



WAIMAKARIRI
DISTRICT COUNCIL

Consent Issued BC170237

BC No: 170237

SITE DETAILS:

42 WATKINS DRIVE

RANGIORA

LEGAL:

LOT 77 DP 497145

AS BUILT TRUSS LAYOUT REQUIRED –
This must be received by the Building Unit
AT LEAST 10 WORKING DAYS PRIOR to the
Structure Pre-Roof Pre-Wrap Inspection

Truss “As-Built” Designs may be sent to:
buildinginfo@wmk.govt.nz

APPROVED BUILDING CONSENT DOCUMENTS AND PLANS
(FULL SET SUPPLIED)

- ON SITE COPY -

- These plans and specifications must be kept on site during construction, and made available to the building officer on request. Failure to do so will mean an automatic failure of the building inspection and will necessitate re-booking the inspection at the applicant's expense.
- All boundary survey pegs must be located and flagged by the owner before work is commenced.

INSPECTIONS

for bookings or building enquiries

please phone the BUILDING UNIT on:

03 311 8906

or

Email inspection bookings to: bcbooking@wmk.govt.nz

- Please refer to your inspection schedule for details of inspections to be carried out.
- 2-3 working day's notice should be given and provision made to allow access.
- The Code Compliance Certificate will be issued once the:
 - Final inspection has been carried out and passed
 - Audit of WDC building consent file has been completed
 - Payment of any outstanding invoices is received

Consent Issued BC170237

NEW RESIDENCE LOT 77, 42 WATKINS DRIVE, HIGHGATE, RANGIORA

STRUCTURAL DRAWING LIST 7833

WAIMAKARIRI DISTRICT COUNCIL
Plans and specifications APPROVED in accordance
with the Building Act 2004, clause 49 and the Building
Regulations 1992, Clause 3
BC170237 4/04/2017 lachlant

DWG No.	TITLE			
S.01	FOUNDATION LAYOUT	0		
S.02	FOUNDATION DETAILS	0		
S.03	FOUNDATION DETAILS	0		
ISSUED TO:				
jade@designnz.co.nz		0		
		DATE	30-11-2016	



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- TAKE CARE TO PROTECT AND CURE ALL CONCRETE ADEQUATELY, AND IN ACCORDANCE WITH NZS 3109.
- APPLY A CURING COMPOUND TO ALL CONCRETE FLOOR SLABS IMMEDIATELY ON COMPLETION OF THE SURFACE FINISHING, OR ALTERNATIVELY, CURE BY PONDING.

- FALL SLAB LOCALLY (50mm MAX.) OR CREATE 50mm RECESS FOR TILED SHOWER. (REFER TO ARCHITECTS DRAWINGS FOR DETAILS)
- 85mm SLAB THICKNESS TO BE MAINTAINED THROUGHOUT.
- ALLOW FOR 2-HD12 BARS TO EACH CORNER OF THE SHOWER RECESS WHERE APPLICABLE.

 DENOTES 2-HD12 BARS, 1200mm LONG TO INTERNAL CORNERS OF SLAB.

 DENOTES 1100x1100x220mm POLYSTYRENE PODS. CUT TO SUIT ON SITE AS REQUIRED.

 DENOTES SPECIFIC (1.5x1.5m SPAN MAX.) POLYSTYRENE PODS BY ADDING HALF PODS TO THE END IF THE STRIP IS MORE THAN 500mm WIDE. CUT TO SUIT ON SITE.

 DENOTES 300mm WIDE PERIMETER STRIP FOOTING.

 DENOTES 100mm WIDE RIB IN BETWEEN PODS.

 DENOTES 300mm WIDE INTERNAL STRIP FOOTING. (TO BE LOCATED UNDER ALL LOAD BEARING WALLS WHERE APPLICABLE)

 DENOTES SPECIFIC SETOUT PODS/POINT. PODS RADIATE FROM THERE.

- 300mm WIDE EXTERNAL STRIP FOOTING CAN BE THICKENED TO A MAX. OF 500mm WIDE TO MINIMIZE CUTTING OF PODS. THE SAME REINFORCING TO BE USED WITH MASS CONCRETE ON THE OPPOSITE SIDE OF WALL LOCATION.
- 300mm WIDE INTERNAL STRIP FOOTING CAN BE THICKENED TO A MAX. OF 500mm WIDE TO MINIMIZE CUTTING OF PODS. THE SAME REINFORCING TO BE USED. (REINFORCING CAGE TO BE LOCATED UNDER WALLS WHERE APPLICABLE)
- FLOOR SLABS TO BE 85mm THICK WITH 1 LAYER MESH. LAP ALL MESH A MINIMUM OF 2-CROSS WIRES, BUT NOT LESS THAN 225mm.
- **FOUNDATION AND SLAB TO BE FORMED IN SINGLE POUR USING ALLIED 202RRR MIX OR SIMILAR APPROVED TO PROVIDE A 28 DAY STRENGTH OF 20MPa.**
- FOR ALL REBATES AND OTHER SLAB RECESSES AND DRAINAGE LOCATION REFER TO ARCHITECTS DRAWINGS.
- SE73 MESH IS NOT AN ACCEPTABLE ALTERNATIVE IN 85mm SLABS.
- NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.
- **300mm MIN. FOUNDATION BEAMS SETOUT AS PER DRAWINGS, POD AND 100mm RIB SETOUT INDICATIVE.**

DRAINAGE NOTE: ALL PIPES OR CONDUIT TO BE LOCATED 25mm (MIN.) BELOW THE DPC. CONTRACTOR TO CONFIRM PIPE LOCATIONS ON SITE. INSTALLATION TO BE DONE BEFORE PLACE DPC AND COMMENCING WAFFLE SLAB CONSTRUCTION.

CONSTRUCTION ISSUE

	CLIENT	PROJECT TITLE	DRAWING TITLE	REV.	BY.	DATE:	COMMENT:	DESIGN.	JOB No.	DRAWING No.	REV.
	MIKE GREER HOMES -	LOT 77, 42 WATKINS DRIVE,	FOUNDATION LAYOUT.	0	V.M.	30-11-2016	ISSUED FOR CONSTRUCTION	C.B.	7833		
	NORTH CANTERBURY	HIGHGATE, RANGIORA .									
	C/O DESIGN NZ										
								DRAWN.	SCALE @ A3		
								V.M.	1:100 / 1:50	S.01	0

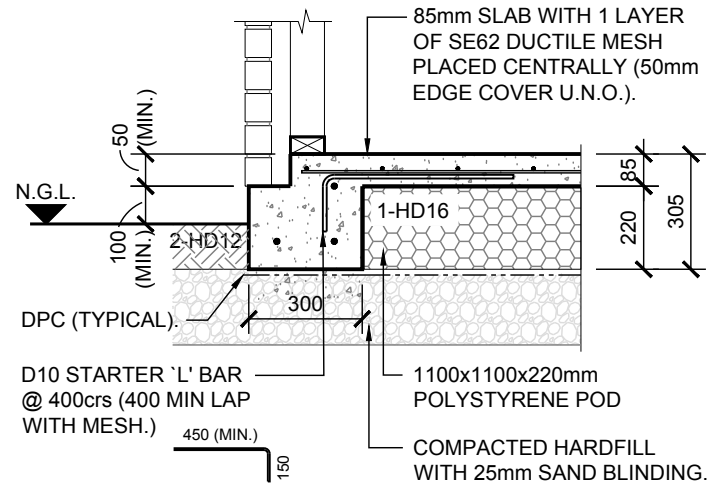
REINFORCEMENT NOTES:

BAR LAP LENGTHS:
D10 - 400mm HD12 - 700mm
D12 - 500mm HD16 - 900mm
D16 - 650mm HD20 - 1050mm

BAR GRADES:
R - STRUCTURAL GRADE ROUND BAR.
D - DEFORMED BAR GRADE 300E
HD - DEFORMED BAR GRADE 500E

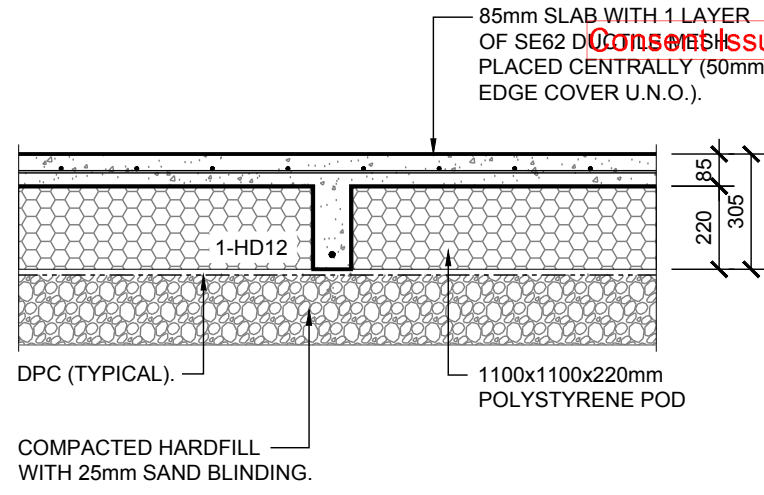
HD12 'L-BARS' ARE TO BE PLACED AT ALL INTERSECTIONS OF CONCRETE WORKS, NUMBER OF BARS TO MATCH MAIN REINFORCEMENT AND RETURN 300mm ALONG OUTSIDE OF BEAM .

ALL FLOOR MESH TO BE TRIMMED TO HAVE TWO LONGITUDINAL BARS TO THE PERIMETER BEAM, PLACED CENTRALLY IN SLAB AND TO HAVE 50mm EDGE COVER.

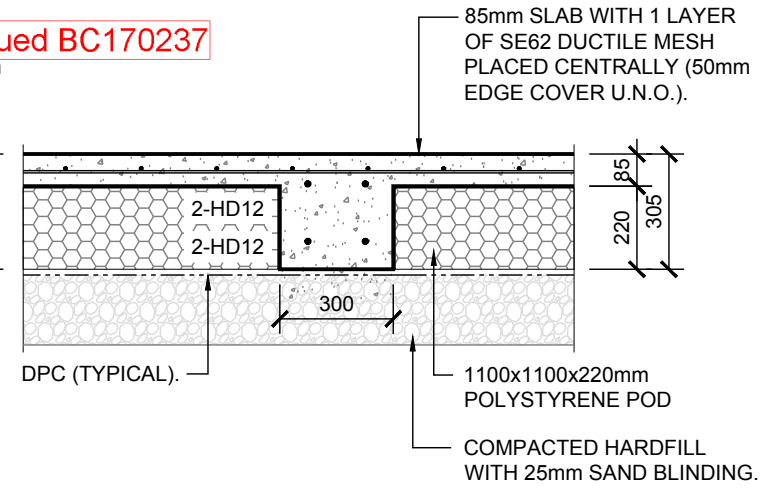


EXTERNAL FOOTING DETAIL

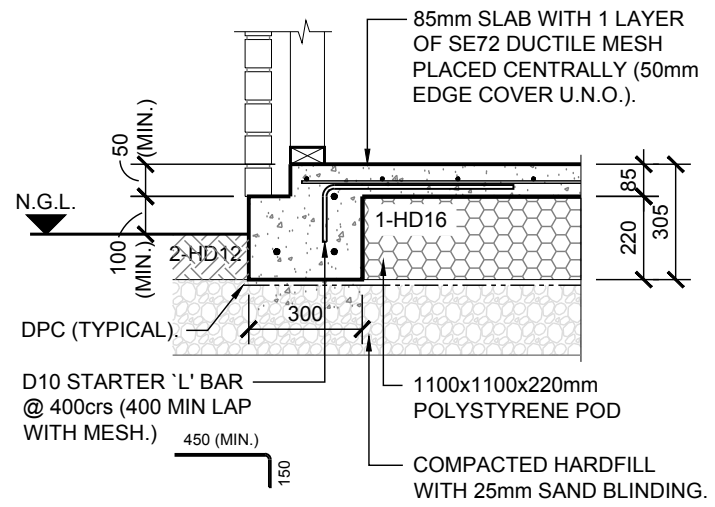
HOUSE FOUNDATION DETAILS.
SCALE 1:20



INTERMEDIATE RAFT DETAIL

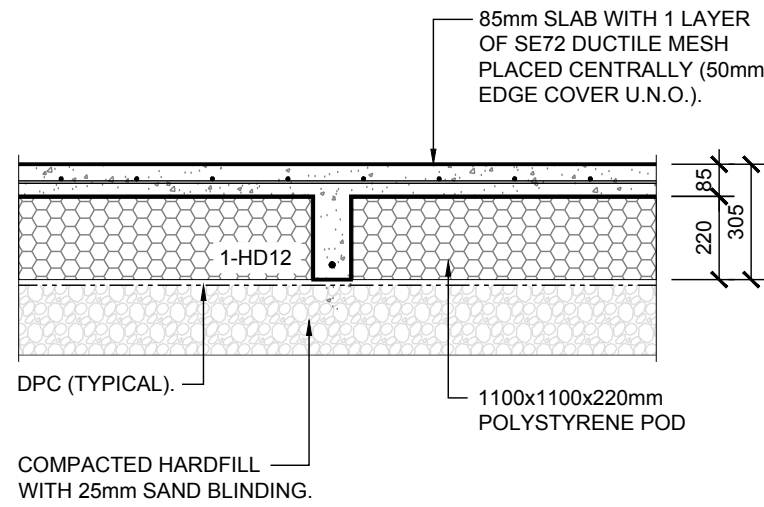


INTERNAL FOOTING DETAIL

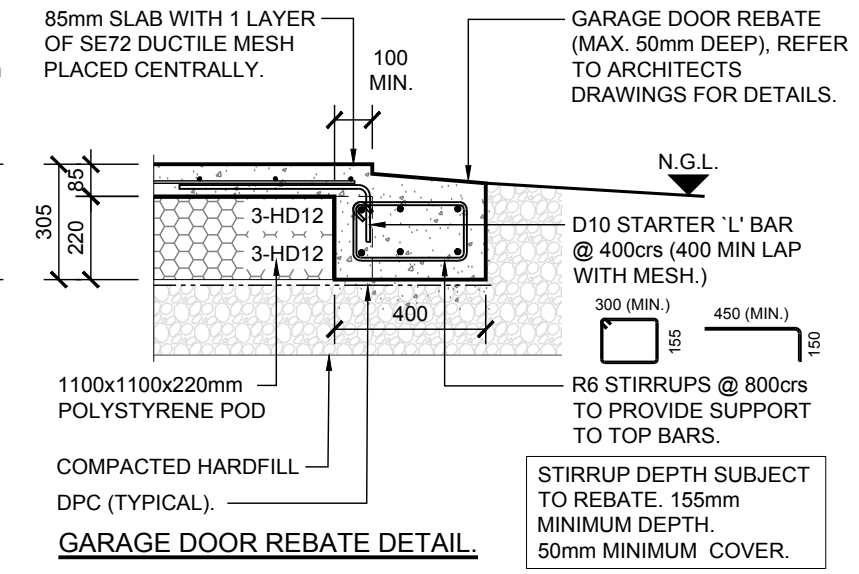


EXTERNAL FOOTING DETAIL

GARAGE FOUNDATION DETAILS.
SCALE 1:20

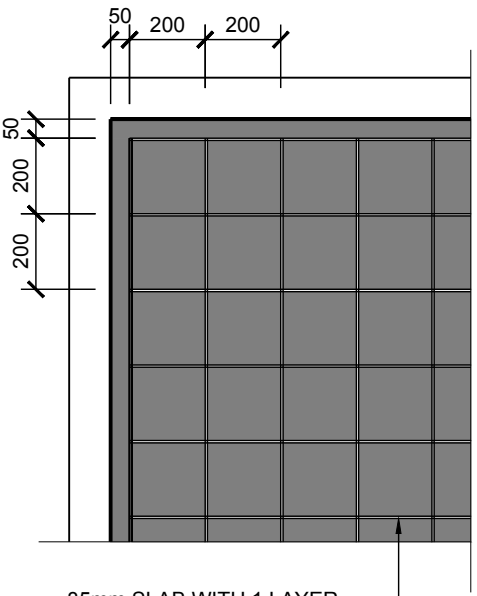


INTERMEDIATE RAFT DETAIL



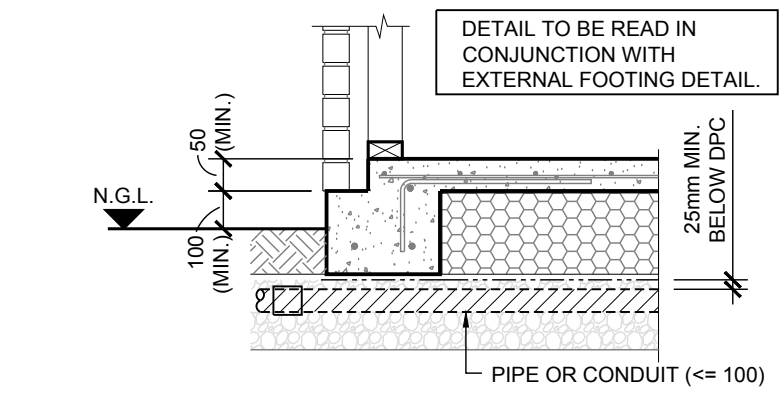
GARAGE DOOR REBATE DETAIL.

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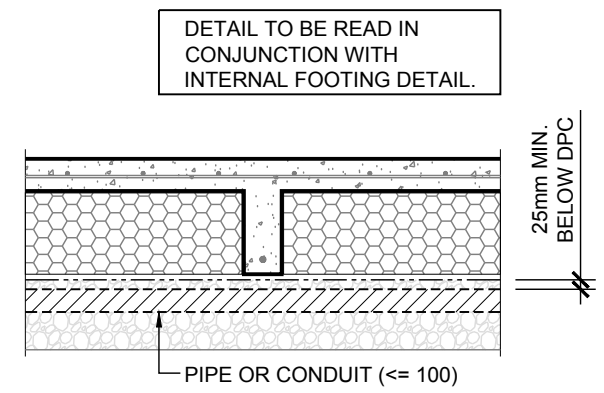
85mm SLAB WITH 1 LAYER
OF DUCTILE MESH PLACED
CENTRALLY (50mm EDGE
COVER U.N.O.).

MESH LAYOUT - PLAN.
SCALE 1:20

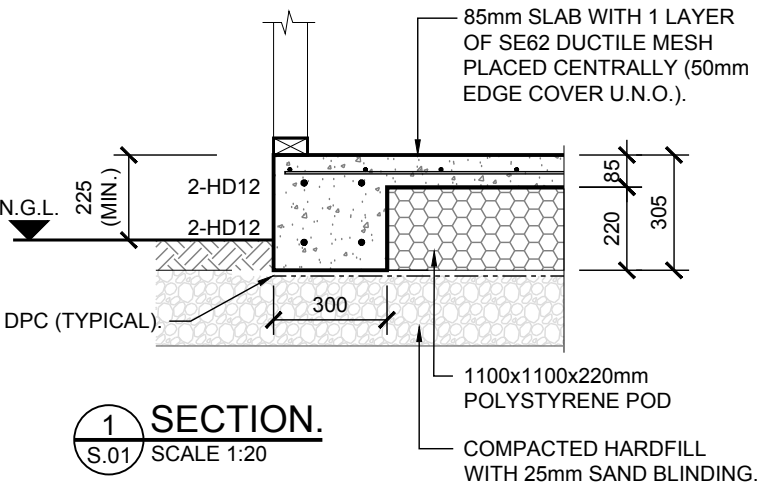


EXTERNAL PIPE LOCATION DETAIL

TYPICAL PIPE LOCATION DETAILS.
SCALE 1:20



INTERNAL PIPE LOCATION DETAIL



1 SECTION.
S.01 SCALE 1:20

CONSTRUCTION ISSUE

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS

	CLIENT MIKE GREER HOMES - NORTH CANTERBURY C/O DESIGN NZ	PROJECT TITLE LOT 77, 42 WATKINS DRIVE, HIGHGATE, RANGIORA .	DRAWING TITLE FOUNDATION DETAILS.	REV.	BY.	DATE:	COMMENT:	DESIGN.	JOB No.	DRAWING No.	REV.
				0	V.M.	30-11-2016	ISSUED FOR CONSTRUCTION	C.B.	7833	S.02	0
								DRAWN.	SCALE @ A3		
								V.M.	1:20		

REINFORCEMENT NOTES:

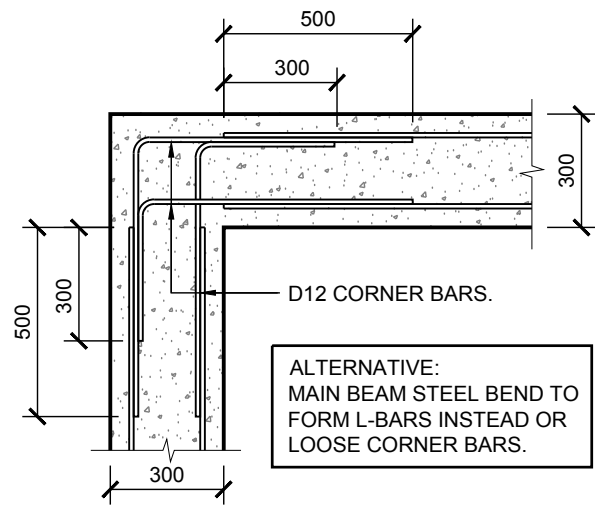
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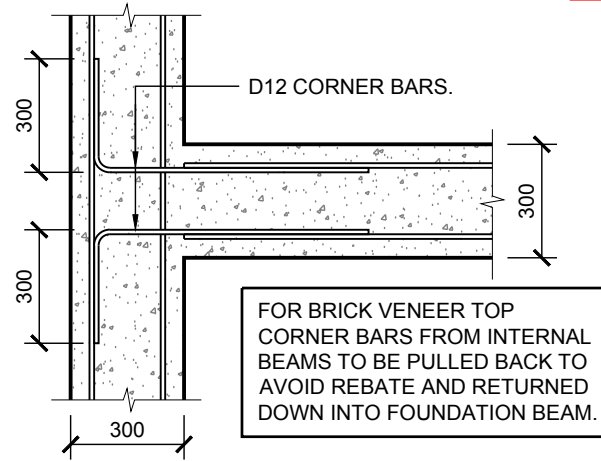
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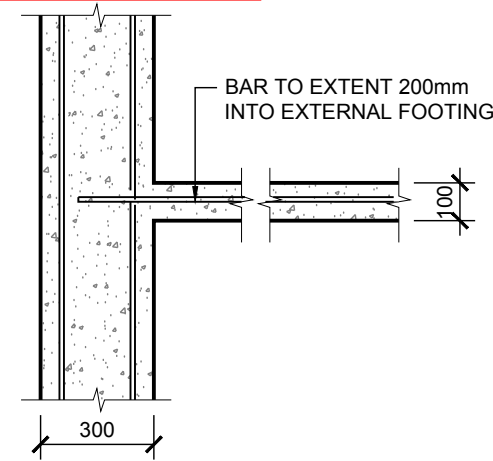
Consent Issued BC170237



EXTERNAL CORNER DETAIL.



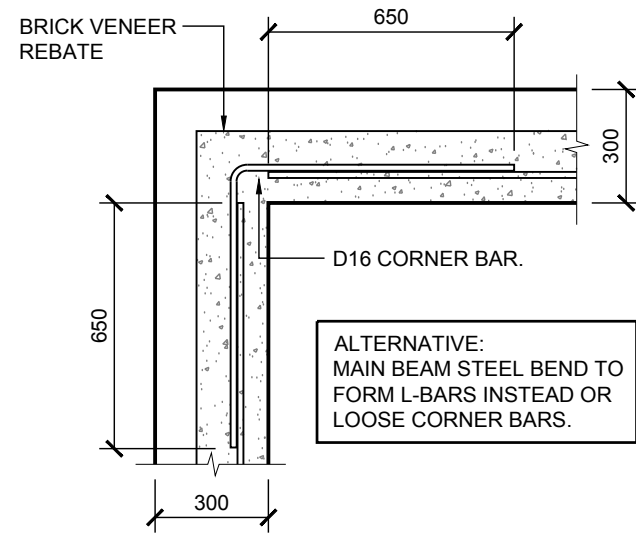
EXTERNAL TO INTERNAL DETAIL.



