

## GENERAL SPECIFICATION FOR PRICING PURPOSES ONLY

### STRUCTURE

Structural Engineer services required to cover all structural works including new wall slappings and Extension works.

### DEMOLITION

Take down earlier built Porch extension.  
All redundant services and drainage to be removed and capped off.

### EXTENSION

Foundations.  
700 x 200mm thick ready mixed concrete in grade C20.0. Concrete strip Foundation to be excavated to 650mm below proposed ground level or onto good foundation bearing ground, whichever is lower. All soft spots to be fully excavated and filled with weak mix concrete. Foundations to be interlinked to existing founds, see Engineers detail.  
Sleeper wall foundation sized 500 x 200mm as per above specification.

### Substructure.

300mm wide cavity wall comprising 100mm thick dense concrete blockwork, with exposed sections 100mm artificial sandstone to match existing to DPC level, 60mm cavity and 140mm dense concrete blockwork inner leaf (2000kg/cubm) strength 7N/sqmm in mortar designation (ii) i.e. 2.5 to 3.5:1 (sand/cement mortar) with stainless steel butterfly wall ties at 900mm centres horizontally and 450mm vertically. Cavity to be filled to proposed ground level with weak mix concrete.  
Sleeper wall formed below the extension at mid span constructed from 100mm dense concrete blockwork.  
Existing underfloor vents affected by extension to have grilles removed.  
225 x 150mm sub floor vents ducted through cavity wall liners at 2400mm centres.  
D.P.C. to be installed not less than 150mm above finished ground level with bellcast bead fitted to bottom of render to prevent DPC being bridged.

### Underground Drainage.

Area below new extension to be fully excavated and any existing drains passing below new extension to be encased in pea gravel & walls to be lintolled over. Allow for gap of min 50mm from pipe to underside of lintols.

### Solum.

1:10 sand/cement mix concrete 50mm thick on minimum 1200 gauge (0.25mm) polythene sheet damp proof membrane, on blinded and consolidated hardcore minimum 100mm thick, finished level with external ground. Solum height from concrete to underside of floor joists to be minimum 150mm.

### Floor Construction.

Floor to be 22mm tongued and grooved moisture resistant chipboard on 195 x 47mm treated joists at 600mm centres, supported from mild steel hangers built from underbuilding. 100mm thick Kooltherm K103 insulation supported between joists. Floor joists to have 195 x 47mm mid span dwangs.

### External Wall Construction.

External walls to be constructed using external finish 20mm thick dry dash render on 100mm thick dense concrete blockwork, with 60mm cavity.  
Inner leaf of 145 x 45mm C16 timber studs at 600mm maximum centres. Studs to be securely nailed to suitable timber wallplate secured to underbuilding. Nogging pieces to be provided at approximately mid height.  
Suitable 30mm wide x 5mm thick L-shaped galvanised mild steel lateral restraint straps at 1.8m maximum centres to be securely nailed to underbuilding walls.  
Timber studs butting against masonry walling to be bolted using M12 bolts at 600mm centres vertically. Blockwork tied using proprietary wall starters or equal and vertical DPC to be fitted. Internal finish to be 32.5mm thick Kooltherm K18 board with plaster skim finish including door reveals and lintol to avoid cold bridging.  
Timber frame to be insulated using 100mm thick Kooltherm K112 insulation fitted between timber studs.  
External grade 9mm OSB sheathing to timber frame to be securely nailed to each stud and top/bottom rail using minimum of 3mm diameter x 65mm long flat head ring-shank nails at 150mm maximum centres. Low emissivity Kinspan Nilvent breather membrane or equal and approved to be fixed over sheathing.  
Cavity to be ventilated to top & bottom of wall using perpend/weep cavity ventilators to BS 8104: 1992.  
Inner and outer leaves to be tied together using stainless steel wall ties to BS1243 at 900mm centres horizontally and 450mm centres vertically, and at every course at openings. 50 x 50mm treated timber cavity barriers with DPC stapled to face and fitted around all door openings (including boiler flue) and wallhead.  
Vertical cavity barriers to be at max 10m centres.  
Timber lintols to be 2No 44 x 140mm C24 timbers with 45 x 145mm C16 cripple studs.  
Outer lintol to be suitable steel catnic lintol with minimum 150mm bearing each end.

Structural opening between to existing Kitchen and Extension and to new Bedroom to be formed with Structural details by Engineer.

### ROOF

Flat Roof 3 degree roof pitch with warm roof construction GRP Polyroof system, made up from 185C flexi-resin top coat, on polybase and polymat 450. Polyroof system designed as BROOF(t4) to BS EN 13501-5: 2016. 18mm plywood deck and insulated beneath with 150mm thick Kingspan Thermaroof TR26 insulation board laid on 1000 gauge vapour control layer secured to 18mm plywood deck secured to joiner made roof. Roof timbers to be constructed from 225 x 47mm C16 timber rafters with timber declivity peices secured to each rafter. Timbers to be secured to masonry wall using 225 x 47mm timer runner bolted to wall with M16 bolts at 600mm centres.  
Ceiling finish to be 12.5mm thick duplex plasterboard with skim coat plaster finish.  
Lead flashing and cavity tray system to be provided between new roof and stone walling with 150mm cover and wraggled into wall.  
Edge of GRP roof to have pre-formed Polyroof upstand trim.

Rainwater goods to be UPVC deepflow gutters and downpipes to match existing.

Roofs to have suitable 30mm wide x 5mm thick L-shaped galvanised mild steel lateral restraint straps at 1.8m maximum centres to be securely nailed to roof timbers and timber frame walls.

### Windows and Doors.

Upvc white to match existing styles with max U-value of 1.4.

### Roof Lantern.

Upvc white size and type to be decided by client with max U-value of 1.4.

### Internal partitions.

Timber Framed partitions from 75 x 45mm studs at 400mm centres, with 12.5mm plasterboard with plaster skim finish each side. Partitions to be built off dwangs at 600mm centres, installed between floor joists. Sound insulation to be fitted between framing.

### Internal doors.

Timber panelled doors to clients requirements.  
New internal doors minimum door clearance of 800mm provided.

### Kitchen.

Client to specify new kitchen fittings as required. Fitted kitchen to provide minimum 1.0 m3 storage.

### Below Ground Drainage.

All drainage to connect to existing drainage in place (To be investigated)  
Allow for new Manholes/ppic.  
Surface water to connect to rear garden soakaway if deemed as sufficient space.

### Internal Plumbing.

40mm diameter polypropylene waste pipes from Utility Room and Kitchen sink, connected into underground drainage.

### Timber Decking.

To be designed by Structural engineer with protective barrier at 1100mm high and vertical balusters at 100mm centres.  
Timber steps to be 250mm going and 200mm rise.

### Electrics.

All electrical work to be carried out in accordance with current IEE Regulations, BS 7671: 2008, and the Building Standards (Scotland) Regulations.

### Heating.

New Radiators to be fitted to clients requirements and to extended from relocated Boiler Central Heating System, Heating system to be checked for its adequacy by competent Heating Engineer.

### Mechanical ventilation.

Mechanical ventillation extract fan to Utility Room to provide not less than 30 litres per second. Mechanical ventillation extract fan to Kitchen to provide not less than 60 litres per second. Outlets to be ducted up to external wall terminal or soffit and where discharged vertically must be fitted with a condensation trap to ensure safe operation of fans.

Mr & Mrs C Hope

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Proposed Alterations & Extension  
Specification

Scale: N/A

Date: May 2021

Drawing No: CH/05