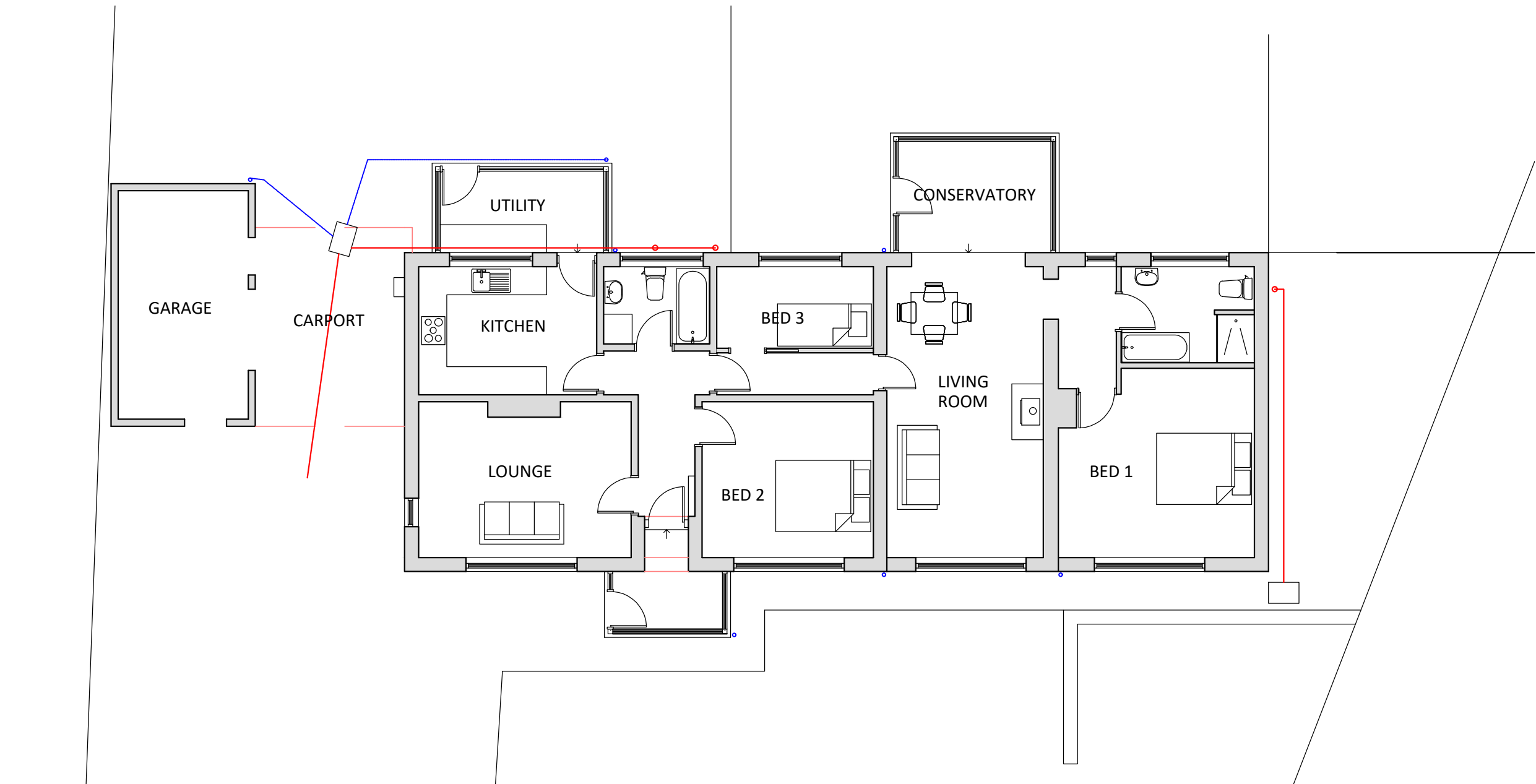
