

ITM ADVANTAGE LEAN-TO POLE SHED SPECIFICATIONS



Pole Shed For Jamie and Naomi Bennett – 58 Swamp Road, Tasman

Wind zone: High
Site: Exposed
Mitek: FB34073A

Roof to be clad with 0.4 Zinalume 5 Rib Long run
 Wall to be clad with 0.4 Corrugated long run
 Roof and walls to be fixed with 65mm & 50mm Timbertite Screws..
 Spouting to be Marley Classic PVC with 80mm Downpipes
 Servicing 180m² of roof area.
 Rainwater to be piped 2.0m from the structure.
 All Poles to be H5 Treated High Density Poles.
 All Timber to be H4 Rad R/S SG 8
 All fixings and Mitek connectors to be Galvanised.
 Site waste water disposal by owner



Tasman District Council
BUILDING CONSENT AUTHORITY
APPROVED DRAWINGS
 Consent Number BC .150840.....
 Signed
 Date 14/08/2015
 ALL WORK IS TO COMPLY WITH THE NZ BUILDING CODE
 DO NOT MAKE CHANGES WITHOUT PRIOR APPROVAL



MiTek New Zealand Ltd.

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AUCKLAND
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MITEK®

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LUMBERLOK®

BOWMAC®

Producer Statement - PS1 - Design

ISSUED BY: MiTek New Zealand Ltd.
TO BE SUPPLIED TO: Building Consent Authorities in New Zealand
IN RESPECT OF: Proposed Lean-To Farm Building - FB34073A
AT: 58 Swamp Road

MiTek New Zealand Ltd has been engaged to provide engineering design services in respect of the requirements of Clause(s) B1 of the Building Regulations 1992.

- ☒ Part only as specified: Purlins, Rafters, Girts, Poles, Columns, Trusses if applicable (including fixings as specified) and building stability (including foundations) of the proposed building work.

The design has been prepared in accordance with AS/NZS 1170, NZS 3603, NZS 3604, approved documents of the NZ Building Code and the work is described on MiTek New Zealand Ltd drawings numbered FB34073A 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 \$500,000, I BELIEVE ON REASONABLE GROUNDS that subject to:

1. The verification of the following design assumptions:
 - i) Importance Level 1, Design working Life 50 years
 - ii) Light roof and no ceiling
 - iii) Modified High Wind Zone
 - iv) Snow Load $s_g = 0.9$
 - v) The structure is supporting on good ground- NZS 3604 Section 3, with a soil ultimate bearing capacity 300 kPa, $\phi_b = 0.5$.
2. 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, including B2 - Durability.

I believe on reasonable grounds that the drawings, specifications and other document according to which the building is proposed to be constructed comply with the relevant building code.

On behalf of MiTek New Zealand Ltd

Date: 3 / 08 / 15

.....
In Ling Ng
Technical Services Manager
BE (Hons), CPEng, IntPE
MIPENZ (ID: 146585)



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DESIGN INFORMATION - FARM BUILDING FB34073A

LOADS and TIMBER

- Poles : Poles, Outer Zone Density Normal 350 kg/m³ $f_b = 38$ MPa, Pole taper 6mm per 1.0m length
- Purlins : Radiata Pine or Douglas Fir - VSG8 / MSG8
- Girts : Radiata Pine or Douglas Fir - VSG8 / MSG8
- Rafters : Radiata Pine or Douglas Fir - VSG8 / MSG8
- Moisture content can be green. Our recommendation is 20% or less at time of installation.

DESIGN LOADS

- Dead loads for Light Roof - 0.25kPa (includes weight of purlins, associated framing and galvanized iron roof).
- Live loads - 1.1kN concentrated load, 0.25kPa uniform Load.
- The enclosed documentation has been designed for a Building Importance level 1, with 50 years working life. Refer to AS/NZS 1170.0:2002.
- Wind loads - building designed for a modified High Wind Zone.
- Snow Loads - building designed for $s_g = 0.9$ (calculated specifically for the job site in this documentation)
- Seismic Zone - 2 (Annual Probability of Exceedance - 1/100)
- Soil conditions - ALL foundations to be into natural ground with a minimum bearing capacity of 300 kPa, $\phi_b = 0.5$.

DESIGN LOAD REFERENCES

Compliance Document for the New Zealand Building Code Clause B1 Structure Amendment 8

NZS3603:1993 Amendment 4	Cited Verification Method
NZS3604 Amendment 2	Cited Acceptable Solution
AS/NZS 1170 Part 0: 2002	Cited Verification Method
AS/NZS 1170 Part 1: 2002	Cited Verification Method
AS/NZS 1170 Part 2: 2011	Cited Verification Method
AS/NZS 1170 Part 3: 2003	Cited Verification Method
ANSI/TPI1 - 2002	Alternative Solution
Rutledge Method	Alternative Solution - Footing Design for Cantilever Poles.

BUILDING ERECTION

Proper 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 fixings must be installed before applying any loads.

LOAD DETAILS

These drawings have been prepared using the above design loads. It is the responsibility of the user to ensure that the design data and loads are still correct at the time of construction.

PRODUCT SPECIFICATION

These details have been designed using specific MITEK®, LUMBERLOK® and BOWMAC® products and the performance of the building and validity of the Producer Statement is reliant on the correct choice of product.

COPYRIGHT

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Building Information:

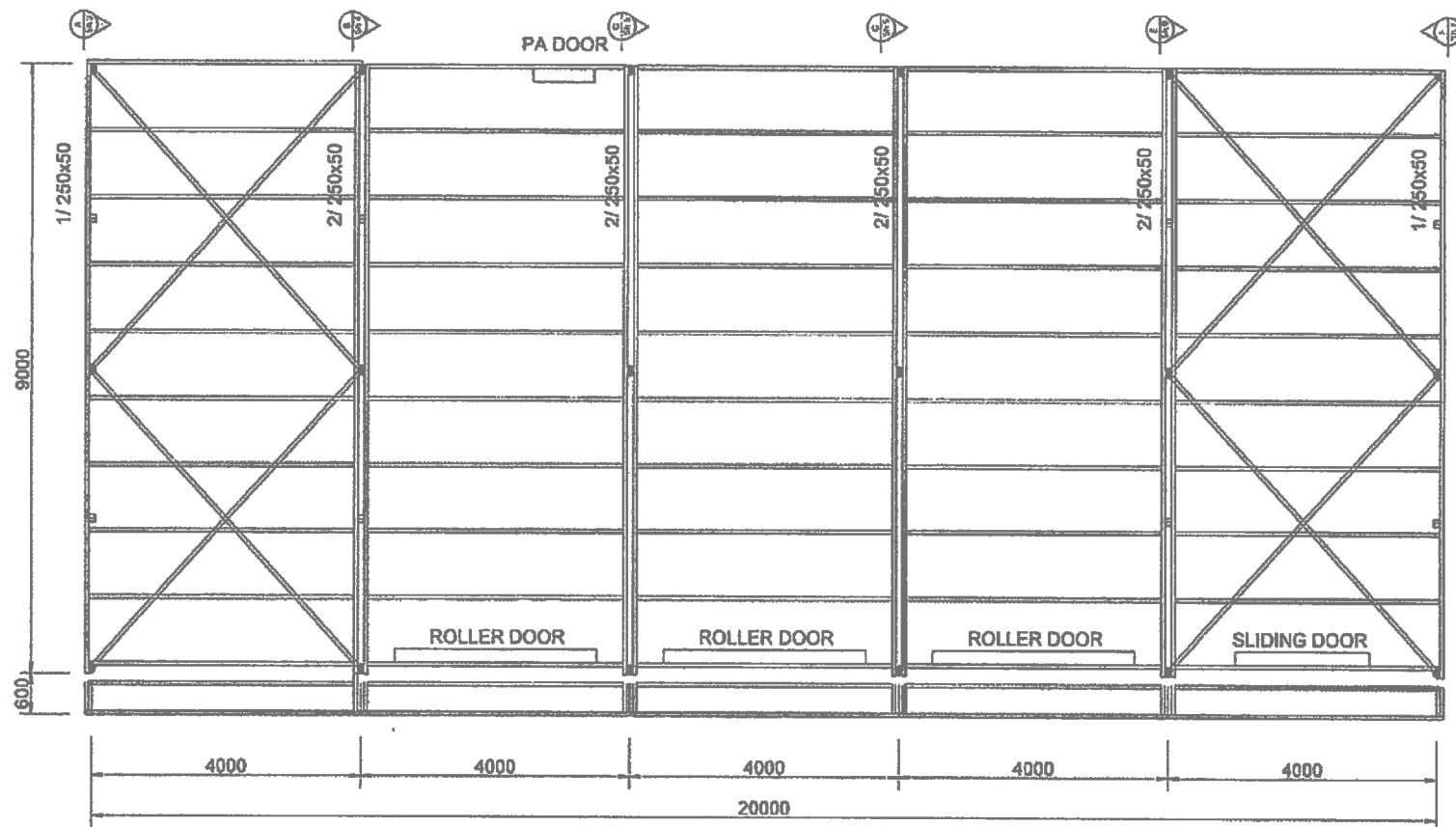
Roof Pitch: 1.9 deg.
 Wind Load: High
 Snow Load: $S_g = 0.9$
 Earthquake Zone: 2
 Timber Grade: VSG8 / MSG8
 Bay Spacing: 4000mm
 Purlin Size: 200x50
 Purlin Centres: 983mm
 Girt Size: 150x50, 150x50 (Rear)
 Girt Centres: 1010mm
 Wind Column Size: 2/ 150x50, NA (Rear)
 Pole Size: 150 SED
 Pole Embedment: 1000mm
 Rafter Size: 250x50, 250x50 (Internal)
 Rafter Span: 4500mm
 Props Required: NA
 Max Pole Height: 3900mm
 Low Pole Height: 3600mm
 Floor Type: Earth
 Front Overhang: 600mm Add-on
 Rear Overhang: None

Key:

- = Clad Walls
 □ = Column
 ● = Pole
 X = Single Row of Tensioned Multibrace

Notes:

Rev.	Date	Amendment
A	4/08/15	- Job name corrected

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Job Name: Jamie and Naomi Bennet

Job Site: 58 Swamp Road

Client Name:
Robert MurphyDrawn by
Chris Richards

Plan

Date
3 / 08 / 15Scale:
drawings to scale

Drawing Number:

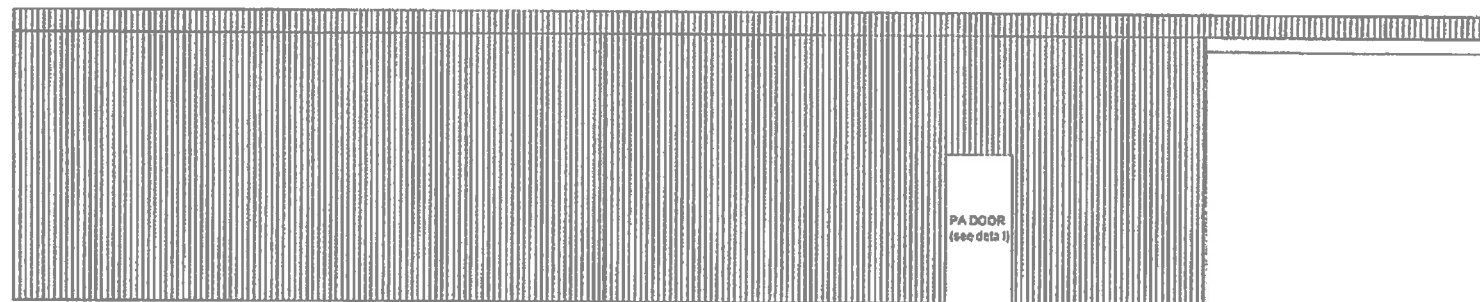
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Sheet Number

