

Standard Design Parameters

- Wind load - N3 Wind classification

RESIDENTIAL FLOORS

Design based on LiteSteel Floor Solutions Design Guide

- Permanent loads - G1 = Self Weight of floor members  
G2 = 40 kg/m² Timber floor and ceiling  
G3 = 20 kg/m² Non-loadbearing stud walls  
G4 = 40 kg/m² Sheet roof and ceiling  
G5 = 90 kg/m² Tile roof and ceiling
- Imposed loads - Q1 = 1.5, 2.0 & 3.0 kPa Uniformly distributed floor load  
Q2 = 1.8 kN point load for Q1 = 1.5 & 2.0 kPa floor loads  
Q2 = 2.7 kN point load for Q1 = 3.0 kPa floor loads  
Q3 = 2.0 kPa Uniformly distributed load (UDL) for balconies  
Q4 = 1.0 kN Load for dynamic response  
Q5 = 0.3 kPa UDL for checking natural frequency  
Q6 = 1.5 kN/m UDL on edge of cantilever no roof loads  
Q7 = 0.25 kN/m Uniformly distributed roof load

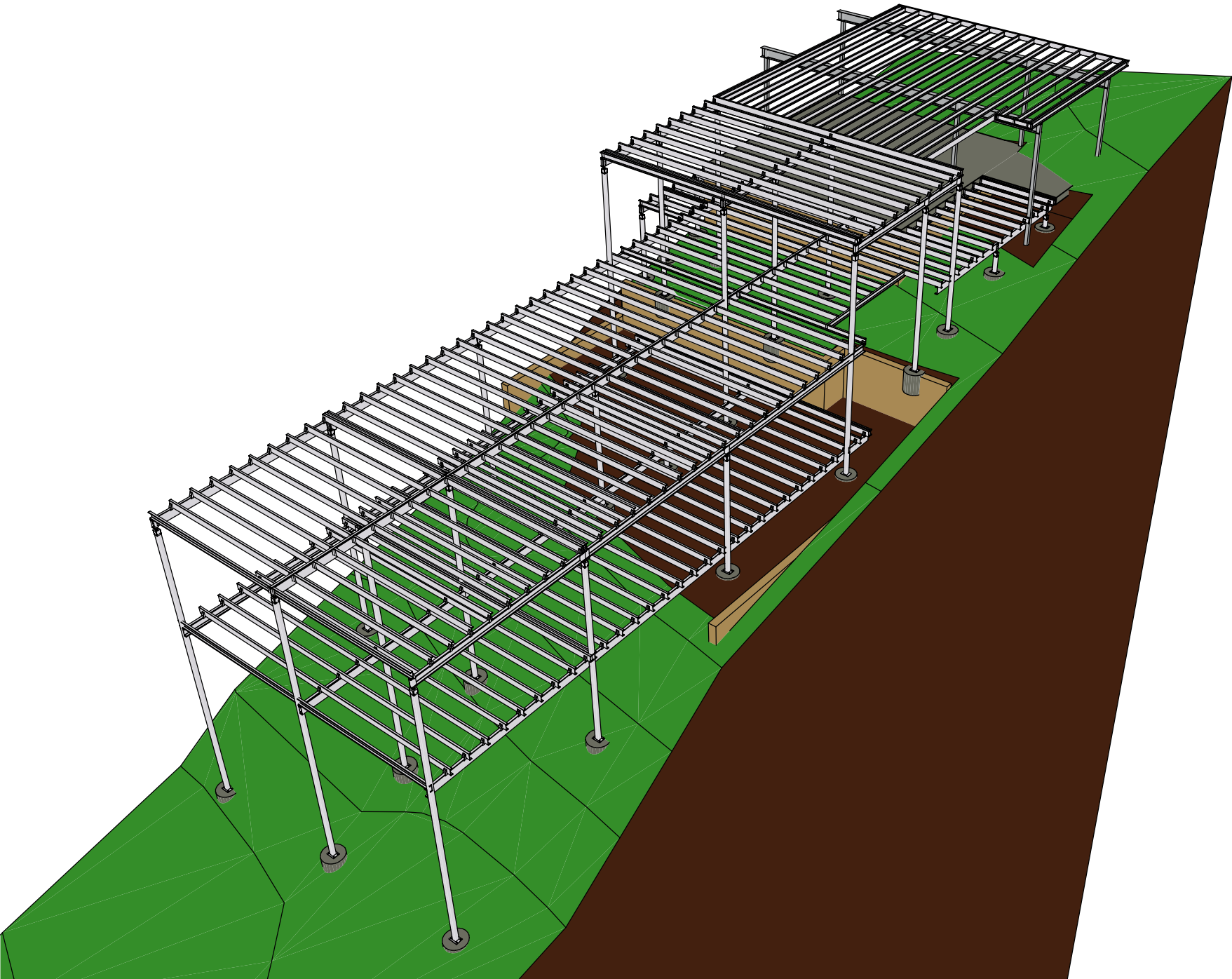
COMMERCIAL FLOORS

- Permanent loads - 0.5 kPa Timber floor and ceiling  
0.5 kPa Non-loadbearing stud walls  
0.3 kPa Floor joists
- Imposed loads - Office floors: 3.0 kPa UDL, 2.7 kN Point & 1.5 kN/m Line Action  
Storage floors(storage height 2.1 m): 5.0 kPa UDL, 7.0 kN point & 1.5 kN/m Line Action  
Storage floors(storage height 3.0 m): 7.2 kPa UDL, 7.0 kN point & 1.5 kN/m Line Action

