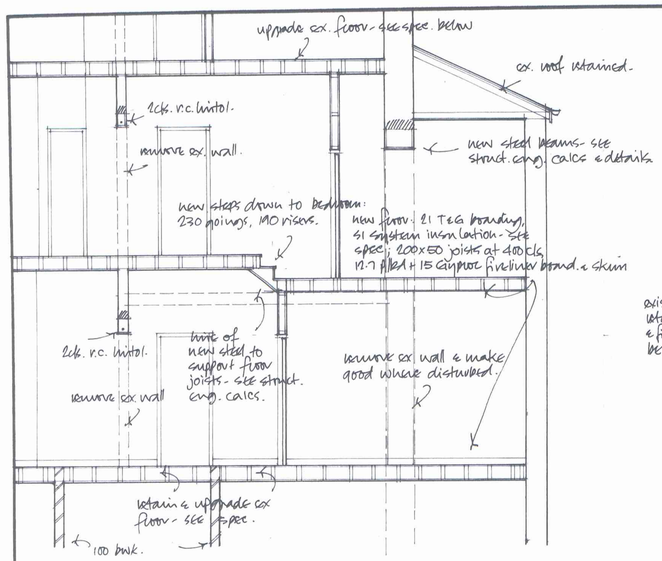
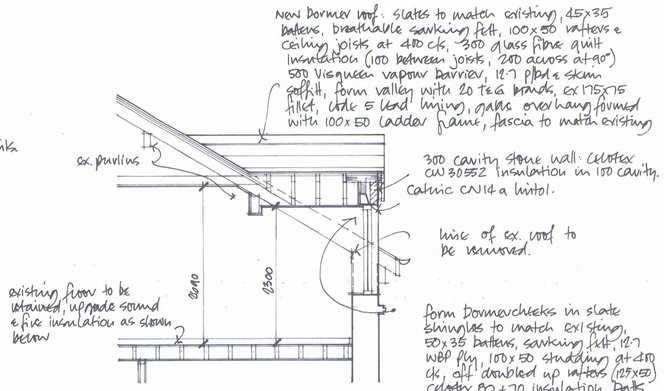
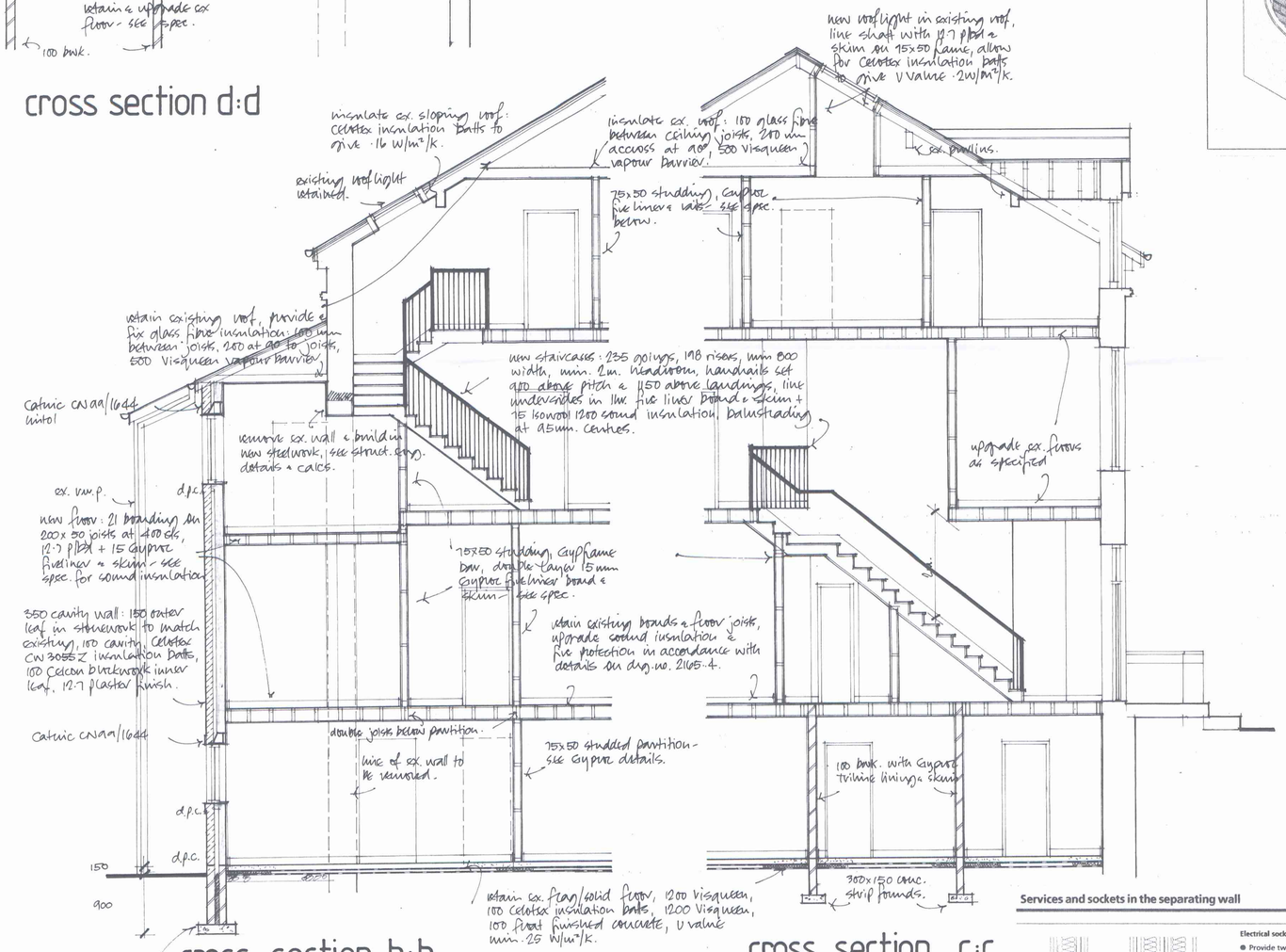


