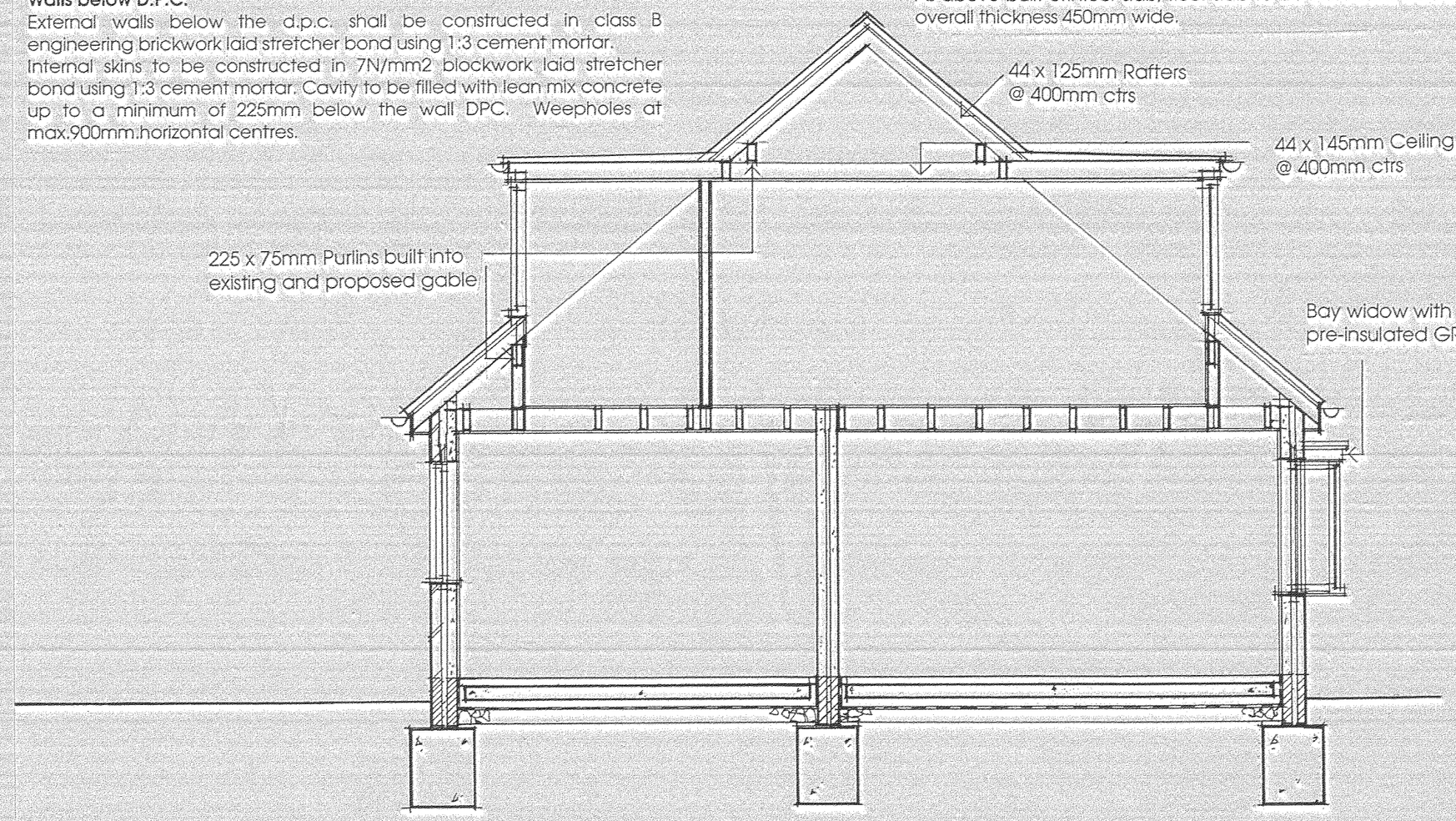
11/00439/FUL DOPLAN SJ

General
All aspects of work to comply with the requirements of the Building Regulations, Statutory Undertakings and all responsible authorities having jurisdiction over the works.
All work shall be carried out safely and in reasonably appropriate conditions.
The contractor shall conform to the recommendations of British Standard Code of Practice, with particular reference to BS8000, an Agrement Board Certificate or other approved quality assurance scheme, and in accordance with all manufacturers' details and recommendations.

