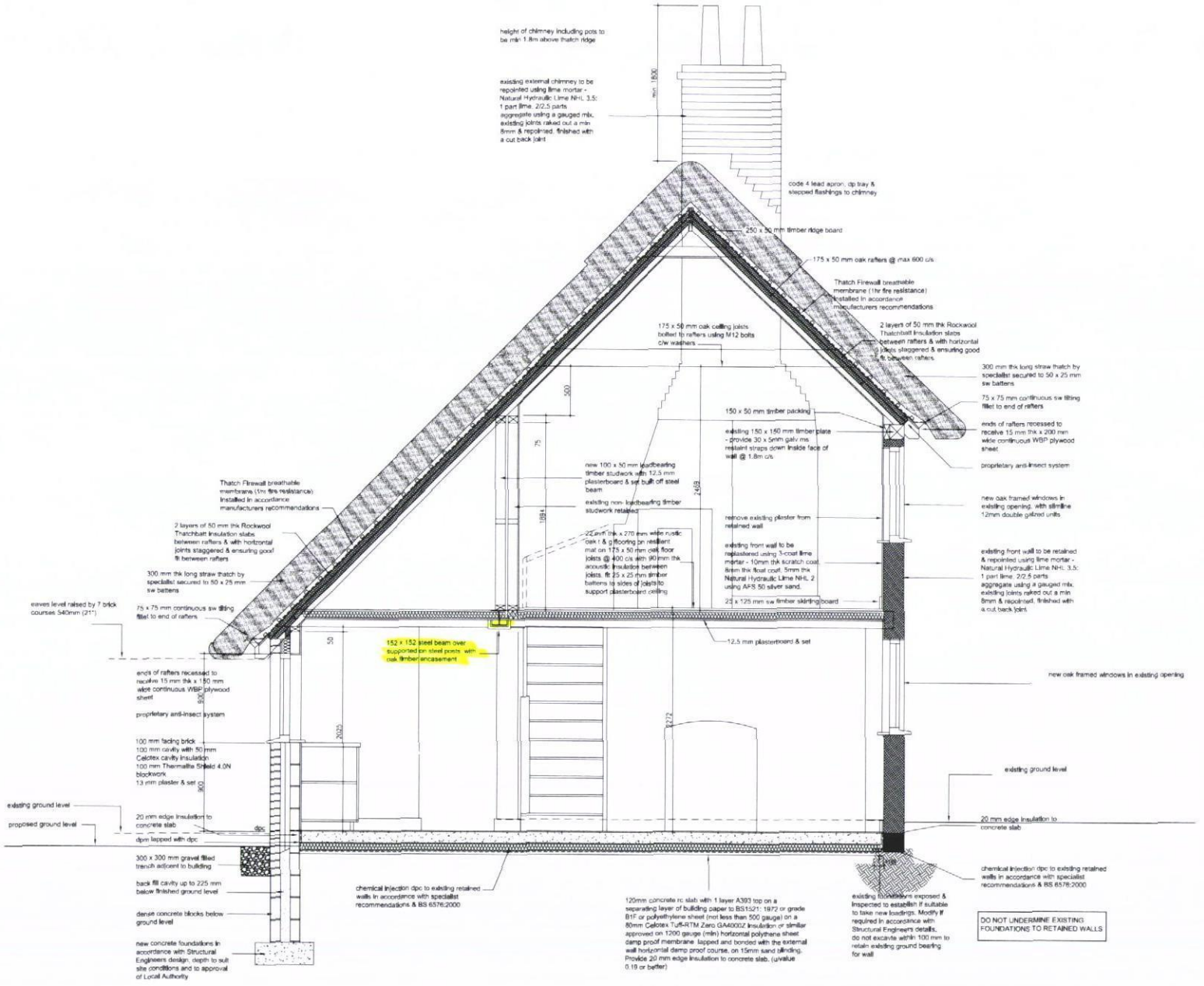

D	Internal spine wall plotted correctly, Steel frame re-sized	mw 28.02.12	
C	Floor slab note re-sized	mw 07.02.12	
B	Eyebrow dormers removed	mw 16.11.11	
A	Notes updated	mw 31.10.11	
Rev		Dwn / Date	Chk / Date

