

DRAWING TO BE USED FOR BUILDING REGULATION APPROVAL APPLICATION PURPOSES ONLY
DRAWING TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DETAILS

SPECIFICATION NOTES

DRAINAGE
New drainage to comply with Part H1 of the Building Regulations 1985 & CP 301 to be laid in 150/100mm Hepworth Superseve to BS 65 laid in straight and even falls to minimum of 1 in 80, unless otherwise indicated. Filled with flexible watertight joints. Drains to have class H bed consisting of 10mm regulating granular material bedding to BS 8301 1985 and 150mm min cover of selected F81 free from stones larger than 40mm, layers of clay over 100mm, timber, frozen material or other vegetable matter. Minimum and maximum depth of cover to Table 8 Ref H1. Drains under buildings to be surrounded with minimum of 150mm granular or flexible material. Drains within 300mm of the underside of the floor slab should be surrounded in minimum of 150mm concrete. Stressline prestressed concrete lintels to be used above all openings where drains pass thro' a wall or foundation. Maintain a 50mm clearance around pipes in openings. Openings in walls to be masked both sides with rigid sheet material. Where a trench containing a drain is within 1m of the building, fill with concrete to the lowest level of the building or where more than 1m from the building fill with concrete to level equal to distance from building less 150mm. Form movement joints in drains surrounded with concrete with compressible filler within 5m. Manholes to be constructed in 215mm class B semi-engineering quality brickwork to BS 3921 laid in English bond in 1:3 sand cement mortar, flush pointed internally. Concrete base to be min. 150mm thick c25p, surrounded with concrete with compressible filler within 5m. Where trenches excavations reveal the passage of tree roots the drain is to be encased in concrete maintaining flexibility as above. Heavy duty manholes covers in roads and car park. Medium duty covers elsewhere. Internal covers to be double leaf free float with integral floor finish. New soakways to be sited minimum 5m away from buildings and a percolation test in accordance with BRE Digest 365. To be carried out to determine overall size and number.

RAINFALL
Pitched roof eaves to have 100mm black uPVC half round guttering with 70mm black uPVC pipes connected into ground sockets.

ENERGY EFFICIENT LIGHTING
Provision to be made for energy efficient lighting, ie fittings that only take lamps having a luminous efficacy greater than 40 lumens per circuit watt, provided at a rate of 1 per 25m of floor area or 1 per fixed light fixing.

ABOVE GROUND DRAINAGE
All above ground drainage work is to be in accordance with BS5772 with all sanitary fittings having 75mm deep seal traps in ABS plastic. Wastes to sinks are to be 40A. All wastes are required to fall at a max 1:10 and a min. 1:50. 1000 svp are to reduce to 75mm in the roof space and are to discharge through Redland, or similar approved 'through' vent tiles with vents being located a min. 900mm above an opening window. SVP are to be encased in 2 layers of 12.5mm plasterboard with nom. 5mm plaster skim coat finish fixed over nom. 30 x 50 treated timber battens at approx 300mm vertical centres. The svp is to be wrapped for the whole of its length in 2mm 25mm thick rigid mineral wool insulation quilt to include any branches in the duct. Suitable access points are to be provided as required to allow inspection/rodding of the svp.

ELECTRICAL INSTALLATION
All electrical work is to be carried out in accordance AD 'P' and must be designed, installed and tested by a person competent to do so and appropriate BS7671 electrical certificate to be issued to the urban council.

SWITCHES AND SOCKETS
Electrical switches and sockets outlets for lighting and other equipment in habitable rooms at appropriate heights between 450mm and 1200mm from finished floor level.

SMOKE DETECTORS
Provide ceiling mounted mains operated interlinked smoke detectors to BS EN 1460 2005 and located in accordance with BS 5839 part 6 2004 ie 1 No alarm located adjacent to the kitchen and elsewhere detectors are to be installed within 3000mm of a bedroom door.

CENTRAL & WATER HEATING
It is intended that the new extension is to utilise the existing boiler but it is recommended that the applicant/building owner seeks advice from a Heating and Plumbing engineer or contractor to confirm the boilers suitability for these increased requirements. Thermostatic valves to be fitted to all new radiators.

