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All dimensions are to be checked and confirmed prior to any construction
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Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:
COVER PAGE

CONSENT PLANS

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Silt sock joined using a sleeve and pegged and secured using bailing twine with 1 m overlapping joint (Source: Erosion Control Ltd)

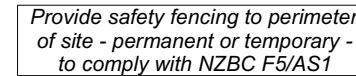


The diagram illustrates a cross-section of a stabilised entry/exit pad. The pad is a thick, light-colored layer sloping down from left to right. It is supported by a base layer of crushed rock and a filter cloth. A runoff diversion berm is shown at the top of the slope. Labels include:

- RUNOFF DIVERSION BUND INCORPORATED INTO PAD WHEN THE ENTRY/EXIT PAD IS LOCATED DOWN-SLOPE OF THE SOIL DISTURBANCE**
- MAKE SAFE FOR PEDESTRIAN TRAFFIC**
- 150-200 min** (time for runoff to travel from the top of the slope to the sediment trap)
- 2000 min** (time for runoff to travel from the bottom of the slope to the sediment trap)
- Property Boundary Line**
- Footpath**
- Kerb**
- Road**
- NON-FILTERED RUNOFF FROM PAD DIRECTED TO SEDIMENT TRAP**
- 40-75 mm CRUSHED ROCK**
- TEXTILE FILTER CLOTH (AS ERECTED OR WHEN WORKING ON CLAY COILS)**

STABILISED ENTRY/EXIT PAD

REMOVE STABILISED ENTRY/EXIT PAD UPON COMPLETION OF THE FORMED DRIVEWAY



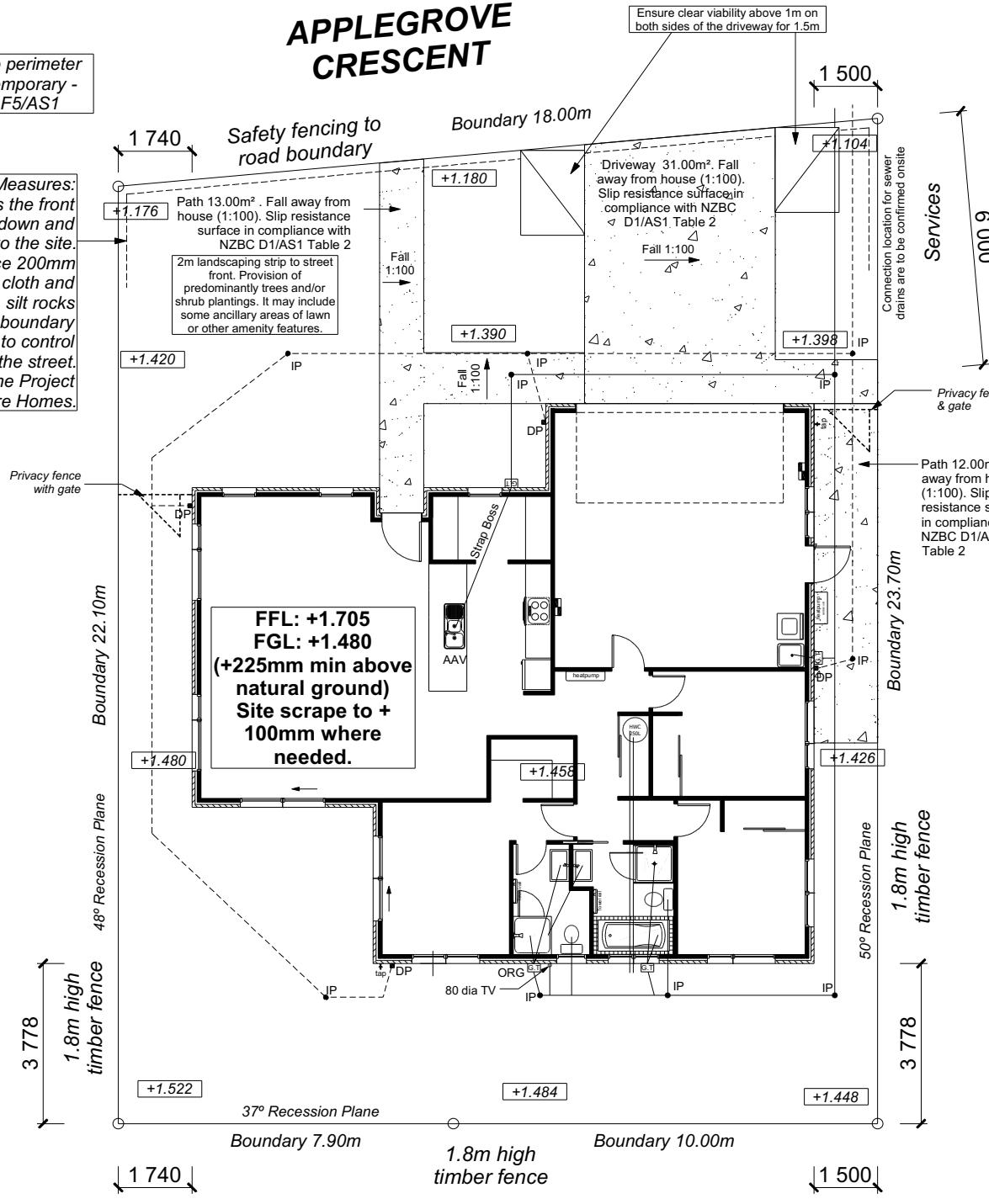
Sediment Control Measures:
225mm Silt rocks across the front of the boundary pegged down and returning 2m into the site.
- A stabilized entrance 200mm deep with bitumen cloth and backfilled with AP60 with silt rocks for the remaining of the boundary returning 2m into the site to control sediment runoff entering the street.
To be overseen by the Project Manager from Signature Homes.

APPLEGROVE CRESCENT

+1.00m DATUM
Kerb

**Earthworks/vehicle crossings with
5m of trees shall be carried out
under the supervision of Tree Tech**

Ensure clear viability above 1m



NOTE:
All vehicle access to and/or from a site in a residential zone to have clear visibility above 1 metre within a triangle measured for a width of at least 1.5 metres either side of the entrance, and for a length at least 2 metres measured from the road boundary.

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BCN/2022/2267

Approved Building Consent Document

01/06/2022 Maher, Kevin

SITE INFORMATION

Site Area : 405.00m²
Floor Area (VENEER) : 160.66m²
Site Coverage : 39.70%

Wind High
 Earthquake 2
 Exposure B
 Snow N 4 at 50m (up to 1kPa)

Note: The dimensions shown are from cladding to boundary. Refer to sheet 8 for foundation to boundary dimensions

Sediment control and site safety requirements are noted in the attached Specifications.

DRAINAGE LEGEND

DP	Stormwater DN100mm uPVC Sewer Drain DN100mm uPVC
GT	Downpipe
ORG	Gully Trap
TV	Overflow Relief Gully
AAV	Terminal Vent
IP	Air Admittance Valve
	Inspection Point

DRAWING NOTES

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Homes Ltd.**

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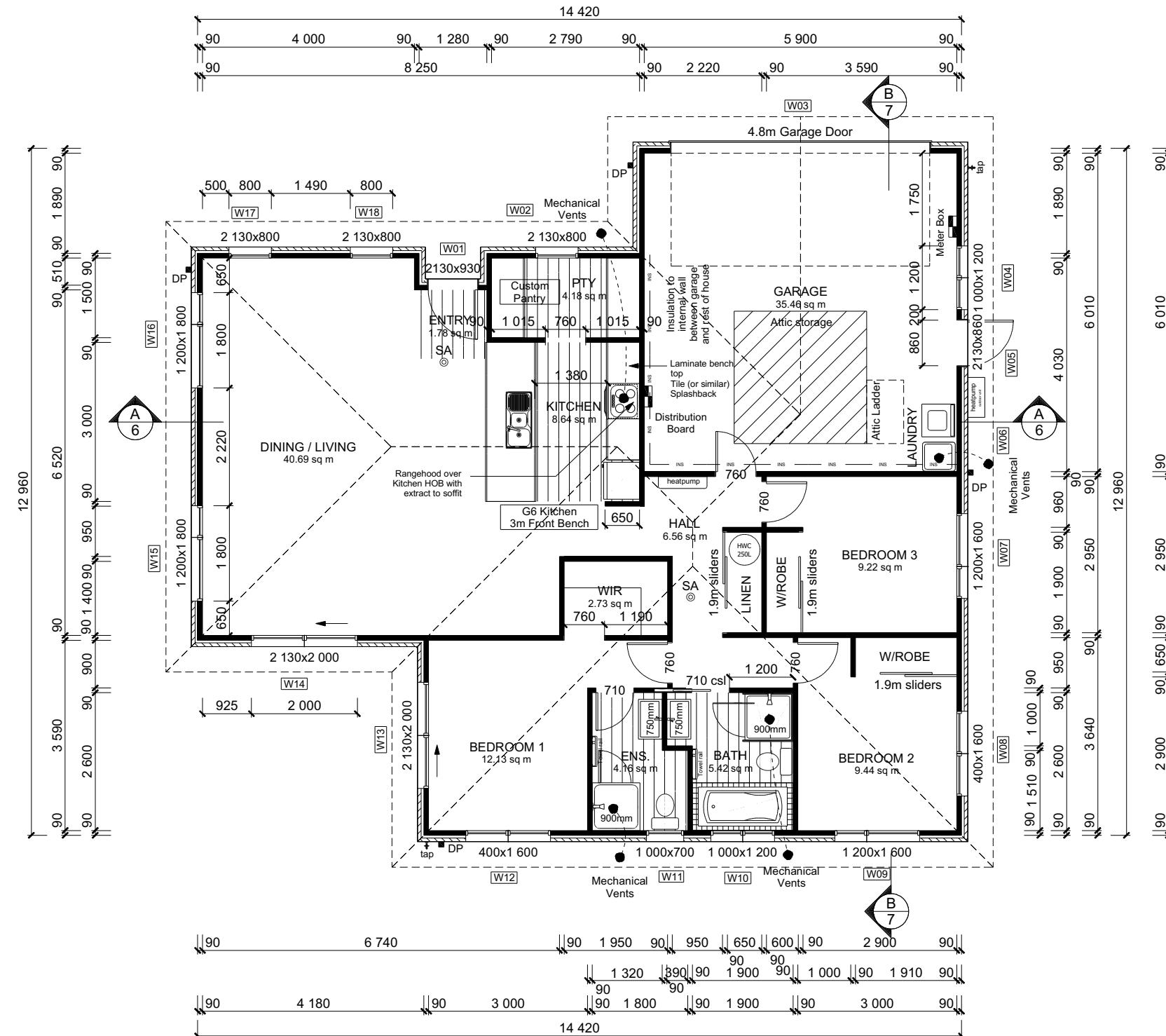
Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:

SITE PLAN

CONSENT PLANS



ELEVATION NOTES
 Gutter : Coloured Steel Quad Gutter
 Fascia : Coloured Steel 185 Fascia
 Downpipes : Colorsteel Rectangular 75x55mm
 Soffits : Hardiflex 4.5mm
 Joinery : Double glazed aluminum
 All egress points to have a maximum step down of 190mm.
 Access routes to have slip resistance surface in compliance with NZBC D1/AS1 Table 2 and to have a 1:100 fall away from the building

BUILDING ENVELOPE RISK MATRIX		
ELEVATION A		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



ELEVATION A



BUILDING ENVELOPE RISK MATRIX		
ELEVATION B		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2

ELEVATION B

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Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:
ELEVATIONS

Sales: L Caldwell	Drawn: J Rana	QS: S Liu	Print Date: 25/11/2021	Scale: 1:100	@ A3
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CONSENT PLANS

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ROOF & WALL CLADDINGS		Page 5 of 31
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Approved Building Consent Document		
01/06/2022		Maher, Kevin
ELEVATION LEGEND		
SS	Safety Saws	
SG	Safety Glass	
MB	Meter Box	
TV	Terminal Vent	

Building Height: 5.17m

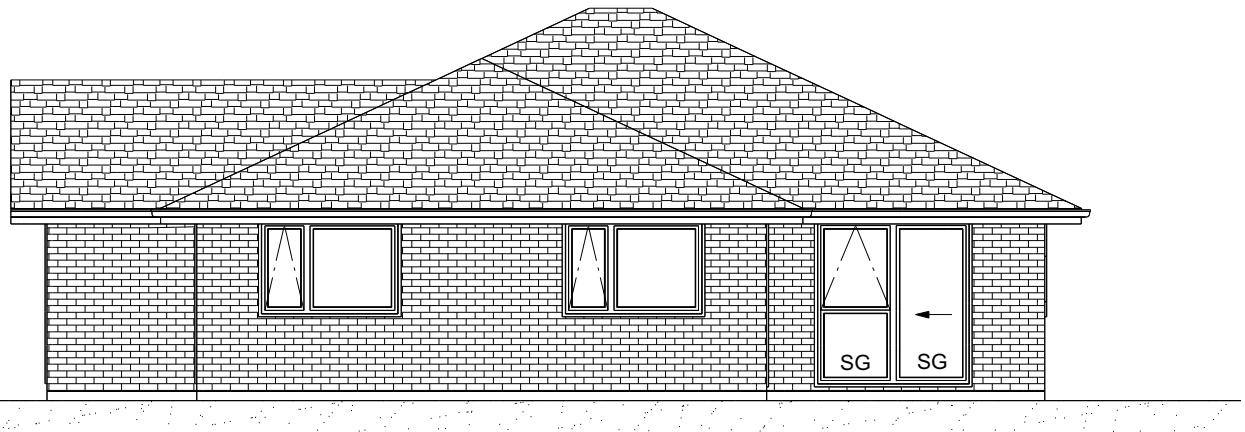


BUILDING ENVELOPE RISK MATRIX		
ELEVATION C		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2

ELEVATION NOTES	
Gutter :	Coloured Steel Quad Gutter
Fascia :	Coloured Steel 185 Fascia
Downpipes :	Colorsteel Rectangular 75x55mm
Soffits :	Hardiflex 4.5mm
Joinery :	Double glazed aluminum
All egress points to have a maximum step down of 190mm.	
Access routes to have slip resistance surface in compliance with NZBC D1/AS1 Table 2 and to have a 1:100 fall away from the building	

ELEVATION C

BUILDING ENVELOPE RISK MATRIX		
ELEVATION D		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



ELEVATION D

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Job Number:
128257
Original Plan:
'Bellbird 160'
Sheet Name:
ELEVATIONS
Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: 1:100 @ A3

CONSENT PLANS

No.	Date:	Reason:
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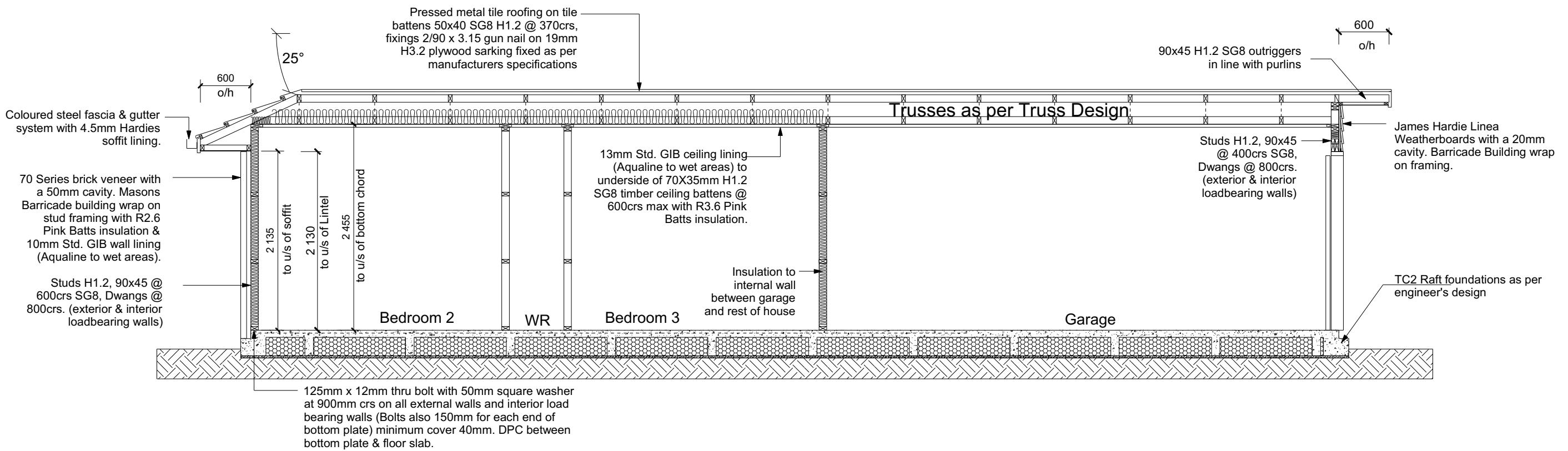
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01/06/2021 Mather, Kevin

ROOF & WALL CLADDINGS
Roof: 25° Pressed Metal Tile Roofing
Wall: 70 Series Brick Veneer with a 50mm cavity
Linea Weatherboard with a 20mm cavity

CROSS SECTION NOTES
Building wrap is to comply with E2/AS1 & NZS 3604:2011.
Flashing materials must be selected based on environmental exposure. Refer to NZS 3604:2011 & table 20 of E2/AS1.
Flashing tape must have proven compatibility with the selected wrap & other materials with which it comes into contact as per table 21 of E2/AS1.
Fixings shall comply with NZS 3604:2011 Section 4 Durability Tables 4.1-4.3
Unless stated otherwise, timber members on drawings are to be a minimum of SG8 strength graded as per NZS3604:2011.

INSULATION
Ceiling: Pink Batts R3.6 Ceiling Batts
Wall: Pink Batts R 2.6 Wall Batts



CROSS SECTION C-C

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128257

Original Plan:
'Bellbird 160'

Sheet Name:
CROSS SECTIONS

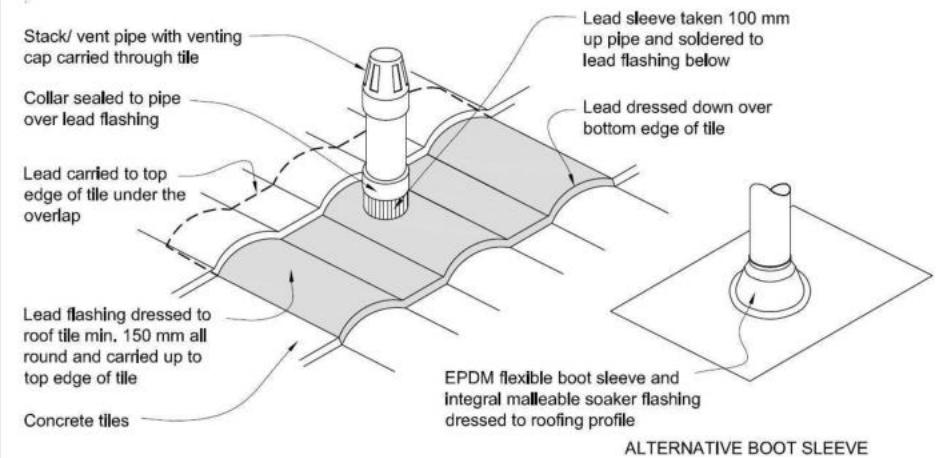
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CONSENT PLANS

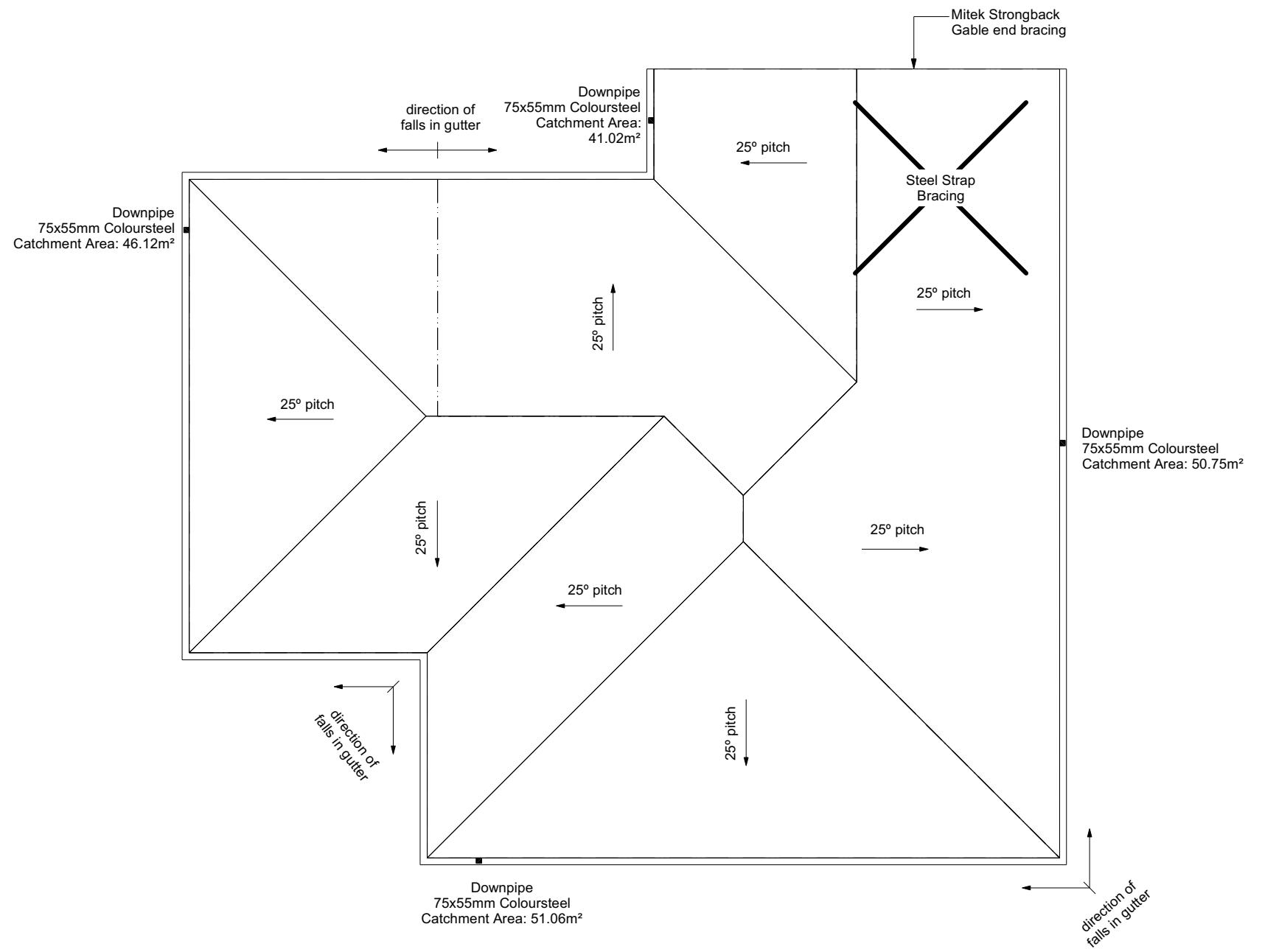
No.	Date:	Reason:
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Figure 29: Pipe penetration for masonry tile
Paragraph 8.2.7



Metal Tile Penetration Detail
Scale NTS



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Job Number:
128257
Original Plan:
'Bellbird 160'
Sheet Name:
ROOF PLAN
Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: 1:100 @ A3

CONSENT PLANS

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Christchurch City Council
BCN/2022/2267
Approved Building Consent
Date: 01/06/2022
For: Mr. Kevin

ROOF CLADDING
Roofing: Coloured Metal Sheet 8 of 31
Coatings: SG 10 SG 8 H1.2 @ 370crs.
Timings 290 x 3.15 gun nail

ROOF PLAN NOTES
Gutter: Coloured Steel Quad Gutter
Fascia: Coloured Steel 18mm
Downpipes: Colorsteel Rectangular 75x55mm
Soffits: Hardiflex 4.5mm

Underlay: Thermakraft 215 roof underlay
Roof Bracing: Diagonally opposed pair 25x1mm galv straps with 8Kn tension capacity.
After tensioning strap, fix to each rafter with 2/60x3.15mm nails.
Fold down strap and fix with 3/60x3.15mm nails each into the top chord and into the top plate.

