150 x 50 C16 ridge board, lapped & fixed to the rafters with min. 4 no. 100mm long x 4.0mm diam screws @ 30mm edge distance.

100 x 50 C16 rafters & ceiling joist @ < _ 400mm c/c, lapped & fixed to each other with min. 3 no. 100mm long x 4.0mm diam screws @ 30mm edge distance.

New fascia board depth to be min. 150 x 18mm WPB plywood covered in black uPVC.

External Cladding: Code 4 lead sheets, laid strictly in accordance with the Lead Association manual, on geotextile membrane, on 18mm WPB plywood fixed to the joists with 50mm long zinc plated recessed screws @ 200mm c/c. The Geo-membrane is to be taken under the roof slates to lap 225mm with the roof felt & the end joints are to be (tape) fixed together. The Code 4 lead flashing is to be dress at least 200mm over the roof slates.

150 x 50 C16 rafters (laid to fall the greater of 1:40 or 25mm) & ceiling joist @ ≤ 400mm c/c, lapped & fixed to each other with min. 1 no. 38mm diam. double side tooth plate connector & M10 bolt in the centre & 4 no. 100mm long x 4.0mm diam screws @ 30mm edge distance.

1 layer of 100mm thick Celotex Tuff-R Zero GA30100 Z insulation laid between the rafters.

New fascia board depth to be min. 150 x 18mm WPB plywood covered in black uPVC.

Proprietary eaves ventilator system to provide the equivalent of 25mm wide continuous gap.
Soffit board to be in 9mm WPB plywood covered in black uPVC.

Rockwool Cavity Closure to fully cover the wall plate.

Min. 50mm Celotex GA3050z Cavity wall insulation (or similar).

Cavity tray lapped to the flashing as shown & with weepholes @ 900mm c/c.

The shallow roof is to be covered with Eternit slates. The roof void is small & ventilated @ the eaves, on three sides. Subject to the Building Inspector's approval it may not be necessary to provide a Roof abutment vent but in the event this was unacceptable, the builder should allow for Dry Venting System, located between the flashing & slates, to provide the equivalent of 5mm continuous gap (5000mm²/m length). The Code 4 Lead flashing is to be dress at least 150mm over the roof slates.

New fascia board depth to match existing but min. 175–200 x 18mm WPB plywood covered in white uPVC.

Proprietary eaves ventilator system to provide the equivalent of 25mm wide continuous gap.

Rockwool Cavity Closure.

Min. 50mm Celotex GA3050z Cavity wall insulation (or similar).

Existing Pavement G.L.: 10.00

Proposed Front Yard GL. 10.175

17 Baker St.
Cellar Level: 8.80
(As measured on site but to be reconfirmed after the demolition of the existing building & prior to the construction of the new foundations.

Bottom layer: 150mm thick Rockwool insulation laid tight between ceiling joists & cross overlayed with 150mm top layer of the same insulation.

Provide proprietary either ridge tiles or roof tiles dry vented system to provide equivalent 5mm continuous gap.

150 x 50 C16 rafters & ceiling joist @ ≤ 400mm c/c, lapped & fixed to each other with min. 1 no. 38mm diam. double side tooth plate connector & M10 bolt in the centre & 4 no. 100mm long x 4.0mm diam screws @ 30mm edge distance.

Proposed Ridge 19.125

1 Layer of 100mm Celotex Tuff-R Zero GA30100 Z insulation laid between the rafters & 1 layer of 50mm GA3050 Z, placed under the rafters on a 12.7mm "Vapour Check" PB ceiling.

1 layer of 100mm thick Celotex Tuff-R Zero GA30100 Z insulation laid between the rafters.

100mm thick Rockwool Insulation wedged tight between studs

Min. 50mm clear ventilation air gap.

New fascia board depth to be min. 175 x 18mm WPB plywood covered in black uPVC.

Soffit board to be in 9mm WPB plywood covered in black uPVC.

Proprietary eaves ventilator system to provide the equivalent of 25mm wide continuous gap.

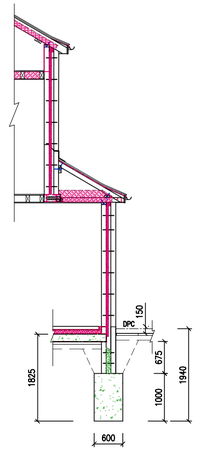
Provide, Either proprietary roof tiles dry vented system or Roof abutment vent (Dry Ridge Vent) located between the flashing & slates, to provide the equivalent of 5mm continuous gap (5000mm²/m length. The Code 4 Lead flashing is to be dress at least 150mm over the roof slates.

Each & every rafter is to be skew fixed with two screws or 100mm RS nails to the pole plate which is to be fixed to each ceiling joist with 100mm long screws.

New fascia board depth to match existing but min. 175–200 x 18mm WPB plywood covered in white uPVC.

