



RRD001NDVG

Document Number: RDC-141293

Date Received: 30/08/2010

**BHP New Zealand Steel**

MAKING BUILDINGS EASY

VERSATILE BUILDINGS LTD**PRODUCER STATEMENT – DURABILITY**

The building designs VB2000 have been designed using the external metal cladding on the walls to assist in their structural stability. To satisfy the requirements of Clause B2: "Durability" of the proposed NZBC Nov.2004 and to ensure the cladding material meets a 50-year durability life the following provisions must apply:

Range of Product and Use

- Specification: AS1397: 1994
- Coating Type: Zinalume & G2z
- Steel thickness range: 0.35mm – 0.95mm BMT
- Steel grade range: G300 – G550
- Application: Standard Versatile Walls on Class IV & V Building category as per NZS4203: 1992
- Fasteners: Heavy Zinc or Zinc-tin coated clouts to comply with NZS4203: 1992 Class 1 Aluminium rivets for all BHP Cladding products

Requirements, Limitations and Exclusions

- Applicable to buildings in Coastal Very Severe, Coastal Severe, Coastal Moderate and Inland Moderate environments as described in BHP New Zealand Steel Environment Categories Sept 2003
- Fixing and installation of the cladding must be done exactly in accordance with Versatile Buildings Fixing Guide VB2000
- Normal and regular maintenance must be carried out on the exterior surface of the cladding and the following guide must be followed to ensure the durability requirements are met.

Regular Maintenance

- **Moderate Coastal**
Rain washing only required on exposed sections, sheltered or protected areas require washing every 3 months for areas 1000m from breaking surf or immediate vicinity of calm salt water such as estuaries.
- **Severe and Very Severe Environment**
Rain-washing only required on exposed areas. Sheltered and protected areas require washing down every month and whenever corrosive salts are present.

Extended Maintenance, Painting or Repainting

- **Extended Durability**
Once the metallic coating or the paint system has weathered away, signs of red rust for bare material or signs of the metallic coating for painted material, painting of the entire surface is required to extend the life of the cladding product. Paint manufacturers recommendations are to be followed for surface preparation and paint type to be used.
- **Evident Corrosion**
Areas that show signs of white or red rust/corrosion (typically in unwashed areas) require cleaning back with a stiff brush and cleaner to remove all dust, surface contaminants and corrosion products and present a sound substrate for painting. Priming of the surface and application of two coats of paint as per the Paint Manufacturer's recommendations is then required. Particular attention needs to be paid to laps (side, end, flashing etc) where earlier corrosion may start due to moisture and dirt entrapment.
If evident corrosion is not treated quickly rapid deterioration of the sheet may occur which could result in perforation. replacement of the affected sheet is the best option.

References

1. BHP New Zealand Steel "Environmental Categories" Sept 2003
2. Versatile Buildings Assembly Instructions
3. New Zealand Building Code 1992

