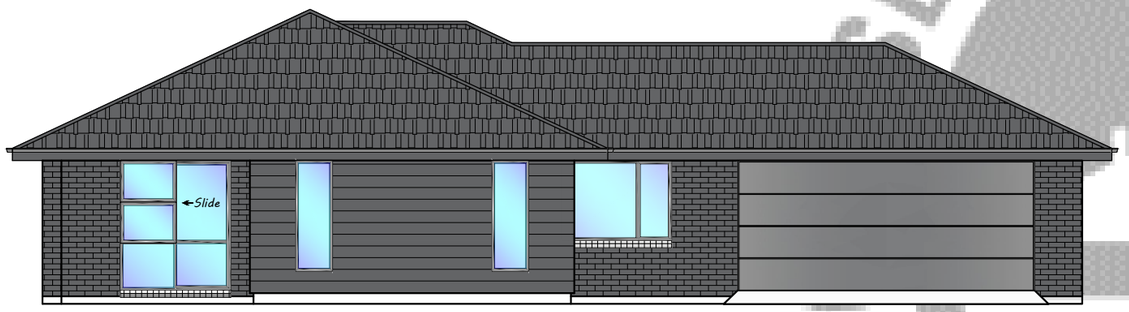
G.J. Gardner. HOMES

New Zealand's favourite home builders

Dirk Badenhorst.

Proposed Residence.

13 Pearl Grove, Ashhurst.



A3 Documentation

A01	Site plan
A02	Layout plan
A03	Dimension floor plan
A04	Elevations
A05	Drainage plan
A06	Foundation plan
A07	Foundation setout
A08	Bracing plan
A09	Framing plan
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A11	Fire safety, thermal, lighting& ventilation plan
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A14	Construction details
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A16	Metal tile details
A17	James Hardie Linea details
A18	James Hardie Linea details 2
A19	James Hardie Linea details 3
A20	James Hardie Linea details 4
A21	James Hardie Linea details 5
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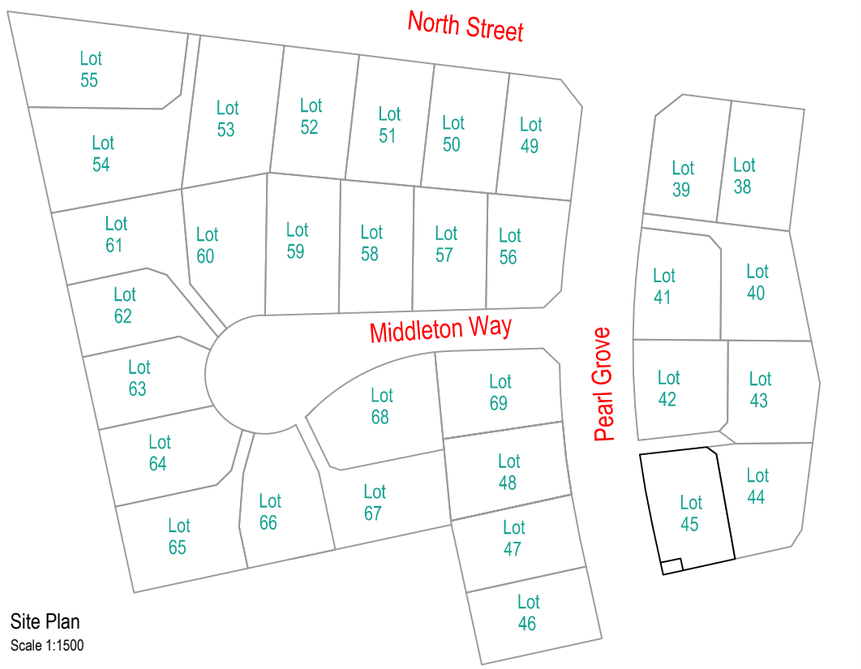
A24	Brick veneer details 3
A25	Brick veneer details 4
A26	Wet area details
A27	Bath details
A28	HWC details
S01	Truss layout
S02	Truss fixing plan

Drawing Enquiries Contact:

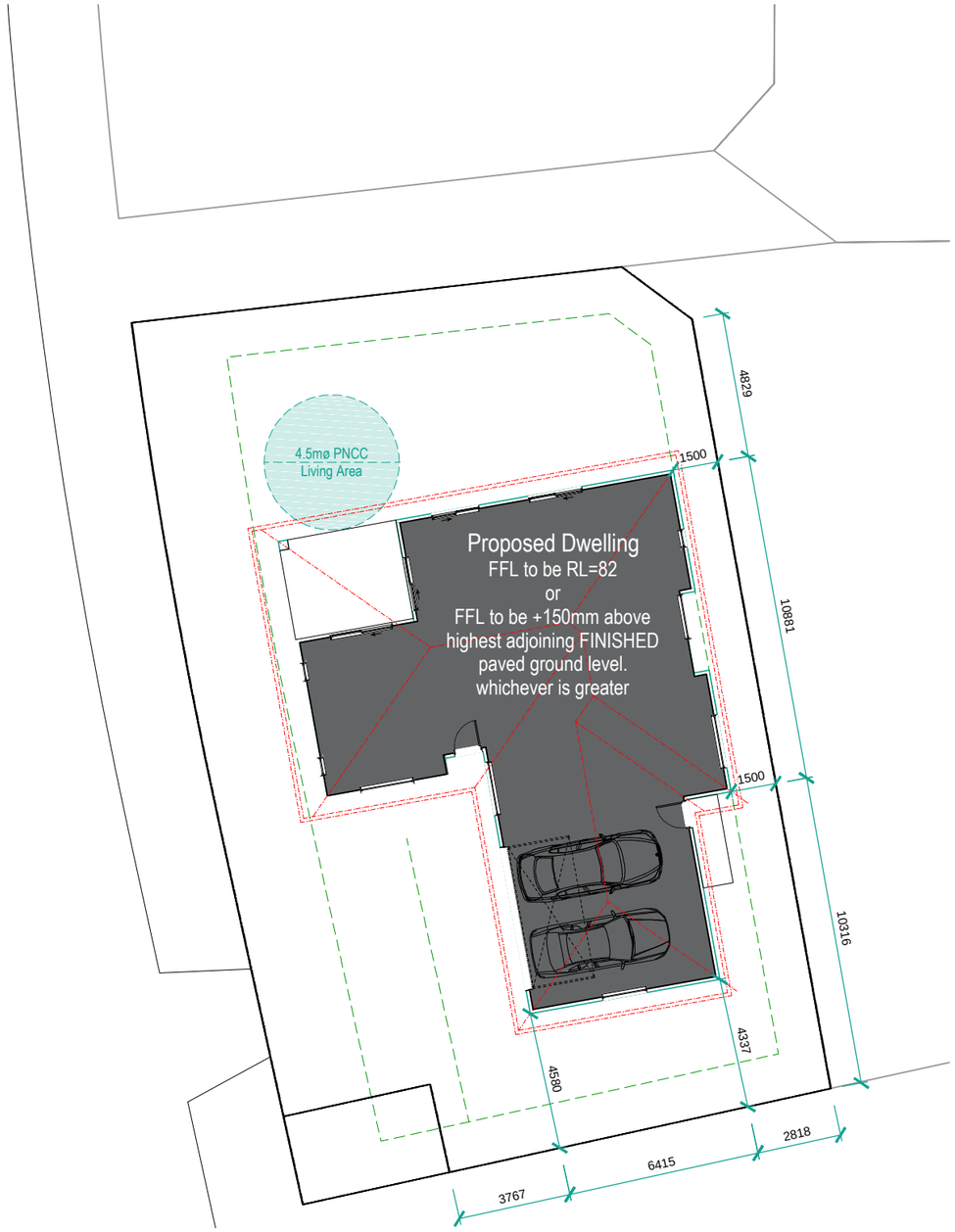
Jonathan Barlow
Architectural Designer

T: 06 359 2844
F: 06 354 5085
E: Jonathan@plans.co.nz



Site Plan
Scale 1:1500

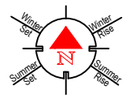
Pearl Grove



Site Plan
Scale 1:200

Notes:

North point.



Legal Description.

Lot:	45
DP:	524726

Address.
13 Pearl Grove, Ashhurst.

Site area calculations.

Site area:	531m²
Nett site area:	531m²
Allowable coverage:	37.665 %
Allowable coverage:	200.00 m²
Subject building existing footprint:	0.00 m²
Existing accessory building area:	0.00 m²
Proposed coverage over foundation:	157.00 m²
Soffit area over DP allowance:	12.40 m²
Total coverage:	31.90 %
Total coverage:	169.40 m²

All dimensions have been taken from the foundation line to the boundary line at right angles unless stated otherwise.

Where shown, adjacent properties and boundaries are shown for illustrative purpose only. Before work commences builder to locate all boundary pegs, check all boundary lengths and building set back distances with the plans. If an inconsistency is found or pegs cannot be located a licensed cadastral surveyor should re-peg the site to ensure an accurate set out.

During construction of this project the builder in charge of the site shall carry out a site hazard evaluation. If at any stage a specific hazard to the public presents itself, builder shall ensure safety to the public by erecting site fences to prevent public access, in keeping with section F5 of the New Zealand Building Code, safety of life and property must be strictly observed.

Dwelling finished floor level:
(to comply with E1/AS1)
Finished slab floor level shall be:
- For sites at same level or above the road, set floor level at min. 150mm above the crown of the road.
- For sites below the road set floor level at no less than 150mm above the lowest point on the site boundary.

Maximum driveway gradient to be:
1 in 4 (25% or 14.04°).
Maximum gradient of transition zones across property line or into buildings:
1 in 20. (5% or 2.86°).

Issue: **Consent**

ONLY PLANS WITH COUNCIL CONSENT STAMP MAY BE USED FOR CONSTRUCTION OR PREFABRICATION

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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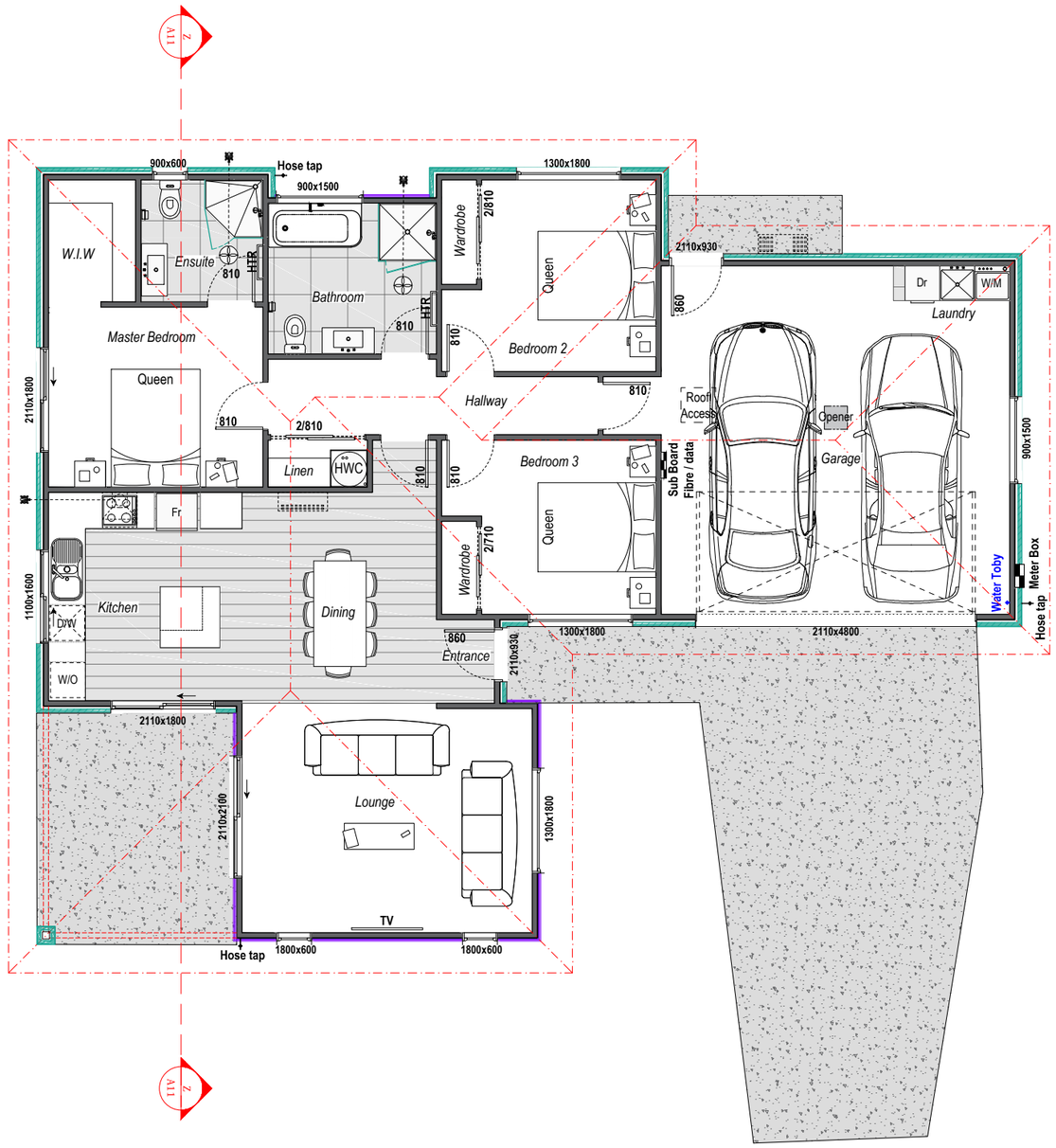
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Site plan

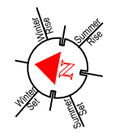
GENERATED: 07 / 03 / 2019 12:33:18 pm
SCALES: A3 A/S A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A01
LOT: 45 DP: 524726

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Proposed Floor Plan
Scale 1:100
New Floor Area = 150m²

Notes:

Elevation Key.	North point.
	

Areas.	
Existing area:	0.00 m²
Proposed area (over frame):	150.00 m²
Proposed area (over foundation):	157.00 m²
Additional coverage area:	12.40 m²
Site conditions:	
Wind zone:	High
Earthquake zone:	3
Corrosion zone:	B
Snow loading:	N1
Site elevation:	< 400m

Building wrap to all exterior walls: Marshall Tekton (or competitor's equivalent), openings to be trimmed with Marshall Protecto Tape flashing tape (or competitor's equivalent), refer details for further information.

All walls lined internally with 10mm Gib board,stopped to a F4 paint quality finish:
Gib Standard to non wet areas.
Gib Aqualine to wet areas.
Gib Braceline as per bracing plan.
(exceptions - garage to be lined with 9mm Strandboard.)

Prenail manufacturer to allow for double studs on either side of doors, where practical, to accommodate 65mm architraves.

Any window size on this plan is unit size NOT the trim size and is in the format of: HEIGHT x WIDTH.
All door sizes on this plan are Door leaf sizes: opening size = Door leaf size + 58mm

Bathroom shower:	Acrylic
Ensuite shower:	Acrylic

Both with glass screens in accordance with NZS 4223. Floor linings to all wet areas to be tile unless otherwise stated.

Access routes:

Any intended access way to the building to be constructed of either profiled timber decking with the profile laid perpendicular to the access, or concrete with a broom finish (Class 5 -6) or wood float finish (Class U2). Alternatively, any other material with a tested wet slip co-efficient of not less than 0.4 when tested against D1/AS1 NZBC.

Legend:

Roof Access	Indicates roof space access hatch, 600x600mm min.
	Floor finished in 100% impervious type vinyl plank flooring.
	Floor finished in ceramic tiles.
	Indicates extractor fan vented to soffit or exterior.

Issue: **Consent**

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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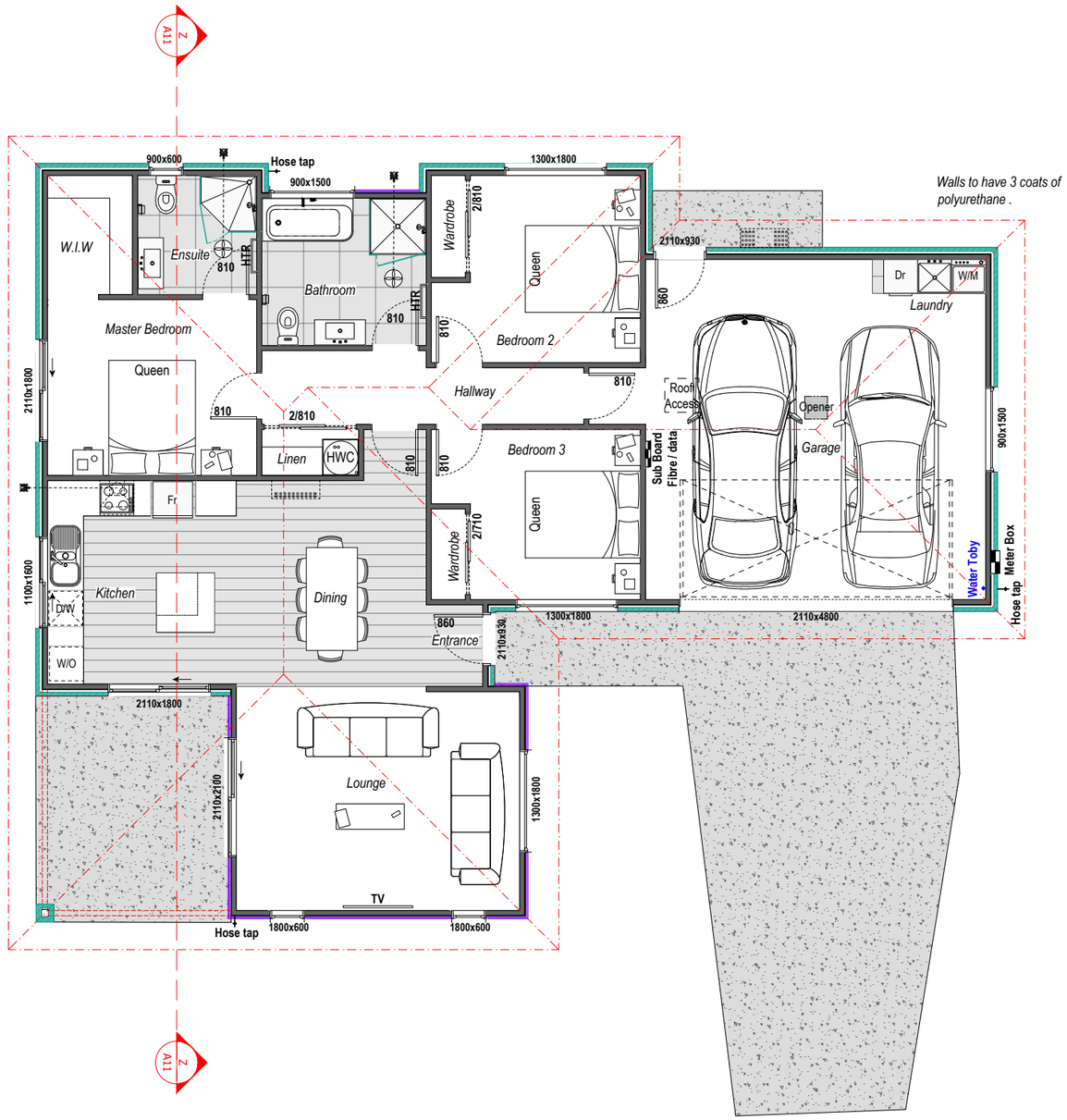
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Layout plan

GENERATED: 07 / 03 / 2019 12:33:24 pm	SCALES: A3 1:100 A4 -		
DRAWN: Jonathan Barlow CHECKED: Jeff LBP-111561	REV 1	JOB No: GJ 19-01	
LOT: 45 DP: 524726		SHEET No: A02	

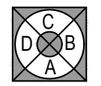
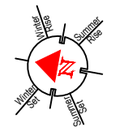
Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Proposed Floor Plan
Scale 1:100
New Floor Area = 150m²

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Notes:

Elevation Key.	North point.
	

Areas.	
Existing area:	0.00 m²
Proposed area (over frame):	150.00 m²
Proposed area (over foundation):	157.00 m²
Additional coverage area:	12.40 m²
Site conditions:	
Wind zone:	High
Earthquake zone:	3
Corrosion zone:	B
Snow loading:	N1
Site elevation:	< 400m

Building wrap to all exterior walls:
Marshall Tekton (or competitor's equivalent), openings to be trimmed with Marshall Protecto Tape flashing tape (or competitor's equivalent), refer details for further information.

All walls lined internally with 10mm Gib board,stopped to a F4 paint quality finish:
Gib Standard to non wet areas.
Gib Aqualine to wet areas.
Gib Braceline as per bracing plan.
(exceptions - garage to be lined with 9mm Strandboard with *to have 3 coats of polyurethane*.)

Prenail manufacturer to allow for double studs on either side of doors, where practical, to accommodate 65mm architraves.

Any window size on this plan is unit size NOT the trim size and is in the format of: HEIGHT x WIDTH.
All door sizes on this plan are Door leaf sizes: opening size = Door leaf size + 58mm

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	Floor finished in ceramic tiles.
	Indicates extractor fan vented to soffit or exterior.

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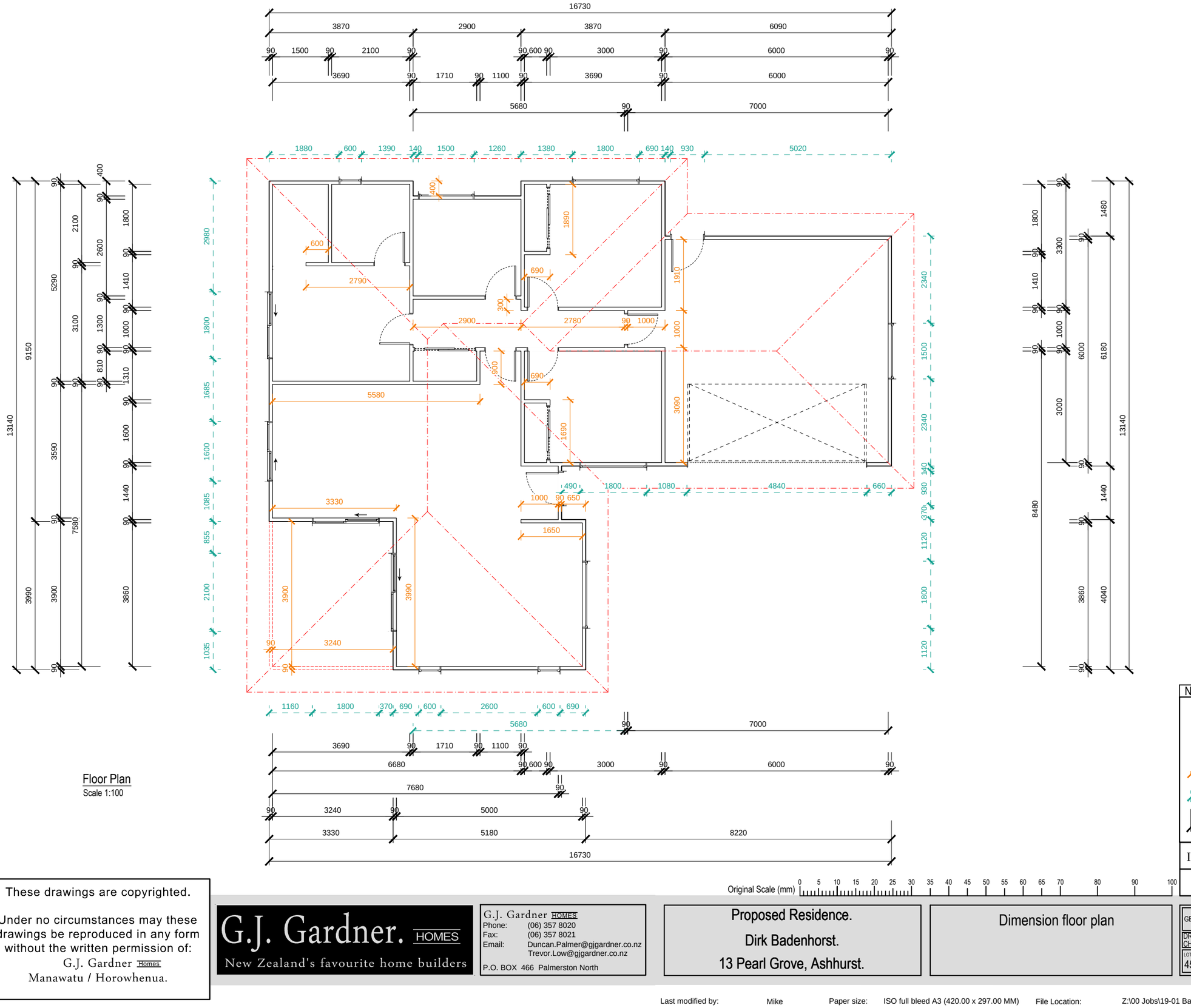
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Layout plan

GENERATED: 27 / 03 / 2019 11:56:02 am	SCALES: A3 1:100 A4 -		
DRAWN: Jonathan Barlow CHECKED: Jeff LBP-111561	REV 1	JOB No: GJ 19-01	
LOT: 45 DP: 524726		SHEET No: A02	

Last modified by: Jonathan Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Floor Plan
Scale 1:100

Notes:

Dimensions show framing size unless otherwise stated. All dimensions are to be checked on site prior to construction or prefabrication.

Internal / additional dimensions

Window setout

General dimensions

Issue: **Consent**

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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Proposed Residence.
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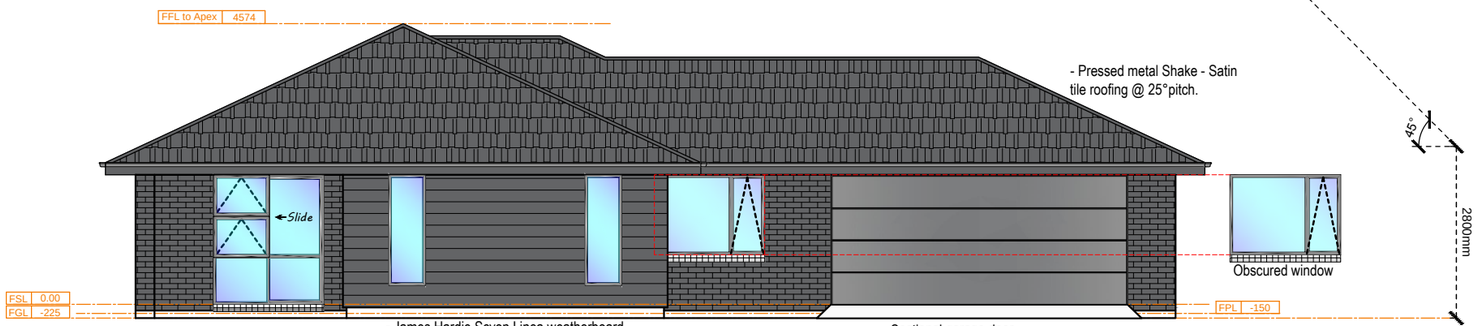
Dimension floor plan

GENERATED: 07 / 03 / 2019 12:33:29 pm
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A03

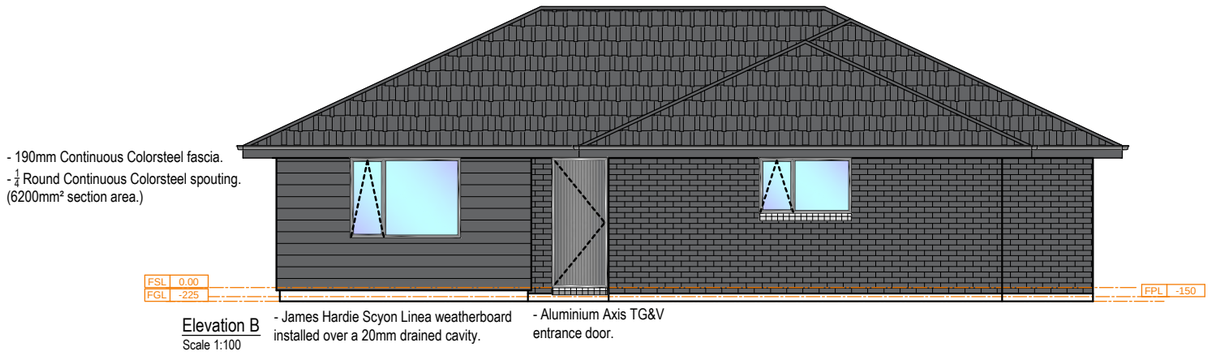
Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Elevation A
Scale 1:100

- James Hardie Scyon Linea weatherboard installed over a 20mm drained cavity.