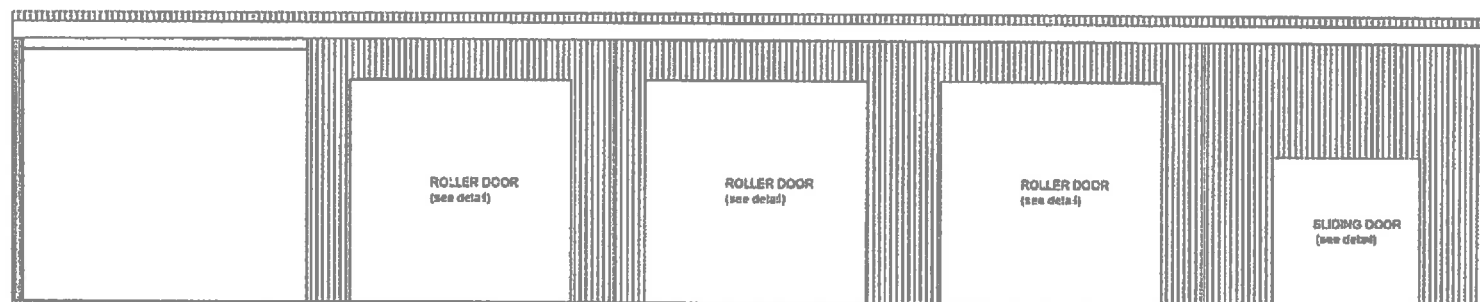
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Notes:

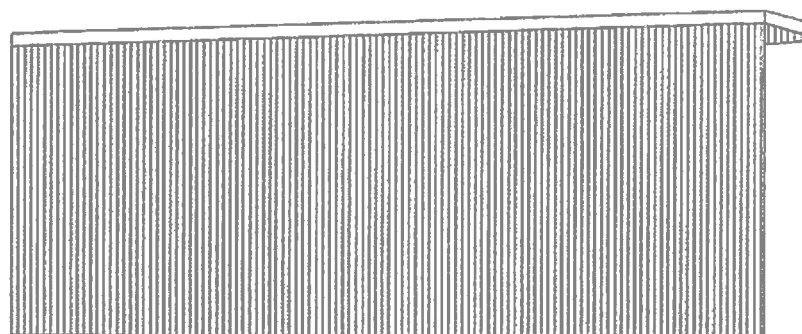
N.B. This design does not include
any design or detail for flashing
and/or drainage requirements.



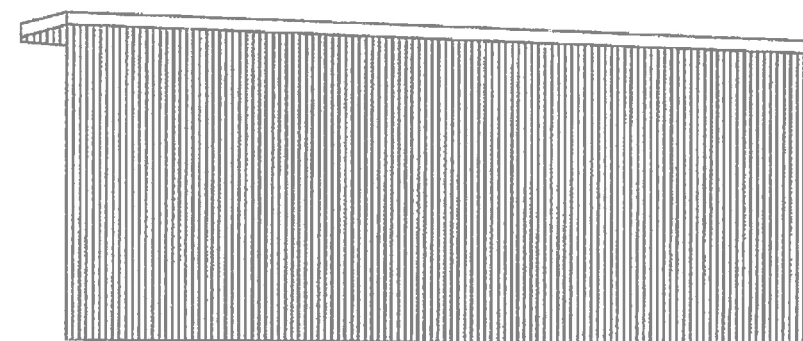
REAR ELEVATION



FRONT ELEVATION



LEFT END ELEVATION



RIGHT END ELEVATION

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Elevations

Date
3 / 08 / 15

Scale
drawings to scale

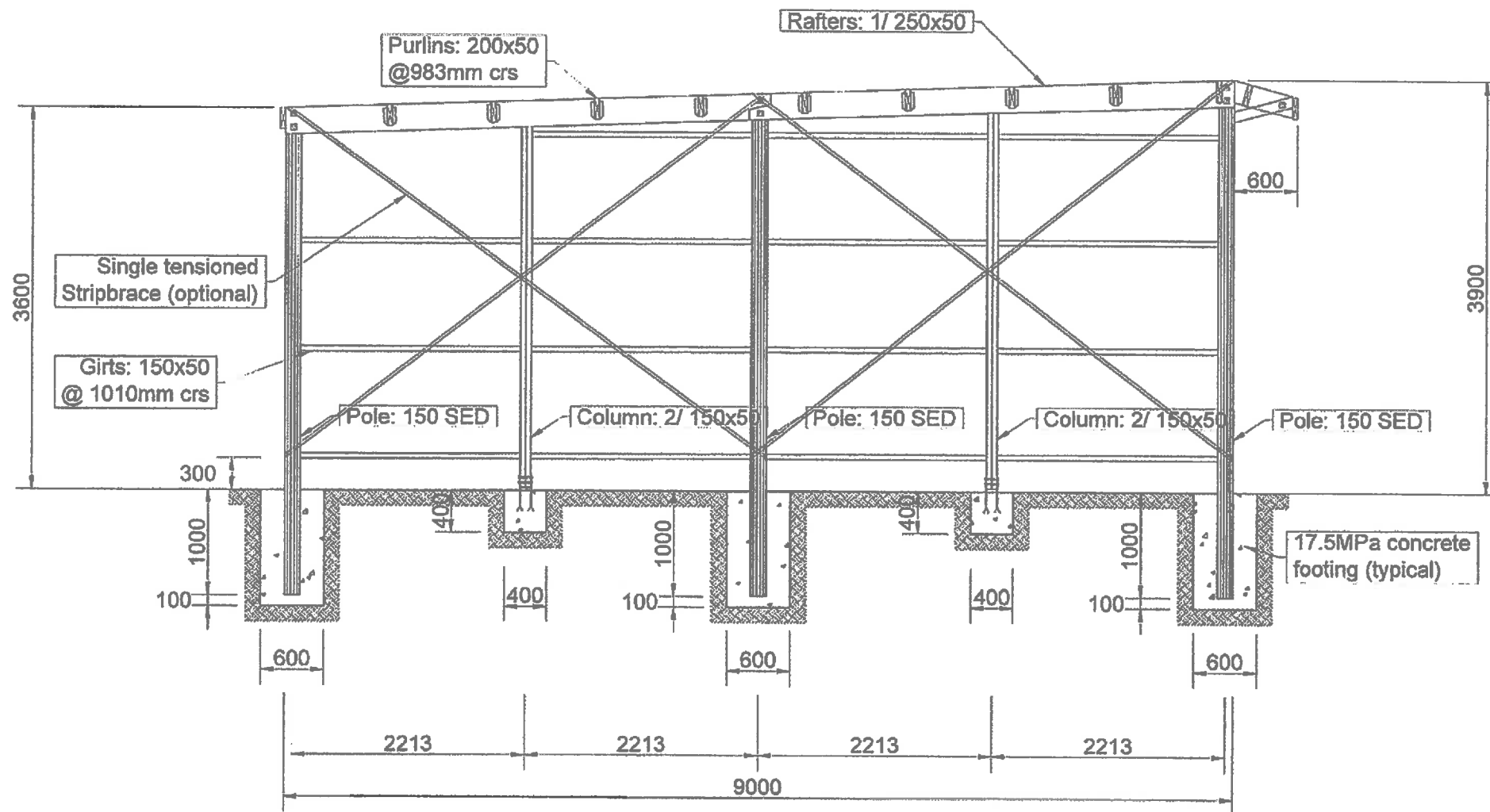
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Sheet Number

2

Note: Girt pattern may vary, as long as spacings do not exceed 1010mm.



