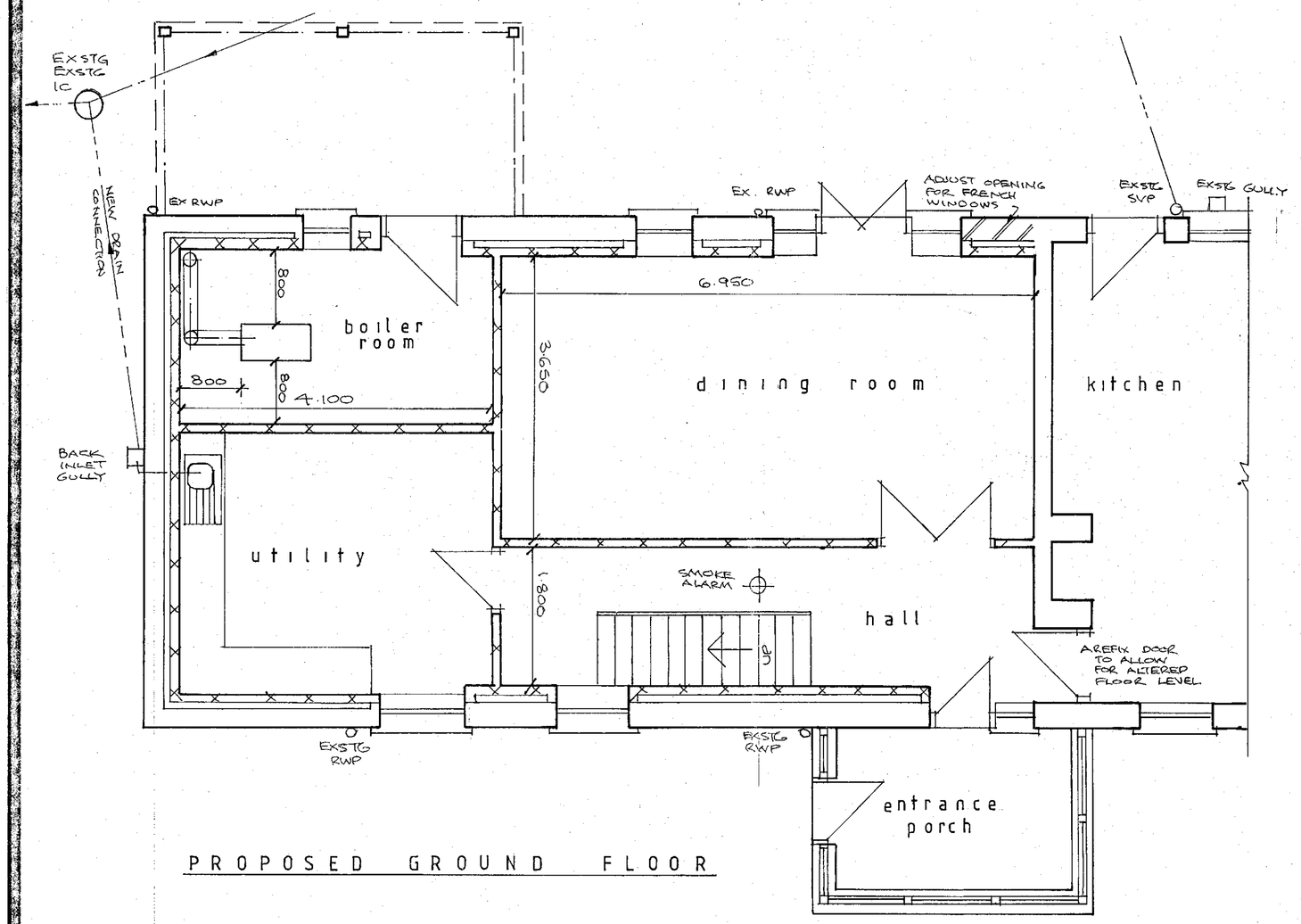
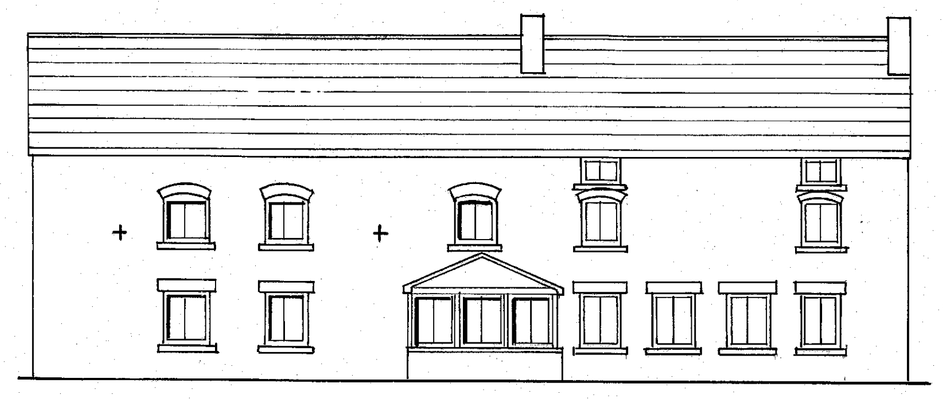
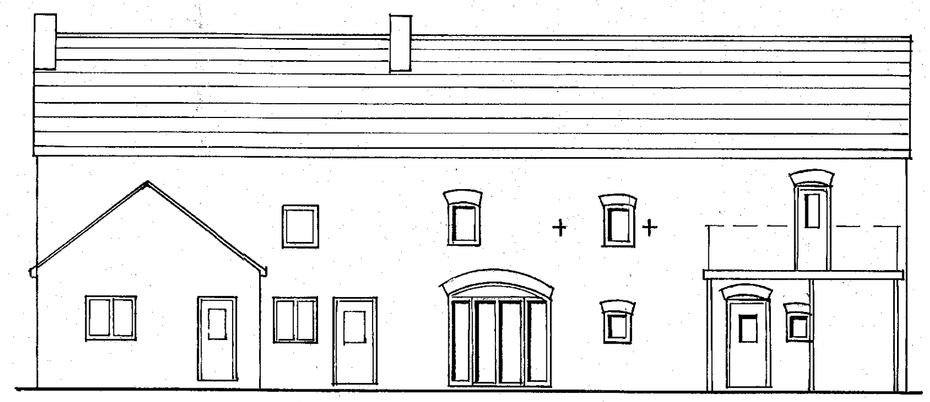