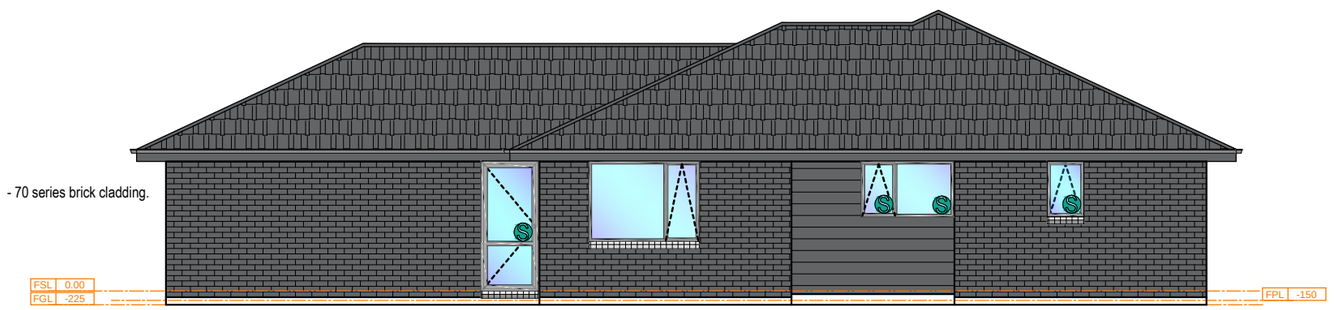
- Sectional garage door.



Elevation B
Scale 1:100

- James Hardie Scyon Linea weatherboard installed over a 20mm drained cavity.

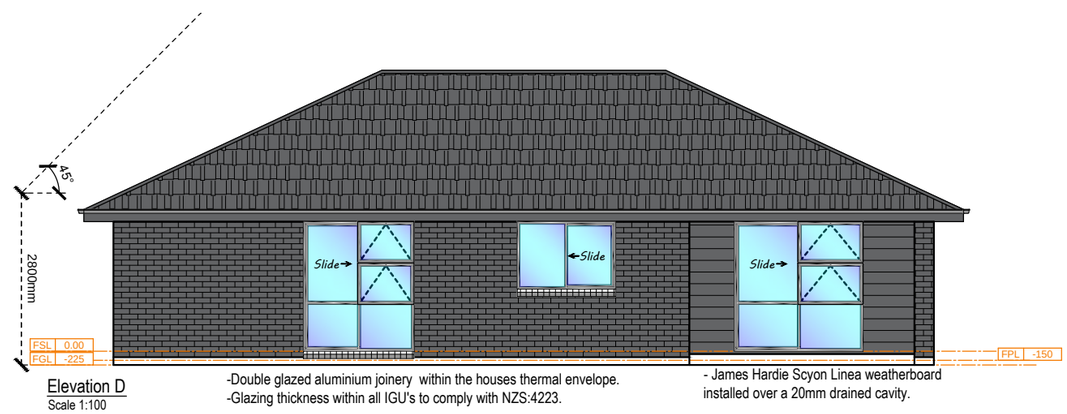
- Aluminium Axis TG&V entrance door.



Elevation C
Scale 1:100

-Single glazing to garage only.
-Glazing thickness to comply with NZS:4223.

- James Hardie Scyon Linea weatherboard installed over a 20mm drained cavity.



Elevation D
Scale 1:100

-Double glazed aluminium joinery within the houses thermal envelope.
-Glazing thickness within all IGU's to comply with NZS:4223.

- James Hardie Scyon Linea weatherboard installed over a 20mm drained cavity.

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Notes:

No infringement/s in terms of height recession, if applicable worse case recession plane has been shown on elevations.

Where no window schedule has been provided, refer to elevations for window style and bracing plan for trim sizes.

If window layouts are changed during construction, refer to window manufacturer's PS1 for safety glazing requirements (where applicable the window manufacturer may select where safety glazing is required).

Risk matrix has been calculated on the worst case and will apply to all elevations.

Risk Matrix:	L	M	H	VH	EH		Score
Wind zone	0	0	1	2	2		1
Number of storeys	0	1	2	4	-		0
Roof/wall intersection design	0	1	3	5	-		0
Eaves width	0	1	2	5	-		0
Envelope complexity	0	1	3	6	-		0
Deck design	0	2	4	6	-		0
						Total:	1

Legend:

FSL	Finished Slab Level.
FPL	Finished Paved Level.
FGL	Finished filled unpaved Ground Level
S	Window pane to be glazed with safety glass in accordance with NZS 4223.3 2016

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Proposed Residence.
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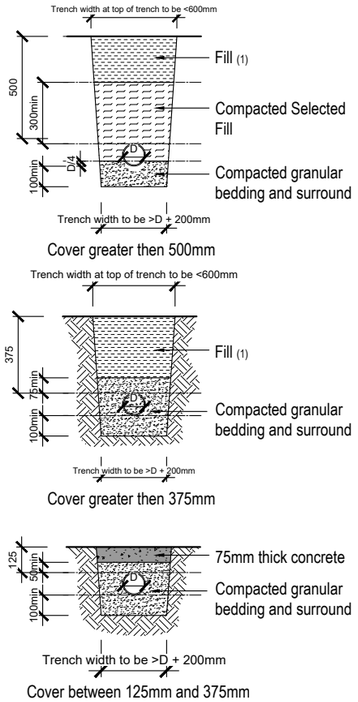
13 Pearl Grove, Ashhurst.

Elevations

GENERATED: 07 / 03 / 2019 12:33:34 pm
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A04
LOT: 45
DP: 524726

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg

Notes:
(1) Fill shall be:
- Ordinary fill where drains are located below gardens and open country
- Compacted selected fill where the drains are located below residential driveways and similar area subject to light traffic



Drainage Bedding and Backfilling
Scale 1:30

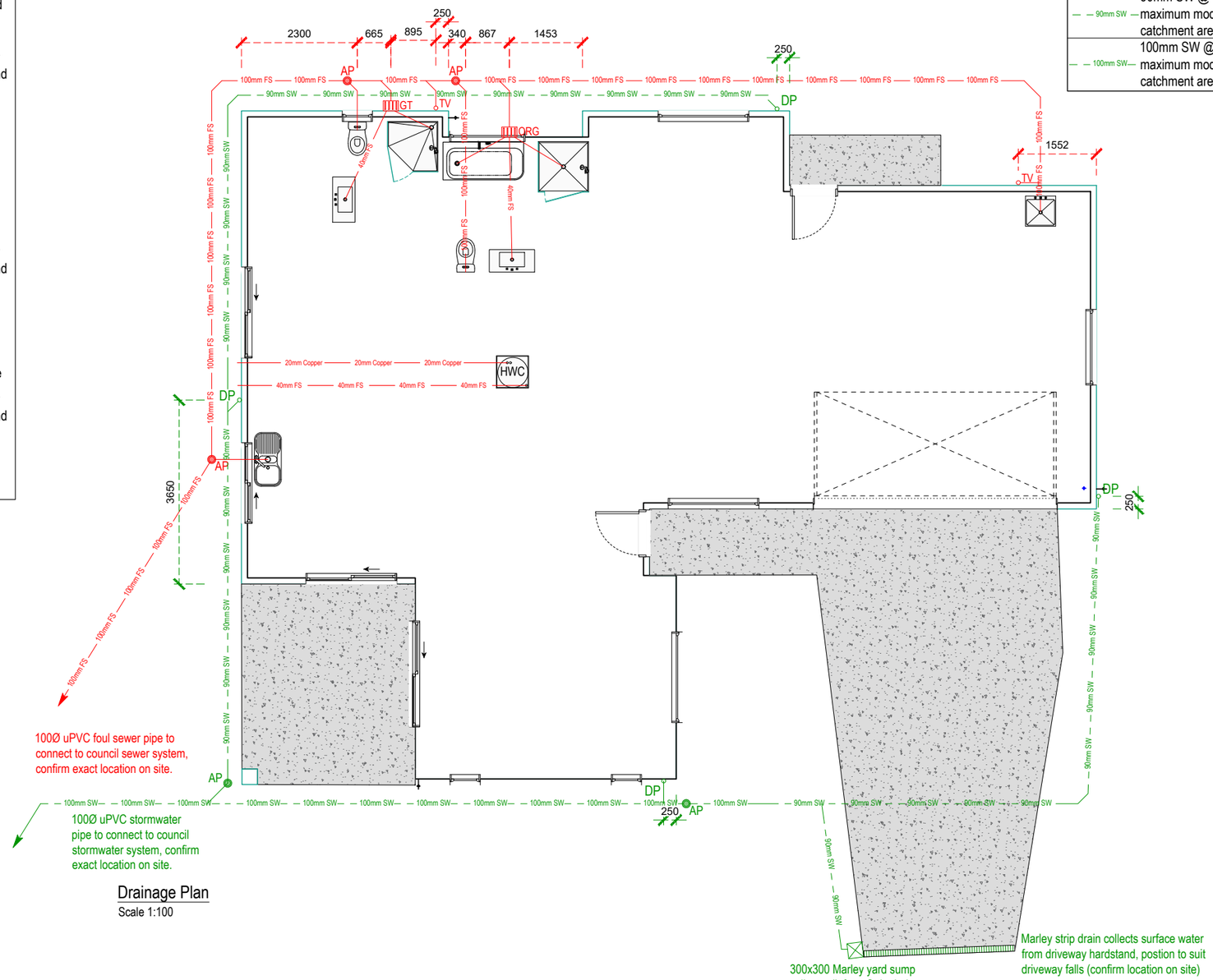
Tempering valve and nominal potable water pipe diaMetres - Mains pressure

Notes:
(1) if supplied by separate pipe from storage water heater to a single out let.
(2) This table is based on maximum pipe lengths of 20 Metres.
(3) 2m maximum length from water heater outlet to tempering valve.
(4) 15mm if dedicated line to shower.
(5) 10mm if dedicated line to shower.

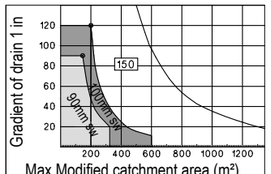
	Mains Pressure
Pressure of water at tempering valve (kPa)	Over 300
Metres Head (m)	over 30
Minimum tempering valuve size	15mm
Pipes to tempering valve	20mm
Pipes to Shower	20mm (5) (15mm Optional) (1)
Pipes to sink/laundry (2)	20mm
Pipes to bath (2)	15mm
Pipes to basins (2)	10mm

In a household unit the developed length of the pipe-run from the water heater to the kitchen sink outlet shall be minimized, to the sizes noted below.

Nominal Pipe size (mm)	10mm	15mm	20mm
length (m)	25m	12m	7m



Drainage Plan
Scale 1:100



Sizing of surface water drains

90mm SW @ 1:90 min maximum modified catchment area = 155m²

100mm SW @ 1:120 min maximum modified catchment area = 200m²

Notes:

Potable water supply: All potable water supply pipes installed to G12 AS/1. Pipes to be polybutylene. All water supply pipe work outside the buildings thermal envelope and / or subject to UV light degradation is to be insulated with closed cell foam tubing or other another insulation product in accordance with NZS 4305.

180L Mains pressure hot water cylinder with thermostat set to min. 60° celsius with tempering valve set to a maximum of 55°C to all sanitary fixtures. Hot water cylinder to be fitted with seismic restraints.

TPR valves to terminate to 20mm min copper drain @ 1:60, drains to place of safety, turn pipe downward at exit point and provide vermin proofing if no water seal is in place.

HWC seated on an Aqualine 640 or 540 safety tray fit safety tray with 40mm waste, provide 40mm min drain @1:60 fall. CWE Valve discharges into this safety tray, discharge over gully, vermin proof.

Surface water: All surface water works to be conducted to E1/AS1

Hard stand areas (paving etc) to fall away from building, direct to either noted sumps connected to on site storm water system. Or toward garden / grassed areas for site soakage. Ensure surface water is contained on site.

Plumbing & Drainage: All plumbing drainage works on this plan are to G13/AS3 via AS/NZS 3500.2. suitably qualified drain layer to complete works and provide as built plan on completion.

Plumbing fixture wastes: Plumber to confirm final kitchen & bathroom fixture waste layout prior to pre-pipe, confirm waste positions from kitchen design & main contractor before commencing.

All pipe sizes mentioned below are minimum call sizes, they may be up sized for convenience or economic reasons.

Pipe type:	Call size	Fall
Fixture to gully (PVC)	40mm	1:40
Gully to main drain (PVC)	100mm	1:60
WC to main drain (PVC)	100mm	1:40
Non soil fixture to main drain (PVC)	65mm	1:60
Main drain (PVC)	100mm	1:60
Terminal vent unless otherwise stated:	80mm	-

Where successive pipes pass though a foundation wall, (e.g. into a gully) pipes to be separated by a minimum of 25mm.

Provide a tap over any ORG or gully trap with no fixture waste pipes terminating over them

Legend:

FS	Foul Sewer. (or Sanitary Sewer)
SW	Storm Water.
DP	80mm Down Pipe.
AAV	Air Admittance Valve.
TV	Terminal Vent.
GT	Gully Trap.
ORG	Overflow Relief Gully.
AP	Access Point, inspection bend.
RE	Rodding eye brought to surface.

Issue: **Consent**

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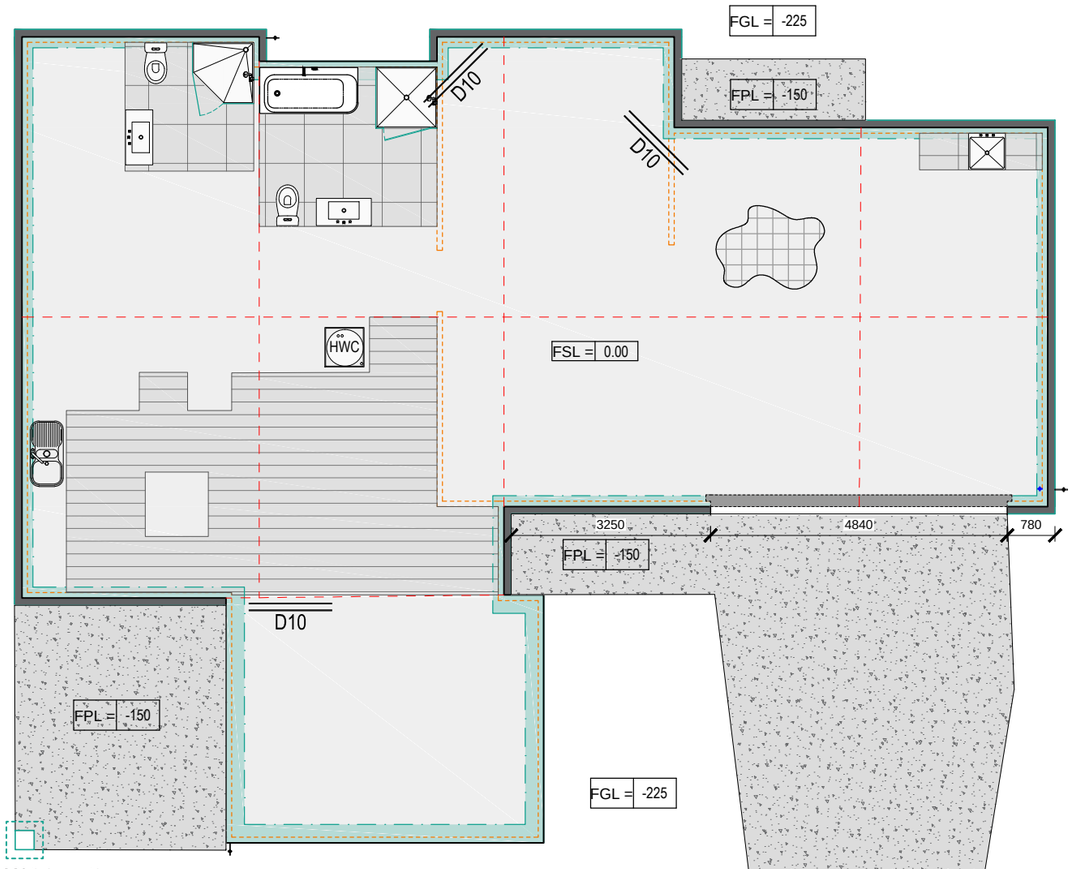
Drainage plan

GENERATED: 27 / 03 / 2019 11:56:11 am
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A05

Last modified by: Jonathan Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



125x125 H5 SG8 timber post in 600x600x900 deep concrete footing providing 0.324m³ uplift resistance.

Foundation Plan

Scale 1:100

Legend:	
	Area with tile / vinyl floor finish over, avoid saw cuts if possible.
	Indicates roof loads imposed on foundation from truss system above, see truss design for further information on loadings.
	Indicates saw cut to slab.
	Indicates footing or thickening under. Refer to details for further information.
D10	Indicates 2/ D10 (minimum) x1200mm @ 100mm c/c supplementary reinforcing bars cast into slab to control cracking.
	Indicates 120mm wide rebate for brick veneer cladding.
	Indicates paving forming compliant access to the building, indicated area is the minimum extent of paving to be installed only.

Notes:	
Foundation slab area:	150.00 m²
Foundation slab perimeter:	61.84 m
Foundation overall area:	157.00 m²
Foundation overall perimeter:	62.56 m
Cladding weight:	Heavy
Roof weight:	Light
Concrete Strength:	20 MPa

100mm thick min concrete slab reinforced with either: Fletcher Reinforcing Super Ductile 500E or Hurricane SE62 reinforcing mesh. Slab reinforcing mesh to be supported on bar chairs or carefully located to give 35mm concrete cover to steel. Slab to have D10 starters @ 600mm c/c cast into foundation extending 400mm min into the slab.

Provide a 250 micron black polythene Damp Proof Membrane (DPM) under slab, Lap joints 150mm min and seal with PVC tape. Seal all slab penetrations (pipes etc) to DPM with PVC tape.

DPM installed over a 25mm min sand blinding layer, over 100mm min of granular fill material compacted in 150mm layers max, to be composed of rounded gravel, crushed rock, scoria or approved material of which 100% shall pass either:
(i) a 19mm sieve for any fill thickness; or
(ii) a 37.5mm sieve for a thickness exceeding 100mm. (See 7.5.3.2 NZS3604:2011.)

Saw cut slab into sections approximately 4.5 to 6.0m (1:2 max ratio) within 24hrs in summer, or 48 hrs in winter following concrete placement.
Saw cut depth to be 25mm or ¼ the depth of slab.
Allow a 55mm min edge between any saw cut and any external wall or internal wall containing a bracing element which runs parallel to a saw cut to prevent any hold down associated with the bracing element from blowing out.

All foundation works below ground level are shown assuming "good ground" is located at depths indicated. Inspection of ground bearing capacity is essential prior to work commencing. If poor ground bearing capacity identified on site, engineer design may be necessary. The responsibility for establishing the soil and sub-soil conditions rest with the contractor.

Issue: **Consent**

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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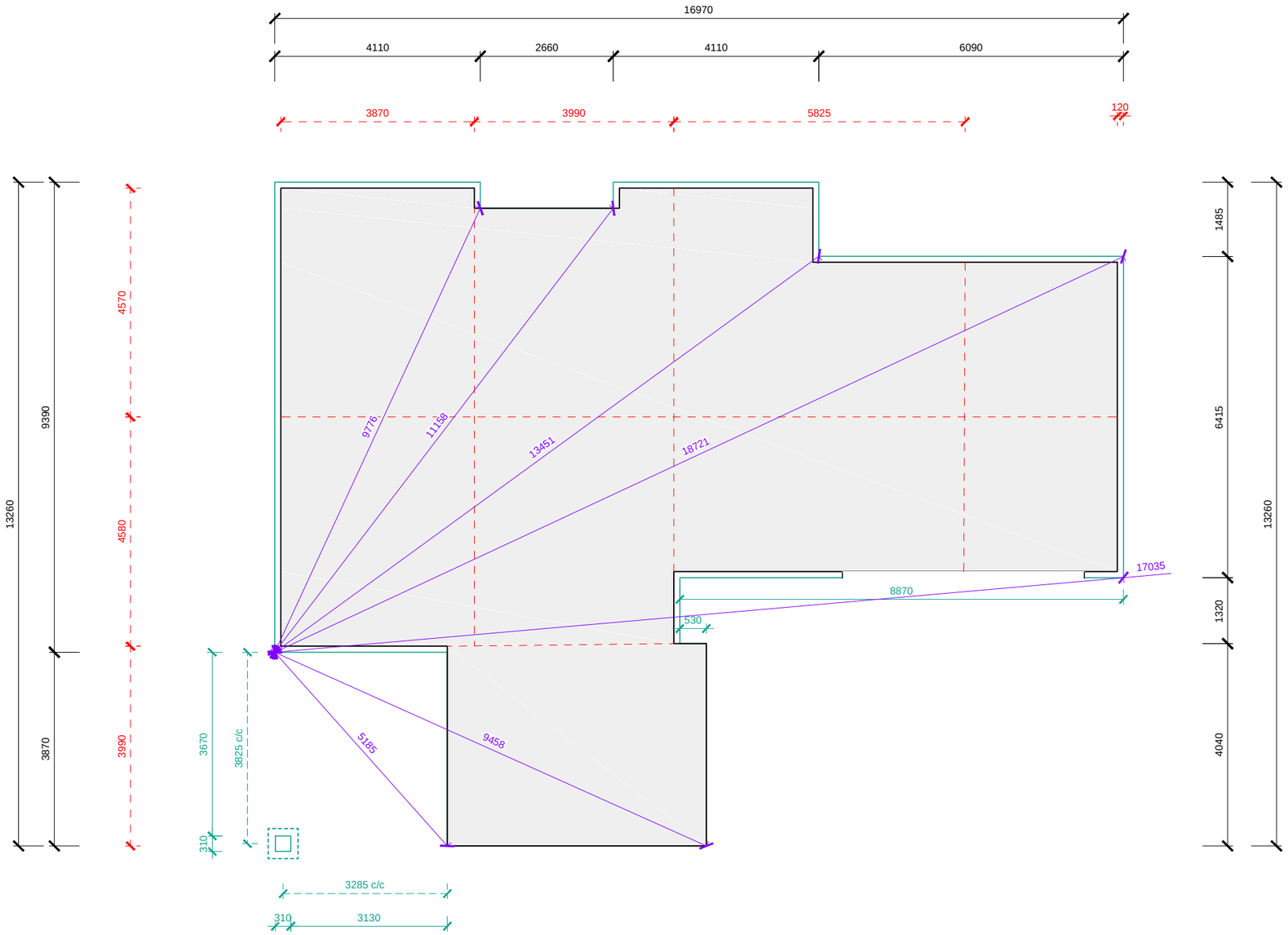
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Foundation plan

GENERATED:	07 / 03 / 2019 12:33:53 pm	SCALES: A3	1:100 A4 -
DRAWN:	Jonathan Barlow	REV	JOB No: GJ 19-01
CHECKED:	Jeff LBP-111561	1	SHEET No: A06
LOT: 45	DP: 524726		

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Foundation Setout Plan
Scale 1:100

Notes:

Additional dimensions

Overall set out dims

Saw cut bays

General setout dimensions

Dimensions taken to outside line of foundations. 120mm brick rebate allowed for in dimensions.