Brett Waterfield

for Versatile Buildings Ltd
112 Waterloo Road
Christchurch

NEW ZEALAND

Gary Bonn

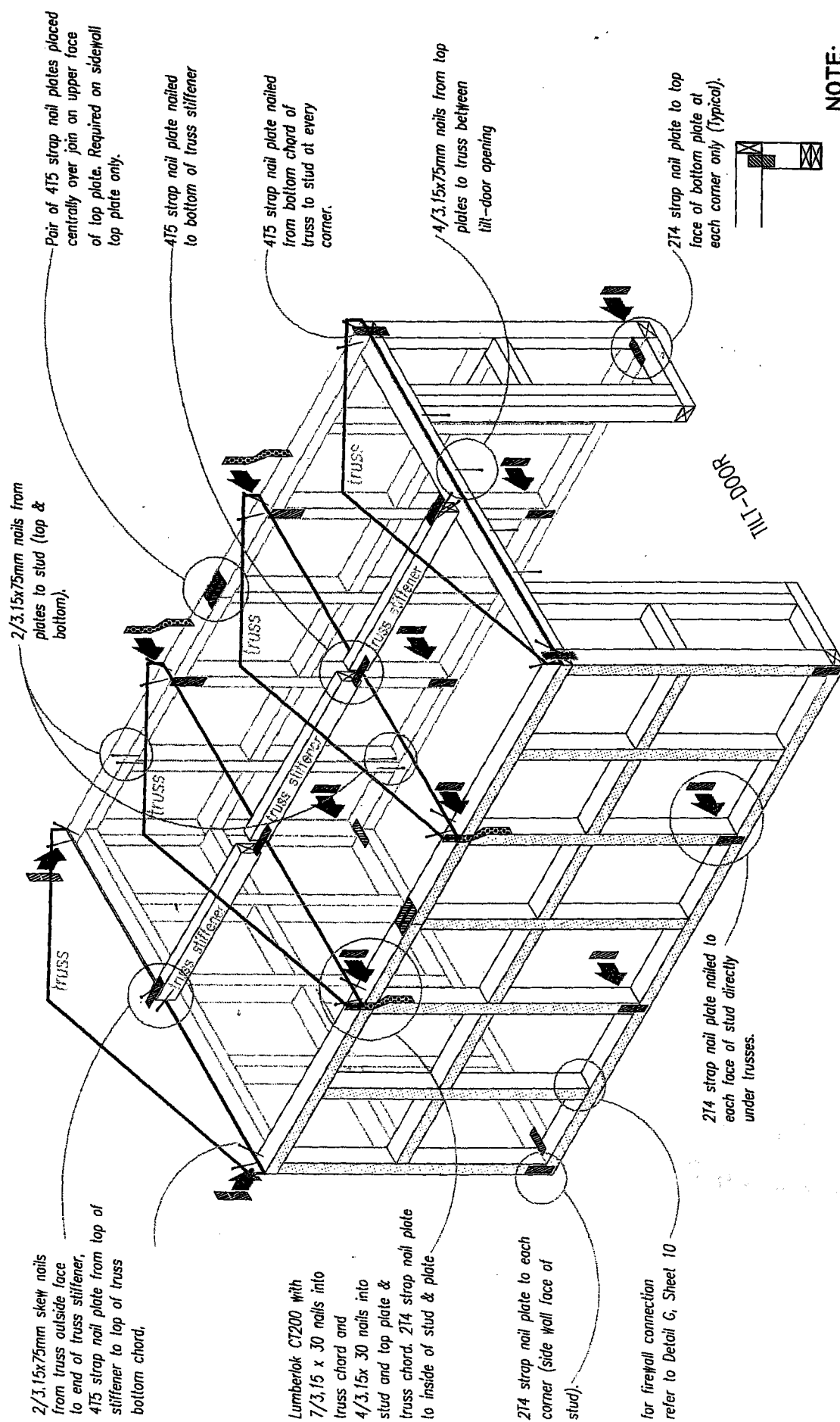
NEW ZEALAND

Dated: 1st Feb 2004

THIS APPROVED STATEMENT TO THE REQUIREMENTS OF THE BUILDING ACT 2004 BEING FULLY COMPLIED WITH

15.7.05

29637



NOTE:
hardware fixings apply to both
600 & 1000 series buildings.

VERMONT
BUILDINGS

VERSATILE BUILDINGS LTD
Construction Details
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[illegible]

DRAWING TITLE:
Hardware Fixing

DESIGN: S.A. Coll DRAWN: VB Ltd
DRAWING: VB2000-5 DATE: Feb '04

SHEET: 5

OF SHEET: 18

Cross section - raking ceiling end wall

Detail N

Detail O

purlin / truss brace - end wall

Multibrace, fix with 8x30x3.15 nails per end.

maximum pitch for raked ceiling is 20°

Purlin / Truss brace located on the 1st Purlin down from the ridge. Note 2 braces per truss.

45mm spiral rolled nails in to truss chord & top plate

4 x 30 x 3.15 nails in to brace

Purlin sizing as below

Purlin Note:

150x50 purlins at 1100 crs. max span 3000.

200x50 purlins at 1100 crs. spans of 3600 & 4200.

Multibrace fixed with 6x30x3.15 nails per end, both sides.