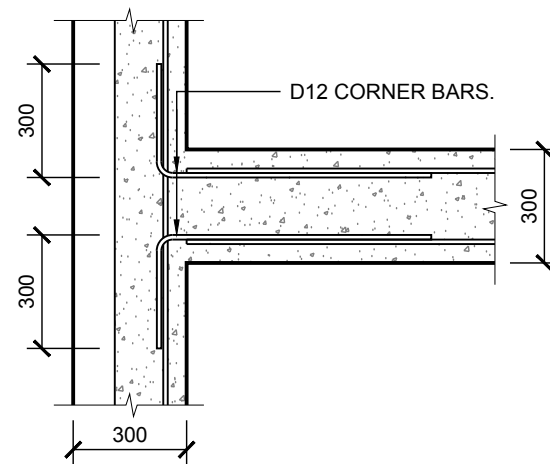
EXTERNAL TO INTERMEDIATE RAFT DETAIL.

FOUNDATION INTERSECTION DETAILS - PLAN.

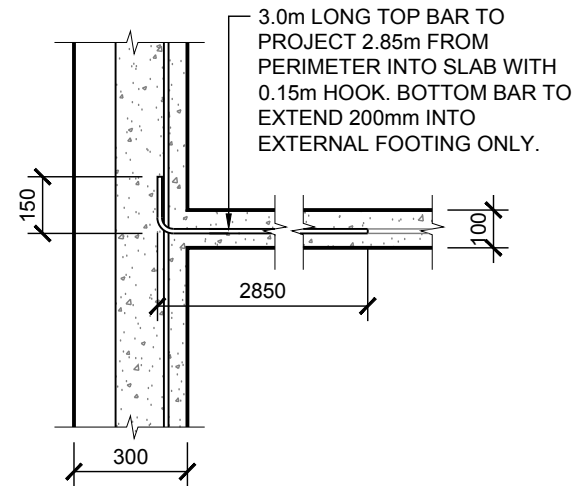
SCALE 1:20



EXTERNAL CORNER DETAIL (TOP BARS).
(BRICK VENEER TOP STEEL).



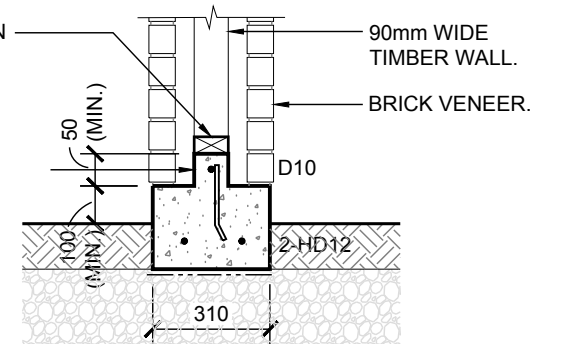
EXTERNAL TO INTERNAL DETAIL.
(BRICK VENEER TOP STEEL).



EXTERNAL TO INTERMEDIATE RAFT DETAIL.
(BRICK VENEER TOP STEEL).

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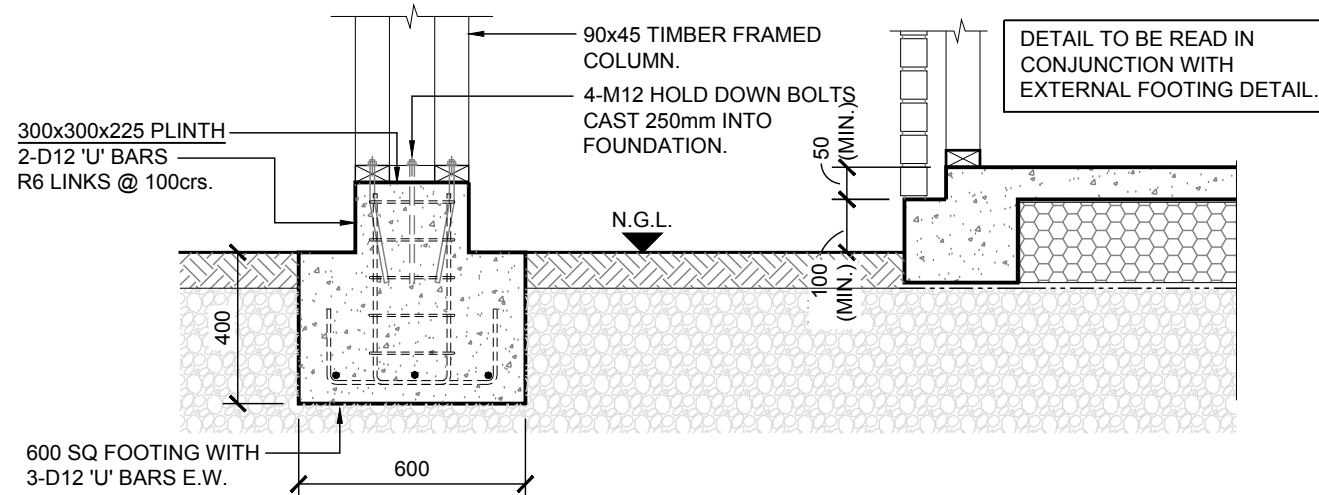
TIMBER PLATE FIXED DOWN
WITH EITHER M12 CAST IN
BOLTS, M12 CONCRETE
SCREWS OR M12 CHEMSET
ANCHORS @ 900crs MAX.
90W CONCRETE UPSTAND.
1-D10 HORZ. BAR AND
2-D10 STARTERS.



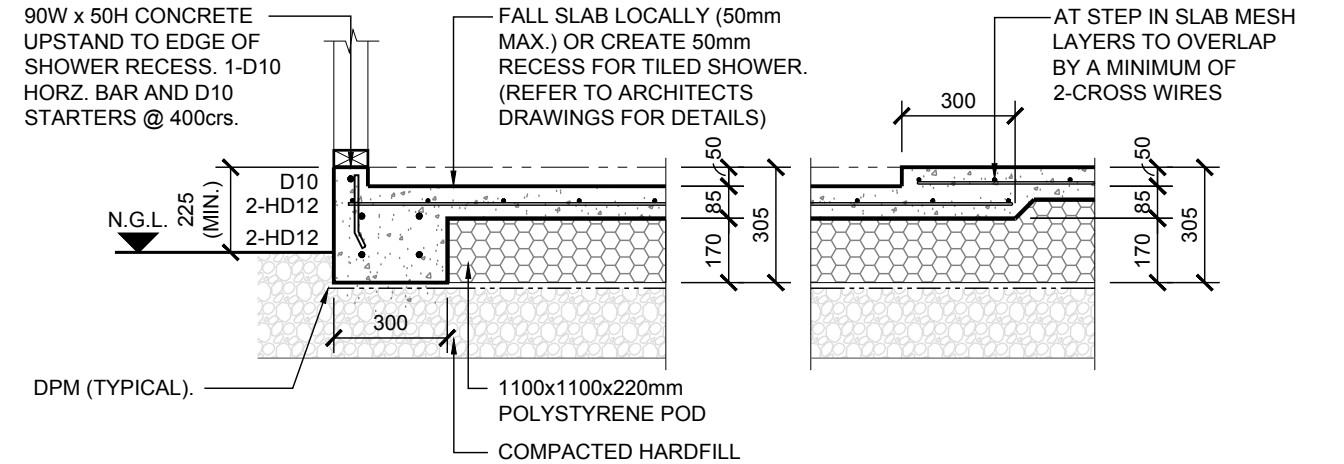
B SECTION
S.01 SCALE 1:20

FOUNDATION INTERSECTION DETAILS - PLAN.

SCALE 1:20



A SECTION
S.01 SCALE 1:20



SHOWER RECESS DETAIL.
SCALE 1:20

CONSTRUCTION ISSUE

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS

	CLIENT MIKE GREER HOMES - NORTH CANTERBURY C/O DESIGN NZ	PROJECT TITLE LOT 77, 42 WATKINS DRIVE, HIGHGATE, RANGIORA .	DRAWING TITLE FOUNDATION DETAILS.	REV.	BY.	DATE:	COMMENT:	DESIGN.	JOB No.	DRAWING No. S.03	REV. 0
				0	V.M.	30-11-2016	ISSUED FOR CONSTRUCTION	C.B.	7833		
								DRAWN.	SCALE @ A3 1:20		

PROPOSED HOUSE FOR
Mike Greer Homes North Canterbury,
Lot 77, DP 497145, 42 Watkins Drive,
Highgate Estate, Rangiora.

WAIMAKARIRI DISTRICT COUNCIL
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A01a	COVER SHEET	amended 31.03.2017	A19	ROOF PLAN	
A02	SITE PLAN COMPLIANCE		A20a	BRACING PLAN	amended 31.03.2017
A03	SITE PLAN		A21	H1 PLAN	
A04	SITE LEVELS		A22a	WINDOW & DOOR SCHEDULE	amended 31.03.2017
A05	DRAINAGE PLAN COMPLIANCE		A23	CONSTRUCTION DETAIL COMPLIANCE	
A06	DRAINAGE PLAN		A24	FOUNDATION DETAILS	
A07	FOUNDATION PLAN COMPLIANCE		A25	DRAINAGE PIPE & TRENCH DETAILS	
A08	FOUNDATION PLAN		A26	CLADDING DETAILS	
A09	FLOOR PLAN COMPLIANCE		A27a	PENETRATION DETAILS	amended 31.03.2017
A10	FLOOR PLAN		A28	WINDOW & DOOR DETAILS	
A11	FRAMING PLAN		A29	GARAGE DOOR DETAILS	
A12	ELEVATIONS COMPLIANCE		A30	FIXING & TAPING DETAILS	
A13a	ELEVATIONS	amended 31.03.2017	A31a	POST DETAILS	amended 31.03.2017
A14a	ELEVATIONS	amended 31.03.2017	A32	ROOF DETAILS	
A15	CROSS SECTIONS COMPLIANCE		A33	WATER HEATER DETAILS	
A16	CROSS SECTION		A34	WET AREA DETAILS	
A17	CROSS SECTION		A35	TILED SHOWER DETAILS	
A18	ROOF PLAN COMPLIANCE				

Z:\A\projects\16184D - N2113 Lot 77 Highgate Estate\3 - Working drawings\16184D Lot 77 Highgate -RFI.pn 3/04/2017 Lana

 © Mike Greer Homes North Canterbury Ltd PHONE: (03) 313 0319 I FAX: (03) 313 0321 ADDRESS: Shop 1, 29 Huntingdon Drive, Rangiora 7440 WEB: www.mikegreerhomes.co.nz	JOB TITLE: Mike Greer Homes North Canterbury	DRAWING TITLE: COVER SHEET	LEGAL DESCRIPTION: Lot 77, DP 497145, 42 Watkins Drive, Highgate Estate, Rangiora	NOTES: - Subject to council approval - All measurements to be confirmed on site by the contractor prior to the commencement of work © 2010 Mike Greer Homes Limited. All rights reserved. No part of this work covered by copyright may be reproduced or copied in any form or by any means without the written permission of Mike Greer Homes Limited	DATE OF ISSUE: 17/11/2016	DESIGNER: JM	SCALE: 1:1	A01a OF: 35
					AMENDMENT DATE: 3/04/2017	VERSION: V1	JOB # 16184D, N2113	

SITE COMPLIANCE NOTES

NZBC B1

Site plan shows sufficient floor, ground and drain invert levels to establish compliance with B1, E1, E2, G13 and the City Plan.
Finished floor level: 23.08m
Determined by:
Localised heights (NZBC E1 (crown of road), NZBC E2 (150/225mm above surrounding ground level))

Sediment control management plan provided, relevant to project to achieve compliance with B1 (effects on siteworks) & E1. Refer to E1 Sediment Control Compliance below.

Building site:
- to meet specified recommendation set out in Geotechnical Report (ref#20398) by Lewis & Barrow Ltd
Recommendation is: Specific engineering design

NZBC D1

Access routes show compliance with section 1 - 6 D1/AS1 (adequate activity space, free from dangerous obstructions and have a safe cross fall - Section 1.
Safe slope in the direction of travel and adequate slip resistant walking surfaces. Refer section 2 & 3.)
A step/s or appropriate landscaping is to be provided if drop from external doors is greater than 190mm from FFL to FGL.
All access routes must provide a non-slip shallow textured surface (F5/U5) in accordance to NZBC D1/AS Table 2.
Fall of sealed surfaces should direct surface water away from the dwelling.

NZBC E1

Minimum Floor Level noted as in accordance with NZBC E1 (crown of road) / E2 (200mm brick / 225mm claddings) or council flood area requirements which ever produces the higher FFL.
Sediment Control Compliance
Rumble pad to be created at point of entry & exit on site (Removed on completion of formed driveway).
Rumble pad to be created in accordance to guidelines provided by the District Council and maintained in good condition throughout its period of use.
All ground cover / vegetation outside of immediate build area to maintained throughout period of house build. This includes grass verges on the street frontage.
Any stockpiles of soil or excavated material are to be kept to the rear of the site & covered with imperious sheets.
Roof downpipes are to be connected to the installed stormwater drainage as soon as practical once roof cladding has been installed. Until this point ensure water run-off from downpipes is directed away from build area but not on to neighbouring properties.

NZBC F5

Site Safety fencing (linked netting) is to be erected around the site to a height of 2.0m. The entry to the site will have gates that will open on to the site.
When work is taking place at height (i.e roofing), roofing edge protection will be provided and is to comply with page 27 and 28 of Working at Height Safety Guide in attached documents.

NZBC G12

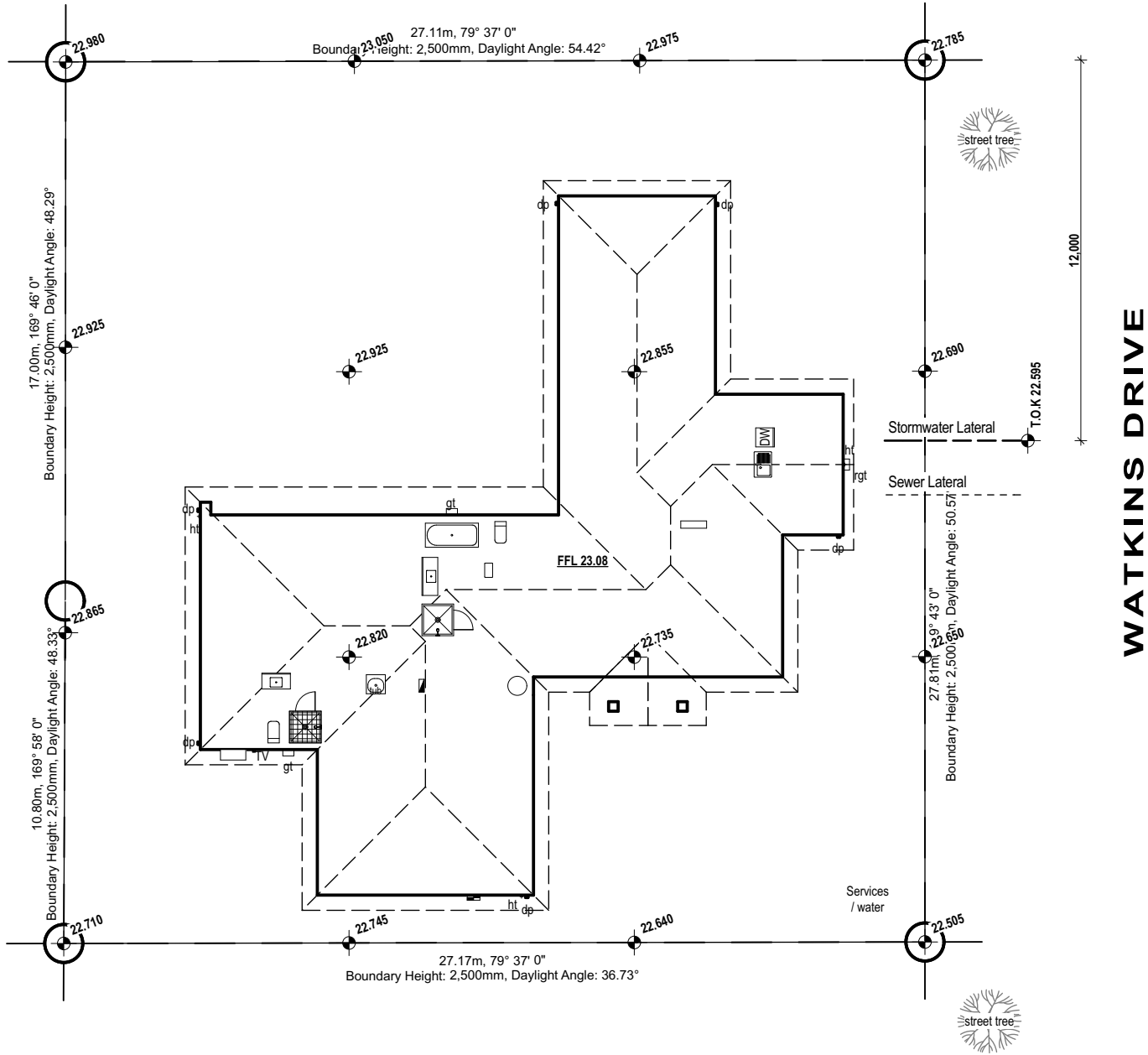
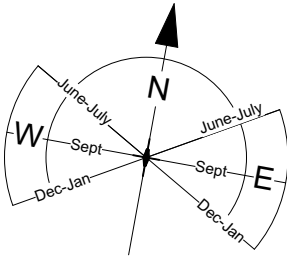
Potable water supply: Town Supply

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 © Mike Greer Homes North Canterbury Ltd PHONE: (03) 313 0319 FAX: (03) 313 0321 ADDRESS: Shop 1, 29 Huntingdon Drive, Rangiora 7440 WEB: www.mikegreerhomes.co.nz	JOB TITLE:	DRAWING TITLE:	LEGAL DESCRIPTION:	NOTES:	DATE OF ISSUE:	DESIGNER:	SCALE:	SHEET:
	Mike Greer Homes North Canterbury	SITE PLAN COMPLIANCE	Lot 77, DP 497145, 42 Watkins Drive, Highgate Estate, Rangiora	- Subject to council approval - All measurements to be confirmed on site by the contractor prior to the commencement of work	17/11/2016	JM		A02
					AMENDMENT DATE:	VERSION:	JOB #	
				© 2010 Mike Greer Homes Limited. All rights reserved. No part of this work covered by copyright may be reproduced or copied in any form or by any means without the written permission of Mike Greer Homes Limited	2/03/2017	V1	16184D, N2113	OF: 35

Consent Issued BC170237



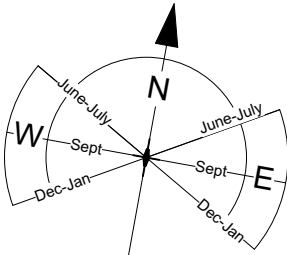
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WATKINS DRIVE

ASSUMED DATUM: MANHOLE COVER ON
ROAD, OUTSIDE LOT 77: LL 22.60m (C.O.R same)

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 © Mike Greer Homes North Canterbury Ltd PHONE: (03) 313 0319 I FAX: (03) 313 0321 ADDRESS: Shop 1, 29 Huntingdon Drive, Rangiora 7440 WEB: www.mikegreerhomes.co.nz	JOB TITLE: Mike Greer Homes North Canterbury	DRAWING TITLE: SITE LEVELS	LEGAL DESCRIPTION: Lot 77, DP 497145, 42 Watkins Drive, Highgate Estate, Rangiora	NOTES: - Subject to council approval - All measurements to be confirmed on site by the contractor prior to the commencement of work © 2010 Mike Greer Homes Limited. All rights reserved. No part of this work covered by copyright may be reproduced or copied in any form or by any means without the written permission of Mike Greer Homes Limited	DATE OF ISSUE: 17/11/2016	DESIGNER: JM	SCALE: 1:200	A04 OF: 35
					AMENDMENT DATE: 2/03/2017	VERSION: V1	JOB # 16184D, N2113	



SITE NOTES

Site Area: 755m²
Floor Area: 215.71m² (Over Foundation)
205.51m² (Over Frame)
Site Coverage: 28.57% (38% allowable)

Territorial Authority: Waimakariri District Council
Planning Zone: Residential 2
Site Coverage permitted: 38
Maximum Building Height: 8m

Wind Zone: High
Earthquake Zone: 2
Snow zone: 0.9kPa
Corrosion Zone: C

Set backs required:
- street: 2m
- internal boundaries: Recession planes

dp = Indicates 75x50mm colorsteel downpipes (55m² per dp)

ht + Indicates hose tap location (confirm with client)

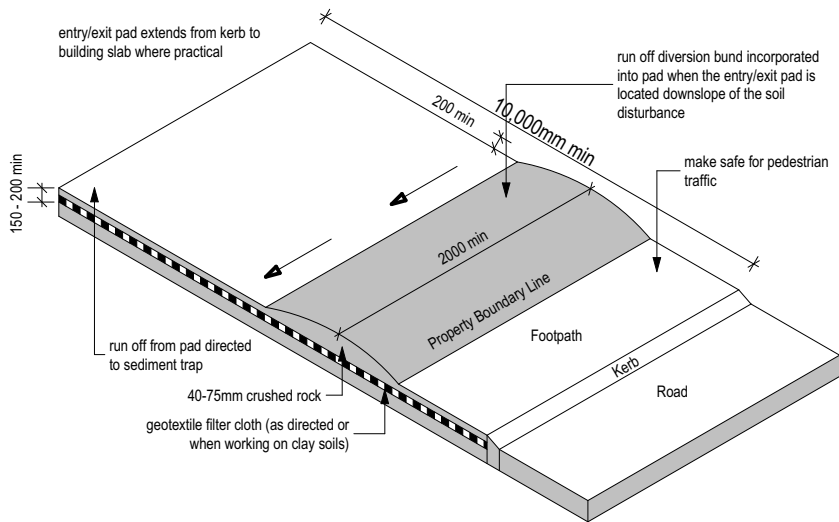
gt Indicates gully trap location

Landscaping: This is indicative only purely for presentation purposes.
Landscaping to be confirmed by the client.
All Fencing to comply with the relevant Covenants.

