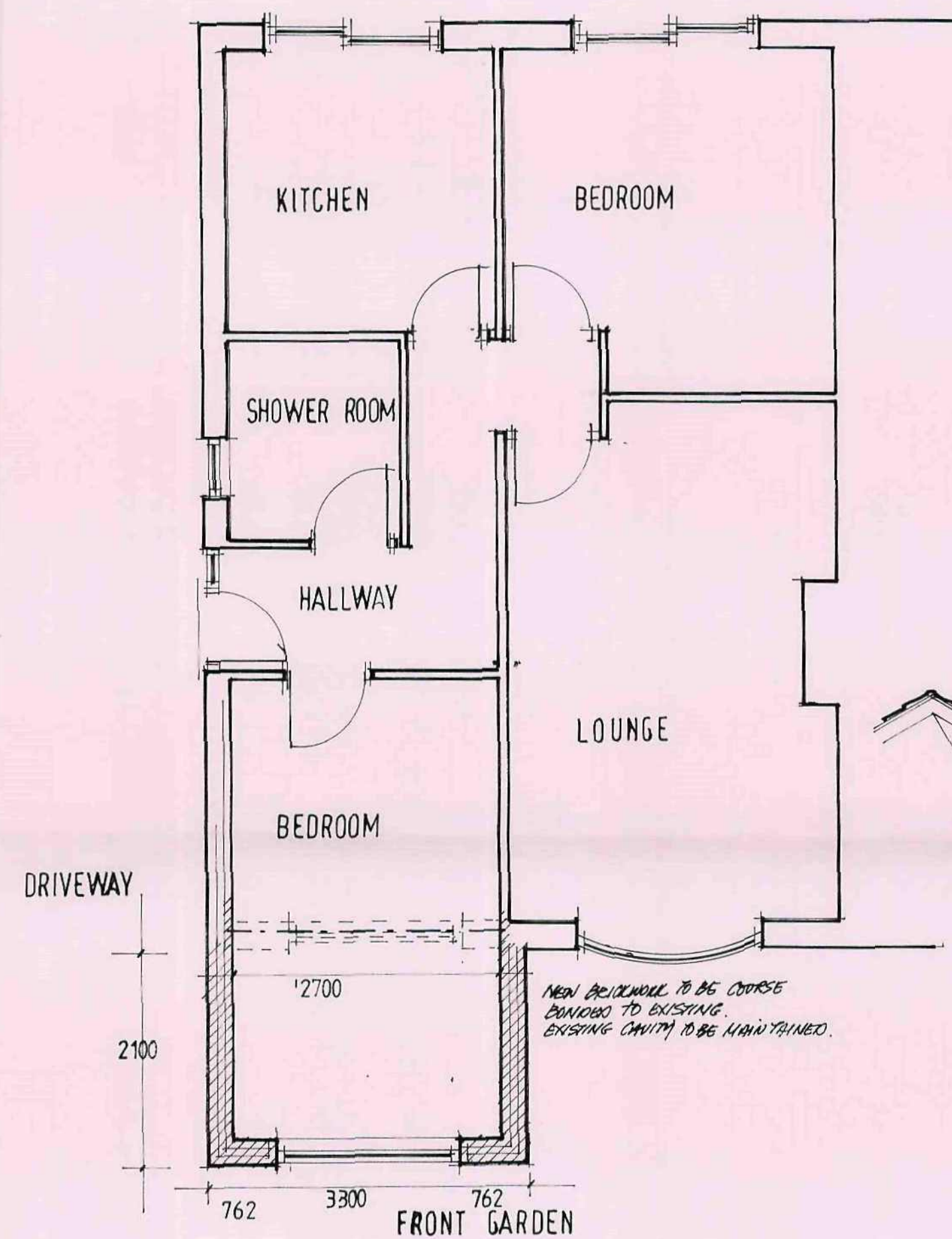
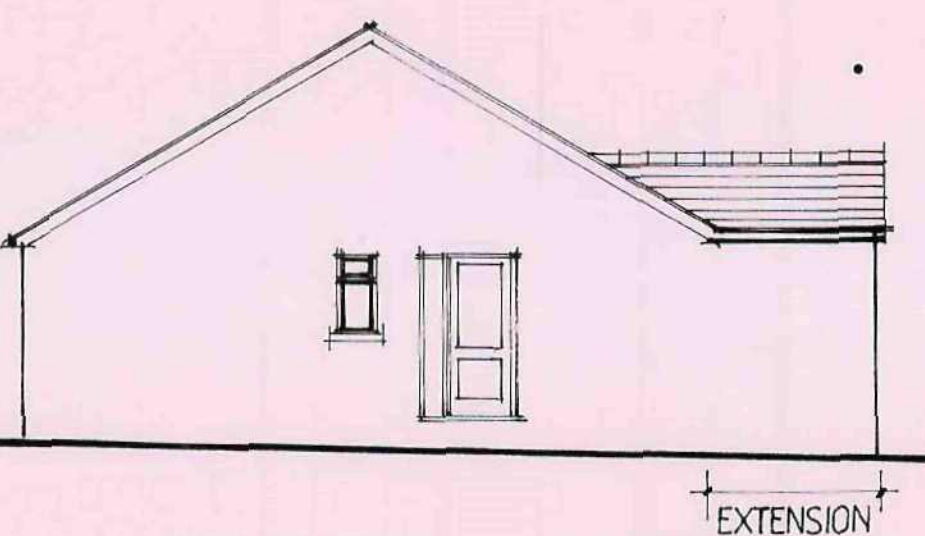