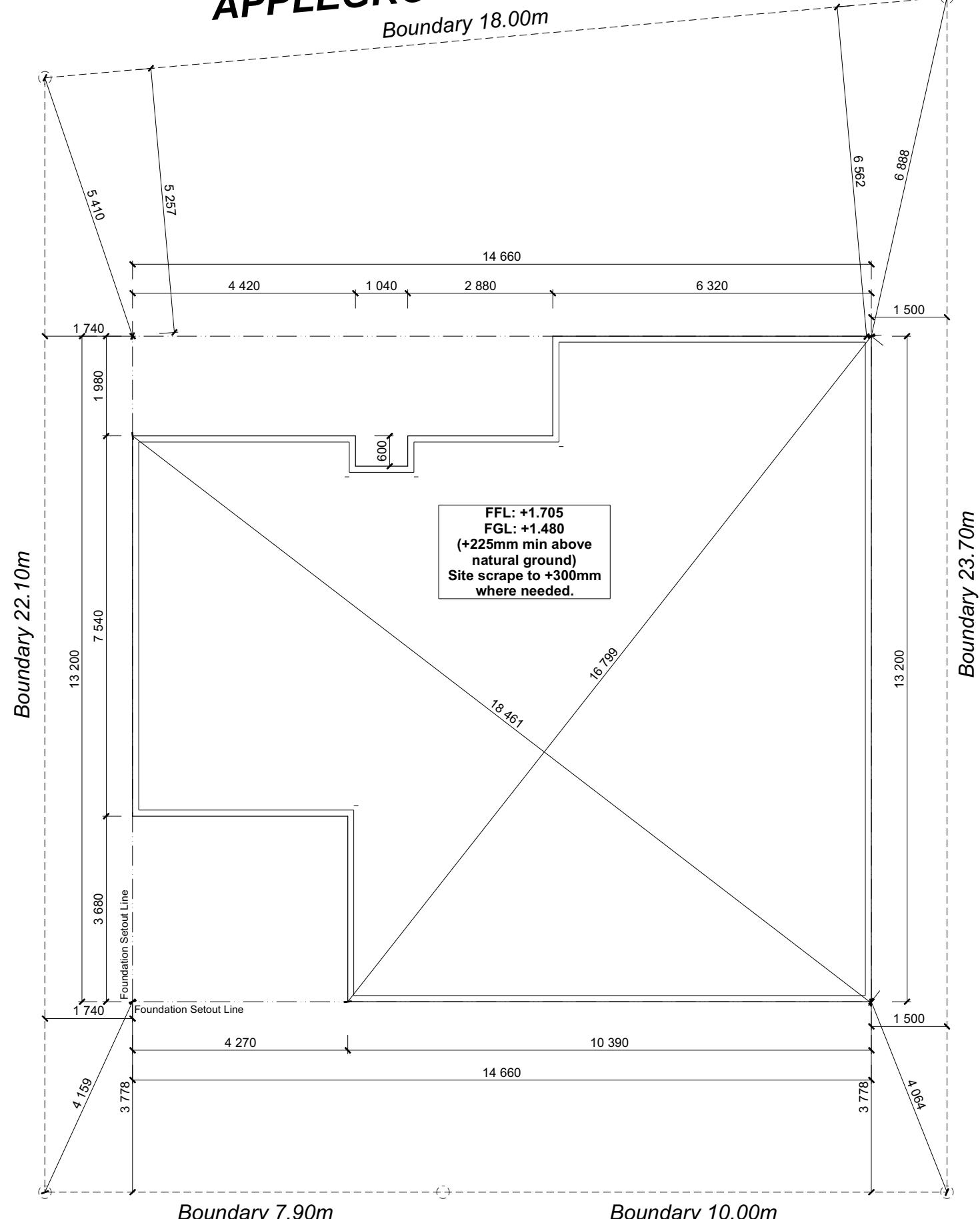
Downpipes: 75x55 Rectangle Colorsteel
As per NZBC E1/AS1 Table 5 75x55
down pipes can collect up to 60m² of 0-25° roof plan area.

Use Coloured steel Quad Gutter
As per NZ Metal Roof and Wall Cladding Code of Practice Version 2 section 8 the above gutter with a cross sectional area of 5550mm² can collect up to 60m² of 0-25° roof plan area. Refer to the specifications for exact calculations.

Valley Boards: Thickness 19mm
Timber Treatment: H1.2

Use Lumberlock top plate fixing chart attached to the main specifications to determine top plate fixings.

APPLEGROVE CRESCENT



Christchurch City Council		Page 9 of 31
BEN 2022/2022		
Applegrove Crescent Document		
01/06/2022		Maher, Kevin
These foundations are design to the findings and recommendations in the site specific Geotech report.		

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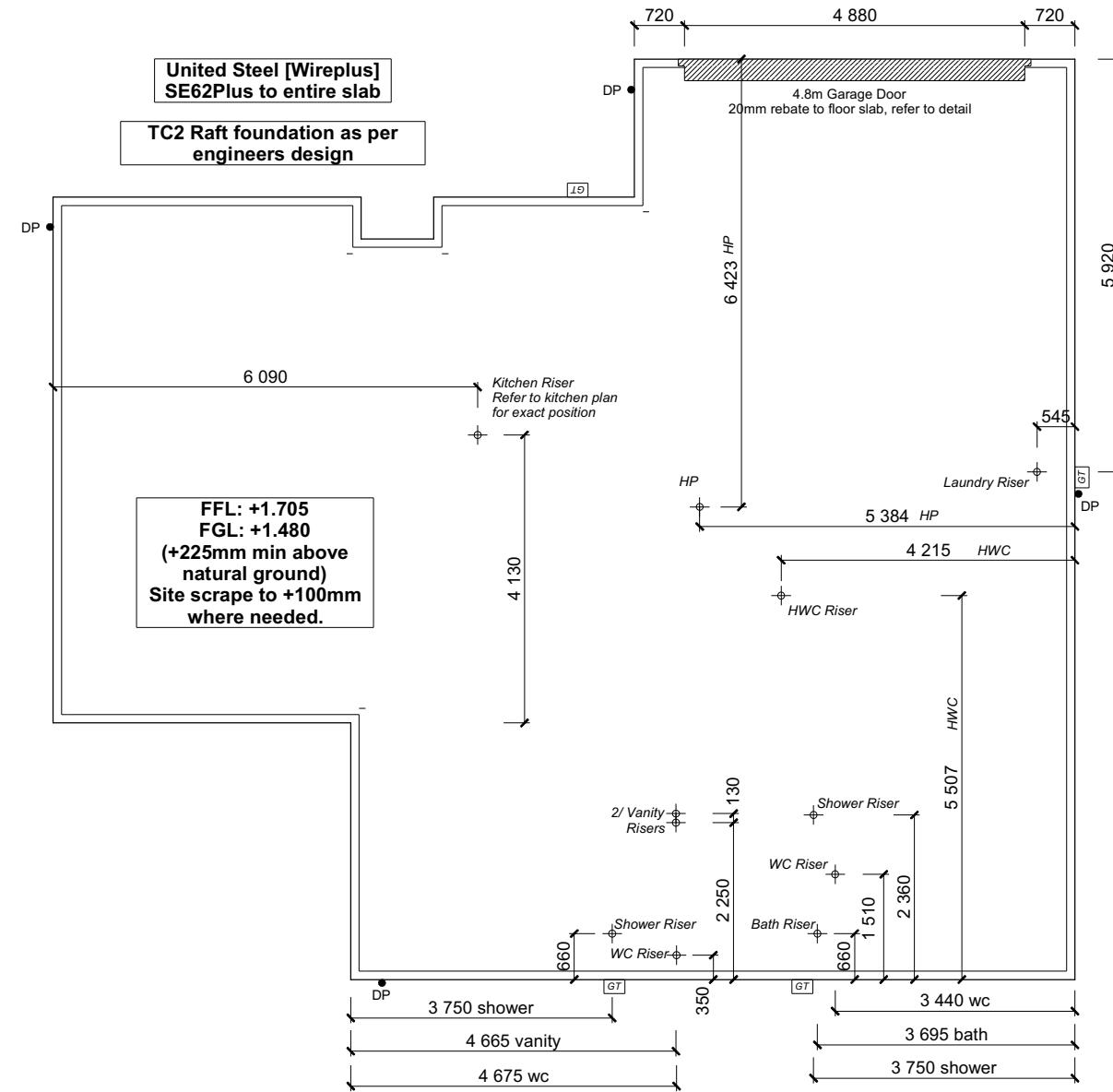
Original Plan:
'Bellbird 160'

Sheet Name:
SETOUT DIMENSIONS

CONSENT PLANS

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Christchurch City Council		
BEN/2022/200		
Appliance Base Foundations Document		
01/06/2022 Maher, Kevin		
FOUNDA TION PLAN NOTES		
All dimensions are in mm. All dimensions are to foundation face. Allow 70mm veneer & 50mm cavity bar to foundation face by 0-20mm max as per NZBC E2/AS1.		
Location indicated on plans has assumed a 140mm offset from internal frame line, please consult manufacturer's documentation to confirm offset.		
Contractor to consult manufacturer's documentation to determine the correct location for all wastes positioned through floor slabs.		
Earth bar to be bonded to the reinforcing mesh		
Refer to Truss design for exact location of slab thickenings		
All reinforcing is to be Ductility Class E, in accordance with NZS 4671.		
All concrete to comply with NZS3604:2011 Section 4 Durability Clause 4.5.2.		
These foundations are design to the findings and recommendations in the site specific Geotech report.		



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Job Number:
128257

Original Plan:
'Bellbird 160'

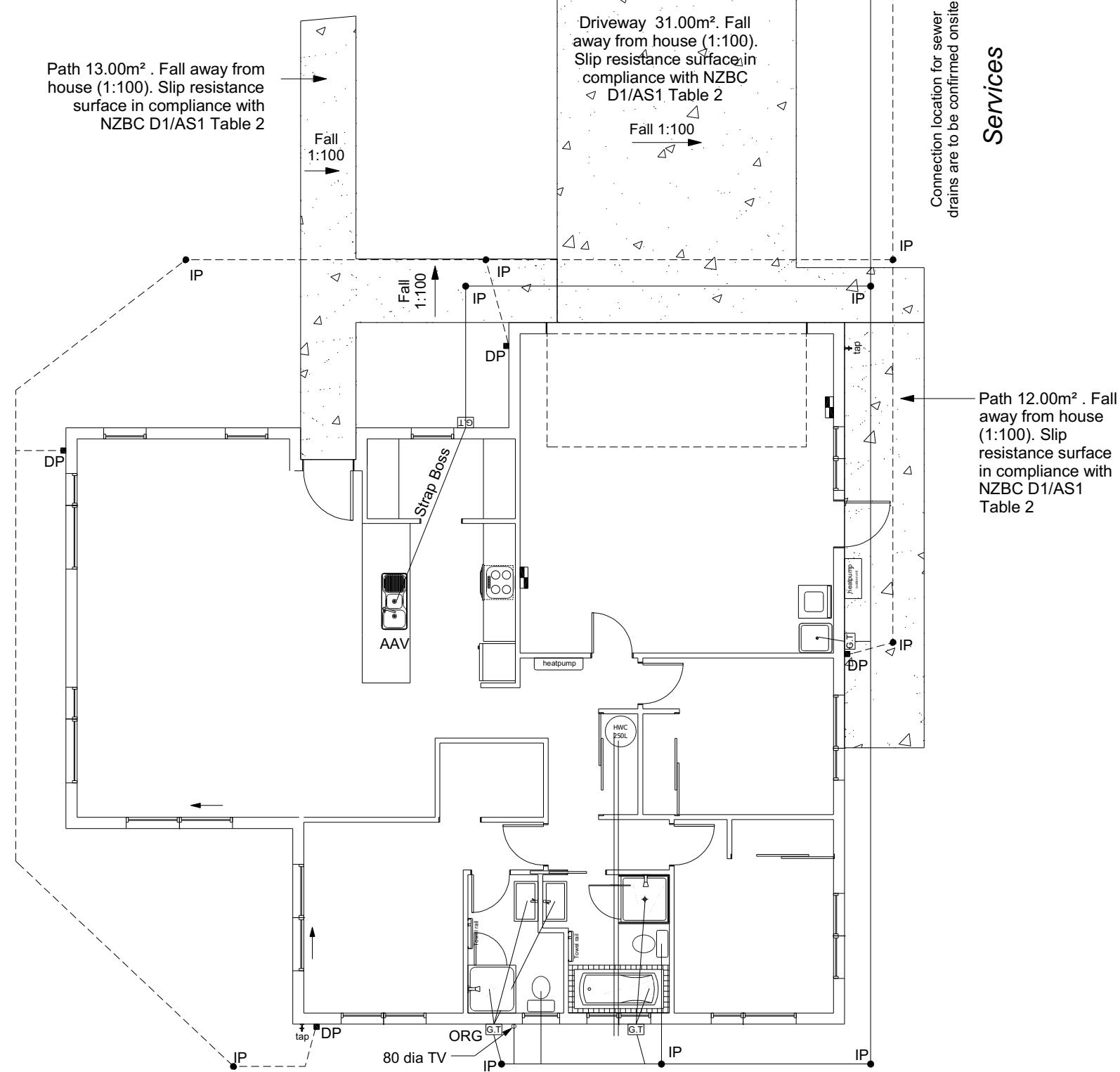
Sheet Name:
FOUNDATION PLAN

Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: 1:100 @ A3

CONSENT PLANS

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Path 13.00m². Fall away from house (1:100). Slip resistance surface in compliance with NZBC D1/AS1 Table 2



Services

DRAINAGE LEGEND	
DP	Stormwater DN100mm uPVC
GT	Sewer Drain DN100mm uPVC
ORG	Downpipe
TV	Gully Trap
AAV	Overflow Relief Gully
IP	Terminal Vent
	Air Admittance Valve
	Inspection Point

Plumbing Schedule	NZBC G13/ AS1
Kitchen	Ø50mm @1:40 (3 discharge units)
Sink:	Ø40mm @ 1:40 (2 discharge units)
Bathrooms	Ø40mm @1:40 (4 discharge units)
Vanity:	Ø100mm @1:40 (4 discharge units)
Shower:	Ø40mm @1:40 (5 discharge units)
Bath:	Ø80mm
WC:	Ø50mm
Laundry Sink:	Ø100mm @1:60 (1:120max)
Drainage Schedule	Ø80mm
Main Foulwater	Ø50mm
Vented Drain	Drain over GT
Stormwater Drain	Overflow Relief Gully
Terminal Vent	
Vent	
Heatpump	
ORG	

Notes:
 All plumbing and drainage to comply with NZBC G13/AS1.
 ORG to be positioned so the top of gully dish is no less than 150mm below overflow level of lowest fixture.
 Sewer & Stormwater to connect to existing connections.
 All drains passing through concrete, provide sleeve or wrap in durable and flexible to allow for expansion and contraction. (as per G13/AS2 5.8.1)

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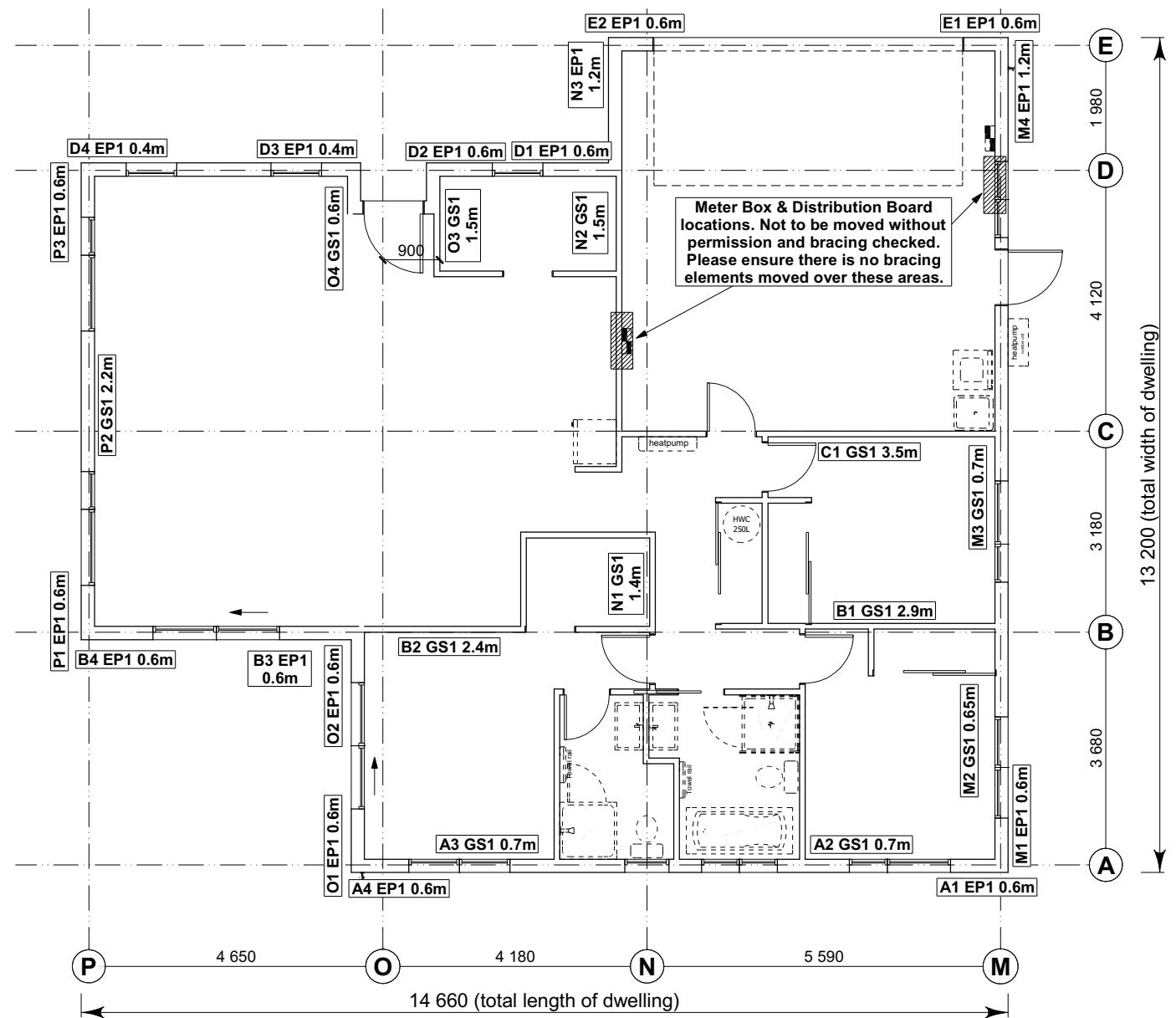
Job Number: **128257** Original Plan: **'Bellbird 160'** Sheet Name: **DRAINAGE PLAN**
 Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: 1:100 @ A3

CONSENT PLANS

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8.7.3.4
Each *wall* that contains one or more *wall bracing elements* shall be connected at the *top plate* level, either directly, or through a *framing* member in the line of the *wall*, to *external walls* at right angles to it. *Top plate* fixing(s) of the capacity in tension or compression along the line of the *wall bracing element* are given as follows:

- (a) For each wall containing wall bracing elements with a total bracing capacity of not more than 125 bracing units: to at least one such external wall by a fixing as shown in figure 8.16 of 6 kN capacity;
 - (b) For each wall containing wall bracing elements with a total bracing capacity of not more than 250 bracing units: to at least 2 external walls by fixings as shown in figure 8.16 each of 6 kN capacity;
 - (c) For each wall containing wall bracing elements with a total bracing capacity of more than 250 bracing units: to at least 2 external walls by fixings as shown in figure 8.16 each having a rating of not less than 2.4 kN per 100 bracing units.

