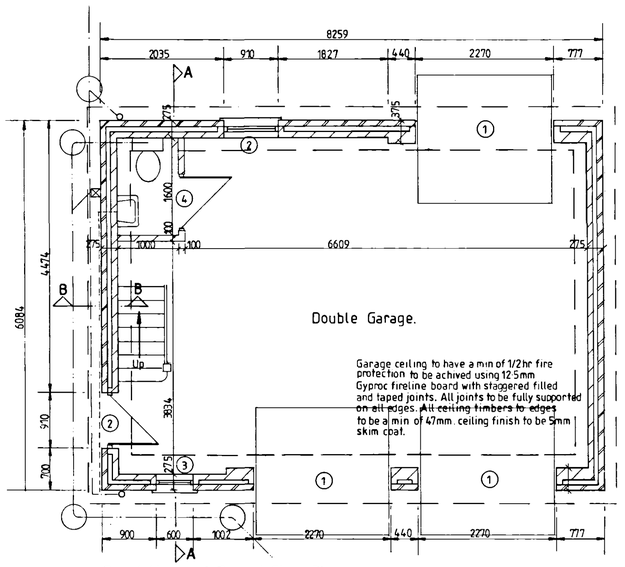
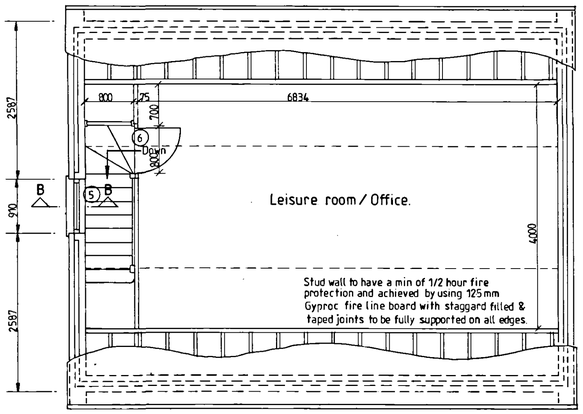
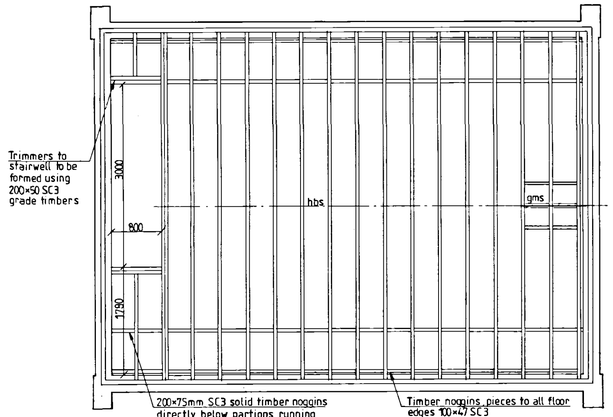


Foundation and Ground Floor Plan.



First Floor Plan.



Floor Joist Layout.

Roof Truss Layout.

Rear Elevation

Side Elevation.

Typical [illegible]

Section B-B

Front Elevation

Side Elevation.

SHDC
PLANNING & DEVELOPMENT
18 APR 2006
Ref. 0536/06

SUPERSEDED

Floor Construction.

Wall plates generally 100 x 38 mm treated SW, with bolt lapped joints and fixby bedded, strapped down to supporting wall with 30 x 5 mm GI-fit Straps at 1.8 m ctr's. Cut and pitch rafters to be fully birdmouthed over and twice nailed to all supports. Trussed rafters roofs to be designed and manufactured by approved manufacturer and fixed, together with 900 x 25 mm sawn SW binders and bracing, in strict accordance with BS 5268 Part 3:1985 (and any subsequent amendment) at 600 mm maximum centres. Diagonal roof bracing should be fixed at approximately 45° on plan. Where water tanks are supported by the roof trusses their load shall be transferred to the nodal points as specified in BS 5268 Part 3.
Provide 30 x 5 mm sawn hoop iron x 900 x 900 galvanised mild steel lateral restraint straps to approved walls at ceiling and rafter level where shown (at 2 m maximum ctr's) fixed with 4 No. 50 mm G gauge ctk screws or 3 No. 3.5 x 30 mm galvanised round wire nails to 3 supporting joists minimum o/e solid blocking, support and edge packing. All structural timbers to be kept 40 mm clear of chimneys/flues blocks, etc. Underside of roof timbers to be clad with 12.5 mm plasterboard with plaster skim or artex finish. Unrestrained edges to be supported by timber noggins.

