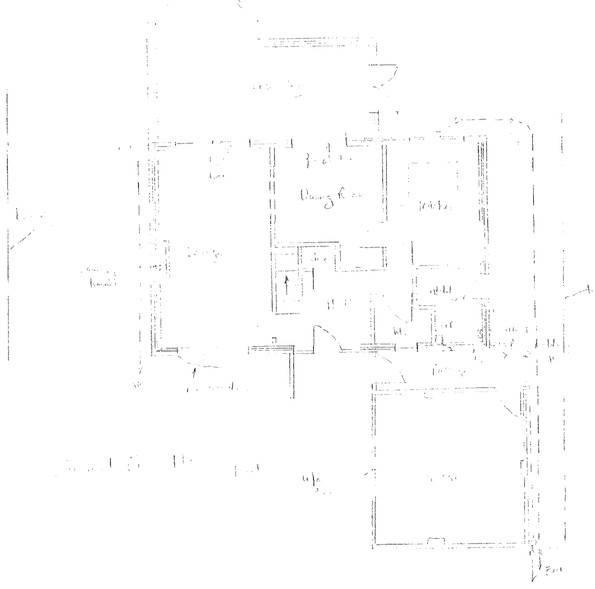
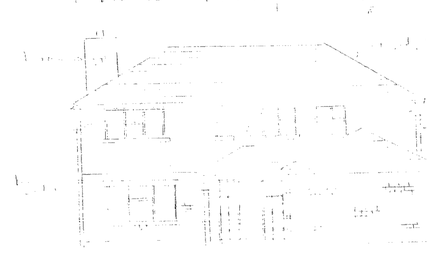
EXISTING

