1
DECK DESIGN	0	2	4	6	0
TOTAL RISK SCORE				MEDIUM	7

RISK MATRIX FOR	WEST ELEVATION				
RISK FACTOR	LOW	MED	HIGH	VERY HIGH	SCORE
WIND ZONE (NZS 3604)	0	0	1	2	1
NUMBER OF STOREYS	0	1	2	4	0
ROOF/ WALL INTERSECTION	0	1	3	5	3
EAVES WIDTH	0	1	2	5	2
ENVELOPE COMPLEXITY	0	1	3	6	3
DECK DESIGN	0	2	4	6	0
TOTAL RISK SCORE				MEDIUM	9



S 1 : 100 Elevation
South Elevation



N 1 : 100 Elevation
North Elevation



W 1 : 100 Elevation
West Elevation



E 1 : 100 Elevation
East Elevation

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

ELEVATIONS

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	BC

REV:
SCALE-A1: As indicated
JOB: 26107
DRAWN:
CHECKED:

GENERAL NOTE
1. ALL WORK TO COMPLY WITH CURRENT NZS AND BCA CODES.
2. ALL MATERIAL THICKNESS ARE SUBJECT TO FINISHES SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL TERRITORIAL AUTHORITY BYELAWS.
4. ALL DIMENSIONS ARE TO BE CHECKED ON SITE UNLESS NOTED OTHERWISE.
5. ALL MEASUREMENTS & SPECIFICATIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. CONTRACTOR TO ENSURE ALL GROUND LEVELS & HEIGHT RESTRICTIONS ARE CORRECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO ARCLIGHT ARCHITECTURE IMMEDIATELY.
7. DO NOT SCALE THIS DRAWING, USE FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES SHALL BE NOTIFIED TO THE DESIGNER.

SHEET No.
A3.1

ARCLIGHT ARCHITECTURE

30. KEYNOTE LEGEND

Key Value	Keynote Text
1.1 TRAPEZOIDAL PROFILED METAL ROOFING	Metalcraft T-rib roofing on roof underlay on purlin on roof framing with ceiling insulation, purlin size and fixing refer to 3604:2011 TABLE 10.10 or Engineer's Design
1.2 GUTTER & FASCIA	Selected steel gutter on metal fascia
1.4 INSULATION GUARD	Selected Roll Panel Vent insulation guard under roof underlay to maintain a continuous 25mm air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves
2.2 VERTICAL SHIPLAP WEATHERBOARD	Selected timber vertical shiplap weatherboard on 20mm thickness timber cavity batten on selected wall underlay on wall framing
2.5 BRICK VENEER	Selected 70 mm thickness brick veneer with brick ties in 50mm cavity space on selected wall underlay over wall
2.6 FLEXIBLE WALL UNDERLAY	Selected flexible wall underlays for all exterior walls
3.1 CONCRETE FOUNDATION	Concrete slab refer to engineer design
4.1 WALL FRAMING	90mm wide timber wall framing @800mm ncgs, spacing refer to engineer design
4.2 INTERTENANCY WALL	GIB Intertenancy Barrier Systems - GBTLAB 60b 1x10mm GIB braceline/Noseline to be replaced with 10mm GIB Aqualine at wet area as per GIB alternatives manual
5.1 10mm GIB ON WALLS	Selected 10mm GIB standard board(GIB Aqualine in wet areas- Bathrooms, Laundries, Kitchens) for all walls
5.2 10mm GIB ON CEILING	Selected 10mm GIB standard board(GIB Aqualine in wet areas- Bathrooms, Laundries, Kitchens) fixed to 70mm x 35mm timber ceiling batten @ 400mm crs for all ceiling linings
5.3 SOFFIT LINING	Selected soffit lining fix to soffit bearers or bottom of joist, truss, rafter and outriggers
6.1 ALUMINIUM JOINERY	Selected R0.46 double-glazed thermally broken aluminium joinery
6.2 ENTRY DOOR	Selected entry door
6.3 GARAGE DOOR	Selected sectional garage door

INSULATION NOTES

ROOF INSULATION-TRUSS AREA	**R7.0 GLASS WOOL THERMAL INSULATION**
ROOF INSULATION-RAFTER AREA	**R6.0 GLASS WOOL THERMAL INSULATION**
EXTERNAL WALLS INSULATION	**R 2.4 GLASS WOOL THERMAL INSULATION**
GARAGE INTERNAL WALLS INSULATION	**R 2.4 GLASS WOOL THERMAL INSULATION**
MAX RAFT FOUNDATION CONSTRUCTION R VALUE	**R 1.76**
GLAZING R-VALUE	**R 0.46 DOUBLE GLAZING WITH THERMALLY BROKEN ALUMINIUM FRAME GLASS: LOW E/ CLEAN, GAS: ARGON**
ENTRANCE DOOR R-VALUE	**R 0.46**

NOTES
GARAGE EXTERNAL WALLS WILL BE NOT INSULATED AND NOT PART OF THE THERMAL ENVELOPE OF THE BUILDING, GARAGE INTERNAL WALLS ARE INSULATED.
MAXRAFT PLUS 340 FOUNDATION WILL BE USED, MAXEDGE TO BE INSTALLED TO ALL THE EXTERNAL EDGE OF THE FOUNDATION AREA.

7.5.2.2
The *finished ground level* adjoining the concrete slab-on-ground shall be formed so as to carry water away from the building, at a slope of not less than 1 in 25, for a distance of at least 1 m from the building. Where site conditions do not readily allow such a 1 m wide strip to be formed, then permanent paving shall be laid to the falls and dimensions shown in figure 7.12.

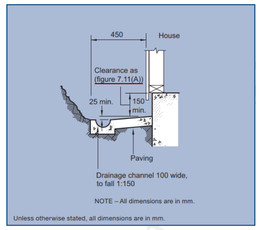
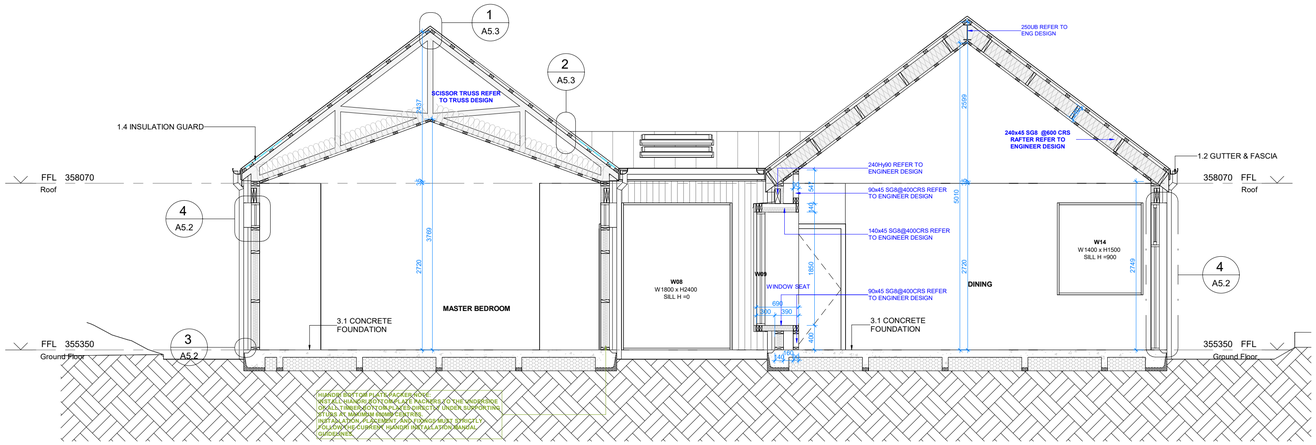
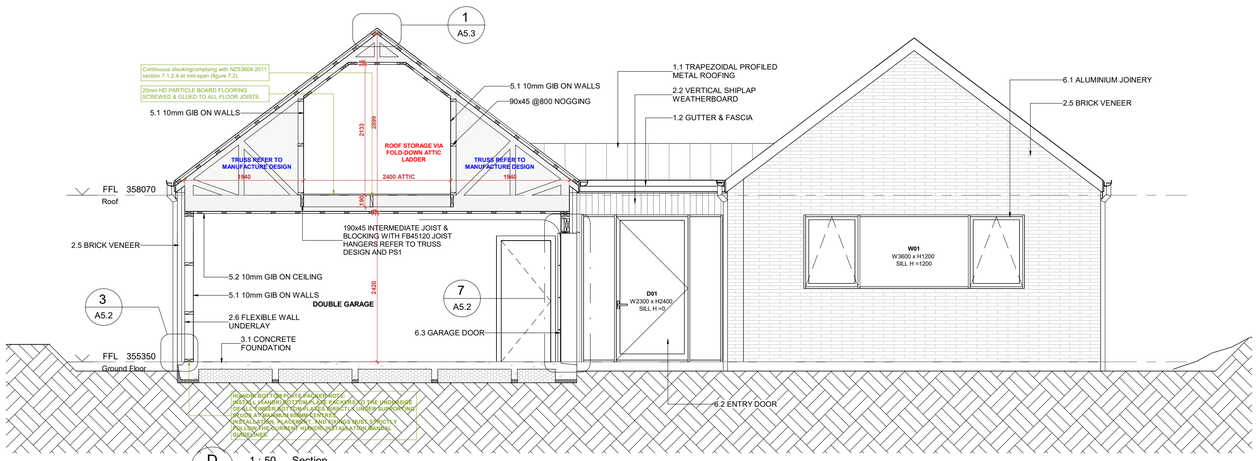


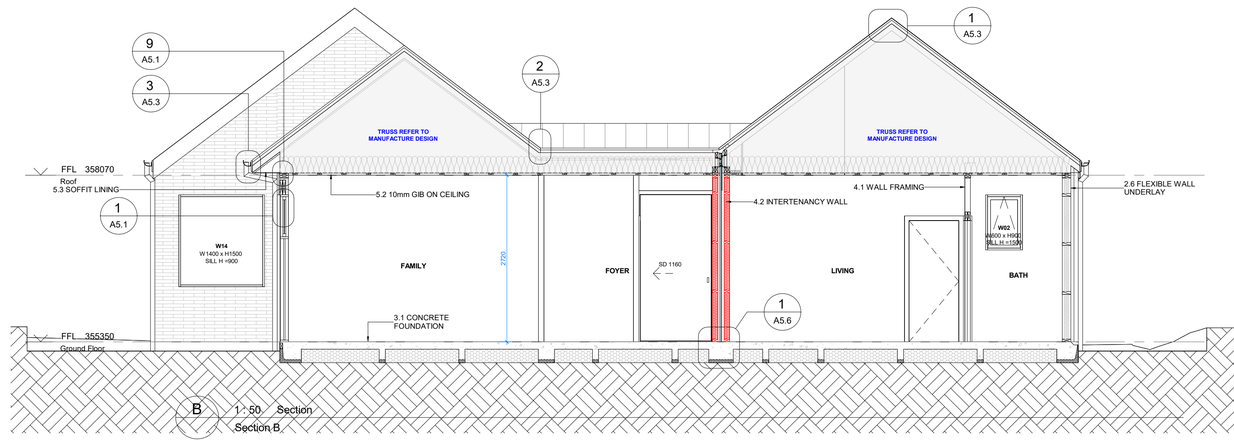
Figure 7.12 – Provision of permanent paving adjoining buildings with concrete slab-on-ground floors (see 7.5.2.2)



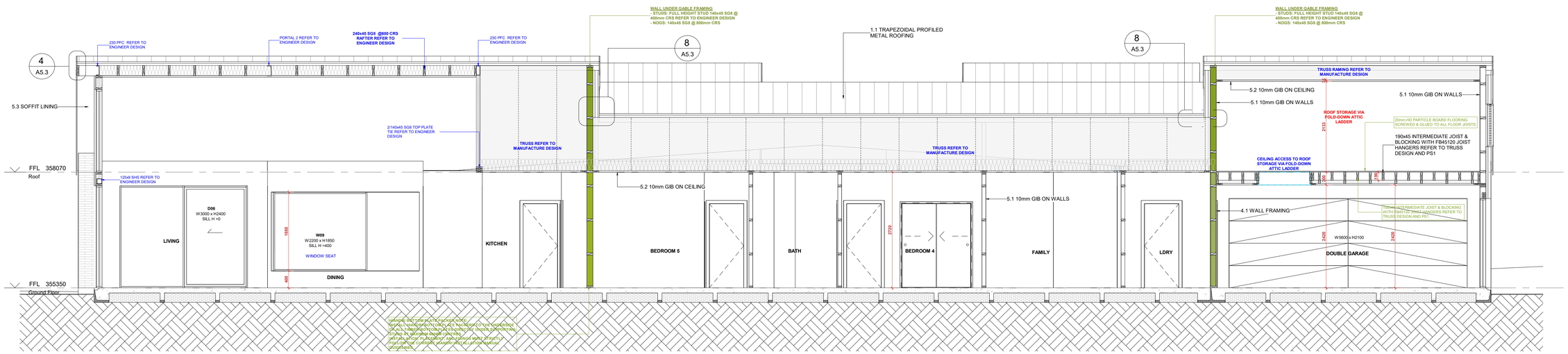
A 1 : 50 Section
Section A



D 1 : 50 Section
Section D



B 1 : 50 Section
Section B



1 1 : 50 Section
Section C

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

SECTIONS

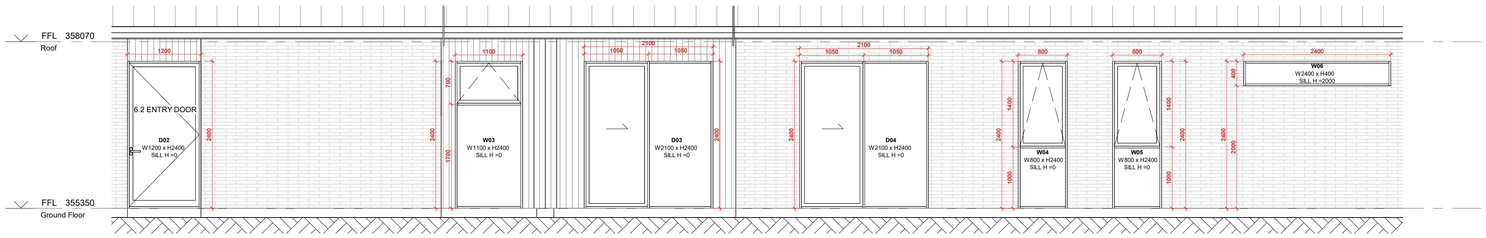
REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	

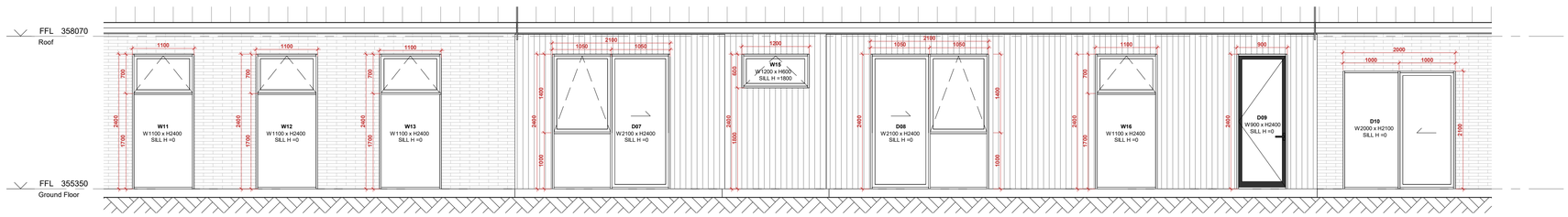
BC
REV A
SCALE-A1 As indicated
DRAWN 26101
CHECKED

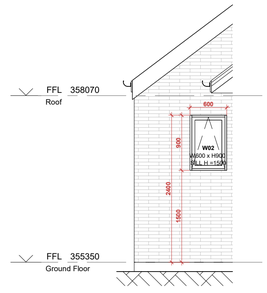
GENERAL NOTES
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF ANY WORK OR SHOP DRAWINGS.
2. ALL WORK TO BE STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE NZ BUILDING CODE AND ALL RELEVANT NZ STANDARDS.
3. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. ALL DIMENSIONS & LEVELS MUST BE CHECKED ON SITE BEFORE ANY WORK IS STARTED OR ORDERED.
5. CONTRACTOR TO ENSURE ALL WORKING DRAWINGS & SPECIFICATIONS ARE CHECKED FOR CONSISTENCY BEFORE ANY WORK IS STARTED OR ORDERED.
6. DO NOT SCALE THE CONTRACTOR MUST VERIFY ALL DIMENSIONS. ANY ERROR OR OMISSION MUST BE REPORTED TO THE DESIGNER.