Foundations
600mm x 750mm thick C20P, 20mm agg concrete trench fill foundation taken down to min.depth of 1000mm below finished ground level, subject to ground conditions, and to the satisfaction of the Building Control Officer.

Ground Floor
Below Slab Insulation
65mm thick sand/cement screed, 150mm C20P, 20mm agg oversite concrete slab, building paper to BS1521:1972 grade B1F, 75mm Kingspan Kooltherm K3 floorboard (0.023W/mK), (plus perimeter upstnd), 1200g gauge Visqueen DPM, 50mm sandblinding and 150mm hardcore DPM to be taken up and linked and linked with DPC at wall abutment.
All to achieve a minimum U value of 0.22 W/m2K Part L

Walls below D.P.C.
External walls below the d.p.c. shall be constructed in class B engineering brickwork laid stretcher bond using 1:3 cement mortar.
Internal skins to be constructed in 7N/mm2 blockwork laid stretcher bond using 1:3 cement mortar. Cavity to be filled with lean mix concrete up to a minimum of 225mm below the wall DPC. Weepholes at max.900mm.horizontal centres.



Section

D.P.C.
A continuous d.p.c. (hi-load or similar) to B.S.6398 class B. bedded in 1:3 cement sand mortar
at a minimum height of 150mm above G.L.
Windows and door openings to be closed using a cut block cavity closer incorporating a vertical d.p.m. together with 25mm Rockwool in a polythene sock to prevent cold bridging

Lintels
Proprietary insulated **Catnic** steel combined lintels to B.S.2989 with cavity trays to external walls. Cavity trays to incorporate stop ends. Internal lintels to be pre-stressed concrete. All lintels to have min. end bearing of 150mm each end on full blocks where possible fully bonded in mortar.
Provide precast concrete lintels over service ducts passing through foundation walls. Brickwork not to overhang lintel by more than 25mm.
Catnic Lintel Codes:
External Doors & Window Opening:
CH90/100 Heavy Duty Open Back Lintel, SWL :1/19.1KN-48
Internal Lintels:
CN5XA

Weepholes
Provide proprietary plastic weep vents at approximately 450mm centres to brick course immediately above all external openings with cavity trays and a minimum of two weepholes per opening.

External walls (Normal exposure conditions)
New Walls
To achieve U-Value of 0.30 W/m2K
External walls shall consist of 102.5mm facing brickwork external outerleaf to match existing brickwork laid in 1:1:6 mortar, 100mm full fill Rockwool Cavity Wall Insulation Batts, and 100mm 3.5N Durox Aircrete Supabloc blockwork inner leaf all installed to full manufactures instructions.
Skins to be tied together at 900mm ctrs. horizontally and 450mm ctrs vertically and at 250mm ctrs at all openings, with double triangular stainless steel ties.
The cavity will not be closed at the eaves and the roof insulation will be continuous with the wall insulation
Cavities to be closed at window and door jambs using special cavity/reveal blocks and incorporating vertical d.p.c.
12.5mm plasterboard dry lining with 3mm skim finish to inner leaf providing proprietary sealant at wall/door junctions.
Cavity wall between Media Room and Lobby to be constructed in cavity brickwork, 2no skins of blockwork, to allow for potential future conversion to garage.

Internal Wall Load Bearing
Foundations as described before up to DPC level, but 450mm wide 100mm Doro Air Crete Superblock laid in 1.6 lime sand mortar with 12.5mm lightweight plaster skim finish.

Internal Walls (non – load bearing)
As above built off floor slab, floor slab to be increased below to 300mm overall thickness 450mm wide.

Windows
To be PVCu sealed Argon gas filled low-E double-glazing units (4-16-4), K Glass to achieve 1.8W/m2K with mastic sealant to all external frames/wall junctions. Trickle vents to heads of frames. All widows to habitable rooms to have a minimum openable area of 0.33m2, 600 x 6000mm and to have a cill height of 1100mm maximum from finished floor level.
The bottom of the escape windows in bedroom to be no greater than 1100mm from finished floor level
The minimum height or width of the escape opening will not be less than 450mm.
Bay widow to Media Room to have preinsulated GRP canopy.