cross section d:d



cross section e:e



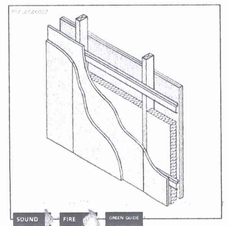
cross section b:b

cross section c:c

350 cavity brick. to G.L. filled with lean concrete & reinforced 150 below d.p.c. off 750x250 concrete strip foundation, 1:2:4 mix, 900 min. cover.

PRE-COMPLETION TESTING
BRITISH GYPSUM APPROVED SYSTEM (43dB D_{nTw} + Ctr)

11 Timber stud and Gypframe RB1 Resilient Bar



- Overall construction nominal width 151mm
- 38mm x 75mm timber stud with Gypframe RB1 Resilient Bar to one side of the stud at 600mm centres
- Lined with a double layer of 15mm Gyproc SoundBloc each side and 75mm Isowool APR 1200 in the cavity

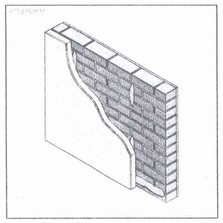
SOUND: 52dB R_w + Ctr | FIRE: 90 mins *(5)* | GREEN GUIDE: A

(5) The fire resistance and sound insulation performance are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to British Gypsum's recommendations. The quoted performances are achieved only if British Gypsum components are used throughout, and the company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with British Gypsum.

(6) For existing timber stud, partitions lined with lath and plaster, this specification could be used after complete removal of the lath and plaster. If the lath and plaster is in good condition then it could remain in place on the non-RB1 side, with the double layer 15mm Gyproc SoundBloc fixed through the lath and plaster into the timber framing.

