

- 2 MAR 2007

GIB® Wall Bracing Calculation Sheet A

lower of two

GIB® EzyBrace™

GIB® Bracing Systems, 2006

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Job Details

Name	Baseline Construction	House A
Street and Number	151 Great North Road	
Lot and DP Number		
City/Town/District	Wanganui	
Designer and date	Herman de Jonge	13-Feb-07
Company Name	ADC	

Building Specification

Location of Storey	lower	▼	not applicable (slab)
Floor Loading	2 kPa	▼	
Foundation Type	slab	▼	
Building Height to Apex (m)	7	▼	
Roof Height above Eaves (m)	4	▼	
Stud Height (m)	2.4	▼	
Cladding Weight (top or single)	light	▼	
Cladding Weight (lower)	heavy	▼	
Cladding Weight (subfloor)	light	▼	
Roof Weight	light	▼	
Roof Pitch (degrees)	0-25	▼	
Room in Roof Space	no	▼	
Building Length (m)	16.74		
Building Width (m)	12.84		
Gross Building Plan Area (m2)	150		

Building Location

Wind Zone	Medium	Earthquake Zone
Region	R1 ▼	A ▼
Terrain	Inland ▼	
Exposure	Exposed ▼	
Topography	Gentle ▼	Enter at least 'moderate' in a Lee Zone

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	76 BUs/m
W across	n/a	93 BUs/m
Totals	subfloor	walls
W along	n/a	976 BUs
W across	n/a	1557 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	13.5 BUs/m2
Totals	subfloor	walls
E along	n/a	2025 BUs
E across	n/a	2025 BUs

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GIB® Wall Bracing Calculation Sheet B

lower of two

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Along								Wind	Earthq.
Wall or Bracing Line	Bracing Elements provided							9W	10EQ
1	2	3	4	5	7	8	6		
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	167	1	GIB®	BLP	1.8	2.4		261	261
		2	GIB®	BLP	1.8	2.4		261	261
line totals		3	GIB®	BLP	2	2.4		290	290
W	899	4	GIB®	BLP	0.6	2.4		87	81
EQ	893	5							
B	130	1	GIB®	BL1	0.5	2.4		60	58
		2	GIB®	BL1	0.5	2.4		60	58
line totals		3	GIB®	GS2	4	2.4		360	320
W	640	4	GIB®	GS2	2	2.4		160	140
EQ	575	5							
C	125	1	GIB®	BLP	1.5	2.4		218	218
		2	GIB®	BLP	0.8	2.4		116	108
line totals		3	GIB®	BLP	1.5	2.4		218	218
W	551	4							
EQ	543	5							
D	50	1	GIB®	BLP	1	2.4		145	145
		2	GIB®	BLP	0.6	2.4		87	81
line totals		3							
W	232	4							
EQ	226	5							
E	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
F	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
G	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
H	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

Wind Earthq.

Totals Achieved

2322 2237

OK OK

Totals Required (from Sheet A)

976 2025

- 2 MAR 2007

GIB® Wall Bracing Calculation Sheet B

lower of two

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V25A

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Across										
Wall or Bracing Line		Bracing Elements provided							Wind	Earthq.
1	2	3	4	5	7	8	6	9W	10EQ	
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved	
M	65	1	GIB®	BLP	2.1	2.4		305	305	
		2	GIB®	BLP	2.1	2.4		305	305	
line totals		3								
W	609	4								
EQ	609	5								
N	140	1	GIB®	GS1a	2.4	2.4		180	156	
		2	GIB®	GS1a	2.1	2.4		137	116	
line totals		3	GIB®	BL1	0.6	2.4		75	69	
W	392	4								
EQ	341	5								
O	70	1	GIB®	GS2	3.8	2.4		342	304	
		2	GIB®	GS2	2.4	2.4		216	192	
line totals		3								
W	558	4								
EQ	496	5								
P	115	1	GIB®	GS1a	2.6	2.4		195	169	
		2	GIB®	BLG	1.1	2.4		160	143	
line totals		3	GIB®	BL1	0.5	2.4		60	58	
W	415	4								
EQ	370	5								
Q	65	1	GIB®	BLP	2.4	2.4		348	348	
		2								
line totals		3								
W	348	4								
EQ	348	5								
R	enter	1								
		2								
line totals		3								
W		4								
EQ		5								
S	enter	1								
		2								
line totals		3								
W		4								
EQ		5								
T	enter	1								
		2								
line totals		3								
W		4								
EQ		5								

Wind Earthq.

Totals Achieved 2321 2163

OK OK

Totals Required (from Sheet A) 1557 2025

- 2 MAR 2007

A

GIB® Wall Bracing Calculation Sheet A

upper of two

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V85A

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Job Details

Name	Baseline Construction	House A
Street and Number	151 Great North Road	
Lot and DP Number		
City/Town/District	Wanganui	
Designer and date	Herman de Jonge	10-Jan-07
Company Name	ADC	

Building Specification

Location of Storey	upper	▼	not applicable (slab)
Floor Loading	2 kPa	▼	
Foundation Type	slab	▼	
Building Height to Apex (m)	7	▼	
Roof Height above Eaves (m)	4	▼	
Stud Height (m)	2.4	▼	
Cladding Weight (top or single)	light	▼	
Cladding Weight (lower)	heavy	▼	
Cladding Weight (subfloor)	light	▼	
Roof Weight	light	▼	
Roof Pitch (degrees)	0-25	▼	
Room in Roof Space	no	▼	
Building Length (m)	9.24		
Building Width (m)	9.24		
Gross Building Plan Area (m2)	87		

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Building Location

Wind Zone	Medium	Earthquake Zone
Region	R1 ▼	A ▼
Terrain	Inland ▼	
Exposure	Exposed ▼	
Topography	Gentle ▼	

Enter at least 'moderate' in a Lee Zone

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	64 BUs/m
W across	n/a	81 BUs/m
Totals	subfloor	walls
W along	n/a	591 BUs
W across	n/a	748 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	6.2 BUs/m2
Totals	subfloor	walls
E along	n/a	539 BUs
E across	n/a	539 BUs

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GIB® Wall Bracing Calculation Sheet B

upper of two

V85A

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Across									
Wall or Bracing Line		Bracing Elements provided						Wind	Earthq.
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
M		1	GIB®	BL1	0.7	2.4		88	81
		2	GIB®	GS1a	1.8	2.4		117	99
line totals		3							
W	205	4							
EQ	180	5							
N		1	GIB®	GS2	2.8	2.4		252	224
		2	GIB®	GS2	2.2	2.4		176	154
line totals		3							
W	428	4							
EQ	378	5							
O		1	GIB®	GS1a	2.8	2.4		210	182
		2							
line totals		3							
W	210	4							
EQ	182	5							
P		1							
		2							
line totals		3							
W		4							
EQ		5							
Q		1							
		2							
line totals		3							
W		4							
EQ		5							
R	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
S	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
T	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

Wind Earthq.

Totals Achieved

843

740

OK

OK

Totals Required (from Sheet A)

748

539

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For full construction details see literature

GIB® Bracing Systems, 2006

Supplier	System	Minimum Length (m)	BU's W/m	BU's EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			

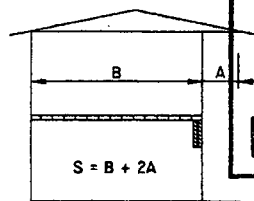
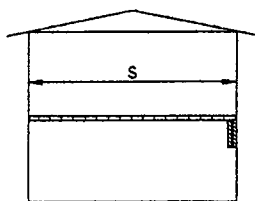
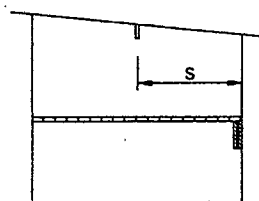
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07 / 0244 21

Consent No.