Issue: **Consent**

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Foundation setout

GENERATED: 07 / 03 / 2019 12:33:58 pm
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A07
LOT: 45 DP: 524726

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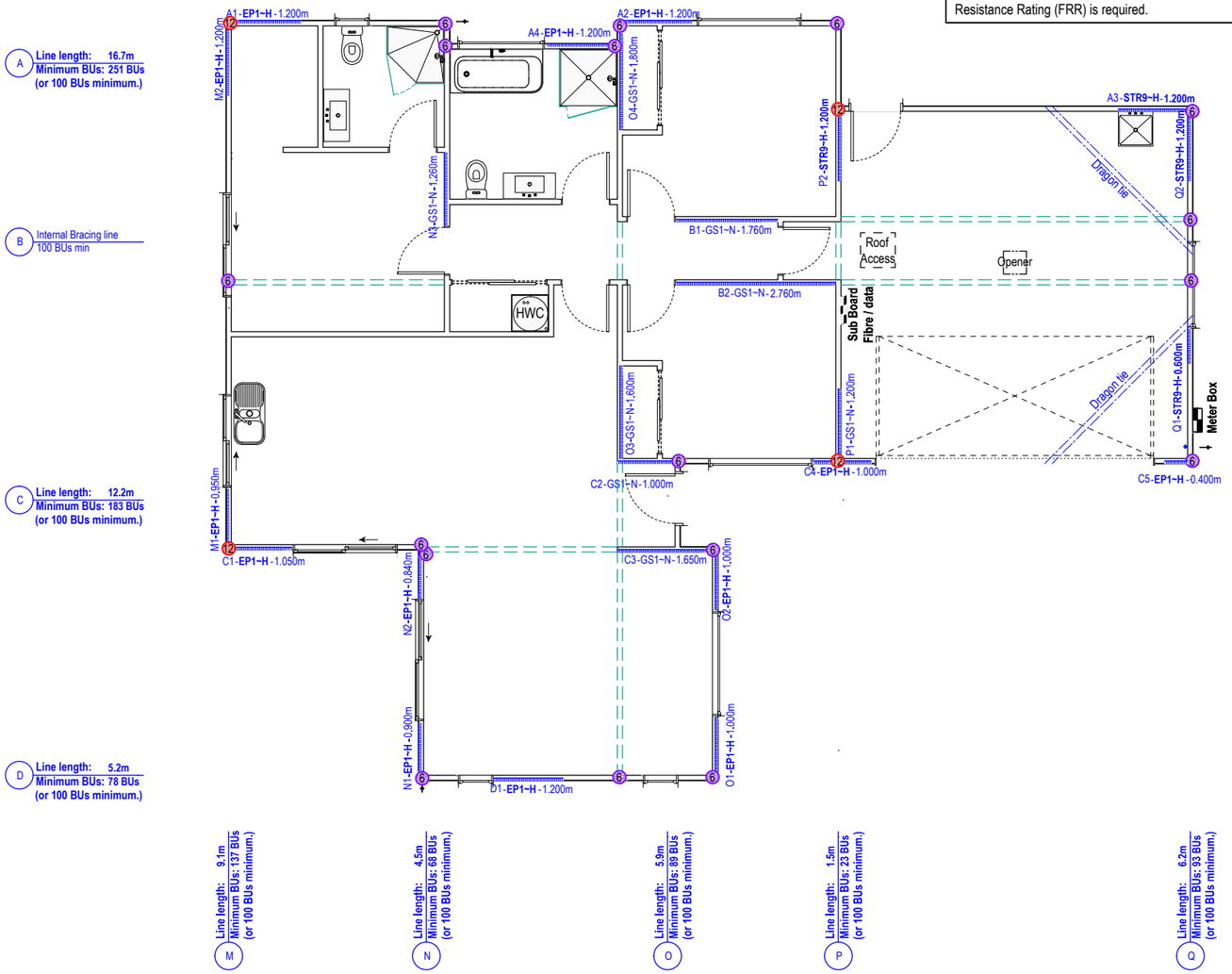
Specified	Permitted Alternative Gib Plasterboard Products.						
	Gib Standard	Gib Ultraline	Gib Braceline/ Noiseline	Gib Aqualine	Gib Toughline	Gib Fyreline 10mm	Gib Fyreline 13mm- 19mm
Gib Standard		OK	OK	OK	OK	NOTE 1 & 3	NOTE 2
Gib Braceline / Noiseline.	X	X		NOTE 2	OK	X	NOTE 1,2 & 3

Note 1 The fastener type and length must be as required for relevant FRR system using perimeter fixing pattern illustrated for the relevant bracing specification.
Note 2 The element must be 900mm or longer. Decrease perimeter fastener centres to 100mm. The bracing corner fastening pattern as illustrated for the relevant specification applies to all four corners of the element. Panel hold down fixings are required.
Note 3 Traditional wall framing layouts (See figure 1 - Gib Bracing Systems August 2016) where a Fire Resistance Rating (FRR) is required.



Bracing Plan
Scale 1:100

Notes:	
Bracing parameters:	
Building area:	150.00m²
Wind zone:	High
Earthquake zone:	3

Building braced to Gib Bracing Systems August 2016.

Braces shall be installed on the side of the wall indicated on the plan with the below symbol, braces to be installed to manufacturer's installation specifications, refer to A4 documentation for installation specifications.

Some brace lengths have been shortened to not extend wall to wall to allow fixing of associated hold downs clear of trimming studs / corner studs etc, or to limit the top plate fixing requirement of the wall.

External ply braces to be within the building envelope and fixed with galvanised nails in accordance with Ecoply fixing specification.

Each wall containing bracing shall be connected at top plate level, either directly, or through a framing member, to external wall/s at right angles to the braces. Top plate connection capacity along the line shall be as follows:

1) Walls containing between 1 & 125 bracing units require connection to one external with a 6kN connection.

2) Walls containing between 126 & 250 bracing units require connection to two external walls with a 6kN connection.

3) Walls containing between more than 250 bracing units require connection to two externals walls each having a kN rating of not less than 2.4kN per 100 bracing units in the wall.

Legend:

	Indicates brace location.
	Indicates framing member at top plate level (truss, rafter) or if neither in location provide additional member (additional ribbon board) for distribution/ restraint of bracing loads.
6 / 12	Indicates kN capacity required at top plate to external wall junction (or additional framing member to external wall junction.) Ensure any joints to top plate or framing member in the same line have a 6kN capacity joint minimum.
	Indicates 90x35 SG6 Min Dragon tie @ 45° angle, max distance from corner of frame to dragon tie = 2.5m. Refer to details for fixing requirements.

Issue: **Consent**

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Bracing plan

GENERATED: 07 / 03 / 2019 12:34:04 pm	SCALES: A3 1:100 A4 -		
DRAWN: Jonathan Barlow CHECKED: Jeff LBP-111561	REV 1	JOB No: GJ 19-01	
LOT: 45 DP: 524726		SHEET No: A08	

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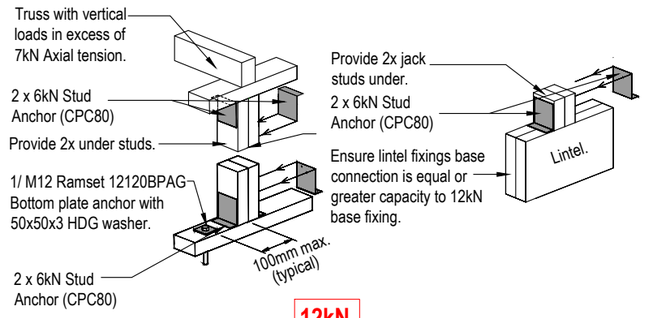
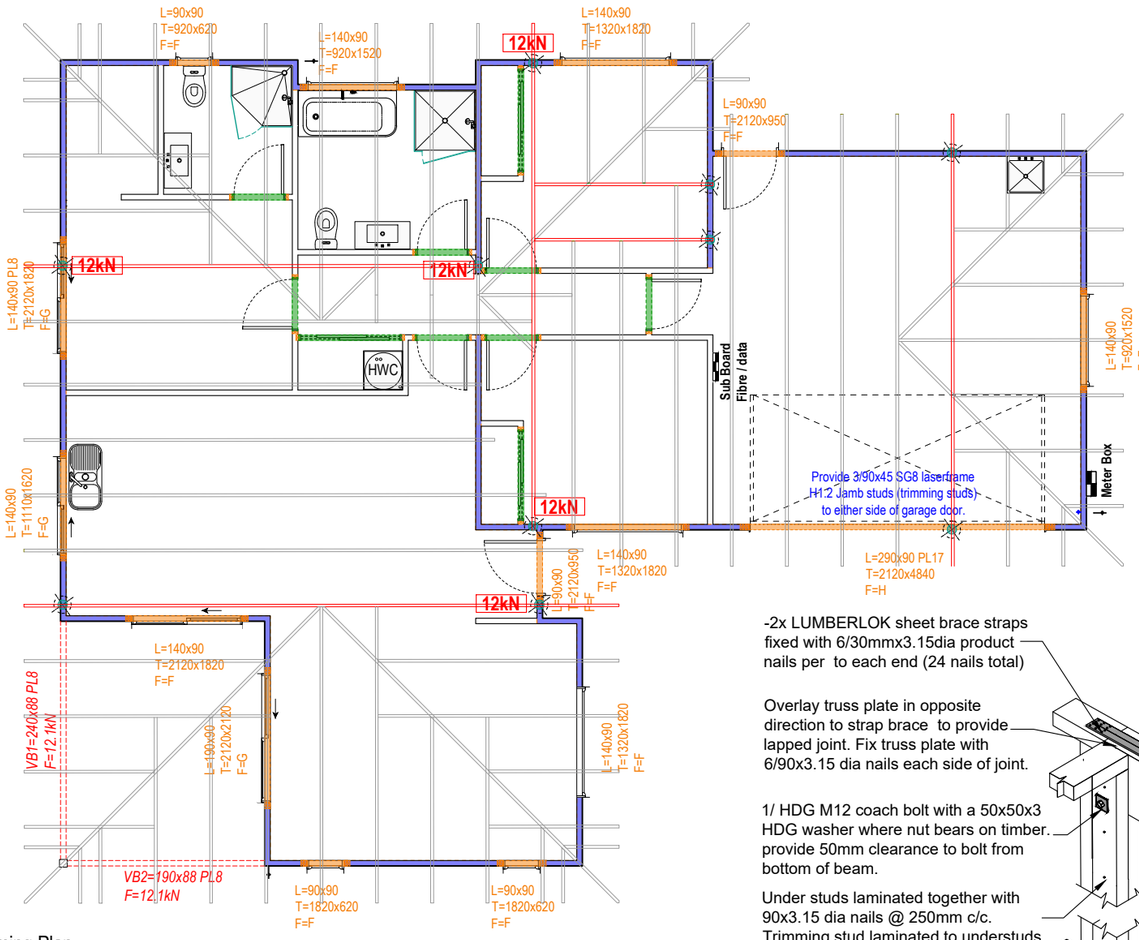
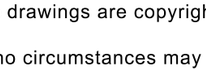
Trusses with vertical loads (either up or down) in excess of 7kN in Axial tension to the bottom plate fixing require additional fixing through to slab in accordance with 7.5.12.3 NZS3604, fixings vary depending on load capacity see below for fixing options:	
12kN	-Top plate to stud. -Stud to bottom plate. CPC80 cleat to both sides of stud, fixed with 8x 30mm x 3.15mm product nails plus 4 x type 17 14g x 35mm Hex head galv screws per bracket. -Bottom plate to slab 1x M12 Ramset 12120BPAG Bottom plate anchor with 50x50x3 HDG washer within 100mm of stud.





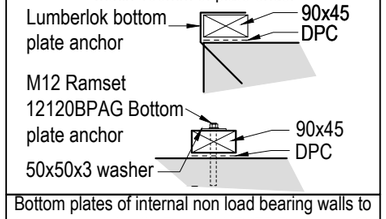
Framing Plan
Scale 1:100

90x45 SG8 H1.2 top plate + additional 90x35 SG8 H1.2 Top plate laid over. Top plate fixing varies, see bracing plan for fixing details.
(allows 6m between bracing lines)

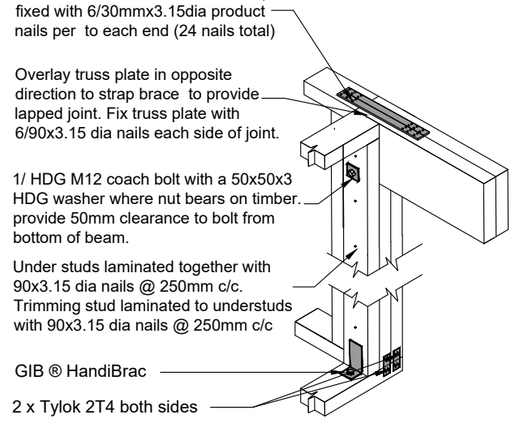


General framing fixings:
Bottom plate to stud fixing 3/90x3.15mm power driven nails. (end nailed.)
Dwang/nog to stud fixing 2/90x3.15mm power driven nails. (end nailed.)
Top plate to stud fixing 2/90x3.15mm power driven nails. (end nails, not including additional fixings as required by truss design.)
Second top plate to 90x35 top plate fixing 3/90x3.15mm nails at 500mm c/c max.

Load bearing wall bottom plates - 90x45 SG8 H1.2 min bottom plate, plate on bituminous DPC fixed to perimeter of slab with Lumberlok bottom plate anchors + 1/ 75x4mm dia concrete nail adjacent, within 150mm of every plate end and @ 900c/c max. Internal
load bearing and/or walls with bracing elements associated exceeding 70BUs/m to
be fixed to slab with 120mm TruBolts @ 900mm c/c with 50x50x3 washers and
within 150mm of plate ends.



Bottom plates of internal non load bearing walls to be fixed to slab with Ramset HD875 Drive pins @ 600mm c/c MAX (or other proprietary powder actuated 75mm drive pin & washer set that meets the requirements of NZS 3604:2011 7.5.12.4)



Verandah beam pocket external corner junction.
Scale 1:20

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Notes:

Unless otherwise specified all lintels to be Structural Grade 8 (SG8). Any SG8 lintel may be substituted for built up members sized and laminated with 90x3.15 dia nails @ 270mm c/c max along the member. In accordance with 2.4.4.7 NZS3604:2011(eg. 90x90 = 2/90x45.)

Verandah beams fixed to framing & post as per details in this set

All trim sizes to be site measured before manufacturing windows.

Drained cavity cladding systems:
Designer has allowed a nominal 20mm trim to all openings height and width.

Lintel & top plate fixing types as defined in Lumberlok site guide 2018 edition.

Window head height:
'hard to soffit' (approx box height 2110mm = approx lintel base height of 2120mm.)
Figures based on a 190mm coloursteel fascia, Confirm exact fascia profile/dimensions used to determine exact box height for full height joinery on site prior to manufacture.

Legend:

	Indicates load point of a concentrated load above (girder truss or ridge beam etc.)
VB=	Verandah beam size.
L=	Lintel size.
T=	Trim size **(Height x Width)** window rough opening size
F=	Lintel fixing for uplift restraint.
L# (L1)	Reference to member number on design calculations or selection table within A4 docs.
	Exterior walls or internal load bearing walls: 2420mm frame height - 90x45 SG8 H1.2 studs @ 600mm c/c with dwangs @ 800mm c/c. Top plate fixing : 4.7kN ("Type B")
	Interior non load bearing walls: 2420mm frame height. - 90x45 SG8 H1.2 Studs @ 600mm c/c with dwangs @ 800mm c/c. Top plate fixing: 0.7kN ("Type A")
	Indicates lintel or beam over taking roof or floor load, see plan for sizing and fixing requirements.
	Indicates 90x45 SG8 H1.2 trimmer over opening on flat, fixed at each end with 3/90x3.15 nails

Issue: **Consent**

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Proposed Residence.
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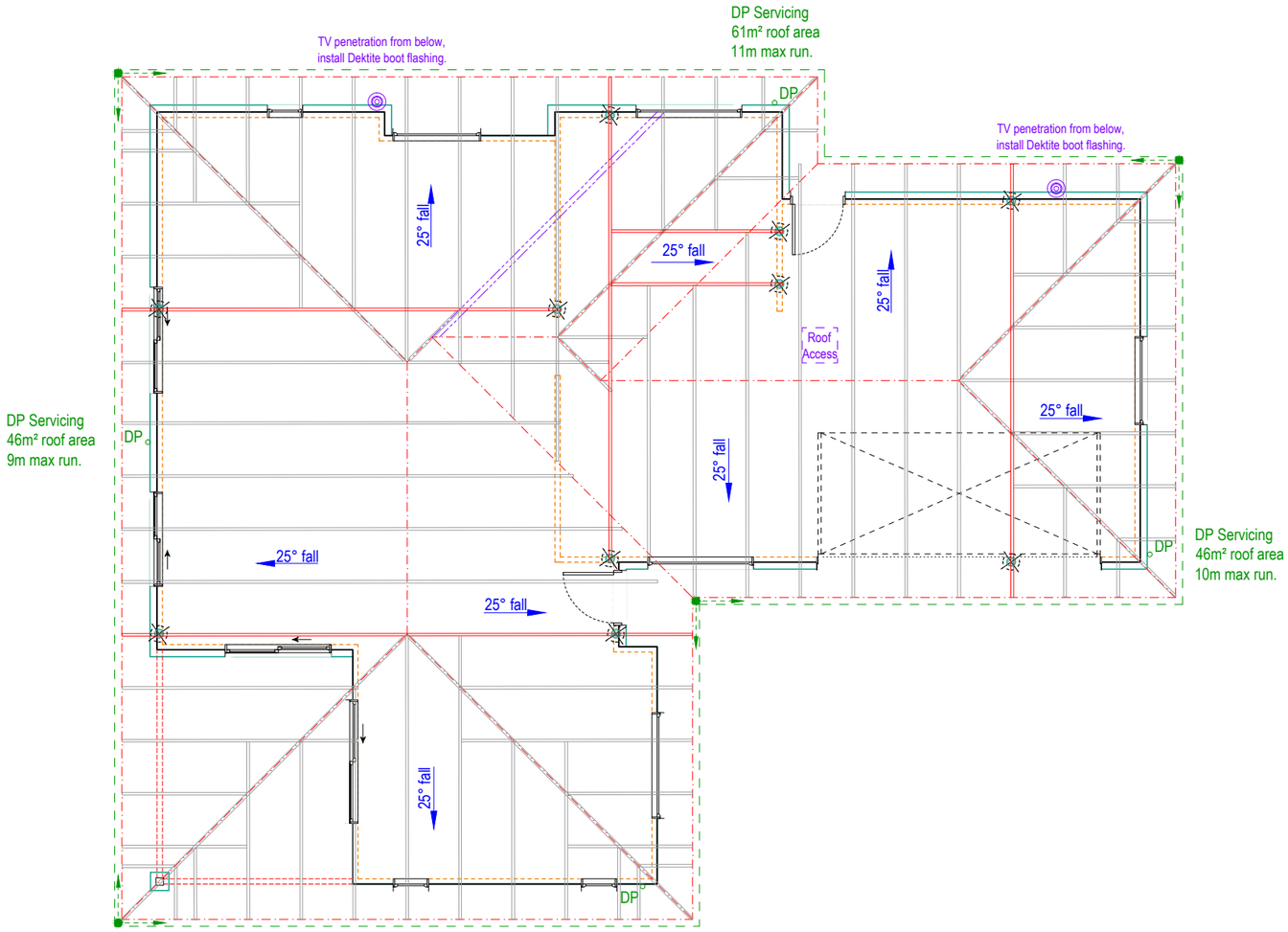
13 Pearl Grove, Ashhurst.

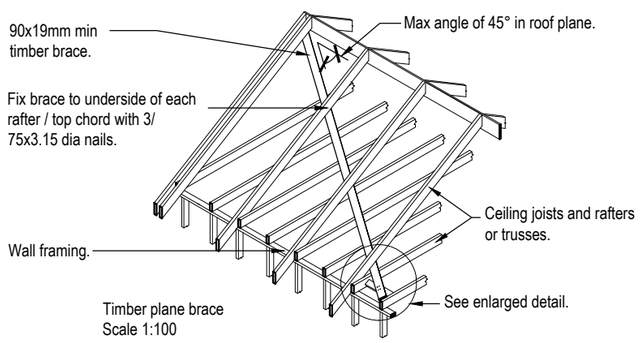
Framing plan

GENERATED:	27 / 03 / 2019 11:56:15 am	SCALES: A3	1:100 A4 -
DRAWN:	Jonathan Barlow	REV	JOB No: GJ 19-01
CHECKED:	Jeff LBP-111561	1	SHEET No: A09
LOT: 45	DP: 524726		

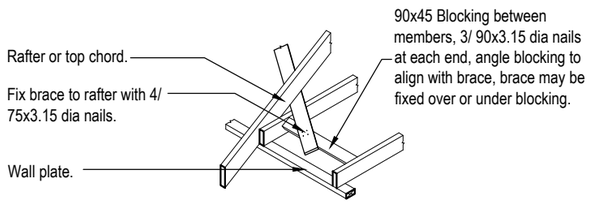
Purlin and tile batten fixing: (NZS3604: 2011 fixing options:)	
Capacity:	Fixing Requirements:
~~0.55kN~~	~~1 / 90mm x 3.15 dia. power driven nail or 1 / 100mm x 3.75 dia. hand driven nail~~
0.8kN	2 / 90mm x 3.15 dia. power driven nail or 2 / 100mm x 3.75 dia. hand driven nail
2.4kN	1 / 10g self drilling screw, 80mm long
4.7kN	2 / 90 x3.15 dia. power driven skewed nails or 2 / 100mm x 3.75 dia. hand driven nail PLUS 2 wire dogs
5.5KN	1/14 g type 17 screw 100mm long
7.0kN	2 / 90 x3.15 skewed nails or 2 / 100mm x 3.75 dia. hand driven nail PLUS strap fixing - (see figure 10.6 NZS3604: 2011)
(MiTek purlin and tile batten fixings from site guide 2018 edition (alternative solution)	
Capacity:	Fixing Requirements:
~~0.55kN~~	~~90mm x 3.15 dia. power driven nail. or 100mm x 3.75 dia. hand driven nail.~~
0.8kN	2/90mm x 3.15 dia. power driven nail. or 2/100mm x 3.75 dia. hand driven nail.
2.4kN	1/80mm x 10 gauge Lumberlok blue screw.
3.45kN	~~Purlin on flat ~~ 2 / 80mm x 10 gauge Lumberlok blue screws. ~~Purlin on edge ~~ 2 / 100x3.75mm skewed nails.
5.5kN	PLUS 2 wire dogs. 2 / 90 x3.15 power driven skewed nails. or 2 / 100mm x 3.75 dia. hand driven nail. PLUS 1 Ct200. or 1 pair of CPC40.



Roof Plan
Scale 1:100



Timber plane brace
Scale 1:100



Timber plane brace end brace
Scale 1:100

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Notes:		
Wind zone:	High	
Snow loading:	N1	
Site elevation:	< 400m	
Roof pitch:	25°	
Soffits:	600mm	
Bottom chord restraints:	600mm c/c	
Roofing weight:	Light	
Roof plan area:	203.00	m²
Roof plan perimeter:	62.56	m

Roof's structure to be trusses @ 900mm c/c to manufacturer's design and fixing specification.

Gib Rondo Battens @ 600mm c/c fixed with 2 / #6 Gib grabber scavenger head self tapping screws, one each side directly though the flange of the batten per crossing of truss bottom chord (minimum 30mm penetration into truss bottom chord). Battens act as bottom chord restraints, ceiling to be lined with 13mm gib board stopped to a F4 paint quality finish.

Boxed soffit framing:
90x45 SG8 H1.2 soffit stringer against house, nailed to every stud with 2/90x3.15mm power driven nails.
90x45 SG8 H1.2 boxed soffit framing at 600mm c/c fixed at each end with 2/90x3.15 dia power driven nails.

Metal tile roofing: Pressed metal Shake - Satin
Roofing on 45x45 SG6 min H1.2 tile battens @ 370mm c/c fixed for uplift restraint with a 0.8kN fixing (or greater) to to entire roof
- Tile batten fixing:
2 / 90mm x 3.15 dia. power driven nails.
Roof to have self supporting breather type building paper to roof to be Thermakraft 215 (or other equivalent product).
Lay building paper perpendicular to roof pitch. (laid across roof).

All roof penetrations to be flashed with appropriately sized EDPM dektite boot flashings.

Capacity of external gutter. (m²) - measured one side of downpipe

Gutter size (mm²)	Roof pitch (degrees)			
	0-25	26-35	36-45	46-55
125mm OG (Old Gothic) 5800mm²	48	40	32	26
½ Round quad 6200mm²	55	47	37	31
125mm box gutter 7500mm²	66	56	46	36
½ Round 7700mm²	70	59	48	39

Maximum plan area of roof served by gutter (m²)

Capacity of downpipes.

Down pipe size	Roof pitch (degrees)			
	0-25	26-35	36-45	46-55
65mm dia	60	50	40	35
80mm dia	85	70	65	50
100mm dia	155	130	110	90

Maximum plan area of roof served by gutter (m²)

Legend:

DP	80mm Down Pipe
	Indicates fall to spouting.
	Indicates internal & external load-bearing wall
	Indicates load point of a concentrated load above (girder truss or ridge beam etc.)
	Indicates 90x19mm (min thick) timber plane brace, fixed with 3/ 90x3.15mm diameter nails per crossing, refer to details for end fixing.

Issue: **Consent**

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Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Roof plan

GENERATED: 07 / 03 / 2019 12:34:19 pm
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
JOB No: GJ 19-01
LOT: 45 DP: 524726
REV 1
SHEET No: A10

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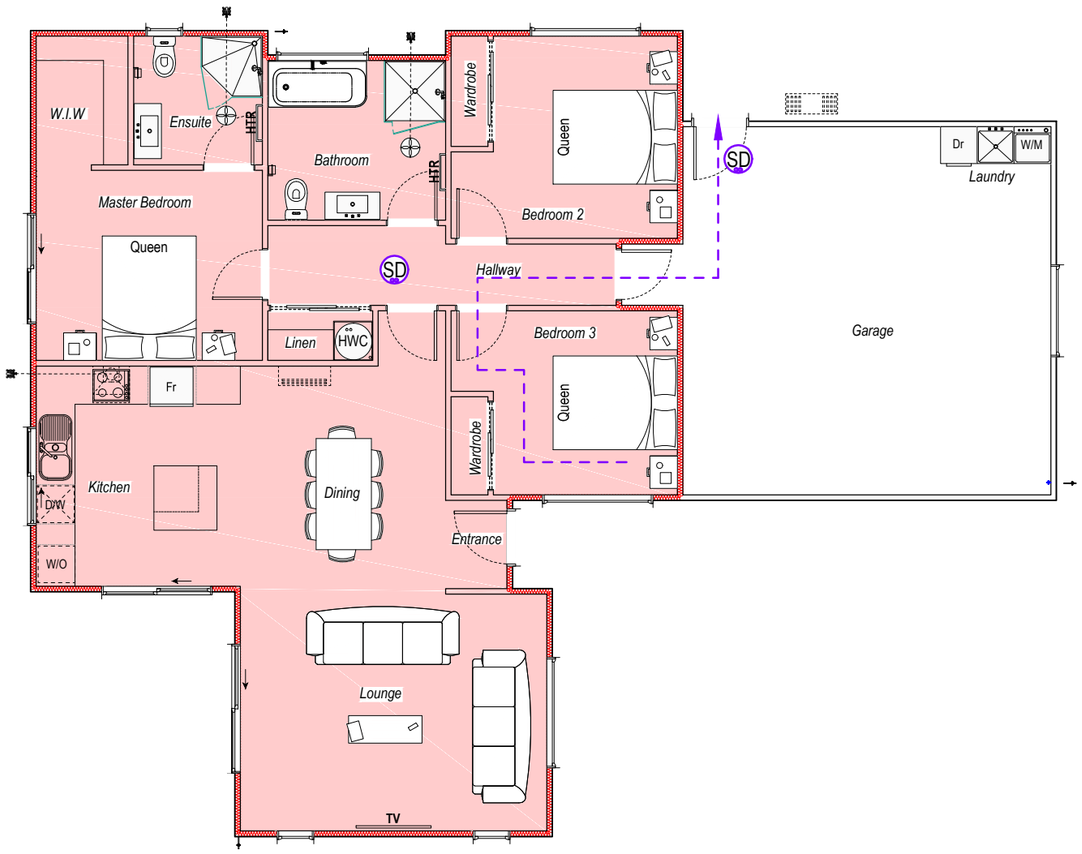
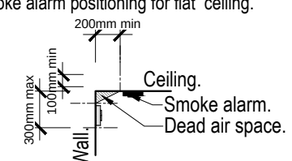


Lighting & ventilation schedule					
Room name	Room area	10% Light requirement	Light achieved	5% Ventilation required	Ventilation achieved
Bedroom 1	14.67	1.47	3.87	0.73	2.82
Bedroom 2	10.87	1.09	1.97	0.54	.67
Bedroom 3	9.90	0.99	1.97	0.50	.67
Kit / Liv / Din	46.15	4.61	12	2.31	4.78
Bathroom	7.54	0.75	1.08	0.38	.48
Ensuite	4.41	0.44	1.08	0.22	.48
Total glazing area:			21.970000		
Note: Kitchen / Living / Dining are open plan.					
	Indicates area where 10% light area is not a requirement.				