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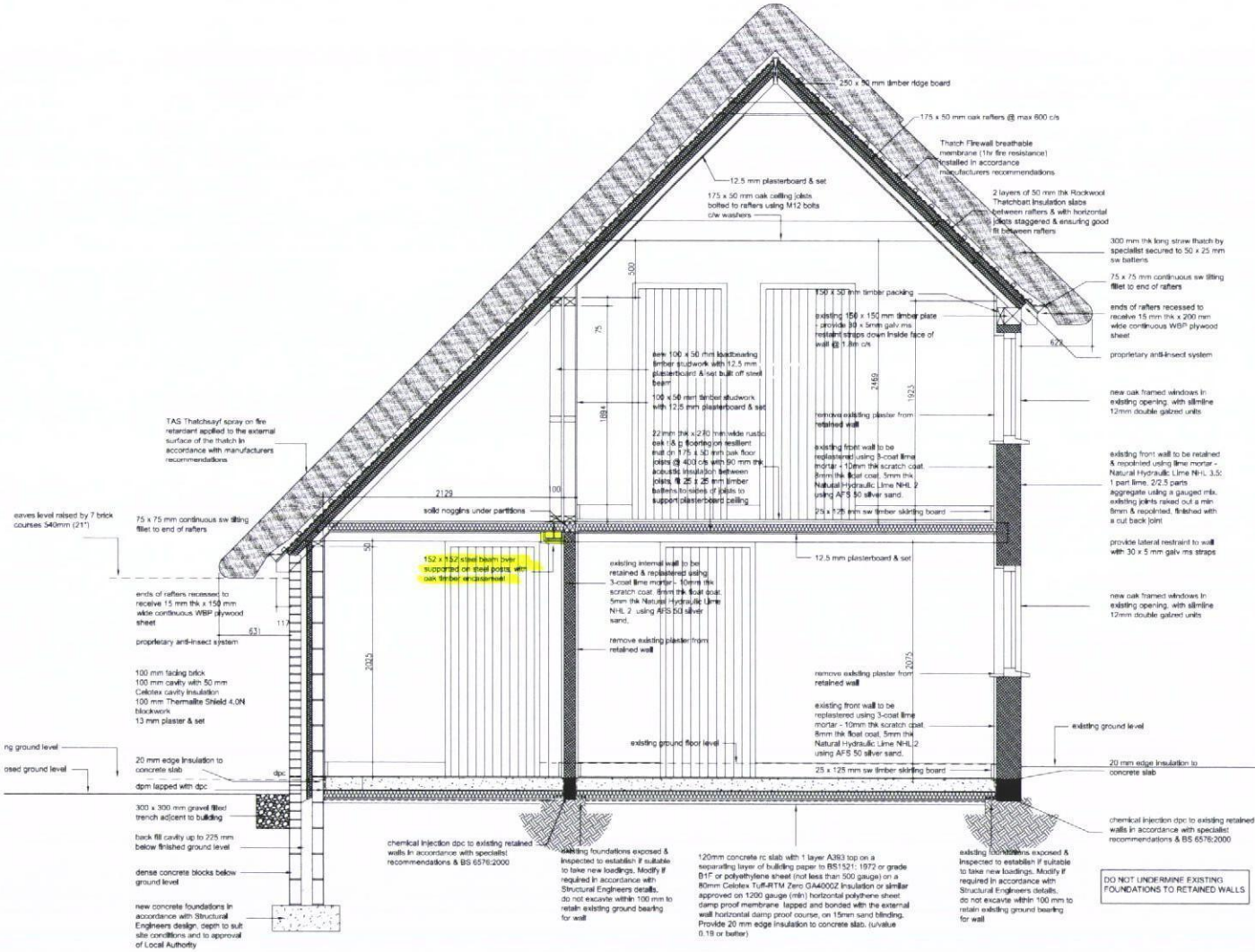
PROJECT
10 Southleigh Road
Havant

CLIENT
Pennington & Pope

DRAWING TITLE
Section AA

PROJECT NO.	DRAWING NO.	REV.	SCALE
11017	400	D	1:20

m2 architecture



Rev		Dwn / Date	Chk / Date
D	Internal spine wall plotted correctly, Steel frame revised	mw 28.03.13	
C	Floor slab note revised	mw 07.02.12	
B	Eyebrow dormers removed	mw 16.11.11	
A	Notes updated	mw 31.10.11	

