Hayley Mealings
RD2 230 Hariru Rd
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Contact: (021) 299 8929
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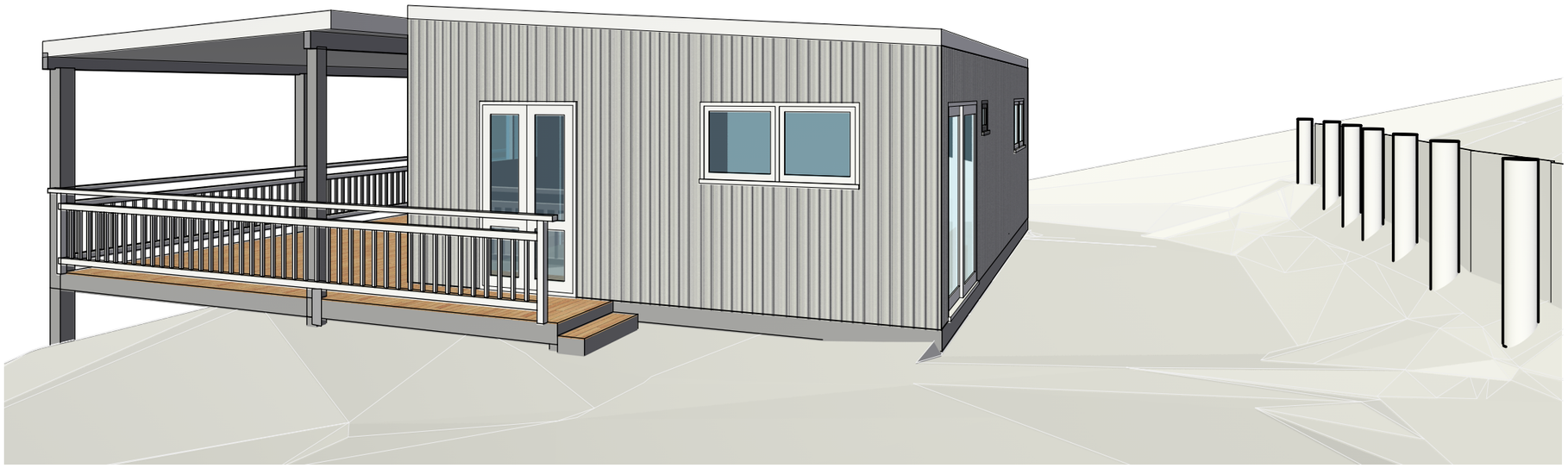


PROPOSED DWELLING

FOR

NICK YAKAS

AT

13 WAIANGA PLACE, OMAPERE

BUILDING CONSENT

22nd MARCH 2022

SCOPE OF WORKS

PROPOSED ONE STOREY DWELLING. MAIN STEEL STRUCTURE DESIGNED BY TOTALSPAN ON CONCRETE SLAB FOUNDATION. UPGRADED TO AN IL2 HABITABLE BUILDING WHICH INCLUDES TWO BEDROOMS, BATHROOM & KITCHEN FACILITIES. TIMBER DECKING ATTACHED TO WEST FACE WITH TIMBER BALUSTRADE

PRELIMINARY NOTES FOR THESE DRAWINGS

THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH TOTALSPAN DRAWINGS & SPECIFICATIONS. THESE DRAWINGS DO NOT COVER ANY STEEL STRUCTURE, THERMABREAK, OR FOUNDATON REQUIREMENTS WHICH ARE COVERED WITH THE TOTALSPAN DRAWINGS/SPECIFICATIONS ONLY.

GENERAL NOTES

ANY STRUCTURAL, ARCHITECTURAL OR WATERPROOFING DETAIL MISSING MUST NOT BE ATTEMPTED CONSTRUCTION BY A BUILDER OR ANY OTHER CONTRACTOR , WITHOUT THE AUTHORITY OF THE DESIGNER'S GUIDANCE. A MISSING DETAIL BE REQUESTED FOR ISSUE FROM THE DESIGNER IMMEDIATELY BEFORE BUILDING WORK.

NOTE TO All CONTRACTORS

WHILST ON SITE ALL CONTRACTORS ARE TO HOLD A COPY OF NZS 3604:2011 & ANY OTHER RELEVANT NZBC COMPLIANCE DOCUMENTS THAT SPECIFICALLY RELATE TO THIS PROJECT INCLUDING CLAUSES B1, B2, D1, E2, F4, G1 & G12. A COPY OF THESE COMPLIANCE DOCUMENTS (EXCLUDING NZS 3604:2011) CAN BE DOWNLOADED & PRINTED VIA THE MBIE WEBSITE - www.mbie.govt.nz
ALL CONSTRUCTION IN ACCORDANCE WITH NZ BUILDING & ENGINEERING STANDARDS AND DETAILS INCLUDED WITHIN THE ATTACHED DOCUMENTS AND SPECIFICATIONS. IF IN DOUBT OVER ANY DETAIL PLEASE CONTACT THE DESIGNERS IMMEDIATELY

STRICTLY NO DEVIATIONS FROM SPECIFIED PRODUCTS AND MANUFACTURERS INSTALLATION INSTRUCTIONS WITHOUT LBP WRITTEN APPROVAL.

SITING OF BUILDING WORK
ALL BOUNDARY PEGS AND SERVICES ARE TO BE LOCATED BEFORE CONSTRUCTION WORK COMMENCES. THE OWNER MUST CONFIRM PROPOSED BUILDING LOCATION AND SERVICES SUPPLY LOCATIONS FROM THEIR LEGAL BOUNDARY LINE PRIOR TO ANY CONSTRUCTION COMMENCING.

INTERNAL CONSTRUCTION/ALTERATIONS
THE BUILDER MUST ORIENTATE THEMSELVES WITH THE LOCATION OF THE PROPOSED WORKS PRIOR TO ANY WORKS COMMENCING.

VARIATIONS AND AMENDMENTS
ALL STRUCTURAL DESIGN VARIATIONS AND OR AMENDMENTS DURING CONSTRUCTION ARE TO BE VERIFIED AND AGREED TO BY THE DESIGNER AS SOON AS POSSIBLE.

SPECIFIC ENGINEERING DETAIL
REFER TO THE CHARTERED ENGINEERS CALCULATIONS AND/OR THEIR DRAWINGS ATTACHED.

DISCREPANCIES
FOR ALL RENOVATION/EXTENSION BUILDING WORK TO EXISTING BUILDINGS, ALL DIMENSIONS NEED TO BE CHECKED PRIOR TO STARTING BUILDING WORK. DIMENSIONS MAY VARY UP TO A MARGINAL ERROR OF 100mm MORE OR LESS
ALL DIMENSIONS AND LEVELS ARE BELIEVED TO BE ACCURATE AT THE TIME OF ISSUE. ANY DISCREPANCIES FOUND ARE TO BE REPORTED TO THE DESIGNER (OR THEIR APPOINTED REPRESENTATIVE) SO THAT A DECISION MAY BE OBTAINED BEFORE PROCEEDING WITH ANY FURTHER WORK ON SITE.

DURABILITY

DURABILITY OF ALL FIXINGS TO COMPLY WITH NZBC B2/AS1 & NZS3604:2011 TABLE 4.1 & 4.2

DWELLING IS LOCATED WITHIN -

ZONE D: SEASPRAY

ENVIRONMENT - ALL ZONES:
CLOSED AND ROOF SPACES
NAIL PLATES - CONTINUOUSLY COATED Z275 PRE-GAL SHEET
WIRE DOGS - 150g/m² HOT DIPPED GAL COATING
BOLTS - 600g/m² HOT DIPPED GAL COATING
BRACKETS - 390g/m² HOT DIPPED GAL COATING

ALL OTHER STRUCTURAL FIXINGS IN 'CLOSED' - MILD STEEL

ENVIRONMENT - ZONE D:
SHELTERED AND EXPOSED -
ALL STRUCTURAL FIXINGS TYPE 304 STAINLESS

HIDDEN STEEL COATED ELEMENTS IN VENTILATED CAVITIES IN ZONES D & E (EXPOSURE TO SALT AIR) MUST BE CONSIDERED AS 'SHELTERED'

WALL STRUCTURE

TIMBER STUDS DESIGNED FOR:
VERY HIGH WIND ZONE, LIGHT ROOF
REF: NZS3604:2011 Table 8.4

INTERNAL NON-LOADBEARING TIMBER STUDS UP TO 3m IN HEIGHT 90 x 45 SG8 H1.2 @ 400 CTRS MAX. NOGS @ 800 CTRS MAX

SW ACCESSORIES

TO TOTALSPAN BUILDING:
175 x 175 x 125 ALUMINIUM FASCIA GUTTER .

TO VERANDAH ROOF:
175 x 175 x 125 STEEL FASCIA GUTTER FIXED TO 290 x 25 H3 FJ PRE-PRIMED FASCIA BOARD. 1:100 FALL TO DOWNPIPES

FLOOR STRUCTURE

CONCRETE SLAB. REFER TO TOTALSPAN DRAWINGS FOR FOUNDATION LAYOUT & DETAILS

JOINERY

ALL PROPOSED JOINERY TO BE ALUMINIUM. DOUBLE GLAZED

PLUMBING

PLUMBER/DRAIN LAYER TO SUPPLY AN AS BUILT PLUMBING & DRAINAGE PLAN AFTER COMPLETION.

DECKING

90 x 32 SG8 H3.2 RADIATA PINE GRIP TREAD DECKING (VISUALLY GRADED).

FOR 15 YEAR DURABILITY HOT DIPPED GALVANISED STEEL NAILS/SCREWS TO BE USED FOR FIXINGS.

H1 COMPLIANCE

REFER TO SHEET 03.03 - 03.06

WALLS - BETWEEN 80mm STEEL GIRTS: PINK BATTS R2.2 WALL 70mm THICK

SKILLION ROOF: BLACK PEARL R3.38, 105mm THICK

UNDER CONCRETE SLAB: EXPOL THERMASLAB (S) R-1.6 60mm THICK

INTERIOR WALL LININGS

LEVEL 4 FINISH

DRY AREAS
12mm ECOPLY PLYWOOD INTERIOR LINING TO ALL EXTERIOR WALLS.
INTERNAL WALLS TO BE LINED WITH 10mm GIB LINING
CEILINGS
12mm ECOPLY PLYWOOD CEILING LINING.
ALL CEILING LININGS FIXED TO GIB RONDO METAL CEILING GRID SYSTEM. INSTALL TO MANUFACTURER'S SPECIFICATIONS
WET AREAS
INSTALL 10mm GIB AQUALINE TO BATHROOM, LAUNDRY WALLS AND CEILING OVER 12mm PLYWOOD LINING (AS SPECIFIED WITHIN TOTALSPAN DRAWINGS.
SELECTED VINYL TO FLOORING

TYPICALLY MATCH EXISTING FINISHING LINE PROFILES.
180 x 19 PINE SPLAYED SKIRTING (BUN 3) SKIRTING.
100x19mm (BUN 6) ARCHITRAVES.
45x10mm FJ PINE SCOTIA
ALL TO BE CONFIRMED ONSITE

REGULATORY CODES:

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING REGULATORY CODES & DOCUMENTS
NZ BUILDING ACT (2004),
NZS3602:2003 TIMBER & WOOD-BASED PRODUCTS FOR USE IN BUILDINGS,
NZS3604:2011 TIMBER FRAMED BUILDINGS,
NZS4214:2006 METHODS OF DETERMINING THE TOTAL THERMAL RESISTANCE OF PARTS OF BUILDINGS,
NZS4218:2004 ENERGY EFFICIENCY - SMALL BUILDING ENVELOPE,

NZBC CLAUSES:
- B1/AS1 STRUCTURE (GENERAL)
- B1/AS2 TIMBER BARRIERS
- B2/AS1 DURABILITY
- D1/AS1 ACCESS ROUTES
- E1/AS1 SURFACE WATER
- E2/AS1 EXTERNAL MOISTURE
- E3/AS1 INTERNAL MOISTURE
- F5/AS1 CONSTRUCTION & DEMOLITION HAZARDS
- F7/AS1 WARNING SYSTEMS
- G1/AS1 PERSONAL HYGIENE
- G4/AS1 VENTILATION
- G5/AS1 INTERIOR ENVIRONMENT
- G7/AS1 NATURAL LIGHT
- G8/AS1 ARTIFICIAL LIGHT
- G9/AS1 ELECTRICITY
- G10/AS1 PIPED SERVICES
- G11/AS1 GAS AS AN ENERGY SOURCE
- G12/AS1 WATER SUPPLIES
- G13/AS1 FOUL WATER SANITARY PLUMBING
- H1/AS1 ENERGY EFFICIENCY

AS/NZS3500.1:2003 WATER SERVICES
AS/NZS3500.2:2003 SANITARY PLUMBING & DRAINAGE
AS/NZS3500.3:2003 STORMWATER DRAINAGE
NZECP 51:2004 ELECTRICAL CODE OF PRACTICE

ROOF CLADDING/STRUCTURE

FOR MAIN ROOF STRUCTURE - REFER TO TOTALSPAN DRAWINGS

DECK VERANDAH RAFTERS:
240 x 45 SG8 H3.2 RAFTERS @ 480 CTRS

0.55 DIMOND ALUMINIUM COLOURSTEEL MAXX 6 RIB ROOFING OVER CAVIBAT 'R' CAVITY BATTENS & THERMAKRAFT COVERTEK 407
ROOF UNDERLAY. INSTALL TO MANUFACTURER'S SPECIFICATIONS

THERMAKRAFT COVERTEK 407 ROOFING UNDERLAY BRANZ APPRAISAL NO. 651 (2019)

THERMALBREAK REQUIREMENTS

CAVIBAT 'R' INSULATING CAVITY BATTEN SYSTEM TO BE INSTALLED:
- BETWEEN WALL CLADDING & BUILDING WRAP.
- BETWEEN ROOF CLADDING & ROOFING UNDERLDAY.

INSTALL STRICTLY TO MANUFACTURER'S SPECIFICATIONS

THERMAL BREAKS ARE REQUIRED:
- ON THE OUTSIDE FACE OF ALL EXTERNAL WALL FRAMING THAT FORMS PART OF THE THERMAL ENVELOPE
- BETWEEN TOP PLATES & RAFTER/CEILING JOISTS AT EXTERNAL WALLS
- FOR SKILION ROOFS, TO THE OUTSIDE EDGE OF THE RAFTER

CLADDING

0.55 DIMOND ALUMINIUM COLOURSTEEL MAXX 6 RIB WALL CLADDING OVER CAVIBAT 'R' CAVITY BATTENS & WATERGATE PLUS BUILDING WRAP. INSTALL COMPLETE SYSTEM STRICTLY AS SPECIFIED BY MANUFACTURER.

STRICTLY NO DEVIATIONS FROM MANUFACTURER SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.

REFER TO MANUFACTURERS DETAILS & MANUAL.

RELATED DOCUMENTS

ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATIONS, GEOTECHNICAL REPORT, STRUCTURAL ENGINEER'S DRAWINGS/CALCULATIONS & TOTALSPAN DRAWINGS/SPECIFICATIONS

DRAWING CONTENTS

ISSUE | DATE | REVISION

230 Hariru Rd
Ohaeawai 0472
hayleymealings@gmail.com

mealings architecture

PROJECT: **13 Waianga Pl**
Omapere
Proposed Dwelling

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **SCHEDULE OF NOTES**

PROJECT: BUILDING CONSENT ISSUE

SHT: **0.01**

SCALE: **N/A**

DATE: **03/11/21**

DRAWN: **HM**

13 WAIANGA PLACE, OMAPERE
LOT 13 DP 546644

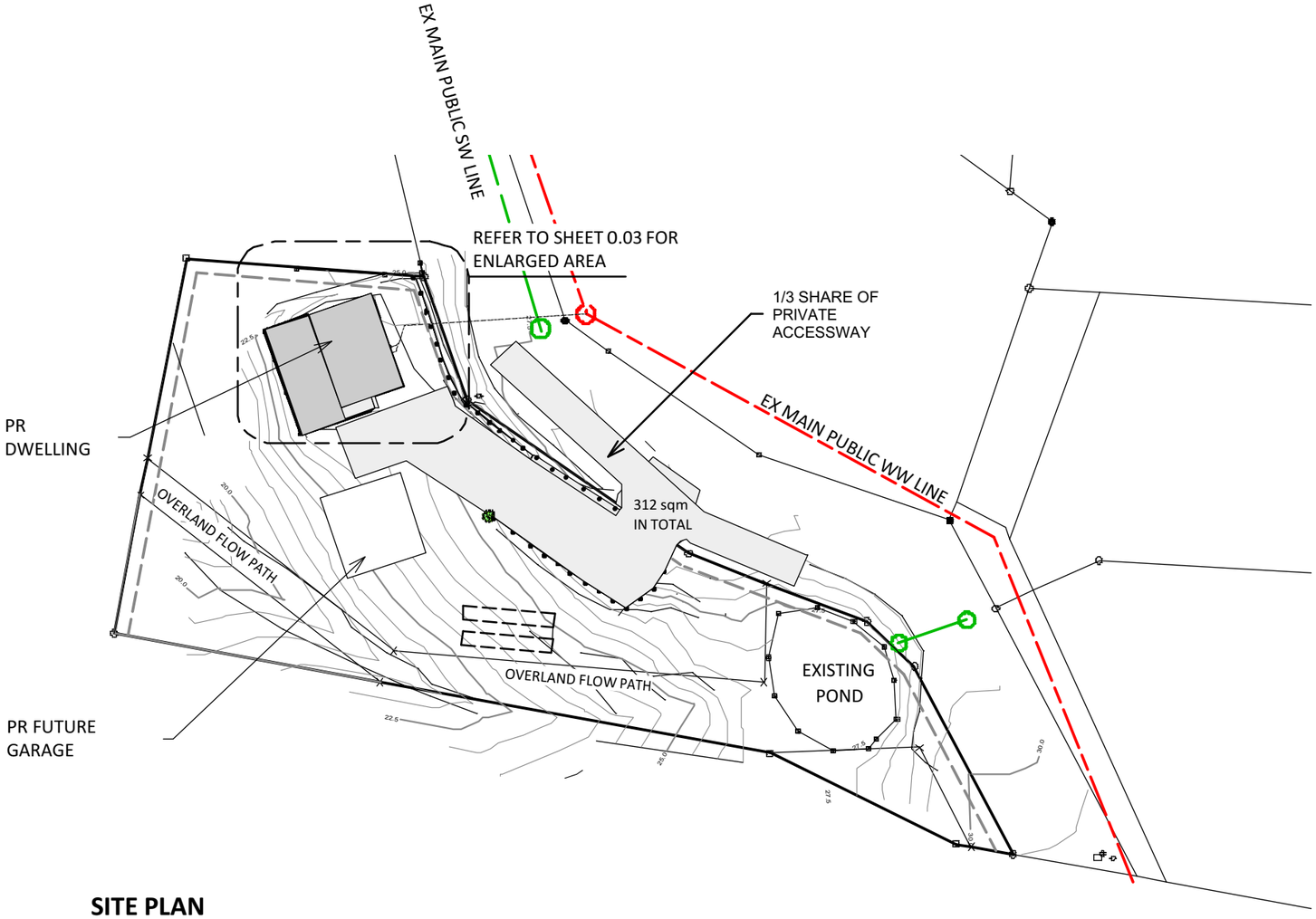
WIND ZONE: VERY HIGH
EARTHQUAKE ZONE: 1
EXPOSURE ZONE: D
CLIMATE ZONE: 1
SNOW LOADING: NO
SITE AREA: 1828 SQM
DISTRICT ZONE: FAR NORTH DISTRICT COUNCIL
COASTAL RESIDENTIAL

STORMWATER MANAGEMENT
THE MAX PROPORTION OF THE GROSS SITE AREA COVERED BY BUILDINGS & OTHER IMPERMEABLE SURFACES SHALL BE 50% OR 1000 sqm WHICH EVER IS THE LESSER
COMPLIES

SETBACK FROM BOUNDARIES
THE MINIMUM BUILDING SET BACK FROM ROAD BOUDARIES SHALL BE 3m AND THE MINIMUM SETBACK FROM ANY BOUNDARY APART FROM A ROAD BOUNDARY IS 1.2m
COMPLIES

BUILDING HEIGHT
THE MAXIMUM HEIGHT OF ANY BUILDING SHALL BE 8m
COMPLIES

SUNLIGHT
NO PART OF ANY BUILDING SHALL PROJECT BEYOND A 45 DEGREE RECESSION PLANE AS MEASURED INWARDS FROM ANY POINT 2m VERTICALLY ABOVE GROUND LEVEL ON ANY SITE BOUNDARY
COMPLIES



