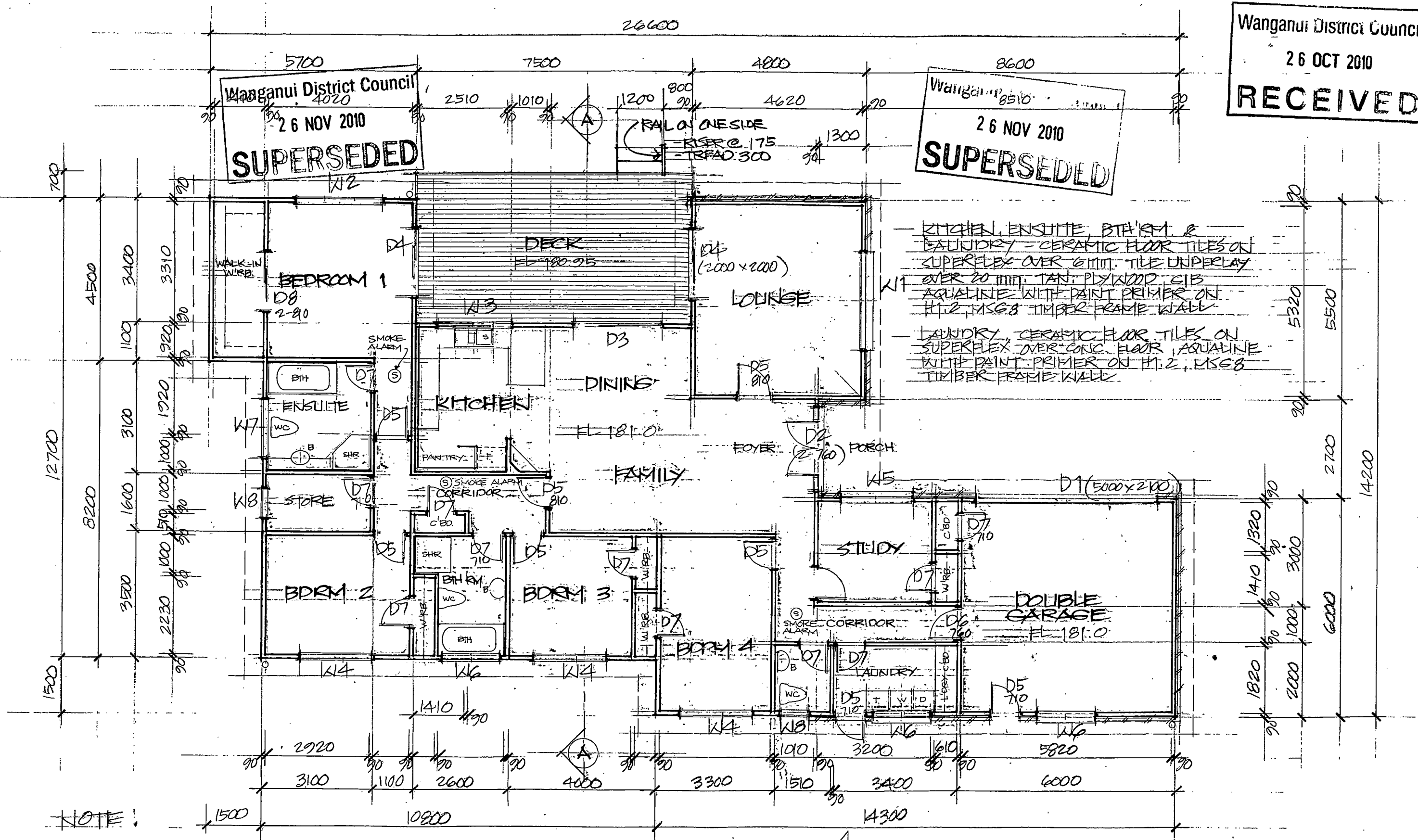


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NOTE:
REFER TO ENGINEER'S
WALL BRACING PLAN

JOB TITLE A NEW SINGLE STOREY DWELLING AT LOT 28 UTHGOW DRIVE, WANGANUI	DRAWING TITLE GROUND FLOOR PLAN FLOOR AREA - 246.8 m ²	DRAWN TMR SCALE 1:100	DATE 17 OCT. 2010 JOB NO 2195	SHEET NO ND-03
---	--	--	--	--------------------------

NEW LAND OR PROPERTY AT 224

DATE: 6/06/2007 7:37 AM

Document email type: Routing Form for New Land or
Property after 224 (detail of new
land required first then forward
for new property)

SubRes Number: RetSubs/1304

Unique ID: 81990

Developed From Land/Property (Original)

Land No.	Legal Description	Property No.	Address
27511	LOT 2 DP 82518 0.2499 Ha	26233	Virginia Rd WANGANUI 5001
12989	LOT 1 A 3170 Part 5.8824		
26191	Ha LOT 2 DP 80725 0.6833 Ha		

Please ensure all the above auto entry's have supplied correct land/properties as per the following legal descriptions:

LOT 2 DP 82518 0.2499 Ha
LOT 1 A 3170 Part 5.8824 Ha
LOT 2 DP 80725 0.6833 Ha

Subdivision Number: RetSubs/1304

DP Number (LT): 378698

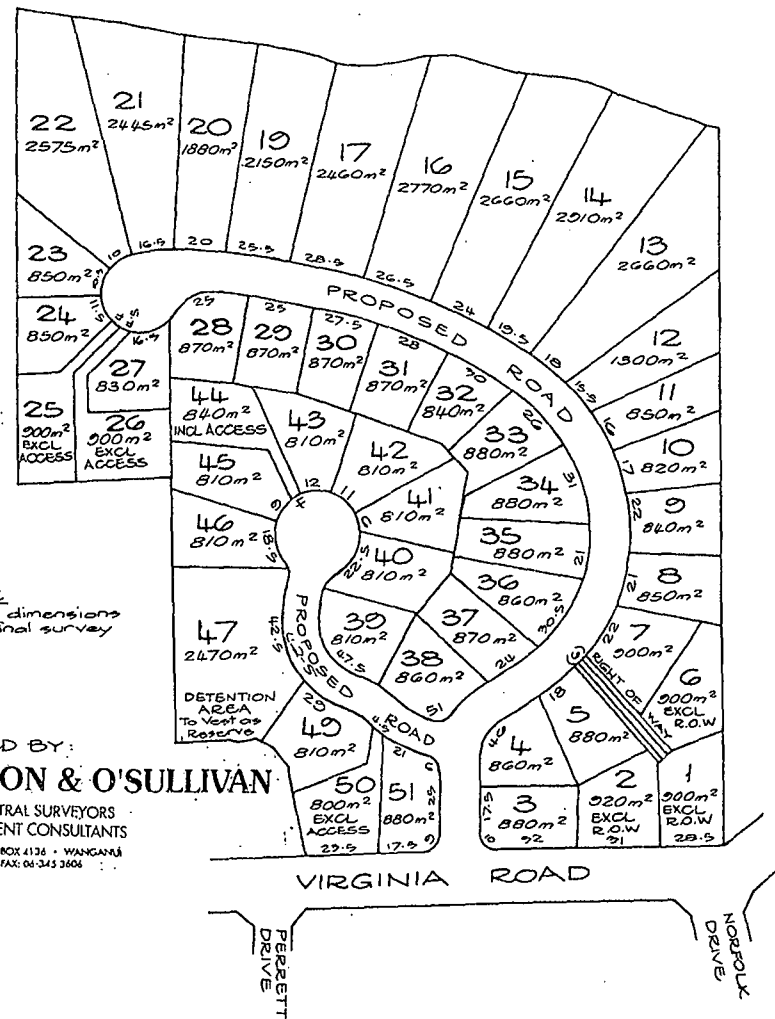
Developed Into Land/Property (New)

Lot No.	Area Ha	New Address	New Land #	New Property #
1	0.0982 ha	10 Lithgow Drive ✓	37570	
2	0.1045 ha	8 Lithgow Drive ✓	37575	
3	0.0874 ha	2 Lithgow Drive ✓	37580	
4	0.0896 ha	4 Lithgow Drive ✓	37585	
5	0.0926 ha	6 Lithgow Drive ✓	37590	
6	0.0996 ha	12 Lithgow Drive ✓	37595	
7	0.0901 ha	14 Lithgow Drive (BC Infield) ✓	37600	
8	0.0849 ha	16 Lithgow Drive (BC Pollero) ✓	37610	
9	0.0832 ha	18 Lithgow Drive ✓	37615	
10	0.0833 ha	20 Lithgow Drive ✓	37620	
11	0.0868 ha	22 Lithgow Drive (BC Jansen) ✓	37625	
12	0.1309 ha	24 Lithgow Drive (BC Dave Hall) ✓	37630	
13	0.2544 ha	26 Lithgow Drive ✓	37635	
14	0.2726 ha	28 Lithgow Drive ✓	37640	
15	0.2620 ha	30 Lithgow Drive ✓	37645	
16	0.2688 ha	32 Lithgow Drive ✓	37650	
17	0.2373 ha	34 Lithgow Drive ✓	37655	
19	0.2054 ha	36 Lithgow Drive ✓	37660	
20	0.1763 ha	38 Lithgow Drive ✓	37665	
21	0.2224 ha	40 Lithgow Drive ✓	37670	

22	0.2764 ha	42 Lithgow Drive ✓	37675
23	0.0892 ha	44 Lithgow Drive ✓	37680
24	0.0868 ha	31 Lithgow Drive ✓	37685
25	0.1002 ha	29 Lithgow Drive ✓	37690
26	0.1043 ha	27 Lithgow Drive ✓	37695
27	0.0831 ha	25 Lithgow Drive ✓	37700
28	0.0870 ha	23 Lithgow Drive ✓	37705
29	0.0870 ha	21 Lithgow Drive ✓	37710
30	0.0869 ha	19 Lithgow Drive ✓	37715
31	0.0887 ha	17 Lithgow Drive ✓	37720
32	0.0831 ha	15 Lithgow Drive ✓	37725
33	0.0881 ha	13 Lithgow Drive ✓	37730
34	0.0891 ha	11 Lithgow Drive (BC Van de Lubbe) ✓	37735
35	0.0877 ha	9 Lithgow Drive (BC Dallas) ✓	37740
36	0.0865 ha	7 Lithgow Drive (BC Jones) ✓	37745
37	0.0869 ha	5 Lithgow Drive ✓	37750
38	0.0898 ha	2 Webster Place ✓	37755
47	0.2469 ha	Vesting on Deposit for local purpose Reserve	37760
48	0.8912 ha	Balance (Stage 2)	37765
50	0.0866 ha	3 Webster Place ✓	37770
51	0.0872 ha	1 Webster Place ✓	37775
52	0.7480 ha	Vesting on Deposit for Road	37780

Mail

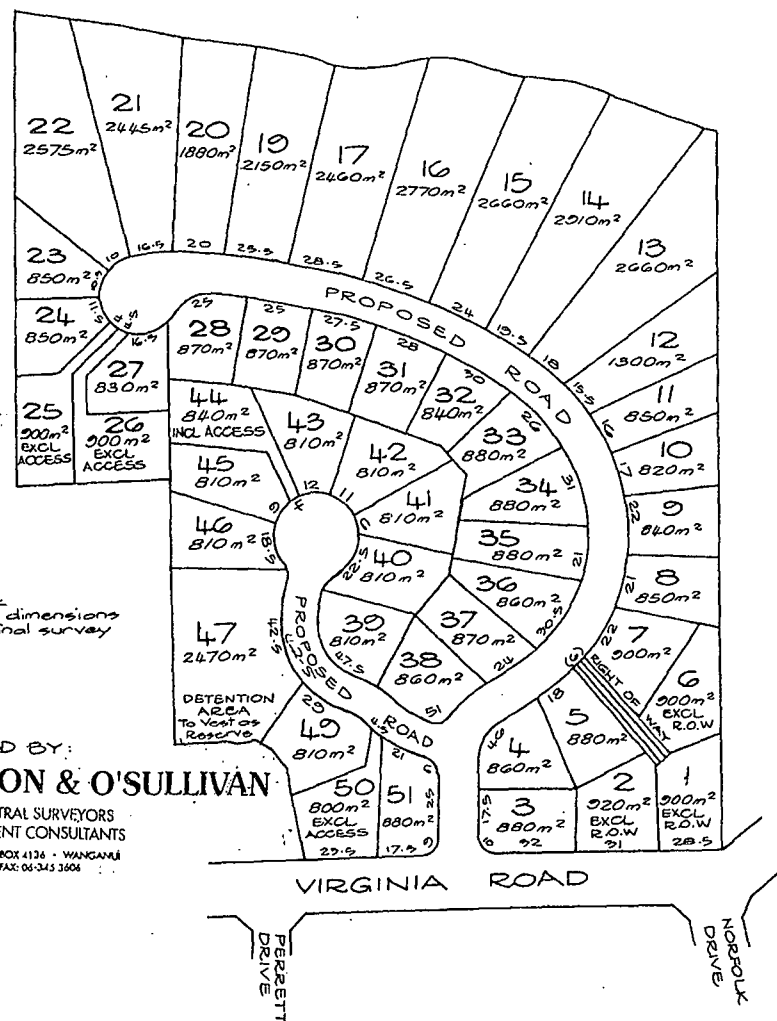
After adding new land/s in Proclaim the responsible officer must set this APPLICATION (RETSUBS/1304 No.) – EVENT 'CREATE FUTRURE PROPERTIES', as 'COMPLETED'. This will notify officers responsible for further events.