General: Concept subject to TA rules and regulations.
Concept may be subject to subdivision developer's approval.
All dimensions to be confirmed on site.
Boundary Dimensions and bearings subject to confirmation
Site Levels subject to confirmation

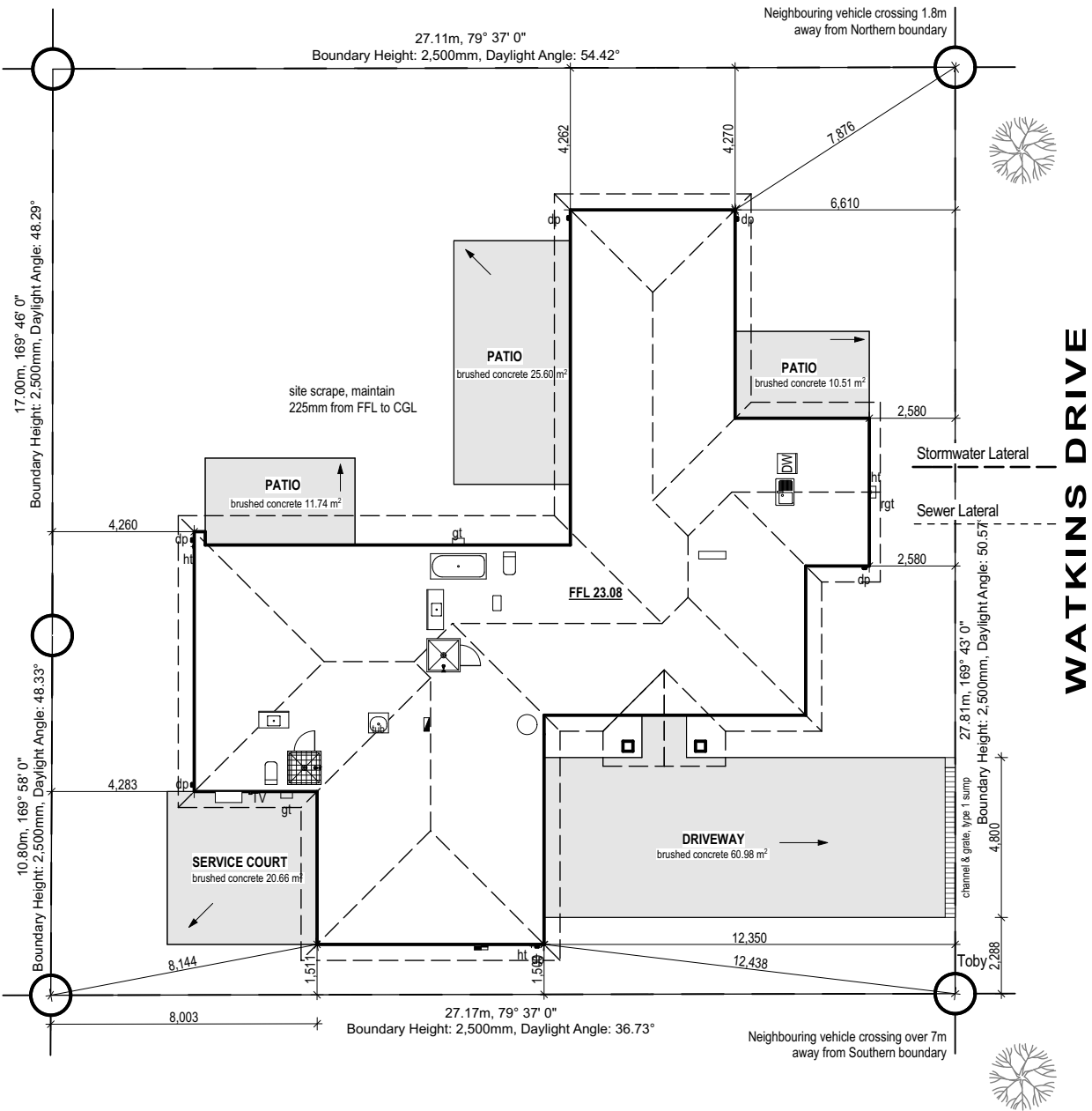
FOUNDATION TYPE: Equivalent to TC1

Specific engineered design - Waffle slab, as per Geotechnical Investigation by Lewis & Barrow Ltd, File #20398 dated 7 May 2015. Foundations to 400mm BGL minimum.



D-01 Stabalised entry pad Detail 1:10

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DRAINAGE COMPLIANCE NOTES

NZBC E1

Layout of drainage to convey surface water to an appropriate outfall provided, with sufficient details of pipe sizes, gradients, access points, invert levels and capacity of existing system, to establish compliance with section 3.3, E1/AS1(See Table 2, Fig. 3, 10 - 12, Section 3.2 & 3.7, E1/AS1.
All Stormwater drainage to include inspection openings as specified to NZBC E1/AS1 cl.3.7.

Implications of trenches close to buildings, drains under buildings to be considered (See Section 3.7.6 and 3.9.7, Fig. 14, E1/AS1.) Refer to Drainage Pipe & Foundation Penetration Details Sheet.

NZBC G13

Layout of sanitary plumbing to convey foul water to a drainage system with sufficient details of pipe sizes, gradients and venting to comply with G13.3.1 (See Sections 3 - 5, G13/AS1 and consideration also given to floor wastes outlets and routing of pipe work through the structure of the building to comply with B1).

NZBC G13

Layout of drainage to convey foul water to an appropriate outfall with sufficient details of pipe sizes, gradients, access points, ventilation, invert levels and capacity of existing system to comply with G13.3.2. (See Sections 3 - 5, G13/AS2. Overflow relief noted on plan (see 3.3.2, G13 /AS1 G13/AS3), as shown on Drainage Plan.

Drainage

All pipes passing through concrete shall be wrapped in flexible material or sleeved.
Pipes shall be installed with expansion joints as per NZS 7643, Chapter 8.
Where sewer pipes are installed in a trench parallel to the foundation, the branch drains, such as those connecting to gully traps, should contain a flexible connection adjacent to the foundation.
Where storm water pipes are installed in a trench parallel to the foundation, the branch connections to the downpipes should contain a flexible connection.

Services

Hot water pipes are to be sized according to NZBC G12 & NZS 4305 1996.
Mains Pressure: 15mm dia allows for 12m max pipe length. If pipe length exceeds 12m then diameter to be reduced to 10mm to ensure that no more than 2L of hot water is stored.

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DRAINAGE NOTES

Sanitary Fixtures (as per NZBC G13)

Bath	40mm dia @ 1:40 gradient
Dishwasher	40mm dia @ 1:40 gradient
Kitchen Sink	50mm dia @ 1:40 gradient
Laundry Tub	40mm dia @ 1:30 gradient
Showers	40mm dia @ 1:40 gradient
Vanity	40mm dia @ 1:40 gradient
WC	100mm dia @ 1:60 gradient

Drainage (as per NZBC G13)

Storm Water	100mm dia @ 1:100 gradient
Foul Water	100mm dia @ 1:60 gradient

If foul water drain is laid at 1:100 gradient then WCs are required to be fitted with AAVs

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Sanitary Key

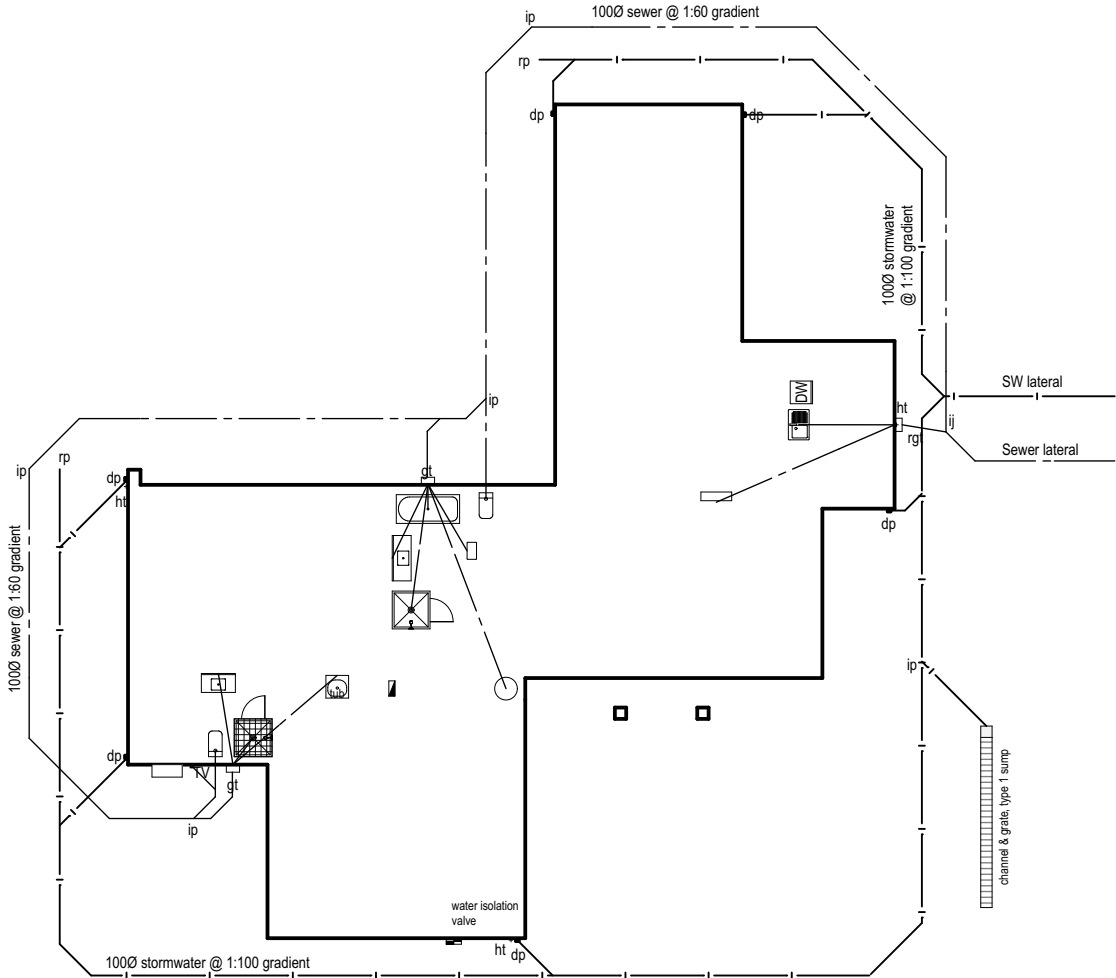
GT	Gully Trap
RGT	Relief Gully Trap
IP	Inspection Point
TV	Terminal Vent (80mm dia min)
BV	Branch Vent (50mm dia min)
IV	Isolation Valve

RGT to be installed so that top of GT is 150mm lower than overflow level of lowest sanitary fixture).

Vent to terminate either:

3.0m above ground level
600mm above openings
150mm above roof cladding
600mm above parapets

Plumbing Note
Stormwater to be connected to council lateral (refer to site plan for location)
Sewer to be connected to council lateral (refer to site plan for location)
Position of connections to be confirmed on site prior to the commencement of building



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FOUNDATION COMPLIANCE NOTES

NZBC B1

Site not meeting the requirements of NZS 3604:2011 - Specific Designed Foundation.
Geotech report / Soils Report foundation recommendation:
Specific engineered design - Waffle slab, as per Geotechnical Investigation by Lewis & Barrow Ltd, File # 20398 dated 7 May 2015. Foundations to 400mm BGL minimum.
Concrete floors to comply with:
- **Specific design by Engineer** (Refer to Constructure's Engineering drawings - Waffle slab)

NZBC B2

Material compatibility compliance to be in accordance with tables 21 & 22 in section 10, E2/AS1:2011
Building materials to meet the durability requirements of NZBC B2 and Section 4, NZS3604:2011

NZBC E1 & E2

Compliance with NZBC E1 clause 2
Slabs on ground shall be at least 150 mm above the finished level of the surrounding ground immediately adjacent to the building, and:
a) For sites level with or above the road, no less than 150 mm above the road crown on at least one cross-section through the building and roadway.
b) For sites below the road, no less than 150 mm above the lowest point on the site boundary .
Compliance with NZBC E1 clause 9
Bottom of wall cladding to comply with the general requirements of Section 9.1.3, E2/AS1:2011Table 18, Fig 65, E2/AS1:2011
Minimum heights of concrete slab on ground above surrounding ground levels to be as per NZBC E2/AS1 Dec 2011:
Masonry/Brick veneer – 125mm to sealed surface, 200mm to unsealed / natural ground
All other claddings – 150mm to sealed surface, 225mm to unsealed ground

NZBC G12

WC riser locations have an assumed offset of 160mm from internal framing (manufacturer's technical specs should be consulted to confirm offset).
All WCs that connect to foul water pipe with less than a 1:60 gradient to be vented with an AAV
Heatpump drain to discharge over nearest gully trap or down pipe.
HWC (copper) drain to discharge over nearest gully trap (discharge in a visible position which does not present a hazard or damage to other building elements & a 25mm air gap maintained)

Ensure water isolation valve installed as per NZBC G12/AS1, refer to Foundation Plan for location.

Insulation to Pipes Where Freezing May Occur
Closed cell foam polymer insulation or fibre glass insulation which is preformed to the shape of the pipe and not less than 13 mm thick, is acceptable material for preventing pipes less than or equal to 40 mm diameter from freezing. Any insulation material that absorbs moisture shall be protected in a waterproof membrane.

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	Mike Greer Homes North Canterbury	FOUNDATION PLAN COMPLIANCE	Lot 77, DP 497145, 42 Watkins Drive, Highgate Estate, Rangiora	- Subject to council approval - All measurements to be confirmed on site by the contractor prior to the commencement of work © 2010 Mike Greer Homes Limited. All rights reserved. No part of this work covered by copyright may be reproduced or copied in any form or by any means without the written permission of Mike Greer Homes Limited	17/11/2016	JM		A07
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FOUNDATION NOTES - ENGINEERED WAFFLE SLAB

Brick Cladding: all dimensions over brick

Meterbox:
Meter box with earth bar in foundation trench

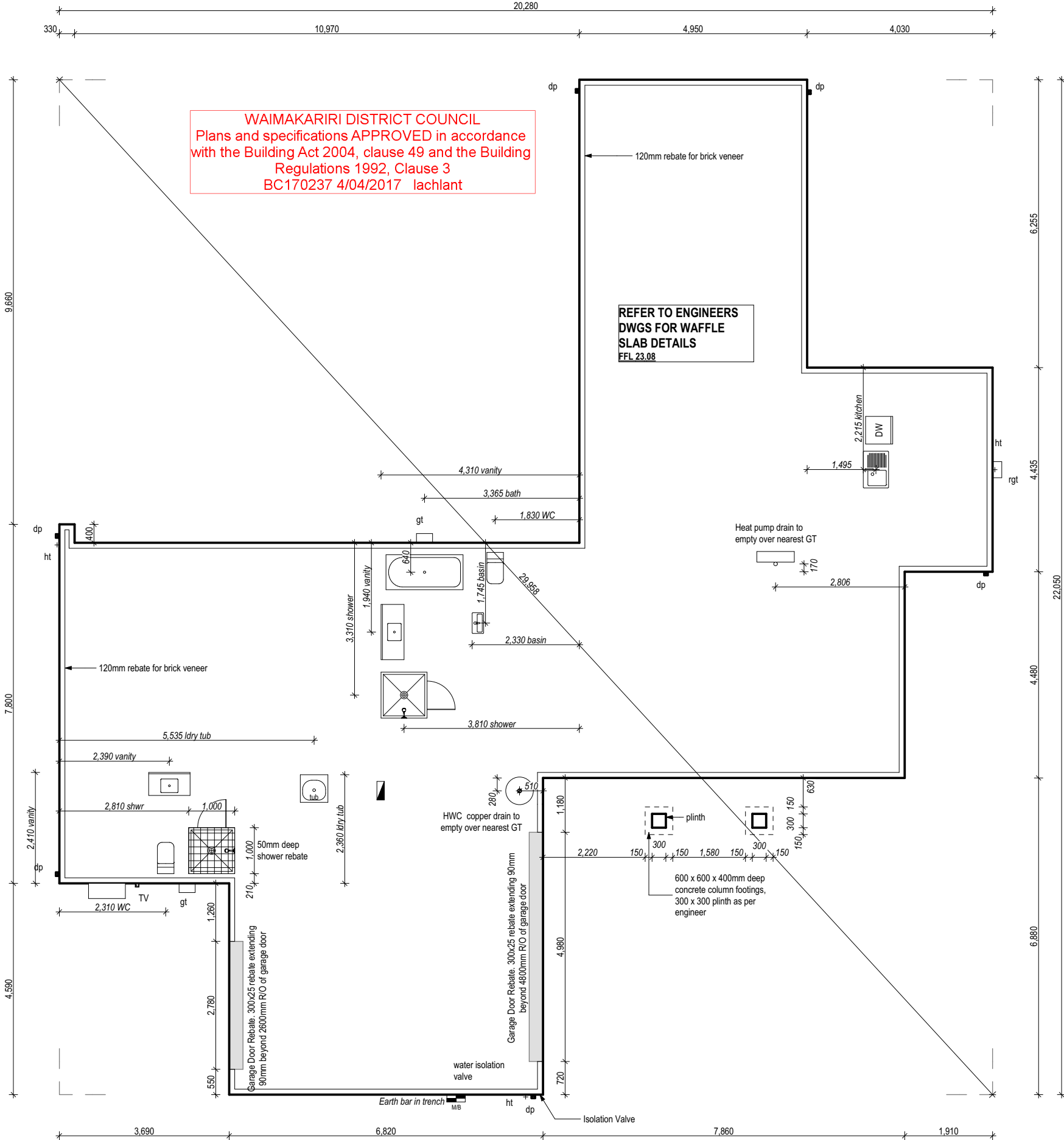
Plumbing:
To comply with NZBC G12 & G13
uPVC piping to AS/NZS 1260 & NZS 7641, couplings & fittings to meet pipe manufacturer's requirements.

Sanitary Fixtures (as per NZBC G13)

Bath	40mm dia @ 1:40 gradient
Dishwasher	40mm dia @ 1:40 gradient
Kitchen Sink	50mm dia @ 1:40 gradient
Laundry Tub	40mm dia @ 1:30 gradient
Showers	40mm dia @ 1:40 gradient
Vanity	40mm dia @ 1:40 gradient
WC	100mm dia @ 1:60 gradient

Note: Foundation Plan to be read in conjunction with Foundation details provided.

Truss Manufacturer's documentation states slab thickenings not required for internal load walls.



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JOB TITLE:

Mike Greer Homes North Canterbury

DRAWING TITLE:

FOUNDATION PLAN

LEGAL DESCRIPTION:

Lot 77, DP 497145,
42 Watkins Drive,
Highgate Estate, Rangiora

NOTES:

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FLOOR PLAN COMPLIANCE NOTES

NZBC B1

All NZS 3604 beams located and identified (Section 8, 9 & 10 NZS3604:2011).

NZBC B2

Ensure all building materials named meet durability requirements (NZSBC B2 & Section 4 NZS 3604:2011)
Ensure all timber components meet rquirements of NZS 3602:2003 (as modified by B2/AS1)
50 yrs durability for structural elements
15 yrs durability for cladding and non-structural
Access for the maintaenance of building elements has been considered as per Section 2.5 E2/AS1

NZBC C1-C4

Escape route length from any part of the house is less than 24m (Section 3.5 C/AS1)

NZBC D1

Access routes show compliance with section 1 - 6 D1/AS1 (Adequate activity space, free from dangerous obstructions and have a safe cross fall - Section 1 Safe slope in the direction of travel and adequate slip resistant walking surfaces. Refer section 2 & 3.
All hard floor finishes to comply with NZBC D1/AS Table 2. Floor tiles to be non-slip and have a slip coefficient value of 0.35 - 0.65 for grit finished ceramic tiles.

Interior Surfaces to be impervious, easily cleaned and would prevent water penetration to concealed spaces where adjacent to sanitary fixtures and appliances or likely to be splashed (See E3.3.3, E3.3.4, E3.3.5, E3.3.6 and Section 3, E3/AS1.)
Walls to be sealed with 2 coats enamel min.
One row of wall tiles above vanities and fully tiled bath cradle. Gaps between tiles and vanities to be sealed with silicon sealant.
Laundry tub to be Robinhood Supertub or similar. If laundry tub is to be a sink in bench then bench / wall junction to be finished as per NZBC E3.
Where level access showers &/or tiled shower enclosures are proposed, sufficient details of gradients to floor, substrates surface finishes and tanking membrane to comply.(Consider durability of substrate and 110.3.1, NZS 3602.)

NZBC F7

Smoke alarms to comply with Section 3 F7/AS1
Smoke detectors required within 3m of bedrooms and along exit routes as per NZBC F7.
All smoke alarms to comply with either NZBC F7, AS3786 or BS5446 Pt1 & must have test & hush button functions.

NZBC G1

Consideration has been given to spaces containing soil fixtures to show adequate space dimensions, separation from other spaces and adequate provision of wash hand basins. (G1.3.2 and Sections 3.1 - 3.3, G1/AS1).

NZBC G2

Laundry facilities and service connections comply with Section 1, G2/AS1.

NZBC G3

Layout shows provision of a sink with waste, cooking appliance, hygenic food preparation area.
Wall linings adjacent to appliances and facilities to have surfaces that can be easily maintained in hygienic condition. G3.3.1, Section 1, G3/AS1).

NZBC G4

Consideration has been given to spaces within buildings are provided with adequate ventilation consistent with their maximum occupancy and their intended use.(Ventilation with outdoor air and removing moisture and other contaminants. See G4.3.1, G4.3.3 & G4.3.5 and G4/AS1).
Natural Ventilation 5% of floor area is achieved through windows/external doors in each room.
Mechanical Ventilation shall meet the requirements of G4.3.2 & Section 1.5 and at flow rates given in AS 1668.2, Table B1.
Mechanical ventilation tasked with removing moisture shall be a 150dia 230 CU m/h inline fan ducted to soffit or an equivalent as per NZBC G4/AS1 1.3.C.. Refer to vent paths shown on floor plan.

NZBC G7

Habitable spaces have been provided with adequate natural light & visual awareness. 10% of room floor area shall be provided in external glazing (See G7.3.1, Section 1.0 & 2.0 G7 / AS1).

NZBC G8 & G9

All Lighting is to comply with NZBC D1 & G8 (Minimum illuminance requirement to 'access route'.
All electrical installations to be in accordance with NZECP 51:2001.
All Kitchen & Laundry power points including, washing machine, dryer, hob, oven, range hood, and fridge are to have at least one double power outlet. Refer to floor plan for positions of appliances which are indicative only and are to be confirmed on site with client & electrician.
Mesh in floor slab must be earthed with 16mm Reo rod installed in foundation trench below meter box position. At pre-wire mesh, meter box and rod are to be connected and earthed.
Any down lights are to be CA rated, only CA80, CA135, or IC-F are to be installed. Artificial lighting is to be such that it produces a minimum of 20 lux of illuminance for the total wattage required per m² as per NZBC G8/AS1 Table 1.

NZBC G12

Hot & cold water systems compliant with Sections 5 & 6 G12/AS1 are noted in specifications. Source of hot water is identified and located on plan.
Hot water pipe to kitchen to be polybutlene, insulated to G12/AS1.
Hot water piping to be installed as compliant with NZS 4305 & NZS 4218: 2004
Hot water pipes to be sized according to NZBC G12 & NZS 4305:1996. Mains Pressure: 15mmØ allows 12m max pipe length. Pipe length beyond this must be lagged.
Ensure cylinder is appropriate to be installed within building envelope.
Provide insulation and UV protection to exhaust vent outside building envelope.
Hot Water System type and capacity: Refer to Floor Plan & Specification
Relief drain type and outfall: Refer to notation on Foundation Plan
Tempering Valve: Refer to Specification
Seismic Restraint: Refer to Construction Detail

NZBC H1

Insulated and non-insulated spaces are indented.
Insulation R value given for wall separating insulated and non-insulated spaces. Refer to H1 Calculation & Electrical Plan Sheet.

