



PLOT DATE:
Tuesday, 5 February 2019



Highmark Homes Fraher Residence

Fraher Residence

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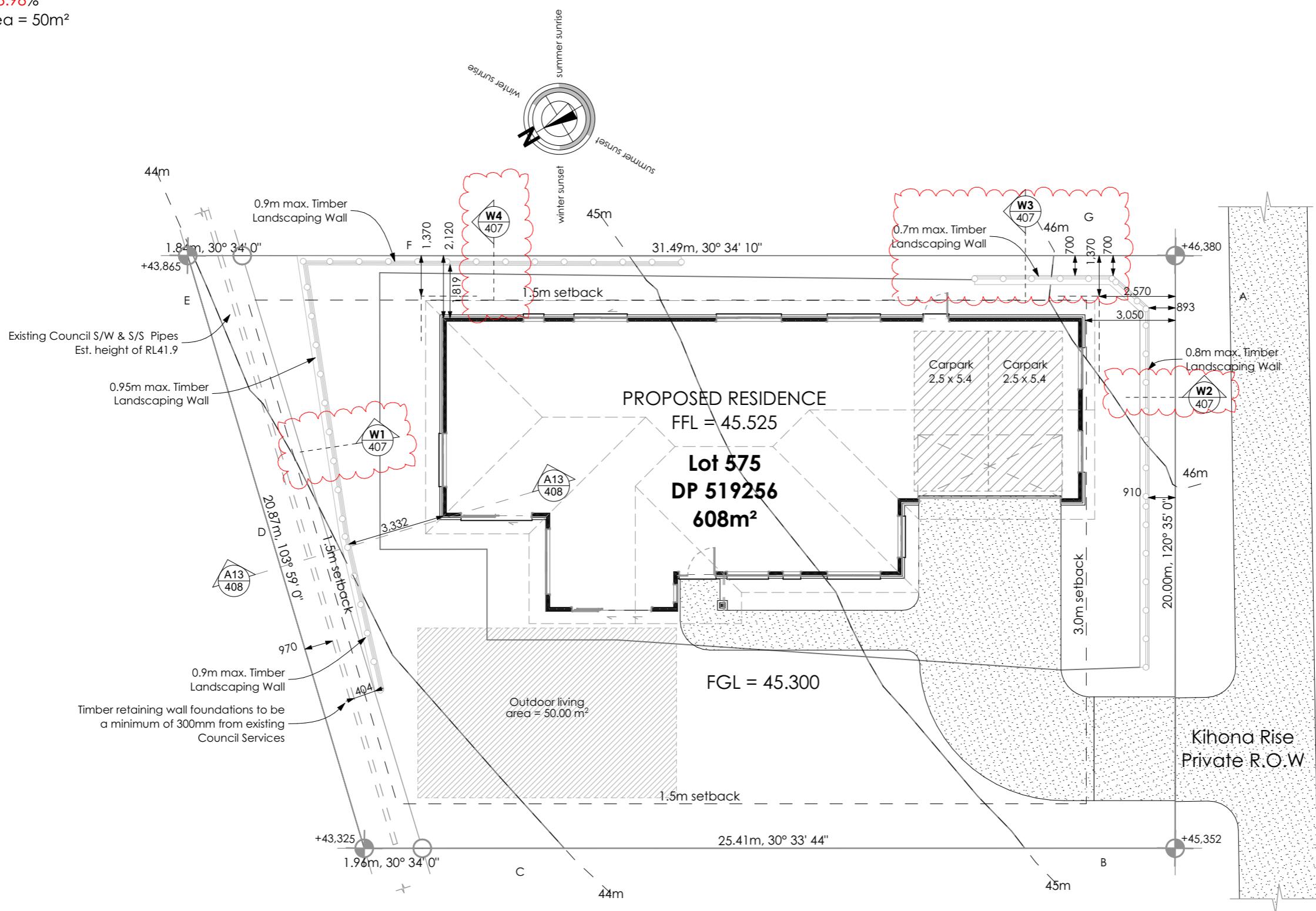
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Building Coverage = 176.20m²

Site Area = 608m²

Site Coverage = 28.98%

Outdoor Living Area = 50m²



Landscaping walls shown are outside the scope of the consent application

Note: Dimensions shown are to foundation to allow correct setbacks to cladding

All building works to comply with NZBC

Contractor to verify all dimensions and levels prior to commencing any work.
Report any discrepancies to Vision Design Architecture Immediately.

Builder to use suitable construction methods to avoid falling hazards where people may be present & to provide site barriers to prevent public access during construction as per section 5.3 of NZBC F5

EROSION CONTROL Sediment and runoff control shall be designed and installed by the licensed building practitioner prior to, or, during the siteworks for the project. The sediment controls shall be installed in accordance with the requirements of the District Plan	
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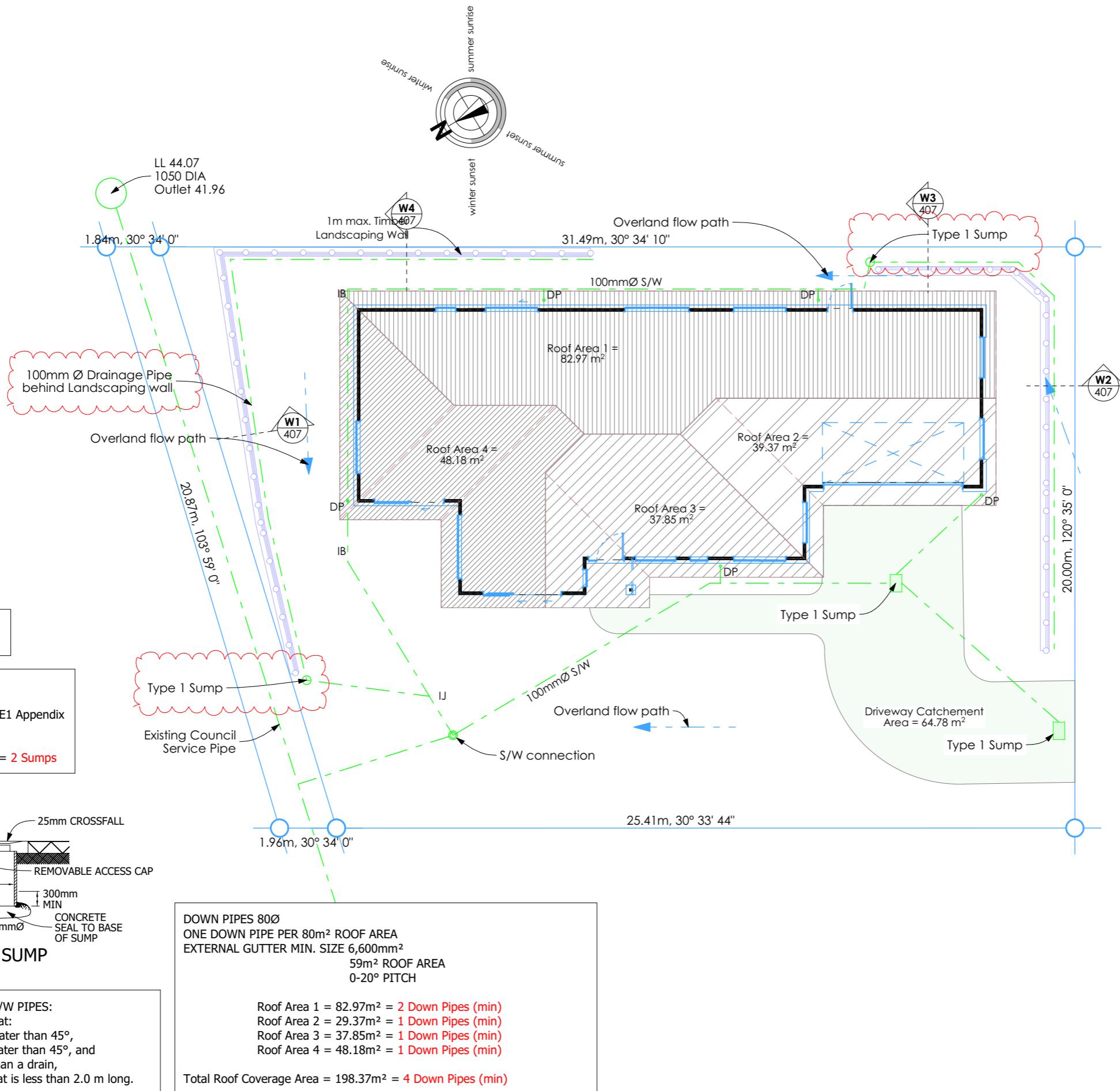
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Site Plan
Sheet No.
101

Job Status:	Consent Issue	Scale:	1:150	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



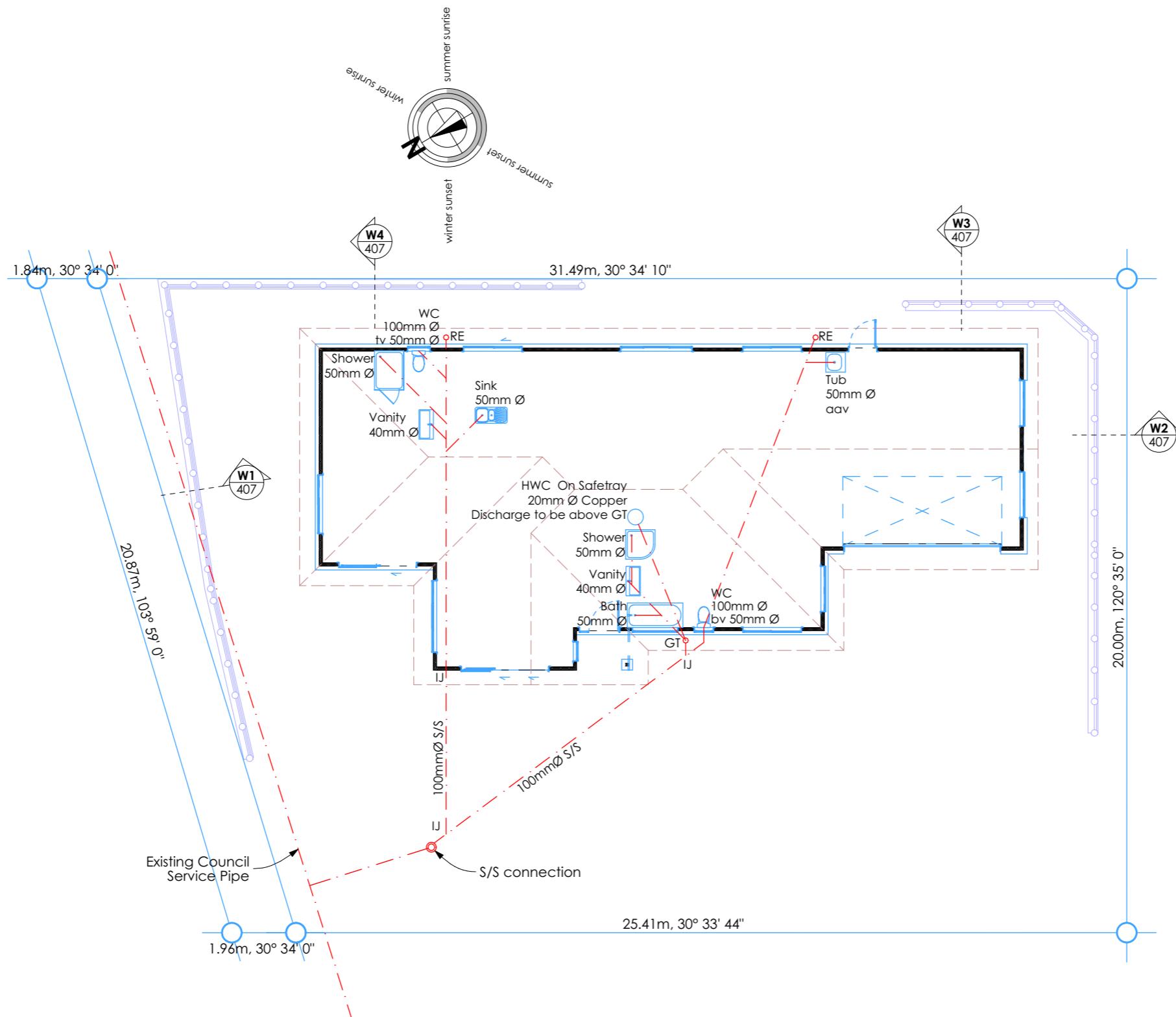
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
S/W Plan
Sheet No. 102

Job Status:	Consent Issue	Scale:	1:150	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



ACCESS POINTS FOR S/S & S/W PIPES:

Points of access are required at:

- Changes in direction of greater than 45°,
- Changes in gradient of greater than 45°, and
- Junctions of drains other than a drain, serving a single downpipe, that is less than 2.0 m long.

PLUMBING TO NZBC G13 AS3
 65mm DRAINS GRADIENT 1:40
 80 & 100mm UPVC 1:60 GRADIENT MIN
 150mm UPVC 1:100 GRADIENT MIN TO AS/NZS 1260
 MIN. PIPE SIZE UNDER SLAB = 65mm



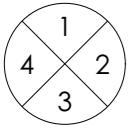
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Project Name:
Fraher Residence
 4 Kihona Rise,
 Tauranga

Sheet Title:
S/S Plan
 Sheet No. 103

Job Status:	Consent Issue	Scale:	1:150	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



Elevation Guide



ALL WORKS TO COMPLY WITH THE NZ BUILDING CODE AND NZS3604 (2011) EXCEPT WHERE ACCEPTABLE OR ALTERNATIVE SOLUTIONS ARE STATED IN THESE PLANS



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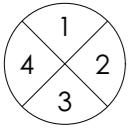
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Floor Plan
Sheet No.

104

Job Status:	Consent Issue	Scale:	1:75	Site Area:	608m ²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



Elevation Guide



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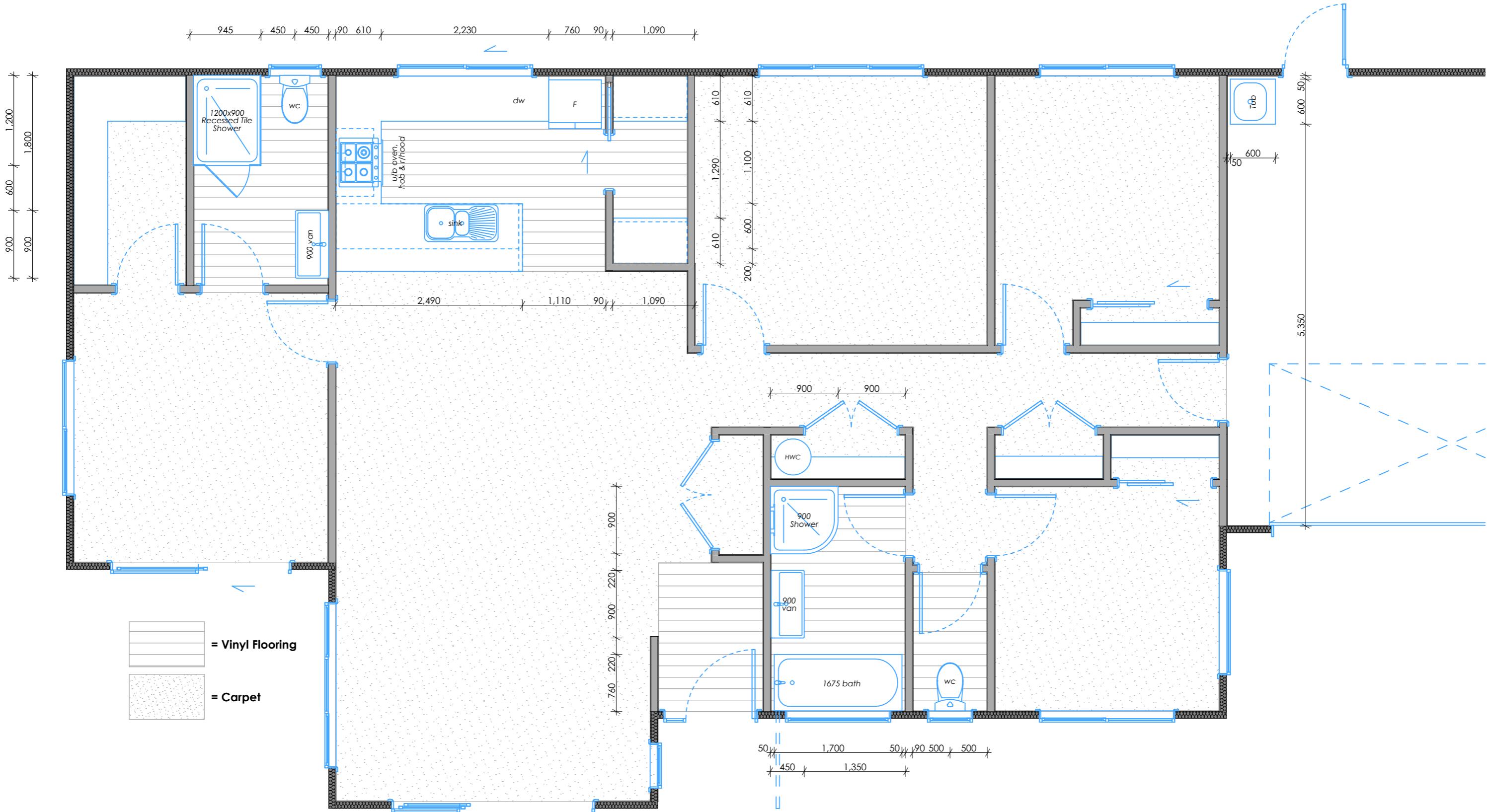
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Framing Plan
Sheet No.

