

Notes and Specifications :- Building regulations 2010 + amendments

- New extension :- (1) Foundations :- 1:2:4 mass concrete continuous strip to firm bearing stratum to L/A Building Inspector's satisfactions. Size 600 mm wide, 300 mm thick at minimum 1000 mm depth from finished ground level - Part A Structure A1/2 2E3
- (2) Floor - Ground floor :- Suspended solid floor - Part A, C and L, 25 mm asphalt on 125 mm (1:2:4) concrete on 125 mm polystyrene insulation slabs on 2000 gauge DPM on 25 mm coarse sand blinding on 150 mm clean compacted hardcore in layers to achieve 'U' value of $0.22 \text{ W/m}^2 \text{ K}$.
- (3) Walls :- Part A-C outer leaf 102 mm facing bricks, 75 mm cavity filled with dry therm insulation, inner leaf 100 mm turbo insulation blocks, 13 mm 2 coats of cement sand plaster and 3 mm skim finish to inside face to give 'U' value of $0.26 \text{ W/m}^2 \text{ K}$, Tie both leaves with 250 x 3.25 mm ϕ galvanised mild steel ties 5 No./m² min. Brickwork below DPC to be in class-B Engineering bricks in 1:3 cement sand mortar, 1:6 weak concrete mix below G.L., DPM continuous with DPC.
- (4) Roof Construction :- Pitched roof :- Modern Marley tiles on 50 x 25 mm s/w battens on rafters to design and Part-A of the Building Regulations, Breathing modern membrane under battens to BS 747, ridge tiles laid in 1:3 cement sand, 300 mm thick thermal insulation slabs between ceiling joists - in loft to give 'U' value of $0.16 \text{ W/m}^2 \text{ K}$
Wall plate :- 100 x 75 mm s/w laid in 1:3 cement sand and fixed to inside leaf. Rafters nailed to or fixed to wall plate with catnic brackets.
- (5) Close cavity at top of wall with PVC cavity closer (insulated).
- (6) Against negative wind pressure, fix 30 x 5 mm x 1200 mm long galvanised mild steel straps (twisted) to wall and rafters at 800 mm c/c.
- (7) Ceilings to all floors to be 2 No. 12.5 mm fire line p/b and 3 mm skim finish to give 1 hr fire resistance.
- (8) Eaves :- 112 mm half round PVC gutter fixed to 200 x 22 mm s/w fascia fixed to end of rafters.
- (9) Rainwater gutters to be 112 mm ϕ half round PVC, with 63 mm ϕ PVC down pipes fixed at 1828 mm c/c maximum or horizontally at 914 mm c/c, down pipes to have access plate for inspection at base - Part H-3
- (10) Part H-1 :- Soil and vent pipe and waste pipe to be 101.6 mm ϕ PVC fixed at 1828 mm c/c max. or horizontally at 914 mm c/c; one stack plumbing system to be 101.6 mm ϕ , no waste connection to be made opposite or within easy bend at bottom or within 200 mm below W.C. pan connection, PVC wire balloon to be fixed at top 914 mm min. above surrounding window heads, 40 mm PVC waste to bath, 32 mm ϕ PVC waste to kitchen, 32 mm PVC waste to basin having 75 mm min. deep seal traps all to CP-304 1968.
- (11) New Inspection chamber :- Drain channels on 150 mm concrete 1:2:4 mix benched over with concrete - (1:2:4 base slab), 600 x 450 mm medium duty cast iron cover and frame to BS 497, 1:6 fall, brickwork to be class-B Eng. in 1:3 cement sand, 215 mm thick stretcher bond.
- (12) Drains to be 101.6 mm ϕ and 152 mm ϕ 1st quality flexible salt glazed stoneware pipes, laid true to line and level to min falls of 1:40 for 101.6 mm ϕ and 1:80 for 152.4 mm on granular bed where pipes have less than 600 mm of cover or pass under building, they are to be surrounded with 200 mm 1:2:4 concrete all to CP 304.
- (13) Windows to have area of ventilation $\geq 1/20^{\text{th}}$ of the floor area of the room, some part of the ventilator is at least 1.75 m above the floor level. Window height x width $\geq 1/10$ area of the room containing window. Provide horizontal and vertical DPC to all external windows.
- (14) Provide back ground ventilator (controllable) by a trickle vent in opener at least 8000 mm².
- (15) All windows to be PVC double glazing with K-glass inside.
- (16) Part N-1 - glazing to doors should be toughened suitable for low level glazing. (below 840 mm high from floor level).
- (17) Ventilations :- Part-F Bathroom :- to have Mechanical ventilation to discharge min. 15 lit/sec. fan with 15 min. over run timer, kitchen - to have Mechanical Ventilation to discharge min. 60 l/s. fan to have 15 min. over run timer.
- (18) Cavity trays in above beams and lintols in cavity walls should be provided.
- (19) Fire resistance :- Structural steelwork :- 2 No. 12.5 mm fire line p/b with 1.6 mm ϕ wire binding at 100 mm pitched with 3 mm skim finish to give 1 hr fire resistance.
- (20) New walls to be bonded to existing and cavity made continuous.
- (21) Part-P Electrical works :- All new electrical works to Building Inspector's satisfactions and completion certificate to be provided by qualified electrician to BS 767 (2004) 16th edition. New sockets to be fixed at 450 mm above floor level, new switches to be fixed at 1200 mm above floor level. Sockets outlets having 32 A or less using portable equipments for outdoors shall be protected by an RCD all to BS 767.

