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HOME OF **GANG-NAIL®** BUILDING SYSTEMS

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## DESIGN INFORMATION - FARM BUILDING

### LT30381

#### LOADS and TIMBER

- Poles, Outer Zone Density Normal 350 kg/m<sup>3</sup> fb= 38MPa, Pole taper 6mm per 1.0m length.
- Purlins and girts - Radiata Pine or Douglas Fir - Rough Sawn VSG8 / MSG8
- Rafters - Radiata Pine or Douglas Fir - Rough Sawn 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 charts have 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
- Snow Loads - building designed for sg= 0.9 kPa
- E/Quake Zone - 1
- (The Snow Load has been calculated specifically for the job site shown on our documentation)
- Soil conditions - ALL foundations to be into natural ground with a minimum bearing capacity of 300 kPa, Øb=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 - B1 / VM1 - Timber Structures Standard
NZS 3604 Amendment 2	Cited Acceptable Solution - B1 / AS1 - Timber Framed Buildings
AS/NZS 1170 Part 0: 2002	Cited Verification Method - B1 / VM1 - Structural Design Actions
AS/NZS 1170 Part 1: 2002	Cited Verification Method - B1 / VM1 - Structural Design Actions
AS/NZS 1170 Part 2: 2002	Cited Verification Method - B1 / VM1 - Structural Design Actions
AS/NZS 1170 Part 3: 2003	Cited Verification Method - B1 / VM1 - Structural Design Actions
ANSI/TPI1 - 2002	Alternative Solution - Metal Plate for Wood Connections
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 **GANG-NAIL®**, **LUMBERLOK®** and **BOWMAC®** products and the performance of the building and validity of the Producer Statement is reliant on the correct choice of product.

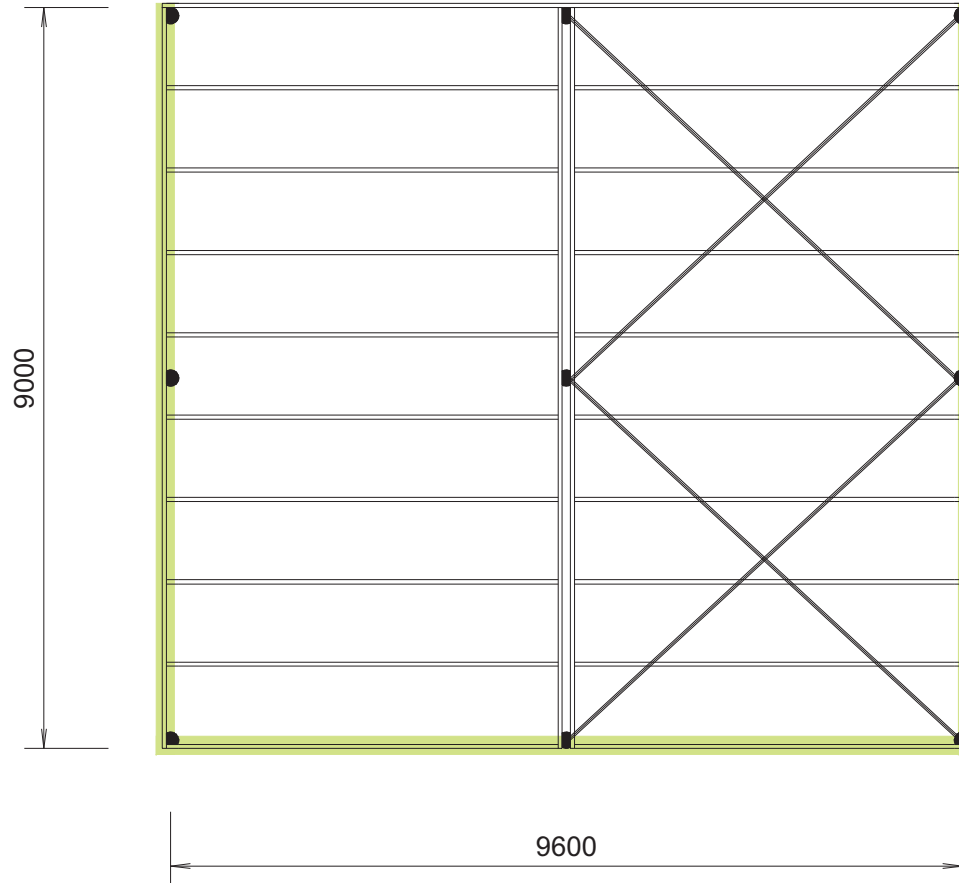
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**GANG-NAIL®**