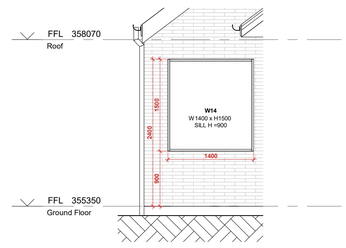
SHEET No.
A4.1

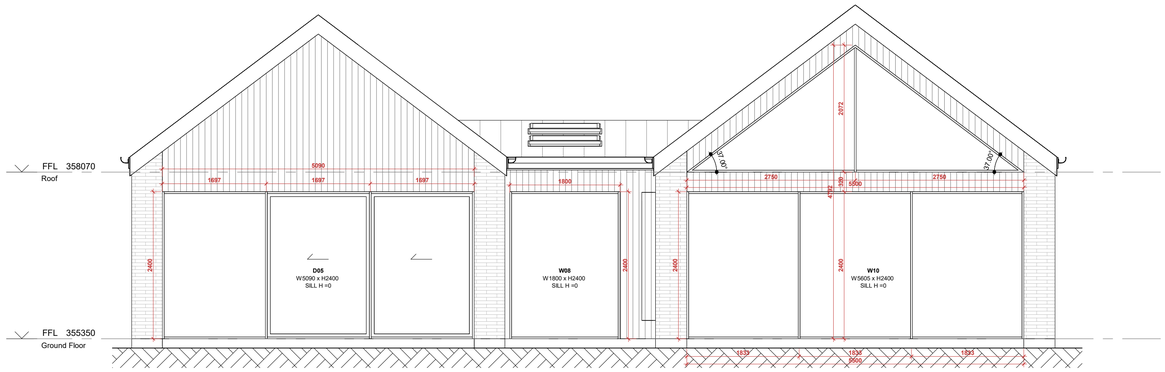
ARCLIGHT ARCHITECTURE

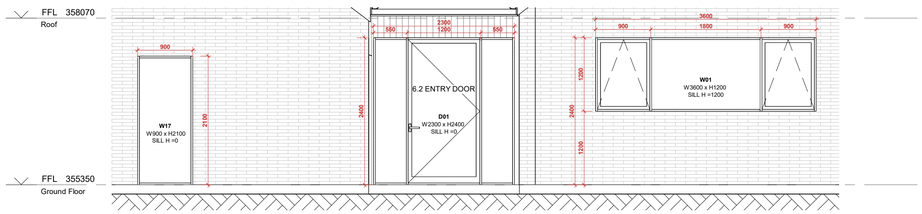


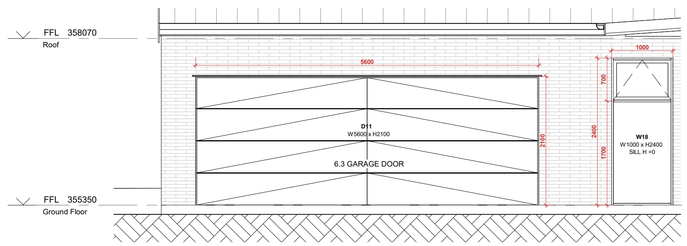


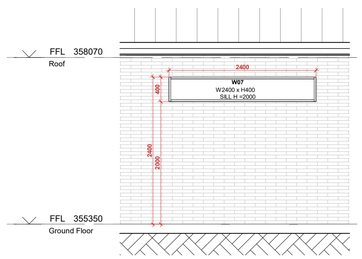


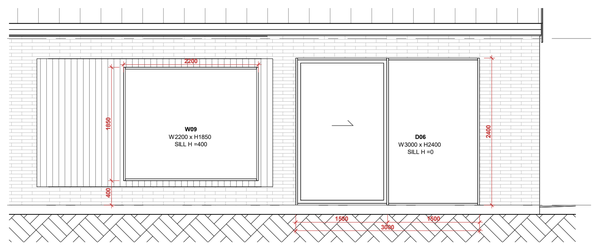












5 1 : 50 Detail
WINDOWS & DOORS SCHEDULE

LOT 291- 31 KAHIWI DRIVE — **WINDOWS & DOORS SCHEDULE**

QUEENSTOWN (LOT 29 DP 599390)

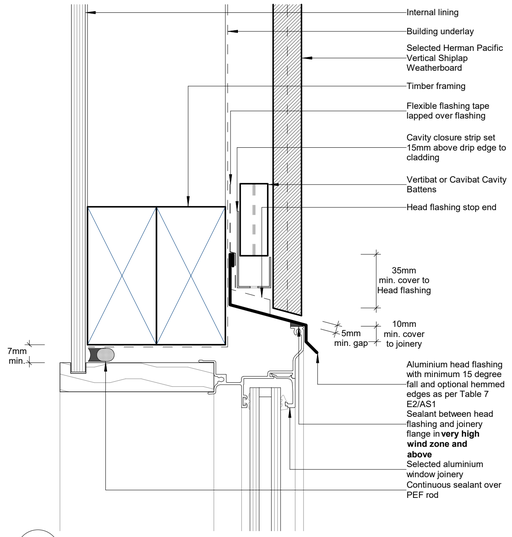
REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2028	

BC
REV A
SCALE-A1 1 : 50
JOB 28109
DRAWN
CHECKED

GENERAL NOTES
1. DIMENSIONS ARE TO BE STRICTLY OBSERVED WITH FIGURED DIMENSIONS TAKING PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NZ BUILDING CODE AND ALL RELEVANT AUTHORITIES BY-LAWS.
3. ALL DIMENSIONS ARE AVAILABLE BEFORE MAKING ANY SHOP DRAWINGS.
4. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.
5. CONTRACTORS TO ENSURE ALL WORKING SITE & WORK INSTRUCTIONS ARE CORRECT AND COMPLY WITH TOWN PLANNING, AUTHORITY BYLAWS, THROUGHOUT CONSTRUCTION.
6. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
7. ALL SITE WORKS, CONSTRUCTION, SHORE, AND TEMPORARY WORKS TO BE DESIGNED BY

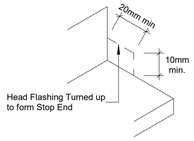
SHEET No.
A4.2

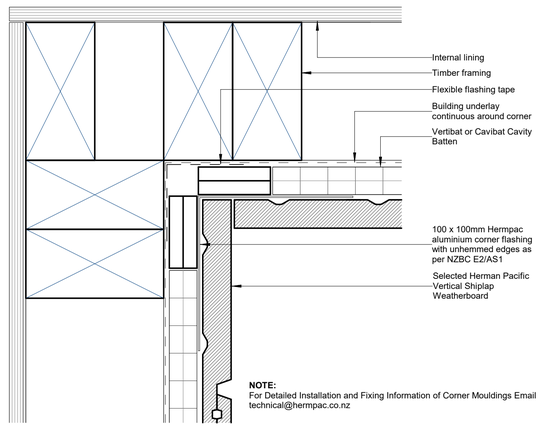
ARCLIGHT ARCHITECTURE



1 : 2 Detail

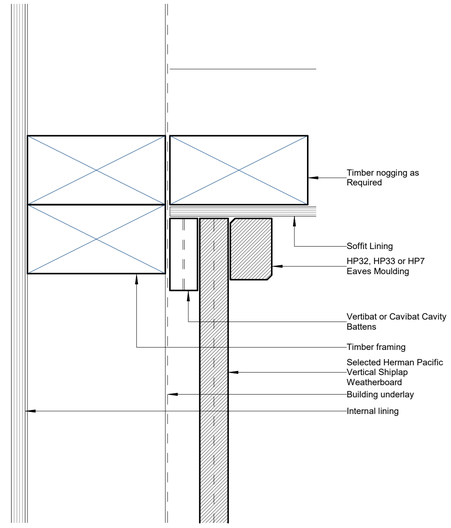
HC-SHIP-200 Window Head Detail, Aluminium Joinery





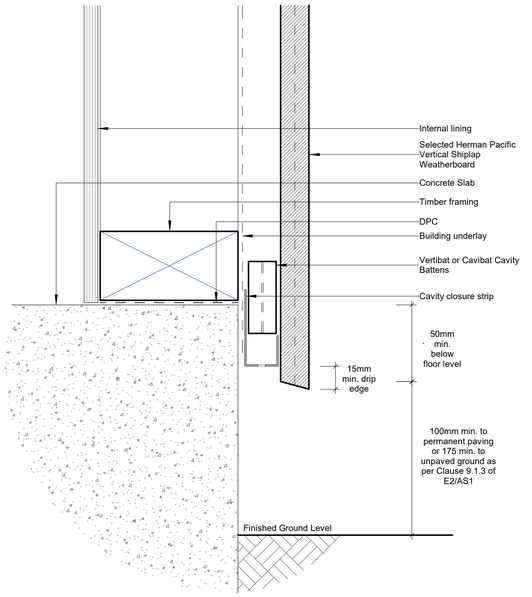
4 1 : 2 Detail

HC-SHIP-301 Internal Corner Edge to Edge



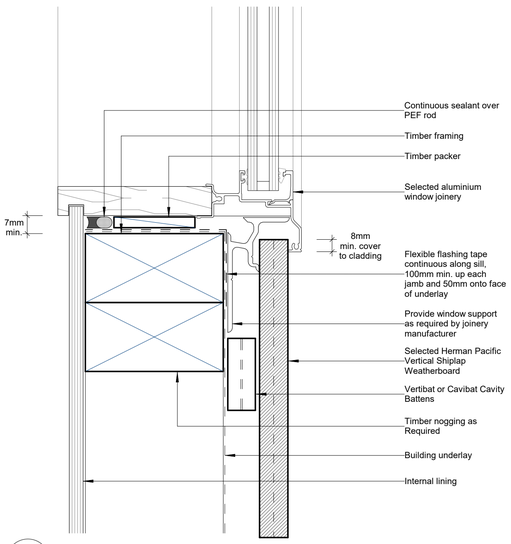
9 1 : 2 Detail

HC-SHIP-601 Barge Detail, Overhang



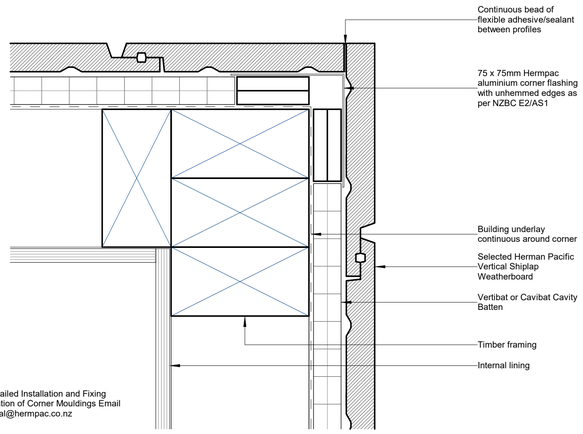
8 1 : 2 Detail

HC-SHIP-500 Base of Wall, Concrete



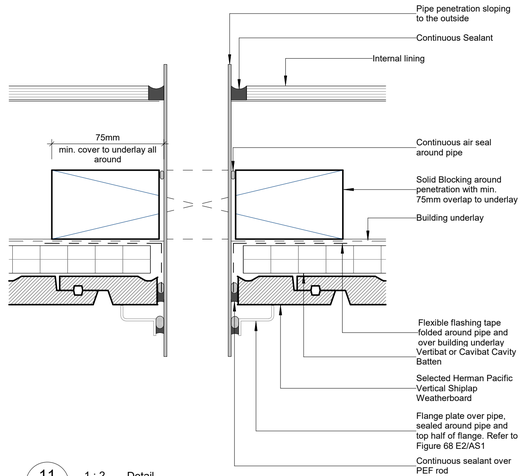
2 1 : 2 Detail

HC-SHIP-201 Window Sill Detail, Aluminium Joinery



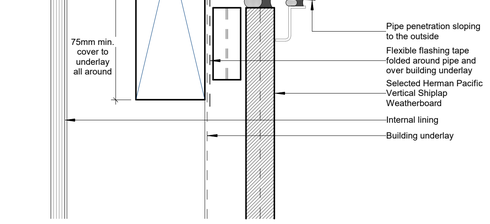
5 1 : 2 Detail

HC-SHIP-403 External Corner Boxed



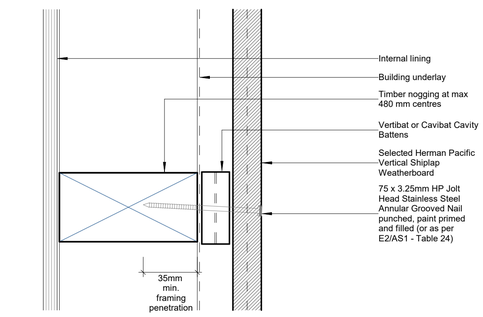
11 1 : 2 Detail

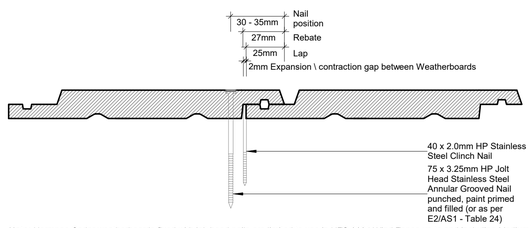
HC-SHIP-802 Pipe Penetration Plan Detail



10 1 : 2 Detail

HC-SHIP-801 Pipe Penetration Detail



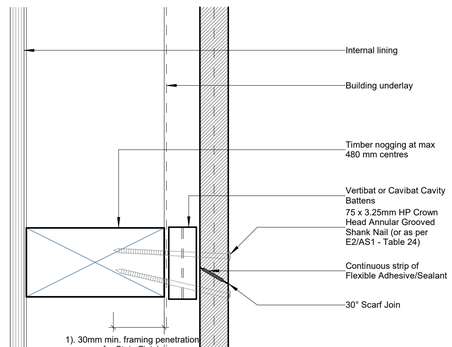


Note: Hermpac Cedar weatherboards fixed with jolt head nails are limited to use in NZS 3604 Wind Zones up to and including Medium when dwangs or structurally fixed Vertibat cavity battens are at maximum 480 mm centres, and NZS 3604 Wind Zones up to, and including Very High when dwangs or structurally fixed Vertibat cavity battens are at maximum 400 mm centres.

Hermpac DuraLarch and Ashin-Dura weatherboards fixed with jolt head nails are limited to use in NZS 3604 Wind Zones up to and including Extra High when dwangs or structurally fixed Vertibat cavity battens are at maximum 480 mm centres.

6 1 : 2 Detail

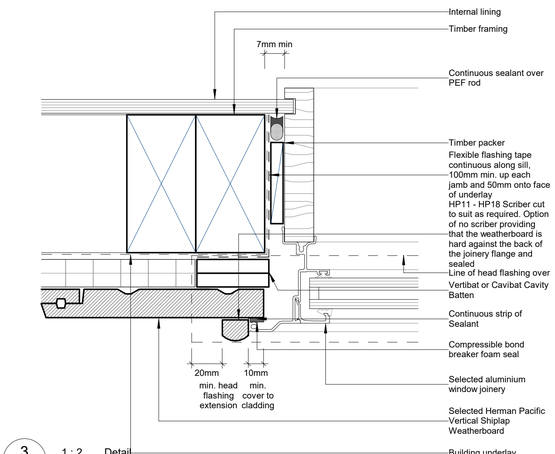
HC-SHIP-411 General Detail Cavity Fix, Paint Finish



NOTE:
Cut ends of scarf join must be double coated with oil or stain.
35mm framing penetration using HPJolt Head Stainless Steel Annular Grooved nail for paint finish

7 1 : 2 Detail

HC-SHIP-413 Scarf Join



3 1 : 2 Detail

HC-SHIP-202 Window Jamb Detail, Aluminium Joinery

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

ARCHITECTURAL DETAILS

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2025	BC

REV: A
SCALE:A1 1 : 2
JOB: 2610
DRAWN:
CHECKED:

GENERAL NOTES
1. ALL DIMENSIONS TO BE VERIFY ON SITE BEFORE COMMENCEMENT OF WORK.
2. ALL MATERIAL TREATED AND USED TO COMPLY WITH MANUFACTURER UNLESS OTHERWISE SPECIFIED.
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW BUILDING CODE AND ALL RELEVANT NZ STANDARDS AND CODES.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
5. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE BUILDER AND ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE ARCHITECT BEFORE COMMENCEMENT OF ANY WORK.
6. ALL CONSTRUCTION DETAILS ARE INDICATIVE ONLY & MUST BE STRUCTURALLY AND CORRECTLY DESIGNED BY APPROPRIATE, QUALIFIED & LICENSED PROFESSIONALS BEFORE CONSTRUCTION.
7. ALL DETAILS, DIMENSIONS AND NOTES SHOWN ON THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS.
8. THESE DRAWINGS ARE COPYRIGHT AND MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE WRITTEN CONSENT OF ARCLIGHT ARCHITECTURE.

SHEET No.
A5.1

ARCLIGHT ARCHITECTURE

LINTEL BAR FIXING NOTE:

There are two methods of installing a lintel bar with brick veneer:

Acceptable solution for lintel bar – E2/AS1 provides a method where the angle spans the brick from one side to the other. The lintel should be kept either solely in the brick or the timber framing but not both. The angle sizes within Table 18E of E2/AS1 should be applied.