ROOF MEMBERS

- Permanent loads - G1 = Self weight  
G2 = 20 kg/m² Sheet roof only- no ceiling  
G2 = 40 kg/m² Sheet roof and ceiling  
G2 = 70 kg/m² Tile roof only- no ceiling  
G2 = 90 kg/m² Tile roof and ceiling
- Imposed loads - Q1 = 1.8/A + 0.12 but not less than 0.25 kPa  
Q2 = 1.4 kN concentrated roof load

Drawing Index	
Dwg. No.	Drawing Name
LST-1448 - 1	Cover Sheet
LST-1448 - 2	Preliminary Framing Layout
LST-1448 - 3	Preliminary Design 3D view
LST-1448 - 4	Typical LSB & Duragal Lite Connections
LST-1448 - 5	Preliminary Post Schedule



Revision History

Rev.	Date	Drawn by	Notes
P1	13/10/2011	JD	Initial quote

Important Notes

1. The associated drawing(s) should not be considered a working drawing until approved by all interested parties and appropriate statutory authorities.
2. This structure plan review ("Plan") has been prepared from information supplied to LST. It is based on our interpretation of the customer's information provided and is contingent upon the quality and quantity of this information. Therefore all details are provided in good faith in draft form to be approved by the customer and all interested parties prior to use.
3. LST is not aware of the structural specific and/or site specific matters affecting the design of the structure for which this Plan has been prepared, other than those matters if any which have been specifically drawn to LST's attention. LST cannot accept any responsibility for the accuracy of the information, including without limitation designs, supplied to LST, and on which this Plan is based.
4. Location of known internal load bearing walls are indicated as LBW. Additional load bearing walls or special load points, girder trusses, bracing, internal loaded walls or cut-in flooring will alter the design and may influence certification.
5. Column size and length are indicative only. Actual column size and length to be confirmed by client before ordering.

6. Pier locations may have been changed from the supplied drawings to suit the LiteSteel Floor Solutions. Footing capacities are to be designed by independent engineers.
7. Structures must be installed in accordance with the corresponding DuraGal Flooring System brochure March 2002 or LiteSteel Floor Solutions Assembly Guide as amended from time to time, copies of which are available on request by telephoning 1300 789 572 or at [www.litesteelbeam.com.au](http://www.litesteelbeam.com.au). Readers are advised to check that the brochure or tables are in the latest version.
8. To prevent transfer of corrosive elements, LST recommends that decks and verandahs are installed in a manner that allows detachment from the house. Adequate protection must be provided to all exposed steel framing, in accordance with the DuraGal Easy Painting Guide. Non seasoned timber and similar unstable products are not recommended to be fixed to steel members in exposed conditions due to the possible incidence of metal fatigue to hardened steel fixings caused by continual movements of these products.
9. All information enclosed and contained within associated documents relating to this job represents a suggested method of using LSB & Duragal components to construct the structure for this job only and may not suit different applications.
10. Dimensions are in mm, all dimensions and material quantities are to be confirmed by client before placing the order.
11. Bracing must be designed by independent engineers. Any bracing shown is indicative only and lateral tie/ledger bars between stumps over 4.0m in height may be required as per independent engineering and certification.

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technologies™

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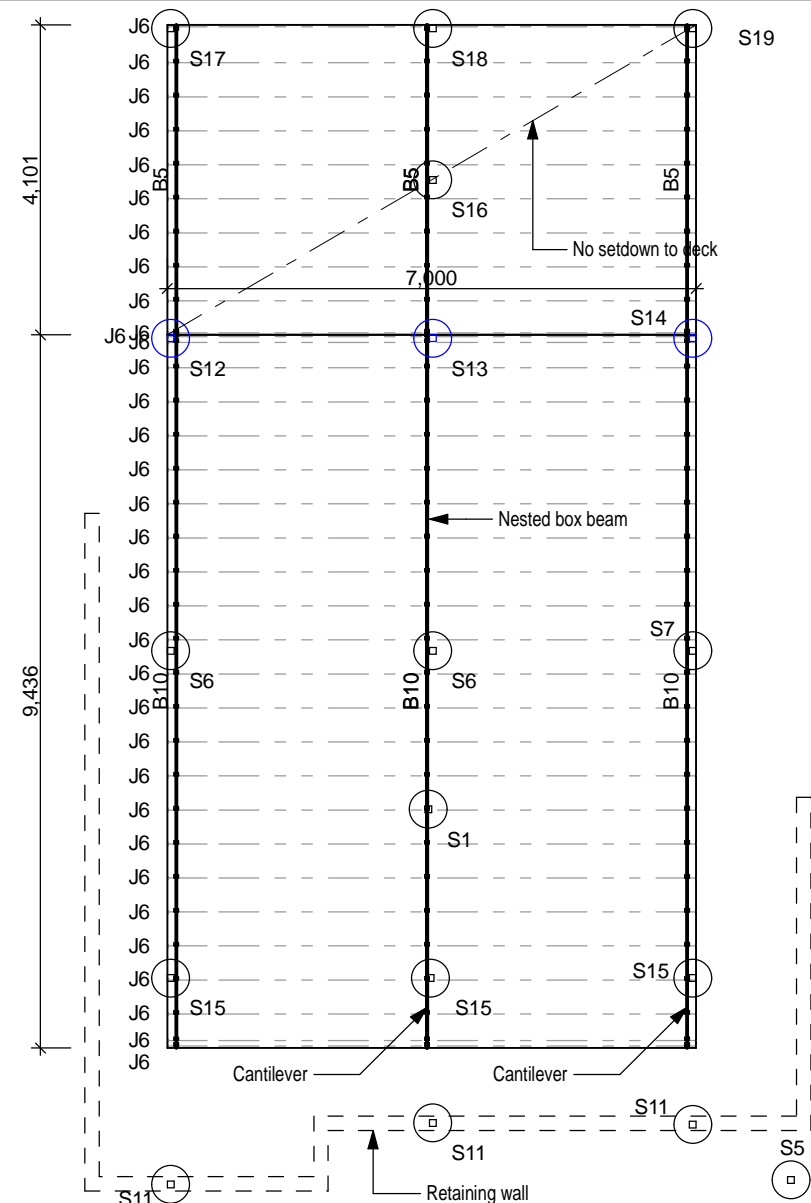
Ph 1300 789 572 Fax 1300 789 368