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FLOOR NOTES

Floor Area: 215.71m² (Over Foundation)
205.51m² (Over Frame)
Maximum Building Height: 8m

dp Indicates 75x50mm colorsteel downpipes (55m² per dp)
ht+ Indicates hose tap location (confirm with client)
gt Indicates gully trap location

Cladding Materials: 70 Series Brick over 50mm cavity
Linea Weatherboard over 20mm cavity

Roof Cladding: Colorsteel Longrun Corrugate
Roof Pitch: 28°
Height to underside of truss: 2455mm
Lintel Height: 2105mm

Note: in High Wind Zone: 2.455mm stud height: studs @ 600mm centres

Internal Door Leaf Height: Standard
Internal Door Leaf Width: Typically 810mm
Typically 710mm (wet areas)

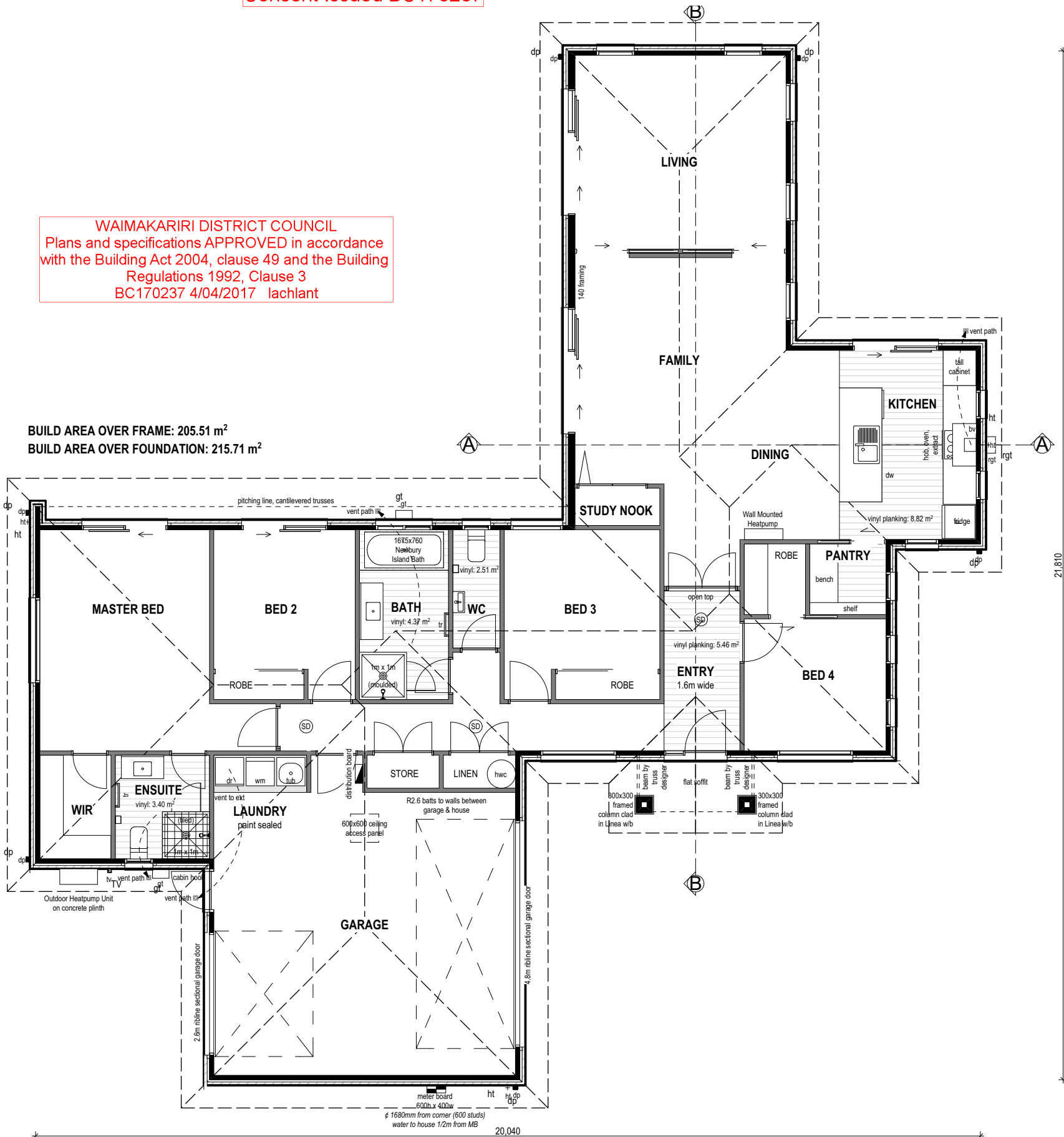
Hot Water System type and capacity:
Electric HWC

General: All dimensions to be confirmed on site
Concept may be subject to subdivision developer's approval

Mechanical extraction required to terminate to external air space through soffit.

Wet Areas
Lining to wall and ceiling to be 10mm USG Boral minimum, with 9mm Villaboard Lining behind tiled showers.

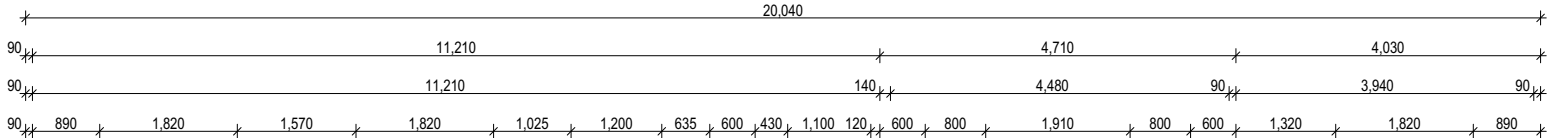
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FRAMING PLAN COMPLIANCE NOTES

NZBC B2

Ensure all building materials named meet durability requirements (NZSBC B2 & Section 4 NZS 3604:2011).
Ensure all timber components meet requirements of NZS 3602:2003 (as modified by B2/AS1):

- 50 yrs durability for structural elements
- 15 yrs durability for cladding and non-structural

Nominated Timber Treatment & Grading:

- Exterior Framing - SG8 H1.2 studs & dwangs, bottom plate, double top plate
- Interior Framing - SG8 H1.2 plates, studs & dwangs

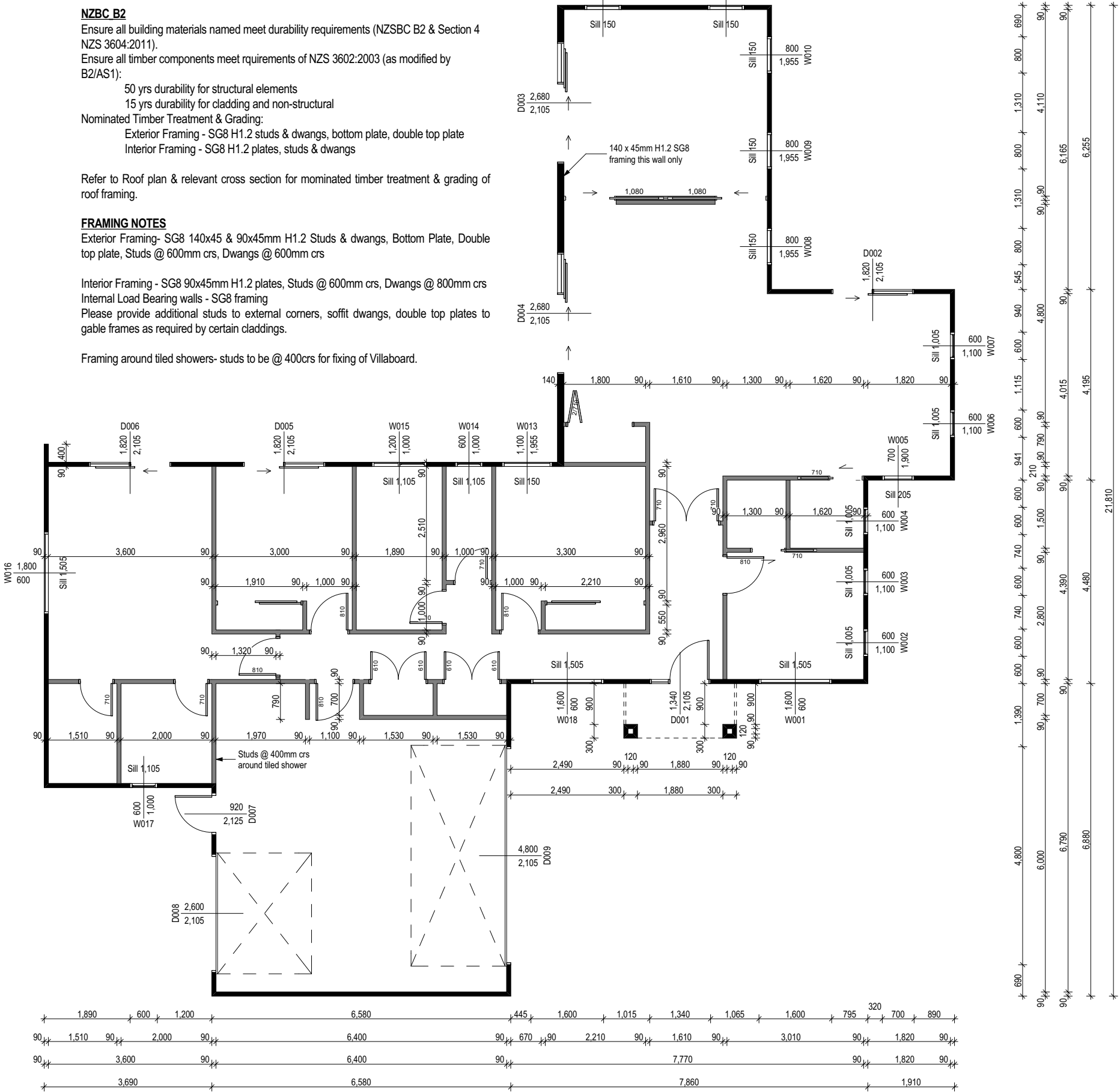
Refer to Roof plan & relevant cross section for nominated timber treatment & grading of roof framing.

FRAMING NOTES

Exterior Framing- SG8 140x45 & 90x45mm H1.2 Studs & dwangs, Bottom Plate, Double top plate, Studs @ 600mm crs, Dwangs @ 600mm crs

Interior Framing - SG8 90x45mm H1.2 plates, Studs @ 600mm crs, Dwangs @ 800mm crs
Internal Load Bearing walls - SG8 framing
Please provide additional studs to external corners, soffit dwangs, double top plates to gable frames as required by certain claddings.

Framing around tiled showers- studs to be @ 400crs for fixing of Villaboard.



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JOB TITLE:

Mike Greer Homes North
Canterbury

DRAWING TITLE:

FRAMING PLAN

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ELEVATIONS COMPLIANCE NOTES

NZBC B1
All fixings & fastenings are to be in accordance with durability requirements of NZS 3604
Exposure Zone B & C. Hot dipped Galv. fixings to used for enclosed & sheltered areas. Type 304 Stainless Steel
fixings are required in exposed & rain wet locations. Refer to NZS3604 Fig 4.3 a & b.

NZBC B2
Ensure all building materials named meet durability requirements (NZSBC B2 & Section 4 NZS 3604:2011)
Ensure all timber components meet requirements of NZS 3602:2003 (as modified by B2/AS1):
50 yrs durability for structural elements
15 yrs durability for cladding and non-structural
Nominated Timber treatment & Grading:
Exposed timber not wetted in service: H1.2

NZBC D1
Access routes show compliance with section 1 - 6 D1/AS1 (Adequate activity space, free from dangerous obstructions
and have a safe cross fall - Section 1 Safe slope in the direction of travel and adequate slip resistant walking surfaces.
Refer section 2 & 3.
All hard floor finishes to comply with NZBC D1/AS Table 2. Floor tiles to be non-slip and have a slip coefficient value of
0.35 - 0.65 for grit finished ceramic tiles.

NZBC E1
External gutters and down pipes have been adequately sized.

NZBC E2
All cladding materials (external or internal) must be fixed according to the manufacturer's specifications.

NZBC E2
Roof cladding nominated and compliant with Section 8 E2/AS1
PROFILED METAL ROOF CLADDINGS (8.4)

Wall cladding nominated and compliant with Section 9 E2/AS1
MASONRY VENEER (9.2)

Alternative Solution (Branz Appraisal #447)
SCYON LINEA WEATHERBOARD

Details not covered in E2/AS1 to be assessed to comply with the functional & performance requirements of E2.
JUNCTIONS FOR DIFFERING CLADDINGS
WINDOW / DOOR SUPPORT BARS
SLIDE / BIFOLD DOORS
WANZ support bar to all door units & windows.

Risk matrix score determined using Section 3, E2/AS1:2011 Fig 1-4,tables 1-6, E2/AS1:2011

NZBC F2
Sufficient notation provided on Elevations to ensure Grade A safety glazing will be used where required by NZS4223
Part 3 as modified by F2/AS1.
'A Grade" safety glass to all exterior 'full height' windows & doors with glazing 1200mm in height or greater, and to
bathroom & ensuite glazing
All exterior glazing to be double glazing with powder coated aluminium joinery with colour matched hardware on timber
paint grade revels.

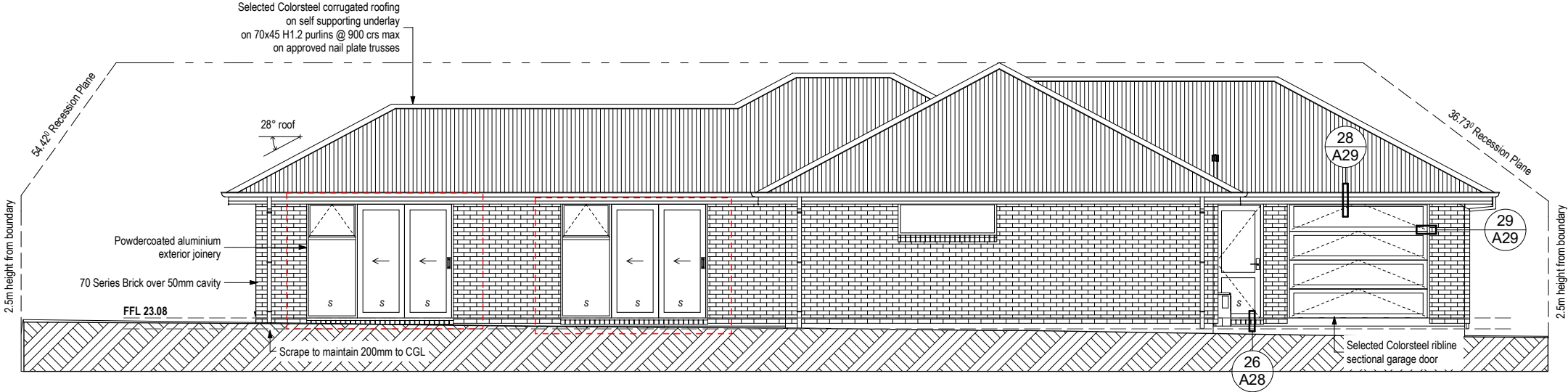
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WEST ELEVATION
NZBC E2 / AS1 External Moisture Risk Matrix
Wind Zone (per NZS 3604):
high - Risk Factor = 1
Number of Storeys:
low - Risk Factor = 0
Roof / Wall Intersection Design:
low - Risk Factor = 0
Eaves Width:
low - Risk Factor = 0
Envelope Complexity:
low - Risk Factor = 0
Deck Design:
low - Risk Factor = 0
Total Risk Score: - Risk Severity = 1

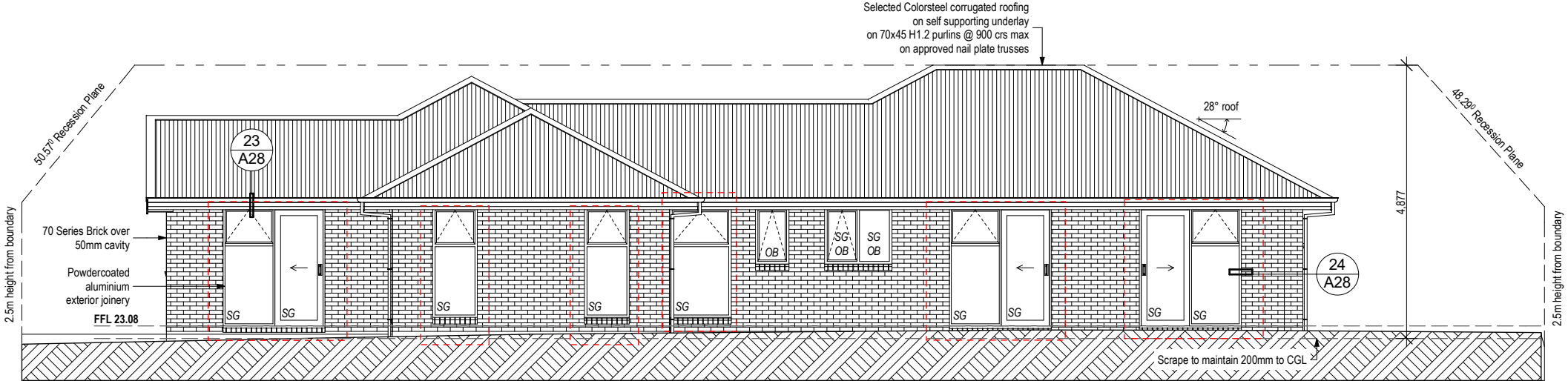
NORTH ELEVATION
NZBC E2 / AS1 External Moisture Risk Matrix
Wind Zone (per NZS 3604):
high - Risk Factor = 1
Number of Storeys:
low - Risk Factor = 0
Roof / Wall Intersection Design:
low - Risk Factor = 0
Eaves Width:
low - Risk Factor = 0
Envelope Complexity:
low - Risk Factor = 0
Deck Design:
low - Risk Factor = 0
Total Risk Score: - Risk Severity = 1



WEST ELEVATION

1:100

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NORTH ELEVATION

1:100

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CROSS SECTION COMPLIANCE NOTES

NZBC B1
Concrete floors to comply with:
Section 7.5, NZS3604:2011:
Refer to Foundation Plan. (Size limitations, ground clearances foundation edge granular base, DPM, thickness, shrinkage control, bearing, internal wall support, fixing of timber).

Specific design by Engineer:
cross reference to Engineer's drawings.

NZBC B2
Material compatibility compliance to be in accordance with tables 21 & 22 in section 10, E2/AS1:201
Ensure all building materials named meet durability requirements (NZSBC B2 & Section 4 NZS 3604:2011)
Ensure all timber components meet requirements of NZS 3602:2003 (as modified by B2/AS1):
50 yrs durability for structural elements
15 yrs durability for cladding and non-structural
Nominated Timber treatment & Grading:
Exterior Framing - SG8 H1.2 studs & dwangs, bottom plate,double top plate
Interior Framing - SG8 H1.2 plates, studs & dwangs

NZBC E1
Compliance with NZBC E1 clause 2
Slabs on ground shall be at least 150 mm above the finished level of the surrounding ground immediately adjacent to the building, and:
a) For sites level with or above the road, no less than 150 mm above the road crown on at least one cross-section through the building and roadway.
b) For sites below the road, no less than 150 mm above the lowest point on the site boundary .
Compliance with NZBC E1 clause 9
Bottom of wall cladding to comply with the general requirements of Section 9.1.3, E2/AS1:2011Table 18, Fig 65, E2/AS1:2011
Minimum heights of concrete slab on ground above surrounding ground levels to be as per NZBC E2/AS1 Dec 2011:
Masonry/Brick veneer – 125mm to sealed surface, 200mm to unsealed / natural ground

NZBC E2
Roof cladding nominated and compliant with Section 8 E2/AS1
PROFILED METAL ROOF CLADDINGS (8.4)

Wall cladding nominated and compliant with Section 9 E2/AS1
MASONRY VENEER (9.2)

Alternative Solution (Branz Appraisal #447)
SCYON LINEA WEATHERBOARD

NZBC F2
Sufficient notation provided on Elevations to ensure Grade A safety glazing will be used where required by NZS4223 Part 3 as modified by F2/AS1.
'A Grade" safety glass to all exterior 'full height' windows & doors with glazing 1200mm in height or greater, and to bathroom & ensuite glazing
All exterior glazing to be double glazing with powder coated aluminium joinery with colour matched hardware on timber paint grade revels.

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Roof Pitch 28°

Longrun Coloursteel corrugate profile @ 28° over Themakraft roofing underlay, on H1.2 70x45mm purins @ 900crs centrally & 700mm on periphery

Trusses as per Manufacturer's specifications, refer to Manufacturer's truss layout & producer statement
Roof Bracing as per Truss Manufacturer's documentation

Pink Batts Ultra R3.6

Batts trimmed around top chord & chamfered to maintain a 25mm air gap

H1.2 SG8 140 x 45mm framing, studs and dwangs @ 600mm crs

Fake Cedar gable vent, surface mounted

Brick Veneer (70 series) over 50mm cavity, building wrap, R 2.6 insulation, 90x45mm H1.2 studs & dwangs @ 600mm crs

2.105 u/side lintel

ENGINEERED WAFFLE SLAB

FAMILY / DINING

KITCHEN

SG

41 A32

14 A26

02 A24

13 A26

40 A32

A CROSS SECTION 1:50

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Regulations 1992, Clause 3
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Longrun Coloursteel corrugate profile @ 28° over Themakraft roofing underlay, on H1.2 70x45mm purlins @ 900crs centrally & 700mm on periphery

Roof Pitch 28°

Trusses as per Manufacturer's specifications, refer to Manufacturer's truss layout & producer statement
Roof Bracing as per Truss Manufacturer's documentation

Pink Batts Ultra R3.6

Batts trimmed around top chord & chamfered to maintain a 25mm air gap

600

Brick Veneer (70 series) over 50mm cavity, building wrap, R 2.6 insulation, 90x45mm H1.2 studs & dwangs @ 600mm crs

2.455 to outside truss

2.035 interior doors

ENTRY

STUDY NOOK BEYOND

FAMILY/ DINING

SG

SG

SG

LIVING

SG

SG

SG

ENGINEERED WAFFLE SLAB

37 A32

38 A32

39 A32

17 A26

16 A26

18 A26

15 A26

34 A31

450

1,200

1:50

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ROOF PLAN COMPLIANCE NOTES

NZBC B1

All NZS 3604 beams located and identified (Section 8, 9 & 10 NZS3604:2011).

NZBC B2

Ensure all building materials named meet durability requirements (NZSBC B2 & Section 4 NZS 3604:2011)

Ensure all timber components meet requirements of NZS 3602:2003 (as modified by B2/AS1):

50 yrs durability for structural elements

15 yrs durability for cladding and non-structural

Access for the maintainance of building elements has been considered as per Section 2.5 E2/AS1.

NZBC E1

Down Pipes & gutters adequately sized as per Section 4 & 5 E1/AS1

122.5mm Quad gutter or 125mm Box gutter both provide a cross sectional area that meets the capacity need to take the rainfall in an 1 in 10 yr event from a 55m² max roof catchment area

Materials for Down Pipes as per Table 4 E1/AS1 - unless noted otherwise all downpipes are to be Colorsteel.

NZBC E2

Roof cladding nominated and compliant with Section 8 E2/AS1:

PROFILED METAL ROOF CLADDINGS (8.4)

Roof underlay to comply with the general requirements of Section 8.1.5, E2/AS1:2011 Table 23, E2/AS1:2011, underlay support

Gutter, & Downpipes - Materials, dimensions catchment, spreaders, Fig 20 Table 8, E2/AS1.

Roof Fixings

For all wind zones to Very High as per NZ3604 2011 (Equivalents may be supplied by Truss manufacturer and prenailler)

Truss / Purlin - 1/10g self drilling screw, 80mm long

Truss / Plate - 2/100x3.75mm skewed nails & 2 wire dog

Plate / Stud - 2/100x3.75mm end nails & 2 wire dog

All roof penetrations shall be flashed as per NZBC E2/AS1 external moisture section 8.4 profiled metal roof cladding (8.4.17 Roof Penetrations) as shown in figure 53 & 54.

All trusses to be designed and approved by a qualified truss manufacturer able to issue a producer statement prior to building consent approval, which shall guarantee satisfactory performance within the parameters of this design. The truss system design shall include roof space bracing in accordance with NZS3604 (2011).