BRACING PLATE NOTES
Wall bracing is fitted in accordance with
AS/NZS 4200 & GIB Ezybrace system
Refer to attached calculations.
BCN/2022/2207

Approved Building Consent Document

1/06/2022 Maher, Kevin

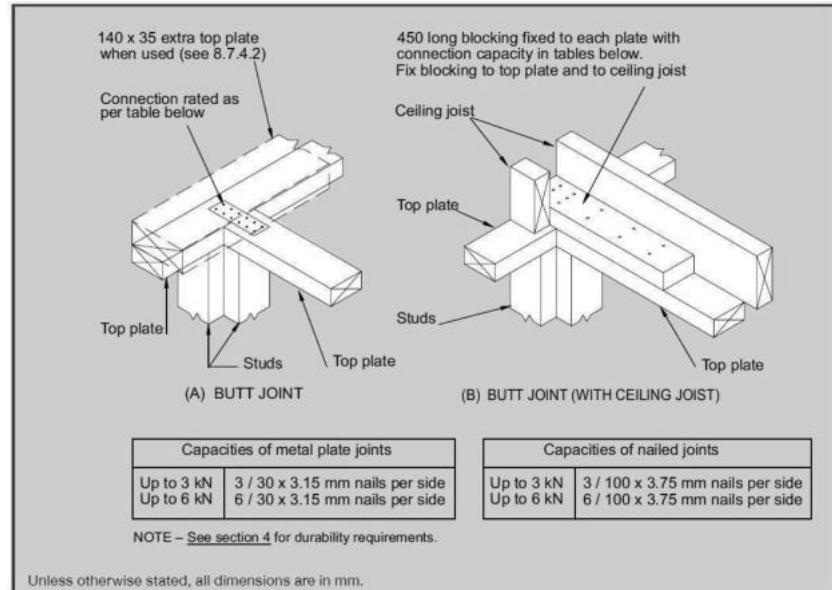


Figure 8.16 – Connecting top plates to external walls at right angles – Walls containing bracing (see 8.7.3.4)

Single Level Along Resistance Sheet

Job Name: Taylor								Wind	EQ	
								Demand		
								920	1088	
								Achieved		
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1147	1136
a	1	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
	2	0.70		2.4	GS1-N	GIB®	41	41		
	2	0.70		2.4	GS1-N	GIB®	41	41		
	4	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
b	1	2.90		3.5	GS1-N	GIB®	137	119		
	2	2.40		2.4	GS1-N	GIB®	166	144		
	3	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
	4	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
									197 OK	208 OK
c	1	3.50		2.4	GS1-N	GIB®	242	210		
									242 OK	210 OK
d	1	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
	2	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
	3	0.40		2.4	EP1 0.4	Ecopoly®	32	38		
	4	0.40		2.4	EP1 0.4	Ecopoly®	32	38		
e	1	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
	2	0.60		2.4	EP1 0.6	Ecopoly®	57	63		
									114 OK	126 OK

Single Level Across Resistance Sheet

Job Name: Taylor								Wind	EQ	
								Demand		
								966	1088	
								Achieved		
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1142 118%	1149 106%
m	1	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	2	0.65		2.4	GS1-N	GIB®	38	38		
	3	0.70		2.4	GS1-N	GIB®	41	41		
	4	1.20		2.4	EP1 1.2	Ecopy®	144	162		
n	1	1.40		2.4	GS1-N	GIB®	97	84		
	2	1.50		2.4	GS1-N	GIB®	104	90		
	3	1.20		2.4	EP1 1.2	Ecopy®	144	162		
									280 OK	304 OK
o	1	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	2	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	3	1.50		2.4	GS1-N	GIB®	104	90		
	4	0.60		2.4	GS1-N	GIB®	34	35		
p	1	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	2	2.20		2.4	GS1-N	GIB®	152	132		
	3	0.60		2.4	EP1 0.6	Ecopy®	57	63		
									266 OK	258 OK

All dimensions are to be checked and confirmed prior to any construction

Plans are to be read in conjunction with Specifications and all supporting documentation



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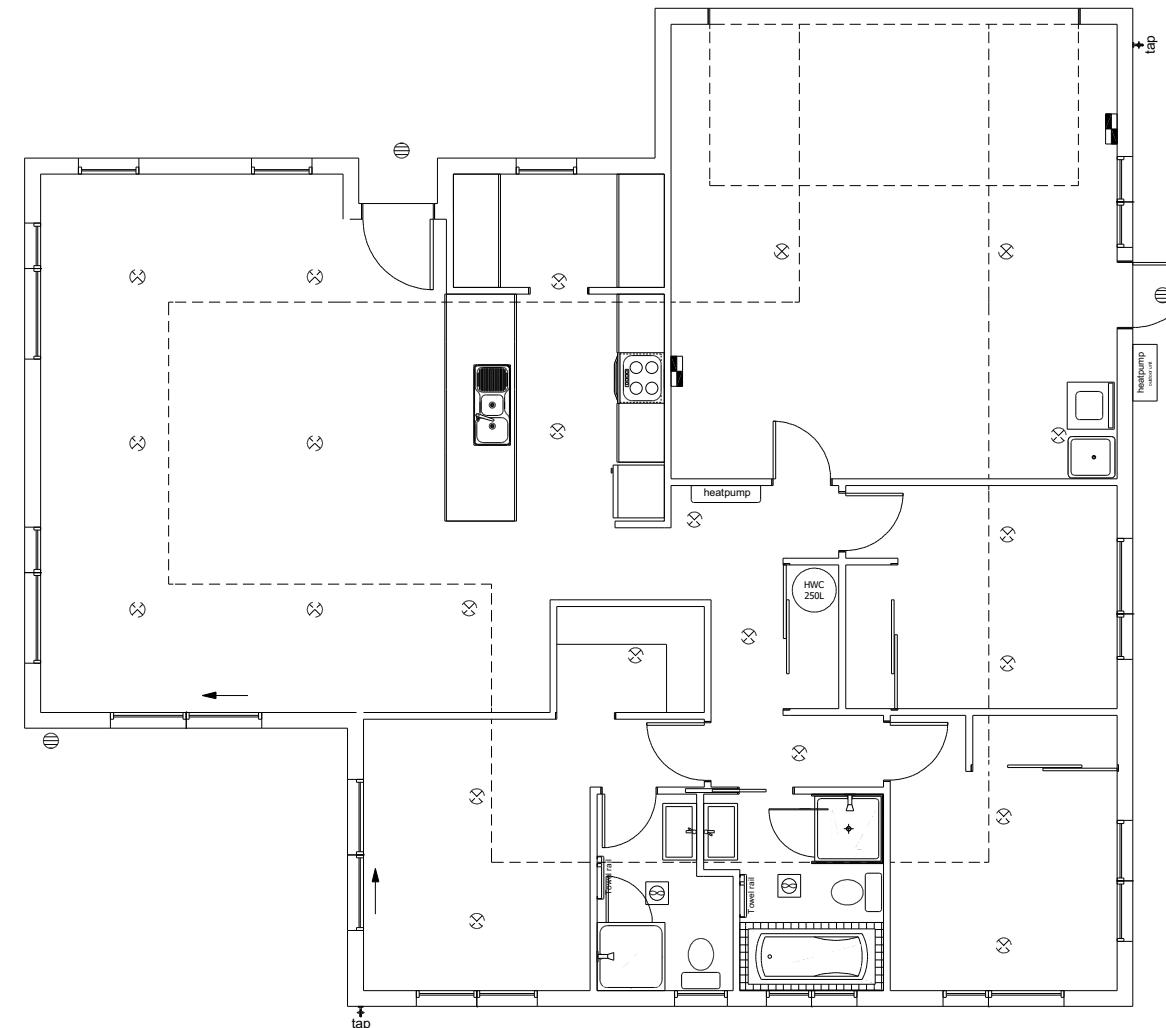
Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number: 128257	Original Plan: 'Bellbird 160'	Sheet Name: BRACING PLAN
ales: Caldwell	Drawn: J Rana	QS: S Liu

CONSENT PLANS

	Reason:
E	17/11/2021

CA Approved Down Lights
Layout shown is indicative only.
Final layout to be confirmed
between owner and electrician.
Refer to electrical section in the
specifications for additional info.



LEGEND	
Refer to Electrical Section in Specification for further details	
○	Ceiling Pan
⊗	CA Approved Down Light
◎	Exterior Bulkhead Light
●	Exterior Wall Light
—	Fluorescent Double
↶	Light Switch
↷	Two Way Light Switch
↑	Single Power Socket
↓	Double Power Socket
○	Outside Waterproof Plug
▼	Telephone/Data Outlet
TV	TV Jack
SKY	Sky Connection
■	Bathroom Heater
■	Bathroom Extractor/Light
Electrical Plan is indicative only and is to be confirmed onsite with electrician and client	

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Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:
LIGHTING PLAN

Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: 1:100 @ A3

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
13

of 24 sheets

LINTEL FIXING SCHEDULE

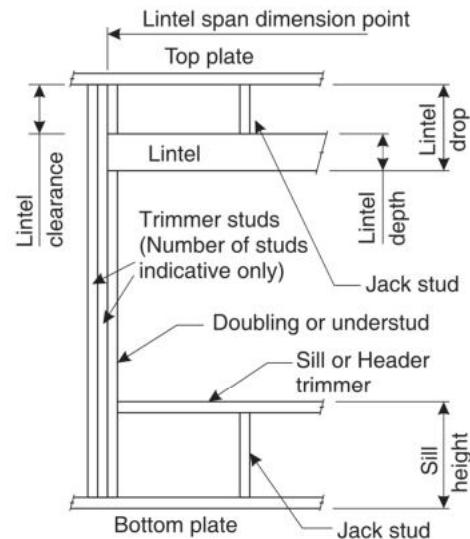
ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12

NZS 3604:2011

NOTE:

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

DEFINITIONS



Lintel Supporting Girder Trusses:

Roof Tributary Area	Light Roof				Heavy Roof			
	Wind Zone				Wind Zone			
	L, M, H	VH	EH	L, M, H	VH	EH		
8.6 m ²	G	G	H	G	G	H		
11.6 m ²	G	H	H	G	G	H		
12.1 m ²	G	H	H	G	H	H		
15.3 m ²	H	H	-	G	H	H		
19.1 m ²	H	-	-	G	H	-		
20.9 m ²	H	-	-	H	H	-		
21.8 m ²	H	-	-	H	-	-		
34.3 m ²	-	-	-	H	-	-		

Notes:

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

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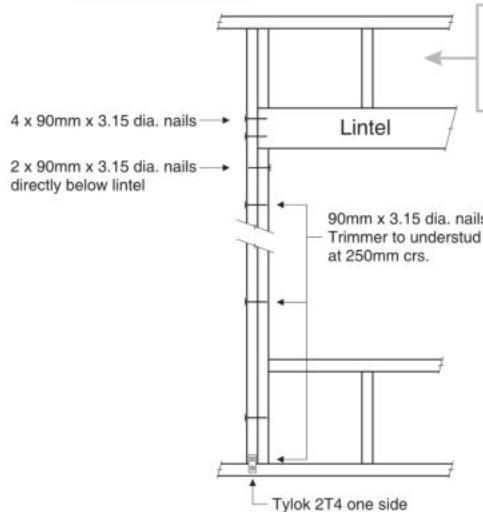
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SELECTION CHART FOR LINTEL FIXING

Lintel Span	Loaded Dimension (See Fig. 1.3 NZS 3604:2011)	Light Roof				Heavy Roof				
		Wind Zone				Wind Zone				
		L	M	H	VH	EH	L	M	VH	
0.7	2.0	E	E	E	E	F	E	E	E	E
	3.0	E	E	E	F	F	E	E	E	E
	4.0	E	E	F	F	F	E	E	F	F
	5.0	E	F	F	G	G	E	E	F	F
	6.0	E	F	F	G	G	E	E	F	G
0.9	2.0	E	E	E	F	F	E	E	E	F
	3.0	E	E	F	F	F	E	E	F	F
	4.0	E	E	F	F	F	E	E	F	F
	5.0	E	F	F	G	G	E	E	F	F
	6.0	E	F	F	G	G	E	E	F	G
1.0	2.0	E	E	E	F	F	E	E	E	F
	3.0	E	E	F	F	F	E	E	F	F
	4.0	E	F	F	G	G	E	E	F	F
	5.0	E	F	F	G	G	E	E	F	G
	6.0	E	F	F	G	G	E	E	F	G
1.2	2.0	E	E	F	F	F	E	E	F	F
	3.0	E	E	F	F	F	E	E	F	F
	4.0	E	F	F	G	G	E	E	F	F
	5.0	E	F	F	G	G	E	E	F	G
	6.0	F	F	G	G	H	E	E	F	G
1.5	2.0	E	E	F	F	F	E	E	F	F
	3.0	E	F	F	G	G	E	E	F	F
	4.0	E	F	F	G	G	E	E	F	G
	5.0	F	F	G	G	H	E	E	F	G
	6.0	F	F	G	H	H	E	E	F	H
2.0	2.0	E	F	F	G	G	E	E	F	F
	3.0	E	F	F	G	G	E	E	F	G
	4.0	F	F	G	G	H	E	E	F	G
	5.0	F	F	G	H	H	E	E	F	H
	6.0	F	G	H	H	H	E	F	G	H
2.4	2.0	E	F	F	G	G	E	E	F	G
	3.0	F	F	G	G	H	E	E	F	G
	4.0	F	F	G	H	H	E	E	F	G
	5.0	F	G	H	H	H	E	F	G	H
	6.0	F	G	H	H	H	-	E	F	G
3.0	2.0	E	F	F	G	G	E	E	F	G
	3.0	F	F	G	H	H	E	E	F	G
	4.0	F	G	H	H	H	-	E	F	G
	5.0	F	G	H	H	H	-	E	F	G
	6.0	F	G	H	H	H	-	E	F	H
3.6	2.0	F	F	G	G	H	E	E	F	G
	3.0	F	F	G	H	H	E	E	F	G
	4.0	F	G	H	H	H	-	E	F	G
	5.0	F	G	H	H	H	-	E	F	G
	6.0	G	H	H	H	H	-	E	F	H
4.2	2.0	F	F	G	G	H	E	E	F	G
	3.0	F	G	H	H	H	-	E	F	G
	4.0	F	G	H	H	H	-	E	F	G
	5.0	G	H	H	H	H	-	E	F	H
	6.0	G	H	H	H	H	-	E	F	H
4.5	2.0	F	F	G	H	H	E	E	F	G
	3.0	F	G	H	H	H	-	E	F	G
	3.4	F	G	H	H	H	-	E	F	H
	4.0	F	G	H	H	H	-	E	F	G
	5.0	G	H	H	H	H	-	E	F	H
	6.0	G	H	H	H	H	-	E	F	H
4.8	2.0	F	F	G	H	H	E	E	F	G
	3.0	F	G	H	H	H	-	E	F	G
	3.2	F	G	H	H	H	-	E	F	G
	4.0	F	G	H	H	H	-	E	F	H
	5.0	G	H	H	H	H	-	E	F	H
	6.0	G	H	H	H	H	-	E	F	H

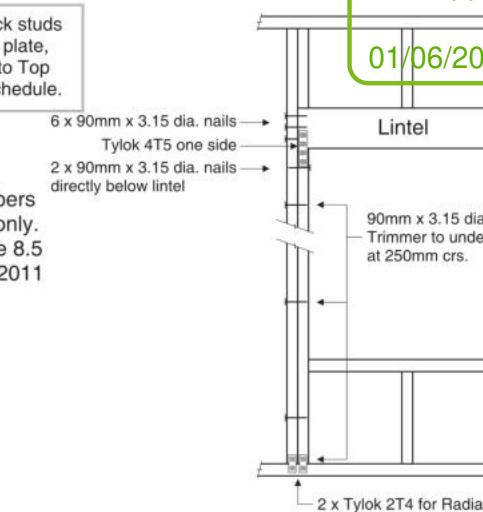
LINTEL FIXING OPTIONS

TYPE E 1.4 kN



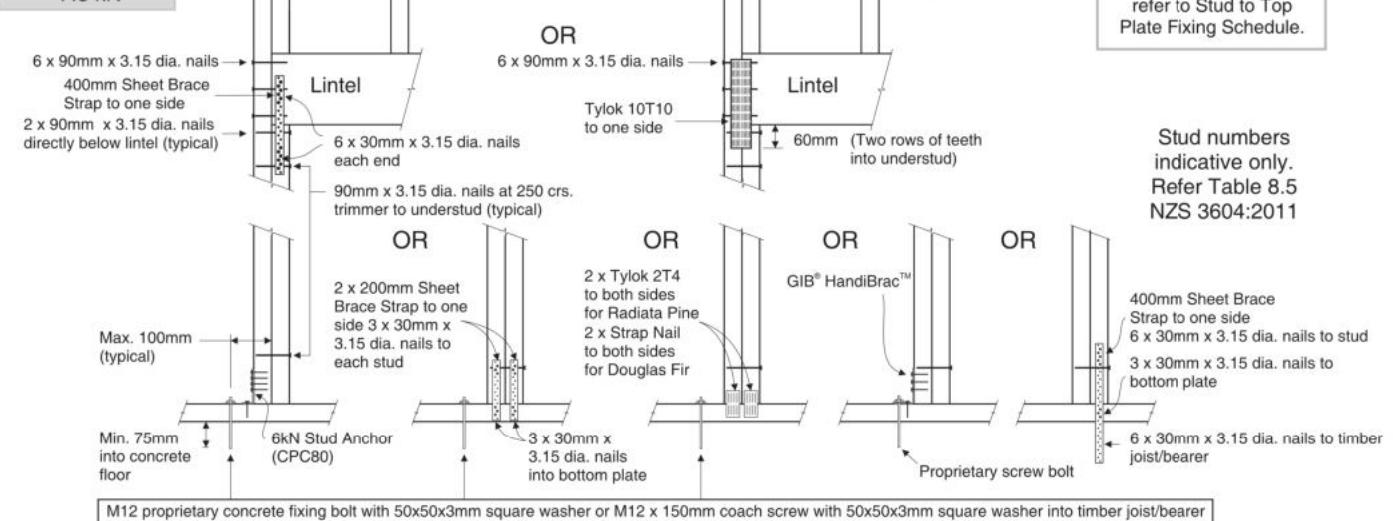
For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule.
Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011

TYPE F 4.0 kN



For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule.
Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011

TYPE G 7.5 kN



OR



OR



OR

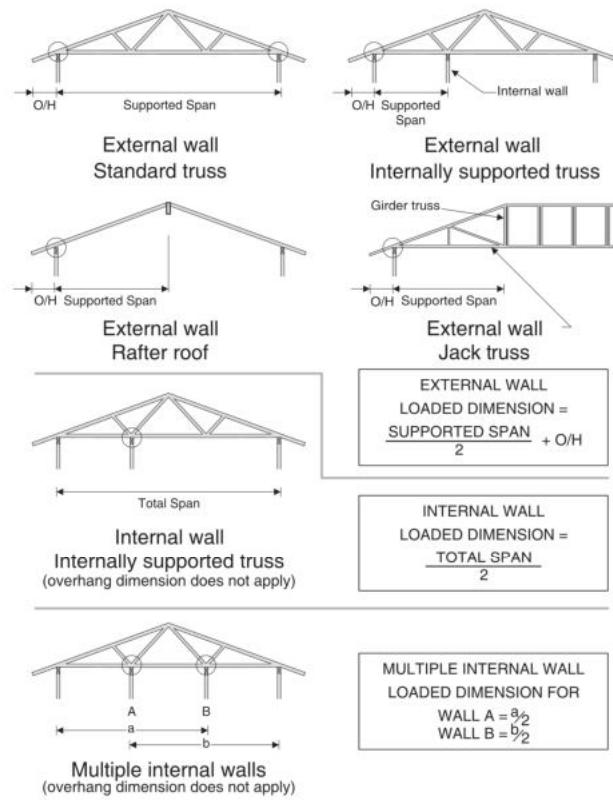
STUD TO TOP PLATE FIXING SCHEDULE

ALTERNATIVE TO TABLE 8.18 NZS 3604:2011

NOTE:

- ★ All fixings are designed to resist vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20 kN.
- ★ Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist lateral loads.
- ★ These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- ★ Gable end wall top plate/stud connections where the adjacent rafter/truss is located within 1200mm of gable end wall with a maximum verge overhang of 750mm, requires fixing type A as shown below.
- ★ All fixings assume top plate thickness of 45mm maximum.
- ★ Wall framing arrangements under girder trusses are not covered in this schedule.
- ★ All timber selections are as per NZS 3604:2011.

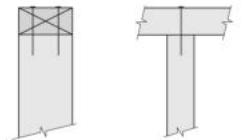
LOADED DIMENSION DEFINITION



FIXING OPTIONS

FIXING TYPE A 0.7 kN

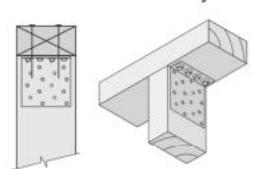
2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud.



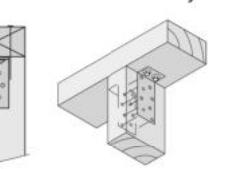
FIXING TYPE B 4.7 kN

CHOOSE ANY OF THE 3 OPTIONS BELOW

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



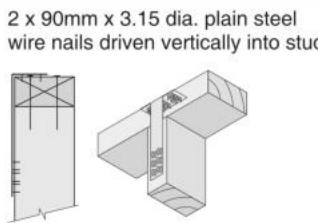
2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud.



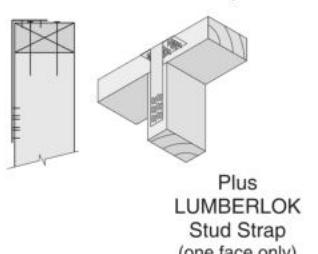
Plus LUMBERLOK 6kN Stud Anchor (CPC80)

Plus 2 x LUMBERLOK CPC40

Recommended for internal wall options to avoid lining issues



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



Plus LUMBERLOK Stud Strap (one face only)

FIXING SELECTION CHART

(Suitable for walls supporting roof members at 600, 900 or 1200mm crs.)