PLUMBING
All hot and cold water supply pipework is to be in either copper tube to EN1057:1996 formerly BS2871 P1 1971 to be installed in accordance with current codes of practice and local water authority requirements or in Hepworth Hep2a flexible plastic pipe to be installed in accordance with the manufacturers instructions and details. All pipework is to be insulated using an insulation material having a thermal conductivity of 0.025w/m.k and a thickness equal to the outside dia of the pipe up to a max thickness of 40mm. Applies to all pipework located in ducts, voids and roofspaces. The incoming water supply is to be provided with an external stopcock to the local water authority requirements.

STEELWORK/BEAMS/LINTELS
For details of lintels refer to plans.

FIRE PROTECTION
All steel beams, steel lintels in load bearing blockwork to be encased with 1 layer of 12.5mm plasterboard/fireline board to provide a minimum of 1/2hr fire protection.

DOORS AND WINDOWS
All frames are to be built in as work proceeds wherever possible. All doors and windows are to be double glazed using low-E coated sealed double glazed units to achieve a u value of approx 1.7W/m2.k. Doors and windows are to be glazed in accordance with part 4 of the Building Regulations 2013 which requires any glass within 800mm of finished floor level and in door and side panels within 1000mm of a door to a max height of 1500mm above finished floor level to be glazed using toughened or laminated glass. Windows (located as noted on the plans) are to be provided with trickle ventilators (typically giving 8000 sq mm of vent area) set into the head of the window to provide throughout the dwelling a minimum total of min 40,000 sq mm area of controllable ventilation.

VENTILATION
Provide wall mounted mechanical extract fans. Vent Axia or similar approved with humidity sensors and timed overrun to extract at 15L/S and to discharge via ductwork to ridge/thru vent terminals to all bathrooms. Ductwork to be supplied by the fan manufacturer and to include condensation traps as required to be installed in accordance with the manufacturers instructions. Fan to be operated by the light switch and have a min. 15 minute timed overrun. In rooms containing a WC and WHB only and where there is no openable window installed, or opening window giving less than 1/20 floor area in vent area, a mechanical fan is to be provided as noted above but with an extract rate of 30L/s. Kitchens are to include standard over cooker extract units vented to outside air with an extract rate of 30L/s. If the extract fan is located in a position not above a cooker then the fan is to extract at a rate of 60L/s. Utility room to receive extract fan of 30L/s.

FLASHINGS
Flashings generally to be code 4 lead sheet in lengths not exceeding 1500mm and to be installed in accordance with LSA recommendations and details. Stepped lead flashings are to be secured using lead wedges dressed a min 25mm into brick joints. Flashings to be located min. 100mm above pitched roofs. Cavity aprons above lintels are to have a min. lap over lintel length of 400mm. Cavity trays to be provided over rainwater abutments. Where exposure demands horizontal flashings to be code 3 lead. All leadwork is to be treated with copper naphthenate to reduce staining.

GROUND FLOOR CONSTRUCTION (GROUND BEARING) Design Loading - Domestic imposed 1.5kN/m2
Nom. 75mm wire mesh reinforced sand/cement screed on 1000 gauge polyethylene vapour barrier over an 80mm Celotex G4000 insulation board (overall U value 0.2Wm2.k) installed in accordance with manufacturers instructions/recommendations on min. 1200 gauge polyethylene damp proof membrane with min 150mm lapped joints, dressed into inner leaf of external wall and lapped over dpc on nom 150mm thick grade C30 concrete floor slab on 150mm well compacted and bladed hardcore. 25mm Celotex insulation board to be returned up external wall to all slab perimeters to prevent cold bridging.

GROUND FLOOR CONSTRUCTION - GARAGE CONVERSION (Makeup levels)
Nom. 70mm wire mesh reinforced sand/cement screed on min. 1000 gauge polyethylene damp proof membrane with min 150mm lapped joints, dressed into inner leaf of external wall and lapped over dpc on 80mm Celotex G4000 insulation board (overall U value 0.20Wm2.k) installed in accordance with manufacturers instructions/recommendations on 500 gauge dpm separating membrane on existing concrete Garage floor slab.

