

**DETAILED SPECIFICATIONS FOR A GROUND FLOOR REAR EXTENSION,
LOFT CONVERSION AND PORCH AT 40 HELMSDALE CLOSE, HAYES,
MIDDLESEX UB4 9QS.
JOB NUMBER 1156.**

General Notes.

1. This drawing is to be read in conjunction with the specification, Architect's drawings and all other relevant drawings and details.
2. The Contractor is to be responsible for all correct setting out of the works and where the dimensions are not clear, incorrect or misleading, then he should ask as part of the Request For Information (RFI) system for clarification from the project supervisor - contracts administrator.
3. The Contractor is to be responsible for all Temporary Works and where there are General Safety requirements to ensure conformity with the Construction, Design and Management (CDM) amendment regulation (2007) and subsequent amendments.
4. Concrete works to be to the following schedule:-
 - A. All reinforced concrete below ground, where required, to be Calite Waterproof Concrete using C35 / 20 mm aggregate at 28 days, supervised batching and concrete site placement by Cementaid - Everdure, 2 Rutherford Way, Crawley, West Sussex RH 10 LN tel: 0845 658 2000.
 - B. Otherwise, below ground concrete to be C 25 / 20 mm aggregate with nominal reinforcement as shown on drawings.
 - C. All reinforced concrete above ground to be C 35 / 20 mm aggregate.
 - D. Cover to all earth faces to be 50 mm minimum and 25 mm elsewhere as a minimum.
5. All workmanship and materials to be in accordance with BS 8000 and relevant Codes of Practice.
6. New brickwork and block work to be in accordance CP121 - external walls to be as per planning permission requirements. Samples to be prepared and submitted to local authority for their approval. Walling to be as shown on the drawings. Minimum strength of brickwork and blockwork to be as follows:-
Brickwork - 20 N / mm².
Blockwork - 7 N / mm².
Mortar to be category (iii) to BS 5628 but below ground to category (ii).
Render to cover block or brick work to be 1 : 1 : 3 to match existing.
7. All new timber to be treated against rot, infestation and damp to BS 5707. Grade of timber to be minimum of C16 whilst C24 is, generally, the structural timber requirement that shall be employed on site. C24 is the structural basis for the calculations prepared for this project and has been confirmed in the calculations. Bolt timbers where doubled or trebled with M12 grade 8.8 coach bolts at 600 centres. All timber steel fixings i.e. hangers, straps, brackets, nails and screw etc. are to be galvanised. Provide noggins at third points on all spans.
8. All new windows to be double glazed 4 - 16 - 4 mm sealed units within uPVC frames in surrounds. The frames shall be suitably prepared and erected to prevent moisture collection and shall form a rain shield. Where glazing to be provided for bottom 1 metre of doors, this is to be doubled glazed, toughened, glass to Building Regulations Approved Document N1.
9. All new lead flashing required to prevent water penetration at butt joints, discontinuities and change of material. Use code 4 lead in these locations in accordance with the Lead Association requirements. Use code 3 and code 5 sheeting where needed as soakers, sarking and the like.
10. Form the central staircase as a fire escape route with all doors, glazed partitions leading onto it and M & E penetrations suitably protected against smoke spread and fire penetration into it. Provide at top of stairs case a fire alarm operated by mains and stand by battery, electrically powered exhaust fan to remove smoke build up in case of fire. Provide 0.5 hour fire check doors (FD 30) in sealed surround to frames; self closing by Perko door closers or similar approved.
11. Use double studs and double rafters around any chimney voids roof lights or vertical penetrations in floors.
12. All doors internally, whether fire doors or plain doors between rooms off fire escape, to be 1981 mm x 762 mm x 44 mm overall size.

FLOOR CONSTRUCTION.

13. Basement slab to be a 200 mm, reinforced concrete ground bearing slab, laid to level with an insulation layer and an overscreed to form a suitable finish. The ground floor slab will be, generally, a 150 mm deep, laid level, reinforced concrete, insitu solid or beam and block floor spanning between beams. The upper floors and roof will be C 24 timber joists spanning between steel beams supported on load bearing block walls.

14. All concrete, timber and steelwork to the National Building Specification, or, as varied in this document.
15. All trims and double joists to be bolted together using M 12 bolts and gang nails at 600 mm centres minimum.
16. Floor finish to be tongue and groove 150 mm wide x 12 mm timber flooring or 12 mm t and g chipboard to client's requirements.
17. Use one bend L straps from 30 x 5 mm x 600 mm or 700 mm long and 150 mm return to fix joists to steels or concrete lintels, beams, padstones or internal block walls.
18. Use suitable timber packers / noggins from off cuts nailed through sides only to hold into position. Use a minimum of two rows between beams spaced at no less than 5 metres apart.
19. Use timber cut to suit to fix to steels to pack up or lower levels. use Hilti driven nails to fix to flanges and webs of steels.
20. Provide Rockwool, Kingspan or Celotex in 100 mm segments to insulate between floors and provide noise reduction as per Building Regulation Requirements, introduced in July 2003, as approved document E.

BRICK AND BLOCK WALLS.