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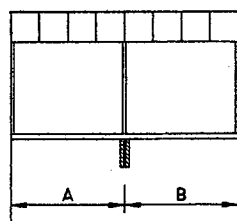
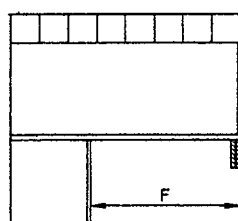
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TABLE 3:
LINTEL SUPPORTING ROOF AND LOAD-BEARING WALL
(2.4m MAX WALL HEIGHT)

		LINTEL SIZE	MAXIMUM LINTEL SPAN (m)												
			SUPPORTED ROOF SPAN 'S' (m)												
			3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0
LIGHT ROOF	FB15L	2.75	2.66	2.57	2.50	2.43	2.37	2.32	2.27	2.23	2.18	2.15	2.11	2.08	
	FB20H	4.20	4.05	3.93	3.81	3.71	3.62	3.54	3.47	3.40	3.33	3.27	3.22	3.17	
	FB25L	4.46	4.31	4.18	4.06	3.95	3.85	3.77	3.69	3.61	3.55	3.48	3.42	3.37	
	FB25H	5.34	5.16	5.00	4.85	4.73	4.61	4.51	4.41	4.32	4.24	4.17	4.10	4.03	
	FB30H	6.17	5.96	5.78	5.61	5.46	5.33	5.21	5.10	5.00	4.90	4.82	4.73	4.66	
HEAVY ROOF	FB15L	2.43	2.33	2.24	2.16	2.09	2.03	1.98	1.93	1.88	1.84	1.81	1.77	1.74	
	FB20H	3.71	3.55	3.41	3.29	3.19	3.10	3.01	2.94	2.87	2.81	2.75	2.70	2.65	
	FB25L	3.95	3.78	3.63	3.50	3.39	3.29	3.21	3.13	3.06	2.99	2.93	2.88	2.82	
	FB25H	4.73	4.52	4.34	4.19	4.06	3.94	3.84	3.74	3.66	3.58	3.51	3.44	3.38	
	FB30H	5.46	5.22	5.02	4.84	4.69	4.56	4.44	4.33	4.23	4.14	4.05	3.98	3.91	



$$F = A + B$$

Flitch beam Entry/Family Room

TABLE 4:
LINTEL SUPPORTING FLOOR AND WALL (2.4m MAX WALL HEIGHT)

LINTEL SIZE	MAXIMUM LINTEL SPAN (m)										
	FLOOR SPAN 'F' (m)										
	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4
FB15L	2.57	2.48	2.39	2.32	2.26	2.20	2.15	2.10	2.05	2.01	1.98
FB20H	3.93	3.78	3.65	3.54	3.44	3.35	3.27	3.20	3.13	3.07	3.01
FB25L	4.18	4.02	3.89	3.77	3.66	3.57	3.48	3.40	3.33	3.27	3.21
FB25H	5.00	4.81	4.65	4.51	4.38	4.27	4.17	4.07	3.99	3.91	3.84
FB30H	5.78	5.56	5.37	5.21	5.06	4.93	4.82	4.71	4.61	4.52	4.44

NOTE: THESE LINTELS DO NOT SUPPORT LOADS FROM OTHER BEAMS OR RAFTERS



ARCHITECTS



P.I.M. No.

Building Regulation Clause(s)

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-2 MAR 2007

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PRODUCER STATEMENT - PS1 - DESIGN

(Guidance notes on the use of this form are printed on the reverse side)

ISSUED BY: K. L. MURRAY
(Suitably qualified Design Professional)

TO: BASELINE CONSTRUCTION LTD
(Owner)

TO BE SUPPLIED TO: WANGANUI DISTRICT COUNCIL
(Territorial Authority)

IN RESPECT OF: TWO NEW HOUSES
(Description of Building Work)

AT: 151 GREAT NORTH ROAD
(Address)

DP SO
K. L. MURRAY has been engaged by H. de Jonge
(Design Firm) (Owner/Developer/Contractor)

to provide SPECIFIC DESIGN OF BEAMS & POSTS services in respect of the
(Extent of Engagement)

requirements of Clause(s) B1 of the Building Regulations 1992 for

☐ All☒ Part only as specified

of the building work. The design has been prepared in accordance with VM1
(verification method(s)/acceptable solutions(s))

(respectively) of the approved documents issued by the Building Industry Authority and the work is described on
H. de Jonge drawings titled House A, House B
(Design Firm)

and numbered 1-18 and the specification and other documents according to which the
building is proposed to be constructed.

As an independent design professional covered by a current policy of Professional Indemnity Insurance to a minimum
value of \$200,000. I BELIEVE ON REASONABLE GROUNDS that subject to:

\$2,000,000
(i) the site verification of the following design assumptions

NIL

and (ii) all proprietary products meeting the performance specification requirements, the drawings, specifications,
and other documents according to which the building is proposed to be constructed comply with the relevant provisions of
the building code.

[Signature]
(Signature suitably qualified Design Professional)

Date 8-2-07

B.E. C.P.E.M.
(Professional Qualifications)

Member

ACENZ ☐IPENZ ☒☐

NZIA

Box 143 Ohakune
(Address)

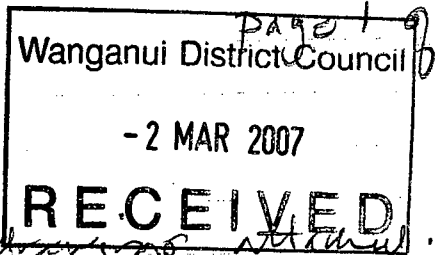
This form to accompany Form 3 of the Building Regulations 1992 for the application of a Building Consent.

October 5

K.L. Murray B.E. MIPENZ CEng
Consulting Engineer

17-2-07

House for Baseline Construction
151 Great North Rd Wanganui



Specific Structural Design of Beams

1. Layout - refer Herman de Jonge drawings attached.
2. Scope - specific structural design of floor beams to VML of the Building Code

3. Design Loads

self weight:	roof	0.35 kPa
	wall	0.36 kPa face
	Floor	0.50 kPa

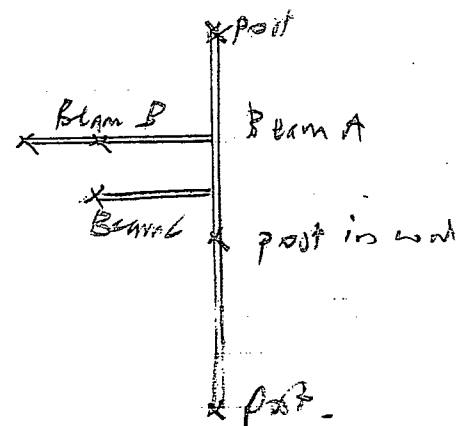
live load	roof	0.25 kPa
	floor	1.50 kPa

4. House 'A'

4.1 Beam B

span 2.2

supports 3.1 of roof
2.4 partition
3.1 of floor



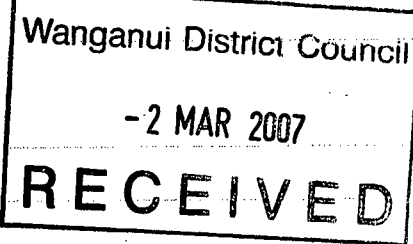
		Q		Q
3.1 roof	3.1	$(0.35 + 0.25)$	=	1.10
2.4 partition	2.4	(0.36)		0.86
3.1 floor	3.1	$(0.50 + 1.50)$		1.55
				<u>4.45</u>
				3.51 + 5.43

$$W_u = 1.2 \times 3.51 + 1.5 \times 5.43$$

$$= 12.36 \text{ kN/m}$$

$$\text{load on Beam A} = 12.36 \times \frac{2.2}{2}$$

$$= 13.6 \text{ kN}$$



4.2 Beam C:

	span 2.2	G	Q	
support	2.4	roof	= 0.85	0.60
	2.4	partition	= 0.84	
	2.4	floor	= 1.20	3.58
			2.90 + 4.18	

$$W_u = 1.2 \times 2.90 + 1.5 \times 5.43$$

$$= 3.48 + 8.15$$

$$= 11.63 \text{ kN/m}$$

$$\text{load on Beam A} = 11.63 \times \frac{2.2}{2}$$

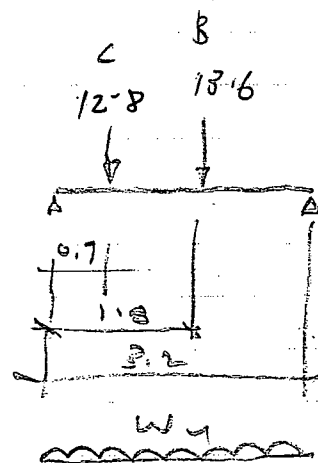
$$= 12.8 \text{ kN}$$

4.3 Beam A (House A)

span 3.2

Beam supports beams B, C.