FIRST FLOOR CONSTRUCTION Design Loading - Domestic imposed 1.5kN/m2
22mm tongued and grooved softwood boarding on 22mm flooring grade chipboard on sw floor joists (size & grade as noted on section/plans) at 400mm centres. 38x38mm softwood herringbone structure to be provided in between joists @ maximum 2000mm centres. 52x52x200mm girth galvanneal m.s. straps to be fixed across joists and tucked into cavity at maximum 2000mm centres. Straps to be carried over at least three joists with hoggings to be provided in between. Noggins size to be at least half the depth of the joist and a minimum of 38 mm thick. Where first joist is not tight to face of wall provide a packing piece at least half the depth of the joist. 12.5mm thick Lafarge Sound Resistant wallboard (min 10kg/m2) ceiling fixed to the underside of joist. Ceiling is to be installed in accordance with the manufacturer's current technical literature and recommendations. Ceiling to be finished with nom. 2-3mm plaster skim coat. Min 100mm mineral fibre quilt (Rockwool 70kg/m3 density 10kg/m2) to be provided for sound insulation, laid between joists.

EXTERNAL WALLS BELOW DPC
Outer leaf of facing brickwork to be in class B engineering brickwork bedded in 1:4 mortar with flash joints or FL quality external facings bedded in 1:4 mortar as above. Brickwork is to extend a min. of 4 courses below dpc and at least 2 courses below finished ground level. Inner leaf to be min. 7mm min solid dense concrete blockwork bedded in 1:4 mortar with flash joints. Cavity to be filled with 1:3:6 lean mix concrete to within 150mm of the lowest dpc weep vents to be installed in brick course below dpc at max. 900mm centres and are to be formed by the use of proprietary uPVC weeps or by leaving gaps.

DPCs and RADON PROTECTION CAVITY TRAYS
Typically to be pitch free high performance polymeric dpc system Hyload 2 as manufactured by Ruberoid Building Products, Tewin Road, Welwyn Garden City Herts, or similar approved and installed in both inner and outer leaf of external walls and all internal wall built off a foundation. DPC/cavity tray (For Basic Radon protection) to be Glasvate K10 or similar approved with all associated fittings, in external wall is to be installed a minimum of 150mm above finished ground level and are to cavity and be lapped with 200 gauge dpm in concrete floor construction. All joints and penetrations to be taped and sealed. All dpc's are to be installed in accordance with the manufacturer's details and current BBA certificates as well as BS3000 P13 and P14 relating to workmanship on building sites and BS2825 code of practice for the design and installation of damp proof courses in masonry construction.

EXTERNAL CAVITY WALL CONSTRUCTION
Nom. 105mm external quality facing brickwork (to match existing) outer leaf bedded in 1:5 mortar with weather struck joints. Nom. 97mm wide cavity to be filled using DryTherm32 cavity wall batt and to be installed strictly in accordance with the manufacturers instructions. 100mm thick Thermulite Shield 4W blockwork (Thermulite Hi-Strength 73) to be used (if required structurally) inner leaf to BS6703 Part 1 1981, bedded in 1:6 mortar as noted above. Masonry walls to be constructed in accordance with BS5628 Part 3 1985 with inner and outer leaf of external wall tied together using Hexam 905 stainless steel cavity safety ties at 450mm staggered centres vertically and 750mm staggered centres horizontally. Ties to be installed at max. 300mm centres vertically at all reveals with ties to be located within 125mm of any jamb opening. Door and window joints are to be closed using Thermabate or similar approved insulated cavity closer/dpc. All to be installed in accordance with the manufacturers details and recommendations. Note alternative 212 insulated dpc's to be used where indicated on drawings. Walls to be finished internally using 12.5mm plasterboard on dabs with 2-3mm finish skim coat. All plaster should be used in accordance with the recommendations in BS5492 code of practice for internal plastering. Overall 'U' value of external walls is to be min 0.24W/m2.k. All mortar joints are to be fully filled paying particular attention to the perpend. Where cavity trays are installed they must incorporate stop ends and be drained by means of perpend weepholes at max 450mm centres. Vertical dpc's at wall openings should protect at least 25mm into the cavity and there should be no mortar build up allowed on cavity trays. Any ferrous metalwork built into the wall must be treated with one coat of the primer and one coat of bituminous solution.

INSULATED DRY-LINING TO EXISTING EXTERNAL WALLS OR NEW GARAGE WALL
Existing walls to be lined and insulated using Kingspan Kooltherm K118 or Celotex PL4000 overall thickness 92.5 (12.5mm vapour resistant plasterboard 80mm PIR insulation) and skim finish on 25 x 47 mm (min.) treated softwood, backed with a strip of damp proof course (DPC). All boards to be fixed in accordance with the manufacturers instructions. New construction to give an overall u value of 0.20W/m2.k.