105

Job Status:	Consent Issue	Scale:	1:100	Site Area:
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone: 1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone: C
Job #:	18100	Job Revision	G	Wind Zone: Very High



BATHROOM GLAZING:
FRAMED SHOWER SCREEN AND BATH ENCLOSURES
GRADE A SAFETY GLAZING MATERIAL IN
ACCORDANCE WITH TABLE 3.1
PANELS AND DOORS WITH ONE UNFRAMED EDGE
TOUGHENED SAFETY GLASS MINIMUM THICKNESS
5mm
FRAMELESS PIVOT OR HINGE DOORS TOUGHENED
SAFETY GLASS MINIMUM THICKNESS 6mm



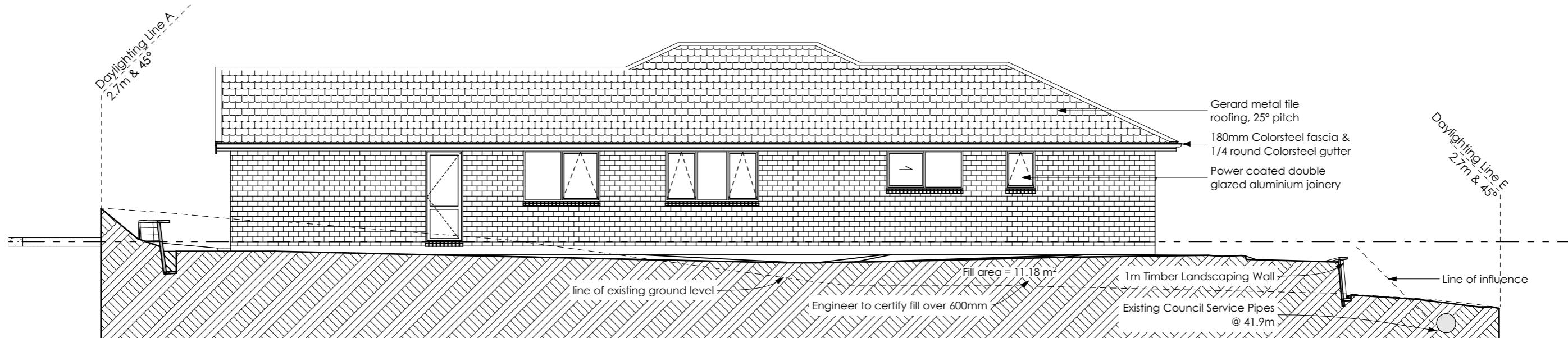
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Kitchen & Bathroom Plan
Sheet No. 106

Job Status:	Consent Issue	Scale:	1:50	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



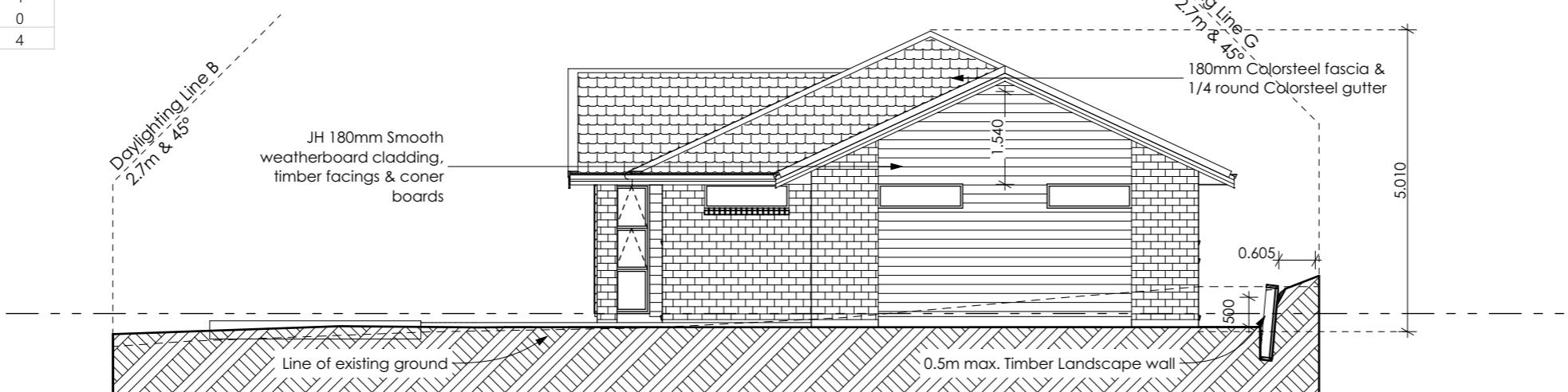
E-01

Elevation E-01

1:100

BUILDING ENVELOPE RISK MATRIX		
All Elevations		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	Very high risk	2
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Medium risk	1
Deck design	Low risk	0
Total Risk Score:		4

ENGINEER TO CERTIFY ANY FILL OVER
600mm



E-02

Elevation E-02

1:100



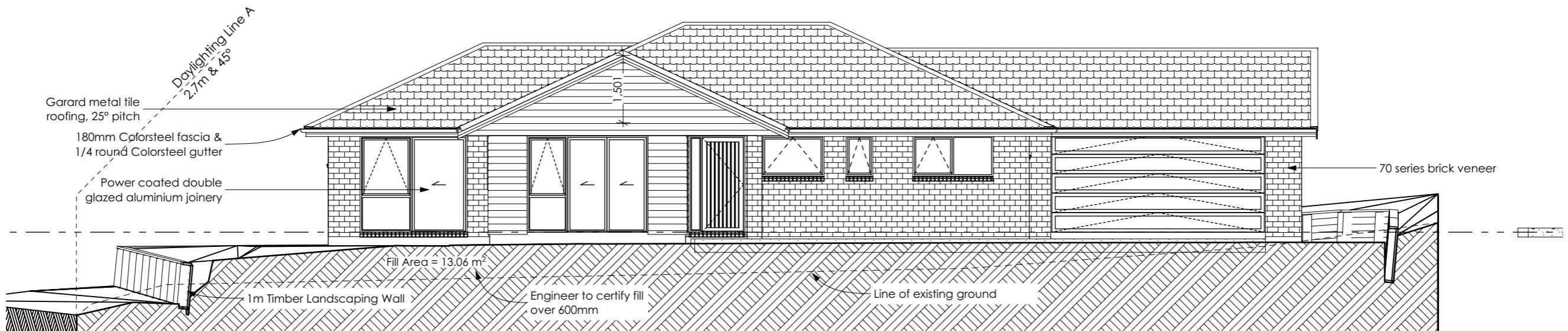
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Elevations
Sheet No. 201

Job Status:	Consent Issue	Scale:	1:100	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High

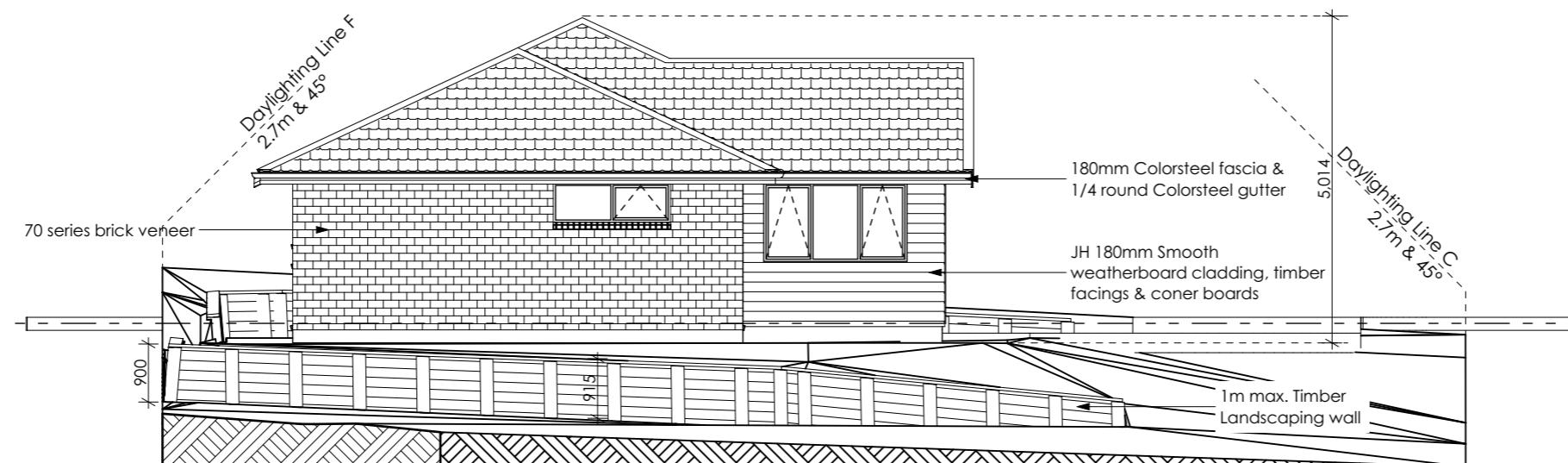


E-03

Elevation E-03

1:100

ENGINEER TO CERTIFY ANY FILL OVER
600mm



E-04

Elevation E-04

1:100

BUILDING ENVELOPE RISK MATRIX		
All Elevations		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	Very high risk	2
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Medium risk	1
Deck design	Low risk	0
Total Risk Score:		4



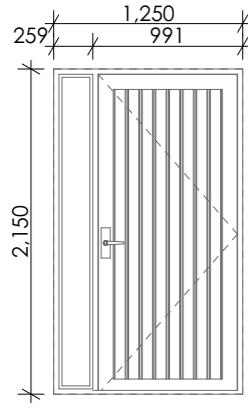
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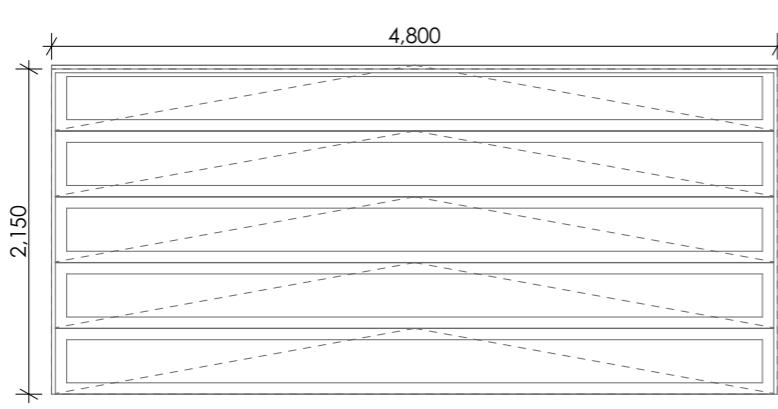
Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Elevations
Sheet No. 202

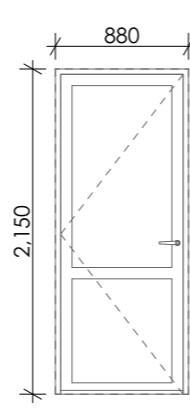
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Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



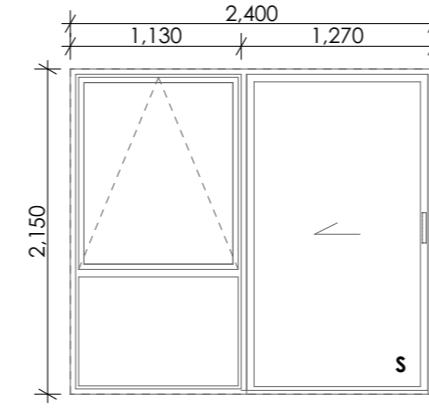
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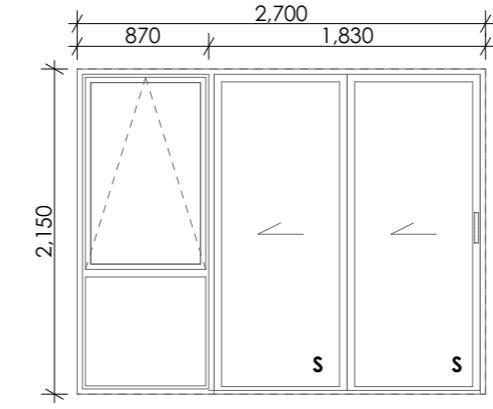
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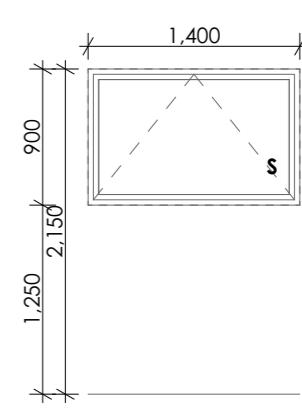
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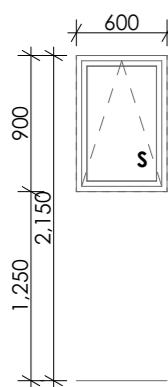
D-04



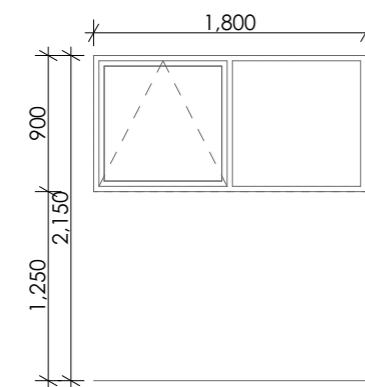
D-05



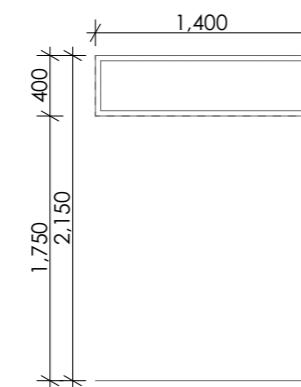
W-01



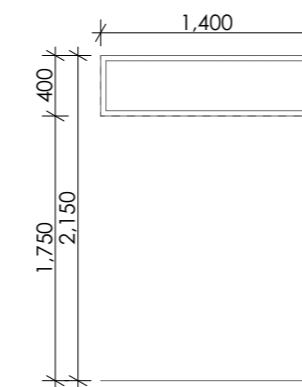
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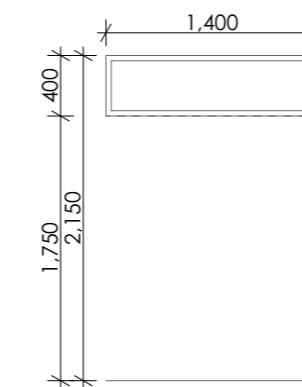
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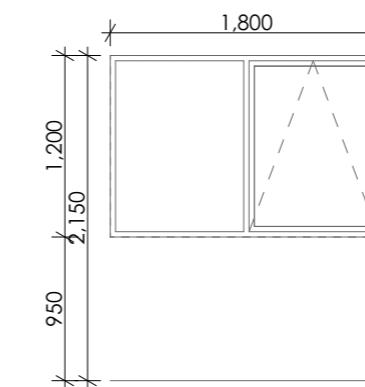
W-04



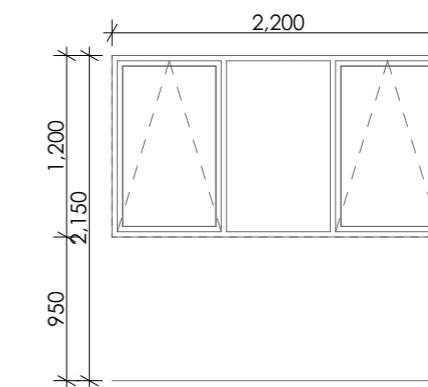
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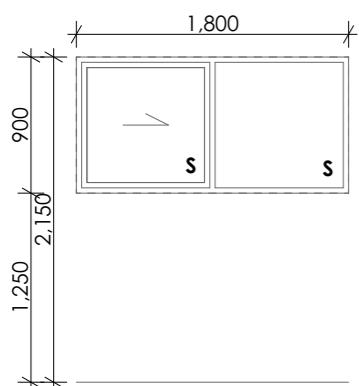
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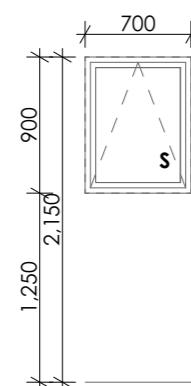
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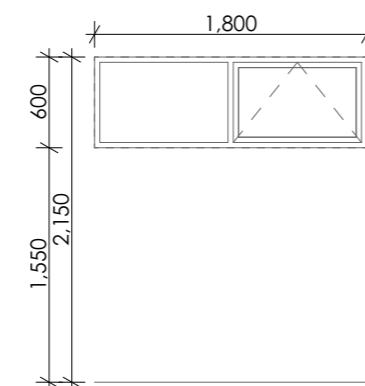
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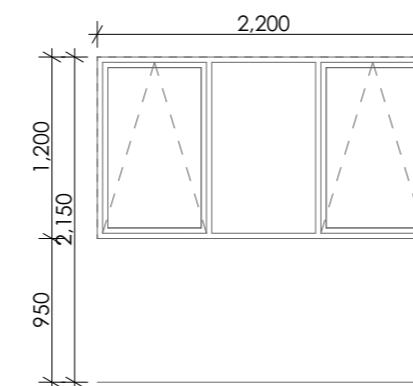
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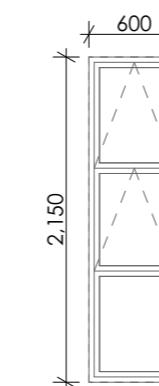
W-10



W-11



W-12



W-13

GLAZING NOTES:

ALL GLAZING TO NZS 4223.3 (2016)

THERMAL ENVELOPE - ALL NEW WINDOWS & DOORS DOUBLE GLAZED

- EXCLUDES GARAGE

S = GRADE A SAFETY GLASS

JOINERY MANUFACTURER TO CHECK ALL FRAME OPENINGS ON SITE

PRIOR TO MANUFACTURE



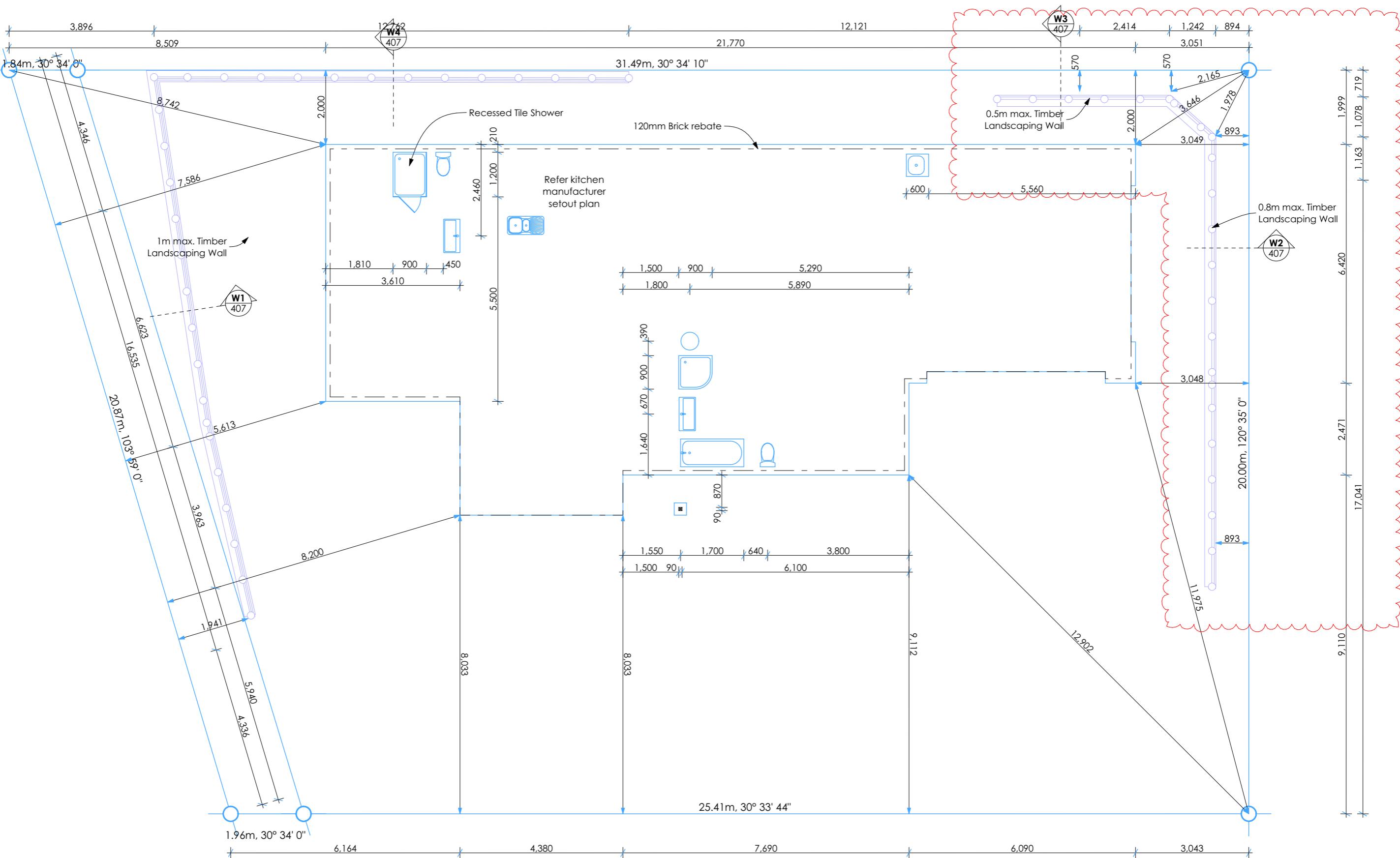
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Door & Window Schedule
Sheet No. 203