End Wall Truss

2 x 90mm Skew nails at web crossing

55 x 45

CPC40s

Top Plate

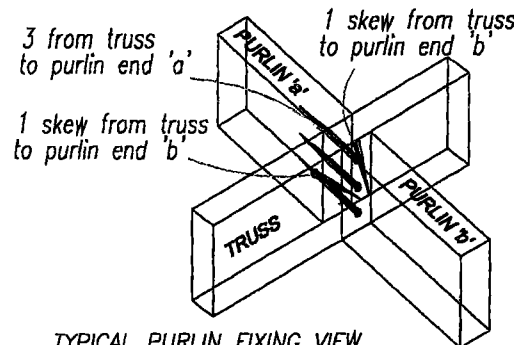
Max. wall height: 2.420m

End wall to Std. plate height

Note:

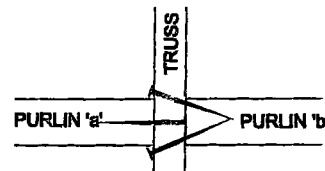
Design covers the end wall stability at the top plate level via the Purlin brace construction.

Detail P: Purlin detail



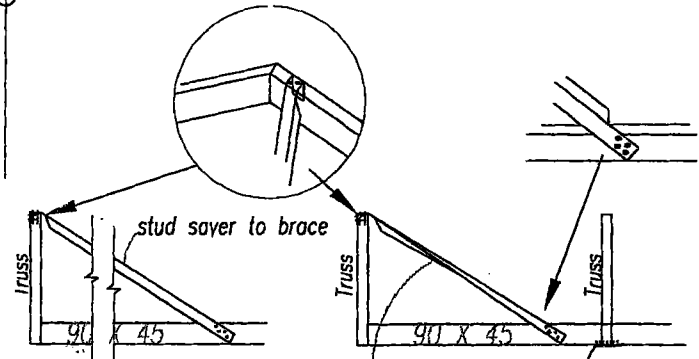
TYPICAL PURLIN FIXING VIEW

Note: all nails to be 90mmx 3.15



TYPICAL PURLIN FIXING PLAN VIEW

Detail Q: Ridge brace



up to 2.1 long max. length stud saver to ridge brace fixed with 4x30x3.15 nails to each end

Tylok 4T5 each Truss 1500 long Angle brace cropped at each end to allow nailing to truss chord and bottom chord runner. 4x30x3.15 nails each end.

NOTE: 1500 Angle Brace applies to 15 degrees pitch only Otherwise 1 stud saver as ridge brace to ridge brace position at both ends of building



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DRAWING TITLE:

Roof details

DESIGN:

S.A. Coll

DRAWING:

VB2000-13

DRAWN:

VB Ltd

DATE:

Feb '04

SHEET:

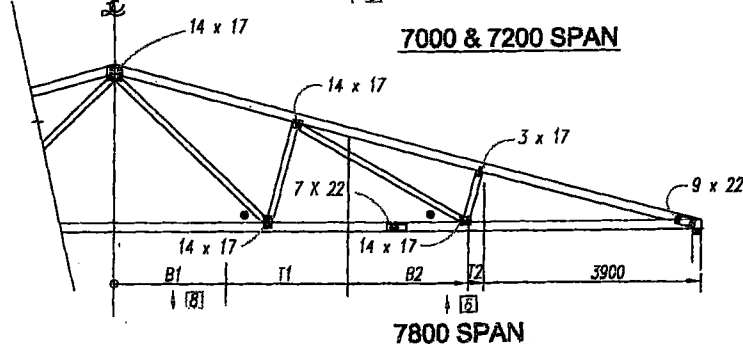
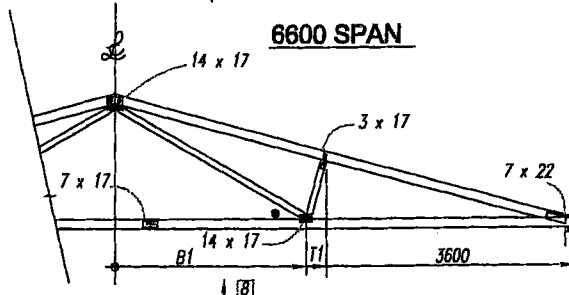
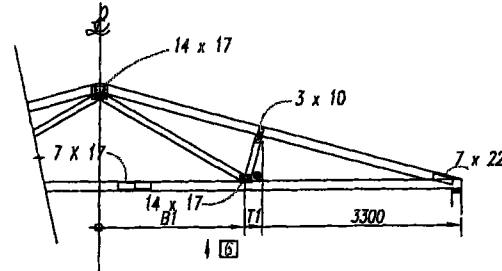
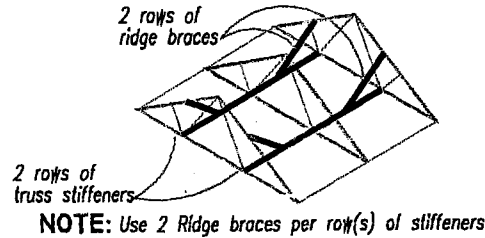
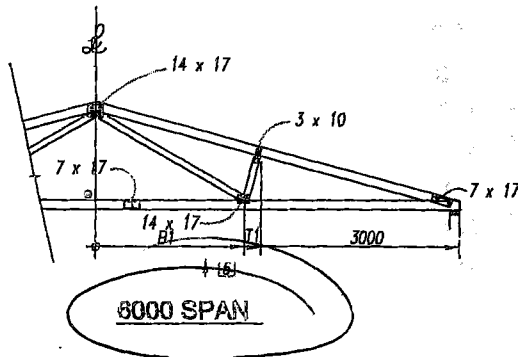
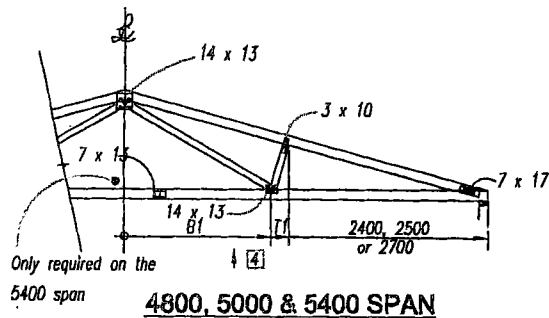
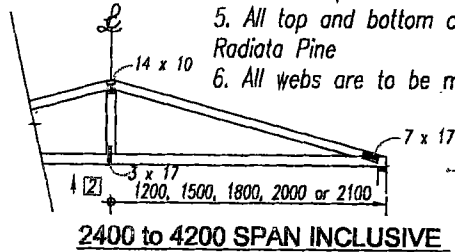
13

OF SHEET:

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NOTE:

1. Truss top chord pitch range is 15°, 20°, 25°, 30°
2. * Indicates location of Bottom Chord Brace (truss stiffener)
3. [] Indicates the Truss Camber (typical)
4. All truss plates are Gang-Nail GN10 type
5. All top and bottom chords are to be MGP10 90 x 35 Radiata Pine
6. All webs are to be min. F4 70 x 35 Radiata Pine



Specification trusses

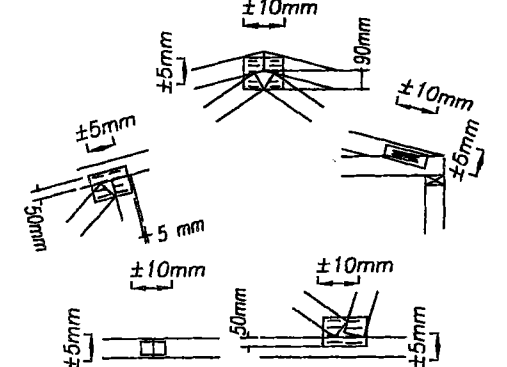
SPAN AND LOAD CHART

Live Load = 0.20kPa (Distr)		
1.0kN (Conc)		
Dead Load = 0.15 kPa (top chord)		
0.20 kPa (bottom chord)		
on 900 & 1200crs only		
Wind Load Cpi = 0.50 max		
Cpe = 0.80 max		
Purlin Spacing = 1500 max		
TRUSS CENTRES	WIND LOAD	SNOW LOAD(Kpa)
2000	High	0.60
1800	Very High	0.60
1200	Very High	1.00
900	Very High	1.20

TIMBER:

The specification of timber shall be as follows:
 Grading: MSG Radiata Pine to F4 or MGP10 grade as noted.
 Treatment: To NZMP 3640 : 1992
 Moisture Content: Dry

MANUFACTURING TOLERANCES.



Typical positioning tolerances for plates

NOTE:

1. Plates are to be fully pressed home on both sides of joints.
The plate axis must be located in the specified or indicated direction.



