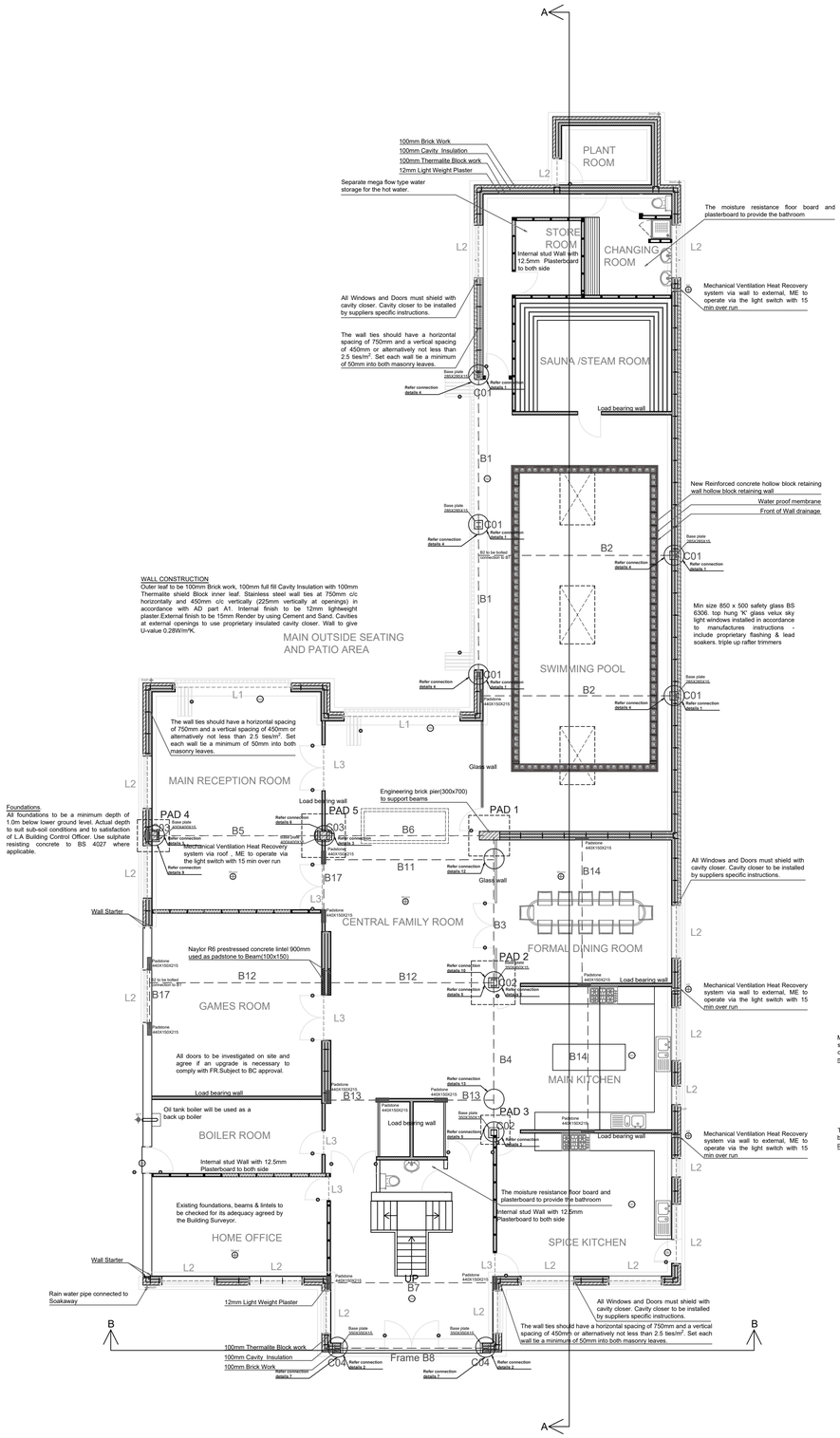
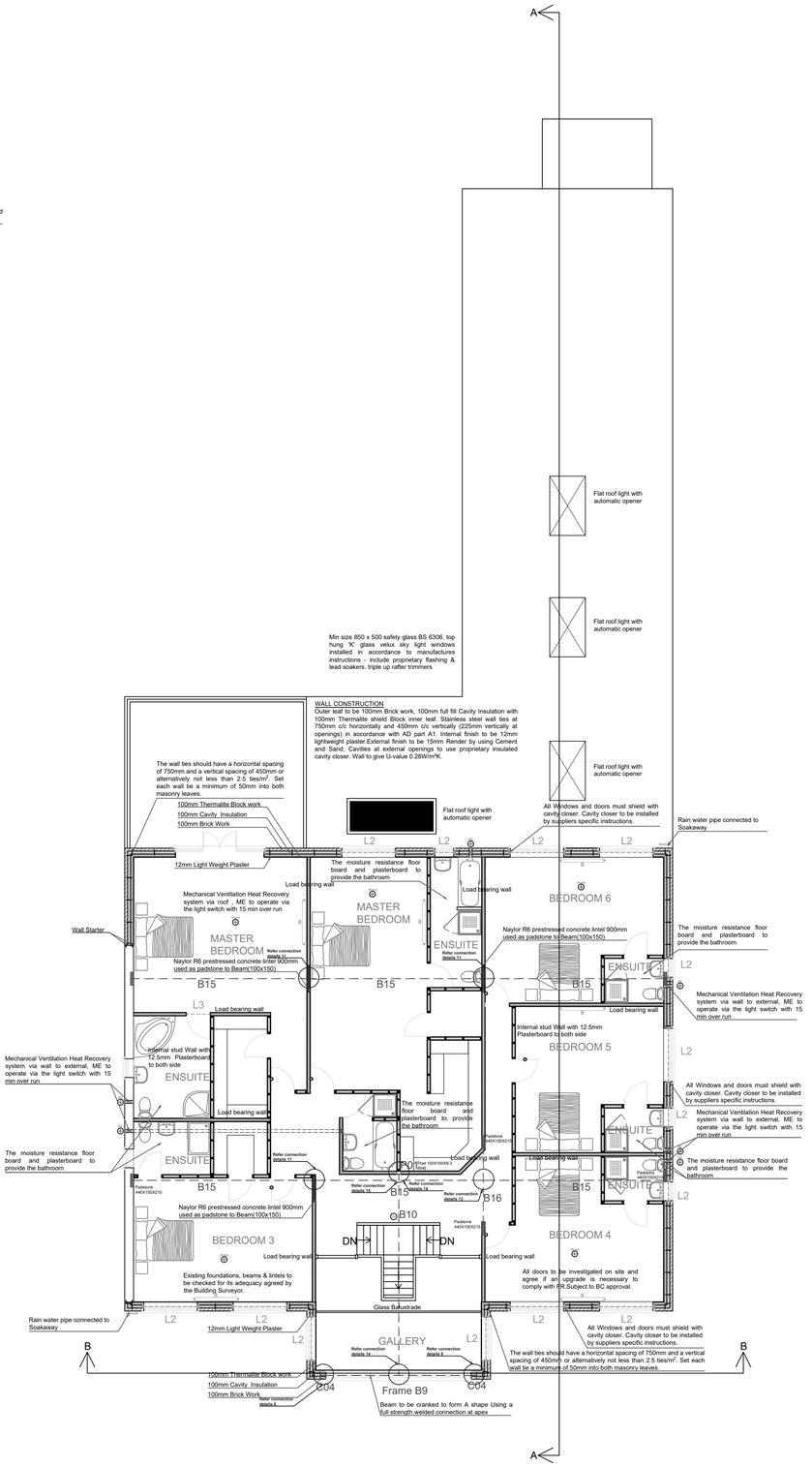
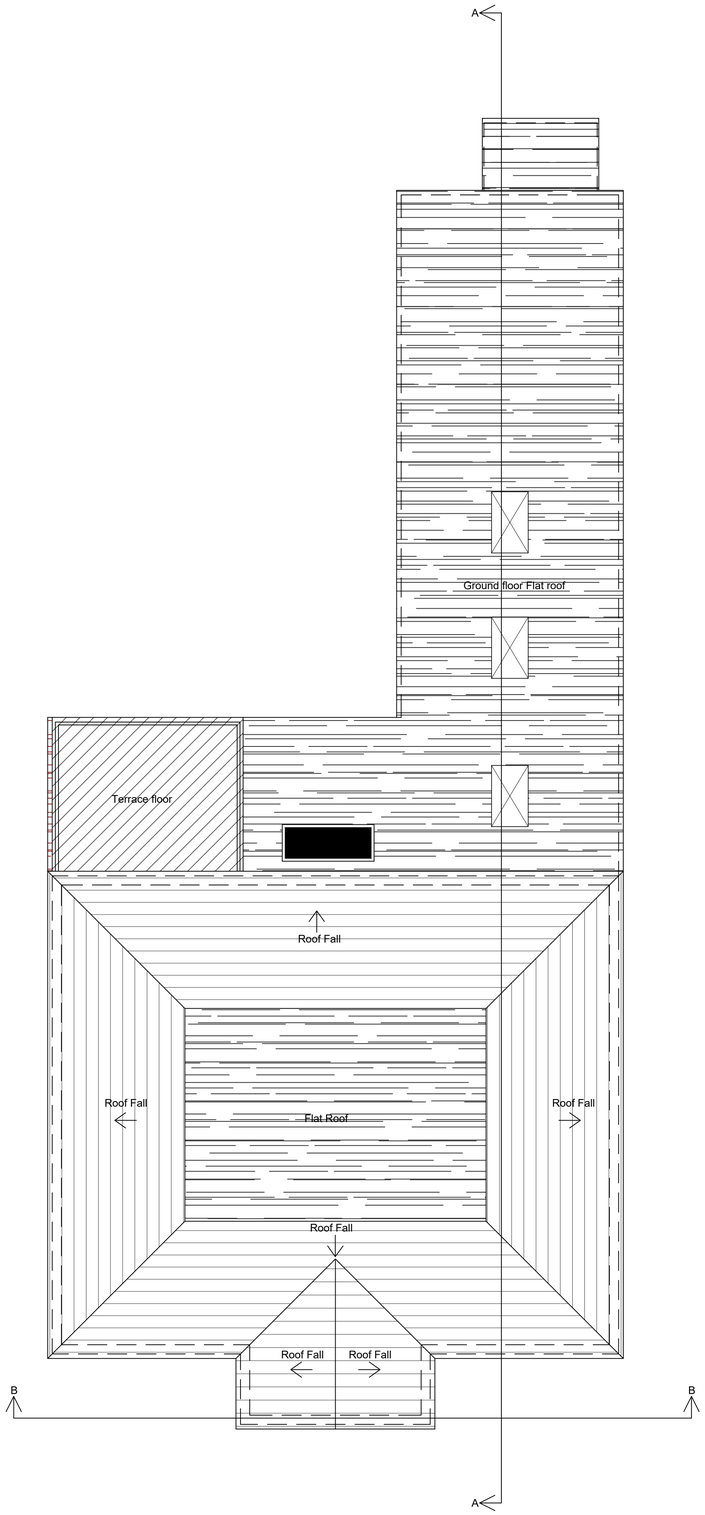