Email [lsb@litesteelbeam.com.au](mailto:lsb@litesteelbeam.com.au)

PRELIMINARY DESIGN  
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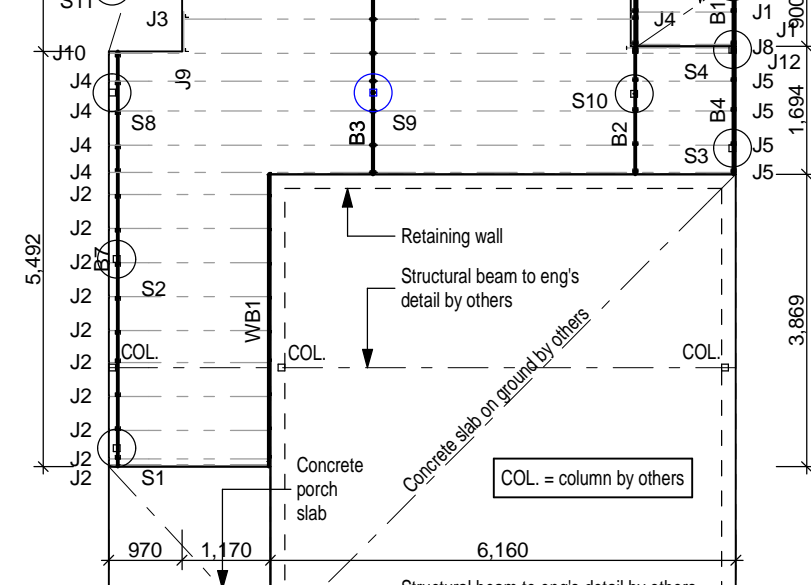
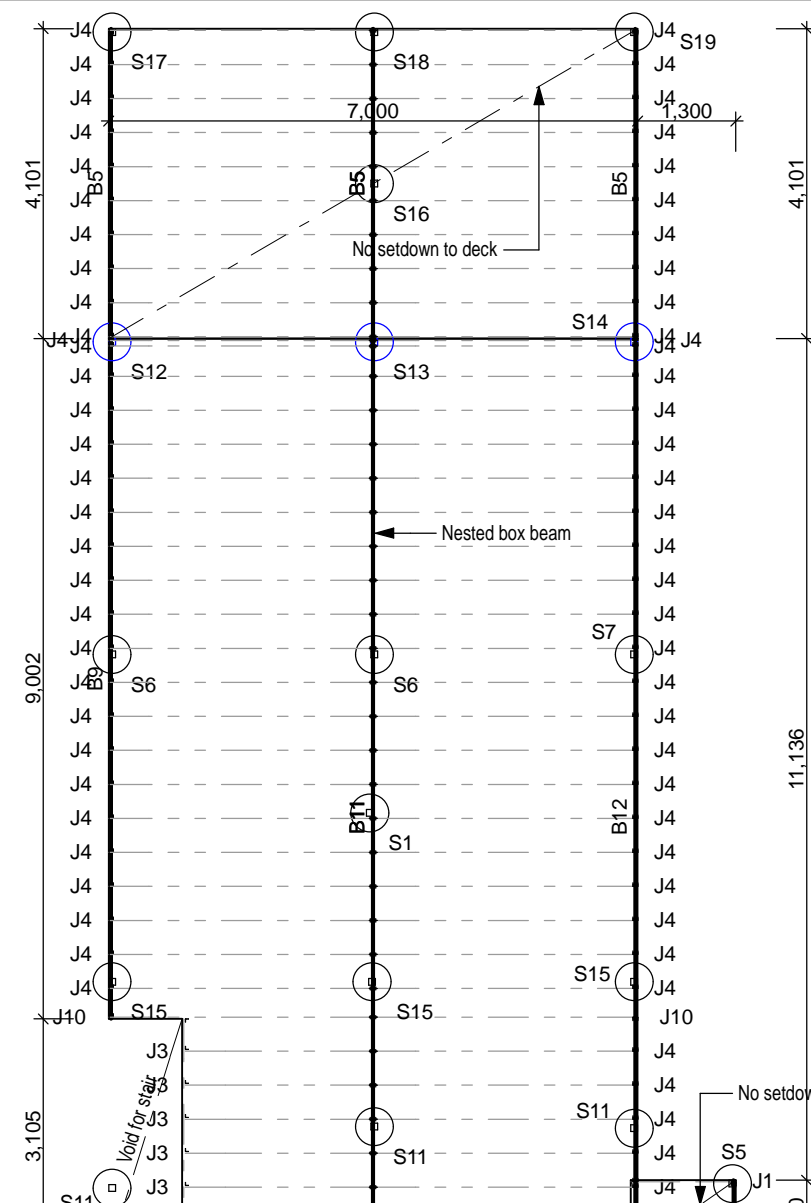
Note: Please refer above for important notes and design parameters.