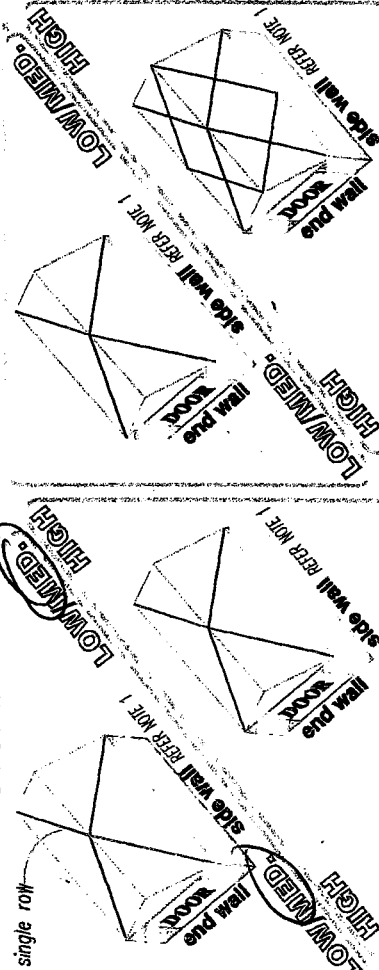
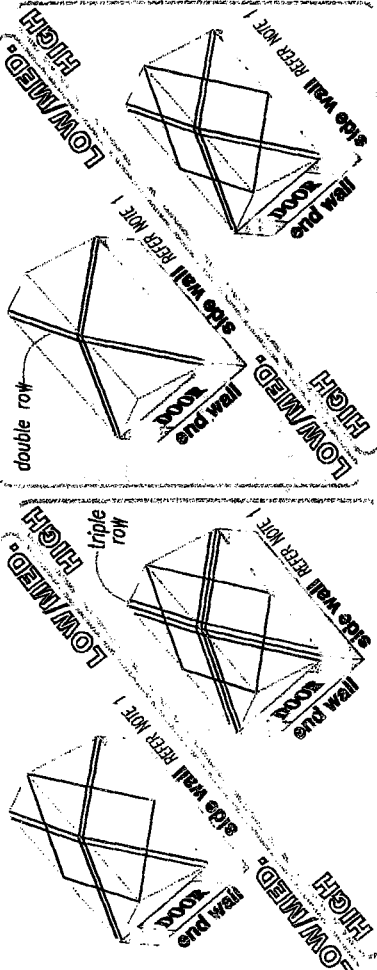
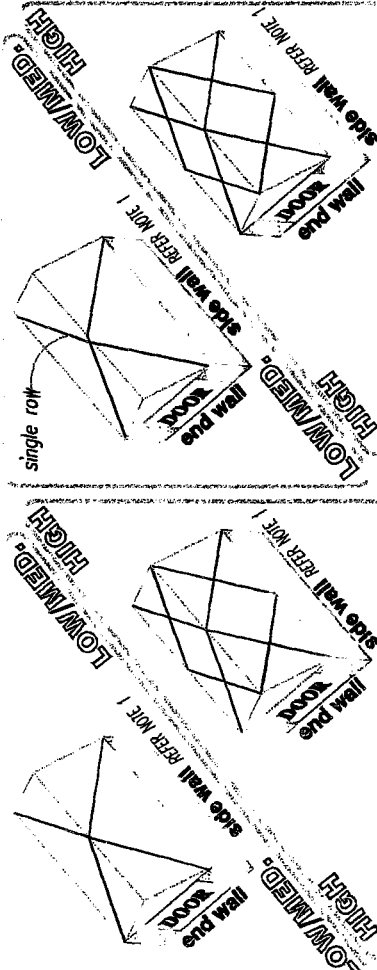
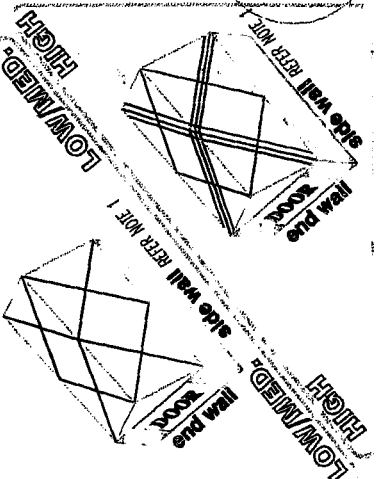
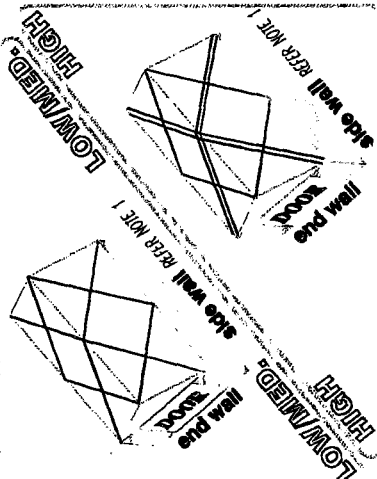
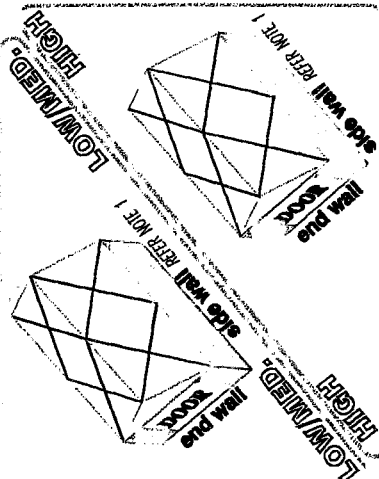
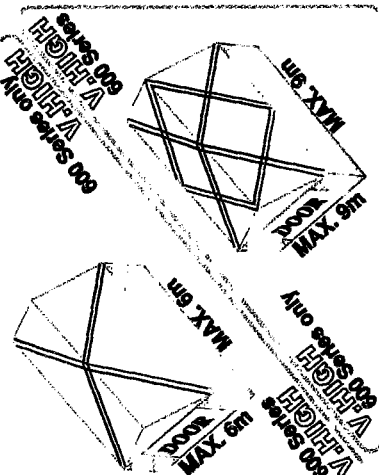
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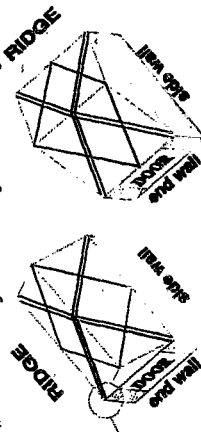
DRAWING TITLE:
Truss Details