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PROJECT

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CLIENT

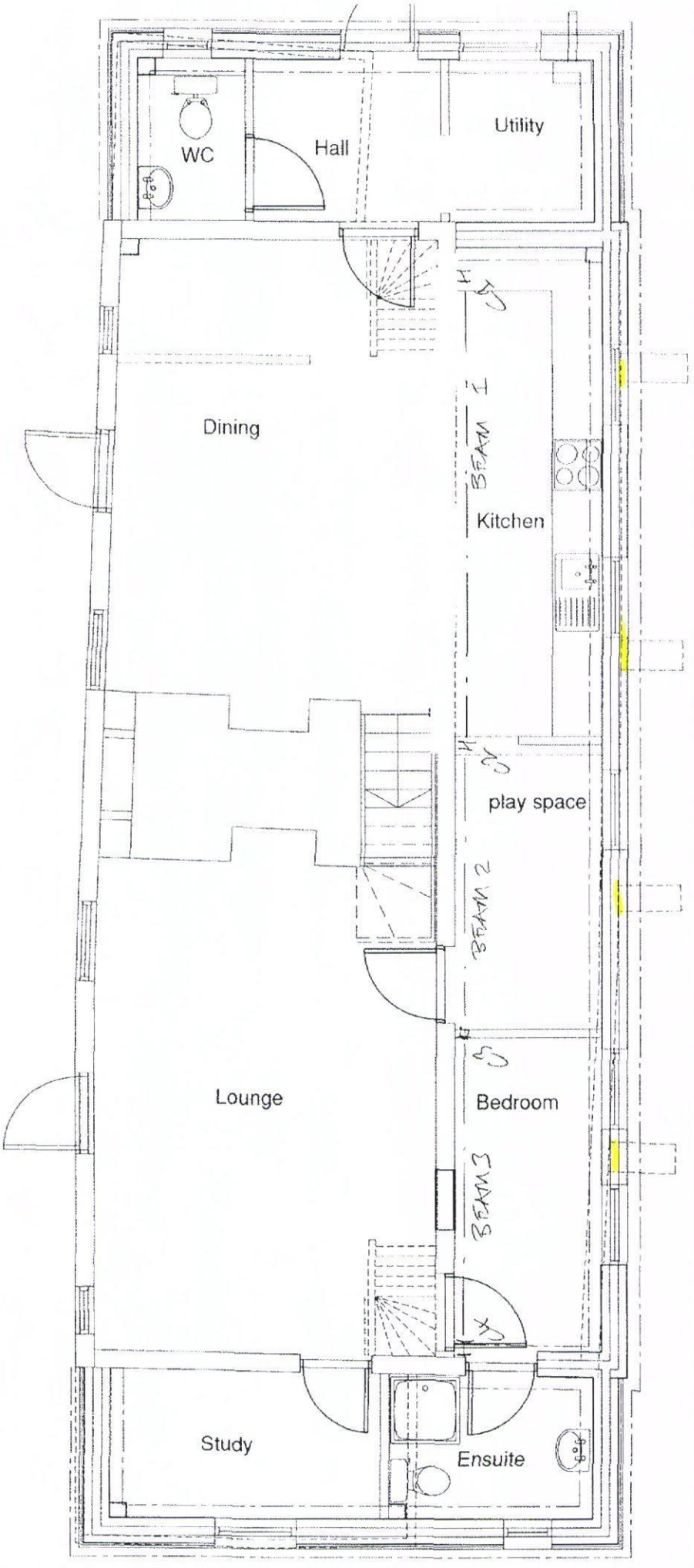
Pennington & Pope

DRAWING TITLE

Section BB

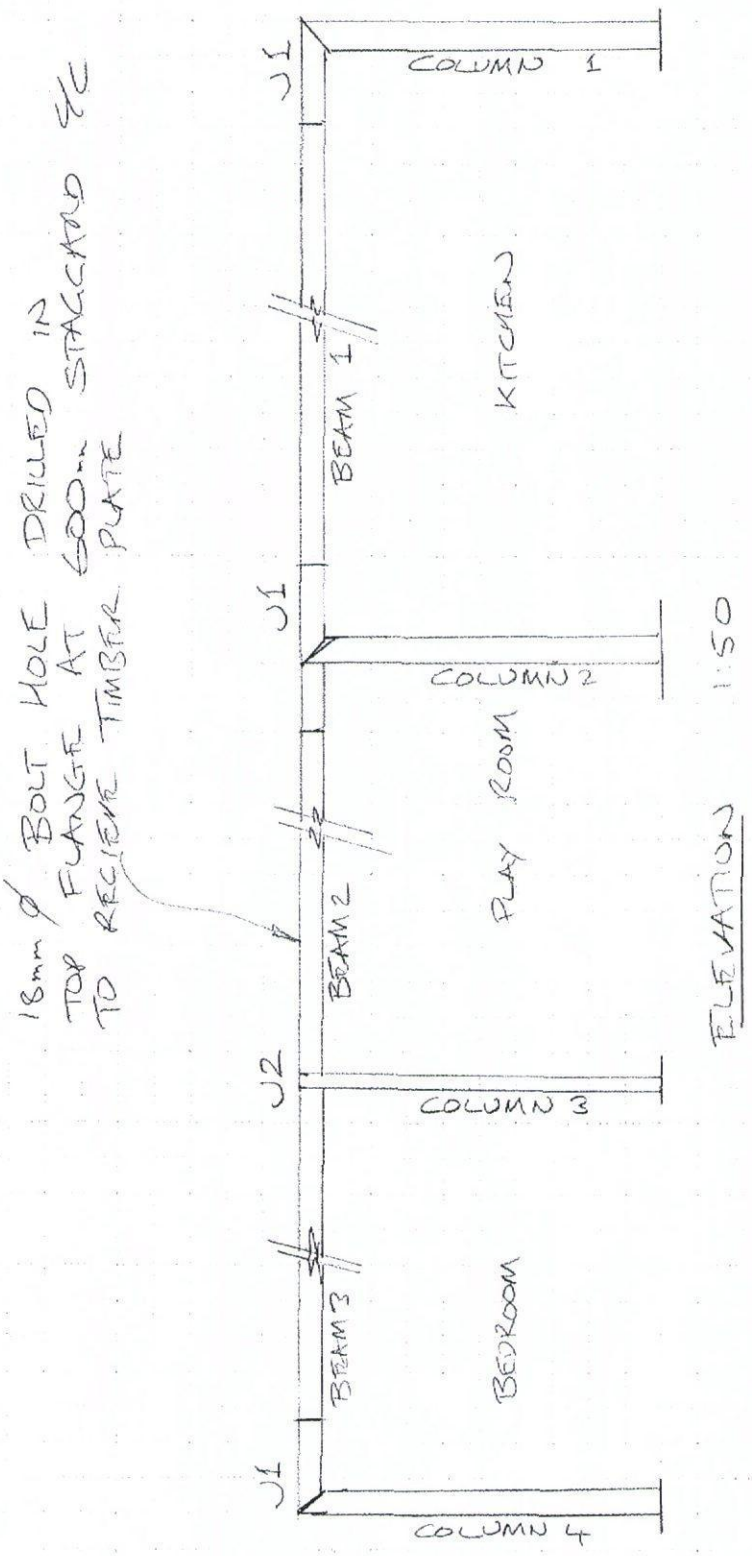
PROJECT NO.	DRAWING NO.	REV.	SCALE
11017	401	D	1:20

U3414/50



posit^{n} of pads.

PROJECT		MADE	**Patterson Reeves & Partners**
Proposed Alterations at 10 Southleigh Road Havant		PJR	Chartered Civil & Structural Engineers
		CHECKED	
PROJECT AND PAGE NUMBER	REV	DATE	
J3414/ S1		Feb 2012	www.pattreev.co.uk 02380 488488



PROJECT		MADE	**Patterson Reeves & Partners**
Proposed Alterations at 10 Southleigh Road Havant		PJR	Chartered Civil & Structural Engineers
		CHECKED	
PROJECT AND PAGE NUMBER	REV	DATE	
J3414/ S2		Feb 2012	www.pattreev.co.uk 02380 488488