Smoke alarm positioning for flat ceiling.



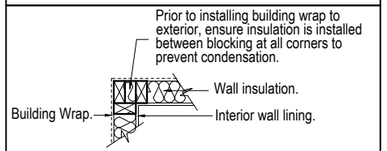
Wall mount is acceptable only when ceiling mount is unavailable, wall mount zone between 100mm & 300mm from ceiling.
Note: Exposed beams or other projections in ceiling plane shall be treated as a walls.

Notes:

The combination of the use of the above minimum R-Values, double glazed window joinery and the fact the window area on the East, West and South walls is less than 30% of the total wall area. By default this design complies with H1 via the schedule method.

No insulation to external garage walls or ceiling above garage, insulate internal garage walls between garage and house.

Insulation with greater R-Values than stated above can be installed provided the insulation is not compressed in any way and there is a 25mm air gap above ceiling insulation.



Typical wall corner junction.

Lighting along all access routes to have a minimum illuminance of 20 lux at floor level in accordance with G8/AS1 NZBC.

Legend:

	Indicates worst case DEP Length (11m escape length)
SD	Indicates Type 1 Domestic Smoke alarm, either hard wired or 10yr battery operated. Smoke alarm to be installed on the ceiling and have hush button. Position so test button is readily accessible for monthly testing.
	Indicates ceiling insulation: R3.2 Pink Batts ceiling insulation (or equivalent / greater R-Value).
	Indicates wall insulation: R2.2 Pink Batts insulation (or equivalent / greater R-Value).

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Dirk Badenhorst.
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Fire safety, thermal
lighting & ventilaiton plan

GENERATED: 07 / 03 / 2019 12:34:29 pm
SCALES: A3 1:100 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A11

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Timber framing treatment levels:
Treatment levels to comply with NZBC clause B2/AS1 Durability, NZS3602:2003 Timber and Wood-based Products for Use in Building and NZS3640:2003 Chemical Preservation of Round and Sawn Timber.
This table is a summary of the minimum treatment level requirements only.
Higher levels may be used in any situation.

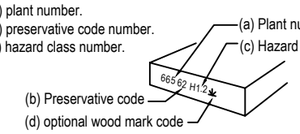
Building element	Treatment
- Roof framing, trusses and ceiling joists. - Interior wall framing. - Interior exposed beams radiata pine. - Exterior wall framing.	H1.2
- Enclosed framing within skillion roofs - Exterior wall framing and parapets - Lower interior load bearing wall framing or enclosed beam and post under an exterior wall. - Subfloor framing - Enclosed framing within flat or low pitch roofs. (<10°)	H1.2
- Cladding cavity battens (caution: LOSP cavity battens must not be in contact with butyl rubber/EPDM membranes e.g. enclosed decks)	H3.1
- Framing for enclosed decks, balconies and balustrades, - Enclosed post and beam or wall trimming studs and lintels under enclosed decks, - Exposed decking and external above ground post and beams, stairs and balustrades.	H3.2
- Piles and posts in ground	H5

Cladding systems on a cavity:
Where stud spacing is greater than 450mm an intermediate means of restraining the building wrap and insulation shall be installed using either:
a) 75mm galvanised mesh.
b) Polypropylene tape @ 300mm c/c
c) Galvanised wire stapled @ 300mm c/c to dwangs over the building wrap.
d) Vertical cavity battens @ 300mm c/c.

Brick ties:
Fix brickwork with heavy duty screw ties (Lumberlok or equivalent) fixed to timber frame at 600mm c/c max horizontally and 400mm vertically. The first ties above foundation level and at top of veneer shall be 2 courses max or 300mm - whichever is less. Around all openings bricks shall be tied 300mm max from sides or edges. Durability requirement of 430g/m2 galvanised coating or 304 stainless steel to all brick ties.

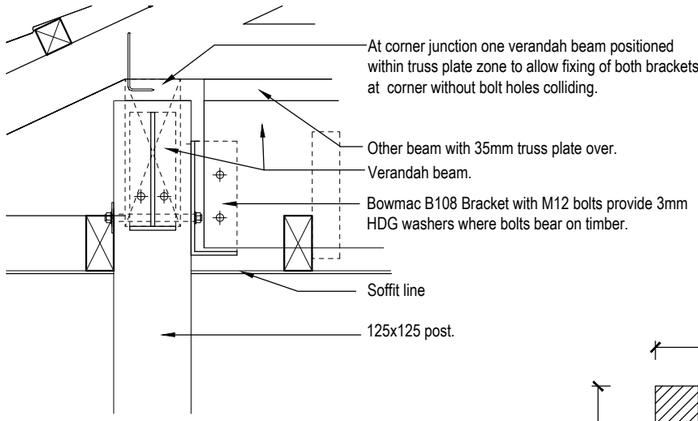
Timber Preservatives and Identifying Timber:

The sequence of the information in the brand shall be:
(a) plant number.
(b) preservative code number.
(c) hazard class number.

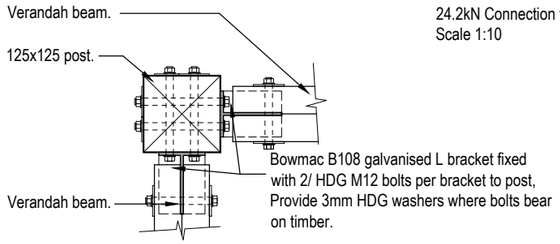


Timber Preservatives Note:
Where H3.1, H3.2, H4 or H5 timber treatment is required, CCA (Copper Chromium Arsenic) preservative code 01 must only be used. Galvanised fixings can be used with CCA treated timber.

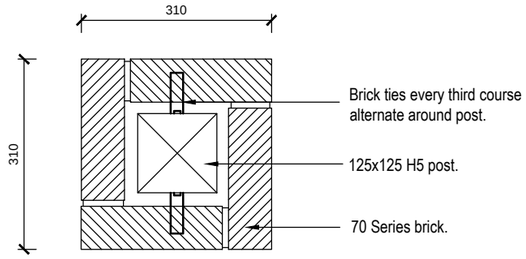
If alternative preservatives such as ACQ (Alkaline Copper Quaternary) preservative code 90 or CA (Copper Azole) preservative code 58 are instead used, Stainless Steel 304 or 316 fixings must always be used to timbers with these alternative preservatives and NOT galvanised steel fixings.



Verandah beam corner junction connection detail
24.2kN Connection to post. (12.1kN per bracket.)
Scale 1:10



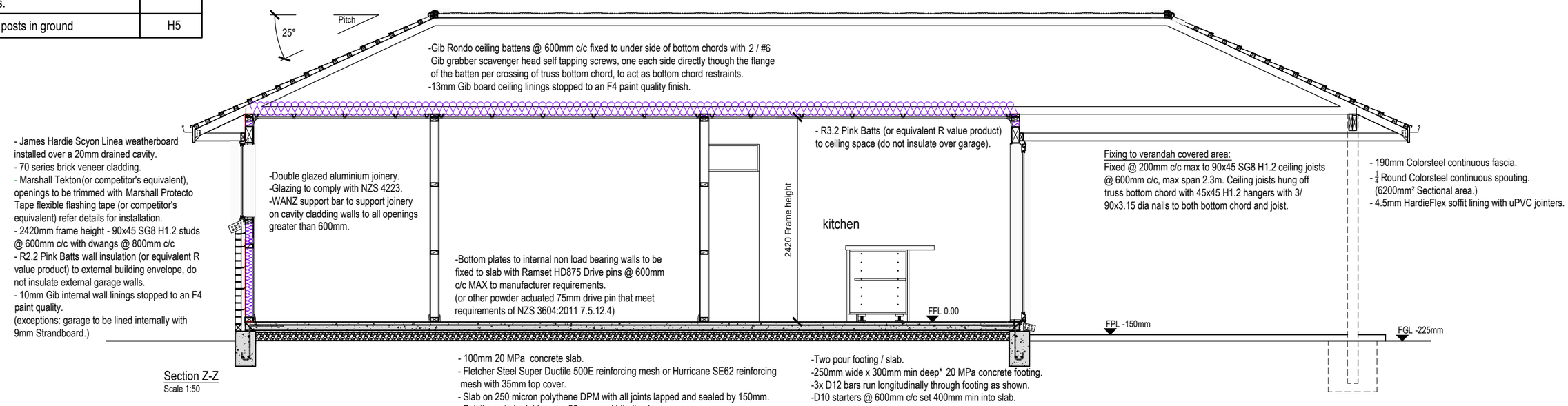
Verandah beam corner junction connection detail.
24.2kN connection to post. (12.1kN per bracket.)
Scale 1:10



Notes
- Avoid filling columns with concrete
- Provide weepholes at the base

Brick column detail
Scale 1:10

-Pressed metal Shake - Satin tile roofing at 25° pitch.
-Self Supporting Breather type building paper (Thermakraft 215 or other approved equivalent) laid across roof pitch.
- 45x45 SG6 H1.2 tile battens @ 370mm c/c fixed with 2 / 90mm x 3.15 dia. power driven nails. providing a 0.8kN fixing (or other equivalent 0.8kN fixing).
- Trusses fixed to manufacturer's requirements @ 900mm c/c.



Section Z-Z
Scale 1:50

- 100mm 20 MPa concrete slab.
- Fletcher Steel Super Ductile 500E reinforcing mesh or Hurricane SE62 reinforcing mesh with 35mm top cover.
- Slab on 250 micron polythene DPM with all joints lapped and sealed by 150mm.
- Polythene to be laid over a 25mm sand blinding layer.
- 100mm minimum to 600mm maximum* hardfill. compacted in layers of 150mm maximum.
(*maximum without engineer's compaction certificate.)

-Two pour footing / slab.
-250mm wide x 300mm min deep* 20 MPa concrete footing.
-3x D12 bars run longitudinally through footing as shown.
-D10 starters @ 600mm c/c set 400mm min into slab.

*Foundation depth to be 300mm min below cleared ground level assuming ground has an ultimate bearing pressure of at least 300kpa confirm on site.

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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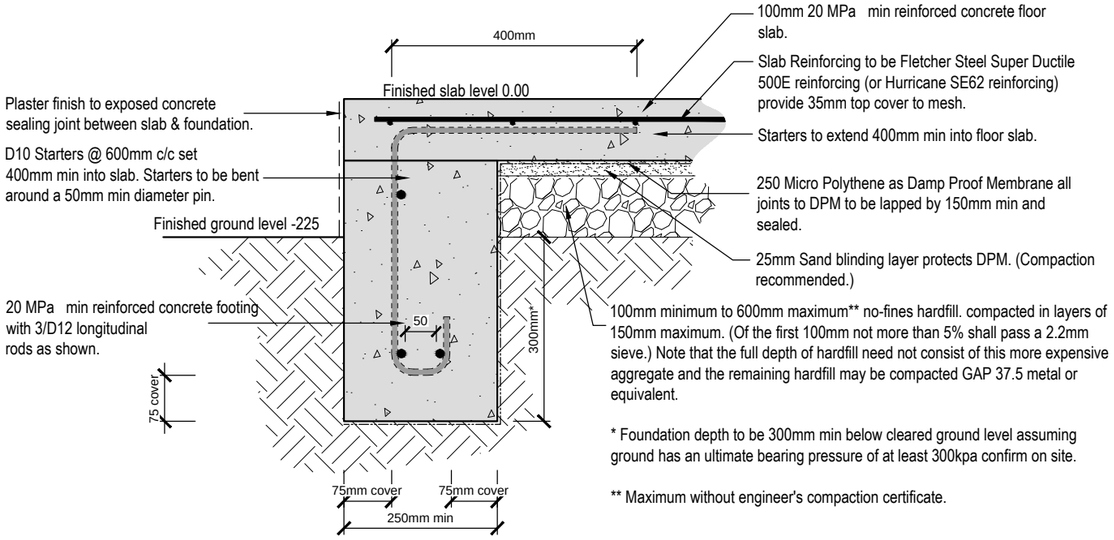
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

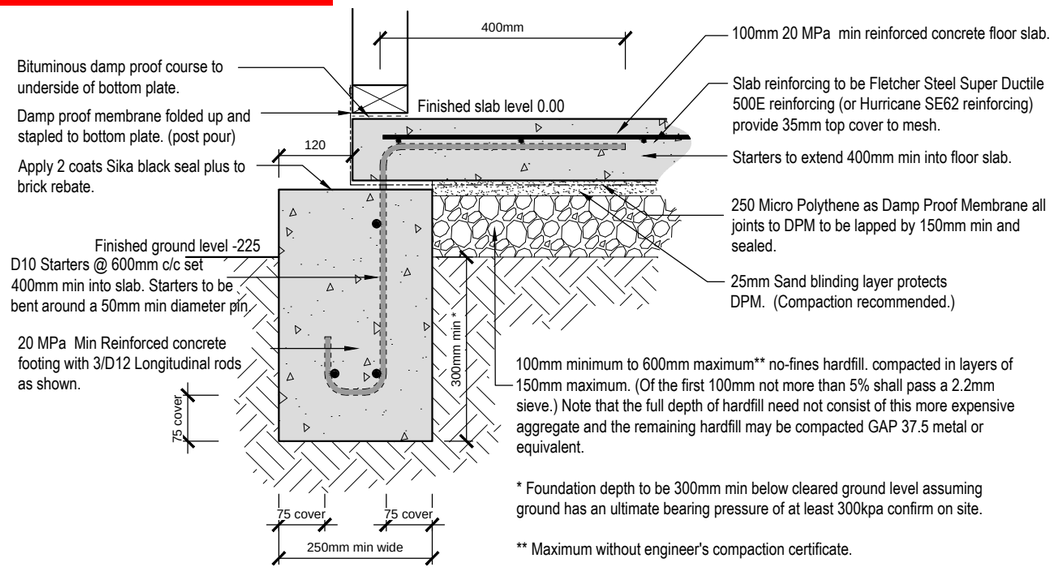
Section Z-Z

GENERATED: 07 / 03 / 2019 12:34:36 pm
SCALES: A3 1:50 A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A12
LOT: 45 DP: 524726

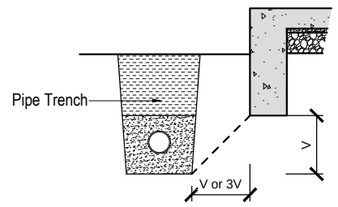
Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Light / Medium weight cladding foundation detail
Scale 1:10

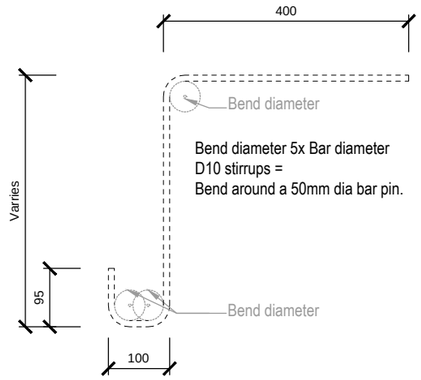


Brick veneer 120mm rebate foundation detail
Scale 1:10

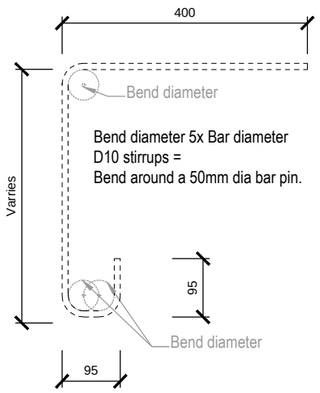


Minimum horizontal distance between trench and foundation wall to be:
"V" if drain will be left open for less than 48 hours.
OR
"3V" if trench to be left open for longer than 48 hours.

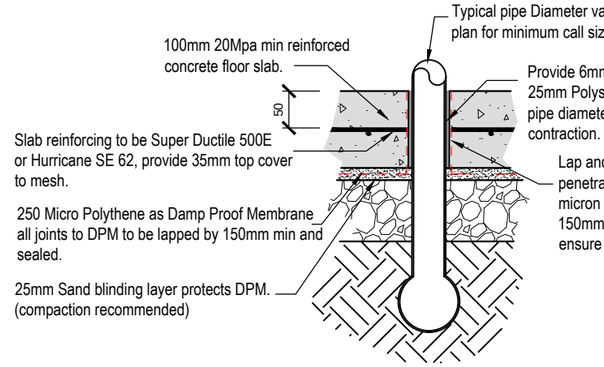
Distance of Pipe trench to building foundation detail
Scale 1:30



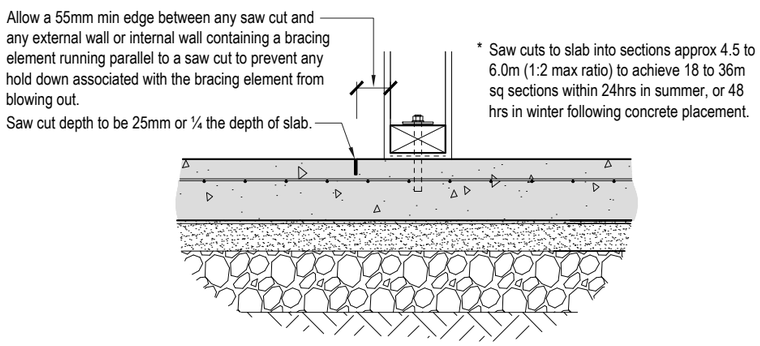
D10 starters - Heavy weight foundation
Scale 1:10



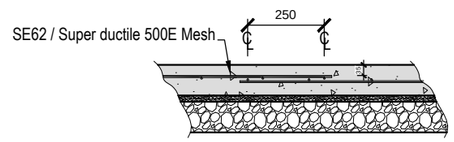
D10 starters - Light weight foundation
Scale 1:10



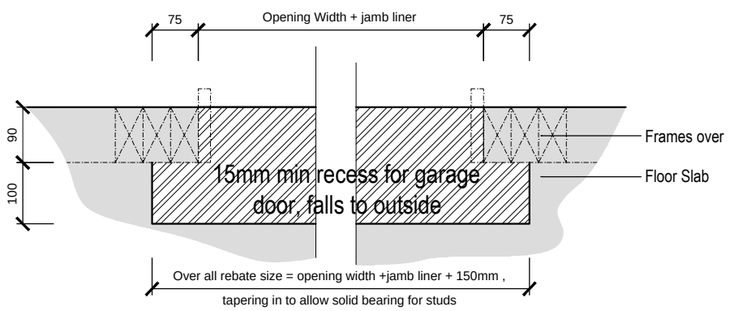
Typical pipe penetration in slab
Scale 1:10



Saw cut detail
Scale 1:10



SE62 / Super ductile 500E Mesh sheet lap distances for sheet ends and sheet sides
Scale 1:20



Garage Door Rebate Detail
Scale 1:10

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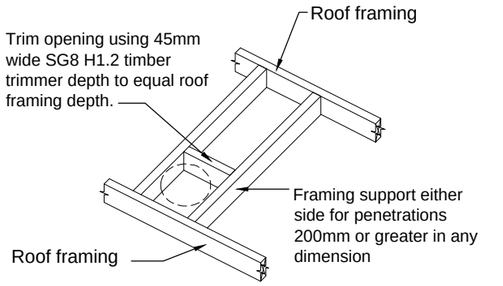
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

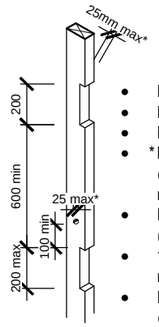
Foundation & drainage details

GENERATED: 07 / 03 / 2019 12:34:46 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A13
LOT: 45
DP: 524726

Last modified by: Jonathan Paper size: A3 File Location: Z:\00 Jobs\18-38 Canning\2 - Working Drawings\18-38 Canning working drawings.dwg

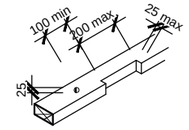


Roof penetration support detail
Scale 1:30



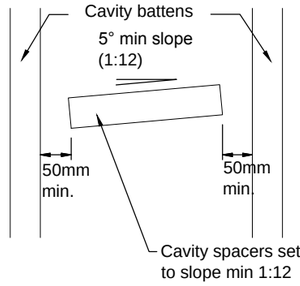
- Max hole dia 25mm
- Max notch depth 25mm
- Max notch height 200mm
- * For 90mm wide studs the depth of notches and diameter of holes may be increased to 35mm where no more than 3 consecutive are drilled or notched.
- Notches in studs to be spaced 600mm apart (independent of edge containing the notch).
- 100mm min offset between a hole in a stud and a notch in a stud
- **NOTE: trimming studs may not have any holes or notches with the middle third of their length.**

Permitted holes and notches in un strengthened studs
Scale 1:30

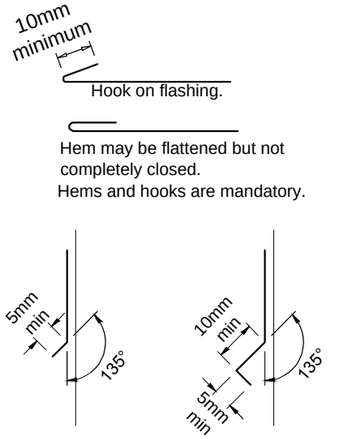


- Max hole dia 25mm
- Max notch depth 25mm
- Max notch length 200mm
- 100mm min offset between a hole in a plate and a notch in a plate
- If the above is not complied with, strengthening with 8.7.5.1 of the NZS3604 must be installed

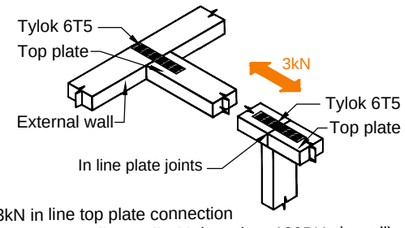
Permitted holes and notches in top plates not requiring strengthening
Scale 1:30



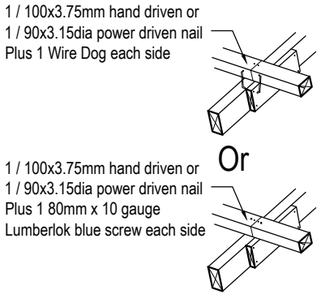
Note: Spacing of cavity spacers will vary to suit individual cladding fixings.
Cavity batten spacer detail
Scale 1:10



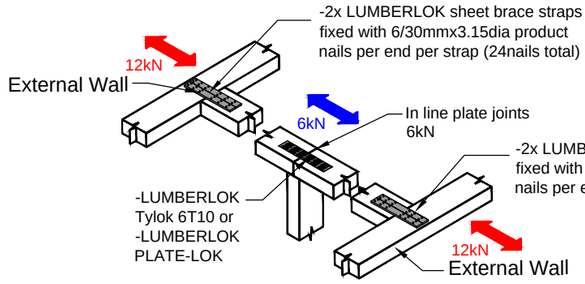
Typical metal flashing edge treatments
Scale 1:10



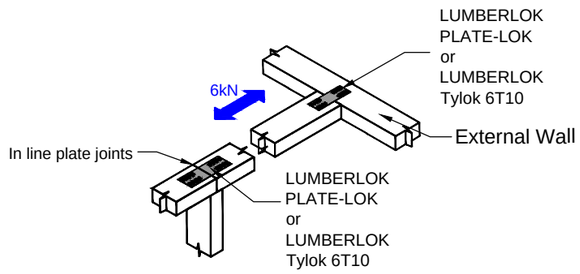
3kN in line top plate connection
(unbraced wall or wall with less than 100BUs in wall)
Scale 1:20



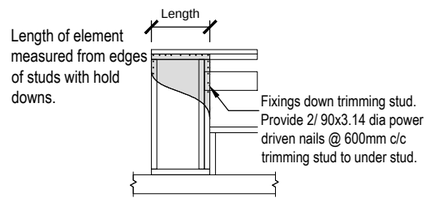
Joining purlins up to 2.7Kn fixing requirement
Scale 1:30



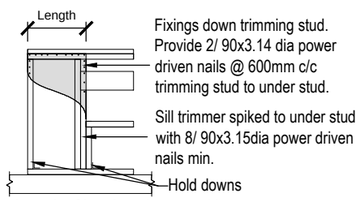
12kN double T junction top plate connection.
(250 to 500 BUs in wall)
Scale 1:20



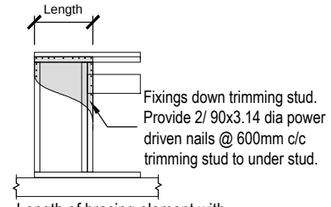
6kN Single T junction top plate connection.
(100 to 125 BUs in wall)
Scale 1:20



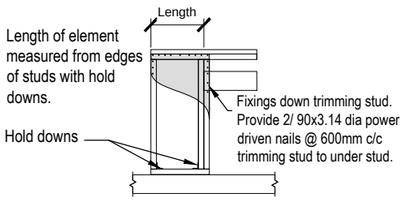
Length of bracing element with no hold downs next to opening.
Scale 1:50



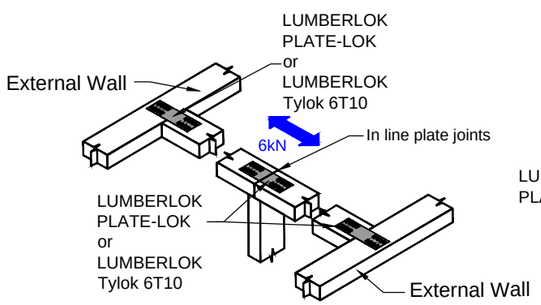
Length of bracing element with hold downs next to a window.
Scale 1:50



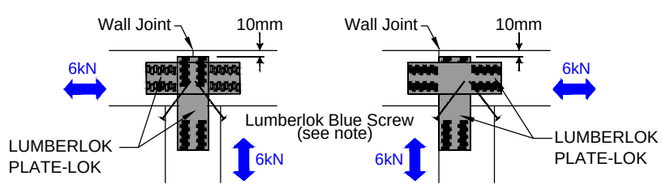
Length of bracing element with no hold downs next to opening.
Scale 1:50



Length of bracing element with hold downs next to opening.
Scale 1:50



6kN double T junction top plate connection.
(126 to 250 BUs in wall)
Scale 1:20

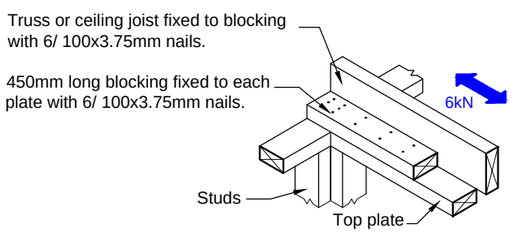


Note: Fix with a pair of LUMBERLOK Blue Screws on sides of top plate for Douglas fir and LVL8 only