**LUMBERLOK®**

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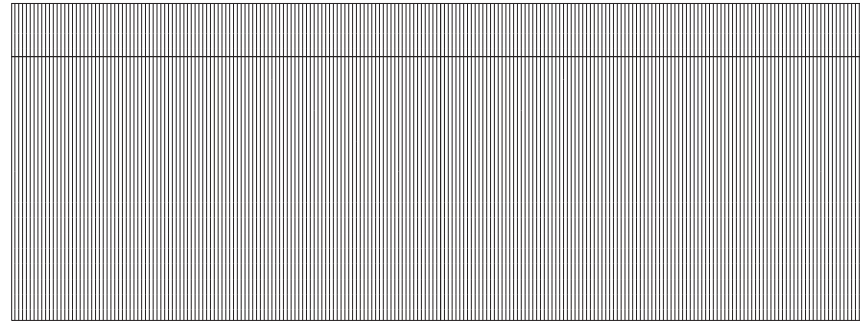


Pitch = 3.81 deg. by others.

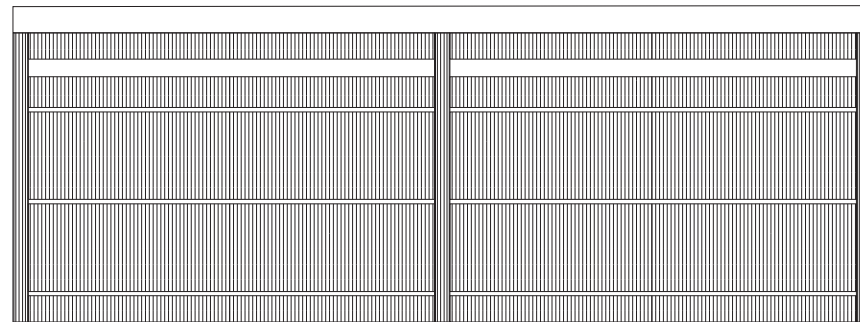
 = CLAD WALLS							
	Single row of tensioned Multibrace laid over purlins. Fix at each end with 11x30x3.15 nails and 3 at each purlin crossing.	Wind Load: High Sg = 0.9 kPa Earthquake Zone: 1 Rafter Span: 4500mm Pole/Bay Spacing: 4800mm	Girt Size: 200 x 50mm Girt Centres: 1100mm Purlin Size: 200 x 50mm Purlin Centres: 1000mm Rafter Size: 300 x 50mm	Pole Size: 150mm SED Pole Embedment Depth: 1000mm	Max. Pole Height: 3600mm Lower Pole Height: 3000mm Floor Type: Earth Rough Sawn VSG8 / MSG8		
	 POLE  COLUMN						

 <b>MiTek New Zealand Ltd.</b> <small>AUCKLAND</small> PO Box 58-014, Greenmount Phone: (09) 274 7109 Fax: (09) 274 7100 www.mitek.nz.co.nz <small>CHRISTCHURCH</small> PO Box 8387, Riccarton Phone: (03) 348 8691 Fax: (03) 348 0314 HOME OF GANG-NAIL® BUILDING SYSTEMS	Job Name: promo Job Site: promo	<b>PLAN</b>		Job Number: <b>LT30381</b>
	Client Name: Thomsons ITM	Client Reference Number: promo	Detailed by: <b>C Richards</b> Checked by:	Date: 13 / 08 / 14 Scale: Drawings to scale

NOTES:

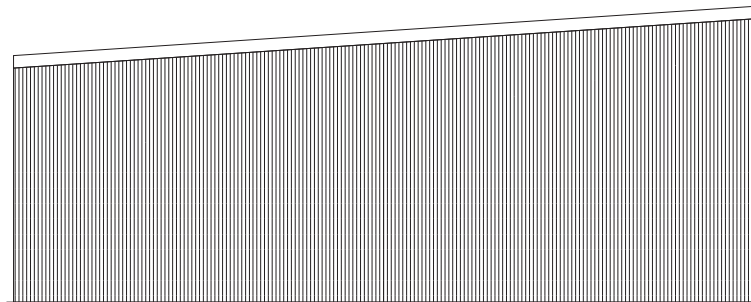


REAR ELEVATION

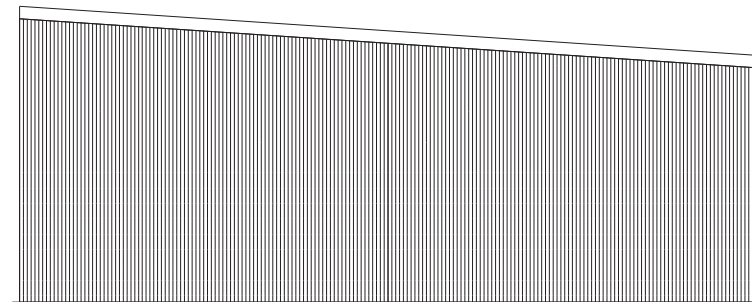


FRONT ELEVATION

N.B. This design does not include any design or detail of flashing requirements.



LEFT END ELEVATION



RIGHT END ELEVATION

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**ELEVATIONS**

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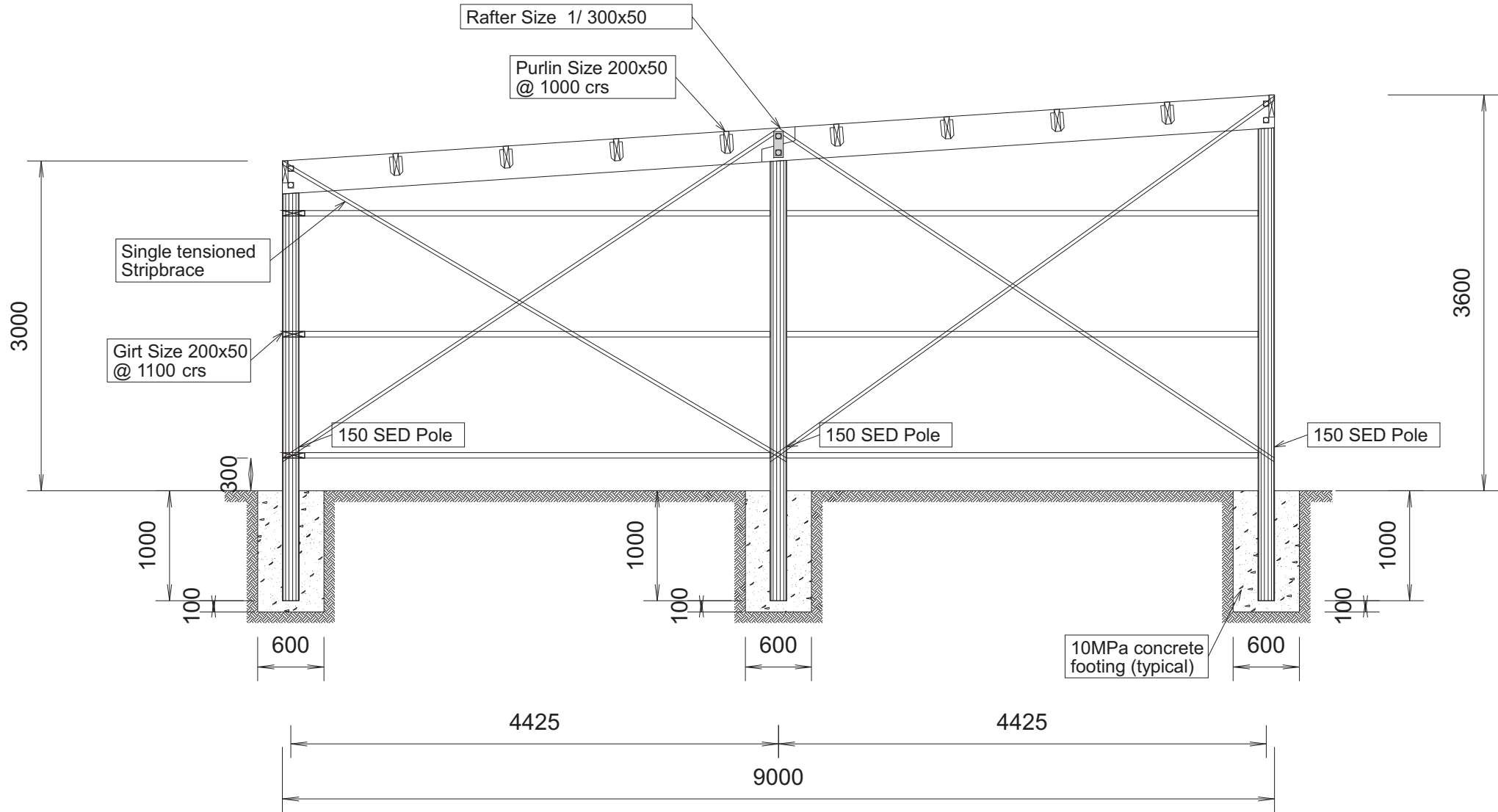
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Note: Girt pattern may vary, as long as spacings do not exceed 1100.