Roof Plane Bracing

Each *roof* plane *brace* shall consist of one of:

(a) A continuous length of 90 mm x 19 mm timber at 45° to the ridge line, in the plane of the *roof* and continuous from the ridge to the supporting *wall*;

(b) A diagonally opposing pair of continuous steel strips each having a *capacity* of 4.0 kN in tension, fixed to each top chord or *rafter* that is intersected, and to the *top plate*

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ROOF NOTES

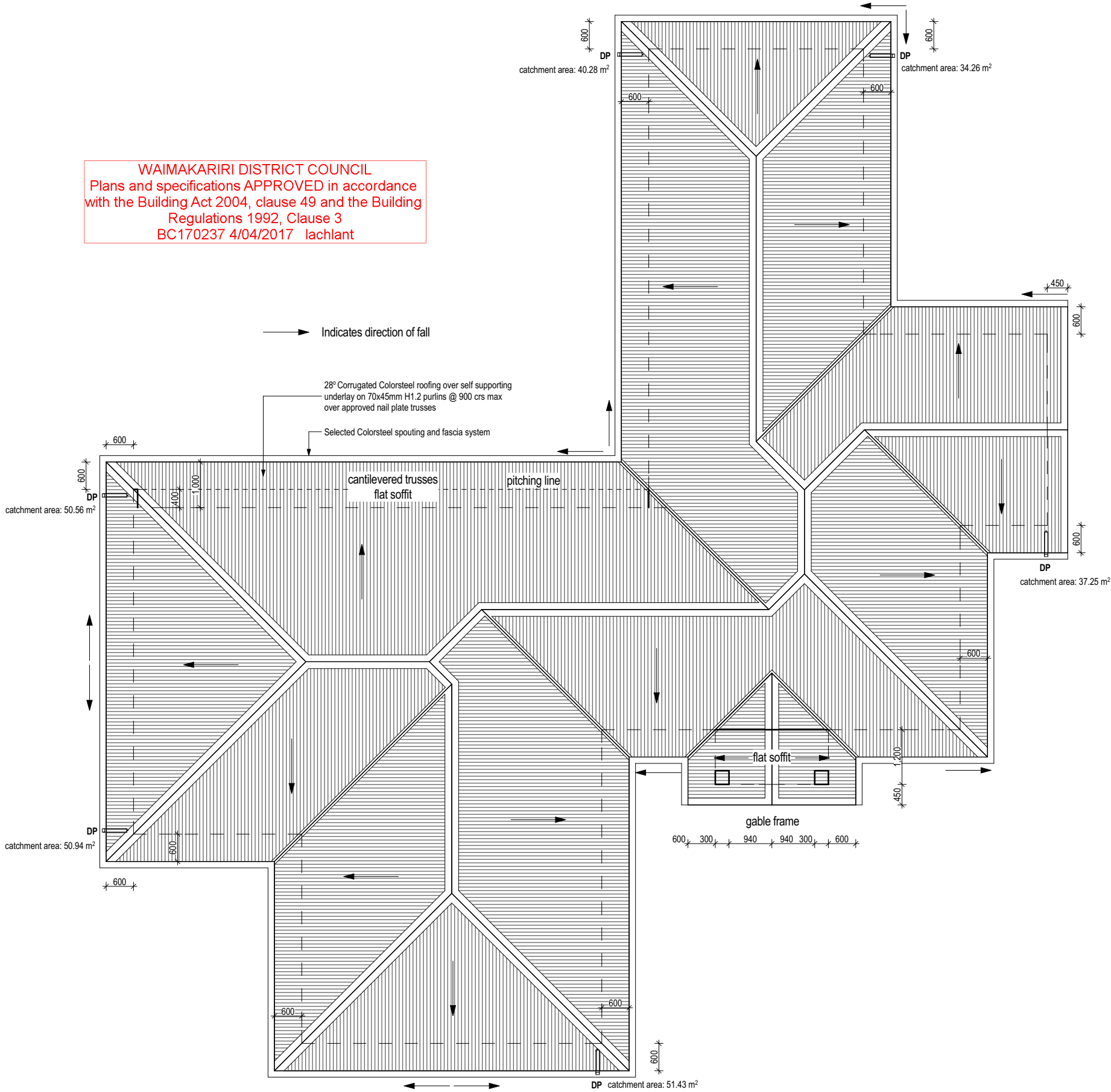
Selected 28° pitch corrugated colorsteel roofing with 600mm overhang / soffit (450mm in gables) over self supporting underlay on 70x45 H1.2 purlins depending on gauge @ 900mm crs max on approved nail plate trusses @ 900 crs min.

Fascia & Rainwater system - Coloursteel Endura
Gutter - 126mm Steel & Tube Multiline Quad Colorsteel (6850mm² cross sectional area)
No gutter is to have a run exceeding 18m in length. Min fall 1:500 / 2mm per 1m. If gutter brand is to differ from above, confirm minimum cross sectional gutter area requirement is met.
Downpipes - 75x50mm Steel & Tube rectangular Colorsteel (55m² catchment area max)
Soffits - James Hardie 4.5mm soffit lining.

Pitching Height
Pitching height to be set at 2455m above finished floor level

Note
Refer to Truss manufacturers documentation for Truss & Lintel specifications, fixings details, & Roof Bracing.

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BRACING COMPLIANCE NOTES

Bracing as per NZS3604: 2011, NZBC B1 & B2

B1/AS1
New bracing elements must have been tested and evaluated in accordance with the 2010 version of BRANZ test & evaluation procedure P21.

B2/AS1
Care is required with internal braced wall anchors to ensure there is sufficient slab thickness to meet anchor embedment, hole depth and cover requirements specified in the technical literature.

BRACING NOTES

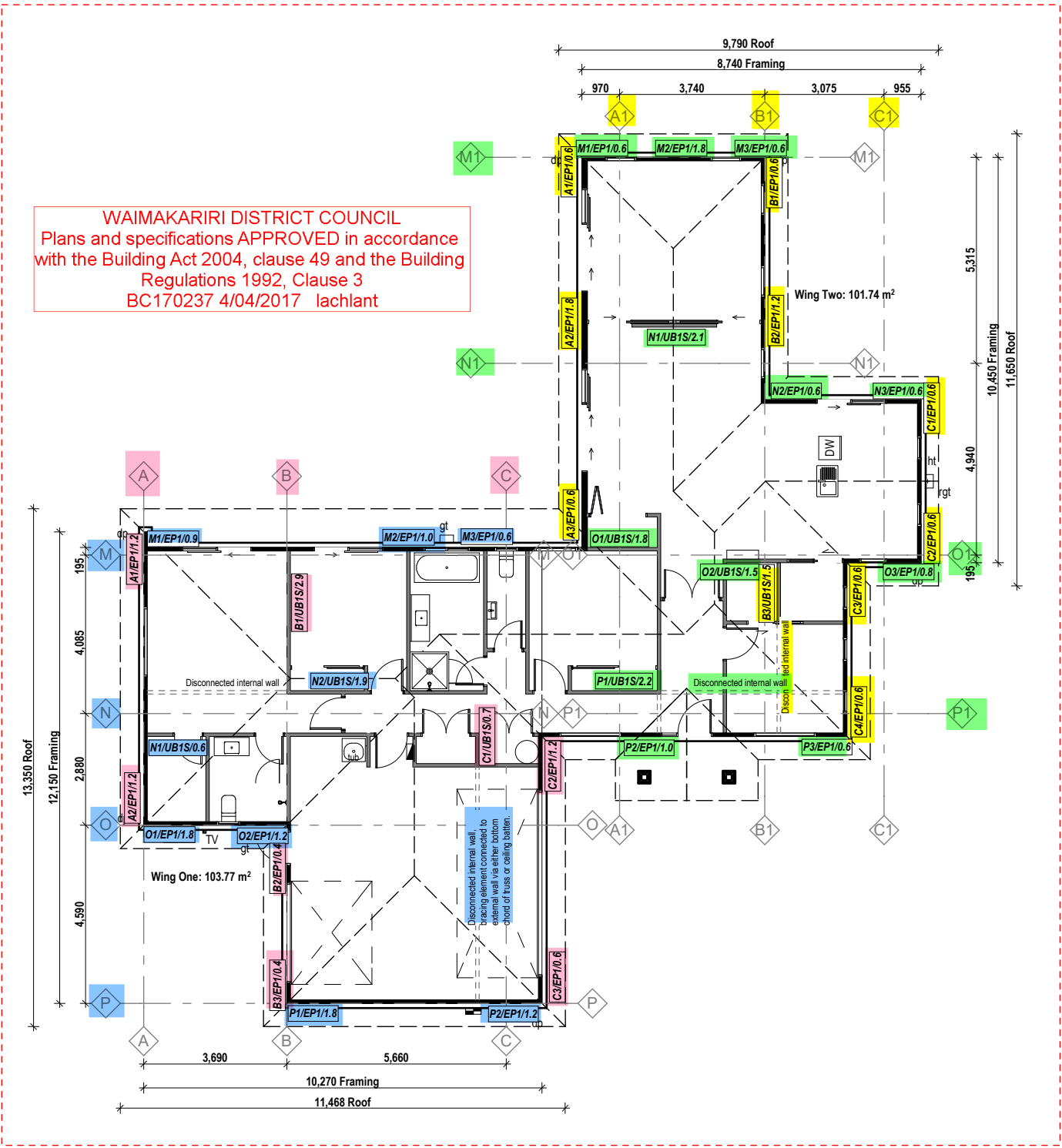
Bracing Plan is to be read in conjunction with USG BORAL calculations and USG BORAL Plasterboard Bracing Manual June 2015.

number of stories	Single
foundation type	Slab
roof height above eaves (m)	2.5
maximum roof length (m)	23.01
maximum roof width (m)	21.09
roof pitch (degrees)	28
room in roof space	No
roof cladding weight	Light
floor live load	2kPa

average exterior wall cladding weight	Heavy
building length (m)	21.81
building width (m)	20.04
gross building plan area (m ²)	215.71
interior wall height (m)	2.4
exterior wall height (m)	2.4

wind speed	High
earthquake zone	2

Bracing lines must be spaced no more than:
6m for standard construction with any USB BORAL plasterboard ceiling



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H1 CALCULATIONS

Insulated Floor Plan Area: 160.41m² over frame (including interior wall of garage)
Insulated Wall Area (wall length x stud height 2455mm):
North: 49.2m²
East: 42.28m²
South: 49.2m²
West: 42.28m²
E/S/W: 133.76m²

Total Wall opening Area:
North: 18.63m² or 37.87% of wall area
East: 7.56m² or 17.88% of wall area
South: 8.35m² or 16.97% of wall area
West: 13.08m² or 32.1% of wall area
E/S/W: 28.99m² or 21.67% of wall area
N/E/S/W: 47.62m² or 26.03% of wall area

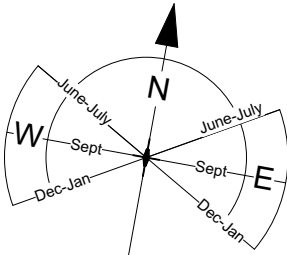
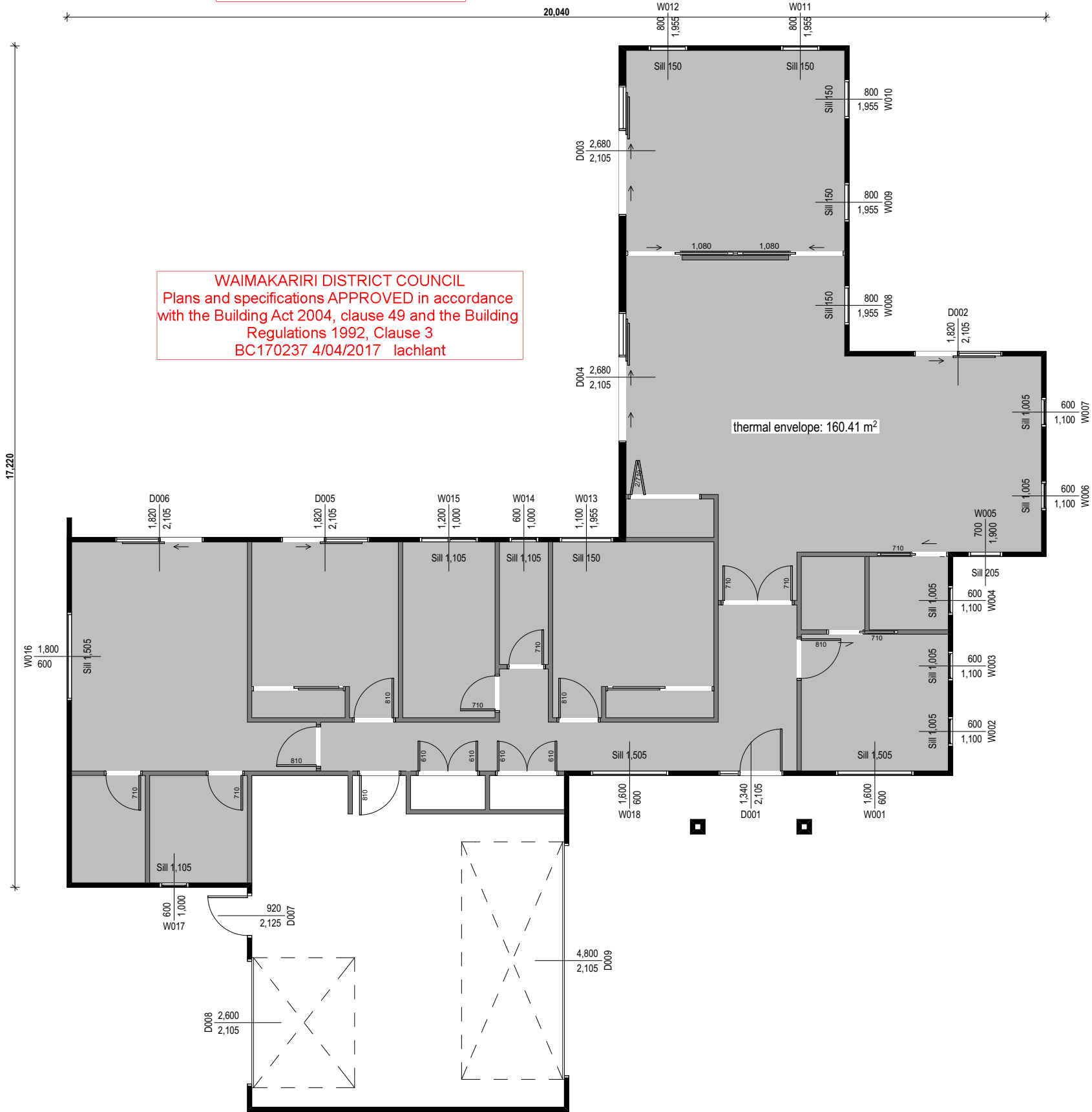
North equals 50% or less for wall opening area. East, South and West equal 30% or less for total wall opening area. North, East, South and West equal 30% or less for total overall wall opening area.
Therefore, this building does comply with NZBC H1 to use the Schedule method.

NZBC H1 Schedule Method	
Reference Building:	R Value
Roof	3.3
Wall	2.0
Floor	1.3
Glazing (<30%)	0.26
Glazing (>30%)	0.34

Proposed Building:	
Roof Type (Longrun Coloursteel on Trusses R3.6 Batts)	3.4
Wall Type 1 (Brick, 90x45 framing R2.6 Batts)	2.2
Wall Type 2 (Internal lining, 90x45 framing R 2.6 Batts)	2.1
Wall Type 3 (Brick, 140x45 framing, R2.6 Batts)	2.4
Floor (concrete slab)	1.3
Total Glazing (<30%) (Double Glazing)	0.26
(Total construction R-value from BRANZ Home Insulation Guide 5th ed.)	

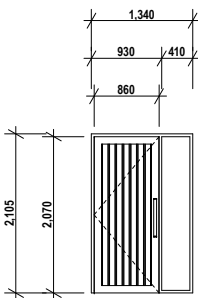
Door & Joinery Notes
All internal single door leafs are 810 x1980 unless otherwise stated
All robe sliders to be specified by client.

Electrical & Insulation Notes
Refer to Floor Plan Compliance Notes

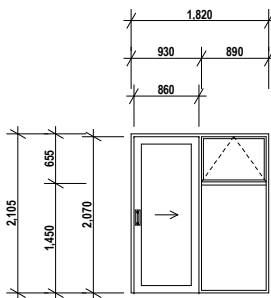


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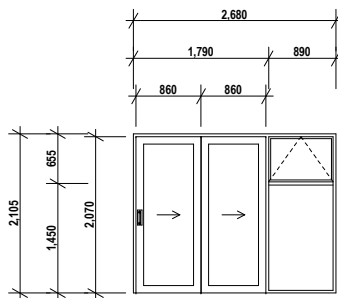
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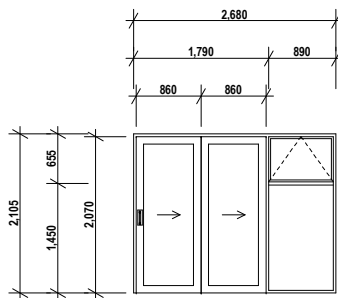
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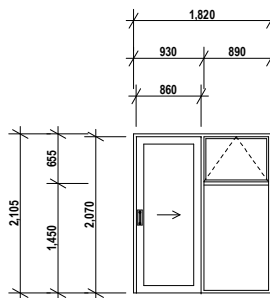
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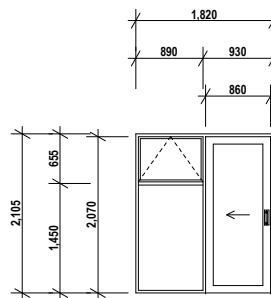
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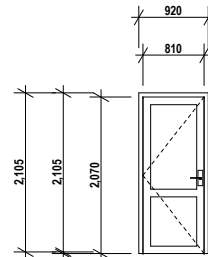
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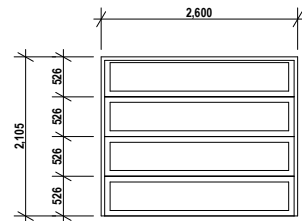
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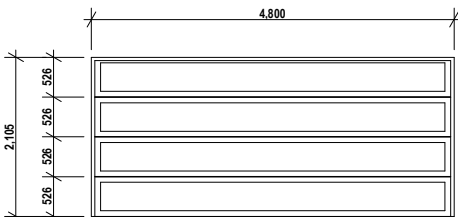
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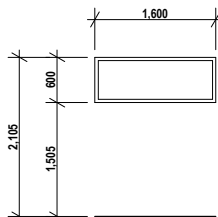
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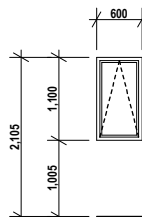
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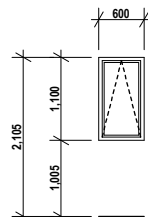
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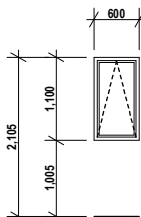
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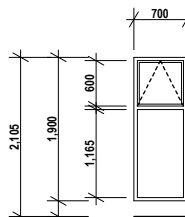
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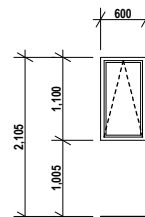
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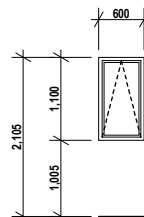
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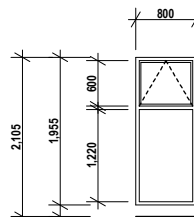
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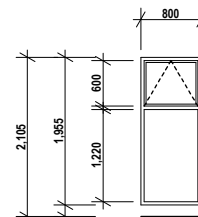
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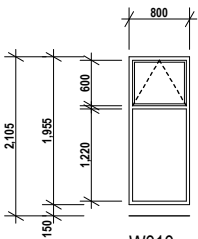
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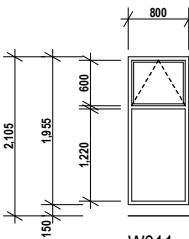
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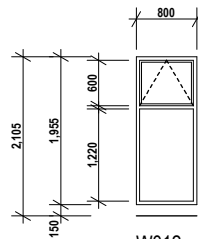
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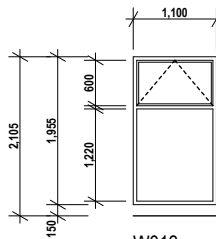
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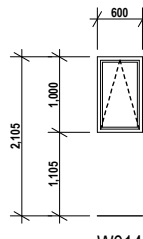
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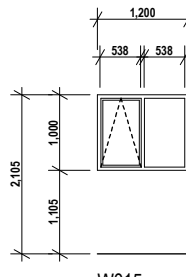
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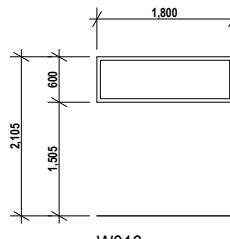
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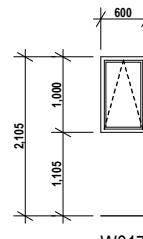
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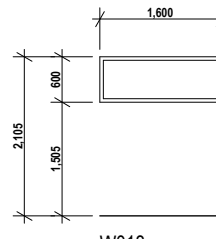
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W016



W017



W018

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CONSTRUCTION DETAIL COMPLIANCE NOTES

NZBC E2
Wall cladding nominated and compliant with Section 9 E2/AS1
MASONRY VENEER (9.2)

Alternative Solution (Branz Appraisal #447)
SCYON LINEA WEATHERBOARD

Roof cladding nominated and compliant with Section 8 E2/AS1
PROFILED METAL ROOF CLADDINGS (8.4)
Refer to Sheet A32

Details not covered in E2/AS1 to be assessed to comply with the functional & performance requirements of E2.
JUNCTIONS FOR DIFFERING CLADDINGS
WINDOW / DOOR SUPPORT BARS
SLIDE / BIFOLD DOORS

WANZ support bar to all door units & windows.

Flashing details to comply with general requirements of Section 4, E2/AS1:2011. Materials, durability,laps,dimensions see table7, Fig 5-7, E2/AS1:2011.
Roof underlay to comply with the general requirements of Section 8.1.5, E2/AS1:2011 Table 23, E2/AS1:2011, underlay support.
Gutter, & Downpipes - Materials, dimensions catchment, spreaders, Fig 20 Table 8, E2/AS1:2011.
Roof penetration details to comply with the general requirements of Section 8.1.7, E2/AS1:2011. Support, catchment, Fig. 21 & 22, Table 9.
Bottom of wall cladding to comply with the general requirements of Section 9.1.3, E2/AS1:2011 Table 18, Fig 65, E2/AS1:2011.
Wall openings, air seals and building wrap to comply with the general requirements of Sections 9.1.4 – 9.1.7, E2/AS1:2011.
Drained cavities to comply with the general requirements of Section 9.1.8, E2/AS1:2011. See Fig. 66 & 67.
Wall penetrations to comply with the general requirements of Section 9.1.9, E2/AS1:2011 See Fig. 68 – 70.
Windows and doors to comply with the general requirements of Section 9.1.10, E2/AS1:2011. See Fig. 71 & 72.
Columns to comply with the requirements of section 9 NZS3604:2011

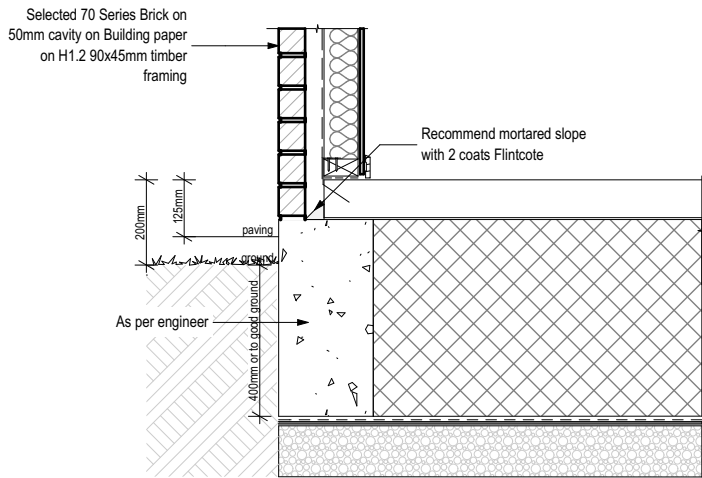
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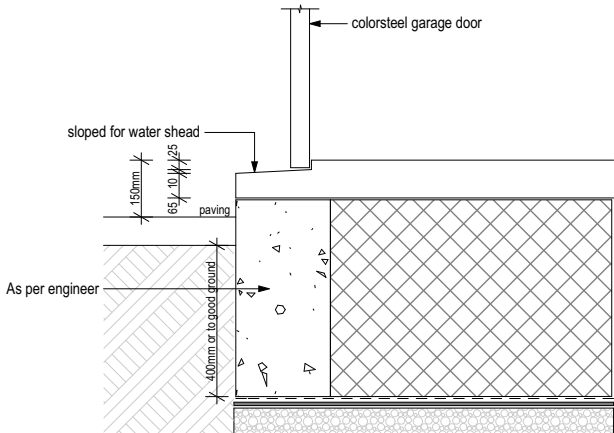
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*Reinforcing bars / mesh must be supported on chairs to ensure reinforcement position and 30 mm top cover is maintained. Bottom plate with Pryda Anchor Plate (or equiv.). Engineer to inspect excavated foundation trenches to verify bearing conditions.