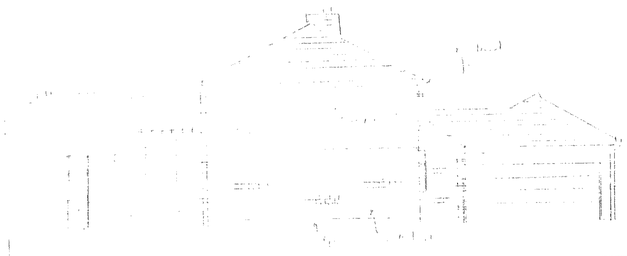




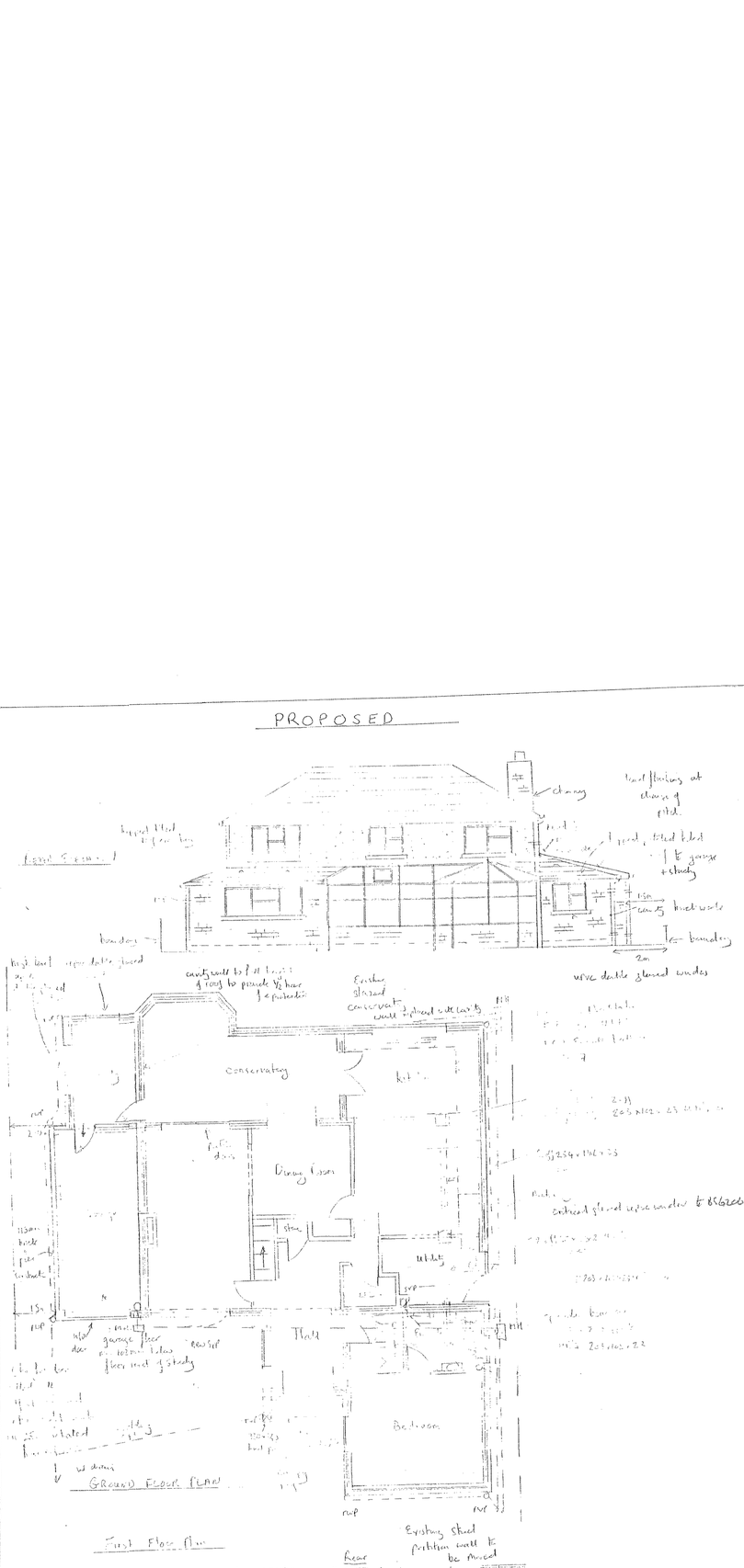








PROPOSED




## SPECIFICATION

**1) Foundations:** Use 1:2:4 concrete strip or concrete trench fill foundations to suit site conditions. Minimum depth 1.0m below the lowest ground level or to the level of adjacent drains, whichever is the deeper. To be excavated 0.6m below any tree roots found in the trench (Site inspection with LA approval to decide). Minimum 630mm x 285mm for cavity walls and 450mm x 150mm for load bearing internal walls. Trench fill to 150mm below existing ground level. Foundations to existing house to be exposed for inspection prior to work commencing. All footings to be a minimum of 150mm th ickness.

The depth of the footing to exceed the projection of strip footings are used.

**2) Walls:** Cavity construction - Outer leaf 102mm facing brick to match existing to the main house. 100mm cavity to be filled with rockwool cavity batt fill insulation and inner skin of lightweight block 100mm, 750kg/m³ Aircrete 7N (6.19N/mm²) Plinth joint 03 N/mm²

Stainless Steel Wall ties for 100mm cavity at 450mm centres vertically and 900mm centres horizontally and at every block reveal. Walls to be bonded to existing structure with Furfix stainless steel channels fitted in accordance with manufacturers printed instructions or bonded into existing brickwork. Cavity to be filled with weak concrete to within 225mm of the D.P.C level and to be closed at roof level with block work. Walls to be plastered internally with carlite plaster 18mm thick (2 coats). Thermally insulate walls at lintols jambs and cills. Walls to have a 'U' value of 0.30 w/m² of or better overall. Treat lintols jambs and cills as though part of each opening is a wall in order to prevent thermal bridging around openings and junctions. Provide 50mm rock-dose insulation to raise the resistance of reveals to at least 0.30w/m²k. Cavity walls to have continuous insulation with the roof and incorporate horizontal and vertical dpcs internal blockwork returns to be a minimum of 365mm measured internally. Pedestrians to be a minimum of 455mm wide to all cavity walls. A stepped cavity tray to be provided to any new wall where it abuts a lower pitched roof.

