

SURFACE WATER DRAINAGE.
115mm dia. half round rainwater gutters to 65mm dia. rainwater pipes: 101mm dia. underground pipes flexibly joined to a fall of 1:70 pipes bedded and surrounded in pea gravel and discharge to 1.2m dia. soak away min. 5.0m to edge from dwelling. All footpaths and drives to slope away from building.

GLAZING
Double glaze properly throughout with timber / p.v.c.u windows (minimum 16mm air gap to all units with Low E⁺ U⁺ Glazing) max U⁺ value 1.9 W/ sq.m. K excluding garage. All glazing between f.f.l. and 800mm high and between f.f.l. and 1500mm high in doors and side lights to be safety glass to B.S. 6206. All windows/ doors to be draught sealed.

VENTILATION.
All Windows to have opening lights to give the equivalent of 1/20th the floor area. Provide background ventilation to habitable rooms min. 8000cm³/sq permanent free air ventilation per room. To all other rooms provide min 4000 sq. All following rooms to have in addition to above Wall/Window mounted mechanical extractor fan. Kitchen to extract min. 60 litres per second. Utility rooms to extract min. 30 litres per second. Bathrooms to extract min. 15 litres per second which may be operated intermittently. W.C. to extract min. 6 litres per second with 15 minute overrun.

HOT WATER AND SPACE HEATING.
Extend and upgrade existing system as required. Ensure timer switch, suitable zone and boiler control interlocks, fit thermostatic control valves to all radiators. Hot water system to be thermostatically controlled with timer switch and to be vented.

LIGHTING.

- No Deskroom provide energy efficient light fittings capable only of taking lamps having a luminous efficacy greater than 40 lumens per circuit.
- External lighting to be fitted with Dawn-Dusk or movement sensors and capable only of taking lamps having a luminous efficacy greater than 40 lumens per circuit.

GENERAL
All electrical installations to be in accordance with the latest I.E.E. Regulations.
Provide hot & cold water supply to all wash basins.
All electrical switches, socket outlets, telephone and T.V. points to habitable rooms to be positioned at appropriate heights between 450mm & 1200mm from F.F.I.

FOUNDATIONS.
Under walls as shown provide 225 x 700 strip concrete CEM4 mix to B.S. 5328: pt1 1991. All foundations taken down to bear on load bearing strata min. depth of 600 to top of foundations: should shrinkable soil conditions be found on site then foundations shall be taken down to a minimum depth of 1 metre below ground level.

STAIRCASE AND BALUSTRADE.
Construct staircase as follows: 915 o/a stringers 150k, risers of 200mm x 25 x 2203 approx x 32 x 250; pitch 42deg. Min. head room 2.0m measured vertical above pitch line. All in accordance with B.S. 5395:1977. Staircase to have x 58 x 50 shaped hardwood handrail min. 900 above pitch line. 100 x 100 softwood newel post. Gap between vertical balusters not to exceed 99mm. Handrail and balustrade to be capable of resisting the appropriate load specified in B.S. 6399: Pt. 1. Balustrade to be min. 900mm high.

LINTELS.
All lintels to be manufactured by Messrs. L.G. Codes
L1/5 75 and L1/HD 75 all to be installed in
accordance with makers' instructions, and to have min.
end bearing of 150mm and at external positions to have
cavity tray D.P.C. to CP. 121; Internal lintels to be L.G.
100 Box type. Lintels in store / garage to be
underlined with 12.7 fire line board or rescue 12mm
render and skim. Provide perp and weep holes and slope
ends to cavity tray.

POOL DRAINAGE

Inspection chamber construction to be 1/8" Osmat[®] and installed in accordance with makers' instructions with the internal diameter related to the depth in accordance with P.S. 650.19(1935).¹ Pool drainage to be 1/8" Osmat[®] and installed in accordance with makers' instructions. Piping, jointed and laid out in accordance with makers' instructions to a fall of 1/70 both lead and surround with 100mm pipe or greater. Where pipes pass under floors encase in 150mm pipe. Where pipes pass under drives surround in 150mm concrete with flange joints to correspond with joints in pipe work. Provide 65 x 100 ps-stressed concrete inlet bridle where pipes pass through walls. Provide 100mm diameter pipe for all drains. All pipes and valves shall be well rounded steel material. Soil and vent pipes to be 100mm dia. P.V.C. to be P.S. 451.41/1935 and to extend 900mm above window level terminating with P.V.C. baffle. Waste pipes to be generally 400mm dia. If over 3.0m run no increase to 500mm dia. All P.V.C. to be P.S. 594.95/1979 complete with rootkill ends at all points of direction. Pairs, baffle and vent to be 100mm dia. traps. Sluice to be 100mm dia. and 150mm flitch with access plate to anti-siphon traps and 50mm waste. All rainwater drains to be gullibleb out or fitted with leavens concrete.