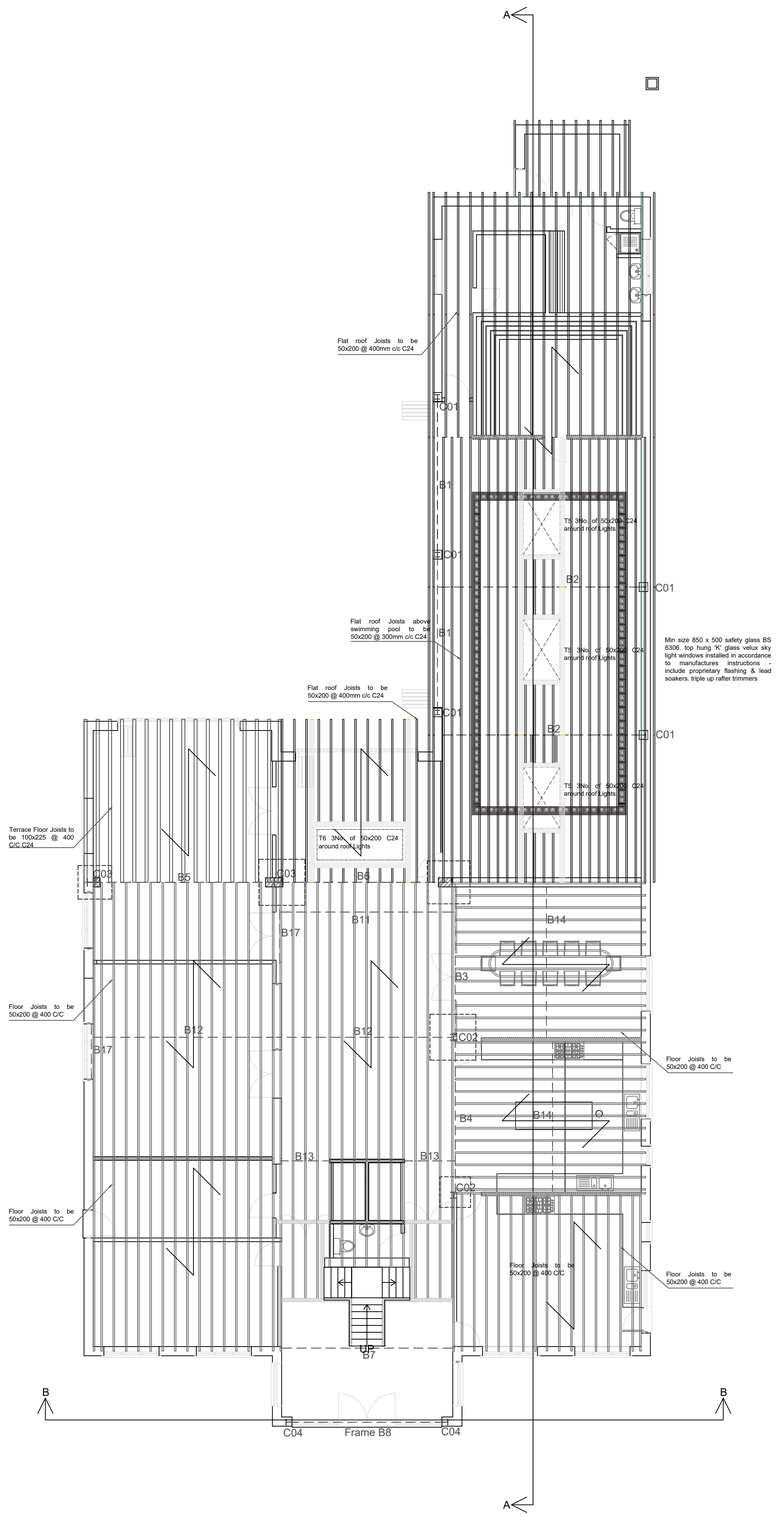
PROPOSED GROUND FLOOR PLAN

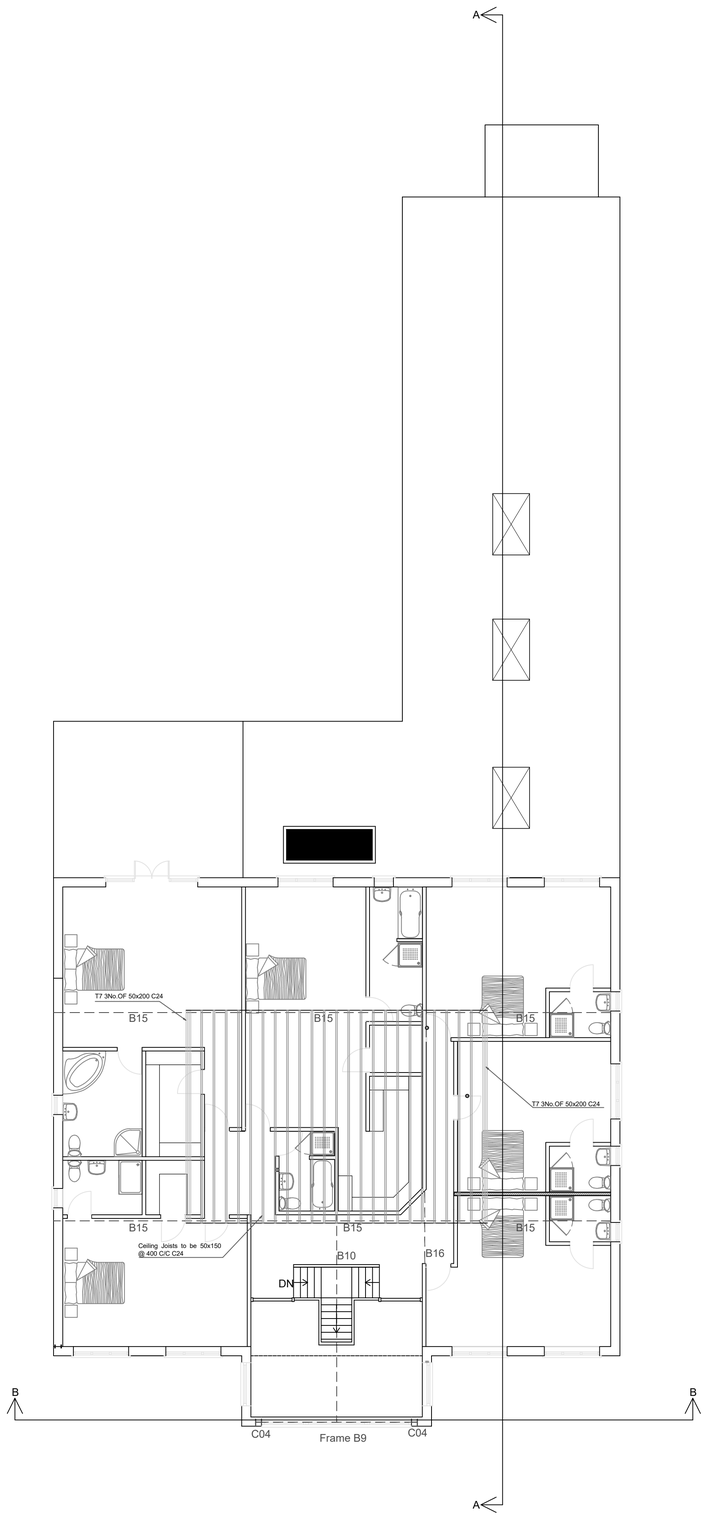


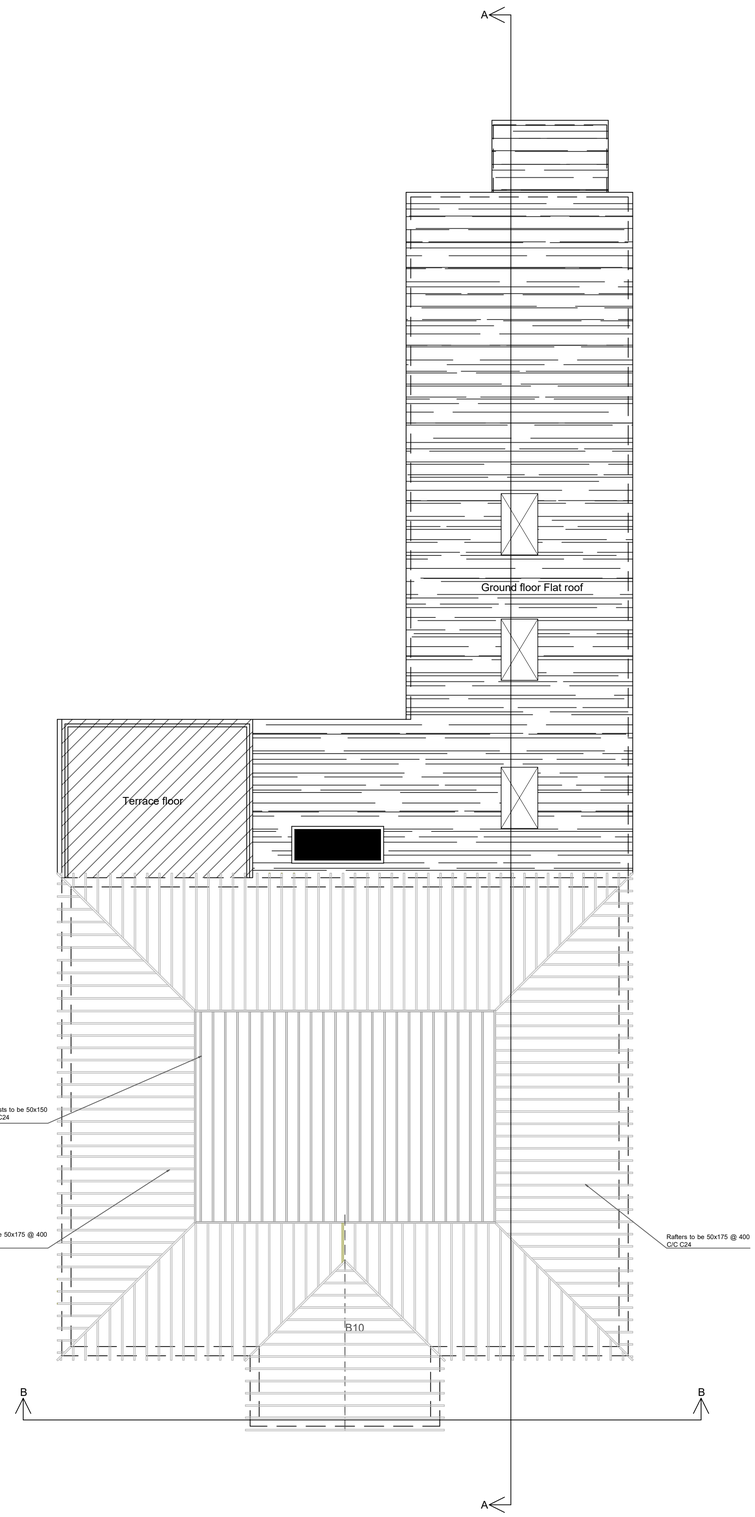
PROPOSED FIRST FLOOR PLAN



PROPOSED ROOF PLAN



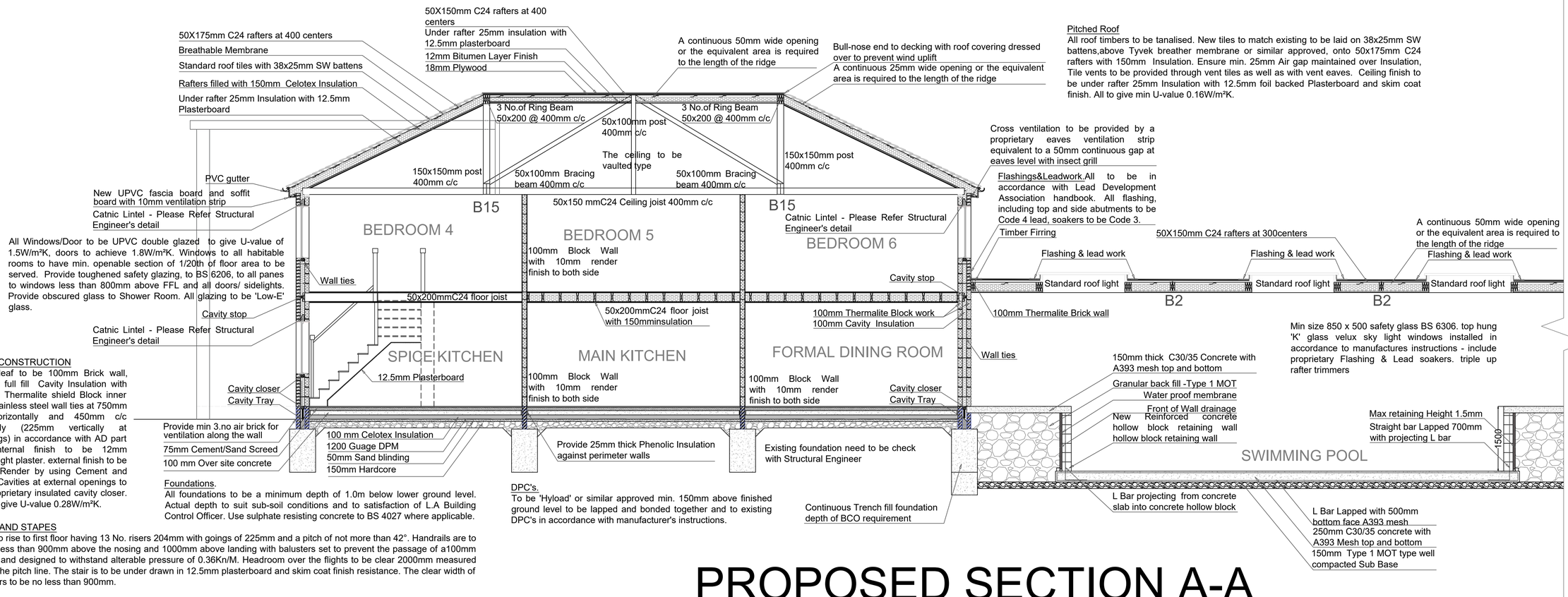




PROPOSED GROUND FLOOR JOIST PLAN

PROPOSED FIRST FLOOR CEILING JOIST PLAN

PROPOSED ROOF JOIST PLAN



WALL CONSTRUCTION
Outer leaf to be 100mm Brick wall, 100mm full fill Cavity Insulation with 100mm Thermalite shield Block inner leaf. Stainless steel wall ties at 750mm c/c horizontally and 450mm c/c vertically (225mm vertically at openings) in accordance with AD part A1. Internal finish to be 12mm lightweight plaster. external finish to be 15mm Render by using Cement and Sand. Cavities at external openings to use proprietary insulated cavity closer. Wall to give U-value 0.28W/m²K.

