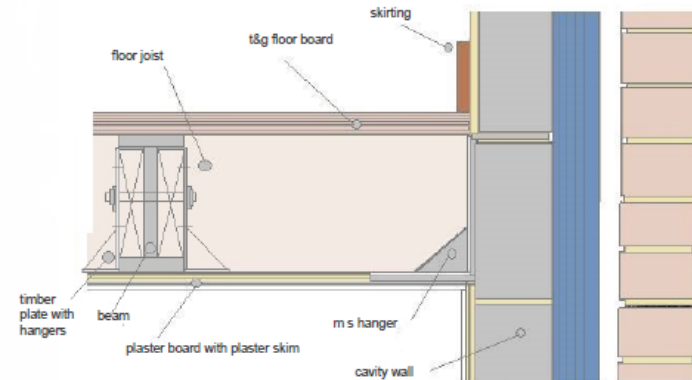


beam detail with plate



beam detail to floor

	Thickness (mm)	Thermal conductivity (W/mK)	Thermal resistance (m ² K/W)	Bridge details as spec.
Outside surface resistance	0.0	0.0000	0.1000	—
External Finish	—	—	—	—
Brickwork	—	—	—	—
Drained and vented cavity between battens	—	—	—	—
Weather membrane	12.5	0.2300	0.0043	—
Cementitious board	125.0	0.0220	5.4545	0.0000
Insulation between studs	125.0	0.0000	0.0000	0.0000
Timber stud depth (mm)	125.0	0.1300	0.0031	0.1000
Cavity	30.0	0.0000	0.0000	0.0000
Timber stud depth (mm)	30.0	0.1300	0.0008	0.1000
Insulation inside studs	25.0	0.0220	1.1364	—
12.5mm Gypsum Wallboard	12.5	0.1600	0.0058	—
Inside surface resistance	0.0	0.0000	0.1000	—

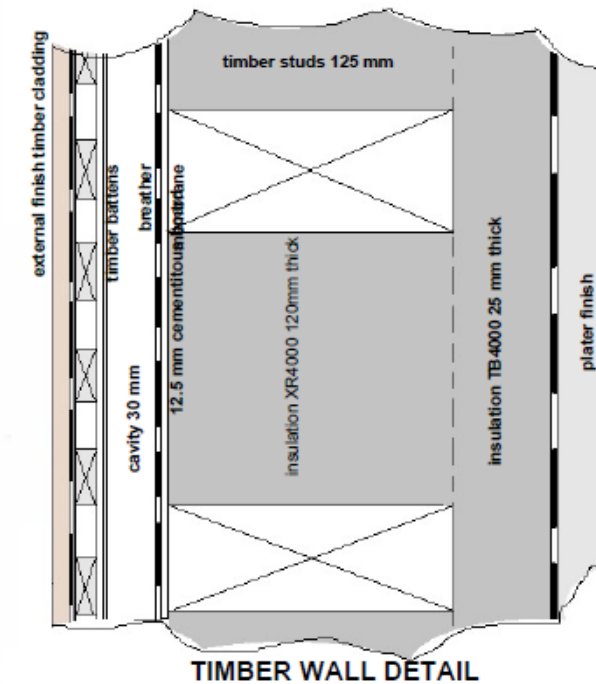
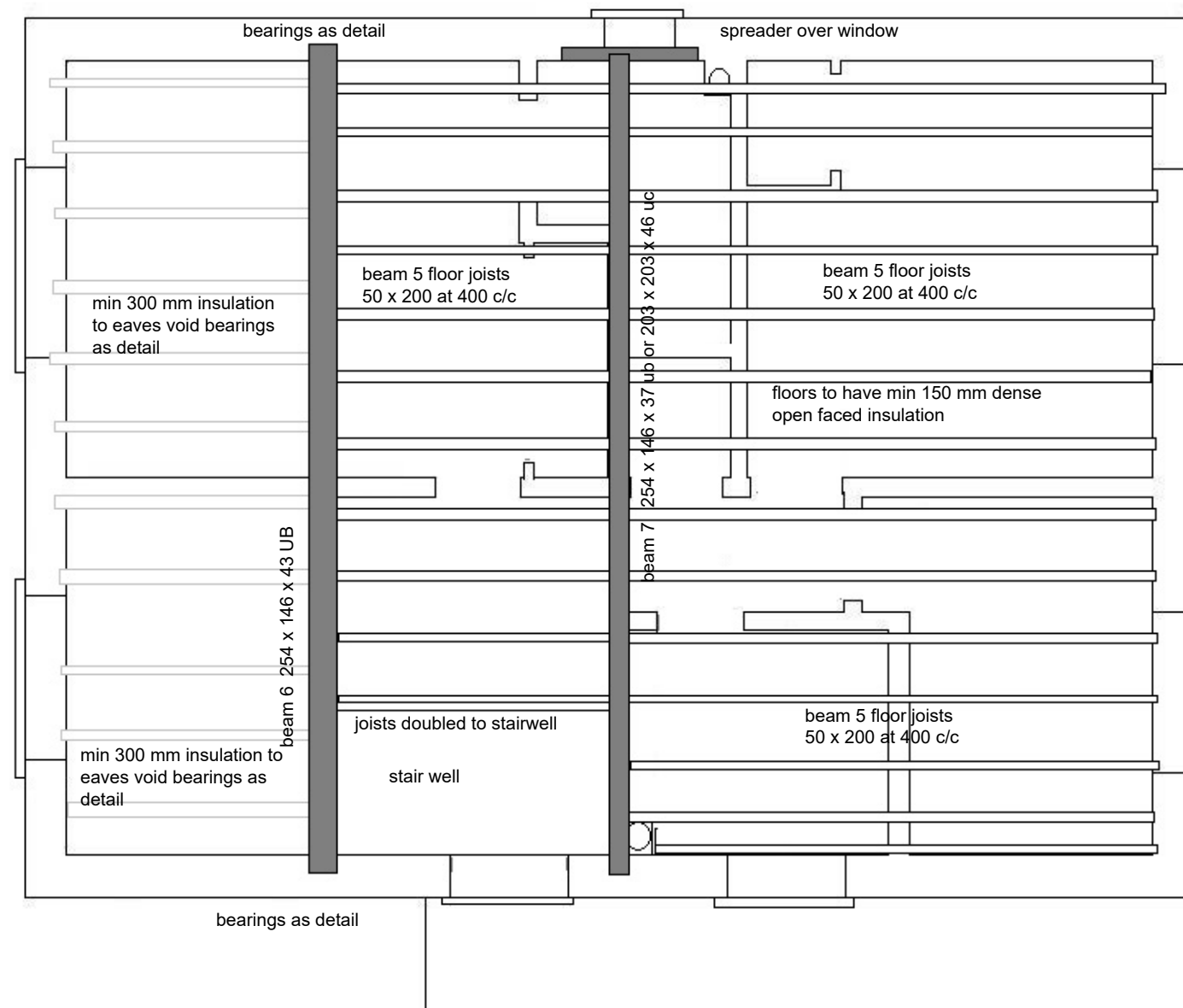
U-value = 0.18 W/m²K (combined method) : 0.170 W/m²K, upper limit : 0.171 W/m²K, lower limit : 0.177 W/m²K

