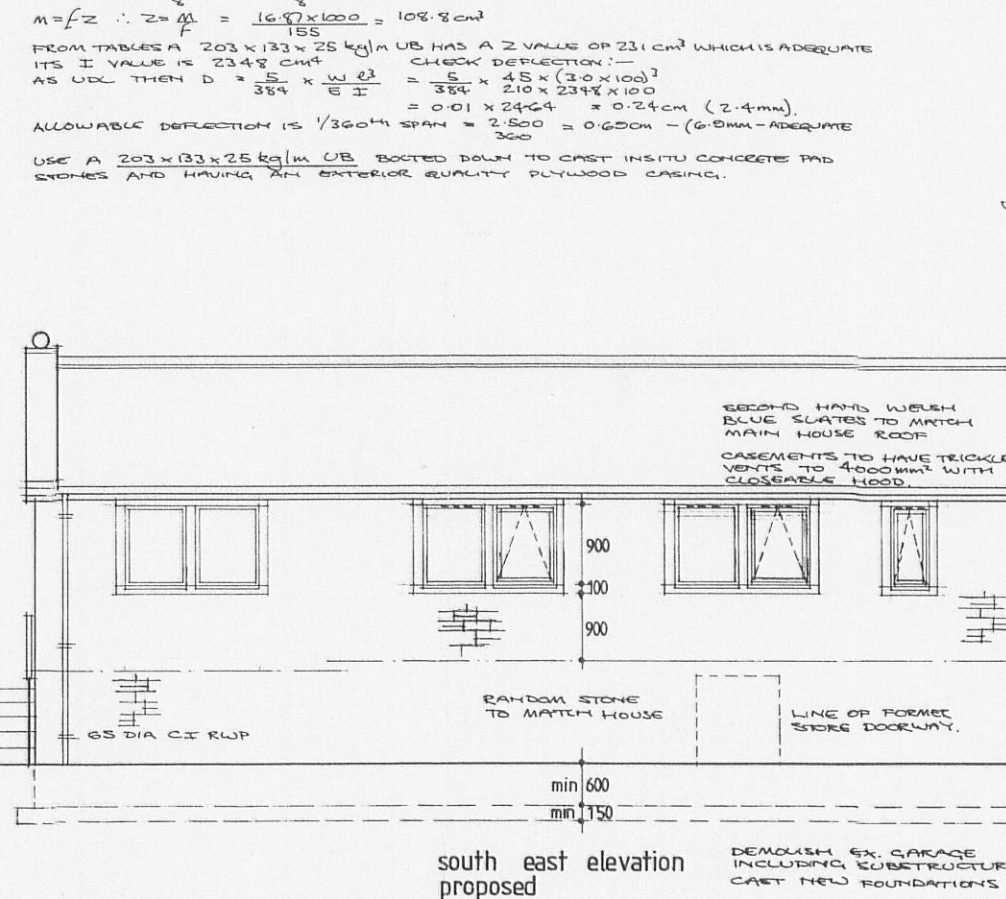
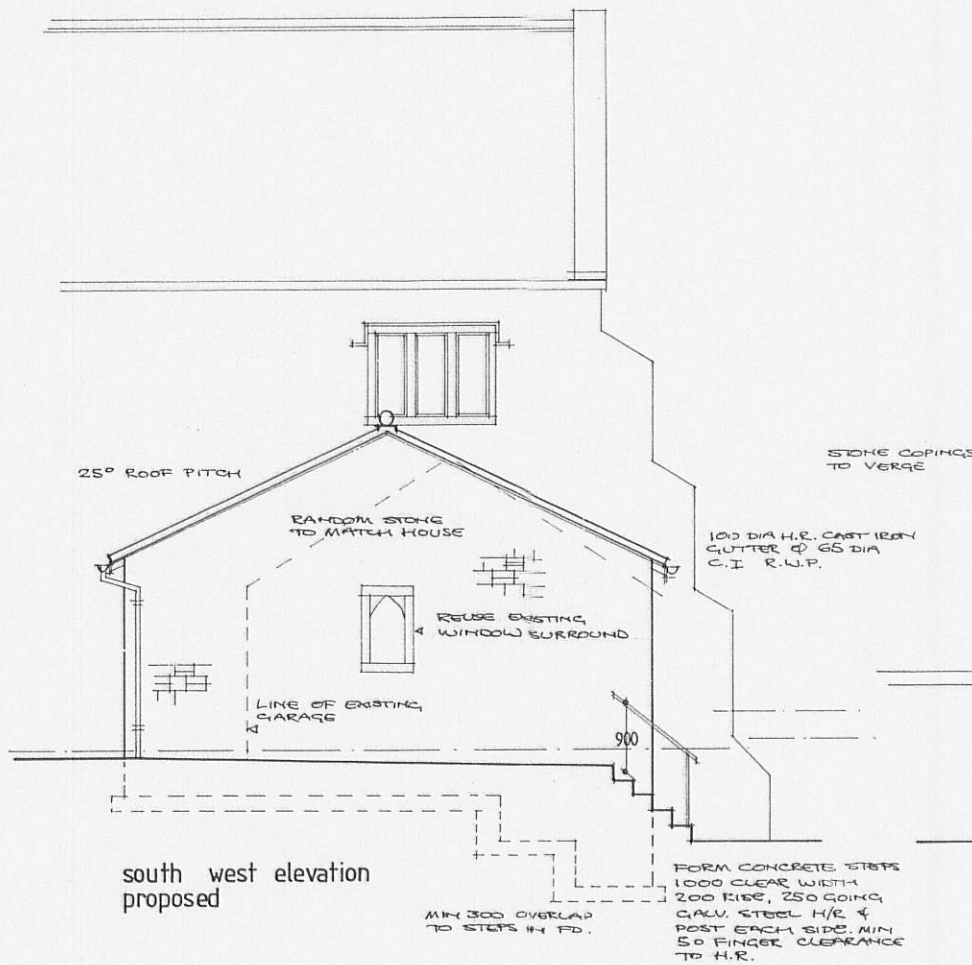