PRE-COMPLETION TESTING
BRITISH GYPSUM APPROVED SYSTEM (43dB D_{nTw} + Ctr)

22 Masonry walls and DriLyner SI



- This construction has the potential to achieve 43dB D_{nTw} + Ctr with a Gyproc TriLine upgrade – dependent on base wall performance.
- 52mm Gyproc TriLine R_w = 13dB and R_w + Ctr = 9dB
- Improvement when lining to one side of a core masonry element (mass per unit area circa 200kg/m²) with plaster the other side

(5) The fire resistance and sound insulation performance are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to British Gypsum's recommendations. The quoted performances are achieved only if British Gypsum components are used throughout, and the company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with British Gypsum.

This drawing is the copyright of A.C.Marland and no copies or tracings are permitted without the express consent of A.C.Marland.

The contractor is to check and verify all building and site dimensions, levels and sewer invert levels at connection points before work commences.

This drawing must be read and checked against any structural or specialist drawings provided.

The contractor is to comply in all respects with the current Building Regulations whether or not specifically stated or referred to on these drawings.

No dimensions are to be scaled from these drawings, all dimensions to be checked before work commences and any discrepancies reported to A.C.Marland.

Ensure that all Planning and Building Regulations conditions have been discharged to the satisfaction of the Local Authority before work commences.

All works to comply with the workmanship clauses in BS 8000 series and to be in full compliance with current Building Regulations.

The Contractor is to notify Building Control at the appropriate stages of construction for their inspection to confirm full statutory compliance of the works.

If thermal elements of construction are to be altered (walls, floors, roofs, windows and doors) the contractor is to seek Building Control approval prior to construction and be responsible for achieving required 'U'value for each element.

Foundations to be taken down to a minimum depth of 760mm below finished ground level and to a depth such as to prevent damage from tree roots; actual depth to be agreed with Building Control when site conditions are determined.

Foundations within 1m of drainage to be taken down to invert level; build 150 x 100 r.c. lintels into foundation brickwork where drains pass; case all rigid jointed drainage below new structure in 150 concrete, 1:3:6 mix or pea gravel if flexible jointed.

Cavity walls below ground level to be filled with lean concrete and weathered 225 below lowest d.p.c. level; d.p.m. to be lapped over d.p.c.

Internal walls and timber floor sleeper walls to be built off thickened slab of strip foundation or as agreed with Building Control.

Any existing foundations and structures supporting new structural loading are to be exposed for inspection by Building Control and if requested upgraded and underpinned to the satisfaction of the Local Authority.

All new brickwork and masonry to be bonded to existing walls and cavities maintained, or tie in with proprietary bolted starter anchor system together with insulated vertical d.p.c. installed in strict compliance with manufacturer's instructions.

All brickwork and masonry returns and corners to be a minimum 550mm.

Wall ties to be double triangle stainless steel to BS 1243 at 750 c/c horizontally, 450 c/c vertically and 225 of height around reveals, ties embedded minimum 50mm into walls; ensure correct clips are used for cavity wall insulation.

All steel lintels to have minimum 150mm end bearing; timber joists to have 100mm end bearing.

Install insulated Catnic lintels, or of other approved manufacture, over openings complete with cavity tray, stop ends, weep holes at 900c/c and cased in plasterboard to give ½hr fire protection.

Steel beams to sit on concrete padstones minimum 300mm x 250mm x 150mm deep, (where only 100mm is possible provide 450mm x 100mm x 150mm deep concrete spreader); existing piers and walls supporting new steelwork to be made good and rebuilt if formation of openings has weakened structure.

Steelwork to be coated in zinc primer prior to installation and spaced and bolted together where specified with M12 bolts at 1000 c/c; case all new steelwork with 2 layers 12.5 plasterboard and skim on 50mm x 50mm cradle to give ½hr fire protection, web filled with mineral wool to reduce cold bridging.

Internal door openings (max. 1200mm) to have 150mm x 100mm r.c. or Catnic lintels with minimum 150mm end bearings.

Cavity walls to be closed at head with mineral wool and dressed over wall plate to prevent cold bridging.

New below ground drainage to be approved 100mm plastic or clay drainage system laid to minimum 1:40 falls, 150mm concrete or pea gravel protected with full rodding access.