EXTERNAL MOISTURE — *Acceptable Solution E2/AS1*

Table 18E Masonry veneer lintel sizes (minimum) Paragraph 9.2.3

Span of lintel (m) up to:	Maximum thickness of masonry veneer (mm)					
	70			90		
	Maximum height of veneer supported (mm)					
	350	700	2000	350	700	2000
0.800	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	80 x 80 x 6 L
2.000	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	60 x 60 x 6 L	80 x 80 x 6 L
2.500	60 x 60 x 6 L	80 x 80 x 6 L	80 x 80 x 6 L	80 x 80 x 6 L	80 x 80 x 6 L	90 x 90 x 6 L
3.000	80 x 80 x 6 L	80 x 80 x 6 L	125 x 75 x 6 L	80 x 80 x 6 L	80 x 80 x 6 L	90 x 90 x 10 L
3.500	80 x 80 x 6 L	80 x 80 x 6 L	125 x 75 x 6 L	80 x 80 x 6 L	90 x 90 x 10 L	125 x 75 x 10 L
4.000	80 x 80 x 8 L	125 x 75 x 6 L	125 x 75 x 10 L	80 x 80 x 10 L	125 x 75 x 6 L	150 x 90 x 10 L
4.500	125 x 75 x 6 L	125 x 75 x 10 L	_	125 x 75 x 6 L	125 x 75 x 10 L	_
4.800	125 x 75 x 6 L	125 x 75 x 10 L	_	125 x 75 x 6 L	125 x 75 x 10 L	_

Alternative solution for lintel bar – The second method involves sitting the lintel back 20mm from the face of the veneer, and have corract seating. With this method, the angle is attached directly to the structure and kept 5mm short of the opening at each end to accommodate any movement in the frame. The below table applies to this method.

TABLE 5.0 – LINTEL BARS SUPPORTING VENEER OVER OPENINGS

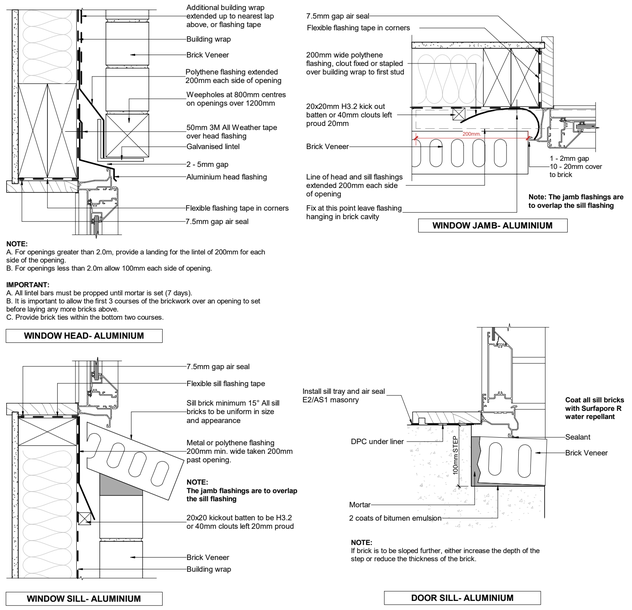
Max.Span (mm)	Size of Angle
3000 mm	80 x 80 x 6
3500 mm	100 x 100 x 6 or 125 x 75 x 6
4500 mm	125 x 75 x 8
4800 mm	125 x 75 x 10

The durability requirements for lintel bars can be seen in Table 18D of E2/AS1

Table 18D Corrosion protection to lintels Paragraph 9.2.3, Table 18E

	316 or 316L or 304(2) stainless steel or	600 g/m² galvanising on mild steel(1) or	600 g/m² galvanising on mild steel plus duplex coating(1)	300 g/m² galvanising on mild steel plus Duplex coating(1)
Zone B	Yes		Yes	
Zone C	Yes		Yes	
Zone D	Yes			

1) To AS/NZS 2699.3
2) 304 stainless steel will exhibit greater levels of surface rusting than 316 stainless steel, especially where not exposed to rain washing.



NOTE:
A. For openings greater than 2.0m, provide a landing for the lintel of 200mm for each side of the opening.
B. For openings less than 2.0m allow 100mm each side of opening.

IMPORTANT:
A. All lintel bars must be propped until mortar is set (7 days).
B. It is important to allow the first 3 courses of the brickwork over an opening to set before laying any more bricks above.
C. Provide brick ties within the bottom two courses.

WINDOW HEAD- ALUMINIUM

WINDOW JAMB- ALUMINIUM

Note: The jamb flashings are to overlap the sill flashing

NOTE:
The jamb flashings are to overlap the sill flashing

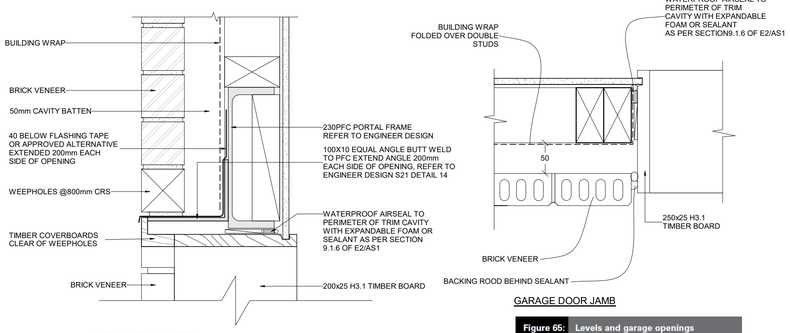
WINDOW SILL- ALUMINIUM

Coat all sill bricks with Surfapore R water repellant

NOTE:
If brick is to be sloped further, either increase the depth of the step or reduce the thickness of the brick.

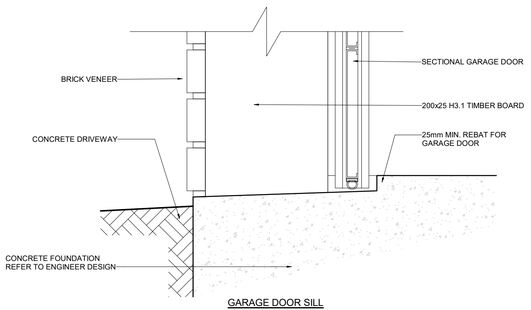
DOOR SILL- ALUMINIUM

4 1 : 5 Detail
BRICK VENEER - OPENINGS DETAIL



GARAGE DOOR HEAD

GARAGE DOOR JAMB



GARAGE DOOR SILL

Figure 65: Levels and garage openings Paragraphs 9.1.3, 9.1.3.4, 9.2.5, Table 18

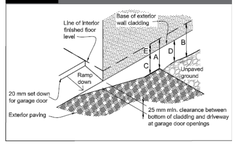
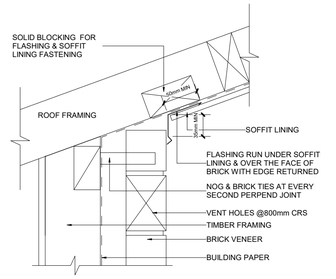


Table 18: Minimum clearances Paragraphs 9.1.3, 9.1.3.1, 9.1.3.2, 9.1.3.3, 9.1.3.4, 9.1.3.5 and 9.2.7

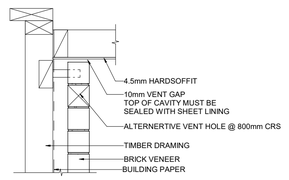
Minimum clearances (mm)	Masonry veneer		Other claddings				
	A	B	A	B	C	D	E
Concrete slab	100	150	150	225	100	175	50
Timber floor Refer Note 1)					100	175	50 2)

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

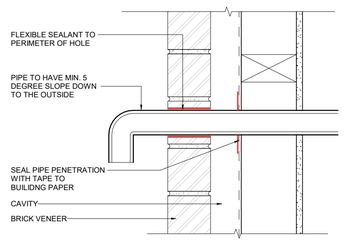
7 1 : 5 Detail
BRICK VENEER -GARAGE DOOR DETAILS



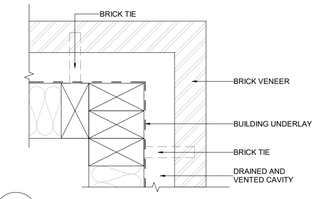
9 1 : 5 Detail
BRICK VENEER- REVERSE SLOPE SOFFIT 2



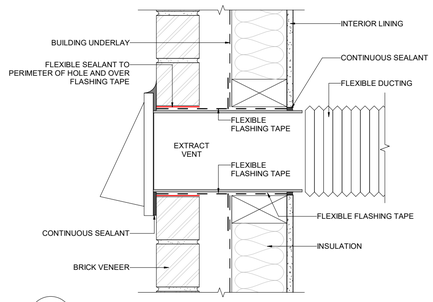
6 1 : 10 Detail
BRICK VENEER - SOFFIT DETIAL



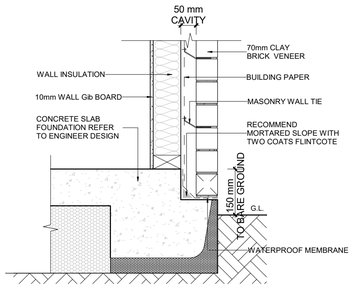
5 1 : 5 Detail
BRICK VENEER - PIPE PENETRATION



2 1 : 5 Detail
BRICK VENEER - EXTERNAL CORNER



11 1 : 5 Detail
BRICK VENEER-COW DETAIL



3 1 : 10 Detail
BRICK VENEER - FOOTING DETAIL

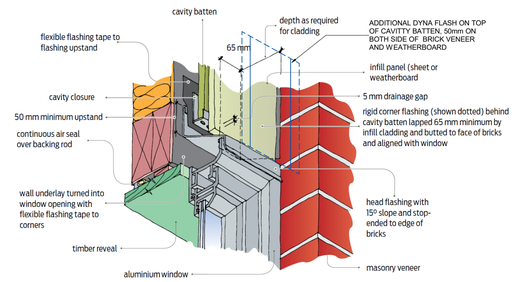
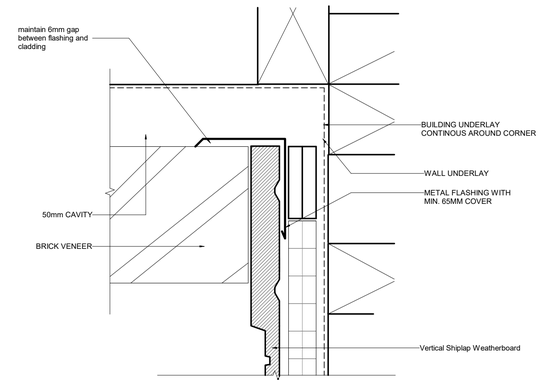
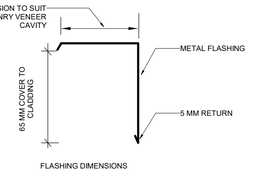


Figure 56 **Aluminium window installation – head detail with infill panel.**

1 NTS Detail
BRICK VENEER - ALUMINIUM WINDOW HEAD WITH WEATHERBOARD





10 1 : 2 Detail
SHIPLAP WEATHBERBOARD - BRICK VENEER INTERNAL CORNER

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

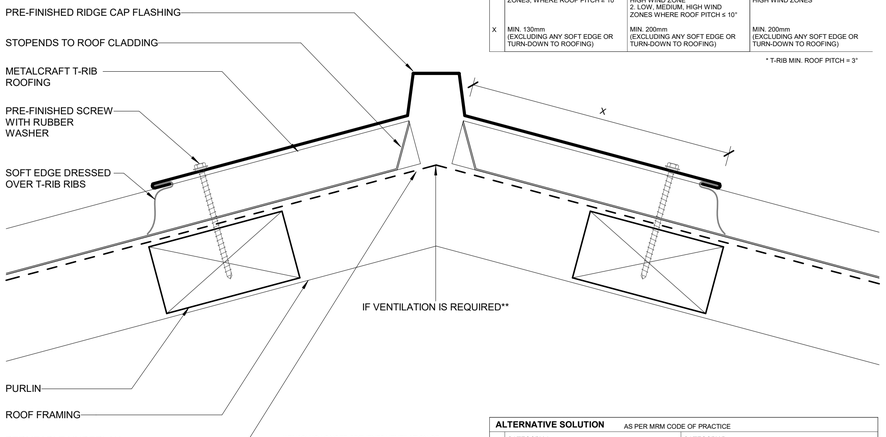
ARCHITECTURAL DETAILS

REV ID	DESCRIPTION	DATE	STATUS	BC
A	BC	01/10/2025		
			REV	A
			SCALE A1	As indicated
			JOB	26101
			DRAWN	
			CHECKED	

GENERAL NOTES
1. ALL DIMENSIONS TO BE VERIFY ON SITE BEFORE COMMENCEMENT OF ANY WORK.
2. ALL MATERIAL, FINISHES AND COLOURS TO COMPLY WITH SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW BUILDING CODE AND ALL RELEVANT NZ STANDARDS AND REGULATIONS.
4. ALL MEASUREMENTS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
5. ALL CONTRACTORS SHALL VISIT THE SITE AND BE FAMILIAR WITH ALL CONDITIONS BEFORE COMMENCEMENT OF ANY WORK.
6. ALL DIMENSIONS ARE TO BE CHECKED ON SITE AND ANY ERRORS OR OMISSIONS ARE TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
7. ALL CONSTRUCTION TO BE CARRIED OUT IN A WORKMANLIKE MANNER AND TO THE HIGHEST STANDARD. CONTRACTORS ARE TO ENSURE THAT ALL TRADES ARE AWARE OF THIS REQUIREMENT.
8. THESE DRAWINGS ARE COPYRIGHT AND MUST NOT BE REPRODUCED WITHOUT PRIOR PERMISSION.

SHEET No. A5.2

ARCLIGHT ARCHITECTURE



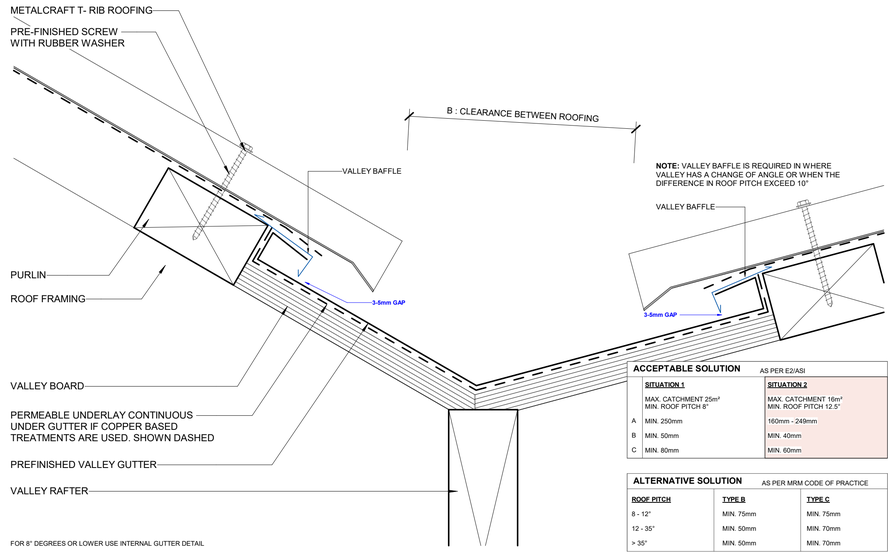
ACCEPTABLE SOLUTION	AS PER E2/ASI		
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH ≥ 10°	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH ≤ 10°	1. FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONES
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)

* T-RIB MIN. ROOF PITCH = 3°

ALTERNATIVE SOLUTION	AS PER MRM CODE OF PRACTICE	
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH >10°	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH <10°
X	MIN. 130mm	MIN. 200mm

**E3/ASI NO LONGER PREVENTS VENTILATION OF INSULATED SPACES REFER TECHNICAL BULLETIN: VENTILATION OF ROOF SPACES

1 1 : 2 Detail
01 ROOF RIDGE



ACCEPTABLE SOLUTION	AS PER E2/ASI	
	SITUATION 1	SITUATION 2
	MAX. CATCHMENT 25m² MIN. ROOF PITCH 8°	MAX. CATCHMENT 16m² MIN. ROOF PITCH 12.5°
A	MIN. 250mm	160mm - 249mm
B	MIN. 50mm	MIN. 40mm
C	MIN. 80mm	MIN. 60mm

ALTERNATIVE SOLUTION	AS PER MRM CODE OF PRACTICE		
	ROOF PITCH	TYPE B	TYPE C
	8 - 12°	MIN. 75mm	MIN. 75mm
	12 - 35°	MIN. 50mm	MIN. 70mm
	> 35°	MIN. 50mm	MIN. 70mm

NZ Metal Roof and Wall Cladding Code of Practice

5.5.7 Valley Capacity Calculator

Construction detail & calculation for the asymmetric valley gutter

https://www.metalroofing.org.nz/cop/roof-drainage/valleys#valley-capacity-calculator

Calculation Date: 19/10/2026, 12:19:17 pm – https://www.metalroofing.org.nz/cop

Project Name

(Enter Project Name/ID to identify project if submitted in consent application.)