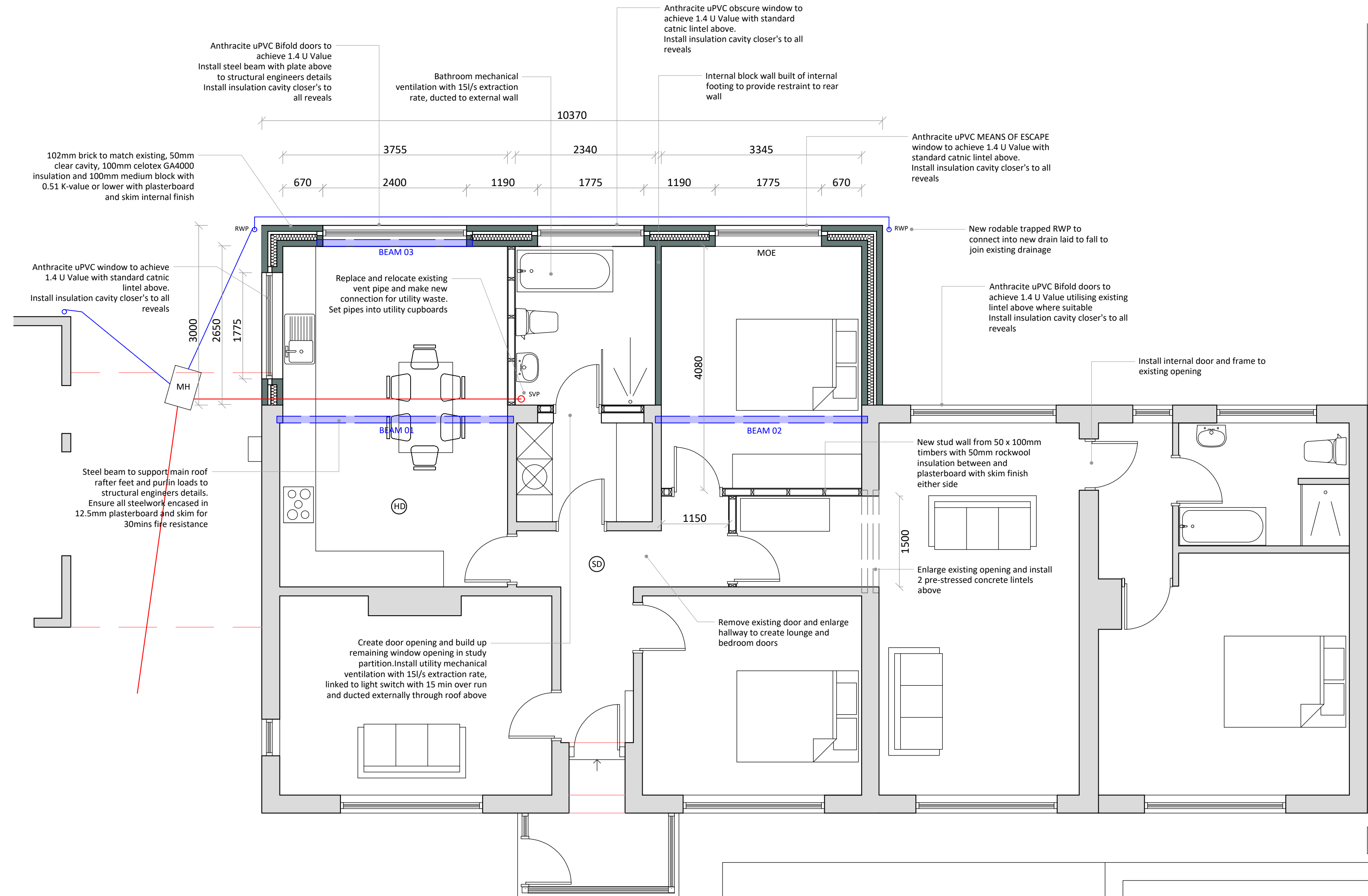