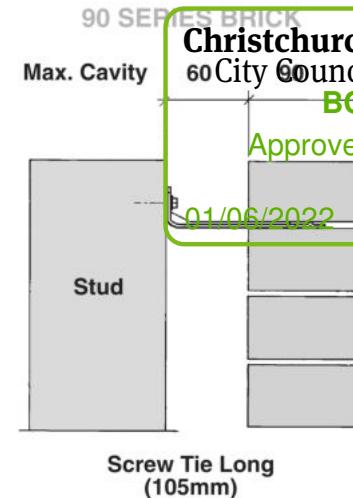
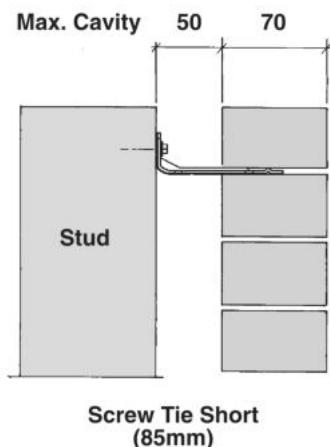
Wind Zones L, M, H, VH, EH, as per NZS 3604:2011

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

Note:

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

70 SERIES BRICK



Christchurch
60 City Council
BCN/2022/2267
Approved Building Consent
Document
01/06/2022

Page 15 of 31

Sheet No.:
15
of 24 sheets

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Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:
FRAMING DETAILS

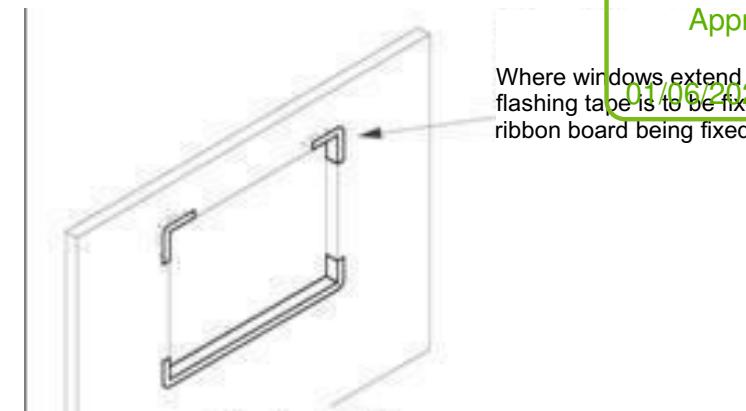
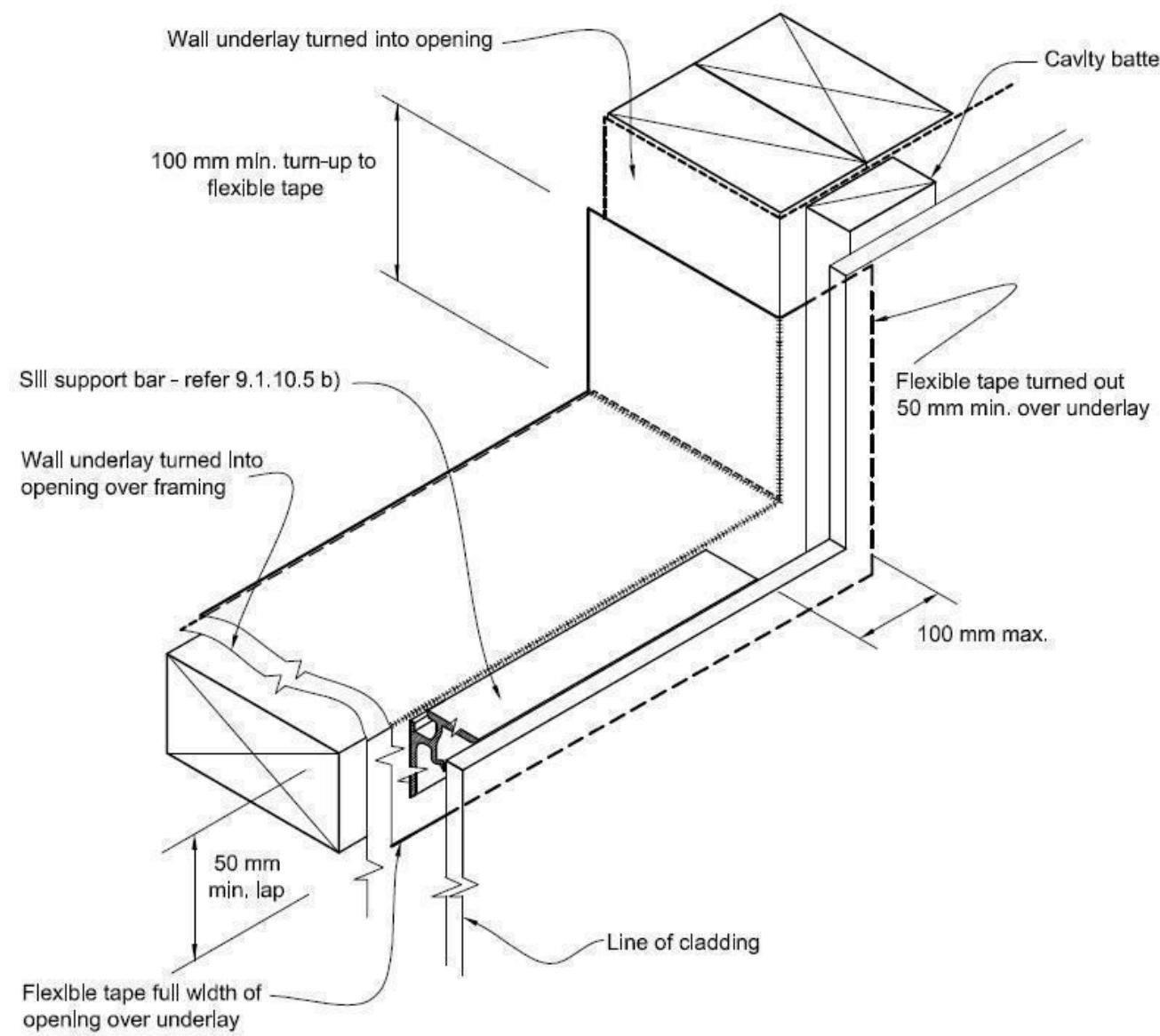
Sales: L Caldwell	Drawn: J Rana	QS: S Liu	Print Date: 25/11/2021	Scale: NTS	@ A3
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CONSENT PLANS

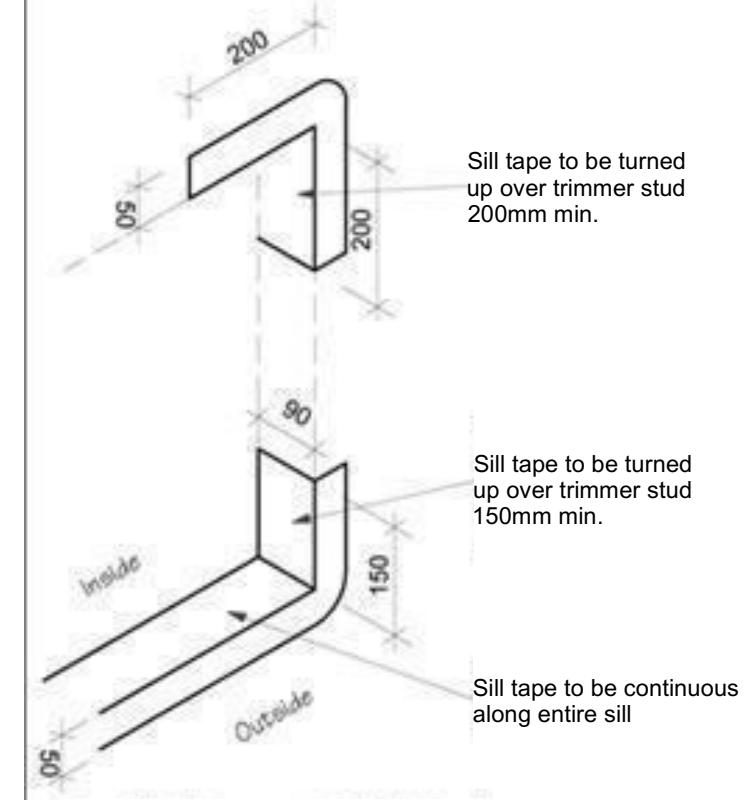
No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Figure 72B: General window and door opening with drainage cavity
Paragraphs 9.1.5, 9.1.9.3, 9.1.10.2, Figures 73C, 76, 85, 86, 91, 99, 116 and 128

NOTE:
 (1) Detailed cladding omitted for clarity, refer to specific claddings.
 (2) Head to be treated similarly with continuous wall underlay and flexible tape at corners.
 (3) Refer individual cladding details for jamb flashings.



Detail Tape Location to Wall Openings



Trim all building wrap to finish flush with inside face of stud frame wall

Sill Tape Flashing Detail

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Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

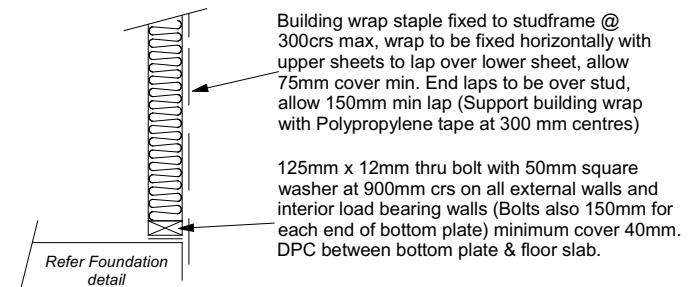
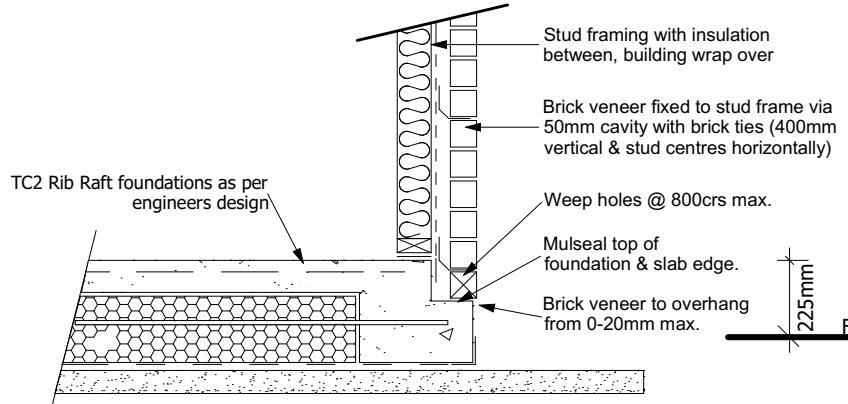
Original Plan:
'Bellbird 160'

Sheet Name:
CONSTRUCTION DETAILS

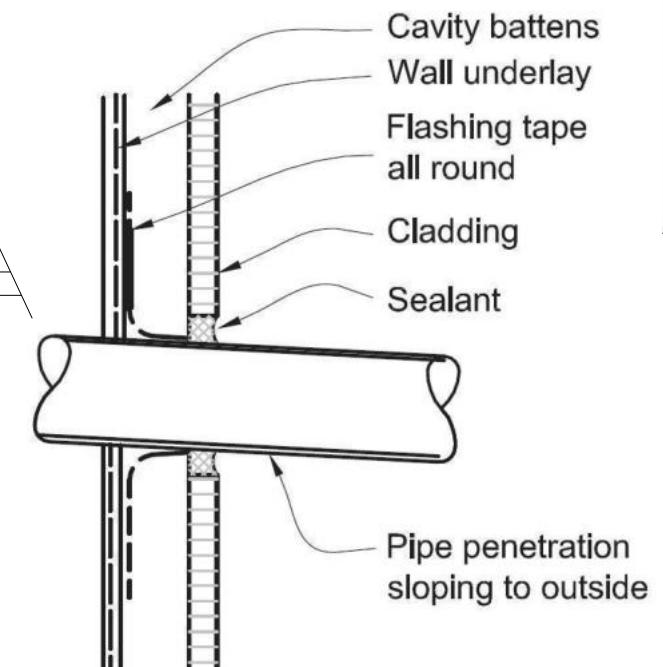
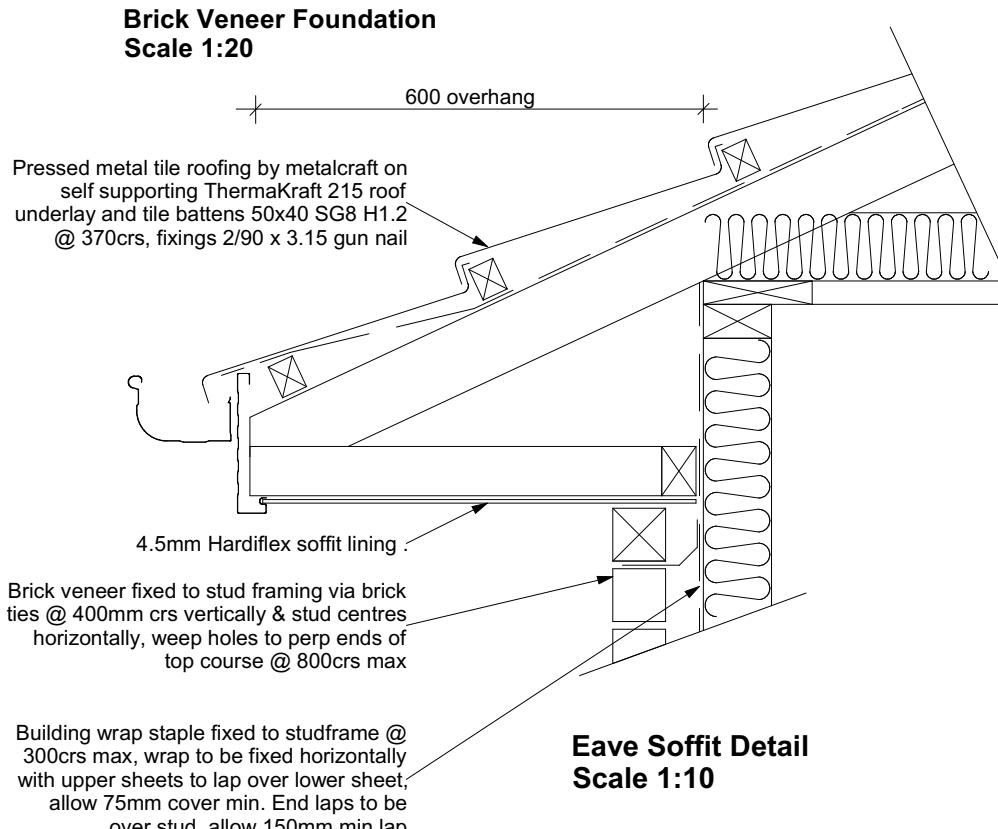
CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

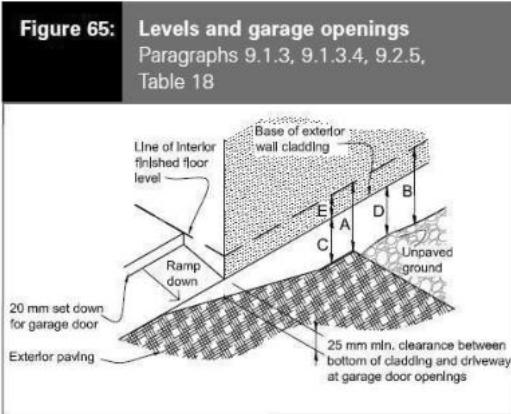
Sheet No.:
16
of 24 sheets



Stud framing to slab
Scale 1:20

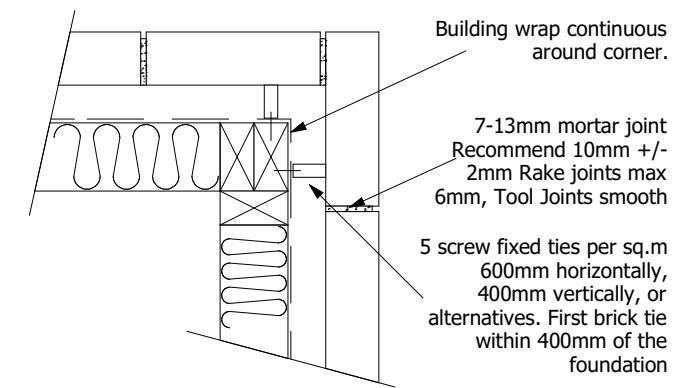


(a) CAVITY WITH FLASHING TAPE



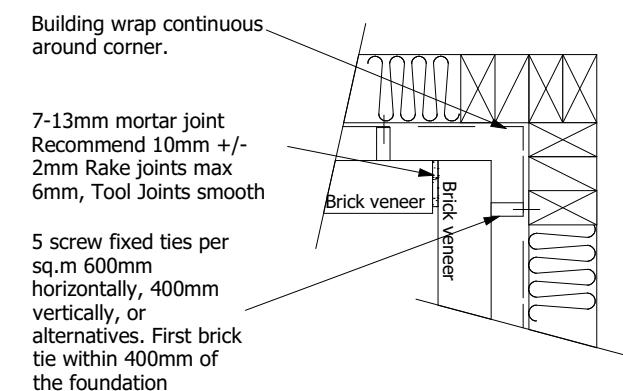
Minimum clearances (mm)	Masonry veneer		Other claddings				
	A	B	A	B	C	D	E
Concrete slab	100	150	150	225	100	175	50
Timber floor Refer Note 1)			100	175	502		

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



Brick Veneer External Corner Detail

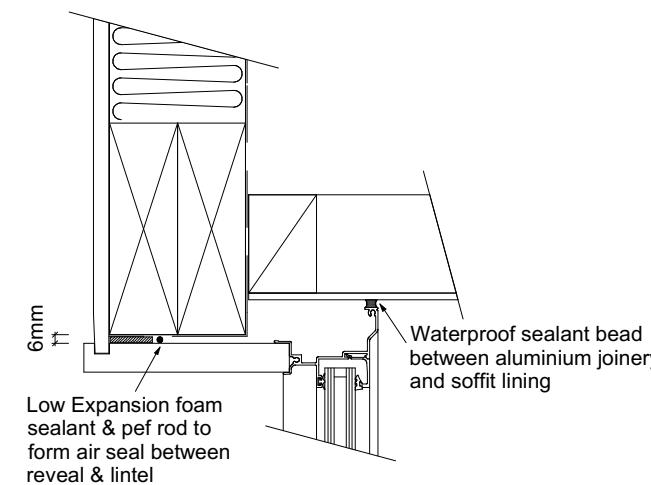
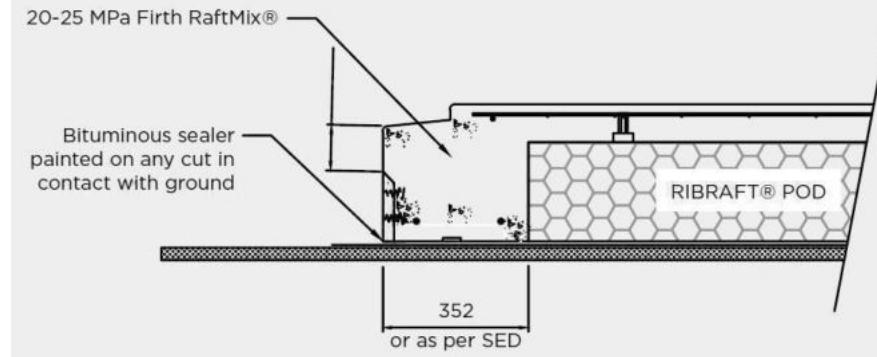
scale 1:5



Brick Veneer Internal Corner Detail

scale 1:5

GARAGE DOOR STOP CONSTRUCTION DETAIL



Window Head to Soffit Detail
Scale 1:5

9.1.10.8 Attachments for windows and doors

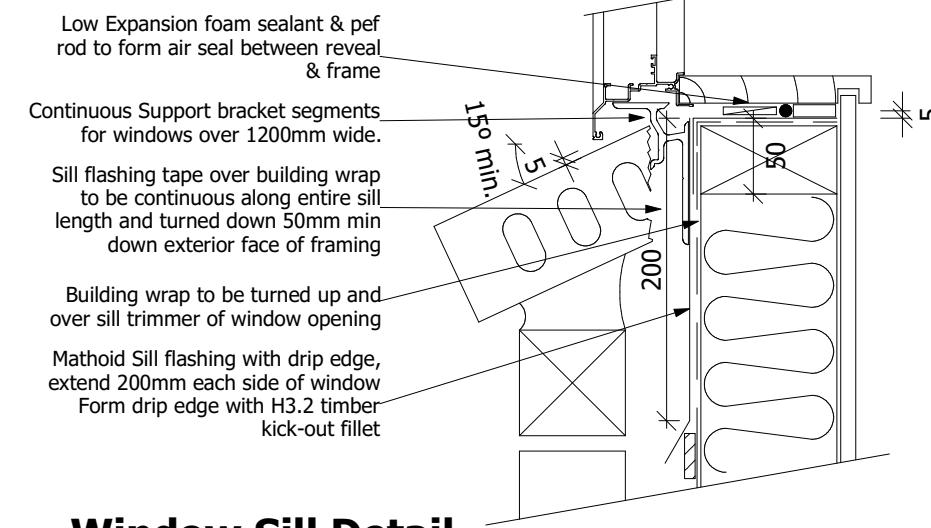
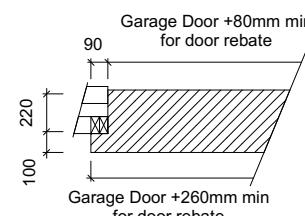
01/06/2022

Maher, Kevin

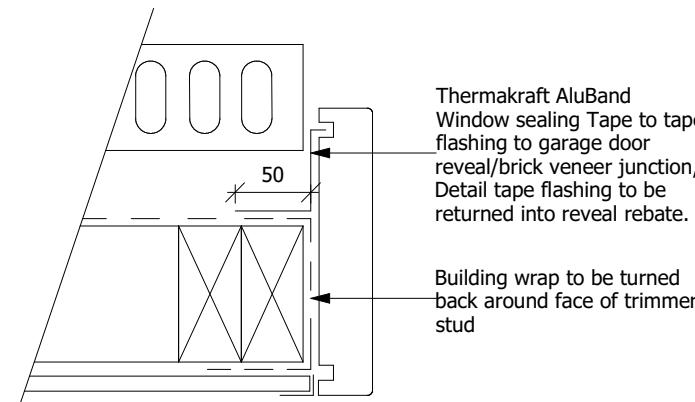
Install windows and doors using pairs of minimum 75 x 3.15 galvanised jolt head nails or 8 gauge x 65 mm stainless steel screws, through reveals into surrounding framing at:

- Maximum 450 mm centres along sills, jambs and heads, and
- Maximum 150 mm from reveal ends.

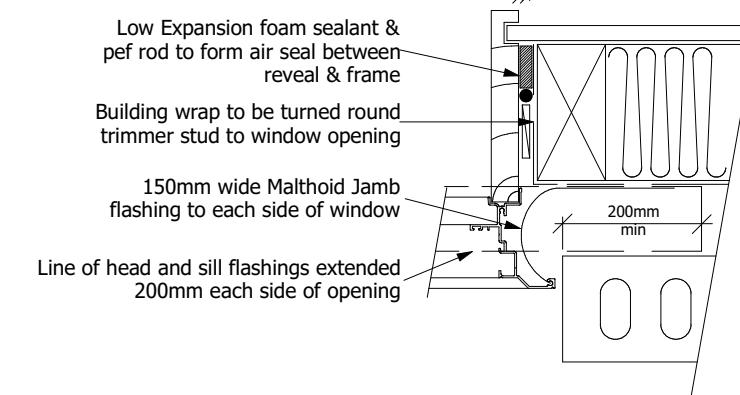
Install packers between reveals and framing at all fixing points, except between head reveals and lintels.