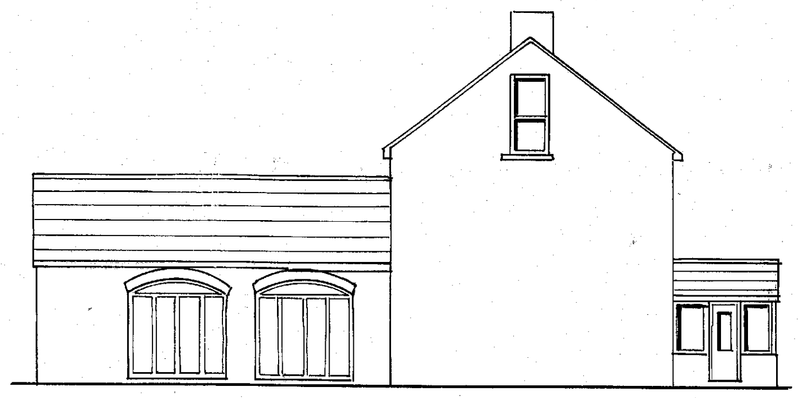
PROPOSED GROUND FLOOR



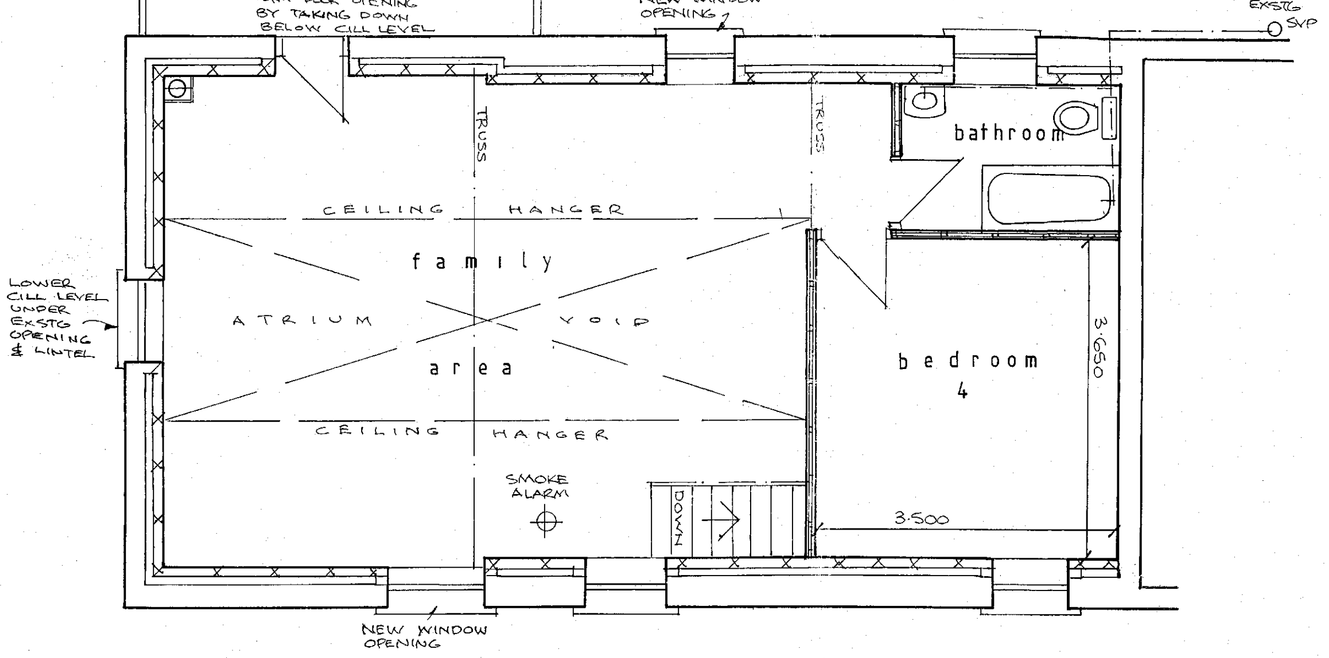
PROPOSED FRONT



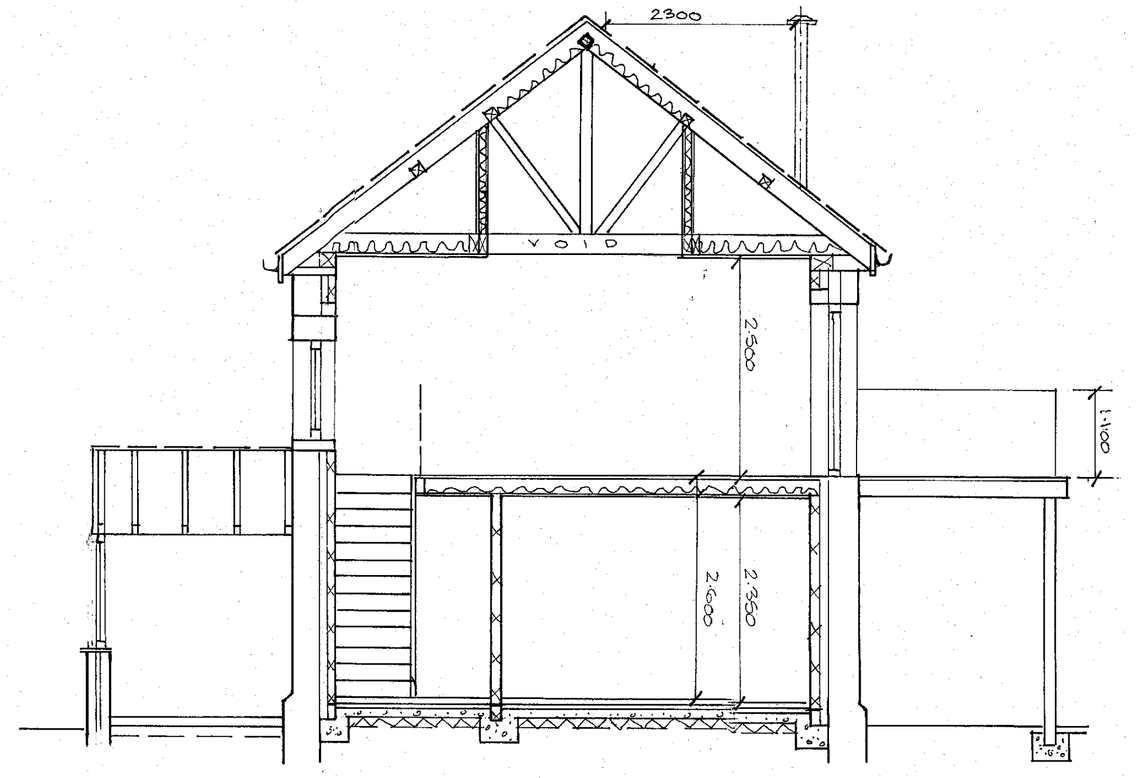
PROPOSED REAR



PROPOSED SIDE



PROPOSED FIRST FLOOR



SECTION

PROPOSED CONVERSION of BARN to FORM EXTENSION to DWELLING at HAZELDENE FARM, 22 ENGINE LANE, SHAFTON, BARNSLEY

DRAWING No.2 of 2 (PROPOSED)

SCALES 1/50th and 1/100th

WALLS: Existing external leaf of 225/340 thickness of facing brickwork to be repaired where necessary; cavity wall to be formed by building internal leaf in 100 thickness of Celcon 3.6 N/mm^2 standard grade insulation block with 5mm plaster skim finish; full cavity fill of Rockwool mineral fibre insulation (U value of 0.27 W/m^{2}K); proprietary manufacture stainless steel wall ties screwed to existing external walls and built into new blockwork 750 horizontally, 450 vertically and 225 vertically at openings; cavities closed at reveals, cills and eaves; insulated cavity closers at openings fixed in accordance with manufacturer's instructions; all new blockwork bonded to existing walls using proprietary bonding strips; wall below ground level to be in 3.6 N/mm^2 trench blocks withy cavity filled to within 150 of dpc; Naylor Spanlite R2 prestressed concrete lintels to new inner leaf with min 100 end bearing for openings up to 1000 wide; Naylor Spanlite R190 prestressed concrete lintel to internal leaf of French windows to dining room with min 150 end bearing with 225 structural brick arch to external leaf; non-structural arch formed in plasterwork under Spanlite to match external arch; tray dpc over lintels; dpc to be min 150 above adjacent ground level; new blockwork built off 300 thick concrete strip foundation with 150 projection beyond edge of wall; foundation tied into existing walls using 25 steel dowel bars at 450 centres bonded into brickwork with epoxy mortar; foundations be taken down to depth and suitable strata as required by local Building Inspector