NOTE
Areas and dimensions
subject to final survey

PREPARED BY:
HARRISON & O'SULLIVAN
LICENSED CADASTRAL SURVEYORS
LAND DEVELOPMENT CONSULTANTS
13 CHURCH PLACE • P.O. BOX 4136 • WANGANUI
TELEPHONE: 06-345 8978 FAX: 06-345 3606

05-002

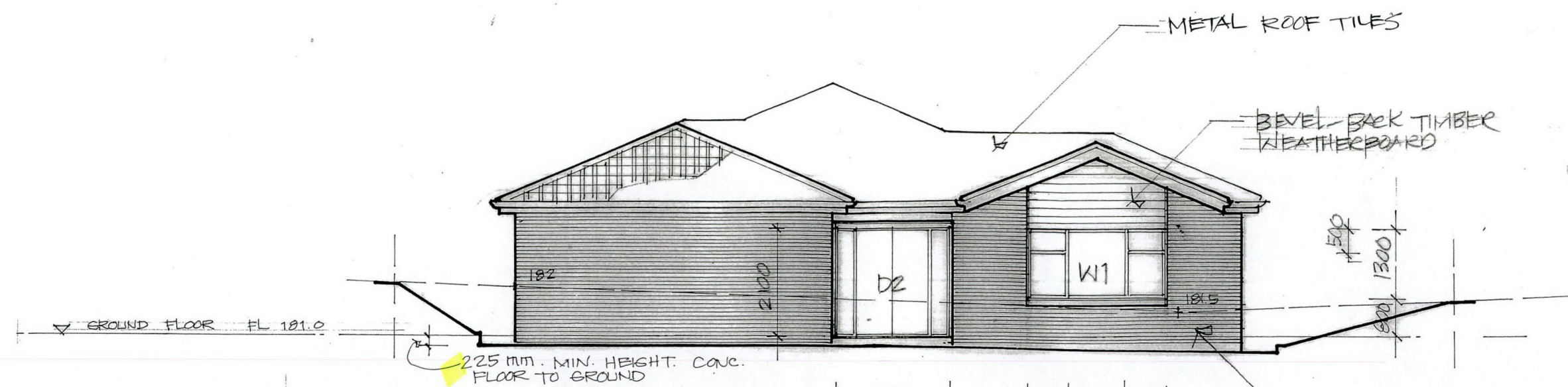


NOTE
Areas and dimensions
subject to final survey

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05-002

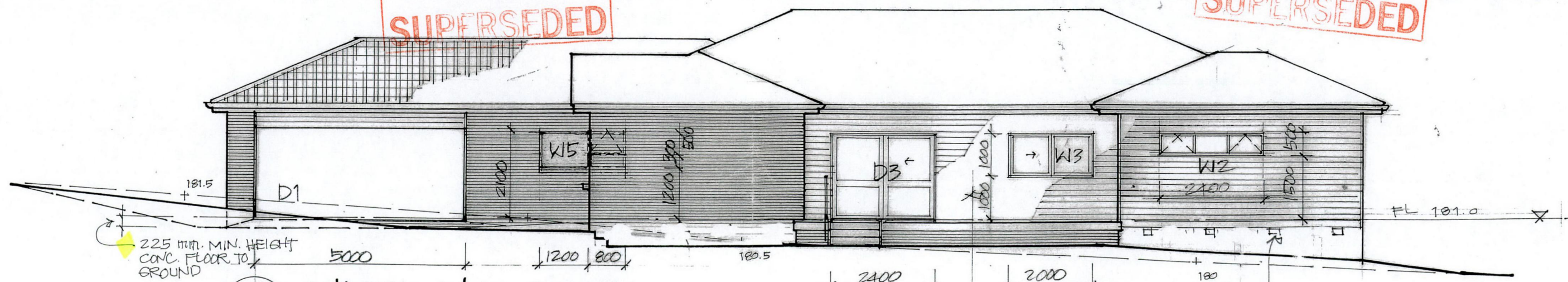
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1 NORTH ELEVATION

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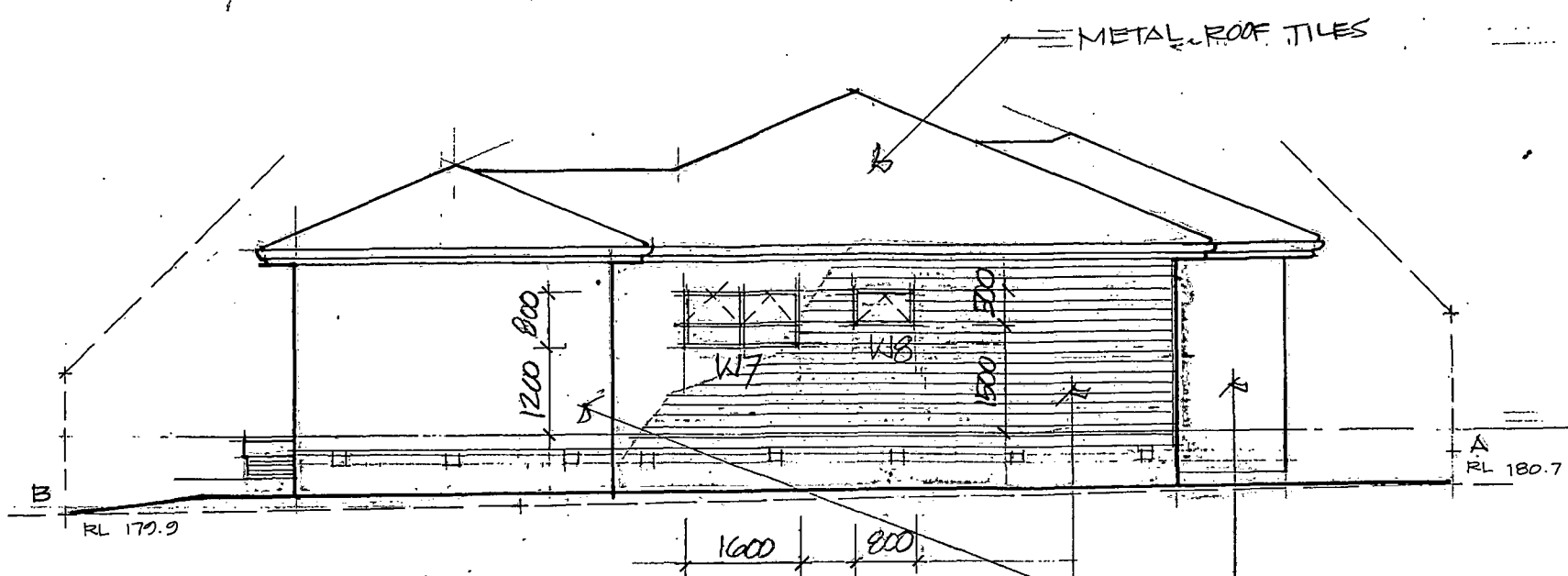
2 WEST ELEVATION

BEVEL-BACK TIMBER WEATHERBOARD

JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 (23) LITLOCK DRIVE, WANGANUI	NORTH & WEST ELEVATIONS

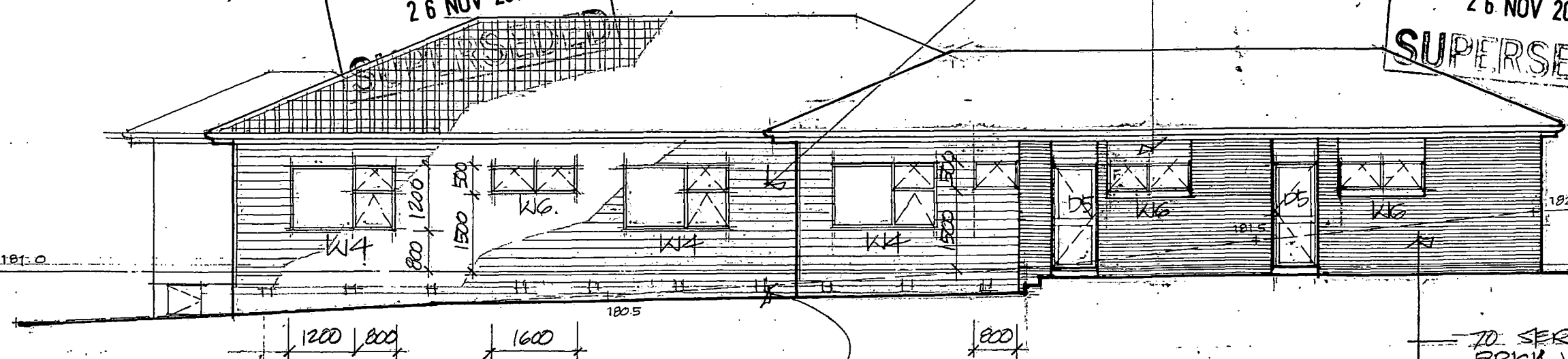
DRAWN	DATE	SHEET NO
THR	17 OCT. 2010	ND-05
SCALE	JOB NO	
1:100	2195	

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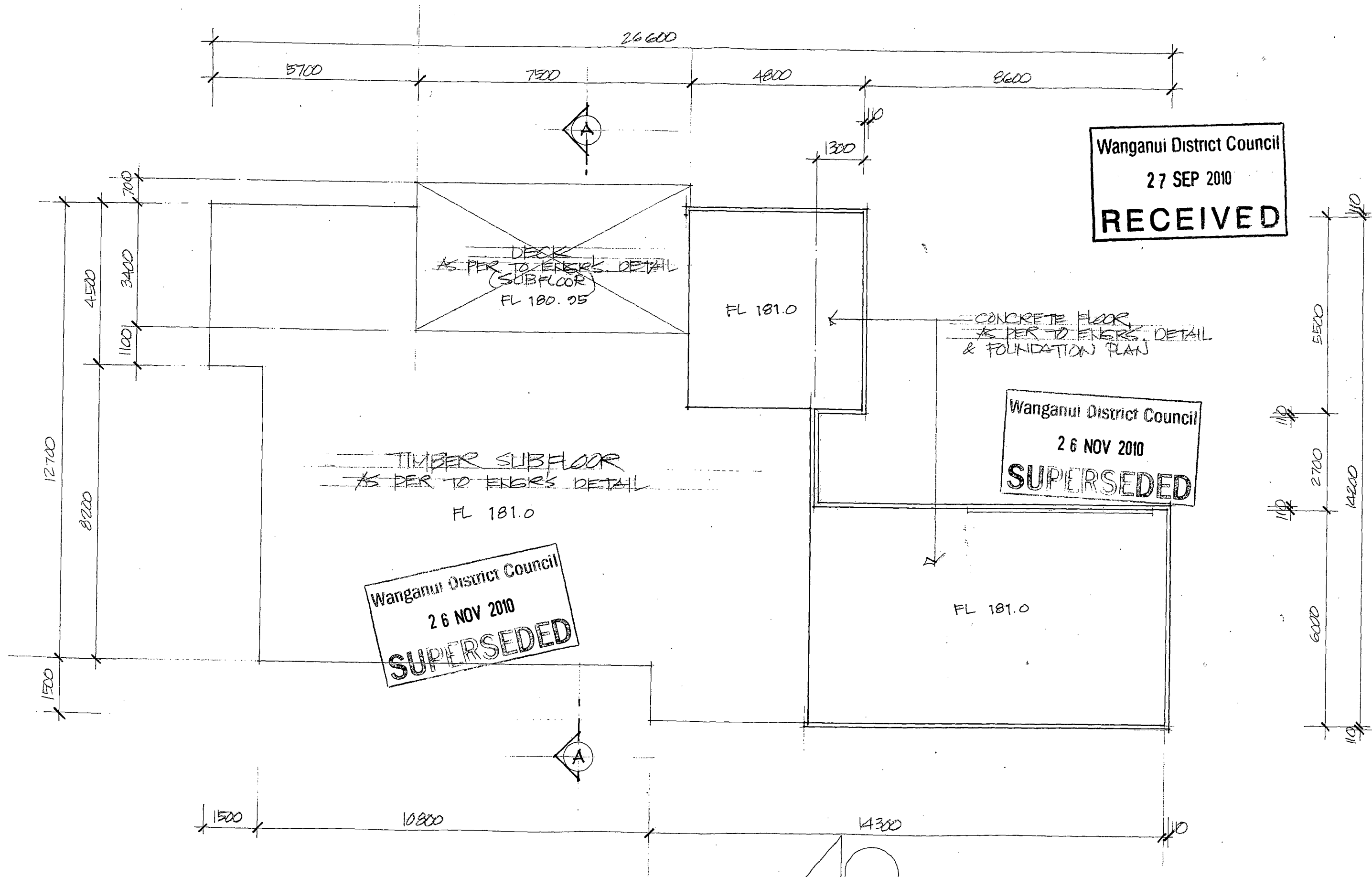
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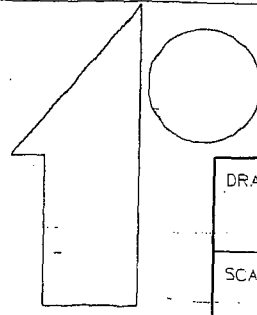
EAST ELEVATION

JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITHGOW DRIVE, WANGANUI	SOUTH & EAST ELEVATIONS

DRAWN	DATE	SHEET NO
THIR	17 OCT. 2010	ND-06
SCALE	JOB NO	
1:100	2125	



JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITHGOW DRIVE, WANGANUI	FOUNDATION PLAN

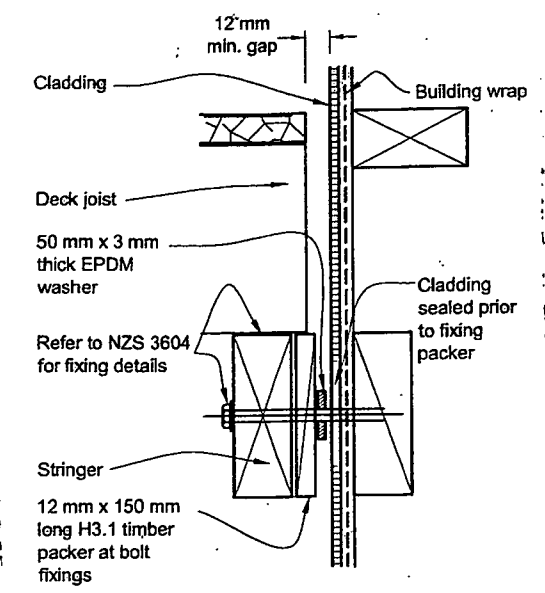
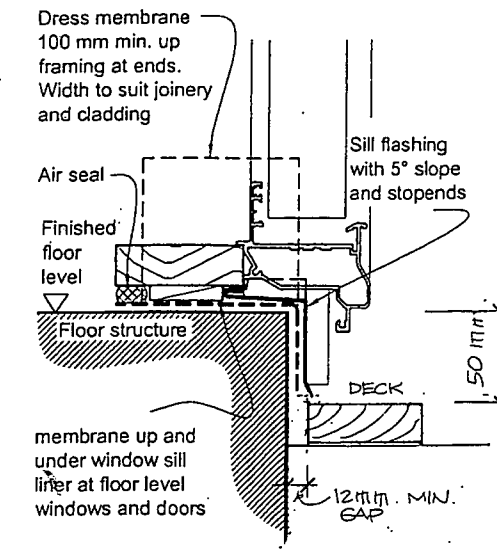