Pitch = 3.81 deg. by others.

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**END ELEVATION**

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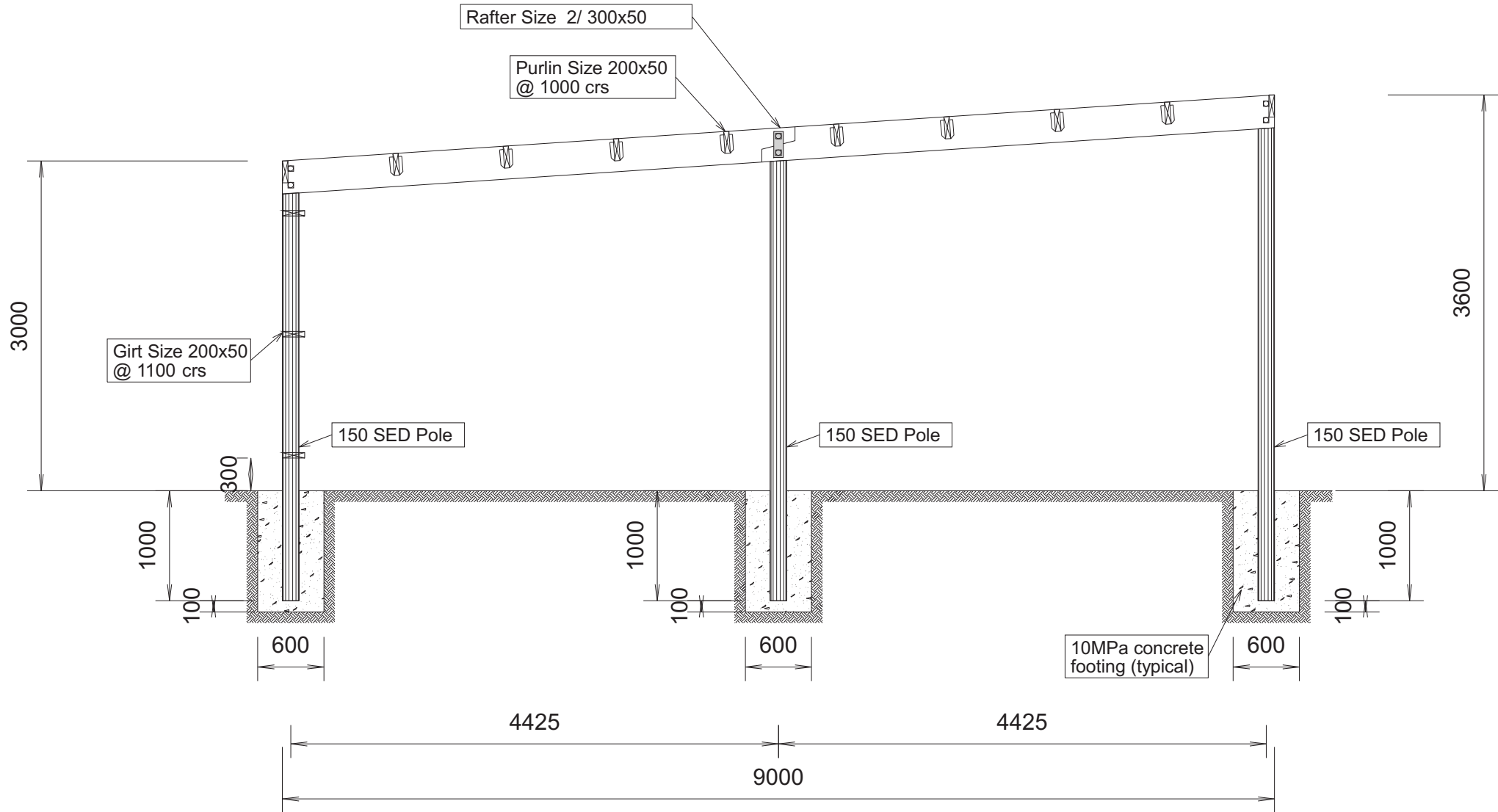
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**CENTRE SECTION**