SITE PLAN

SCALE 1:500 @ A3

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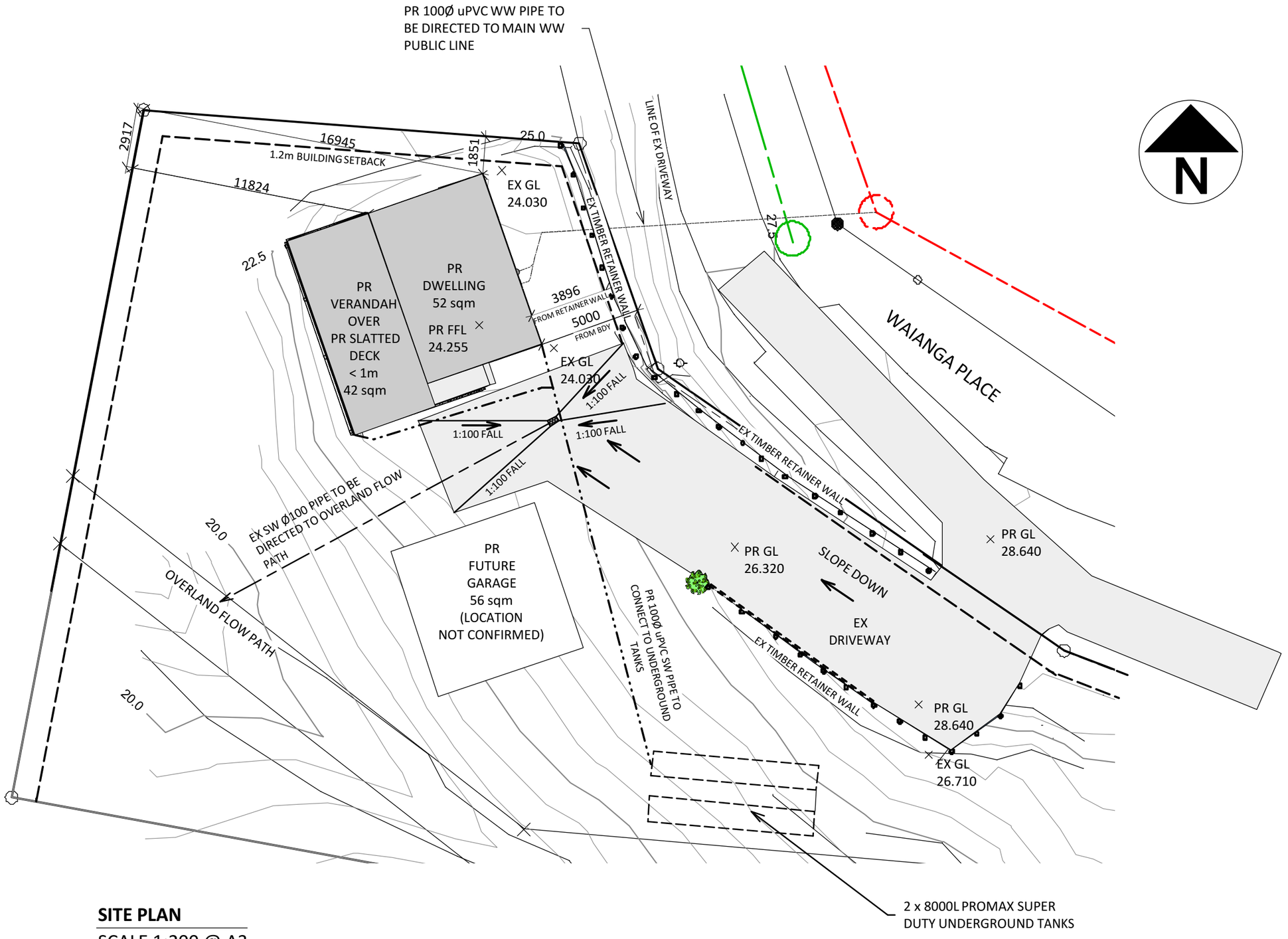
mealings architecture

PROJECT	**13 Waianga Pl Omapere Proposed Dwelling**
CLIENT	**Nick Yakas**
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	**SITE PLAN**
PROJECT	BUILDING CONSENT ISSUE
SHT:	**0.02**
SCALE:	**1:500 @ A3**
DATE:	**03/11/21**
DRAWN:	**HM**



SITE PLAN

SCALE 1:200 @ A3

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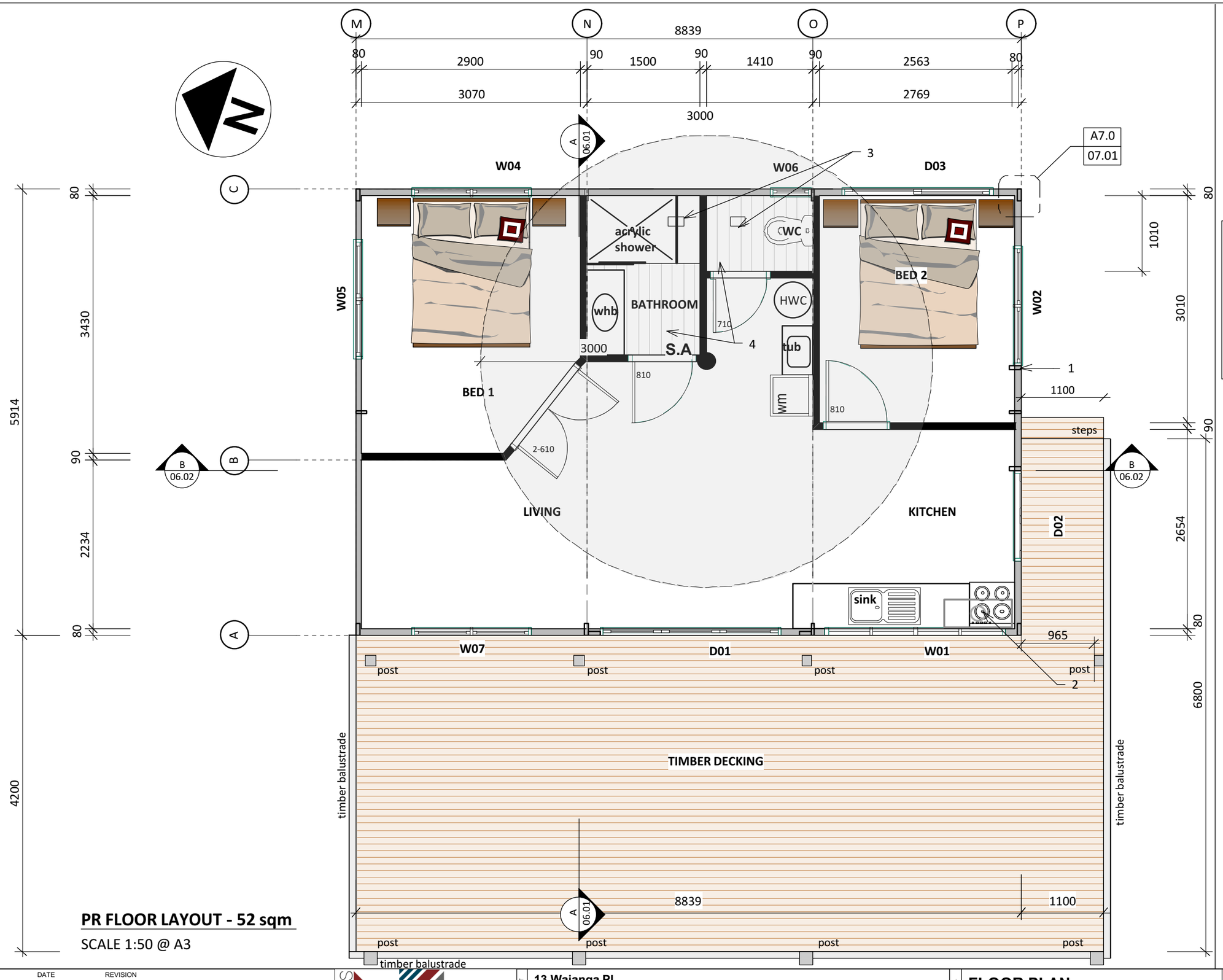
PROJECT	**13 Waianga Pl** **Omapere** **Proposed Dwelling**
CLIENT	**Nick Yakas**
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	**SITE PLAN - ENLARGED**
PROJECT	BUILDING CONSENT ISSUE

SHT:	**0.03**
SCALE:	**1:200 @ A3**
DATE:	**03/11/21**
DRAWN:	**HM**



PR FLOOR LAYOUT - 52 sqm

SCALE 1:50 @ A3

Notes

1. EXTERNAL BUILDING SHELL PROVIDED BY TOTAL SPAN
2. RANGEHOOD EXTRACTOR OVER
3. MECHANICAL VENTILATION
4. REFER TO SHEET 07.07 FOR VINYL INSTALLATION
5. RANGEHOOD OVER

WALL LEGEND:

- TOTALSPAN STEEL STRUCTURE REFER TO TOTALSPAN'S DRAWINGS
- PR 90 x 45 SGG8 H1.2 STUDS @ 400 CTRS (STUD HEIGHT UP TO 3m IN HEIGHT) NOGS @ 800 CTRS

● S.A

S.A - SMOKE ALARMS

SMOKE ALARMS SHALL BE LOCATED ON THE ESCAPE ROUTES ON ALL LEVELS WITHIN THE HOUSEHOLD UNIT. ON LEVELS CONTAINING THE SLEEPING SPACES, THE SMOKE ALARMS SHALL BE LOCATED EITHER:
A) IN EVERY SLEEPING SPACE, OR
B) WITHIN 3.0 M OF EVERY SLEEPING SPACE DOOR.
IN THIS CASE, THE SMOKE ALARMS MUST BE AUDIBLE TO SLEEPING OCCUPANTS ON THE OTHER SIDE OF THE CLOSED DOORS. REFER TO 3.3 OF COMPLIANCE DOCUMENT CLAUSE F7-WARNING SYSTEMS

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mealings architecture

PROJECT: 13 Waianga Pl
Omapere
Proposed Dwelling

CLIENT: Nick Yakas

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: FLOOR PLAN

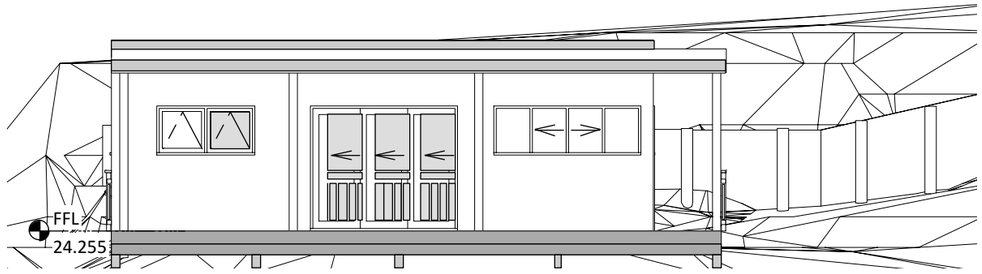
PROJECT: BUILDING CONSENT ISSUE

SHT: 01.00

SCALE: 1:50 @ A3

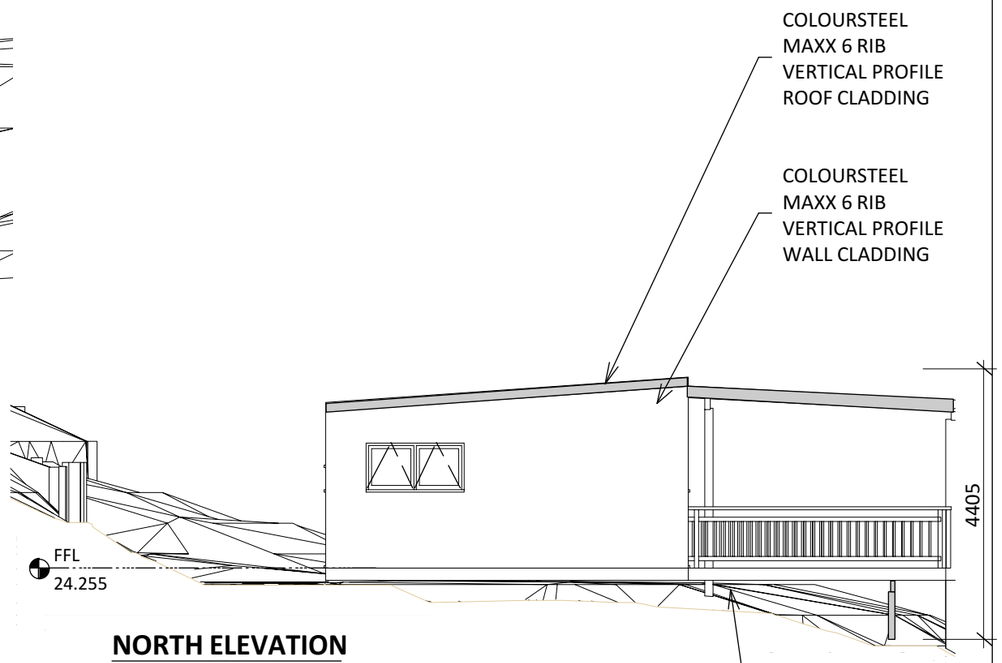
DATE: 03/11/21

DRAWN: HM



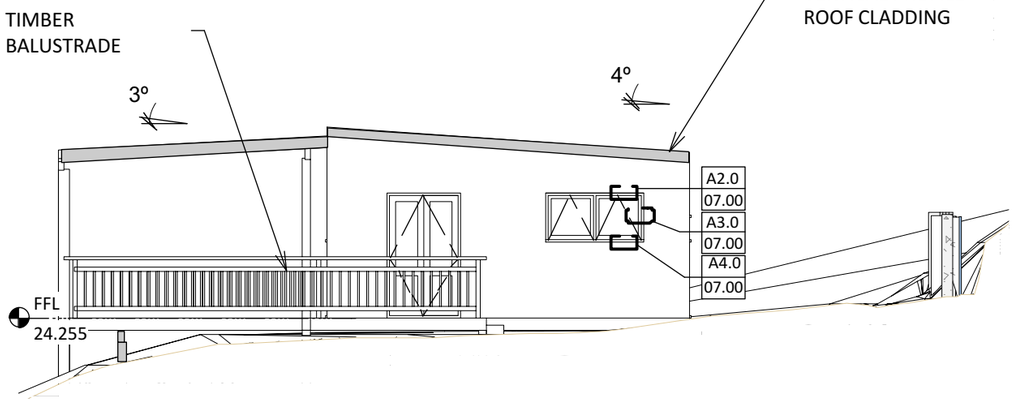
WEST ELEVATION

SCALE 1:100 @ A3



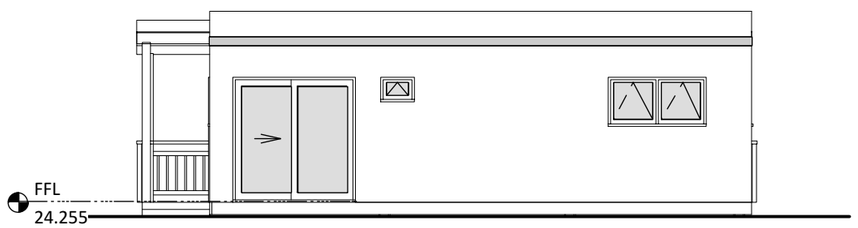
NORTH ELEVATION

SCALE 1:100 @ A3



SOUTH ELEVATION

SCALE 1:100 @ A3



EAST ELEVATION

SCALE 1:100 @ A3

BUILDING ENVELOPE RISK MATRIX - WEST

A) Wind Zone:	VERY HIGH	-	2
B) Number of Storeys:	LOW	-	0
C) Roof/Wall Intersection:	MEDIUM	-	1
D) Eaves Width:	VERY HIGH	-	5
E) Envelope Complexity:	LOW	-	0
F) Deck Design:	LOW	-	0
TOTAL RISK FACTOR:			**8**

BUILDING ENVELOPE RISK MATRIX - NORTH

A) Wind Zone:	VERY HIGH	-	2
B) Number of Storeys:	LOW	-	0
C) Roof/Wall Intersection:	MEDIUM	-	1
D) Eaves Width:	VERY HIGH	-	5
E) Envelope Complexity:	LOW	-	0
F) Deck Design:	LOW	-	0
TOTAL RISK FACTOR:			**8**

BUILDING ENVELOPE RISK MATRIX - EAST

A) Wind Zone:	VERY HIGH	-	2
B) Number of Storeys:	LOW	-	0
C) Roof/Wall Intersection:	VERY HIGH	-	5
D) Eaves Width:	VERY HIGH	-	5
E) Envelope Complexity:	LOW	-	0
F) Deck Design:	LOW	-	0
TOTAL RISK FACTOR:			**12**

BUILDING ENVELOPE RISK MATRIX - SOUTH

A) Wind Zone:	VERY HIGH	-	2
B) Number of Storeys:	LOW	-	0
C) Roof/Wall Intersection:	MEDIUM	-	1
D) Eaves Width:	VERY HIGH	-	5
E) Envelope Complexity:	LOW	-	0
F) Deck Design:	LOW	-	0
TOTAL RISK FACTOR:			**8**

ISSUE	DATE	REVISION

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PROJECT: **13 Waianga Pl**
Omapere
Proposed Dwelling

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ELEVATIONS**

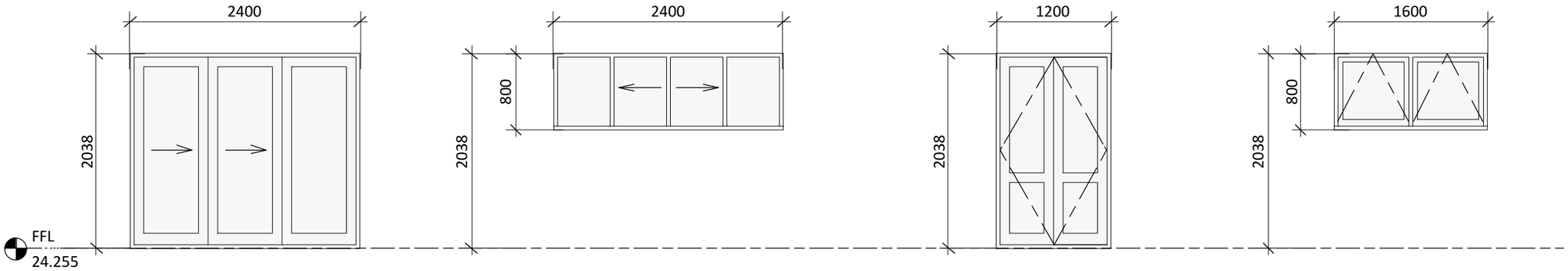
PROJECT: BUILDING CONSENT ISSUE

SHT: **02.00**

SCALE: **1:100 @ A3**

DATE: **03/11/21**

DRAWN: **HM**

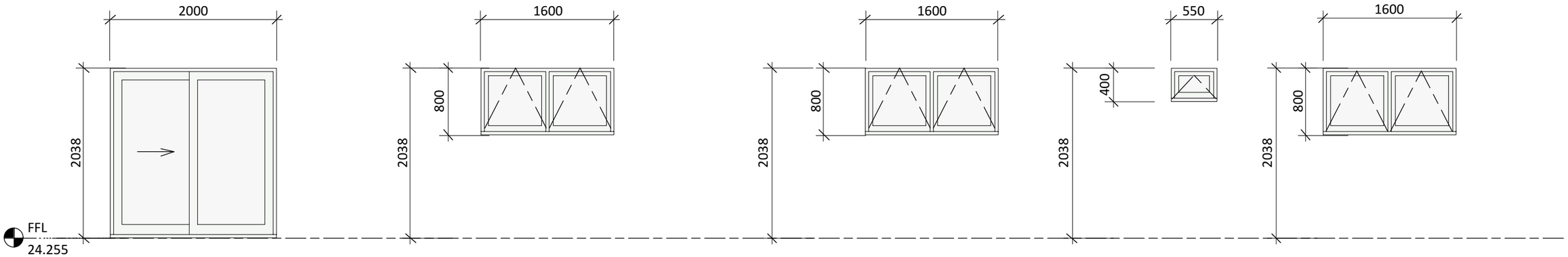


D01
LIVING
STACKER

W01
KITCHEN
SLIDERS

D02
KITCHEN
FRENCH DOORS

W02
BED 1
DOUBLE AWNING HUNG



D03
BED 1
SLIDERS

W04
BED 2
DOUBLE AWNING HUNG

W05
BED 2
DOUBLE AWNING HUNG

W06
WC
AWNING HUNG
TBC

W07
LIVING
DOUBLE AWNING HUNG

JOINERY SCHEDULE

SCALE 1:50 @ A3

NOTE TO CONTRACTOR /JOINERY MANUFACTURER
All dimensions shown are OVER THEIR FRAMING OPENING. Check all dimensions on site before manufacturing. Refer to floor plan for location & direction of door opening. ALL NEW JOINERY TO BE ALUMINIUM JOINERY, TO MATCH EXISTING & DOUBLE GLAZED. Owner to choose the colours. All exterior joinery to be manufactured to comply with VERY HIGH wind zone. All timber reveals are to be H3. Joinery shown for framing purposes only. Owners to confirm all joinery configurations, Glazing types before manufacturing. Manufacturer to allow for 7mm gap all round allowing for packing for windows. Allow for 10mm gap top & bottom for exterior doors

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DRAWING: **JOINERY SCHEDULE**