Site Address

(Enter Site Address to Display)

i site address is used only for convenience if printing calculations to attach to documentation.
is not factored into calculations - you must determine intensity from Region/Location selection, Rainfall Intensity Maps or NIWA's HIRDS tool.
is not recorded or shared with any other parties.

tensity

RCP Level Descriptions for more information.

Location	Basis	Rainfall Intensity
Queenstown	RCP 4.5	58 mm/hr

Rainfall Intensity (10 Min Duration, 2% AEP Intensity) from NZBC E1/AS1 Table A – Adjusted for RCP 4.5

n Intensity Multiplication Factor	3.1

n Short-Term Intensity Multiplication Factor determined by the application type.
ase this manually for critical applications.

for current selections

Main Roof Pitch	37 °
Minimum 0° for valleys (metal roofs min 3°)	
Secondary Roof Pitch	4 °
Minimum 0° for valleys (metal roofs min 3°)	

Enter Valley Dimensions

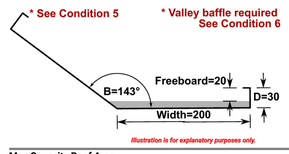


Illustration is for explanatory purposes only.

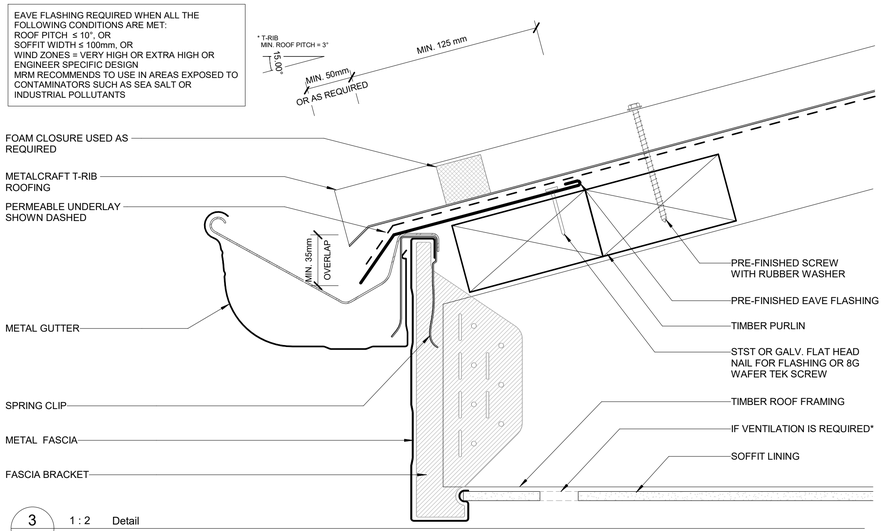
Valley Width (Lower Side)	200 mm
Valley Upstand	30 mm
Minimum 16mm for current pitch	
Freeboard	20 mm
Must be less than the upstand_D	
Minimum 20 for current selections	

Max Capacity Roof Area **37.92m²**

Conditions and assumptions for valleys:

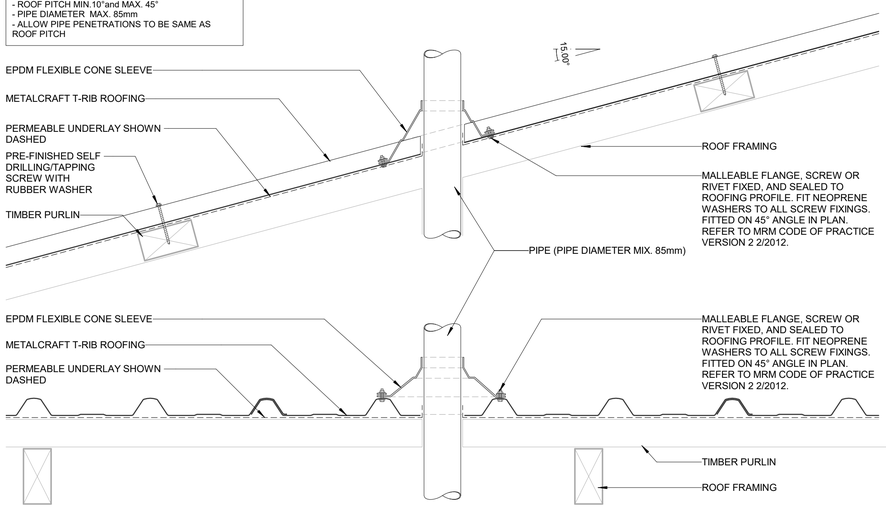
1. Mannings n assumed to be 0.014 to represent long term friction conditions
2. Minimum height of Type A valley returns to be 16 mm
3. Minimum freeboard of 20mm for valleys below 8°
4. Minimum freeboard of 15mm for valleys 8° and steeper
5. With asymmetrical valleys the width of the upper side can be less than the lower side with a minimum of 130mm, provided the design water maximum height is at least 20mm below the upper edge.
6. 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°. See 5.5.6 Asymmetrical Valleys for more details.

EAVE FLASHING REQUIRED WHEN ALL THE FOLLOWING CONDITIONS ARE MET:
ROOF PITCH ≤ 10°, OR
SOFFIT WIDTH ≤ 100mm, OR
WIND ZONES = VERY HIGH OR EXTRA HIGH OR ENGINEER SPECIFIC DESIGN
MRM RECOMMENDS TO USE IN AREAS EXPOSED TO CONTAMINATORS SUCH AS SEA SALT OR INDUSTRIAL POLLUTANTS



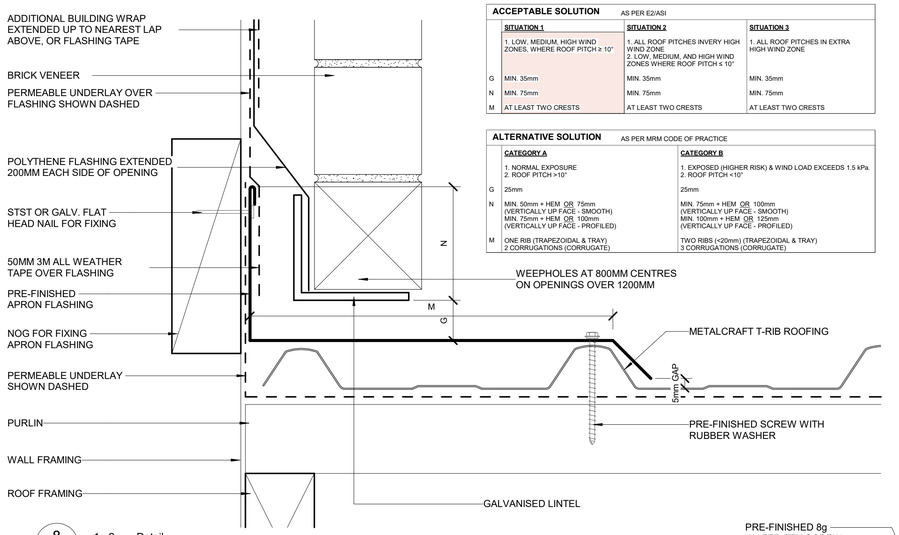
3 1 : 2 Detail
06 EAVE WITH METAL FASCIA

THIS DETAIL IS APPLIED ONLY WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:
- ROOF PITCH MIN.10°and MAX. 45°
- PIPE DIAMETER MAX. 85mm
- ALLOW PIPE PENETRATIONS TO BE SAME AS ROOF PITCH



5 1 : 5 Detail
16 MAX.85mm DIAMETER PIPE PENETRATION

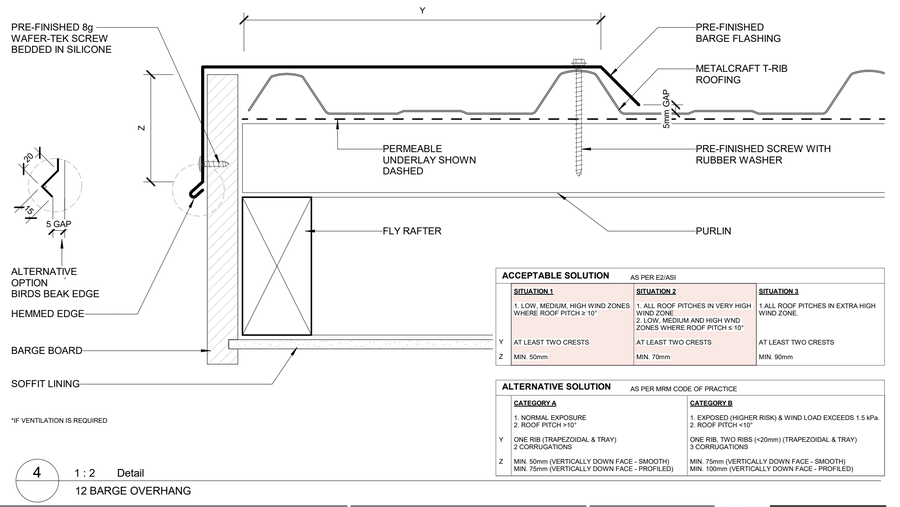
2 1 : 2 Detail
04 ROOF VALLEY-Asymmetrical Valleys



ACCEPTABLE SOLUTION	AS PER E2/ASI		
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH ≥ 10°	1. ALL ROOF PITCHES INVERY HIGH WIND ZONE 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH ≤ 10°	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	MIN. 75mm
M	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS

ALTERNATIVE SOLUTION	AS PER MRM CODE OF PRACTICE	
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH >10°	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH <10°
G	25mm	25mm
N	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH) MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH) MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
M	ONE RIB (TRAPEZOIDAL & TRAY) 2 CORRUGATIONS (CORRUGATE)	TWO RIBS (<20mm) (TRAPEZOIDAL & TRAY) 3 CORRUGATIONS (CORRUGATE)

8 1 : 2 Detail
15 PARALLEL APRON -BRICK VENEER



*IF VENTILATION IS REQUIRED

ACCEPTABLE SOLUTION	AS PER E2/ASI		
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH ≥ 10°	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, AND HIGH WND ZONES WHERE ROOF PITCH ≤ 10°	1.ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE.
Y	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

ALTERNATIVE SOLUTION	AS PER MRM CODE OF PRACTICE	
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH >10°	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH <10°
Y	ONE RIB (TRAPEZOIDAL & TRAY) 2 CORRUGATIONS	ONE RIB, TWO RIBS (<20mm) (TRAPEZOIDAL & TRAY) 3 CORRUGATIONS
Z	MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)

4 1 : 2 Detail
12 BARGE OVERHANG

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

ARCHITECTURAL DETAILS

REV	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	

REV
SCALE-A1 As indicated
JOB 2610
DRAWN BC
CHECKED

GENERAL NOTES
1. ALL DIMENSIONS TO BE VERIFY ON SITE BEFORE CONSTRUCTION
2. ALL EXISTING TREES AND SCRUBS TO REMAIN UNLESS OTHERWISE NOTED
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW ZEALAND CODE AND ALL RELEVANT NZ STANDARDS
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
5. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED ON SITE BEFORE ANY WORK IS COMMENCED OR ANY ITEMS FABRICATED
6. CONTRACTOR TO COORDINATE ALL SUPPLIER DETAILS & INSERT INTO STRUCTURE AND CONSULT WITH ARCHITECT BEFORE ANY CHANGES ARE MADE TO ARCHITECTURAL DETAILS
7. ALL WORK IS TO BE TERMINATED AND MADE GOOD TO ARCHITECTS SATISFACTION
8. ALL WORK TO BE TO MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS

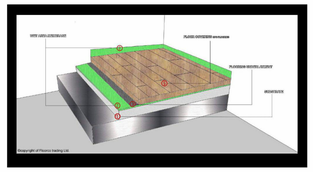
SHEET No. A5.3

ARCLIGHT ARCHITECTURE

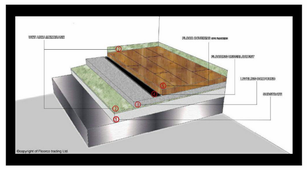
SPC FLOORING INSTALLATION IN WET AREA

5.7.1 Diagram of Installing SPC Flooring in Wet Areas

- Areas that do not require floor leveling



- Areas that require floor leveling



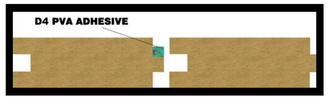
6.4.1 NZBC E3 Wet areas - D4 PVA adhesive at the Joints

When installing in wet areas, it's essential to fully apply D4 PVA adhesive at the joints of the floor. This is a crucial step to meet the E3 Alternative Solution requirement.

In wet areas, creating an impermeable surface is essential to comply with NZBC E3. Make sure to use a D4 PVA joint sealer adhesive for sealing all plank joints, both along their length and at the ends.

1. Apply a thick, uniform bead of adhesive to the edge of the groove/click mechanism, then to the top of the groove/click.

2. Fit the planks tightly together and promptly remove any excess adhesive with a damp cloth or wipe.

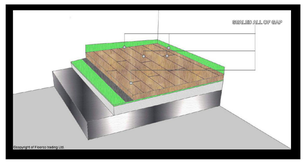


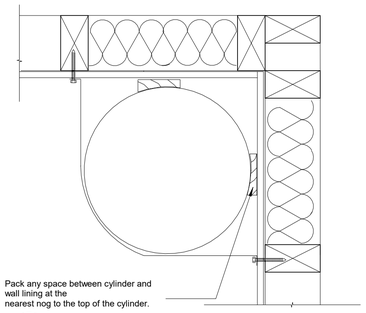
6.4.2 Sealed Kitchen,Laundries,toilet and bathroom

To further protect the perimeters and joints from water ingress, the Installer will seal gaps between planks in the Kitchen, toilet, laundry, and bathroom.

In open-plan spaces, the flooring surface shall extend at least 1.5 m from all sanitary fixtures and sanitary appliances.

The sealed and transparent D4 PVA adhesive should be used at the ends of planks and the long edge of the plank, this must also include perimeter protection from water ingress. continuous and coved (minimum of 75mm) or joints sealed where they meet the wall.





Pack any space between cylinder and wall lining at the nearest nog to the top of the cylinder.

1 1 : 5 Detail
HOT WATER CYLINDER 02

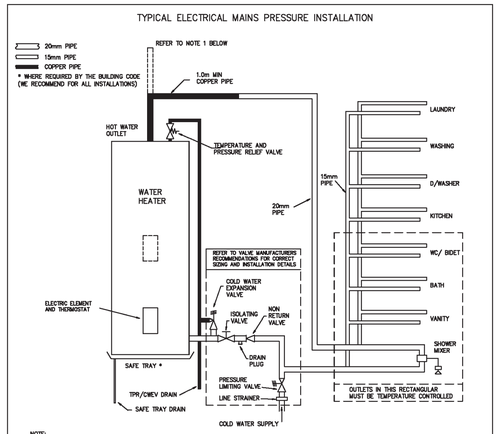
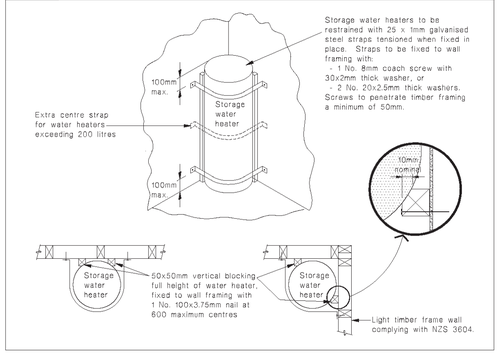


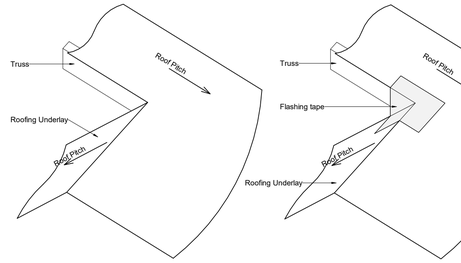
DIAGRAM 2:

Amend 5 Feb 2004

Figure 14: Seismic Restraint of Storage Water Heaters 90 – 360 litres
Paragraph 6.11.4

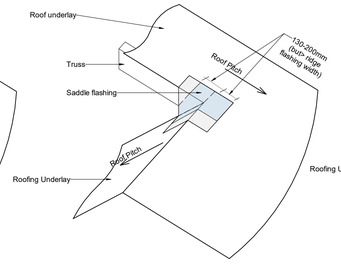


2 NTS Detail
HWC



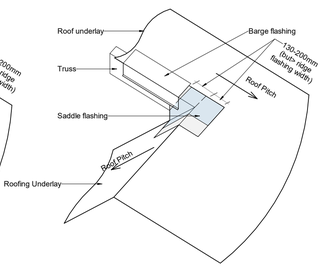
1. Flying Rafter Clearance

2. Additional Flashing Tape

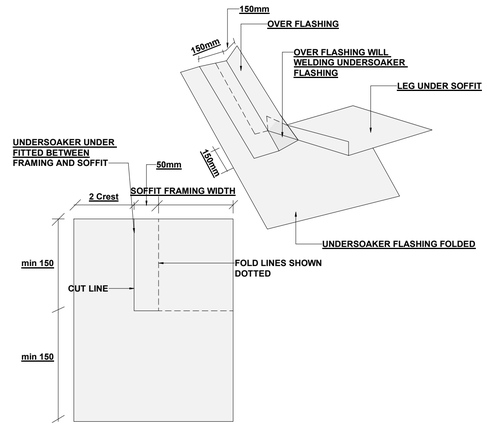


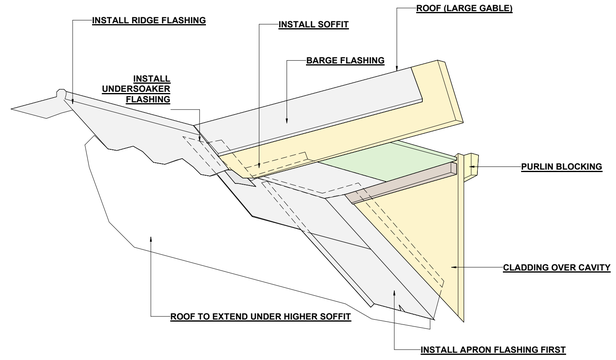
3. Saddle Flashing

Note: Roof and wall cladding not shown on this drawing, to be read in conjunction with exterior and roof cladding details.