**3) Roof** Cavity trays and cavity barriers to be provided to the current Building Regulations BS5628-3.

Pitched 30° interlocking tile roof covering to match existing on 50mm x 25mm softwood battens and breathable felt taken 450mm up under the tiles. Trussed rafter roof construction by MTS timber Systems Ltd. Rafters at 600c/c to BS 5268-3-2006. Insulators to be provided when structure is at wall plate height. 200 x 75 wall plate. 250mm fibre glass insulation laid between and over the bottom chords of the roof trusses to give a 'U' value of 0.16W/m²k. Vapour barrier to be provided by 0.06mm polythene sheet laid under the glass fibre quilt insulation. Permanent ventilation airing two opposite sides of the roof by 10mm continuous gap at eaves level and by tile vents at high level equivalent to a continuous 5mm gap. Roof ventilators and insect screens to be fitted between the rafters. 13mm plasterboard and skim ceiling. 100mm x 38mm softwood runners over 5 trusses with 30mm x 5mm mild steel straps at 2m centres over 3 trusses and notched to give lateral support. Insulation at eaves to be continuous between walls and roof to prevent cold bridging. Fibre glass profil boards to be used for any valley gutters. Stops or spacers to be used to ensure that continuous ventilation is maintained.

**4) Ground Floor.** Solid - 50mm sand/cement screed (3:1) on 100mm concrete oversite (1:2:4) on 1200 gauge polythene dpm on 50mm sand blinding or 150mm well compacted hardcore. Any existing sub floor ventilation is to be maintained by providing 100mm ducts under new floors to 225mm x 75mm air bricks in external wall. New DPM to be lapped to new and existing DPC's and DPM's. Rockwool flooring grade insulation 150mm thick to be positioned beneath the concrete and fitted to the manufacturers instructions to give a 'U' value of 0.22 W/m²k. 25mm perimeter insulation to be provided to the edges of the floor slabs to raise the thermal efficiency.

**5) DPC's** Provide Hy load DPC at reveals to all openings and at floor level a minimum of 150mm above ground levels, and lapped into existing DPC. Cavity closers to be insulated to prevent cold bridging.

**6) Glazing.** To be in accordance with Part N of the building Regulations 1992. Maximum area not to exceed 25% of the floor area of the room. All Double glazing to have a 16mm Argon filled air gap and a soft low E coating. Safety glass to be to BS 6206. Critical glazing to be safety glass to BS 6.206. Min unobstructed openings to windows 0.33m² 750mm high 450mm wide and to Section 27 of Approved Doc B. Min cill height 800mm and Max 1100mm.

**7) Ventilation** All habitable rooms to have ventilation openings equal to not less than 5% of the floor area of the room. All windows to be fitted with trickle vents having an area not less than 8000mm². Mechanical ventilation to be provided to ensite bathrooms capable of extracting at a rate of not less than 15 litres/sec and giving 3 N° air changes per hour with a 15 minute overrun. Rate in a kitchen to be not less than 60 litres/sec (or if incorporated in a cooker hood and capable of extracting at a rate of not less than 30 litre/sec). Rate to utility rooms to be 30 litres/sec and to cloakrooms 15 litres/sec. All with 15 minute overruns giving 3 N° air changes per hour.

**8) Drainage** All new drains to be 100mm Ø Hepworth supersleeve clay pipework 1:40 fall to BS65 laid in accordance with manufacturers instructions and surrounded in 150mm pea shingle. All new and existing drains under buildings to be rocker pipes encased in 150m concrete and bridged by Rc lintols where passing through walls and found drains. Manholes to be constructed of 225mm semi engineering brickwork, flush pointed internally and properly benched around channels and built on 150m concrete base. Fit double seal screw down covers to internal manholes and gullies. Any existing gullies to be sealed and access maintained by a removable reducing fitting and the drain to have a 75mm deep seal trap. Inspection chambers to be provided at changes of drain direction.

**9) Above Ground Drainage.** Any new soil to be of 100mm PVC pipe taken 1m above any window within 3m and fitted with metal cage. Provide rodding eyes at any change in drain direction.

**10) Lateral Restraint** Provide 30mm x 5mm galvanised mild steel restraint straps at 2m centres to all walls at first floor and roof level. To be of Samson or IG type, packed with polystyrene insulation and installed to manufacturers instructions. All to have a minimum end bearing of 150mm.

**11) Lintels.**

**12) Rainwater.** 100mm half round PVC rainwater guttering and 63mm diameter PVC downpipes draining to Existing system or a soakaway building in accordance with Part H3 of the building regulations. Percolation test to comply to Part H2.