Supports 2.4 wall
1.5 roof
self



	span	G	Q
2.4 wall	2.4	(0.36)	= 0.86
1.5 roof	1.5	(0.35 + 0.25)	= 0.53
self			0.30
			1.70 + 0.39

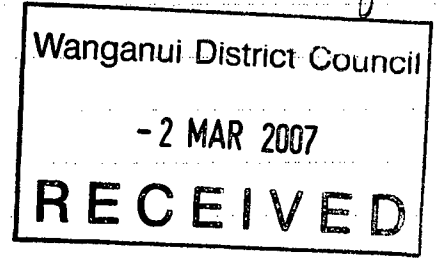
$$W_u = 1.2 \times 1.70 + 1.5 \times 0.39$$

$$= 2.57 \text{ kN/m}$$

$$Bm_{max} = 2.57 \times \frac{(3.2)^2}{8} + \frac{13.6 \times 1.8 \times 1.4}{2.2} + 12.8 \times \frac{0.7}{2.2} \times 0.4$$

$$= 3.2 - 10.7 + 3.9$$

$$= 17.9 \text{ mm}$$



try FB 25H fl. 1/4h beam

$$I_{plate} = 0.088 \times 10^{-3}$$

$$f_b = 17.9 / 0.088$$

$$= 203 \text{ MPa}$$

fully internally supported

$$EI_{plate} = 2.0 \times 10^6 \text{ Nm}^2$$

07/08/04

Consent No.

$$\text{Total } G = 1.70 \times 1.1 + 2.90 \times 1.1 + 3.3 \times 3.2$$

$$= 15.6$$

5.06

$$\Delta_h = 1.1 \times \frac{5}{384} \times \frac{15600 \times (3.2)^3}{2.0 \times 10^6} \times 10^3 \text{ mm}$$

$$= 3.6 \text{ mm} \quad \text{OK}$$

$$\text{Total } Q = 5.43 \times 1.1 + 4.18 \times 1.1 + 0.38 \times 3.2$$

$$= 11.8$$

$$\Delta_Q = 2.7 \text{ mm}$$

$$< 1.001 \times 1 \text{ mm} \quad \text{OK}$$

$$\Delta_{bc} = \frac{1}{48} \times \frac{10000 \times (3.2)^3}{2.0 \times 10^6} \times 10^3 \text{ mm}$$

$$= 0.34 \text{ mm} < 1 \text{ mm} \quad \text{OK}$$

conclusion: use FB 25H beam for Beam A

$$\text{support} : 12.8 \times \frac{2.5}{3.2} + 13.6 \times \frac{1.4}{3.2} + 2.53 \times \frac{3.2}{2} + 4.53 \times \frac{3.2}{2}$$

$$= 9.9 + 6.0 + 7.0 + 8.6$$

$$= 31.6 \text{ kN}$$

3/100 x 500 post OK.

$$\text{pad } \frac{31.6}{100} = 0.32 \text{ m}^2 = 600 \text{ kPa} \times 300 \text{ pad}$$

connections to beam A:

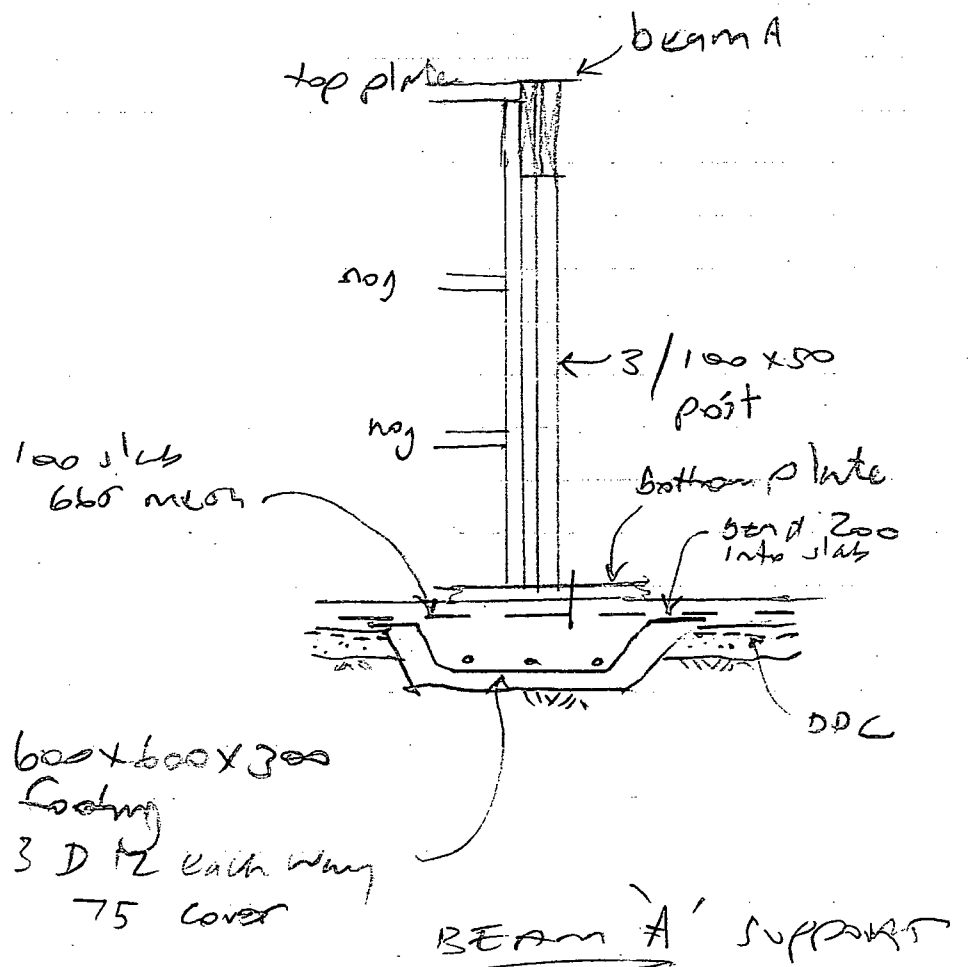
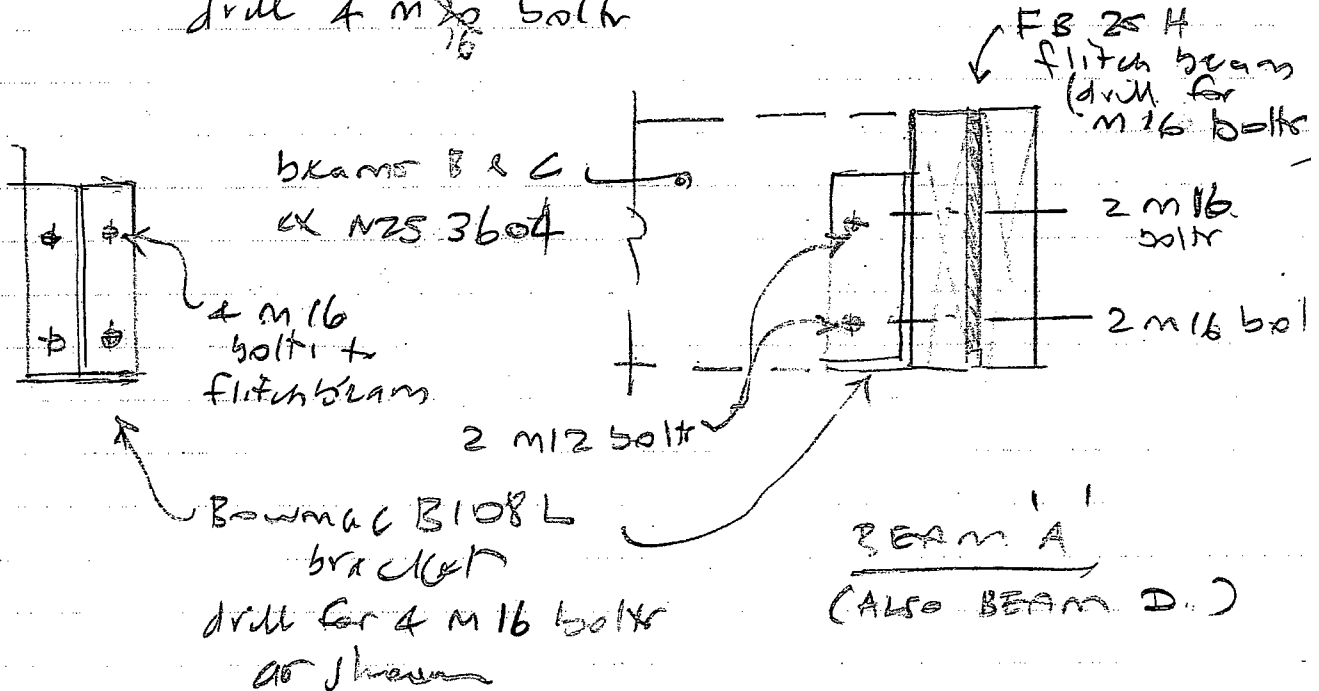
Beam 8: 13.6 m
= 4 m 16 bolts

use B108 L Bowmac Bracket,
drill 4 m 16 bolts

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-2 MAR 2007

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-2 MAR 2007

page 5 of 6

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5. House B5.1 Beam E:

spans 2.2

is same as Beam B

load on Beam D = 13.6 kN

5.2 Beam F

spans 2.8

similar Beam C (span 2.2)

$$\begin{aligned} \text{load on Beam D} &= \frac{2.8}{2.2} \times 12.8 \\ &= 16.3 \text{ kN} \end{aligned}$$