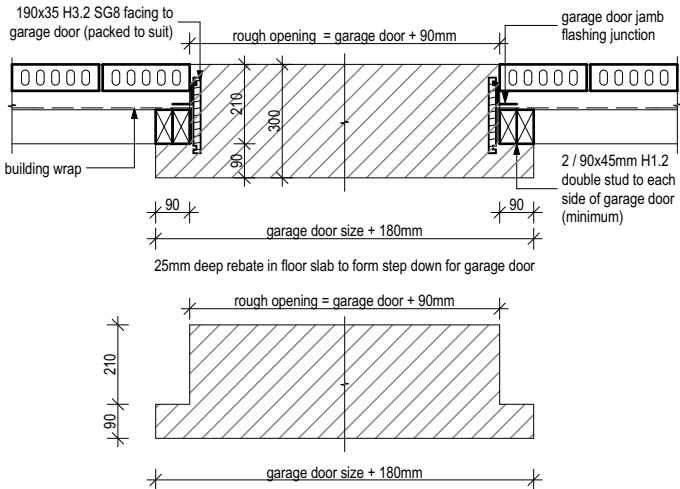


D-02 Brick foundation Detail 1:20

Reinforcing bars/mesh must be supported on chairs to ensure reinforcement position and 30 mm top cover is maintained. Bottom plate with Pryda Anchor Plate (or equivalent). Engineer to inspect excavated foundation trenches to verify bearing conditions

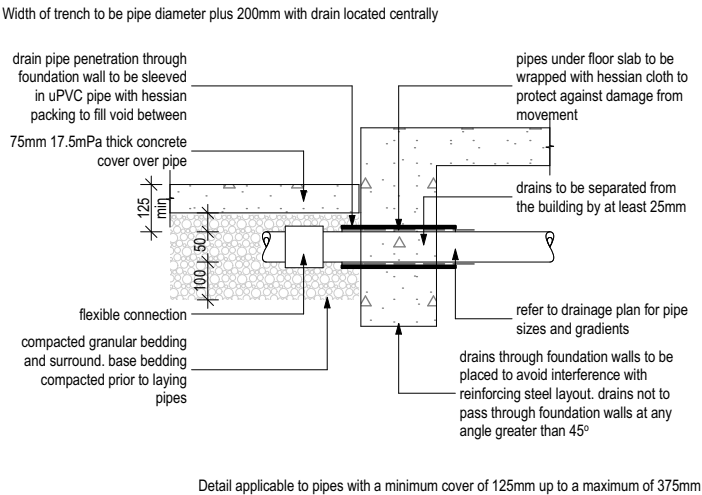


D-03 Garage rebate foundation Detail 1:20

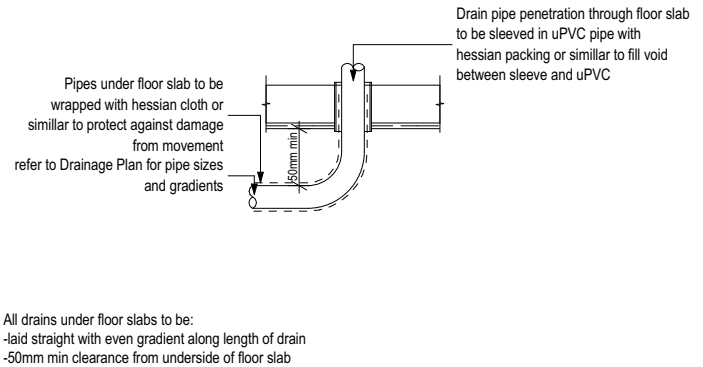


D-04 Brick garage door rebate Detail 1:20

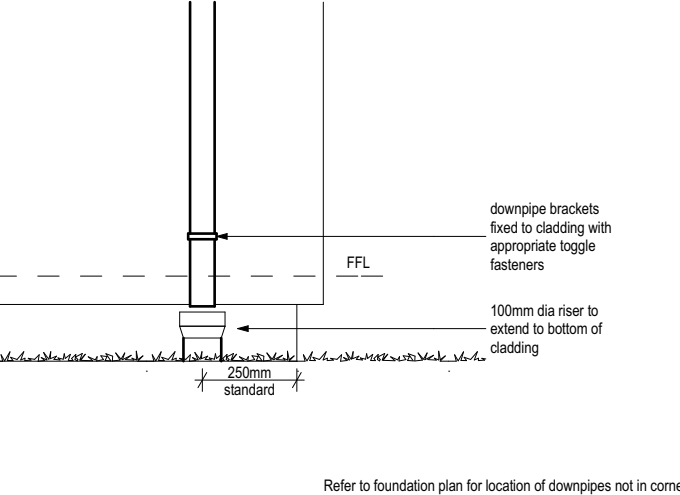
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D-05 Pipe pen. through found. Detail 1:20



D-06 Pipe pen. through floor Detail 1:20



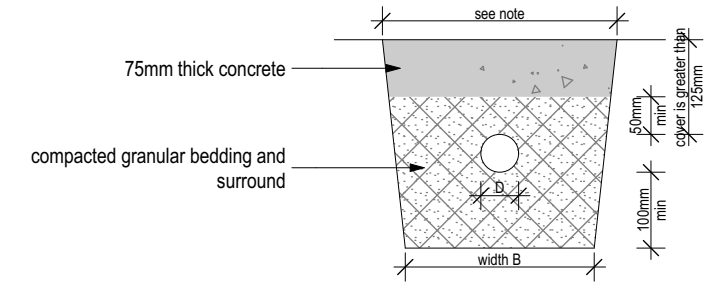
D-07 Downpipe corner offset Detail 1:20

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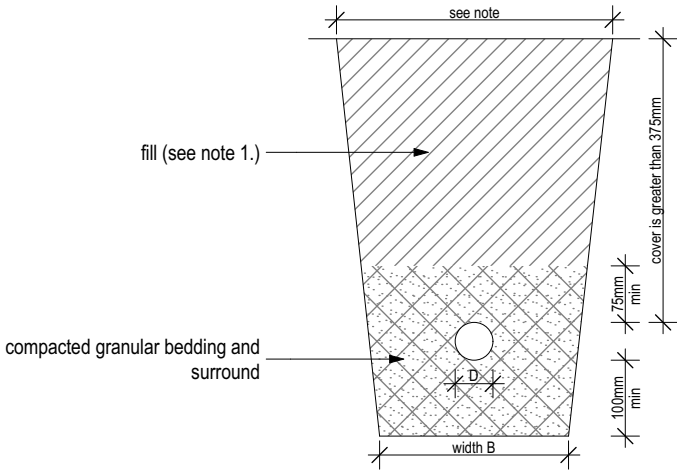
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					2/03/2017	V1	16184D, N2113	

NOTE:
The width B of the trench shall be no less than the pipe diameter D plus 200mm. Trench width at the top of the pipe shall be no more than 600mm unless the pipes in the trench are covered with concrete as shown in NZBC E1 Figure 13c.

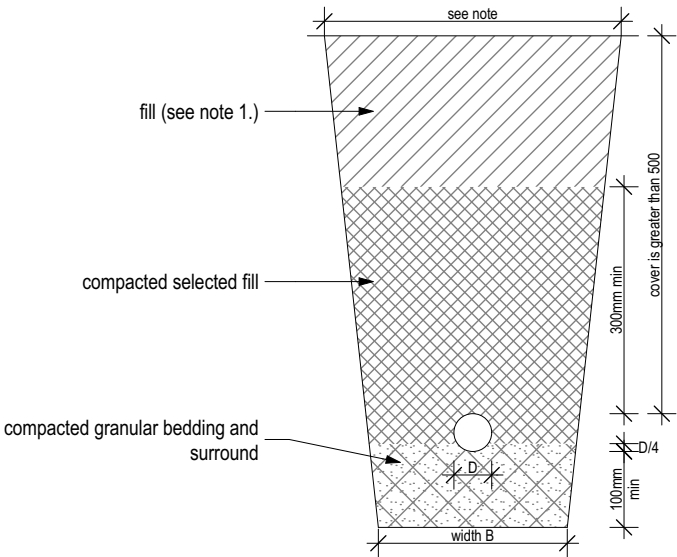
1. Fill shall be ordinary fill where drains are located below gardens and open country, or compacted selected fill where the drains are located below residential driveways and similar areas subjected to light traffic



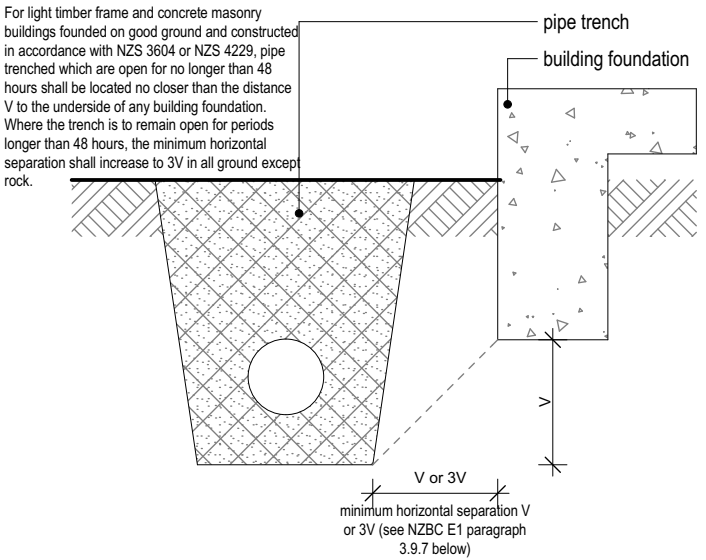
D-08 Bedding cover #1 Detail 1:10



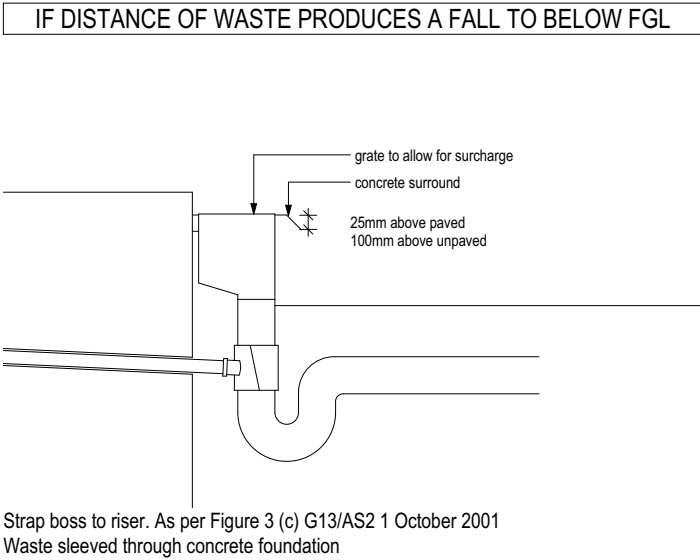
D-09 Bedding cover#2 Detail 1:10



D-10 Bedding cover #3 Detail 1:10



D-11 Pipe trench Detail 1:10



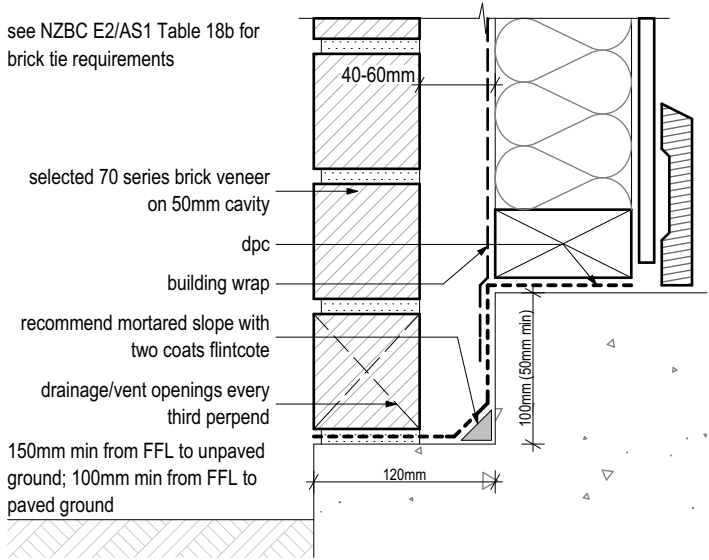
D-12 Gully Trap Detail 1:10

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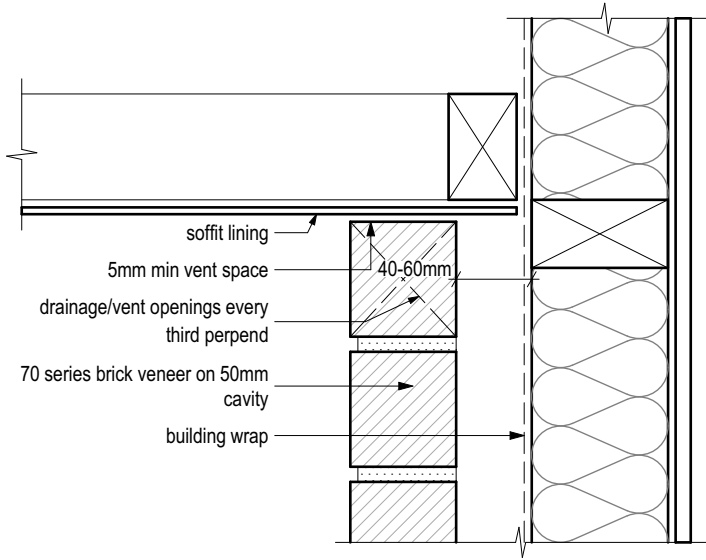
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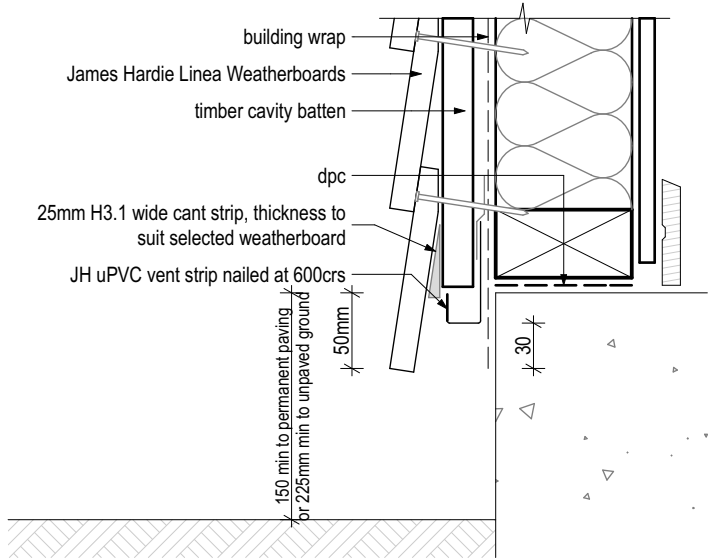
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D-13 Brick veneer slab edge Detail 1:5

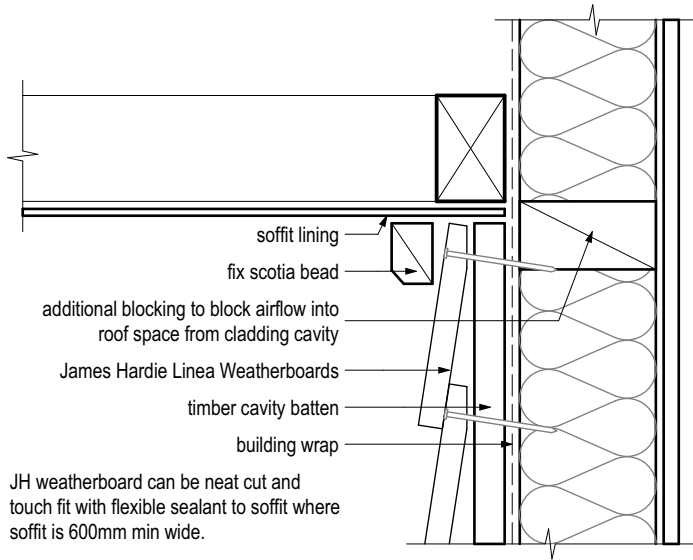


D-14 Brick soffit Detail 1:5

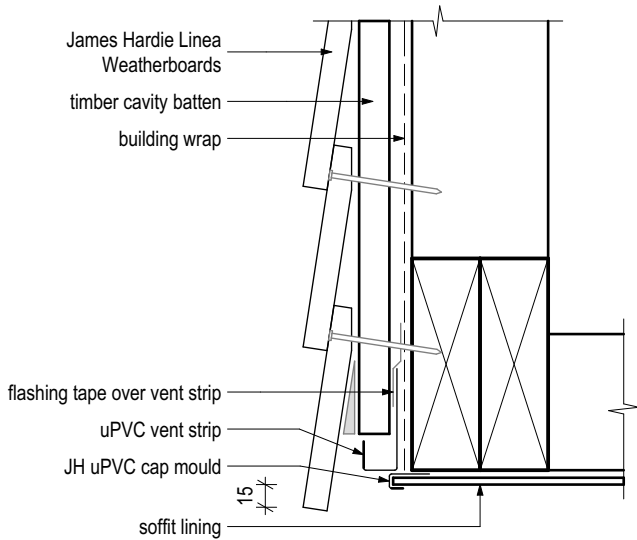


D-15 Linea base Detail 1:5

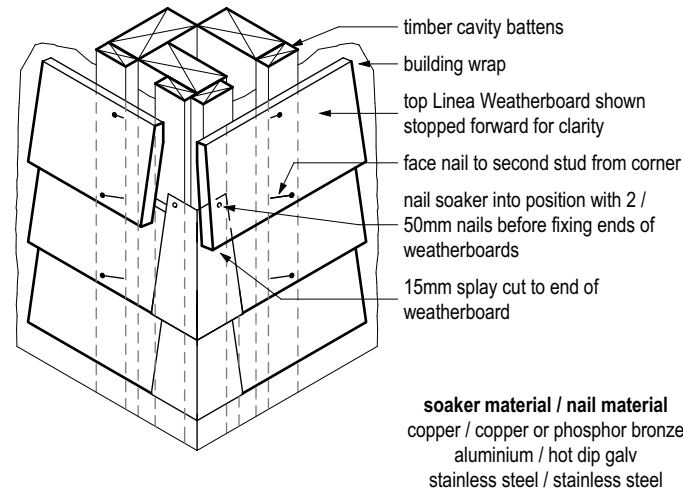
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D-16 Linea soffit Detail 1:5



D-17 Linea over soffit Detail 1:5



D-18 Linea soaker Detail 1:5

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42 Silverstream Boulevard,
Kaiapoi
03 310 0272

Division of DSC Group Ltd

DESIGNNZ

job title:

*Mike Greer Homes North
Canterbury*

drawing title:

PENETRATION DETAILS

legal description:

*Lot 77, DP 497145, 42
Watkins Drive, Highgate
Estate, Rangiora*

notes:

This residence has been designed for the client and remains copyrighted to DesignNZ (division of DSC Group Ltd). All dimensions, materials, and timber treatments are to be confirmed prior to construction. All work must be in accordance with the NZ Building Code, and relevant NZ Standards whether referenced in this documentation or not, (including but not limited to Foundation & Timber Frame Construction, Timber Treatment NZS 3602 2003). The position of all services to site must be confirmed prior to construction. Soffit, lintel, and ceiling heights may vary. Designer should be consulted rather than assume a certain height if it can not be ascertained from specific cross sections.

date of issue:	17/11/2016	scale:	1:5
job number:	16184D,	designer:	#Designer
status:	N2113 Concept	draughtsperson:	#CAD Technician Full Name
version:	V1	revision:	3/04/2017

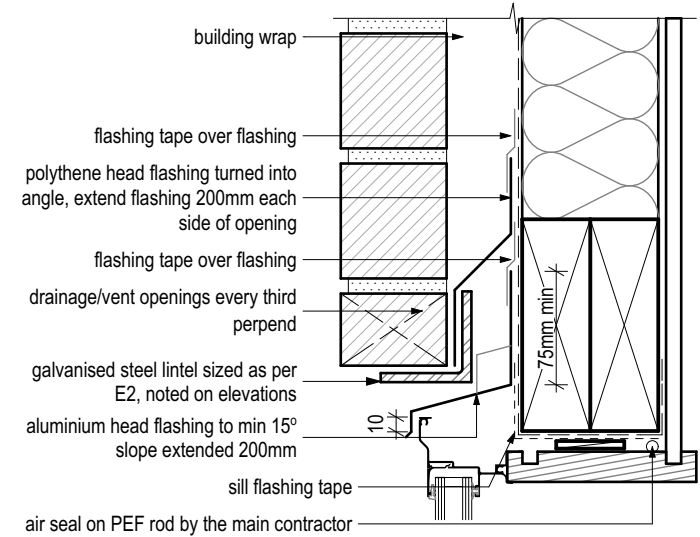
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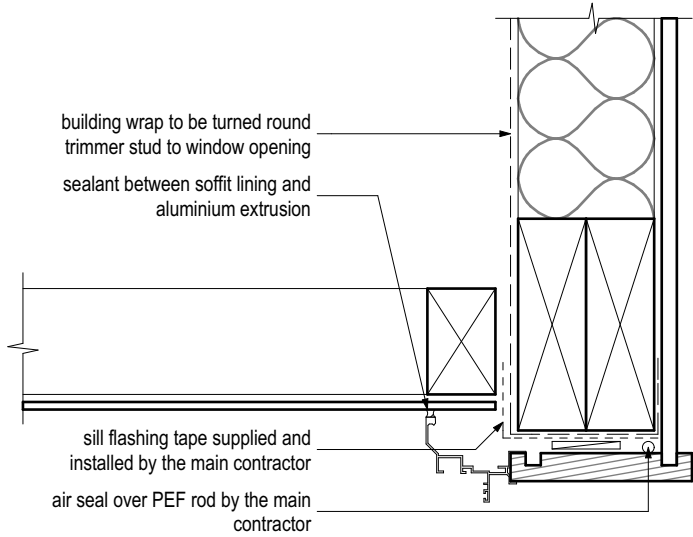
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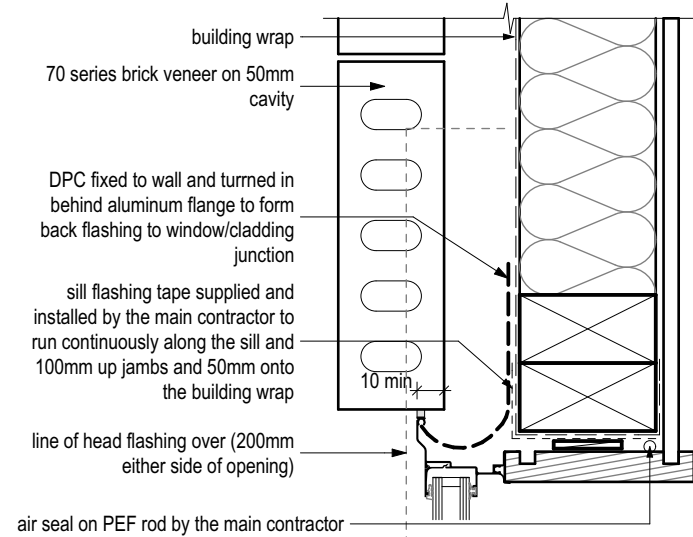
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D-22 Brick Head Detail 1:5