PROJECT: BUILDING CONSENT ISSUE

SHT: **03.00**

SCALE: **1:50 @ A3**

DATE: **03/11/21**

DRAWN: **HM**

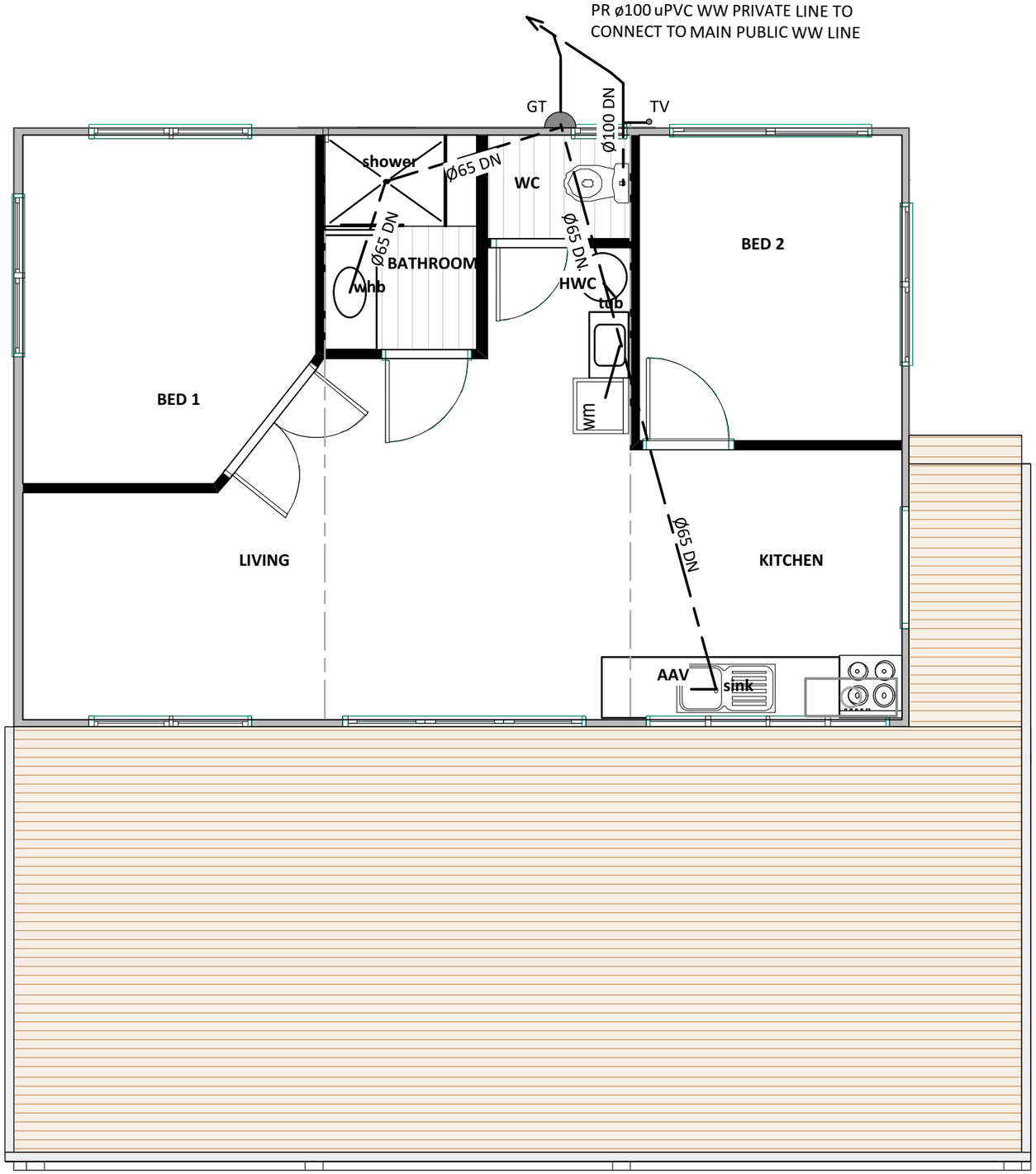

Table 2: Fixture discharge pipe sizes and discharge units
Paragraphs 3.2.2, 4.3.1, 4.3.2 and 4.7.1

Sanitary fixture or appliance	Discharge units	Minimum trap and discharge pipe diameter (mm)
Basin	1	32
Bath (with or without overhead shower)	4	40
Bathroom group (water closet pan, bath and shower, basin, and bidet in one compartment)	6	(Note 1)
Bidet	1	32
Cleaner's sink	1	40
Clothes washing machine (domestic)	5	40
Dishwashing machine (domestic)	3	40
Drinking fountain	1	25
Kitchen sink (commercial)	3	50
Kitchen sink (domestic, single or double, with or without waste disposal unit)	3	40
Laundry (single or double tub, with or without a clothes washing machine)	5	40
Shower	2	40
Urinal (1 or 2 stall)	1 per 600 mm length	50
Urinal (bowl type)	1	32
Urinal (3 or more stalls)	1 per 600 mm length	80
Water closet pan	4	80

Note:
1. For groups of *fixtures*, traps are sized for the individual *fixtures*. *Discharge pipes* for groups are sized in accordance with Paragraph 4.3.2.

Table 4: Discharge unit loading for stacks and graded discharge pipes
Paragraphs 4.3.2, 4.4.1 and 4.7.1

Diameter (mm)	Maximum discharge from any one floor	Vertical stack (Note 1)	Graded discharge pipes				
			Minimum gradient				
			1:20	1:30	1:40	1:50	1:60
32	1	1	1				
40	2	6	6	5	4		
50	5	15	15	10	8		
65	6	18	51	29	21		
80	13	40	65	39	27	20	16
100	65	195	376	248	182	142	115

Note:
Shaded area = not permitted
1. Total loading at the base of the *discharge stack*.

PLUMBING LAYOUT

SCALE 1:50 @ A3

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FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: PLUMBING LAYOUT

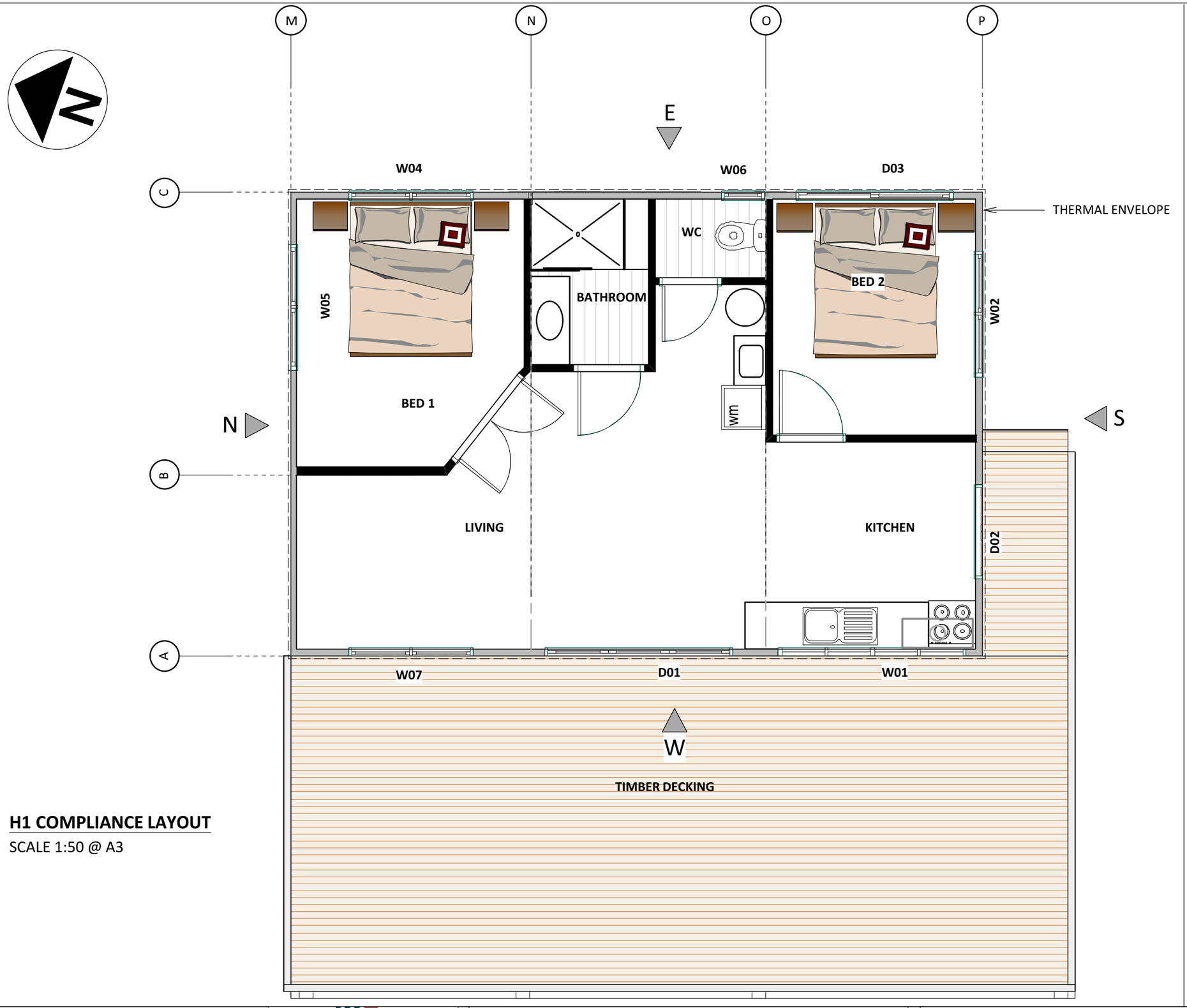
PROJECT: BUILDING CONSENT ISSUE

SHT: 03.01

SCALE: 1:50 @ A3

DATE: 03/11/21

DRAWN: HM



INSULATION SPECIFICATION REQUIREMENTS AS PER H1 CALCULATIONS ON SHEETS 03.03 - 03.06

UNDERFLOOR SLAB:
EXPOL THERMASLAB (S) R-1.6
60mm THICK

WALL:
PINK BATTS R2.2 WALL
70mm THICK

CEILING:
BLACK PEARL R3.38
105mm THICK

H1 COMPLIANCE LAYOUT

SCALE 1:50 @ A3

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230 Hariru Rd
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mealings architecture

PROJECT	13 Waianga Pl Omapere Proposed Dwelling
CLIENT	Nick Yakas
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	H1 COMPLIANCE LAYOUT
PROJECT	BUILDING CONSENT ISSUE

SHT:	03.02
SCALE:	1:50 @ A3
DATE:	03/11/21
DRAWN:	HM

Design Navigator H1 Compliance Report

Project Summary

H1 Report created by:	Mealings Architecture
Project Name:	13 Waianga Place - Pr Dwelling 1
Client:	
Lot No:	
Comment:	
Project Id:	152844
Report Date:	15/03/2022

Compliance Result

This report shows compliance of the design with Clause H1 Fourth edition Amendment 4 from November 2019 and the R-value targets of Clause E3 Second edition Amendment 7 from November 2020.

This building complies with H1 via the following methods:

- the Schedule Method in NZS4218:2009
- the Calculation Method in NZS4218:2009
- the BPI Method

H1 Compliance Details

NZS4218:2009 Schedule Method Compliance

The use of the Schedule Method is permitted .

In order to comply the R-values for all the construction elements must be the same or larger than the permitted minimum R-values. This design **complies** with the NZS4218:2009 Schedule Method.

Non-Solid Construction

	Permitted Minimum	Proposed Minimum	
Floor:	1.3	1.72	✓
Non-solid Walls:	1.9	2.02	✓
Glazing in Non-solid Walls:	0.26	0.26	✓
Roof:	2.9	3.11	✓
Skylights:	0.26		✓

Notes:
If multiple solid wall types levels are used the table shows the requirements for the corresponding walls and windows in them. For solid timber and for other solid constructions two options are shown for each. But the components of these options can not be mixed, i.e. it is not permitted to use the solid timber wall R-value from option 1 and the solid timber window R-value from option 2.

NZS4218:2009 Calculation Method Compliance

The use of the Calculation Method is permitted .

In order to comply the Actual Heat Loss must be the same or smaller than the Reference Heat Loss AND all component R-values must be the same or larger than 50% of the R-values in the '50% Rule' table below. This design **complies** with the NZS4218:2009 Calculation Method.

HeatLoss:

Reference building	Proposed building
189	152

Minimum R-values ("50% rule"):

	Permitted Minimum	Proposed Minimum	
Floor:	0.65	1.72	✓
Non-solid Walls:	0.95	2.02	✓
Roof:	1.45	3.11	✓

The Reference building has the following areas and R-values.

					Non-solid	Solid Timber	Other Solid
					100.0	0.0%	0.0%
Floor:	Area:	52	m²	R-values:	1.3	1.3	1.5
Walls excl. glazing:	Area:	60.1	m²	R-values:	1.9	1	0.8
Glazing (up to 30%):	Area:	25.8	m²	R-values:	0.26	0.26	0.26
Glazing (surplus of 30%):	Area:	0	m²	R-values:	0.4	0.31	0.26
Roof:	Area:	52	m²	R-values:	2.9	3.5	3.5
Heat Loss:					189	214	224

For mixed constructions the heat loss of the reference building is calculated as the sum of the heat losses for each type of wall construction multiplied by the fraction of the wall area of each type. This approach is based on clause 4.2.6 of NZS4218:2009.
There are no skylights in the reference building. The reference building roof area is the sum of the proposed building roof and skylight

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SHT:	03.03
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DATE:	03/11/21
DRAWN:	HM

areas.

Building Performance Index Compliance

The use of the Building Performance Index (BPI) method is permitted .

This design complies with the BPI.

In order to comply the design must have a BPI smaller or equal to 1.55 kWh/DegMonth.m². Your building has a BPI of 0.49 kWh/DegMonth.m².

The normalised annual heating energy use of this design is 430 kWh.

Please refer to www.designnavigator.solutions/DNDocuments/BPICorrelation.pdf regarding the recognition of the BPI for NZBC compliance verification.

Compliance with Clause E3

This building complies with the R-value targets in NZBC Clause E3 .

Component	Minimum R-value	Project R-value
Framed wall constructions with cavities	1.5	
Single skin masonry wall without a cavity	0.6	
Solid timber wall no less than 60 mm thick	0.6	
Roof or ceilings	1.5	

Design Details

Building Dimensions

Floor Area	52	m²
Gross Wall Area	85.9	m²
Net Wall Area	67.2	m²
Wall (North) Area	16.5	m²
Wall (East, South and West) Area	50.7	m²
Gross Roof Area	52	m²
Net Roof Area	52	m²
Glazing Area	18.7	m²
Window (North) Area	1.3	m²
Window (East, South and West) Area	17.4	m²
Skylight Area	0	m²

Glazing Areas

Total Vertical Glazing Percentage	21.8	%
East, South and West Window Percentage	25.6	%
Total over 30%	no	
East, South and West over 30%	no	
Total over 50%	no	
max. Skylight Area for Schedule Method	1.5	m²
Skylights over Schedule Method Limit	no	
Decorative Glazing	0	m²
Decorative Glazing over 3m²	no	

Information required for BPI calculation

Living Floor Area	52	m² Note: This includes also internal floors.
Average Room Height	2.9	m
Thermal Mass Level	Medium weight	Slab floor with some carpeting or direct glued timber, timber framed walls.

Climate

Location	Far North District
Climate Zone	1

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Proposed Dwelling

CLIENT: Nick Yakas

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: H1 COMPLIANCE CALCS

PROJECT: BUILDING CONSENT ISSUE

SHT: 03.04

SCALE: N/A

DATE: 03/11/21

DRAWN: HM

Heat Loss Details

	ID	Or.	Width	Height	Gross Area	Net Area	R	Heat Loss	Shad. Coeff *	Type
Floors										
F1	Conc Floor				52.0	52.0	1.72	30.2		
Walls										
W1	N	N	5.9	3.0	17.7	16.5	2.02	8.1		
Wi1-1	W05		1.6	0.8		1.3	0.26	4.9	0.86	
W2	E	E	8.8	2.7	23.9	18.3	2.02	9.0		
Wi2-1	W04		1.6	0.8		1.3	0.26	4.9	0.86	
Wi2-2	W06		0.6	0.4		0.2	0.26	0.9	0.86	
Wi2-3	D03		2.0	2.0		4.1	0.26	15.7	0.86	
W3	S	S	5.9	3.0	17.7	14.0	2.02	6.9		
Wi3-1	D02		1.2	2.0		2.4	0.26	9.4	0.86	
Wi3-2	W02		1.6	0.8		1.3	0.26	4.9	0.86	
W4	W	W	8.8	3.0	26.5	18.4	2.02	9.1		
Wi4-1	D01		2.4	2.0		4.9	0.26	18.8	0.86	
Wi4-2	W01		2.4	0.8		1.9	0.26	7.4	0.86	
Wi4-3	W07		1.6	0.8		1.3	0.26	4.9	0.86	
Roofs										
R1	Roof				52.0	52.0	3.11	16.7		
Total Heat Loss								152.1		

* The Shading Coefficient is only required for BPI calculations.

Floor Construction Details

Name: Conc Floor 1.72 m²°C/W

Type: Floor: Slab Floor

internal surface 0.09

Flooring : none (Example: polished surface of a concrete floor)

R-value: 0.00

Slab Insulation

Slab floor area [m²]: 48

Perimeter length [m]: 28.226

External wall thickness [mm]: 80

Soil conductivity [W/m °C] 1.2

Underslab insulation: Total slab — Expol Thermaslab (S) R-1.6 Concrete Slab 1.6

Piles Footings: Number: — Penetration Diameter [mm]:

Slab edge insulation: none — Insulation :

Wall Construction Details

Name: N 2.02 m²°C/W

Type: Wall: Steel Frame with vented Cavity

external surface 0.03

Cladding : Metal weatherboard (corr. iron)

R-value: 0.08

Air Barrier : Building paper

R-value: 0.01

Steel Frame & Cavity : 40x30x3mm horizontal steel angle girts @ 750mm

Wall Frame Area: 1.9%

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

Thermal Break : none

R-value: 0.00

Framing :

R-value: 0.06

Cavity Area: 98.1%

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

Pink®Batts® R2.2 Wall 70mm 2.2

still Airgap: none

R-value: 0.00

Wall Lining : Plywood 12mm

R-value: 0.09

internal surface 0.09

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DRAWING: H1 COMPLIANCE CALCS

PROJECT: BUILDING CONSENT ISSUE

SHT: 03.05

SCALE: N/A

DATE: 03/11/21

DRAWN: HM

Name: E — 2.02 m²°C/W

Type: Wall: Steel Frame with vented Cavity

external surface 0.03

Cladding : Metal weatherboard (corr. iron)
R-value: 0.08

Air Barrier : Building paper
R-value: 0.01

Steel Frame & Cavity : 40x30x3mm horizontal steel angle girts @ 750mm

Wall Frame Area: 1.9%	*Cavity Area: 98.1%*
15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08	15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08
Thermal Break : none *R-value: 0.00*	Pink®Batts® R2.2 Wall 70mm 2.2
Framing : *R-value: 0.06*	still Airgap: none *R-value: 0.00*

Wall Lining : Plywood 12mm
R-value: 0.09

internal surface 0.09

Name: S — 2.02 m²°C/W

Type: Wall: Steel Frame with vented Cavity

external surface 0.03

Cladding : Metal weatherboard (corr. iron)
R-value: 0.08

Air Barrier : Building paper
R-value: 0.01

Steel Frame & Cavity : 40x30x3mm horizontal steel angle girts @ 750mm

Wall Frame Area: 1.9%	*Cavity Area: 98.1%*
15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08	15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08
Thermal Break : none *R-value: 0.00*	Pink®Batts® R2.2 Wall 70mm 2.2
Framing : *R-value: 0.06*	still Airgap: none *R-value: 0.00*

Wall Lining : Plywood 12mm
R-value: 0.09

internal surface 0.09

Name: W — 2.02 m²°C/W

Type: Wall: Steel Frame with vented Cavity

external surface 0.03

Cladding : Metal weatherboard (corr. iron)
R-value: 0.08

Air Barrier : Building paper
R-value: 0.01

Steel Frame & Cavity : 40x30x3mm horizontal steel angle girts @ 750mm

Wall Frame Area: 1.9%	*Cavity Area: 98.1%*
15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08	15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08
Thermal Break : none *R-value: 0.00*	Pink®Batts® R2.2 Wall 70mm 2.2
Framing : *R-value: 0.06*	still Airgap: none *R-value: 0.00*

Wall Lining : Plywood 12mm
R-value: 0.09

internal surface 0.09

Roof Construction Details

Name: Roof — 3.11 m²°C/W

Type: Roof: Steel Frame without Roof Space

external surface 0.03

Roofing : Corrugate iron with building paper
R-value: 0.01

Steel Frame & Cavity : 60x60x2.5mm square tube framing @ 1100mm x 1100mm grid

Roof Frame Area: 10.1%	*Cavity Area: 89.9%*
Framing : *R-value: 0.07*	still Airgap : 10-30mm airgap (non-reflective) *R-value: 0.13*
Thermal Break : XPS 30mm *R-value: 1.05*	Black Pearl 3.38 3.38

Roof Lining : Plywood 12mm
R-value: 0.09

internal surface 0.09

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ISSUE	DATE	REVISION

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FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: H1 COMPLIANCE CALCS
PROJECT: BUILDING CONSENT ISSUE