5.3 Beam D

supports 2.2 roof =
2.4 wall =
self

$$\begin{aligned} &= 2.2(0.16 + 0.25) = 0.79 + 0.55 \\ &= 0.86 \\ &= \frac{0.20}{1.85 + 0.55} \end{aligned}$$

$$\begin{aligned} w_u &= 1.2 \times 1.85 + 1.5 \times 0.55 \\ &= 2.22 + 0.83 \\ &= 3.05 \text{ k/m} \end{aligned}$$

$$\begin{aligned} M_{max} &= 3.05 \times \frac{3.3^2}{8} \\ &+ 16.3 \times \frac{0.5}{3.3} \times 1.7 \\ &+ 13.6 \times 1.6 \times \frac{1.7}{3.3} \end{aligned}$$

$$= 4.15 + 4.20 + 11.20$$

$$= 19.55 \text{ kNm}$$

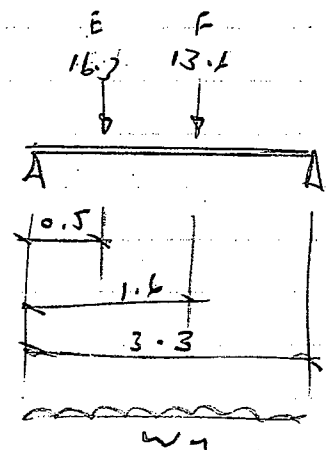
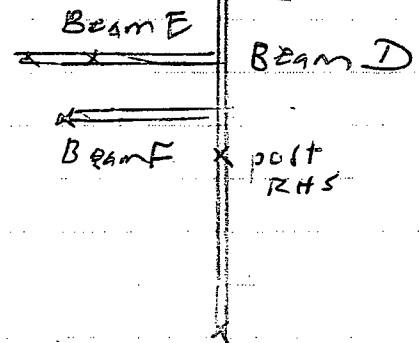
Try FB 25H flike beam

$$f_b = 19.55 / 0.088$$

$$= 220 \text{ MPa OK}$$

fully laterally supported

$$\text{support} : 16.3 \times \frac{2.8}{3.3} + 13.6 \times \frac{1.7}{3.3} + 3.05 \times \frac{6.00}{2}$$



$$= 13.8 + 7.00 + 10.52$$

$$= 31.3 \text{ k}$$

Tm 89 x 89 x 5 SHS !

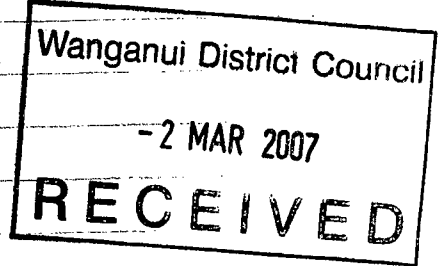
$$\frac{e}{r} = \frac{2400}{338} = 7.1$$

$$P_c = 115 \text{ MPa}$$

$$f_c = 31.3 \times 10^{-3} / 1.59 \times 10^{-3}$$

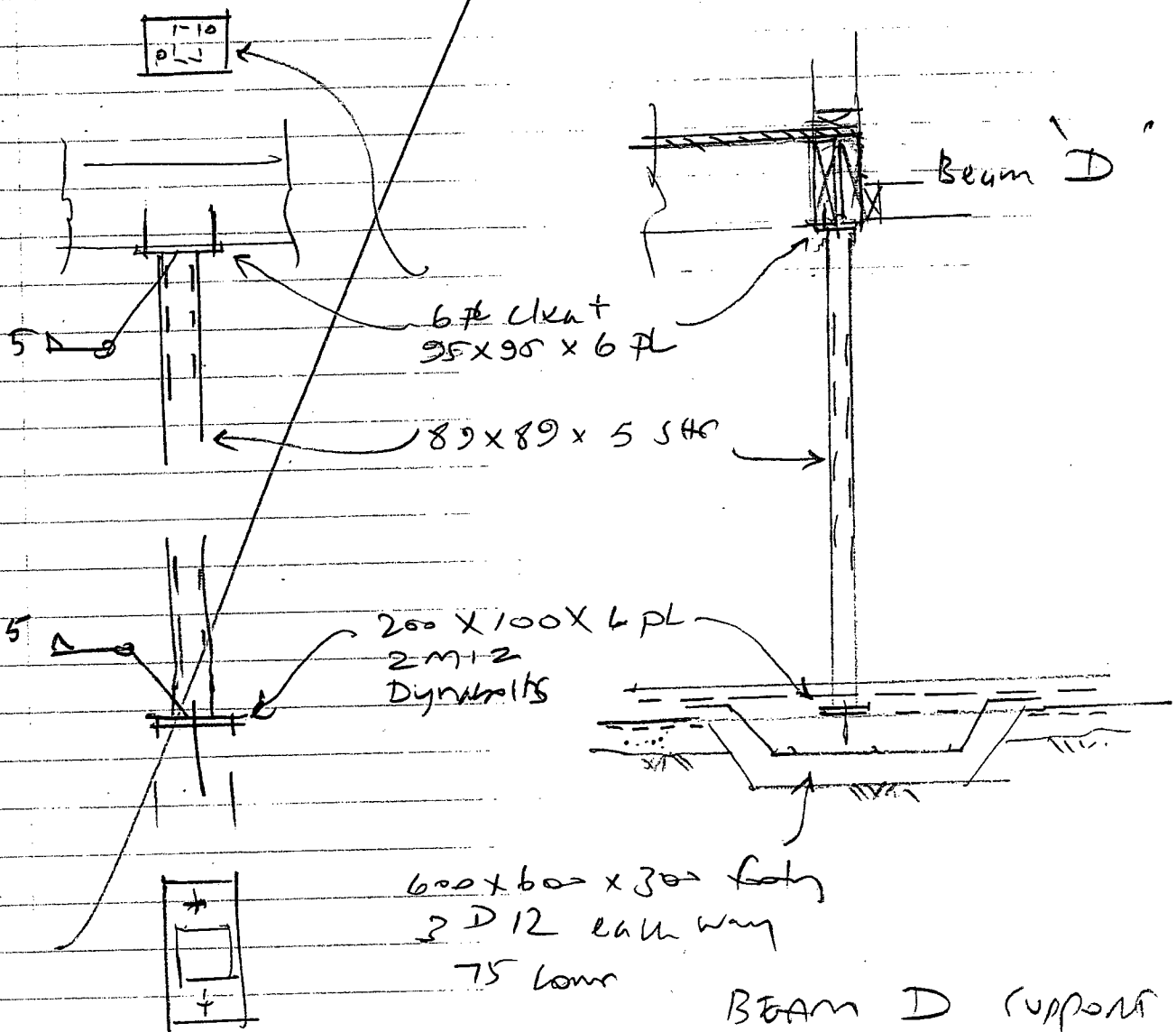
$$= 19.7 \text{ MPa OK}$$

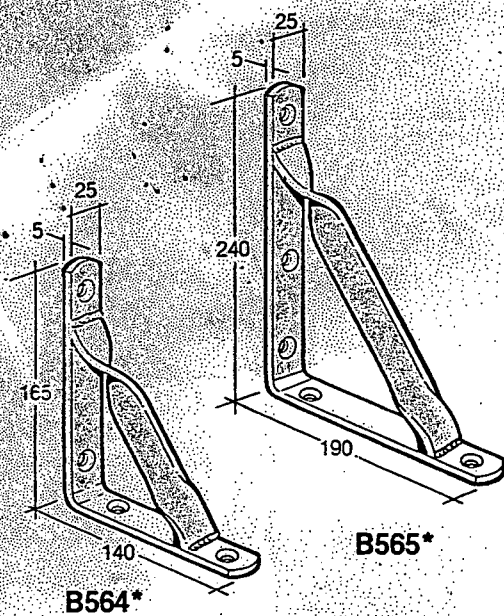
ie 89 x 89 x 5 SHS foot OK.