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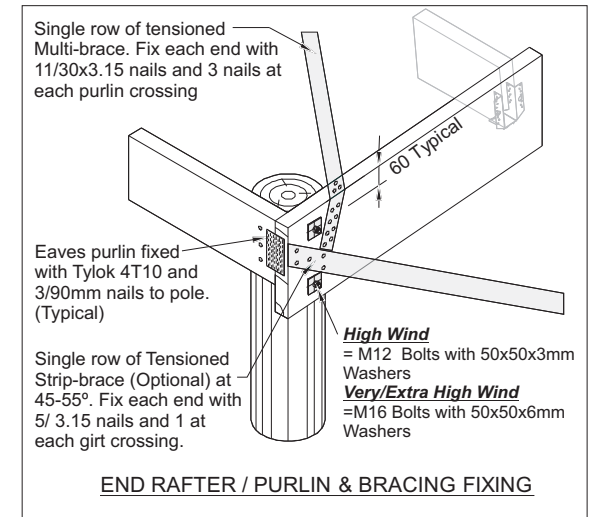
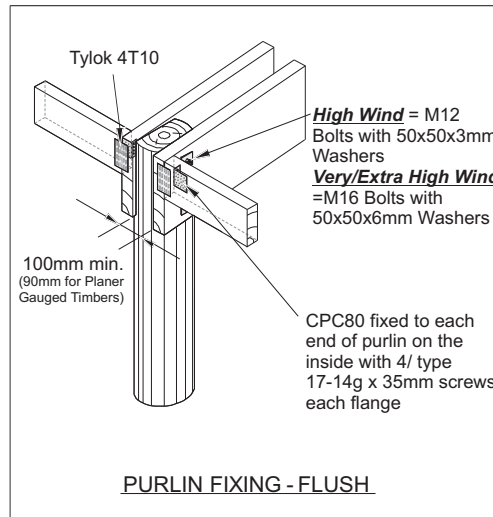
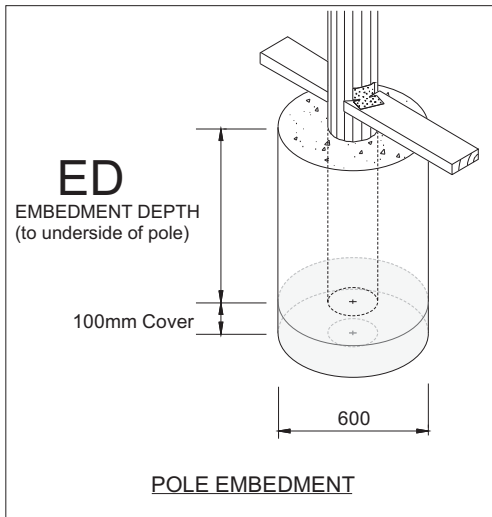
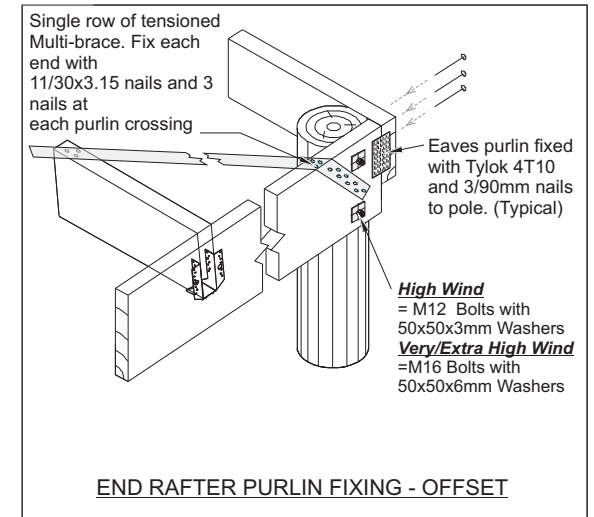
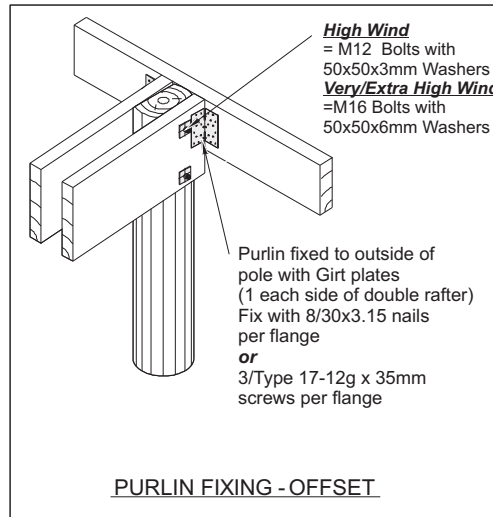
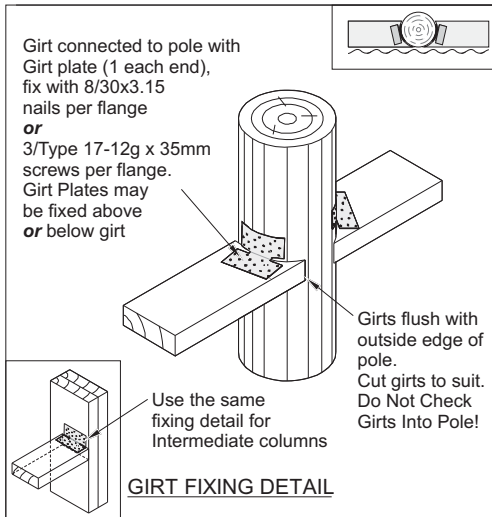
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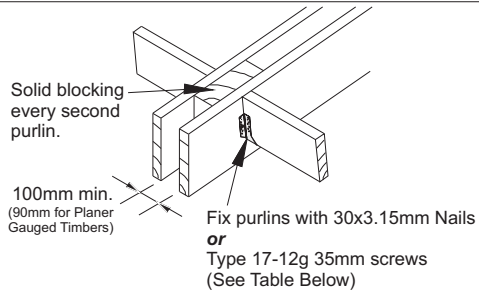
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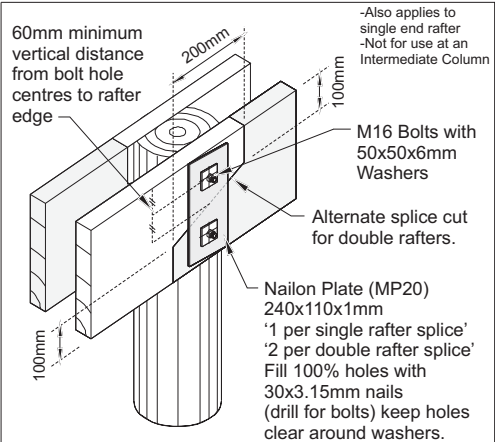




	Purlin Size	Hanger Size	No. of Nails per flange	No. of Screws per flange
L.G.	140/190x45	JH 47x120	4	2
	240/290x45	JH 47x190	6	3
R.S.	150/200x50	JH 52x120	4	2
	250/300x50	JH 52x190	6	3

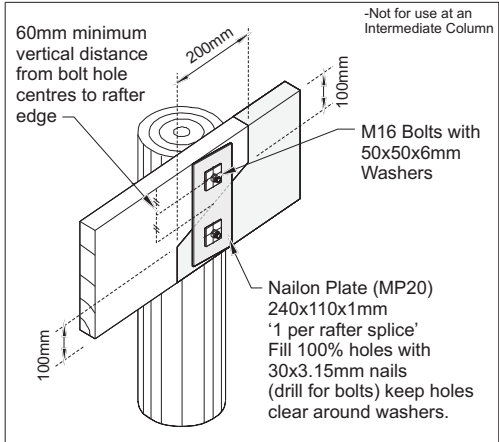
DOUBLE RAFTER/PURLIN FIXING DETAILS

LT22



RAFTER SPLICE AT CENTRE POLES

LT15



RAFTER SPLICE AT CENTRE POLES

LT15

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DETAILS PAGE 2

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