WARNING: 25% cavity walling to consist of face brickwork by B.S. 5622:1978 for base bricks and B.S. 1E:1978 for calcium silicate bricks; 65% cavity build into cavity. Driftm can wall built hollow construction in accordance with makers instructions and agreement c/s.

HAB/14 / 2688 & 06 / 1964 : 100mm Terracotta Hamel's solid insulation blocks or similar. Cavity walls tied together using aluminium rod twist ties set 750 horizontal and 450 vertical to BS S. 1249:1978 wall ties. All external corners to be reinforced with all unresinced doublers of cavity. Glass cavities are "Thermabuilt" preformed door and provide bitumen felt DPC to CP 121. All work to be carried out in accordance with BS Code of Practice 121

B/S 1977. External walls to have max. U' value of 0.35 W/m²K. Internal walls of 100mm Terracotta Hamel's solid insulation blocks. All to exceed 10cm minimum thickness. External walls to have min. 150mm x 150mm x 150mm. All walls to comply with BS 5622:1978. All cavity walls to be clad with 12mm plyboard and sand. 100mm deep fibre filled plasterboard used. Movement joints to be installed in building, in accordance with BS S. 5622 pgs 3, 19/65.

SUB STRUCTURE WALLING.
100mm dense concrete blocks to B.S. 6073 pt.1
1981. DPC to external wall positioned in accordance
with CP 102 min. 150 above finished ground level.
Weak mix concrete infill to base of cavity no closer than
225 to DPC. All brickwork below DPC to be F.L.
quality.

GROUND FLOOR CONSTRUCTION:
Strip all vegetable soil and lay floor as follows
100mm concrete over site: Concrete mix GEM4 to B5,
552B; ptd 1991; on 1200g polythene D.P.M. lapped
continuous with D.P.C. by min. 100mm 150 blinded and
consolidated hard core.

FIRST FLOOR CONSTRUCTION
19mm T&G. Barring grade chipboard on 47 x 199 SC3
joists topped standard 18x75 or 10" to indicate
moisture content of 20% or less all in accordance with
BS 5478, at 400c/c; 90 x 95 ashmined, steel
ancher and lateral restraint joists to joists at max. 1.5m
c/c straps to be run over them. 2No. joists with solid
piling beneath. Provide herring bone strutting min. 38 x
38 at mid span of joists where span exceeds 2.5m.
Provide 2No. joists bolted together under all first floor
walls where supported in block work above.
All joists at junction with external wall to be supported
in mild steel galvanised hangers. Supported off 47 x
200 wall plate. Ramblined to inner skin of blockwork
at 400mm centres with 110 x 125 bolts.
Alternatively screw each hanger to inner skin of
blockwork.

PITCHED ROOF CONSTRUCTION.

Interlocking concrete roof tiles to S.S. EN 690 / A90, or EN 843 softwood treated larch or oak under tiles to BS 7, 747 (type I) and in all cases to be lapped by 150mm both horizontally and vertically. Tiles to be laid with min. head lap of 75mm and to be fixed in accordance with required wind speed, pitch and exposure category as detailed in BS 6399, Pt 2.