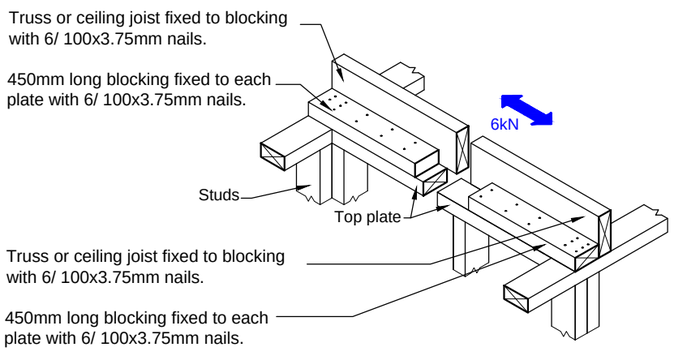
Central wall joint

Side wall joint

6kN Top plate T junctions when external wall joins at junction.
Scale 1:20



6kN single T junction connection through a roof framing.
(up to 125 bracing units in wall)
Scale 1:20



6kN double T junction connection through a roof framing.
(125 to 250 BUs in wall)
Scale 1:20

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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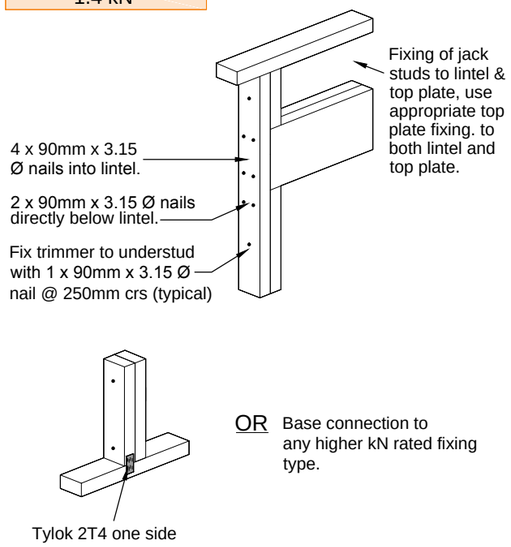
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

Construction details

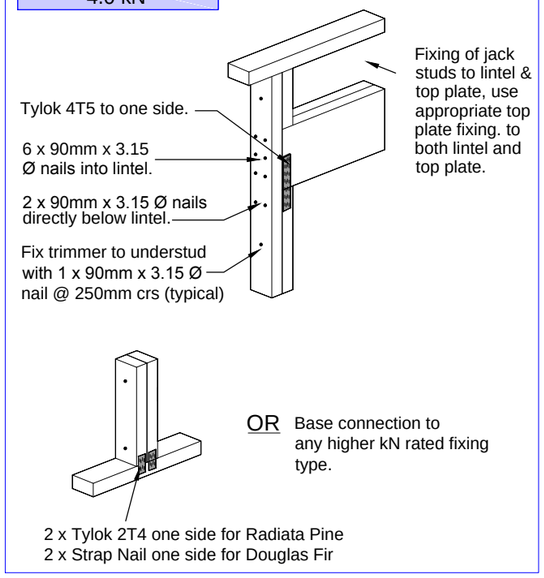
GENERATED: 07 / 03 / 2019 12:34:57 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45
DP: 524726
SHEET No: A14

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg

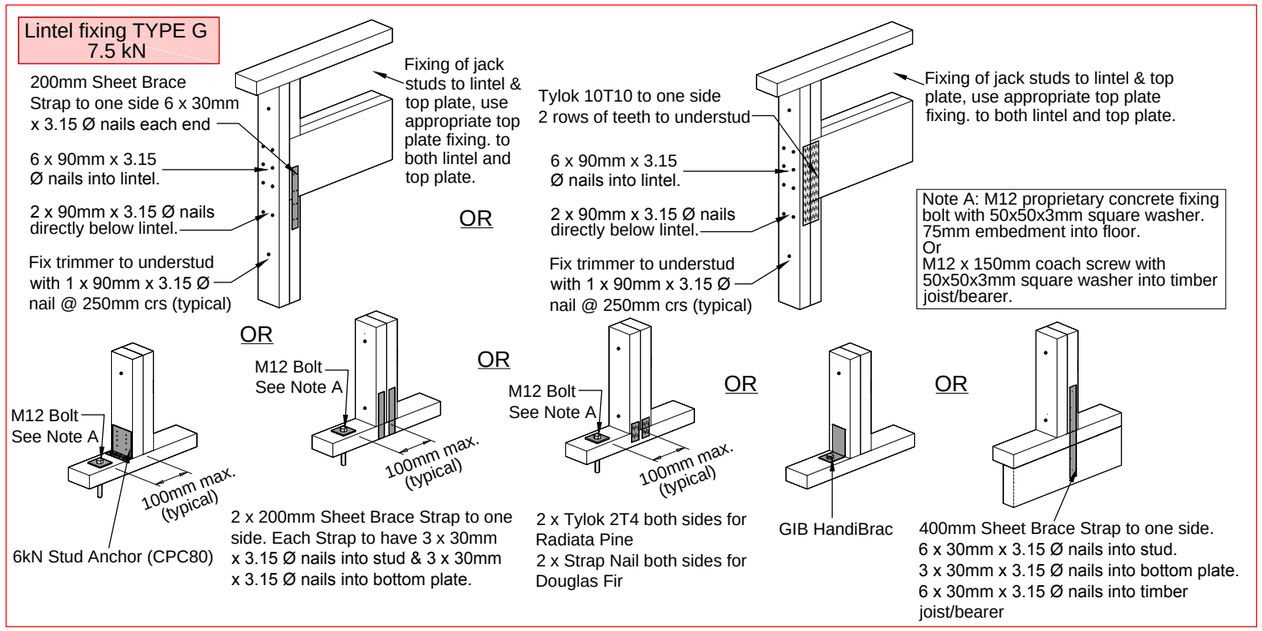
Lintel fixing TYPE E 1.4 kN



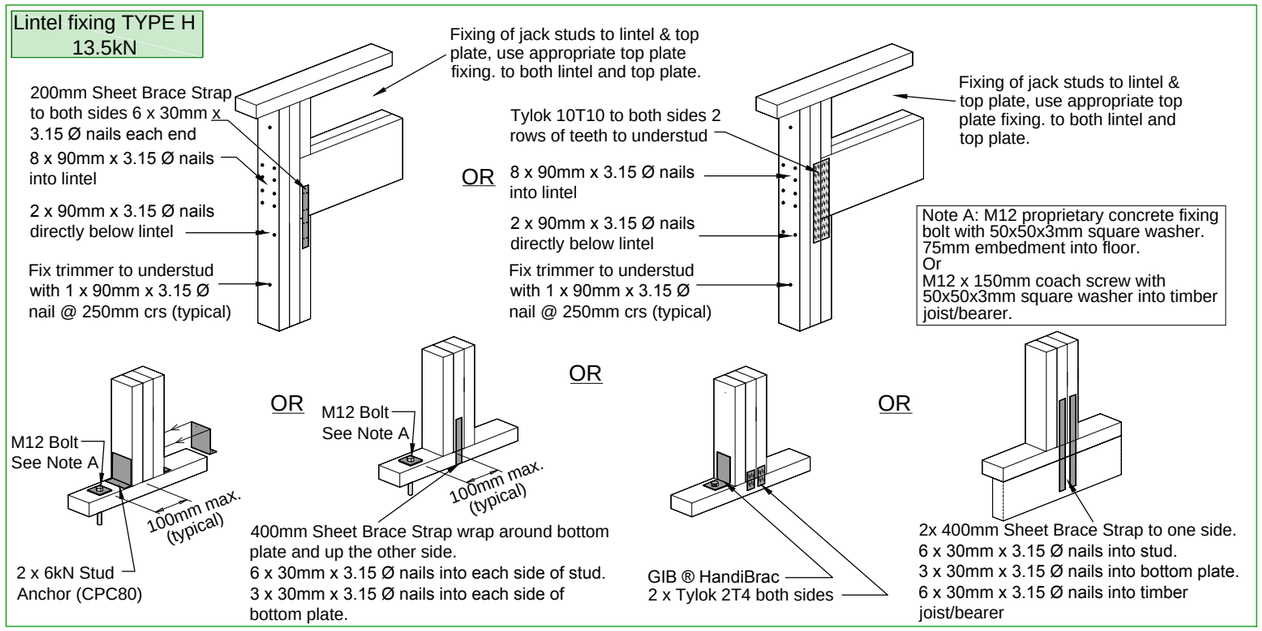
Lintel fixing TYPE F 4.0 kN



Lintel fixing TYPE G 7.5 kN

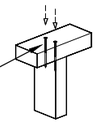


Lintel fixing TYPE H 13.5kN



Top plate fixing TYPE A 0.7 kN

2 x 90mm x 3.15 Ø plain steel wire nails driven vertically into stud.

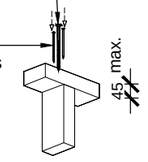


Top plate fixing TYPE B 4.7kN

CHOOSE ANY OF THE 2 OPTIONS BELOW.

Bowmac studlok SL125 screwed vertically through single top plate into stud
- yellow head
-125mm long

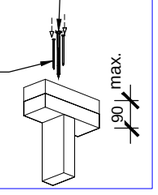
2 x 90mm x 3.15 Ø plain steel wire nails driven vertically into stud.



OR

Bowmac studlok SL170 screwed vertically through single or double top plate into stud
- blue head
-170mm long

2 x 90mm x 3.15 Ø plain steel wire nails driven vertically into stud.

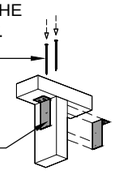


OR

Top plate fixing TYPE B 4.7kN

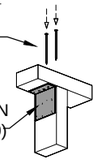
CHOOSE ANY OF THE 3 OPTIONS BELOW.

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



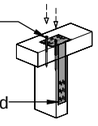
OR

2 x 90mm x 3.15 Ø plain steel wire nails driven vertically into stud.
1 x LUMBERLOK 6 kN Stud Anchor. (CPC80)



OR

2 x 90mm x 3.15 Ø plain steel wire nails driven vertically into stud.
1 x LUMBERLOK Stud Strap.



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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Issue: **Consent**

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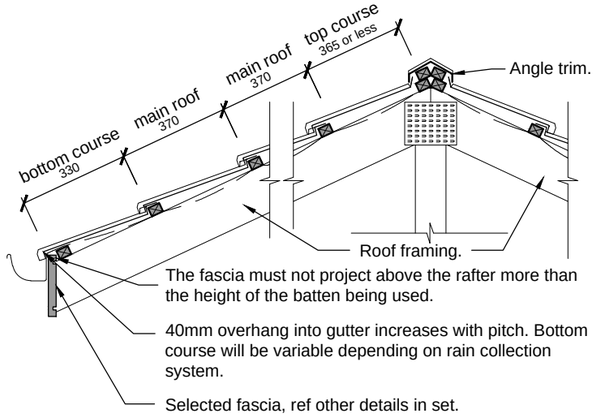
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

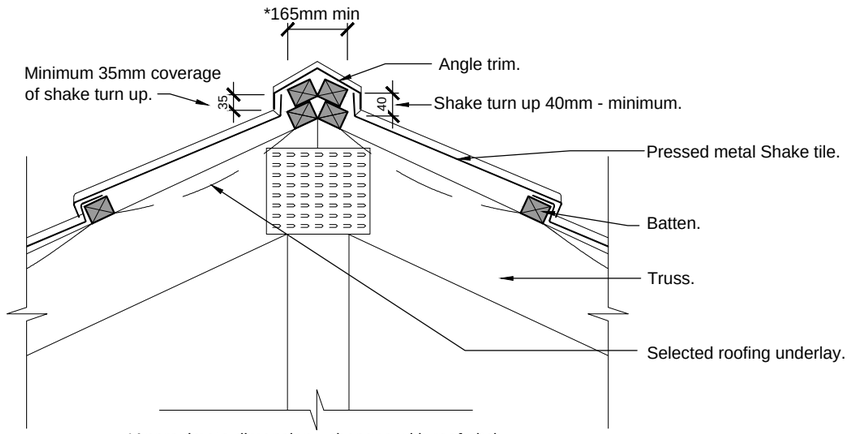
Construction details 2

GENERATED: 07 / 03 / 2019 12:35:05 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
SHEET No: A15
LOT: 45 DP: 524726

Last modified by: Jonathan Paper size: A3 File Location: Z:\00 Jobs\18-20 Wycherley\2 - Working Drawings\18-20 Wycherly wds.dwg

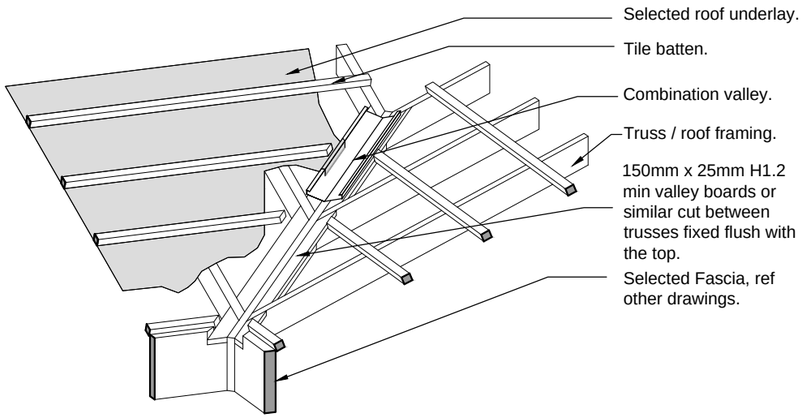


Pressed metal Shake tile batten set out - angle capping.
Scale 1:20

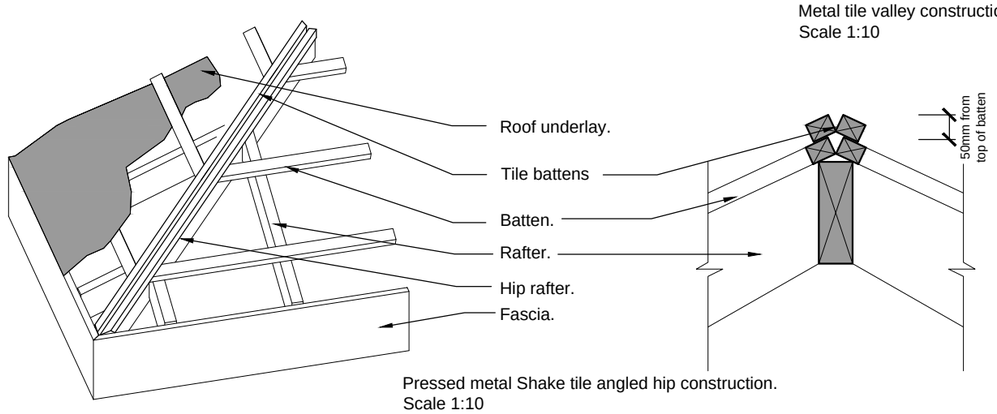


*Approximate dimension - changes with roof pitch.

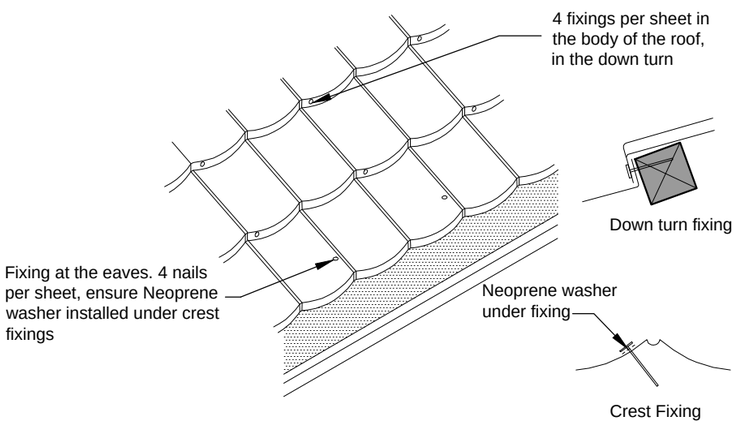
Pressed metal Shake tile ridge / hip flashing - angle capping.
Scale 1:10



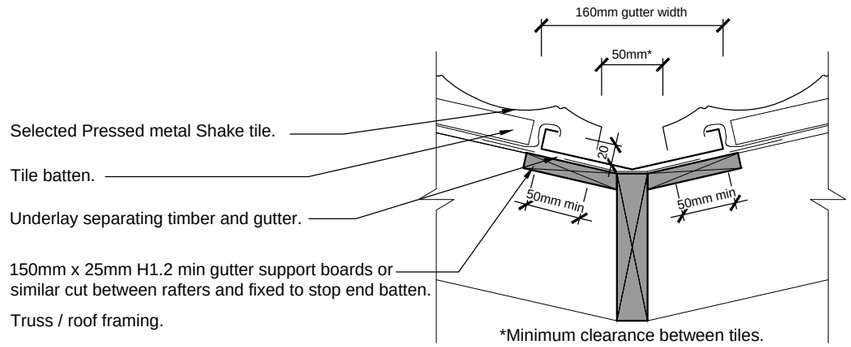
Metal tile valley construction detail.
Scale 1:10



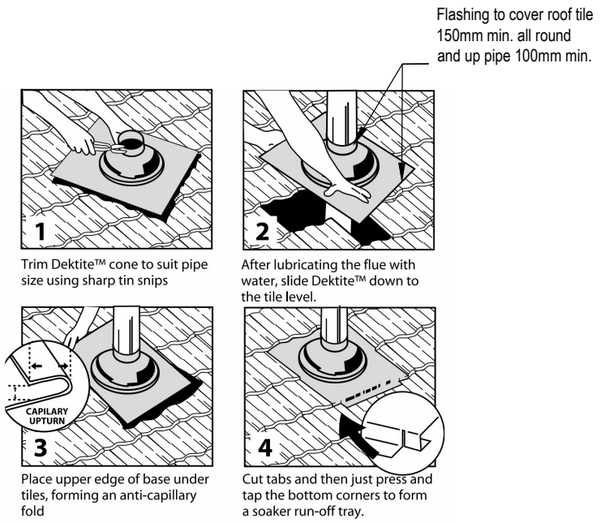
Pressed metal Shake tile angled hip construction.
Scale 1:10



Pressed metal Shake tile fixing detail
Scale 1:6



Metal tile valley.
Scale 1:10



Pipe penetration detail
Scale 1:50

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Proposed Residence.
Dirk Badenhorst.
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Metal tile details

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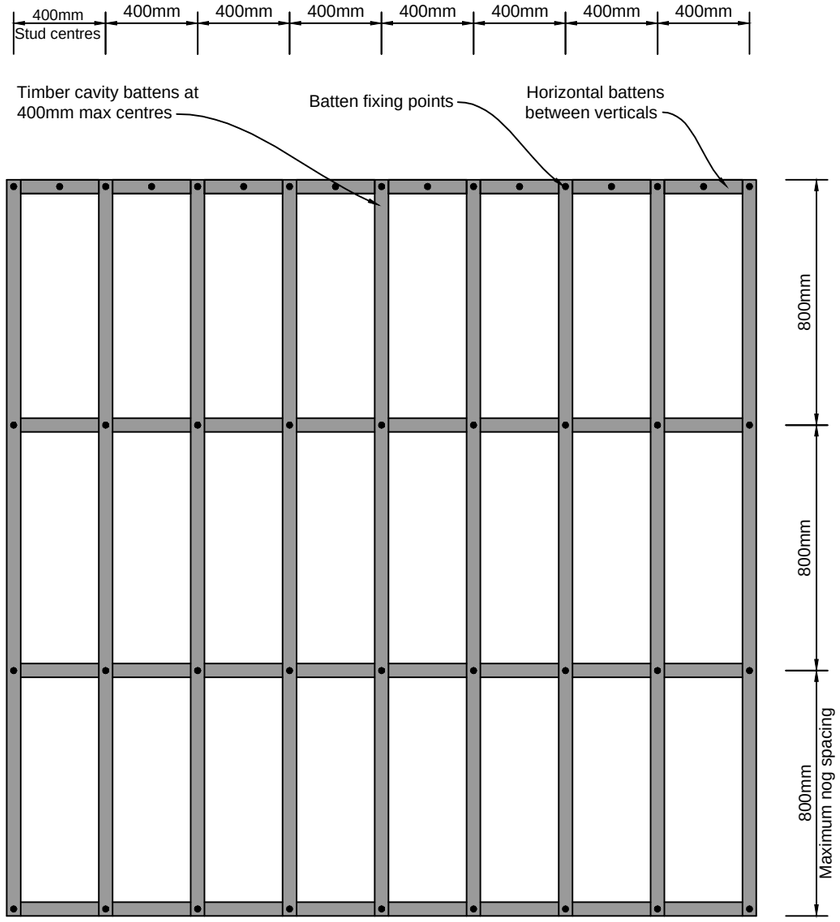
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A16

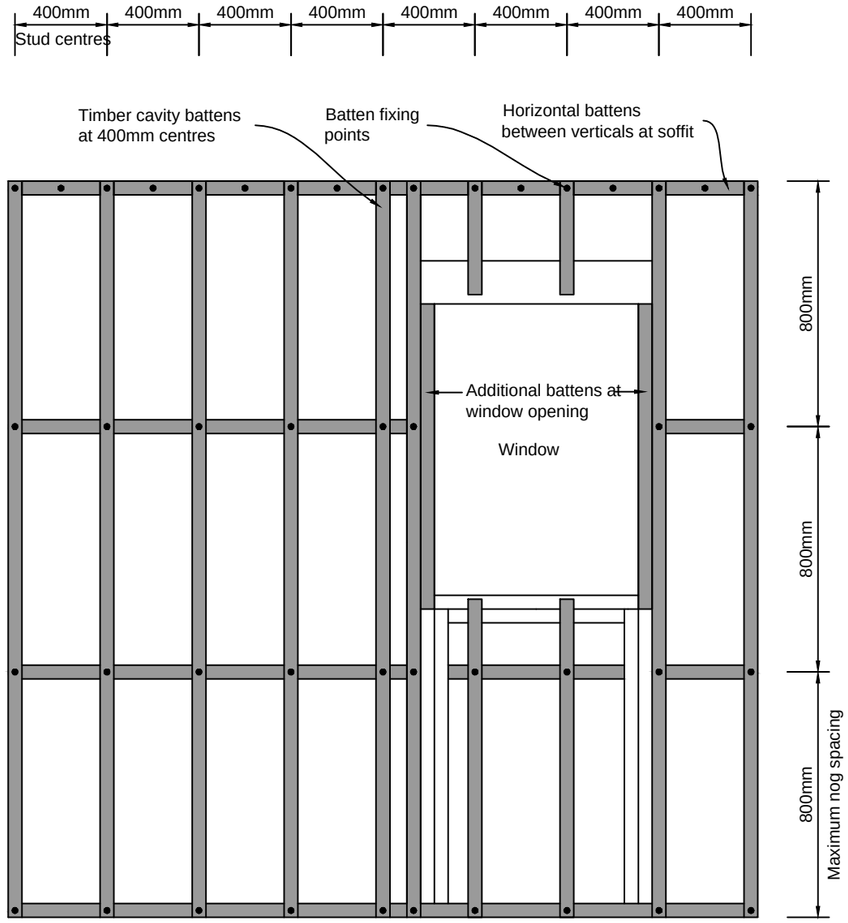
Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Studs can be 45mm or 35mm wide

No intermediate support for insulation between the studs is required where studs are less than 480mm centres. Refer to E2/AS1 Paragraph 9.1.8.5

Timber cavity batten fixing - studs @ 400crs
Scale 1:20



Studs can be 45mm or 35mm wide

No intermediate support for insulation between the studs is required where studs are less than 480mm centres. Refer to E2/AS1 Paragraph 9.1.8.5

Timber cavity batten layout at window / opening - studs @ 400crs
Scale 1:20

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Issue: **Consent**

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James Hardie Linea details

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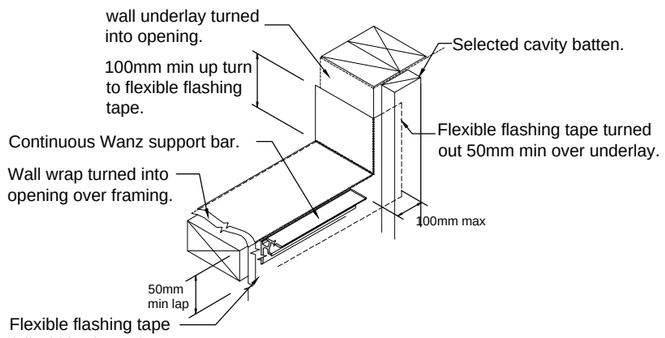
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A17

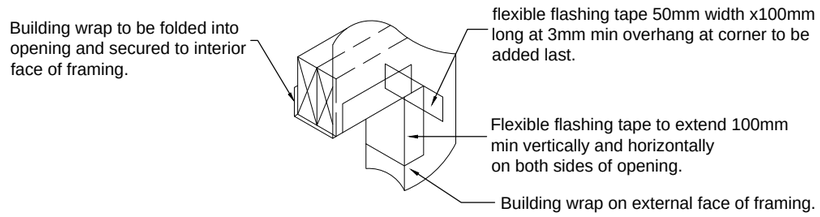
Last modified by: Rebecca Paper size: A3 File Location: Z:\00 Jobs\18-49 Smith\2 - Working Drawings\18-49 Smith working drawings.dwg

Note:
cladding omitted for clarity, refer cladding specific details for further information.

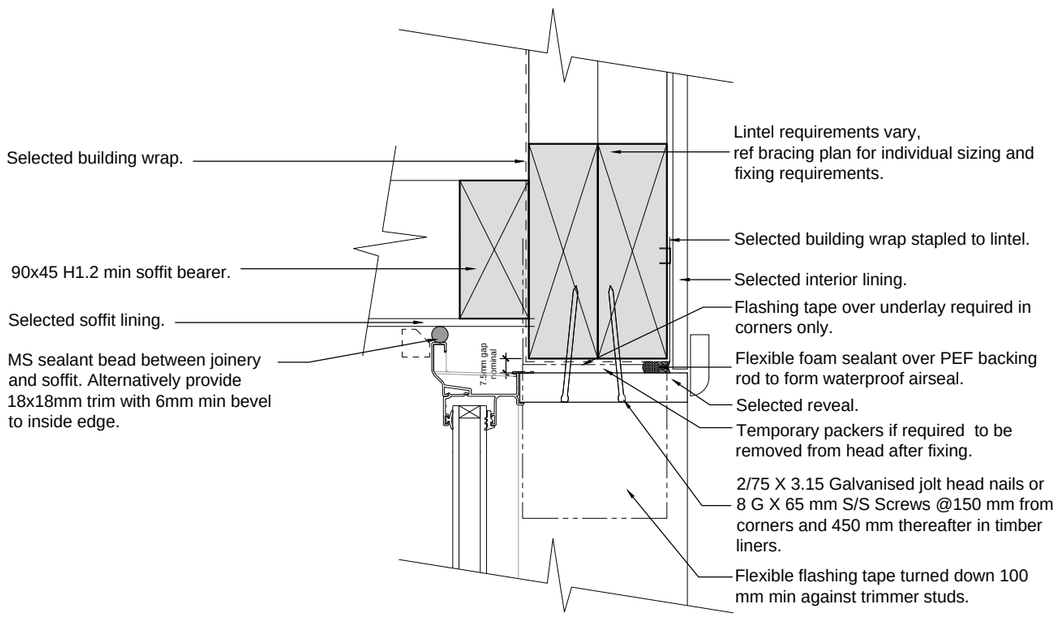


Flashing tape installation sill.