STEEL BEAM OVER GARAGE DOORWAY:-
 SPAN 2.500 LOAD $2.15 \text{ kN/m}^2 \times 4 \times 2.500 = 21.5 + \text{SAFETY SAT } 4.5 \text{ kN TOTAL}$
 EFFECTIVE LENGTH $\times 1.2 \times 2.500 \times 1.2 = 3.00 \text{ m}$
 MAX BM $= \frac{wL^2}{8} = \frac{4.5 \times 3.0^2}{8} = 16.875 \text{ kNm}$
 $M = \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{16.875 \times 1000}{155} = 108.8 \text{ cm}^2$
 FROM TABLE A $203 \times 133 \times 25 \text{ kg/m UB}$ HAS A Z VALUE OF 231 cm^3 WHICH IS ADEQUATE
 ITS I VALUE IS 2348 cm^4 CHECK DEFLECTION:-
 AS UCL THEN $D = \frac{5}{384} \times \frac{wL^4}{EI} = \frac{5}{384} \times \frac{4.5 \times (3.0 \times 100)^4}{210 \times 2348 \times 100} = 0.01 \times 2424 = 0.24 \text{ cm (2.4 mm)}$
 ALLOWABLE DEFLECTION IS $\frac{1}{360} \text{ SPAN} = \frac{2.500}{360} = 0.694 \text{ cm (6.94 mm - ADEQUATE)}$
 USE A $203 \times 133 \times 25 \text{ kg/m UB}$ BOLTED DOWN TO CAST INSITU CONCRETE PAD
 STONES AND HAVING AN EXTERIOR QUALITY PLYWOOD CASING.