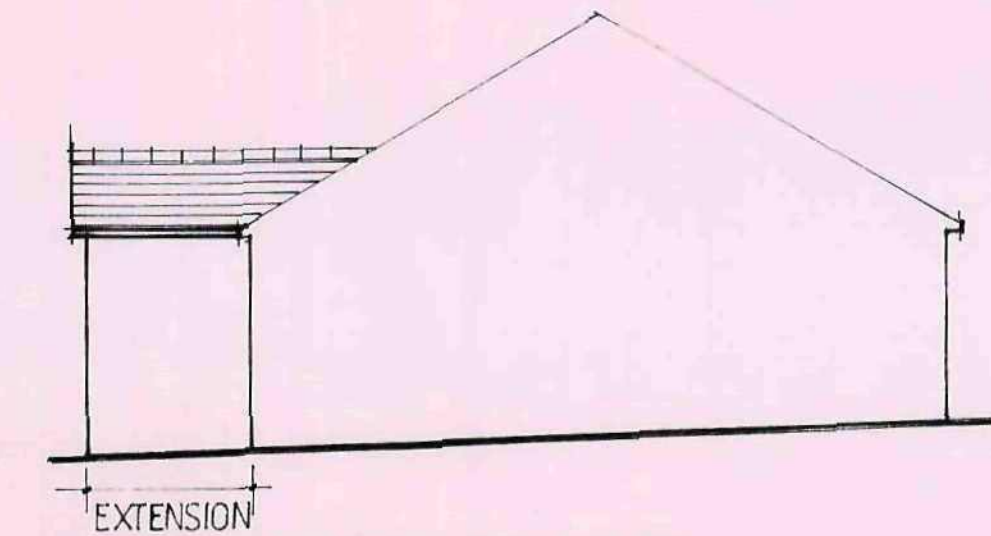
PLAN PROPOSED



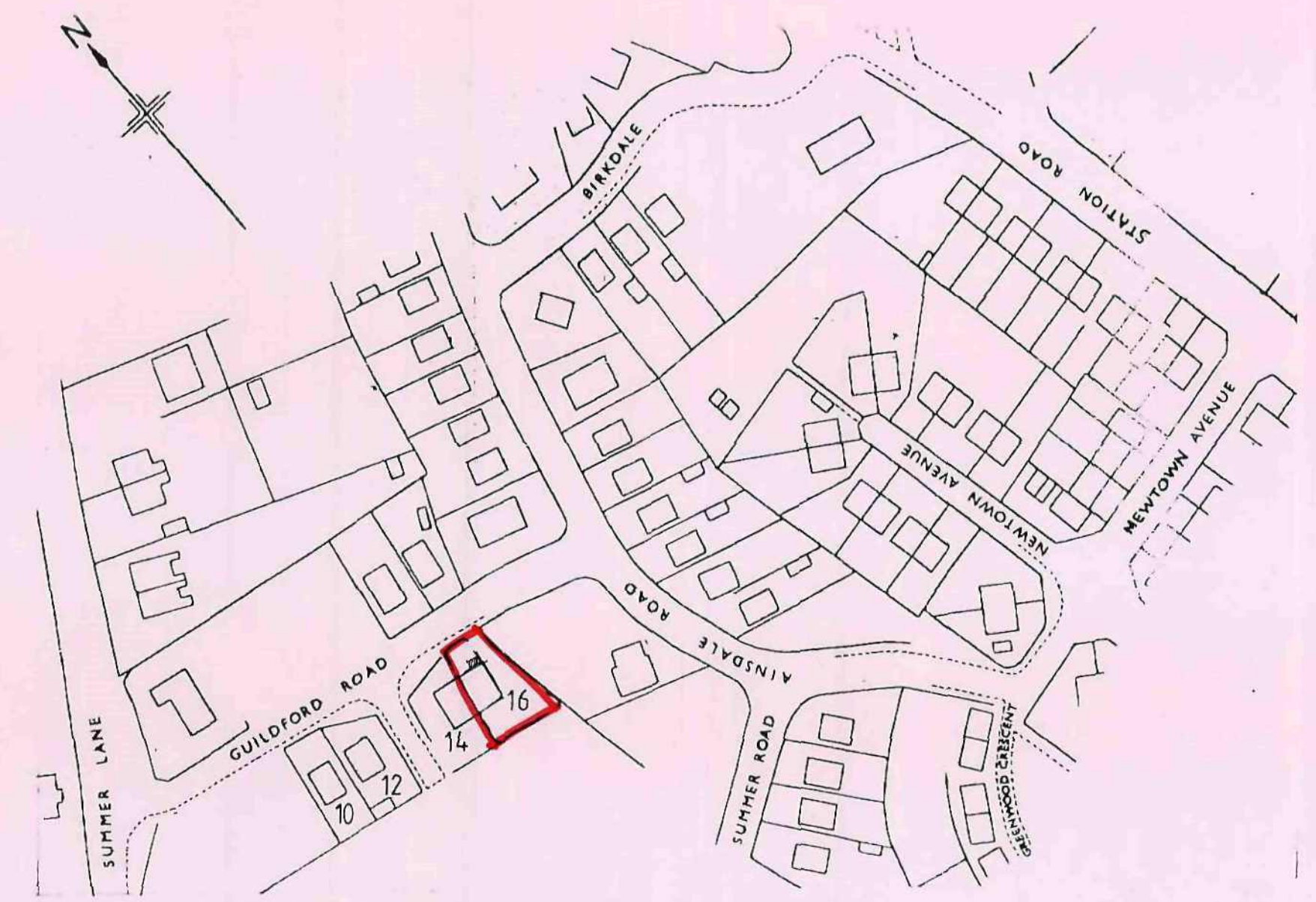
FRONT ELEVATION PROPOSED



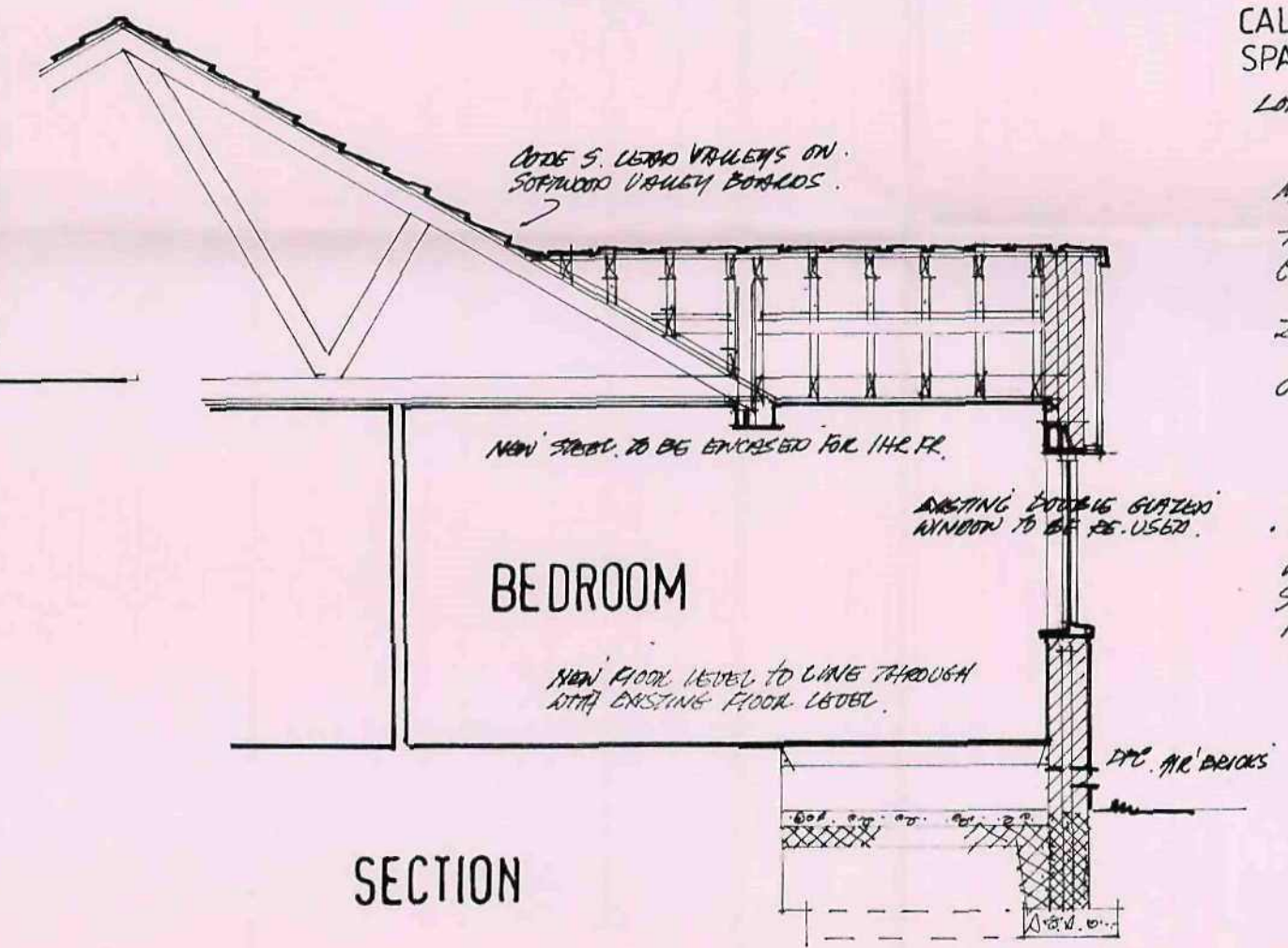
SIDE ELEVATION PROPOSED



SIDE ELEVATION PROPOSED



LOCATION PLAN 1:1250



SECTION

CALCULATIONS FOR NEW STEEL TO BEDROOM SPAN 2.7m

LOADING: ROOF - $2.7 \times 1.75 \text{ kN/m}^2 \times 2.5 \text{ m} = 11.81 \text{ kN}$