DRAWN TMR	DATE 21 SEPT. 2010	SHEET NO ND-07
SCALE 1:100	JOB NO 2195	

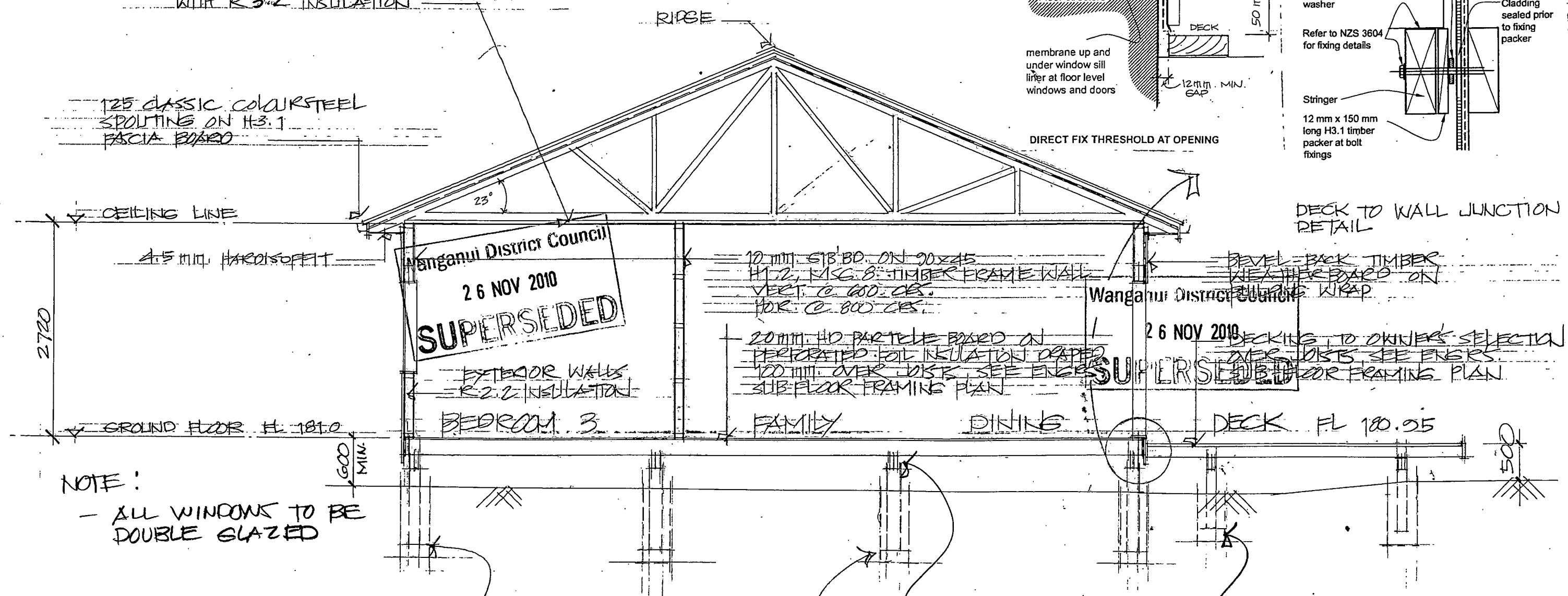
METAL TILES ON 50x40 H1.2
BATTENS ON ROOF UNDERLAY OVER TRUSSES
@ MAX 900 CRS. TO APPROVED SUPPLIER

10mm GIB'BD CEILING LINING ON
70 x 35 BATTEN @ 450 MAX CRS.
WITH R3.2 INSULATION

125 CLASSIC COLOURSTEEL
SPOLTING ON H3.1
FASCIA BOARD



DECK TO WALL JUNCTION
DETAIL



NOTE:
- ALL WINDOWS TO BE
DOUBLE GLAZED

ROOF FIXINGS:

PURLINS _ 2-90X3.15 (POWER DRIVEN) NAILS

ROOF TRUSSES AT SUPPORT _ 2-100X3.75 SKEWED NAILS + 2 WIRE DOGS

LINTEL TO TRIMMING STUD _ 3-90X3.15 (POWER DRIVEN) NAILS

STUD TO PLATE _ 3-90X3.15 (POWER DRIVEN) NAILS

TOP PLATE TO LINTEL _ 3-90X3.15 (POWER DRIVEN) NAILS

CEILING BATTEN TO BOTTOM TRUSS _ 2-90X3.15 (POWER DRIVEN) NAILS

ALL FIXINGS WITHIN
600 MIN. OF FINISHED
GROUND LEVEL
SHALL BE STAINLESS STEEL

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JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITHGOW DRIVE, WANGANUI	CROSS SECTION A-A DETAIL

DRAWN	DATE	SHEET NO
TMR	17 OCT. 2010	ND-09
SCALE	JOB NO	
1:50	2195	

TRUSS DESIGN CRITERIA

Customer name : LOT-28

Site address : LOT 28 LITHGOW DR
WANGANUIDESIGN CRITERIA

Roofing - Corrugated Iron
Ceiling - Gib Board (12.5mm)
Top chord purlins - 900 mm
Bottom chord restraints - 600 mm
Standard truss spacing - 900 mm
Standard roof pitch - 23.00 deg

Design wind speed - 44 m/s (ultimate)

Classification - N3

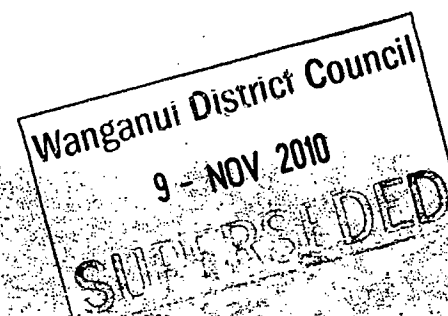
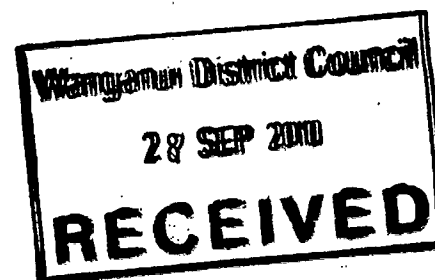
Internal pressure coefficient up - 0.3

The truss designs for this job have been determined using computer software provided by the Technical Division within Pryda Truss Systems. These designs are in accordance with sound and widely accepted engineering principles and comply with the following New Zealand Standards:-

NZ4203 : 1992 General Structural Design and Design Loadings for Buildings
NZ3603 : 1993 Timber Design
AS1649 : 1974 Determination of Basic Working Loads for
Metal Fasteners for Timber

All trusses shall be manufactured in accordance with the fabrication specifications provided by Pryda, and installed, connected and braced in accordance with the recommendations given in - :
AS4440:2004 "Installation of nailplated timber roof trusses"
and any other supplementary details that may be provided.

Name : Dean Pearce Position: Truss Sales
Signed : [Signature] Date : 23-10-2010



Allen Perman

3 Walpole Street, Cambridge Ph (07) 827-9272 Fax (07) 827-9203

9:43am 5 MAY 2008

V 13.3 PAGE 2
b Ref: LOT-28

TRUSS REACTIONS REPORT

Client Details
LOT-28Site Address
LOT 28 LITHGOW DR
WANGANUI

O/N : Date Reqd:

Truss Mark	Support at Joint	(1.4G) (kN)	Max.Reaction (1.2G+1.6Q2) (kN)	Uplift (0.9G+WuPl) (kN)	Uplift fixing	Special bearing requirement
S1	1	1.9	3.5	-4.9	2/MG	
S1	7	1.9	3.5	-4.9	2/MG	
S8	1	1.4	2.8	-3.3	2/Z NAILS	
S8	6	1.3	2.6	-3.3	2/Z NAILS	
SG2	1	3.3	6.0	-6.1	2/MG	
SG2	9	6.7	12.9	-14.9	2/WS6	
TGG1	1	3.3	6.2	-5.7	2/MG	
TGG1	8	7.1	14.6	-15.0	2/WS6	
TS1	1	1.1	2.6	-2.5	2/Z NAILS	
TS1	6	1.2	2.5	-3.0	2/Z NAILS	
TG1	1	3.9	10.2	-8.2	1/WS6(wr)	
TG1	7	3.2	7.4	-6.6	2/MG	
TS2	1	1.4	2.8	-3.4	2/Z NAILS	
TS2	6	1.4	2.6	-3.3	2/Z NAILS	
TG2	1	4.4	9.7	-10.4	1/WS6(wr)	
TG2	7	4.2	11.0	-10.0	1/WS6(wr)	
S10	1	0.6	2.1	-1.7	2/Z NAILS	
S10	4	0.8	2.1	-2.1	2/Z NAILS	
SG1	1	3.4	6.4	-7.6	1/WS6	
SG1	5	4.5	8.5	-10.2	1/WS6(wr)	
S2	1	3.2	5.5	-5.6	2/MG	
S2	5	3.2	5.5	-5.6	2/MG	
S3	1	1.3	2.5	-3.4	2/Z NAILS	
S3	5	1.3	2.5	-3.4	2/Z NAILS	
SG4	1	5.4	10.8	-12.9	2/WS6	
SG4	5	4.4	8.6	-10.4	1/WS6(wr)	
S7	1	0.7	2.0	-1.5	2/Z NAILS	
S7	5	0.7	2.0	-1.5	2/Z NAILS	
S6	1	1.8	3.2	-4.6	2/MG	
S6	5	1.8	3.2	-4.6	2/MG	
SG3	1	2.2	4.4	-6.0	2/MG	
SG3	5	4.6	8.7	-12.1	2/WS6	
S9	1	0.5	2.0	-1.4	2/Z NAILS	
S9	4	0.7	2.0	-1.9	2/Z NAILS	
S4	1	1.7	2.9	-4.2	2/MG	
S4	5	1.5	2.8	-3.5	2/Z NAILS	
S5	1	0.7	2.1	-1.8	2/Z NAILS	
S5	5	0.6	2.0	-1.3	2/Z NAILS	
SG5	1	4.5	10.1	-8.9	1/WS6(wr)	
SG5	5	2.5	5.5	-4.8	2/MG	
SG6	1	3.0	5.6	-7.0	2/MG	
SG6	5	1.7	3.2	-3.9	2/MG	
MTG1	1	1.2	2.5	-2.7	2/Z NAILS	
MTG1	4	1.4	4.0	-3.2	2/Z NAILS	
H1	1	0.8	2.2	-1.6	2/Z NAILS	
H1	4	1.1	2.5	-3.1	2/Z NAILS	
H7	1	0.0	1.5	-0.2	2/Z NAILS	
H7	2	0.0	1.4	-0.1	2/Z NAILS	
H7	3	0.0	1.6	-0.1	2/Z NAILS	

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TRUSS REACTIONS REPORT

Client Details
LOT-28

Site Address
LOT 28 LITHGOW DR
WANGANUI

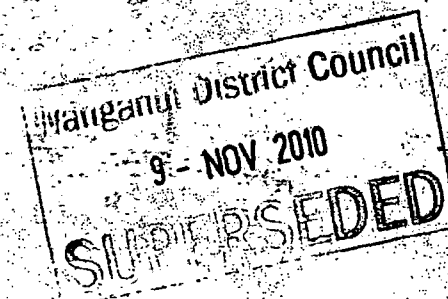
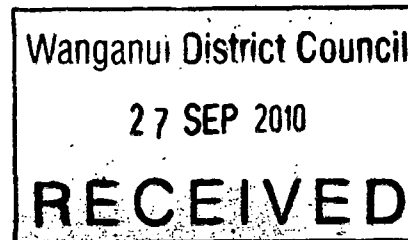
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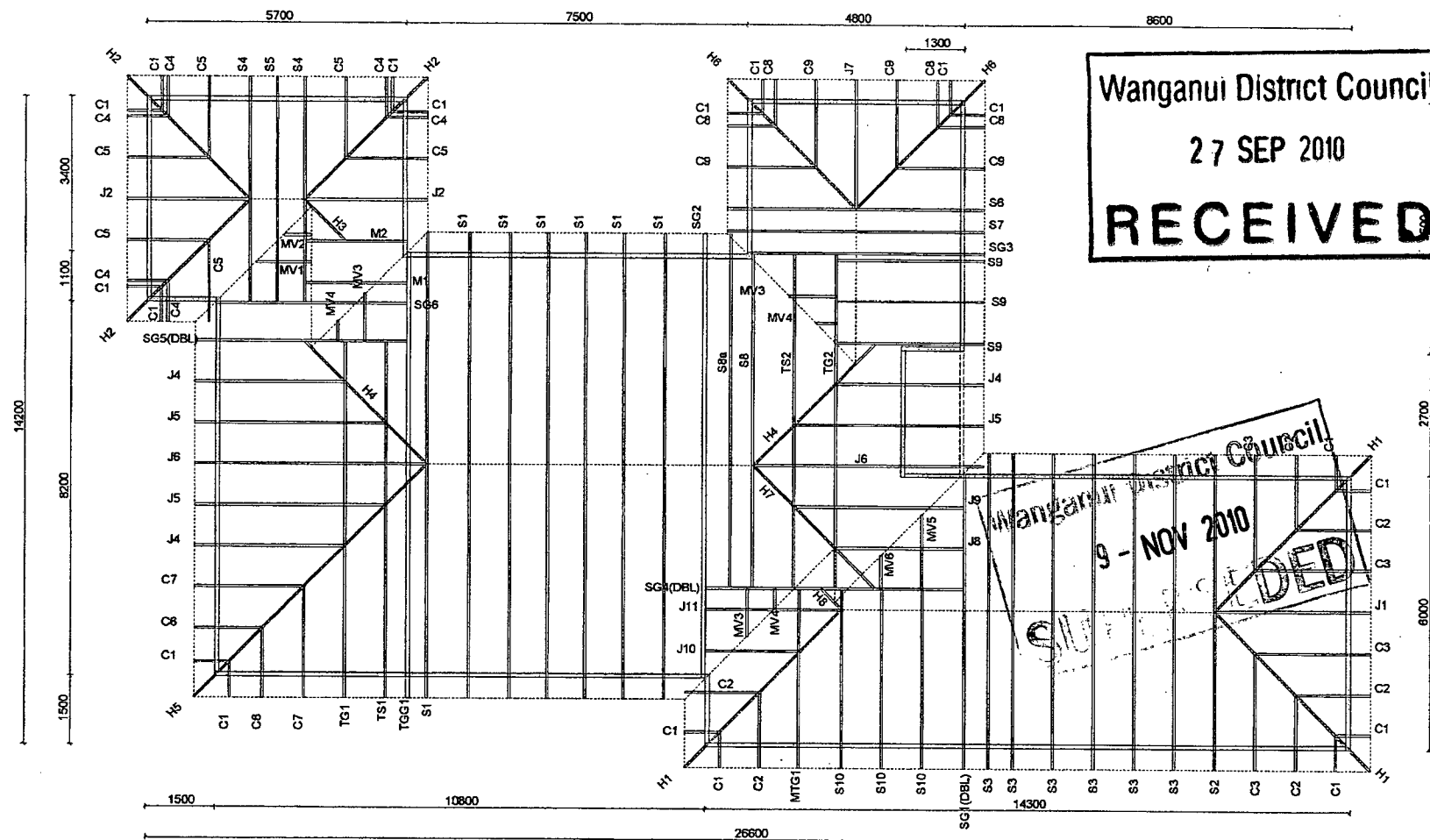
Truss Mark	Support at Joint	(1.4G) (kN)	Max.Reaction (1.2G+1.6Q2) (kN)	Uplift (0.9G+WeUpl) (kN)	Uplift fixing	Special bearing requirement
H5	1	0.7	2.2	-1.4	2/Z NAILS	
H5	4	1.0	2.4	-2.8	2/Z NAILS	
H4	1	0.0	1.5	-0.2	2/Z NAILS	
H4	2	0.0	1.4	-0.1	2/Z NAILS	
H4	3	0.0	1.6	-0.1	2/Z NAILS	
H6	1	0.6	2.1	-1.2	2/Z NAILS	
H6	3	0.7	2.2	-1.9	2/Z NAILS	
M2	1	0.6	1.9	-1.6	2/Z NAILS	
M2	4	0.3	1.8	-1.1	2/Z NAILS	
H3	1	0.0	1.5	-0.2	2/Z NAILS	
H3	2	0.0	1.4	-0.1	2/Z NAILS	
H3	3	0.0	1.6	-0.1	2/Z NAILS	
H2	1	0.5	2.1	-1.0	2/Z NAILS	
H2	3	0.6	2.1	-1.7	2/Z NAILS	
M1	1	0.3	1.7	-0.7	2/Z NAILS	
M1	4	0.3	1.8	-0.9	2/Z NAILS	
H8	1	0.0	1.5	-0.1	2/Z NAILS	
H8	2	0.0	1.4	0.0	2/Z NAILS	
H8	3	0.0	1.6	0.0	2/Z NAILS	
S8a	1	1.4	2.8	-3.3	2/Z NAILS	
S8a	6	1.5	2.8	-3.9	2/MG	

Note 1 :
All supports for bearing have been checked for 90mm JD4
and are satisfactory unless the bearing width and/or joint group
have been changed, or there is a reference to Note 2.