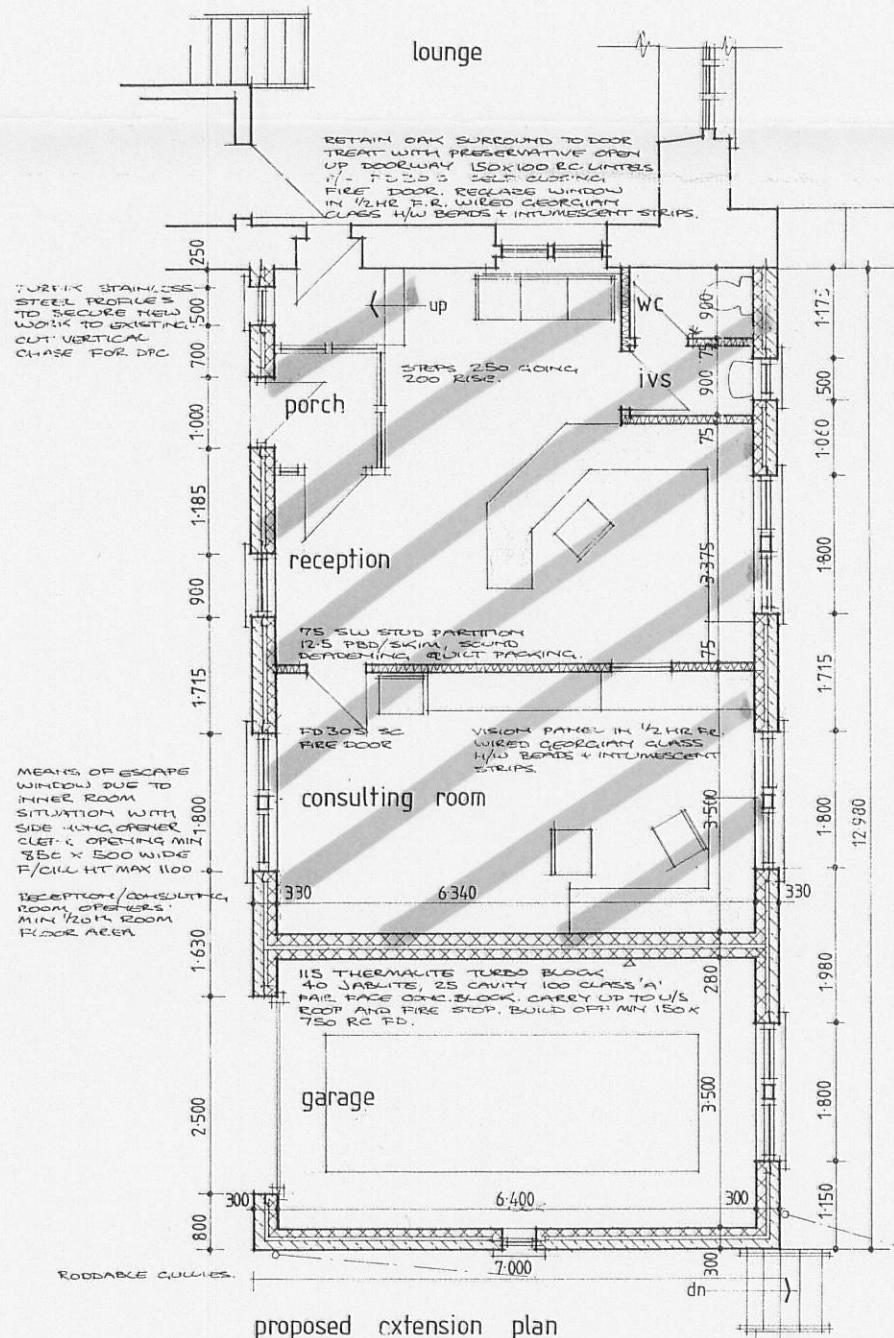


SCREEN WALL SET 1000 MM FROM ROAD EDGE TO ENGINEER'S SATISFACTION

site frontage layout
 scale approx 1:500

notes:-

ROOF:- MIN 350 WIDE SECOND HAND WELSH BLUE SLATES MIN 75 LAP ON BOX 25 TANGLED BATTENS ON SARKING FELT ON CANONICAL TRUSSED RAFTERS TO B.S. 5268 PT 3 AT 400 CENTRES WITH LONGITUDINAL AND DIAGONAL BRACING. 75 X 100 S.W. TREATED WALL PLATE WITH 30 X 5 GAW. ANCHOR STRAPS AT 1.200 QS. FIX 3N° STRAPS TO TRUSS BOTTOM TIE AND 2N° TO EACH SLOPE SET OVER 2 TRUSSES WITH NOGGIN BETWEEN AND EXTEND INTO WALL CAVITY, TURN END DOWN 450 MM TO PROVIDE WALL LATERAL RESTRAINT.
 WALLS:- 150 STONE, 25 CLEAR CAVITY 40 JABLITE INSULATION 115 THERMAITE TUBO BLOCK 13 TWO COAT PLASTER FINISH OF RED DRY LINE. OMIT INSULATION, REDUCE CAVITY TO 50 AND CHANGE INNER LEAF TO 100 CLASS 1A PAIR FACE BLOCK TO GARAGE EXTERNAL WALLS. USE CLASS 1A CONCRETE BLOCK BELOW G.L. 150 EXT. SKIN 225 INTERNAL SKIN TO BACKWALL 150 TO OTHER INTERNAL SKINS. USE 1:4 MORTAR BELOW DPC. ALL CAVITIES BELOW GROUND LEVEL WITH CONCRETE. BUILD IN STAINLESS STEEL CAVITY TIES 300 HOR & 450 VERTICAL CENTRES STAGGERED ON ALTERNATE ROWS. SPACE TIES AT 300 QS TO SIDES OF JAMBES. USE BRONZE OR STAINLESS STEEL DOWELS TO SECURE DRESSED STONES TOGETHER PLUS TIES IN CHASES TO CHECK FLOOR:- RECEPTION/WC/CONSULTING ROOM 50 5/8 SCREED WITH FLOOR FINISH ON REINFORCED CONCRETE FLOOR SLAB TO SEPARATE DETAIL ON 1200 GAUGE VISQUEEN DPM AS VAPOUR BARRIER ON 30 JABLITE HD INSULATION ON 1200 VISQUEEN D.P.M. ON COMPACTED LIMESTONE HARDWARE. OMIT SCREED TO GARAGE SECTION AND APPLY SURFACE HARDENER TO CONCRETE. OMIT INSULATION.
 FOUNDATIONS:- CAST MIN 150 THICK A142 MESH REINFORCED 1:2:4 CONCRETE FOUNDATIONS, TAKE DOWN TO SOLID BED, MIN 100 PROJECTION 150 MM MIN OVERLAP AT STEPS 300 MM MIN COVER TO G.L. FROM TOP OF FOUNDATION 600 MM