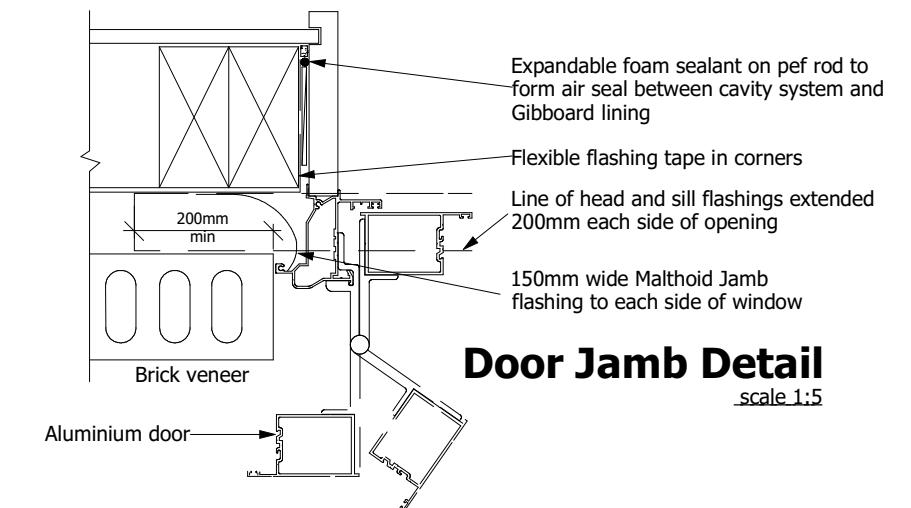
Window Sill Detail



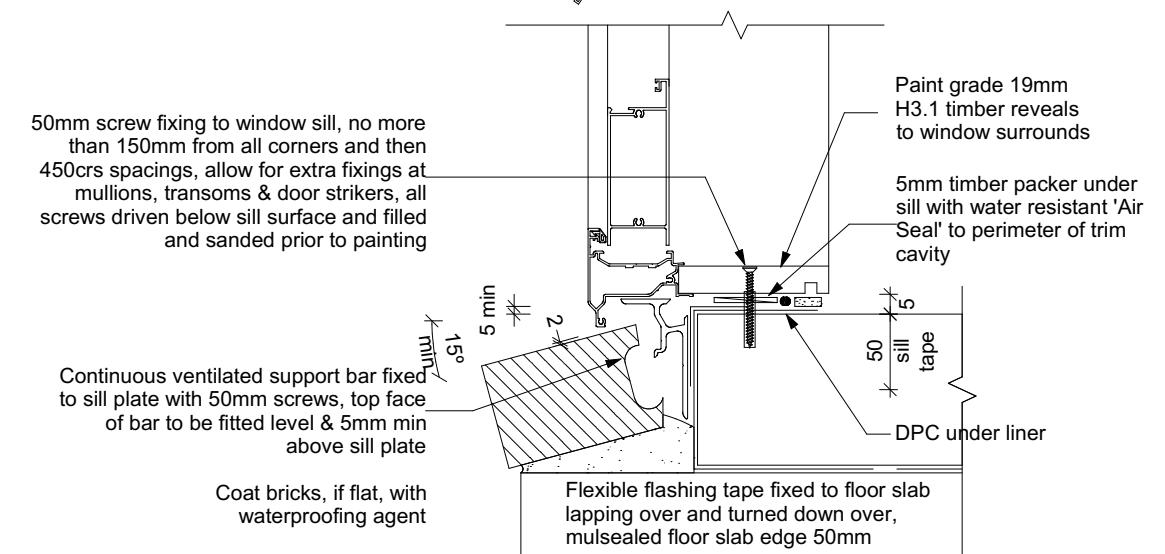
Garage Door Jamb Detail



Window Jamb Detail



Door Jamb Detail



Door Sill to Slab Detail
Scale 1:20

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Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

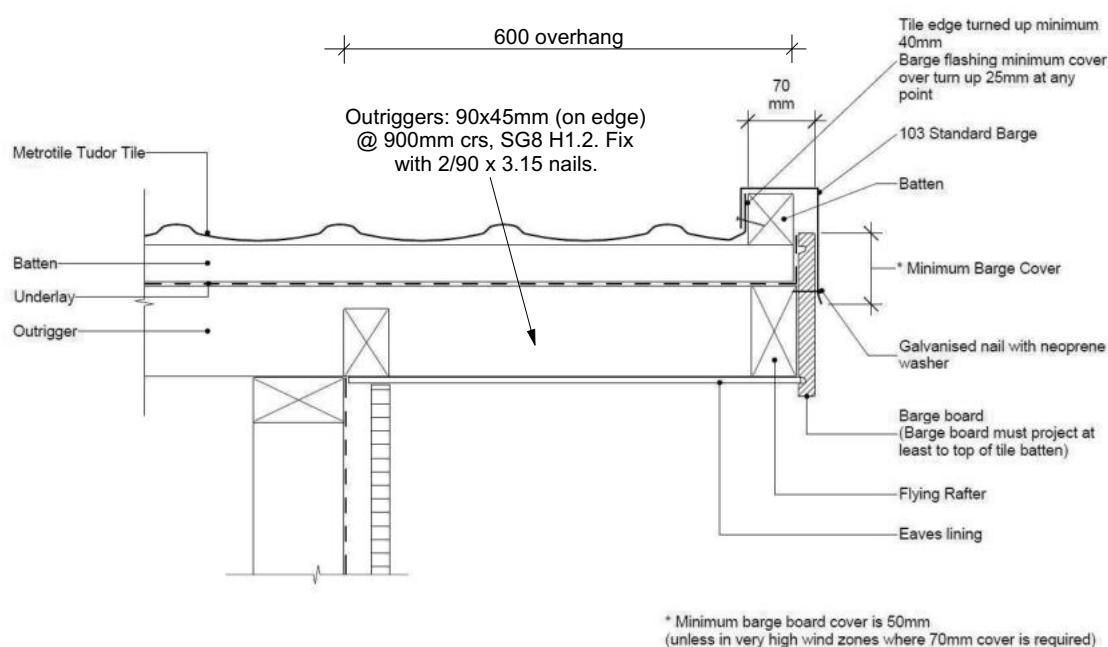
Sheet Name:
CONSTRUCTION DETAILS

CONSENT PLANS

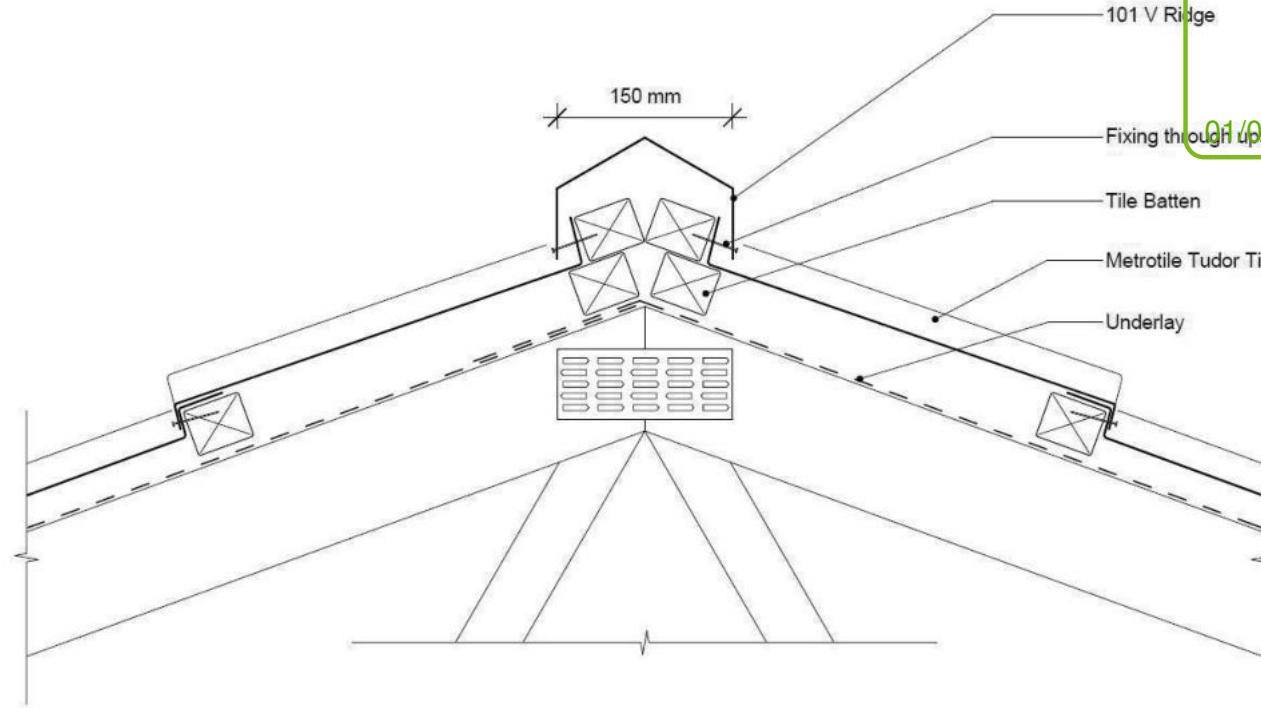
No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
18

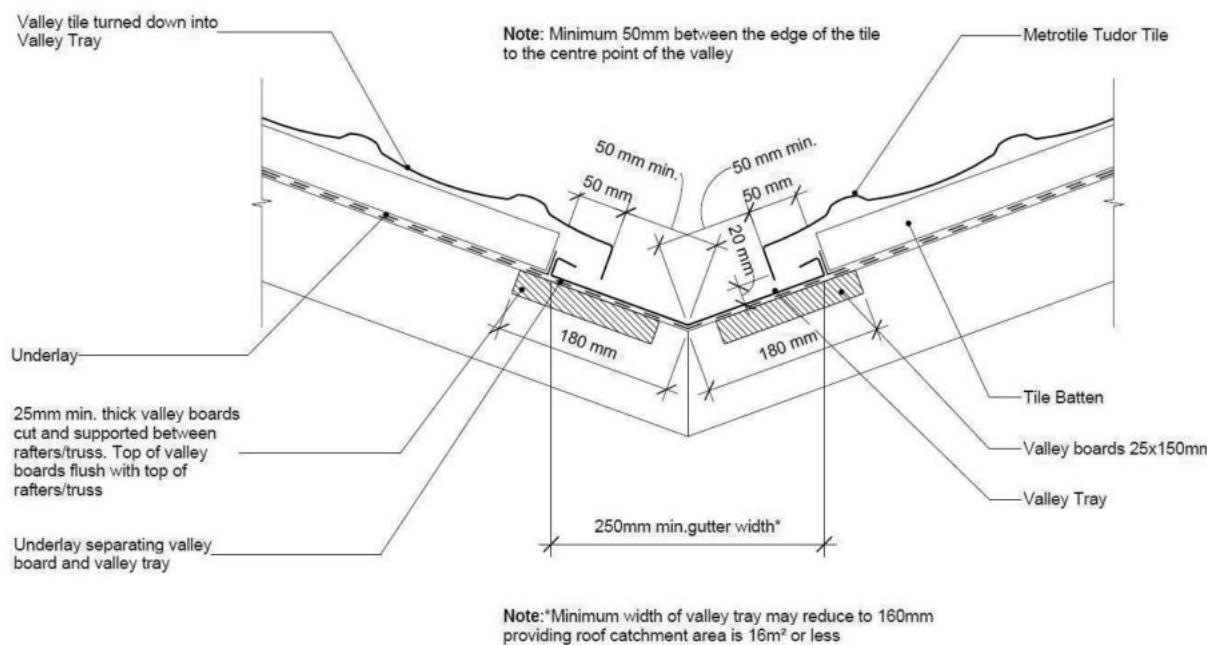
of 24 sheets



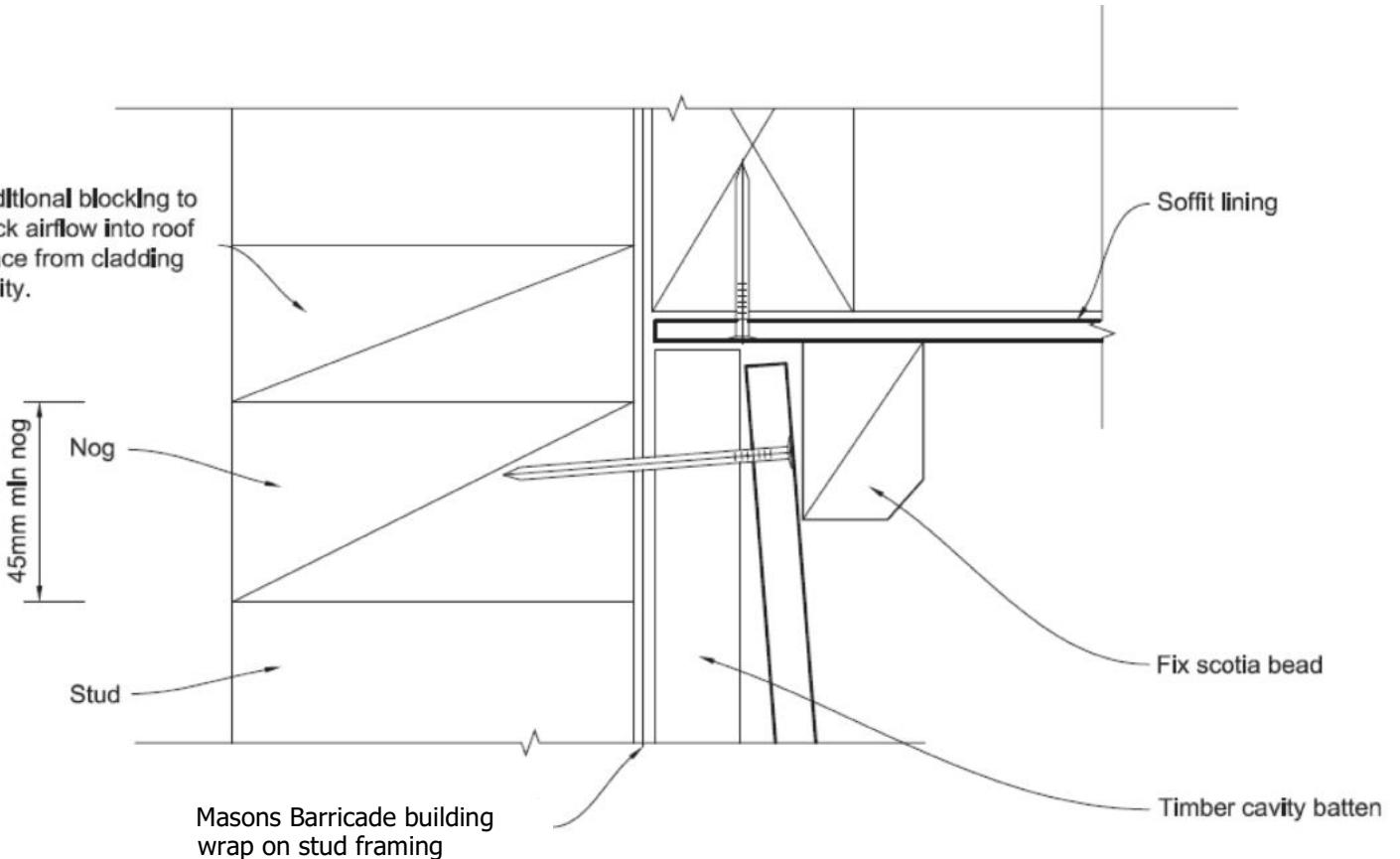
Metal Tile Gable Detail
Scale NTS



Metal Tile Angle Ridge Detail
Scale NTS



Metal Tile Valley Detail
Scale NTS



All dimensions are to be checked and confirmed prior to any construction
Plans are to be read in conjunction with Specifications and all supporting documentation



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Christchurch 8443
P: +64 3 342 7788

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Taylor, Caitlin and Jack
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Job Number:
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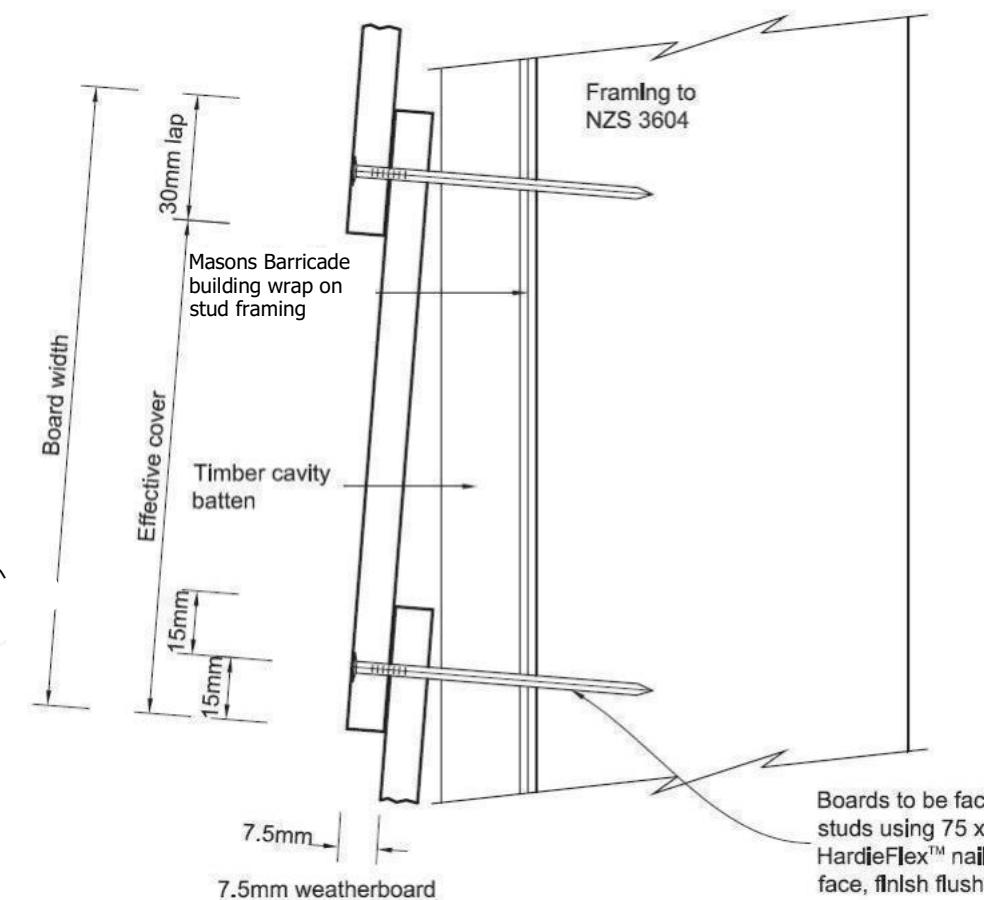
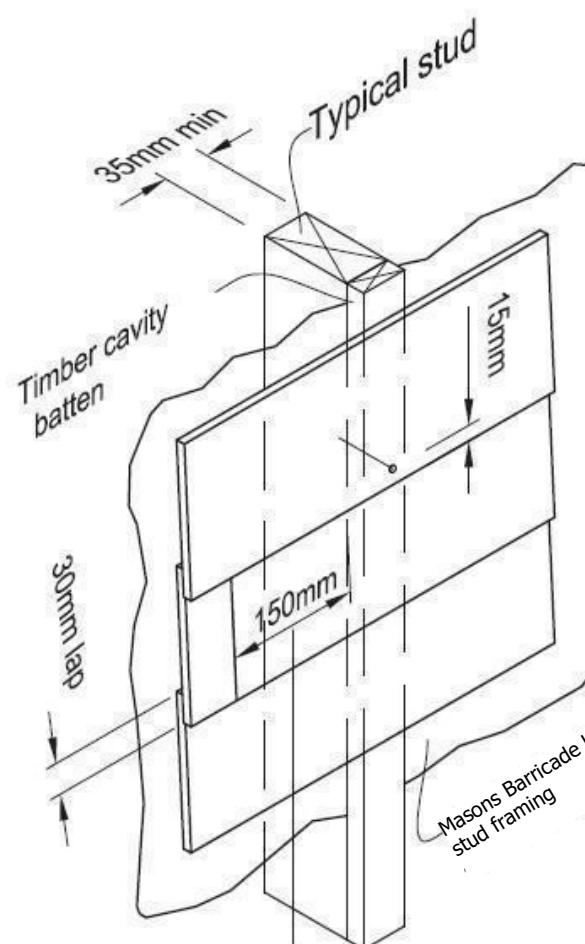
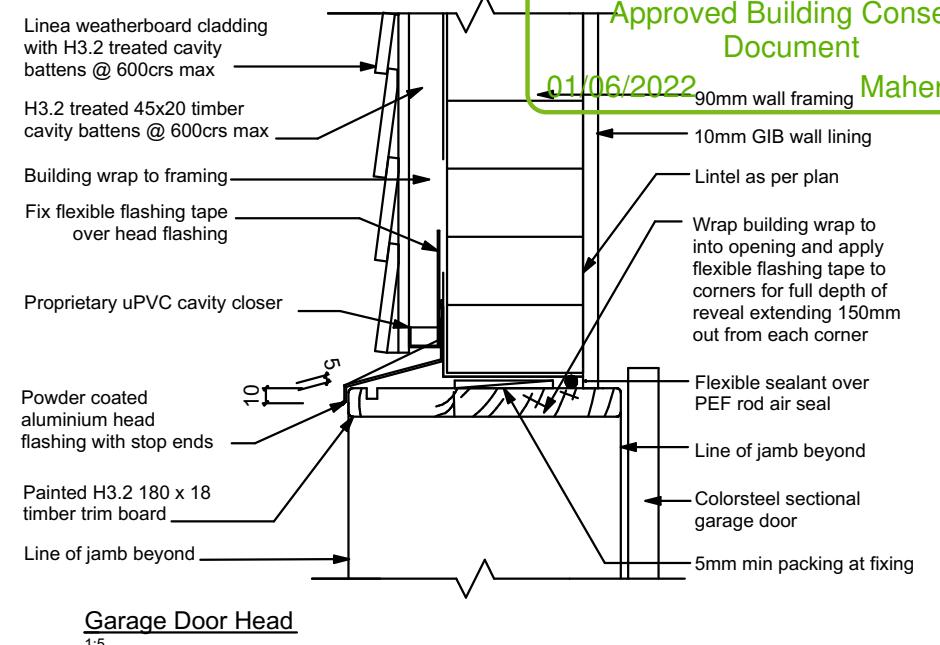
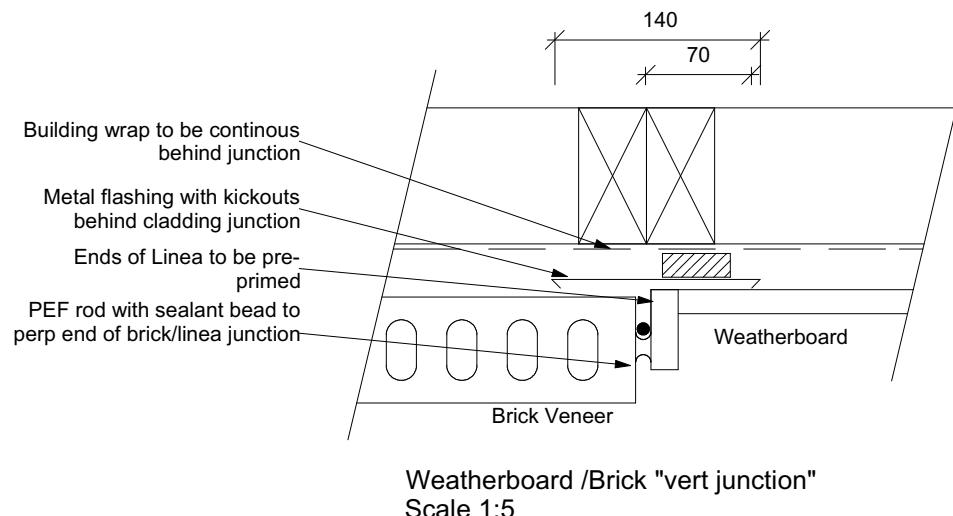
Sheet Name:
CONSTRUCTION DETAILS

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
19

of 24 sheets



Concealed back soaker join in weatherboard to be 150mm minimum from side of stud.