DESIGN: S.A. Coll
DRAWING: VB Ltd
DATE: Feb '04

SHEET: 14
OF SHEET: 18

**BUILDING WIDTH
6.6m - 9.0m WIDTH****2.4m - 6.0m WIDTH****2.4m - 6.0m LENGTH****6.6-9.0m LENGTH****9.0-12.0m LENGTH****9.6m - 12.0m WIDTH****600 Series only
VERY HIGH WIND****ROOF BRACING NOTES:**

1. End Wall / Side Wall ratios over 1:1.5 shall have a double rafter (corner to corner)
eg: 6m x 9m = Single Rafter
eg: 6m x 9.6m = Double Rafter
2. End Wall / Side Wall ratios shall not exceed 1:2 in Low/Medium & High Wind zones.
eg: 6m Wide(end Wall) x 12m deep (side Wall) = 1:2
3. End Wall / Side Wall ratios shall not exceed 1:1.5 in Very High Wind zones.
eg: 6m Wide(end Wall) x 9m deep (side Wall) = 1:1.5
4. Maximum stud height is 2.420m. Refer to sheet 9 for 2.7m & 3.0m stud heights.
5. The ridge can run along or across the 'end wall' Without affecting roof bracing, refer to diagram below:



6. Indicates a single row of Lumberlok Strip Brace tensioned up and laid over the top of purlins. Fix each end with 3x 30x3,150 nails (typical)

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DRAWING TITLE:

Roof Bracing

DESIGN: DRAWN:

S.A. Coll VB Ltd

DRAWING: DATE:

VB2000-17 Feb '04

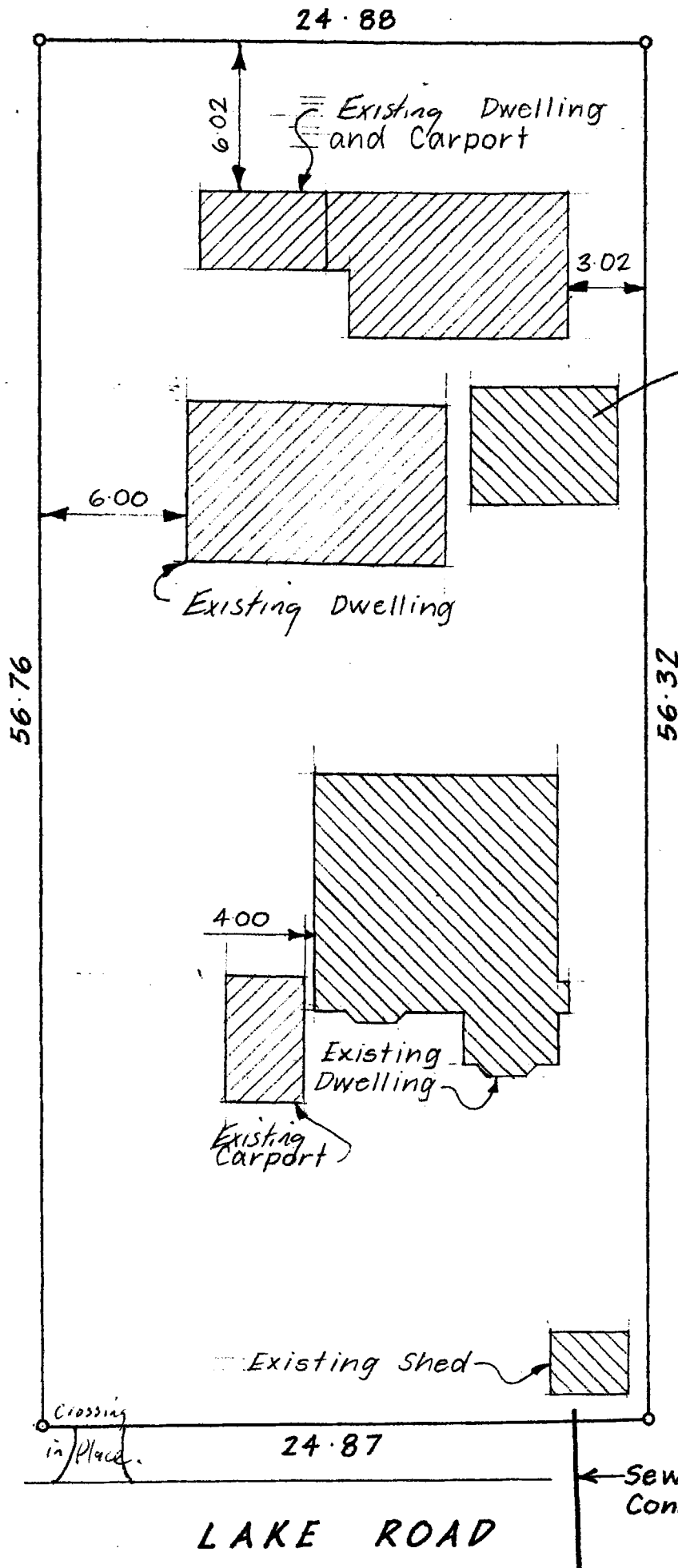
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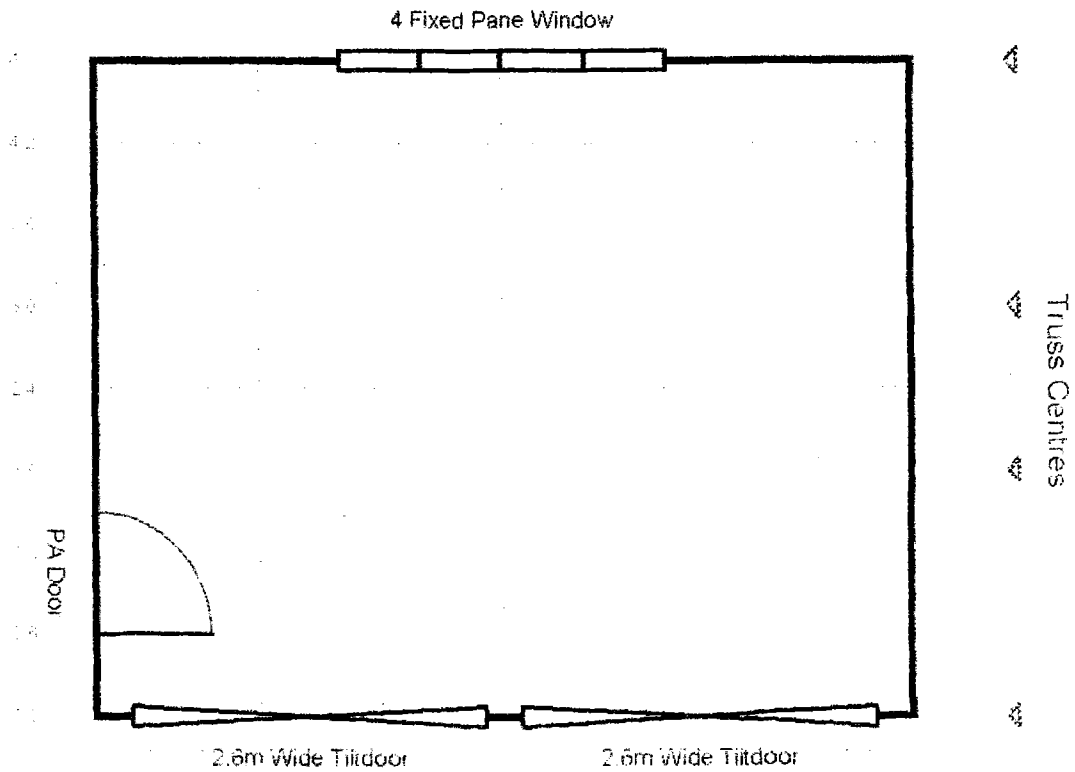
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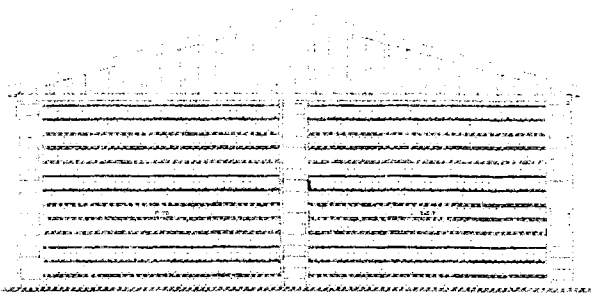