Pitch: 1.9 deg.



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Job Site: 58 Swamp Road

Client Name:
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Section A

Date:
3 / 08 / 15

Scale
drawings to scale

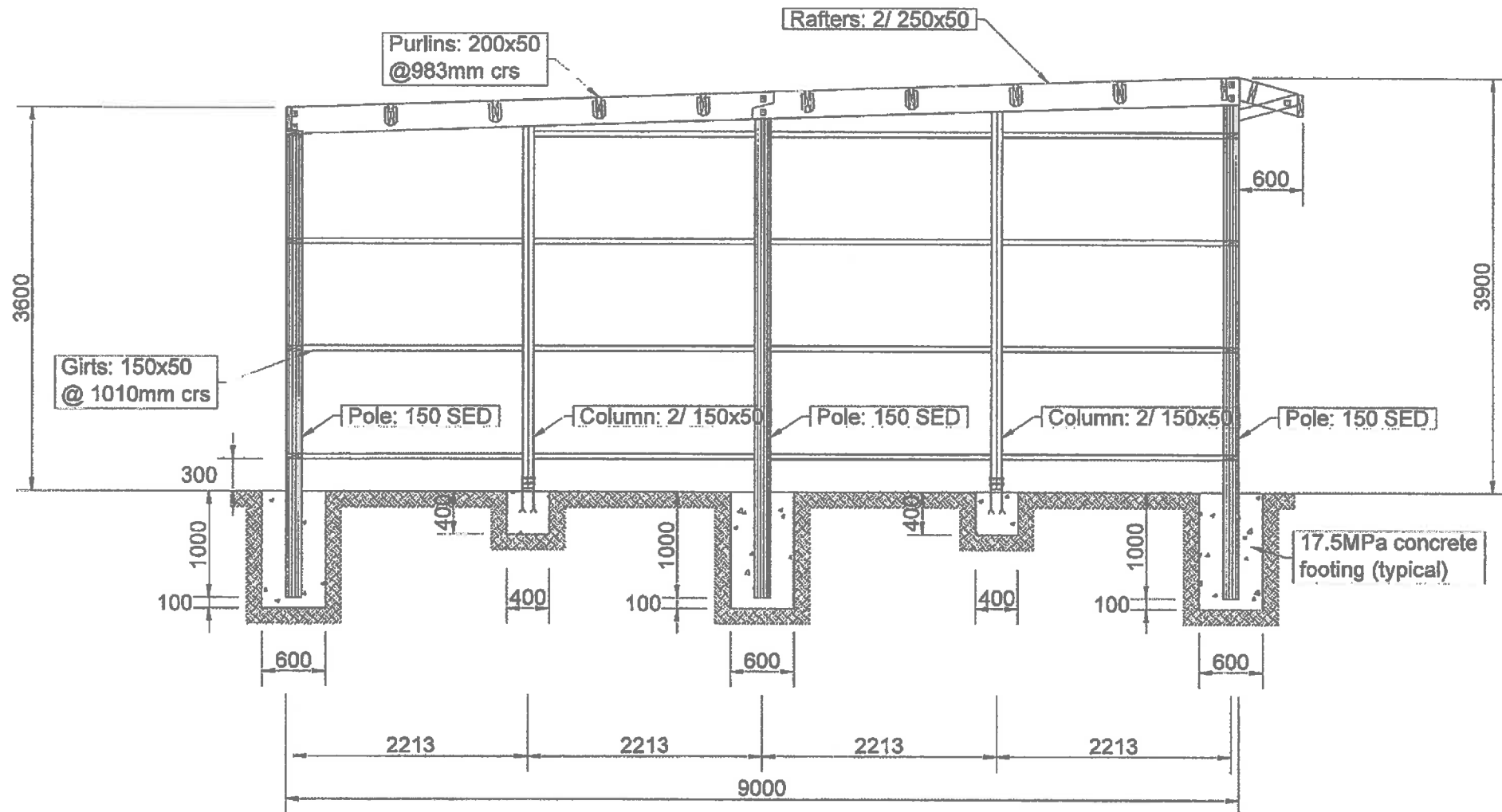
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Sheet Number:

3

Note: Girt pattern may vary, as long as spacings do not exceed 1010mm.



Pitch: 1.9 deg.



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Client Name
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Section B

Date
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Scale
drawings to scale

