

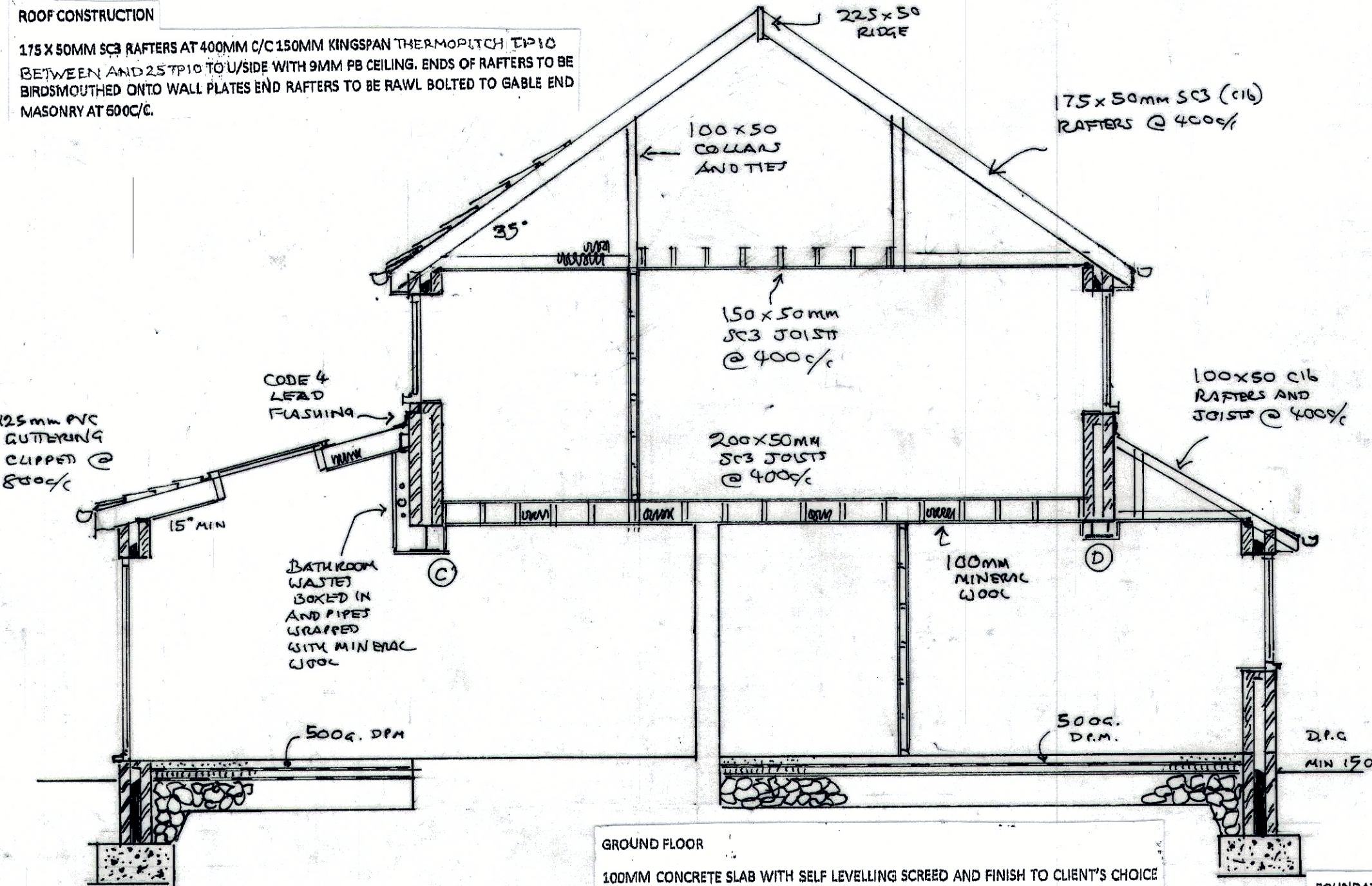
SECTION 1:50

ROOF CONSTRUCTION

175 X 50MM SCS RAFTERS AT 400MM C/C 150MM KINGSPAN THERMOPITCH T/P10 BETWEEN AND 25 T/P10 TO U/SIDE WITH 9MM PB CEILING. ENDS OF RAFTERS TO BE BROOMED OUT ON WALL PLATES END RAFTERS TO BE RAWL BOLTED TO GABLE END MASONRY AT 600/C.