New openings: Catnic Segmental Arch lintel to brickwork to external leaf with Naylor Spanlite P100 prestressed concrete to internal leaf as above; non-structural arch formed in plasterwork under Spanlite to match external arch

Internal block walls: 100mm thickness of Celcon 3.6 N/mm^2 standard blockwork on 300 x 150 concrete strip foundation; blockwork fully bonded alternate courses to all adjacent blockwork; Spanlite P100 prestressed concrete lintels with 100 end bearing over internal door openings; 5mm plaster finish both sides

Stud partition wall: 75 x 50 timber studs with 10mm plasterboard and 5mm plaster skim finish both sides; sound insulation of 25 thicknesses of 10kg/m^3 mineral fibre bats secured to stud work

ROOF: Existing Howe type trusses, purlins and rafters to be retained and repaired where necessary; existing clay tiles removed and re-laid on new 50 x 25 tiling battens on underlay felt to BS EN 13707; existing wallplates checked and secured to new blockwork at 1800 centres with 30 x 5 x 600 once bent galvanised m.s.straps; 30 x 5mm galvanised mild steel anchors in lateral restraint to gables at maximum 1800 centres built into new blockwork and nailed across first 3 rafters; 225 x 75 ceiling joist binders in Class SC3 timber at 2.050 span; 122 x 50 ceiling joists in Class SC3 timber at 450 centres between external walls and binders with central section left open to form atrium and leave part of trusses exposed; atrium cheeks in 100 x 75 timber studs bearing on doubled up ceiling joist binders with 12mm foil backed plasterboard to room side with 5mm plaster finish and 12mm external grade plywood sheathing to roof void side; cheeks insulated with 100 Kingspan Thermawall TW56 insulation board fixed between studs; sloping part of roof insulated with 80mm Kingspan TP10 zero ODP insulation board fixed between rafters on 20mm Kingspan Thermawall TW56 zero ODP insulation board fixed under rafters

GROUND FLOOR: Existing substandard floor removed and ground levelled using minimum 150 compacted thickness of selected hardcore and 100 structural concrete with 1200 gauge dpm under 50 pumped liquid concrete screed; dpm tied into dpcs; 110 thick Kingspan Thermafloor TF70 zero ODP insulation board fixed laid on dpm (U value of 0.15 W/m^{2}K); underfloor heating under screed to be Nu-Heat "Fastflo" SC14 or equivalent underfloor heating tubes laid in floor screed using proprietary "Cliptrack" system on 125 to 250um polythene protection layer; underfloor heating tubes laid in accordance with manufacturer's instructions with proprietary edge insulation strip fixed between external wall and screed; no heating tubes to be positioned under fixed units in utility room or in boiler room

FIRST FLOOR: 25 ptg boarding on 195 x 50 joists in Class SC3 timber at 450 centres built into loadbearing blockwork to internal and external walls (Max span = 3.650); herringbone struts at mid-span; 30 x 5 lateral restraint straps at 1800 centres built into blockwork and nailed across first three joists with timber noggins to brace straps; 5mm plaster skim finish on 10mm plasterboard ceiling; floor insulation of 100 thickness of 10kg/m^2 mineral fibre; floor joists doubled up under studs; underfloor heating to be Nu-Heat "Fastflo" SC14 or equivalent underfloor heating tubes laid between joists using proprietary "Clippaplate" diffuser panel fixing system with Nuheat Nu-foil reflective cellular foil insulation on top of sound insulation; underfloor heating tubes laid in accordance with manufacturer's instructions with proprietary edge insulation strip fixed between external wall and floor coverings

STAIRCASE: 900 wide timber staircase with 200 risers and 230 treads; headroom minimum 2.000 measured vertically above pitch line and 1.500 measured at right angles to pitch line; balustrade fixed to open side of stairs and to landing adjacent to stairwell 1000 above pitch line with vertical spindles fixed at 100 pitch; risers ex 25 timber, treads ex 38 timber and strings ex 250 x 38 timber; all timber to stair and balustrade in oak

VENTILATION: New windows to be brown PVCu 16mm double glazed units to match existing house fitted with low E coating glass; opening area minimum 5% floor area of room served; windows minimum U value 1.60 W/m^{2}K; PVCu doors to have min U value of 1:8 W/m^{2}K; toughened safety glazing complying with BS6206:1981 to all glazing between finished floor level and 800 in windows and finished floor level and 1500 in doors; trickle ventilation to bathroom to be 4000mm^2 and all other rooms 8,000mm^2; boiler room to have permanent ventilation for combustion air 20,000mm^2 in area in the form of air bricks to BS 493:1995; air bricks at high and low level and to be boxed through cavity with tray dpc over

Escape window to Bedroom No.4 to have unobstructed openable area min 0.33 m^2 in area and to be minimum 750 high x 450 wide; bottom of openable area max 1100 from floor level

Existing ventilation holes in external walls to be retained and filled with coloured glass; holes boxed through cavity with tray dpc over