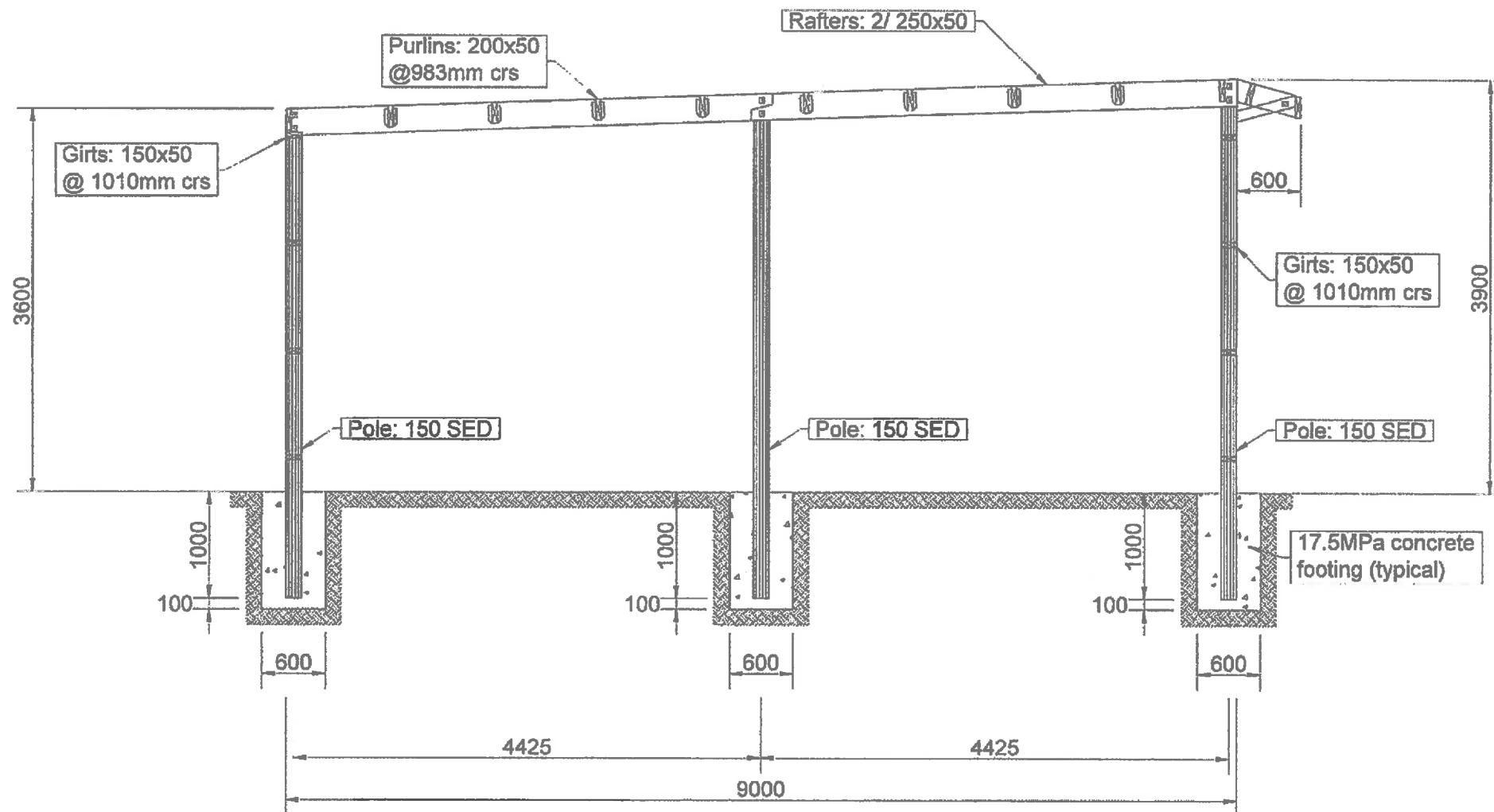
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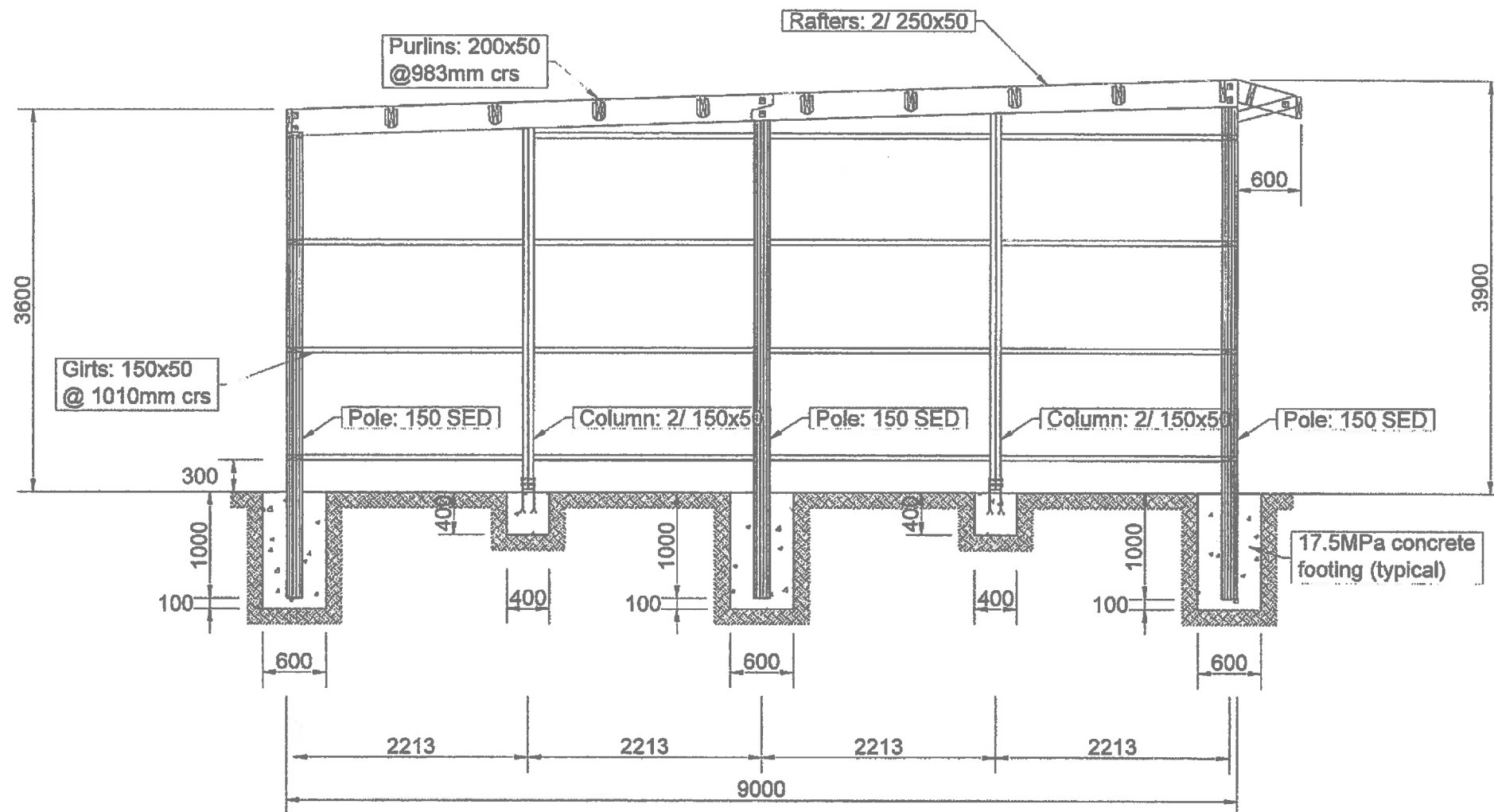
Note: Girt pattern may vary, as long as spacings do not exceed 1010mm.