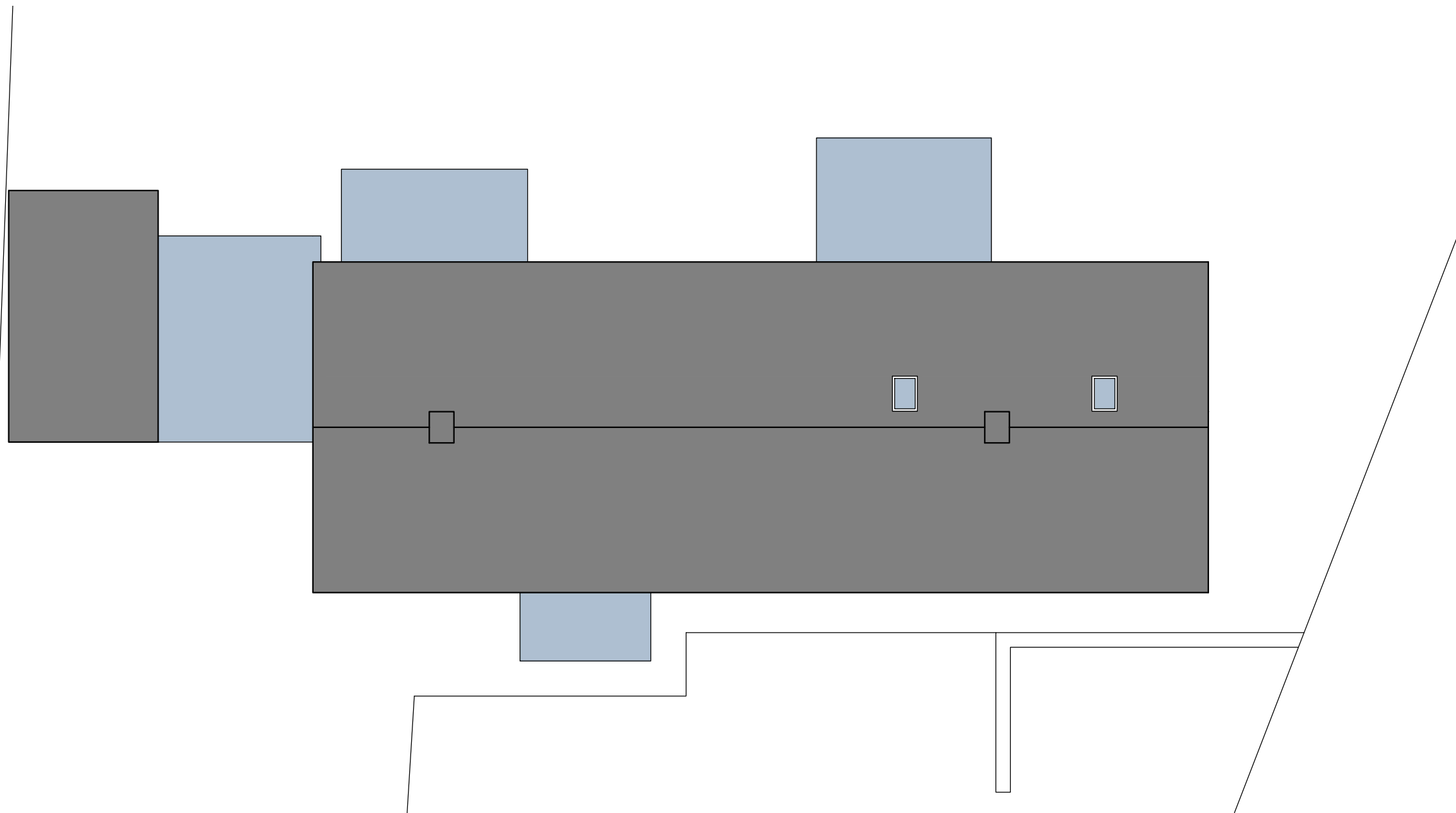
GROUND FLOOR



GROUND FLOOR



ROOF PLAN



THERMAL BRIDGING
Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

SITE PREPARATION

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases, e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

EXISTING STRUCTURE
Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

BEAMS
Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc Fireline board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance, as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

TRENCH FOUNDATION
Provide 750mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found, or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a Structural Engineer should be sought.

PIPES PASSING THROUGH TRENCH FOUNDATIONS
 The load-bearing capability of foundations must not be affected where services pass through.
 The pipe work to be sleeved. Flexible material to be provided around pipe and flexible joints to be provided where pipes exit the foundation.
 Alternatively
 Pipework should pass through a suitably strengthened opening in the foundation, i.e. foundation shuttered and a provided with suitable lintel over the pipe allowing for sufficient space for movement to ensure that the drain is capable of maintaining its gradient. Opening should be marked with granular ball(s) (see chapter 4) around pipe.
 DPC to be provided as required by BCO. Advice from Building Control to be sought on suitability of pipe running through foundation before construction.