Fixing Summary :
All trusses not listed require a minimum of 2 Skew Nails
Z NAILS / 152 : Each side of truss
MG / 28 : 10 nails per fixing
WS6 / 1 : 4 nails per leg
WS6(wr) / 6 : Wrap around plate; 5 nails per leg
WS6 / 8 : 4 nails per leg

Legend :
2/Z NAILS Double Z-nails
2/MG Double Multigrip
1/WS6 Single Wind Strap 600mm long
1/WS6(wr) Single Wind Strap 600mm long wrapped
2/WS6 Double Wind Strap 600mm long

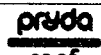




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Level 1



Customer : LOT-28
Site Address: LOT 28 LITHGOW DR

PDF created with FinePrint pdfFactory Pro trial version <http://www.pdffactory.com>

Roofing: Corrugated Iron
Pitch : 23.00 deg
Spacing: 900 mm
Design Wind Velocity: 44.00 m/s (Ult.)
Detailer: Allen Penman

Job Ref: LOT-28
Scale: 1:100
(on: A3)
Page 1 of 1

A03:01 CALCULATIONS: to NZS 4214 Methods of determining the total thermal resistances of parts of buildings.

0101 ROOF: to comply with NZS 4218P

RSI (for inside surface) 0.09 m² degC/W

Ceiling lining 0.04

R 2.4 PINK BATT'S 2.4

Unventilated air gap 0.43

Building paper over rafters -

Roof Material 0.07

RSO (for outside surface) 0.03

RT 3.06

0121 WALLS: to comply with NZS 4218P

RSI 0.09

Wall lining 0.04

R 2.2 PINK BATT'S 2.2

Air gap min 20 mm 0.18

Building paper -

Wall Material 0.03

RSO 0.03

RT 2.17

0131 TIMBER FLOOR:

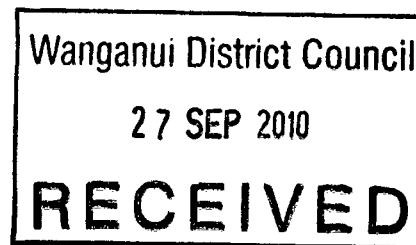
R = 0.9

Permitted combinations for Type A Construction

Roof	1.9	2.6	3.0
Walls	1.5	1.2	1.0
Floor	0.9	0.9	0.9

See NZS 4218 for Type B Construction and for Type A and B in the same building.

END OF SECTION



SCHEDULE METHOD SOLID TIMBER CONSTRUCTION

- LOT 28 LITAEOW DRIVE

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CLIMATE ZONE 1 & 2

BUILDING THERMAL ENVELOPE COMPONENT

1. ROOF - R 2.9
2. WALLS - external and internal 90mm. thick solid timber - R 1.9
3. FLOOR (vertical) - R 1.3
4. GLAZING (vertical & skylights) - R 0.26 (double glazed)

AREA OF GLAZING ON THE FOLLOWING:

1. EAST FACING

- Wall	<u>60.2 m</u>
- Glazing	<u>10.0 m²</u>

2. SOUTH FACING

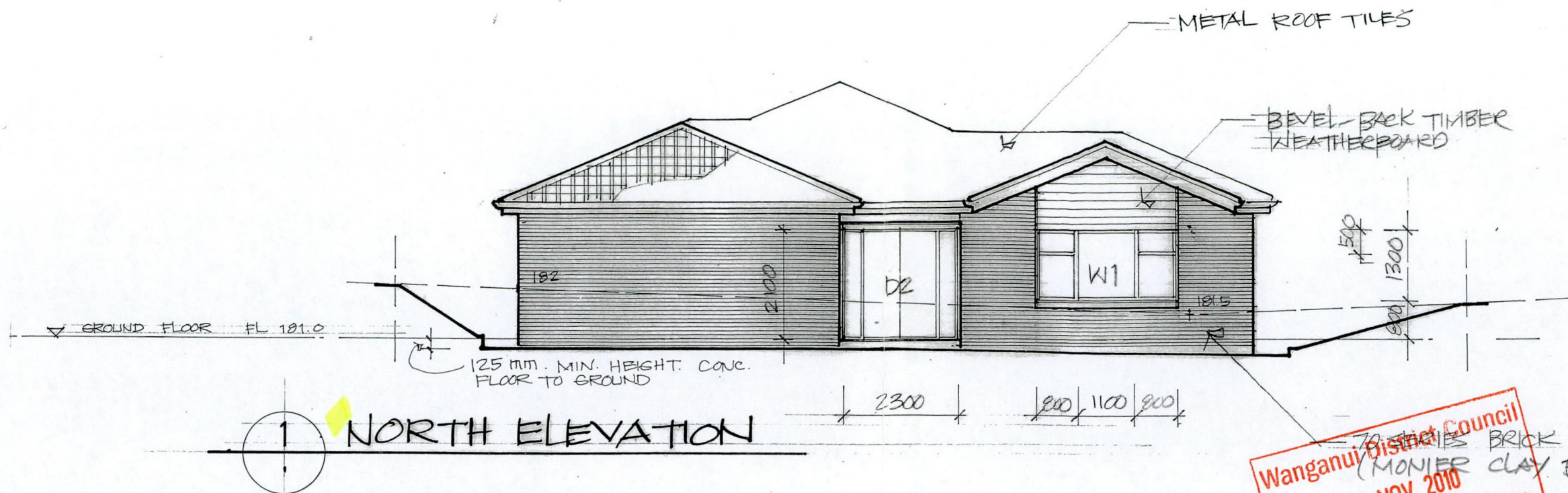
- WALL	<u>30.5 m²</u>
- GLAZING	<u>1.7 m²</u> - 5.6 %

3. WEST FACING

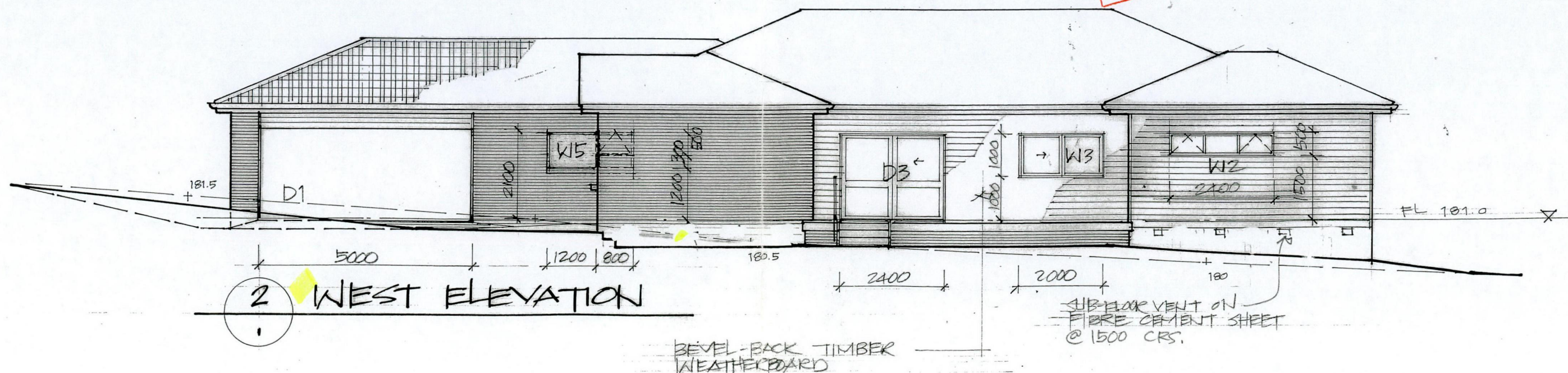
- WALL	<u>63.8 m²</u>
- GLAZING	<u>9.6 m²</u> - 15 %

CONCLUSION:

With less than 30% area will require double glazing on windows.

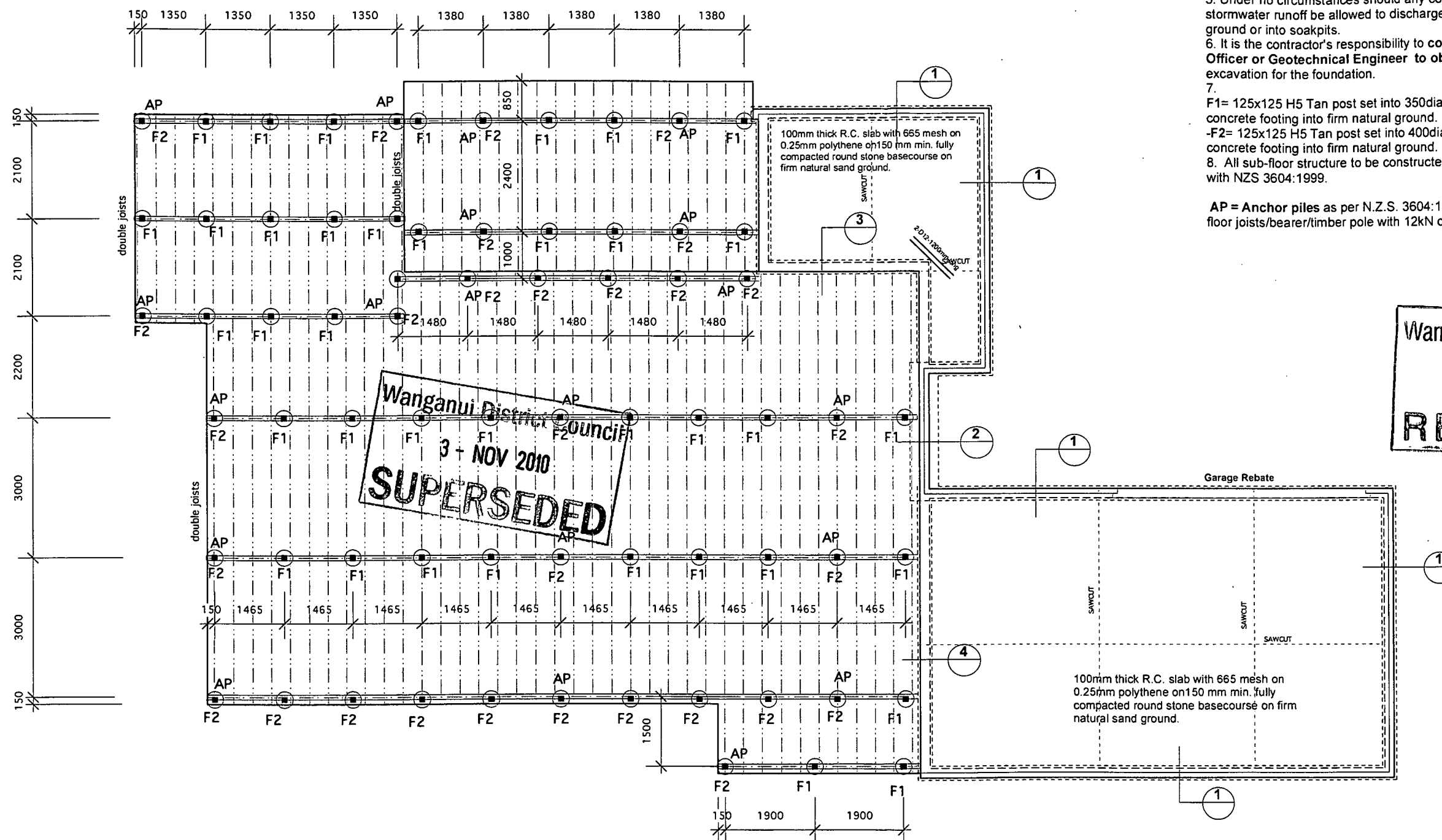


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JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 (23) LITHOOK DRIVE, WANGANUI	NORTH & WEST ELEVATIONS

DRAWN	DATE	SHEET NO
THR	17 OCT. 2010	ND-05
SCALE	JOB NO	
1:100	2195	



Foundation Plan

- Deck bearer: 2/150x50 H3.2 MSG8
- Deck joists: 150x50 H3.2 MSG8 at 400 crs.
- House bearer: 2/150x50 H3.2 MSG8
- House joists: 200x50 H1.2 MSG8 at 400 crs.
- F1= 125x125 H5 Tan post set into 350dia. 600 deep concrete footing into firm natural ground.
- F2= 125x125 H5 Tan post set into 400dia. 900 deep concrete footing into firm natural ground.
- AP= Anchor pile

NOTES:

1. Check all dimensions on site before construction.
2. This drawing to be read in conjunction with architectural drawings.
3. The saw cut should be cut to a depth of 20 and should be cut no later than 24 hours in summer, or 48 hours in winter, after the concrete is placed.
4. Concrete grade to 20 MPa min. at 28 days.
5. Under no circumstances should any concentrated stormwater runoff be allowed to discharge directly onto the ground or into soakpits.
6. It is the contractor's responsibility to contact Building Officer or Geotechnical Engineer to observe the excavation for the foundation.
7. F1= 125x125 H5 Tan post set into 350dia. 600 deep concrete footing into firm natural ground.
- F2= 125x125 H5 Tan post set into 400dia. 900 deep concrete footing into firm natural ground.
8. All sub-floor structure to be constructed in accordance with NZS 3604:1999.

AP = Anchor piles as per N.Z.S. 3604:1999. Connect floor joists/bearer/timber pole with 12kN connector.