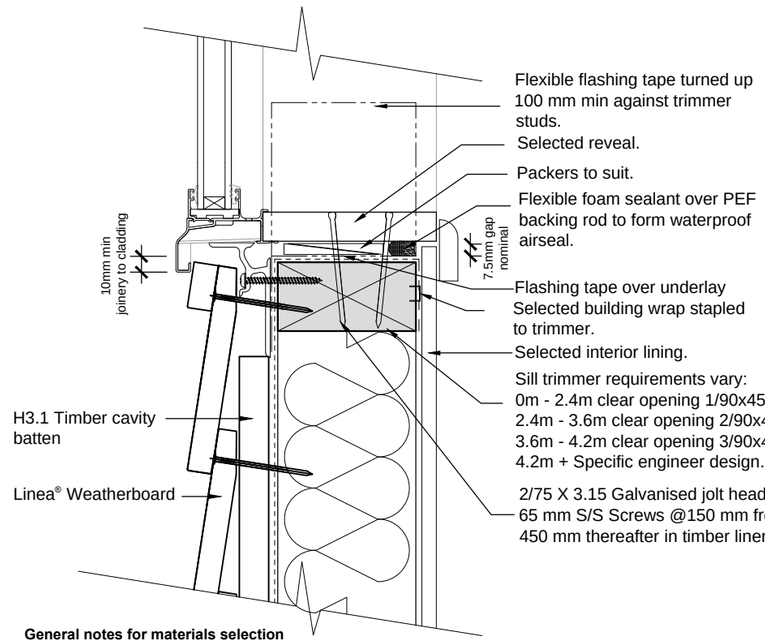
Note:
cladding omitted for clarity, refer cladding specific details for further information.



Flashing tape installation head



Linea Weatherboard window head hard to soffit detail
Scale 1:4



General notes for materials selection

1. Flashing materials must be selected based on environmental exposure, refer to NZS 3604 and Table 20 of NZBC clause E2/AS1.
2. Flexible underlay must comply with acceptable solution E2/AS1.
3. Flashing tape must have proven compatibility with the selected flexible underlay / James Hardies rigid air barrier and other materials with which it comes into contact.
4. Sill support bars must comply with EM6, E2/VM1 and B2/AS1

Refer to the manufacturer or supplier for technical information for these materials .

Linea Weatherboard window sill detail
Scale 1:4

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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James Hardie Linea details 2

GENERATED: 07 / 03 / 2019 12:35:30 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
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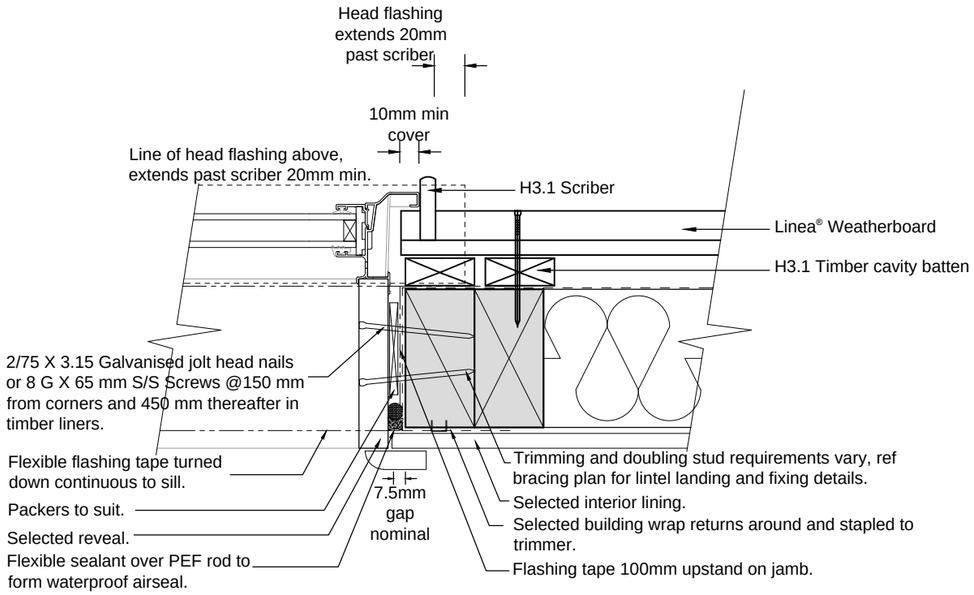
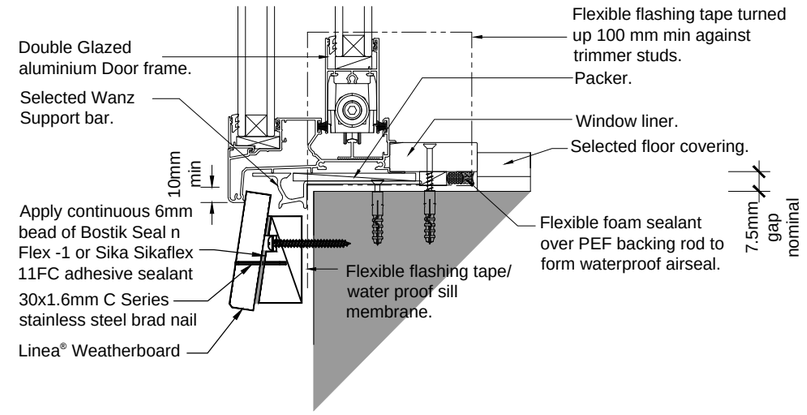
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A18

Last modified by: Rebecca Paper size: A3 File Location: Z:\00 Jobs\18-49 Smith\2 - Working Drawings\18-49 Smith working drawings.dwg



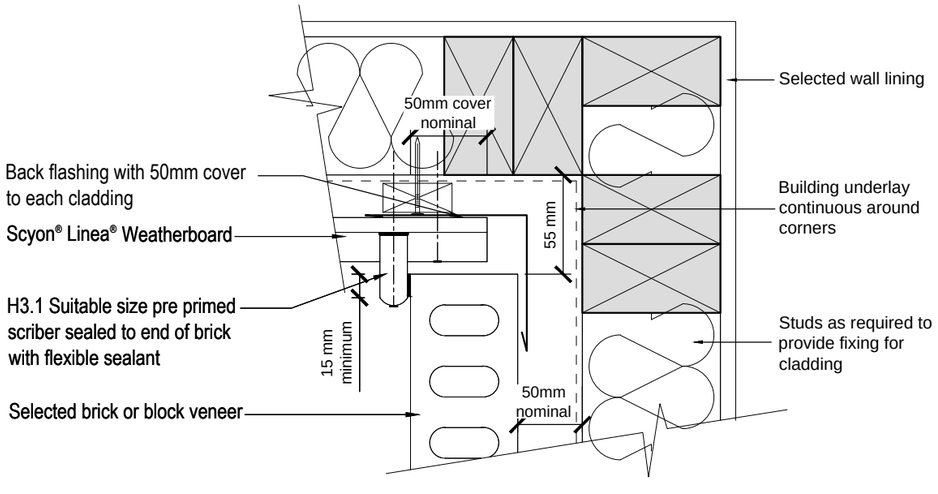
Linea Weatherboard window jamb detail
Scale 1:4



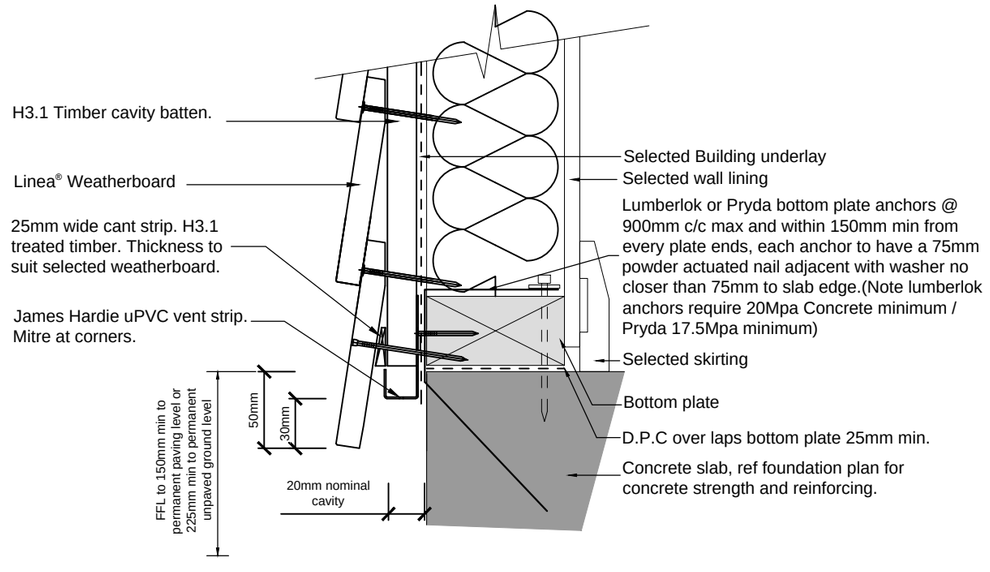
General notes for materials selection

1. Flashing materials must be selected based on environmental exposure, refer to NZS 3604 and Table 20 of the NZBC E2/AS1.
2. Building underlay must comply with acceptable solution E2/AS1.
3. Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact.
4. Linea® Weatherboard to have sealed butt joint over batten at each corner of opening.

Linea Weatherboard door sill detail
Scale 1:4



Brick veneer to James Hardie Linea internal corner junction detail
Scale 1:4



Linea Weatherboard base of cladding detail
Scale 1:4

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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James Hardie Linea details 3

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DRAWN: Jonathan Barlow
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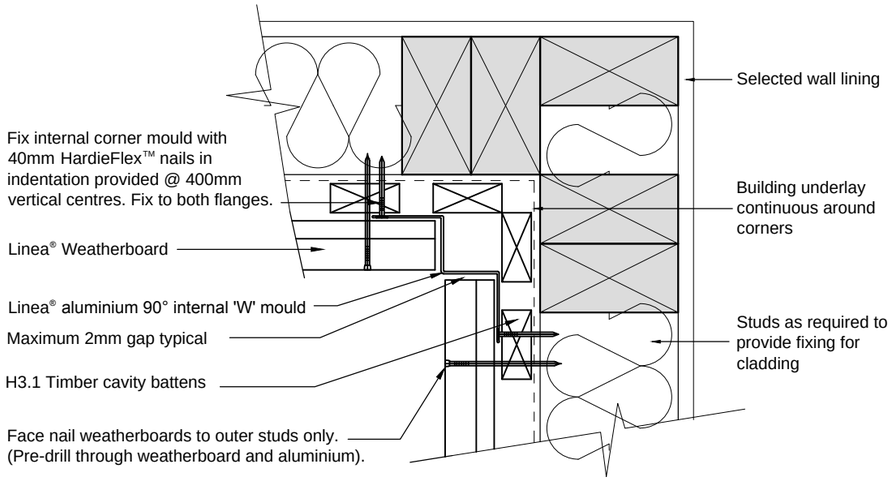
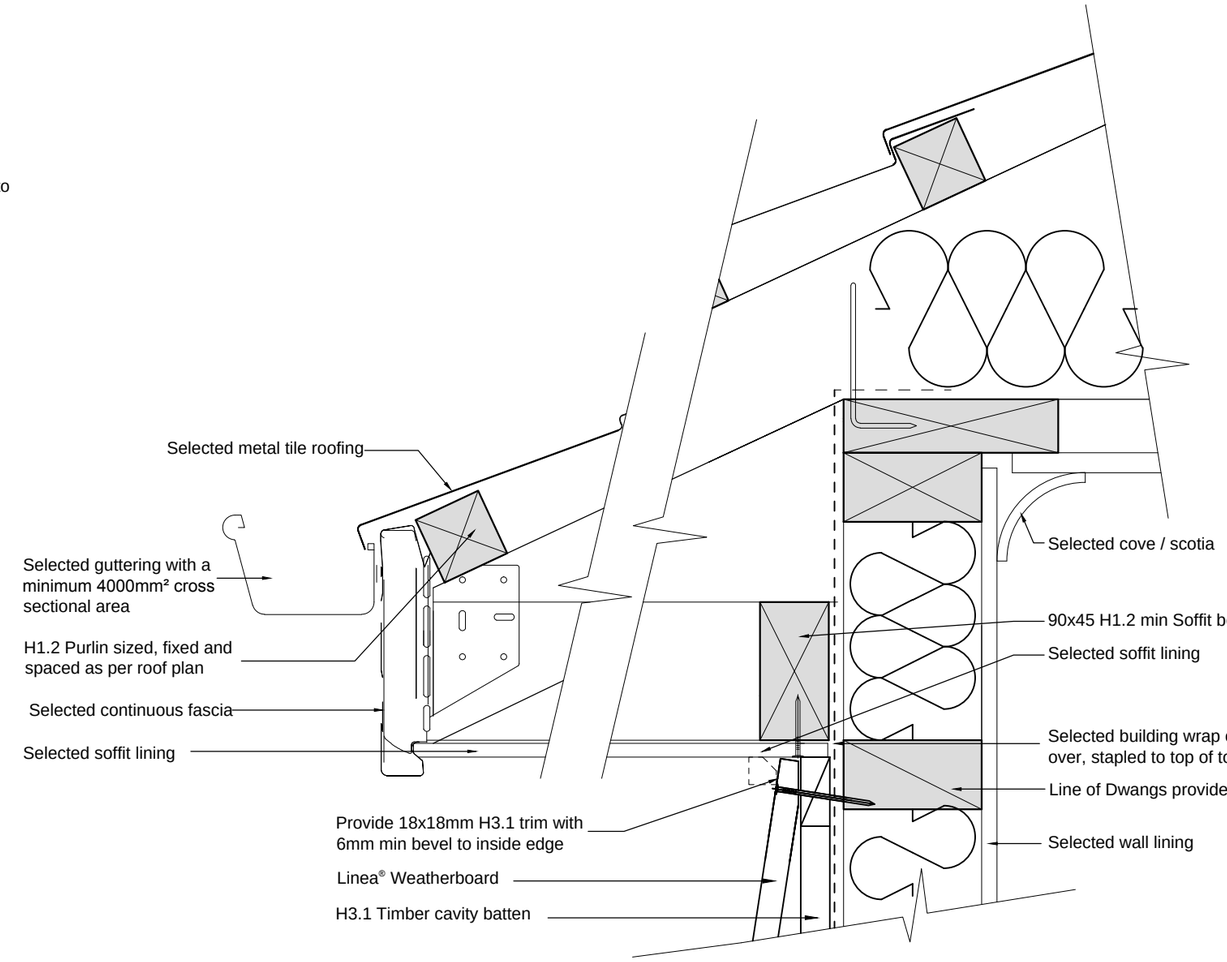
LOT: 45 DP: 524726
SCALES: A3 a/s A4 -
REV 1
JOB No: GJ 19-01
SHEET No: A19

Last modified by: Rebecca Paper size: A3 File Location: Z:\00 Jobs\18-49 Smith\2 - Working Drawings\18-49 Smith working drawings.dwg

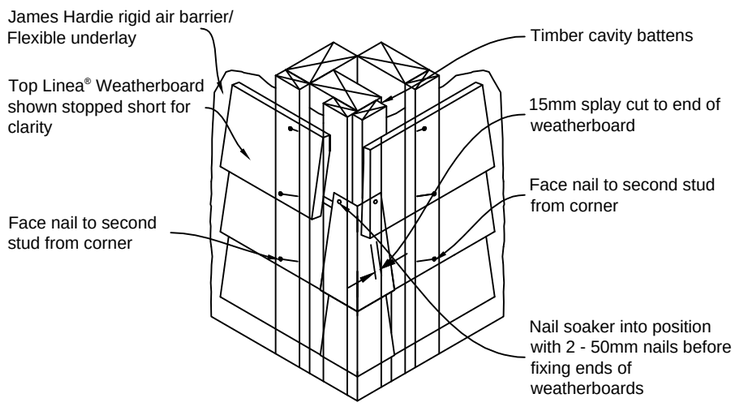


Note:
Aluminium extrusion must not be continuous over solid floor joists.

Linea Weatherboard 90° 'W' mould internal corner detail
Scale 1:4



Linea Weatherboard soffit junction detail
Scale 1:4



Soaker material	Nail material
Copper	Copper or phosphor bronze
Aluminium	Hot dip galvanised
Stainless steel	Stainless steel

Linea weatherboard external corner soaker detail
Scale 1:10

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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Proposed Residence.
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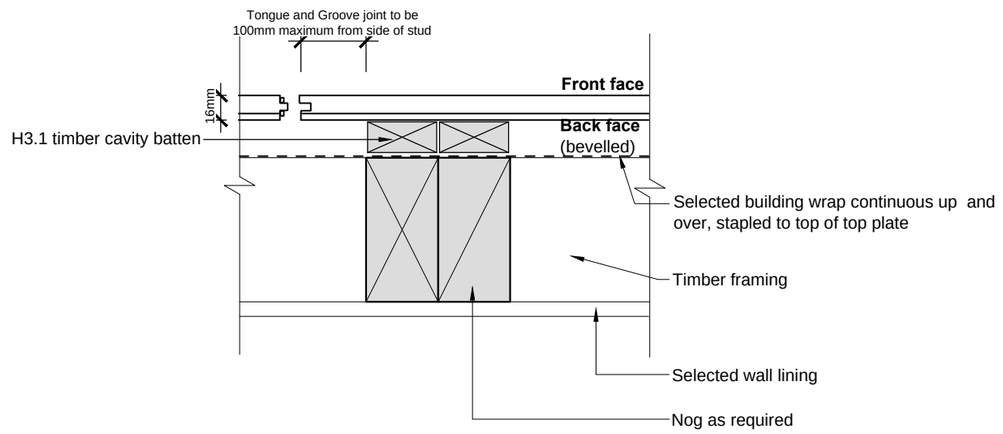
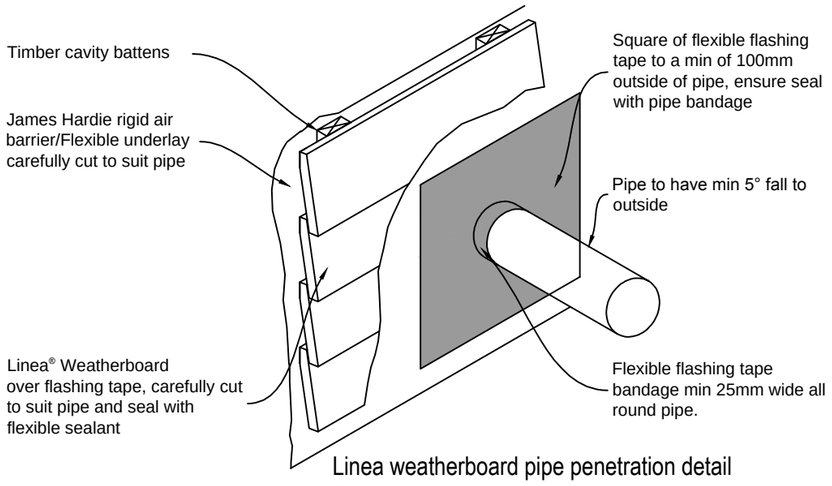
James Hardie Linea details 4

GENERATED: 07 / 03 / 2019 12:35:49 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
SHEET No: A20
LOT: 45 DP: 524726

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



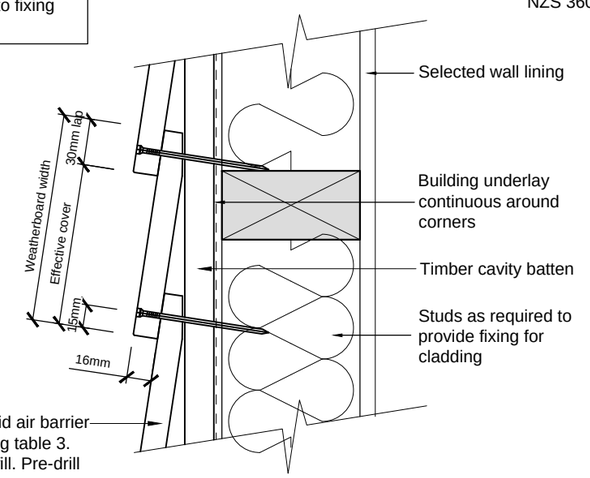
Linea Weatherboard timber cavity fixing detail
Scale 1:4



Linea weatherboard pipe penetration detail
Scale 1:10

Linea® Weatherboards to be face fixed at corners and down window and door openings using jolt head nails at 90° to face, punch 2mm below surface and fill. Refer to fixing table 3

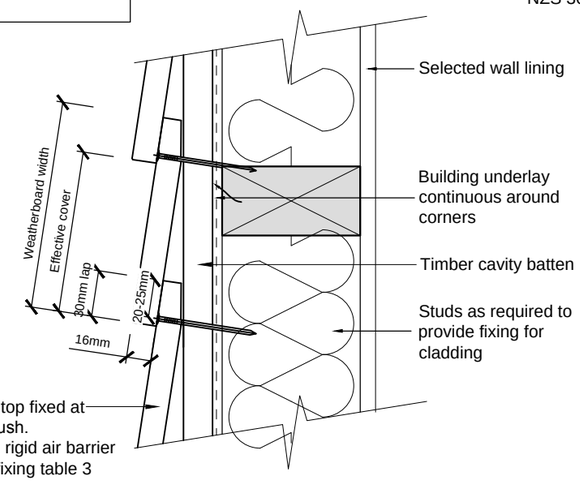
Framing to NZS 3604



Exposed Nailing

Linea® Weatherboards to be face fixed at corners and down window and door openings using jolt head nails at 90° to face, punch 2mm below surface and fill. Refer to fixing table 3

Framing to NZS 3604



Concealed Nailing

Linea Weatherboard timber cavity fixing detail
Scale 1:4

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Proposed Residence.
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James Hardie Linea details 5

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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DRAWN: Jonathan Barlow
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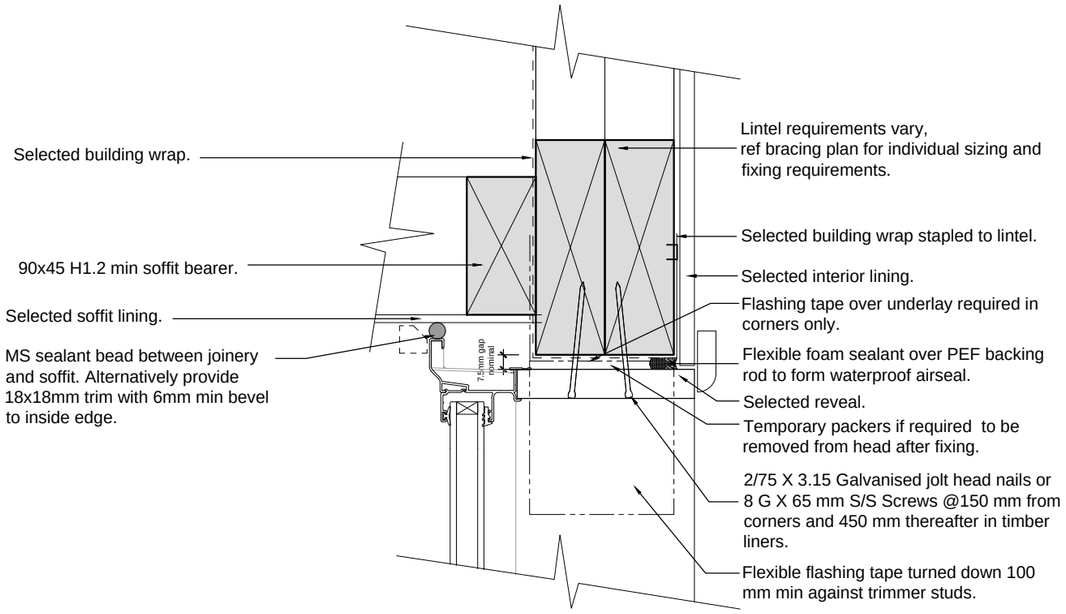
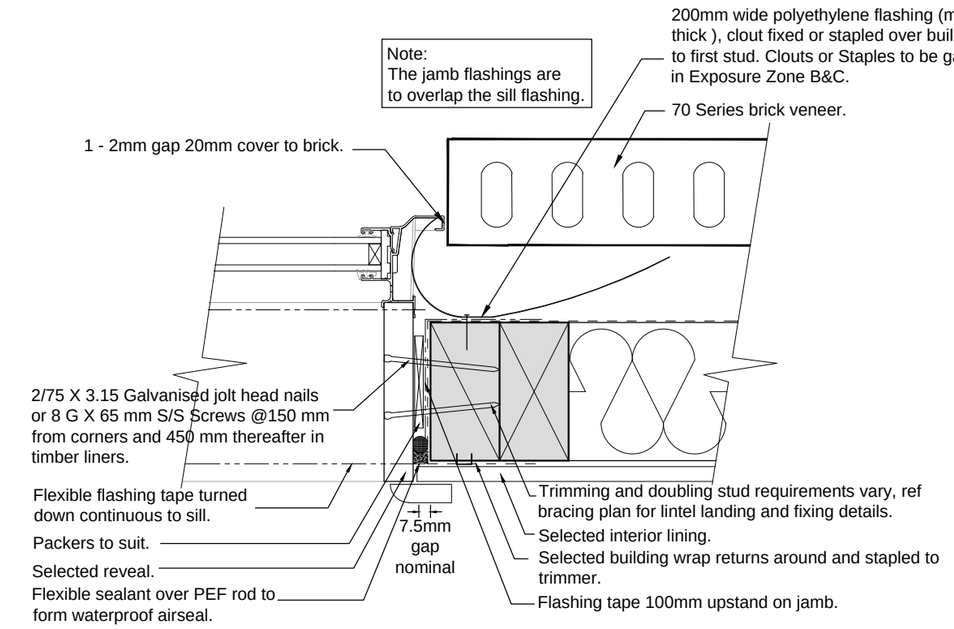
LOT: 45 DP: 524726
SCALES: A3 a/s A4 -
REV 1
JOB No: GJ 19-01
SHEET No: A21

Last modified by: Rebecca Paper size: A3 File Location: Z:\00 Jobs\18-49 Smith\2 - Working Drawings\18-49 Smith working drawings.dwg

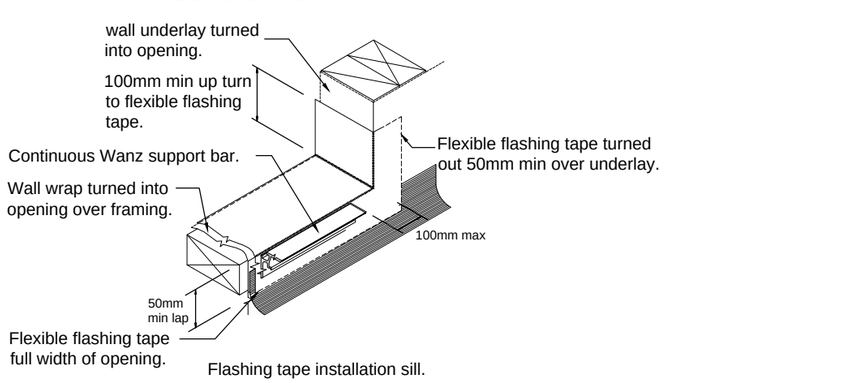


Brick veneer window head hard to soffit detail
Scale 1:4

Note:
cladding omitted for clarity, refer cladding specific details for further information.