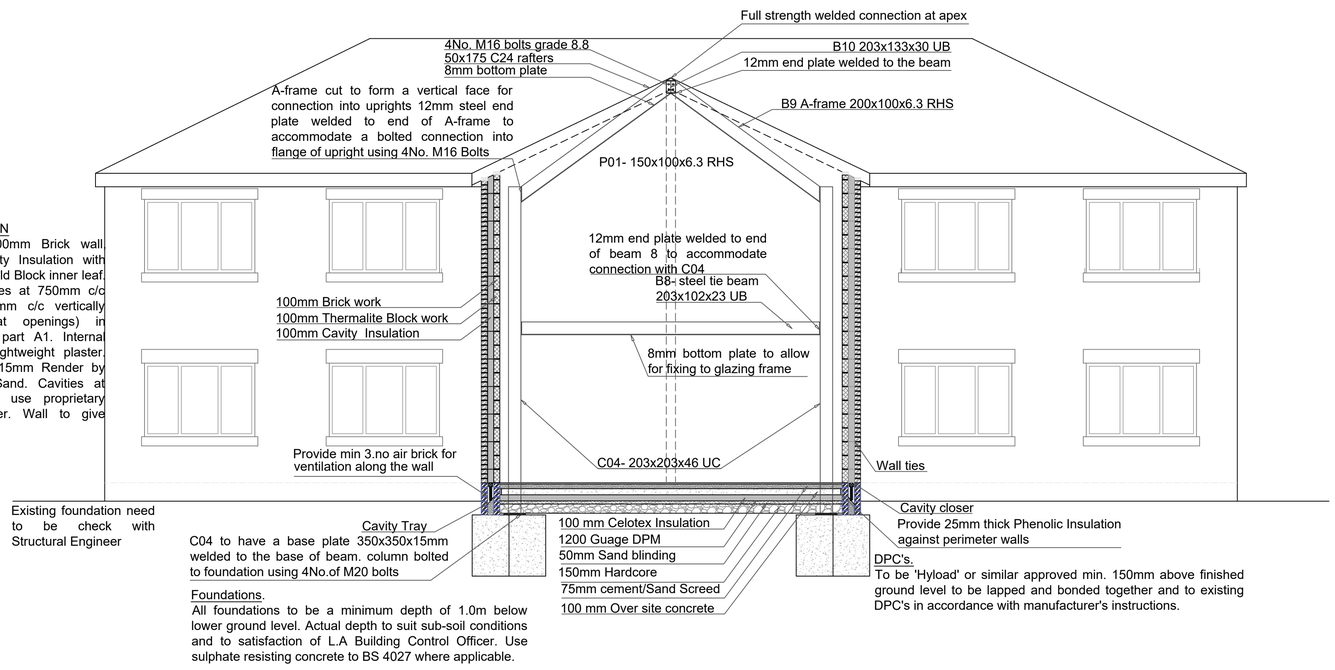
STAIR AND STAPES
Stairs to rise to first floor having 13 No. risers 204mm with goings of 225mm and a pitch of not more than 42°. Handrails are to be not less than 900mm above the nosing and 1000mm above landing with balusters set to prevent the passage of a100mm sphere and designed to withstand alterable pressure of 0.36Kn/M. Headroom over the flights to be clear 2000mm measured above the pitch line. The stair is to be under drawn in 12.5mm plasterboard and skim coat finish resistance. The clear width of the stairs to be no less than 900mm.

Foundations.
All foundations to be a minimum depth of 1.0m below lower ground level. Actual depth to suit sub-soil conditions and to satisfaction of L.A Building Control Officer. Use sulphate resisting concrete to BS 4027 where applicable.

DPC's.
To be 'Hyload' or similar approved min. 150mm above finished ground level to be lapped and bonded together and to existing DPC's in accordance with manufacturer's instructions.

Pitched Roof
All roof timbers to be tanalised. New tiles to match existing to be laid on 38x25mm SW battens,above Tyvek breather membrane or similar approved, onto 50x175mm C24 rafters with 150mm Insulation. Ensure min. 25mm Air gap maintained over Insulation, Tile vents to be provided through vent tiles as well as with vent eaves. Ceiling finish to be under rafter 25mm Insulation with 12.5mm foil backed Plasterboard and skim coat finish. All to give min U-value 0.16W/m²K.