DATE	Onesteel Coopers Plains - Bardon - QLD For: Michael Whyte - Cover Sheet Site: 34 Coopers Camp Road, Bardon QLD			
13/10/2011				
DRAWN BY				
JD				
DRAWING No.	REVISION	SCALE	SIZE	
LST-1448 - 1	P.1	NTS	A3	

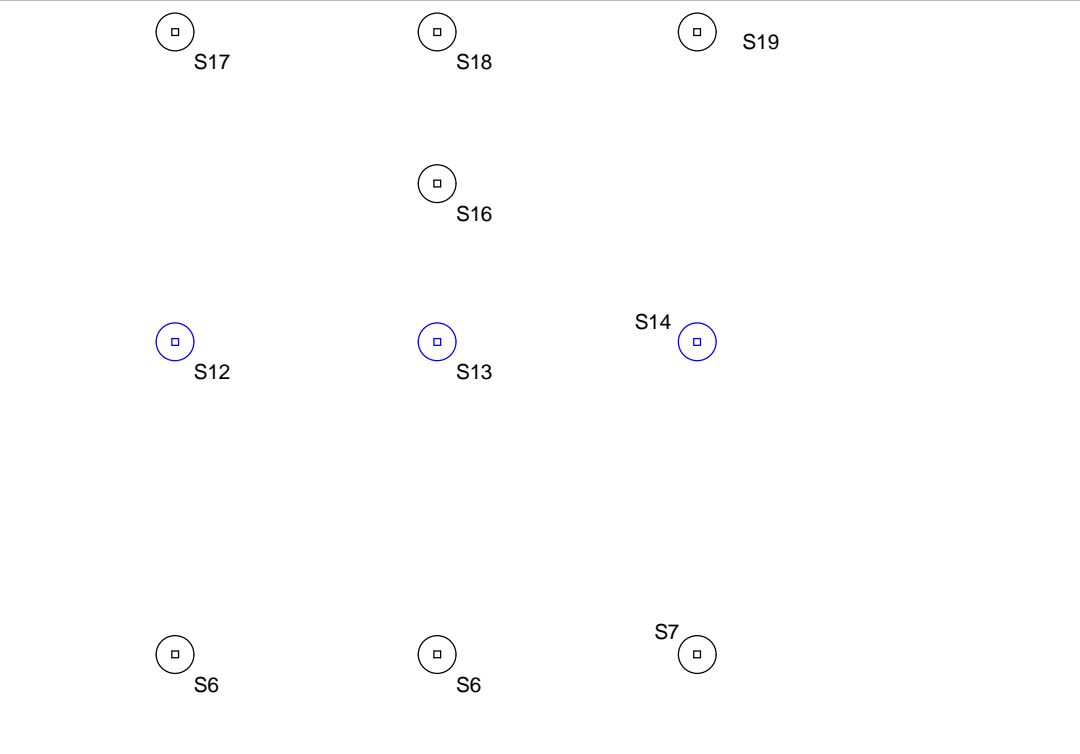


1. All dimensions, materials and lengths to be confirmed prior to ordering and cutting of any material.
2. Stump heights shown are approximate only and are to be confirmed by customer prior to ordering
3. Bracing, tie-down rods and brackets are not included. Customer's engineer to design bracing and tie-downs in accordance with site specific conditions.
4. No wet area step-downs allowed for.
5. Joists @450 max. crs.