Job Status:	Consent Issue	Scale:	1:50	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



ENGINEER TO CHECK GROUND PRIOR TO FOUNDATION PLACEMENT



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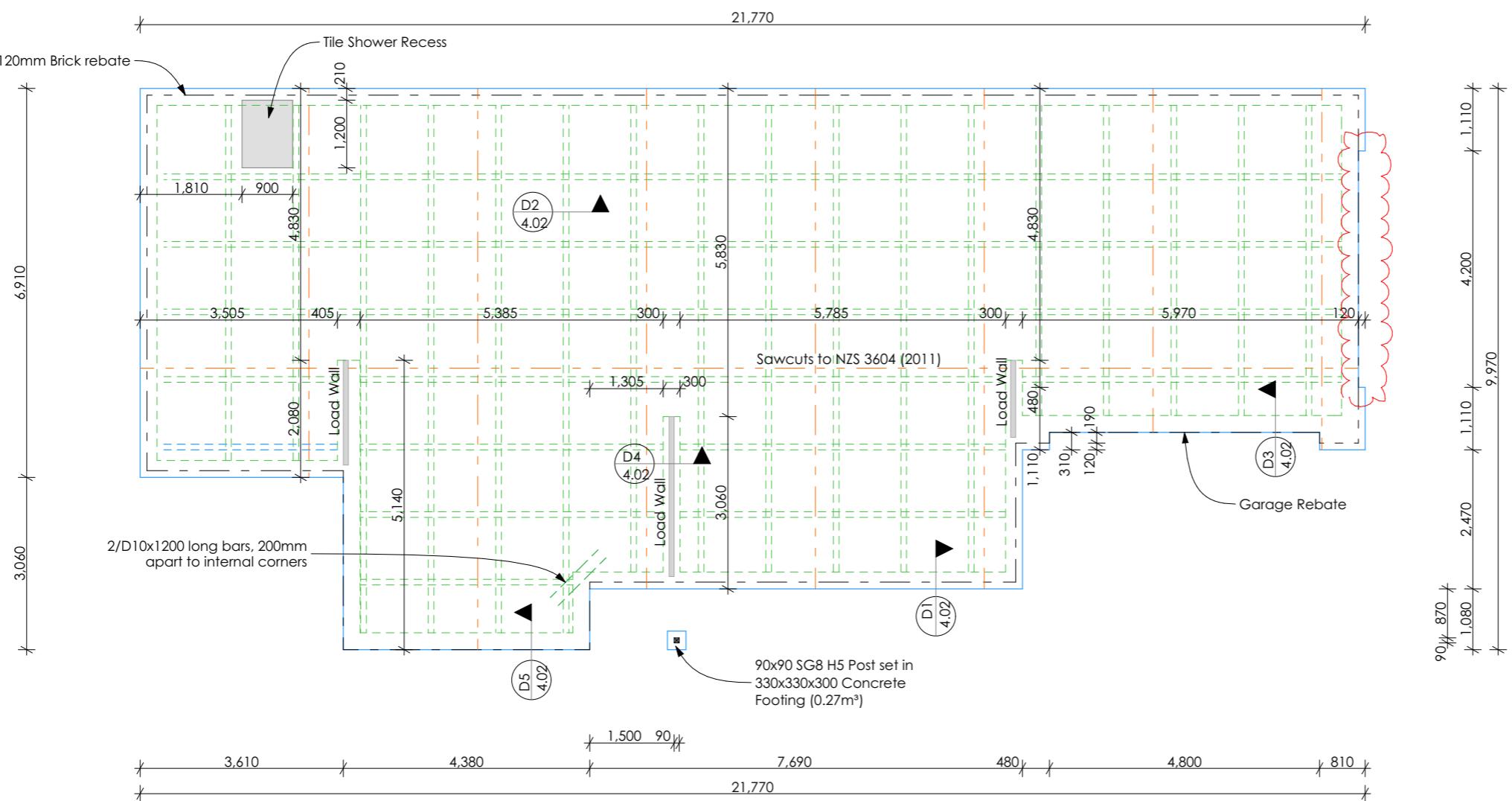
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Foundation Setout Plan
Sheet No.
301

Job Status:	Consent Issue	Scale:	1:100	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High

- NOTES:
1. CONCRETE TO BE MIN. 20.0 MPa @ 28 DAYS AS PER NZS 3109 & NZS 3124
 2. SAW CUTS TO NZS 3604 (2011) BAY SIZE RATIO OF 2:1
SAW CUTS TO BE 25mm AND CUT NO LATER THAN 24 HOURS IN SUMMER OR 48 HOURS IN WINTER
 3. LUMBERLOK BOTTOM PLATE FIXING ANCHORS:
 - SHOULD BE LOCATED UP TO 900 CRS TO THE BOXING OF CONCRETE FLOOR SLABS OVER A CONTINUOUS VAPOUR BARRIER.
 - EACH FIXING ANCHOR IS FIXED PRIOR TO POURING THE CONCRETE AND SHOULD BE LEFT UNDISTURBED UNTIL THE CONCRETE HAS HARDENED READY FOR THE TIMBER FRAMES TO BE INSTALLED.
 - WHEN THE FRAMEWORK IS LOCATED, THE FIXING ANCHORS ARE THEN FOLDED UP AND OVER THE BOTTOM PLATE.
 - TWO LUMBERLOK PRODUCT NAILS (30mm x 3.15 dia.) SHOULD THEN BE DRIVEN INTO THE SIDE OF THE BOTTOM PLATE AND TWO ADDITIONAL NAILS APPLIED THROUGH EACH OF THE LUGS.
 - A 75mm x 4mm Ø NAIL MUST BE APPLIED ALONGSIDE EACH FIXING ANCHOR, THROUGH THE BOTTOM PLATE INTO THE CONCRETE, AT NO LESS THAN 70mm FROM THE CONC. EDGE WHEN USING A SHEET WALL BRACING ELEMENT
 4. USE COMPAKTED 25mm SAND BLINDING UNDER DPM OR COMPAKTED CRUSHER DUST WITH NO PROTRUSIONS THAT CAN PUNCTURE THE DPM
 5. GROUND TO HAVE MIN. 300 kPa BEARING CAPACITY
 6. STEEL GRADE
 - SLAB MESH = GRADE 500E, 2.27 kg/m² TO AS/NZS 4671
 - REINFORCING BAR = GRADE 300E
 7. HARDFILL TO BE A MIN. 75mm DEEP, MAX. 600mm DEEP
 8. GROUND LEVEL CLEARANCES
 - 150mm TO PAVED GROUND
 - 225mm TO UNPAVED GROUND



ENGINEER TO CHECK GROUND PRIOR TO FOUNDATION PLACEMENT



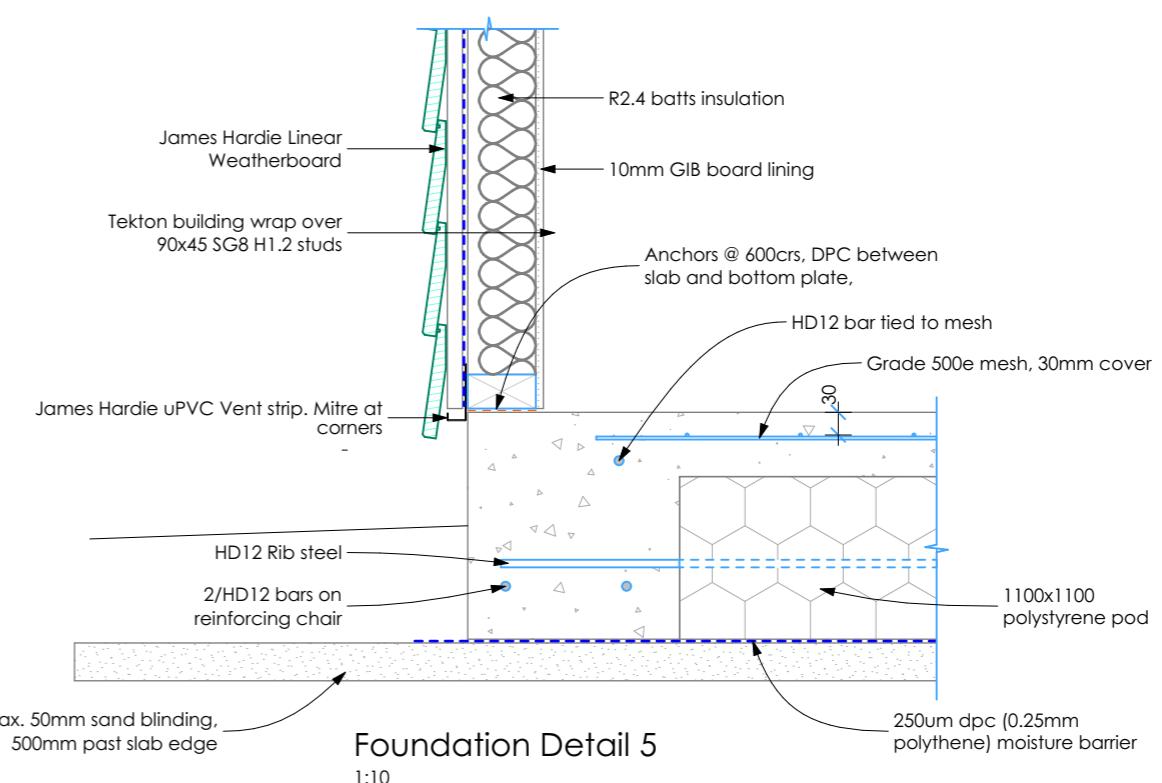
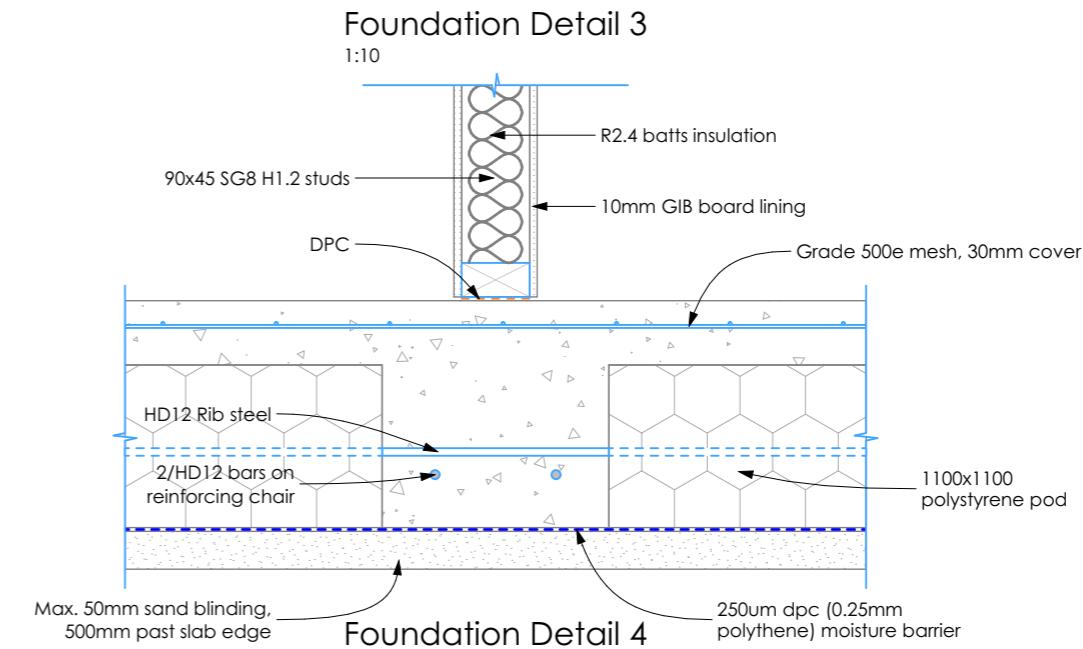
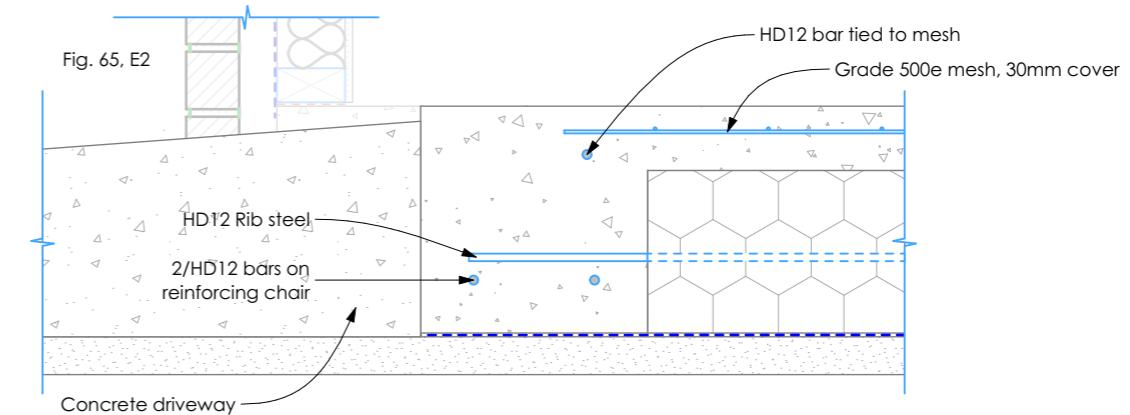
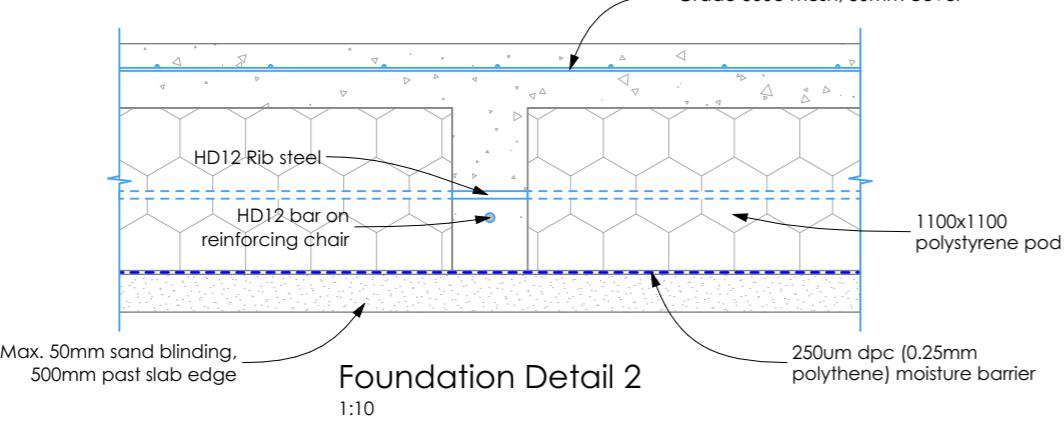
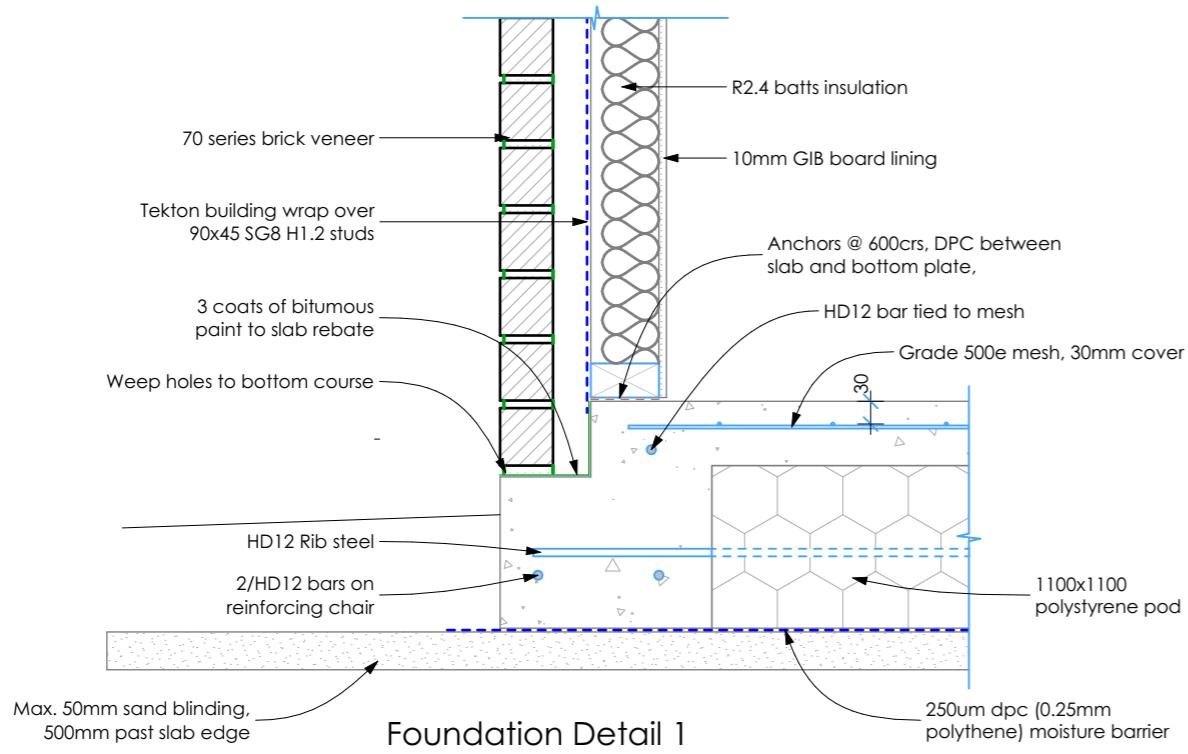
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Foundation Plan
Sheet No. 302

Job Status:	Consent Issue	Scale:	1:100	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