2. Waterproof specialist membrane preformed roof trusses to comply with S.S. 226-2 parts 3 & 19(8).

3. Insulation to S.S. 226-2 PART 10 (U.A.M.N. 2B) to meet BRE 226-2 PART 10 SECTION 1.7.7.

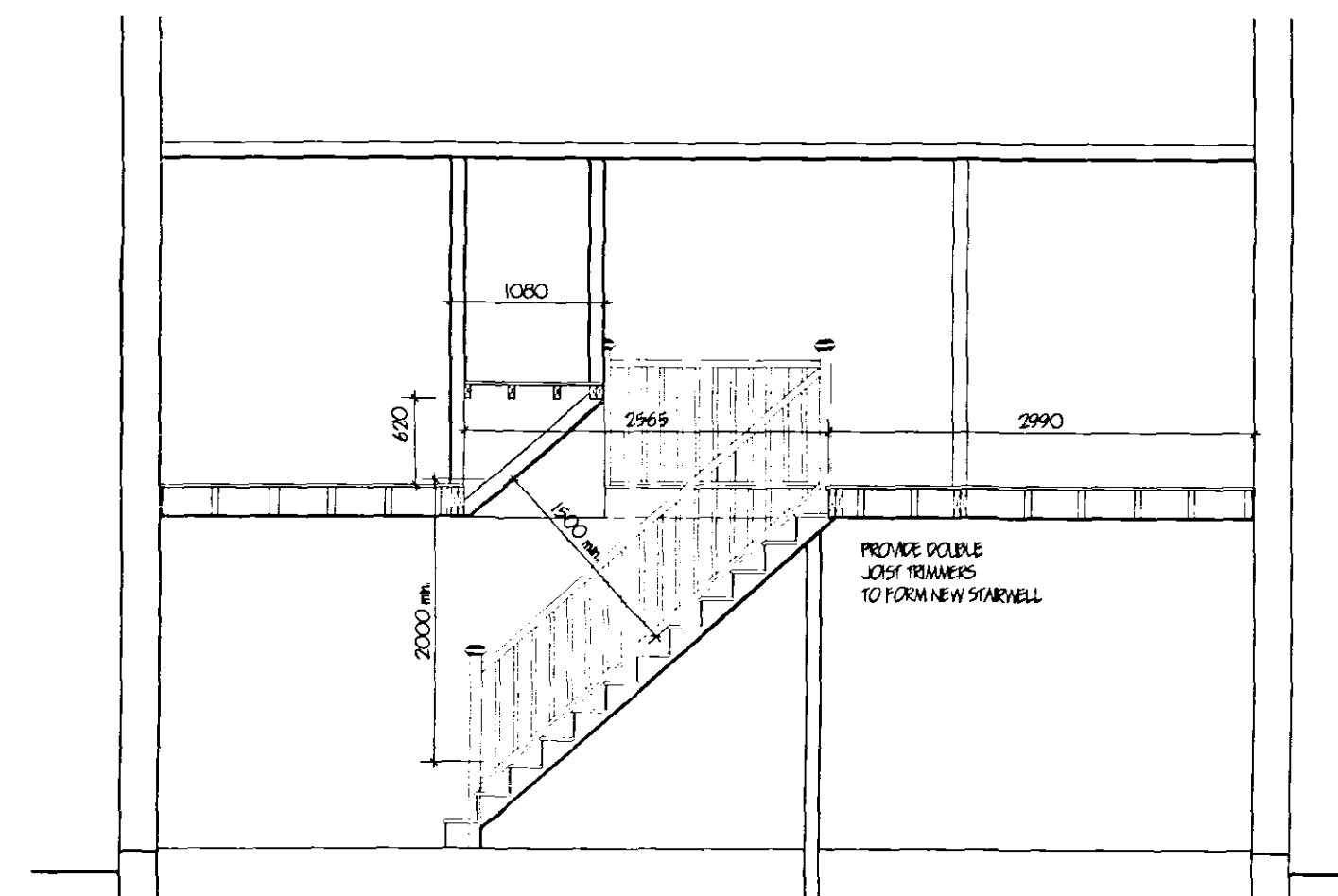
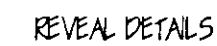
4. 600C/L - pitch to match existing, 380 x 100 ridge mode braker. 380 x 100 ceiling battens. All trusses to be strapped to wall plate by 2x1.5 galvanneal metal straps acting as anchor and lateral restraint straps at min. 15m c/c. Note: provide solid bracing beneath strap. 390 x 100 wall plate bedded in sand and grout. 390 x 100 rafters formed from steel, grade 4, punched slots complete with 10mm dia. air pipe and 10 pin proof seal. All structural bracing to min. SCS grade, stamped DPM x 10' to indicate moisture content of 20% or less in all accordance with BS. 4978. Where span of truss/rafter exceeds 5.0m provide additional bracing within the plane of the webs in accordance with Truss Plate Assoc. tech. notes.

5. 400 C/L - Timber supports are to be provided beneath walls and roofline.

6. At roof intersections provide 25 x 100 Lx boards and diminishing trusses at 600 C/L. Initial code 4 lead value liner.

FIRE ESCAPE WINDOWS.
All habitable rooms in the upper story of a dwelling should have a window with an unobstructed openable area of at least 0.35 sq.m., and at least 450mm wide x 750mm high (the route through the opening may be at an angle rather than straight through). The bottom of the openable area should not be more than 1100mm above floor level.

CEILING:
Flat ceiling lay 250mm glass fibre insulation total thickness. 100mm between joists & 150mm over Joists to provide min. "U" value of 0.16 W/ sq.m.K., Ensure 50mm air gap over all insulation. 12.7mm Gypoc plasterboard 3mm skim finish. Provide min. 38 x 38 noggins to all plasterboard edges. All joints to be taped & filled. Provide access trap to roof space: opening to be lined with 25 x 25 painted skops. Access panel to be 12mm ply with layer of 12.7mm Fireline board fixed to place. 100mm Joistite to top surface. Provide slide bolt fastening & draught seal all round



SECTION B - B



**DETERMINED
PLAN**

ref revision date

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Project
EXTENSION & ALTERATIONS,
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Client
MR. & MRS. M. WARREN.

Drawing

FLOOR PLANS & ELEVATIONS.
- PROPOSED.

Job Ref.	Drawing No.
727-03	02

Date	Drawn
AUG '03	GRM

Scores
1/50 1/100 [unless otherwise stated]

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