1 First Floor Framing 1:100



3 Second Floor Framing 1:100



4 Third Floor Framing 1:100

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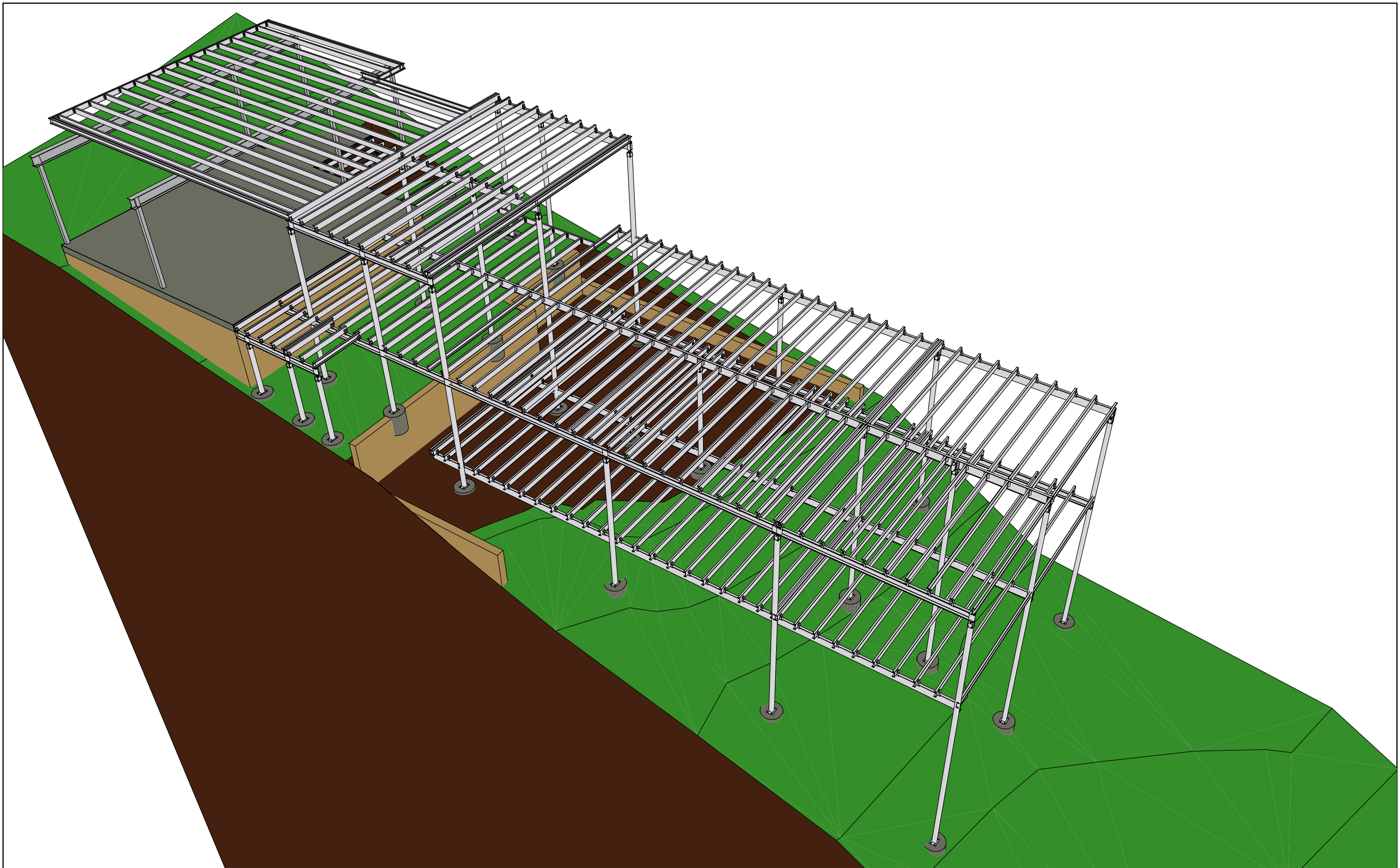
PRELIMINARY DESIGN

NOT FOR CONSTRUCTION

Note: Please refer to cover sheet for important notes and design parameters.

DATE	Onesteel Coopers Plains - Bardon - QLD		
13/10/2011	For: Michael Whyte - Preliminary Framing Layout		
DRAWN BY	Site: 34 Coopers Camp Road, Bardon QLD		
JD			
DRAWING No.	REVISION	SCALE	SIZE
LST-1448 - 2	P.1	NOT TO SCALE OR AS SHOWN	A3





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## PRELIMINARY DESIGN NOT FOR CONSTRUCTION

Note: Please refer to cover sheet for important notes and design parameters.

DATE

13/10/2011

DRAWN BY

JD

DRAWING No.