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REVISIONS	DATE	COMMENTS
A	18 Oct 10	

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ENGINEER:

MEC ENGINEERING CONSULTANTS LTD.
STRUCTURAL & CIVIL ENGINEERS

76 MEDALLION DR ALBANY
P O BOX 301 131 ALBANY
AUCKLAND, NEW ZEALAND

TEL: 09 476 8184 FAX: 09 476 8186

PROJECT:

NEW HOUSE AT LOT 28, LITHGOW DRIVE WANGANUI

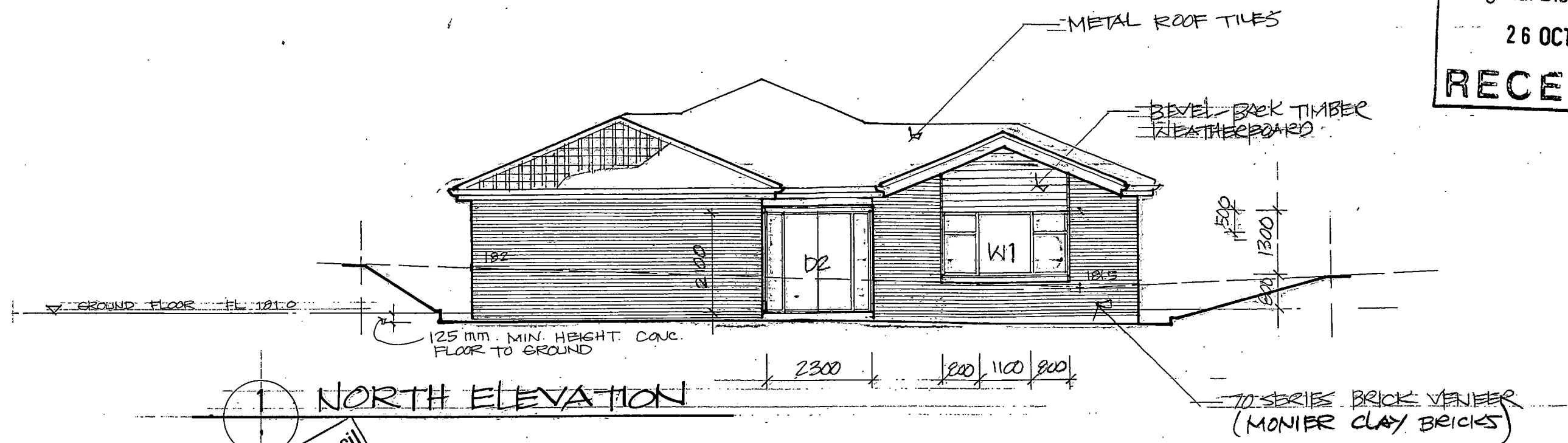
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FOUNDATION PLAN

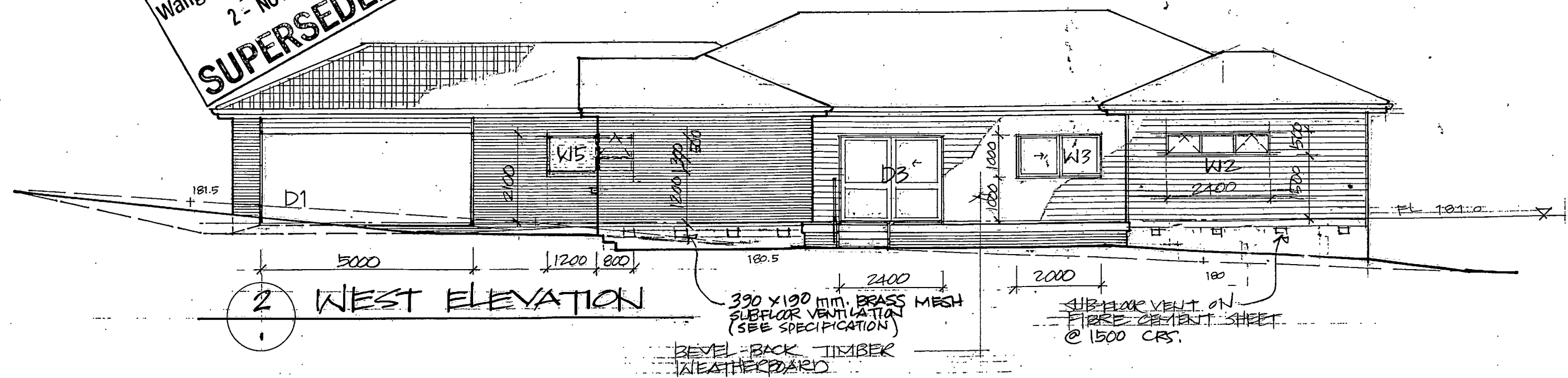
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CHECKED:	MM
DATE:	MARCH 2008
SCALE:	1:100 (A3)
JOB No:	REY 082
SHEET NO:	S 02

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JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITLOCK DRIVE, WANGANUI	NORTH & WEST ELEVATIONS

DRAWN	DATE	SHEET NO
THR	17 OCT. 2010	ND-05
SCALE	JOB NO	
1:100	2195	

NOTES:

GENERAL

1. All work to be in accordance with New Zealand Building Code. All codes refer to the current edition plus all amendments.
2. These drawings are to read in conjunction with the drawings and specification of other consultants e.g. Architect, Building Services, Electrical etc. The principal Consultant must be notified of any discrepancy between structural and other drawings.
3. Check all dimensions on site before construction.
4. During construction, the structure shall be maintained in a stable by means of temporary propping, bracing and guying and no part shall be overstressed.
5. Under no circumstances should any concentrated stormwater runoff be allowed to discharge directly onto the ground or into soakpits.
6. It is the contractor's responsibility to **contact Building Officer to observe** the excavation for the foundation.
7. All surplus excavated material shall be removed from this site.
8. Cut off all topsoil and weak soil layers down to strong natural clay.
9. Ensure cuts are nearly horizontal & slope so as to provide drainage. Terrace cuts if necessary. Base course to be suitable graded hardfill and compacted in layers not greater than 100 mm and in wet condition. The layers are to be completely compacted by a vibrating roller with a minimum compaction force that is equivalent to 4 tonnes. Use PVC D.P.C. between basecourse and concrete.

CONCRETE

1. Material and workmanship to be accordance with NZS 3109.
2. Minimum cover to principal reinforcement shall be:

Member	Against natural ground	Against boxing or screed concrete	Exposed to weather	Not exposed to weather
Foundations, Beams, Columns (principal reinforcing)	75mm	50mm	50mm	35mm

3. Minimum slump shall be:

Member	Concrete slump (max.)
Floor slab on ground	80mm

4. Concrete grades:

Foundations:	-20Mpa at 28 days
Floor slab:	-20Mpa at 28 days
Masonry infill:	-17.5 Mpa at 28 days

5. The saw cut should be cut to a depth of 20 and should be cut no later than 24 hours in summer, or 48 hours in winter after the concrete is placed. Supplementary reinforcing bars to be placed at each corner, 2D10, 1.2m long. Sawcut grids 5000x5000 maximum unless otherwise noted. Slab to be 100mm thick with 665 mesh as shown on detail.

REINFORCEMENT

1. Reinforcement is shown diagrammatically and is not necessarily shown in true projection.

2. Reinforcing has been designated:

- (a) High yield deformed ($f_y = 500\text{Mpa}$) e.g. HD16
- (b) Mild steel deformed ($f_y = 300\text{Mpa}$) e.g. D16
- (c) Mild steel plain ($f_y = 300\text{Mpa}$) e.g. R6

3. Laps in reinforcement to be made only in the positions shown and shall be (unless shown otherwise):

Deformed bars	D10	D12	D16	D20	D24	D28	D32	D40
Grade 300	400	480	640	800	1100	1250	1450	not permitted
Grade 500	480	580	770	1100	1500	1750	2000	permitted

4. Where laps not shown on the drawings, reinforcement in slabs and walls may, if approved, be lapped at random in a staggered pattern. Bars longer than 3m where length is critical for accurate placing should incorporate one lap according to the table above. No welding or heating of high yield bars is permitted.

5. Reinforcement in slabs is to be supported on stools or other approved methods - starters to be tied in place before pouring.

6. All reinforcement to be New Zealand manufactured steel bars to NZS 3402 or equivalent.

BLOCKWORK

1. All blockwork shall be under the direct supervision of a registered mason who shall provide continuous inspection. All work shall comply with NZS4210 Masonry Material and Workmanship.
2. Masonry is to be constructed by the "high lift" method with clean out ports at every vertical bar and at the bottom of every lift. Bottom course to be open ended bond beam blocks placed upside down.
3. Fix vertical bars before laying blocks and place vertical/horizontal bars as laying proceeds.
4. Blockwork to be 8MPa grade and all cells to filled unless otherwise noted.
5. Concrete for filling blockwork to have a compressive strength as shown in Concrete note 4 above.

STEEL WORK

1. All structural steelwork to be grade 300 unless noted otherwise complying with the appropriate standards listed in NZS 3404.
2. Bolted connection to be made with grade 4.6 bolts to AS 1111 with 2mm clearance to holes, unless shown otherwise, where high strength (grade 8.8) bolts to be used in accordance with AS 1252.
3. Bolts threads to be excluded from shear plane.
4. All welding to arc welding in accordance with NZS 4203 GP. All welds to be 6mm fillet weld continuous unless noted otherwise.
5. Do not paint steel work that is to be encased in concrete.
6. This set of structural steelwork drawings show the design intent. Shop drawings remain the responsibility of the contractor.
7. All holding down bolts and other fixing devices are to be set by a template and checked for level and position before concreting.
8. Check and verify all dimensions and levels on site before commencing fabrication of any structural steelwork.
9. Unless shown otherwise, all base plates shall bear directly on 25 + / 5mm of dry pack mortar.
10. Washers tapered where necessary, are to be used under all nuts and bolts heads.

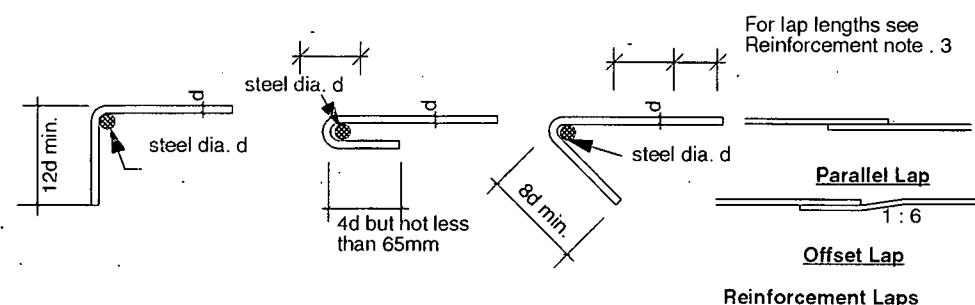
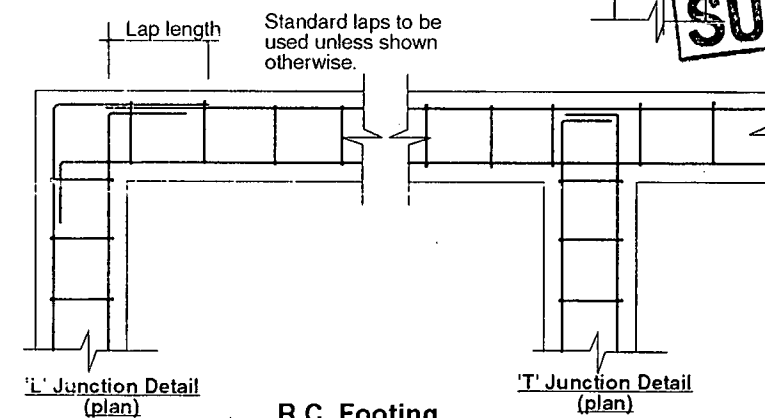
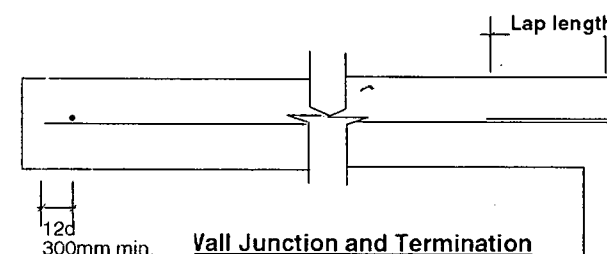
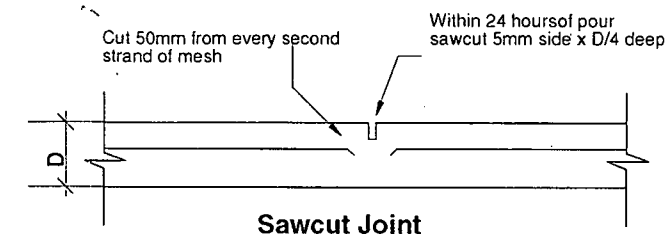
INSPECTION

Adequate notice is required by the engineer for inspection of the works. The contractor must be satisfied that the works have been completed in accordance with the drawings and specifications before requesting an inspection by the engineer.

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Main reinforcement

Steel grade	Bar size	min. dia. of bend
300MPa or 500MPa	6 - 20	5d
	24 - 40	6d

Ties and stirrups

Steel grade	Bar size	bar type	
		plain dia.	deformed dia.
300MPa or 500MPa	6 - 20	2d	4d
	24 - 40	3d	6d

Reinforcing Bends

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ENGINEER:
MEC ENGINEERING CONSULTANTS LTD.
STRUCTURAL & CIVIL ENGINEERS

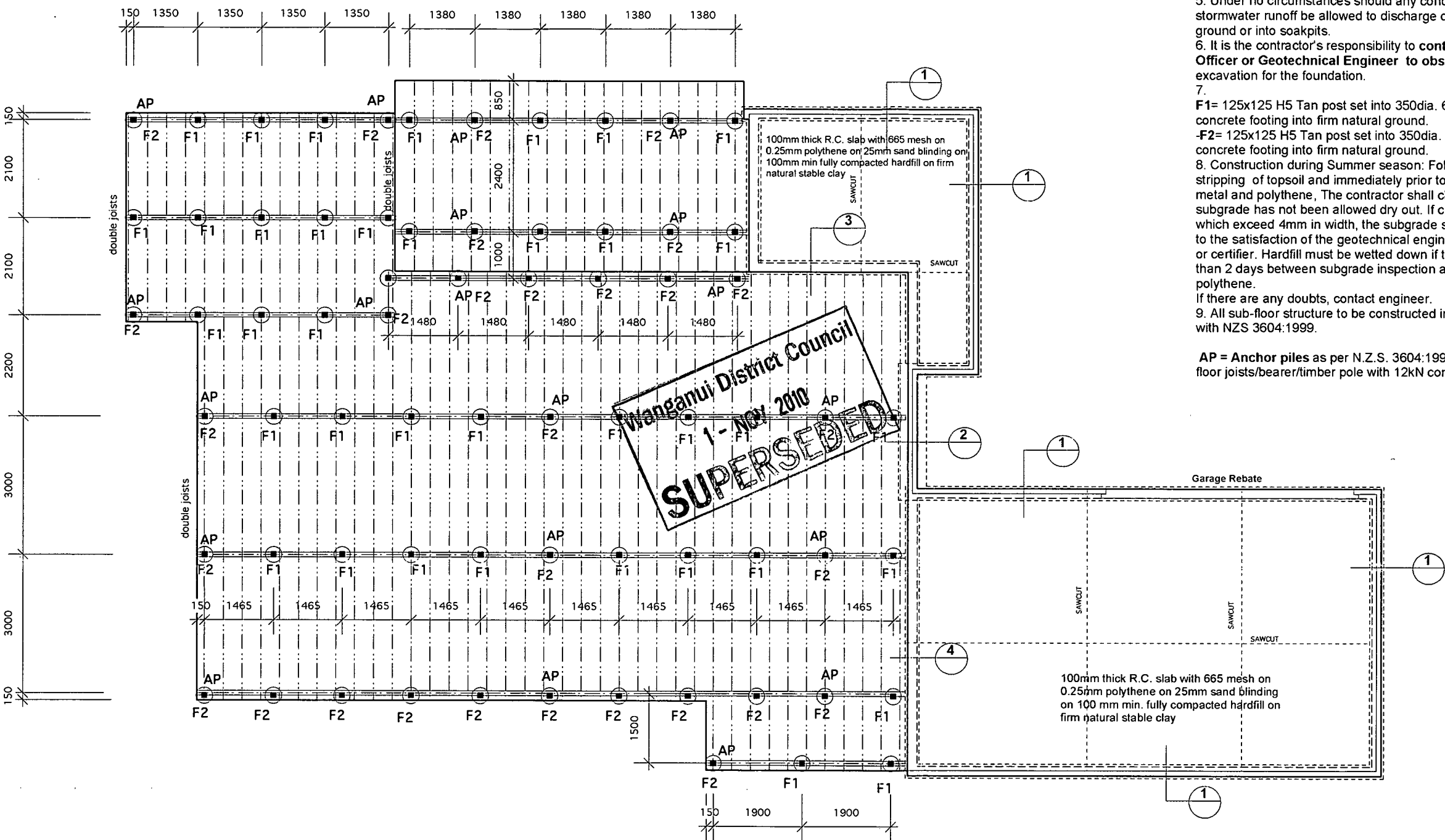
76 MEDALLION DR ALBANY
P O BOX 301 131 ALBANY
AUCKLAND, NEW ZEALAND
TEL: 09 476 8184 FAX: 09 476 8186

PROJECT:
NEW HOUSE AT LOT 28, LITHGOW DRIVE WANGANUI

TITLE:
GENERAL SPECIFICATIONS

DESIGN:	MM
DRAWN:	MM
CHECKED:	MM
DATE:	MARCH 2008
SCALE:	NTS
JOB No:	REY 082
SHEET NO:	S 01

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Foundation Plan

- Deck bearer: 2/150x50 H3.2 MSG8
- Deck joists: 150x50 H3.2 MSG8 at 400 crs.
- House bearer: 2/150x50 H3.2 MSG8
- House joists: 200x50 H1.2 MSG8 at 400 crs.
- F1= 125x125 H5 Tan post set into 350dia. 600 deep concrete footing into firm natural ground.
- F2= 125x125 H5 Tan post set into 350dia. 900 deep concrete footing into firm natural ground.