**13) Ceilings** Plasterboard sheets to underside of ceiling joists or trusses with minimum 12.5mm plaster and skim.

**14) Joists and Wall plates** New walls - 200mm x 75mm timber wall plates to be built to internal leaf and treated with preservative to bear the joists. Air spaces to top and side of joists. Proprietary steel joist hangers to be used where joists are not cut in and a wall plate provided. Joists are 2.5m or to be strutted at mid span. Joists are to be doubled up under all first floor partitions and under any new baths to bathroom or ensuite in accordance with TRADA recommendations.

**15) Steelwork** Wherever steel or timber members are exposed they are to be encased by 19mm plasterboard (Fireline sheet of external) and 9mm plaster skim, 12mm Cement render if external to give ½ hour fire protection. For all steel work sizes see separate calculations.

**16) Padstones.** Steelwork to bear on 2 courses of blue engineering bricks at either end. Minimum end bearing to be 150mm.

**17) Electrics** All wiring and other materials for the installation to be to the current specifications of the British Standard Institution and current regulations for the Electrical Equipment of buildings issued by the IEE. All electrical work is to meet the requirements of Part P (Electrical Safety) and must be designed, installed, inspected and tested by a person competent to do so. A BS 7671 electrical Installation Certificate is to be issued by a person competent to do so following the completion of the installation, and provided to the Local Authority.

**18) Doors.** To be of standard interior quality flush design to provide ½ hour fire resistance.

**19) Plumbing** To be of light gauge copper tubing to BS864. Branch to sink to be 15mm diameter. Waste to sink to be 38mm diameter and fitted with 75mm deep trap. Branch to bath 22mm diameter and to wash hand basin 15mm. 200mm minimum distance between WC and wash hand basin connection into SVP.

**20) First Floor.** To be type 'C' 30mm softwood floor boarding on 225mm x 50mm S.W joists at 400 centres. Plasterboard and 12.5mm skim to Ceilings. Joists spanning over 2.5m are to be strutted at centre span. Joists to be doubled up under first floor partitions and any new baths to bathroom and Ensuite in accordance with TRADA recommendations. All internal floors to be of type 'C' to approval Doc E of the building Regulations 2000. Timber joists with a minimum 30mm thick softwood floorboarding or minimum 22mm thick chipboard and plasterboard to ceiling with absorbent material. Minimum mass per unit area of floorboarding/chipboard 15kg/m². Ceiling treatment of single layer of plasterboard minimum mass per unit area 10kg/m² fixed using any normal fixing method. Absorbent layer of mineral wool minimum thickness 100mm. Minimum density 10kg/m³ to be laid in the ceiling.

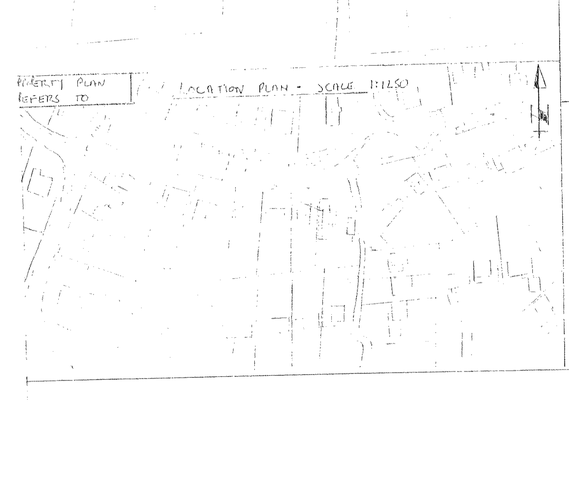
**21) Smoke Detectors** All units must be smoke detectors are to comply to BS 5839 Part 1 2002. Self contained smoke alarms to be in accordance with Section 1.4 to 1.15 of Approved Doc B.

**22) Internal Walls.** To be to type 'B' of Approved Document E of the Building Regulations 2000. Timber frame with plasterboard linings on each side of the frame and absorbent material. Single layer of plasterboard minimum mass per unit area of 10kg/m² linings fixed to timber frame with a minimum distance between the linings of 75mm. Absorbent layer of mineral wool batts or quilt minimum thickness 25mm minimum density of 10kg/m³ studs maybe wire reinforced and are packed in the cavity. All joints to be well sealed.

