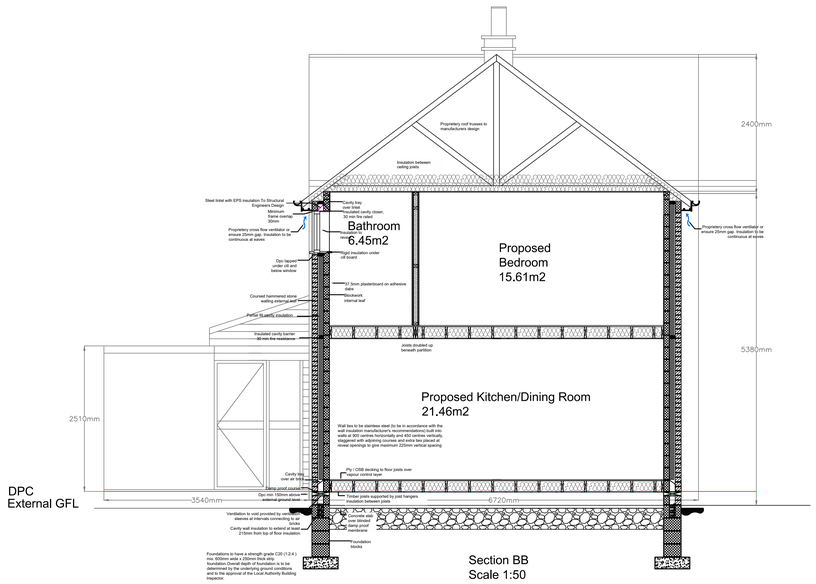
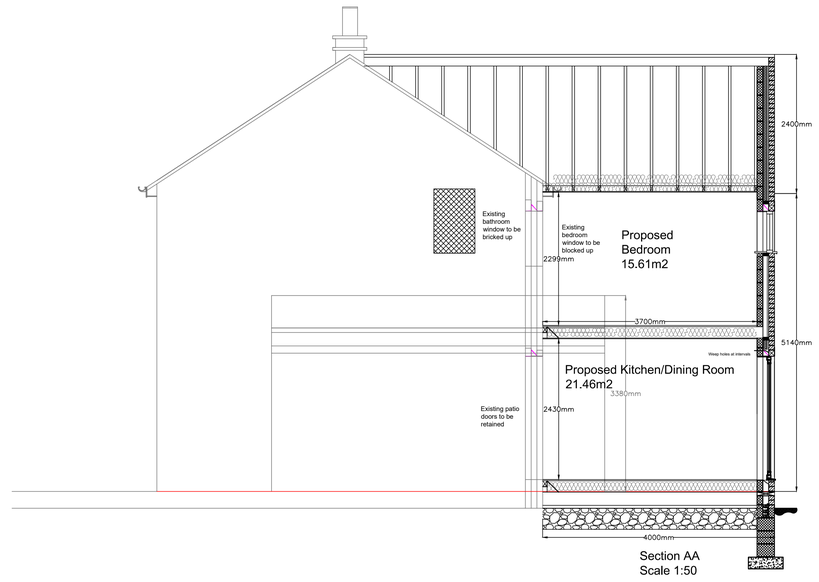


Section BB
Scale 1:50



Section AA
Scale 1:50

STRUCTURE

FOUNDATIONS

To Structural Engineers Design following site investigations. To have a strength grade C20 (1:2:4) mix and to be minimum 1000mm deep in depth and width to be 600mm and taken down to solid ground to the satisfaction of the Building Inspector.

EXTERNAL WALLS

Cavity wall construction to be 300mm total thickness comprising:

- 100mm Natural stone walling to external leaf to front and rear elevations. Gable ends and side elevation the garage to be 100mm lightweight block and through colour render.
- Cavity partially filled with 70mm Kingspan Thermawall insulation or similar approved. 40mm clear cavity to be maintained
- 100mm lightweight blockwork (min 7N/mm2) with 12.5mm plasterboard with 3mm skim finish internally. Cavity fill to substructure to be lean mix concrete C10. General masonry superstructure to be in gauged sand lime mortar (1:1:6).

Wall construction to achieve a U value of 0.18W/m2/K.

Wall ties to be stainless steel (to be in accordance with the wall insulation manufacturer's recommendations) built into walls at 900 centres horizontally and 450 centres vertically, staggered with adjoining courses and extra ties placed at reveal openings to give maximum 225mm vertical spacing.

INTERNAL NON LOAD-BEARING PARTITIONS

Generally to be 75mm timber studs at 400mm centres with sole plates, head plates, noggins, etc. required to support fixtures and fittings. 12.5mm plasterboard to each side 3mm skim finish to both sides. 100mm mineral wool insulation installed within cavity.

GROUND FLOOR CONSTRUCTION

22mm tongue and grooved chipboard on 195mm x 38mm C24 floor joists at 400mm centres. Noggings to be fitted at half centres of joists. 100mm Kingspan Thermafloor TF70 or similar approved to be fitted between the joists on the underside of the floor. Built in floor joists to be protected with proprietery end protectors and pointed all round with silicone mastic. Floor construction to achieve a U Value of 0.22W/m2/K.