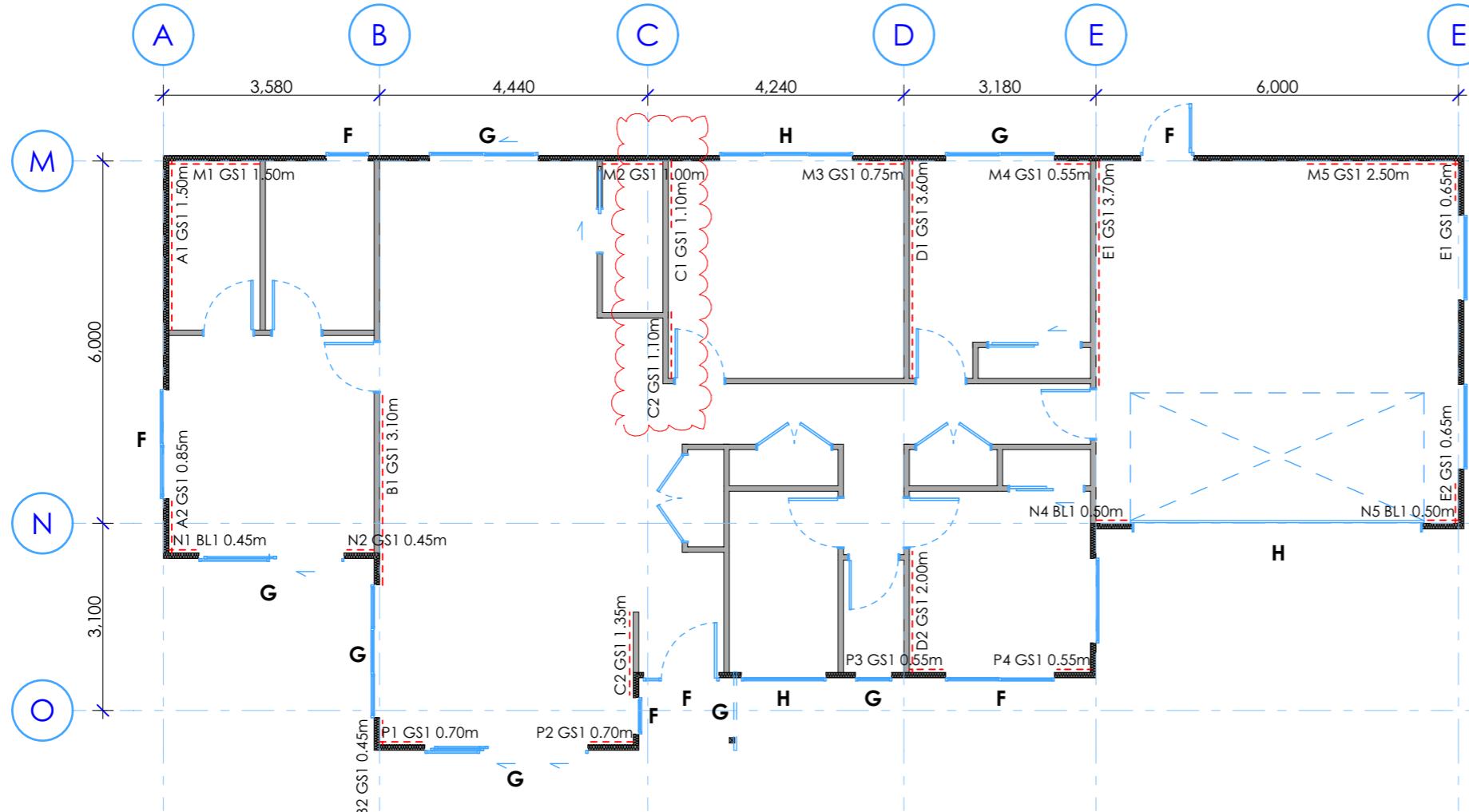
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Contractor to verify all dimensions and
levels prior to commencing any work.
Report any discrepancies to Highmark
Homes Immediately.

Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Foundation Details
Sheet No. 303

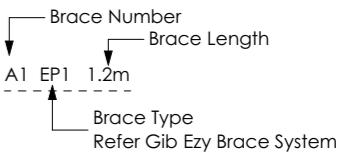
Job Status: **Consent Issue** Scale: **1:10** Site Area: **608m²**
Start Date: **11/09/2018** Drawn: **R.Scott** Earthquake Zone: **1**
Print Date: **5/02/2019** Checked: **D.Evans** Exposure Zone: **C**
Job #: **18100** Job Revision **G** Wind Zone: **Very High**



LINTEL FIXING NOTES:

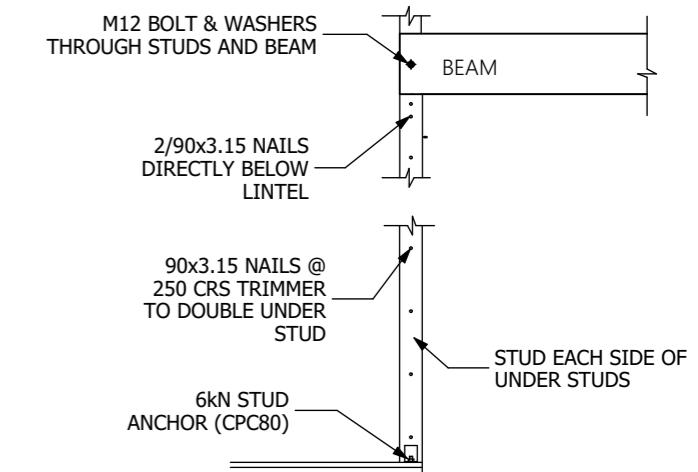
1. FIXING SCHEDULE IS ALTERNATIVE TO TABLE 8.14 NZS3604:2011
2. ALL FIXINGS DESIGNED FOR VERTICAL LOADS ONLY
3. REFER TABLE 8.19 NZS 3604:2011 FOR NAILING SCHEDULE TO RESIST HORIZONTAL LOADS
4. BOTTOM PLATE 45mm THICK
5. ALL TIMBER SELECTIONS ARE AS PER NZS 3604:2011
6. CORRECT TOP PLATE FIXINGS TO BE INSTALLED

Brace Legend

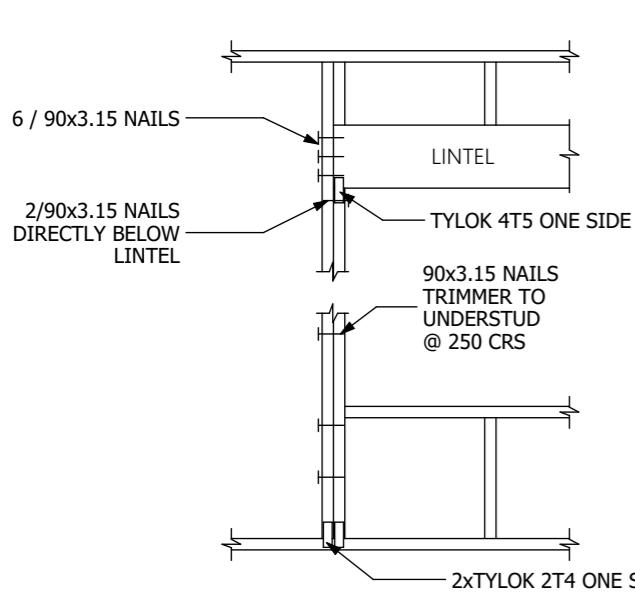


Lintel Fixing Legend

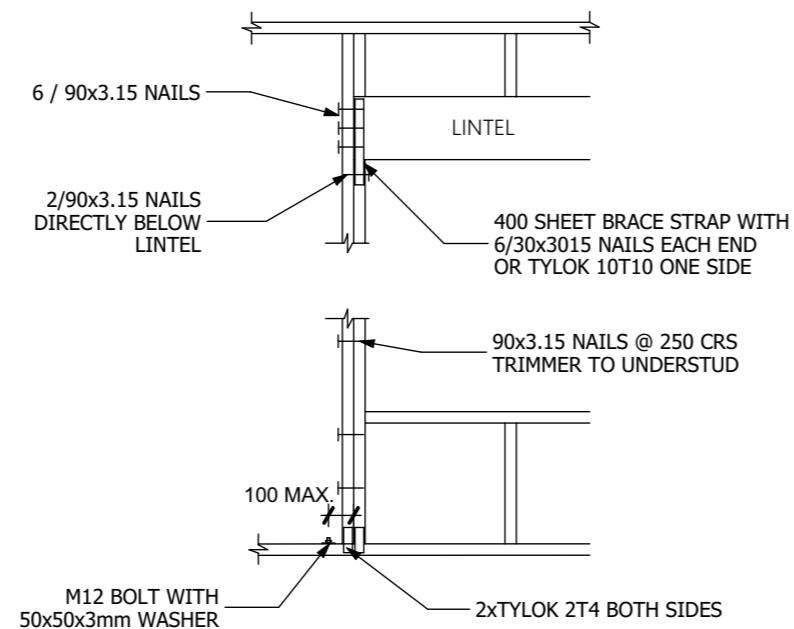
F = Mitek Type F Lintel Fixing
G = Mitek Type G Lintel Fixing
H = Mitek Type H Lintel Fixing
Refer Mitek Structural Fixings On-Site Guide For Code Compliance 2012



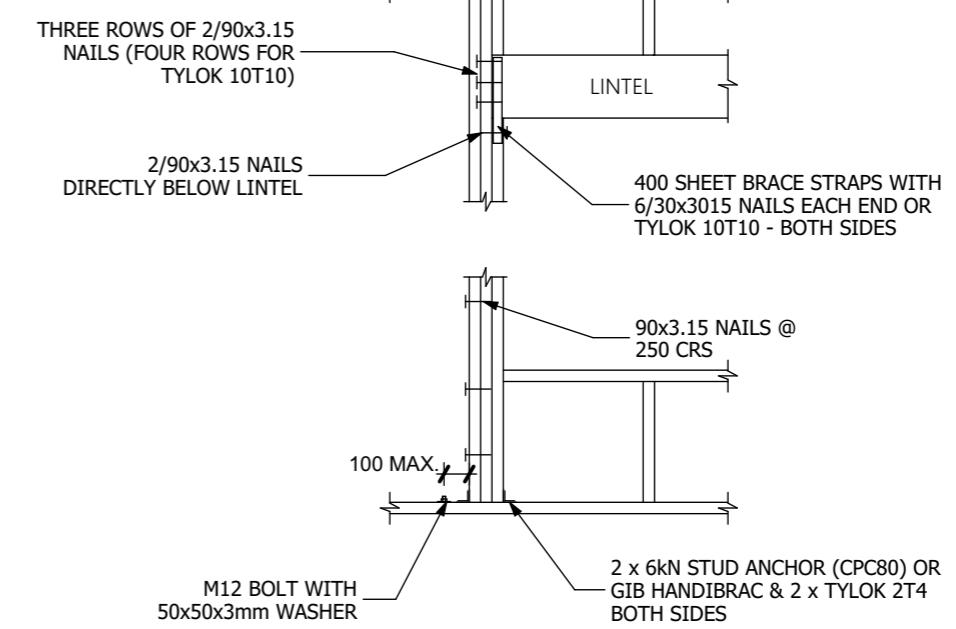
TYPE G - 8.5kN
VERANDAH BEAM / WALL FIXING



MITEK TYPE F - 4.0kN LINTEL FIXING



MITEK TYPE G - 7.5kN LINTEL FIXING



MITEK TYPE H - 13.5kN LINTEL FIXING



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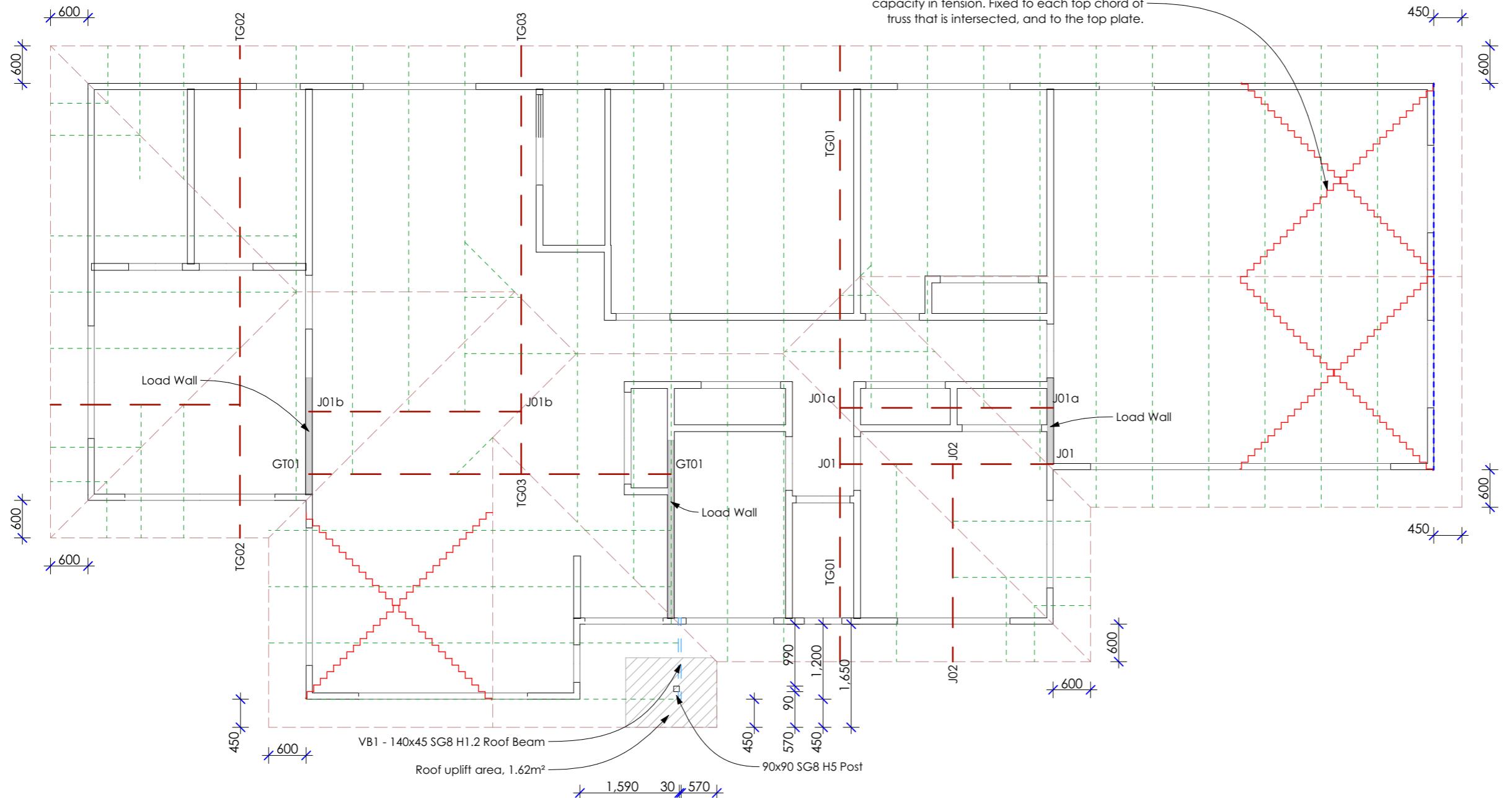
Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Bracing Plan
Sheet No.

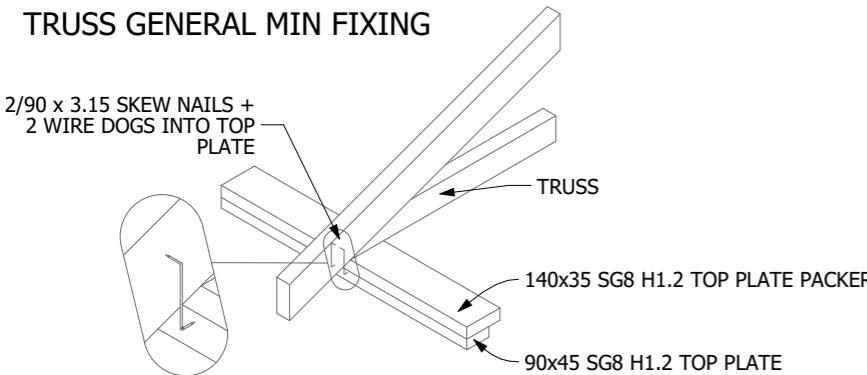
Bracing Plan
304

Job Status:	Consent Issue	Scale:	1:100	Site Area:	608m ²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High

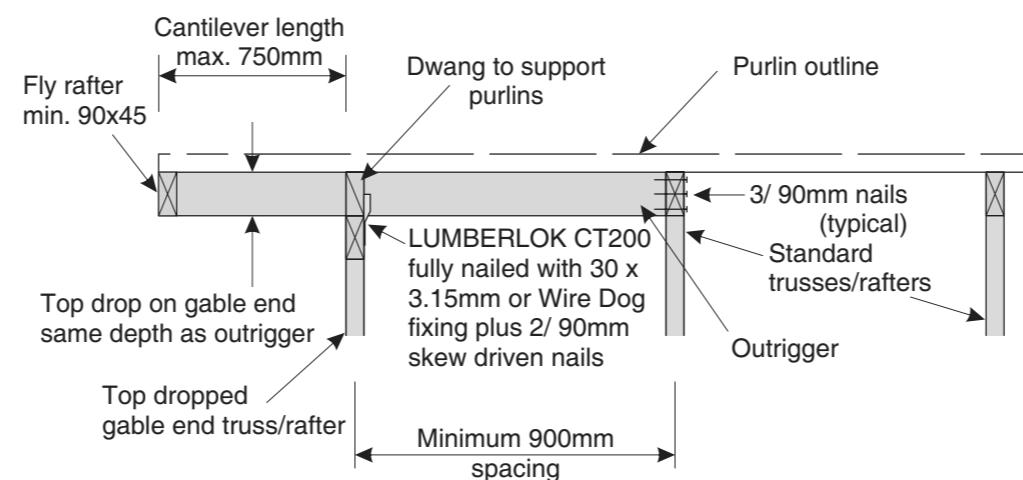
ROOF BRACING:
LIGHT ROOF = ONE BRACE PER 50m²
ROOF AREA = 208.35m² = 5 BRACES
6 HIPS & VALLEYS = 6 BRACES + 3 STRAP BRACES



TRUSS GENERAL MIN FIXING



Refer Mitek Truss Fixing Selection Report for Specific Fixings to all Trusses.