Pitch: 1.9 deg.

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	MITEK®	LUMBERLOK®	BOWMAC®	Client Name: Robert Murphy	Drawn by Chris Richards	Date: 3 / 08 / 15	Scale: drawings to scale	Sheet Number: 5

Note: Girt pattern may vary, as long as spacings do not exceed 1010mm.



Pitch: 1.9 deg.



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Job Site: 58 Swamp Road

Client Name:
Robert Murphy

Drawn by
Chris Richards

Section E

Date:
3 / 08 / 15

Scale:
drawings to scale

Drawing Number

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Sheet Number

6

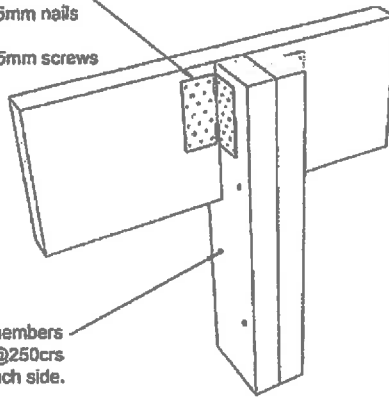
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7

2/ LUMBERLOK Girt Plate
Fix with 6/ 30x3.15mm nails
or
3/ Type 17-12g x 35mm screws
per flange



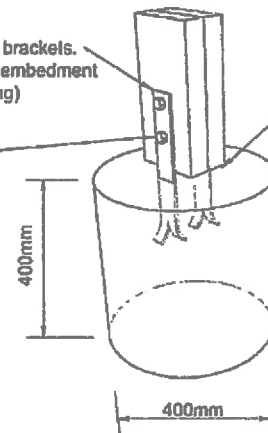
Fix both column members
with 90mm nails @250c/s
staggered from each side.

WIND COLUMN FIXING

IC01

2/ BOWMAC B75 brackets.
(150mm minimum embedment
into concrete footing)

2/M12 bolts



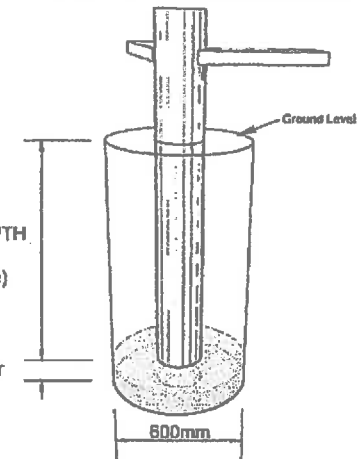
DPC underneath
column end is
recommended

WIND COLUMN FOOTING DETAIL

IC02

ED
EMBEDMENT DEPTH
(Ground level to
underside of pole)

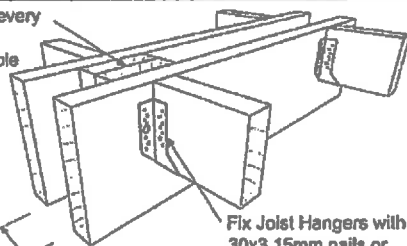
100mm Cover



POLE FOOTING

LT12

Solid blocking every
second purlin.
Applies to double
rafters only.



Fix Joist Hangers with
30x3.15mm nails or
Type 17-12g 35mm screws
(See table below)

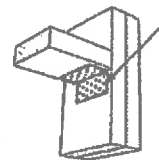
Purlin Size	LUMBERLOK Joist Hanger	No. of Nails per flange	No. of Screws per flange
140/ 190x45	JH 47x120	4	2
150/ 200x50	JH 52x120		
240/ 290x45	JH 47x190	6	3
250/ 300x50	JH 52x190		

PURLIN FIXING & BLOCKING

RF08



Girt connected to pole with
LUMBERLOK Girt plate (x1 each end)
Fix with 6/ 30x3.15 nails per flange
or
3/Type 17-12g x 35mm screws
per flange.
Girt Plates may be fixed above
or below girt.



Use the same
fixing detail for
intermediate columns

GIRT FIXING DETAIL

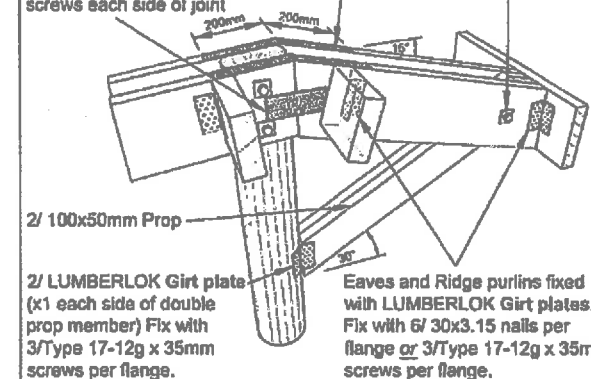
RF09

Align Girts flush with
outside edge of pole
Cut girts to suit
Do Not Check Girts
Into Pole!

80x200x2mm nailon plate
(half RS40080) fix with
4/Type 17-12g x 35mm
screws each side of joint

400mm LUMBERLOK
Multibrace nailed with
30x3.15 nails

1/M12 Bolt with
50x50x3mm
Washers



2/ 100x50mm Prop

2/ LUMBERLOK Girt plate
(x1 each side of double
prop member) Fix with
3/Type 17-12g x 35mm
screws per flange.

Eaves and Ridge purlins fixed
with LUMBERLOK Girt plates.
Fix with 6/ 30x3.15 nails per
flange or 3/Type 17-12g x 35mm
screws per flange.