SHT: 03.06
SCALE: N/A
DATE: 03/11/21
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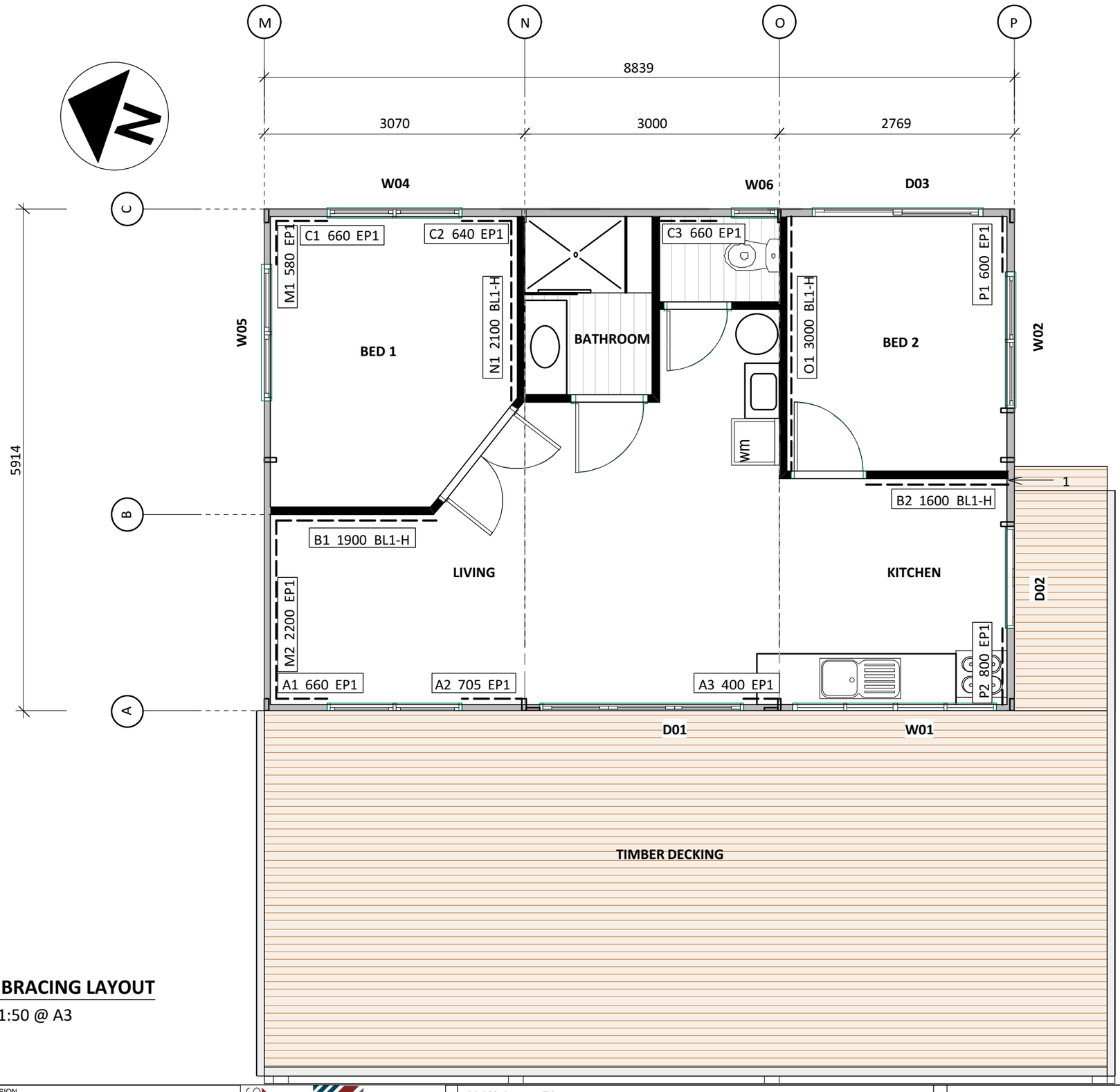
REFER TO SHEET 03.08 FOR GIB EZY BRACE CALCULATIONS



WALL BRACING LAYOUT

SCALE 1:50 @ A3

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PROJECT	13 Waianga Pl Omapere Proposed Dwelling
CLIENT	Nick Yakas
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	WALL BRACING LAYOUT
PROJECT	BUILDING CONSENT ISSUE

SHT:	03.07
SCALE:	1:50 @ A3
DATE:	03/11/21
DRAWN:	HM

GIB EzyBrace® Bracing Software

Demand Calculation Sheet

Job Details

Name:	Proposed Dwelling
Street and Number:	13 Waianga Place Building Consent 2
Lot and D.P. Number:	
City/Town/District:	Omapere
Designer:	HM
Company:	Mealings Arch
Date:	7th March 2022

Building Specification

Number of Storeys	1
Floor Loading	2 kPa
Foundation Type	Slab
	Single
Cladding Weight	Light
Roof Weight	Light
Room in Roof Space	No
Roof Pitch	4
Roof Height above Eaves (m)	0.423
Building Height to Apex (m)	3.114
Ground to Lower Floor (m)	0.2
Stud Height (m)	2.9
Building Length (m)	8.839
Building Width (m)	5.913
Build Plan Area (m2)	52

Building Location

Wind Zone = Very High

Earthquake Zone **1**
Soil Type D & E (Deep to Very Soft)
Annual Probablity of Exceedance 1 in 500 (NZS3604:2011 Default)

Bracing Units required for Wind

	Along	Across
Single Level	**240**	**315**

Bracing Units required for Earthquake

	Along and Across
Single Level	**131**

GIB Ezybrace® Version 8/16

Single Level Along Resistance Sheet

									Wind	EQ
									Demand	
									240	131
									Resistance	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	670 279%	634 484%
A	1	0.66		2.9	EP1 0.6	EP1 0.4	52	57		
	2	0.705		2.9	EP1 0.6	EP1 0.4	55	61		
	3	0.4		2.9	EP1 0.4		26	31		
	External Length = 8.839								134 OK	150 OK
B	1	1.9		2.9	BL1-H	GIB®	201	164		
	2	1.6		2.9	BL1-H	GIB®	169	138		
	External Length = 8.839								371 OK	301 OK
C	1	0.66		2.7	EP1 0.6	EP1 0.4	56	62		
	2	0.64		2.7	EP1 0.6	EP1 0.4	54	60		
	3	0.66		2.7	EP1 0.6	EP1 0.4	56	62		

Single Level Across Resistance Sheet

									Wind	EQ
									Demand	
									315	131
									Resistance	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	900 286%	848 647%
M	M1	0.58		2.8	EP1 0.4		40	47		
	M2	2.2		2.9	EP1 1.2	EP1 0.6	218	246		
	External Length = 5.914								258 OK	293 OK
N	N1	2.1		2.9	BL1-H	GIB®	222	181		
	External Length = 5.914								222 OK	181 OK
O	O1	3		2.9	BL1-H	GIB®	318	258		
	External Length = 5.914								318 OK	258 OK
P	P1	0.6		2.8	EP1 0.4		41	49		
	2	0.8		3	EP1 0.6	EP1 0.4	61	67		
	External Length = 5.914								102 OK	116 OK

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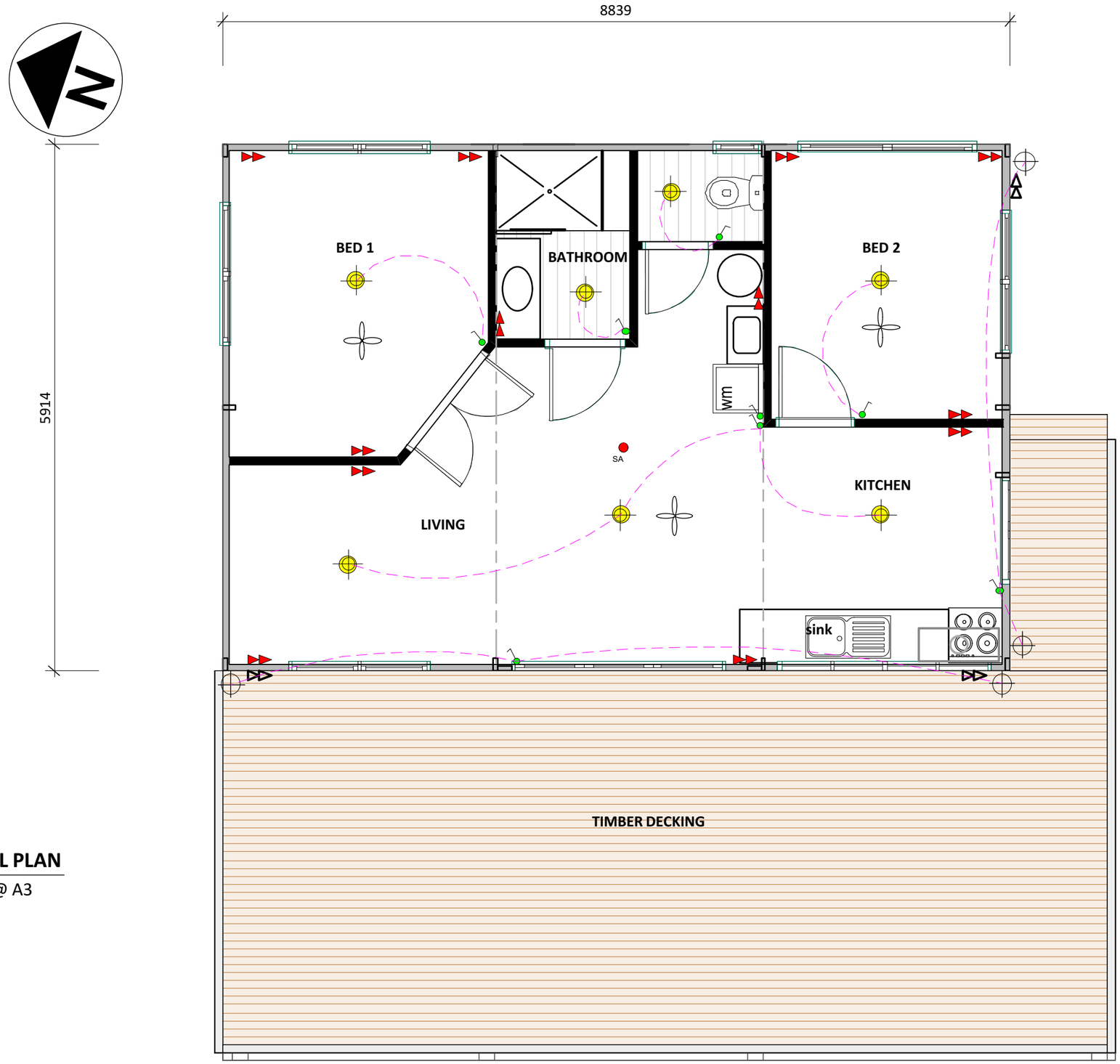
FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: WALL BRACING CALCS
PROJECT: BUILDING CONSENT ISSUE

SHT: 03.08
SCALE: 1:50 @ A3
DATE: 03/11/21
DRAWN: HM



Electrical Legend	
	Light Switch
	Incondesent baynot holders
	Recessed Down light
	Double Power Socket
	Single Power Socket
	Double Power Socket - External
SA	Smoke Alarm
	Lighting Wiring
	Ceiling Fan

ELECTRICAL PLAN

SCALE 1:50 @ A3

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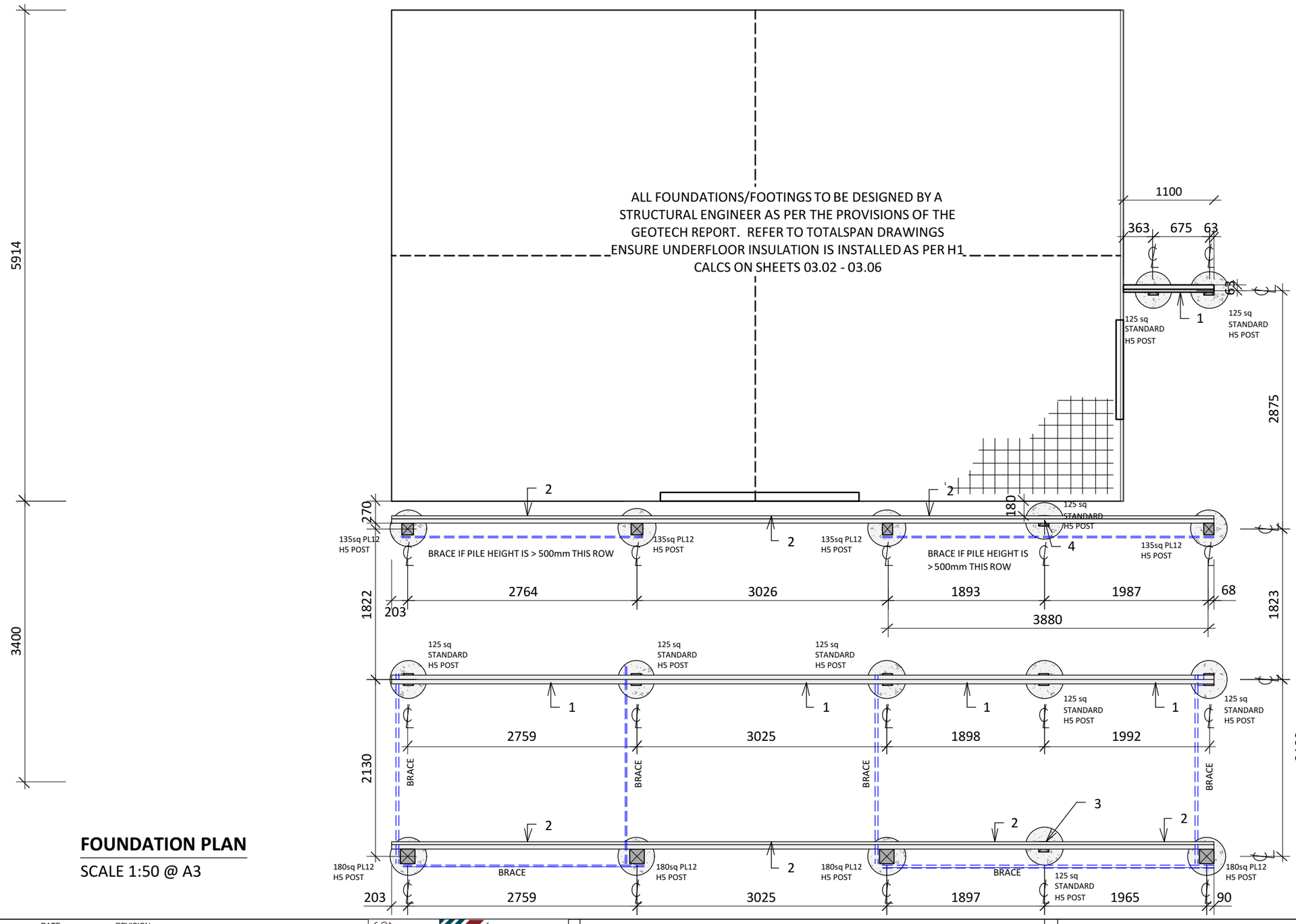
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	ELECTRICAL PLAN
PROJECT	BUILDING CONSENT ISSUE

SHT:	03.09
SCALE:	1:50 @ A3
DATE:	03/11/21
DRAWN:	HM



FOUNDATION PLAN

SCALE 1:50 @ A3

Notes

1. 190 x 45 SG8 H3.2 BEARER. REFER TO SHEET 09.00 FOR BEARER TO PILE FIXINGS. ENGINEER TO CONFIRM
2. B1: 2-240 x 45 SG8 H3.2 BEARERS. REFER TO DESIGNIT CALCS
3. REFER TO SHEET 09.00 FOR BEARER TO PILE FIXINGS. ENGINEER TO CONFIRM
4. REFER TO SHEET 09.00 FOR BEARER TO PILE FIXINGS

REFER TO ENGINEER'S DRAWINGS FOR DECK PILE LAYOUT/DETAILS/SUBFLOOR BRACING

ALL PILE FOOTINGS TO BE 500 DIA 1500 DEEP

6KN CONNECTIONS (MIN.) AT EVERY PILE
12KN AT BRACED PILES

BRACING CAPACITY WITHOUT DIAGONAL BRACE = 80BUs PER PILE. MAX. 500mm FROM TOP OF BEARER TO TOP OF PILE

BRACING CAPACITY WITH DIAGONAL BRACE TO NZ3604 = 120 BUs PER BRACE

20MPA CONCRETE

300kPa UBC REQUIRED AT BASE, UNDRAINED SHEAR STRENGTH > 40 kPa

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FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: FOUNDATION PLAN

PROJECT: BUILDING CONSENT ISSUE

SHT: 04.00

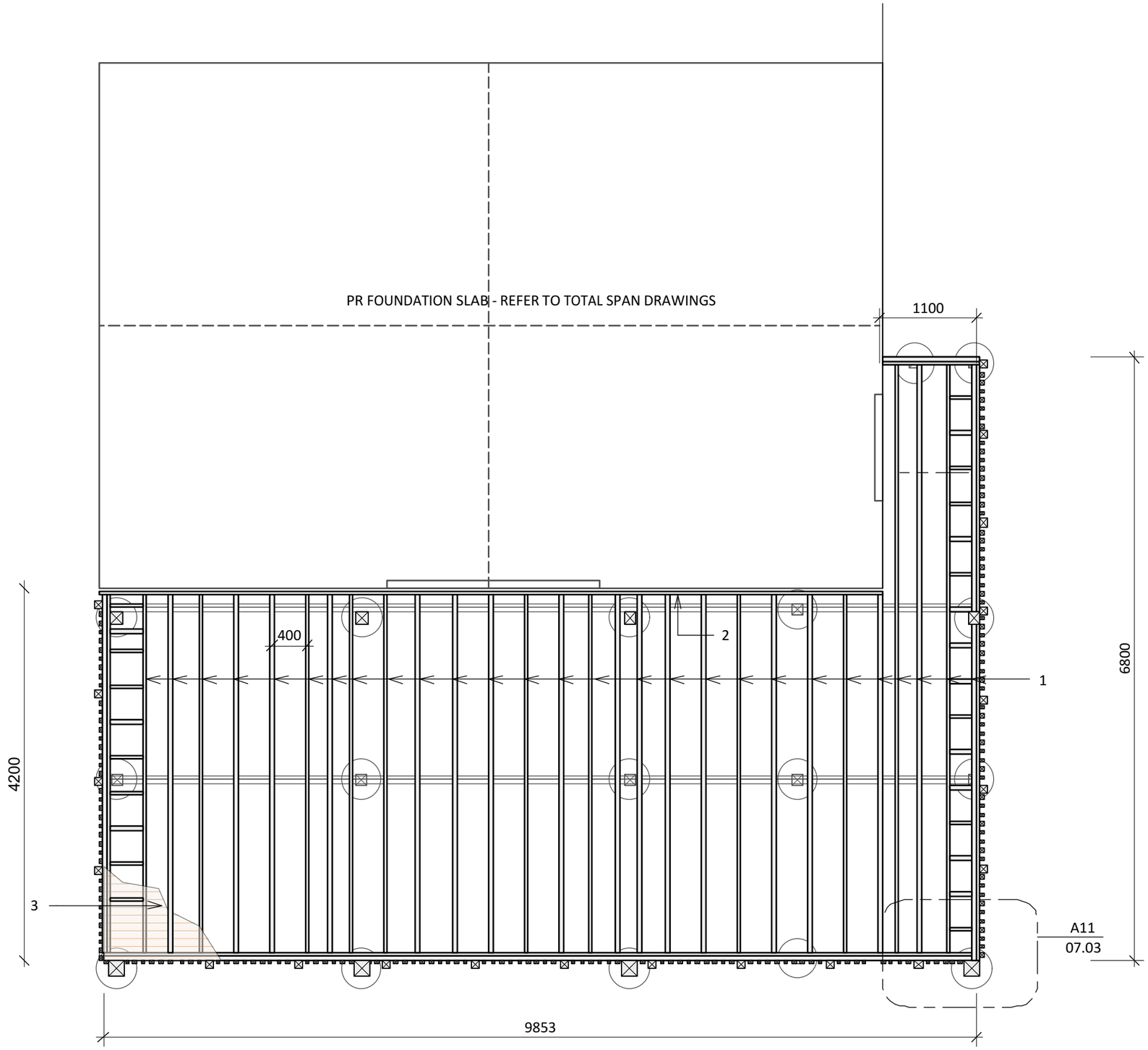
SCALE: 1:50 @ A3

DATE: 03/11/21

DRAWN: HM

Notes

1. 190 x 45 SG8 H3.2 DECK JOISTS @ 400 CTRS
2. 190 x 45 SG8 H3.2 DECK TRIMMER. ENSURE A 20mm GAP BETWEEN CLADDING & DECKING (FOR DEFLECTION OF MOVEMENT OF DECK STRUCTURE)
3. 90 x 32 SG8 H3.2 RADIATA PINE GRIP TREAD DECKING (VISUALLY GRADED)