Joints must be staggered by 600mm minimum

Jointing off Stud

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Lot 23 Belfast Subdivision,
Christchurch

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'Bellbird 160'

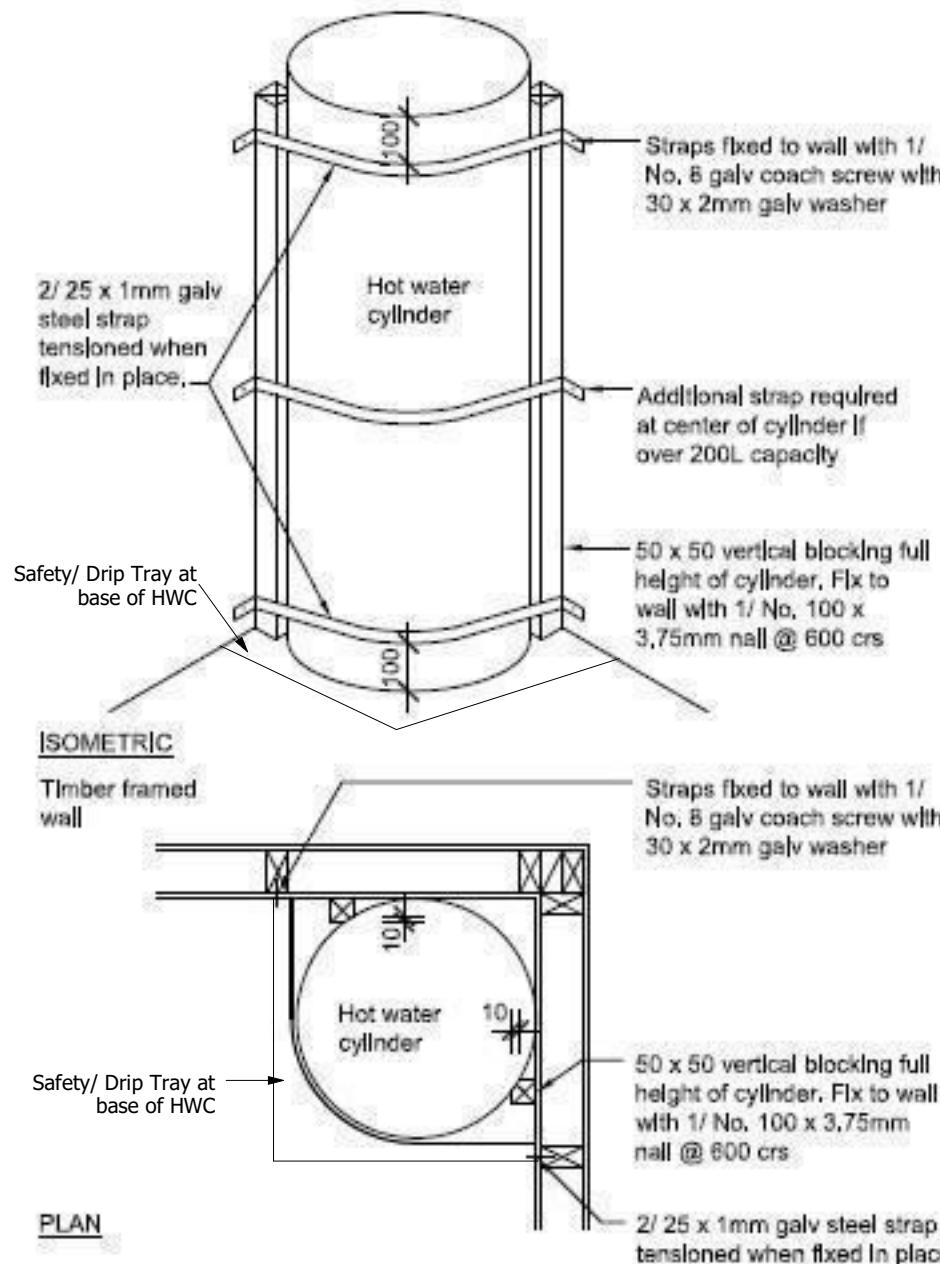
Sheet Name:
CONSTRUCTION DETAILS

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

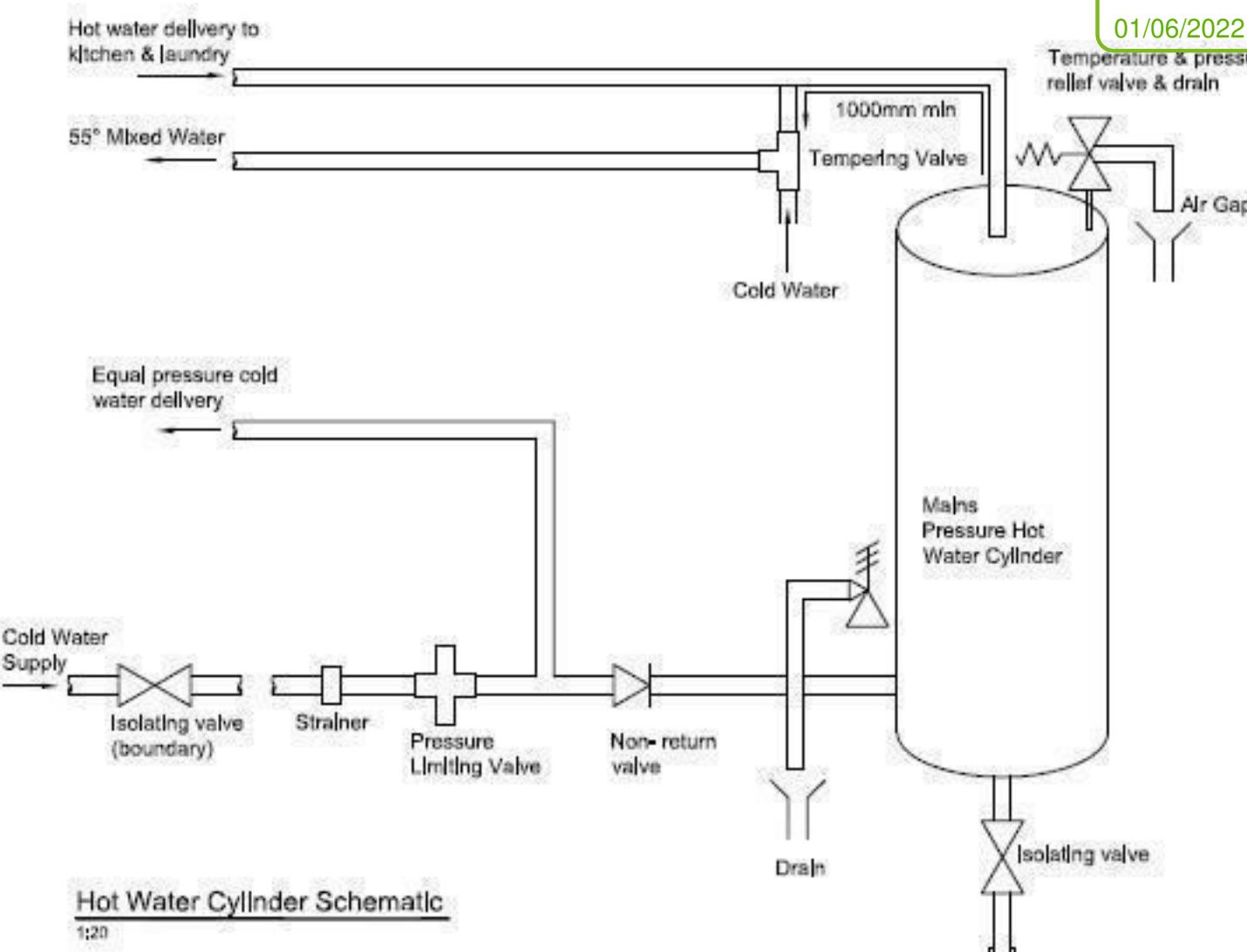
Sheet No.:
20

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Hot Water Cylinder Restraint Details

1:20



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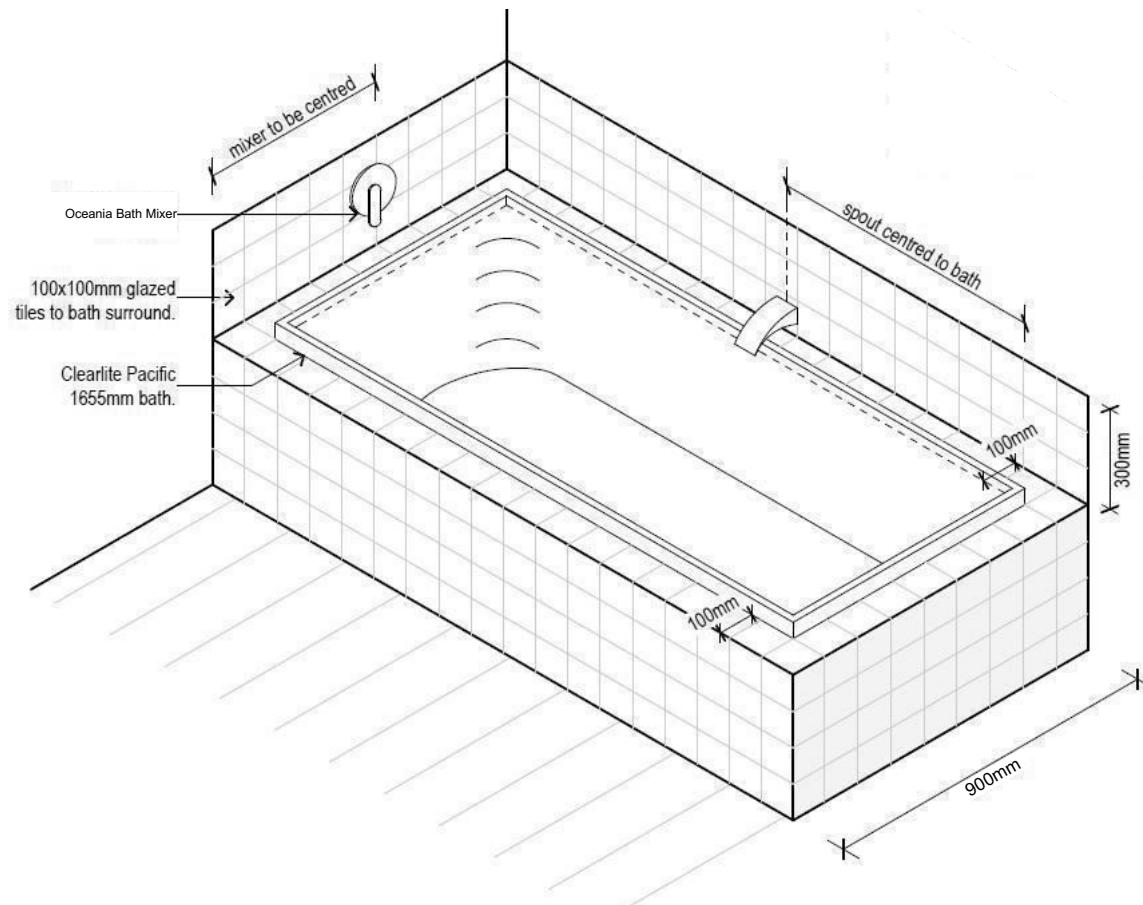
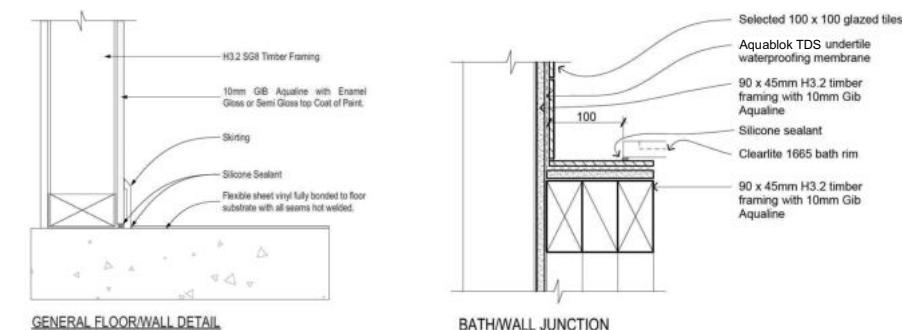
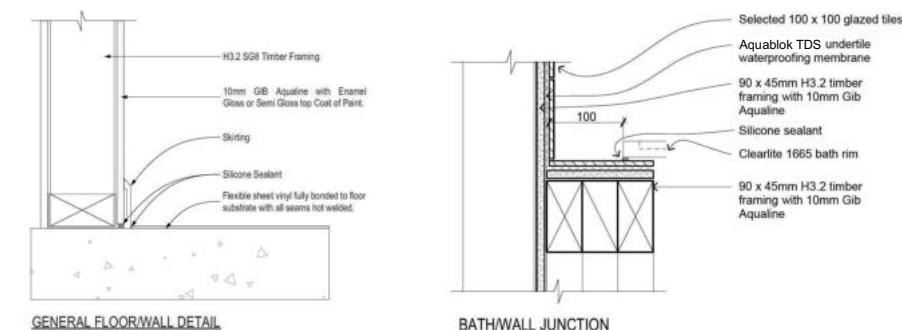
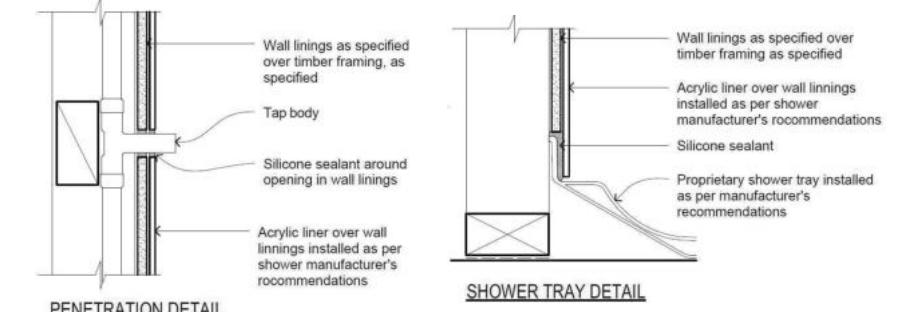
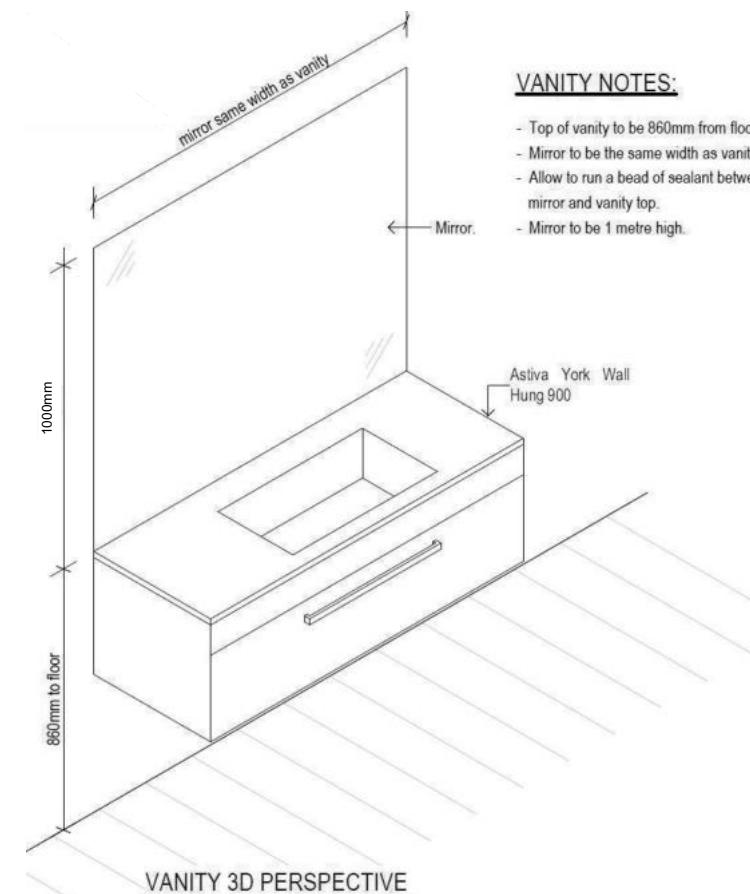
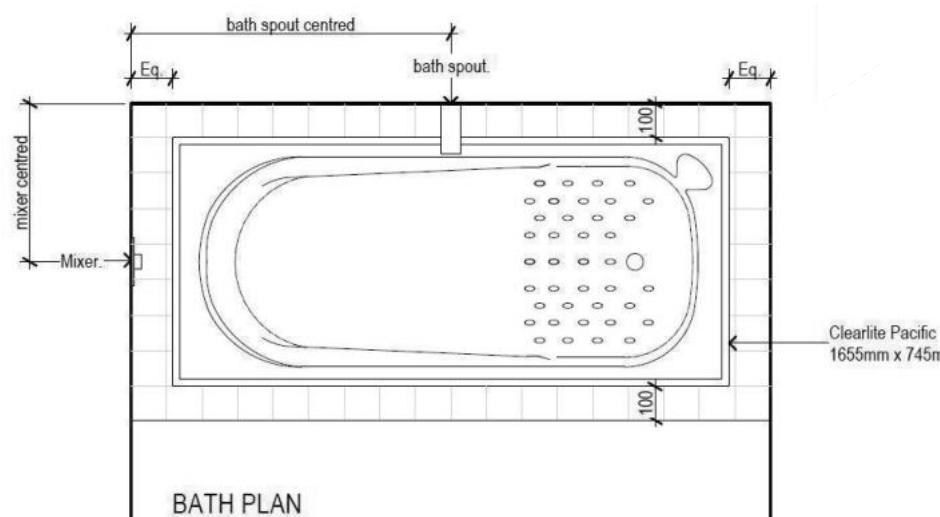
Sheet Name:
CONSTRUCTION DETAILS

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
21

of 24 sheets



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Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:

BATHROOM DETAILS

Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: NTS @ A3

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
22
of 24 sheets

BUILDABLE CONSENT LAYOUT

For valley/saddle truss fixing unless stated otherwise use a pair of wire dogs at 900mm centres for up to and including a very high wind zone. Or a pair of CT200's at 900mm centres for extra high wind zone. This fixing is to meet the minimum requirements as per NZS3604.

CARTERS

Christchurch City Council 

Page 23 of 31

BCN/2022/2267

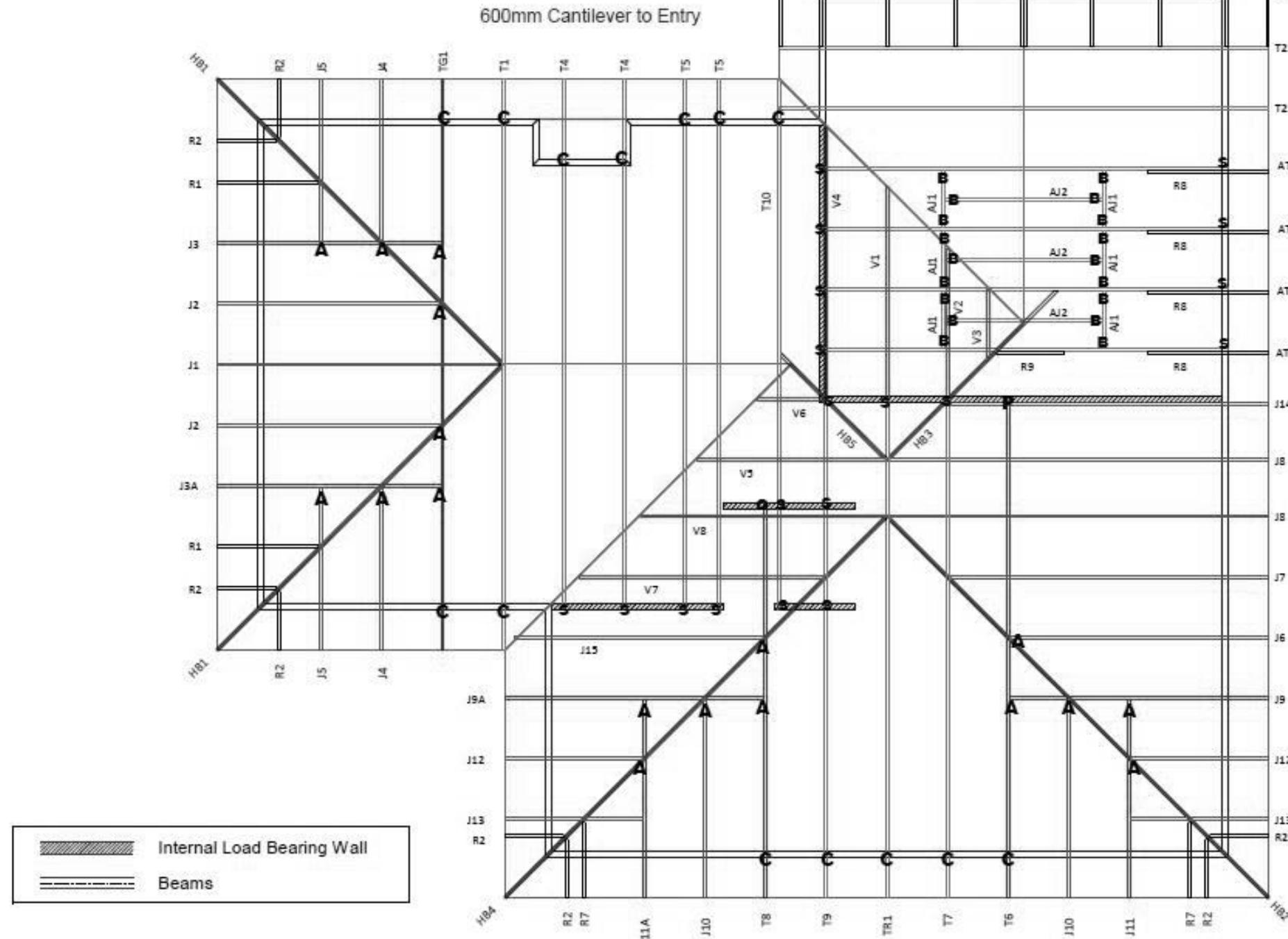
Approved Building Consent

Document

Document

Maher, Kevin

Attic trusses have been designed for a storage space of 2420mm wide x 1050mm high, reducing at 25 degrees. 140x45 top and bottom chords have been used.