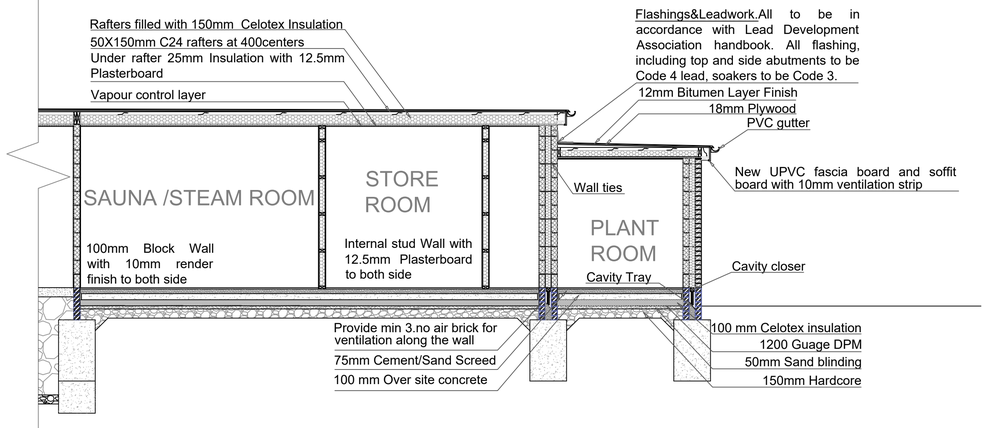
PROPOSED SECTION A-A



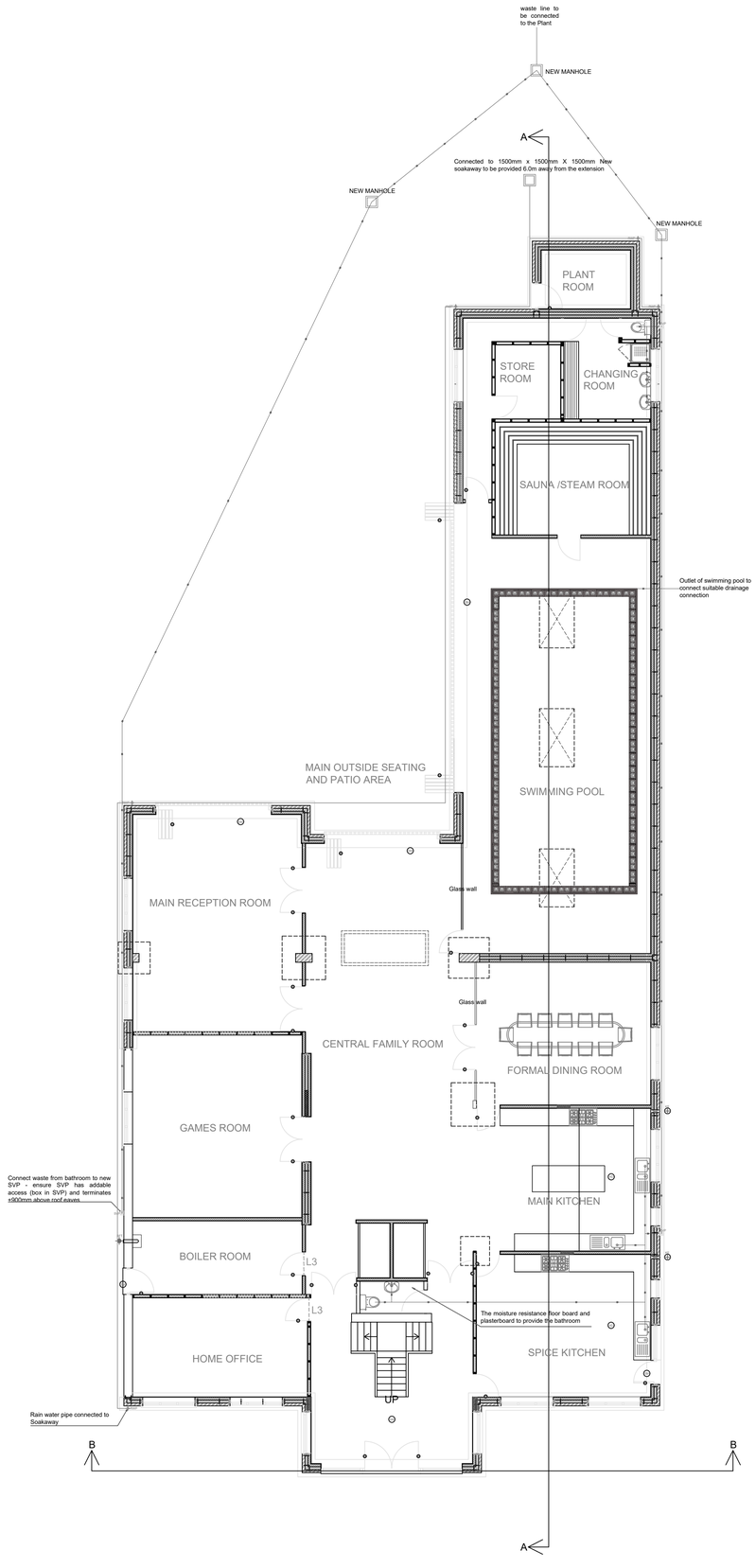
WALL CONSTRUCTION
Outer leaf to be 100mm Brick wall, 100mm full fill Cavity Insulation with 100mm Thermalite shield Block inner leaf. Stainless steel wall ties at 750mm c/c horizontally and 450mm c/c vertically (225mm vertically at openings) in accordance with AD part A1. Internal finish to be 12mm lightweight plaster. external finish to be 15mm Render by using Cement and Sand. Cavities at external openings to use proprietary insulated cavity closer. Wall to give U-value 0.28W/m²K.

Foundations.
All foundations to be a minimum depth of 1.0m below lower ground level. Actual depth to suit sub-soil conditions and to satisfaction of L.A Building Control Officer. Use sulphate resisting concrete to BS 4027 where applicable.