BEAM SCHEDULE

BEAM 1 - 152 x 152 x 37 UC

BEAM 2 - 152 x 152 x 23 UC

BEAM 3 - 152 x 152 x 23 UC

COLUMN SCHEDULE

COLUMN 1 - 152 x 152 x 23 UC

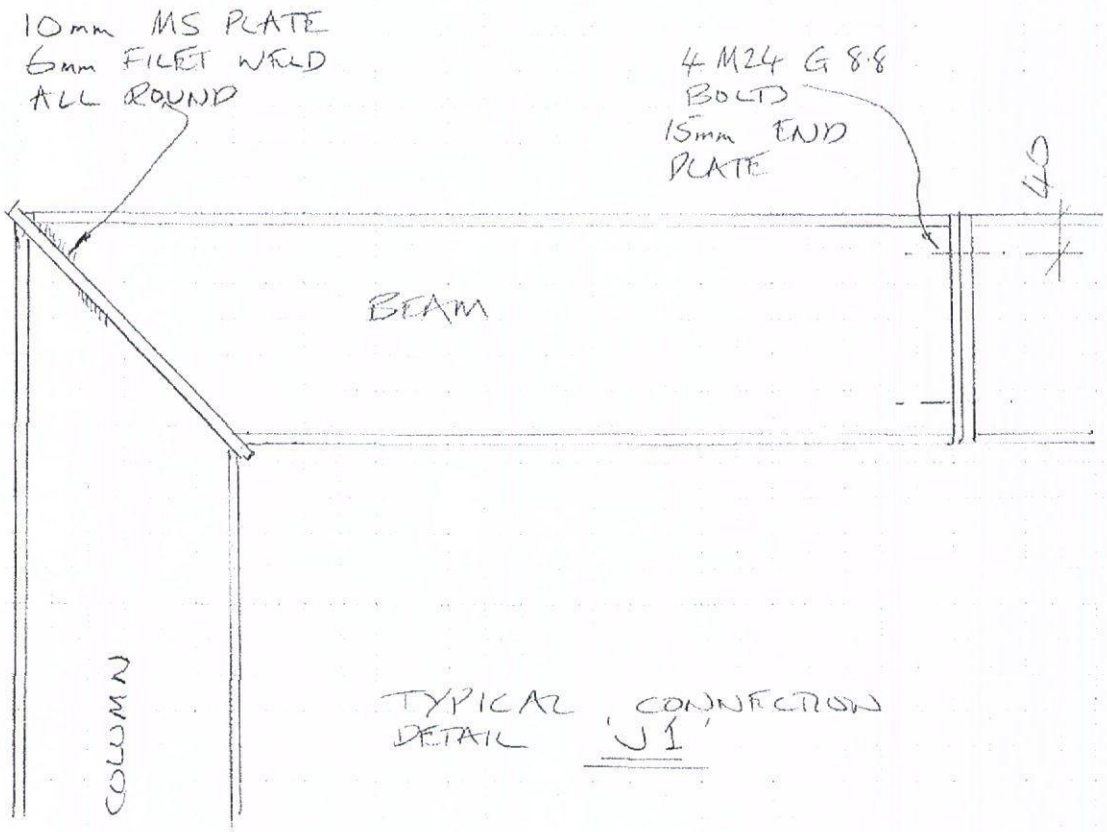
COLUMN 2 - 152 x 152 x 23 UC

COLUMN 3 - 100 x 100 x 5 SHS

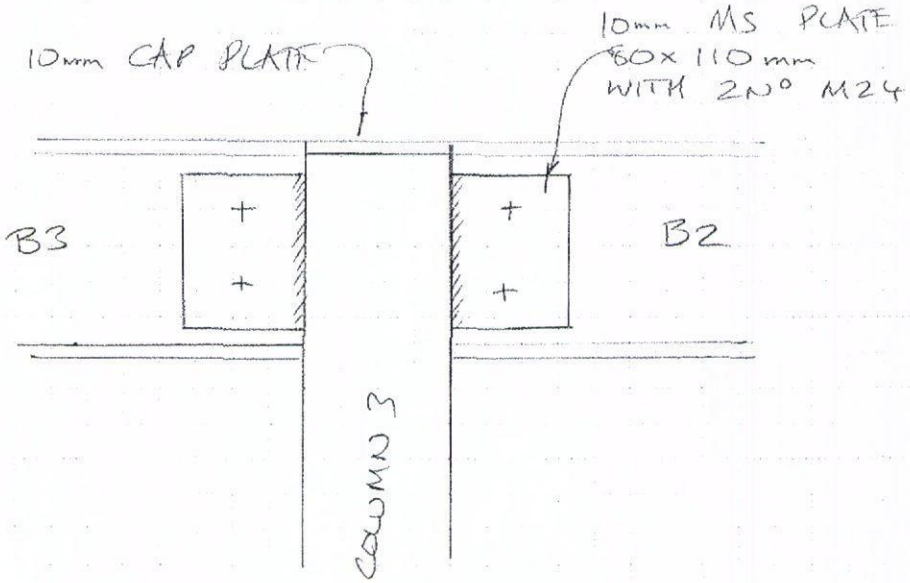
COLUMN 4 - 152 x 152 x 23 UC

NB - FIRE PROTECTION TO ARCHITECTS DETAILS

PROJECT	MADE	Patterson Reeves & Partners
Proposed Alterations at 10 Southleigh Road Havant	PJR	Chartered Civil & Structural Engineers
	CHECKED	
PROJECT AND PAGE NUMBER: J3414/S3	REV:	DATE: Feb 2012
		www.pattreev.co.uk 02380 488488