**LST-1448 - 3**

Onesteel Coopers Plains - Bardon - QLD

For: Michael Whyte - Preliminary Design 3D view

Site: 34 Coopers Camp Road, Bardon QLD

REVISION

**P.1**

SCALE

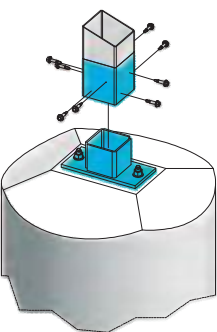
NOT TO SCALE OR  
AS SHOWN

SIZE

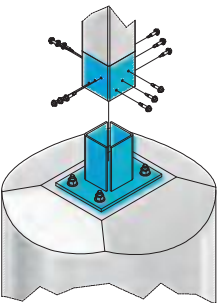
**A3**



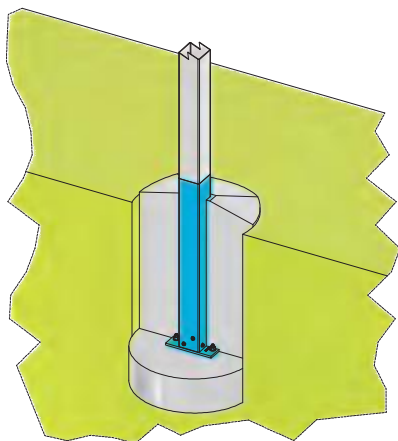
Post Bases



2 Hole Base Plate SHS Post connection

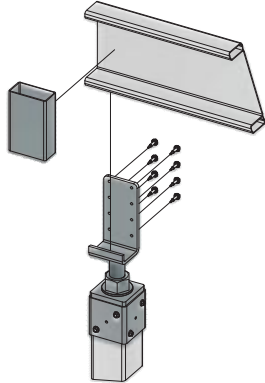


4 Hole Base Plate SHS Post connection

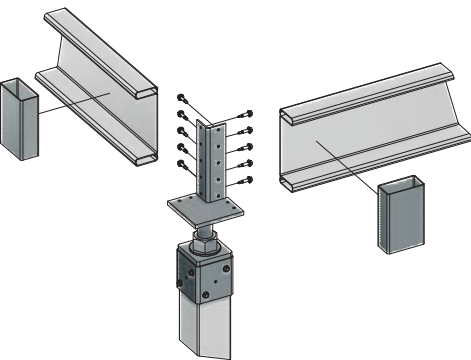


Cast-in SHS Post connection

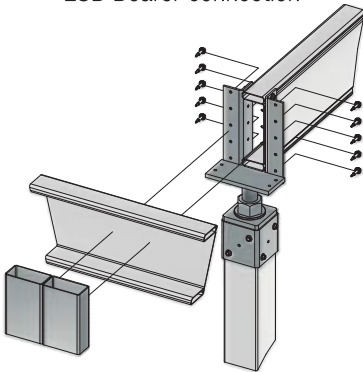
Adjustable Post Tops



Standard Post Top LSB Bearer connection

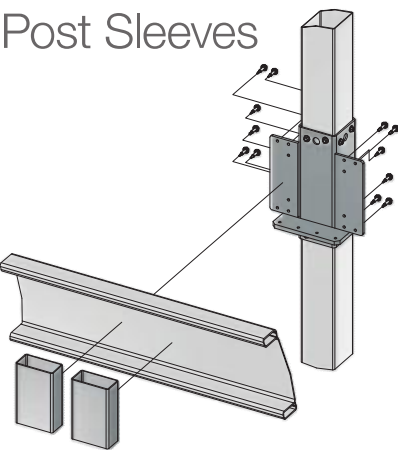


90 Degree Corner Post Top  
LSB Bearer connection

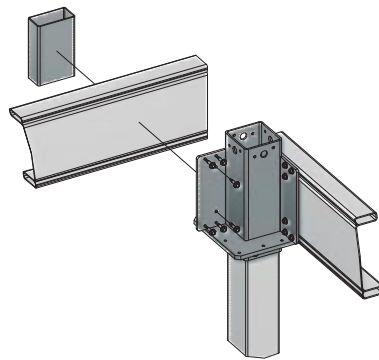


T-Intersection LSB Bearer connection

Post Sleeves

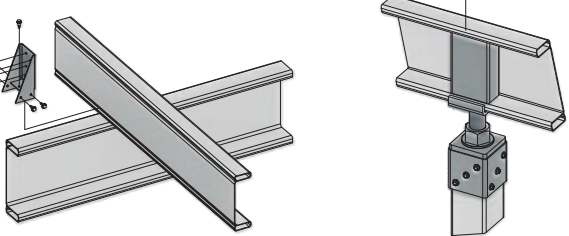


Standard Post Sleeve LSB Bearer connection



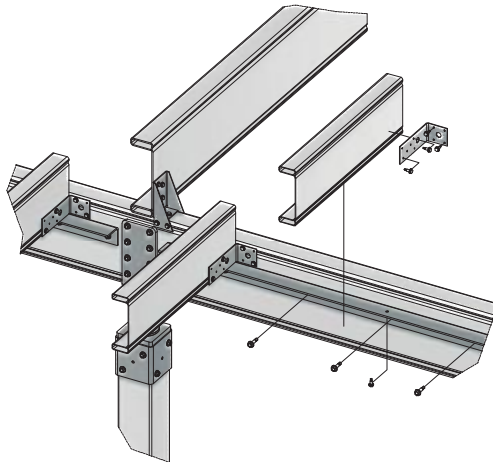
90 Degree Corner Post Sleeve  
LSB Bearer connection