Drainage runs shown on the drawings are assumed and checks should be made on site to establish exact locations before work commences; cap and seal all redundant drains.

Baths, w.h.b's, sinks, bidets to have 38mm p.v.c. waste pipes with 75mm deep seal anti vac traps. Combined waste pipes to be 50mm minimum. No opposed waste connections into s.&v.p. within 200mm of w.c. connection; air relief valves to be installed above flood level of highest appliance's overflow.

Casings to s.&v.p. to be fixed with cups and screws to allow for maintenance and access; s.&v.p. to have rodding access at base and all changes of direction; terminal vent be 900 above window heads and rooflights and to have balloon grating with weathered slate to roof penetration.

20mm T & G moisture resistant chipboard floor boarding in kitchens, utility rooms and bathrooms.

Provide and fix 100mm (10kg/m³) acoustic quilt between floor joists and 25mm (10kg/m³) quilt between studded partitions, with 12.5mm Ten (10kg/m²) plasterboard and skim finish.

Provide roof, ceiling and floor lateral support to external and internal walls with 1200mm x 30mm x 5mm galvanised steel straps and noggins at 2m c/c.

Any existing sub floor ventilation to be maintained (minimum 100mm Ø ducting); new sub floor ventilation to be achieved using air bricks to give 1500mm²/m linear (215 x 65 at 800mm c/c or 215 x 140 at 1200mm c/c); or 500mm²/m² of floor area, all air bricks to be sleeved through cavity complete with cavity tray over.

'U' Values: walls: .3W/m²/k; floors: .22W/m²/k; roofs: .2W/m²/k.

Smoke detectors to be interlinked with existing electrical system and to have battery backup and to be fitted within 3m of bedroom doors.

Insulation at ceiling level: 16W/m²/k: 100 glass fibre quilt between joists with 170 glass fibre quilt laid at 90°over joists giving a total thickness of 270mm; fix Tyvek SD-2 air leakage barrier and vapour control layer with taped joints to underside of joists, 12.5mm plasterboard and skim finish; limiting thermal bridging and air leakage to be in accordance with DETR robust construction details.

Allow minimum 25 airspace behind fascias and protect with insect mesh; provide eaves baffles to prevent roof void ventilation obstruction; provide venting roof tiles where adequate cross ventilation cannot be achieved; provide venting roof tiles in mono pitch roofs to achieve ventilation equivalent to 5mm continuous gap.

Maximum percentage of glazing to windows, doors rooflights to be no more than 25% of floor area **plus** doors/windows areas which as a result of the extension, no longer exist or are exposed; windows and rooflights to be fully draught proofed and double glazed in low emissivity K glass, 16mm Argon filled gap to give 1.8W/m²/k.

Escape windows fitted to all habitable rooms with escape hinges giving a clear opening of .33m² with no dimension being less than 450mm x 450mm; cill heights to 1st floors or drops of more than 600mm to 800mm minimum and not more than 1100mm above floor level: loft conversions to have top opening windows with .33m² clear opening, minimum 450mm x 450mm, cill heights min. 600mm and max. 1100mm with min. 1700mm to eaves.

Dormer cheeks within 1m of site boundary to have 12mm Supalux fire protection beneath external wall face and 12.5 fire line plasterboard and skim to internal face to give ½hr fire protection.

Provide and fix 100 mineral wool ceilings below dormer floor and secure withchicken wire to give ½hr fire protection.

Existing ceiling joists below dormer conversions to be hung off new floor joists with 30mm x 5mm galvanised m.s. straps at 800mmc/c.

Laminated or toughened safety glass to be fitted to any locations below 800mm above floor level and doors and glazed panels within 300mm of door edges.

Windows to have opening lights equal to 1/20th of total room floor area.

Windows must open more than 30°, otherwise opening free area to be minimum 1/10th of the total room area.

Windows to have 8000mm² background ventilation to all habitable rooms, bathrooms, kitchens and utility rooms; allow 100mm gap below all internal doors.