ROOF COVERING

SELECTED MATCHING ROOF TILES/SLATES NAILED TO TREATED S.W. BATTENS WITH LAP TO SUIT ROOF PITCH IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS OVER 'TYVEK' BREATHABLE SARKING FELT LAID OVER RAFTERS AS SPECIFIED. 300MM FIBREGLASS QUILT INSULATION OVER AND BETWEEN JOISTS ON 9MM PB AND SKIM CEILING.



STEEL CHECK

A 178 x 102mm R.S.J. SPAN 2600
LOADS: BULK 2.6 x 2.6 x 2.2 14.87
FLOOR 1 1.5 x 2.6 x 2.3 9.75
FLOOR 2 1.5 x 2.6 x 2.3 9.75
W 34.37 KN

B.M. $W/8 = 11.17 \text{ KNm}$
 $Z_{pl} M_{plc} = 68 \text{ cm}^3 \checkmark [153]$
 $S_p \sqrt{360} = 7.2 \text{ mm}$
 $S_a \sqrt{360} = 7.28 = 2.8 \text{ mm} \checkmark$

B 203 x 133mm 25kg/m UB SPAN 2600
LOADS: FLOOR 1.5 x 2.6 x 2.3 9.75
BULK 3.6 x 2.6 x 2.3 20.6
ROOF 2.5 x 3.0 x 2.0 15.0
W 43.35 KN

B.M. $W/8 = 14.74 \text{ KNm}$
 $Z_{pl} M_{plc} = 89 \text{ cm}^3 \checkmark [232]$
 $S_p \sqrt{360} = 10.38 = 2.1 \text{ mm} \checkmark$

TOTAL LOAD ON BOTH ULS: $W = W + BULK + FLOOR$
 $= 45.35 + 20.6 + 11.38$
 $= 77.33 \text{ KN}$

C 356 x 368mm 129kg/m UB SPAN 8500

LOADS: BULK 2.6 x 8.5 x 4.4 = 97.24
EXT. ROOF 1.4 x 8.5 x 2.0 = 23.8
ROOF 1.3 x 8.5 x 2.0 = 22.1
W = 143.14 KN

POINT LOAD FROM A+B: $P = 17.19 + 38.47$
 $= 55.86 \text{ KN}$

B.M. $W/8 + P/4 = 152 + 119$
 $= 271 \text{ KNm}$
 $Z_{pl} M_{plc} = 16.41 \text{ cm}^3 \checkmark [2264]$
 $S_p \sqrt{360} = 23.6 \text{ mm}$
 $S_a \sqrt{360} = 11.45 + 7.147 = 18.597 = 2.2 \text{ mm} \checkmark$

D 152 x 152mm 37kg/m SPAN 3600

LOADS: BULK 2.6 x 3.6 x 2.2 20.6
ROOF 2.2 x 3.6 x 2.0 15.24
W 36.44 KN

B.M. $W/8 = 16.4 \text{ KNm}$
 $Z_{pl} M_{plc} = 100 \text{ cm}^3 \checkmark [274]$
 $S_p \sqrt{360} = 7.2 \text{ mm}$
 $S_a \sqrt{360} = 22.14 = 4.7 \text{ mm} \checkmark$

3 BED ROOM WINDOWS TO IN CONCRETE SIDE WALLS SAME WITH A MINIMUM 450 X 780MM CLEAR OPENING FOR M.O.E.

WINDOWS

ALL NEW WINDOWS AND ROOF LIGHTS IN U.P.V.C OR H.W. FRAMES TO HAVE 20MM SEALED DOUBLE GLAZED UNITS INCORPORATING LOW EMISSIVITY 'K' GLASS TO ACHIEVE A MAXIMUM 1.4W/M² K VALUE.

VENTILATION

ALL HABITABLE ROOMS TO HAVE AT LEAST 8000MM³ BACKGROUND VENTILATION PROVIDED THROUGH TRICKLE VENTILATORS BUILT INTO WINDOW FRAMES OR 2 NO 225 X 150MM AIR BRICKS WITH LOUVERED CONTROLLABLE PLASTER VENTS. AT LEAST 4000MM³ BACKGROUND VENTILATION TO BE PROVIDED TO KITCHENS, BATHROOMS AND UTILITY ROOMS. WINDOW FRAMES TO INCORPORATE OPENING VENTS EQUIVALENT TO AT LEAST 5% OF THE FLOOR AREA OF THE ROOM SERVED.