Doors
Proprietary external doors with integrated draught seals, with mastic sealant to all external frames/wall junctions. Internal doors to be Boulton and Paul or similar approved proprietary doors.
Glazing in external doors to de generally as described in widows. Any glazing to doors and side screens within 1500mm of the fished floor level or within 300mm to the side shall be toughened or laminated glass to BS 6206. Glazing to windows within 800mm of the finished floor level shall be toughened or laminated to BS 6206

First Floor Construction
New first floor to be 22mm thick moisture resistant chipboard floor boards secret nailed and joints glued to:
200mm x 63mm SC4 grade softwood treated floor joists aAt 400mm centres, all in accordance with approved document A – The ceiling joists Part A.
At external walls using proprietary joist hangers to bs 6178 and built off internal load bearing walls. 38 x38mm herringbone strutting to be incorporated between joist at mid spans. Double joists to be incorporated bolted together below all stud partitions, including 30 x 5mm galvanised mild steel anchor straps to end of joists and across 3 number minimum joists where running parallel to external walls. Straps to be turned down 150mm and hooked over inner leaf of cavity wall. Solid noggins to be provided between joists and wall, and between joists and strap positions, with the depth of the noggin a minimum of half the depth of the joist. 38 x 38mm softwood plasterboard edge support at ceiling perimeters as necessary.
12.5mm foil-backed plasterboard to ceiling with 3mm skim finish to receive decoration.
First floor sound insulation to be achieved by 100mm Rockwool Insulation between joists with 22mm flooring grade chipboard floor.

Roof construction
Pitched Roof
To comprise of of 420 x 330mm single lap concrete interlocking roof tiles to B.S.473 & B.S.550, to match existing tiles. Min headlap: 65mm Maximum gauge 100mm to B.S.473 & B.S.550, (sample to be provided) on 25 x 38mm treated softwood battens fixed at gauge to suit tiles, to rafters. Fixing to be through layer of reinforced sarking/roofing felt to B.S.747 type 1F. Felt to have min.150mm lap and sealed.
Ceiling joists to be 44 x 145mm @ 400mm ctrs
Rafters to be 44 x 125mm @ 400mm ctrs
Purlins to be 225 x 75mm built into existing and proposed gable walls at below dormer roof and at junction with dormer flat roof.
Rafters to be fixed to proposed 75 mm x 100 mm softwood wall plate using proprietary truss clips, and to existing wallplate.
Wallplates to be strapped wall using 32 x 5 x 100 mm galvanised steel straps fixed to wall at max. 2.0 m ctrs. Galvanised M.S straps fixed at rafter, ceiling and floor joist level in strict accordance with Document 'A' structure part A of the Building regs 1991.
100 x 25 mm softwood longitudinal and diagonal wind bracing all in accordance with B.S5260
Underside of ceilings to be finished with 12.5mm foil-backed plasterboard and 3mm skim finish.
Insulation to main roof
Second breather Membrane to be laid on top of insulation.
Roof void to incorporate 270mm thick Rockwool insulation Quilt, with 100mm laid between joist member and 170mm layer over joists in opposite direction. All to achieve a minimum U-Value of 0.16W/m2K
Roof to be ventilated at eaves using an RV601 rafter ventilator by Glidevale or other proprietary PVCu eaves ventilator giving 10mm continuous air gap incorporating insect mesh and 50mm clear gap.
Insulation for sloping sections of main roof/ceilings to be:
Breather Membrane, 25mm cavity between rafters (low emissivity) 50mm Celotex GA3000 between rafters with 60mm Celotex GA3000 under rafters. Joints taped to create VCL + air leakage barrier. 12.5mm Knauf Wallboard finish.
See attached calculation sheet provided by Celotex