- TOP PLATE FIXING NOTES:
1. FIXING SCHEDULE IS ALTERNATIVE TO TABLE 8.18 NZS3604:2011 REFER MITEK STRUCTURAL FIXINGS ON-SITE GUIDE FOR CODE COMPLIANCE (2012)
 2. ALL FIXINGS ARE DESIGNED FOR VERTICAL LOADS ONLY. DEAD LOADS INCLUDE THE ROOF WEIGHT AND STANDARD CEILING WEIGHT OF 0.20 kPa.
 3. REFER TO TABLE 8.19. NZS 3604:2011 FOR NAILING SCHEDULE TO RESIST HORIZONTAL LOADS
 5. ALL FIXINGS ASSUME TOP PLATE THICKNESS OF 45mm
 6. WALL FRAMING ARRANGEMENTS UNDER GIRDER TRUSSES ARE NOT COVERED IN THIS SCHEDULE.
 7. ALL TIMBER SELECTIONS ARE AS PER NZS 3604:2011
 8. ALL TOP PLATE FIXINGS MITEK TYPE B

- BATTEN FIXING NOTES:
1. BATTENS: 50x40 SG6
 - MAX. SPAN 900 CRS, MAX. CRS 370
 - TYPE S FIXING TO ALL BATTENS
 - = 2/90x3.15 GUN NAILS
REFER NZS3604 (2011) TABLE 10.12

- TRUSS FIXING NOTES:
1. REFER MITEK STRUCTURAL FIXINGS ON-SITE GUIDE FOR CODE COMPLIANCE (2012)
 2. TRUSSES TO MANUFACTURERS SPECIFICATION H1.2 TREATED

- CEILING BATTEN NOTES:
1. RONDO BATTENS TO BE FIXED TO TRUSS BOTTOM CHORD WITH 2/75x3.15mm NAILS OR 70x35 SG8 H1.2 RESTRAINTS FIXED TO BOTTOM CHORD WITH 2/75x3.15mm @ 1.8m CRS

- OUTRIGGER FIXING NOTE:
1. AS PER NZS3604 (2011)
 2. 2/90x3.15 NAILS + 2 WIRE DOGS OR 4.7kN FIXING

NOTE:
Builder Must Check All Dimensions On Site Prior to Work Commencing

Truss Manufacturer To Check Measurements On Site Prior To Truss & Wall Manufacture

Confirm with Designer If Necessary



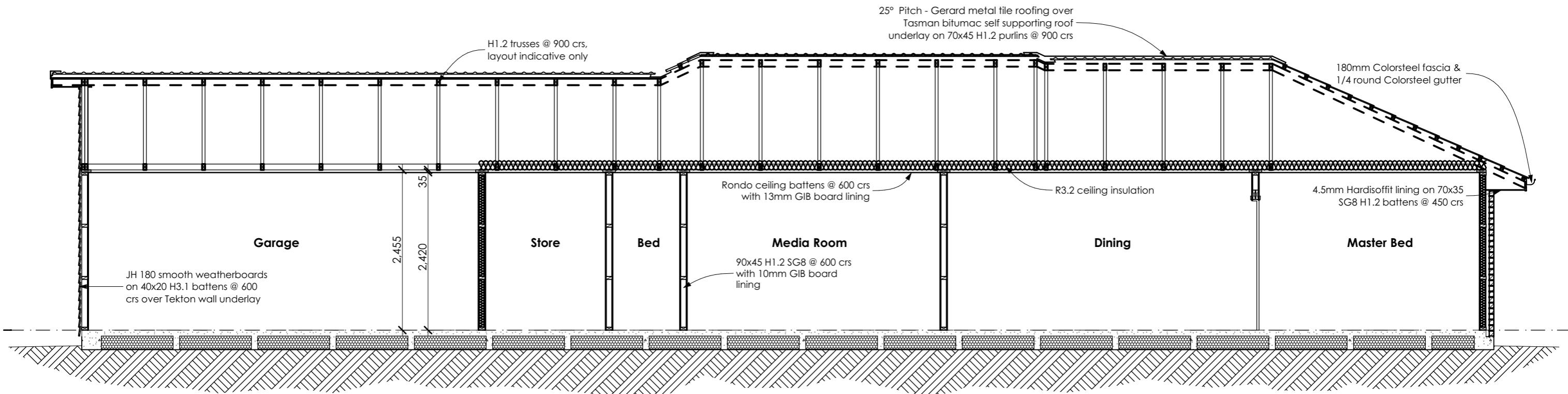
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Roof Framing Plan
Sheet No. 305

Job Status:	Consent Issue	Scale:	1:75	Site Area:	608m ²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



A

Section AA

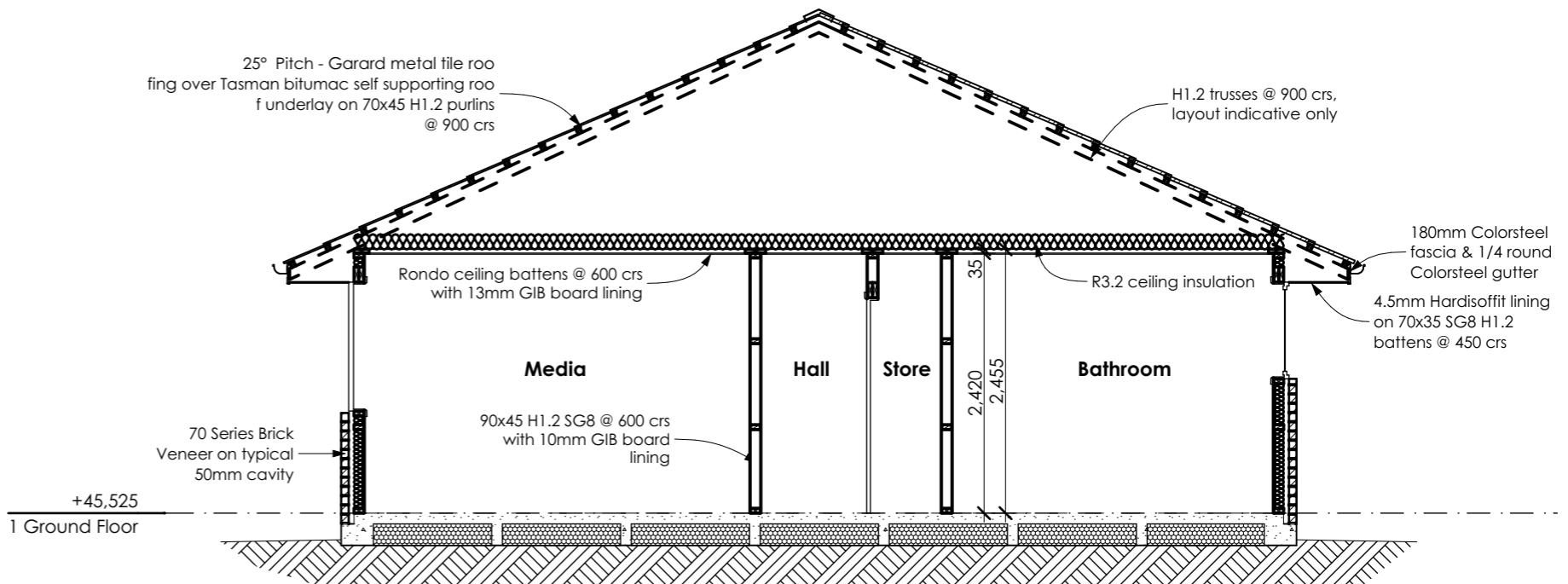
1:60

NOTES:

- EXTERNAL STUDS TO BE AS SPECIFIED ON FLOOR PLAN - H1.2 TREATED SG8
- ALL INTERNAL STUDS TO BE AS SPECIFIED ON FLOOR PLAN - H1.2 SG8
- BOTTOM PLATES - WHEN USING A SHEET WALL BRACING ELEMENT A FIXING ANCHOR MUST BE POSITIONED WITHIN 100mm FROM THE END OF THAT ELEMENT.
- NOGS TO BE AS SPECIFIED ON FLOOR PLAN H1.2 SG8 @ 800 CRS
- WHERE STUD SPACINGS ARE GREATER THAN 450mm AN INTERMEDIATE MEANS OF RESTRAINING THE BUILDING WRAP & INSULATION FROM BULGING INTO THE WALL CAVITY MUST BE PROVIDED AT 300 CRS
- MAX HOLE DIA IN 90x45 FRAMING = 25mm
MAX CHECK IN 90x45 FRAMING = 25mm
MAX HOLE DIA IN 70x45 FRAMING = 19mm
MAX CHECK IN 70x45 FRAMING = 19mm
USE MITEK PLATE OR JOIST STIFFENERS WHERE HOLES EXCEED THOSE ALLOWED (ENCLOSED SPACES ONLY) AND WHERE A HOLE IN A BOTTOM PLATE EXCEEDS 50% OF ITS WIDTH A FIXING ON EACH SIDE OF THE PLATE IS REQUIRED TO NZS 3604 (2011)

FIXINGS NOTES ZONE C:

- ALL WIRE DOG AND BOLT FIXINGS IN CLOSED AND ROOF SPACES TO BE HOT DIPPED GALVANISED STEEL
- ALL NAIL PLATE FIXINGS IN CLOSED AND ROOF SPACES TO BE CONTINUOUSLY COATED GALVANISED STEEL
- ALL OTHER STRUCTURAL FIXINGS IN CLOSED SPACES TO BE MILD STEEL (UNCOATED OR NON GALVANISED)
- ALL OTHER STRUCTURAL FIXINGS EXCEPT FABRICATED BRACKETS:
- SHELTERED - HOT DIPPED GALVANISED STEEL
- EXPOSED - TYPE 304 STAINLESS STEEL



B

Section BB

1:60



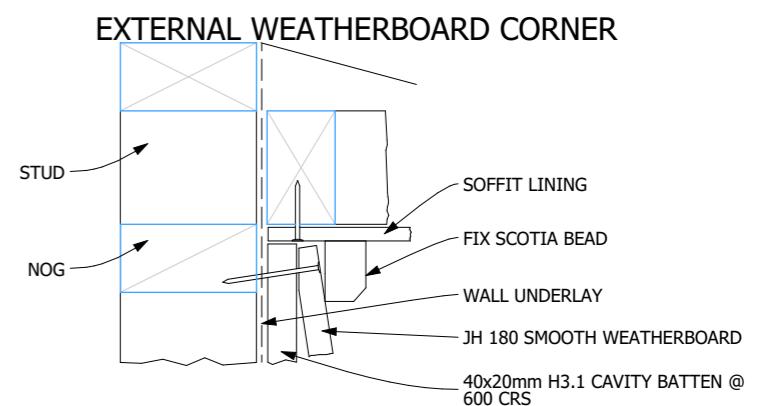
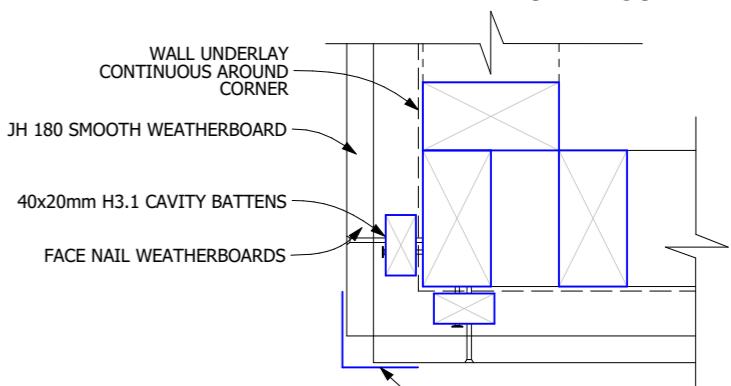
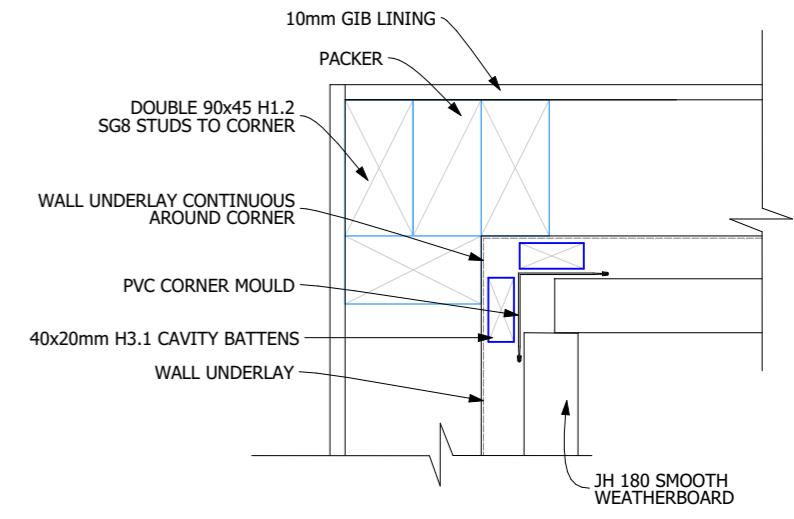
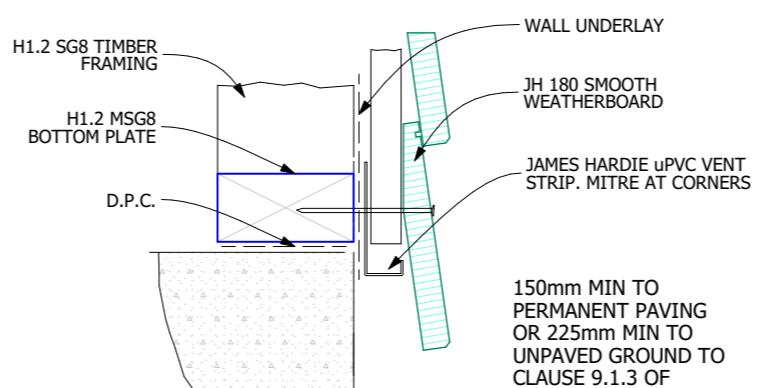
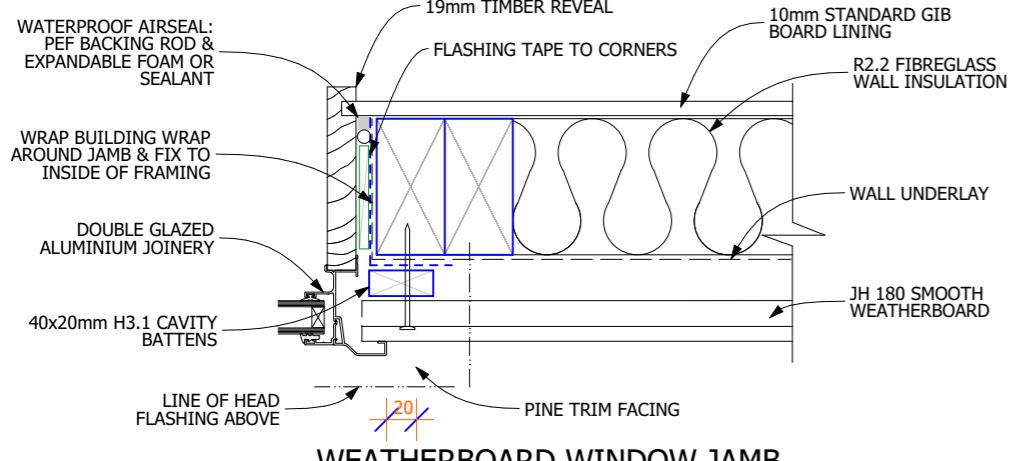
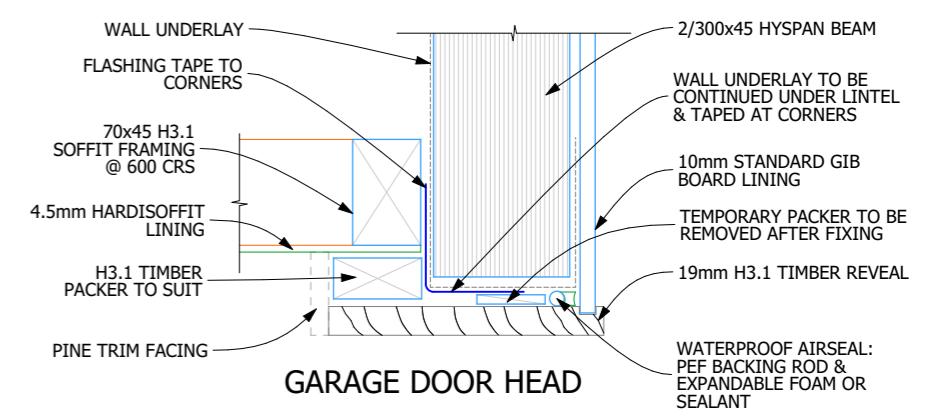
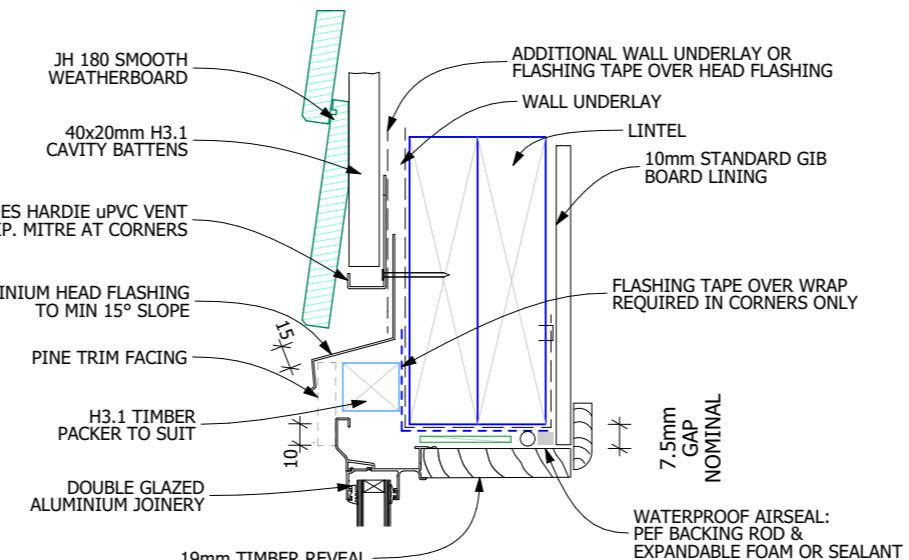
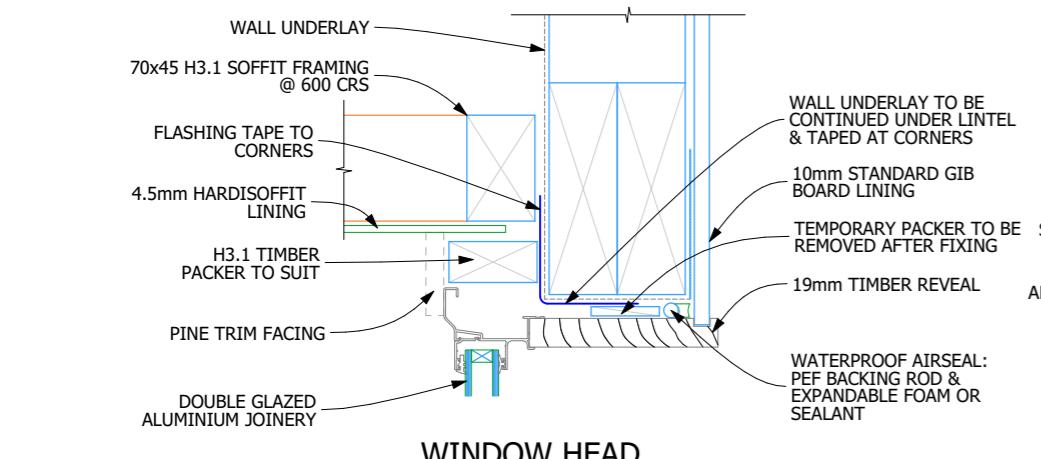
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Cross Section
306
Sheet No.