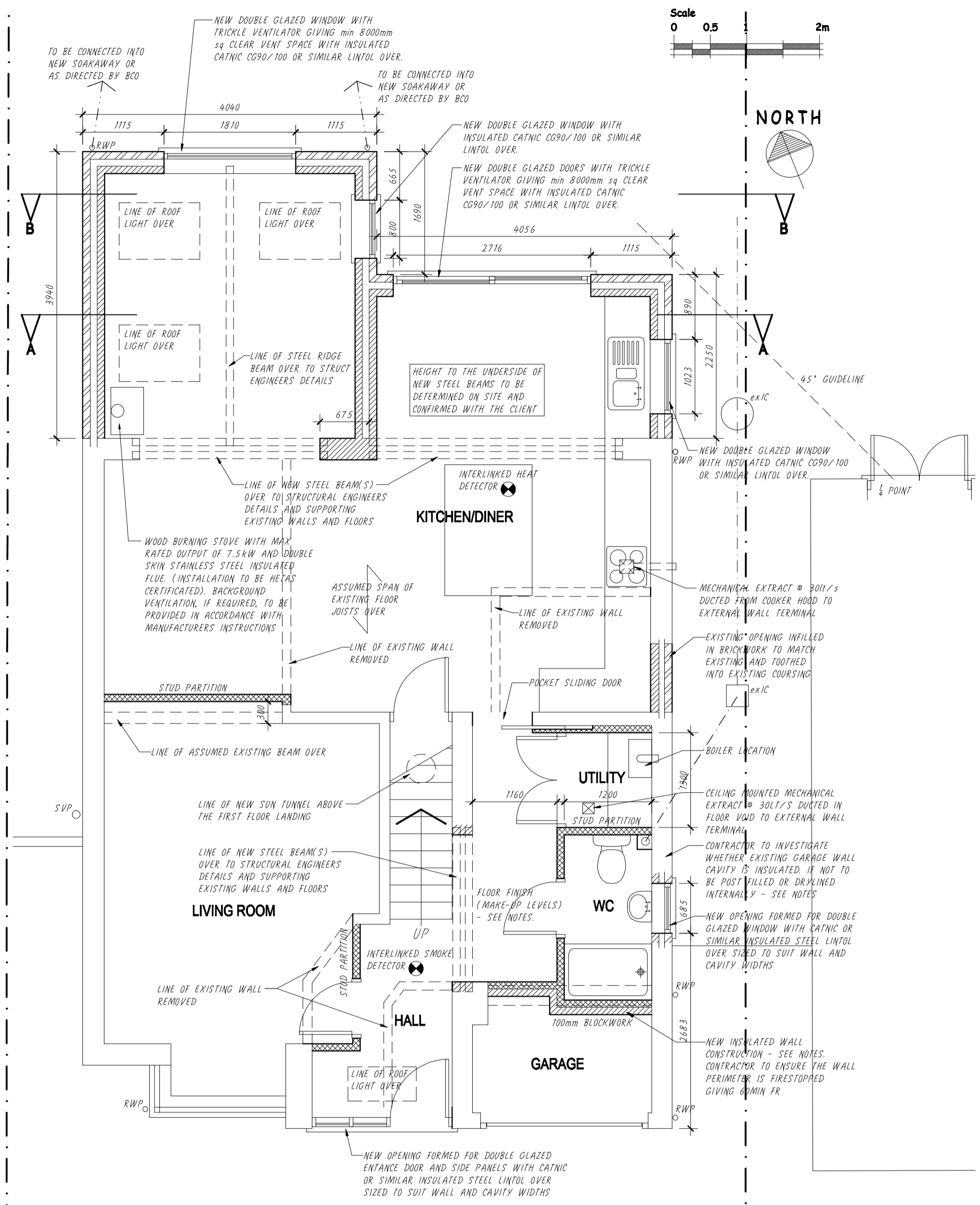
INTERNAL STOD PARTITIONS
Internal partitions to be 70x63 sw studs @ max 600ccs with 70x70 sole and head plates with hoggings as required. Partitions to be finished either side with 12.5mm Gyproc Wallboard (density 10kg/m3) and 2-3mm skim coat. Walls to have 75mm Rockwool mineral fibre insulation (density 10kg/m3) within cavity. Allow for pattresses for fixing of light switches and socket outlets within the stud framing.