Bathroom: vented with window having obscure glazing and some part of opening light 1.750 above floor level together with mechanical extractor fan of 15 litres/sec intermittent extraction rate with 15 minute overrun when light extinguished

Utility room: vented with mechanical extractor fan of 30 litres/sec intermittent extraction rate

BOILER: Angus Evo EV-06 Multi Fuel Boiler or similar approved equipped with a safety heat exchanger and thermal safety valve; standard controls include Thermo-mechanical regulator, chimney flap and a regulation hatch; boiler positioned in boiler room in accordance with manufacturer's instructions; boiler to discharge to 180 diameter Selkirk STC stainless steel twin wall insulated flue fixed internally with 50mm clearance to wall; proprietary manufacture adaptor plate to 135 degree bend at base with insulated tee plug; flue installed in accordance with Building Regulations and manufacturer's instructions; no joints in flue within floor space and no combustible material within 50mm of outer flue wall; proprietary manufacture wall support at base of flue; ceiling, rafter supports and roof brace fitted above locking band; mesh guard enclosure where flue passes through roofspace; flue discharges to rain cap min 1.000 above roof coverings through roof flashing; Notification plate provided by Selkirk Ltd as required by Building Regulations permanently fixed adjacent to boiler; Carbon Monoxide alarm fixed in boiler room complying with BS EN 50291:2001

ELECTRICS: All electrical work required to meet the requirements of Part P (Electrical Safety) will be designed, installed and tested by a person competent to do so or an installer not registered with a Part P Competent Person self-certification scheme but qualified to complete a BS 7671 Installation Certificate; internal lights to bathrooms, family area and external safety lighting to have energy efficient fittings; Smoke detectors/alarms fitted in locations shown in accordance with BS 5839-6:2004; detectors to be wired to mains electricity with separate fuse in fuse box with 3 hour battery backup; alarms interconnected so that all sirens sound if one detector triggered

Ground floor internal doorways to have 775 minimum clear opening to comply with Part N of Building Regulations; front entrance door to be 1000 wide clear opening with level threshold

ENTRANCE PORCH

ROOF: Marley Boldroll smooth roof tiles in colour to match existing house roof laid on 38 x 25 tiling battens on underlay felt to BS EN 13707; verge and eaves tiles twice clipped; 100 x 50 rafters at 450 centres at 19.5 degree pitch; rafters to bear on preformed roof frame in brown PVCu extrusion reinforced with galvanised steel inserts; brown PVCu soffit, fascia, barge board and gable infill; 122 x 50 ceiling joists at 450 centres fixed to steel frame one end and hung off proprietary joist hangers screwed to house wall other end; 13mm foil backed plasterboard ceiling with 38 x 38 noggins at edges; insulation to be 60 mm Kooltherm K7 pitched roof board between rafters; Code 4 stepped lead flashing lapped under roof coverings min 230 and turned up house wall min 150 and tucked in

Existing cavity wall to be utilised with door opening adjusted with construction as describe below, foundations inspected to ensure suitability; new cavity wall 112.5 thick external leaf in brickwork to match existing house; 50 cavity and 100 Celcon 3.6 N/sq.mm standard grade insulation block inner leaf with 5mm plaster skim finish; full cavity fill of Rockwool mineral fibre insulation; wall ties 750 horizontally, 450 vertically, and 225 vertically at openings; cavities closed at reveals, cills and eaves and cavities to be continuous; Kingspan Kooltherm insulated cavity closers at openings fixed in accordance with manufacturer's instructions; brickwork and blockwork bonded to existing walls using proprietary bonding strips fixed to existing wall; wall below ground level to be in 3.6 N/sq.mm trench blocks; dpc to be min 150 above adjacent ground level and to be tied into existing dpc

WINDOWS: Window units as described above fixed into structural frame in brown PVCu extrusion reinforced with 75 x 75 SHS galvanised steel section; safety glazing to BS6206 to all conservatory windows and doors