**23) Thermal Efficiency** Thermostatic control valves to be fitted to all radiators. Insulation at eaves to be continuous between walls and roof to prevent cold bridging. 'U' values roof 0.16 w/m²k Walls 0.30 w/m²k Floors 0.22 w/m²k. Glazing 1.8 w/m²k Any new gas boiler to be not less than the Domestic Heating Compliance guide. Regd.

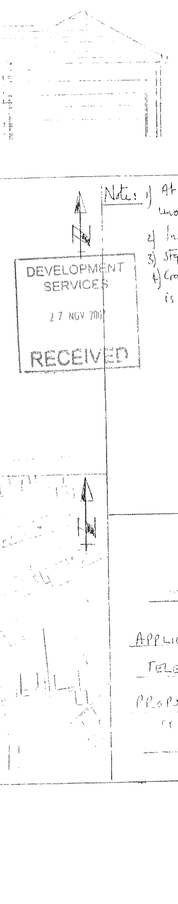
**24) General.** All works is to comply to the Building (Amendment) Regulations 2001 and Approved Document L1. All joints between existing building and any new work to be sealed. All work to be carried out to a standard approved by the Local Authority. All materials and methods of construction are to comply to the current Building Regulations and any current Codes of Practice and British Standards. All installations to be carried out to the manufacturers printed instructions. All measurements are to be checked on site prior to the ordering of materials and are NOT TO BE SCALED OFF THE PLANS.

PROPERTY PLAN REFERS TO

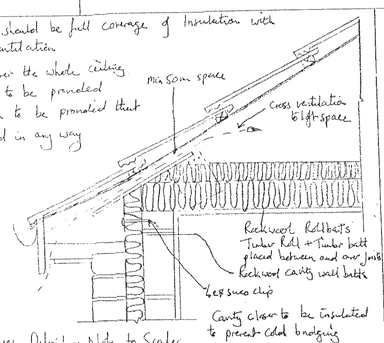


LOCATION PLAN - SCALE 1:1250

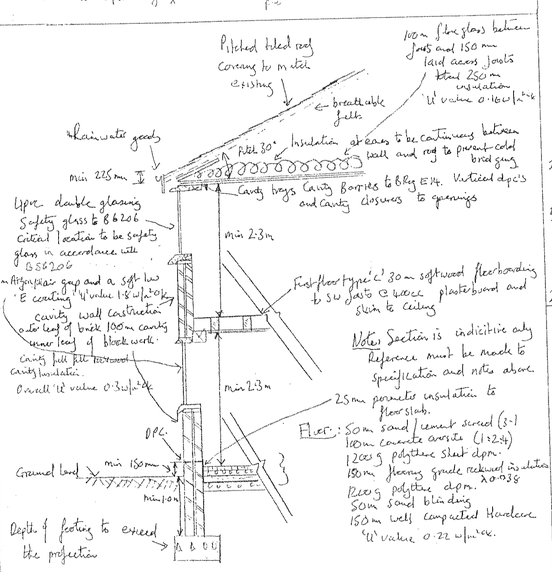
BLOCK PLAN - SCALE 1:500



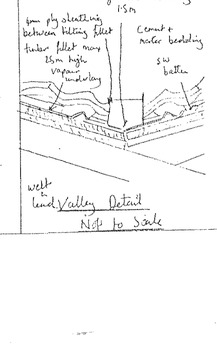

Note: 1) At eaves there should be full coverage of insulation with unobstructed ventilation
2) Insulation to cover the whole ceiling
3) Strips or spacers to be provided
4) Cross ventilation to be provided that is not blocked in any way




Eaves Detail - Not to Scale




GENERAL SECTION 1:50




Valley Detail Not to Scale

PROPOSED EXTENSION

AT

APPLICANTS : MR & MRS J. LISTER

TELEPHONE :

PROPOSAL : TO BE AS PLANS

Scale: 1:100 Unless specified

Date : JULY 2007

Plan Ref : 7001

PLANS DRAWN AND SUBMITTED BY : MR J.S. LANE
24 GLEBE ROAD
GROBY
LEICESTERSHIRE LE6 0GT

TELEPHONE : 07967398407 / 01162875321