ROOF CONSTRUCTION (cut roof)
Nom 38x25 treated timber battens at tile manufacturers recommended gauge laid over Tyvek 'Supro' breathable membrane to BBA Certificate 94/3054 over rafters (size as indicated on plans/sections) at max. 450mm centres. Rafters are to sit on nom. 100x75 treated timber wallplate fixed to the inner leaf of external wall and secured using galv. ms straps nom. 30x5x1000mm long twice bent over wallplate. Straps are to be installed at max 1200mm centres and are to be fixed in accordance with manufacturers recommendations. Lateral restraint to be provided at ceiling tile level using 30x5 galv. ms straps at max. 2000mm centres with strap bent once over inner leaf of external wall and taken across at least 3rd joist supported on dabs with hoggings fixed between joists. Ceiling finish to be 12.5mm Gyproc wallboard or similar approved fixed in accordance with the manufacturers instructions and current technical literature over 1000 gauge polyethylene vapour barrier fixed to underside of ceiling joists.

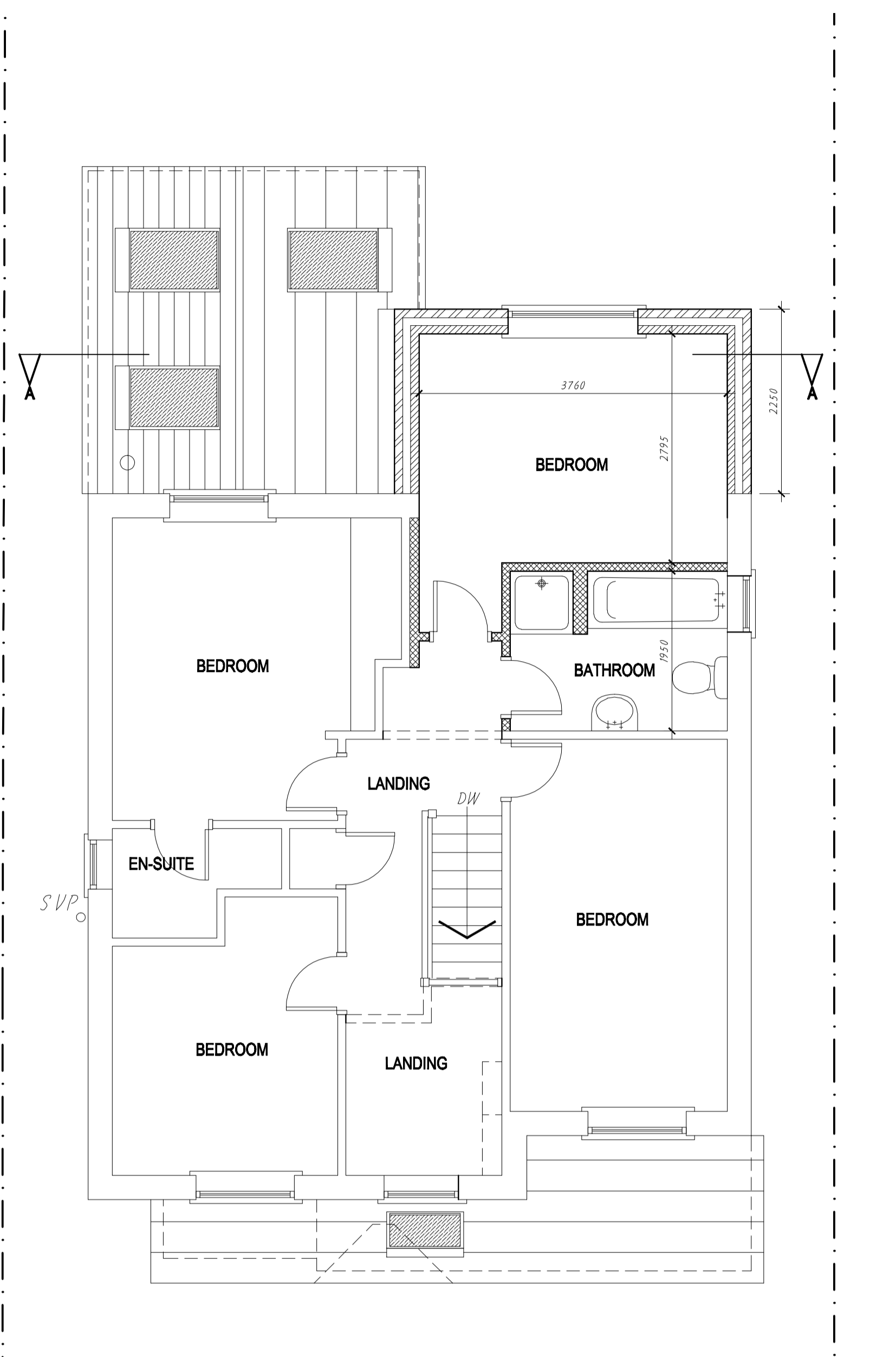
CONCRETE INTERLOCKING TILE ROOFING
Supply and fix concrete interlocking roof tiles, colour and texture to match existing to comply with BS.CP.5534 slating and tiling. Cut tiles to form clean straight junctions in such a manner that its width is not less than half the width of a full tile and its length is intact. Twice nail every fifth course, every tile in top two courses at ridge and every tile at verge using aluminum nail to BS 1202 pt 3. Maintain bands at ends with courses of width and a half tile. Form verges with an inward tilt using an undercloak of asbestos free board or a course of plain tiles. Do not cut tiles at verges. Interlocking tiles to a minimum pitch of 15° where recommended by the manufacturer. Where tile pitch below manufacturers recommended minimum 'tyvek' membrane to be doubled up. Min. lap to be 100 mm unless otherwise specified. Tiles fixed to nom. 38x25 treated timber battens at manufacturers recommended gauge.