Flat Roof Dormer
covering to be a IKO/Rubberoid or similar high performace 3no layer reinforced bitumen roofing membranes. Cap sheet to have slate surface to eliminate need for chippings.
Membranes to be installed in accordance with BS 8217: 2005
19mm Marine plywood deck on firring pieces laid to achieve fall on roof fixed to joists.
170 x 50mm flat roof joists at 400mm ctrs with herringbone strutting mid span. Joists to be built through leaves of walls and strapped to walls using 32 x 5 x 100 mm galvanised steel straps fixed to walls.
Lateral restraint to be provided at head of wall at ceiling level by 30 x 5mm galvanised mild steel anchor straps at max 2.0m ctrs screwed to min 3no joists with 10no screws and to have min 100mm yurnover into cavity. 38mm sw noggings between joists. Vertical restraint to be provided by 30 x 5mm galvanised mild steel straps at max 1.2m ctrs, fixed to joists with no 2 screws and to wall with 3 no 10 gauge screws all 37mm long. Straps to extend min. 600mm down face of wall.
Galvanised M.S straps fixed at ceiling level in strict accordance with Document 'A' structure part A of the Building regs 1991.
Insulation and ventilation to achieve a U value of 0.29W/m2K
Insulation for Dormer Roofs
50mm ventilated cavity, utilising proprietary ventilator.
100mm of Celotex GA4000 between joists
45mm of Celotex TB4000 under joists taped to create VCL + air leakage barrier, to achieve a U value of 0.29W/m2K
Underside of ceilings to be finished with 12.5mm Knauf Wallboard
Dormer Cheek Walls
70mm of Celotex GA4000 between studs
12mm of Celotex TB4000 on the inside face finished with 12.5mm Knauf Wallboard.

Electrical Installation
New electrical installation to meet the requirements of Part P (Electrical Safety) and to be designed, installed, inspected and inspected and tested by a person competent to do so
Supply will be provided by the local electricity supply authority at 240 volts/50Hz single phase, 100 amp supply.
The contractor must confirm this before commencement.
The local electricity supply authority shall indicate the primary method of earthing
The installation must comply with:
The Building Regulations, The Regulations for electrical installations issued by the Institution of Electrical Engineers current edition, The health & Safety at Work Act, Electrical Equipment (Safety) Regulations, British Standards and relevant Codes of Practices
Only new materials must be used and comply with the standards above, and be carried out using PVC insulated and PVC sheathed cables, installed in roof spaces and under floors and concealed within the building structure throughout.
On completion the contractor must carry out tests to comply with the requirements of section 514-5 part 6 of the regulations for electrical equipment of buildings as issued by the institution of electrical engineers.
The contractor shall provide all necessary equipment required for test and record results on an official completion certificate and inspection certificate issued by N.I.C.E.I.C. The contractor must inform the Engineer of the time and date of the proposed test, giving the required notice, in order that the tests may be witnessed.
The contractor shall issue the Electricity Board and Building Control all necessary test notices and shall make all necessary arrangements for connection of the mains supply
Lighting to comprise of light fittings that take compact fluorescent lamps having a luminous efficacy greater than 40 lumens per circuit-watt.
External lighting to be controlled by sensors, which automatically extinguish when there is enough clear daylight or when not required at night.
Electrical switches and sockets to be located between 450mm and 1200mm from finished floor level.
All in accordance with approved document L1

Fire Safety
Smoke detectors to be installed and hard wired in to main electrical installation in Hall and Landing, system to be linked mains operated smoke alarms wired to a separate fused circuit with battery back up, minimum 300mm from any wall or light fitting to BS 5839 part 1 1988
Heat detector to be provided and hard wired into electrical installation in Kitchen
The smoke alarm system to be designed and installed in accordance with BS5839 6:2004 Part B
The bottom of the escape windows in bedrooms to be no greater than 1100mm from finished floor level
The minimum height or width of the escape opening will not be less than 450mm

Ventilation
Habitable rooms to have provision for rapid ventilation by opening windows with total area of at least 1/20th of the floor area of the room.
All other rooms to have provision for rapid ventilation by opening windows.
Background ventilation of 8000mm2 achieved by trickle ventilators located to top of frame of windows to habitable rooms and 4000mm2 to others.
The mechanical extraction rate in the kitchen to extract at a rate of 30litres/second if a kitchen hood extract is used, otherwise the extraction rate to 60litres/second in a through wall fan
En-suite and ground floor WC to have extraction fans to achieve 15litres/second rate of extraction with 15 minute overrun, activated by light pull cord switch.

Section

16 Atterton Lane, Witherley, Atherstone

Proposed Extension

May 2011

Scale: 1:50, 1:100, 1:200, 1:2500