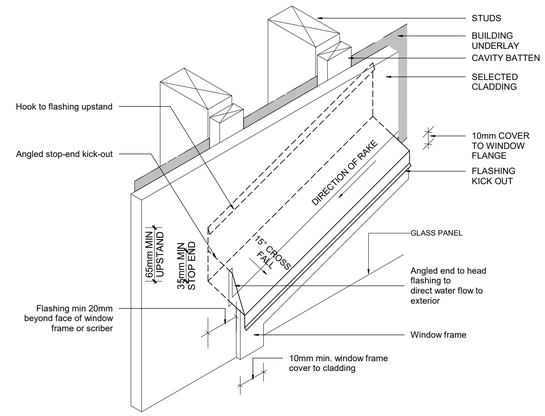


4. Barge Flashing

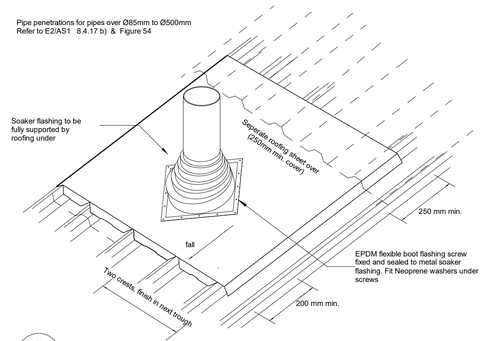




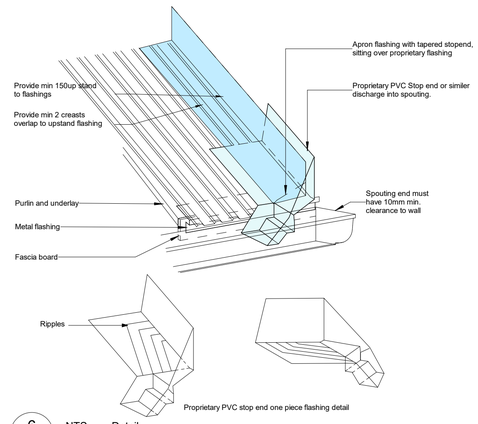
4 1 : 10 Detail
RIDGE FLASHING DETAIL



3 NTS Detail
RAKING WINDOW HEAD DETAIL



5 NTS Detail
PIPE PENETRATION DETAIL

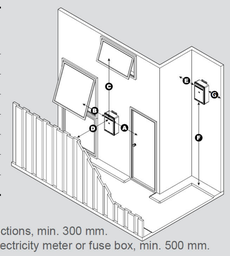


6 NTS Detail
Gutter to wall-Proprietary PVC stop end one piece flashing detail

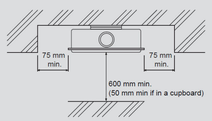
GENERAL FLUE CLEARANCES:

Dim.	A-Series, EF26	N56kWe, HD49kWe[1], HD250
A	Min. 300 mm	Min. 500 mm
B	Min. 300 mm	Min. 500 mm
C	Min. 1.5 m	Min. 1.5 m
D	Min. 500 mm	Min. 500 mm
E	Min. 300 mm	Min. 300 mm
F	Min. 300 mm*	Min. 300 mm[2]
G	Min. 300 mm	Min. 300 mm

External models



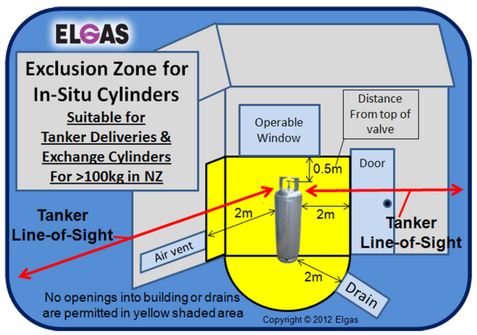
Internal models



Below eaves, balconies, and other projections, min. 300 mm.
From a gas meter 1000 mm. From an electricity meter or fuse box, min. 500 mm.

[1] If the HD49kWe is downrated to a 26 L unit (MJ rating decreases) then the clearances shift to the A-Series / EF26 column
[2] Rinnai recommend 1.5 m to give enough clearance for the pipe work, and to safely expel flue gases.

For installations of greater than 100kg of gas:



LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

ARCHITECTURAL DETAILS

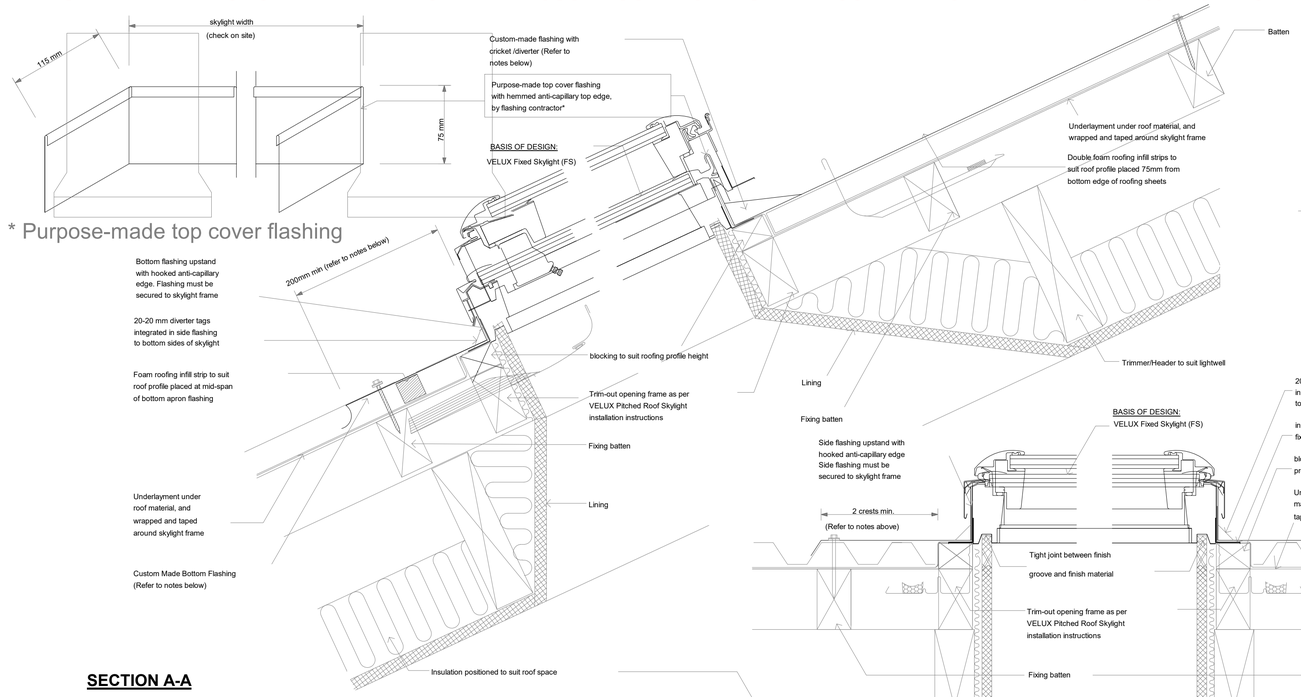
REV	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	BC

REV
SCALE-A1
DATE
DRAWN
CHECKED
As indicated
26/10

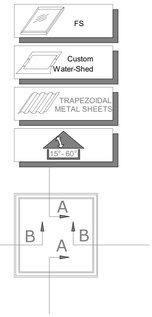
SHEET No. A5.4

ARCLIGHT ARCHITECTURE

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



SECTION A-A



ELEVATION

SECTION B-B

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

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.

1 NTS Detail
SKYLIGHT DETAILS

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

ARCHITECTURAL DETAILS

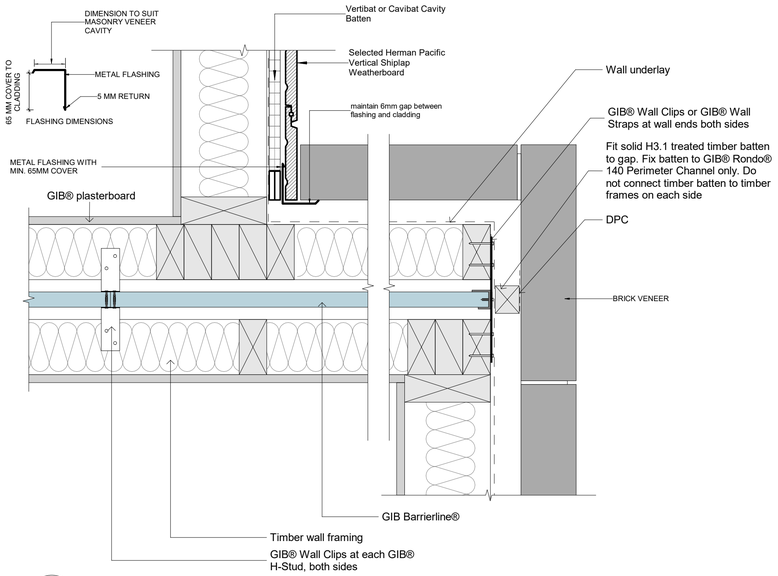
REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	BC

REV:
SCALE-A1: NTS
JOB: 2610
DRAWN:
CHECKED:

GENERAL NOTES
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE CONSTRUCTION.
2. ALL MATERIAL THICKNESS AND SIZES TO CONFORM SPECIFICATION UNLESS OTHERWISE NOTED.
3. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL TERRITORIAL AUTHORITY BYELAWS.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. ALL MEASUREMENTS & SETOUT DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. CONTRACTOR TO ENSURE ALL ERRORS OR OMISSIONS & MINOR DISTRIBUTIONS ARE CORRECT BEFORE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO ARCLIGHT ARCHITECTURE IMMEDIATELY.
7. ALL DRAWINGS, SPECIFICATIONS, AND DESIGNS, INCLUDING COPYRIGHT, REMAIN THE PROPERTY OF ARCLIGHT ARCHITECTURE AND SHALL NOT BE USED, REPRODUCED, COPIED OR DISCLOSED WITHOUT THE WRITTEN CONSENT OF ARCLIGHT ARCHITECTURE. ANY UNAUTHORISED USE SHALL BE ACTIONED TO THE FULLEST EXTENT PERMITTED BY LAW.

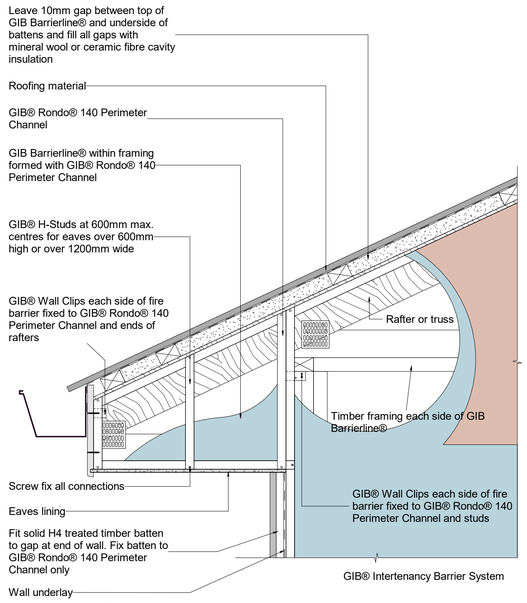
SHEET No.
A5.5

ARCLIGHT ARCHITECTURE



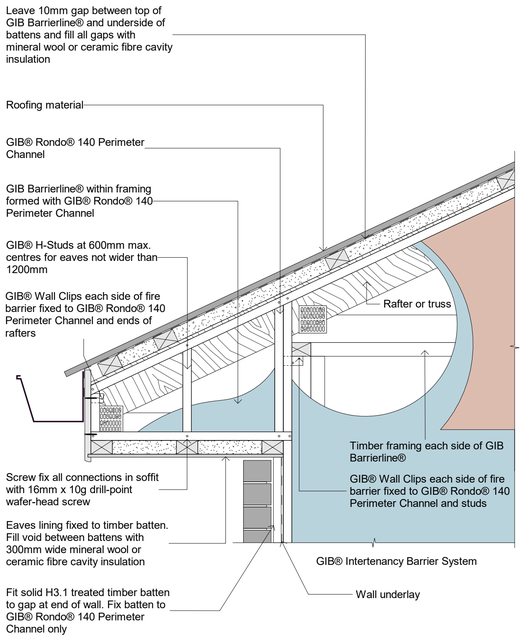
9 1 : 5 Detail

GNS106 - Detail at Return in External Brick Veneer Wall (Plan View)



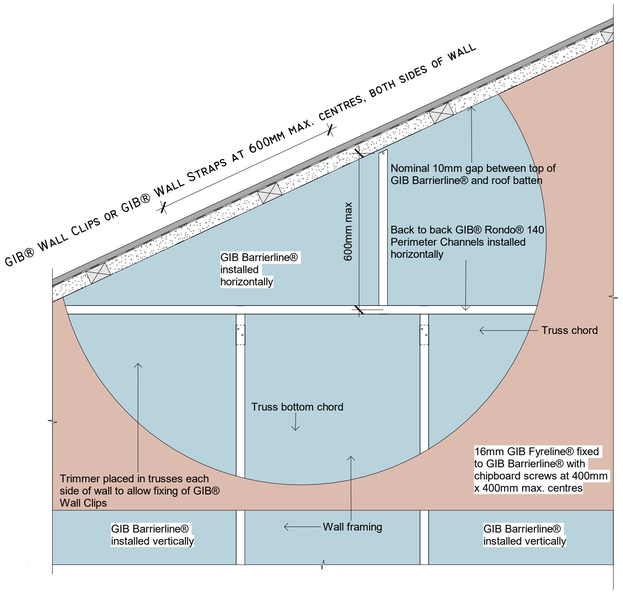
2 1 : 10 Detail

GIB INTERTENANCY WALL - EVAE DETAIL



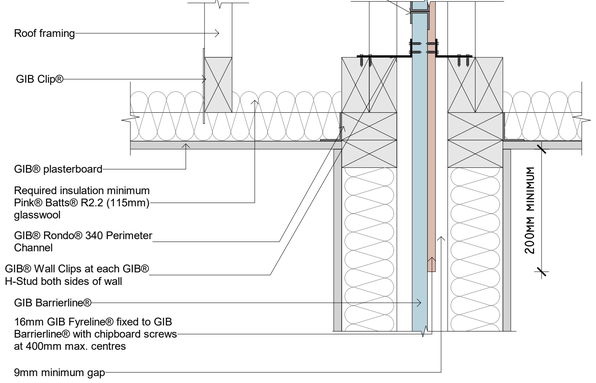
10 1 : 10 Detail

Eaves Detail (Side Elevation)



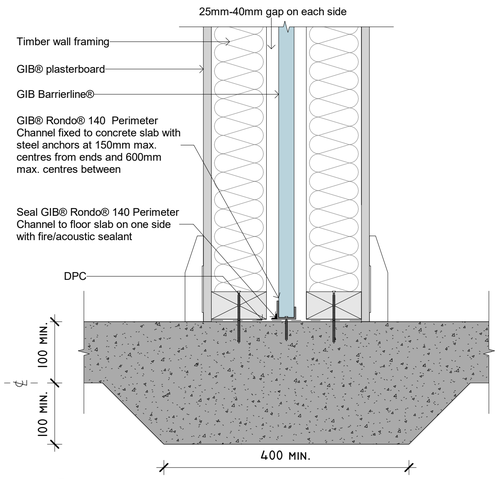
7 1 : 10 Detail

Roof Void Detail with Horizontal Sheeting (Side Elevation)