Garage Burnt
Down
Replace with
Same Size
Same Floor.
4.8m x 6.0m

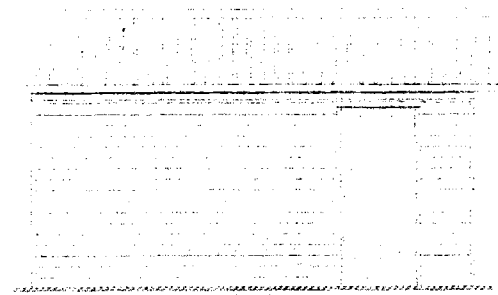


Front Elevation

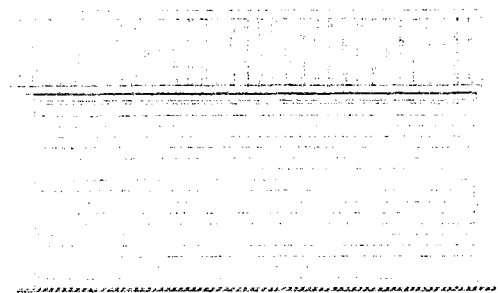
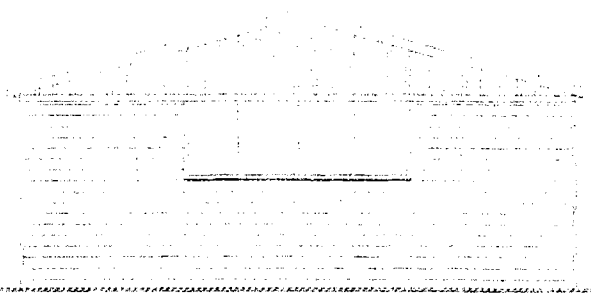
Left Elevation



Rear Elevation



Right Elevation





RUMPLIS ROOM - SKULLION BOOF

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Version: 2, Version Date: 30/08/2010