NOTES:

1. Check all dimensions on site before construction.
2. This drawing to be read in conjunction with architectural drawings.
3. The saw cut should be cut to a depth of 20 and should be cut no later than 24 hours in summer, or 48 hours in winter, after the concrete is placed.
4. Concrete grade to 20 MPa min. at 28 days.
5. Under no circumstances should any concentrated stormwater runoff be allowed to discharge directly onto the ground or into soakpits.
6. It is the contractor's responsibility to **contact Building Officer or Geotechnical Engineer** to observe the excavation for the foundation.
7. F1= 125x125 H5 Tan post set into 350dia. 600 deep concrete footing into firm natural ground.
- F2= 125x125 H5 Tan post set into 350dia. 900 deep concrete footing into firm natural ground.
8. Construction during Summer season: Following stripping of topsoil and immediately prior to laying of metal and polythene, The contractor shall check that the subgrade has not been allowed dry out. If cracks are visible which exceed 4mm in width, the subgrade shall be wetted to the satisfaction of the geotechnical engineer, inspector or certifier. Hardfill must be wetted down if there is greater than 2 days between subgrade inspection and laying of polythene.
- If there are any doubts, contact engineer.
9. All sub-floor structure to be constructed in accordance with NZS 3604:1999.

AP = Anchor piles as per N.Z.S. 3604:1999. Connect floor joists/bearer/timber pole with 12kN connector.

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ENGINEER:

MEC ENGINEERING CONSULTANTS LTD.
STRUCTURAL & CIVIL ENGINEERS

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P O BOX 301 131 ALBANY
AUCKLAND, NEW ZEALAND

TEL: 09 476 8184 FAX: 09 476 8186

PROJECT:

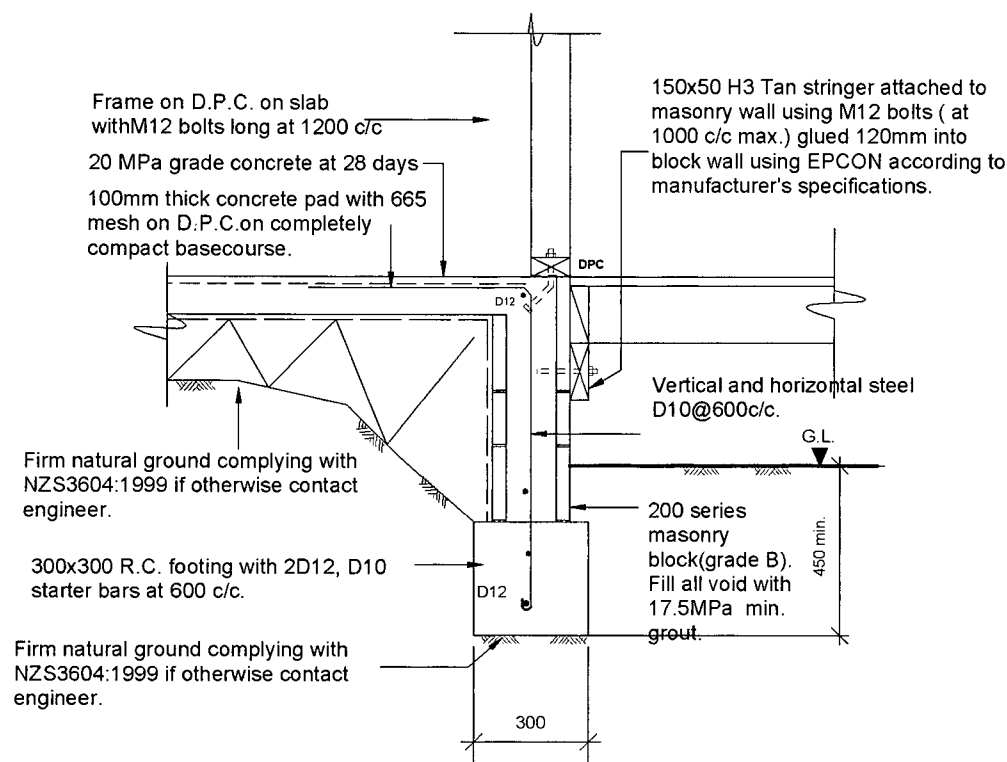
NEW HOUSE AT LOT 28, LITHGOW DRIVE WANGANUI

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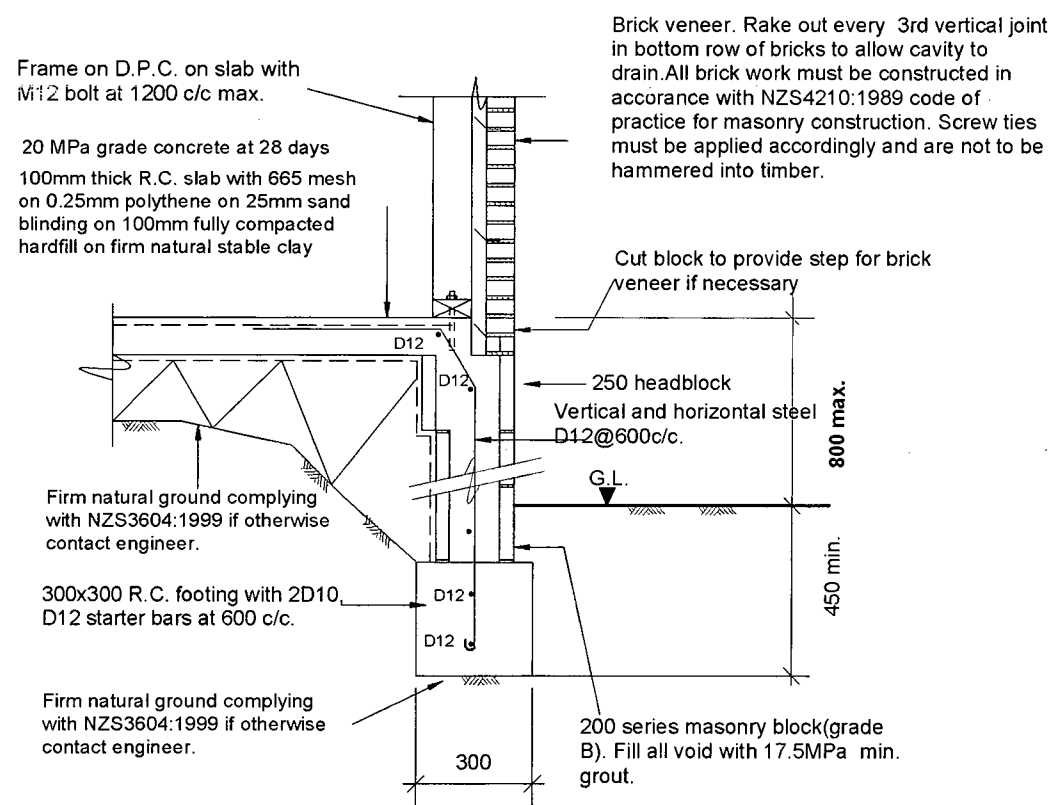
FOUNDATION PLAN

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CHECKED:	MM
DATE:	MARCH 2008
SCALE:	1:100 (A3)
JOB No:	REY 082
SHEET NO:	S 02

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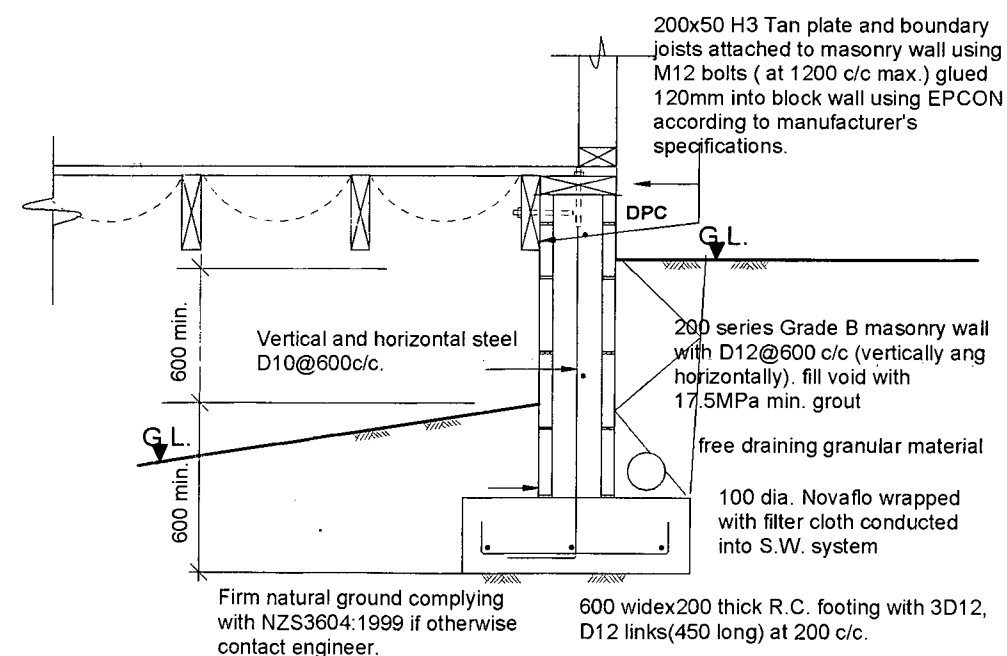


FOOTING DETAIL 3
FOOTING DETAIL 4 Similar



FOOTING DETAIL 1

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FOOTING DETAIL 2

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P O BOX 301 131 ALBANY
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TEL: 09 476 8184 FAX: 09-476 8186

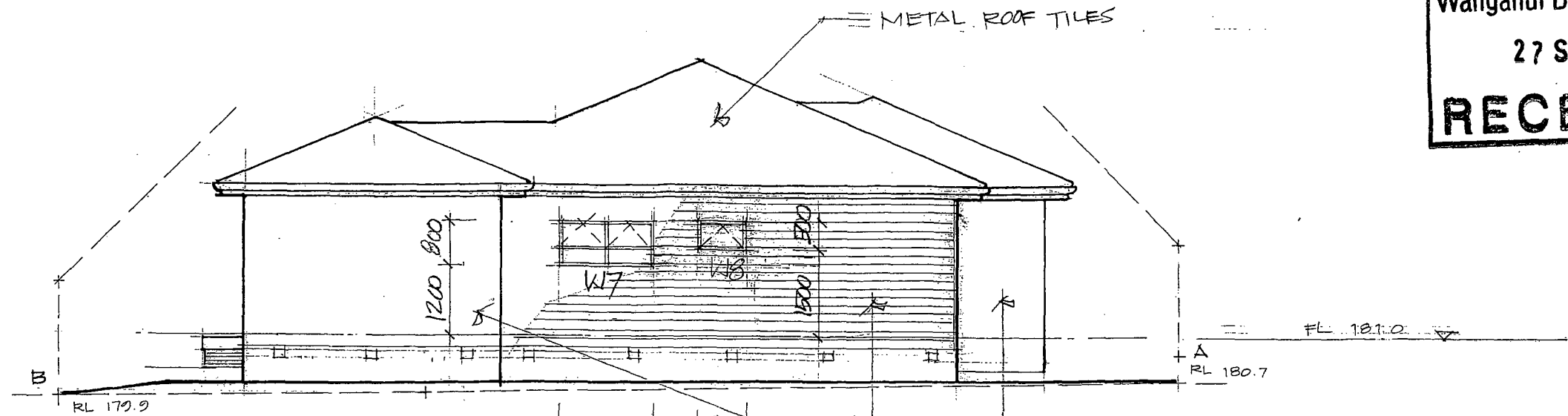
PROJECT:
NEW HOUSE AT LOT 28, LITHGOW DRIVE WANGANUI

TITLE:
FOOTING DETAILS

DESIGN:	MM
DRAWN:	MM
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DATE:	MARCH 2008
SCALE:	NTS
JOB No:	REY 082
SHEET NO:	S 03

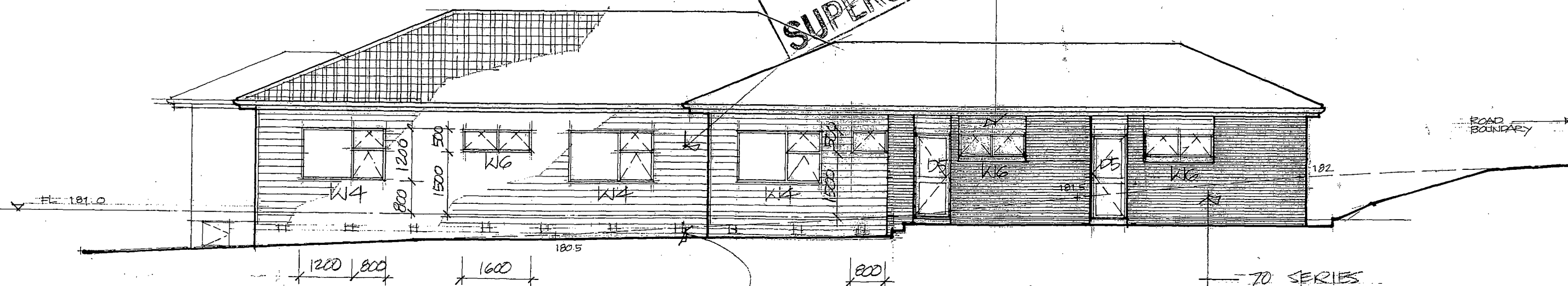
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1 SOUTH ELEVATION