FIRST FLOOR CONSTRUCTION

22mm tongue and grooved chipboard on 195mm x 38mm C24 floor joists at 400mm centres. Built in floor joists to be protected with proprietery end protectors and pointed all round with silicone mastic. 100mm Rockwool insulation or similar approved to be layed between the joists on the underside of the floor. New ceiling to be 12.5mm plasterboard, staggered, taped and skim finished. Floor joists adjacent existing structure to be supported on 130mm x 75mm softwood timber bearers fixed to existing masonry with suitable frame fixings and anchors, noggings to be fitted at half centrs of joists.

FIRST FLOOR CEILING CONSTRUCTION

Roof structure to be truss rafter construction to manufacturers design and calculations mechanically fixed on 100 x 75mm treated timber wall plates.Wall plates to be bedded on mortar and strapped to wall with 30 x 2.5 x1000mm galvanised mild steel straps at 1200mm centres

Roof tiles, generally to be concrete interlocking tiles to match existing roof on tanalised softwood timer battens over breathable membrane. Headlap to BS5534 to suit roof pitch, tile size and exposure. Fix using 64 x 3.35mm galvanised annular ring shank nails, two nails each tile.

LINTELS AND BEAMS

Generally, lintels and beam support to external wall openings to be catnic CN 42 lintels to structural Engineers Design and calculations with 150mm min end bearing.

LATERAL SUPPORT BY ROOFS AND FLOORS

Generally at floor level, ceiling tie level and rafters parallel to wall provide 30mm x5mm x 1000mm galvanised mild steel straps at 2000mm centres. Straps to span min 3 no. joist/rafters. Solid timber noggings to be fitted between joist/rafters. Wall plate to be anchored to wall 30 x 5 x 1000mm galvanised mild steel straps at 2000mm centres.

FIRE SAFETY

ESCAPE WINDOWS

To be provided to first floor habitable rooms to have an unobstructed open able area of at least 0.33m2 and be at least 450mm high and 450mm wide with a cill height not greater than 1100mm above finished floor level.

Mains operated smoke detection with battery backup, with own dedicated fused circuit. Installed on first floor level. Mains operated heat detector to be installed in kitchen.

RESISTANCE TO CONTAMINENTS AND MOISTURE

DPC

Proprietary PVC or similar DPC to all masonry walls.
DPC to external leaf to be minimum 150mm above external ground level.

CAVITY TRAY

To be provided to all external walls at ground level, linked with DPC of internal leaf of external wall.
To be provided to openings in external walls and over horizontal cavity stops at external wall junctions.
All cavity trays to have stop ends and proprietary plastic weep holes fitted in accordance with manufacturer's details and recommendations.

Roof void ventilation

Ventilation to be provided by breathable membrane to entire surface of the roof and proprietry dry ridge and soffitt ventilation. 50mm air gap to be maintained between roof membrane and insulation.

Below ground sub floor ventilation

Ventilation to be provide through vents on two opposing external walls, providing 1500mm2 per 1 metre run of external wall or 500mm2 per 1m2 of floor area, which ever provides the greater ventilation. Vents position as shown on drawings.

Bathroom either to have intermittent mechanical extract ventilation of a minimum 15 litres/sec venting outside the building and background ventilation to be provided equivalent to 4000mm2

Habitable Rooms to have background ventilation of 8000 mm2.

Internal rooms or rooms without opening windows requiring mechanical extract ventilation to have 15 minutes overrun operated manually via light switch and air inlet of 10mm gap under door.

DRAINAGE

SANITARY PIPEWORK

All appliances to have minimum trap sizes and seal depths as follows:
Wash hand basins to have 32mm diameter and 75mm deep seal anti-syphonic traps.
Sinks and washing machines to have 40mm diameter and 75mm deep seal anti-syphonic traps.
Baths and showers to have 40mm diameter trap and 50mm deep seal depth.
WC to have 100mm diameter trap and 50mm deep seal depth

All to connect to SVP as indicated on drawings with low level rodding access unless otherwise indicated. SVP to be 100mm diameter upvc, terminated with wire cage 900mm above any opening within 3000m. All pipes and fittings will be installed strictly in accordance with the manufacturer's instructions.

BELOW GROUND DRAINAGE
All drainage to comply with Section H of the Building Regulations. Drainage to be 100mm Supersleeve laid on pea gravel bed, true to line with min fall 1:40 and connected to existing drainage network. Rigid pipes less than 1.2m below the road surface should, where necessary, be protected from damage by concrete encasement not less than 100mm thick, and having movement joints formed with compressible board at each socket or sleeve joint face.

RAINWATER GOODS
PVC rainwater goods to be 100mm diameter half round gutters clipped at 1000mm centres, fall pipes to be 65mm diameter clipped at 2000mm centres to trapped access gullies connected to drainage system.