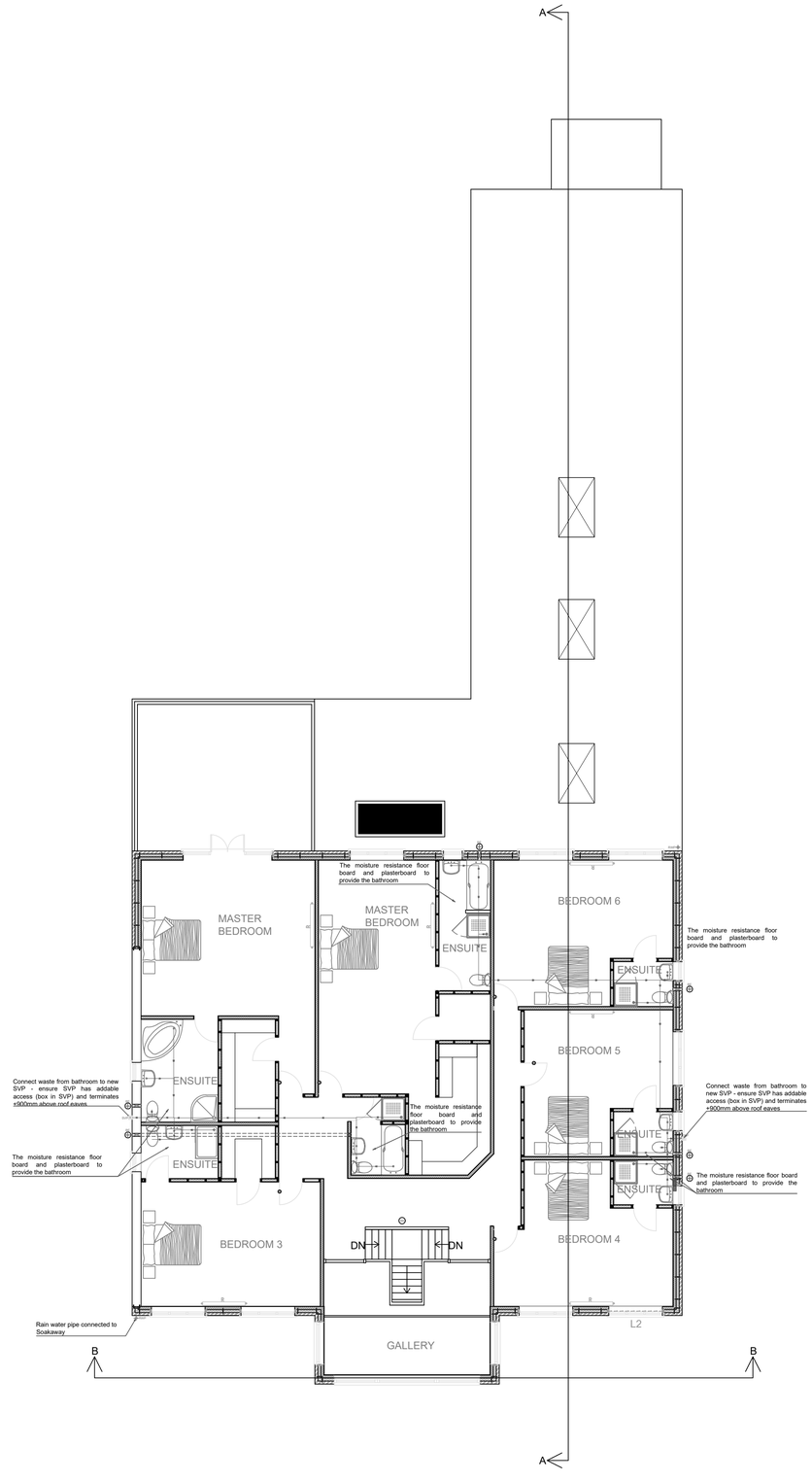
PROPOSED SECTION B-B



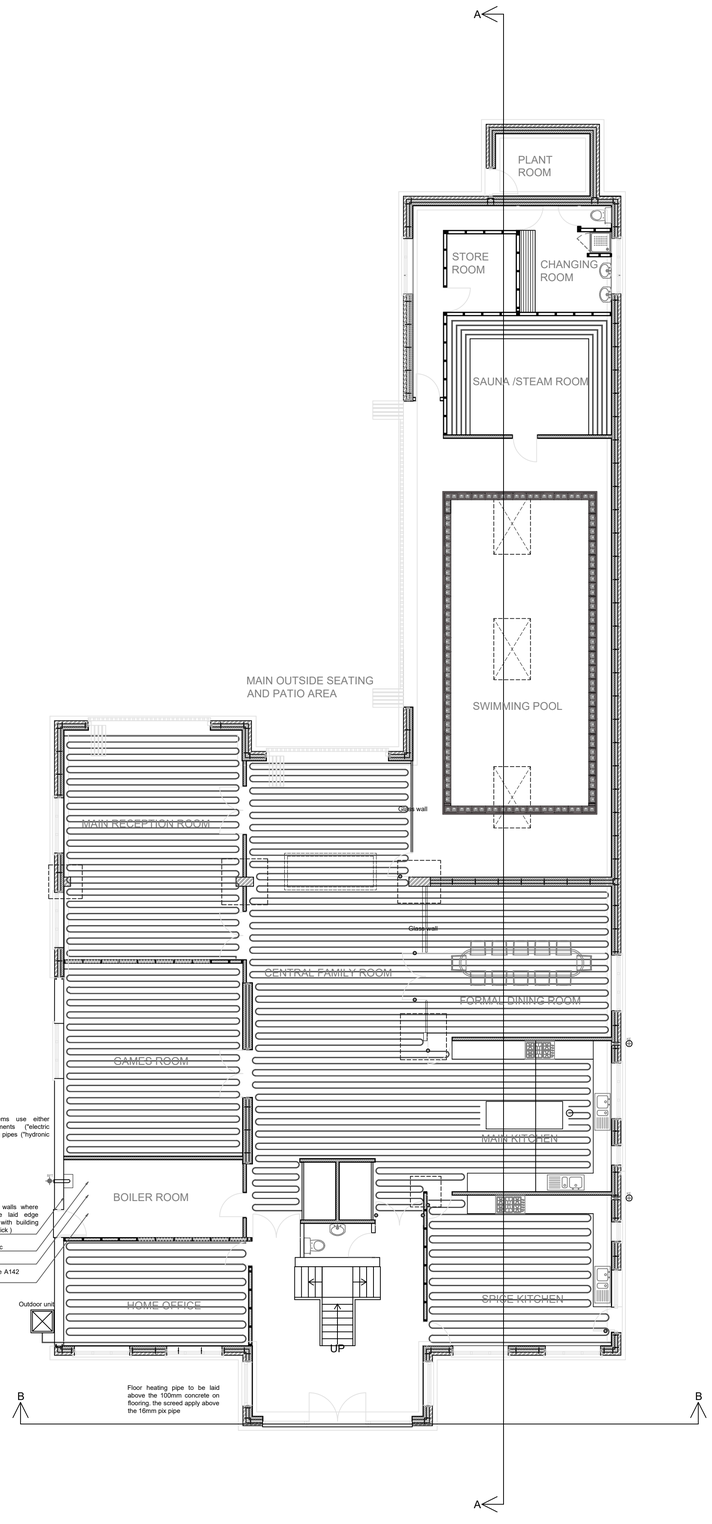
PROPOSED SECTION A-A



PROPOSED GROUND FLOOR SEWER LINE PLAN

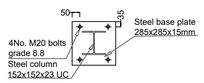


PROPOSED FIRST FLOOR SEWER LINE PLAN

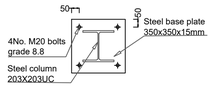


PROPOSED UNDER FLOOR HEATING SYSTEM

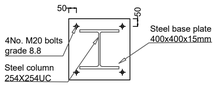
STRUCTURAL CONNECTION DETAILS



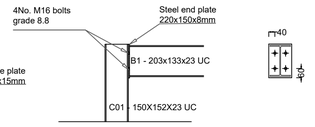
1.SECTION - C01 BASE PLATE ARRANGEMENT



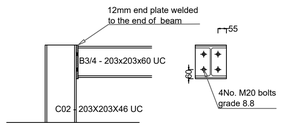
2.SECTION - C02&C04 BASE PLATE ARRANGEMENT



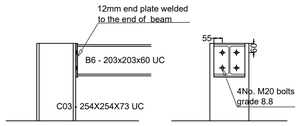
3.SECTION - C03 BASE PLATE ARRANGEMENT



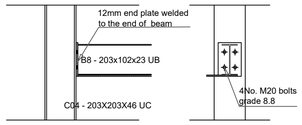
4.SECTION & ELEVATION OF B1 BOLTED CONNECTION TO C01 B2 BOLTED CONNECTION TO C01



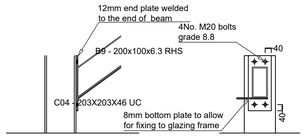
5.SECTION & ELEVATION OF B3 BOLTED CONNECTION TO C02 B4 BOLTED CONNECTION TO C02



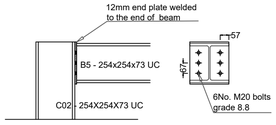
6.SECTION & ELEVATION OF B6 BOLTED CONNECTION TO C03



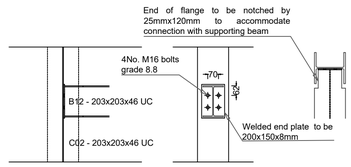
7.SECTION & ELEVATION OF B8 BOLTED CONNECTION TO C04



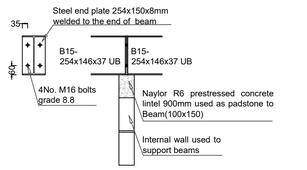
8.SECTION & ELEVATION OF B9 BOLTED CONNECTION TO C04



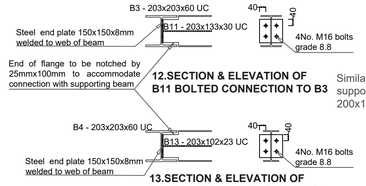
9.SECTION & ELEVATION OF B5 BOLTED CONNECTION TO C03



10.SECTION, ELEVATION & PLAN VIEW OF B12 BOLTED CONNECTION WITH C02



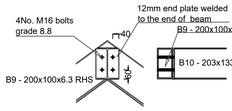
11.SECTION & ELEVATION OF B15 BOLTED CONNECTION AT SUPPORTING LINTEL USED AS PADSTONE