If metal ceiling battens on clips are used, 90x45 SG8 bottom chord restraints are required at 1800mm centres fixed with 2/90x3.15dia nails (skew nails if on edge).

All gable trusses are designed to suit cladding manufacturer's framing requirements.

If a gable truss requires a windbeam brace, the type of MiTek brace will be noted as such on the layout.

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Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number:	Original Plan:		Sheet Name:	
128257	'Bellbird 160'		TRUSS DESIGN	
Sales: Caldwell	Drawn: J Pana	QS: S Liu	Print Date: 25/11/2021	Scale: NTS

CONSENT PLANS			Sheet No.:
No.	Date:	Reason:	
BC ISSUE	17/11/2021		23
			of 24 sheets

BUILDABLE CONSENT LAYOUT

CARTERS

Christchurch
City Council



Page 24 of 31

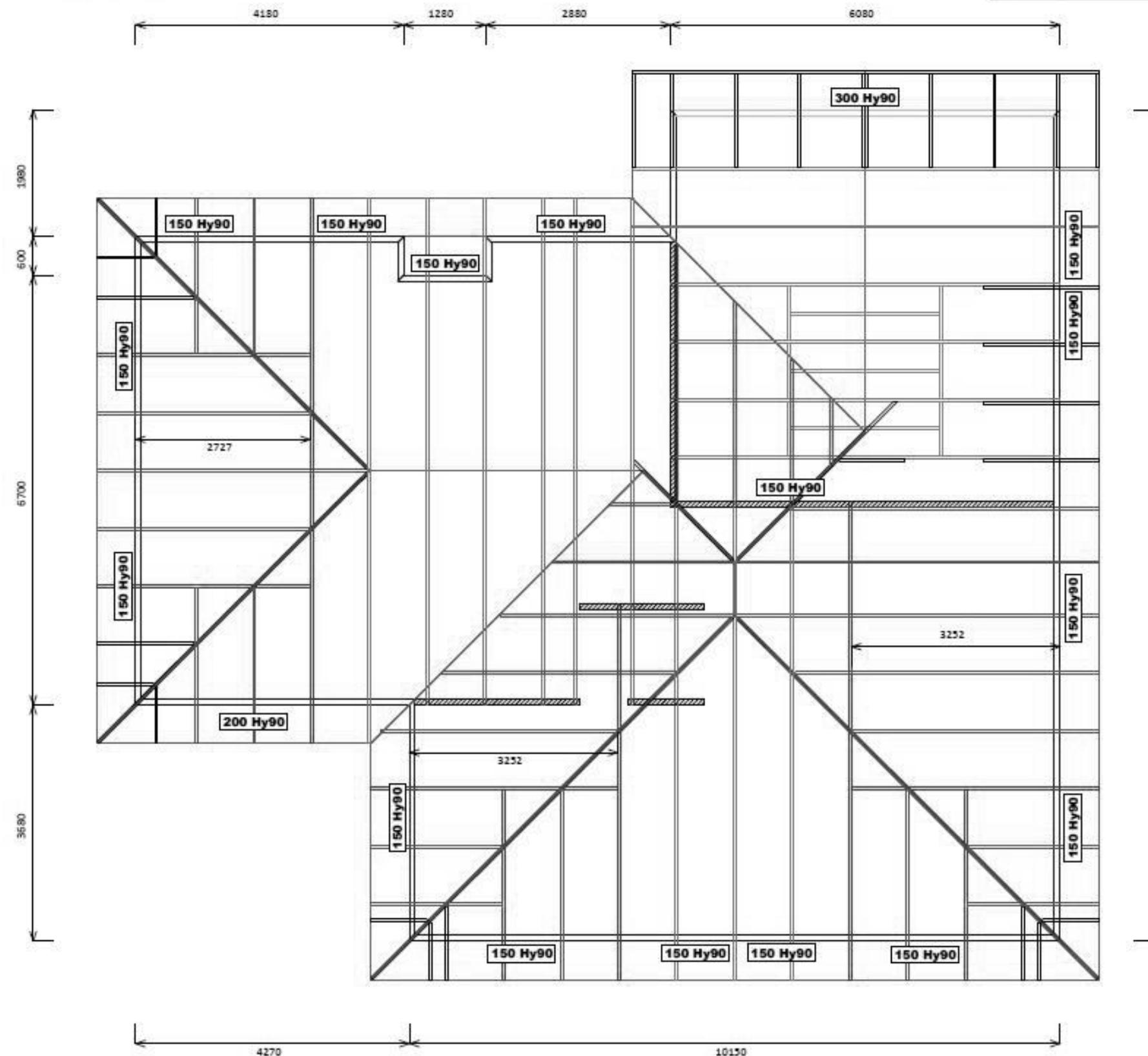
Your
Building Partner

Approved Building Consent
Document

01/06/2022

Carters Manufacturing Christchurch
(03) 3592731

Maher, Kevin



All internal walls shown hatched on this layout are considered to be loadbearing
Lintel fixing specification remains the responsibility of the architect / draughtsperson

All dimensions are to be checked and confirmed prior to any construction
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Taylor, Caitlin and Jack
Lot 23 Belfast Subdivision,
Christchurch

Job Number:
128257

Original Plan:
'Bellbird 160'

Sheet Name:
TRUSS DESIGN

Sales: L Caldwell Drawn: J Rana QS: S Liu Print Date: 25/11/2021 Scale: NTS @ A3

CONSENT PLANS

No.	Date:	Reason:
1	BC ISSUE	17/11/2021

Sheet No.:
24

of 24 sheets



ENGCO
Consulting Engineers

New House

Lot 23 Belfast Subdivision, Christchurch

RIBRAFT DRAWINGS

File Number 21008.160

Sheet No.	Rev	Date Issued	Sheet Title	Issue Register
S1	-	29.09.21	General Notes	
S2	-	29.09.21	Foundation Plan	
S3	-	29.09.21	Typical Foundation Sections	
S4	-	29.09.21	Typical Foundation Sections	
S5	-	29.09.21	Typical Foundation Sections	
S6	-	29.09.21	Typical Services Penetration Details	29.09.21 For Consent

Disclaimer: All reports, advice, drawings and other deliverables of any kind provided by the consultant ("advice") are, unless agreed otherwise in writing by the consultant, prepared exclusively for the client's use for the purposes stated in the scope of services in relation to the project. Unless the consultant's prior written consent has been obtained, the client shall not use or rely on the advice (in whole or part) for any other purpose or disclose any of the advice to a third party. The consultant shall have no liability if any of the advice is used or relied on by the client for any unauthorised purpose or by any unauthorised third party.

A U C K L A N D - P H: (0 9) 3 7 7 7 9 5 5 ■ C H R I S T C H U R C H - P H: (0 3) 3 6 6 7 9 5 5 ■ N E L S O N - P H: (0 3) 3 6 6 7 9 5 5 ■ Q U E E N S T O W N - P H: (0 3) 3 6 6 7 9 5 5 ■ E - M A I L: O F F I C E @ E N G C O . N Z ■ W W W. E N G C O . N Z ■

GENERAL

- These drawings are not to be used for construction until the plan (sheet S2) is signed by the main contractor
- Do not scale. Refer any discrepancies to the architect/engineer.
- These drawings are to be read in conjunction with the Architects & Engineers drawings.
- The builder shall be responsible for any damage to works during construction.
- The sand blinding layer shall be 20mm min. & 50mm max. to aid levelling & to prevent rocking of pods.
- Vapour barrier to be 0.25mm (250 micron) polythene complying with NZS 4229. / NZS 3604
- Finished ground level adjacent to slab to be protected from wind, water erosion and undermining.

FOUNDATIONS

- For assumed allowable bearing capacity refer to calculations/installer guide. Unless otherwise noted in documentation
- If there is any doubt about the integrity of the material on which the slab is to be founded - Supervising Engineer must be notified immediately.

CONCRETE

- All workmanship & materials to conform to NZS 3109, NZS 4210 & local authority regulations.
- Minimum covers to reinforcement:
 - Exposed to earth - 75mm.
 - Protected by vapour barrier - 50mm.
 - Not exposed to weather except for a brief period during construction - 25mm.
- No holes or chases other than those specified are to be made in the slab without the approval of the Engineer.
- All concrete shall have 20mm nominal maximum aggregate size & 120mm slump & shall comply with NZS 3109.
- All concrete to be mechanically vibrated & carefully worked around the reinforcement & into the corners of the formwork.

6. Ribraft make-up to be

85 mm Floor Slab - 220 mm pods
(20 MPa FIRTH 2019TC2 Fibre Mix Concrete)
G500 E SE62 Ductile mesh on 65 mm chairs.

The design Fibre mix shall be supplied so that the residual flexural tensile stresses $f_{r,1}$ & $f_{r,4,K}$ shall be 1.5 MPa & 1.0 MPa respectively.

REINFORCEMENT

- All reinforcing shall be new Zealand sourced and conform to AS/NZS 4671 :2001 in grade 300 or grade 500E.
- All bends to be made cold without fracture.
- All reinforcing shall be deformed type unless otherwise stated.
- Grade 500E deformed bars shall be designated 'H', Grade 300 deformed bars shall be designated 'D' and Grade 300 round bars shall be designated 'R'
- Minimum bar splice 720mm. (or unless otherwise noted)
- All reinforcement to be fixed & tied where necessary in its specified position.
- Welding of steel is not permitted
- Spacers:
 - Edge at 1200mm ctrs (one on edge & two on corners, typically).
 - Internal one on each side of pod (typically).
- All mesh shall comply with AS/NZS 4671 & shall conform with elongation requirements exceeding 10%.
- All Mesh shall lap a minimum of 250mm (end extensions not included in lap length)

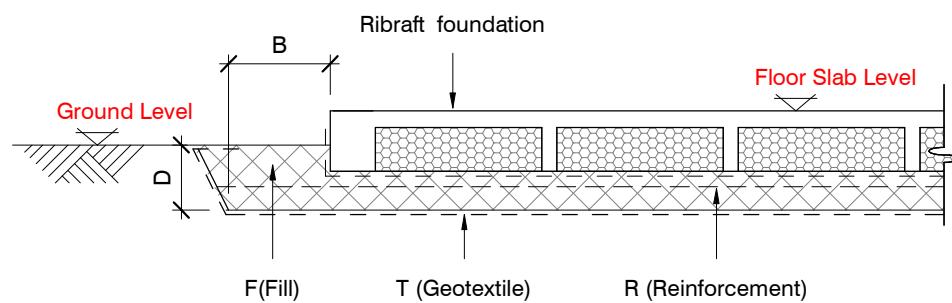
INSPECTIONS**GEOTECHNICAL REFERENCE:**

Refer: ENGEO
Ref. No: 19120.000.001_23
Dated: 16th September 2021

Inform ENGCO consulting 48 hours in advance of any inspections required for code compliance certification.
Contact ENGCO - Ph. 03 366 7955 & quote ENGCO Ref. No.

INSPECTIONS REQUIRED

- Confirm bearing at excavation.
- Contractor to supply (4) N.D> Tests at mid-height and finished compacted surface - if depth of fill is greater than 400mm.
- Pre-pour of slab.

**BUILDING PLATFORM**

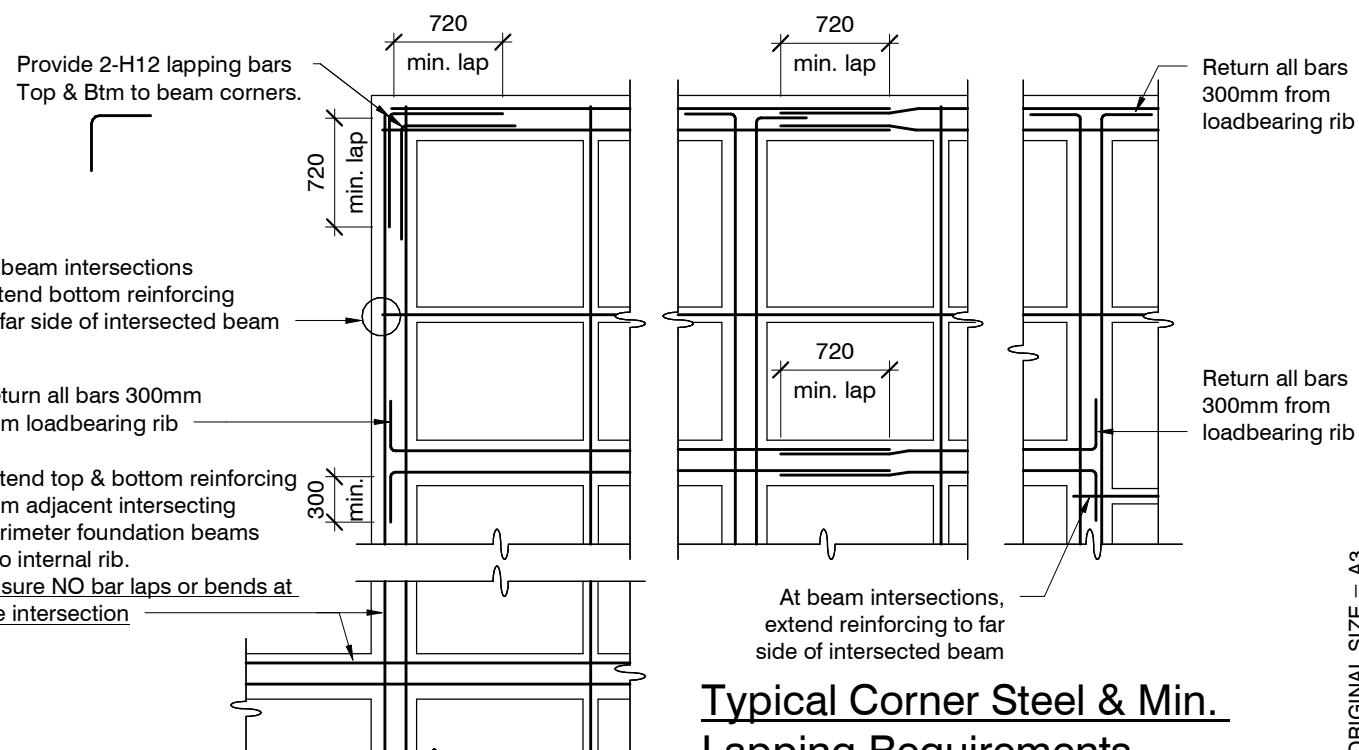
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BUILDING PLATFORM TABLE:	
B	500mm
D	Scrape to remove topsoil, approximately 300mm
T	N/A
R	N/A
F	AP 40/AP65 fill. - 95% Dry Density. Compact in 200mm layers (max.)

Refer Architectural drawings for Finished Floor Level

New House
Lot 23 Belfast Subdivision, Christchurch

**Typical Corner Steel & Min.
Lapping Requirements**

N.T.S.

revisions	-	29.09.21	For Consent

design A. SCOTT
drawn S. GRIFFIN
appvd A. SCOTT
date 29.09.2021

file 21008.160
dwg S1
rev. -

Under no circumstance should pipework for services be run longitudinally in 100mm ribs. Similarly they should not be run along perimeter foundations nor internal floor beam thickenings.

Vertical or horizontal penetrations through the foundation edge beam or floor beam thickenings must be made through the middle third of the member. Vertical penetrations should not be made through 100 mm ribs.

Refer to Architects drawings for floor slab, set downs, steps, rebates, holding down bolts, cast-in componentry and the like.

KEY:
(2) H12 (x1200) at 200 crs.
1100 x 1100 pod (typ.)

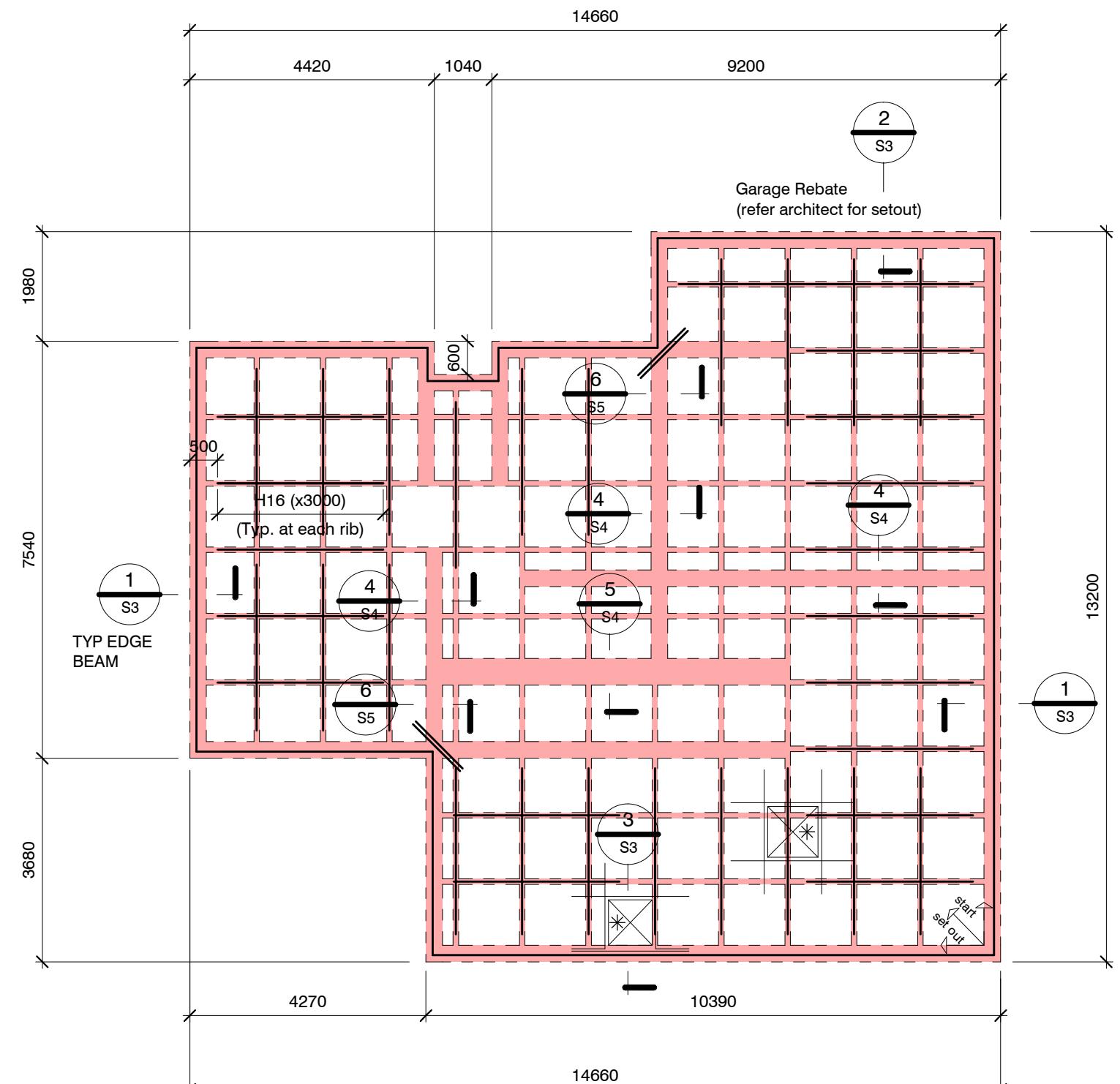
85 mm Floor Slab - 220 mm pods
(20 MPa FIRTH 2019TC2 Fibre Mix Concrete)
G500 E SE62 Ductile mesh on 65 mm chairs.

The design Fibre mix shall be supplied so that the residual flexural tensile stresses $f_{R,1}$ & $f_{R,4,K}$ shall be 1.5 MPa & 1.0 MPa respectively.

All Mesh shall lap a minimum of 250mm (end of extensions not included).