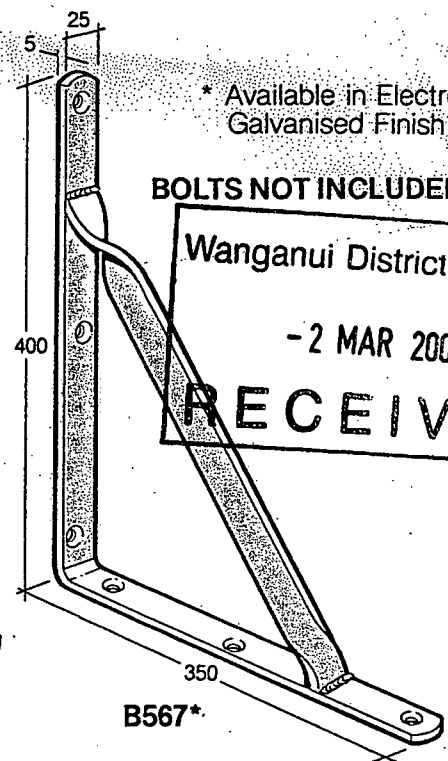
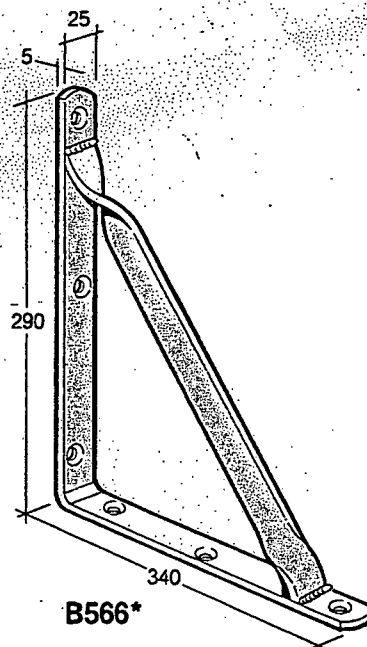
similar structure to Beam A

see page 4





All holes
6mm ϕ Csk.



* Available in Electro
Galvanised Finish

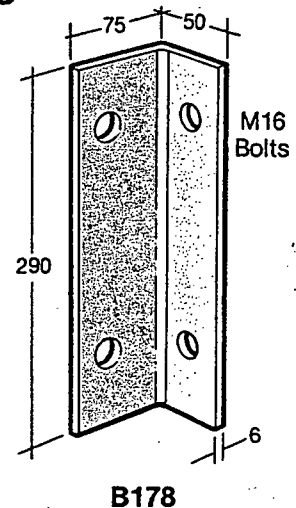
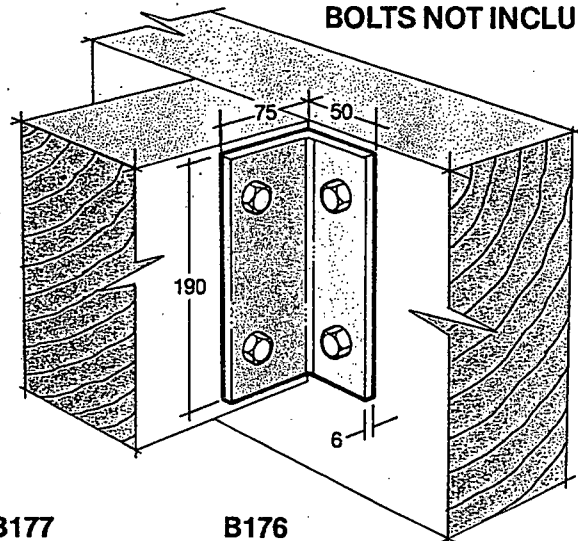
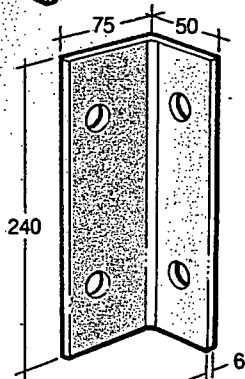
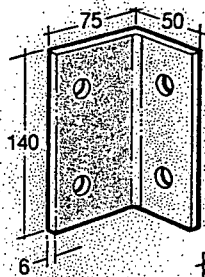
BOLTS NOT INCLUDED

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ANGLES

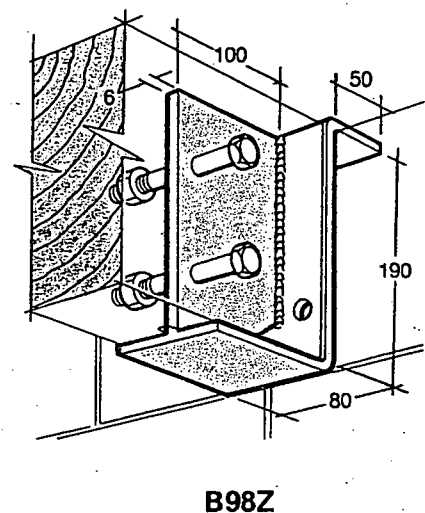
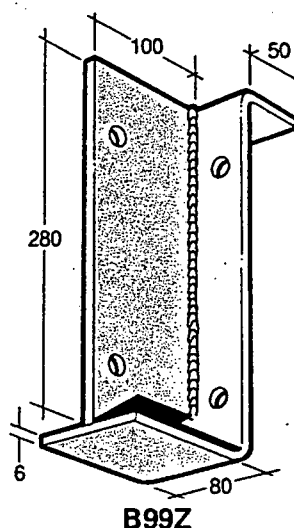
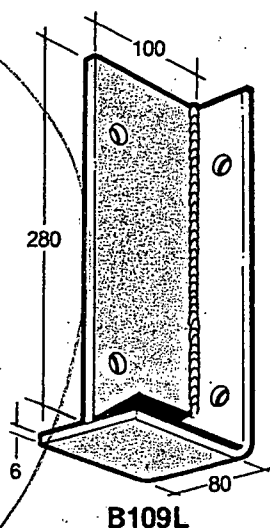
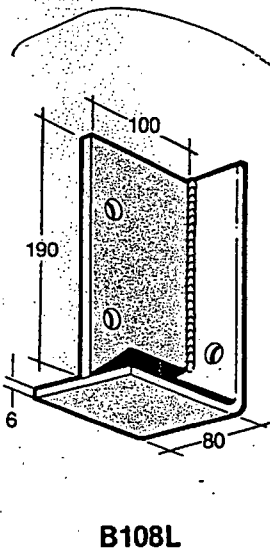