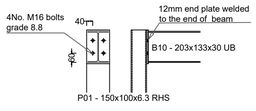
12.SECTION & ELEVATION OF B11 BOLTED CONNECTION TO B3

Similar detail to be used for beam 15 support by beam 16 - end plate 200x150x8mm

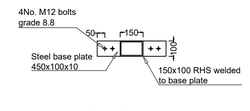
13.SECTION & ELEVATION OF B13 BOLTED CONNECTION TO B4



14.SECTION & ELEVATION OF B10 BOLTED CONNECTION TO B9



15.SECTION & ELEVATION OF B10 BOLTED CONNECTION WITH P01



16.SECTION - P01 BASE PLATE ARRANGEMENT

The contractor is to ensure that all materials comply with the reverent British Standards and have current Agreement Certificates. All products fitted strictly in accordance with manufacture instruction

ABOVE GROUND DRAINAGE
All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipe work. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction. Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used) Wash basin - 1.7m for 32mm pipe 4m for 40mm Pipe Bath/shower - 3m for 40mm pipe 4m for 50mm WC - 6m for 100mm pipe for single WC All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m. Or to 110mm UPVC soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting. Waste pipes not to connect on to SVP within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

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

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

CAVITY BARRIERS
30 minute fire resistant cavity barriers to be provided at at tops of walls, gable end walls and vertically at junctions with separating walls & horizontally at separating walls with cavity tray over installed according to manufacturers details.

DPC's
To be 'Hyload' or similar approved min. 150mm above finished ground level to be lapped and bonded together and to existing DPCs in accordance with manufacturer's instructions.

ELECTRICAL SAFETY:
All wiring and electrical work will be designed, installed, inspected and tested in accordance with the requirements of BS7671, the 16th edition Wiring Guidance and Building Regulation Part P (Electrical Safety) by a competent person registered with an electrical self -certificate scheme authorized by the Secretary of State (BRE:BSE:ELECSA, NAPIT or NICEIE).
The competent person is to send to local authority a self- certification certificate within 30 days of completion of the electrical works. The client must receive both a copy of the self - certification certificate and a BS7671 Electrical Installation Test Certificate and forward copies to Building Control.

EXTRACT TO W/C
W/C to have mechanical ventilation ducted to external air with an extract rating of 15ls operated via the light switch. Vent to have a 15min overrun if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

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.

FIRE DETECTION SYSTEM
Fire Brigade approved. Smoke Detectors to be fitted at each level and wire to a separately fused circuit at distribution board to BS: 5446, Part 1 1990, to IEEE Wiring Regulation and to Manufacture's recommendations. Heat detectors to be fitted in Kitchens and interlinked to smoke detector system as indicated on the drawings. Occupiers to receive Manufacturers instructions concerning operation and maintenance.
Sensor to be sited a minimum 300mm from any wall and light fittings.

FLASHING & LEADWORK
All to be in accordance with Lead Development Association handbook. All flashing, including top and side abutments to be Code 4 lead, soakers to be Code 3.

FOUNDATION
All foundations to be a minimum depth of 1.0m below lower ground level. Actual depth to suit sub-soil conditions and to satisfaction of L.A building control officer. Use sulphate resisting concrete to BS 4027 where applicable.

INTERNAL LIGHTING
Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp 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 and the Domestic Building Services Compliance Guide

INTERNAL STUD PARTITIONS
100mm x 50mm softwood treated timbers studs at 400mm C/C with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

LIGHT FITTING
In the affected by the building work provide low energy light fittings(fixed lights or lighting units) that number not less than three per four of all the light fittings in the main dwelling spaces of those areas (excluding infrequently accessed spaces used for storage, such as cupboards and wardrobes)
Low energy light fittings should have lamps with a luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens.
Light fitting whose supplied power is less than five circuit-watts are treated from the overall count of the total number of light fittings Fix minimum of 75% energy efficient light fitting

LINTELS
Uniformly distributed loads and standard 2 storey domestic loadings only Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1. For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufactures standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

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 harmonized European product should have a CE marking.

PITCHED ROOF
All roof timbers to be tanalised. New tiles to match existing to be laid on 38x25mm SW battens,above Tyvek breather membrane or similar approved, onto 50x175mm C24 rafters with 150mm Insulation. Ensure min. 25mm air gap maintained over insulation, Tile vents to be provided through vent tiles as well as with vent eaves. Ceiling finish to be under rafter 25mm insulation with 12.5mm foil backed plasterboard and skim coat finish. All to give min U-value 0.16W/m²K.

PLUMBING:
Provide 75mm deep seal traps to all fittings and connect to soil stacks encased to half hour fire resistance standard where shown in timber framing and 12.5 plasterboard and skim coat finish. Soil and vent pipes to be minimum 100mm diameter. Wastes to baths 38mm diameter, showers 50mm diameter, basins and sinks 38mm diameter. Cleaning eyes to be provided at base of stacks and all changes of vertically and 300mm horizontally from head of adjacent windows.According to Part G Legislation April 2010, comply with BS EN 1111 and BS EN1287 the hot water supply temperature to a bath, shower and sink should be limited to maximum of 35° to 48°C by use of an in-line blending value or other appropriate temperature control device, with a maximum temperature stop and a suitable arrangement of pipe work

RAIN WATER GOODS
100mm half round gutters to fascia at min 600mm centres on brackets with all joint brackets, running outlets and stop ends as appropriate. Fascia board and dormer cheeks within 1000mm boundary to be non-combustible materials.
65mm round down pipes fixed to wall at 1500mm Max' centres with screws plugged into brickwork not mortar. Ensure 6mm expansion gap at joints in down pipe. Include offset bends, pipe connectors and branches as necessary. Base of rainwater pipe connected to Soakaway.

ROOF LIGHTS
Min U-value of 1.6 W/m²K. Roof-lights to be double glazed with16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with rafters doubled up to sides and suitable flashing's etc.

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, vapour's etc. on or in the ground covered, or to be covered by the building.

SMOKE AND HEAT DETECTOR
Fire Brigade approved. Smoke detectors to be fitted at each level and wired to a separately fused circuit at distribution board to BS: 5446, Part 1 2004, to IEEE
Wiring Regulation and to Manufacture's recommendations. Heat detectors to be fitted kitchens inter linked to smoke detection system. Occupiers to receive manufacturers instructions concerning operation and maintenance.

SOIL AND VENT PIPE
SVP to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP.. UNDERGROUND FOUL DRAINAGE Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1: 2009.

STRUCTURAL STEEL WORK
Structural steelwork is to be installed as shown on the drawing and in strict accordance with the Structural Engineers detail. Provide bearing plate where bearing on walls and treat all steelwork with an approved anti- corrosive paint prior to installation. All the Structural Steelwork to be covered with 30min fire rated plasterboard.

STAIR AND STAPES
Stairs to rise to first floor having 13 No. risers 204mm with goings of 225mm and a pitch of not more than 42°. Handrails are to be not less than 900mm above the nosing and 1000mm above landing with balusters set to prevent the passage of a100mm sphere and designed to withstand alterable pressure of 0.36Kn/M. Headroom over the flights to be clear 2000mm measured above the pitch line. The stair is to be under drawn in 12.5mm plasterboard and skim coat finish resistance. The clear width of the stairs to be no less than 900mm.