 SELF WEIGHT - $2.7 \times 0.3 \text{ kN/m}^2 = 0.81 \text{ kN}$
 TOTAL LOAD = 12.62 kN
 $M = WL/8 = 2.62 \times 2.7 = 4.25 \text{ kNm}$
 $RA = 152 \times 89 \times 17.09 \text{ kg}$ GRADE 43 STEEL
 $CV = 2.7 \times 10^8 = 135 \text{ Pf} = 18.4 \text{ Pf} = 135 \text{ N/mm}^2$
 1.99×10^8
 $Z \text{ MOD} = M/Pf = 4.25 \times 10^3 \times 10^6 = 31.48 \text{ cm}^3$ (115.6 cm^3 OK)
 135×10^6
 $\sigma = \frac{M}{Z} = \frac{4.25 \times 10^3}{31.48 \times 10^6} = 5 \times 10^{-5} \text{ N/mm}^2$
 $384 \times 267 \times 83 \times 880 \times 10^9$
 $= \frac{124 \times 10^5}{100 \times 10^5} = 1.77 \text{ mm}$ (7.5 mm OK)
 USE 152 X 89 X 17.09 kg RST. GRADE 43 STEEL.
 WITH 100 X 75 SAW RAFTERS BUTTER TO TOP PLANGE.
 STEEL BOLT IN 4X ENDS TO PROVIDE CONNECTION.
 RESTRAINT AND SUPPORTED ON 150MM THICK CONCRETE PADSTONES.