Joist Brackets

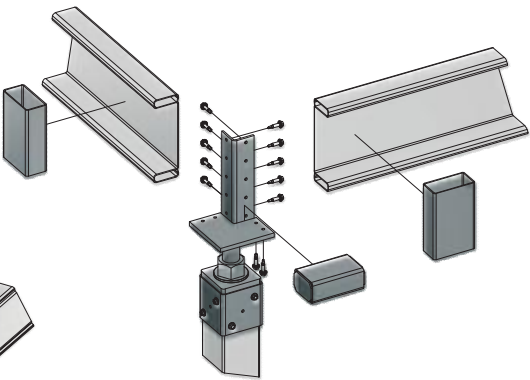


LSB Joist to LSB Bearer connections

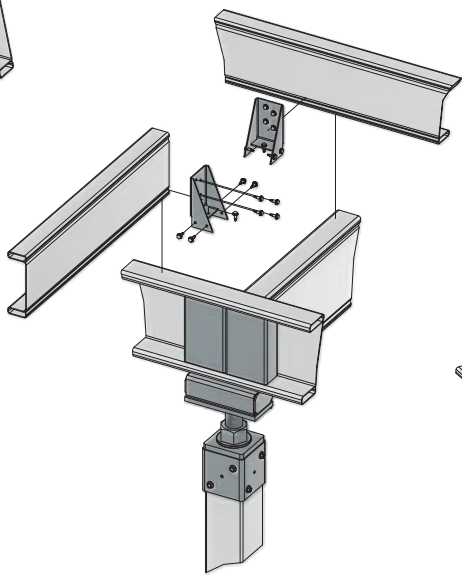
Step-downs



LSB Joist Step-down connection

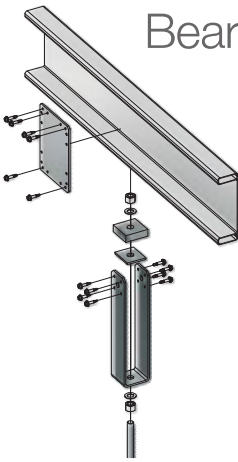


LSB Bearer Step-down connection

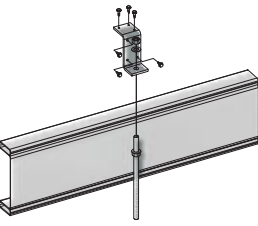


LSB Bearer Step-down  
& LSB Joist connection

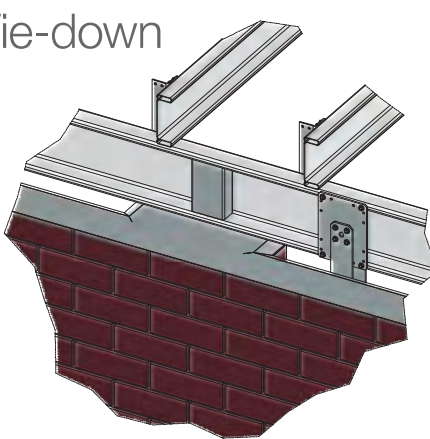
Bearer Tie-down



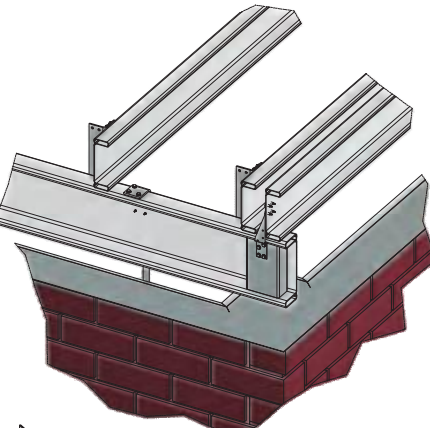
Bracing U Bracket connection



Tie-down Z Bracket connection

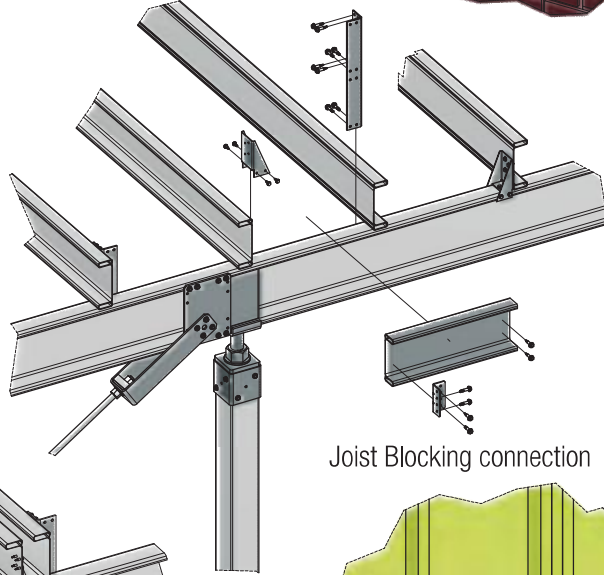


Brick Veneer connections



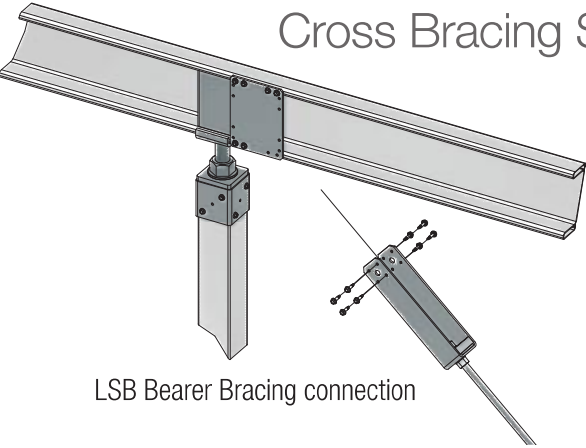
Joist Blocking connection

Joist Blocking

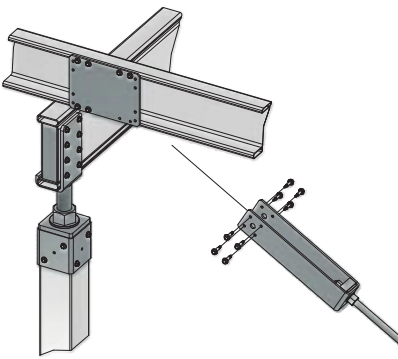


Joist Blocking  
under Jamming Studs

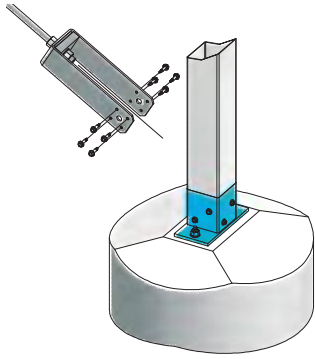
Cross Bracing Sets



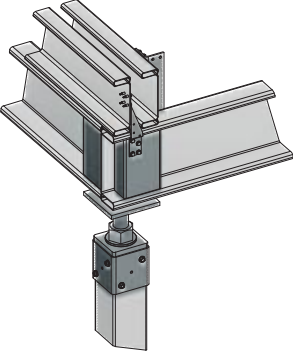
LSB Bearer Bracing connection



LSB Joist Bracing connection



SHS Post Bracing connection



End Double LSB Joist connection

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PRELIMINARY DESIGN  
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Note: Please refer to cover sheet for important notes and design parameters.