FIRST FLOOR CONSTRUCTION

MOISTURE RESISTANT 23MM T&G BOARDING NAILED TO FLOOR JOISTS AS SPECIFIED WITH STRUTTING AT 1/2 SPAN 30 X 5 MM GALV. M.S. RESTRAINT STRAPS TO BE PROVIDED AT 1.8M CENTRES TO JOISTS PARALLEL TO WALLS FIXED TO AT LEAST 3 NO. JOISTS DOUBLE JOISTS TO BE BOLTED TOGETHER AT 600 C/C PLACED UNDER PARTITIONS FOR SUPPORT. 12MM PLASTERBOARD AND SKIM CEILING.

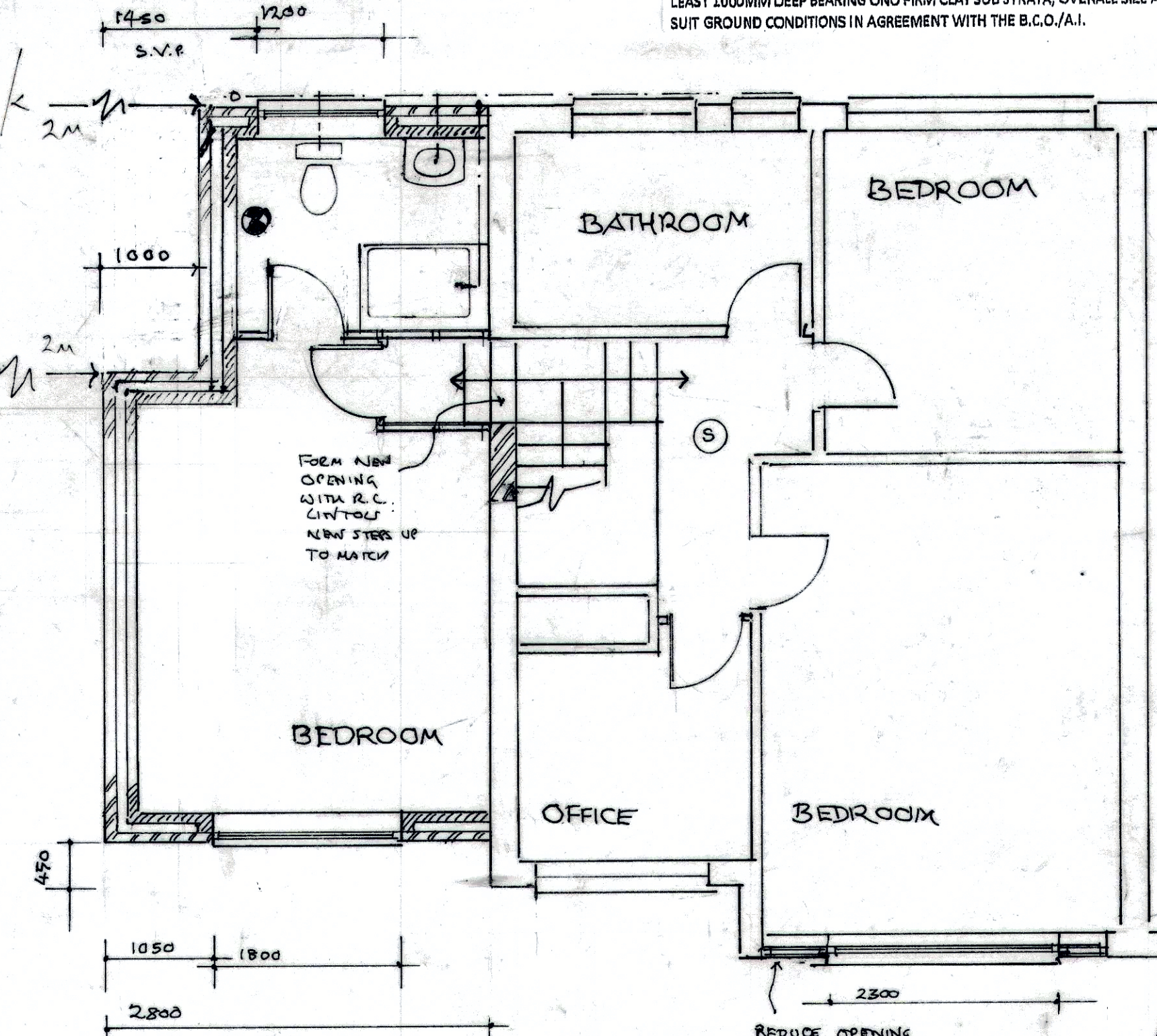
WALL CONSTRUCTION

TWO COAT SAND CEMENT RENDER TO MATCH EXISTING ON 100MM CONCRETE BLOCKWORK OR SELECTED FACING BRICK OUTER LEAF 100MM CAVITY WITH DRYBATH 32 ULTIMATE FULL RILL 100MM SOLAR BAK INNER LEAF WITH 32.5mm 6x6 PRC THERMAL BOARD FOR 0.018 U VALUE. STAINLESS STEEL CAVITY TIES TO BE PROVIDED AT 450 X 750MM CENTRES AND AT 300MM CENTRES AROUND ALL OPENINGS. INSULATED THERMABATE OR SIMILAR CAVITY CLOSERS WITH INSULATED CATNIC OR I.G. PROPRIETARY GALV. STEEL LINTOLS TO BE PROVIDED OVER ALL CAVITY WALL OPENINGS WITH A MINIMUM 150MM END BEARING. TIMBER STUD PARTITIONS 75 X 50MM STUDDING WITH MINERAL WOOL INFILL AND 12MM PB AND SKIM BOTH SIDES.

FOUNDATIONS

TWO LEAVES BRICKWORK BELOW D.P.C. LEVEL WITH CONCRETE CAVITY FILL UP TO 225MM BELOW D.P.C. LEVEL STRIP CONCRETE FOOTINGS MINIMUM 600MM X 200MM THICK AT LEAST 100MM DEEP BEARING ON FIRM CLAY SUB STRATA, OVERALL SIZE AND DEPTH TO SUIT GROUND CONDITIONS IN AGREEMENT WITH THE B.C.O./A.I.