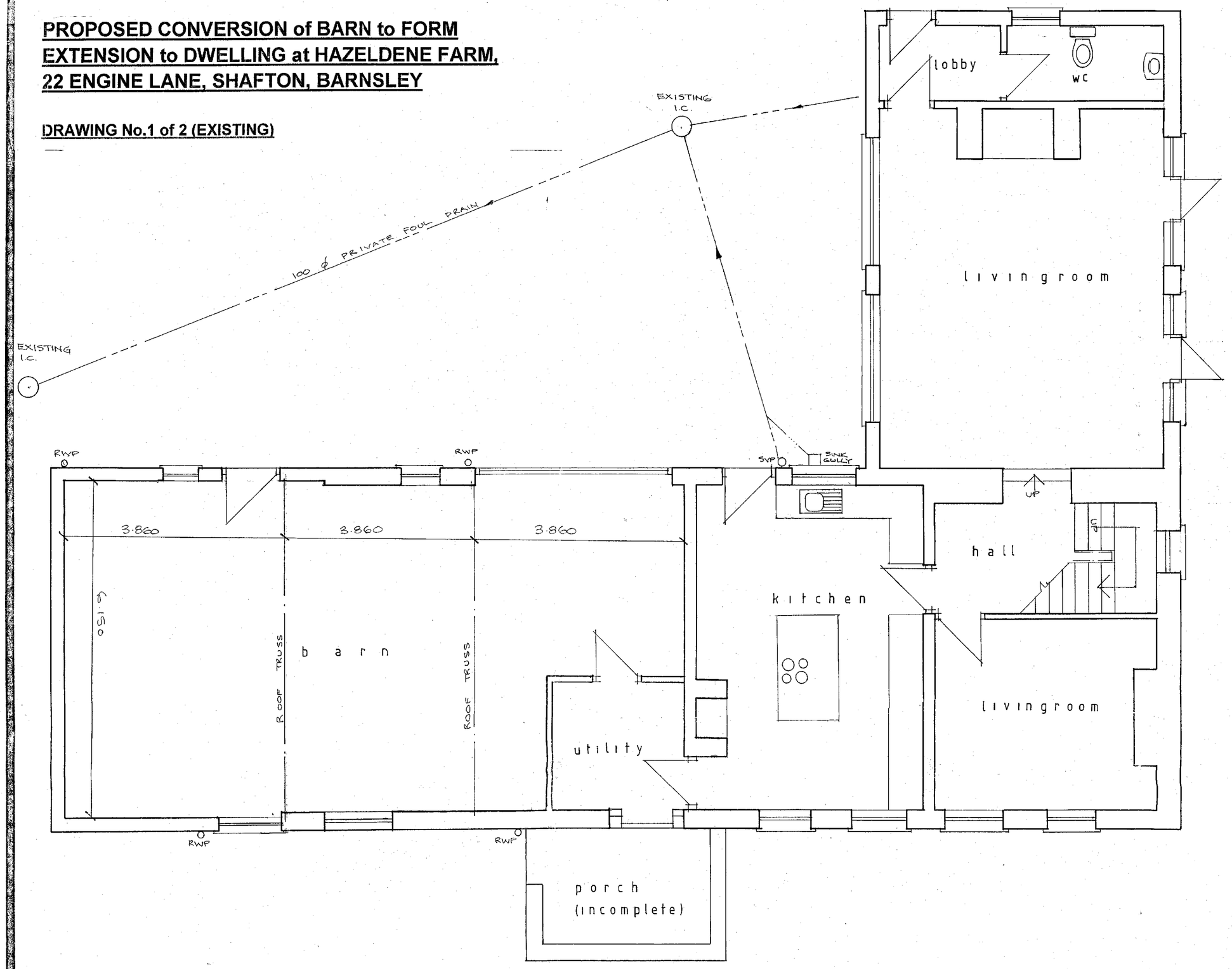
DRAINAGE: New bathroom to existing 100 dia SVP; 75 deep seal trap to all bathroom appliances with 32 waste to handbasin, 38 waste to bath/shower and 100 waste to WCs; no waste connected to SVP within 200 of WC connection; 75 deep seal trap and 38 waste utility room sink to new back inlet gully

Foul connection from utility room gully to connect to existing inspection chamber on foul drain which discharges to existing septic tank; new drain connection made using 110 diameter plastic pipes with patent push fit flexible joints laid to a minimum gradient of 1 in 40

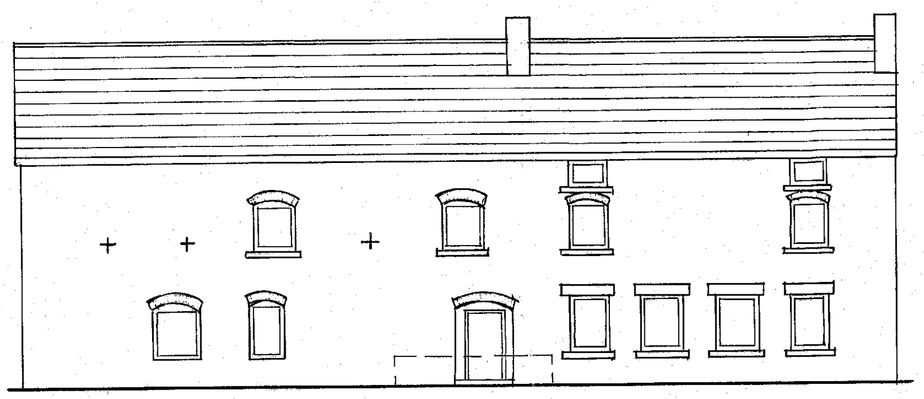
BALCONY: Balcony supported on 100 x 100 oak posts built off 300 thick concrete foundation with 150 concrete surround to posts; 225 x 75 oak beams to top of posts and timber bearer rawlbolted to house wall; 145 x 38 oak decking on 100 x 100 sub-frame bolted to timber beams and bearer; proprietary manufacture glass and stainless steel post and rail balustrade system 1100 high; 50 diameter stainless steel posts at 1200 centres bolted to timber beam using proprietary shoe fixings; 12mm toughened glass panels complying with BS6206:1981 secured in stainless steel bottom track fixed to timber beams at max 450 centres and to steel posts using proprietary fixing lugs; stainless steel handrail fixed to top of posts; all work on balustrade system to be carried out to manufacturers specifications