ADD-ON OVERHANG (CENTRE)

OH01



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Client Name:

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Drawn by

Chris Richards

Date

3 / 08 / 15

Details

Scale:

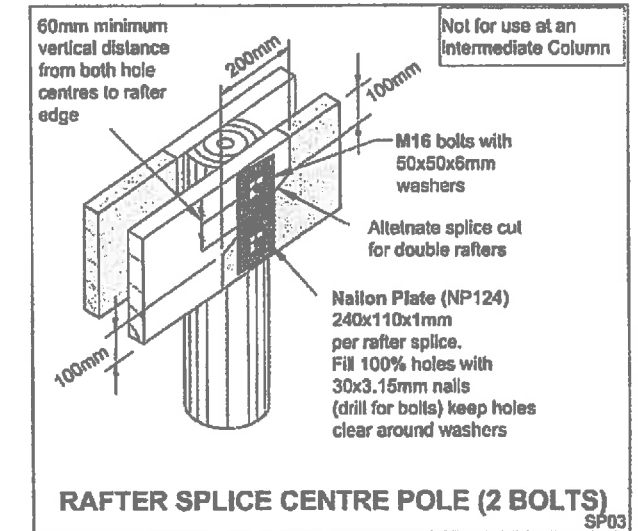
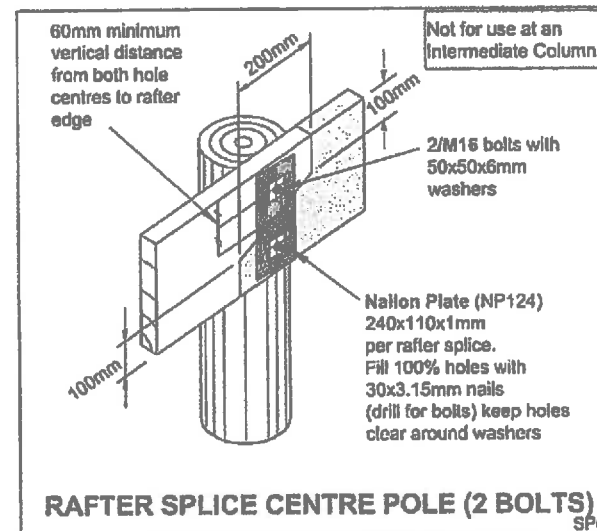
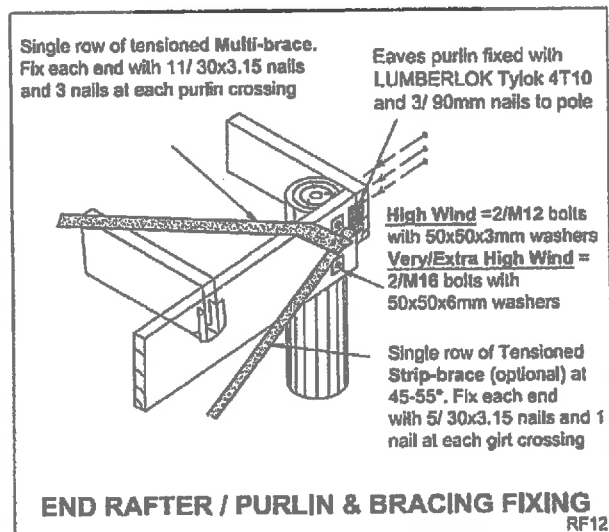
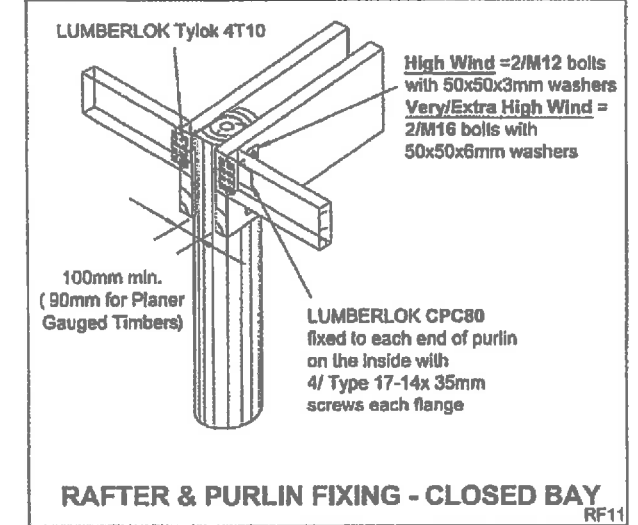
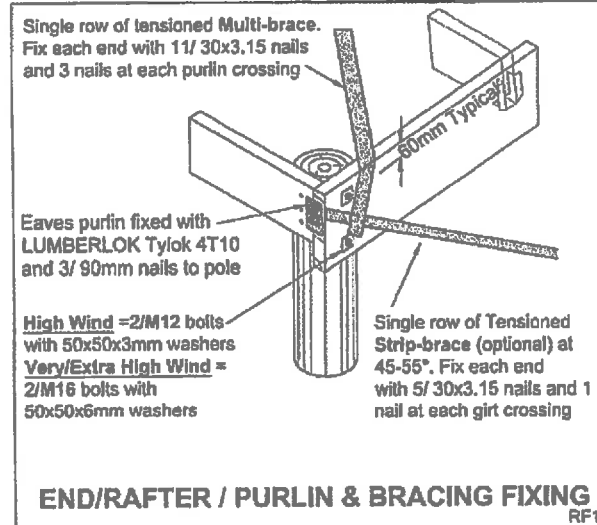
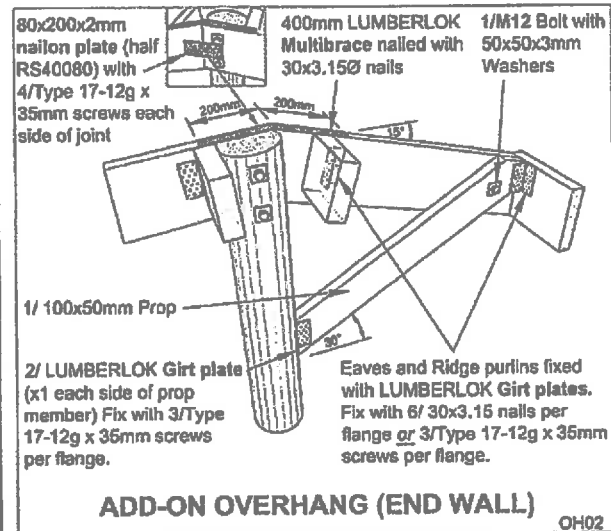
drawings to scale

