SEJC Consulting Engineers

Consulting Structural & Civil Engineers

PROJECT	8 Keresforth Hall Drive
PROJECT No.	23850
CLIENT	iHUS
DATE	January 2019
BY	*JG Smith*
NOTES	Design of structural steelwork lifting beams. **Refer to page 2 for loads to be supported by lifting frame.** **Total unfactored dead load 160kN.**

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Project: 8 Keresforth Hall Road

Job No. 23850

Sheet 1

Date

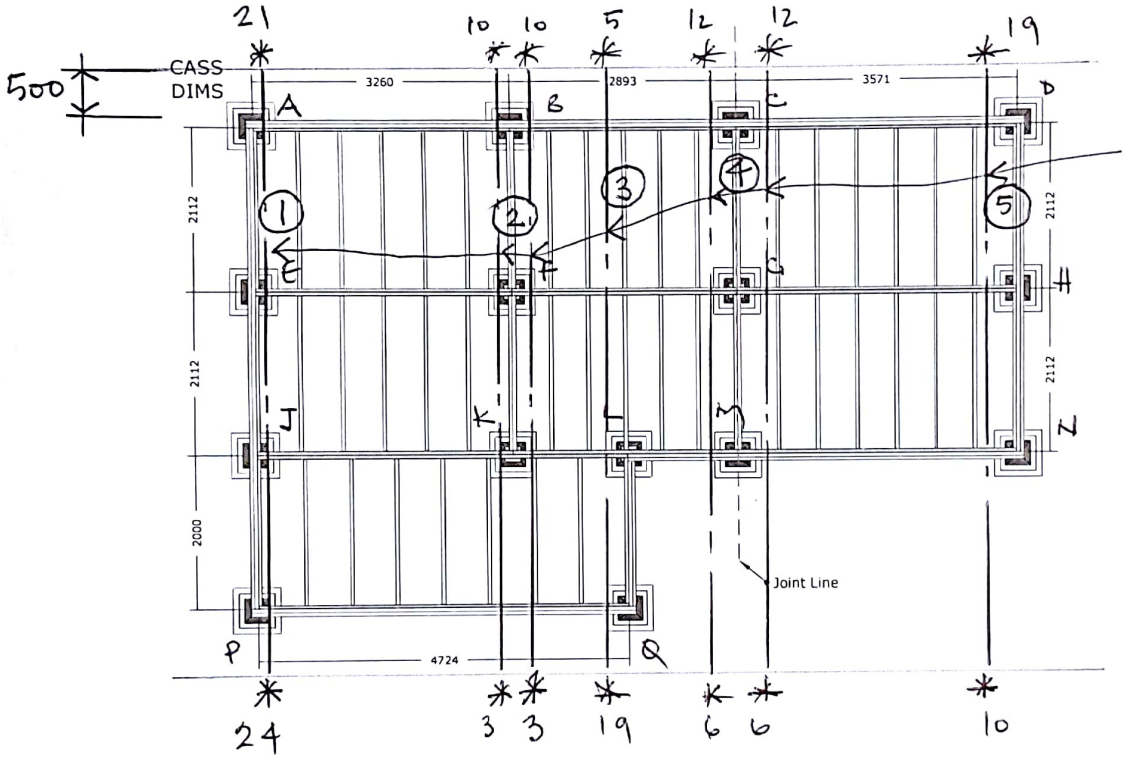
Loading (kN/m²)

Dead load only considered

Roof :	Tiles	0.5
	Battens	0.03
	on slope	0.53
	on plan	0.58
	Trussed rafters	0.20
	Ceiling	0.15
	Insulation	0.03
		0.96
Floor:	Boards	0.10
	Joists	0.15
	Insulation	0.05
	"under" board	0.10
	Partitions (non)	0.50
		0.90

External walls: Cedral panels, 0.6
Studs, insul.
plaster

* Denotes lifting point loads in kN (unfactored)



Lifting beams packed to u/s floor structure

(2)

CASSETTE DIMS ONLY

iHOS	iHOS Projects Phoenix Industrial Estate Phoenix Road Barnsley S71 1EW tel: 01302 247777 www.ihousenese.com	**Clients name:** Keith Elliott **Address:** 8 Keresforth Hall Road Barnsley **Post code:** S70 6NF	**Job Status / Number:** ORDER 1740.08.18 **Drawing Name:** Foundations - Sheet 1 **Drawing No.:** **Drawn by:** Andy **Revised by:** **Checked/Approved by:** **Version:** 1 **Revision:** 0 **Date:** 24.09.18	Scale 1:50 Printed to A3 ALL DIMS IN MM