Staircase Note:

Glazing within 1500 mm of floor level to doors & within 800 mm of floor level to windows, both are to be glazed in accordance with BS 6262 and BS 6206 with safety toughened or laminated safety glass.
Any room containing a solid fuel room fire or stoves is to have a means of permanent ventilation to the external air of 550 sq mm or the nett free of output above 5 kw or 50 % of the appliances throat opening (which ever is greater).
All windows to be double glazed and draught proofed with opening lookables. Smokes are to provide a minimum of 1/20 of the floor area of each room as opening vents.
All habitable rooms are to have a minimum of 8000 sq mm trickle vents provided to the windows.

Sanitary Dispotions - to be mains operated, self-contained to conform to BS 5446 Part 1(with battery power back up). Smokes alarms should be interconnected so that they are triggered simultaneously in the event of a fire being detected. Alarms should be permanently wired to a separately fused circuit at the distribution board. Wiring to conform to IEE wiring regulations. Smoke detectors not to be sited minimum 300 mm away from any light fitting, central positions preferred, reachable for maintenance purposes. Away sites from extreme temperatures and any contaminated area - or smoking area. Alarms should be within 7 m of doors which open out into rooms which have the potential for fire to start(Cookers, living rooms, etc) and within 3 m of bedroom doors, mounted horizontally. Corridors which exceed 15 m in length should have on more than one self contained alarm.
Electrics to be in accordance with the current IEE regulations and provisions are to be carried out by an NICEIC approved contractor.

Wall Cavities & Floor Voids:
BLOCK WORK - 9.5 mm Gyproc dri-wall system installed to manufacturers specification with plaster skim.
STUDWORK - 12.5 mm sq edged plasterboard with plaster skim.
CEILINGS - 12.5 mm sq edged plasterboard with artex finish to house. 12.5 mm Gyproc Fireline board with plaster skim to integral garages with fitted and taped joints to give ½ hour fire protection.

Party walls - all brickwork and BLOCK WORK joints to be thoroughly filled and all junctions to adjoining structure to be thoroughly sealed to avoid air paths. Wall construction to achieve a minimum 1 hour resistance and taken through roof void up to underside of roof covering and fire stopped.

SPECIFICATION FOR CONSTRUCTION

Site/Site Preparation.

Strip all top soil/vegetable matter from area occupied by buildings plus 2 m all round, provisionally allow 150 mm depth, and store in pile stockpile for later reuse. Reduce levels/grade evenly to levels indicated on site plans.

Damp Proof Course.

To be 2000 gauge black polythene to BS 6515 or Bitumen based to BS 6398 laid on beds, both of external wall and to all internal walls. To external walls D.P.C. to be laid 150 mm above ground level with D.P.C. to inner leaf linked to floor D.P.M. All D.P.C's to be bedded on mortar. All vertical and horizontal cavity closures to incorporate a D.P.C.
All roof to wall abutments, flexible cavity trays are to be used and are to rise 225 mm up the cavity.
These are to be provided with a D.P.C. at their junction with the roof by the use of 2 courses of clay engineering bricks to BS 3921 laid break bond and bedded and pointed with mortar as damp proof previously in the paragraph external walls.

Walls Construction.

(Sub-Structure) - To be constructed from Class A blocks/PL Quality Bricks to Local Authority Approved. Walk to consist of a 100 mm out skin, 65 mm cavity and 100 mm inner skin. Cavity to be filled to within 150 mm of ground level. Lean mix concrete cavity filled to external spike finish. All to comply with (BS 8073). Mortar type to be used in accordance with BS 5628 Part 3 (Walls above ground level) - External walls to consist of 100 mm facing brickwork on 100 mm block work with 13 mm render finish. (see alternate facing brickwork on 100 mm block work with 13 mm render finish. (see alternate finishes), 65 mm cavity, filled with Crown Drinkmore Full Fill in accordance with manufacturers instructions.
Cavity wall ties to be triple galvanised steel butterfly non-ferrous to all BS 1234:1978 and be fitted at 450 mm maximum vertical ctr's, 225 mm at reveals and 900 mm maximum horizontal ctr's.
Internal finish to block work to be 9.5 m Gyproc dri-wall system installed to manufacturers specification with 5 mm skim finish with steel trowel finish. All to give overall a maximum value of 0.45 w/m²C.

Garage Walls

Walls to garage or main dwelling including walls between house and garage. Semi-exposed walls in garage to be cavity walls of 300 mm Tarmac Topkin GTI or similar lightweight blocks in 1:1:6 mortar. (K value 0.11 w/m²c) to give U value of 0.48/k4 deg C as indicated on drawing.