Job number: 11381

ITEMS:

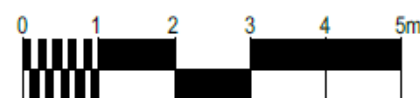
- 1: Beam: DORMER ROOF JOISTS
Span: 4.2 m.
Reactions (unfactored/factored): R1: 1.89/1.89 kN; R2: 1.89/1.89 kN
Use 50 x 200 C24
- 2: Beam: RIDGE BEAM
Span: 6.3 m.
Reactions (unfactored/factored): R1: 22.48/22.48 kN; R2: 22.48/22.48 kN
Use 203 x 203 x 48 UC S355
Bearing R1: 20 mm m.s. bearing plate, size 450 x 100 mm
Bearing R2: As R1
- 3: Beam: RAFTERS TO EACH SIDE OF ROOF WINDOWS
Span: 2.5 m.
Reactions (unfactored/factored): R1: 2.74/2.74 kN; R2: 2.24/2.24 kN
Use 2no 50 x 150 C16
- 4: Beam: EXISTING RAFTER
Span: 2.5 m.
Reactions (unfactored/factored): R1: 1.59/1.59 kN; R2: 1.59/1.59 kN
Use 50 x 150 C16
RUN ALONG SIDE EXISTING TRUSS TIMBER
- 5: Beam: FLOOR JOISTS TO LOFT FLOOR
Span: 4.0 m.
Reactions (unfactored/factored): R1: 1.80/1.80 kN; R2: 1.80/1.80 kN
Use 50 x 200 C16
- 6: Beam: BEAM BELOW FRONT PARTITION WALL
Span: 6.3 m.
Reactions (unfactored/factored): R1: 25.55/25.55 kN; R2: 25.55/25.55 kN
Use 254 x 146 x 43 UB S355
Bearing R1: 25 mm m.s. bearing plate, size 550 x 100 mm
Bearing R2: As R1
- 7: Beam: CENTRAL BEAM TO FLOOR
Span: 6.3 m.
Reactions (unfactored/factored): R1: 23.04/23.04 kN; R2: 21.47/21.47 kN
Use 254 x 146 x 37 UB S355
Bearing R1: 20 mm m.s. bearing plate, size 500 x 100 mm
Bearing R2: 20 mm m.s. bearing plate, size 450 x 100 mm
- 8: Beam: CENTRAL BEAM TO FLOOR
Span: 6.3 m.
Reactions (unfactored/factored): R1: 23.04/23.04 kN; R2: 21.47/21.47 kN
Use 203 x 203 x 46 UC S355
Bearing R1: 20 mm m.s. bearing plate, size 500 x 100 mm
Bearing R2: 20 mm m.s. bearing plate, size 450 x 100 mm

PROPOSED JOIST FLOOR PLAN 1 : 50



TIMBER WALL DETAIL

- Should Any Conflict Between Details And Measurements On This Drawing Or On Other Drawings, Then Surrey Building Services Should Be Informed Prior To Construction On Site
- Until Full Approval Of Both Planning And Building Regulations (And Any Other Approval Applicable) Has Been Granted From The Relevant Authorities, It Should Be Understood That All Drawings Are Preliminary And Are Not For Construction. Should Work Commence Prior To Such Approvals Being Granted It Is Entirely At His Or Her Own Risk
- Copyright All Drawings Remain The Copyright Of Surrey Building Services And May Not Be Copied, Altered Or Reproduced In Anyway Without Written Authority.



1 : 100 @ A3



1 : 50 @ A3

SBS

Surrey Building Services

Architectural & Building Consultants

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Client No. 11381
No. 11
Revision BR

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Proposal

PROPOSED LOFT CONVERSION WITH
REAR DORMER

Scale 1:100 1:50

Paper Size A3