SOLID FLOOR INSULATION UNDER SLAB

To meet min U-value required of 0.18 W/m²K - P/A ratio 0.5

25mm solid ground floor to consist of 150mm compressed expanded hardcore, blinded with 50mm sand blinding. Provide a 1200 gauge polythene DPM, DPM to be lapped in with DPC in walls. Floor to be insulated over DPM with 100mm thick Celotex GA4000 insulation.

25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation and boards turned up 150mm at room perimeters behind the skirting, all joints to be lapped by 150mm and sealed. Provide 150mm ST2 or equivalent ground fixing to be installed in 100mm concrete to conform to BS 8500-2 over VCL. Finish over the slab with a floating layer of 10mm 100mm tongue and groove softwood boards or moisture resistant particle/chipboard grade type C4 to BS EN 312:2010 as required. Lay with staggered joints.

Where drain runs pass under new floor, provide A142 mesh 1.0m wide within bottom of slab min 50mm concrete cover over length of drain.

Where timber floor is replaced timber floor bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes to terminate at new 65mm x 215mm air bricks built into new cavity wall with 100mm concrete cover laid under the extension. Ducts to be sleeved through cavity with cavity tray over.

WALLS BELOW GROUND
All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-1. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

PARTIAL FILL CAVITY WALL
To achieve minimum U Value of 0.18 W/m²K
Provide 103mm suitable facing brick. Ensure a 50mm clear residual cavity and provide 100mm Celotex CW4000 insulation fixed to internal leaf constructed of 100mm, 0.45 W/m²K standard block. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins, DPC to be placed a minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

WALL TIES
All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 84.
Wall ties for cavities over 150mm to be suitable for cavity width, and installed as manufacturer's details.

CAVITIES
Provide cavity trays over openings and where roofs abut walls. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

TYPICAL ROOF INSULATION AT CEILING LEVEL:
 Pitched 22° (Imposed load max 0.75 kN/m²) (dead load max 0.75 kN/m²)—To achieve U value of 0.15 W/m²K
 Timber roof structure to be designed by a structural engineer in accordance with NBNHC Technical Requirement RS5 Structural Design. Calculations to be based on BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures. Roofing tiles to match existing on 25 x 38mm transverse slatted batten on breathable felt supported on 47 x 125mm grade C24 rafters at 600mm centres, batten 2,69mm. Rafters supported on 100 x 50mm x wall plate.
 Insulation to be installed in accordance with BS EN 12667:2001. To be installed between over joists (cross direction) and over joists (longitudinal direction).
 Construct ceiling using joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thick multi-finish plaster. Provide polyurethane vapour barrier between insulation and plasterboard. Provide cavity tray where roof meets existing wall. Where required provide opening at eaves level at least equal to continuous strip 25mm wide on two sides of roof. Provide high level ventilation equivalent to 1:500 m³ per hour. High level ventilation equivalent to 1:500 m³ per hour.
 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details.
 Restraint strapping—100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggin. All straps to be 1200 x 30 x 5mm galvanneal steel or equivalent.
 Loft hatch should be suitable designed and installed to ensure optimum air tightness.

(SD)	Interlinked smoke detection hardwired with battery back up to circulation spaces as all floors
(HE)	ADVISORY NOTE - Interlinked heat detection hardwired with battery back up to kitchen
MODE	Means of escape window with 450mm min width 0.33m ² overall openable area and opening height between 800mm and 1100mm above internal ground level

BUILDING REGULATION DRAWINGS

45 Bowden Lane
Chapel en le Frith
High Peak
SK23 0JQ

Single Storey Rear Extension

Revision	Date
A - Exchange bathroom for utility & enlarge kitchen	14/09/23

Drawing Ref
45BL/BR2/02/A

PLANS ARE TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DETAILS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL MEASUREMENTS ON SITE PRIOR TO WORK COMMENCING. IT IS THE RESPONSIBILITY OF THE OWNER TO ENSURE ALL ASPECTS OF THE PARTY WALL ETC ACT 1996 ARE MET. PLEASE CONTACT PLAN DRAWER IF ANY ON SITE AMENDMENTS ARE TO BE MADE.



PLANS + DESIGN

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