FIRST FLOOR PLAN 1:50

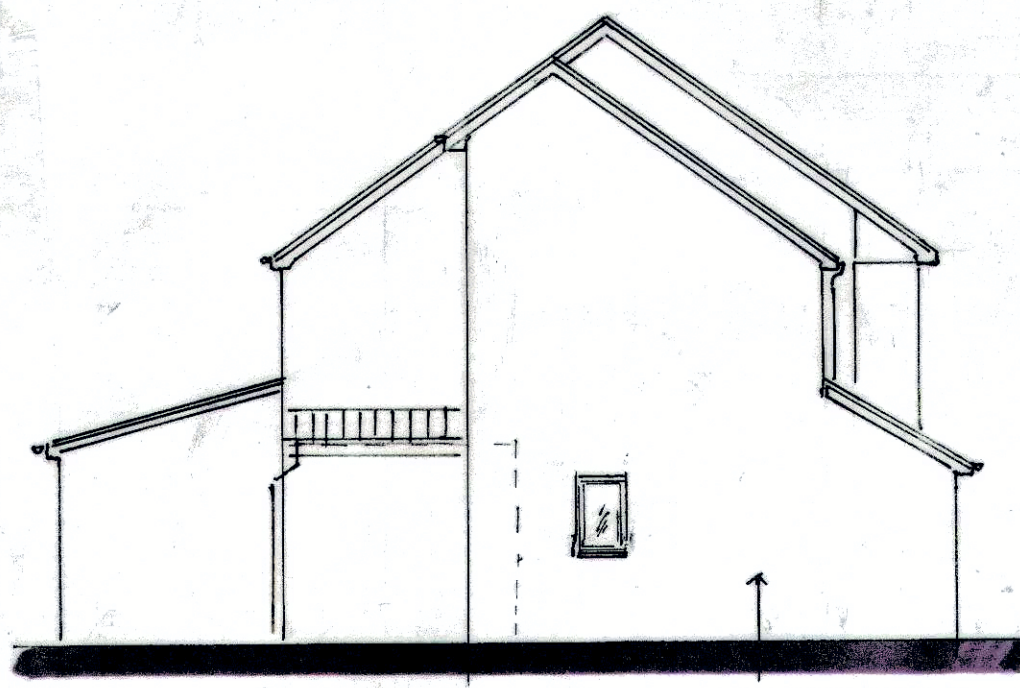


REAR ELEVATION 1:100

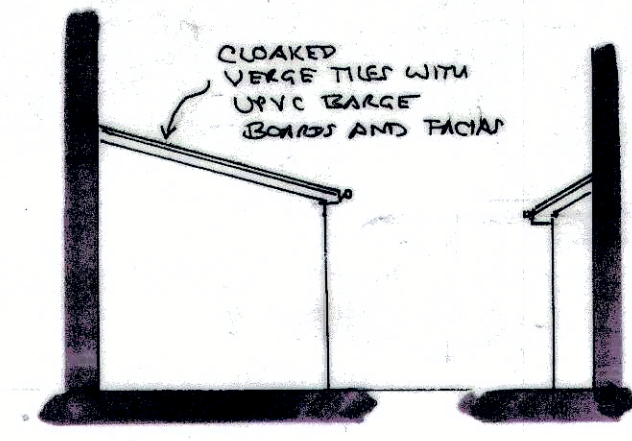
FRONT ELEVATION 1:100



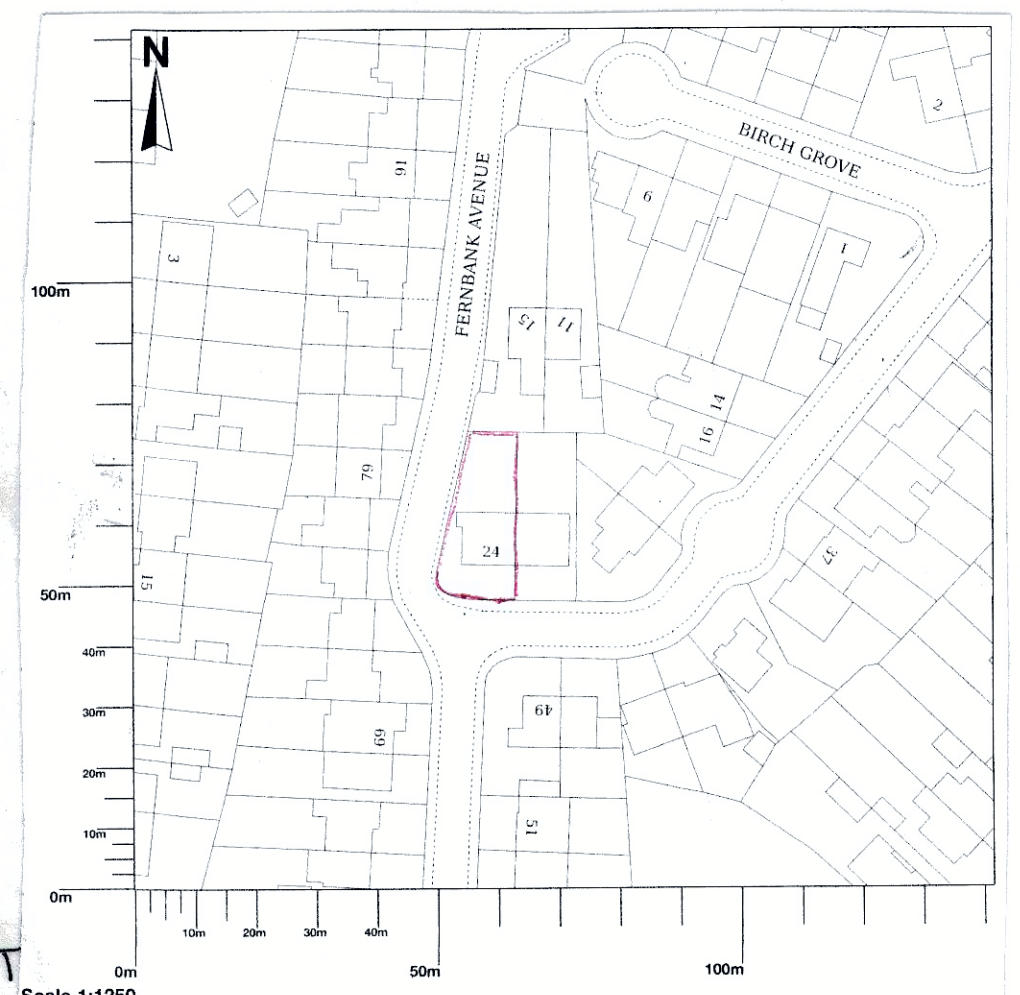
SIDE ELEVATION 1:100



SIDE VIEW AT REAR AT FRONT 1:100



LOCATION PLAN



MECHANICAL VENTILATION

ALL BATHROOMS AND SHOWER ROOMS TO BE FITTED WITH A MECHANICAL EXTRACT FAN CAPABLE OF AT LEAST 15 LITRES/SECOND EXTRACT RATE, KITCHENS TO HAVE EITHER A MECHANICAL EXTRACT FAN CAPABLE OF 60 LITRES/SECOND OR A COOKER HOOD CAPABLE OF 80L/s. MECHANICAL EXTRACT FANS SERVING WINDOWLESS BATHROOM/SHOWER ROOMS/W.C. CUBICLES TO PROVIDE AT LEAST 3 AIR CHANGES PER HOUR WITH A 15 MINUTE OVER RUN FACILITY.

DRAINAGE