BOLTS NOT INCLUDED

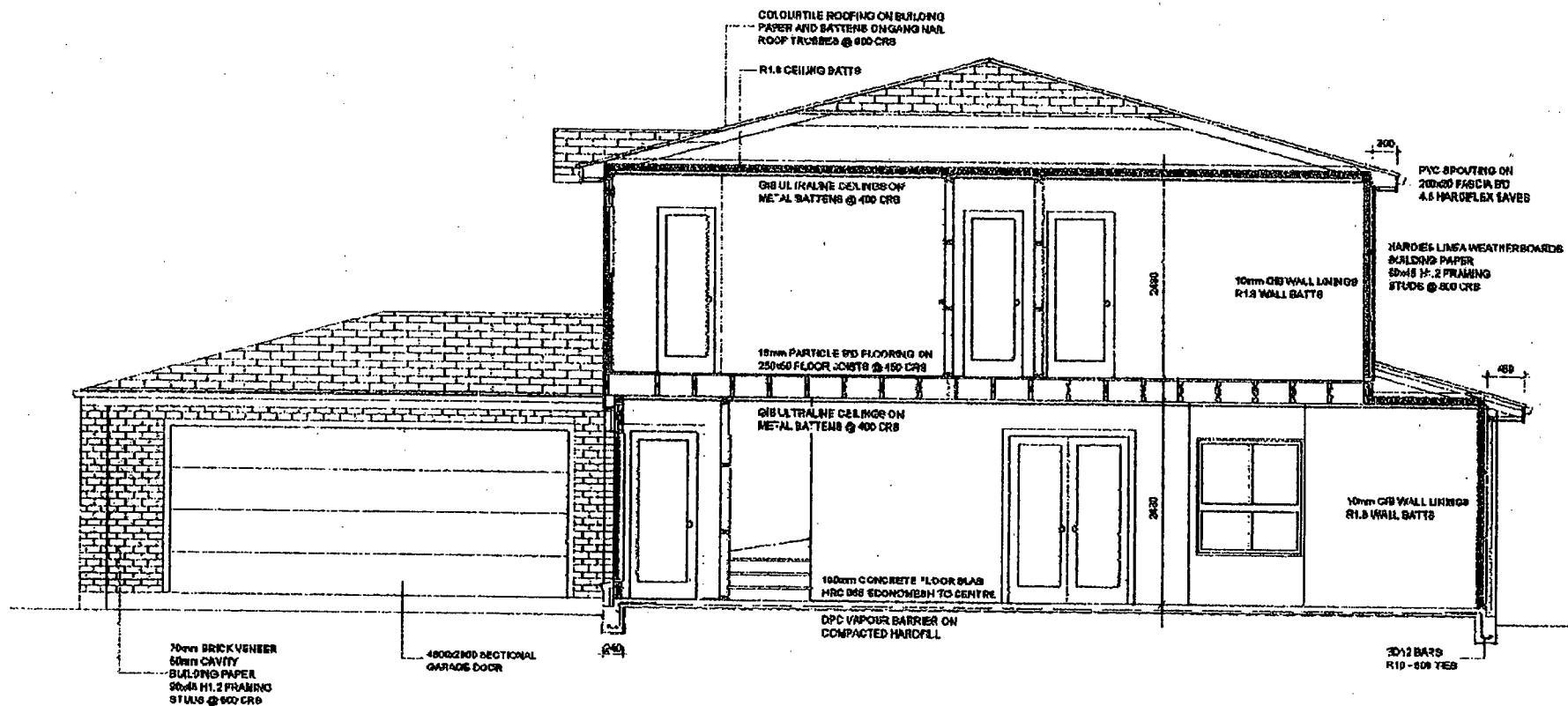
BOLT SIZES

All bolt holes to accommodate M12 Bolts
unless noted.

Z & L BEAM SUPPORTS



BOLTS NOT INCLUDED



CROSS SECTION

SCALE 1:50



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Draughting
Centre

Herman de Jonge

54 Holmwood Road, Kaitake, RD 2, Wanganui
Ph/Fax 06 347 1994 Mobile 021 285 7293
hdejonge@xtra.co.nz Copyright 2000 ADC

BASELINE CONSTRUCTION, 151 GREAT NORTH RD, WANGANUI

HOUSE A

Consent No.

APPROVED

JANUARY 07

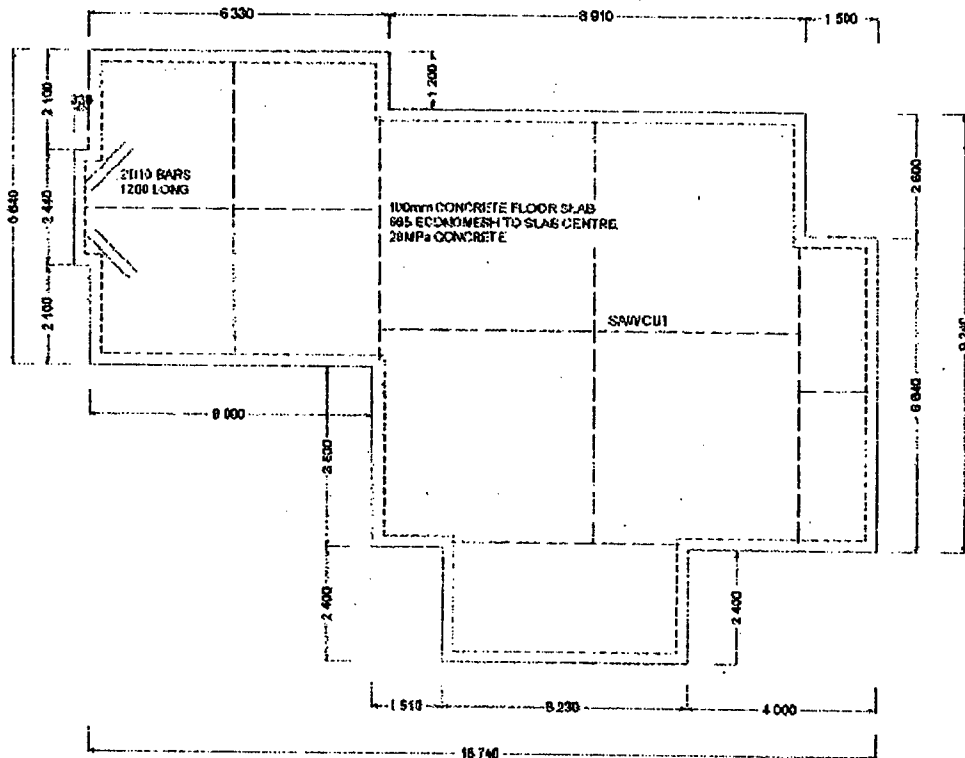
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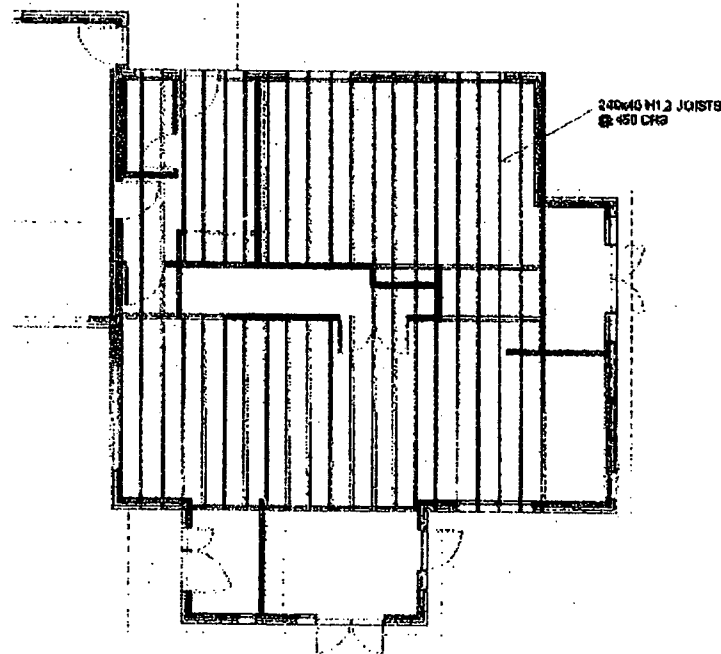
ELEVATIONS

SCALE 1:100



FOUNDATION PLAN

SCALE 1:100



UPPER FLOOR FRAMING PLAN

SCALE 1:100

HOUSE A

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Herman de Jonge

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Ph/Fax 06 547 1994 Mobile 021 285 7238
hdejonge@xtra.co.nz Copyright 2000 : ADC