 DRAINAGE:- PROVIDE BACK INLET CULVERTS TO R.W.P. WITH 100 DIA HETEROGENEOUS B.W. DRAINS BEDDED AND SURROUNDED IN PEA GRAVEL MIN FALL 1:40 DISCHARGE INTO EXISTING S.W. SYSTEM OR TO NEW SOAKAWAYS. PROVIDE UNITS WHERE DRAINS PASS THROUGH WALLS, PROVIDE MINI CHAMBER PRIOR TO DISCHARGE POINT.
 ROOF VENTILATION:- FIX VENTIL RESIL COTTAGE EAVES GRILLS TO COMPLY WITH B.S. 5268 PT 3 CLOSE CAVITY TO WALL-TOPS WITH CUT BLOCK SET IN MORTAR, EAVES VENT AREA MORE THAN CONTINUOUS STRIP 25MM WIDE FIX DRY RIDGE TILES WITH INTERCAL VENT AREA MORE THAN CONTINUOUS STRIP 5 MM WIDE.
 MISCELLANEOUS:- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDING REGULATIONS AND BRITISH STANDARD CODES OF PRACTICE. ELECTRICAL WORK TO BE TO I.E.E. REGULATIONS. ALL DIMENSIONS MUST BE CHECKED ON SITE BEFORE ORDERING MATERIALS. BUILDING REGULATION CONDITIONAL APPROVAL REQUIRED FOR ROOF TRUSS AND FLOOR SLAB STRUCTURAL CALCULATIONS. READ THIS DRAWING IN CONJUNCTION WITH ALTERATION DEC N° 19:97:145:1.



LD AND WC TO HAVE SINKED OR SIMILAR PUMPED DISCHARGE ALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO EX. SEPTIC TANK (HEAD APPROX 1000 DISTANCE TO TANK 16000)
 LD TO HAVE 30 DIA WP WITH 75 IST
 WC TO HAVE EXTENDED PAN MIN 60L/SEC WIRED THROUGH LIGHT PULL SWITCH WITH 15 MM OVER-RUN.

FORM CEILING ACCESS TRAP TO ROOF SPACE WITH DRAUGHT STRIP TO EDGE AND CRANDED HOLDING DOWN BOLT.

north west elevation proposed

STANDARD HARDWOOD DOOR OPENING 2.500 X 2.125 (3'-2 1/2" X 6'-11 1/4"). DOOR INNER HEADROOM BELOW TRUSSES BEING 300 MM APPROX TO BE TAKEN INTO ACCOUNT BEFORE ORDERING DOOR.

ADJUST GULL HEIGHT AS NECESSARY TO SUIT ROOF TRUSSES / FLASHINGS

RAISE DOOR HEAD AS REQUIRED.

cross section

garage section

320 070 582 P

GREAT MITTON HALL
 MITTON ROAD GREAT MITTON
 PROPOSED CHANGE OF USE
 EXTENSION TO FORM CONSULTING
 ROOM RECEPTION AND GARAGE
 FOR MR. M. TIMMS

J J Taylor A.R.I.C.S. Chartered Surveyor
 11 Epsom Way Accrington
 BB5 2AP 01254 384711

drg 19:97:207:2 scale 1:50

REVISED 1:100