ALL NEW DRAINS TO BE LAID USING 100MM DIAMETER HEPSELYE OR U.P.V.C. PIPES AT 1:40 MINIMUM SELF-CLEANING GRADIENT. DRAINS UNDER BUILDING AND WITHIN 1M OF FOUNDATIONS TO BE ENCASED IN CONCRETE SURROUND. DRAINS PASSING THROUGH FOUNDATIONS TO BE BRIDGED OVER WITH P.C.C. LINTOLS AND ROCKER PIPE USED EITHER SIDE OF WALL. 100MM DIAMETER S.V.P.'S TO RECEIVE UPPER FLOOR FITTINGS WITH WIRE BIRD CAGE TERMINAL AT LEAST 900MM ABOVE THE HIGHEST WINDOW VENT OPENING AND ABOVE ROOF LEVEL. ALL NEW SANITARY FITTINGS TO HAVE ANTI VAC TRAPS WITH WASTES CONNECTED SEPARATELY INTO SOIL STACKS. ALL WASTES TO BE MADE ACCESSIBLE.

GENERAL NOTES

ALL DIMENSIONS INCLUDING ROOF PITCHES TO BE CHECKED BY CONTRACTOR BEFORE WORK COMMENCES. ALL WORK TO COMPLY WITH CURRENT BUILDING REGULATIONS AND CARRIED OUT TO THE COMPLETE SATISFACTION OF THE DISTRICT B.C.O. ALL TIMBER TO BE TREATED WITH PRESERVATIVE. ALL NEW STEELWORK TO BE ENCASED IN 12M GYPSUM 