ROOF INSULATION AND VENTILATION (PITCHED OR VAULTED CEILING)
Roof to be insulated using 100mm Celotex G4000 insulation board laid between rafters with Celotex PL4000 overall thickness 57.5 (12.5mm vapour resistant plasterboard & 45mm PIR insulation) and skim finish to underside of rafters and fixed in accordance with the manufacturers instructions. Construction to give an minimum overall u value of 0.18W/m2.k. Contractor to ensure a clear 50mm ventilation air space is maintained above the insulation line. Roof to be non ventilated using 'Tyvek' breathable membrane.

ROOF WINDOWS
Roof windows to be supplied by Velux ref GGL/P06 or similar approved rooflight/windows. Windows to be installed in accordance with manufacturer's instructions utilising the correct preformed flashing for the roofing material and window type specified. Windows to be supplied with standard lining. Windows to be double glazed with Low-E coated glass to give min U value 1.4W/m2.k. Inner pane to double glazed units to all windows to be fitted with toughened or laminated glass.



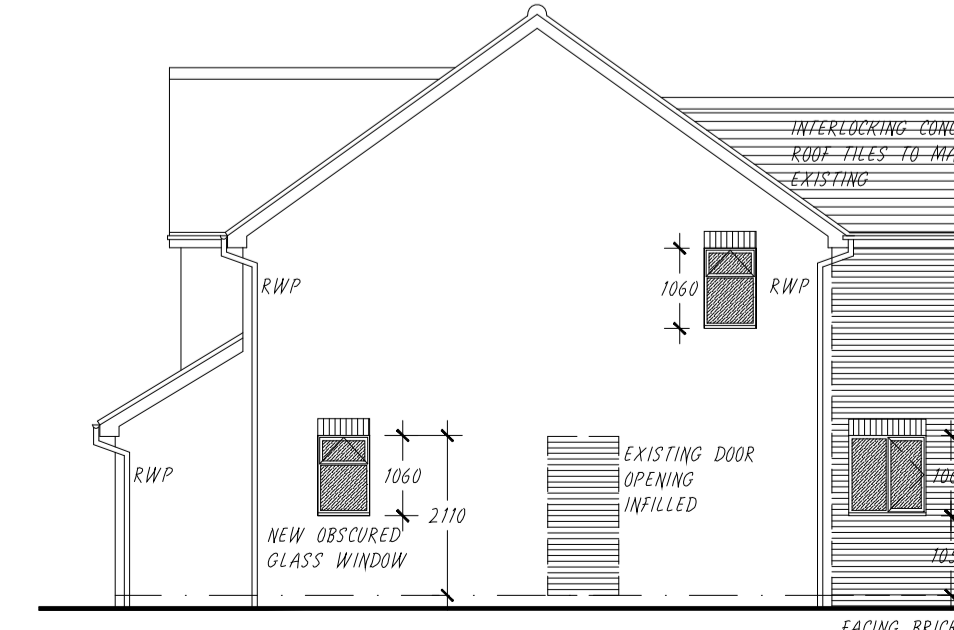
PROPOSED GROUND FLOOR PLAN



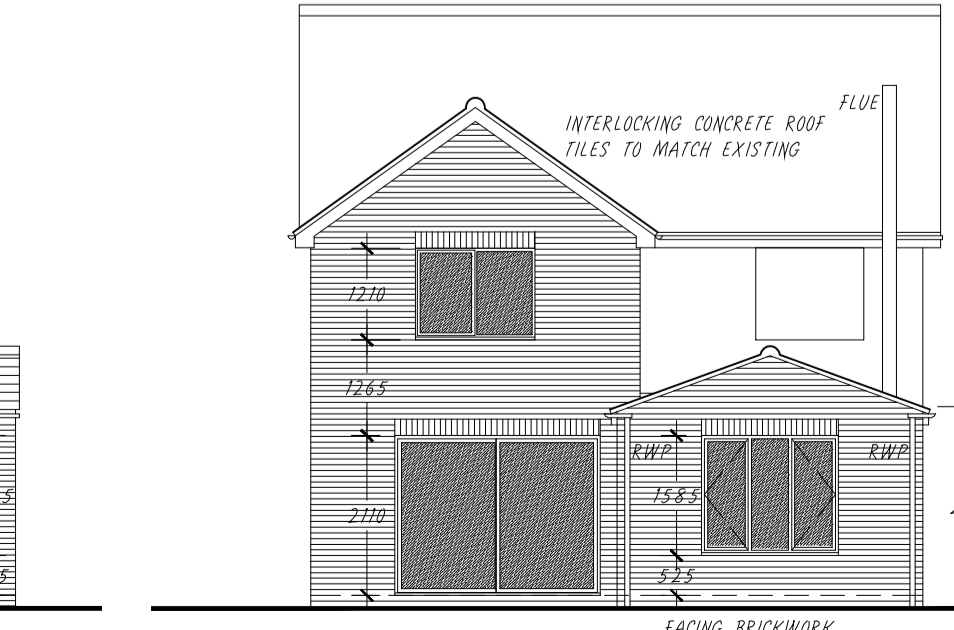
PROPOSED FIRST FLOOR PLAN



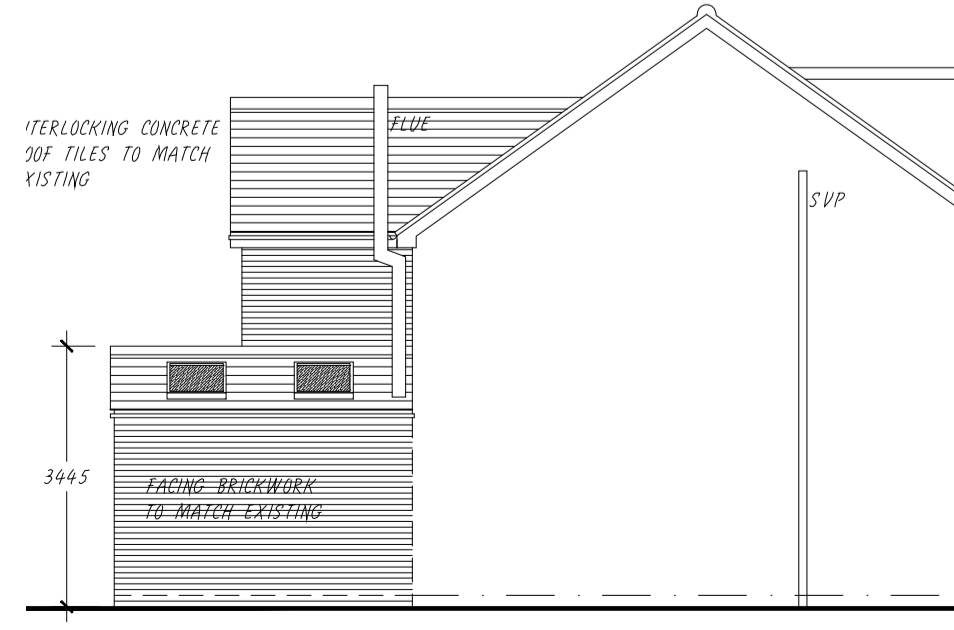
SOUTH ELEVATION



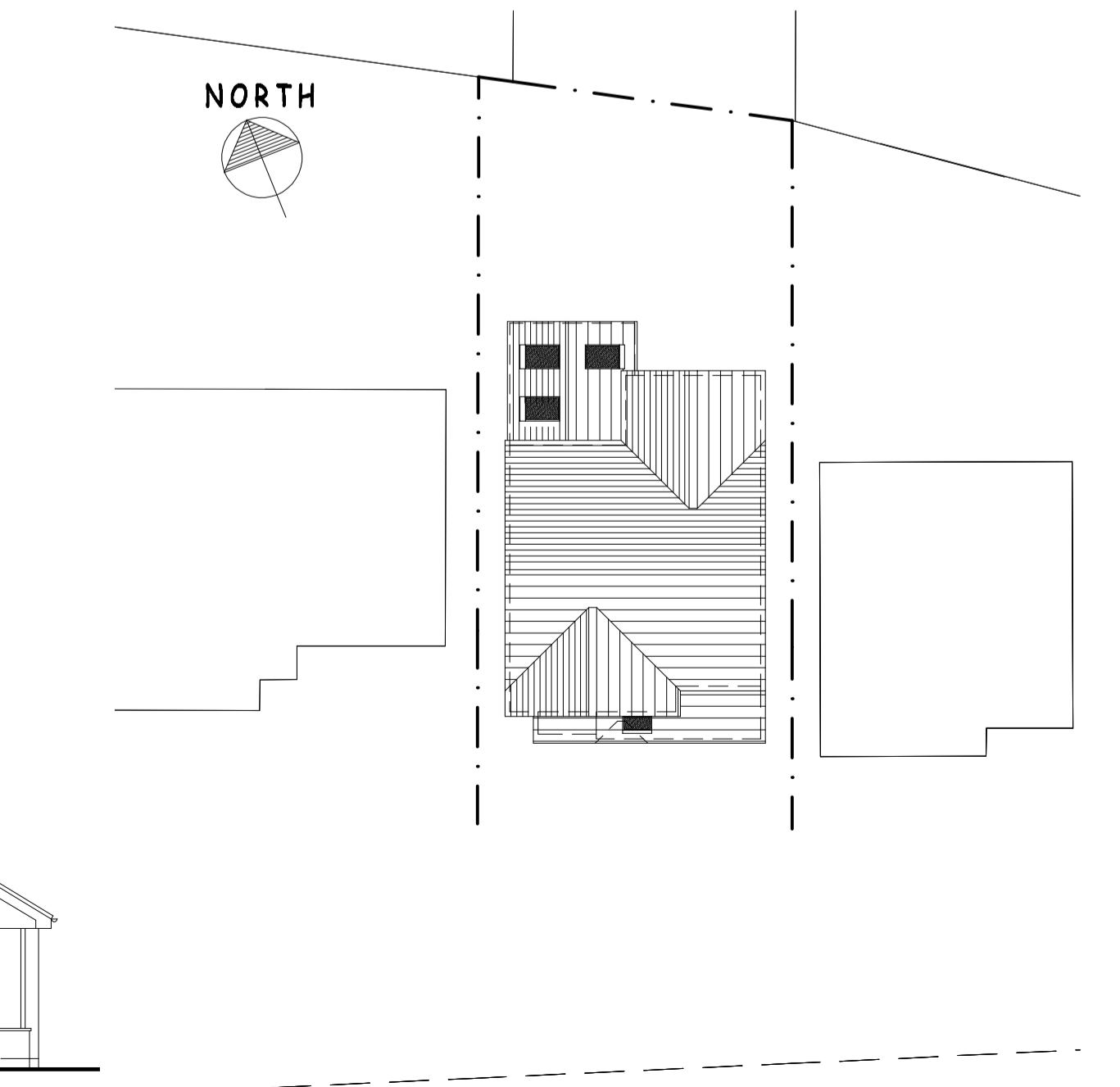
EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



BLOCK PLAN 1:200

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Project Description: PROPOSED EXTENSION & ALTERATIONS at 30 BOLLINGBROKE DRIVE, HEALFACOTE, WARWICK for Mr & Mrs MAHONY
Drawing Description: PROPOSED PLANS, ELEVATIONS, SECTIONS A - A AND BLOCK PLAN
Drg No. 20/99-02 D
Scale @ A1: 1:50/1:100/1:200
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revisions
REV A - DESIGN OF PROPOSED EXTENSION REVISED.
REV B - MATCHING MATERIALS NOTES ADDED.
REV C - FRONT ENTRANCE DOOR AND ADJACENT WINDOW RETURNED TO EXISTING ARRANGEMENT.
REV D - FIRST FLOOR BEDROOM EXTENSION ADDED TO SCHEME.
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