Job Status:	Consent Issue	Scale:	1:60	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



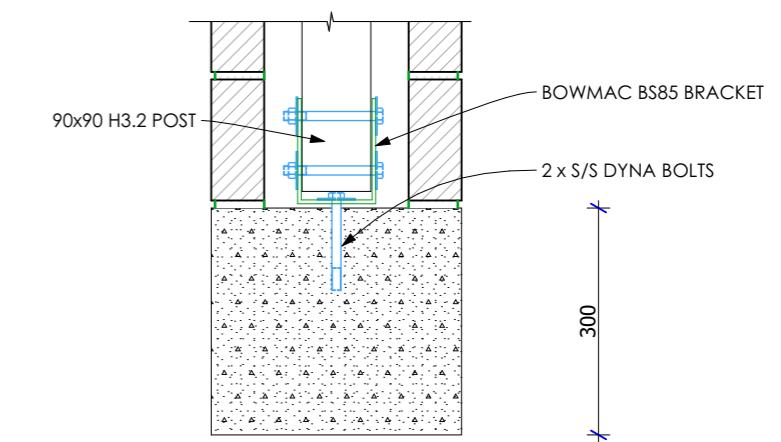
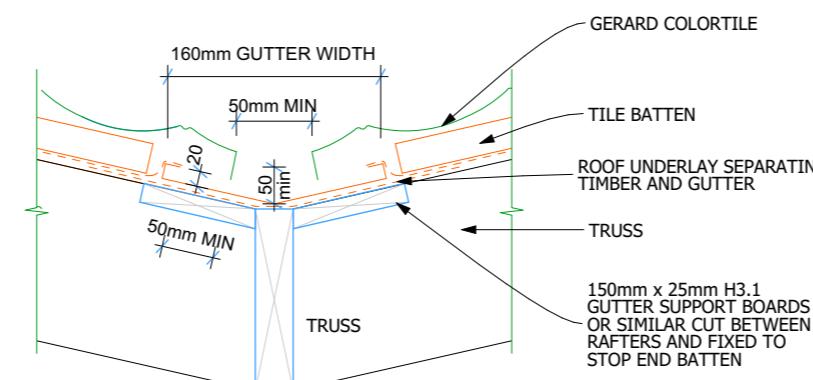
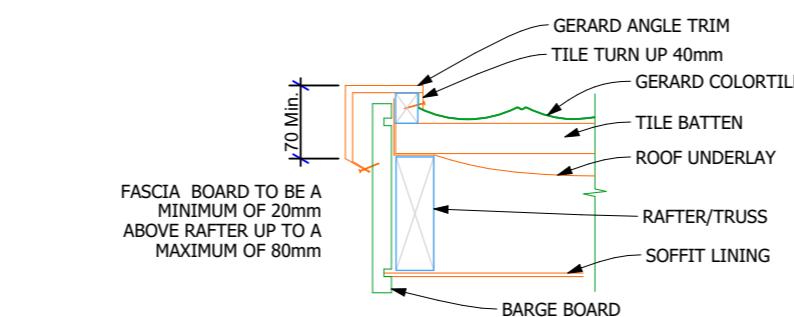
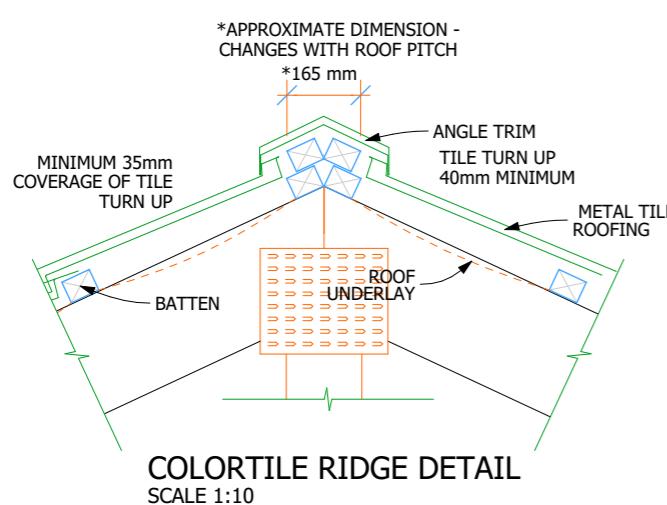
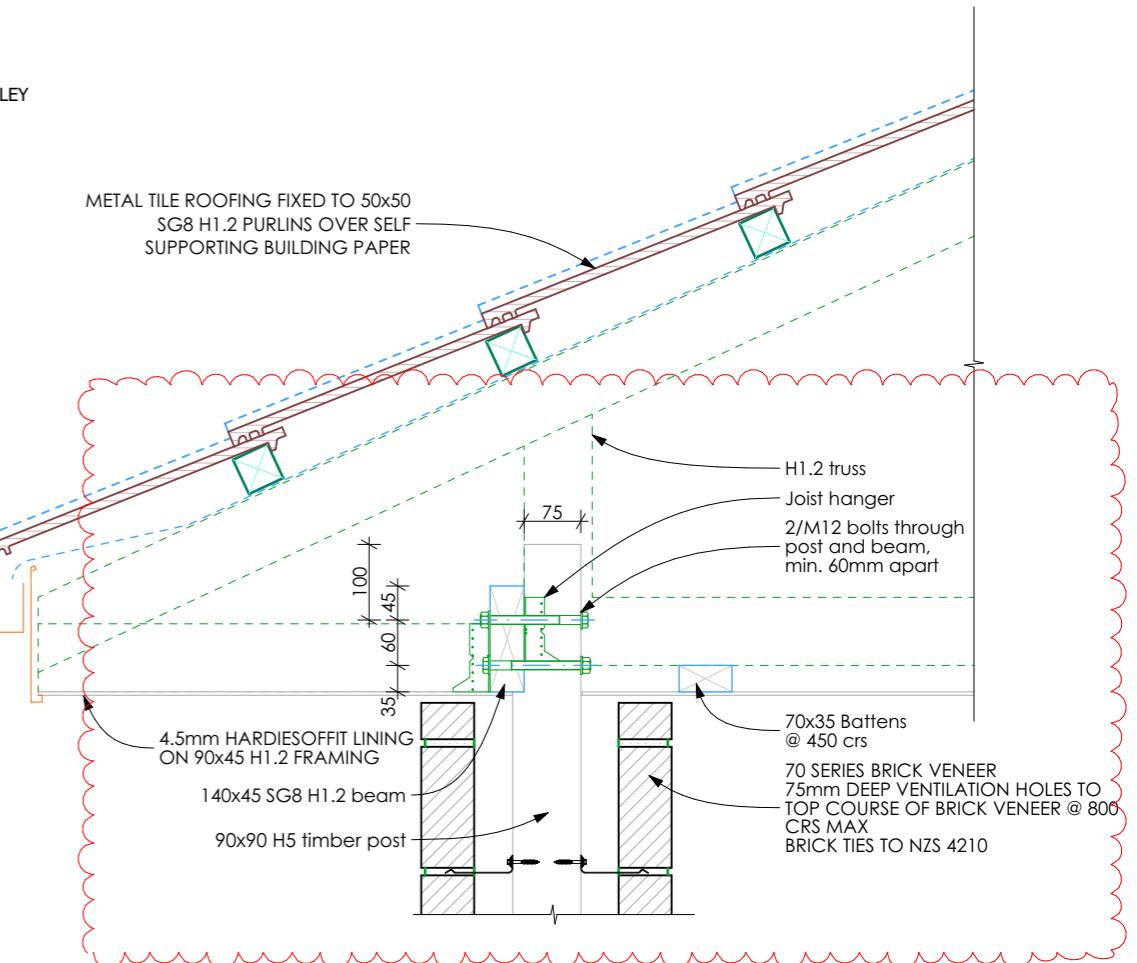
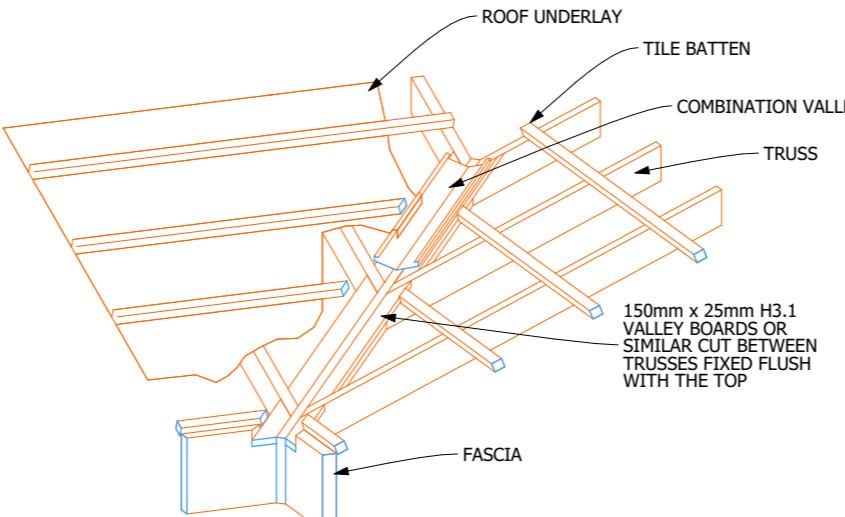
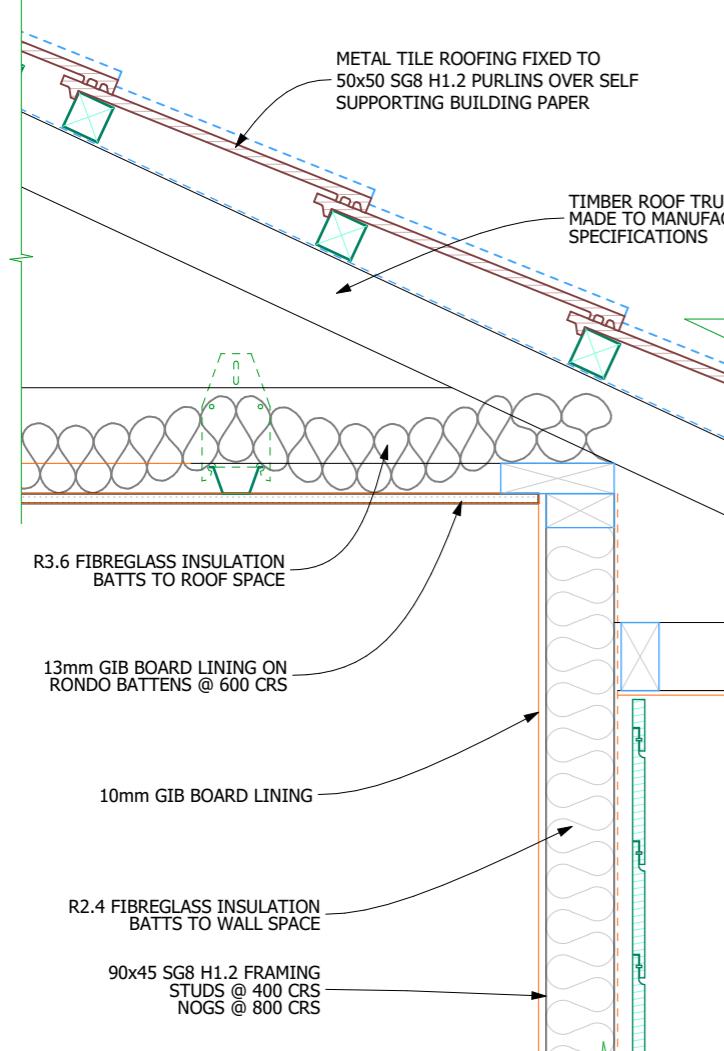
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Cladding Details
Sheet No.

Job Status:	Consent Issue	Scale:	1:5	Site Area:	608m ²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



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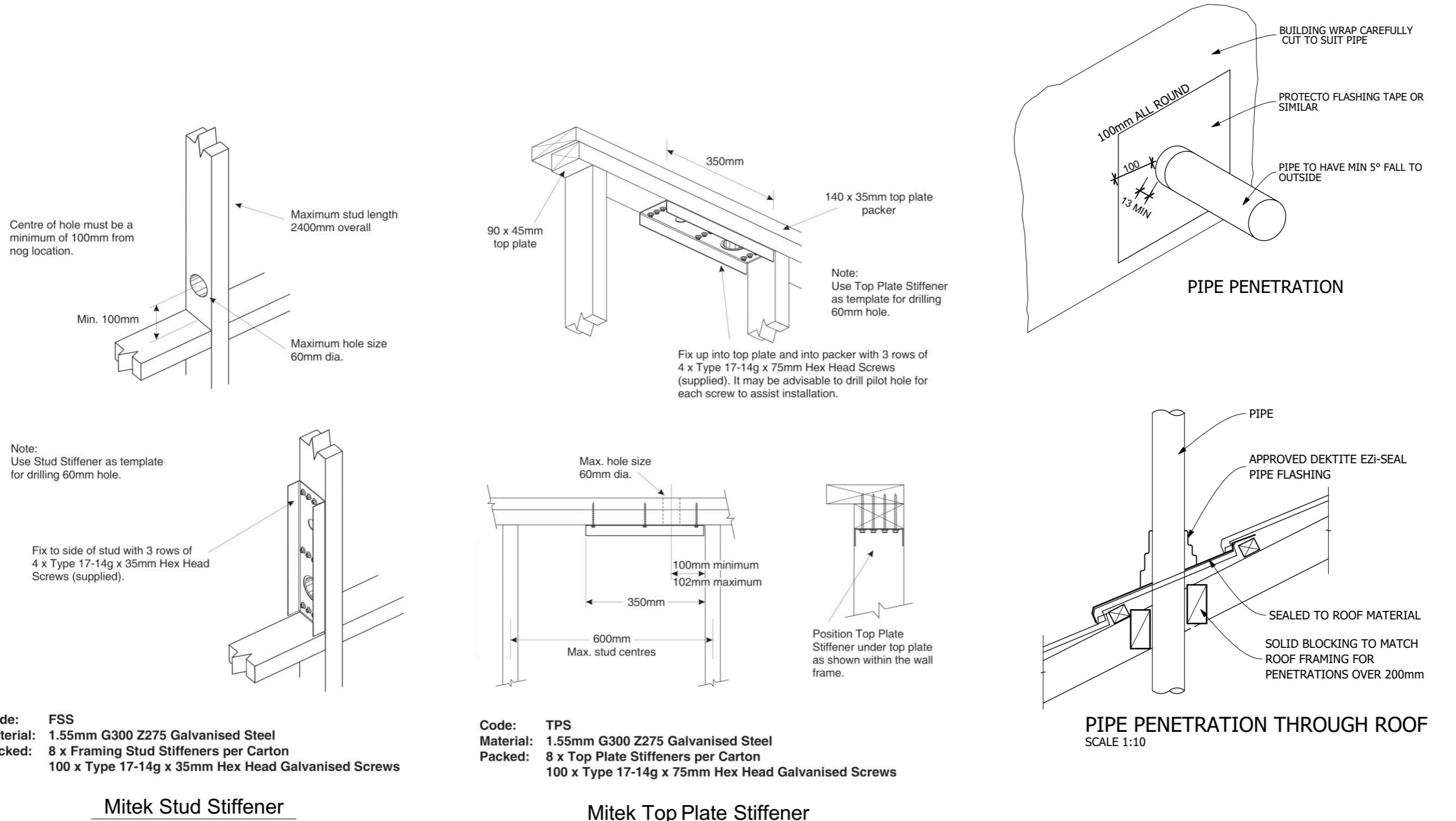
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Roof Details
Sheet No.

402

Job Status:	Consent Issue	Scale:	1:10	Site Area:	608m²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



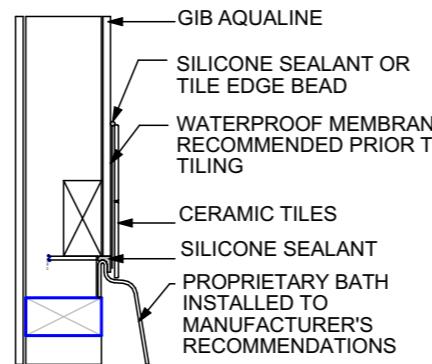
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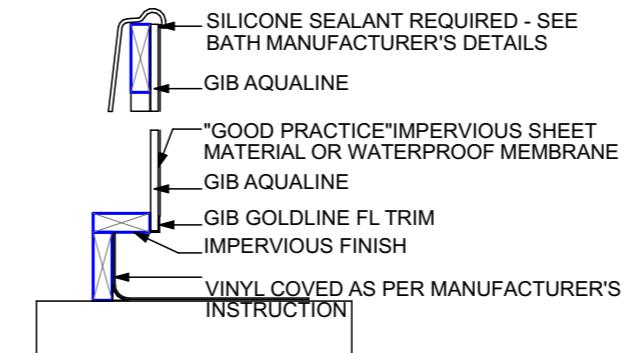
Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Penetration Details
Sheet No.