'FIRELINE' BOARD FOR 30 MINUTES FIRE PROTECTION. ALL GALV. LINTOLS TO BE INSULATED AND ENCASED WITH 12MM PLASTERBOARD AND SKIMFOR 30 MINUTES FIRE PROTECTION. ALL ELECTRICAL WORK TO BE UNDERTAKEN BY NICEIC APPROVED CONTRACTOR WITH AN INSTALLATION CERTIFICATE TO BE PROVIDED ON COMPLETION. ALL NEW RADIATORS TO BE FITTED WITH THERMOSTATIC VALVES AND C.H. BOILERS TO BE REPLACED IF NECESSARY WITH CONDENSING TYPE BOILERS AND INSTALLED BY A CORGI REGISTERED CONTRACTOR. TOUGHENED OR LAMINATED SAFETY GLASS TO BE USED IN ALL CRITICAL LOCATIONS.*

CLIENT

MR. D. VAUGHAN

SCHEME

TWO STOREY EXTENSION AT SIDE AND SINGLE STOREY EXTENSION AT REAR WITH FRONT PORCH

ADDRESS

24 FERNBANK AVENUE
HUYTON
KNOWSLEY
L36 9UD

DRAWING TITLE

PROPOSED

NUMBER

DH 02

REVISION

A

DATE

JANUARY 2025

SCALES

1:50

REVISION

1:100