100 x 50 C16 rafters & ceiling joist @ ≤ 400mm c/c, lapped & fixed to each other with min. 3 no. 100mm long x 4.0mm diam screws @ 30mm edge distance.

Bottom layer: 100mm Celotex Tuff-R Zero GA30100 Z insulation laid tight between the ceiling joists & cross overlayed with top layer of 150mm Rockwool insulation.



Typical Roof/Walls/ Floors & Foundations Structural Construction

Proposed Rear Terrace GL. 10.325

Existing Rear G.L.: 10.425
(Near the building & taken as the Datum of adj. 17 Baker St.)

Garden

Existing Building F.F.L.: 10.525 (max.)

Proposed FFL. 15.790

Proposed FFL. 13.250

Proposed FFL. 10.475

Existing Building F.F.L.: 10.550 (max.)

Bed 4 Or Study (Child)

Bed 3

Bed 1

Bed 2

Bathroom

Kitchen

Dining

Sitting Room

WC

Stud 1

Stud 2

A. Stud

Tb

Tc

W1

St1

Br.

Lc

Lb

Ld

TB1

T2

T7

T10

T1

SB.1

W2

Le

Y

150mm thick Rockwool insulation laid tight between the 2nd floor & ceiling joists.

Provide 100mm mineral wool insulation of min. density of 10 kg/m³ in the floor void as shown.

Rockwool Cavity Closure.

Each rafter is to be skew fixed with 100mm long screws or 2no. RS nails, to the bearing 150 x 50 C16 pretreated plate which is fixed to the wall with 125mm long plugged screws @ ~ 300mm c/c, staggered 50mm from T & B.

Min. 50mm Celotex GA3050z Cavity wall insulation (or similar).

New 1st-2nd Floor timber staircase: 14 Risers @ approx. 185mm. Total rise = 2590mm. Going 220mm. Treads= 245mm. Pitch 40.06°. Handrails & balusters to be set @ 900mm above stairs pitch & 1100mm above landing. Balusters to be spaced @ 100mm c/c. All in accordance with Building Regs. Part K (K1 & K2).

New Ground to First Floor timber staircase: 15 Risers @ approx. 185mm. Total rise = 2775mm. Going 220mm. Treads= 245mm. Pitch 40.06°. Handrails & balusters to be set @ 900mm above stairs pitch & 1100mm above landing. Balusters to be spaced @ 100mm c/c. All in accordance with Building Regs. Part K (K1 & K2).

The knewl post may be taken up in one piece, to the landing/riser 24, to support the structure of the stairs

SB1 = Outer skin:152 x 152 UC23 + Inner skin 152 x 89 UB 16, bolted together with 7no. 60.3 x 3.2mm CHS spacers & M16 bolts @ 600mm c/c.

Ground Slab. Refer to Dwg. 2010/02/S07B 65mm reinforced sand/cement screed on Min. 1000 gauge Vapour control layer on 100mm Celotex GA30100z or similar thermal insulation, on 1000 gauge polythene DPM, on 150mm reinforced concrete suspended slab design on 1200 gauge polythene DPM on 50mm sand blinding on earth shuttering. The slab construction is to be laid on prepared existing site soils, free from organic matter, consolidated with a vibrating plate & treated with a weed killer before laying the sand blinding. The Slab reinforcement is fully specified om dwg S07B.

GROUND PREPARATION: Refer to section A–A dwg 2010/02/S04B & Foundations drawing 2010/02/S07B.

SECTION B–B SCALE 1:20

No.	Description	By	Date
B	Added: Engineering & Building Regulation Notations, Key & Specifications.	JBS	June 10
A	Retitled Drawing. Added: False Chimney @ the boundary with 17 Baker St.	JBS	18.04.10

Revisions

J.B. SLEIMAN Bsc. Honours C. Eng. M.I.Struct E.
CONSULTING CIVIL & STRUCTURAL ENGINEER
8 CASTLE ROAD, WINTON, BOURNEMOUTH BH9 1PJ
TEL / FAX: 01202 517205 TEL: 01202 523875 MOBILE: 07958 611445

Project: PROPOSED NEW HOUSES @ 19a & 19b BAKER STREET READING RG1 7XT

Title: SECTION B–B SHOWING LEVELS, SETTING OUT & STRUCTURE BUILDING REGULATIONS DETAILS

DRAWN	JBS
DATE	Mar. 2010
SCALE	1:20

Drg. No. 2010/02/S05B

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ENG. DWG. 2010/02/S05B & S07B (Also Containing the General Notes) & THE B.R. DWG 02 & 03, TOGETHER WITH THE CONSTRUCTION NOTES DOCUMENT.

KEY

Tb = 150 x 50 C16 joist/plate, laid as shown to prop the curtailed rafters & spiked to each with 2 no. 100mm long RS nails or screws. Tb1 is to be fixed (detail to be agreed with engineer on site) to the double rafters edging the dormer.

Tc = 100 x 50 C16 joist fixed each stud with 100mm long screws & supporting the inclined celing joists which is skew nailed or screwed to Tc.