Internal Walls.

Timber stud Partition - To be constructed from 75 x 50 mm studs at 400 mm maximum ctr's with continuous head and sole plates and intermediate noggings, studwork to be lined with 12.5 mm plaster board lined with galvanised nails at 600 mm maximum ctr's and to have 12.5 mm skim finish. All fire floor studwork to be built off timber floor joists or off timber blocking pieces where perpendicular to span. All double up joists to be bolted together, using 12 mm diameter bolts and tooth plate connectors.

Garage Floor

Floods to consist of 150 mm concrete slab (BS 5328) laid to full Concrete mix to ST3/GEN3 or equivalent with floated finish on 1200 gauge polythene sheet damp proof membrane laid with joints sealed and lapped up sand blinding on 150 mm well compacted water soluble sulphate free hardcore. D.P.M. to lap onto D.P.C. of walls.

Windows/Doors Openings.

Refer to schedule on drawings on external finishing schedule for details. Windows of treated softwood by Ahlsell factory weather stripped and beaded for double glazing with 4 mm sht gap to sealed unit. Windows to habitable rooms to be provided with hand ventilation giving 5000 sq/mm of free air ventilation and have a minimum 1/20 th floor area opening light. Patio doors to have trickle ventilation of 10,000 sq/mm. If no opening lights are provided. Windows to kitchen, utility room, bathrooms and WC to be provided with hand ventilation giving 4000 sq/mm of free air ventilation.
All reveals to be plaster against VDPC and 12 mm lobbin to avoid effects of cold bridging. U value of reveal 0.98 w/m² sqm deg C.
½ hr Fire Resistance door and frame incorporating 25 mm rebates and an automatic self closing device are to be provided to openings from integral garage to dwelling, letterconnections and to be incorporated in either door or frame. Windows and Door frames must be sleeved around the openings into the brickwork with mortar mix.

Foundations (Other than specialist designs).

Foundations to external and internal load bearing walls normally to be 450/450 x 225 mm respective. Thick concrete strip footings located centrally under walls. Foundation to be a minimum of 750 mm below ground level. Concrete to be ST3/GEN3 or equivalent grade. All to be in accordance with BS 5328 and BS 8110. For stepped foundations minimum overlap length to be at least twice the step height of thickness of foundation or 300 mm whichever is the greater. See specialist design for raft and suspended slab details. Excavation to be agreed with Building Control Officer.

Lintols

Generally to be Catnic Lintols, incorporating insulation fillet with minimum 150 mm leaf bearing including a cavity tray with 2 No. inspection and installed in accordance with manufacturers details and instructions (See lintol schedule for type and size) a minimum of 2 courses of brickwork shall be bonded in PC Lintols, where used, to the underside of the floor joists. Internal faces of metal lintols should be covered with at least 15 mm of lightweight plaster, or dry lining.

First Floor Construction.

All joists 200 x 50 mm (or multiples thereof)/engineering quality (equivalent to or better than SC3 grade (softwood or 'Metsawood') Spaced at 400 mm ctr's unless otherwise stated. All composite joists to be bolted together at 900 mm ctr's with 2 mm dia mesh bolts c/w plate washers. All joists to be built into inner leaf of cavity wall - supported on galvanised mild steel hangers to BS 6178. All timber to timber connections to be 1 mm thick galvanised mild steel hangers to BS 6178 fixed with 3.75 x 30 mm square twist shanked nails to every hole. All timber to masonry connections to be 2.5 mm thick galvanised mild steel hangers to BS 6178 or Simpson Strong Tie embedded and all holes nailed.
Provide 38 x 38 mm SW Herringbone strutting where shown (at 2 m max ctr's).
Provide 2 No. 200 x 50 mm solid blocking where first floor steel partitions are perpendicular to joists or where onto plate does not end above a joist.
Provide 30 x 5 mm x mm sawn twist (900 x 1000) galvanised M.S. lateral restraint straps to external walls, where shown (at 2 m max ctr's) fixed with 4 No. 50 mm G gauge ctk screws or 5 No. 3.5 x 30 mm galvanised round wire nails to 3 joists max o/e solid blocking, support and edge packing between last joist and wall. All structural timber to be kept 40 mm clear of chimneys/flue blocks, etc.
Floor decking shall be 6mm OS moisture resistant chipboard to BS 5669 fixed with chemical resistant dowel nails at a length of 2.5 times their thickness. Chipboard to be tongued and grooved and to be 18 mm thick and all joints shall be glued together with moisture resistant adhesive. An expansion gap of 10 mm shall be left at the junctions with the walls.
Underside of floor joists shall be finished in 12.5 mm plasterboard with taped and filled joints to receive artex plus 2 coats of emulsion paint. All unsupported plasterboard edges to be supported by noggins.