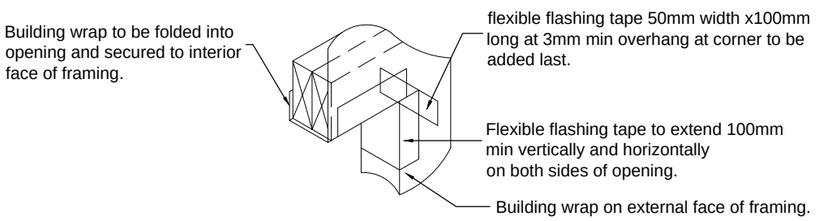


Brick veneer window jamb detail.
Scale 1:4

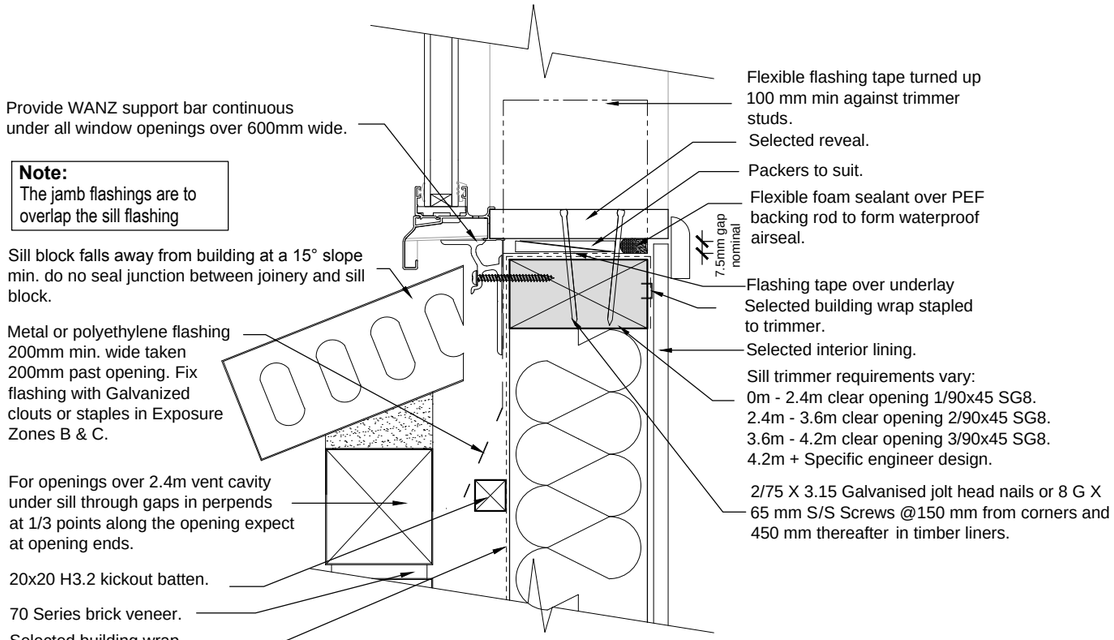


Flashing tape installation sill.

Note:
cladding omitted for clarity, refer cladding specific details for further information.



Flashing tape installation head



Brick veneer window sill detail.
Scale 1:4

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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Proposed Residence.
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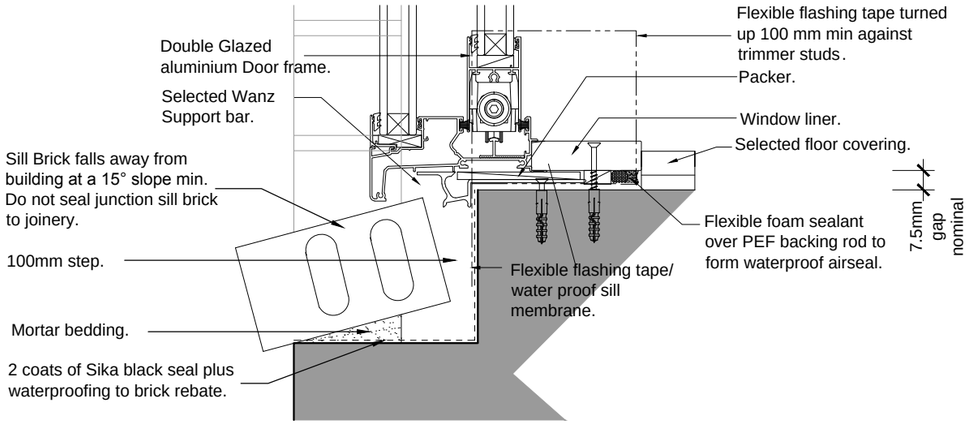
13 Pearl Grove, Ashhurst.

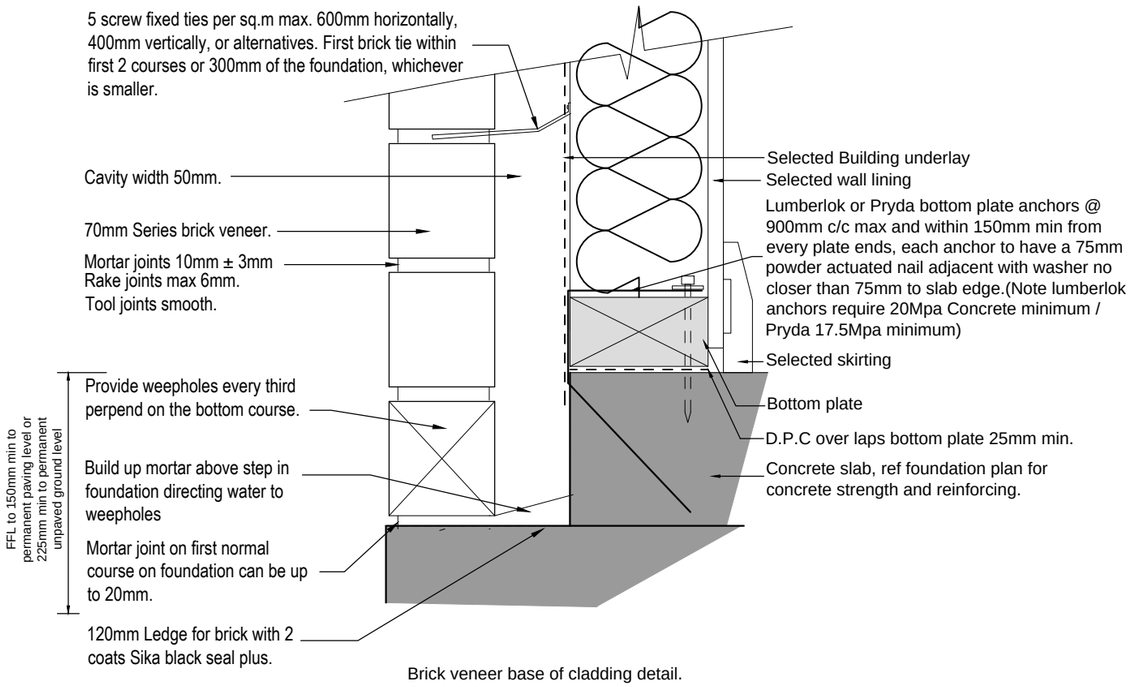
Brick veneer details

GENERATED: 07 / 03 / 2019 12:36:04 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
SHEET No: A22
LOT: 45 DP: 524726

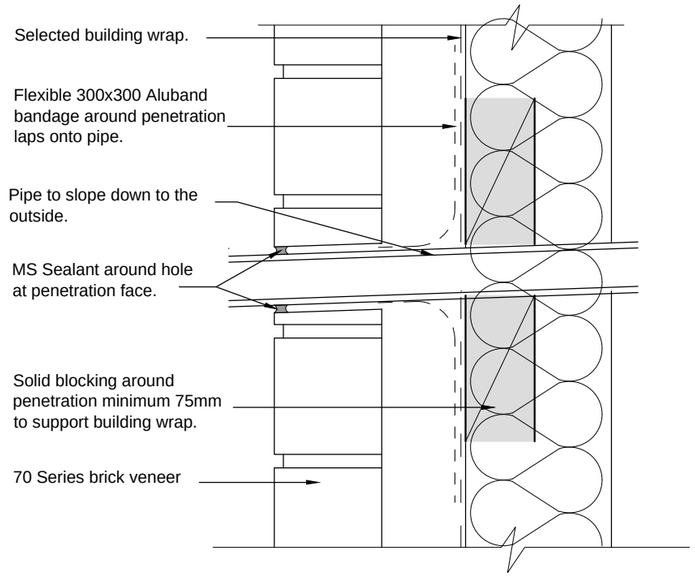
Last modified by: Rebecca Paper size: A3 File Location: Z:\00 Jobs\18-49 Smith\2 - Working Drawings\18-49 Smith working drawings.dwg



Brick veneer door sill detail.
Scale 1:4



Brick veneer base of cladding detail.
Scale 1:4



Brick veneer pipe penetration detail.
Scale 1:4

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13 Pearl Grove, Ashhurst.

Brick veneer details 2

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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GENERATED: 07 / 03 / 2019 12:36:06 pm	SCALES: A3 a/s A4 -		
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LOT: 45 DP: 524726		SHEET No: A23	

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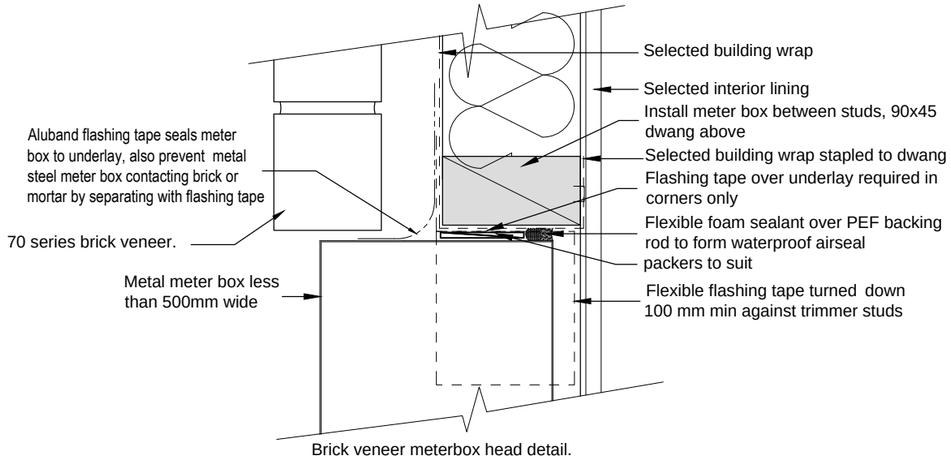
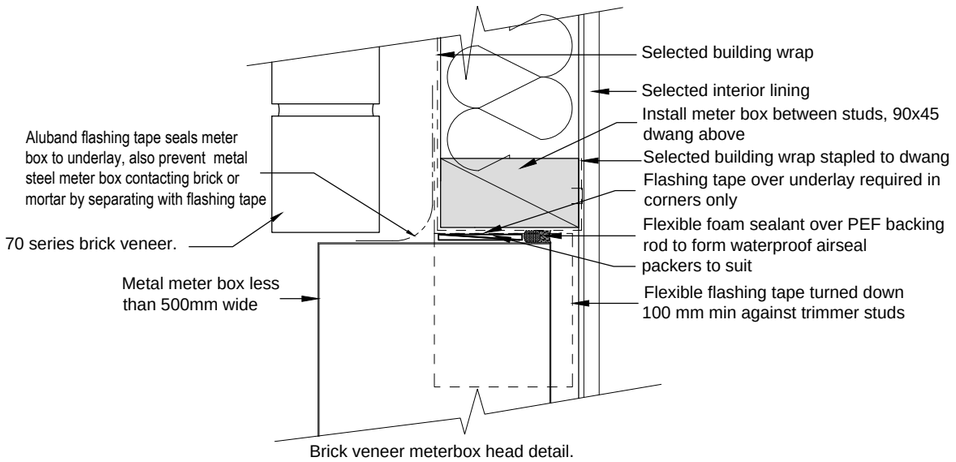
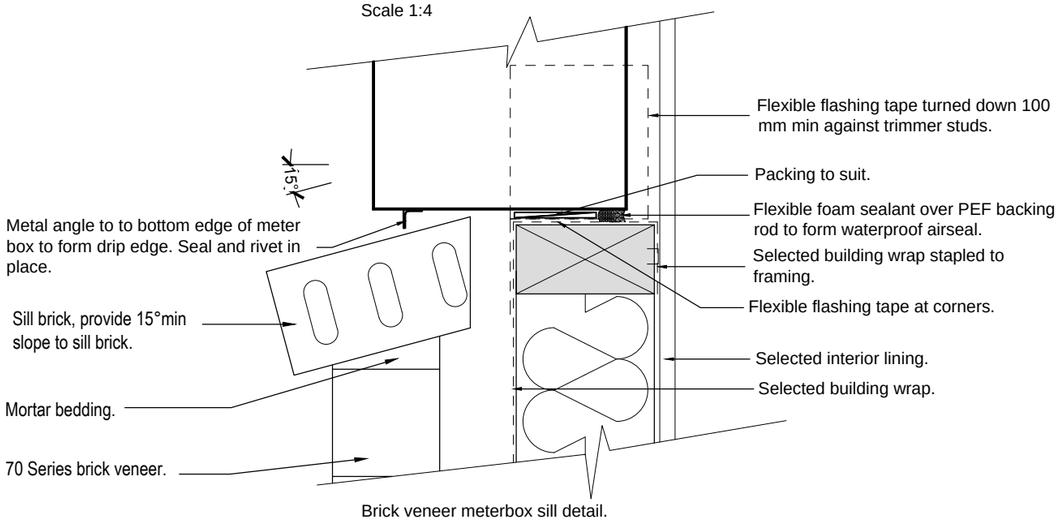


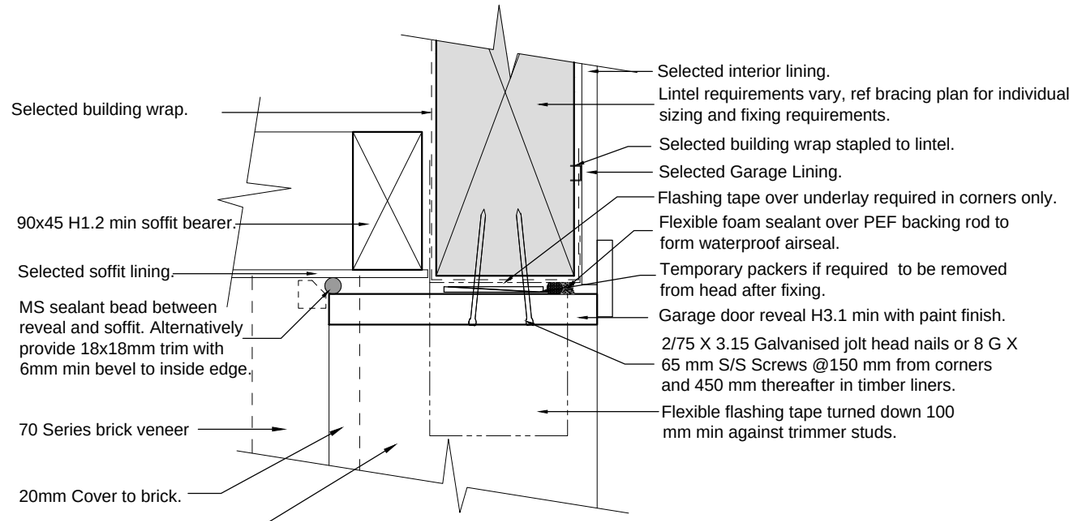
Brick veneer meterbox head detail.
Scale 1:4



Brick veneer meterbox head detail.
Scale 1:4

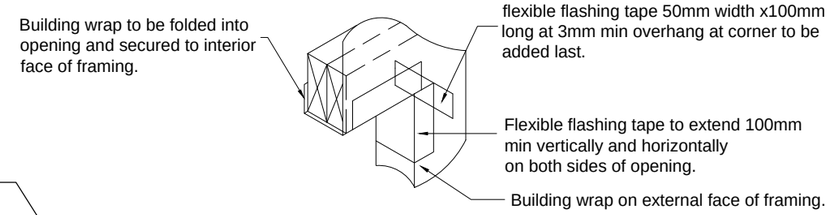


Brick veneer meterbox sill detail.
Scale 1:4

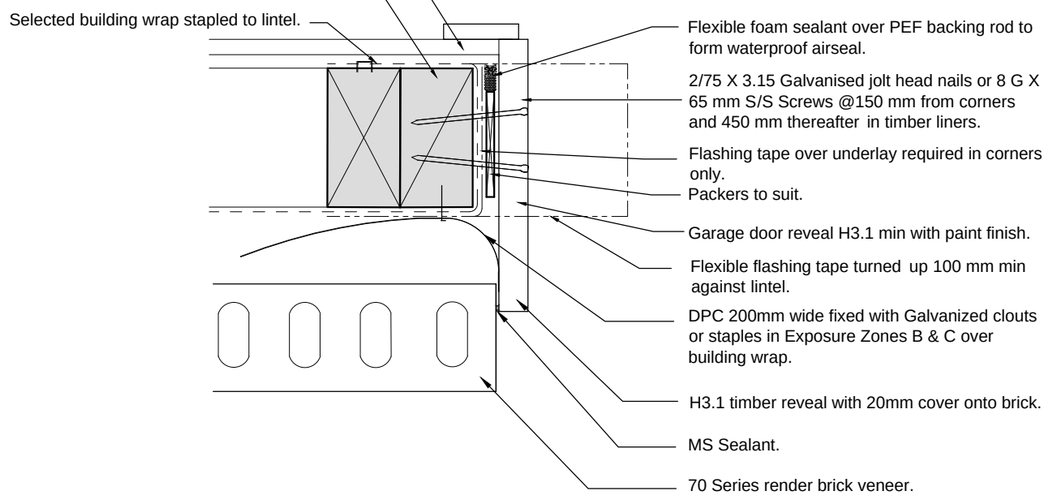


Brick veneer garage door head hard to soffit.
Scale 1:4

Note:
cladding omitted for clarity, refer cladding specific details for further information.



Flashing tape installation head



Brick veneer garage door jamb.
Scale 1:4

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Issue: **Consent**

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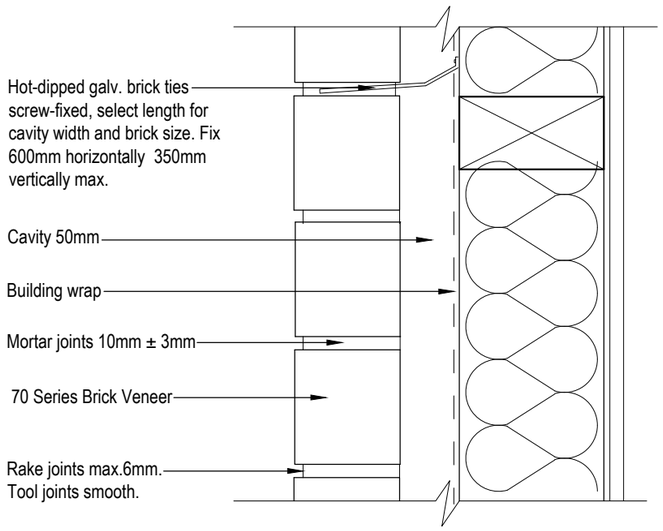
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

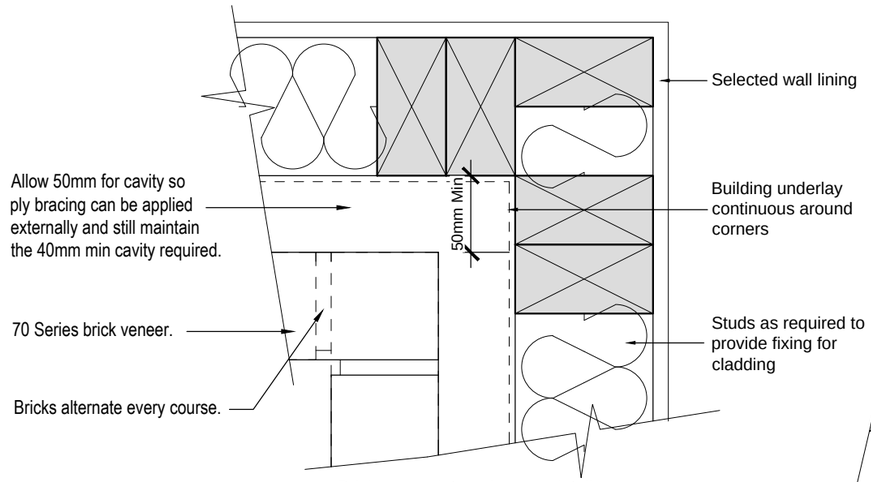
Brick veneer details 3

GENERATED: 07 / 03 / 2019 12:36:14 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A24

Last modified by: Jonathan Paper size: A3 (297 x 420mm) File Location: Z:\00 Jobs\17-12 Warren\2 - Working Drawings\17-12 Warren wd.dwg



Brick veneer fixing detail.
Scale 1:4



Brick veneer internal corner detail
Scale 1:4

Brick veneer external corner detail
Scale 1:4

Brick veneer soffit junction detail
Scale 1:4

Issue: **Consent**

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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Proposed Residence.
Dirk Badenhorst.
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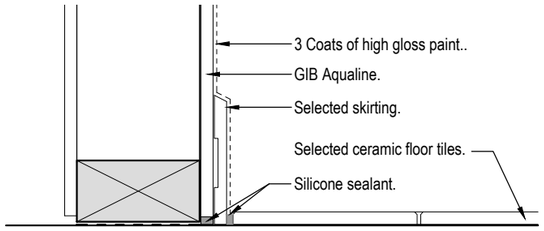
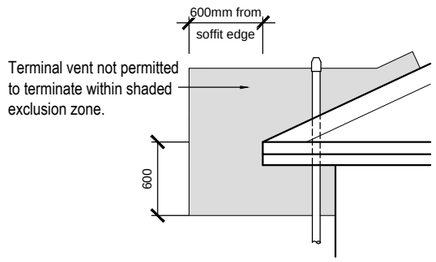
Brick veneer details 4

GENERATED: 07 / 03 / 2019 12:36:19 pm		SCALES: A3 a/s A4 -	
DRAWN: Jonathan Barlow	REV 1	JOB No: GJ 19-01	
CHECKED: Jeff LBP-111561		SHEET No: A25	
LOT: 45 DP: 524726			

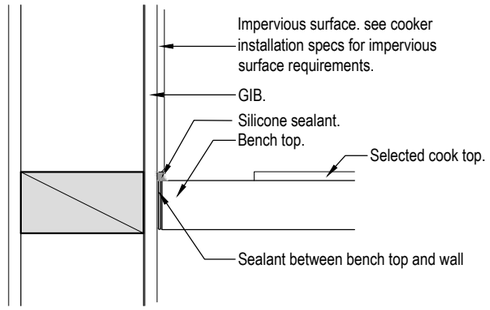
Last modified by: Paper size: File Location:



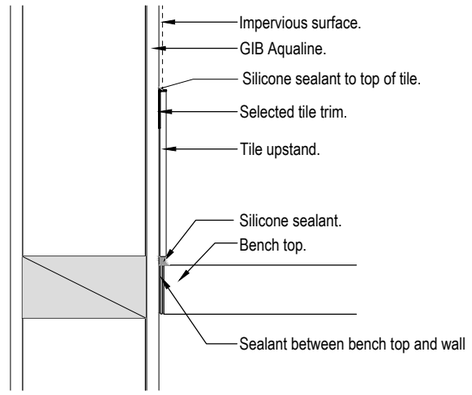
Tiled floor to painted wall junction. (Wet areas.)
Scale: 1:5



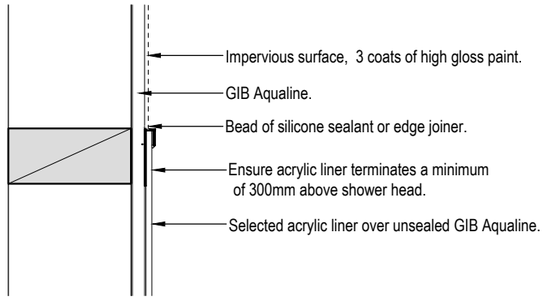
Terminal vent location detail
Scale 1:50



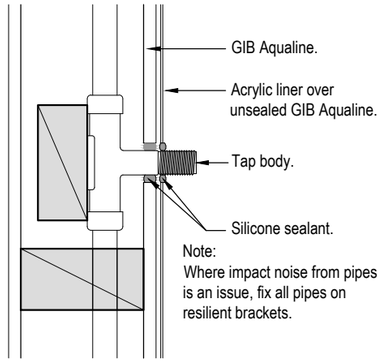
Bench to wall junction. (At cook top.)
Scale: 1:5



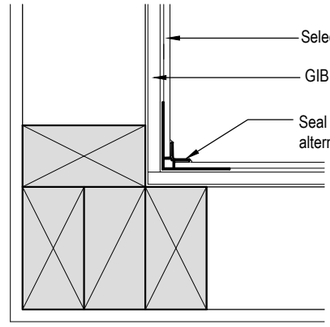
Bench to wall junction. (Wet areas.)
Scale: 1:5



Acrylic shower liner top junction to wall.
Scale: 1:5

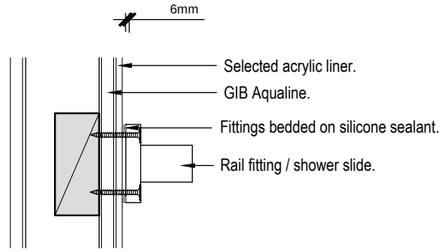


Acrylic liner wall pipe penetration.
Scale: 1:5

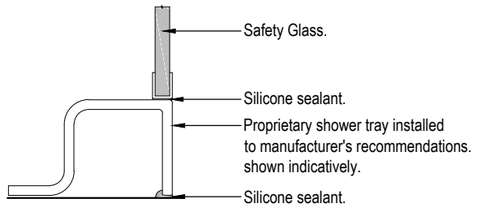


* Note: Nogs are required behind horizontal plasterboard sheet joints in shower areas.