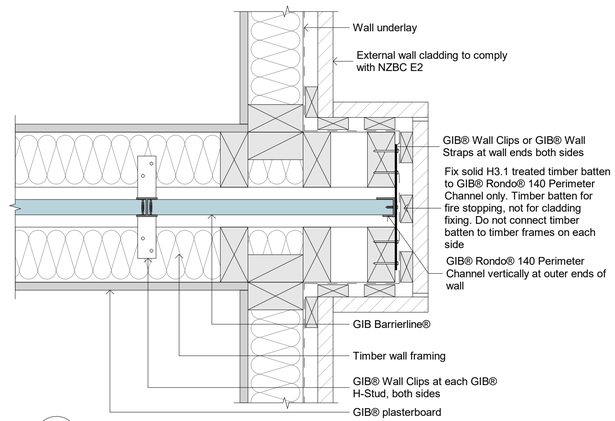
6 1 : 5 Detail

GNS105 - Detail at Ceiling and Roof (End Elevation)



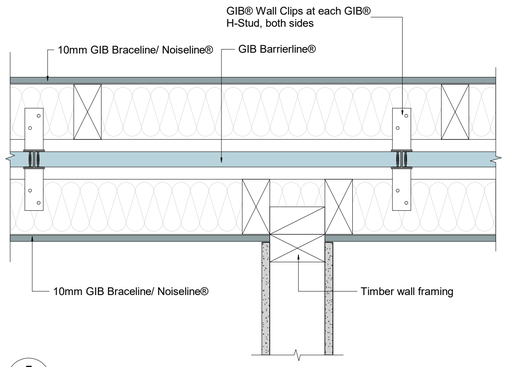
1 1 : 5 Detail

GNS101 - Base Detail at Slab (End Elevation)



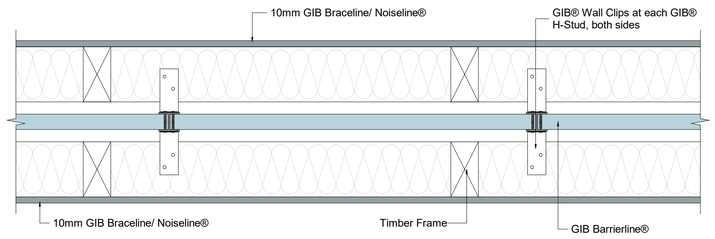
8 1 : 5 Detail

GNS104 - Intertenancy Wall Projection at External Timber Frame Wall (Plan View)



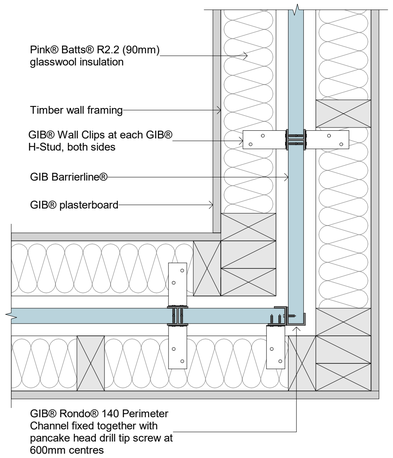
5 1 : 5 Detail

GIB INTERTENANCY WALL - NON FRR WALL



4 1 : 5 Detail

GIB INTERTENANCY WALL - GENERAL FIXING



3 1 : 5 Detail

GNS102 - Detail at Corner (Plan View)

LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

ARCHITECTURAL DETAILS

REV	ID	DESCRIPTION	DATE	STATUS	BC
A	BC		01/10/2026	REV	A
				SCALE-A1	As indicated
				JOB	2610
				DRAWN	
				CHECKED	

GENERAL NOTES

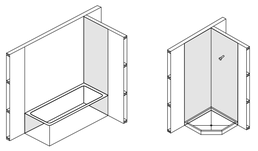
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK COMMENCES. ANY DISCREPANCIES TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING.
2. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE NZ BUILDING CODE AND ALL RELEVANT NZ STANDARDS AND CODES OF PRACTICE.
3. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.
4. ALL DIMENSIONS & SPECIFICATIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
5. CONTRACTOR TO ENSURE ALL ASSEMBLIES ACHIEVE WEATHERTIGHTNESS AND COMPLY WITH E2/AS1 TO AVOID MOISTURE PENETRATION AND ENSURE ADEQUATE DRAINAGE AND VENTILATION.
6. ALL WORKMANSHIP AND MATERIALS TO BE GUARANTEED FOR A MINIMUM OF 1 YEAR FROM PRACTICAL COMPLETION OF WORKS, AND ANY DEFECTS SHALL BE RECTIFIED AT NO COST TO THE OWNER.

SHEET No.

A5.6

ARCLIGHT ARCHITECTURE

STRUCTURE – CLAUSE B1

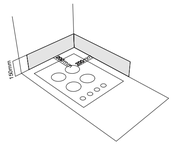


No bracing in the shaded areas.

NOTES:
DAMPFIX TRADE INTERIOR WATERPROOFING MEMBRANE WILL APPLY FOR ALL WET AREAS

FIRE AFFECTING AREAS BEYOND THE SOURCE – CLAUSE C3

The protection of combustible surfaces surrounding gas cooking appliances is covered by the latest version of AS/NZS 5601.1.

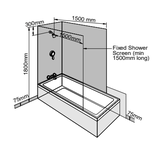


As a guide the following options are acceptable for wall surfaces within 200mm of the periphery of a gas element to a height of 150mm above the element for the full dimension (width and depth) of the cooktop surface area:
— 5mm tiles on GIB® plasterboard
— 5mm toughened glass on GIB® plasterboard
— or any system that can be demonstrated to meet the specific requirements of AS/NZS 5601.1
GIB® plasterboard products must not be exposed to temperatures in excess of 52°C for sustained periods. Check with the appliance manufacturer that this requirement will be met. It would be unusual for surfaces outside 200mm to exceed 52°C for sustained periods.

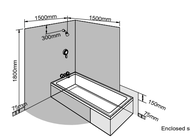
INTERNAL MOISTURE – CLAUSE E3

Shaded areas in the diagrams below represent the minimum extent of wall surfaces requiring impervious sheet materials or waterproof membrane systems prior to tiling.

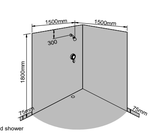
Enclosed shower over bath



Unenclosed shower over bath

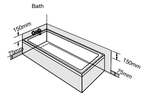


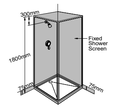
Unenclosed shower



Enclosed shower

Bath

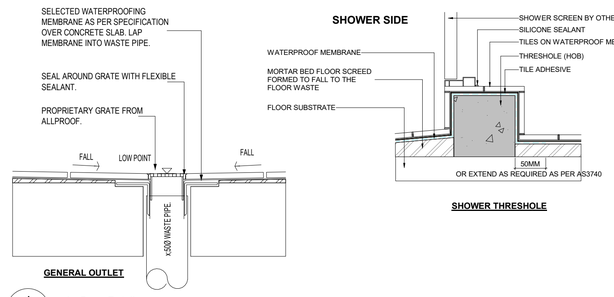




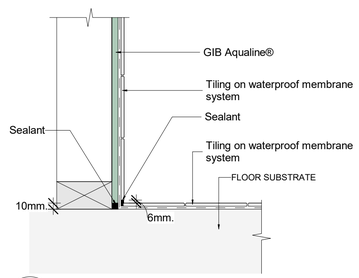
NOTE

- Waterproofing is to be on a 20mm H3 plywood or a concrete substrate to wall and floor. If Gib is used to line walls
- A mechanical fixing is required within top 100mm of waterproofing membrane into studs.
- Waterproofing is required to all penetrations to waterproof membrane.
- Waterproofing is required 300mm above the shower rose head.
- Where a door occurs a water stop angle is required.
- Waterproofing membrane and angle is to terminate below finished tile level.
- Waterproofing is required 300mm above bath rim.
- Waterproofing is required 20mm above top of tile or top of skirting board.
- Waterproofing is required 1500mm each way where shower is located.

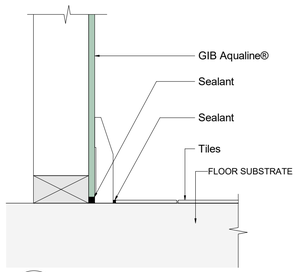
6 NTS Plan
Wet Area General Details



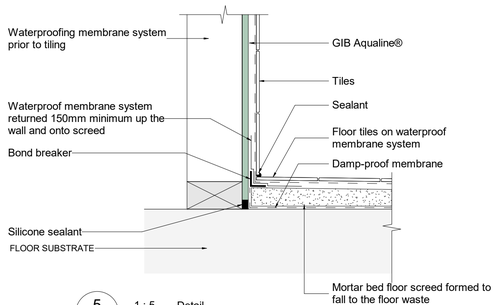
1 1 : 5 Detail
WET AREA



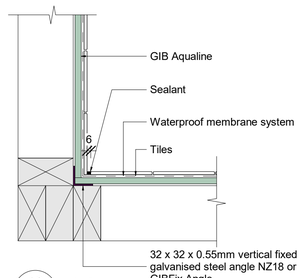
3 1 : 5 Detail
GAL002A - Ceramic Floor Lining Junction



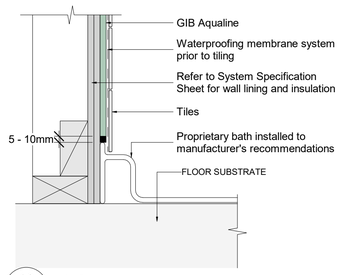
4 1 : 5 Detail
GAL001A - Tile Floor Skirting Lining Junction



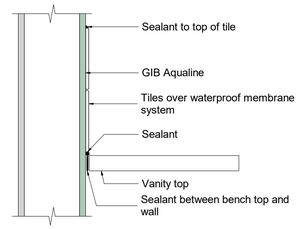
5 1 : 5 Detail
GAL003 - Mortar Under Ceramic Floor/Lining Junction



12 1 : 5 Detail
GAL029 - Tiled Internal Corner



10 1 : 5 Detail
GAL016 - Moulded Shower Tray Double Lining Junction

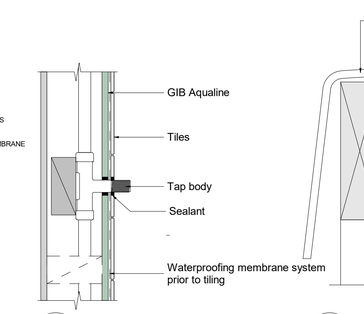


WATERSPLASH & WALL JUNCTION NOTES (NZBC E3.3.6):

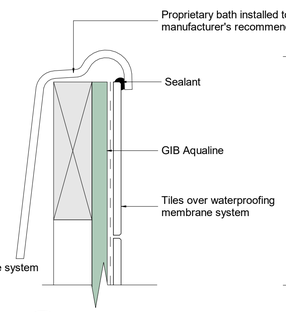
- All wall surfaces likely to be splashed adjacent to the kitchen sink and laundry tub must be constructed with an impervious lining in compliance with NZBC E3/AS1 Paragraph 3.1.2.

- The junction between the benchtop, upstand, and wall lining must be continuously sealed with a sanitary-grade, mold-resistant flexible silicone sealant to prevent water splash from penetrating behind linings or into concealed spaces

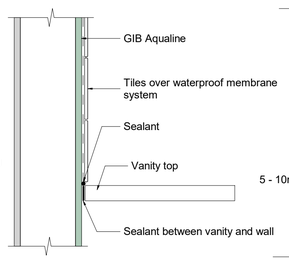
11 1 : 5 Detail
GAL024 - Kitchen Sink / Laundry Tub Bench Wall Junction



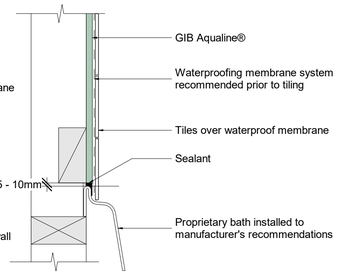
2 1 : 5 Detail
GAL002 - Sealing Wet Area Penetration



7 1 : 2 Detail
GAL004 - Bath Cradle Lining Detail



8 1 : 5 Detail
GAL005 - Vanity Top Lining Junction



9 1 : 5 Detail
GAL006 - Bath Lining Junction

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

WET AREA DETAILS

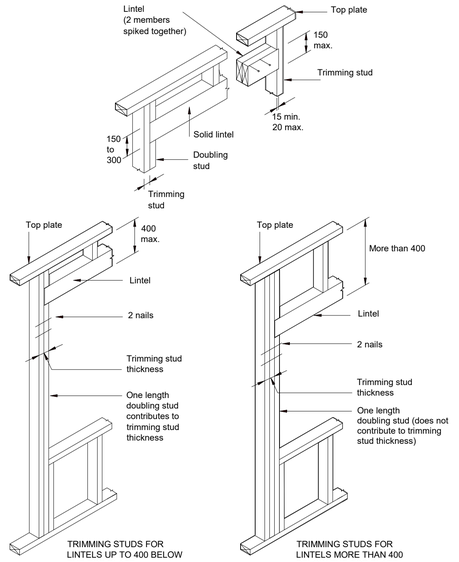
REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2026	BC

REV: A
SCALE-A1: As indicated
JOB: 2610
DRAWN:
CHECKED:

GENERAL NOTE
ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING:
1. ALL NATIONAL THEMES LISTED AND TO CONSENT SPECIFICATION UNLESS OTHERWISE NOTED.
2. ALL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND LOCAL TERRITORIAL AUTHORITY BYELAWS.
3. ALL MATERIALS TO BE INSTALLED AS PER MANUFACTURERS NOTES OTHERWISE.
4. ALL MEASUREMENTS & LEVELS ARE TO BE CHECKED ON SITE BEFORE ORDERING OR CONSTRUCTION OF ANY ITEMS.
5. CONTRACTOR TO ENSURE ALL DRAWINGS ISSUED & BRIEF INSTRUCTIONS ARE CORRECT & COMPLETE BEFORE COMMENCING WORK. ANY DISCREPANCIES TO BE REPORTED TO ARCLIGHT ARCHITECTURE IMMEDIATELY. ANY WORK CARRIED OUT PRIOR TO THIS WILL BE AT THE CONTRACTORS OWN RISK. ANY DISCREPANCIES SHALL BE ACCEPTED BY THE CONTRACTOR.

SHEET No.
A5.60

ARCLIGHT ARCHITECTURE

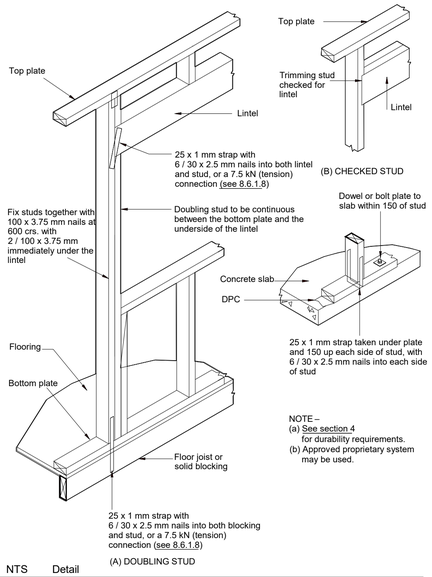


TRIMMING STUDS FOR LINTELS UP TO 400 BELOW THE TOP PLATE

TRIMMING STUDS FOR LINTELS MORE THAN 400 BELOW THE TOP PLATE

1 NTS Detail

Trimming studs and lintels



NOTE –
(a) See section 4 for durability requirements.
(b) Approved proprietary system may be used.

2 NTS Detail

Lintel fixing to prevent uplift

LUMBERLOK®

01/2017

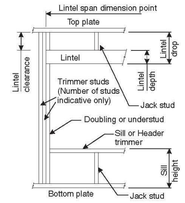
LINTEL FIXING SCHEDULE

ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12 NZS 3604:2011

NOTE:

- ★ All fixings are designed for vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa.
- ★ Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist horizontal loads.
- ★ These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- ★ All fixings assume bottom plate thickness of 45mm maximum. Note: TYLOK options on timber species.
- ★ Wall framing arrangements under girder trusses are not covered in this schedule.
- ★ All timber selections are as per NZS 3604:2011.