DECK JOIST LAYOUT

SCALE 1:50 @ A3

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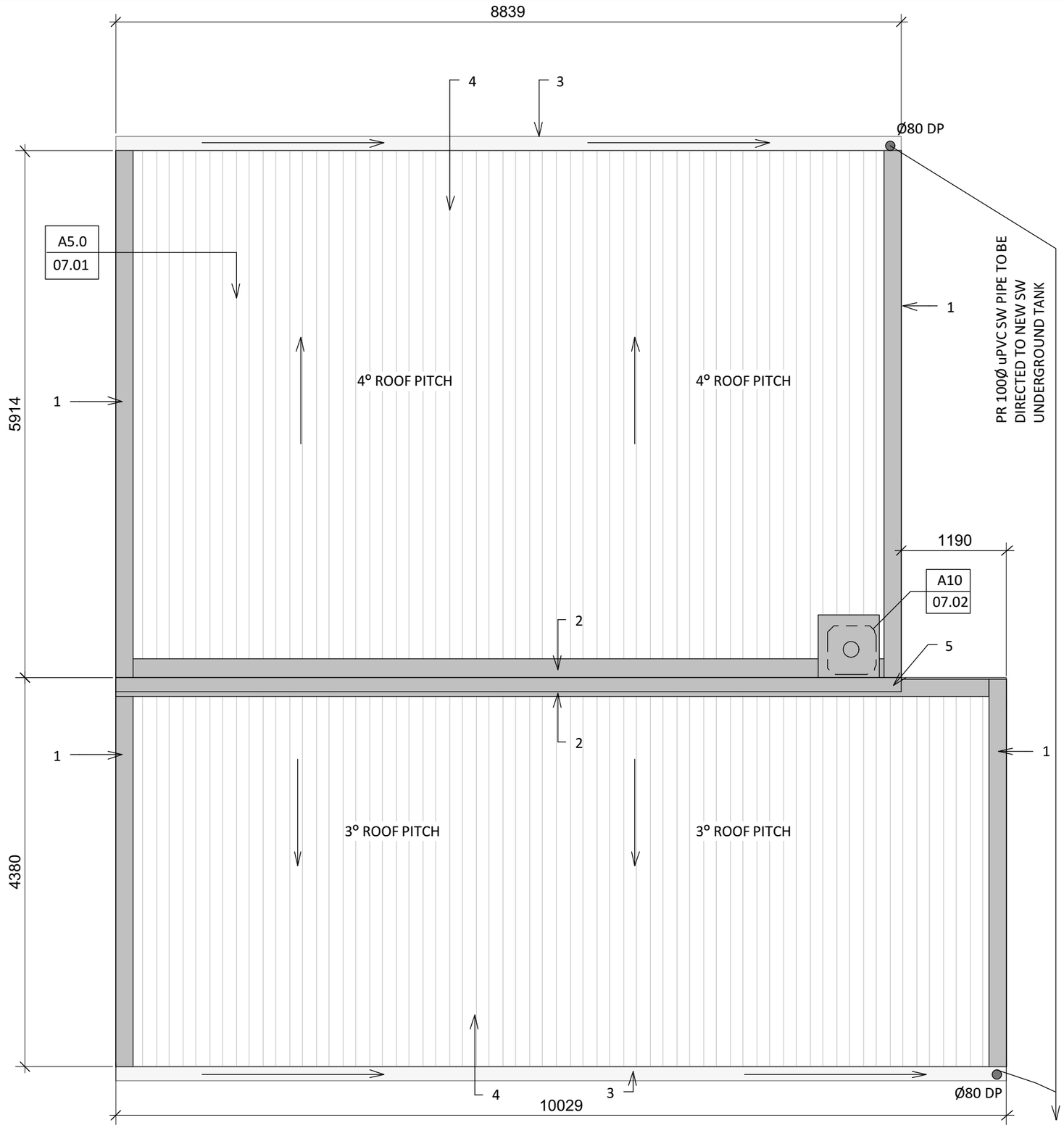
DRAWING	DECK JOIST PLAN
PROJECT	BUILDING CONSENT ISSUE

SHT:	04.01
SCALE:	1:50 @ A3
DATE:	03/11/21
DRAWN:	HM



ROOF CLADDING LAYOUT

SCALE 1:50 @ A3

Notes

1. 0.55 ALUMINIUM COLOURSTEEL MAXX BARGE FLASHING
2. 0.55 ALUMINIUM COLOURSTEEL MAXX RIDGE FLASHING
3. 175 x 175 x 125 STEEL FASCIA GUTTER. 1:100 FALL TO DOWNPIPE
4. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB ROOF CLADDING
5. 0.55 ALUMINIUM COLOURSTEEL MAXX APRON FLASHING

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FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: ROOF CLADDING LAYOUT

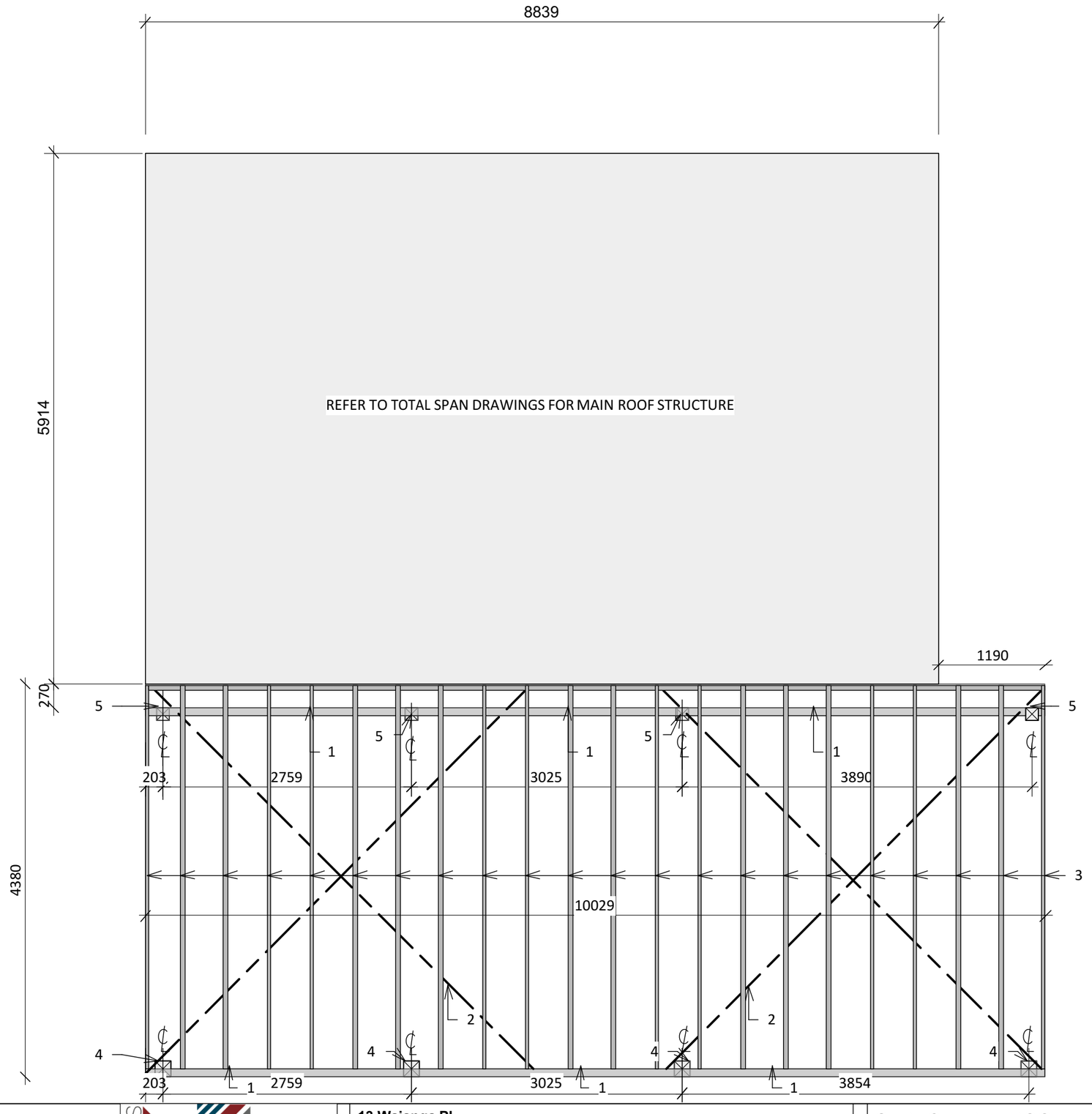
PROJECT: BUILDING CONSENT ISSUE

SHT: 05.00

SCALE: 1:50 @ A3

DATE: 03/11/21

DRAWN: HM



Notes

1. VB1: 2-290 x 45 SG8 H3.2 VERANDAH BEAM. REFER TO DESIGNIT CALCS
2. 25 x 1.3 LUMBERLOK ST.ST. INPLANE ROOF STRAP WITH TENSIONERS FIXED TO THE TOP OF RAFTERS
3. 240 x 45 SG8 H3.2 RAFTERS @ 480 CTRS
4. 180 x180 H5 PL12 PROLAM POST
5. 135 x 135 H5 PL12 PROLAM POST

STRUCTURAL ROOF LAYOUT

SCALE 1:50 @ A3

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DRAWING: STRUCTURAL ROOF LAYOUT

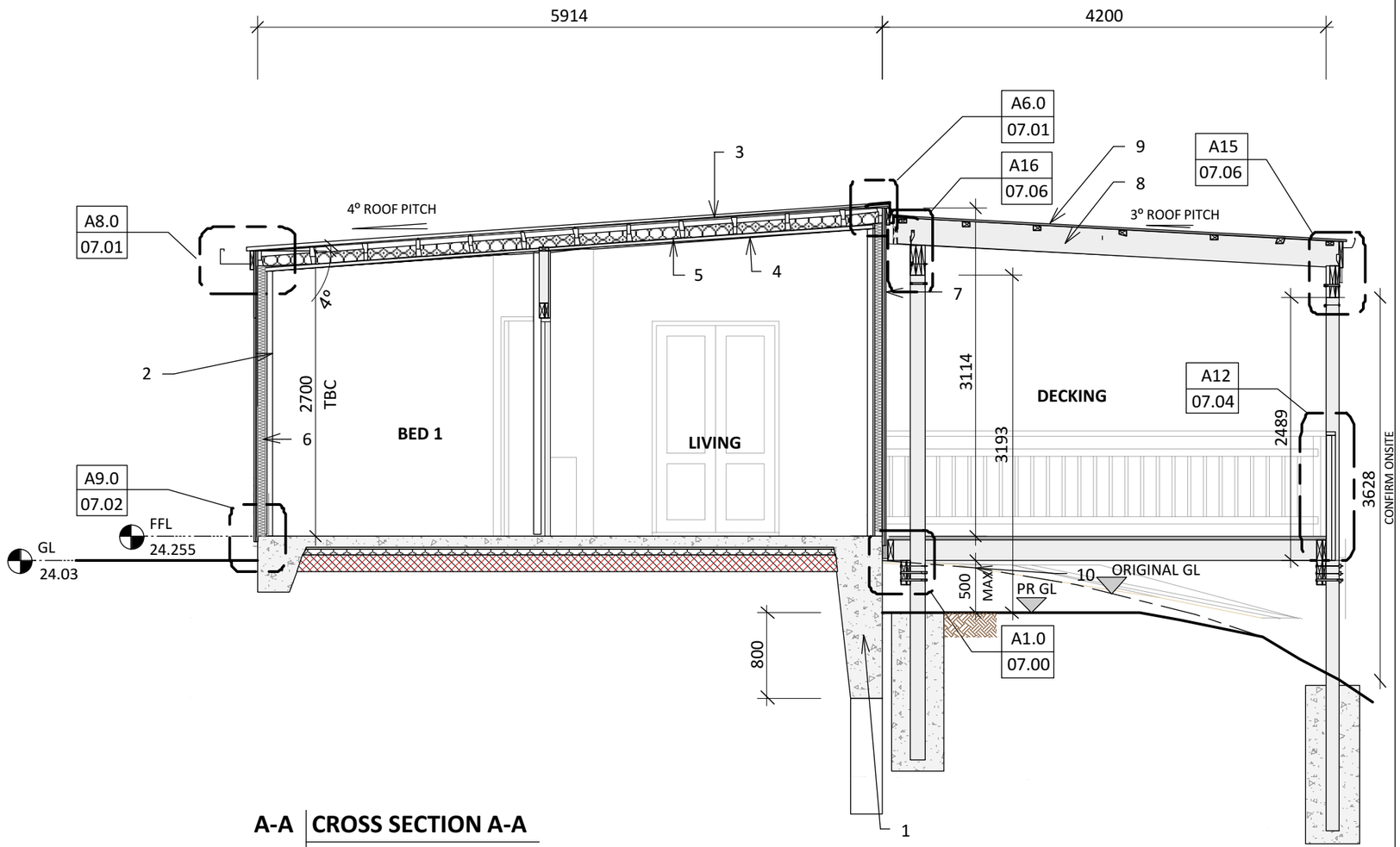
PROJECT: BUILDING CONSENT ISSUE

SHT: 05.01

SCALE: 1:50 @ A3

DATE: 03/11/21

DRAWN: HM



A-A | **CROSS SECTION A-A**

01.00 | SCALE 1:50 @ A3

Notes

1. REFER TO TOTALSPAN DRAWINGS FOR FOUNDATION DETAILS
2. BUILDING STRUCTURE BY TOTAL SPAN. REFER TO MANUFACTURER'S DRAWINGS & SPECIFICATIONS
3. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB ROOF CLADDING OVER CAVIBAT 'R' CAVITY BATTENS & THERMAKRAFT COVERTEK 407 ROOF UNDERLAY. INSTALL STRICTLY TO MANUFACTURER'S SPECIFICATIONS
4. 12mm ECOPLY PLYWOOD LINING TO CEILING
5. GIB RONDO METAL CEILING BATTEN SYSTEM. BATTENS @ 600 CTS FIXED TO STEEL PURLINS WITH ADJUSTABLE CLIPS. INSTALL TO MANUFACTURER'S SPECIFICATIONS
6. 12mm ECOPLY PLYWOOD WALL LINING
7. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB WALL CLADDING OVER CAVIBAT 'R' CAVITY BATTENS & WATERGATE PLUS BUILDING WRAP
8. 240 x 45 SG8 H3.2 RAFTERS @ 480 CTRS
9. 70 x 45 SG8 H3.2 PURLINS NOTCHED BETWEEN RAFTERS (2.4 kN FIXING EQUIV.)
10. 500mm DIA PILE 1500 BELOW CGL (OR FGL FOR ENGINEERED FILL)

FOR THERMABREAK REQUIREMENTS, REFER TO TOTALSPAN DRAWINGS & SPECIFICATIONS

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PROJECT: **13 Waianga Pl**
Omapere
Proposed Dwelling

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **CROSS SECTION A-A**

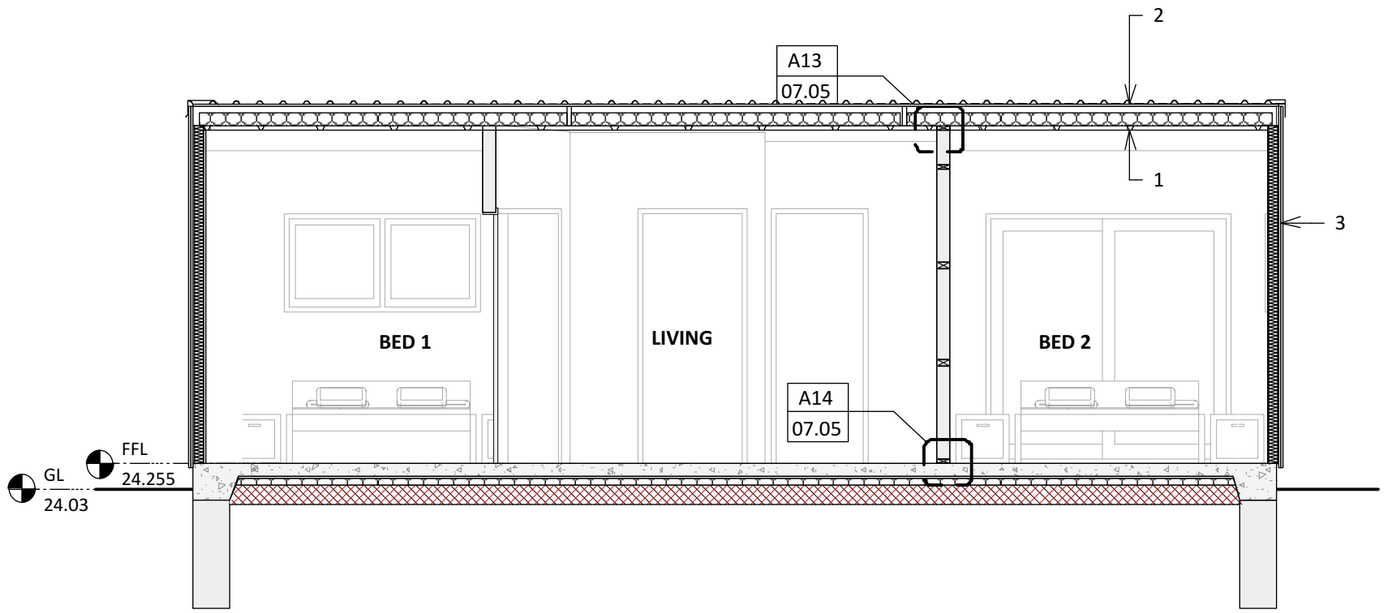
PROJECT: BUILDING CONSENT ISSUE

SHT: **06.01**

SCALE: **1:50 @ A3**

DATE: **03/11/21**

DRAWN: **HM**



B-B | **CROSS SECTION B-B**

01.00 | SCALE 1:50 @ A3

Notes

1. GIB RONDO METAL CEILING BATTEN SYSTEM. BATTENS @ 600 CTS FIXED TO STEEL PURLINS WITH ADJUSTABLE CLIPS. INSTALL TO MANUFACTURER'S SPECIFICATIONS
2. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB ROOF CLADDING OVER CAVIBAT 'R' CAVITY BATTENS & THERMAKRAFT COVERTEK 407 ROOF UNDERLAY. INSTALL STRICTLY TO MANUFACTURER'S SPECIFICATIONS
3. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB WALL CLADDING OVERCAVIBAT 'R' CAVITY BATTENS & WATERGATE PLUS BUILDING WRAP

FOR THERMABREAK REQUIREMENTS, REFER TO TOTALSPAN DRAWINGS & SPECIFICATIONS

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PROJECT: 13 Waianga Pl
Omapere
Proposed Dwelling

CLIENT: Nick Yakas

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: CROSS SECTION B-B

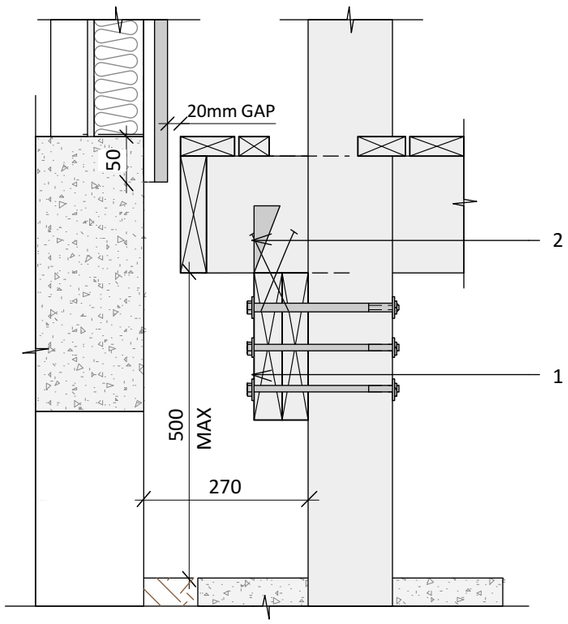
PROJECT: BUILDING CONSENT ISSUE

SHT: 06.02

SCALE: 1:50 @ A3

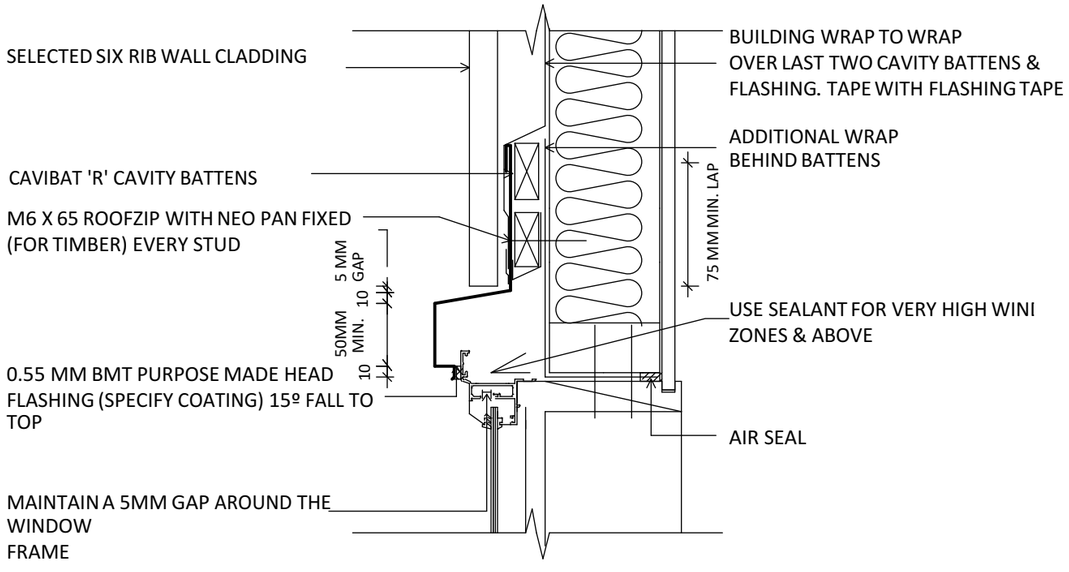
DATE: 03/11/21

DRAWN: HM



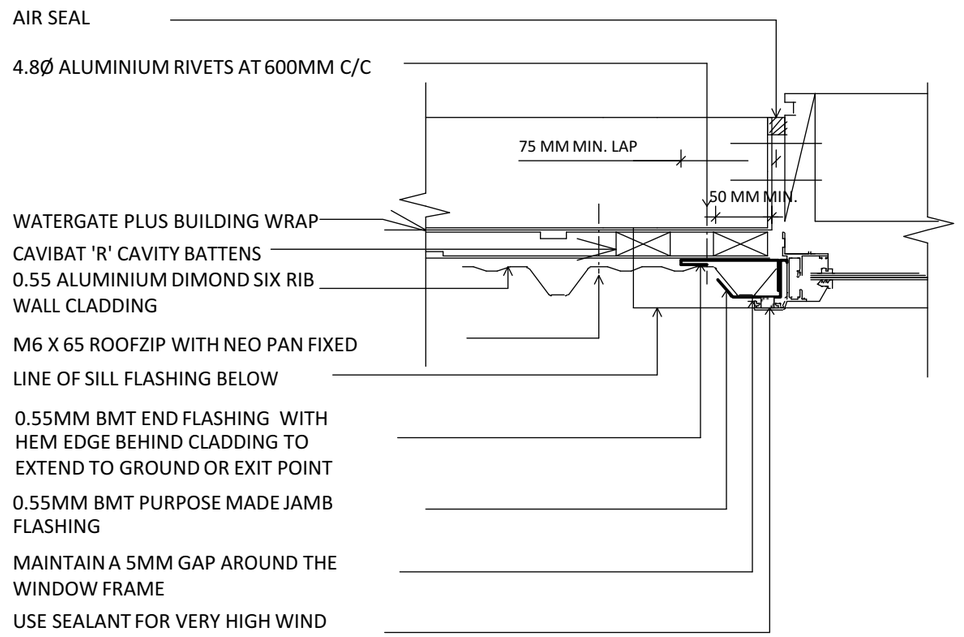
A1.0 **BEARER TO POST FIXING**

06.01 SCALE 1:10 @ A3



A2.0 **SIX RIB VERTICAL ALUMINIUM WINDOW HEAD FLASHING**

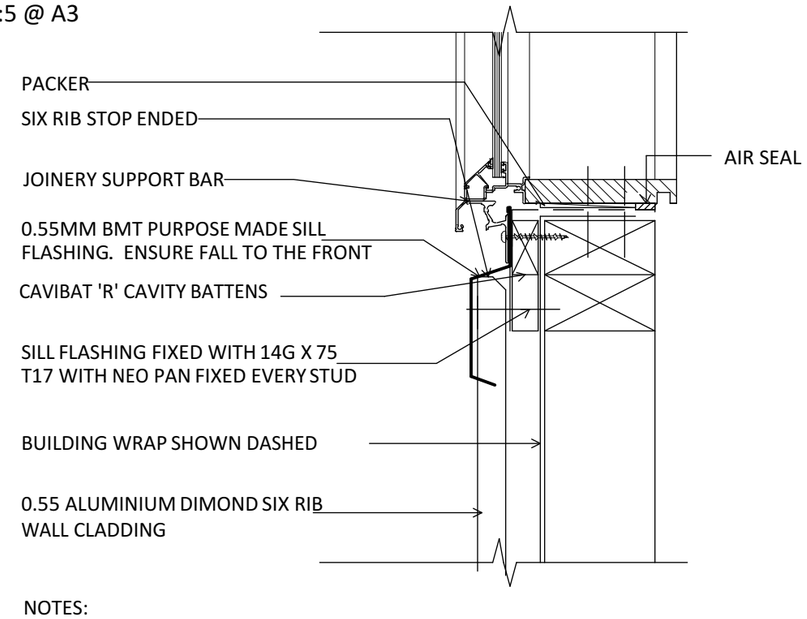
02.00 SCALE 1:5 @ A3



NOTES:
-WHERE CCA OR ACQ TREATED CAVITY BATTENS ARE INSTALLED A BARRIER BETWEEN THE BATTEN AND THE CLADDING IS REQUIRED.