TYPICAL CONNECTION DETAIL 'J1'



TYPICAL CONECTION DETAIL 'J2'

BASE PLATE DETAIL AS SHEET J3414/13

PROJECT	MADE	Patterson Reeves & Partners
Proposed Alterations at 10 Southleigh Road Havant	PJR	Chartered Civil & Structural Engineers
	CHECKED	
PROJECT AND PAGE NUMBER: J3414/ S4	REV	DATE: Feb 2012

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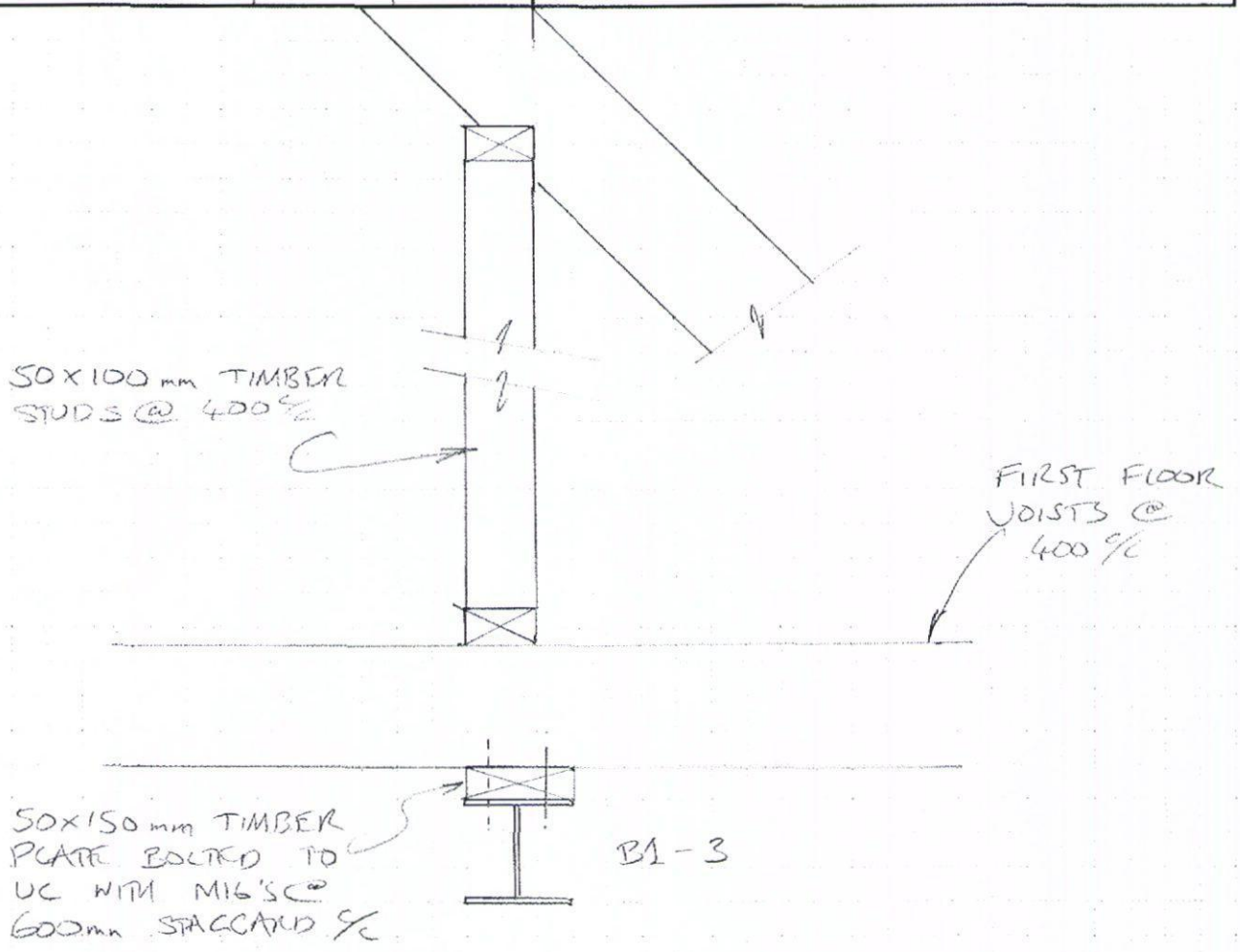