DEFINITIONS



Lintel Supporting Girder Trusses						
Roof Tributary Area	Light Roof			Heavy Roof		
	Wind Zone			Wind Zone		
	L, M, H	VH	EH	L, M, H	VH	EH
8.6m²	G	G	H	G	G	H
11.6m²	G	H	H	G	G	H
12.1m²	G	H	H	G	H	H
15.3m²	H	H	-	G	H	H
19.1m²	H	-	-	G	H	-
20.9m²	H	-	-	H	H	-
21.8m²	H	-	-	H	-	-
94.3m²	-	-	-	H	-	-

NOTES:
1. Roof Tributary Area = approx. 1/2 x (Total roof area on girder and rafter trusses supported by lintel)
2. Assumed girder truss is at mid-span or middle third span of lintel
3. Use similar fixings for both ends of lintel
4. All other cases require specific engineering design

Lintel Span (m)	Loaded Dimension (m) (See Fig 1.3 NZS 3604:2011)	Light Roof Wind Zone L	M	H	VH	EH	Heavy Roof Wind Zone L	M	H	VH	EH
1.0	2.0	E	E	E	F	F	E	E	E	E	F
	3.0	E	E	F	F	F	E	E	E	F	F
	4.0	E	F	F	F	G	E	E	F	F	F
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	E	F	G	G	G	E	E	F	F	G
1.2	2.0	E	E	F	F	F	E	E	E	F	F
	3.0	E	E	F	F	F	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	E	F	G	G	H	E	E	F	G	G
1.5	2.0	E	E	F	F	F	E	E	E	E	F
	3.0	E	F	F	F	G	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	F	F	G	G	H	E	E	F	G	G
	6.0	F	F	G	H	H	E	E	F	G	H
2.0	2.0	E	F	F	F	G	E	E	F	F	F
	3.0	E	F	F	G	G	E	E	F	F	G
	4.0	F	F	G	G	H	E	E	F	G	G
	5.0	F	G	G	H	H	E	E	F	G	H
	6.0	F	G	G	H	H	E	F	G	H	H
2.4	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	G	H	E	E	F	G	G
	4.0	F	F	G	H	H	E	E	F	G	H
	5.0	F	G	G	H	H	E	F	G	H	H
	6.0	G	H	H	-	-	E	F	G	H	H
3.0	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	H	H	E	E	F	G	H
	4.0	F	G	G	H	H	E	F	G	H	H
	5.0	F	G	H	H	-	E	F	G	H	H
	6.0	G	H	H	-	-	E	F	H	H	-
3.6	2.0	F	F	G	G	H	E	E	F	G	G
	3.0	F	F	G	H	H	E	E	F	G	H
	4.0	F	G	H	H	-	E	F	G	H	H
	5.0	F	G	H	-	-	E	F	G	H	-
	6.0	G	H	H	-	-	E	F	H	H	-
4.2	2.0	F	F	G	G	H	E	E	F	G	G
	3.0	F	G	H	H	-	E	F	G	H	H
	4.0	F	G	H	H	-	E	F	G	H	H
	5.0	G	H	H	-	-	E	F	H	H	-
	6.0	G	H	H	-	-	E	F	H	H	-
4.5	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	-	E	F	G	H	H
	3.4	F	G	H	H	-	E	F	G	H	H
	4.0	F	G	H	H	-	E	F	G	H	H
	5.0	G	H	H	-	-	E	F	H	H	-
	6.0	G	H	H	-	-	E	F	H	H	-
4.8	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	-	E	F	G	H	H
	3.2	F	G	H	H	-	E	F	G	H	H
	4.0	F	G	H	H	-	E	F	H	H	-
	5.0	G	H	H	-	-	E	F	H	H	-
	6.0	G	H	H	-	-	E	F	H	H	-
5.1	2.0	F	F	G	H	H	E	F	G	G	H
	3.0	F	G	H	H	-	E	F	G	H	H
	3.5	F	G	H	H	-	E	F	G	H	H
	4.0	G	G	H	H	-	E	F	H	H	-
	5.0	G	H	H	-	-	E	F	H	H	-
	6.0	G	H	H	-	-	E	G	H	H	-
5.4	2.0	F	F	G	H	H	E	F	G	G	H
	2.5	F	G	H	H	-	E	F	G	H	H
	3.0	F	G	H	H	-	E	F	G	H	H
	4.0	G	H	H	-	-	E	F	H	H	-
	5.0	G	H	H	-	-	E	F	H	H	-
	6.0	G	H	H	-	-	E	G	H	H	-

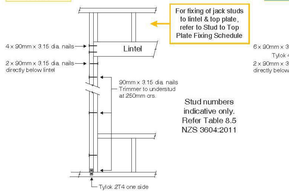
8 WALLS 8 WALLS

©Copyright 2017 MiTek Holdings, Inc. All rights reserved.

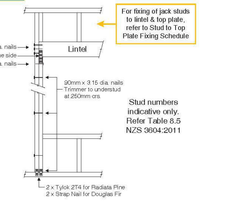
LINTEL FIXING OPTIONS

LUMBERLOK®

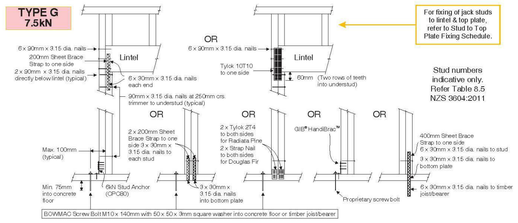
TYPE E 1.4kN



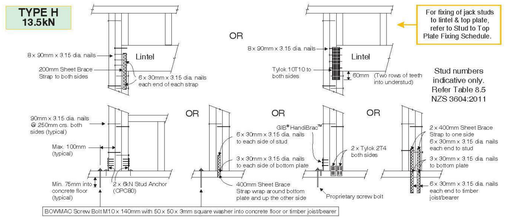
TYPE F 4.0kN



TYPE G 7.5kN



TYPE H 13.5kN



©Copyright 2017 MiTek Holdings, Inc. All rights reserved.

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

TRIMMING STUDS & LINTEL FIXING DETAIL

REV ID	DESCRIPTION	DATE	STATUS	BC
A	BC	01/10/2026		
			REV	A
			SCALE-A1	NTS
			DRAWN	2610
			CHECKED	

GENERAL NOTES
1. COPYRIGHT RESERVED. COPYRIGHT LIES IN ALL DRAWINGS, PLANS AND SPECIFICATIONS PREPARED BY ARCLIGHT ARCHITECTURE AND THEY MAY NOT BE COPIED, PUBLISHED OR USED IN ANY WAY WITHOUT THE WRITTEN CONSENT OF ARCLIGHT ARCHITECTURE.
2. ALL WORKING SHALL COMPLY WITH THE REQUIREMENTS OF THE NZ BUILDING CODE AND ALL RELEVANT NZ CODES OF PRACTICE.
3. ALL CONTRACTORS AND SUBCONTRACTORS SHALL VISIT THE SITE AND BE FAMILIAR WITH ALL CONDITIONS AFFECTING THE WORKS BEFORE TENDERING.
4. ALL DIMENSIONS & LEVELS SHOWN ON DRAWINGS SHOULD BE CHECKED BY CONTRACTORS BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO ARCLIGHT ARCHITECTURE.
5. DO NOT SCALE THE DRAWINGS FOR CONSTRUCTION PURPOSES. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY CONTRACTORS BEFORE COMMENCING ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO ARCLIGHT ARCHITECTURE.

SHEET No. A5.71

ARCLIGHT ARCHITECTURE

LUMBERLOK®

08/2017

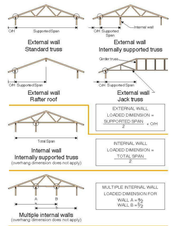
STUD TO TOP PLATE FIXING SCHEDULE

ALTERNATIVE TO TABLE 8.18 NZS 3604:2011

NOTE:

- All fixings are designed to resist vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.2kN/Pa.
- Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist lateral loads.
- These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- For gable end walls where the adjacent rafter/truss is located within 1200mm and with a maximum verge overhang of 750mm, select stud to top plate fixing using a loaded dimension of 1.5m.
- All fixings assume top plate thickness of 45mm maximum.
- Wall framing arrangements under girder trusses are not covered in this schedule.
- All timber selections are as per NZS 3604:2011.

LOADED DIMENSION DEFINITION



FIXING OPTIONS

FIXING TYPE A 0.7kN — 2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud.



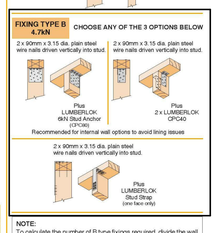
FIXING TYPE B 4.7kN — CHOOSE ANY OF THE 3 OPTIONS BELOW

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud. Plus LUMBERLOK 6kN Stud Anchor (CP24b)

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud. Plus 2 x LUMBERLOK CPC40

Recommended for internal wall options to avoid lining issues

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud. Plus LUMBERLOK Stud Strap (one face only)



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

SCAN FOR SPECIFICATION VIDEO

https://vimeo.com/117353604

FIXING SELECTION CHART

(Suitable for walls supporting roof members at 450, 600 or 1200mm crs.)
Wind Zones L, M, H, VH, EH, as per NZS 3604:2011

Loaded Dimension (m) Stud Centres			Light Roof Wind Zone					Heavy Roof Wind Zone				
300mm	400mm	600mm	L	M	H	VH	EH	L	M	H	VH	EH
3.0	2.3	1.5	A	A	B	B	B	A	A	B	B	B
4.0	3.0	2.0	A	A	B	B	B	A	A	B	B	B
5.0	3.8	2.5	A	B	B	B	B	A	A	B	B	B
6.0	4.5	3.0	A	B	B	B	B	A	A	B	B	B
7.0	5.3	3.5	A	B	B	B	B	A	A	B	B	B
8.0	6.0	4.0	A	B	B	B	B	A	A	B	B	B
9.0	6.8	4.5	B	B	B	B	B	A	A	B	B	B
10.0	7.5	5.0	B	B	B	B	B	A	A	B	B	B
11.0	8.3	5.5	B	B	B	B	B	A	A	B	B	B
12.0	9.0	6.0	B	B	B	B	B	A	A	B	B	B

8.WALLS

©Copyright 2017 MiTek Holdings, Inc
All rights reserved

LUMBERLOK®

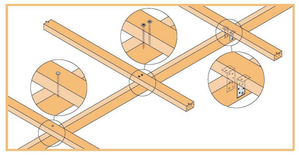
07/2011

PURLIN & BATTEN FIXING CHART

ALTERNATIVE SOLUTION TO NZS 3604:2011 TABLES 10.10 & 10.12

NOTE:

- All purlin and batten sizes are as per NZS 3604:2011.
- All fixings assume that the purlin and battens are installed on their flat over the top of the rafter or truss.
- The minimum fixing requirements apply to all purlin locations within the roof area.
- The LUMBERLOK BLUE SCREW where specified requires a minimum of 30mm penetration into rafter or truss i.e. it is suitable for rough sawn timber up to 50mm thick at 18% moisture content.



SELECTION CHART FIXING OPTIONS

(minimum fixing requirements)

ROOF WEIGHT	MAX. PURLIN SPAN (mm)	MAX. PURLIN CRS. (mm)	WIND ZONE L	M	H	VH	EH
HEAVY ROOF Tile Battens	900	370	A	A	A	A	A
LIGHT ROOF Tile Battens	900	370	A	A	B	C	C
	1200	370	A	B	C	C	C
LIGHT ROOF Purlins	900	900	C	C	C	C	D
	1200	900	C	C	C	D	D
	1200	1200	C	C	D	E	E

Wind Zone: As per NZS 3604:2011
L = Low Wind
M = Medium Wind
H = High Wind
VH = Very High Wind
EH = Extra High Wind

SCAN FOR INSTALLATION VIDEO

https://vimeo.com/117353340

10. ROOF FRAMING

©Copyright 2017 MiTek Holdings, Inc
All rights reserved

STANDARD FIXING OPTIONS

FIXING TYPE A 0.55kN — 1 NAIL

Note: Two nails maybe preferred to prevent batten rolling over with high roof pitches.



FIXING TYPE B 0.8kN — 2 NAILS



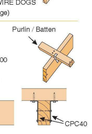
FIXING TYPE C 2.4kN — 1 BLUE SCREW



FIXING TYPE D 3.45kN — 2 BLUE SCREWS **OR** 2 SKEW NAILS plus 2 WIRE DOGS (for purlin on edge)



FIXING TYPE E 5.5kN — 2 NAILS plus 1 CT200 **OR** 1 PAIR of CPC40



FIXING DEFINITIONS

NAIL = Either 90mm x 3.15 dia. power-driven nail or 100mm x 3.75 dia. hand-driven nail

BLUE SCREW = 80mm x 10 gauge LUMBERLOK BLUE SCREW

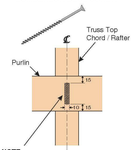
WIRE DOG = LUMBERLOK WIRE DOG either LH or RH

CT200 = LUMBERLOK Ceiling Tie CT200 bend over purlin, 4 x LUMBERLOK Product Nails 30mm x 3.15 dia. each end

CPC40 = LUMBERLOK CPC40 with 2 x Type 17 - 14g x 35mm Hex Head Screws per flange

FIXING TOLERANCES

LUMBERLOK BLUE SCREW



Locate fixings within the shaded area. Care to be taken to avoid over tightening of screws.

PURLIN / BATTEN SPLICE FIXING OPTIONS

FIXING TYPE A & B OVER PURLIN SPLICE — 1 nail in each



NOTE: Skew nail when fixing to 35mm rafter or truss

FIXING TYPE C, D or E OVER PURLIN SPLICE — 90 x 35mm block fixed to chord or rafter with 4 x 75mm nails



- TYPE C 1 SCREW to each purlin
- TYPE D & E 1 NAIL plus 1 SCREW to each purlin

©Copyright 2017 MiTek Holdings, Inc
All rights reserved

BOTTOM PLATE FIXING

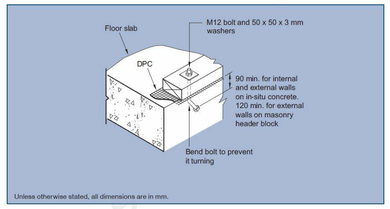


Figure 7.21 – Fixing of bottom plates to slabs and cast-in anchors (see 7.5.12.1)

BOTTOM PLATE FIXINGS FOR GIB® BRACING ELEMENTS

Brace type	Concrete slabs		Timber floors
	External wall	Internal wall	External and Internal walls
GS1-N	As per NZS 3604:2011. No specific additional fastening required.	As per NZS 3604:2011. Alternatively use 75 x 3.8mm shot-fired fasteners with 16mm discs, 150mm and 300mm from each end of the bracing element and at 600mm thereafter.	Pairs of 100 x 3.75mm flat head hand driven nails or 3/90 x 3.15mm power driven nails at 600mm centres in accordance with NZS 3604:2011.
GS2-N GS2-NOM	Not applicable.		
GSP-H BL1-H BLP-H	Intermediate fastenings to comply with NZS 3604:2011 In addition: GIB HandiBrac® fixings or metal wrap-around strap fixings and bolt as illustrated on p.15 and 16.		Pairs of 100 x 3.75mm flat head hand driven nails or 3/90 x 3.15mm power driven nails at 600mm centres in accordance with NZS 3604:2011. In addition: GIB HandiBrac® fixings or metal wrap-around strap fixings and bolt as illustrated on p.15 and 16.
BLG-H	Not applicable	As for GSP-H, BL1-H, BLP-H on concrete slab as illustrated on p.15 and 16.	

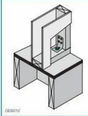
GIB HandiBrac® installation

Developed in conjunction with MiTek™, the GIB HandiBrac® has been designed and tested by Winstone Wallboards for use in GIB EzyBrace® elements that require hold-downs. The GIB HandiBrac® is a substitute for bottom plate hold-down straps.

- Quick and easy to fit.
- May be fitted at any stage before lining.
- Framing face is clear to allow flush lining.
- Easily inspected.

The GIB HandiBrac® with BOWMAC® blue head screw bolt is suitable for timber and concrete floors constructed in accordance with NZS 3604:2011.



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

BOTTOM PLATE TO FLOOR FRAMING FIXING

SECTION 8 – WALLS **NZS 3604:2011**

Table 8.19 – Nailing schedule for hand-driven and power-driven nails (see 8.8.6)

Joint	Hand-driven nails		Power-driven nails	
	Length (mm) **x diameter** (mm) **and type**	**Number/ Location**	**Length** (mm) **x diameter** (mm) **and type**	**Number/ Location**
Bottom plate to floor framing at:				
(a) External walls and internal wall bracing elements	100 x 3.75	2 at 600 mm centres	90 x 3.15	3 at 600 mm centres
(b) Internal walls (may be nailed to floor decking)	100 x 3.75	1 at 600 mm centres	90 x 3.15	1 at 600 mm centres
(c) Trimmer not exceeding 4.2 m long	100 x 3.75	4 (end nailed)	90 x 3.15	6 (end nailed)

GIB HANDIBRAC® OVERVIEW

COMPONENTS

GIB HandiBrac® is available in boxes of 10, each containing 5 pairs.

Components per paired pack include:

- 2 x GIB HandiBrac® Brackets
- 10 x Tek Screws
- 2 x BOWMAC® screw bolts included within specific GIB HandiBrac® pack

GIB® BRACING ELEMENTS

The GIB HandiBrac® is a proprietary product that has been tested and is suitable for use with specified GIB EzyBrace® Systems.

FIXING TO TIMBER FRAMED FLOORS

BOWMAC® screw bolt to achieve a characteristic uplift strength of 12kN.