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2 EAST ELEVATION

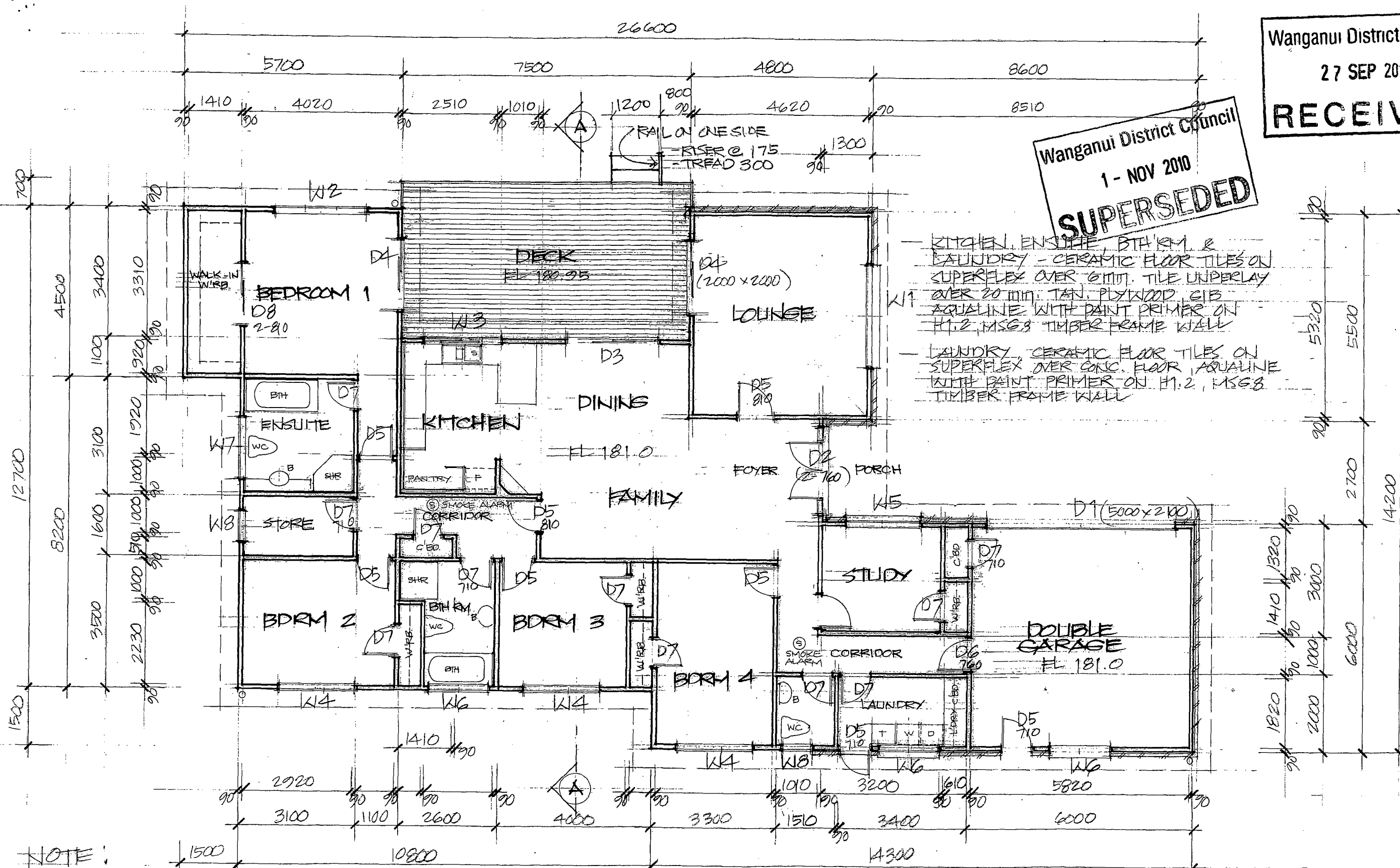
JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITHCOW DRIVE, WANGANUI	SOUTH & EAST ELEVATIONS

DRAWN	DATE	SHEET NO
TMR	21 SEPT. 2010	ND-06
SCALE	JOB NO	
1:100	2195	

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- REFER TO ENGINEER'S
WALL BRACING PLAN

JOB TITLE
A NEW SINGLE STOREY
Dwelling at Lot 28
4THCOW DRIVE, WANGSABU

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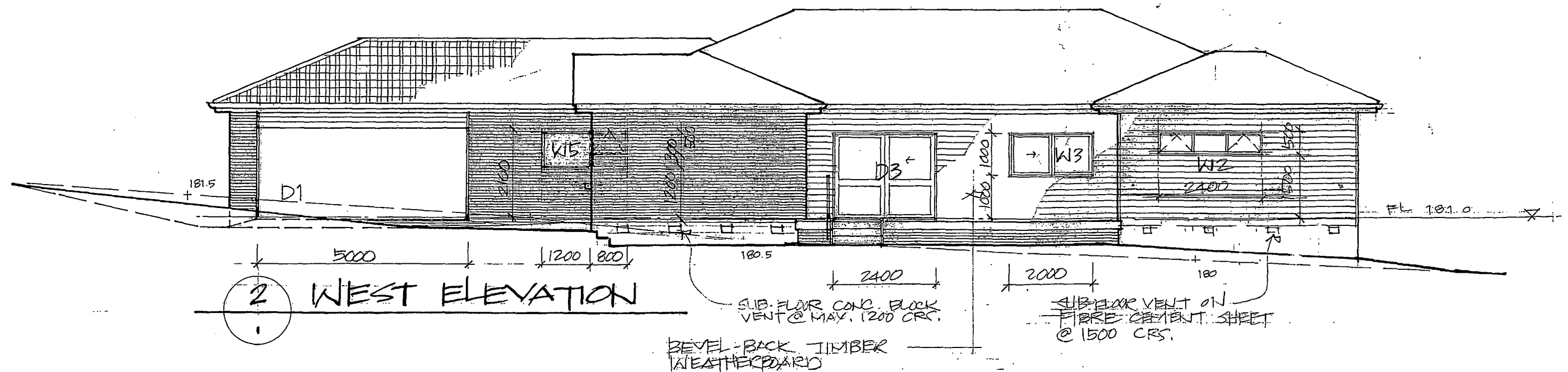
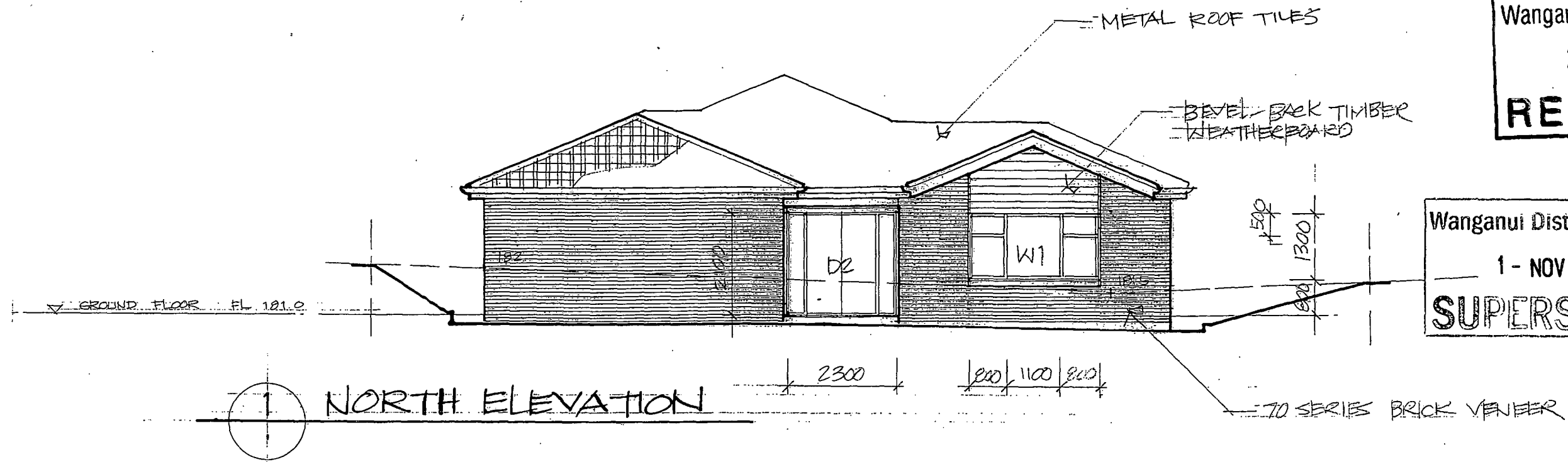
GROUND FLOOR PLAN

FLOOR AREA = 246.8 m²

DRAWN TMR	DATE 21 SEPT. 2010	SHEET NO ND-03
SCALE 1:100	JOB NO 2195	

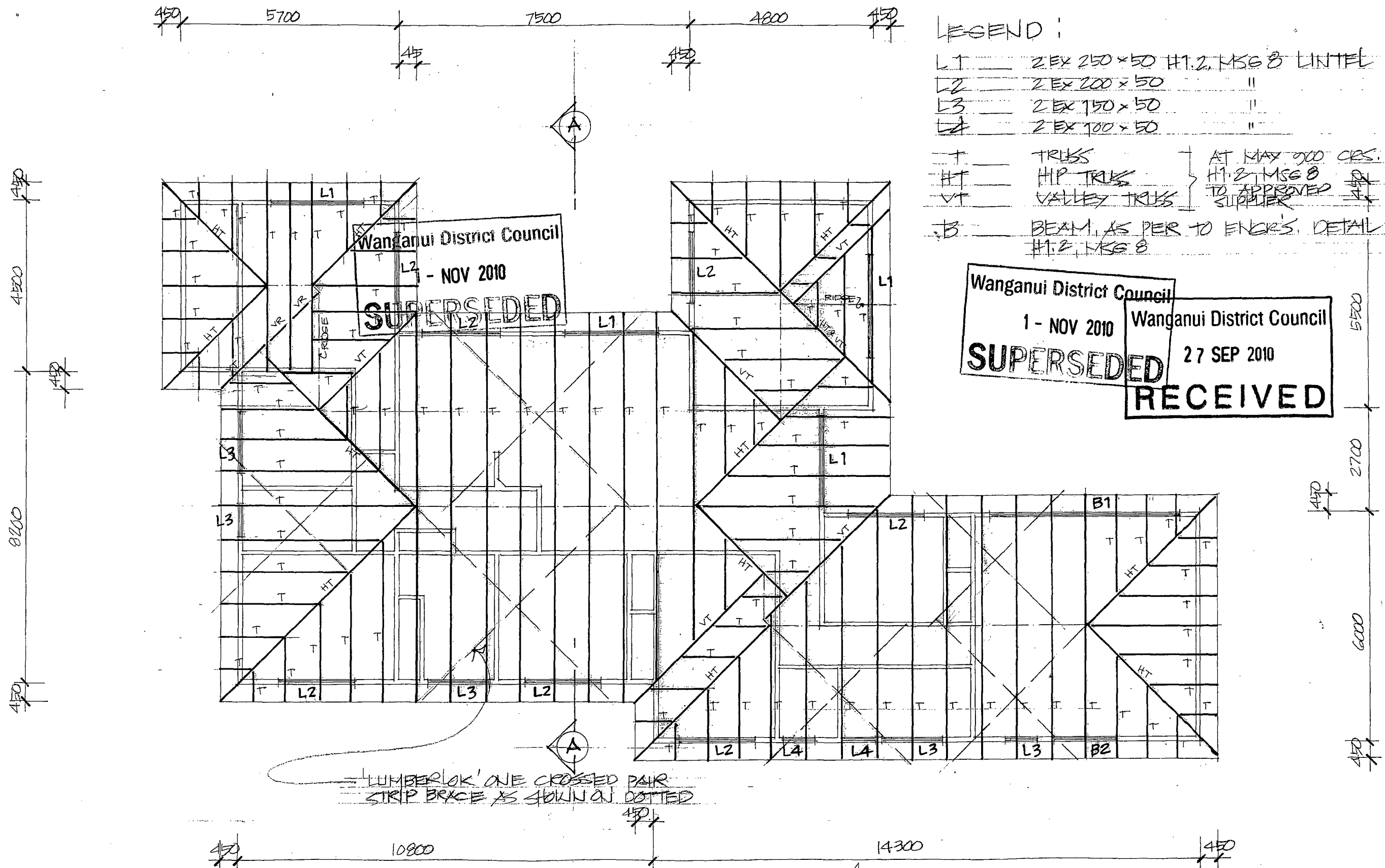
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JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITLOCK DRIVE, WANGANUI	NORTH & WEST ELEVATIONS