PROPOSED CONVERSION of BARN to FORM EXTENSION to DWELLING at HAZELDENE FARM, 22 ENGINE LANE, SHAFTON, BARNSLEY

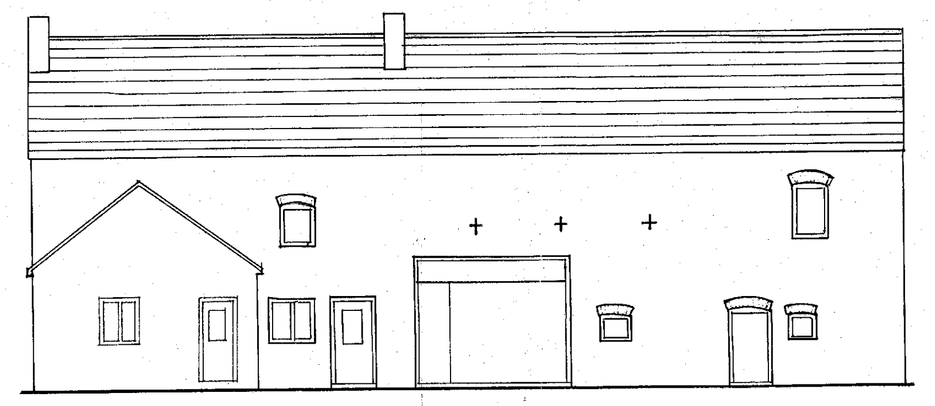
DRAWING No.1 of 2 (EXISTING)