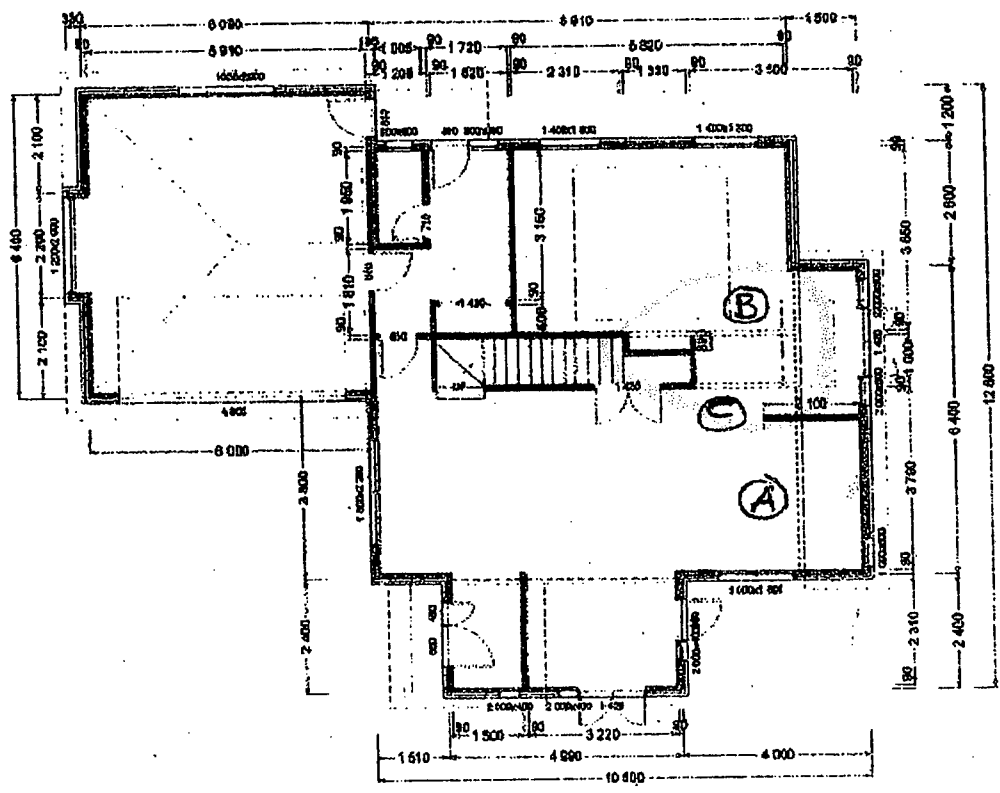
JANUARY 07

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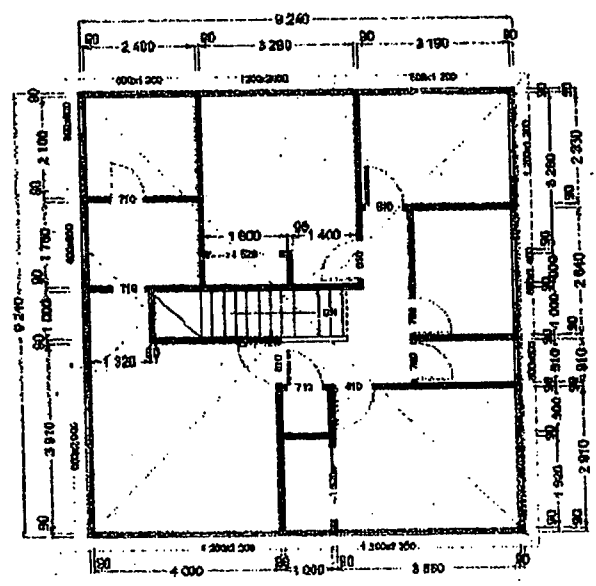
- 2 MAR 2007

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SET OUT PLANS
SCALE 1:100



GROUND FLOOR



UPPER FLOOR

HOUSE A

BASELINE CONSTRUCTION, 151 GREAT NORTH RD, WANGANUI



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Centre

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JANUARY 07

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- 2 MAR 2007
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CARTERS Manufacturing

Producer Statement : Page 1

Job: WN70213

Client: A Customer

Site:

Description:

Building Consent No.:

MiTek 20/20 - Engineering 4.4 Gamma1.3 (build 1597-7)

Phone:

Baseline Construction
House A, 151 Gt North Rd
Wanganui

Phone:

Printed: 14:46:45 26 Mar 2007

PRODUCER STATEMENT MiTek 2000™ TRUSS DESIGN PROGRAM

Certification of MiTek 2000™ Truss Design Program

The MiTek 2000™ truss design program has been developed by Gang-Nail Group Ltd for the design of Gang-Nail timber roof, floor and attic trusses in New Zealand. The truss designs computed by this program are prepared using sound and widely accepted engineering principles, and in accordance with NZS 4203, NZS 3603 and NZS 3604 as verification methods and acceptable solutions of the approved documents issued by the Building Industry Authority to satisfy the requirements of Clause B1: Structure of the Building Regulations 1992. This computer design for the proposed building complies with the relevant provisions of the NZ Building Code. This is subject to all proprietary products meeting their performance specification requirements, the provision of adequate bracing, fixings and the correct input of design data carried out by suitably trained personnel.

Summary of MiTek 2000™ Truss Design Data and Output

The MiTek 2000™ computer design output for this job titled and located at the site identified on the top of this page is based on the following parameters entered into the program. The owner must ensure that the following job details below are current and relevant to the project before fabrication and erection of the Gang-Nail trusses.

Job Details

Roof Truss

Timber Group: CTR45H12

Roof

Material: Metal Tiles
Dead Load: 0.210 kPa
Restraints: 400 mm centres
Live Load: Q_{ur} = 0.250 kPa
Q_c = 1.000 kN

Pitch: 17.500 deg

Ceiling

Material: Standard
Dead Load: 0.200 kPa
Restraints: 400 mm centres

Std Overhang: 450 mm

Wind

Area: Medium (0.70 m/s)
Pressure Coeff: C_{pe} = varies; C_{pi} = -0.30, 0.20

07/02/04

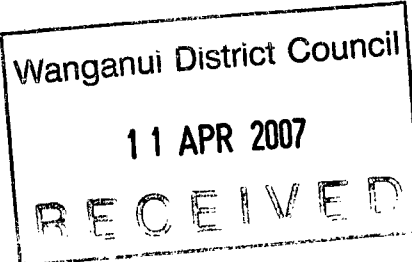
These trusses must be fabricated and erected in accordance with the Gang-Nail manual. Proper erection bracing must be installed to hold the components true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixing must be installed before any loads are applied. The specifications for timber shall be as shown on the output. The timber shall be standard gauged and treated to the requirements of NZMP 3640. Unless otherwise noted, this design assumes that the steel fixings and timber connectors are situated in a closed environment, as defined by NZS3604:1999 Section 4.

Truss List

Legend: * = detail only, ? = input only, — = failed design, Unmarked trusses = designed successfully, LB = lateral bracing required

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
J1H	2	2797	15.000	900	TR1	2	9240	15.000	900	J5A	1	1377	15.000	900
*HB1	4	6904	10.729	900	T1	1	9240	15.000	900	*R3B	1	940	15.000	900
J1	2	2797	15.000	900	J1F	1	2797	15.000	900	*R3C	1	940	15.000	900
J1A	2	2797	15.000	900	J1G	1	2797	15.000	900	T4	3	6400	15.000	900
J1C	2	2797	15.000	900	T2	3	5790	15.000	900	T5	8	1500	15.000	908
J1B	2	2797	15.000	900	J3B	1	3177	15.000	900	J1D	1	2797	15.000	900
J2	2	1897	15.000	900	*HB2	2	5108	10.729	900	J1E	1	2797	15.000	900
J2C	2	1897	15.000	900	J4C	1	2277	15.000	900	TG1	1D	9240	15.000	900
*R1	2	1310	15.000	900	J5	1	1377	15.000	900	J4	1	2277	15.000	900
*R2	4	613	15.000	900	*R3	1	940	15.000	900	J4A	1	2277	15.000	900
*R2A	4	613	15.000	900	*R3A	1	940	15.000	900	TG1A	1D	9240	15.000	900
J	2	1897	15.000	900	*R4	2	763	15.000	900	J3	1	3177	15.000	900
J	2	1897	15.000	900	*R4A	2	763	15.000	900	J3A	1	3177	15.000	900
*R1A	2	1310	15.000	900	J4B	1	2277	15.000	900	T3	1	6400	15.000	900

Total quantity : 77



The computer design input has been carried out by:

Signed:

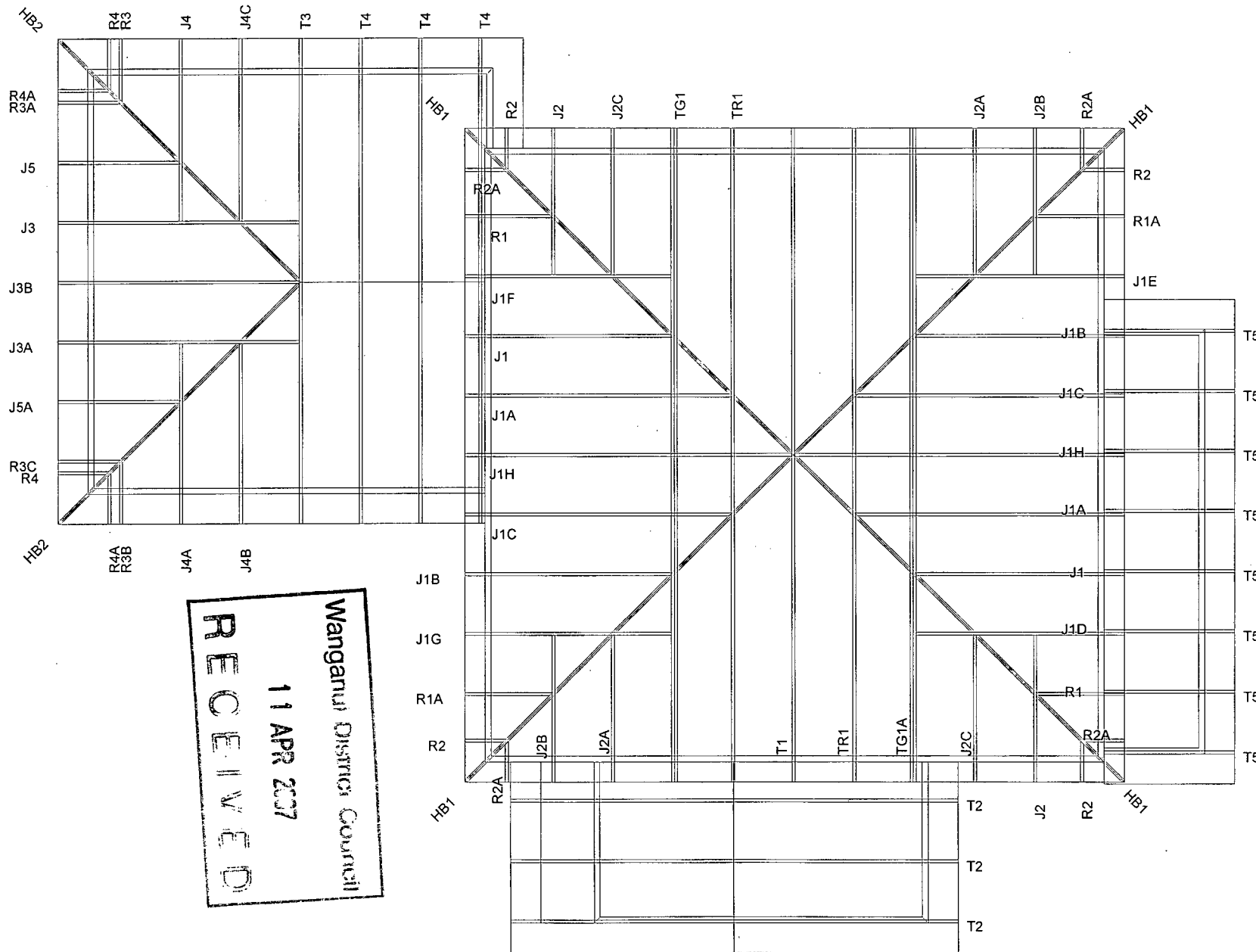
Dated: Monday, 26 March 2007

Name of Computer Operator: G D SPRINGER

Qualifications and Title: Truss Detailer

Company: CARTERS Manufacturing

BUILDING CONSENT LAYOUT



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 Wanganui District Council

CARTERS

MANUFACTURING

95 Wilson St
Wanganui
Ph (06) 348 1750

JOB No WN70243

Client: Baseline Construction

Job Name: House A

Address: 151 Great North Rd
Wanganui

Pitch: 17.5

Roof Material: L/w metal tile

Soffit Overhang: 450 mm

Wind Area: Medium

Snow Load: 0 kPa

Trusses And Rafters At 900 Centres
Unless Stated Otherwise.

This layout is to be read in conjunction
with the Architectural plans.

DRAWN BY Geoff

DATE 7/03/07

PAGE 1 of 2

BUILDING CONSENT INFORMATION

This layout and associated
design statements are for
Building Consent Application
purposes only and may not
be used for construction.

All walls shown on this layout are
considered to be load bearing.

As Built roof truss layouts, truss
fixing details, point load
notification, and a Producer
Statement for the design of the
roof trusses will be provided to
the Local Authority at the time
of manufacture.

This layout and associated design
statements are valid only if the job
is manufactured by CARTERS.

TRUSS FIXINGS

Truss to Top Plate - 2 wire dogs
Truss to Truss - Joist Hanger
or alternatively as specified by
CARTERS on the Final Layout



See Page 2 for Dimensions
and Point Load notification

CARTERS

MANUFACTURING

JOB No **WN70213**

Pitch: 17.5
Roof Material: L/w metal tile
Soffit Overhang: 450 mm
Wind Area: Medium
Snow Load: 0 kPa

This layout is to be read in conjunction with the Architectural plans.

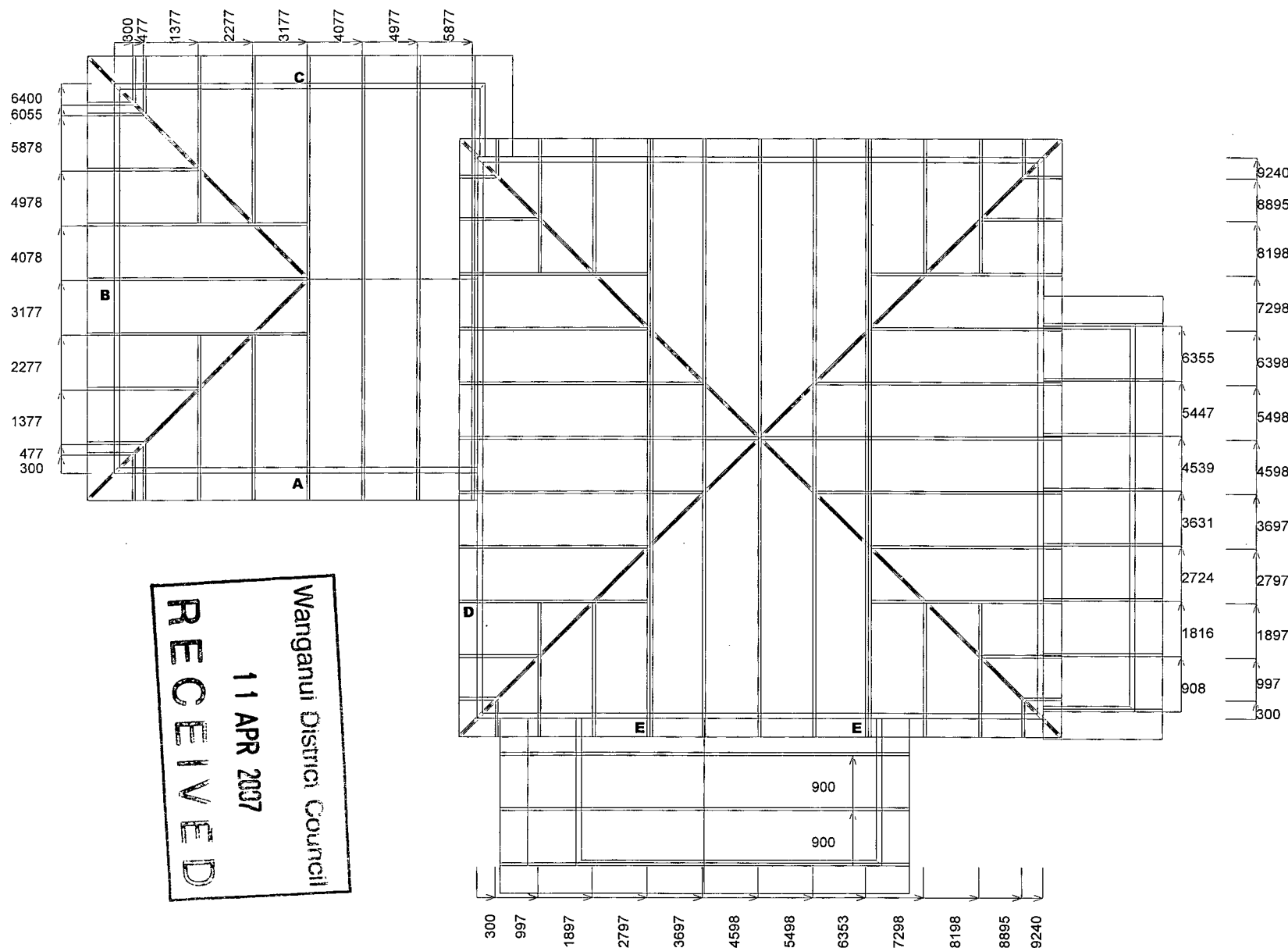
DATE 07/03/07	PAGE 2 of 2
---------------	-------------

HYPAN and HY90 lintels have been sized using designIT v1.2NZ software or selection manuals, HYPAN Edition 2 and HY90 Edition 1, as provided by CHH futurebuild.

All walls shown on this layout are considered to be load bearing.

LINTEL	SIZE	LENGTH
A	Hy90 360 x 90	4800mm
B	200 x 100	2000mm
C	250 x 100	2000mm
D	200 x 100	2000mm
E	300 x 100	2200mm

See Page 1 for
Labelled Truss Layout



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