Drawing Number

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Sheet Number

8

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Details

Date
3 / 08 / 15

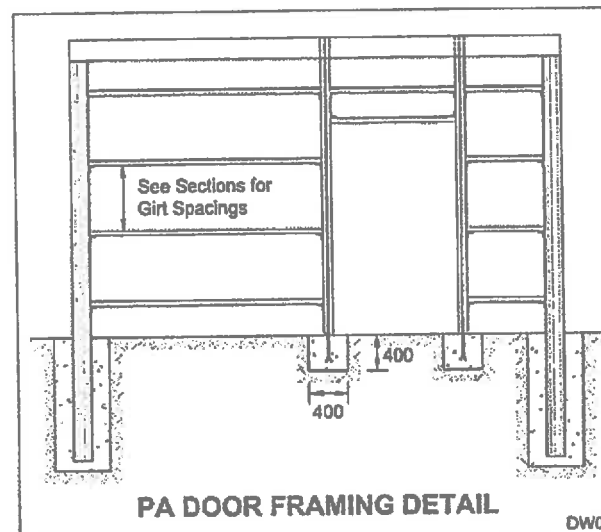
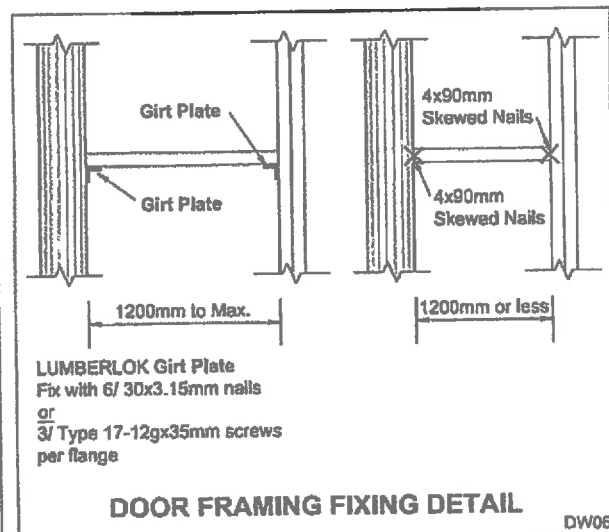
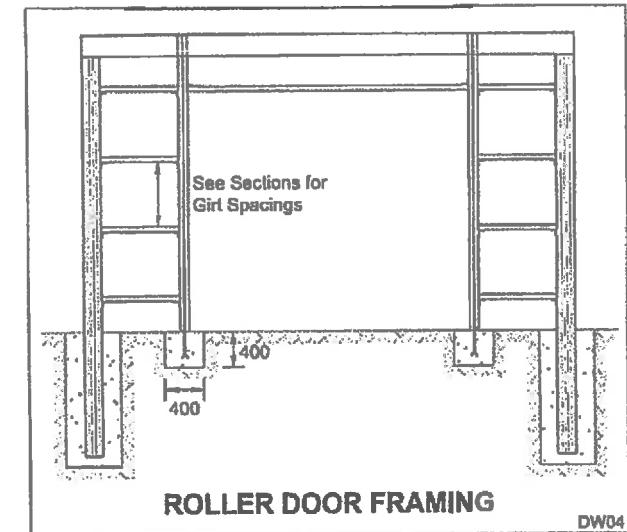
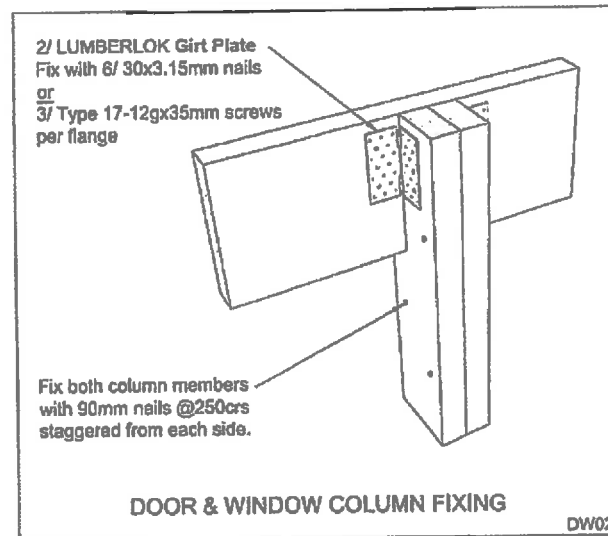
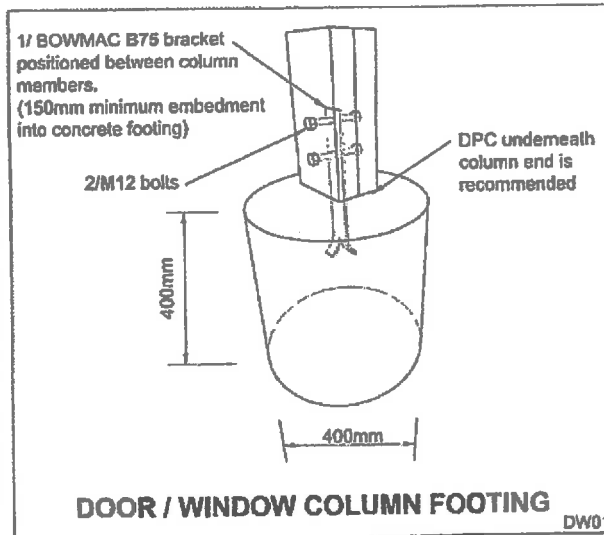
Scale
drawings to scale

Drawing Number

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Sheet Number:

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Drawing Number:

FB34073A

Sheet Number:

10



Monday, August 03, 2015

To Whom It May Concern

PRODUCER STATEMENT

In response to a query from ITM Nelson, Freeman Roofing have no issue with providing the following product:

MATERIAL

.40 Zinalume

PROFILE

5-Rib

PITCH

3 deg

LOCATION

58 Swamp Rd., Tasman. Jamie & Naomi Bennet property.

Yours faithfully
E R FREEMAN LTD

Gary Walton
gary@freemanroofing.co.nz
021 458 182

Shed Flashing Details