A3.0 **SIX RIB VERTICAL ALUMINIUM WINDOW JAMB FLASHING**

02.00 SCALE 1:5 @ A3



NOTES:
-WHERE CCA OR ACQ TREATED CAVITY BATTENS ARE INSTALLED A BARRIER BETWEEN THE BATTEN AND THE CLADDING IS REQUIRED.

A4.0 **SIX RIB VERTICAL ALUMINIUM WINDOW SILL FLASHING**

02.00 SCALE 1:5 @ A3

Notes

1. B1: 2-240 x 45 SG8 H3.2 BEARER (SEE DESIGNIT CALCS) FIXED TO POST WITH 3 - M12 BOLTS WITH 50 x 50 x 3 SQUARE WASHERS PER CONNECTION.
2. 190 x 45 SG8 H3.2 DECK JOISTS @ 400 CTRS MAX. FOR JOIST TO BEARER FIXINGS REFER TO SHEET 09.00 FOR 6 KN FIXING OR ENGINEER'S DRAWINGS FOR 12 KN FIXING (6KN FIXING MINIMUM. 12KN FIXING AT BRACED PILES).

ALL FIXINGS TO BE SUITABLE FOR SEASPRAY ZONE D

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PROJECT: **13 Waianga Pl**
Omapere
Proposed Dwelling

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ARCHITECTURAL DETAILS**

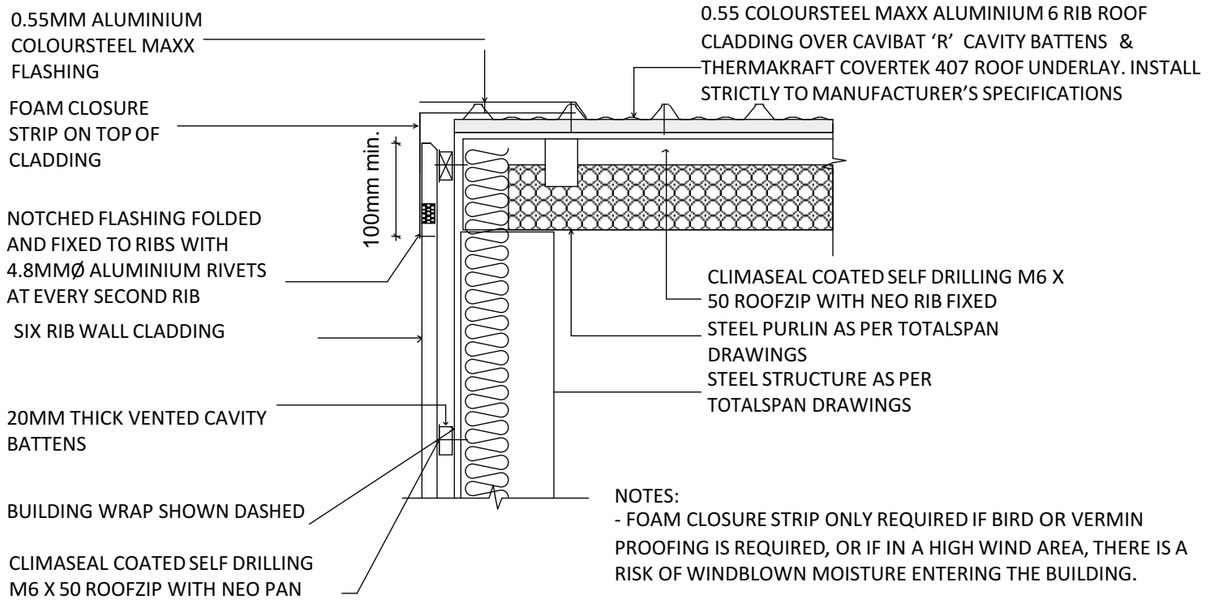
PROJECT: BUILDING CONSENT ISSUE

SHT: **07.00**

SCALE: **AS SHOWN**

DATE: **03/11/21**

DRAWN: **HM**



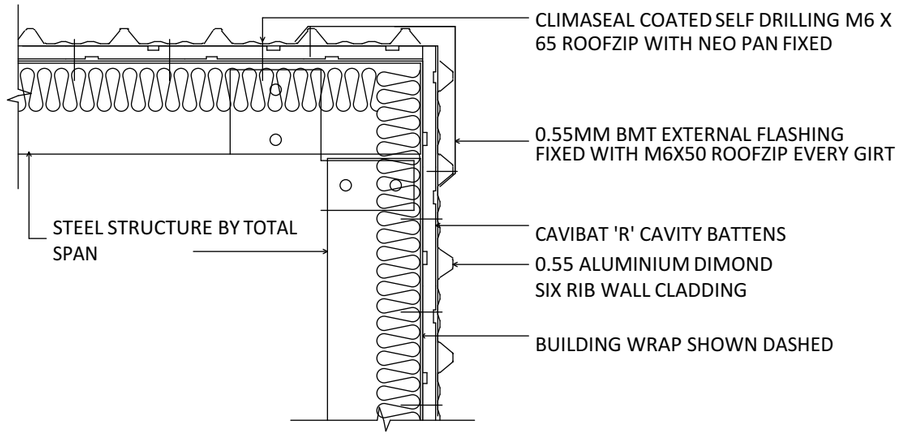
NOTES:

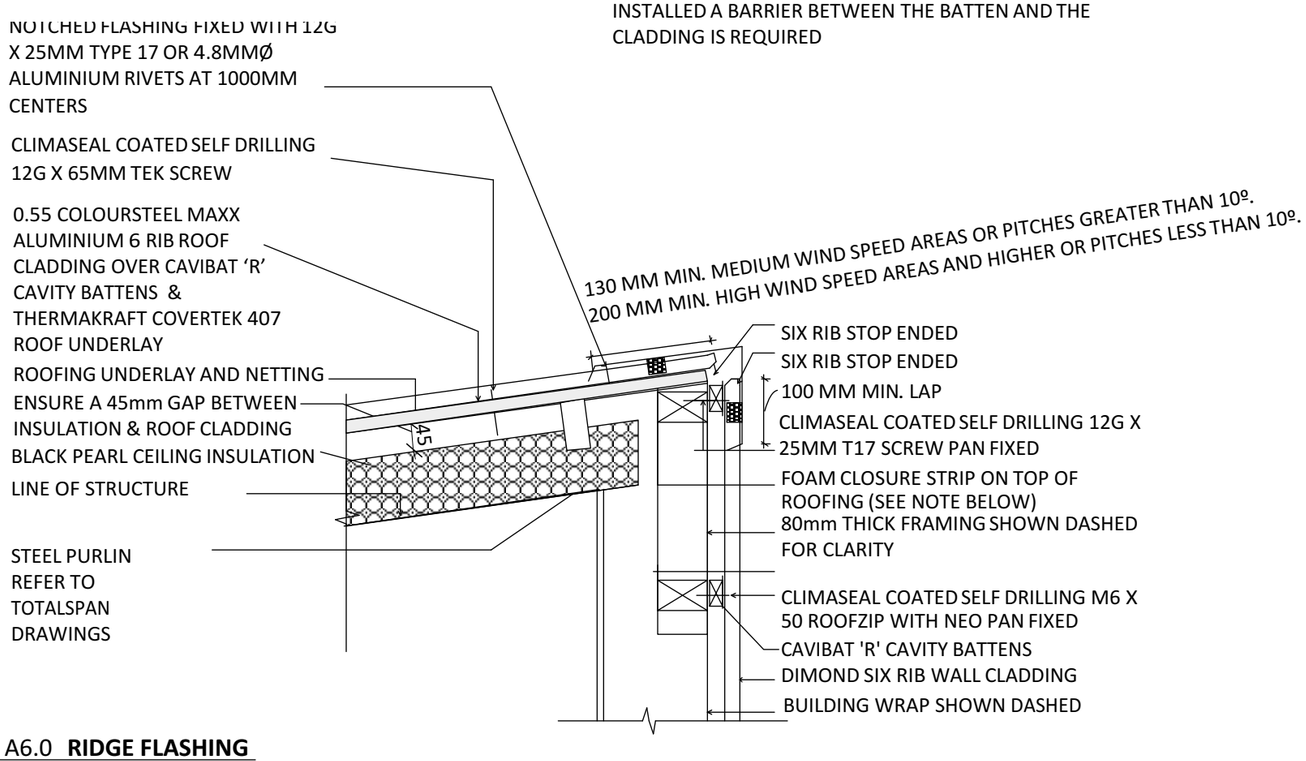
- FOAM CLOSURE STRIP ONLY REQUIRED IF BIRD OR VERMIN PROOFING IS REQUIRED, OR IF IN A HIGH WIND AREA, THERE IS A RISK OF WINDBLOWN MOISTURE ENTERING THE BUILDING.

- THESE DETAILS ARE SUITABLY FIXED TO ALLOW FOR A THEORETICAL THERMAL MOVEMENT OF UP TO 10MM. FOR THERMAL MOVEMENT GREATER THAN THIS A CLIPPING SYSTEM SHOULD BE CONSIDERED.

-WHERE CCA OR ACQ TREATED CAVITY BATTENS ARE INSTALLED A BARRIER BETWEEN THE BATTEN AND THE CLADDING IS REQUIRED

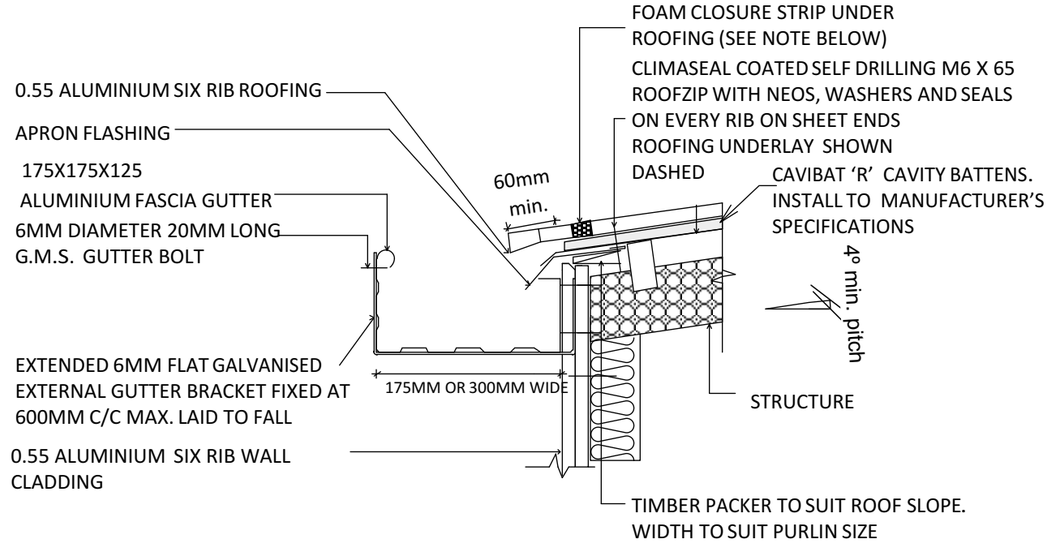
A5.0 **BARGE FLASHING**
5.00 SCALE 1:10 @ A3





A6.0 **RIDGE FLASHING**
06.01 SCALE 1:10 @ A3

A7.0 **EXTERNAL CORNER FLASHING**
01.00 SCALE 1:10 @ A3



A8.0 **FLUSH EAVES FLASHING**
06.01 SCALE 1:10 @ A3

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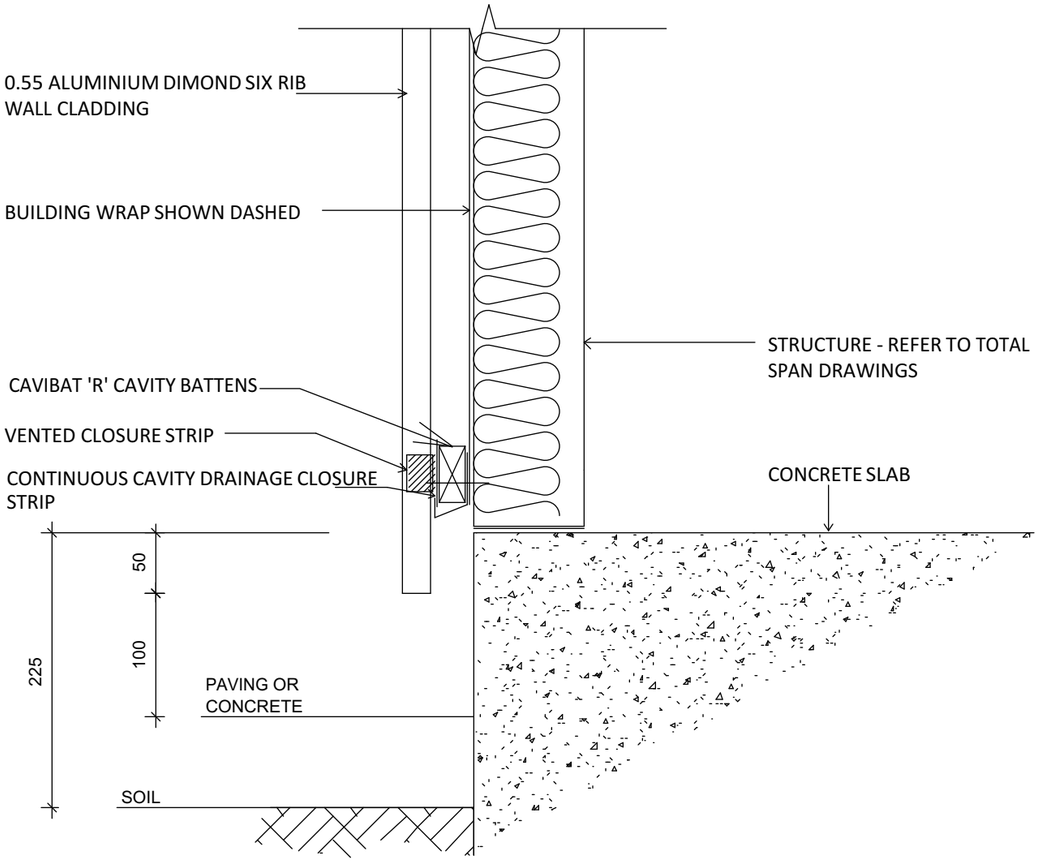
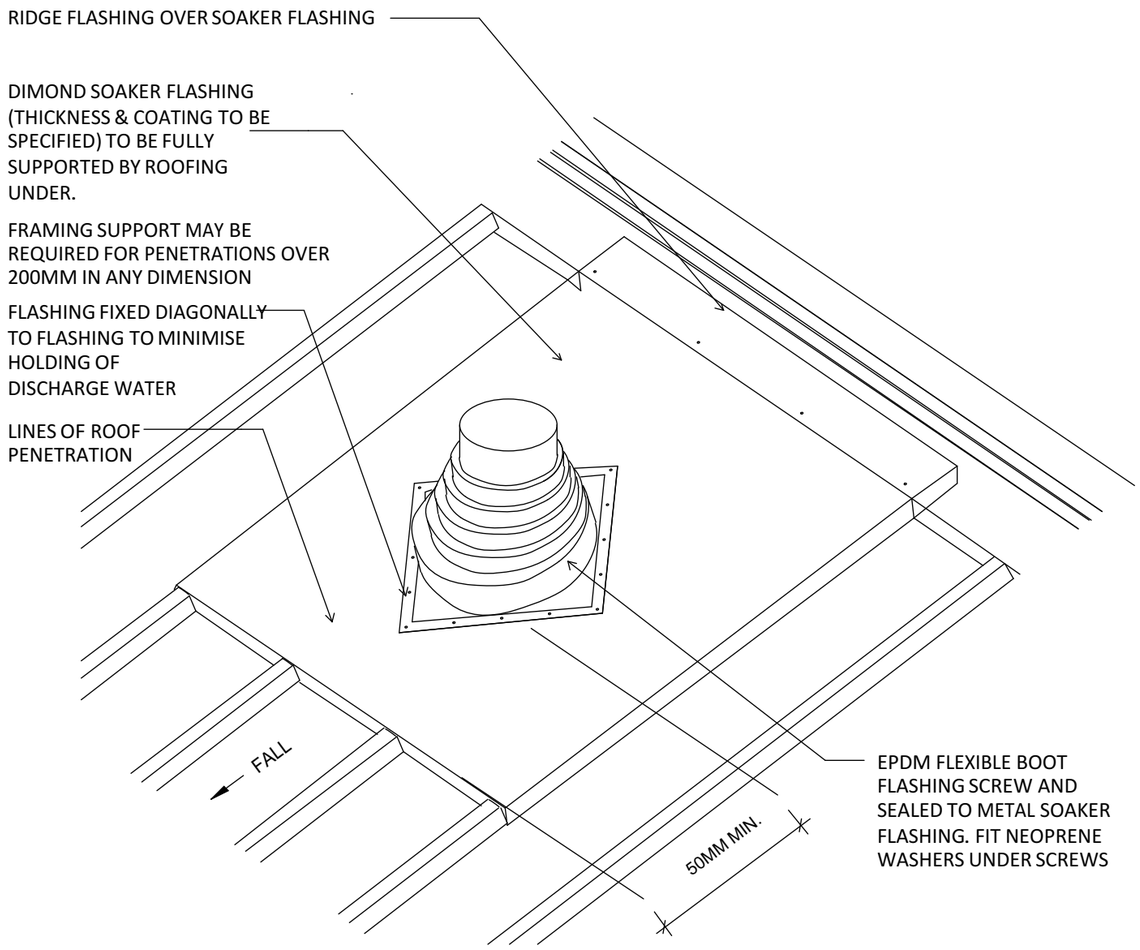
PROJECT	**13 Waianga Pl Omapere Proposed Dwelling**
CLIENT	**Nick Yakas**
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	**ARCHITECTURAL DETAILS**
PROJECT	BUILDING CONSENT ISSUE

SHT: **07.01**

SCALE:	**1:10 @ A3**
DATE:	**03/11/21**
DRAWN:	**HM**



A9.0 **BASE CLADDING**
06.01 SCALE 1:5 @ A3



A10 **PIPE PENETRATION FOR RANGEHOOD**
05.00 SCALE 1:10 @ A3

NOTES:

- THESE DETAILS ARE SUITABLY FIXED TO ALLOW FOR A THEORETICAL THERMAL
MOVEMENT OF UP TO 10MM. FOR THERMAL MOVEMENT GREATER THAN THIS A CLIPPING SYSTEM SHOULD BE CONSIDERED.- WHERE CCA OR ACQ TREATED CAVITY BATTENS ARE INSTALLED A BARRIER BETWEEN THE BATTEN AND THE CLADDING IS REQUIRED.