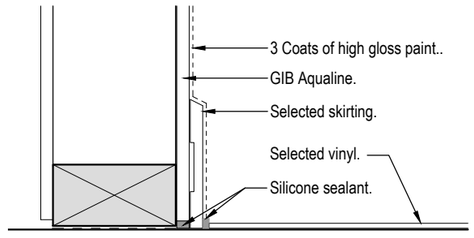
Acrylic shower internal corner junction.
Scale: 1:5



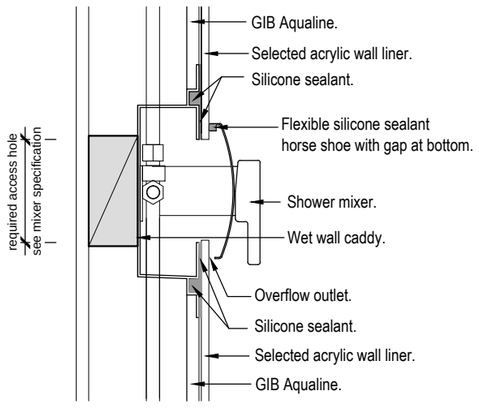
Rail / Slide fixing detail.
Scale: 1:5



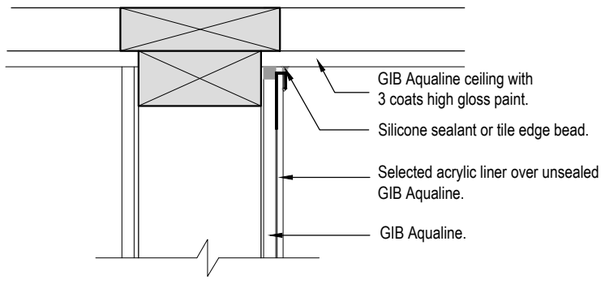
Acrylic shower base to floor junction.
Scale: 1:5



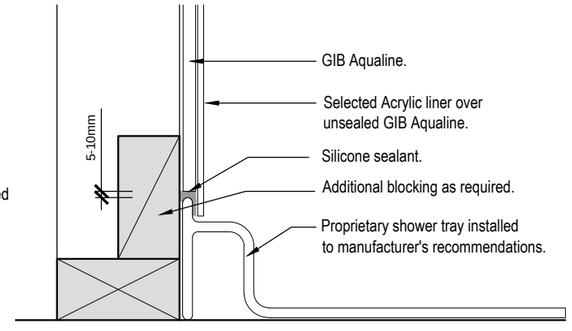
Vinyl floor to painted wall junction. (Wet areas.)
Scale: 1:5



Wet wall caddy with acrylic liner.
Scale: 1:5



Acrylic liner wall to ceiling junction.
Scale: 1:5



Acrylic shower base to acrylic liner junction.
Scale: 1:5

Issue: **Consent**

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Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

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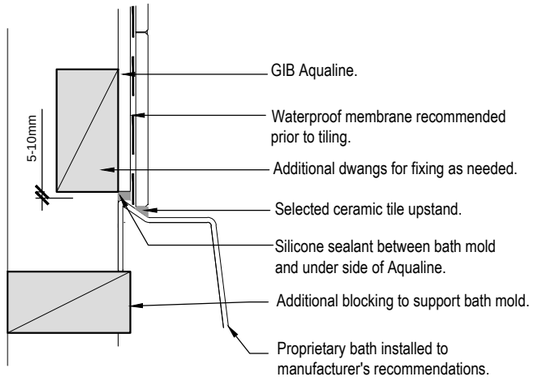
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

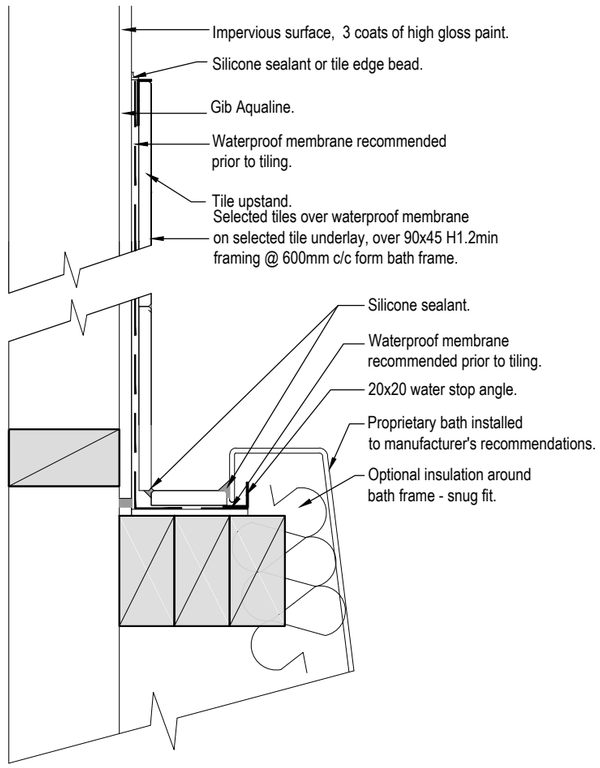
Wet area details

GENERATED: 07 / 03 / 2019 12:36:27 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV 1
JOB No: GJ 19-01
SHEET No: A25
LOT: 45 DP: 524726

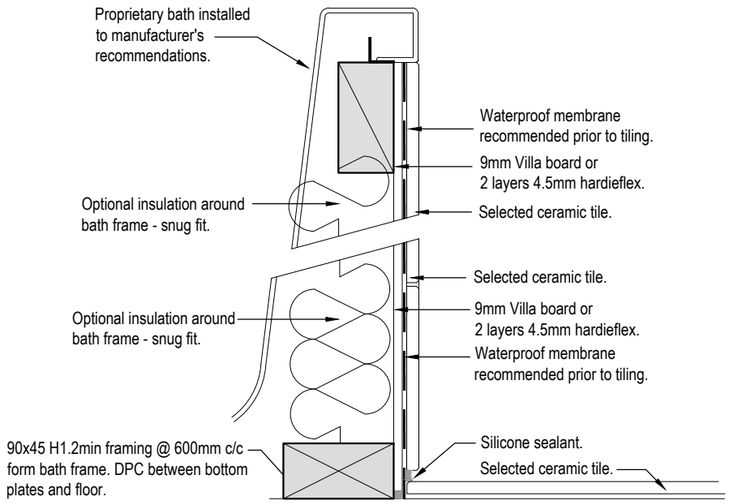
Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Bath to wall junction with tiled upstand.
Scale: 1:5



Bath plinth to wall junction with tiled upstand at head rest end.
Scale: 1:5



Acrylic bath plinth to tiled floor junction.
Scale: 1:5

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Issue: **Consent**

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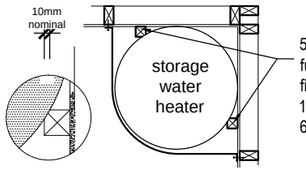
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

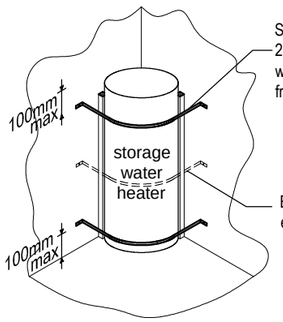
Bath details

GENERATED: 07 / 03 / 2019 12:36:34 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
LOT: 45 DP: 524726
SHEET No: A26

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



Hot water cylinder restraint corner
Scale 1:30



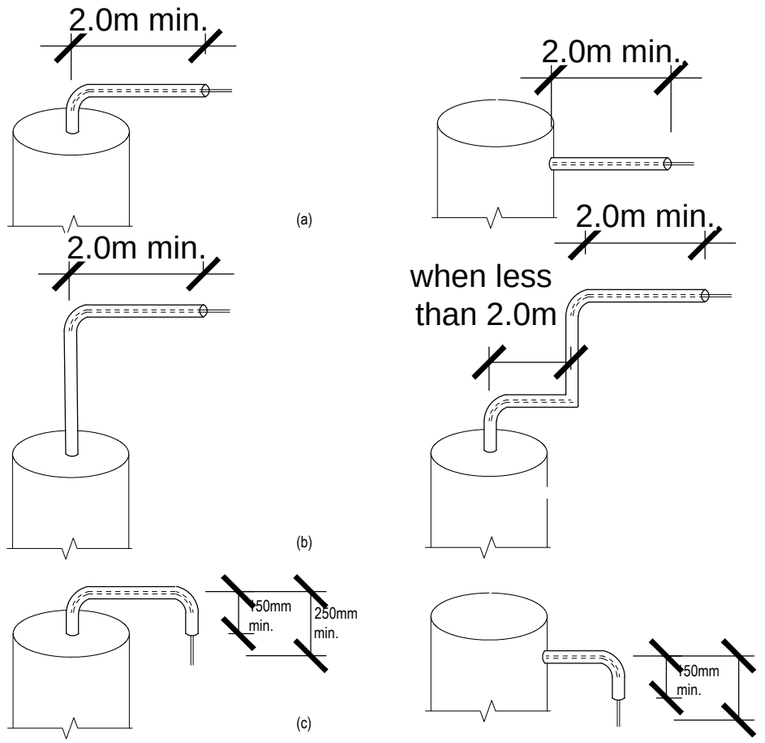
Storage water heaters to be restrained with 25 x 1mm galvanized steel straps tensioned when fixed in place. Straps to be fixed to wall framing with:

- 1/ M8 coach screw with 30x2mm thick washer, or
- 2/ M8 coach screws with 20x2.5mm thick washers.

Screw to penetrate timber framing a minimum of 50mm

Extra centre strap for water heaters exceeding 200 litres

Hot water cylinder seismic restraint detail
Scale 1:50



3.7.1 Hot water distribution pipes shall be thermally insulated between the storage water heater and one or more of the following points (refer figure 3):

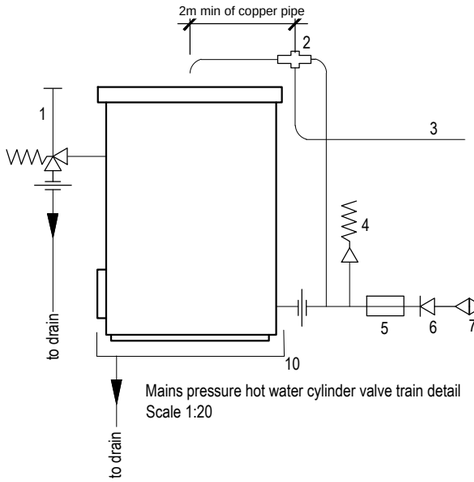
(a) For horizontally pipe, to not less than 2m (fig 2a);
(b) To the end of the first continuous 2m of horizontal pipe, if the pipe has not followed a downward direction (fig 3 (b));
(c) To the first pipe drop of at least 250mm, i.e heat trap. The insulation shall extend at least 150mm past the top of the heat trap. (refer fig 3 (c)).

3.7.2 The kitchen sink distribution pipe from the water heater to the outlet should be insulated.
3.7.3 All hot water pipes outside the building shall be thermally insuated. Once within the building, the pipes from storage water heaters shall meet the requirements of 3.7.1.
3.7.4 Hot water pipes embedded in concrete or buried underground shall be thermally insulated and installed within a duct.

Pipe insulation shall have an R-value not less than 0.3m² x °C/W,
e.g 12mm thick closed cell polymer or 12mm thick fibreglass insulation preformed to pipe shape

Hot water supply pipe insulation (from NZS4305:1996)
Scale: NTS

1. Temperature pressure relief valve 700kpa
2. Tempering valve
3. Hot water supply PB pipe
4. Expansion valve
5. Limiting valve
6. Non return valve
7. Line strainer (where required)
8. Isolating valve
9. Mains water supply polybutylene pipe
10. Overflow drain tray



Mains pressure hot water cylinder valve train detail
Scale 1:20

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P.O. BOX 466 Palmerston North

Original Scale (mm) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 80 90 100

Issue: **Consent**

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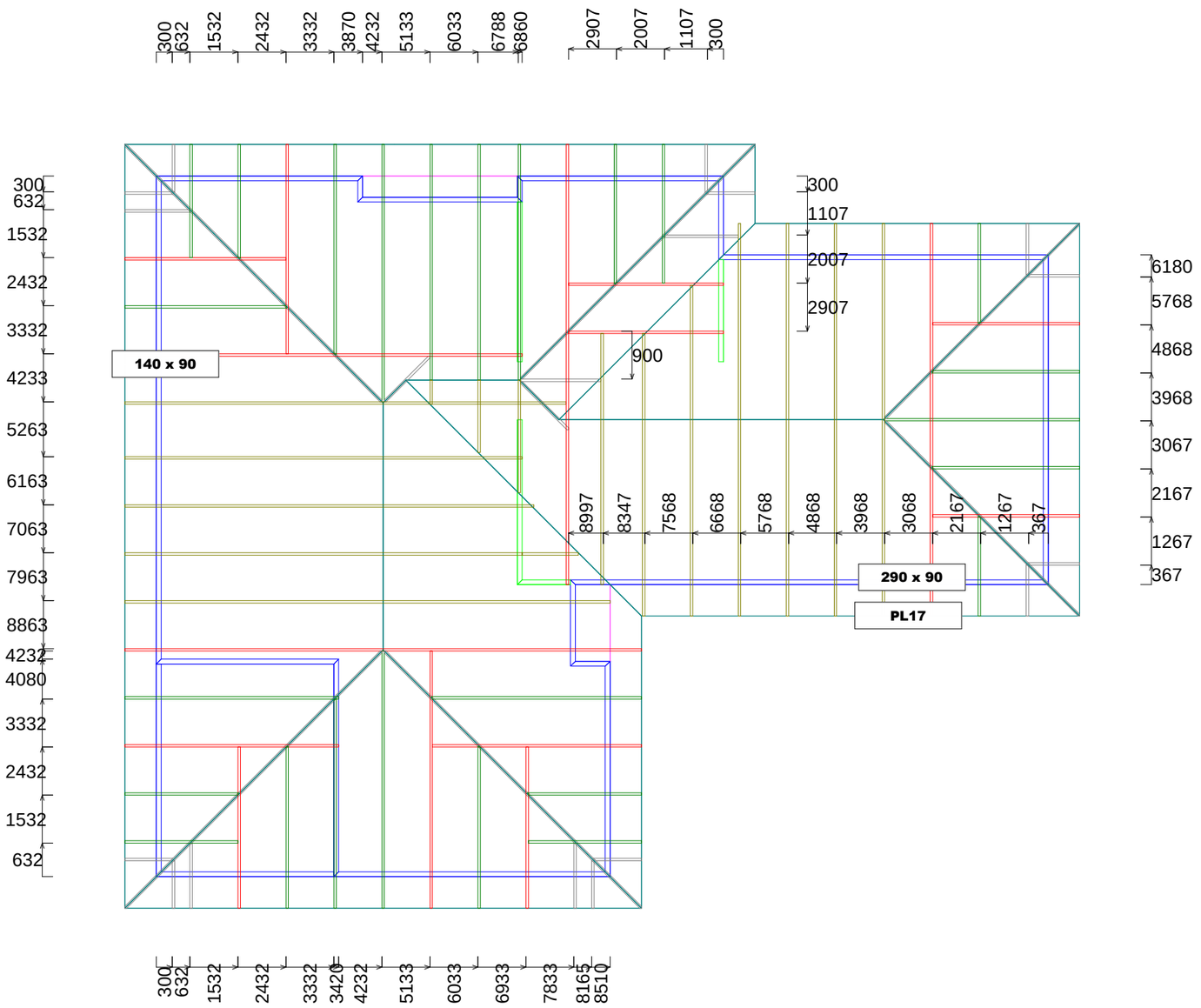
Proposed Residence.
Dirk Badenhorst.
13 Pearl Grove, Ashhurst.

HWC details

GENERATED: 07 / 03 / 2019 12:36:36 pm
SCALES: A3 a/s A4 -
DRAWN: Jonathan Barlow
CHECKED: Jeff LBP-111561
REV: 1
JOB No: GJ 19-01
SHEET No: A28
LOT: 45 DP: 524726

Last modified by: Mike Paper size: ISO full bleed A3 (420.00 x 297.00 MM) File Location: Z:\00 Jobs\19-01 Badenhorst\2 - Working Drawings\19-01 Badenhorst wds.dwg



PrimeCad v4.7.301

Site Address :
Badenhorst Residence
13 pearl Gr
Ashhurst

Sheet Title :
For Building Consent
Buildable Truss Layout

Date : 26 Feb,2019 | Drawn : Standard
Scale : 1: 100 | System : MiTek 20/20

Job Details:

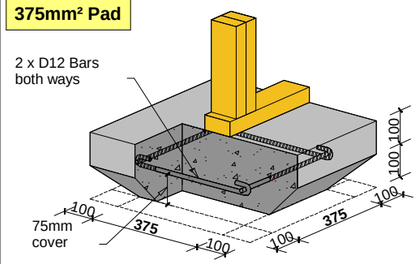
Roof Pitch	: 25.00deg	Truss Centres	: 900mm
Roof Material	: Metal Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Rondo screwed to BC	Floor Live Load	:
Wind Zone	: High	Wind Speed	: 44m/s
Roof Snow Load	: 0.000kPa	Overhang	: 590mm

Job Title : Q94162
Sheet : 1
Revision Number :

SLAB THICKENING & STUD REQUIREMENTS

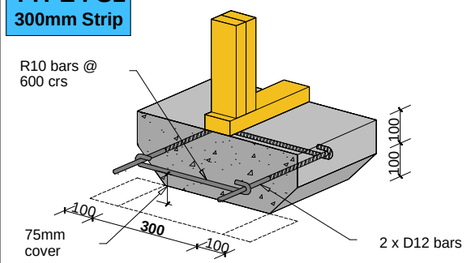
TYPE FP1
375mm² Pad

2 | 3



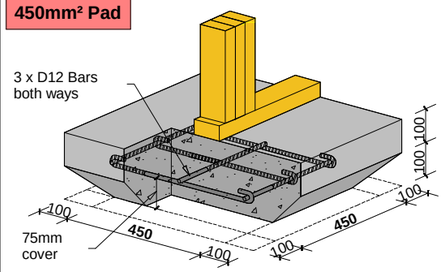
TYPE FS1
300mm Strip

2 | 3



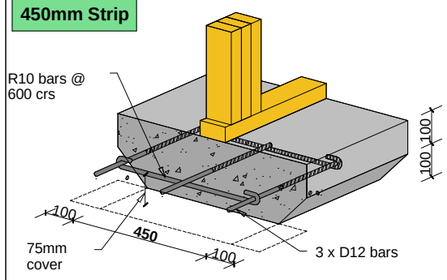
TYPE FP2
450mm² Pad

3 | 4



TYPE FS2
450mm Strip

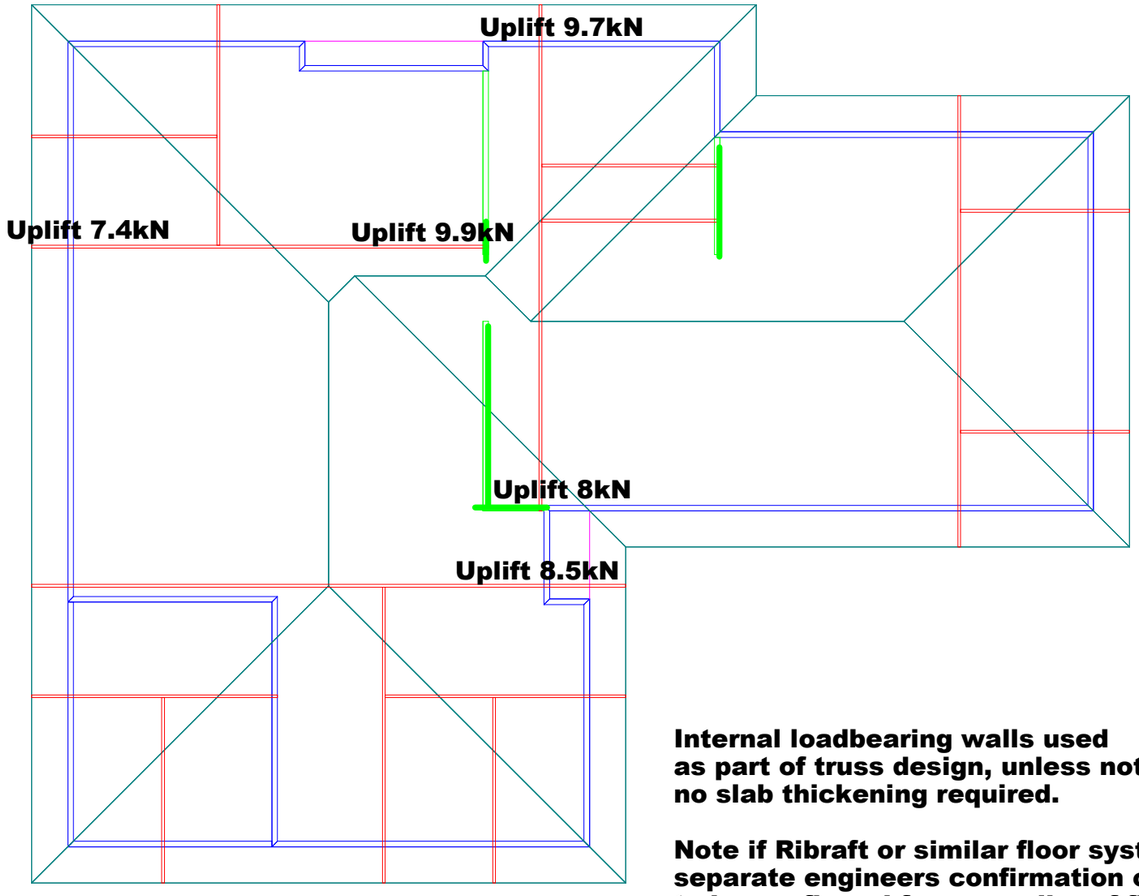
3 | 4



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

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

Concrete Slab Thickening Guide



Internal loadbearing walls used as part of truss design, unless noted no slab thickening required.

Note if Ribraft or similar floor system is used separate engineers confirmation of thickenings to be confirmed from supplier of floor system.

NO SLAB THICKENING REQUIRED

PrimeCad v4.7.301

Site Address :
Badenhorst Residence
13 pearl Gr
Ashhurst

Sheet Title :
For Building Consent
Slab Thickening

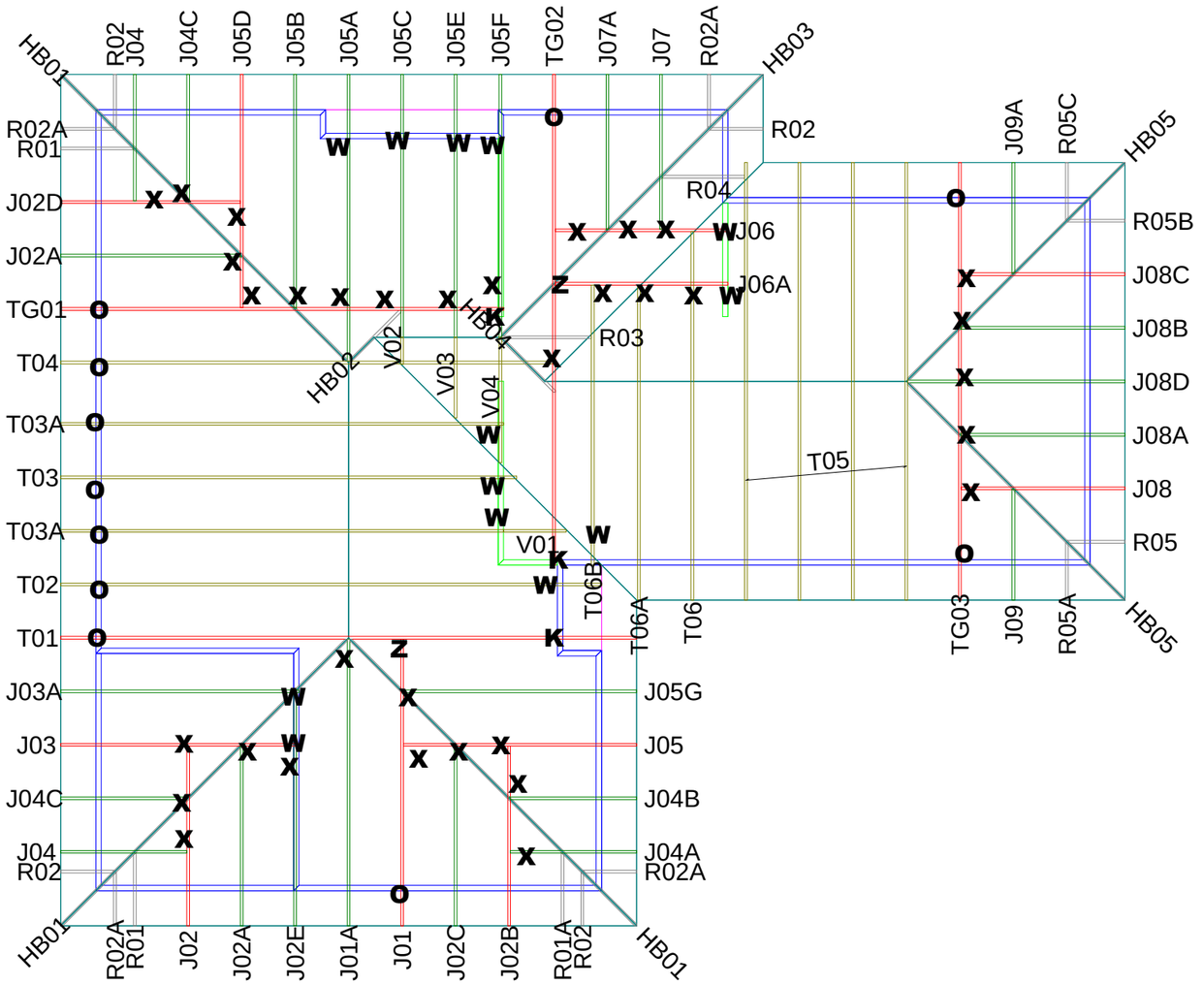
Date : 26 Feb,2019 | Drawn : Standard
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 25.00deg	Truss Centres	: 900mm
Roof Material	: Metal Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Rondo screwed to BC	Floor Live Load	:
Wind Zone	: High	Wind Speed	: 44m/s
Roof Snow Load	: 0.000kPa	Overhang	: 590mm

MiTek™

Job Title : Q94162
Sheet : 2
Revision Number :



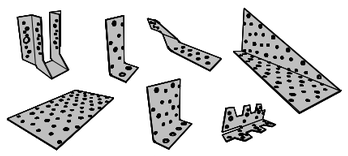
LUMBERLOK® TRUSS FIXINGS

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

Joist Hanger Installation

CT200 Truss to Top Plate Fixing Installation

16kN & 9kN Truss to Top Plate Fixing Installation



Notes:
All other areas must have the minimum 2 x 90mm 3.15mm skew nails and 2 x wire dogs for truss to top plate connections

Refer to:
LUMBERLOK Timber Connectors Characteristic Loadings Data Brochure 08/2014

PrimeCad v4.7.301

Site Address :
Badenhorst Residence
13 pearl Gr
Ashhurst

Sheet Title :
For Building Consent
Truss Fixings

Date : 26 Feb,2019 | Drawn : Standard
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 25.00deg	Truss Centres	: 900mm
Roof Material	: Metal Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Rondo screwed to BC	Floor Live Load	:
Wind Zone	: High	Wind Speed	: 44m/s
Roof Snow Load	: 0.000kPa	Overhang	: 590mm

MiTek™

Job Title : Q94162
Sheet : 3
Revision Number :