Internal Garages.

Provide 150 mm mineral fibre quilt insulation to doors over occupied garages. Garage ceiling to have a minimum of ½ hour fire protection to be achieved using a 12.5 mm thick Gyproc fireline board with staggered, filled and taped joints, all joints to be fully supported on all edges, overlaid with 150 mm of mineral fire quilt insulation as before described. Finish to ceiling to be 5 mm plaster skim.

Roof Coverings.

Concrete interlocking, concrete/clay plain or traditional/fibre cement slates with ridge/hip/abutment fittings all as site specifications and in accordance with
BS 5534 Part 1:1990 Pt 6 x 25 mm treated S.W battens, gauge to suit tiling, on
BS 747 type 1F untorsalite/roofing felt or similar as site reformed rafters as applicable.
Contractor is to determine tile fixing specifications from manufacturers published literature with due consideration for each site location, anticipated wind velocities and individual roof pitches. Roofing contractor to fit mineral fibre quilt fire stopping sleeves and battens roofing felt to head of party walls and fire stop cavity barrier in strict accordance with manufacturers instructions.

Roofspace Ventilation and Insulation.

Provide eaves to eave ventilation equivalent to 10,000 sq mm/metre run or where eaves is dropped, 25,000 sq mm/metre run, together with high level vents giving 5,000 sq mm/metre run (use tile manufacturers dry ridge ventilator system). Use-either ventilating soffit boards, continuous over fascia ventilation strips or site specifications. Insulation to roof space comprises 200 mm mineral fibre quilt to level areas(1 No. Layers of 100 mm quilt laid at right angles to each other) giving a "U" value of 0.35 w/m² deg C and 180 mm of Rockwool RWA45 Flexible slabs (K value 0.030 m² K/W) or similar to all sloping ceilings/between abutts, etc giving a "U" value of 0.33 W/m² C.
Minimum 50 mm minimum air gap over insulation at sloping ceilings and provide 500 gauge Visqueen vapour barrier between insulation and plasterboard. Roof hatch to be insulated, incorporate compressible seal pipe runs through walls and ceilings to be fully sealed with expanding foam sealant to reduce heat losses to unheated spaces.

Drainage.

Foul and Storm Water Drainage Orders around).
Generally foul drainage to connect to foul sewer lateral and manholes to discharge to rodding eyed mainings. Refer to drainage layout plans for full details. All to comply with BS 8301:1985. Pipes 1 x 4 m be 110 mm diameter Hepworth superdomus UPVC bedded and surrounded by 150 mm granular material: single size aggregate to BS 882. Pipes to be laid to a minimum gradient of 1:40 and a maximum gradient of 1:40. Pipes passing through walls are to be pointed with a cementic lintol over and a 50 mm gap left round the pipe with the opening bung-stopped sack pole with a rigid sheet material. A flexible joint is to be provided within 100 mm of the building external face. Inspection points up to 600 mm deep / 450 x 450 mm UPVC Inspection Chambers. Manholes over this depth are to be 1200 mm dia 315 mm Class 1 engineering bricks, laid English bond on a 150 mm thick ST4/GEN3 concrete base. Manhole sizes then are to be 1200 mm x 750 mm. All manholes are to be fitted with Grade C cast iron covers in foot traffic and Grade D in all other areas. The last manhole on any private drain run is to be within 12.5 m of a public sewer.

Storm Water Drainage Above Ground.

115 mm half round or 100 mm square line UPVC guttering, fixed level using standard plastic brackets at 1000 mm centre's and 68 mm dia/65 mm square rwp's connected to drain at ground level. Colours/profile as site specifications. All to connect to main sewer lateral. Where storm drains do not connect to the public storm sewer or there is not one available then storm water will discharge to soakaways which are to be a minimum of 3 metres from any building and to be 1500 mm deep and 1200 mm diameter; to be filled to within 450 mm of the ground level, with selected rubble or stones. Rodding eyes are to be provided at the head of drainage runs and to manmade pipes not discharging direct to manholes.

Project.	Two Storey Extension at 24, Bell Lane, Moulton, Spalding, Lincolnshire.
Drawing Type.	Double Garage and Leisure Room.
Client.	Drawing N° 05
	Scale 1:50
	Drawn by P. Grimwood.
	Date 10.03.06 Rev