



Notes :

**Floors:**  
Ground

Floor A: Upgraded thermal element: 48m2  
Remove existing floorboards, Set 75mm insulation board between existing floor joists - set 25mm below top of joists.  
Fix underfloor heating pipes to insulation. Infill to joist top with drymix cement.  
Floated engineered t & g timber boards set above.  
U- vauue .25W/m2K

Floor Area B: 11m2  
Remove existing screed and slab.  
Replace with 125mm concrete slab, dpm,100mm Kingspan Kooltherm K103, 65mm screed incorporating u/f heating pipes.  
Floated engineered t & g set above.  
U-Value .15W/m2K

**Walls:**

All existing cavity brick external walls at ground and first floor to be internally insulated.  
Set 37.5mm insulated plasterboard Celotex PL4040 or equivalent on dabs against existing external walls ( cavities insulated).  
U- vauue .25W/m2K

**Extension:**  
Plaster skim on plasterboard, 50mm service zone, 20mm Kooltherm insulation taped and sealed as vcl.140 timber frame infilled with 140mm Celotex XR4000, 12mm ply sheathing board, breatheable membrane, 50mm ventilated batten cavity ( 25mm vertical and horizontal battens , 19mm timber cladding.  
U- Value .16W/m2K

**Windows and Doors:**

New aluminium windows and doors set into existing and new openings.  
Thermally seperated framed construction  
All glazing below 800mm from finished floor level to be toughened. All glazing 6 mm clear toughened outer pane, 12 mm warm spacer and 6 mm Softcoat low E toughened inner pane. Argon filled.  
Allow trickle ventilation in frames where no forced extraction provided  
Windows to comply with minimum rating of .14W/m2K

**Roofs:**

Exisiting loft space to be cross layed with rockwool roll to minimum thickness of 270mm.

**Extension Roof:**

Warm roof construction  
Galvanised sheet roofing on diffusion layer, 12mm plywood, 140mm Celotex XR4000, VCL as BS6229:2018, 12mm plywood fixed to exposed timber rafters to engineer specification. - U-Value .15W/m2K

**Plumbing:** All plumbing to BS5572 Trapped wastes: 40mm to shower, 32mm to basin, 100mm to WC. Common wastes: 50mm. All wastes to be 75mm deep,waste pipes fitted with rodding eyes at tight bends. Wastes in excess of 1.7m to be fitted with anti vac traps. Svp vented min 900 above highest opening window .

Rainwater to soakaway min 5m from building - to be determined on site to the satisfaction on BCO.

Part F: Kitchen extract above cooker at 30l/sec  
Purge ventilation to rooms via openable windows and doors to achieve 4 air changes per hour  
Background ventilation (Trickle vents)  
Minimum 3 no 8000mm2 equivalent ventilators in frames of new openings.

Part P: All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competant to do so.Prior to completion the Council should be satisfied that Part P has been complied with. This may require an appropriate BS7671 Electrical Installation Certificate to be issued for the work by a person competent to do so.  
Allow for use of energy saving light fittings. Install low energy light fittings that only take lamps having a luminance efficiency greater than 45 lumens per circuit watt and a total output greater than 400lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations

Air source heat pump to be installed. Supplier and installer to provide necessary certification.

Smoke detectors marked S and heat detector marker H to be mains supplied and interlinked. Smoke alarms/detectors to be fitted with back up batteries.

Allow for Carbon Monoxide detector and full compliance with relevant regulations if wood burning stove is to be fitted.  
Regulation and compliance advice to be provided by supplier and to the satisfaction of the BCO before use.