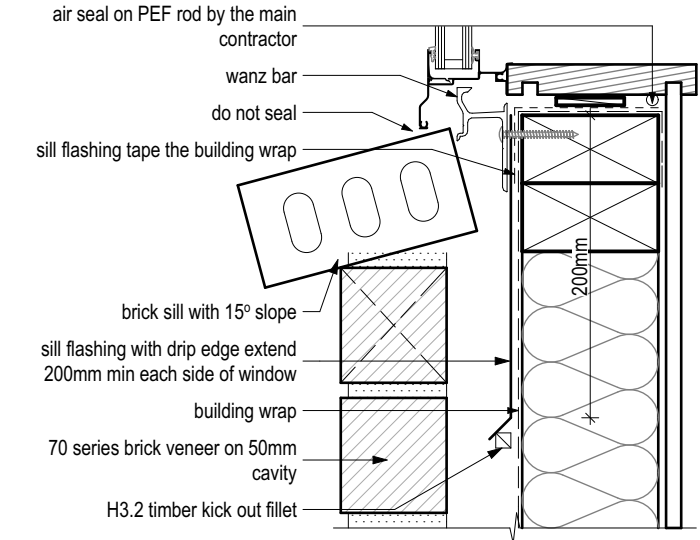


D-23 Head to soffit Detail 1:5

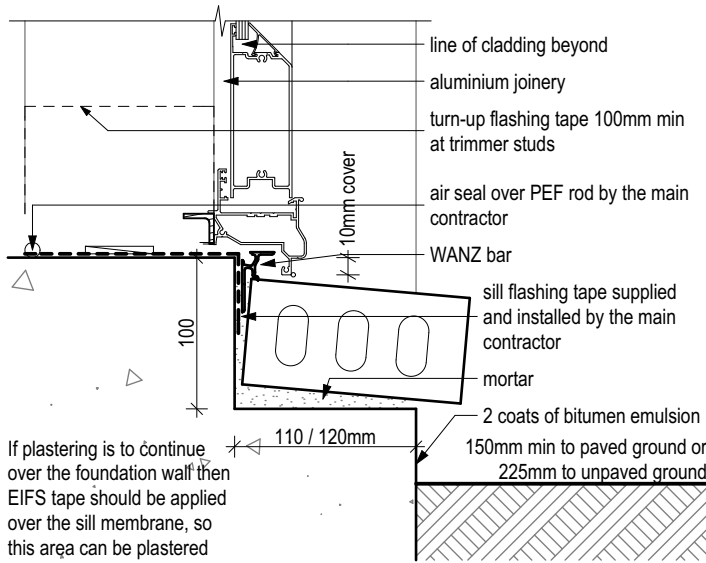


D-24 Brick jamb Detail 1:5

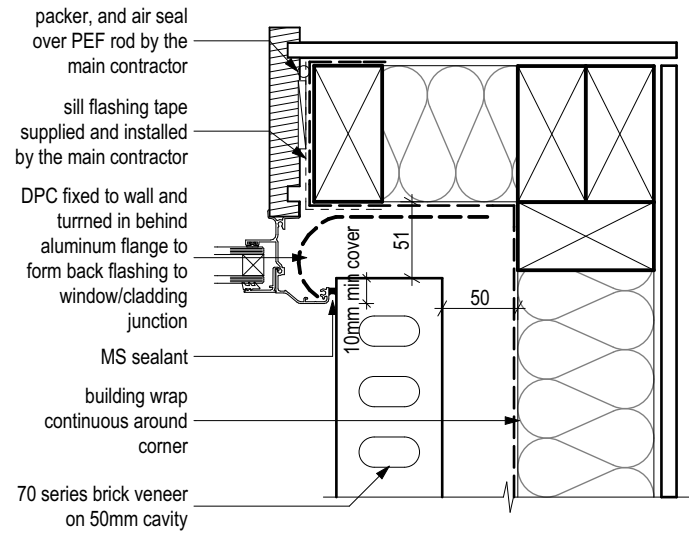
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D-25 Brick window sill Detail 1:5



D-26 Brick door sill Detail 1:5

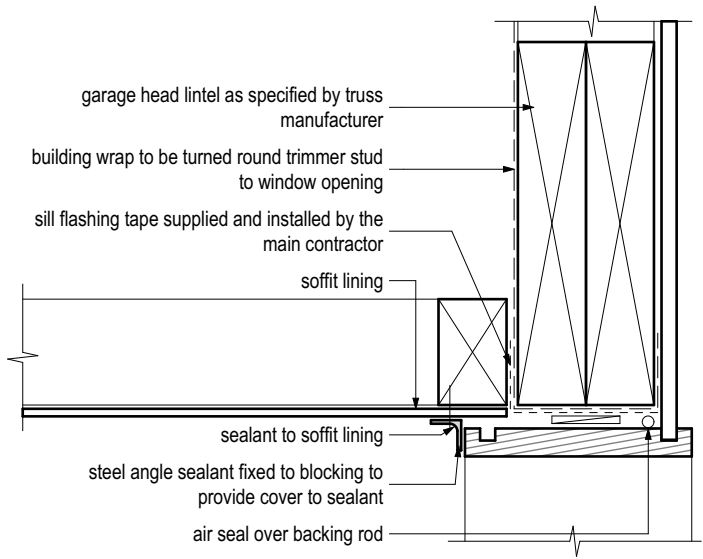


D-27 Internal Brick jamb Detail 1:5

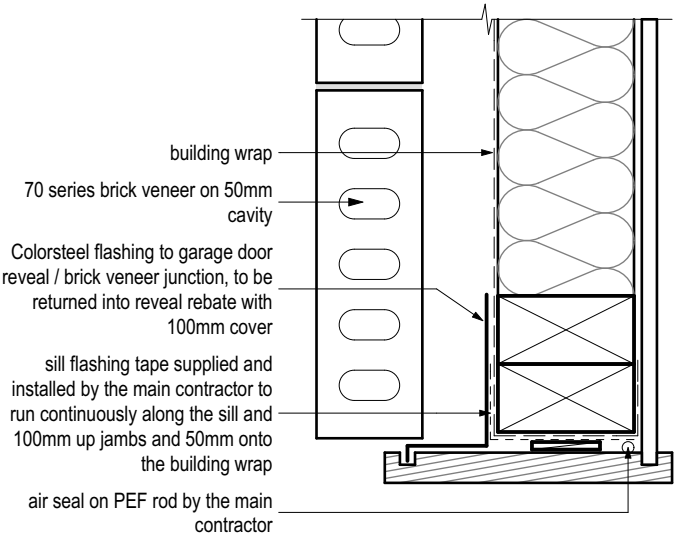
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D-28 Garage door head Detail 1:5

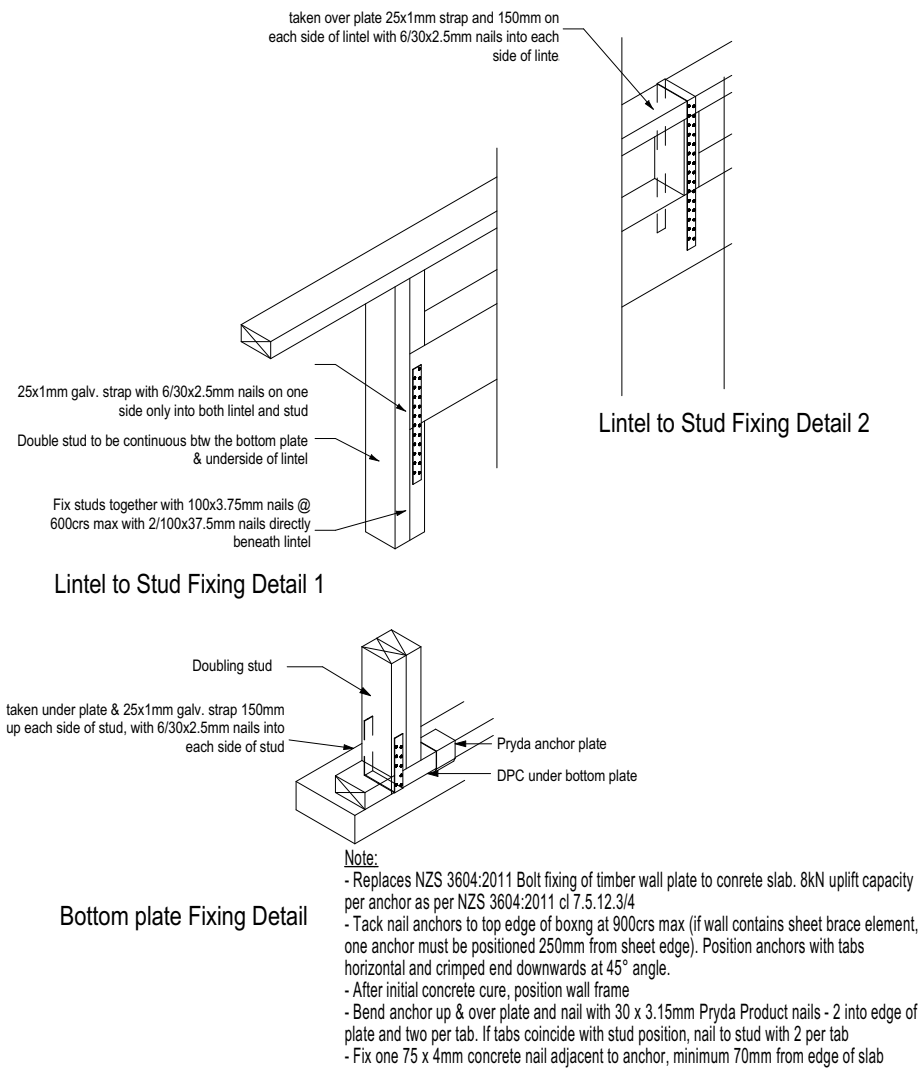


D-29 Brick garage door jamb Detail 1:5

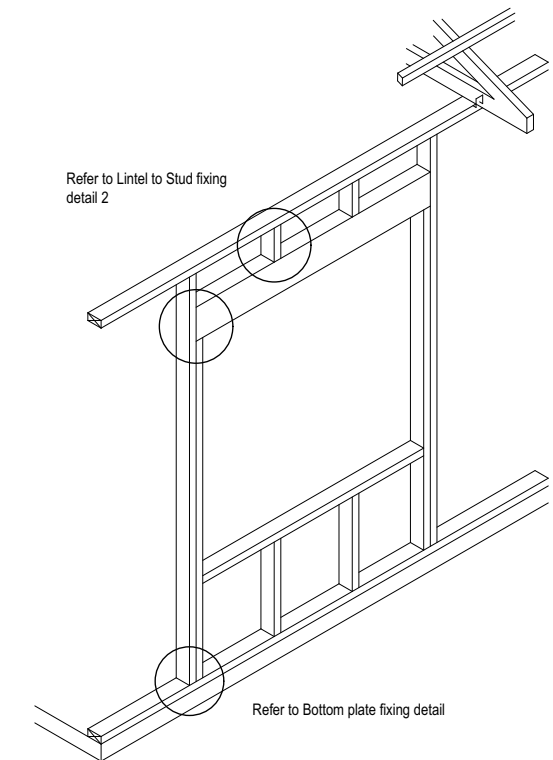
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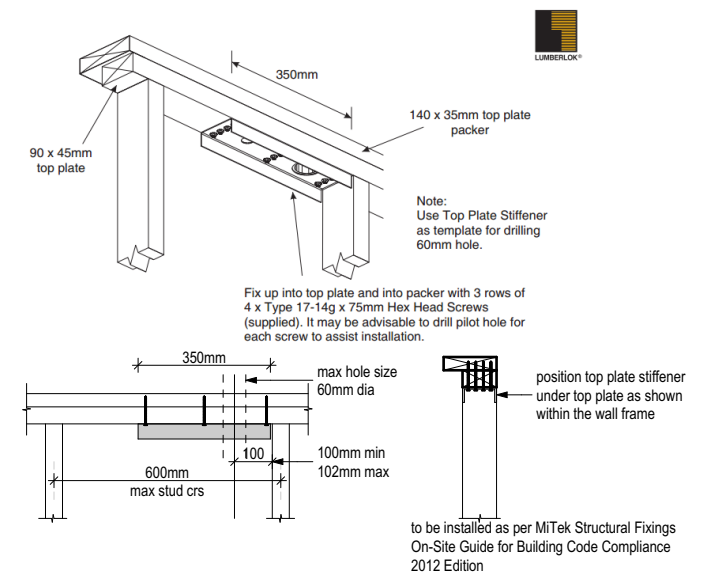
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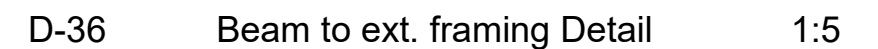
D-30 Sill tape flashing Detail 1:20



D-32 Lintel uplift fixing Detail 1:20

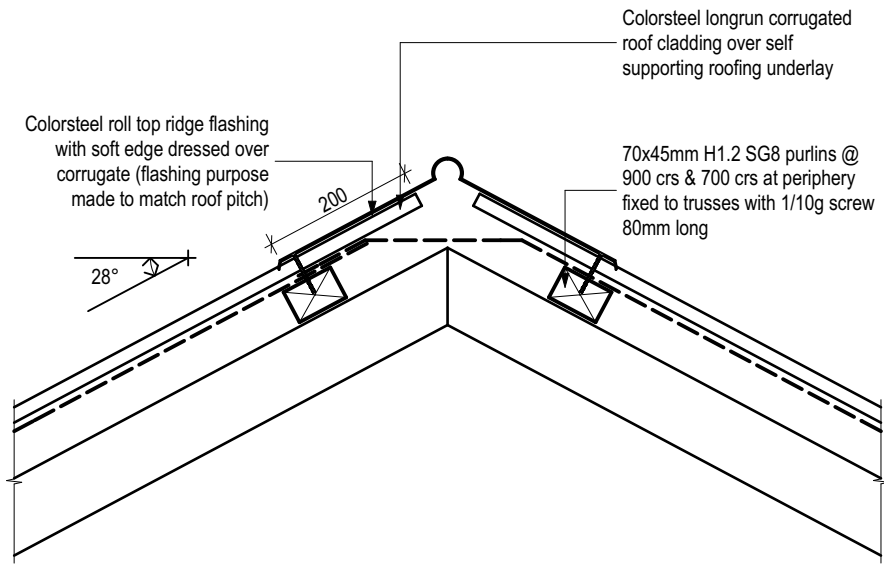


D-33 LUMBERLOK top plate stiffener Detail 1:20

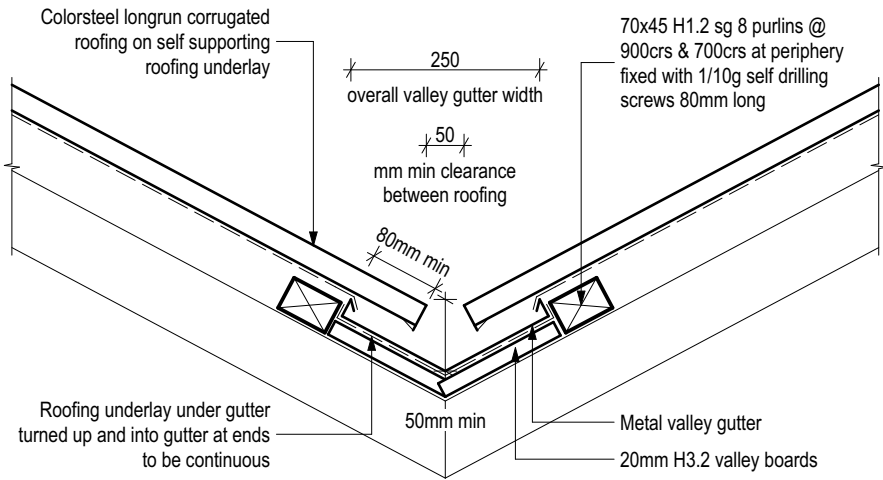


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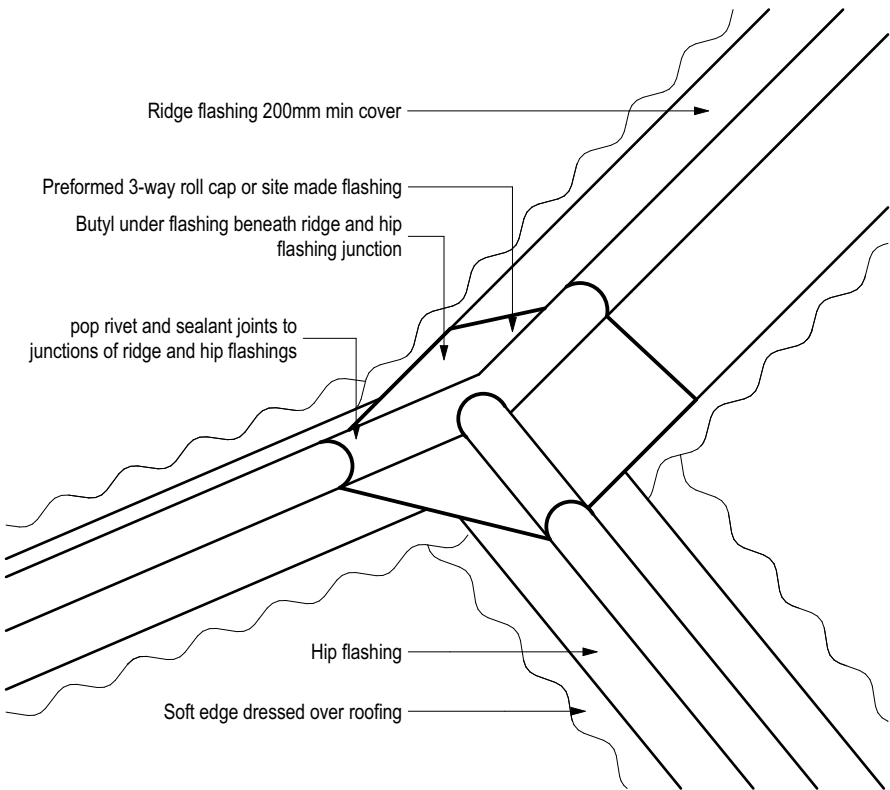
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D-37 Ridge flashing Detail 1:10

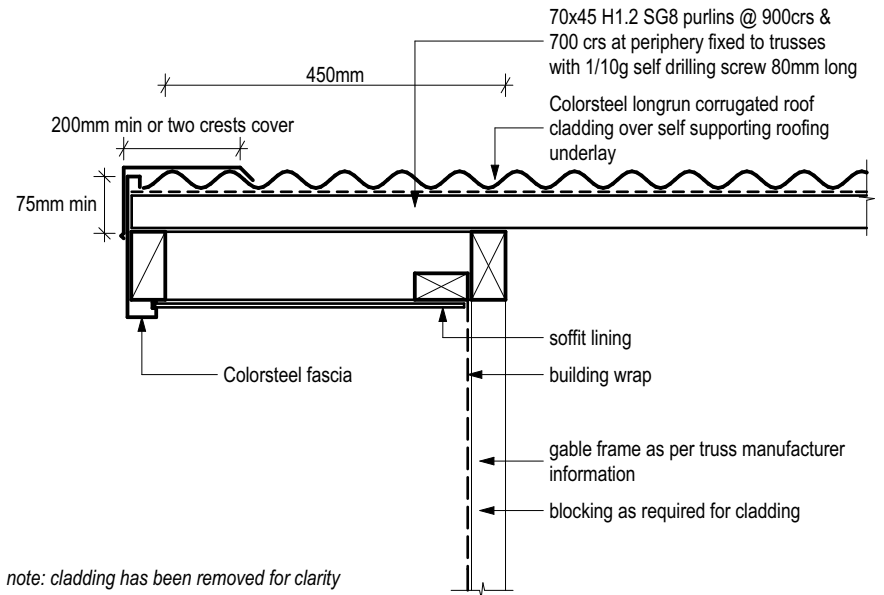


D-38 Valley flashing Detail 1:10

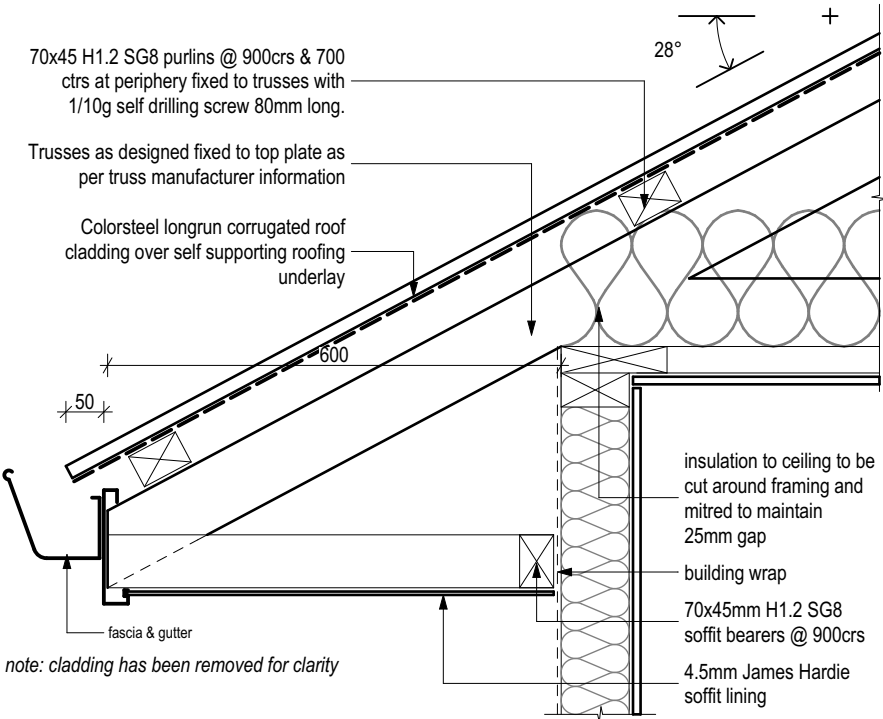


D-39 Hip flashing Detail 1:10

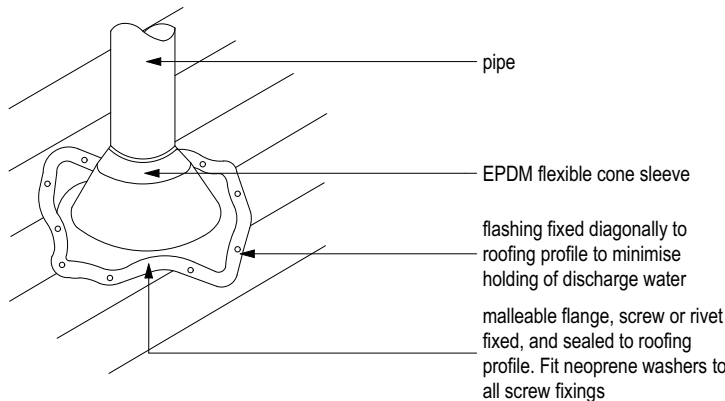
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D-40 Gable construction Detail 1:10



D-41 Eave construction Detail 1:10

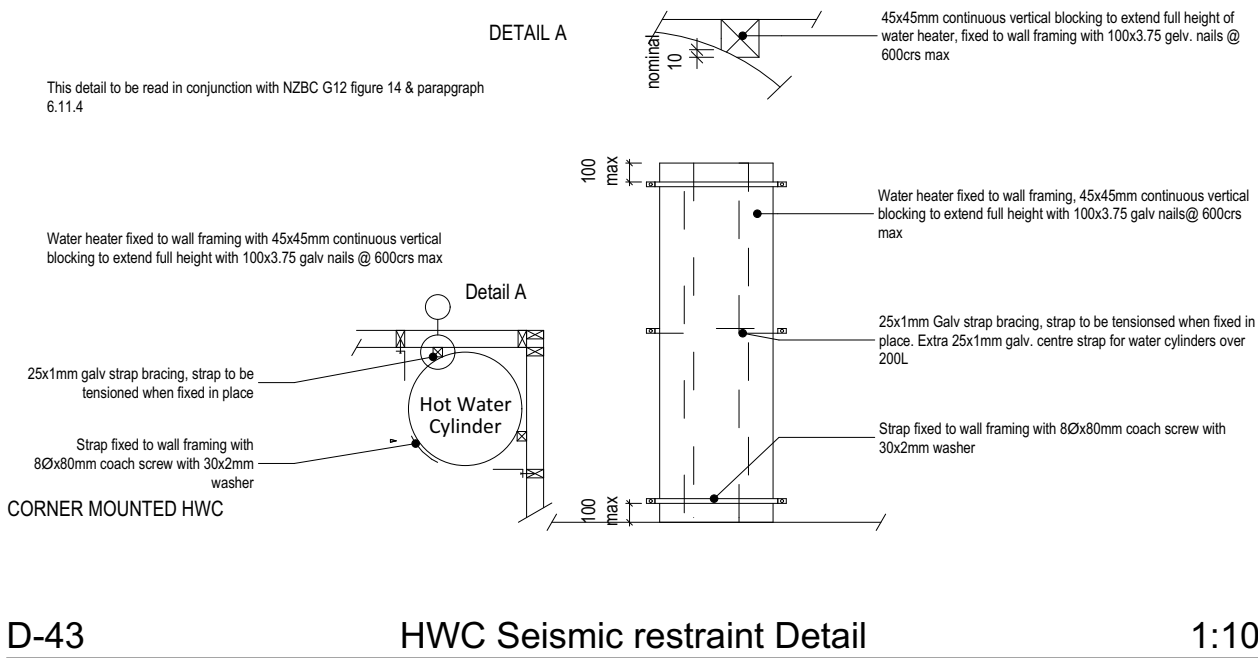


NOTE:
1. Max roof pitch 45°, minimum pitch 10° if base of flange covers one or more complete troughs
2. For pipes up to 85mm diameter