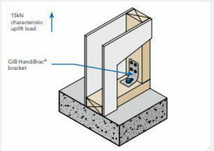
FIXING TO CONCRETE SLABS

BOWMAC® screw bolt to achieve a characteristic uplift strength of 15kN

PANEL HOLD-DOWN DETAILS

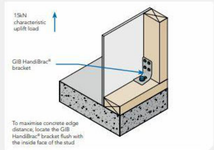
CONCRETE FLOOR – INTERNAL WALL

The bottom plate at both ends of the bracing element is fixed using a BOWMAC® screw bolt. For BOWMAC® screw bolt installation see instructions on next page



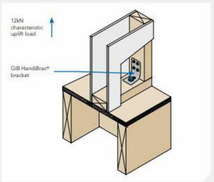
CONCRETE FLOOR – EXTERNAL WALL

The bottom plate at both ends of the bracing element is fixed using a BOWMAC® screw bolt. For BOWMAC® screw bolt installation see instructions on next page.



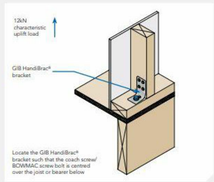
TIMBER FLOOR – INTERNAL WALL

Bottom Plate is fixed using a BOWMAC® screw bolt. For BOWMAC® screw bolt installation see instructions on next page.



TIMBER FLOOR – EXTERNAL WALL

Bottom Plate is fixed using a BOWMAC® screw bolt. For BOWMAC® screw bolt installation see instructions on next page.



LOT 291- 31 KAHIWI DRIVE

QUEENSTOWN (LOT 29 DP 599390)

FRAMING FIXING DETAILS

REV ID	DESCRIPTION	DATE	STATUS	BC
A	BC	01/10/2018		
			REV.	A
			SCALE AT	
			JOB	2610
			DRAWN	
			CHECKED	

SHEET No. A5.72

ARCLIGHT ARCHITECTURE

DURABILITY & FIXING NOTES

STRUCTURE FIXING IN CORROSION ZONE C

FIXINGS SHOULD COMPLY AS FOLLOWS:

STEEL FIXINGS AND FASTENINGS	**3604:2011 TABLE 4.1**
THE MATERIALS FOR NAILS & SCREWS	**3604:2011 TABLE 4.3**
EXPOSED STEEL BEAM	**GALVANISING ON MILD STEEL**
CONCRETE AND CONCRETE MASONRY	**3604:2011 4.5.2 UNLESS NOTED ON THE ENGINEER DRAWINGS**
FLASHINGS	**E2/AS1 TABLE 20, 21 & 22 UNLESS NOTED ON THE ENGINEER DRAWINGS**

Table 4.1 – Protection required for steel fixings and fastenings excluding nails and screws[1] (see 4.4.1)

ZONES	FIXING FASTENING	ENVIRONMENT		MATERIAL
ALL ZONES	Nail plates	CLOSED AND ROOF SPACES		Continuously coated galvanized steel[2]
	Wire dogs & bolts			Hot-dipped galvanized steel[2]
	All other structural fixings	CLOSED		Mild steel (uncoated, non-galvanized)[2]
ZONE D	All structural fixings	SHELTERED[4] AND EXPOSED		Type 304 stainless steel[3]
ZONES B AND C	Treated timber pile connections more than 600 mm from the ground and all subfloor connections	Subfloors vented 7000 mm² or less	SHELTERED[4]	Hot-dipped galvanized steel[2]
		Subfloors vented more than 7000 mm²	EXPOSED	Type 304 stainless steel[3]
	Treated timber pile connections within 600 mm of the ground	SHELTERED[4] AND EXPOSED		Type 304 stainless steel[3]
	All other structural fixings, except fabricated brackets[6]	SHELTERED[4]		Hot-dipped galvanized steel[2]
		EXPOSED		Type 304 stainless steel[3]

(1) Items described in this table are steel fasteners required to last not less than 50 years, used for joining timber, such as nail plates, bolts, brackets, wire dogs and similar, but not including nails or screws (which are described in table 4.3).
(2) All galvanizing weights to steel shall be as given in table 4.2.
(3) Steel fixings in timber treated with copper-based timber preservatives shall be as per 4.4.4.
(4) "Sheltered" shall be that above a 45° line drawn from the lower edge of a projecting weathertight structure such as a floor, roof or deck. "Exposed" shall be below that 45° line. See figure 4.3(a) and (b).
(5) Type 304 stainless steel is sufficient to comply with NZS0 requirements, but may have surface rust. Type 316 may be used where appearance is a consideration but exceeds the requirements of the NZBC.
(6) "Fabricated brackets" shall be made from 5 mm (minimum thickness) mild steel and shall be hot-dipped galvanized.

Table 4.3 – Steel items such as nails and screws used for framing and cladding (see 4.4.3)

Building location	Nail or screw use				
	Cladding that acts as bracing (50-year durability)	Non-structural cladding (15-year durability)	Framing in "Closed" areas[1] including roof spaces	Framing in "Sheltered" areas[1]	Framing in "Exposed" areas[1]
Zone D	Stainless steel[2] or silicon bronze or protected galvanized steel[2]	Galvanized steel[4]	Mild steel[5]	Galvanized steel[5]	Stainless steel[2]
Zones B & C	Galvanized steel[4]	Galvanized steel[4]	Mild steel[5]	Galvanized steel[5]	Galvanized steel[5]

(1) For definitions of "closed", "sheltered", and "exposed" see table 4.1 and figure 4.3(a) and (b).
(2) Stainless steel nails shall be minimum Type 304 and shall have annular grooves to provide similar withdrawal resistance to hot-dipped galvanized nails.
(3) Protection of galvanized steel nails shall consist of putty and an exterior painting system consisting of a primer undercoat and 2 top coats of oil-based or acrylic paint.
(4) Where the cladding is a corrosive timber, such as western red cedar or redwood, or is treated with copper-based ACQ or CuAz preservatives, use stainless steel[2] or silicon bronze.
(5) Steel fixings in timber treated with copper-based preservatives shall be as per 4.4.4.
(6) Irrespective of the above, nails and screws shall be compatible with any fixing plate that is used with them.
(7) Nails and screws and other fixings into piles within 600 mm of the ground shall be stainless steel.
(8) Galvanized nails shall be hot-dipped galvanized to a minimum of 320 g/m²; galvanized screws shall be mechanically zinc plated in accordance with AS 3566: Part 2, Class 4.
(9) Type 304 stainless steel is sufficient to comply with NZS0 requirements, but may have surface rust. Type 316 may be used where appearance is a consideration but exceeds the requirements of the NZBC.

GALBE END BRACING

TABLE 1A - STRONGBACK LOCATION FOR WEBS @ 600MM CRS.

WIND ZONE	MAXIMUM STRONGBACK HEIGHT (h)											
	70x45 Web		90x45 Web		Double Compound Gable End Webs: 2/ 70x45		2/ 90x45		45x70 on flat		45x90 on flat	
	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8
LOW	1750	1950	1900	2100	2200	2450	2400	2650	2350	2600	2950	3150
MEDIUM	1600	1750	1750	1900	2000	2200	2200	2400	2150	2350	2750	2950
HIGH	1400	1500	1500	1650	1750	1900	1900	2100	1800	2050	2350	2650
VERY HIGH	1250	1400	1400	1500	1600	1750	1750	1900	1600	1900	2050	2400
EXTRA HIGH	1150	1350	1300	1450	1550*	1700*	1650*	1850*	1450	1700	1850*	2200*

TABLE 1B - STRONGBACK LOCATION FOR WEBS @ 400MM CRS.

WIND ZONE	MAXIMUM STRONGBACK HEIGHT (h)											
	70x45 Web		90x45 Web		Double Compound Gable End Webs: 2/ 70x45		2/ 90x45		45x70 on flat		45x90 on flat	
	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8
LOW	2000	2200	2200	2400	2550	2750	2750	2950	2700	2900	3250	3500
MEDIUM	1800	2000	2000	2200	2300	2550	2500	2750	2450	2700	3050	3300
HIGH	1600	1750	1750	1900	2000	2200	2200	2400	2150	2350	2750	2950
VERY HIGH	1450	1600	1600	1750	1850	2000	2000	2200	1950	2200	2500	2750
EXTRA HIGH	1400	1550	1500	1650	1750*	1950*	1900*	2100*	1800	2100	2300*	2650*

*Use these values for full height brick veneer attached to gable end.
Please note that the maximum height of brick veneer on a gable end wall is 5.5m.

SELECTION PROCESS



STRONGBACK OPTIONS

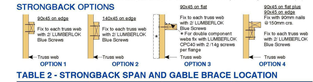
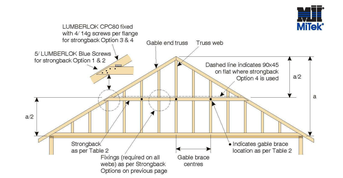


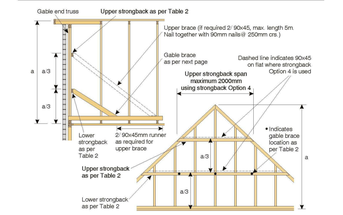
TABLE 2 - STRONGBACK SPAN AND GABLE BRACE LOCATION

OPTION 1	OPTION 2	OPTION 3	OPTION 4
90x45 on edge	140x45 on edge	90x45 on flat	90x45 on flat plus 90x45 on edge
Max. span and/or gable brace location 1200mm	Max. span and/or gable brace location 1400mm	Max. span and/or gable brace location 1600mm	Max. span and/or gable brace location 2000mm

© Copyright 2017 MiTek Holdings, Inc. All rights reserved.

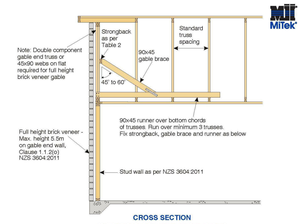


SINGLE STRONGBACK DETAILS

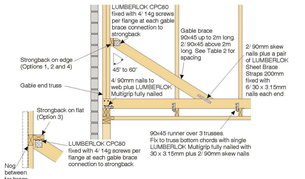


DOUBLE STRONGBACK DETAILS FOR ALL GABLE END OPTIONS (full height brick veneer option shown)

© Copyright 2017 MiTek Holdings, Inc. All rights reserved.



CROSS SECTION (full height brick veneer option shown)



GABLE BRACE DETAIL FOR ALL GABLE END OPTIONS (full height brick veneer option shown)

© Copyright 2017 MiTek Holdings, Inc. All rights reserved.

GABLE END RAKING VERGE

OVERHANG OPTIONS

- **All gable end loading parameters are based on the design considerations used in NZS 3604:2011 and cover heavy roof weight, extra high wind load and snow load Sg of up to 1.0kPa.**
- **All live load considerations as per AS/NZS 1170.**
- **All timber to be minimum grade SG8 as defined in NZS 3604:2011.**

CANTILEVER PURLIN OPTION

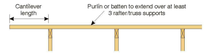


TABLE 1

PURLIN SIZE & ORIENTATION	MAX. CANTILEVER LENGTH (mm)	PURLIN CENTRES (mm)
45x45	200	400
70x45	300	900
90x45	450	900

CANTILEVER OUTRIGGER OPTION

(Note: Maximum sidewall overhang of 750mm)
(See details on next pages)

TABLE 2

	OUTRIGGER SIZE & ORIENTATION	MAX. CANTILEVER LENGTH (mm)	OUTRIGGER CENTRES (mm)
MAX. CANTILEVER LENGTH (150mm)	70x45	750	600
		600	900
	90x45	750	900
		600	1200
	90x45	750	400
		600	600

CANTILEVER OUTRIGGER/PURLIN COMBINATION OPTION

(Note: Maximum sidewall overhang of 1200mm)
(See details on next pages)

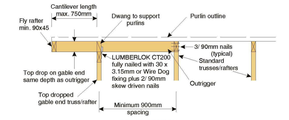
TABLE 3

	OUTRIGGER SIZE & ORIENTATION	MAX. CANTILEVER LENGTH (mm)	OUTRIGGER CENTRES (mm)
MAX. CANTILEVER LENGTH (300mm)	45x45 Purlin 90x45 Outrigger	1200	450
	70x45 Purlin 90x45 Outrigger	1200	700
	90x45 Purlin 90x45 Outrigger	1200	900

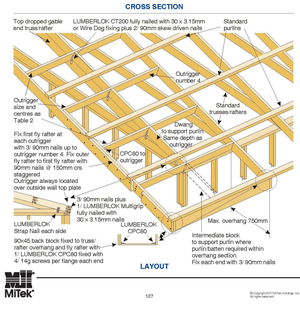
© Copyright 2017 MiTek Holdings, Inc. All rights reserved.

CONSTRUCTION DETAILS FOR CANTILEVER OUTRIGGER OPTION

(SPANS & CENTRES AS PER TABLE 2)



CROSS SECTION

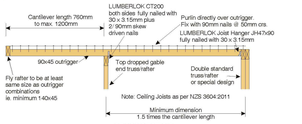


LAYOUT

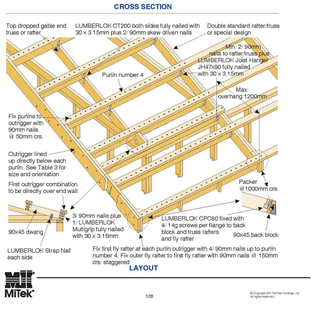
© Copyright 2017 MiTek Holdings, Inc. All rights reserved.

CONSTRUCTION DETAILS FOR OUTRIGGER/PURLIN COMBINATION

(SPANS & CENTRES AS PER TABLE 3)



CROSS SECTION



LAYOUT

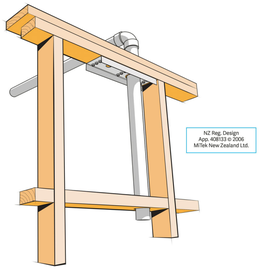
© Copyright 2017 MiTek Holdings, Inc. All rights reserved.

TOP PLATE PENETRATION

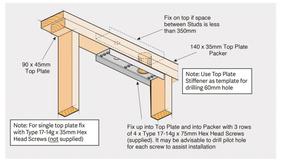
2024 EDITION V1

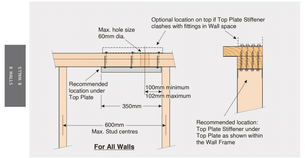
TOP PLATE STIFFENER

- For plumbing or vacuum system ducting through top plates
- Reinforces the top plate back to FULL STRENGTH!
- Alternative solution to Figure 8.20 NZS 3604:2011



NZ Reg. Design App. 408133 © 2006 MiTek New Zealand Ltd.





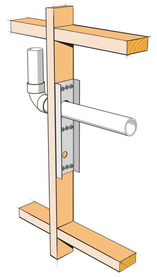
Code: TPS
Material: 1.55mm G300 Z275 Galvanised Steel
Packed: 8 x Top Plate Stiffeners per Carton
100 x Type 17-14g x 75mm Hex Head Galvanised Screws

STUD PENETRATION

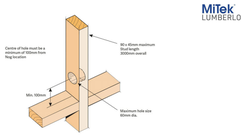
2024 EDITION V1

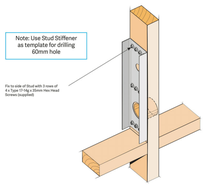
FRAMING STUD STIFFENER

- For plumbing or vacuum system ducting through timber studs
- Reinforces 90 x 45mm timber studs back to FULL STRENGTH!
- Solution to include holes up to 60mm diameter
- Refer Clause 8.5.1.6 NZS 3604:2011
- Suitable for Studs up to 3m high
- For Double Studs, fix bracket to both sides



NZ Reg. Design App. 408133 © 2006 MiTek New Zealand Ltd.





Code: FSS
Material: 1.55mm G300 Z275 Galvanised Steel
Packed: 8 x Framing Stud Stiffeners per Carton
100 x Type 17-14g x 35mm Hex Head Galvanised Screws

LOT 291- 31 KAHIWI DRIVE
QUEENSTOWN (LOT 29 DP 599390)

GABLE END BRACING, RAKING VERGE & DURABILITY

REV ID	DESCRIPTION	DATE	STATUS
A	BC	01/10/2025	BC

REV: A
SCALE:A1 1 : 100
JOB: 26101
DRAWN:
CHECKED:

GENERAL NOTES
1. ALL WORK TO COMPLY WITH THE CURRENT VERSION OF NZS 3604 UNLESS NOTED OTHERWISE.
2. ALL STRUCTURAL TIMBER IS TO BE GRADED TO COMPLY WITH AS/NZS 1748 UNLESS OTHERWISE NOTED.
3. ALL SITE WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW ZEALAND CODE OF PRACTICE FOR EARTHWORKS NZS 4431:1989.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BEFORE ANY WORK COMMENCES. ANY ERRORS OR OMISSIONS ARE TO BE REPORTED TO THE DESIGNER BEFORE COMMENCEMENT OF ANY WORK.
6. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET OR EXCEED NEW ZEALAND BUILDING CODE REQUIREMENTS. ALTERNATIVE SOLUTIONS MAY BE USED BUT MUST BE ACCEPTED BY THE BUILDING CONSENT AUTHORITY PRIOR TO IMPLEMENTATION.
7. THIS SET OF PLANS IS NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS ISSUED FOR CONSTRUCTION. ANY UNAUTHORISED USE SHALL BE AT THE SOLE RISK OF THE USER.

SHEET No. A5.73

ARCLIGHT ARCHITECTURE