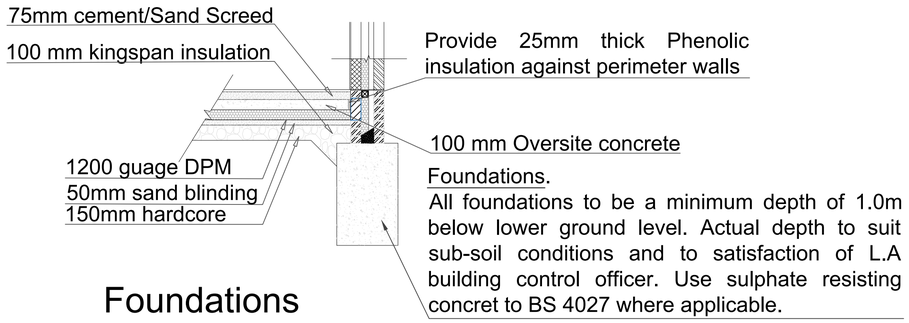
WALL CONSTRUCTION
Outer leaf to be 100mm Brick wall, 100mm full fill Cavity Insulation with 100mm Thermalite shield Block inner leaf. Stainless steel wall ties at 750mm c/c horizontally and 450mm c/c vertically (225mm vertically at openings) in accordance with AD part A1. Internal finish to be 12mm lightweight plaster. external finish to be 15mm Render by using Cement and Sand. Cavities at external openings to use proprietary insulated cavity closer. Wall to give U-value 0.28W/m²K.

WINDOWS:
All windows to be comply with integral background trickle ventilation equal to 8000mm² per habitable room or 4000mm² to kitchen and bathrooms.
All windows to be operable as indicated on drawings with opening to ground &first floor. All windows to be provided with "easy clear" hinging to allow cleaning of external panes from inside. Opening lights to achieve clear opening 5% of the floor area to habitable rooms. Glazing shall be by factory sealed vacuum double glazed units to provide max. U- value of 1.3W/m2K (when required, low emissive will be incorporated) All glazing below 800mm from finished floor level for windows (or adjacent to within 300mm of doors), must be toughened glass. This will also apply to all doors and sidelights where glazing is 1500mm and below from finished floor level.
To limit air leakage around door and window frames, in continuous ribbon of mastic sealing is to apply to both the front and back frames. Windows shall be installed to suppliers specific instructions.
Windows shall be provided with opening lights to all opening lights, with two fasteners to windows of 1350 mm in height or more.

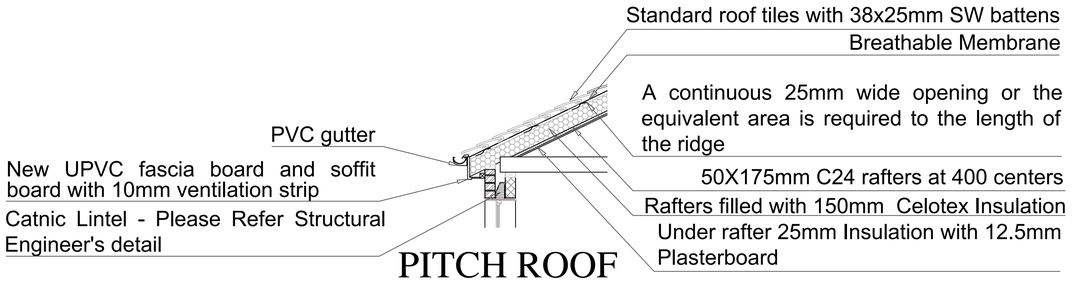
DOOR LEGEND
FD30 ½ Hour fire door

- Heat Detector
- Smoke Detector
- Bathroom Extract
- Rainwater Down Pipe
- Soil Vent Pipe
- kitchen Extract
- Boiler Flue
- Mechanical ventillation

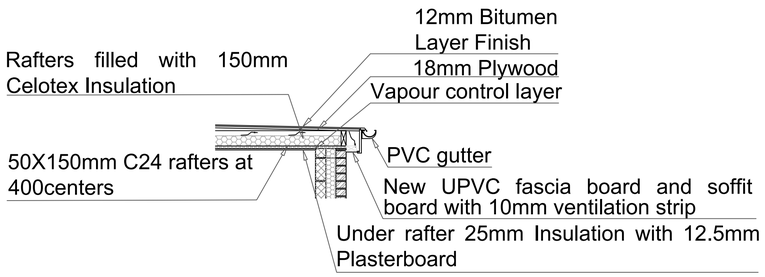
WALL LEGEND
All block work strengths are to be confirmed by structural engineer before any work commences on site.Refer to specification for detailed technical requirements of wall types
- Engineering Brick Work
- Insulated timber stud as indicated on plans
- Block work
- Brick work



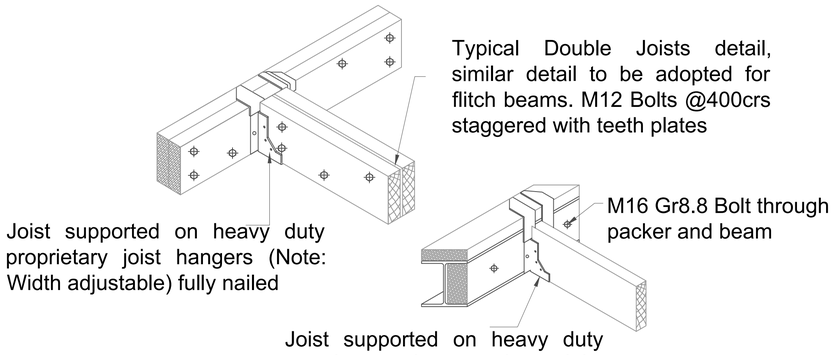
Foundations



PITCH ROOF

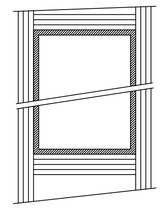


FLAT ROOF



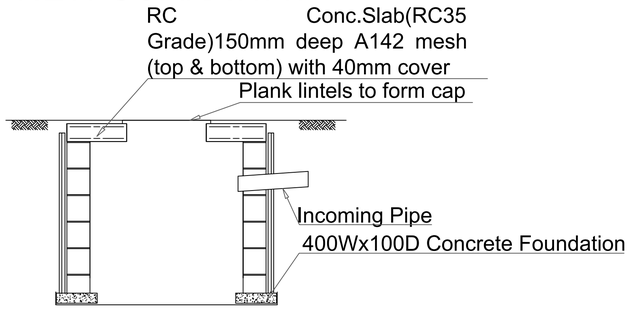
ROOF WINDOW

Triple joist (Typical)

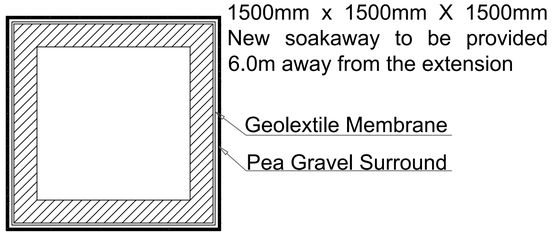


Min size 850 x 500 safety glass BS 6306. top hung 'K' glass velux sky light windows installed in accordance to manufactures instructions - include proprietary flashing & lead soakers. triple up rafter trimmers

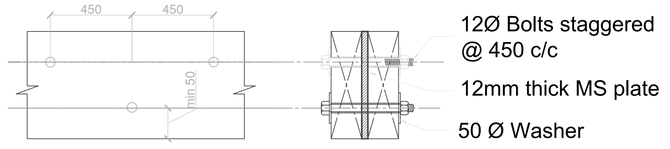
NEW SOAKAWAY

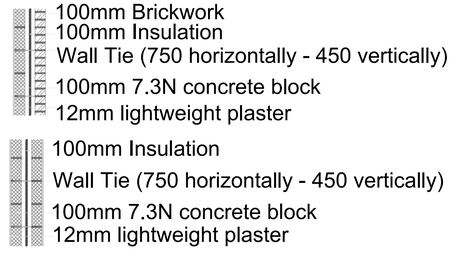


SECTION



PLAN





Strap to turn down a minimum of 100mm and built tight against the inner leaf.

30 x 5 galvanised mild steel lateral restraint strap anchored in wall and screwed to top of 3no. joists using no.12 x 50mm long woodscrews. Provide 5mm notch in joist to receive restraint strap