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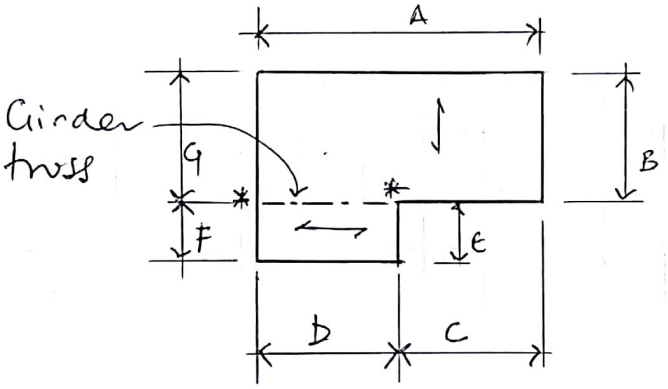
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Roof spans onto "long walls" typically. Trussed rafters will span onto a girder truss over the "projection" on plan. The roof over the "projection" will span onto the shorter walls.



← → Span of trussed rafters

* Multiple studs to carry girder truss

Roof loads onto walls

A: 0.96 x 4.5/2 = 2.2 kN/m

B –

C : 2.2 kN/m

b –

E : .96 x 5/2 = 2.4 kN/m

F : 2.4 kN/m

G –

* "Post" load 2.2 x 5/2 = 5.5 kN

Distribution of load would change slightly

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Wall self weight typically 2.8 x .6 = 1.7 kN/m
for gables allow 2.2 kN/m.

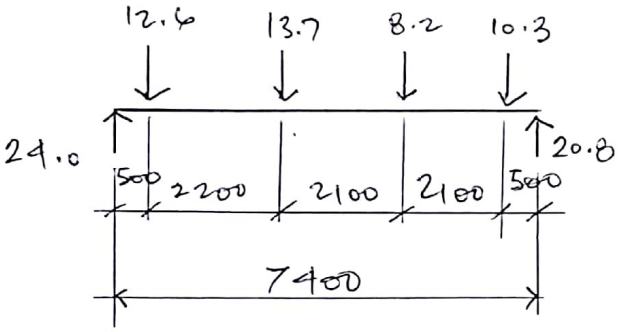
Foundation loads (kN) unfactored [+ 20%]

A : 10.3 [12.4]
B : 15.2 [18.2]
C : 16.2 [19.4]
D : 10.3 [12.4]
E : 8.2 [9.8]
F : 6.1 [7.4]
G : 6.5 [7.8]
H : 8.2 [9.8]
J : 13.7 [16.4]
K : 5.0 [6.0]
L : 10.5 [12.6]
M : 12.2 [14.7]
N : 10.3 [12.4]
P : 12.6 [15.1]
Q : 12.6 [15.1]

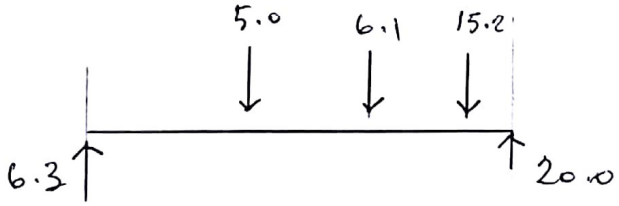
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Lifting beams All loads in kN (unfactored)

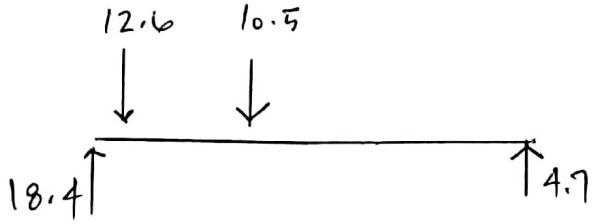
Beam 1



Beam(s) 2



Beam(s) 3

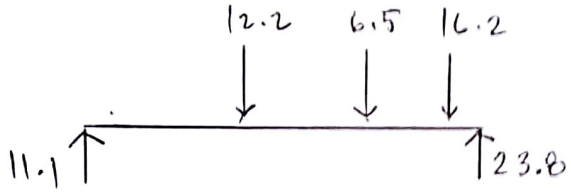


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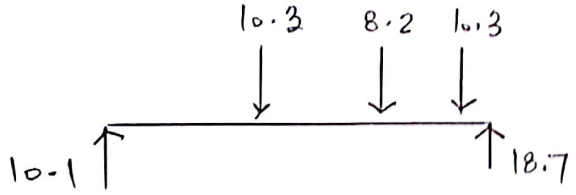
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Beam(s) 4



Beam 5



By inspection worst case single beam - beam 1

Mu - 62 kN.m

I = 5000 cm^4

Le = 2200 mm

203 x 203 x 52 UC.