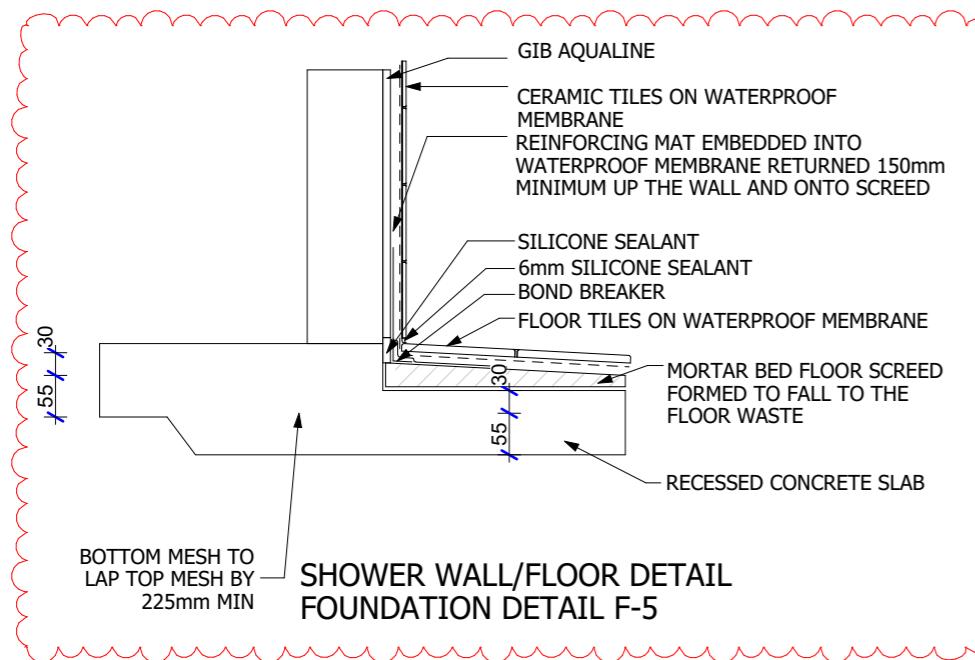
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Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



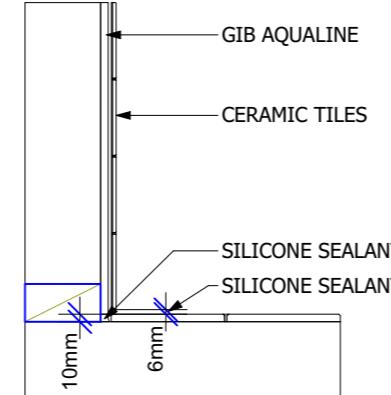
BATH/WALL DETAIL



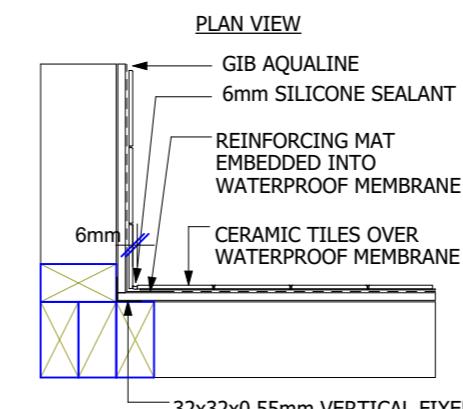
BATH PLINTH DETAIL



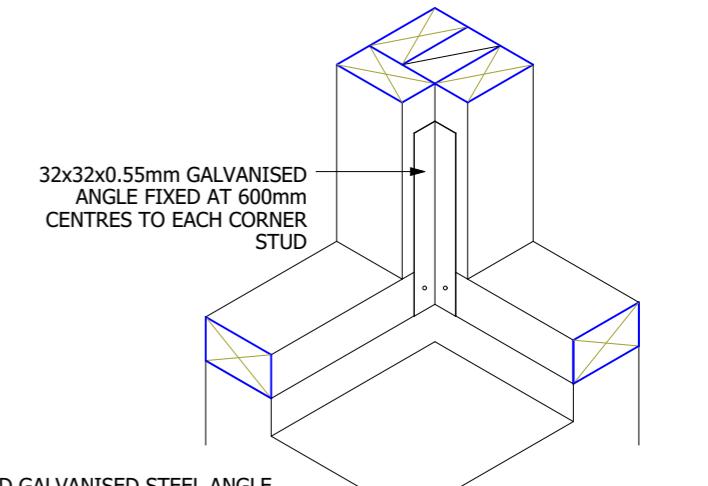
SHOWER WALL/FLOOR DETAIL
FOUNDATION DETAIL F-5



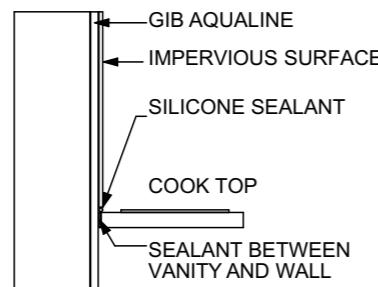
WALL/FLOOR DETAIL



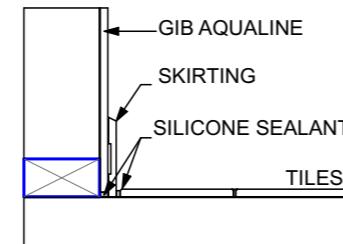
SHOWER CORNER DETAIL



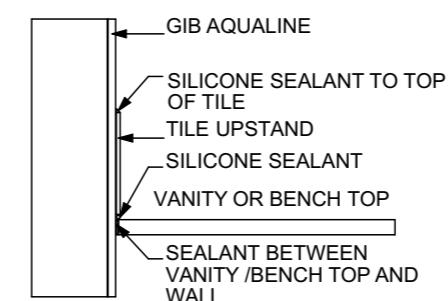
SHOWER CORNER ANGLE DETAIL



COOK TOP/WALL DETAIL



TILE WALL/FLOOR DETAIL
KITCHEN & BATHROOM



BENCH TOP/WALL DETAIL
KITCHEN & BATHROOM

BATHROOM GLAZING:
ALL GLAZING TO NZS 4223.3 (2016)

FRAMED SHOWER SCREEN AND BATH ENCLOSURES GRADE A
SAFETY GLAZING MATERIAL IN ACCORDANCE WITH TABLE 3.1

PANELS AND DOORS WITH ONE UNFRAMED EDGE
TOUGHENED SAFETY GLASS MINIMUM THICKNESS 5mm

FRAMELESS PIVOT OR HINGE DOORS TOUGHENED SAFETY
GLASS MINIMUM THICKNESS 6mm



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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Wet Area Details
Sheet No.

404

Job Status:	Consent Issue	Scale:	1:10	Site Area:
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone: 1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone: C
Job #:	18100	Job Revision	G	Wind Zone: Very High

Figure 8: Mains Pressure Storage Water Heater System (unvented)
Paragraphs 6.1.2 and 6.2.1 b)

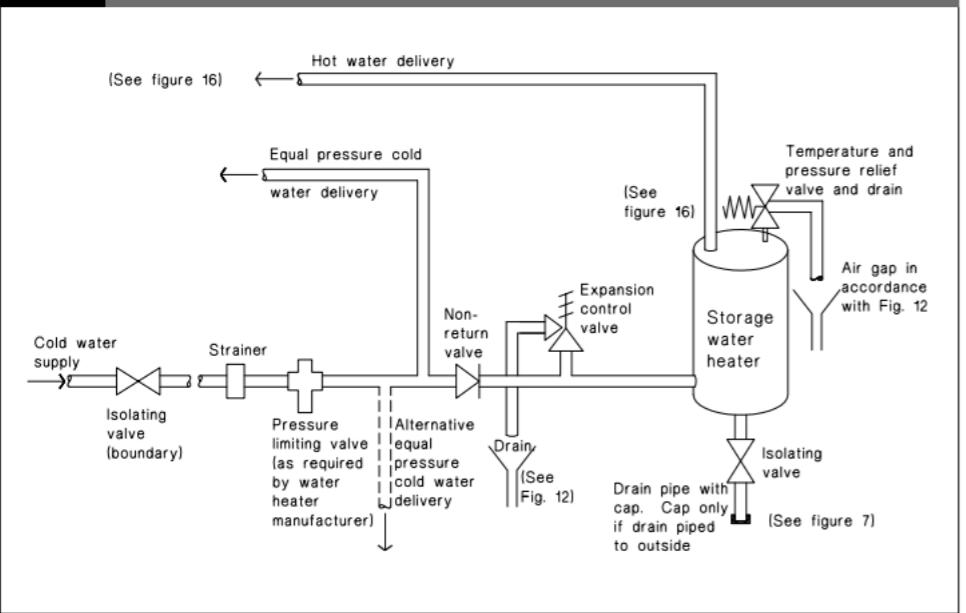


Figure 13: Relief Valve Drains – Combined
Paragraphs 6.7.1, 6.7.2 f) and 6.7.3

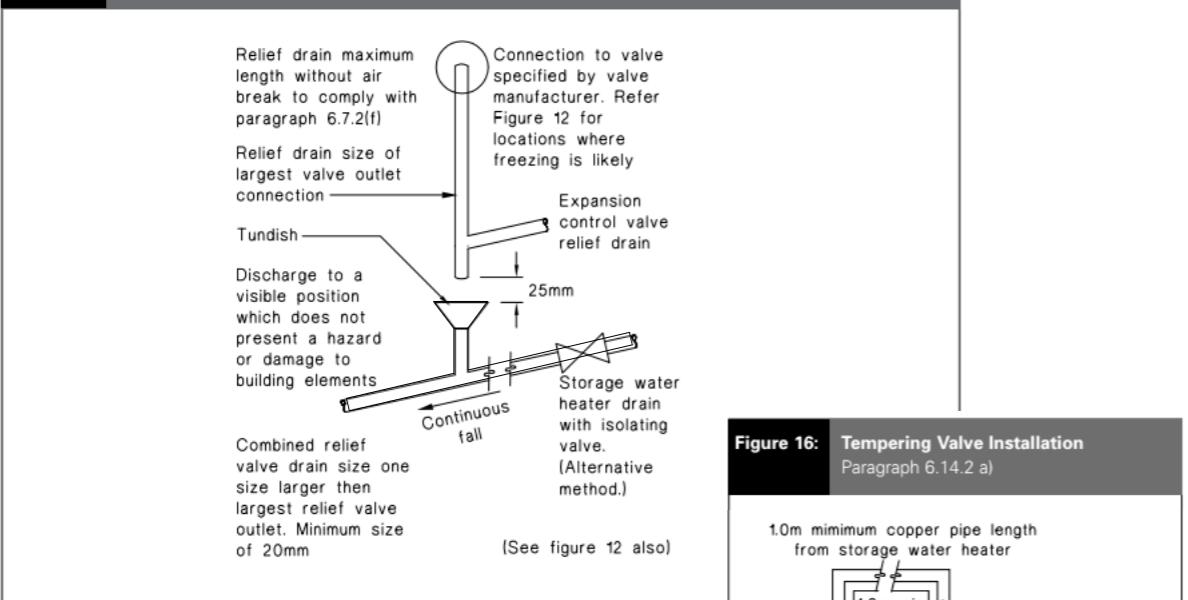
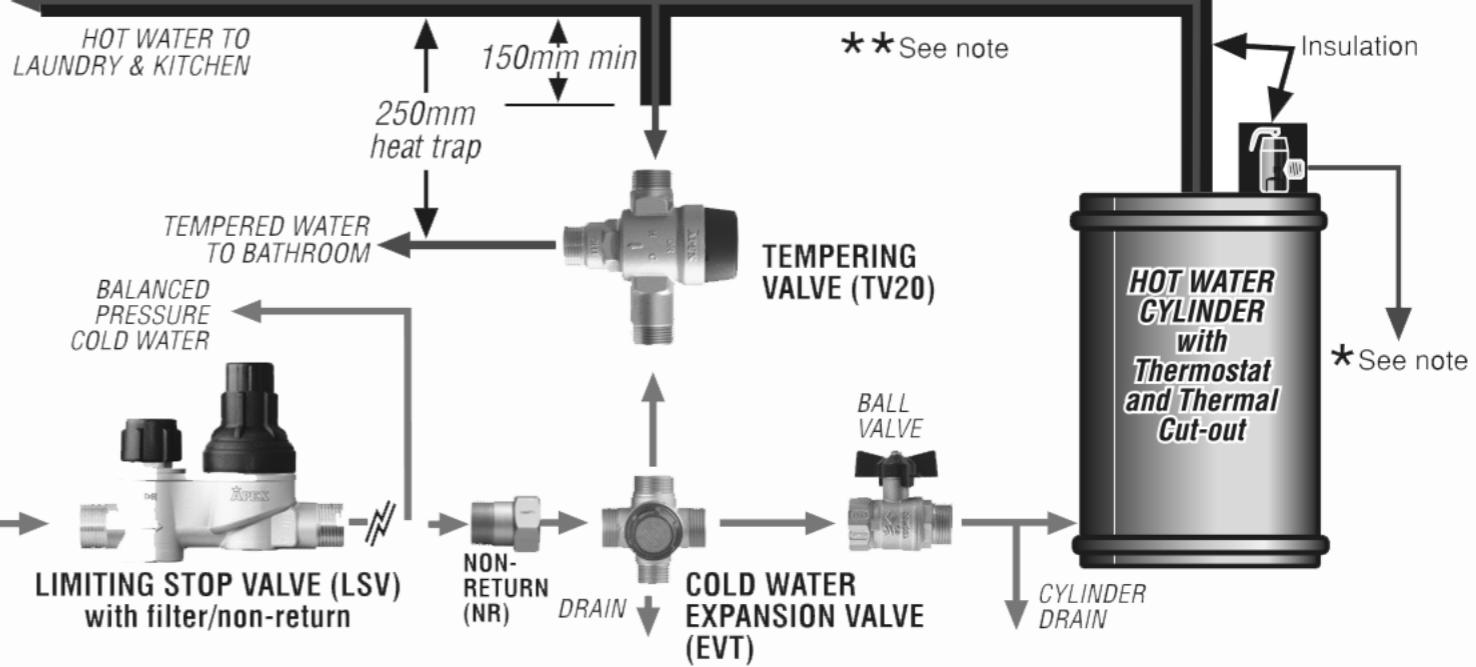
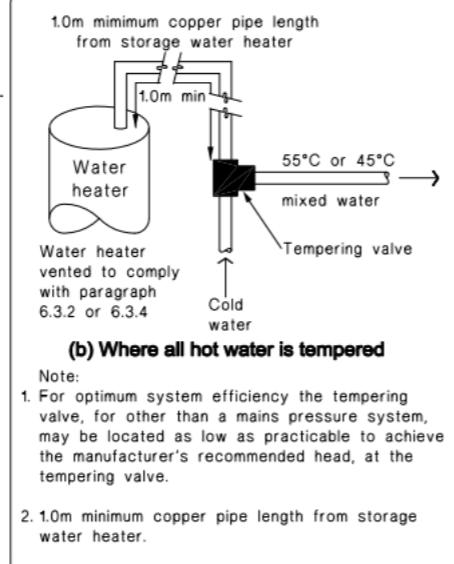


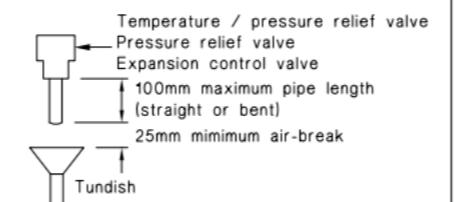
Figure 16: Tempering Valve Installation
Paragraph 6.14.2 a)



Note:

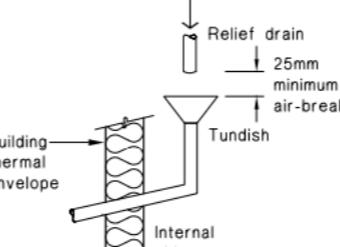
1. It is important that the relief valve is set about 70 kPa (10psi) above the pump outlet pressure.
2. The TPR valve and maximum cylinder working pressures must be greater than the relief valve setting.
3. The TPR drain is plumbed overboard. If the valve discharges the complete contents of the hot water cylinder, due to an over heating fault, the cold water tank could be damaged.
4. Drain lines must have fall and be piped in half hard copper pipe. On alloy hulls, take precautions to prevent electrolysis. If the water tank is not vented, run the drain line to waste.
5. HWC must have Safe Trays that comply with G12 (3rd Edition) amendment January 2017: sec 6.11.3

Figure 12: Relief Valve Drains – Freezing Protection
Paragraphs 6.7.1, 6.7.4 and 6.7.5



(a) Storage water heater located where freezing likely

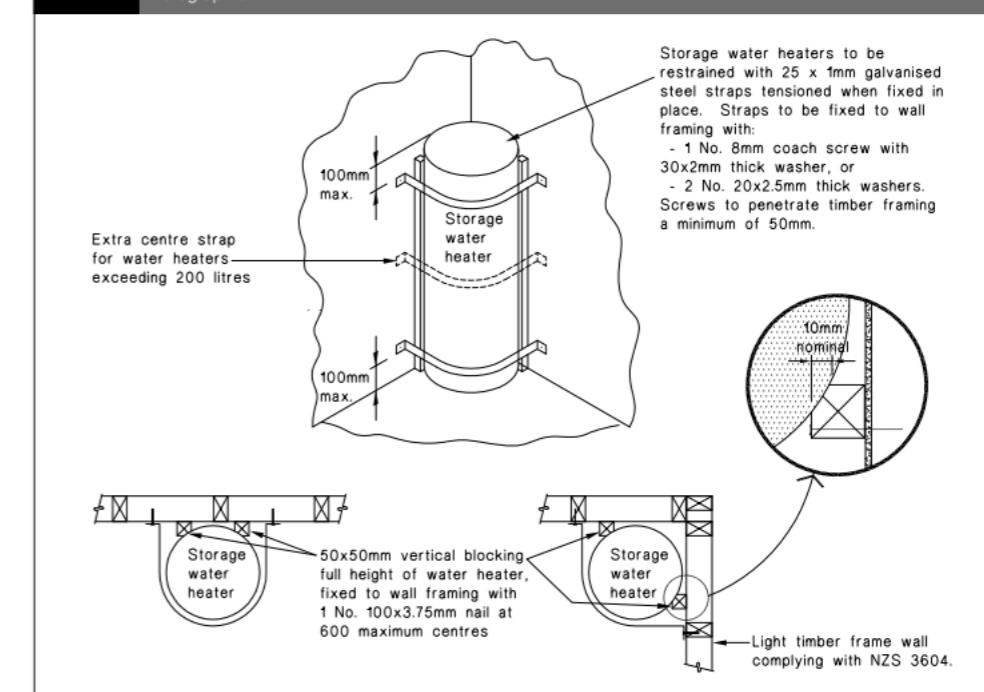
e.g. External to building thermal envelope in cold climates



(b) Relief drain located where freezing likely

e.g. Internal storage water heater with drain discharging externally
(See figure 13 also)

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



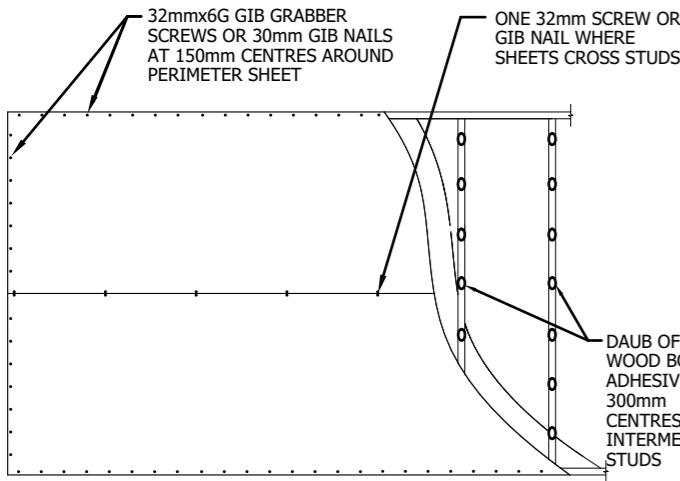
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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
HWC Details
Sheet No.
405

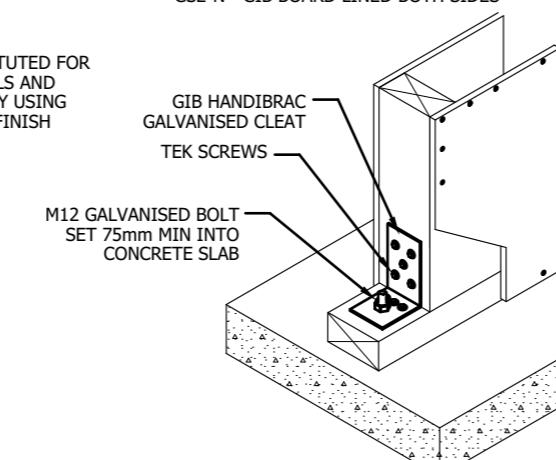
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Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