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PROJECT: **13 Waianga Pl**
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Proposed Dwelling

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

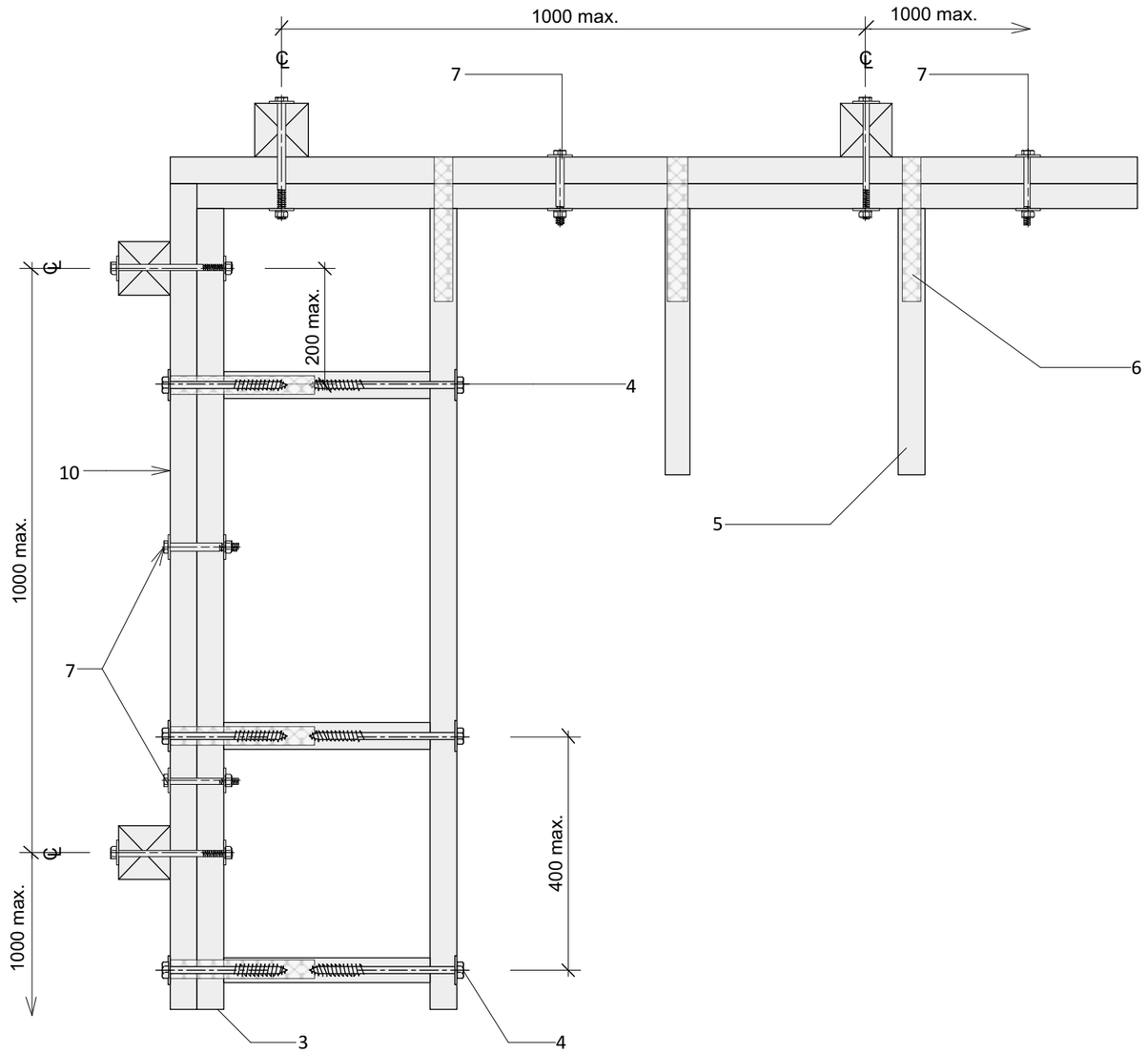
DRAWING: **ARCHITECTURAL DETAILS**

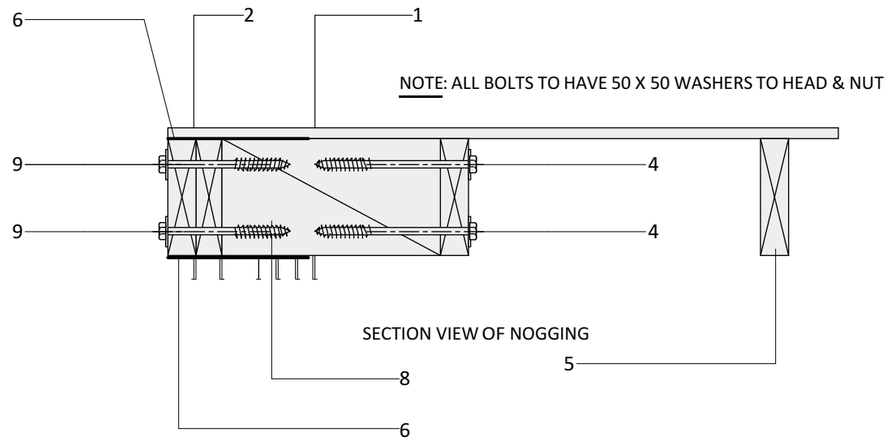
PROJECT: BUILDING CONSENT ISSUE

SHT: **07.02**
SCALE: **AS SHOWN**
DATE: **03/11/21**
DRAWN: **HM**

Notes

1. 4/45 x 3.3 ST.ST. ANNULAR GROOVE NAILS
2. 2/45 x 3.3 ST.ST. ANNULAR GROOVE NAILS
3. 2/190 x 45 SG8 H3.2 EDGE JOISTS
4. 2/M12 x 250 mm ST.ST. COACH SCREWS @ 140 CTRS VERTICALLY
5. 190 x 45 SG8 H3.2 min. JOISTS @ 400 CTRS MAX.
6. 6 kN strap TOP & BOTTOM
7. 2/M12 ST.ST. BOLTS @ 400 CTRS VERT.
8. 190 x 45 SG8 H3.2 NOGGING
9. M12 x 200mm ST.ST. COACH SCREWS @ 140 CTRS VERTICALLY
10. 2-190 x 45 SG8 H3.2 BOUNDARY JOISTS





NOTE: ALL BOLTS TO HAVE 50 X 50 WASHERS TO HEAD & NUT

SECTION VIEW OF NOGGING

A11 **DECK JOIST FIXINGS**
04.01 SCALE 1:10 @ A3

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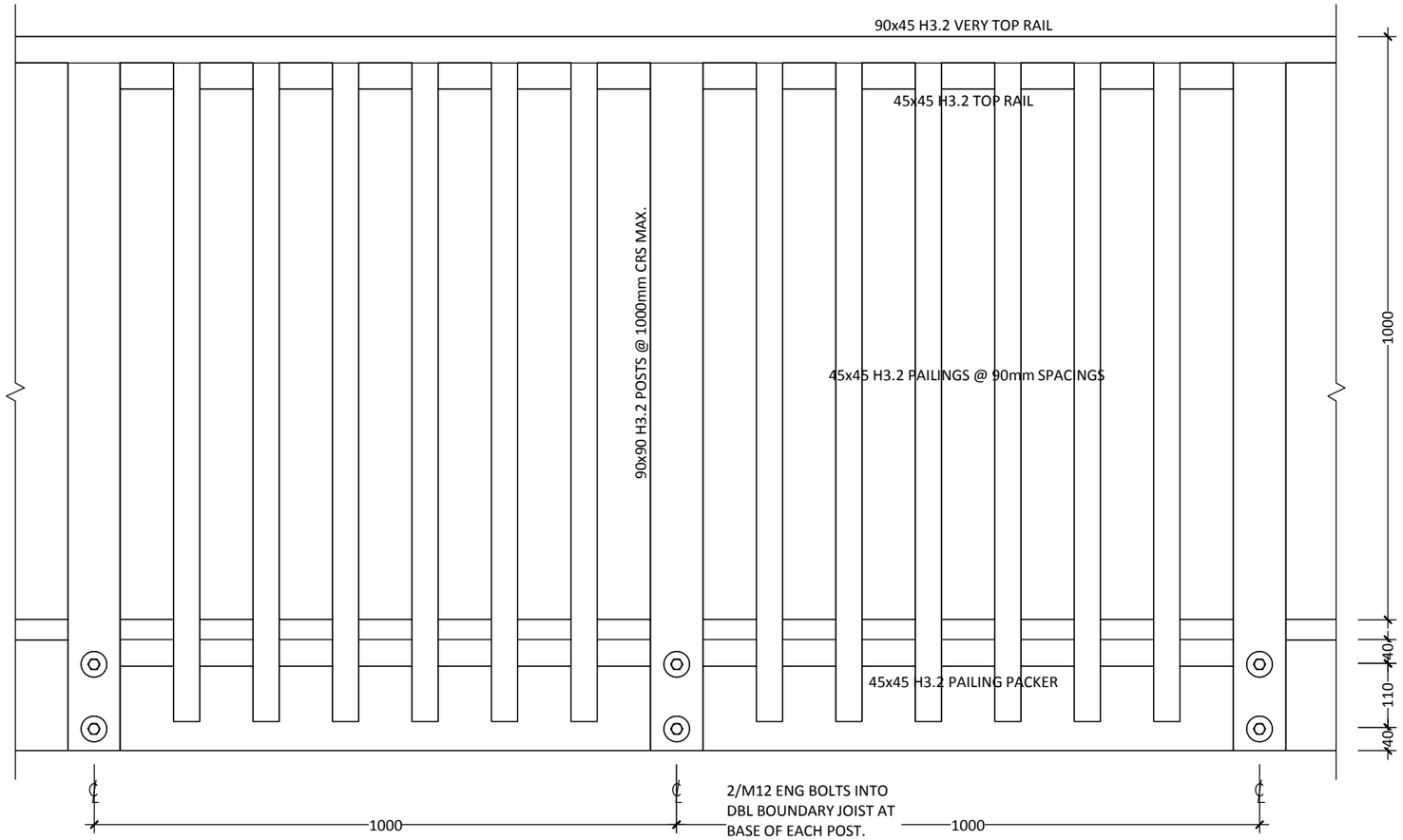
CLIENT: **Nick Yakas**

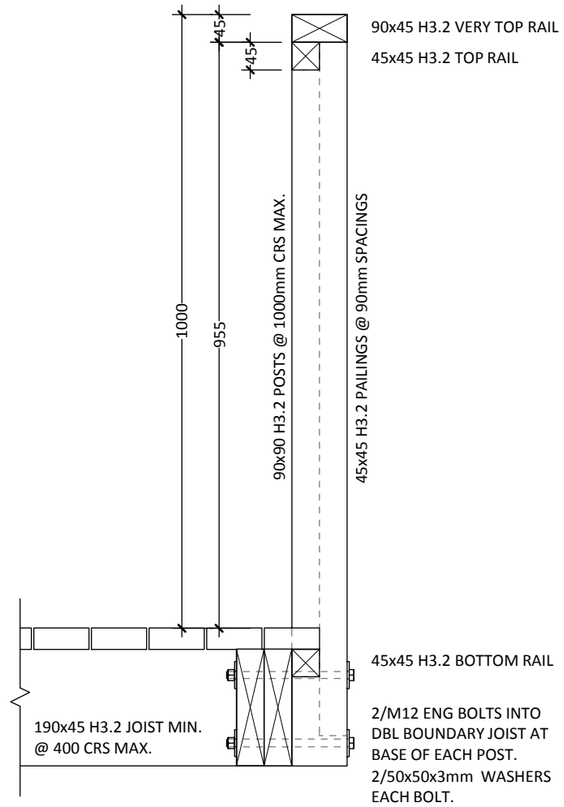
FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ARCHITECTURAL DETAILS**

PROJECT: BUILDING CONSENT ISSUE

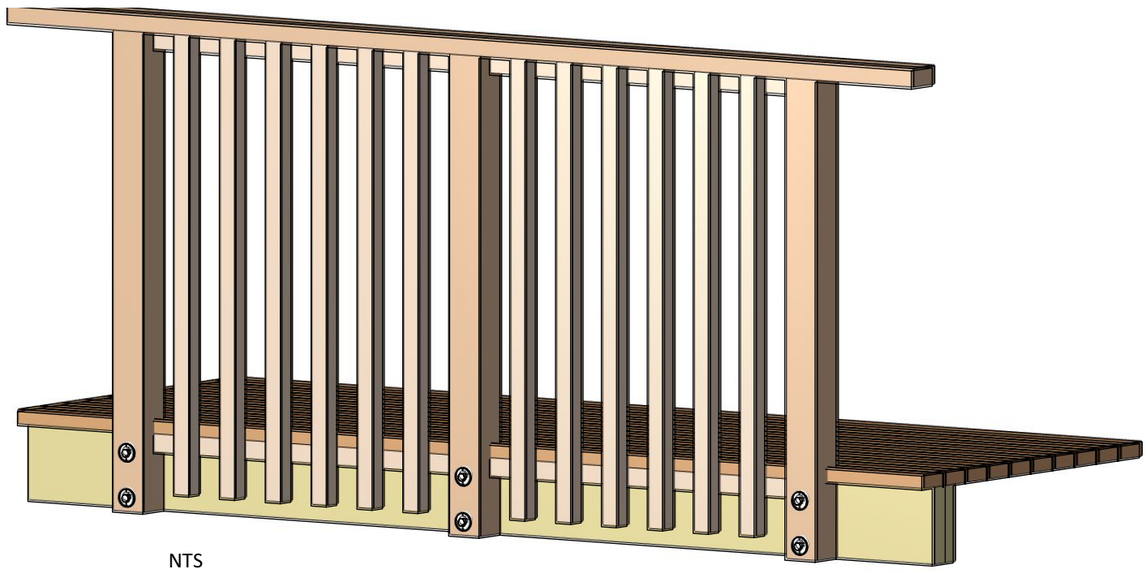
SHT: **07.03**
SCALE: **1:10 @ A3**
DATE: **03/11/21**
DRAWN: **HM**





A12 **TIMBER BALUSTRADE FIXINGS**

06.01 SCALE 1:10 @ A3



NTS

NB. ALL FIXINGS TO COMPLY WITH THE DURABILTY REQUIREME1:10 OF NZS3604.

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PROJECT: **13 Waianga Pl Omapere Proposed Dwelling**

CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ARCHITECTURAL DETAILS**

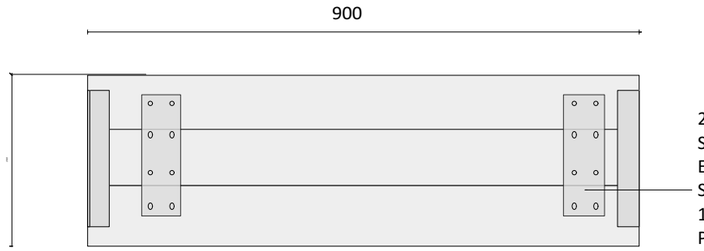
PROJECT: BUILDING CONSENT ISSUE

SHT: **07.04**

SCALE: **AS SHOWN**

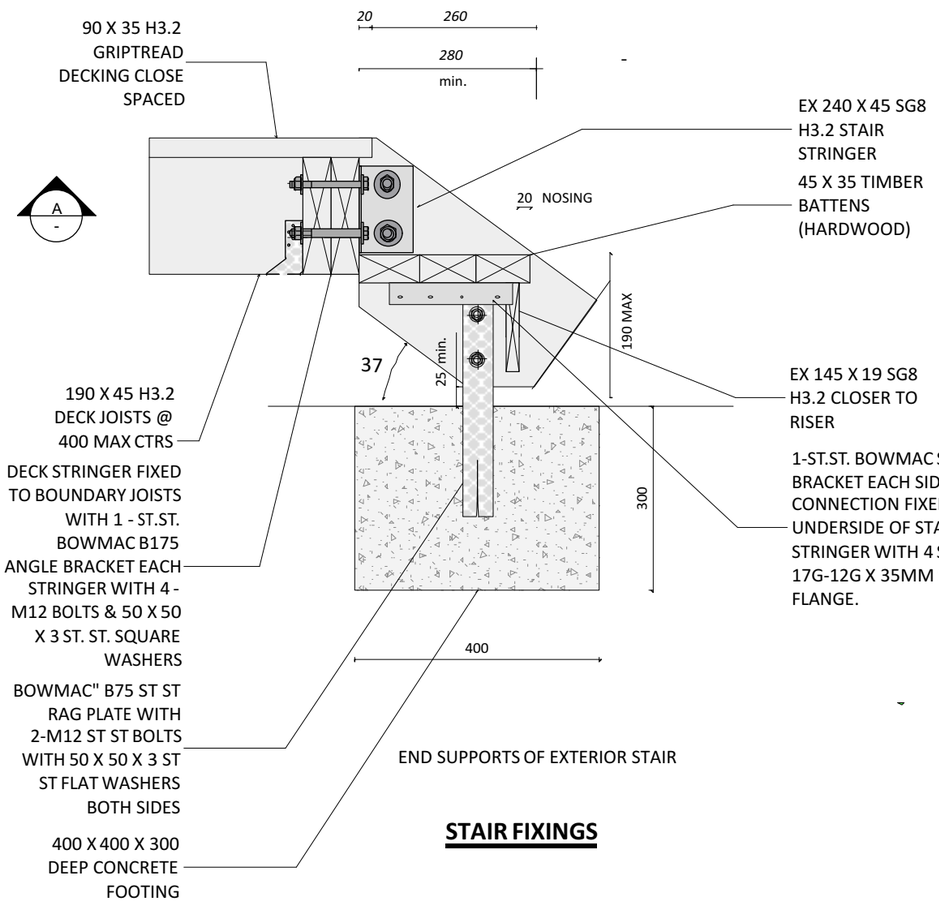
DATE: **03/11/21**

DRAWN: **HM**

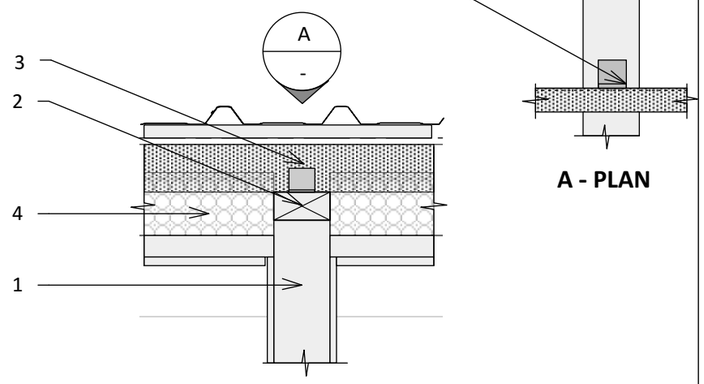


A UNDER-SIDE OF STAIR TREAD

COMPLIES UNDER D1/AS1: TABLE 6 & FIGURE 11 FOR COMMON/MAIN PRIVATE STAIRWAY -
RISERS - 190MM MAX.
TREADS - 280MM MIN.
PITCH - 37º MAX.



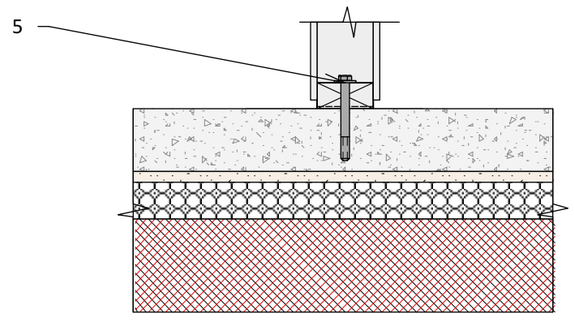
STAIR FIXINGS



A - PLAN

A13 **INTERNAL TIMBER TOP PLATE FIXING**
06.02 SCALE 1:10 @ A3

Notes
1. 90 x 45 SG8 H1.2 STUDS @ 300 CTRS MAX. NOGS @ 800 CTRS MAX
2. 90 x 45 SG8 H1.2 TOP PLATE FIXED TO STEEL PURLINS WITH 1 - CPC40 PER CONNECTION
3. STEEL PURLINS
4. BLACK PEARL R3.38 CEILING INSULATION
5. INSTALL BOWMAC BOTTOM PLATE SCREW BOLT M10 x 140 BOWMAC BLUE HEAD INTO BOTTOM PLATE & DPC @ 900 CTRS. DRILL MIN. 95mm DEEP INTO CONCRETE.