DRAWN	DATE	SHEET NO
THR	21 SEPT. 2010	ND - 05
SCALE	JOB NO	
1:100	2195	



JOB TITLE

A NEW SINGLE STOREY
DWELLING AT LOT 28
LITHELOA DRIVE, WANGANUI

DRAWING TITLE

ROOF FRAMING PLAN

DRAWN

TMR

DATE

21 SEPT. 2010

SHEET NO

ND-08

SCALE

1:100

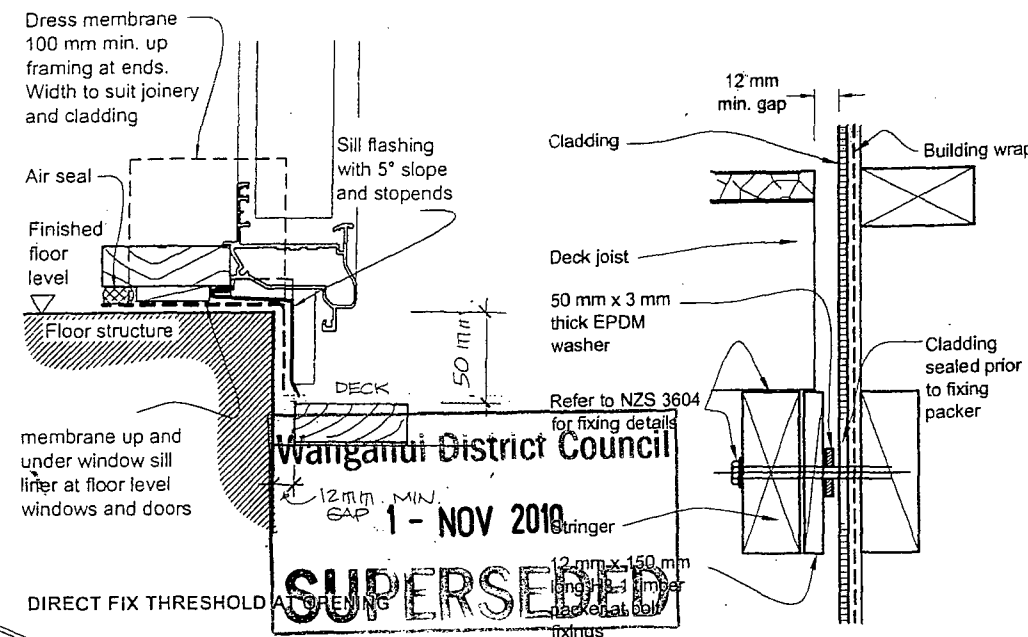
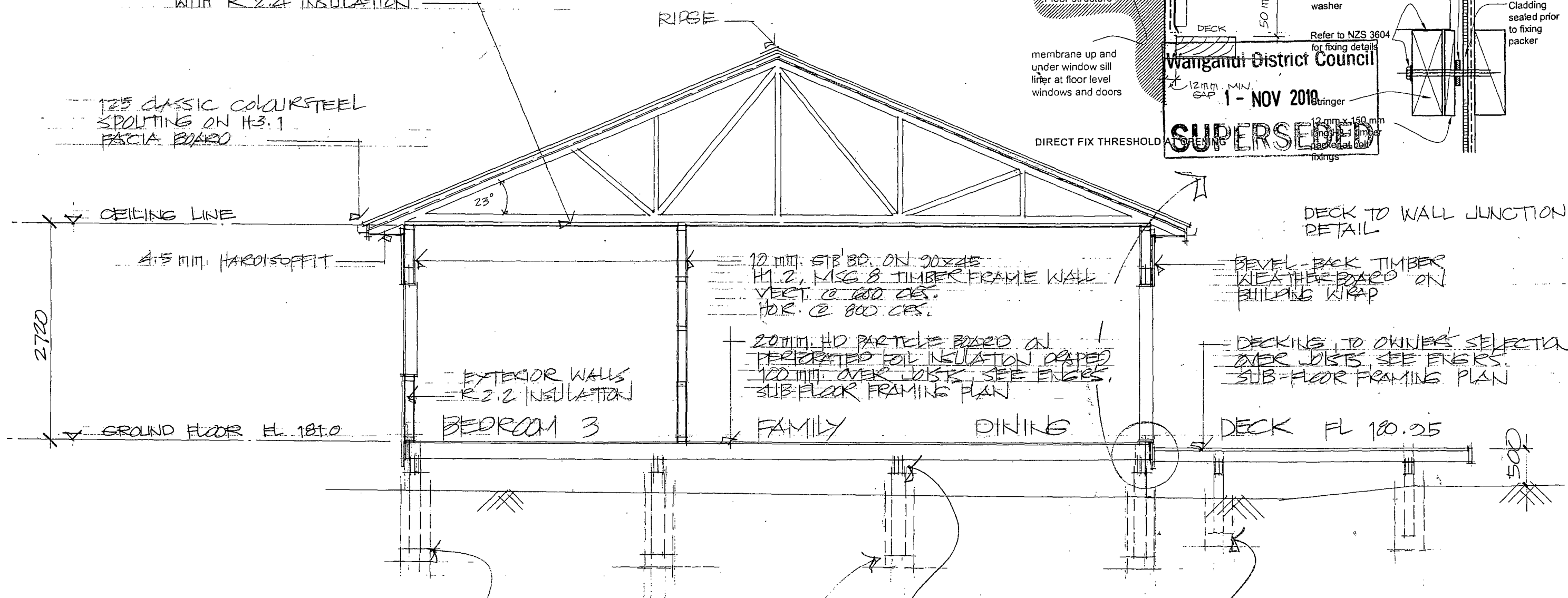
JOB NO

2195

METAL TILES ON EX 50x40 H1.2
BATTENS ON ROOF UNDERLAY OVER TRUSSES
@ MAX. 900 CRS. TO APPROVED SUPPLIER

10 mm GIB' BD. CEILING LINING ON
70 x 35 BATTENS @ 450 MAX. CRS.
WITH R 2.4 INSULATION

125 CLASSIC COLOURSTEEL
SPOLTING ON H3.1
FASCIA BOARD



DECK TO WALL JUNCTION
DETAIL

BEVEL-BACK TIMBER
WEATHER BOARD ON
BUILDING WRAP

DECKING TO OWNER'S SELECTION
OVER JOISTS SEE ENGRS.
SUB-FLOOR FRAMING PLAN

DECK FL 180.25

ROOF FIXINGS :

PURLINS _ 2-90X3.15 (POWER DRIVEN) NAILS
ROOF TRUSSES AT SUPPORT _ 2-100X3.75 SKEWED NAILS + 2 WIRE DOGS
LINTEL TO TRIMMING STUD _ 3-90X3.15 (POWER DRIVEN) NAILS
STUD TO PLATE _ 3-90X3.15 (POWER DRIVEN) NAILS
TOP PLATE TO LINTEL _ 3-90X3.15 (POWER DRIVEN) NAILS
CEILING BATTEN TO BOTTOM TRUSS _ 2-90X3.15 (POWER DRIVEN) NAILS

ALL FIXINGS WITHIN
600 mm. OF FINISHED
GROUND LEVEL
SHALL BE STAINLESS STEEL

SEE ENGRS DETAIL

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JOB TITLE	DRAWING TITLE
A NEW SINGLE STOREY DWELLING AT LOT 28 LITHSDOWN DRIVE, WANGANUI	CROSS SECTION A-A DETAIL

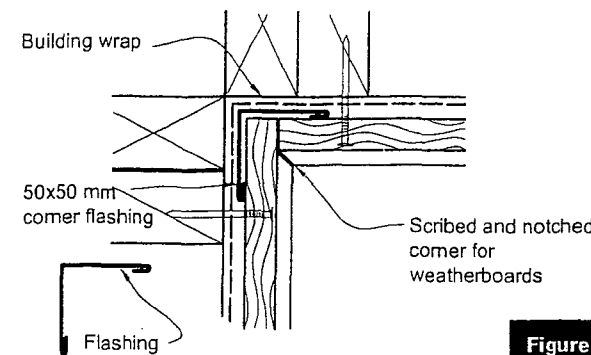
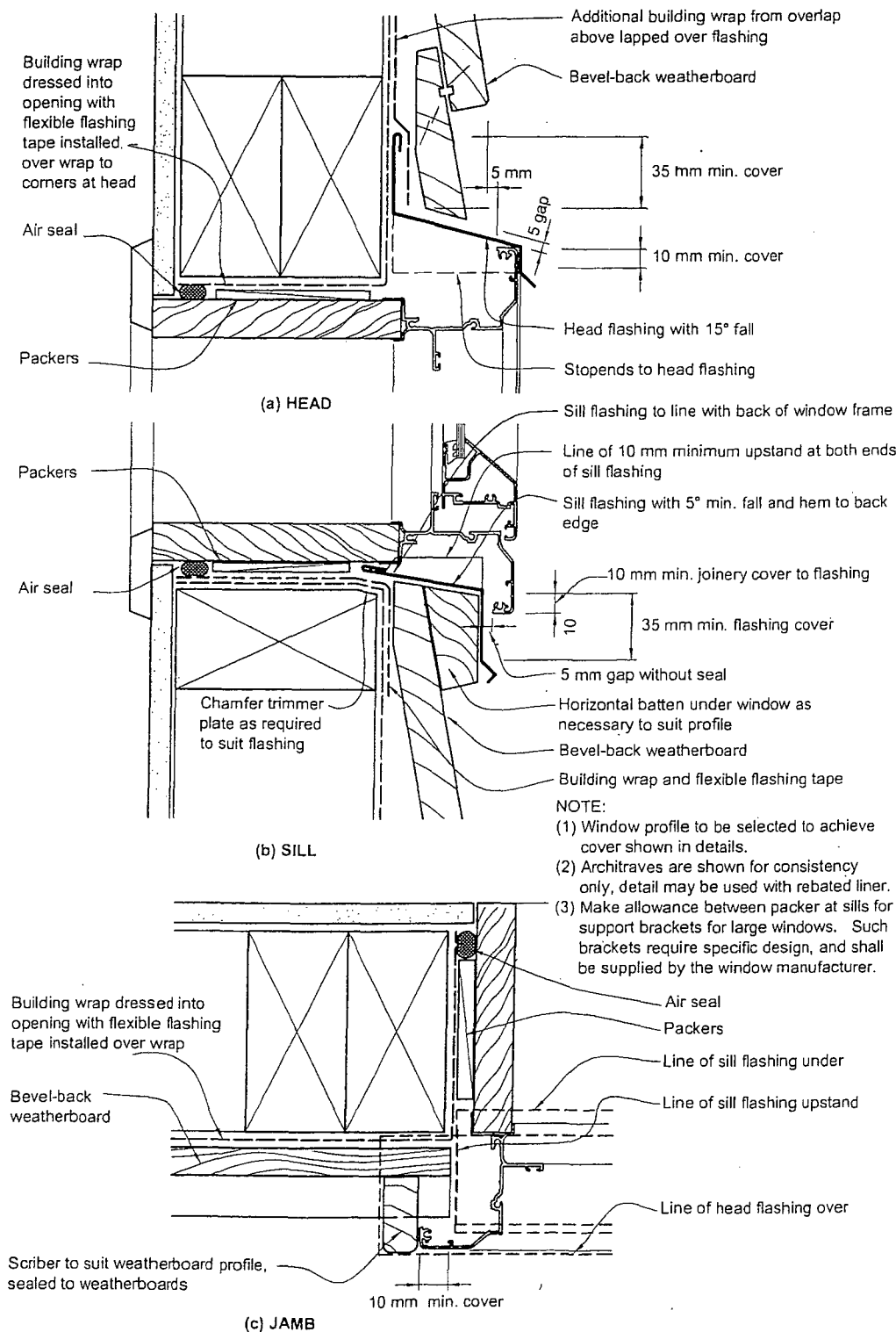
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TMR	21 SEPT. 2010	ND-09
SCALE	JOB NO	
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27 SEP 2010
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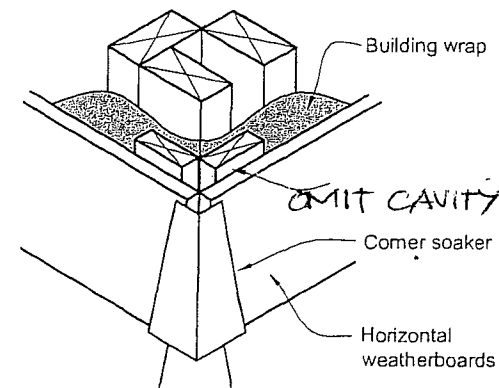
Wanganui District Council
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Figure 81: Windows for direct fixed bevel-back weatherboards
Paragraphs 9.1.6 and 9.4.6 a)

GENERAL: (a) Refer Figure 72 for wrapping of framed opening prior to window installation.
(b) Sliding and bi-fold windows will require specific design.
(c) A minimum of 8 mm effective cover at sills shall be permitted where necessary to allow for tolerances.

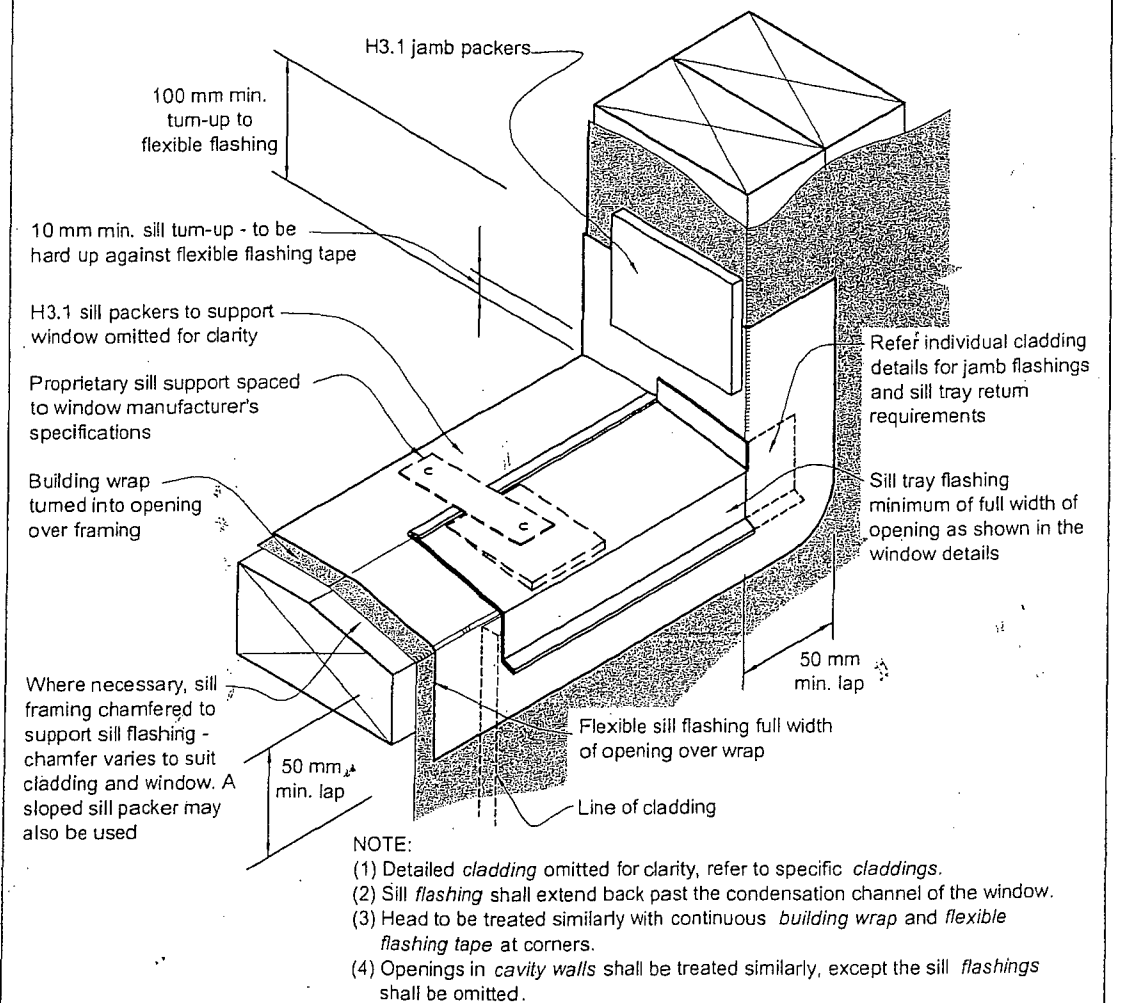


(a) DIRECT FIX - INTERNAL BUTT CORNER



NOTE: External corner detail with soaker is similar for direct fix weatherboards.

Figure 72: General window opening
Paragraphs 9.1.5 and 9.1.10.2, Figures 76, 81-86, 90, 91, 95, 99, 115, 116, 127 and 128



JOB TITLE
A NEW SINGLE STOREY
DWELLING AT LOT 28
LITHCOW DRIVE, WANGANUI

DRAWING TITLE
WINDOWS AND WEATHERBOARD
CLADDING DETAIL

DRAWN THR	DATE 21 SEPT. 2010	SHEET NO ND-16
SCALE 1:5	JOB NO 2105	