WALL CONSTRUCTION

103mm facing BRICKWORK TO MATCH EXISTING AND TO BE BOND TO EXISTING. AND EXISTING CHIMNEYS TO BE MAINTAINED.
 100mm CHIMNEY BRICKWORK REMAINING TO SO 220mm TOP. AND 100mm BRICKWORK REMAINING WITH 100mm CHIMNEY.
 100mm CHIMNEY TO BE 220mm TOP INSULATED PLASTERBOARD AND 100mm CHIMNEY.
 ALL TO MATCH MIN 110mm VALUE OF 0.22 W/m².
 DOUBLE FIRST STAINLESS STEEL WALL TIES SPEC M20 AND EVERY COURSE IN REINFORCED. 100mm POLYETHYLENE AND 100mm POLYETHYLENE.
 DPC TO ALL FRAMES, CHIM AND LINTELS. VERTICAL DPC TO ALL OPENINGS.
 225 X 100mm TERRA COTTA AIR BRICKS @ 900mm CENTRES. AND 100mm FROM CORNERS.
 AIR BRICKS TO BE BORED THROUGH WITH 25mm DPC.
 DPC TO BE MIN 150mm ABOVE GROUND LEVEL.
 THERMAFLEX TRENCHES BELOW GROUND LEVEL.
 60 X 200mm CONCRETE STRIP FOUNDATIONS TAKEN BELOW GROUND LEVEL OF RAIN AND ADJACENT DRAIN AND TO SITE CONDITIONS.
 STAND AND CHIMNEY CONCRETE INSULATED STEEL LINTEL OVER WINDOW. WITH BRICK SOLDIERS TO OUTSIDE FACE.

ROOF CONSTRUCTION

NEW VENTILATED RIDGE TILES AND CONTINUOUS EAVES VENTILATION. ROOF TILES TO MATCH EXISTING ON RAISED ROOFING BUTTENS TO SITU ON REINFORCED ROOFING. FECT TO BS. 747. LAPPED IN 200mm. ON 125 X 50 SAW RAFTERS @ 900mm CENTRES. 125 X 50 SAW CEILING JOISTS @ 900mm CENTRES. 225 X 75 SAW FLOORING. 100 X 75 SAW RAFTERS AND HANGERS DOWN WITH M.S. ANCHORS. LATERAL RESTRAINT TIES @ 1m CENTRES SPANNING MIN 3m JOIST/RAFTERS.
 MIN 200mm INSULATION TO ROOF VOID. PLASTERBOARD AND 100mm CHIMNEY.
 ALL TO MATCH MIN 110mm VALUE OF 0.22 W/m².

FLOOR CONSTRUCTION

DRUM SUPPRESSED TONGUED AND GROOVED FLOORBOARDS ON 150 X 50 SAW POOL JOISTS @ 900mm CENTRES. 100mm THICK INSULATION OF 100mm IN BETWEEN JOISTS. ALL TO MATCH MIN 110mm VALUE OF 0.22 W/m².
 100mm THICK OVERSITE CONCRETE ON CONSOLIDATED HARDWARE. MIN 150mm GAP BETWEEN UNDERSIDES OF FLOOR JOISTS AND TOP OF OVERSITE CONCRETE.

GENERAL

WINDOW AREA OF HABITABLE ROOM TO BE MIN 1/10th FLOOR AREA. WITH VENTILATED OPENINGS MIN 1/20th FLOOR AREA. TRUCKS VENTILATION MIN 1/20th FLOOR AREA.
 ESCAPE WINDOW MIN 150 X 50mm CLEAR OPENING TO BE INCORPORATED IN NEW WINDOW.
 ALL GLAZING TO COMPLY WITH NEW APPROVED DOCUMENT PART 1 USING PICKINGTONS K 6000 WITH LOW E SOFT COATING. MIN 110mm.
 U VALUE OF 1.6 W/m² TO WINDOW.
 GLAZING TO BE SAFETY GLAZING TO BS 5206.
 SMOKE ALARM/DETECTOR TO BE PROVIDED TO KITCHEN AND HALLWAY. TO BE INTERLINKED AND WIRED BACK TO SEPARATELY FUSED CIRCUIT ON THE CONSUMER UNIT.
 ALL ELECTRICAL WORK TO COMPLY WITH APPROVED DOCUMENT 18 AND INSTALLED BY A COMPETENT ELECTRICIAN. AND A COMPLETION CERTIFICATE TO BE PROVIDED ON COMPLETION.
 EXISTING HEATING INSTALLATION TO BE EXTENDED INTO THE EXTENSION WITH THERMOSTATICALLY CONTROLLED VALVES TO EACH RADIATOR. ALL TO BE INSTALLED BY A C.O.G.I. REGISTERED INSTALLER.

PROPOSED BEDROOM EXTENSION
 AT NO 16 GUILDFORD ROAD
 ROYSTON
 S71 4HU

MR AND MRS PROCTOR

SCALE 1:50 1:100
 DATE MAY 08 2008:026
 DRAWN R HARRIS

Millé
 design

Architectural planning,
 building & interiors
 tel: & fax:
 0114 2886929