

Existing Foundations

The building has been designed so as not to place any additional stress on the existing envelope that has walls built between 360mm and 610mm wide upon a presumed stone foundation. I am hoping that works will be allowed without the need to underpin any of the external walls.

New Concrete Floor

The floor is to be built to the structural engineer's specification.

Substructure

Existing walls (East West & South facing) vary in sizes between 360mm and 420mm. The North facing wall is 610mm wide.

Ground Floor

Existing floor to be removed and dug to a depth to allow the following build up:

65mm Sand/cement screed.

150mm rigid insulation.

Concrete slab to Str. Eng. Spec.

Type 1 with blinding to Str. Eng. Spec.

Drainage

Foul drainage to be piped to pumping station and then to sewage treatment plant which may need to be upgraded.

Surface water to be piped to existing culvert.

Allow for all inspection chambers and rodding access as required.

All to comply with Local Authority requirements and BS EN 12056-2:2000 (sanitary pipework) and BS EN 12056-3:2000 rainwater disposal: BS EN 752-3:1997 (amendment 2): BS EN 752-4: 1998; BS EN 1610: 1998 (external drainage). BS EN 12566 for septic tanks and small sewage treatment plants BS 6297:2007 for drainage fields.

External Wall Construction Existing

Stone rubble has been used to construct the original building with varying wall thicknesses between 360mm and 610mm. There is no cavity and as such a new insulated timber frame will be required maintaining a minimum cavity of 25mm throughout. (See perimeter stud below).

All external stonework to be repointed externally and internally.

Cavity Closers

Cavity closers are required vertically at

1. All corners or change in direction at a minimum of 8000mm centres
2. Both sides of expansion joints
3. Ceiling and eaves levels horizontally
4. Verges
5. All openings around the perimeter (windows, doors, extract fans, ducts, flues, etc.

All cavity closers to be fixed through sheathing ply into studs and covered by DPC. Cavity closers over the windows and door must have DPC taken up under building paper, which is to be folded over DPC & stapled. Note: Cavity closers will not be required below windows where concrete sill closes the cavity.

Windows & Doors

Existing front door to remain as is, however the door is to be adjusted to ensure it fully closes to its frame which is to be renewed at the base.

No SAP assessment required since new glazing area is nominal.

Main Roof

Broken tiles to be replaced where necessary. New Velux windows to be installed to manufacturers installations.

Marley Deep flow gutters and downpipes.

Internal Perimeter Stud Wall

25mm cavity, 95mm c16 timber stud, 100mm rigid insulation, 12.5mm foil back plasterboard.

Internal Stud Walls

125mm build up. 47x95 C16 timber stud partition with one layer of 12.5mm plasterboard (moisture resistant to bathrooms, toilet, and kitchen area) with plaster finish.

75mm x 570mm acoustic roll insulation in all internal walls.

An additional board is required to wall and ceiling at underside of staircase to provide 1 hour protection.

Airtightness

Infiltration of air is to be minimised by

- Foil back plasterboards boards to be used on all external walls and roof linings
- Sealing all service penetrations through all surfaces
- Packing the 12mm gap allowed to all sides of windows and doors with strips of insulation and sealing with mastic pointing to outside and sealing with butyl tape to inside
- Sealing all dry lining junctions between walls, ceilings, and floors and at window and door openings
- Providing a continuous mastic seal to both connecting faces to all skirtings

Fire Detection

Permanently wired smoke alarms as shown on drawings, to comply with BS 5446: Part1:1990 and BS 5839; Part 6; 2004. Smoke alarms to be interconnected to a single final circuit.

Heating & Hot Water.

Bedroom radiators - 1700w in each bedroom

Hallway radiator – 600w for drying coats

Bathroom – 600w towel rail

Living room 1900w electric fireplace. Underfloor heating electric mat in bathroom only.

HWC Heatrae Sadia Megaflow ECO 95050468 210dd 210 litres.

Estimated heating and hot water electricity monthly costs = £60-£120

Log burning stove in living room.

Electrical Installation

For positions of lighting, switches etc. refer to service layouts or clients' instructions. All light fittings are to be of a low energy specification.

All ground floor recessed light fittings to be fitted with fire collars and to be capable of achieving 30 mins fire resistance. Where downlighters are installed at a density greater than 1 per 2m², they are to be fitted with collars capable of limiting the transmission of sound and capable of providing 30mins fire resistance.

All electrical outlets and controls to be located at a minimum of 350mm from internal corners and obstructions and at a minimum of 400mm above the floor level and minimum of 150mm above worktops. Light switches and heating controls to be positioned between 900mm and 1100mm from floor level and 150mm maximum above worktop level where appropriate. Fused spur outlets to be installed in an accessible position where outlets are concealed.

All to be in accordance with the current edition of Regulations for Electrical Installations published by the Institute of Electrical Engineers and with BS 816, 1363, 3861, BS 7671; 2008 and with IEC 435.

General Plumbing

All to comply with BS 6700 (services supplying water), BS 5572 (sanitary pipework) and BS 6465 Part 1 (sanitary appliances). All hot and cold-water pipes to be insulated and comply with BS 5422:1997

Ventilation

Trickle vents to be provided with a capacity not less than:

1. Living room 12000mm²

Extract fans where provided as shown on the floor plans, to be capable of extracting:

Kitchen 60 litres per second

Bathroom 15 litres per second

Extract fans are to be either switched manually or automatic via a humidistat controller.

External Works

Path and car park to be constructed out of gravel sitting on a structural engineer's specifications.

100mm of type 1 for paths which must have a minimum width of 900 for firefighting requirements.

A block paved area to be formed for the storage of two wheelie bins.

Generally, a 150mm wide strip of 20-40mm diameter river washed pebbles is to be formed around the building with a perforated land drain within allowing water to be removed from the building perimeter.