GIB HORIZONTAL FIXING

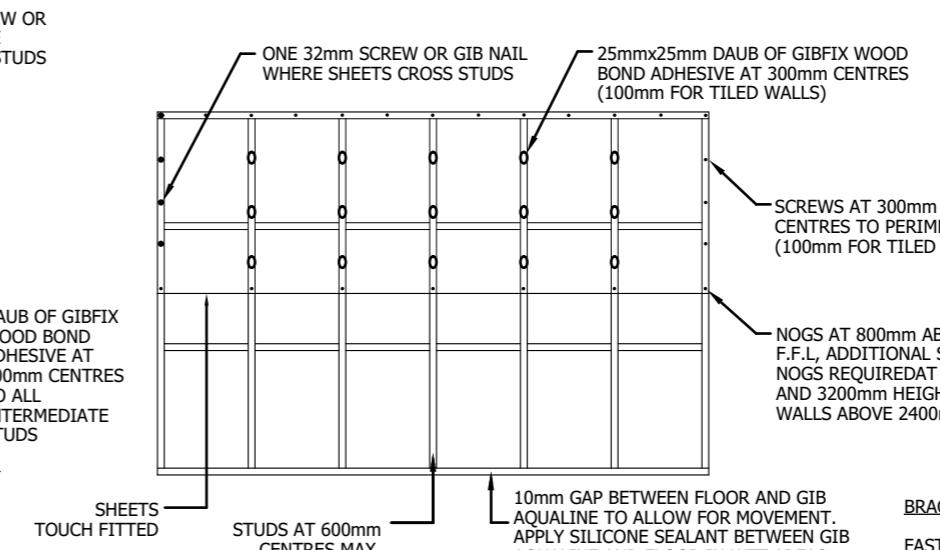
GS1-N - GIB BOARD LINED ONE SIDE ONLY
GS2-N - GIB BOARD LINED BOTH SIDES

NOTE:
GIB AQUALINE MAY BE SUBSTITUTED FOR STANDARD 10mm GIB TO WALLS AND CEILINGS IN ALL WET AREAS BY USING SEMI GLOSS OR CLOSS PAINT FINISH

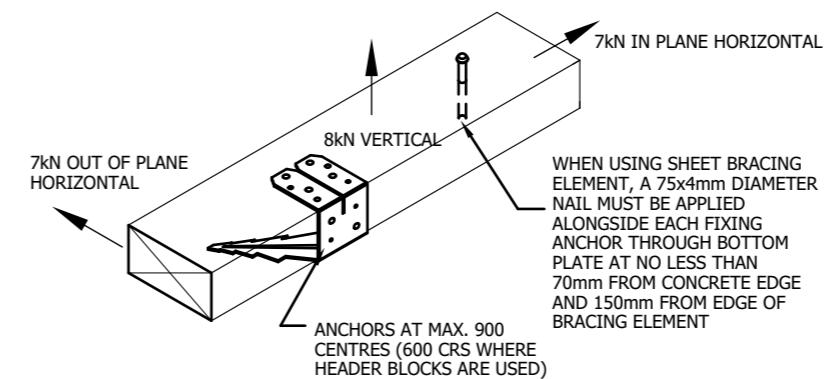


GIB VERTICAL FIXING

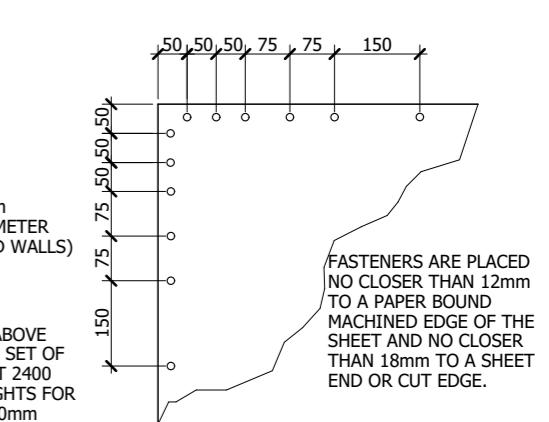
GS1-N - GIB BOARD LINED ONE SIDE ONLY
GS2-N - GIB BOARD LINED BOTH SIDES



GIB AQUALINE FIXING DETAILS - HORIZONTAL FIXING



EXTERNAL WALL, GS1-N & GS2-N BRACE CONNECTIONS



GIB BRACE CORNER FIXINGS

BRACING ELEMENT FASTENING TO CONCRETE FLOORS

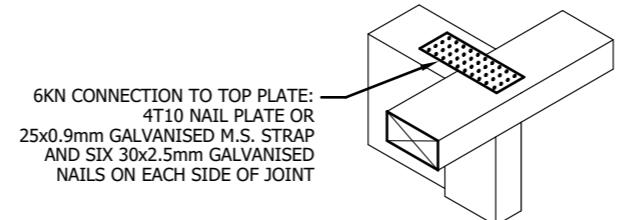
FASTENINGS OF BOTTOM PLATE OF A GIB BOARD WALL BRACING ELEMENT TO CONCRETE FLOORS MUST BE IN ACCORDANCE WITH NZS 3604 (2011)

EXTERNAL WALLS:
BL BRACED WALLS USE 6kN FIXING
EP BRACED WALLS USE HANDIBRAC FIXING
ALL EXTERNAL WALLS INCLUDING GS1-N & GS2-N BRACED WALLS USE LUMBERLOK BOTTOM PLATE FIXING ANCHORS @ 900 CRS MAX. OR 75 x 3.8mm SHOT FIRED FASTENERS FITTED WITH 16mm DISCS, SPACED AT 150mm AND 300mm FROM THE END STUDS AND THEREAFTER AT 600mm CENTRES

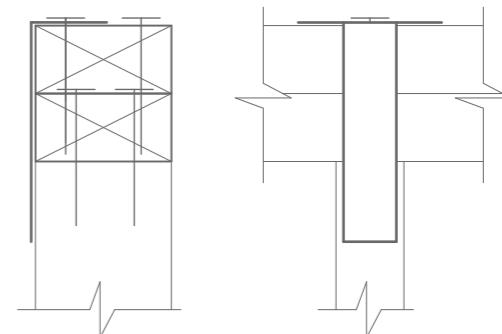
INTERNAL WALLS:
BL BRACED WALLS USE 6kN FIXING AT EACH END AND LUMBERLOK BOTTOM PLATE FIXING ANCHORS @ 900 CRS MAX. 600 CRS FOR HEADER BLOCKS
ALL INTERNAL WALLS INCLUDING GS1-N & GS2-N BRACED WALLS USE USE BOTTOM PLATE FIXING TO NZS3604 (2011) - M12 GALVANISED BOLT & 50x50x3 WASHER SET 75mm MIN INTO CONCRETE SLAB OR 75 x 3.8mm SHOT FIRED FASTENERS FITTED WITH 16mm DISCS, SPACED AT 150mm AND 300mm FROM THE END STUDS AND THEREAFTER AT 600mm CENTRES

REFER MITEK STRUCTURAL FIXINGS ON-SITE GUIDE FOR BUILDING CODE COMPLIANCE (2012) & GIB® EZYBRACE SYSTEMS (2011) GUIDE

GIB HANDIBRAC CONNECTION



TOP PLATE BRACE FIXINGS



MITEK TYPE B - 4.7kN
2/90x3.33 PLAIN STEEL WIRE
NAILS (PER PLATE)
DRIVEN VERT. INTO STUD
PLUS LUMBERLOK STUD STRAP

TOP PLATE FIXING TYPE B



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Contractor to verify all dimensions and levels prior to commencing any work. Report any discrepancies to Highmark Homes Immediately.

Project Name:
Fraher Residence

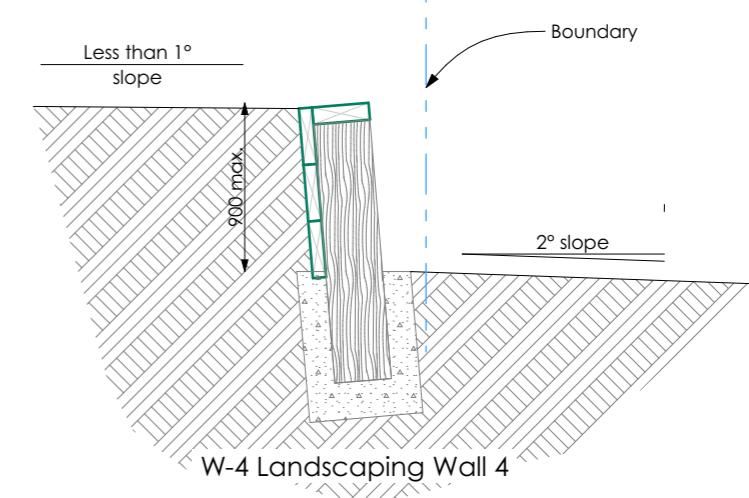
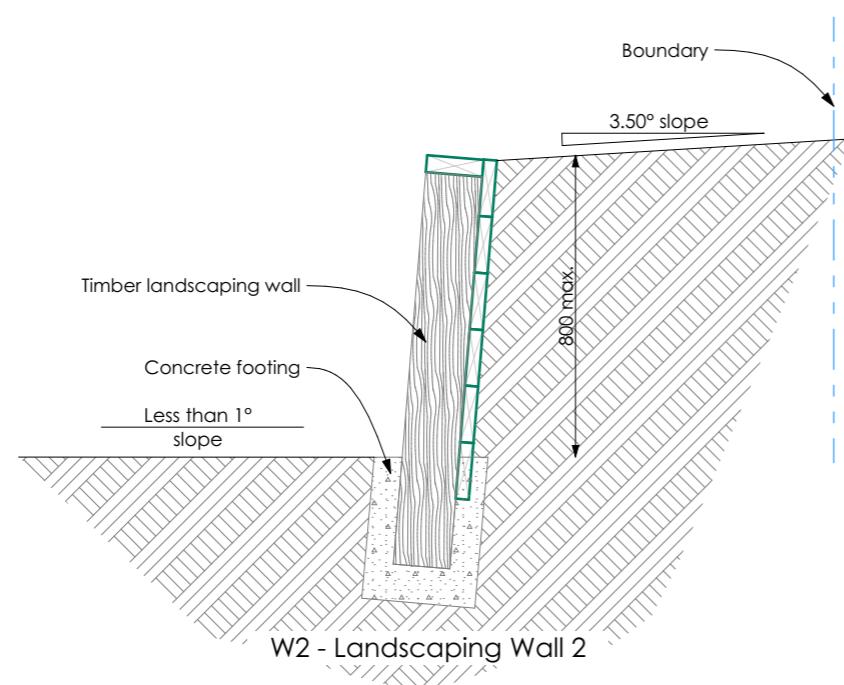
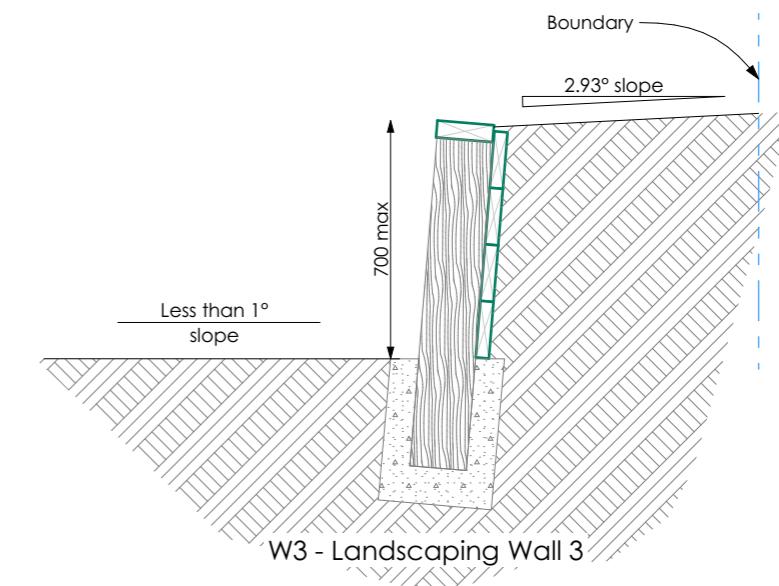
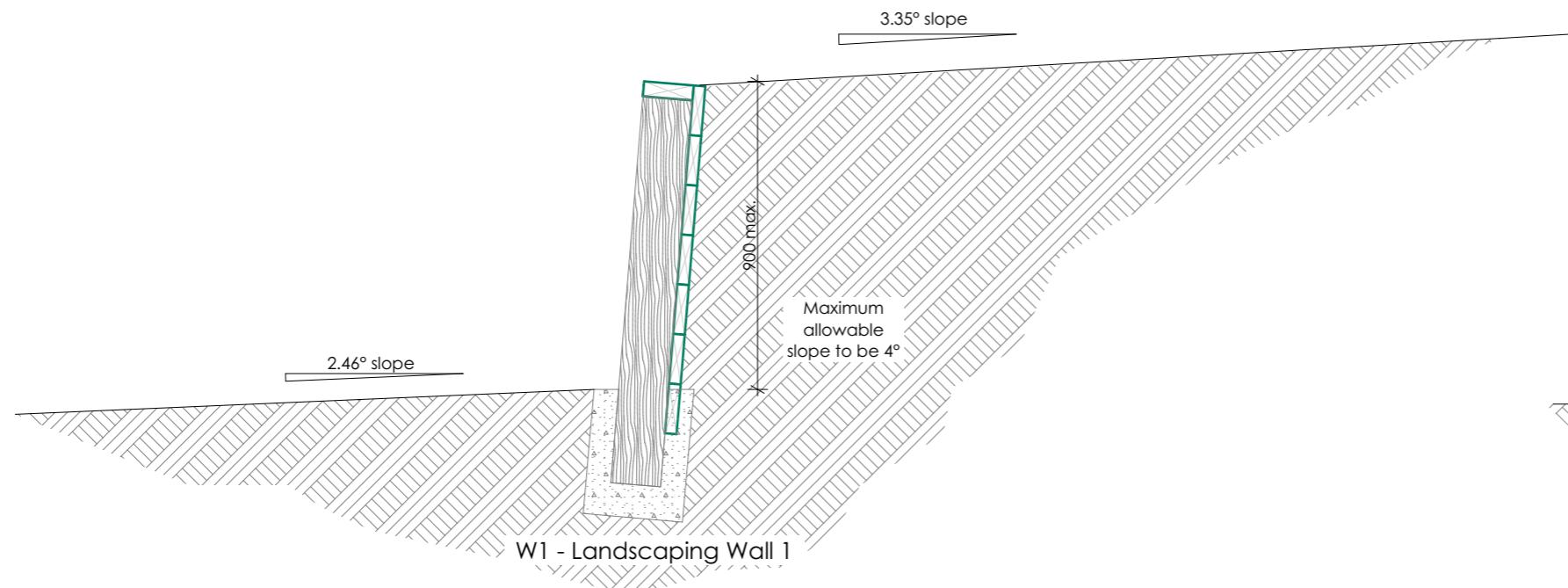
4 Kihona Rise,
Tauranga

Sheet Title:
Brace & Plate Fixing Details

Sheet No.

406

Job Status:	Consent Issue	Scale:	1:100	Site Area:
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone: 1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone: C
Job #:	18100	Job Revision	G	Wind Zone: Very High



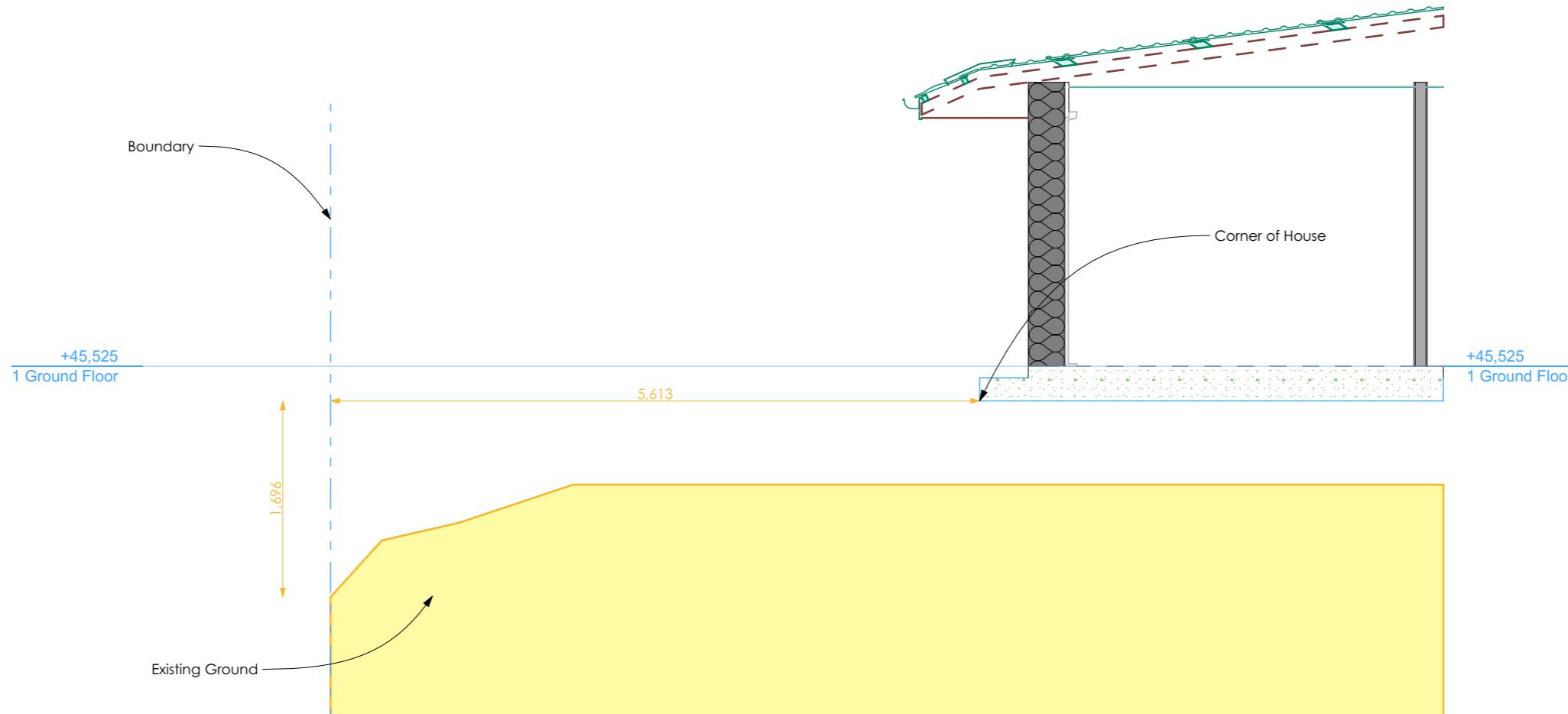
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Homes Immediately.

Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
Landscaping Walls
Sheet No. 407

Job Status:	Consent Issue	Scale:	1:20	Site Area:	608m ²
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone:	1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone:	C
Job #:	18100	Job Revision	G	Wind Zone:	Very High



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Project Name:
Fraher Residence
4 Kihona Rise,
Tauranga

Sheet Title:
A13 Section
Sheet No.
408

Job Status:	Consent Issue	Scale:	1:50	Site Area:
Start Date:	11/09/2018	Drawn:	R.Scott	Earthquake Zone: 1
Print Date:	5/02/2019	Checked:	D.Evans	Exposure Zone: C
Job #:	18100	Job Revision	G	Wind Zone: Very High