DATE	Onesteel Coopers Plains - Bardon - QLD			
13/10/2011	For: Michael Whyte - Typical LSB & Duragal Lite Connections			
DRAWN BY	Site: 34 Coopers Camp Road, Bardon QLD			
JD				
DRAWING No.	REVISION	SCALE	SIZE	
LST-1448 - 4	P.1	NOT TO SCALE OR AS SHOWN	A3	

Post Schedule					
ID	Quantity	Post Size	Stump Length	Top Connection Style	Sleeve Type
S1	2	89x89x3.5	0.32	LS Post Top Adj. - External	None
S2	1	89x89x3.5	0.54	LS Post Top Adj. - External	None
S3	1	89x89x3.5	1.39	LS Post Top Adj. - External	None
S4	1	89x89x3.5	1.63	LS Post Top Adj. - External	None
S5	1	89x89x3.5	1.80	LS Post Top Adj. - External	None
S6	2	89x89x3.5	2.94	LS Post Top Adj. - External	None
S7	1	89x89x3.5	3.70	LS Post Top Adj. - External	None
S8	1	89x89x3.5	3.72	LS Post Top Adj. - 90 Deg Corner	None
S9	1	89x89x3.5	3.93	LS Post Top Adj. - T Intersection	None
S10	1	89x89x3.5	4.10	LS Post Top Adj. - 90 Deg Corner	None
S11	3	89x89x3.5	4.15	LS Post Top Adj. - External	None
S12	1	89x89x3.5	4.46	LS Post Top Adj. - T Intersection	None
S13	1	89x89x3.5	4.94	LS Post Top Adj. - T Intersection	None
S14	1	89x89x3.5	5.32	LS Post Top Adj. - T Intersection	None
S15	1	89x89x3.5	5.55	LS Post Top Adj. - External	None
S15	2	89x89x3.5	5.54	LS Post Top Adj. - External	None
S16	1	89x89x3.5	5.82	LS Post Top Adj. - T Intersection	None
S17	1	89x89x3.5	6.35	LS Post Top Adj. - External	None
S18	1	89x89x3.5	6.61	LS Post Top Adj. - External	None
S19	1	89x89x3.5	6.86	LS Post Top Adj. - External	None

RHS & LSB Members			
Label	Description	Number	Length
B1	200x60x2.5 LSB Bearer	1	0.890
B2	200x60x2.5 LSB Bearer	1	1.055
B3	200x60x2.5 LSB Bearer	2	1.070
B4	200x60x2.5 LSB Bearer	1	1.684
B5	200x60x2.5 LSB Bearer	8	4.091
B6	200x60x2.5 LSB Bearer	3	4.219
B7	200x60x2.5 LSB Bearer	1	5.482
B8	200x60x2.5 LSB Bearer	1	6.990
B9	200x60x2.5 LSB Bearer	1	8.992
B10	200x60x2.5 LSB Bearer	4	9.426
B11	200x60x2.5 LSB Bearer	2	12.640
B12	200x60x2.5 LSB Bearer	1	12.655
WB1	150x45x1.6 LSB Whaler Beam	1	3.859
J1	150x45x1.6 LSB Joist	3	1.380
J2	150x45x1.6 LSB Joist	10	2.130
J3	150x45x1.6 LSB Joist	6	2.448
J4	150x45x1.6 LSB Joist	72	3.460
J5	150x45x1.6 LSB Joist	4	4.760
J6	150x45x1.6 LSB Joist	45	6.990
J7	150x45x2.0 LSB Joist	2	0.965
J8	150x45x2.0 LSB Joist	1	1.440
J9	150x45x2.0 LSB Joist	1	3.105
J10	150x45x2.0 LSB Joist	3	3.460
J11	150x45x2.0 LSB Joist	1	3.737
J12	150x45x2.0 LSB Joist	1	4.760
J13	150x45x2.0 LSB Joist	4	5.015
J14	150x45x2.0 LSB Joist	2	6.990
J15	150x45x2.0 LSB Joist	15	8.229
S1	89x89x3.5 RHS Stump	2	0.321
S2	89x89x3.5 RHS Stump	1	0.537
S3	89x89x3.5 RHS Stump	1	1.393
S4	89x89x3.5 RHS Stump	1	1.633
S5	89x89x3.5 RHS Stump	1	1.799
S6	89x89x3.5 RHS Stump	2	2.935
S7	89x89x3.5 RHS Stump	1	3.702
S8	89x89x3.5 RHS Stump	1	3.723
S9	89x89x3.5 RHS Stump	1	3.928
S10	89x89x3.5 RHS Stump	1	4.100
S11	89x89x3.5 RHS Stump	3	4.149
S12	89x89x3.5 RHS Stump	1	4.456
S13	89x89x3.5 RHS Stump	1	4.938
S14	89x89x3.5 RHS Stump	1	5.320
S15	89x89x3.5 RHS Stump	3	5.549
S16	89x89x3.5 RHS Stump	1	5.815
S17	89x89x3.5 RHS Stump	1	6.349
S18	89x89x3.5 RHS Stump	1	6.614
S19	89x89x3.5 RHS Stump	1	6.864

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DATE  
13/10/2011

DRAWN BY  
JD

DRAWING No.  
LST-1448 - 5

Onesteel Coopers Plains - Bardon - QLD  
For: Michael Whyte - Preliminary Post Schedule  
Site: 34 Coopers Camp Road, Bardon QLD

REVISION  
P.1

SCALE  
NOT TO SCALE OR AS SHOWN

SIZE  
A3