Roof and dormer: - Marley modern tiles on 50x25 mm s/w battens on breathable felt on (150x50 mm s/w rafters @ 200 mm. c/c to pitched roof) and (75x75 mm s/w studs @ 400 mm. c/c fixed on to 2 No. 200x50 mm. s/w bolted together to cheek and front of dormer), fixed on to 300x100 mm. laminated timber beams as appropriate, 100 mm. GA 4000 insulation between rafters and 35 mm. under rafters, underside to be finished with 12.5 mm. fire line p/b and skim to give 0.18 W/m²K 'u' value.

Flat roof: - 3 layers of built up felt bonded in hot bitumen, fall 1:60, top surfaced with mineral chippings on 20 mm. ply wood (WBP) fixed on to 175x50 mm. s/w joists at 400 mm. c/c fixed to ridge beam and header plate using catnic joist steel hangers.

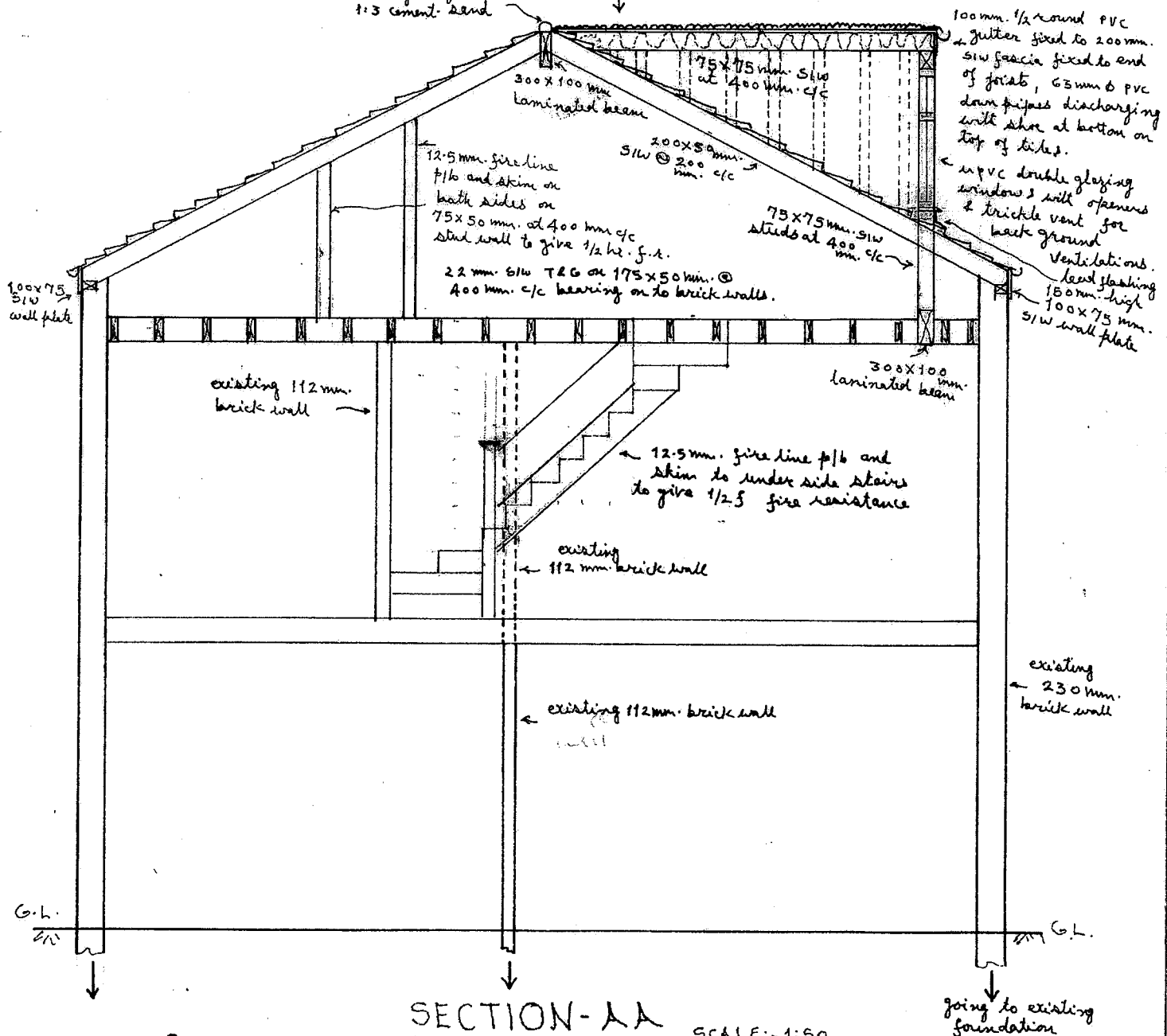
300x100 mm. laminated timber beam manufactured by Howard timber Engineering

Dormer ceiling: - 12.5 mm. fire line p/b and skim to give 1/2 hr. f.r., dormer walls to have same 1/2 hr. f.r.

extra thermal 116 mm. insulation, FR-TP to give 'u' value 0.18 W/m²K

fascia to have continuous 25 mm. ventilation gap

clay ridge tiles laid in 1:3 cement sand



SECTION-AA

SCALE:- 1:50

20 CARDINAL STREET, CHEETHAM HILL, M-8 OPS