TYPICAL SECTION

PROJECT	MADE	Patterson Reeves & Partners
	TNT	Consulting Civil & Structural Engineers
	CHECKED	
	RJR	
PROJECT AND PAGE NUMBER: J3414/11	REV:	DATE: 11.2011
		www.pattreev.co.uk 02380 488488

Beam ① over Kitchen — Span 5.7m

Load

First floor	DL 0.6 kN/m² × 5.8m × 0.5 × 5.7m	9.9		15.9
	LL 1.5 " " "		24.8	39.7
Beam self	0.5 kN/m × 5.7m	2.9		4.10
	Σ	12.8	24.8	57.6 kN
	SF	6.4	12.4	28.8 kN

Max BM = 57.6 × 5.7/8 = 41 kNm

Sx req'd = 41 × 10⁶/10³ × 275 = 149 cm³

DL I_xx req'd = 1.27 × 12.8 × 5.7² = 528 cm⁴

LL " " = 2.3 × 24.8 × 5.7² = 1853 cm⁴

L_eff = (1.2 × 5.7) + (0.5 × 0.7) = 6.9 m

Try 152 × 152 × 37 UC

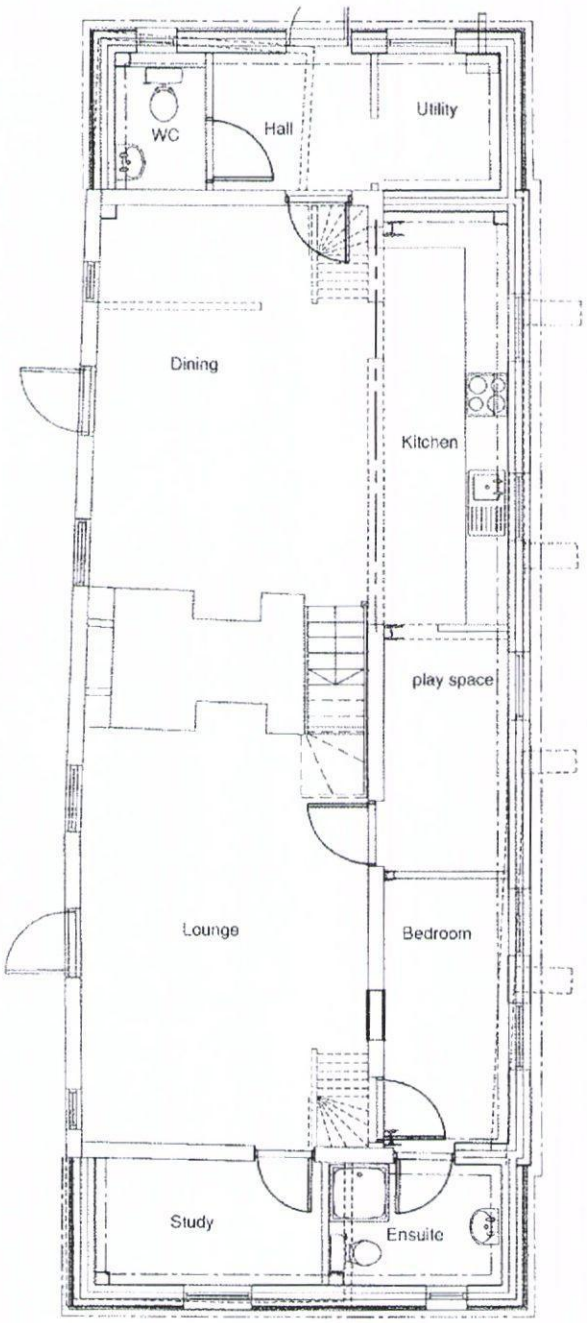
M_b = 47 kNm ✓

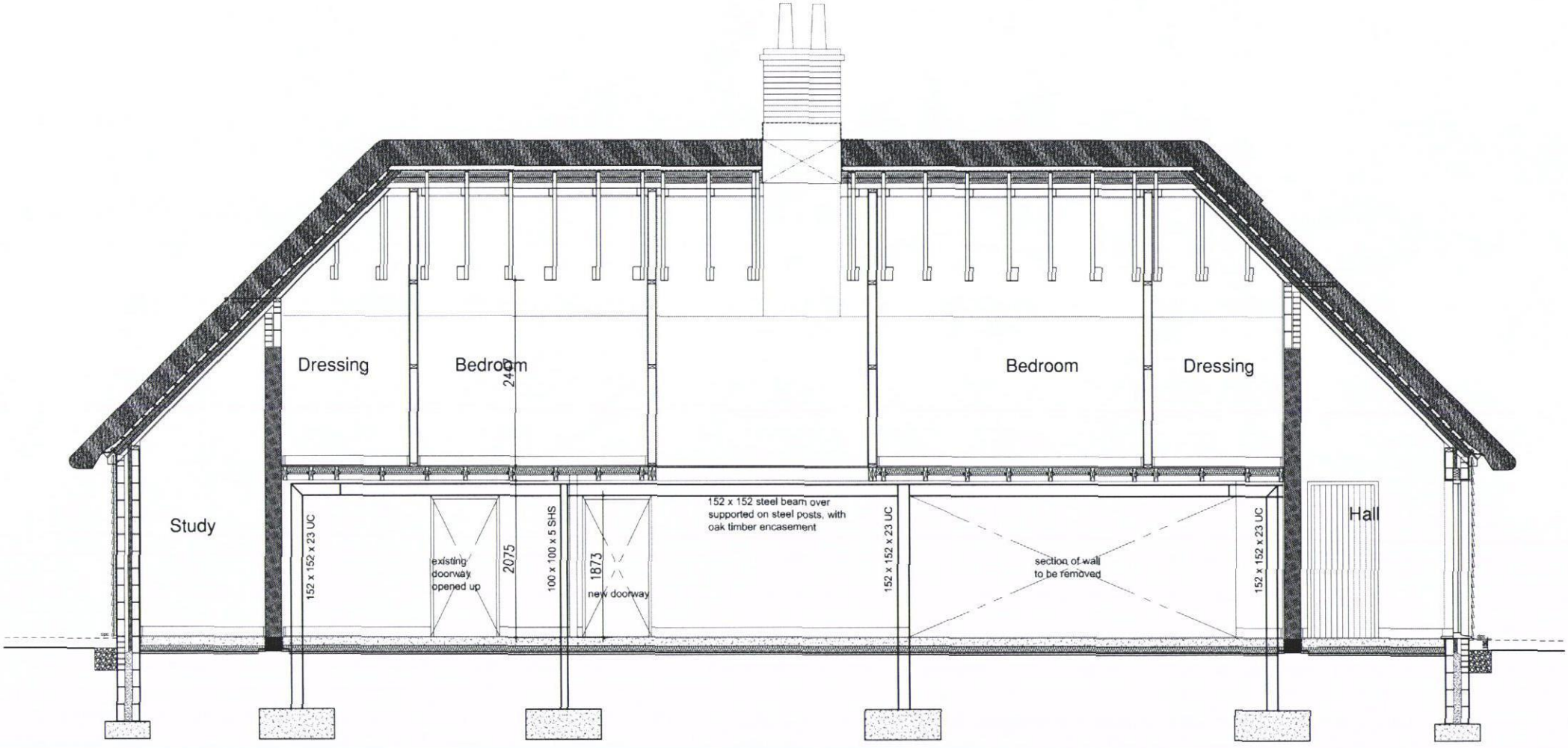
S_xx = 309 cm³ ✓

I_xx = 2210 cm⁴ ✓ > 1853

SELECT

152 × 152 × 37 UC


WC
Hall
Utility
Dining
Kitchen
play space
Lounge
Bedroom
Study
Ensuite


Dressing
Bedroom
2400
Bedroom
Dressing
Study
Hall
152 x 152 x 23 UC
existing doorway opened up
2075
100 x 100 x 5 SHS
1873
new doorway
152 x 152 steel beam over supported on steel posts, with oak timber encasement
152 x 152 x 23 UC
section of wall to be removed
152 x 152 x 23 UC