A14 **INTERNAL TIMBER BOTTOM PLATE FIXING**
06.02 SCALE 1:10 @ A3

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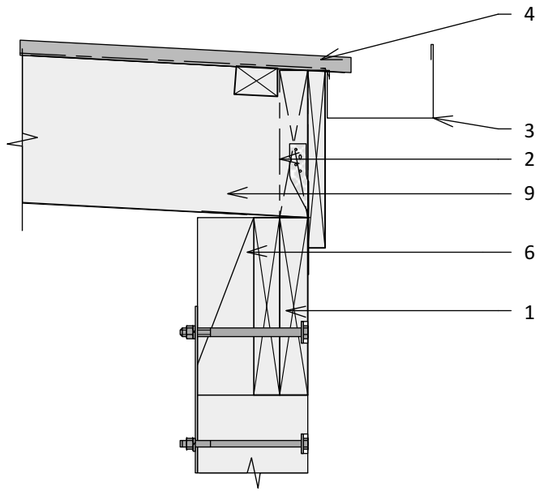
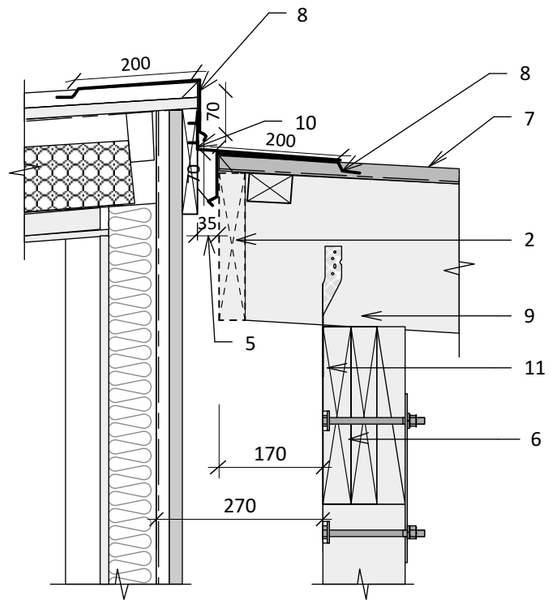
PROJECT: **13 Waianga Pl Omapere Proposed Dwelling**
CLIENT: **Nick Yakas**
FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ARCHITECTURAL DETAILS**
PROJECT: BUILDING CONSENT ISSUE

SHT: **07.05**
SCALE: **1:10 @ A3**
DATE: **03/11/21**
DRAWN: **HM**



A15 **BEAM TO POST FIXING/RAFTER TO BEAM FIXING**
06.01 SCALE 1:10 @ A3



A16 **BEAM TO POST FIXING/RAFTER TO BEAM FIXING**
06.01 SCALE 1:10 @ A3

Notes

1. VB1: 2-290 x 45 SG8 H3.2 VERANDAH BEAM (REFER TO DESIGNIT CALCS) FIXED TO 180 X 180 H5 PL12 PROLAM POST WITH 1 - ST.ST. BOWMAC BRACKET BS85 AT ENDS WITH 2 - M12 BOLTS & 50 x 50 x 3 SQUARE WASHERS. AT INTERMEDIATE POINTS: BS35 WITH 3 - M12 BOLTS & 50 x 50 x 3 SQUARE WASHERS
2. BLOCKING BETWEEN RAFTERS
3. 175 x 175 x 125 STEEL FASCIA GUTTER FIXED TO 290 x 25 H3 FJ PRE-PRIMED FASCIA BOARD. 1:100 FALL TO DOWNPIPES
4. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB ROOF CLADDING OVER THERMAKRAFT COVERTEK 407 ROOF UNDERLAY
5. ENSURE A MIN. OF 35mm CLEARANCE
6. H3.2 PACKER TO SUIT
7. 0.55 COLOURSTEEL MAXX ALUMINIUM 6 RIB ROOF CLADDING OVER THERMAKRAFT COVERTEK 407 ROOF UNDERLAY. STOP-END ROOFING
8. 0.55 COLOURSTEEL MAXX ALUMINIUM FLASHING
9. 240 x 45 SG8 H3.2 RAFTER FIXED TO BEAM WITH 1 - PAIR ST.ST. CT200 CEILING TIES PER CONNECTION. FILL ALL HOLES WITH 30 x 3.15 PRODUCT NAILS
10. 0.55 COLOURSTEEL MAXX ALUMINIUM APRON FLASHING TO EXTEND BEHIND TOP FLASHING & OVER BOTTOM FLASHING. THIS FLASHING MUST BE ONLY FIXED TO THE FASCIA BOARD TO ALLOW 16mm MOVEMENT OF THE DECK STRUCTURE
11. VB1: 2-290 x 45 SG8 H3.2 VERANDAH BEAM (REFER TO DESIGNIT CALCS) FIXED TO 135 X 135 H5 PL12 PROLAM POST WITH 1 - ST.ST. BOWMAC BRACKET BS85 AT ENDS WITH 2 - M12 BOLTS & 50 x 50 x 3 SQUARE WASHERS. AT INTERMEDIATE POINTS: BS35 WITH 3 - M12 BOLTS & 50 x 50 x 3 SQUARE WASHERS

ALL FIXINGS TO BE SUITABLE FOR SEASPRAY ZONE D

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CLIENT: **Nick Yakas**

FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **ARCHITECTURAL DETAILS**

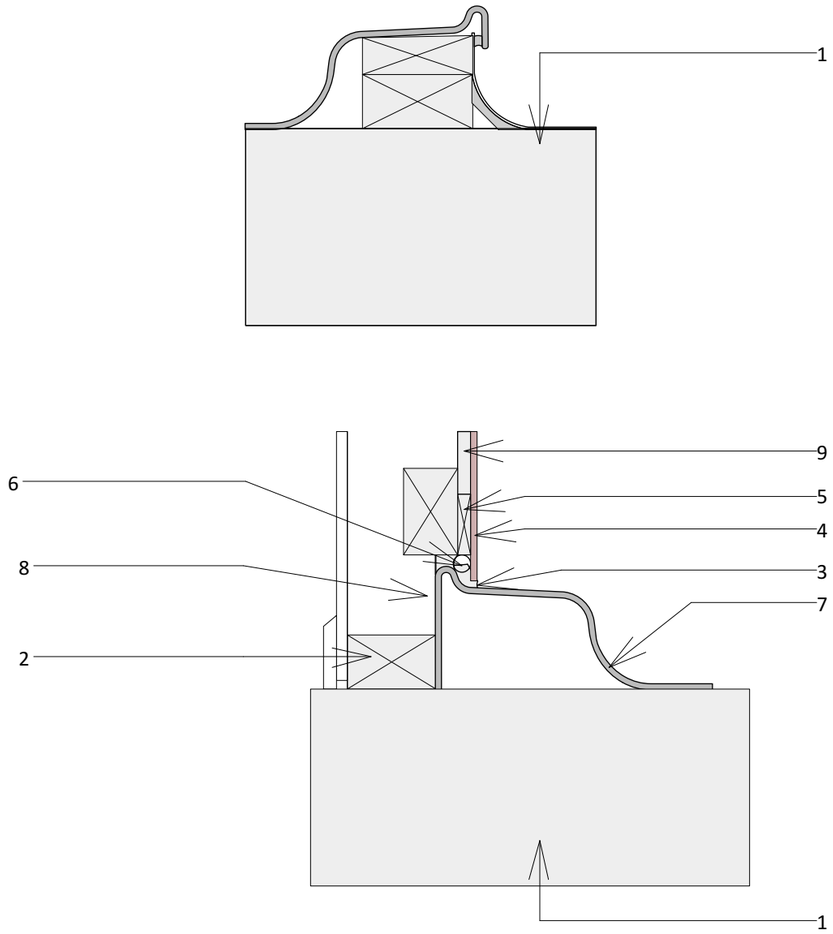
PROJECT: BUILDING CONSENT ISSUE

SHT: **07.06**

SCALE: **1:10 @ A3**

DATE: **03/11/21**

DRAWN: **HM**



NOTES

1. CONCRETE SLAB
2. SG8 H1.2 WALL FRAMING
3. CLEAR MOULD RESIST BATHROOM SILICONE SEALING STRIP
4. SERATONE WALL CLADDING INSTALLED TO MANUFACTURERS SPECIFICATION
5. H3 HORIZONTAL TIMBER BATTEN GLUED AND ST. ST. NAILED TO WALL FRAMING AS SHOWN
6. 10MM PEF ROD BACKING STRIP
7. SHOWER TRAY
8. CHECK OUT FRAMING TO SUIT SHOWER TRAY AS SHOWN
9. 10MM GIB "AQUALINE" WALL SUBSTRATE

TYPICAL WET AREA WATERPROOFING DETAIL - SHOWER TRAY TIMBER FLOOR

NOTE: INSTALLATION OF BATH & SHOWER TO COMPLY WITH NZBC COMPLIANCE DOCUMENT - E3 INTERNAL MOISTURE

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PROJECT: **13 Waianga Pl**
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FILE: 13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx

DRAWING: **VINYL INSTALLATION E3**

PROJECT: BUILDING CONSENT ISSUE

SHT: **07.07**

SCALE: **1:5 @ A3**

DATE: **03/11/21**

DRAWN: **HM**

DESIGN CERTIFICATE

Technical basis for structural design methodology contained in designIT for houses - New Zealand.

designIT for houses, New Zealand has been developed by experienced timber engineers to assist designers in selecting appropriate sizes of structural laminated veneer lumber products manufactured by Carter Holt Harvey LVL Limited (including hySPAN, hy90, hyONE and hyJOIST) and other generic stress grades of timber, to be used as structural elements for the construction of buildings that fall within the scope of NZS 3604.

The design methodology used for the software complies with the loading and general design requirements contained within AS/NZS 1170 and with timber structural design in accordance with NZS 3603:1993 including Amendment 4 (Verification method B1/VM1, 6.1).

designIT relies on the accurate input of span and loading information by the user. Where accurate inputs are submitted the product and/or stress grade and the size given will comply with the structural requirements of the New Zealand Building Code (NZBC), provided the installation is in accordance with the installation requirements provided by designIT and/or in product literature and/or NZS 3604, or specific engineering design, as appropriate.

Futurebuild LVL and SG8 components, when used and treated to the required treatment levels prescribed in NZS 3602 and NZS 3604, as modified by Acceptable Solution B2/AS1, will comply with the requirements of the NZBC (Acceptable Solution B2/AS1, 3.2).

References:

1. NZS 3603:1993 Timber Structures Standard.
2. NZS 3604:2011 Timber-framed buildings.
3. AS/NZS 1170:2002 Structural design actions, Parts 0 and 1.
4. AS/NZS 1170:2011 Structural design actions, Part 2: Wind actions.
5. AS/NZS 1170:2003 Structural design actions, Part 3: Snow and ice actions.
6. AS 1720.1:2010 Timber structures. Part 1: Design methods.
7. AS 1720.3:2016 Timber structures. Part 3: Design criteria for timber-framed residential buildings.

This Design Certificate, and any associated warranty/certification, is void where there has been substitution of alternate products not detailed within the Member Specification.

Version date: 26 July 2021

For further information or advice contact:

Carter Holt Harvey LVL Limited,
173 Captain Springs Road, Onehunga. Auckland
Telephone: 0800 808 131
Email: designit@futurebuild.co.nz
Web: https://futurebuild.co.nz/

Specifier details:

Specifier:	H Mealings
Business name:	Mealings Architecture
Email:	hayleymealings@gmail.com

Project & site details:

Project:	13 Waianga Pl
Site address:	BC2
For (owner/s):	N Yakas
Design wind zone	Very high
Snow loading	Design snow zone: N0

MEMBER DESIGN DETAILS

Member 1

1) Member code and description VB1 - Verandah beams

2) Date prepared 22 March 2022

3) Serviceability criteria AS 1720.1: 2010 and AS 1720.3: 2016

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4) Design inputs

Span	3.8 m - single span
Roof mass	10 kg/m²
Roof load width 'RLW'	2.0 m

5) Member specification

Size, stress grade/product	Use 2/290 x 45 SG8
Material type	Dry softwood, machine stress graded and verified (NZS 3622)
Assumed design density	< 480 kg/m²

6) Serviceability

Load case	Limit[3] on average deflection[2]	Estimated average deflection[2]	Rigidity ratio[4]
Long term load - G + Ψ_LQ	9.5 mm	2.3 mm (long term)	4.2
Live load - Ψ_sQ	12.0 mm	1.4 mm	8.4
Wind load - W_s*	19.0 mm	8.0 mm	2.4

*Critical serviceability load case
See 'Notes for interpretation of serviceability data' at the end of this report

7) Reactions

		Limit States Design Reaction[2,3]
Load case	k_1[1]	End kN[4]
1.35G	0.60	-1.1
1.2G + 1.5Q	0.80	-2.5
1.2G + W_u + Ψ_cQ	1.00	-6.8
0.9G + W_u	1.00	8.1

8) Installation requirements

- Provide at least 30 mm bearing at end supports
- Vertical lamination required - refer AS 1684

Member 2

1) Member code and description B1 - Bearer - Supporting floor loads only

2) Date prepared 22 March 2022

3) Serviceability criteria AS 1720.1: 2010 and AS 1720.3: 2016

4) Design inputs

Span	2.9 m - continuous span
Floor load width 'FLW'	2.0 m
Floor dead load	40 kg/m²
Floor live load	1.5 kPa/1.8 kN

5) Member specification

Size, stress grade/product	Use 2/240 x 45 SG8
Material type	Dry softwood, machine stress graded and verified (NZS 3622)
Assumed design density	< 480 kg/m²

6) Serviceability

Load case	Limit[3] on average deflection[2]	Estimated average deflection[2]	Rigidity ratio[4]
Long term load - G + $\Psi_L Q$	9.7 mm	2.7 mm (long term)	3.5
Live load - $\Psi_S Q^*$	8.1 mm	2.7 mm	3.0
Live load - $\Psi_S Q$	4.5 mm	1.2 mm	3.8

*Critical serviceability load case
See 'Notes for interpretation of serviceability data' at the end of this report

7) Reactions

		Limit States Design Reaction[2,3]	
Load case	k_1[1]	End kN[4]	Intermediate kN
1.35G	0.60	-2.9	-9.8
1.2G + 1.5Q	0.80	-6.2	-20.7
1.2G + 1.5Q	0.94	-4.0	-7.1

8) Installation requirements

- Provide at least 30 mm bearing at end supports
- Provide at least 45 mm bearing at internal supports
- Vertical lamination required - refer AS 1684

Notes for interpretation of serviceability data

1. 'average deflection' is an engineering concept based upon a notional estimated load, notional member rigidity and, in some cases, an approximate model of material response to environmental conditions. These parameters are, 'standardised' in AS 1170 and AS 1720.

2. Deflection is the flexural response to load 'out-of-level' measurements of installations are not necessarily deflections and can incorporate 'initial out-of-straightness', whether intended or not. Furthermore, loads can be higher/lower than the notional estimate and in any comparison with measured levels, material variability needs to also be considered. AS 1720 gives the following basis for estimation of upper bound deflections for various materials.

No 1 Framing – visually graded to NZS 3631	Average + 100%
SG grades - mechanically graded to AS/NZS 1748	Average + 43%
GL grades for glulam to AS 1328	Average + 33%
LVL to AS/NZS 4357 (includes hySPAN and hyJOIST)	Average +18%

As can be seen, comparison of the 'average deflection' for different materials, even if calculated on the same basis, does not give the whole picture!

3. The limits referred are those specified in AS 1720.3 for the stated load case.

4. 'Rigidity ratio' expresses the rigidity of the specified beam relative to the rigidity of a notional beam just meeting the serviceability requirements detailed.

Notes for interpretation of reaction data

1. Duration of load factor 'k_1' for strength as per NZS 3603:1993
2. Negative (-) reactions relate to the 'gravity' or 'downwards' force on the support
3. Positive reactions relate to the 'upwards' forces or 'tie-down' requirement on the support
4. End reaction includes allowance for overhang/cantilever where one has been designed

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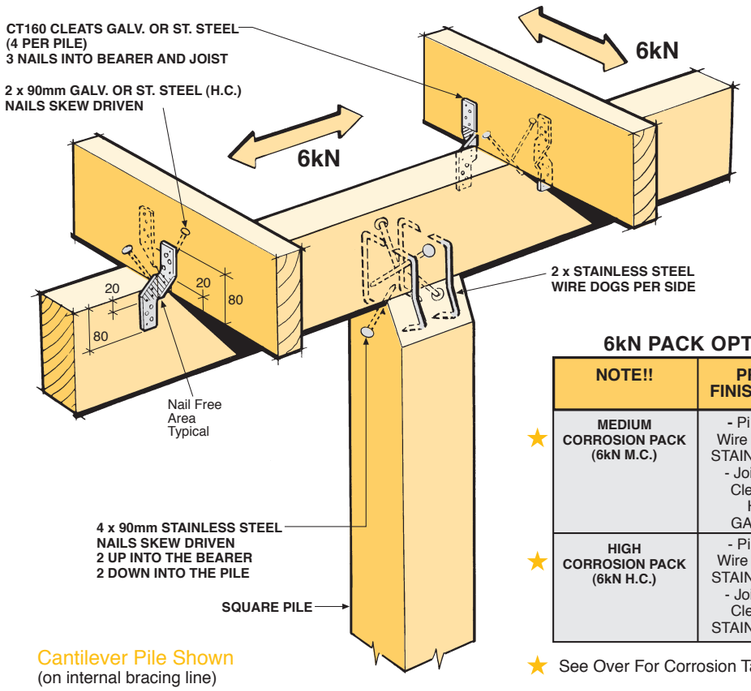
06/2008

6kN PILE FIXING

- ★ The 6kN Pile Fixing must be installed in accordance with this brochure
- ★ Auckland University Tested. Test Ref. 4613
- ★ All subfloor construction must be in accordance with NZS 3604:1999
- ★ NZS 3604 requires lines of lateral support to floor joists within 300mm of bearer or bracing lines, refer to Clause 7.1.2



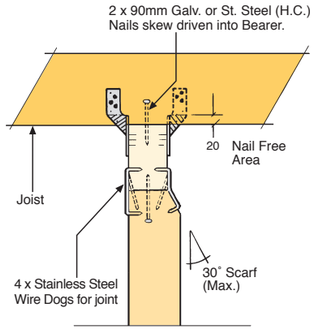
Cantilever Pile Shown
(on internal bracing line)

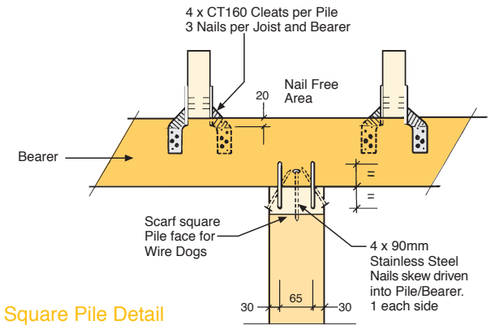
6kN PACK OPTIONS

NOTE!!	PRODUCT FINISH OPTIONS
★ **MEDIUM CORROSION PACK (6kN M.C.)**	- Pile to Bearer Wire Dogs & Nails STAINLESS STEEL - Joist to Bearer Cleats & Nails HOT DIP GALVANISED
★ **HIGH CORROSION PACK (6kN H.C.)**	- Pile to Bearer Wire Dogs & Nails STAINLESS STEEL - Joist to Bearer Cleats & Nails STAINLESS STEEL

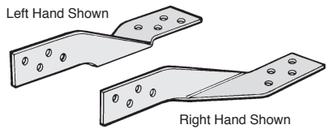
★ See Over For Corrosion Table.

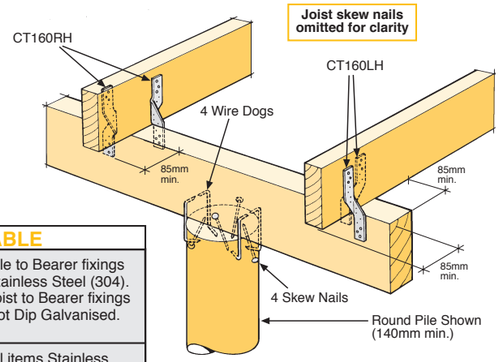
Available from leading Builders Supply Merchants throughout New Zealand





Square Pile Detail





CORROSION HAZARD USE TABLE

Medium Corrosion Pack (6kN MC) - Outside geothermal areas - Outside Sea Spray Zones - If Joist to Bearer Fixings ABOVE 600mm from Ground level	Pile to Bearer fixings Stainless Steel (304). Joist to Bearer fixings Hot Dip Galvanised.
High Corrosion Pack (6kN HC) - Sea Spray Zones - All Fixings BELOW 600mm from Ground level	All items Stainless Steel (304).

6kN Joint Fixing Schedule

PILE TO BEARER	- Wire Dog Staples (4 per joint) Stainless Steel
	- 4 x 90mm Skew Nails (1 per face) Stainless Steel
JOIST TO BEARER	- CT160 Cleats (4 per pile) 160mm long
	- 3 Nails per Cleat into Joist
	- 3 Nails per Cleat into Bearer
	- 2 Skew Nails 90mm (1 per side)
NAILS	- 24 x 45mm x 3.55 dia. Spiral Nails (for Joist to Bearer fixings)
	- 4 x 90mm x 4 dia. St. Steel Nails (M.C. Pack only)
	- 8 x 90mm x 4 dia. St. Steel Nails (H.C. Pack only)

6kN Pile Set Contents

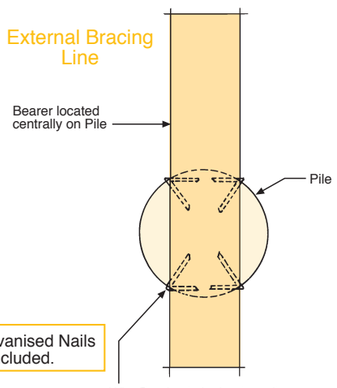
Each set represents 1 x 6kN Pile Fixing
(packed 10 sets per carton)

4 x Wire Dog Staples Stainless Steel
4 x CT160 Cleats
24 x 45mm x 3.55 dia. Spiral Nails
90mm St. Steel Nails to suit 4 - M.C. pack
8 - H.C. pack

Refer front page for Product Finish Options

90mm Galvanised Nails not included.

External Bracing Line



ISSUE	DATE	REVISION

230 Hariru Rd
Ohaeawai 0472
hayleymealings@gmail.com

mealings architecture

PROJECT	13 Waianga Pl Omapere Proposed Dwelling
CLIENT	Nick Yakas
FILE	13 Waienga Place - BC 1 Pr Dwelling Consent 2 .vwx
DRAWING	SUBFLOOR 6kN FIXING
PROJECT	BUILDING CONSENT ISSUE

SHT:	09.00
SCALE:	N/A
DATE:	03/11/21
DRAWN:	HM