Mechanical ventilation:
Bathrooms: 15 litres per second.
Kitchens: 60 litres per second or 30 litres per second from cooker hood.
Utility Rooms: 30 litres per second.
Sanitary accommodation: 6 litres per second.
Rooms with no windows to have 15 minute over run on fan operated by light switch.

Primary light fittings to be capable of receiving lamps having a luminous efficiency of 40 lumens per circuit watt. (Compact fluorescent lamps)

Electric switches and sockets to be located min. 450mm and 1200 max. above floor level.

All new electrical work to meet Part P (electrical safety) of the Building Regulations; to be designed, installed, inspected and tested by a person who is competent so to do.Prior to completion of any electrical work, the Local Authority must be satisfied that an appropriate BS7671 electrical installation certificate has been issued for the work and that it has been signed by a person who is competent so to do.

Any new boilers to be gas fired, condensing, wall mounted, with balanced flue and stainless steel guard, and to be SEDBUK rated 86%.

All new radiators to have thermostatic valves and all new pipework to be fully insulated.

Heating and hot water systems to be fitted in accordance with the Domestic Heating Compliance Guide.

All structural timber to be stress grade C16 and double vacuum preservative treated; build in double joists below studded partitions and baths, around staircase openings, rooflights and chimney stacks (minimum clearance 50mm); bolted together with 5.1mmØ double sided round toothed connectors and M12 grade 4.6 bolts at 600c/c. Proprietary joist hangers to suit joist width and loading at junction of all timbers; provide and fix strutting to floor joists at centres to suit spans.

New trussed rafters to be braced diagonally against wind loading and to comply with BS 5268 pt3, details and calculations to be submitted by approved manufacturer prior to construction.

All framing joints to partitions, floors etc. to be in accordance with manufacturers recommendations : Gyproc caulking or sealant.

Upgrade existing floors & provide new floors : Gyproc SILENT comprising 21 boarding, 18mm Gyproc plank on Gyproframe SIF floor channels, 100 Isowool APR cavity infil, existing or new 12.7 plbd overboarded with 15mm. Gyproc FireLiner

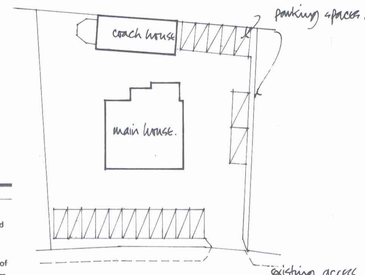
All new studded partitions to be 75x50 studs at 600 c/c, Gyproframe RB1 Resilient Bar to one side, at 600 c/c, lined both sides with double layer 15mm. Gyproc soundbloc, 75 Isowool APR 1200 cavity fill.

All existing external solid stone walls to be thermally insulated with 65mm. Gyproc thermaline super + gyproliner 25 fixing cavity with 25mm. Isowool APR 1200.

* Sound insulation to be subject to TEST & DECLARE option: Contractor to provide Acoustic testing by consultant.

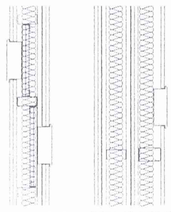
HPK/2006/0693

HIGH PEAK BOROUGH COUNCIL
PLANNING SERVICE
30 NOV 2006
FILE No.
REPLY REQUIRED



block plan 1:500

Services and sockets in the separating wall



Electrical sockets, switches etc.

- Provide two or more layers of gypsum-based board (total nominal mass per unit area 22kg/m²) to enclose electrical boxes
- Stagger sockets, switches, etc. on each side of the wall (ADE recommends minimum 150mm edge to edge)
- Fire resistant seal where required by Part B of the Building Regulations
- Alternatively, Hilti putty pads can be used, see page 160

Electrical sockets, switches, piped services etc.

- Service void on surface of separating wall. This is the preferred method where more than one socket, switch, etc are close together, e.g. in a kitchen

client: J. & M. BUILDERS LIMITED

project: 20 Marlborough Road Buxton

Proposed conversion to self contained apartments.
Cross sections.

scale	date	drawing number
1:50, 1:500	September 2006	2165:7

revision

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