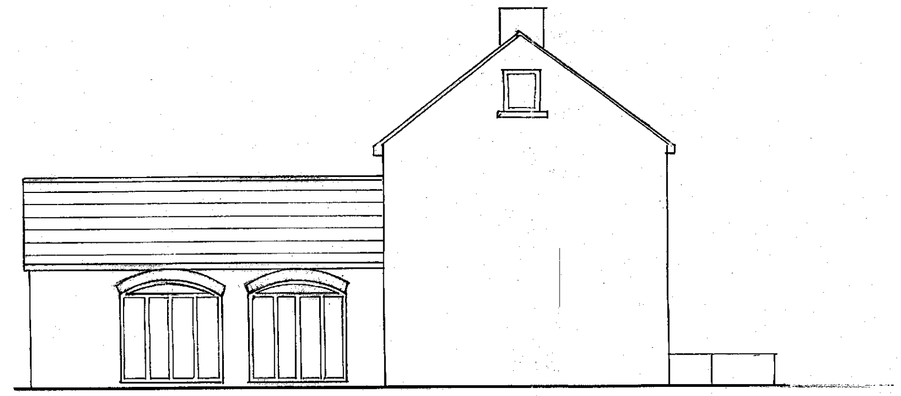
EXISTING GROUND FLOOR



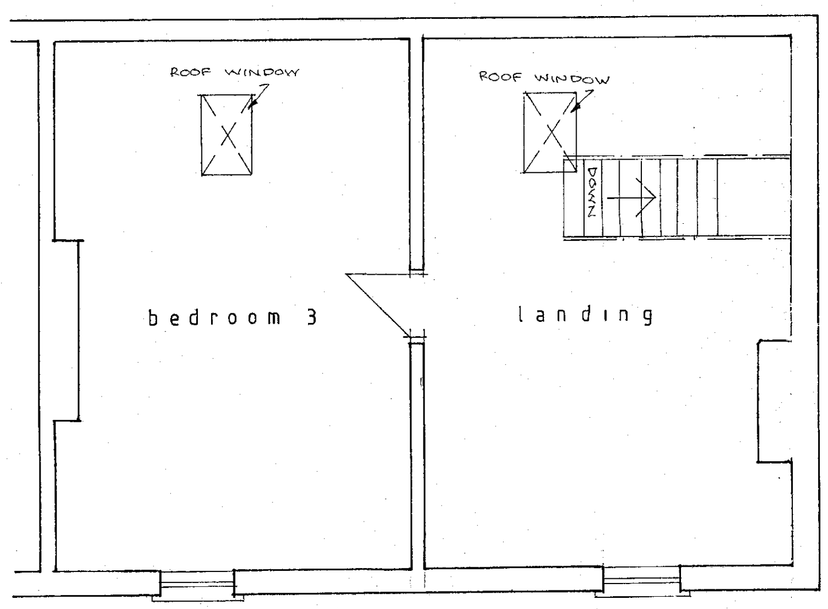
EXISTING FRONT



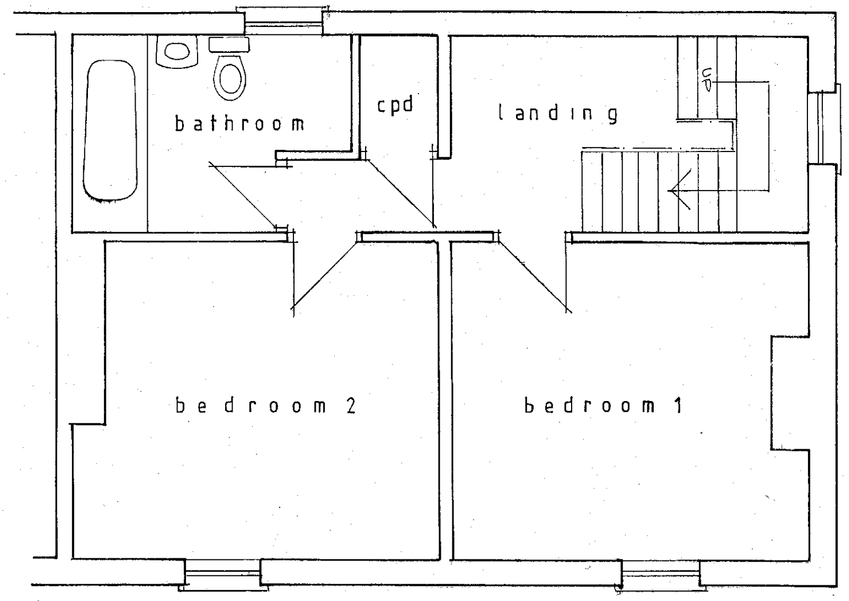
EXISTING REAR



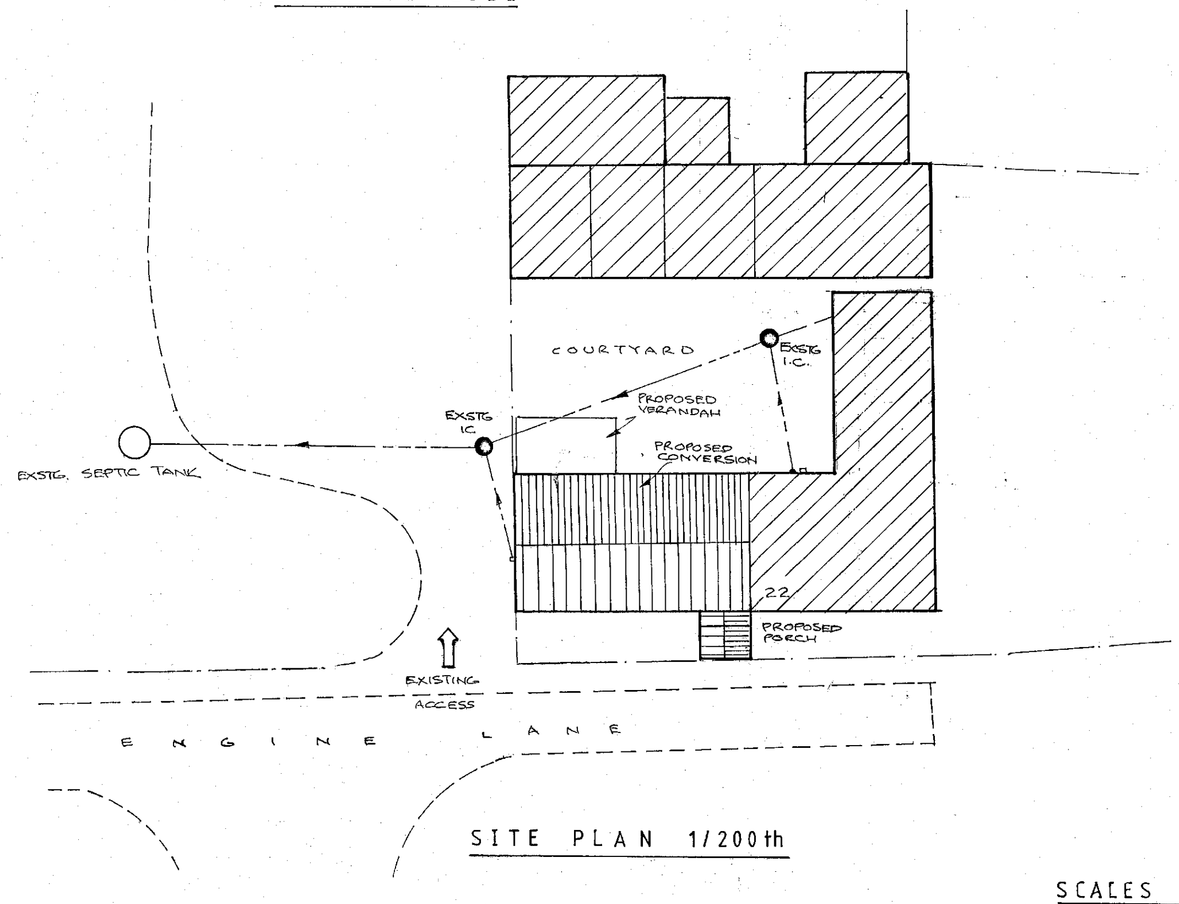
EXISTING SIDE



EXISTING SECOND FLOOR (UNALTERED)



EXISTING FIRST FLOOR (UNALTERED)



SITE PLAN 1/200th

SCALES 1/50th and 1/100th