CONSERVATION OF FUEL AND POWER

GROUND FLOORS

100mm Kingspan Thermafloor TF70 high performance rigid insulation, or similar approved, to achieve a U valve of at least 0.22 W/m2K.

ROOF

Insulation at flat ceiling level to be 250mm Rockwool Roll, or similar approved, 100mm roll between joists with 150mm roll perpendicular over joists, all to achieve a U value of 0.16 W/m2K.

Roof hatch to be insulated, lockable and draught sealed.

EXTERNAL WALLS

300mm cavity wall construction comprising of 100mm sandstone, Cavity partially filled with 75mm Kingspan Thermawall high performance rigid insulation, or similar approved, 100mm Newlay Blockwork and 15mm plaster /skim to give a U Value of 0.18w/m2K. 40mm clear cavity to be maintained.

All insulation is to be continuous.

WINDOWS AND DOORS

Windows and Doors to be high performance PVCu double glazed with factory sealed units with controllable background trickle ventilation. Opening saches to provide an area of opening at least 1/20th of the floor area of the room. Windows and doors to achieve an average U value of 1.6 W/m2/K. All windows and doors to be installed by a member of a recognised competent persons schemme for self certification. Safety glass to be installed to all doors and windows with glazing below 800mm from ground floor level and up to 1500mm high within 300mm of doors and side panels. Entrance doors to be min 775mm wide with accessible threshold and with ramped access of 1:12 max. Internal door leafs to be min 775mm wide. Edge of door to WC to be set 225mm back from the front of the toilet

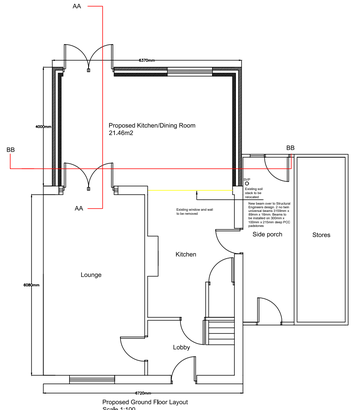
ELECTRICAL

All electrical work to be in compliance with Approved Document Part P and is to be designed, installed, inspected and tested by a member of a recognized competent persons scheme for self certification. Electrical switches and sockets to be in compliance with approved Document M. Electrical switches and sockets to be positioned between 450mm and 1200mm high. Low Energy lighting at the ratio of 3 per 4 fittings or 1 per 25m2 whichever is the greater.

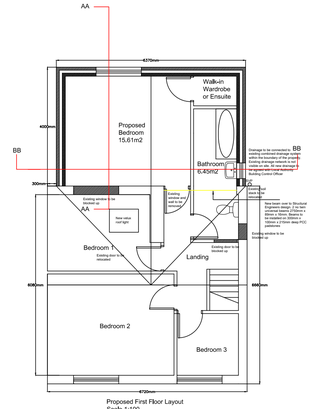
SPACE HEATING AND HOT WATER

Primary heating and hot water is to be provided via existing gas fired room sealed condensing boiler. Radiators to be sized accordingly and fitted with thermastatatic radiator valves.To be designed, installed, inspected and tested by a Gas Safe registered installer

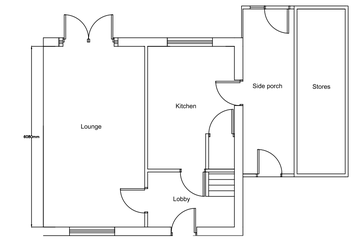
The hot water supply temperature to the bath should be limited to a maximum of 48 degrees centigrade by use of an in line blending valve or other appropriate temperature control device compliant with the relevant European Standard such as BS EN 1111:1999



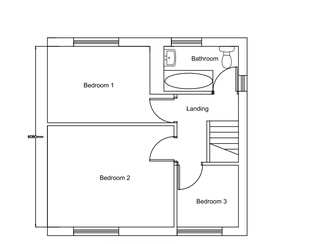
Proposed Ground Floor Layout
Scale 1:100



Proposed First Floor Layout
Scale 1:100



Existing Ground Floor Layout
Scale 1:100



Existing First Floor Layout
Scale 1:100

NOTES

All dimensions to be checked on site, drawing must not be scaled, take figured dimensions. This drawing is the property of K Hill and Co Chartered Surveyors and may not be copied, used, reproduced or disclosed without written permission.

Revision	Description	By	Date

C:\Users\kevin\Desktop\Business\Logos\K Hill Logo - Blue BG.png

Head Office:
K Hill and Co Chartered Surveyors
9 Pilling Lane
Skelmanthorpe
Huddersfield
HD8 9EQ

Tel 07807 722287
Email: info@khillandco.co.uk
Web: www.khillandco.co.uk

Client:
Mr and Mrs Walker

Project:
86 Hilltop Avenue, Athersley North S71 3NH

Two Storey Rear Extension

Drawing Title:
Sections AA and BB and Construction Notes

A1	Scale	Drawn by K Hill	Checked by
Project No		Drawing No BL002	Revision