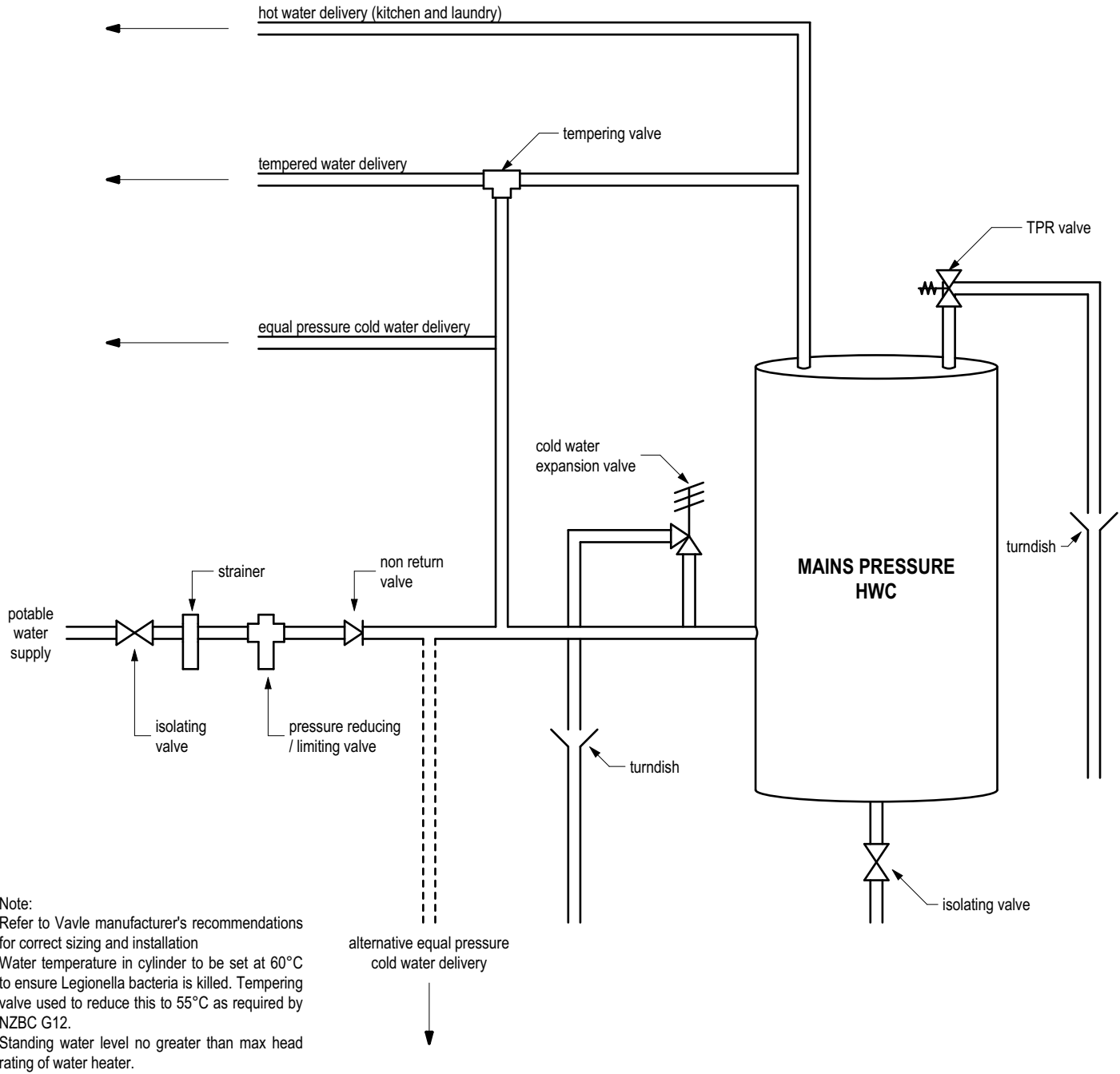
D-42 Roof penetration Detail 1:10

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	AMENDMENT DATE: 2/03/2017	VERSION: V1	JOB # 16184D, N2113	OF: 35				



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D-44

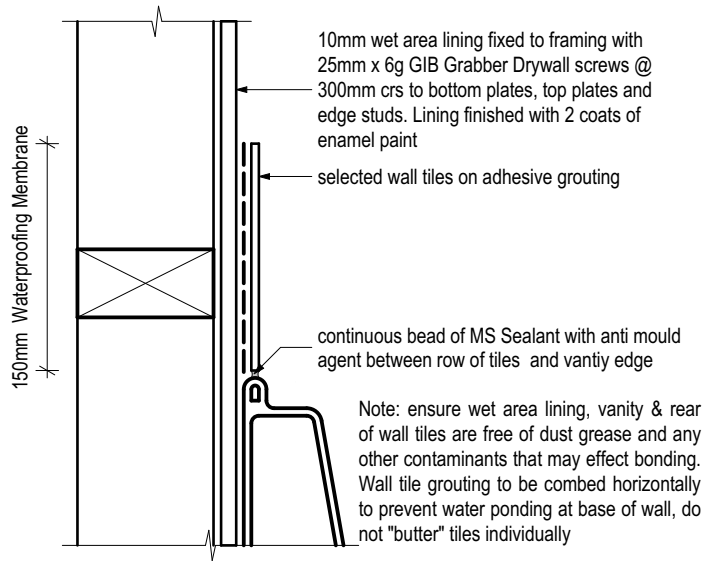
HWC schematic Detail

1:10

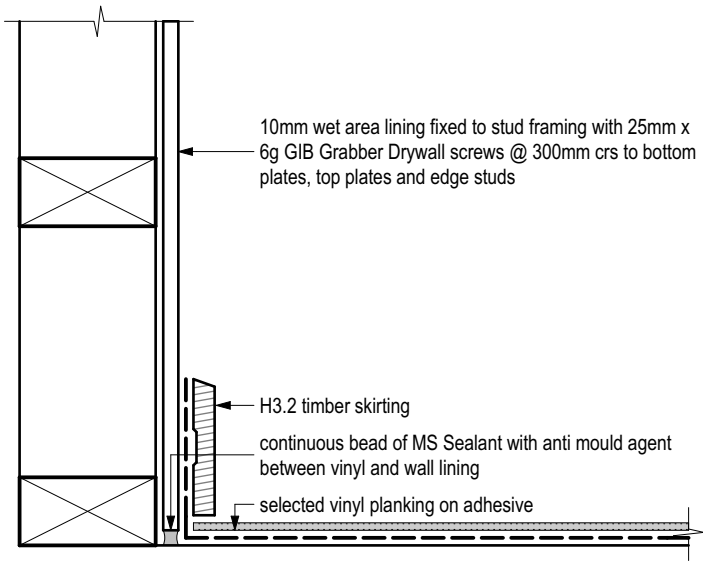
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					17/11/2016	JM	1:10	
					AMENDMENT DATE:	VERSION:	JOB #	
					2/03/2017	V1	16184D, N2113	

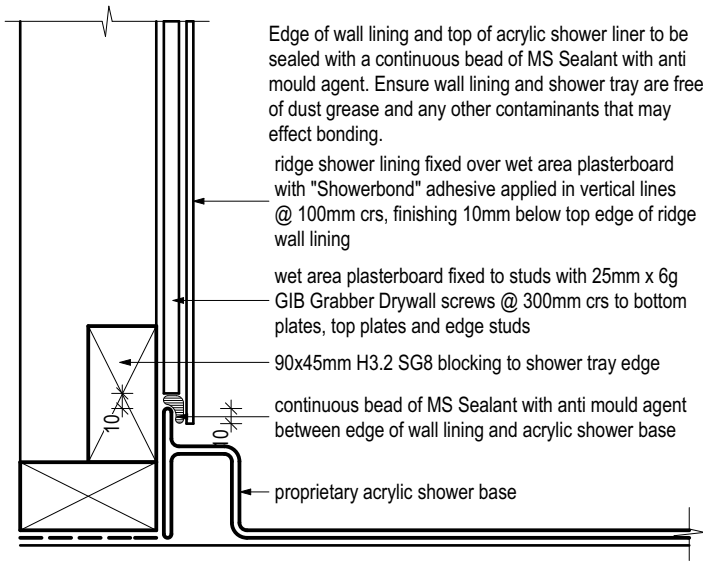
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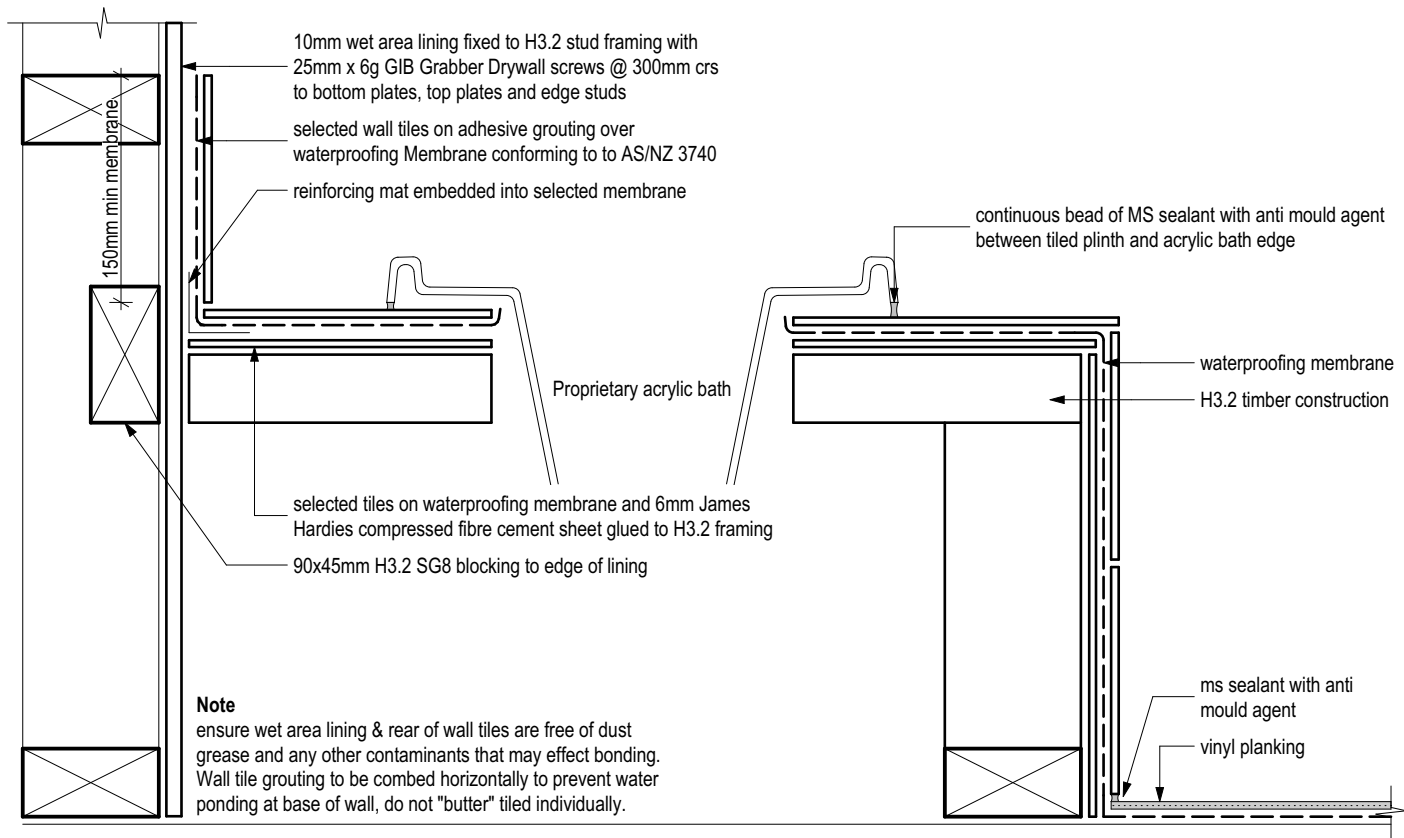
D-45 Tile to vanity edge Detail 1:5



D-46 Vinyl planking to wall Detail 1:5



D-47 Acrylic wall to shower base Detail 1:5



D-48 Tiled bath cradle Detail 1:5

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Waterproofing System:
The following waterproofing membrane is to be used in accordance with its BRANZ Appraisal Certificate Number:

Mapei Aqua Defence #484 (2012)

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					AMENDMENT DATE: 2/03/2017	VERSION: V1	JOB # 16184D, N2113	

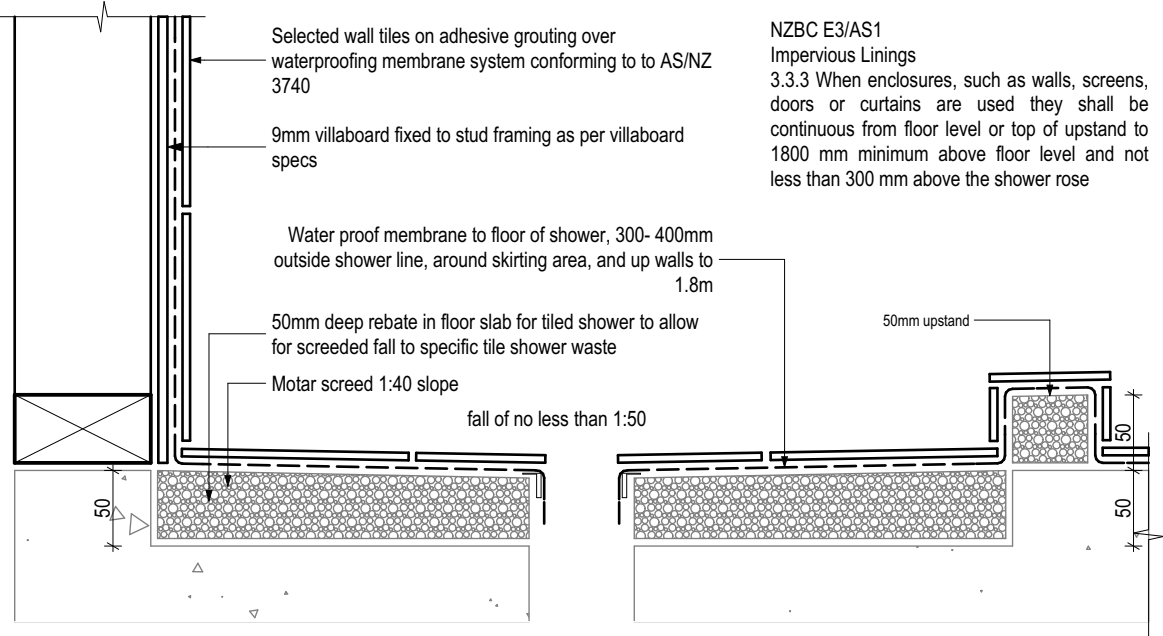
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TILED SHOWER NOTES:

Waterproofing System:
The builder is to select either of the following products (they are not to be used in conjunction with each other) and is to be used in accordance with their BRANZ Appraisal Certificate Number:
Mapei Aqua Defence #484 (2012)

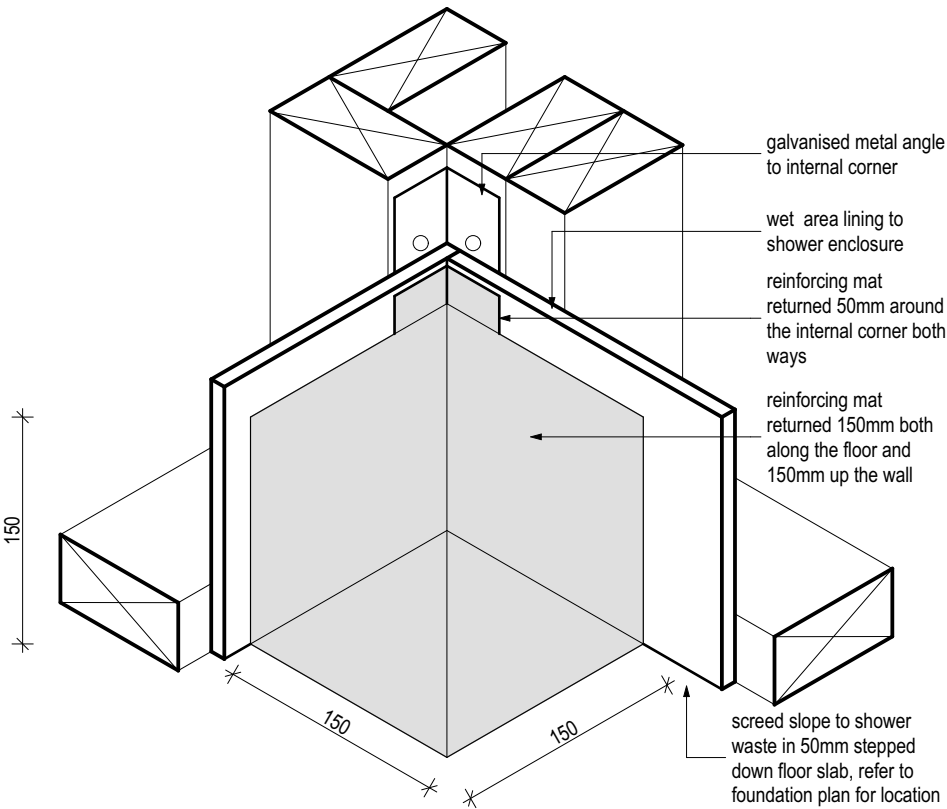
Shower base to be constructed with a fall to the waste to prevent ponding as per E3/AS1.
Recommended waste being Allproof Tile Waste to allow the membrane to return down the waste and provide sub tile draining.
Wall sheeting to be fixed in accordance with manufacturers instructions.
Upstands are to be of non-porous materials, manufacturer to install.
Enclosures, shall be continuous from floor level or top of upstand to 1800mm minimum above floor, and not less than 300mm above the shower rose. Refer E3/AS1.
The floor shall have a fall of no less than 1:50 towards the floor waste. The fall shall apply to the floor area within a radius of 1500mm taken from a point vertically below the shower rose, or from any wall within that radius.
As per Branz Good Tiling Practice it is advisable to apply the waterproofing membrane over the mortar bed screen to prevent the screed from retaining moisture inducing mould. This is only possible if the membrane is able to return down the waste. ie: Allproof waste.

Tiled Wall / Shower Linings:
9mm Villaboard can be used for tiles over 8mm thick, between 31-60kg/m2, and 300x600mm, 400x400mm and 300x900mm tile size with studs at 400crs max.
As per Villaboard^(R) Lining Installation Manual September 2014.

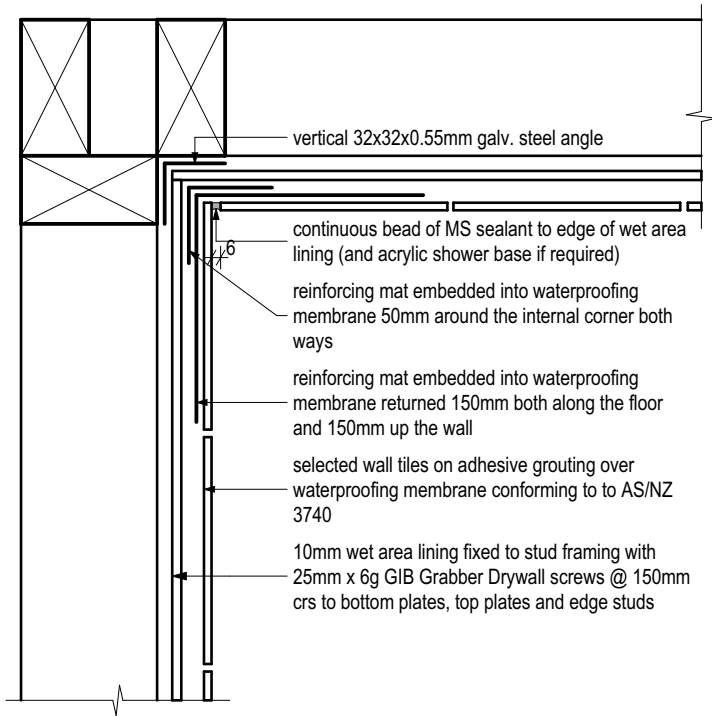


D-49 Tiled shower rebate Detail 1:5

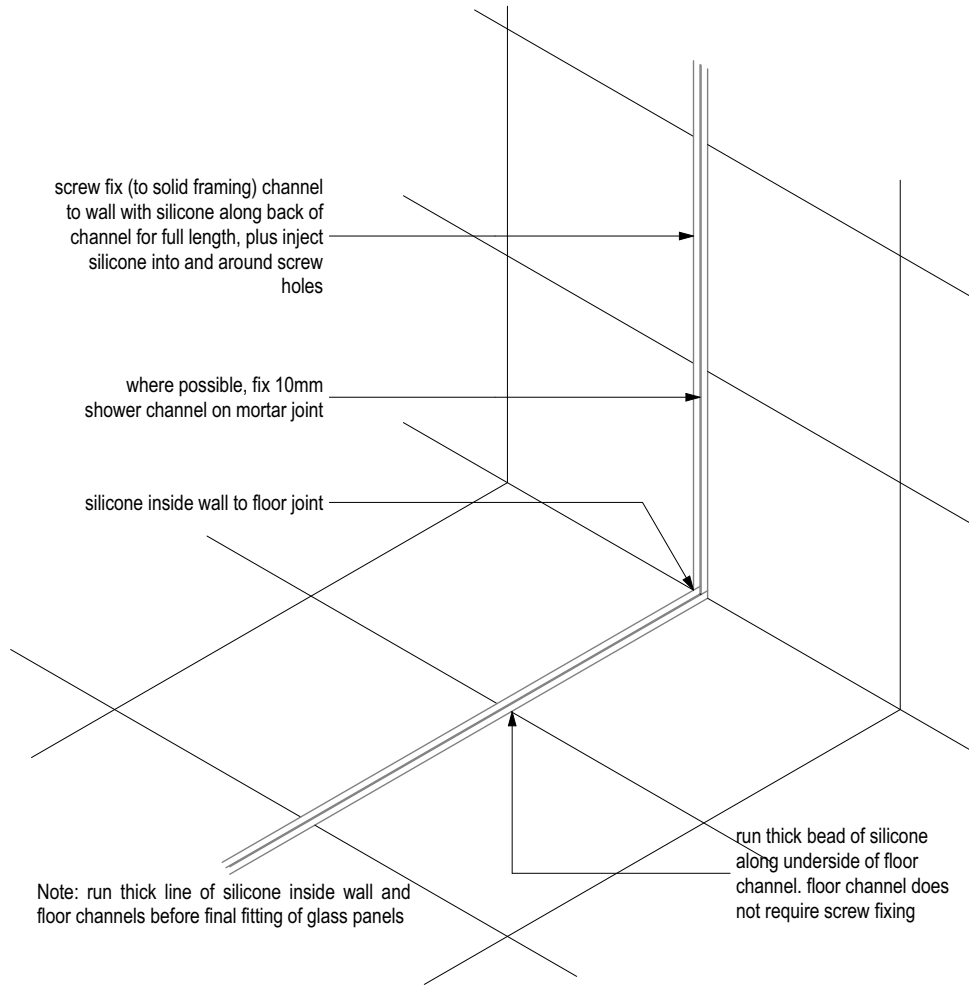
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D-50 Tiled wall to floor junct. Detail 1:5



D-51 Internal corner Detail 1:5



D-52 Glass fixing Detail 1:5

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	Mike Greer Homes North Canterbury	TILED SHOWER DETAILS	Lot 77, DP 497145, 42 Watkins Drive, Highgate Estate, Rangiora	- Subject to council approval - All measurements to be confirmed on site by the contractor prior to the commencement of work © 2010 Mike Greer Homes Limited. All rights reserved. No part of this work covered by copyright may be reproduced or copied in any form or by any means without the written permission of Mike Greer Homes Limited	17/11/2016	JM	1:5	A35
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