* 50mm shower rebate, maintain min. slab thickness Trim perimeter with H12. extending 750mm past (typ.) (or 300mm return) Refer to Architects drawings for setout dimensions

ORIGINAL SIZE = A3



RIBRAFT FOUNDATION PLAN

1 : 100

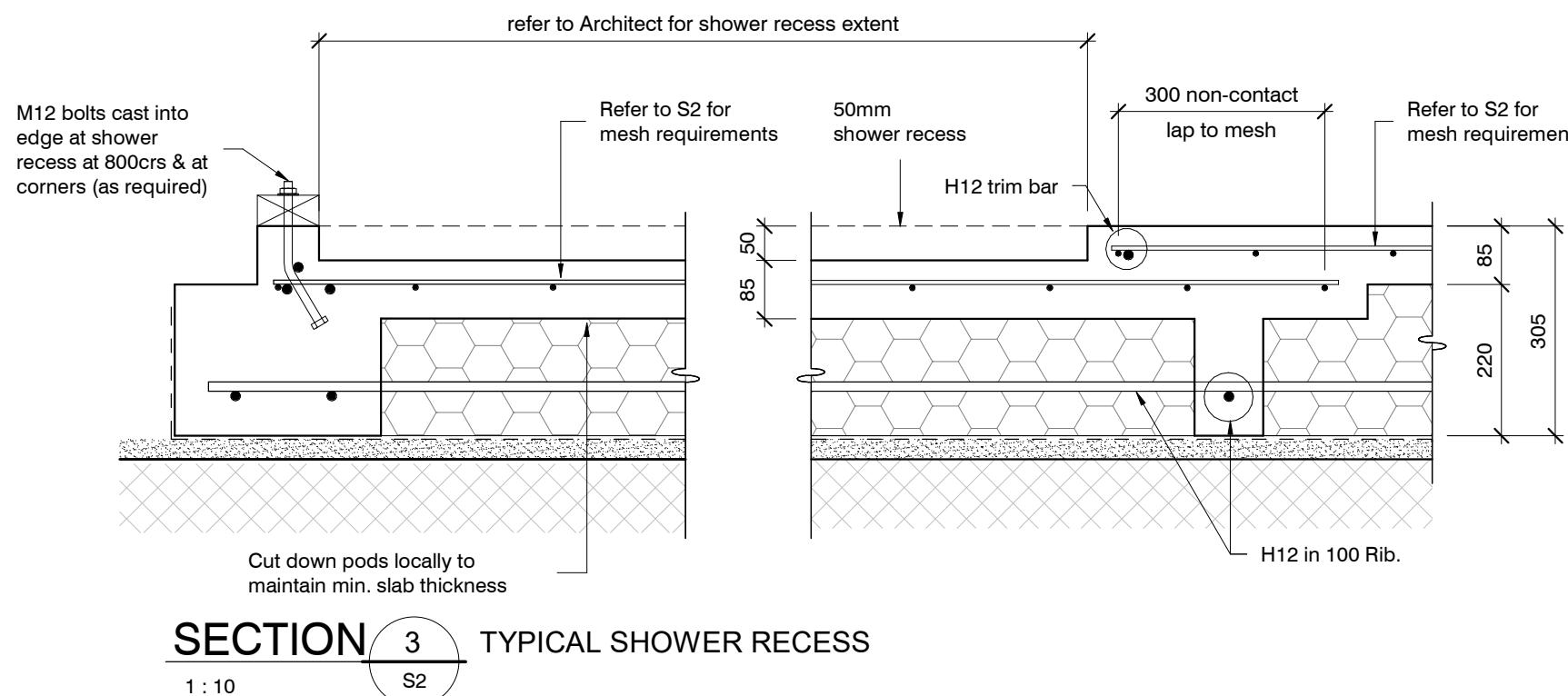
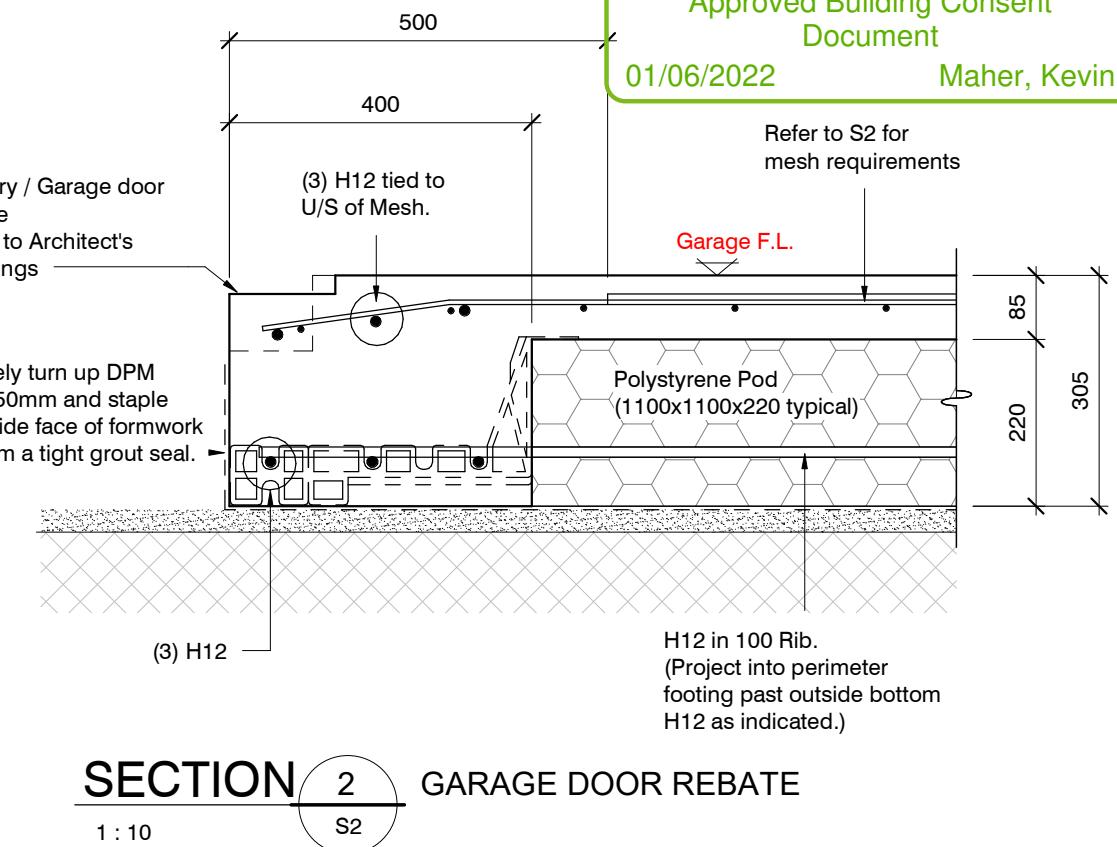
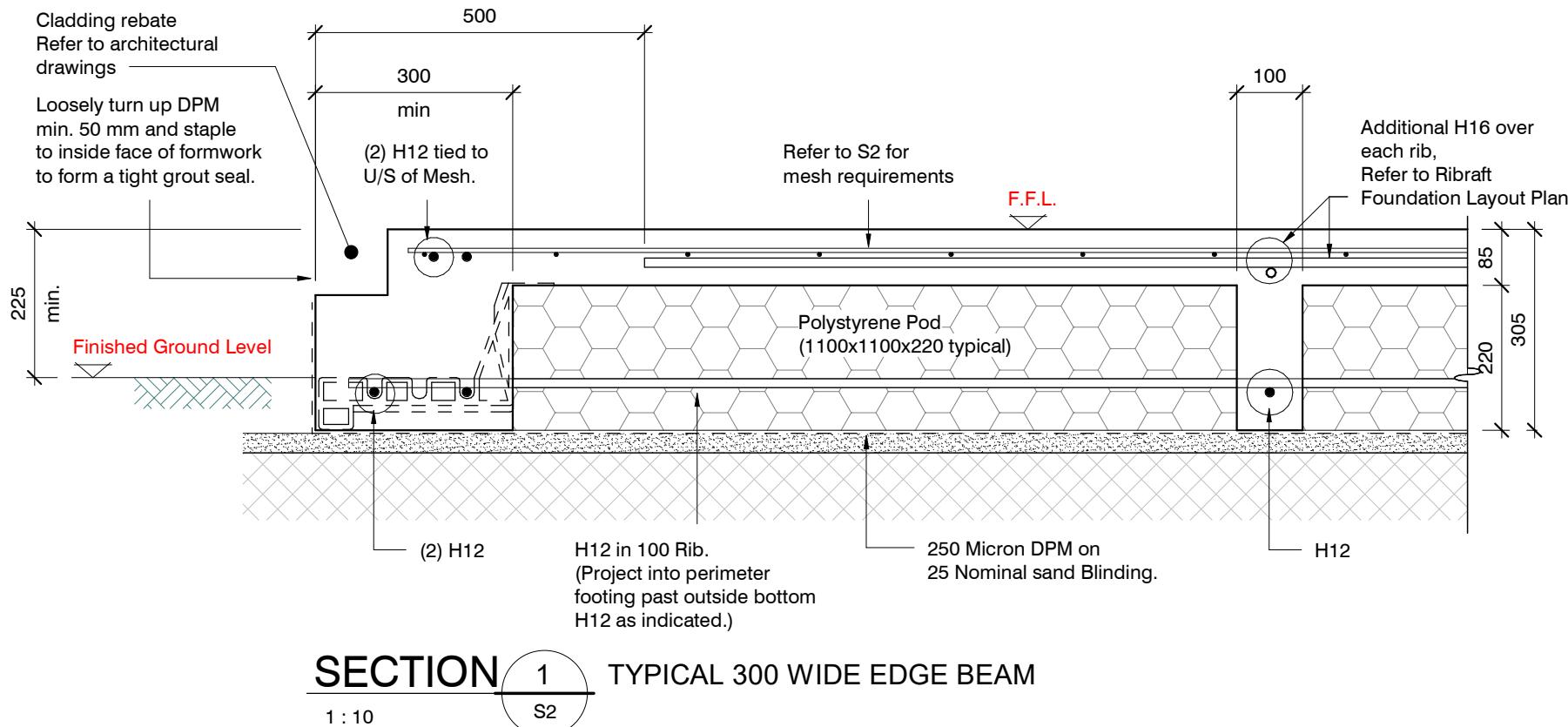
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New House
Lot 23 Belfast Subdivision, Christchurch

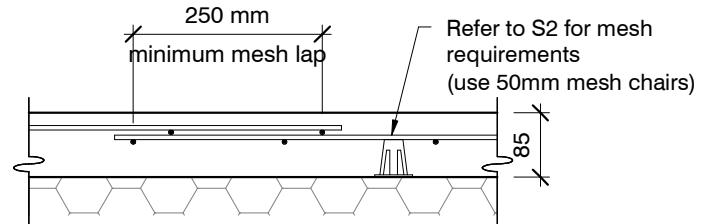
Foundation Plan

revisions	-	29.09.21	For Consent
design	A. SCOTT	file	21008.160
drawn	S. GRIFFIN	dwg	S2
appvd	A. SCOTT	rev.	-
date	29.09.2021		



TYPICAL MESH LAP & CHAIR REQUIREMENTS

1:10



ORIGINAL SIZE = A3

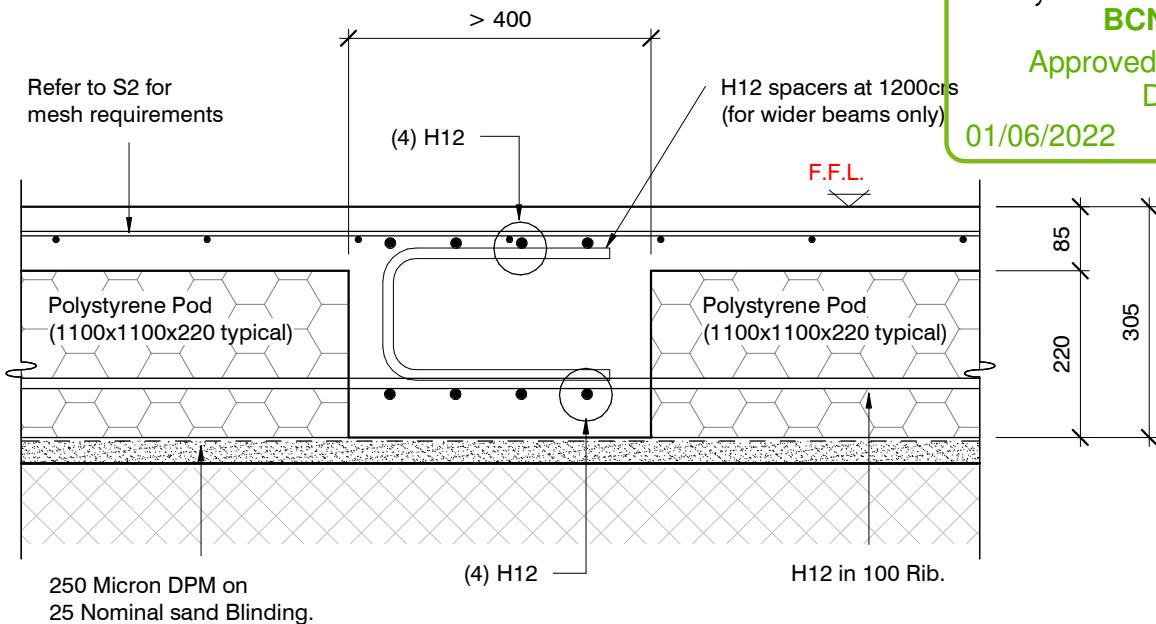
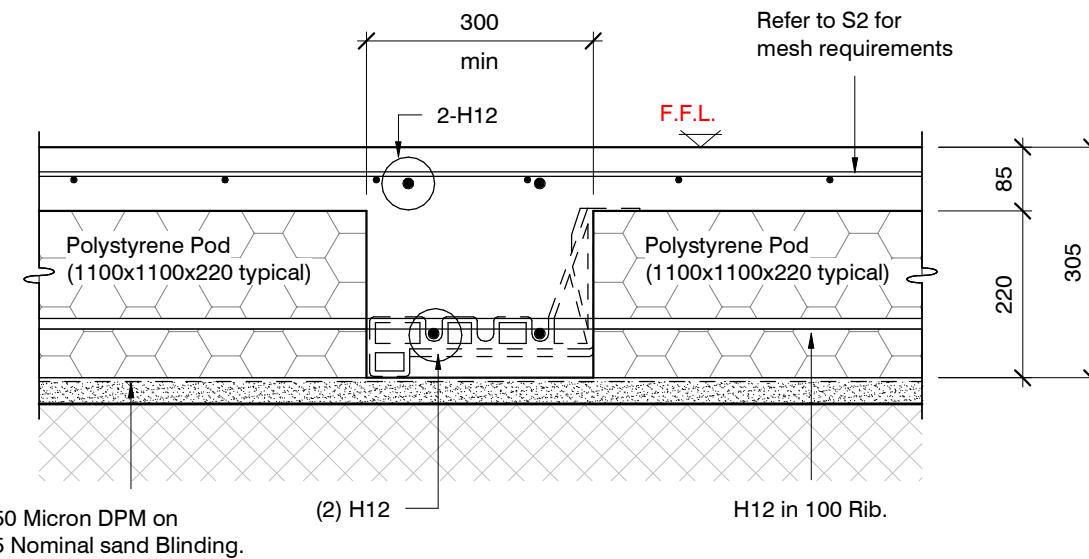
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New House
Lot 23 Belfast Subdivision, Christchurch

**Typical Foundation
Sections**

revisions	-	29.09.21	For Consent
design	A. SCOTT		
drawn	S. GRIFFIN		
appvd	A. SCOTT		
date	29.09.2021		
file	21008.160		
dwg	S3	rev.	-

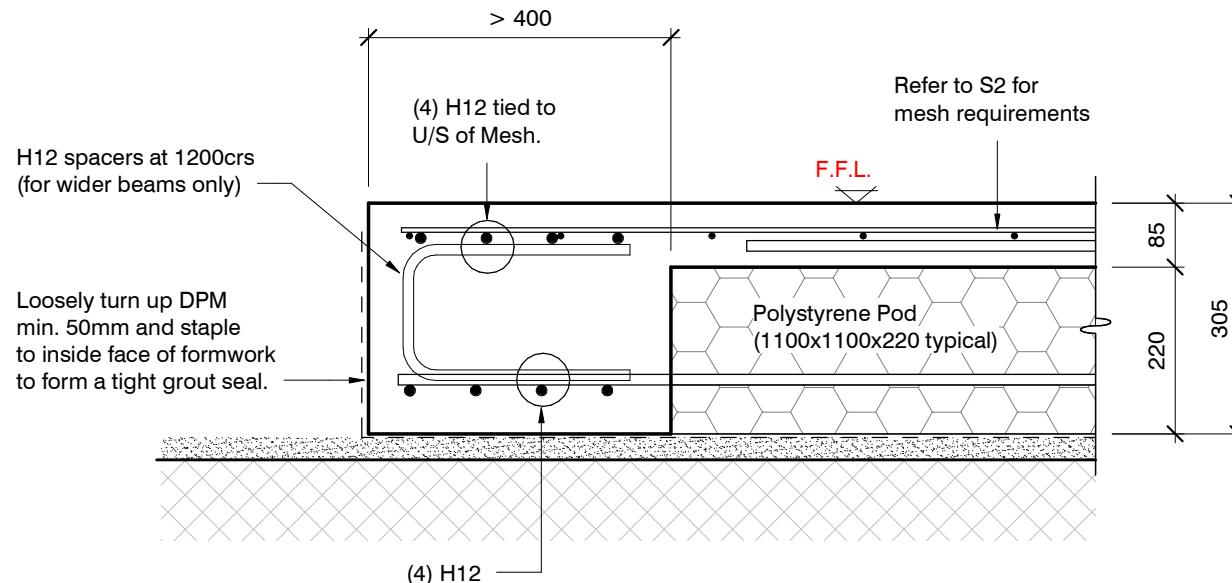


SECTION 4
TYPICAL 300mm wide INTERNAL BEAM

1 : 10

SECTION 5
Internal Beam more than 400mm

1 : 10



EDGE BEAM > 400mm IN WIDTH
if required

1:10

ORIGINAL SIZE = A3

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New House
Lot 23 Belfast Subdivision, Christchurch

**Typical Foundation
Sections**

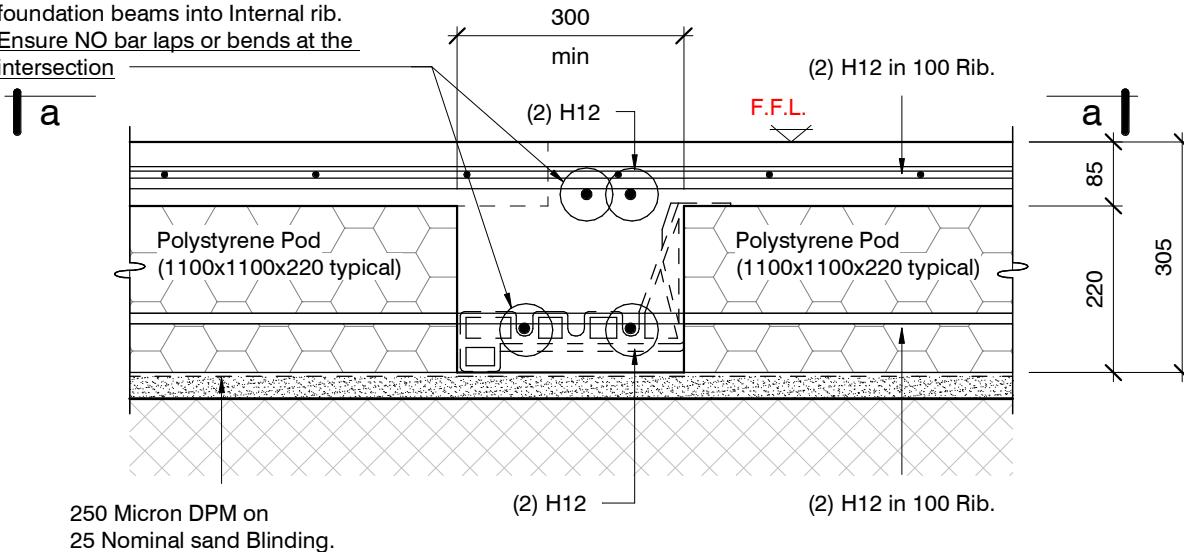
revisions

-	29.09.21	For Consent

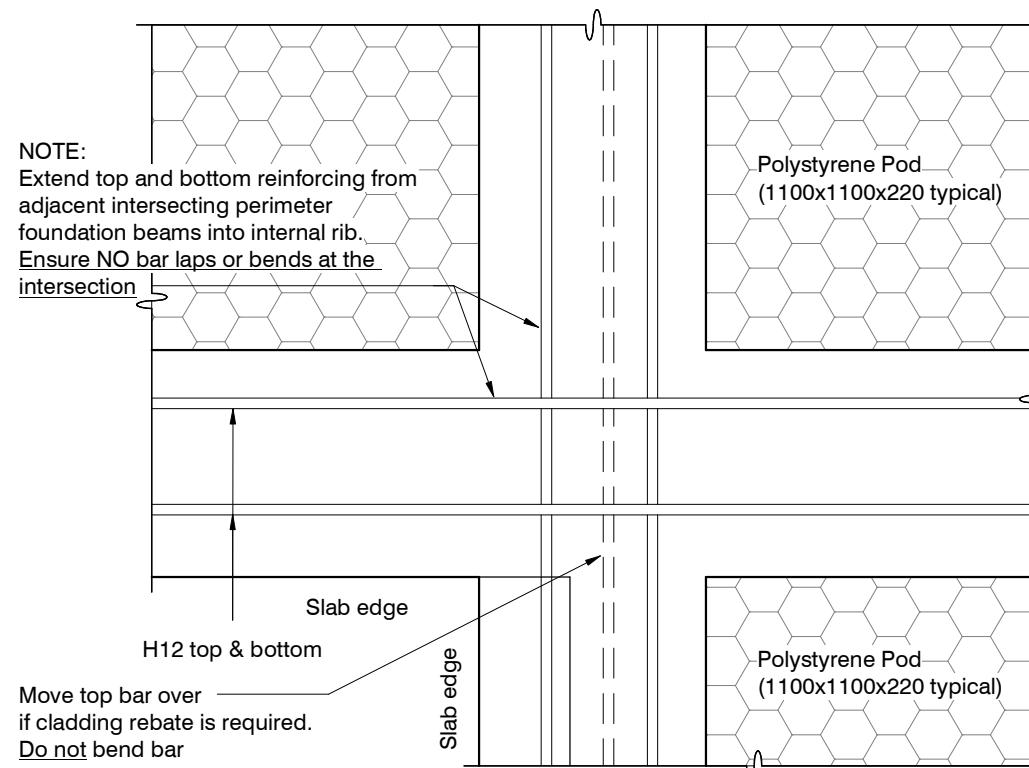
design A. SCOTT
drawn S. GRIFFIN
appvd A. SCOTT
date 29.09.2021

file 21008.160
dwg S4
rev. -

NOTE:
Extend top and bottom reinforcing from adjacent intersecting perimeter foundation beams into Internal rib.
Ensure NO bar laps or bends at the intersection

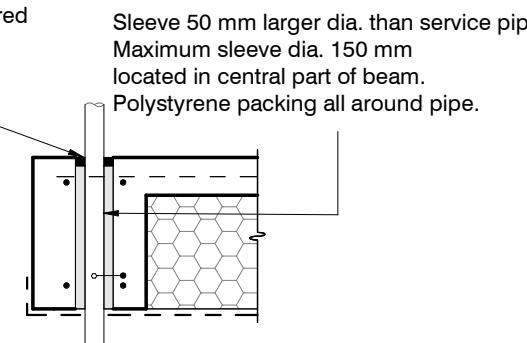


SECTION 6 TYPICAL 300mm wide INTERNAL BEAM
1 : 10 S2

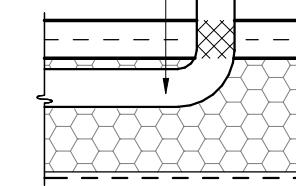


-	29.09.21	For Consent

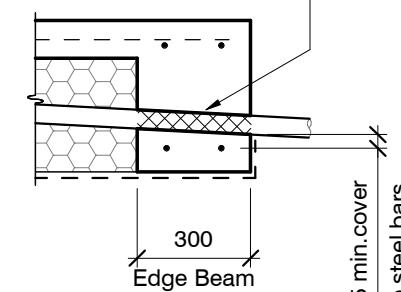
Flexible Sealant as required
all round pipe perimeter



Pipes can be run in Pods under slab panels. (Sleeve not required.) Wrap in "Lagging" tape where pipe crosses slab



Pass pipe through edge beam
Avoid all reinforcing bars
(Sleeve not required)
Wrap in "Lagging" tape



25 min cover

to steel bars

300

Edge Beam

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