21. External skin of external walling to be of red, wire cut, rustic standard bricks at 27.5 N / mm² in 1 : 1 : 6 cement:lime: soft red sand mortar mix with plasticiser and retarder etc. to suit. Interspersed in bands two layers of soft London Stocks to provide contrast and balance and to suit existing, or as indicated on the Architects drawings. External wall block work to be 100 mm wide x 7 N / mm², thermolite / celcon blocks in similar mortar mix throughout.
22. Insulation in external walling to be full width (i.e. 100 mm) Rockwool, Kingspan or Celotex; fixed using proprietary fixing as per Manufacturer's requirements.
23. Internal block walls to be to thickness as shown on the plans using solid thermal blocks 440 mm x X mm x 215 mm high etc in 1 : 1 : 6 mortar mix.

SEPARATION WALLS

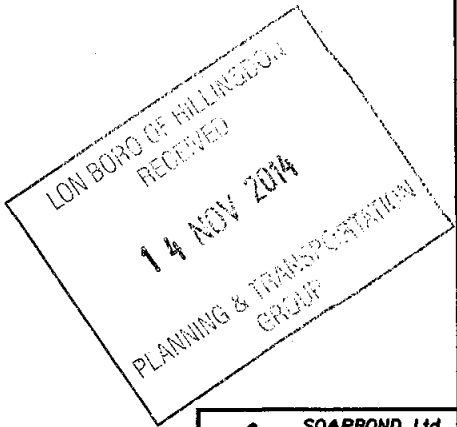
24. Forms such walls in 140 mm thick / 200 mm thick load bearing blockwork or 100 x 50 mm timber studwork with sole and header plates, verticals at 600 mm centres and rows of noggins, to suit, at 1.2 m rises. Infill with 100 mm Rockwool, Kingspan or Celotex to suit.
25. Line with 12.5 mm foil backed plasterboard and skim finish both sides. Where studwork encloses bathrooms and wet rooms, use 12.5 mm moisture resistant plasterboard on inside and, externally to this area, use normal 12.5 mm plasterboard. Where walling is required to be a fire stop such as cheeks to mansard, underside of existing or new stairs to house etc., provide one layer firecheck plasterboard and one layer standard plasterboard.

DRAINAGE

26. New drains to be 100 mm underground PVC flexibly jointed and falling a minimum 1 in 40, generally, and surrounded in 150 mm pea shingle. Where the drain with rigid joints passes under the building, it is to be encased in 150 mm concrete. Where a flexible plastic drain passes under the building, it is to be encased in 150 mm pea shingle surround. New manholes to be constructed in 215 class B engineering brick, un-rendered on 150 mm concrete base using. 1 : 3 sand : cement mortar. Any internal manholes to be fitted with double seal recessed / screw down covers. Drains, penetrating walls, are to be bridged with a concrete lintel. All drainage to be in accordance with BS 5572.
27. Surface Water Drainage : 100 mm half round gutter to 63 mm downpipe to 100 mm flexibility jointed drain, falling at 1 in 60 and surrounded in 150 mm pea shingle to existing surface water drainage if available and practicable to connect to. If this is not possible, then pass water to hollow soakaway constructed in honeycomb brickwork. Soakaway to be a minimum of 5.0 metres away from any edge of building and to have a volume capacity of 1.0 m³. Soakaway to be BRE Digest 151.
28. Plumbing to Sinks and Baths to have wastes 40 mm dia. whilst Bidet and Wash Hand Basins to be 32 mm dia. All fittings to have 75 mm deep sealed traps and discharge either to a back inlet gully or 100 mm dia. SVP. WC's to have a 100 mm dia. waste and either discharge to a SVP or via an easy bend direct to the manhole. Where new SVP are required, they are to be 100 mm uPVC constructed to BRE Digest 80 - second series. Top of SVP to terminate 900 mm above any window and to be capped with a plastic cage. The base of the SVP to connect via an easy bend to the manhole. Rodding Eyes to be provided at changes of direction. All plumbing to be in accordance with BS 5572.

ADDITIONAL ARCHITECTURAL REQUIREMENTS

29. Proprietary dpc. to F30 / 330 - NBS, on brickwork on each course at least 150mm above proposed finished ground / soil level to outside.
30. Notwithstanding item 10 requirements, fire & smoke detectors to be provided as one on each floor with a fire sounders alarm built in to detector. All such detector / sounder to be operated by mains electricity with standby battery back up.
31. Following discussion with Building Control, provide at top of walling "wall tie restraints" such as Bat straps 850 x 150 x 30 x 5 mm angle M305 steel and fixed using No 12 x 50 mm screws or 8 SWG x 75 mm long nails. Use noggins between joists at right angles etc. Bat or similar approved if item 17 does not satisfy local requirements.
32. Roof ventilation to be a minimum 35mm over the top of insulation but under breathing felt laid on top of roof / mansard joists. At ridge, provide proprietary ventilators at 2.0 m centres. At eaves, provide proprietary ventilators built into soffit fascia board to suit.
33. Dormer cheeks to be protected with 2 layers firecheck plasterboard to achieve 1 hour fire protection to cheeks within 1 metre of boundary.
34. Cavities to all extensions to be closed using "therma bate" or similar approved cavity closure to satisfy Building Regulations requirements - Regulation 4 - L1.
35. Materials for roof, cheeks guttering, down pipes, brickwork and windows / doors to match existing as close as possible.



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